

**RECEIVED**

NOV 30 2022

EL DORADO COUNTY  
PLANNING AND BUILDING DEPARTMENT

*Transportation Impact Study*

**Generations at Green Valley  
El Dorado County, California**

April 5, 2022

**Prepared for:**

Green Valley Road Benefits, LLC

**Prepared by:**

**Kimley»»Horn**

555 Capitol Mall, Suite 300  
Sacramento, California 95814

Phone: (916) 858-5800

GPA22-0001, Z22-0001, TM22-0001

## EXECUTIVE SUMMARY

This report documents the results of a transportation impact study completed for the Generations at Green Valley project (the “proposed project”, or “project”). The project proposes to construct a 379 single-family unit residential development on a currently undeveloped site located south of Green Valley Road in unincorporated El Dorado County, California. The proposed project includes 214 senior adult housing units. Access to the project site will be provided via two (2) proposed driveways along Green Valley Road.

This study was performed in accordance with the scope of work approved by El Dorado County, and in a manner consistent with El Dorado County Community Development Agency’s *Transportation Impact Study Guidelines*.

The following transportation facilities were included in this evaluation:

### Intersections:

1. Green Valley Road @ Sophia Parkway
2. Green Valley Road @ Francisco Drive
3. Green Valley Road @ El Dorado Hills Boulevard/Salmon Falls Road
4. Green Valley Road @ Silva Valley Parkway/Allegheny Road
5. Green Valley Road @ Loch Way
6. Green Valley Road @ Wilson Estates Connector
7. Green Valley Road @ Malcolm Dixon Road
8. Green Valley Road @ Deer Valley Road
9. Green Valley Road @ Silver Springs Parkway
10. Green Valley Road @ Bass Lake Road
11. Green Valley Road @ Cambridge Road
12. Green Valley Road @ Cameron Park Drive
13. El Dorado Hills Boulevard @ Francisco Drive
14. El Dorado Hills Boulevard @ Harvard Way
15. El Dorado Hills Boulevard @ Wilson Boulevard
16. El Dorado Hills Boulevard @ Serrano Parkway/Lassen Lane
17. El Dorado Hills Boulevard @ Saratoga Way (North)/Park Drive
18. El Dorado Hills Boulevard @ US-50 Westbound Ramps/Saratoga Way (South)
19. Latrobe Road @ US-50 Eastbound Ramps
20. Silva Valley Parkway @ US-50 Eastbound Ramps
21. Silva Valley Parkway @ US-50 Westbound Ramps
22. Silva Valley Parkway @ Tong Road
23. Silva Valley Parkway @ Serrano Parkway
24. Silva Valley Parkway @ Harvard Way
25. Silva Valley Parkway @ Appian Way
26. *Green Valley Road @ Site Access Driveway (Right-in/Right-out) (Future)*
27. *Green Valley Road @ Site Access Driveway (Full access) (Future)*

### Roadway Segments:

1. Green Valley Road, between Francisco Drive and El Dorado Hills Boulevard/Salmon Falls Road
2. Green Valley Road, between El Dorado Hills Boulevard/Salmon Falls Road and Silva Valley Parkway
3. Green Valley Road, between Silva Valley Parkway and Malcolm Dixon Road
4. Green Valley Road, between Malcolm Dixon Road and project site
5. Green Valley Road, between project site and Deer Valley Road

Freeway Facilities:

1. US-50 Mainline
  - a. Eastbound, west of El Dorado Hills Boulevard/Latrobe Road
  - b. Westbound, west of El Dorado Hills Boulevard/Latrobe Road
  - c. Eastbound, between Latrobe Road off-ramp and Latrobe Road on-ramp
  - d. Westbound, between El Dorado Hills Blvd off-ramp and El Dorado Hills Blvd on-ramp
  - e. Eastbound, east of El Dorado Hills Boulevard/Latrobe Road
  - f. Westbound, east of El Dorado Hills Boulevard/Latrobe Road
  - g. Eastbound, between Silva Valley Parkway off-ramp and Silva Valley Parkway on-ramp
  - h. Westbound, between Silva Valley Parkway off-ramp and Silva Valley Parkway on-ramp
  - i. Eastbound, east of Silva Valley Parkway
  - j. Westbound, east of Silva Valley Parkway
2. US-50 Ramps
  - a. Eastbound, diverge to Latrobe Road
  - b. Eastbound, diverge to El Dorado Hills Boulevard
  - c. Eastbound, weave from Latrobe Road
  - d. Eastbound, diverge to Silva Valley Parkway
  - e. Eastbound, merge from Silva Valley Parkway
  - f. Eastbound, merge from Silva Valley Parkway (Cumulative Only)
  - g. Westbound, diverge to Silva Valley Parkway
  - h. Westbound, merge from Silva Valley Parkway (Cumulative Only)
  - i. Westbound, weave from Silva Valley Parkway
  - j. Westbound, diverge to El Dorado Hills Boulevard/Latrobe Road
  - k. Westbound, merge from El Dorado Hills Boulevard/Latrobe Road

Based on the County's requirements, this transportation study was conducted for the study facilities for both No Project and Plus Project conditions under Existing (2021), Near Term (2031), and Future (2041) scenarios.

Significant findings of this study include:

- The proposed project is estimated to generate 2,842 total new daily trips, with 195 trips occurring during the AM peak-hour, and 274 new trips occurring during the PM peak-hour.
- The proposed project is not consistent with the 2004 *General Plan* land use designation and zoning density for the site (Low Density Residential). As a result, new Cumulative (2041) Conditions analysis is required to comprehensively document the potential effect of the addition of the Proposed Project.
- As defined by the County, the addition of the proposed project to the Near Term (2031) and Cumulative (2041) scenarios significantly worsens conditions at multiple study intersections. However, these deficiencies can be improved to acceptable levels. The following is a summary of the required improvement which is *presumed to be the project's sole responsibility*:

*Cumulative (2041) plus Proposed Project*

- Improvement (16) modify traffic signal phasing and hardware to provide a southbound right-turn overlap at Intersection #24 (Silva Valley Parkway @ Harvard Way)

**TABLE OF CONTENTS**

**INTRODUCTION..... 1**

**PROJECT DESCRIPTION..... 1**

**PROJECT AREA ROADWAYS ..... 7**

**ASSESSMENT OF PROPOSED PROJECT..... 7**  
    Proposed Project Trip Generation and Assignment ..... 7

**TRANSPORTATION STUDY METHODOLOGY .....10**  
    Level of Service Definitions .....10  
    Intersection Analysis.....10  
    Roadway Segment Analysis.....10  
    Freeway Segment Analysis.....10  
    Analysis Scenarios.....11

**EXISTING (2021) CONDITIONS ..... 11**

**EXISTING (2021) PLUS PROPOSED PROJECT CONDITIONS.....14**

**NEAR TERM (2031) CONDITIONS..... 20**

**NEAR TERM (2031) PLUS PROPOSED PROJECT CONDITIONS..... 26**

**CUMULATIVE (2041) CONDITIONS .....31**

**CUMULATIVE (2041) PLUS PROPOSED PROJECT CONDITIONS ..... 37**

**DEFICIENCIES AND IMPROVEMENTS ..... 42**  
    Standards of Deficiency.....42  
    Summary of Deficiencies and Improvements .....42

**OTHER CONSIDERATIONS..... 46**  
    Peak-Hour Traffic Signal Warrant Evaluation.....46  
    Other Transportation-Related Deficiencies and Improvement Considerations.....53

**CONCLUSIONS ..... 55**

**APPENDICES**

    Traffic Count Data Sheets ..... Appendix A  
    Analysis Worksheets for Existing (2021) Conditions ..... Appendix B  
    Analysis Worksheets for Existing (2021) plus Proposed Project Conditions..... Appendix C  
    Analysis Worksheets for Near Term (2031) Conditions ..... Appendix D  
    Analysis Worksheets for Near Term (2031) plus Proposed Project Conditions..... Appendix E  
    Analysis Worksheets for Cumulative (2041) Conditions ..... Appendix F  
    Analysis Worksheets for Cumulative (2041) plus Proposed Project Conditions..... Appendix G  
    Peak-Hour Signal Warrant Reports ..... Appendix H

**LIST OF TABLES**

Table 1 – Proposed Project Trip Generation ..... 7

Table 2 – Intersection Level of Service Criteria ..... 10

Table 3 – Roadway Segment Level of Service Criteria ..... 11

Table 4 – Freeway Segment Level of Service Criteria ..... 11

Table 5 – Existing (2021) Intersection Levels of Service ..... 13

Table 6 – Existing (2021) Roadway Segment Levels of Service ..... 14

Table 7 – Existing (2021) Freeway Segment Levels of Service ..... 16

Table 8 – Existing (2021) plus Proposed Project Intersection Levels of Service..... 17

Table 9 – Existing (2021) plus Proposed Project Roadway Segment Levels of Service..... 18

Table 10 – Existing (2021) plus Proposed Project Freeway Segment Levels of Service..... 19

Table 11 – Near Term (2031) Intersection Levels of Service ..... 23

Table 12 – Near Term (2031) Roadway Segment Levels of Service ..... 24

Table 13 – Near Term (2031) Freeway Segment Levels of Service ..... 25

Table 14 – Near Term (2031) plus Proposed Project Intersection Levels of Service ..... 28

Table 15 – Near Term (2031) plus Proposed Project Roadway Segment Levels of Service..... 29

Table 16 – Near Term (2031) plus Proposed Project Freeway Segment Levels of Service..... 30

Table 17 – Cumulative (2041) Intersection Levels of Service..... 34

Table 18 – Cumulative (2041) Roadway Segment Levels of Service ..... 35

Table 19 – Cumulative (2041) Freeway Segment Levels of Service ..... 36

Table 20 – Cumulative (2041) plus Proposed Project Intersection Levels of Service ..... 39

Table 21 – Cumulative (2041) plus Proposed Project Roadway Segment Levels of Service ..... 40

Table 22 – Cumulative (2041) plus Proposed Project Freeway Segment Levels of Service..... 41

Table 23 – Intersection Levels of Service – Near Term (2031) plus  
 Proposed Project Improved Conditions..... 43

Table 24 – Intersection Levels of Service – Cumulative (2041) plus  
 Proposed Project Improved Conditions..... 45

Table 25 – Traffic Signal Warrant Analysis Results..... 46

Table 26 – Intersection Queuing Evaluation Results ..... 48

Table 27 – Project Area Sites Selected for Investigation ..... 52

**LIST OF FIGURES**

Figure 1 – Project Site Vicinity Map ..... 2

Figure 2 – Proposed Project Site Plan..... 3

Figure 3 – Study Intersections, Traffic Control, and Lane Geometry..... 5

Figure 4 – Study Freeway Facilities ..... 6

Figure 5 – Proposed Project Trip Distribution ..... 8

Figure 6 – Proposed Project Trip Assignment ..... 9

Figure 7 – Existing (2021) AM and PM Peak-Hour Traffic Volumes ..... 12

Figure 8 – Existing (2021) plus Proposed Project AM and PM Peak-Hour Traffic Volumes..... 15

Figure 9 – Near Term (2031) AM and PM Peak-Hour Traffic Volumes ..... 21

Figure 10 – Near Term (2031) Intersection Lane Geometry ..... 22

Figure 11 – Near Term (2031) plus Proposed Project AM and PM Peak-Hour Traffic Volumes ..... 27

Figure 12 – Cumulative (2041) AM and PM Peak-Hour Traffic Volumes..... 32

Figure 13 – Cumulative (2041) Intersection Lane Geometry ..... 33

Figure 14 – Cumulative (2041) plus Proposed Project AM and PM Peak-Hour Traffic Volumes ..... 38

## INTRODUCTION

This report documents the results of a traffic impact study completed for the Generations at Green Valley project (the “proposed project”, or “project”). The project proposes to construct a 379 single-family (214 senior adult) unit residential development on a currently undeveloped site located south of Green Valley Road in unincorporated El Dorado County, California. Access to the project site is provided via two (2) proposed driveways along Green Valley Road.

This study was performed in accordance with the scope of work approved by El Dorado County<sup>1</sup>, and in a manner consistent with El Dorado County Community Development Agency’s *Transportation Impact Study Guidelines*<sup>2</sup>. The remaining sections of this report document the proposed project, analysis methodologies, deficiencies and improvements, and general study conclusions.

## PROJECT DESCRIPTION

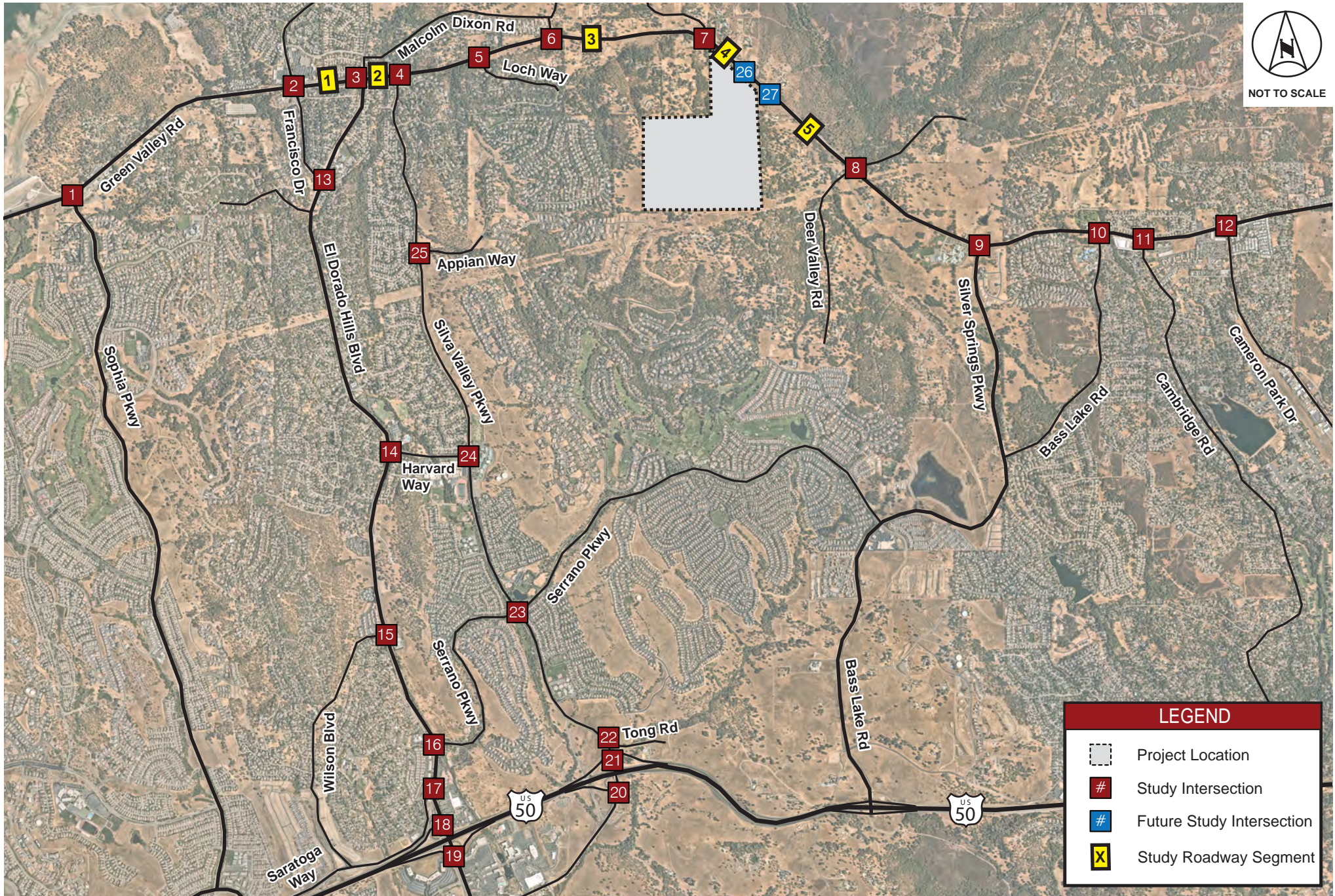
The project proposes to construct a 379 single-family (214 senior adult) unit residential development on a currently undeveloped site located south of Green Valley Road in unincorporated El Dorado County, California. Access to the project site will be provided via two (2) proposed driveways along Green Valley Road. The project location is shown in **Figure 1** and the project site plan is shown in **Figure 2**. The following transportation facilities are included in this evaluation:

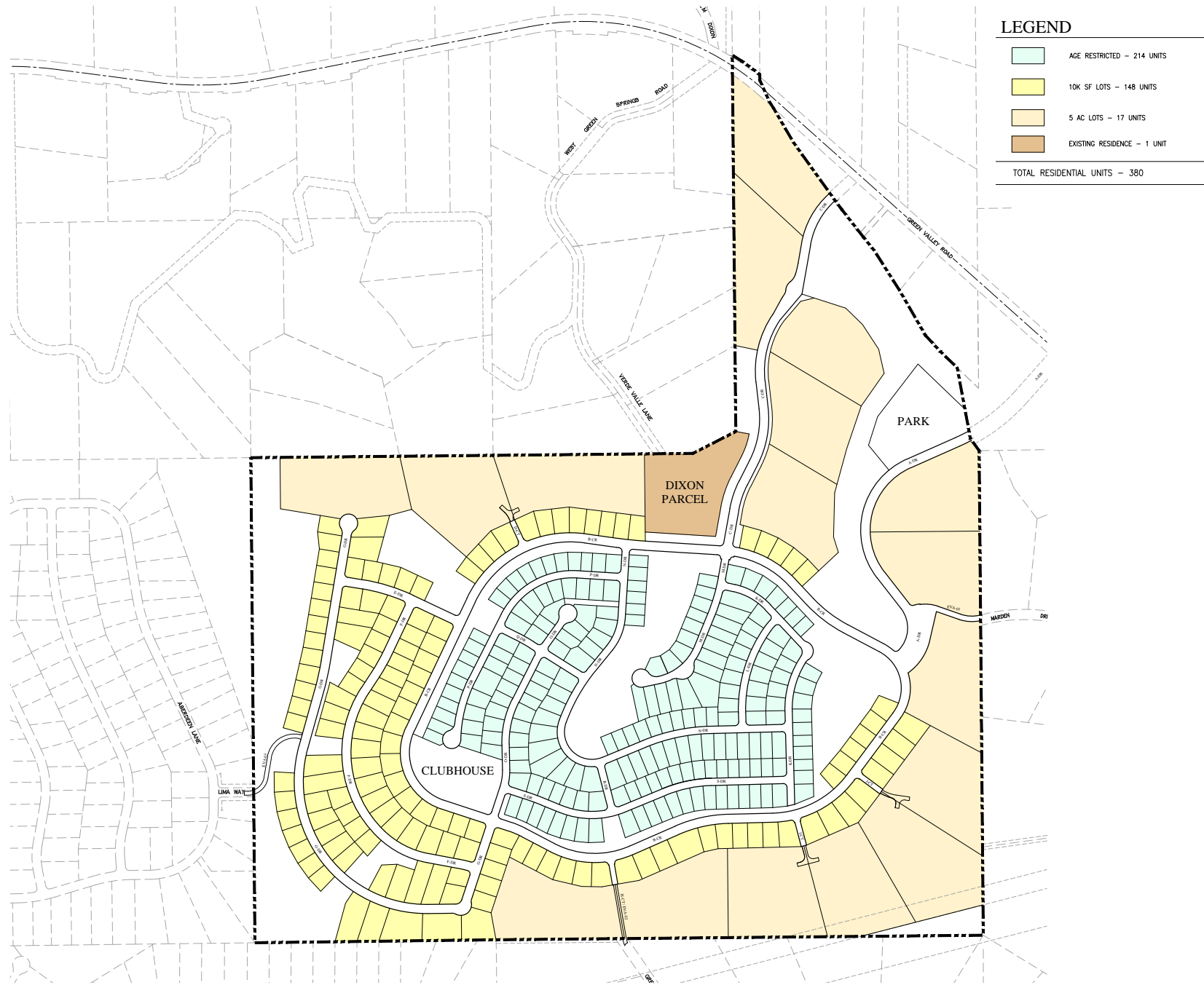
### Intersections:

1. Green Valley Road @ Sophia Parkway
2. Green Valley Road @ Francisco Drive
3. Green Valley Road @ El Dorado Hills Boulevard/Salmon Falls Road
4. Green Valley Road @ Silva Valley Parkway/Allegheny Road
5. Green Valley Road @ Loch Way
6. Green Valley Road @ Wilson Estates Connector
7. Green Valley Road @ Malcolm Dixon Road
8. Green Valley Road @ Deer Valley Road
9. Green Valley Road @ Silver Springs Parkway
10. Green Valley Road @ Bass Lake Road
11. Green Valley Road @ Cambridge Road
12. Green Valley Road @ Cameron Park Drive
13. El Dorado Hills Boulevard @ Francisco Drive
14. El Dorado Hills Boulevard @ Harvard Way
15. El Dorado Hills Boulevard @ Wilson Boulevard
16. El Dorado Hills Boulevard @ Serrano Parkway/Lassen Lane
17. El Dorado Hills Boulevard @ Saratoga Way (North)/Park Drive
18. El Dorado Hills Boulevard @ US-50 Westbound Ramps/Saratoga Way (South)
19. Latrobe Road @ US-50 Eastbound Ramps
20. Silva Valley Parkway @ US-50 Eastbound Ramps
21. Silva Valley Parkway @ US-50 Westbound Ramps
22. Silva Valley Parkway @ Tong Road
23. Silva Valley Parkway @ Serrano Parkway
24. Silva Valley Parkway @ Harvard Way
25. Silva Valley Parkway @ Appian Way
26. Green Valley Road @ Site Access Driveway (Right-in/Right-out) (Future)
27. Green Valley Road @ Site Access Driveway (Full access) (Future)

<sup>1</sup> Email from Zach Oates, El Dorado County, October 20, 2021.

<sup>2</sup> *Transportation Impact Study Guidelines*, El Dorado County Community Development Agency, November 2014.





NOT TO SCALE



Roadway Segments:

1. Green Valley Road, between Francisco Drive and El Dorado Hills Boulevard/Salmon Falls Road
2. Green Valley Road, between El Dorado Hills Boulevard/Salmon Falls Road and Silva Valley Parkway
3. Green Valley Road, between Silva Valley Parkway and Malcolm Dixon Road
4. Green Valley Road, between Malcolm Dixon Road and project site
5. Green Valley Road, between project site and Deer Valley Road

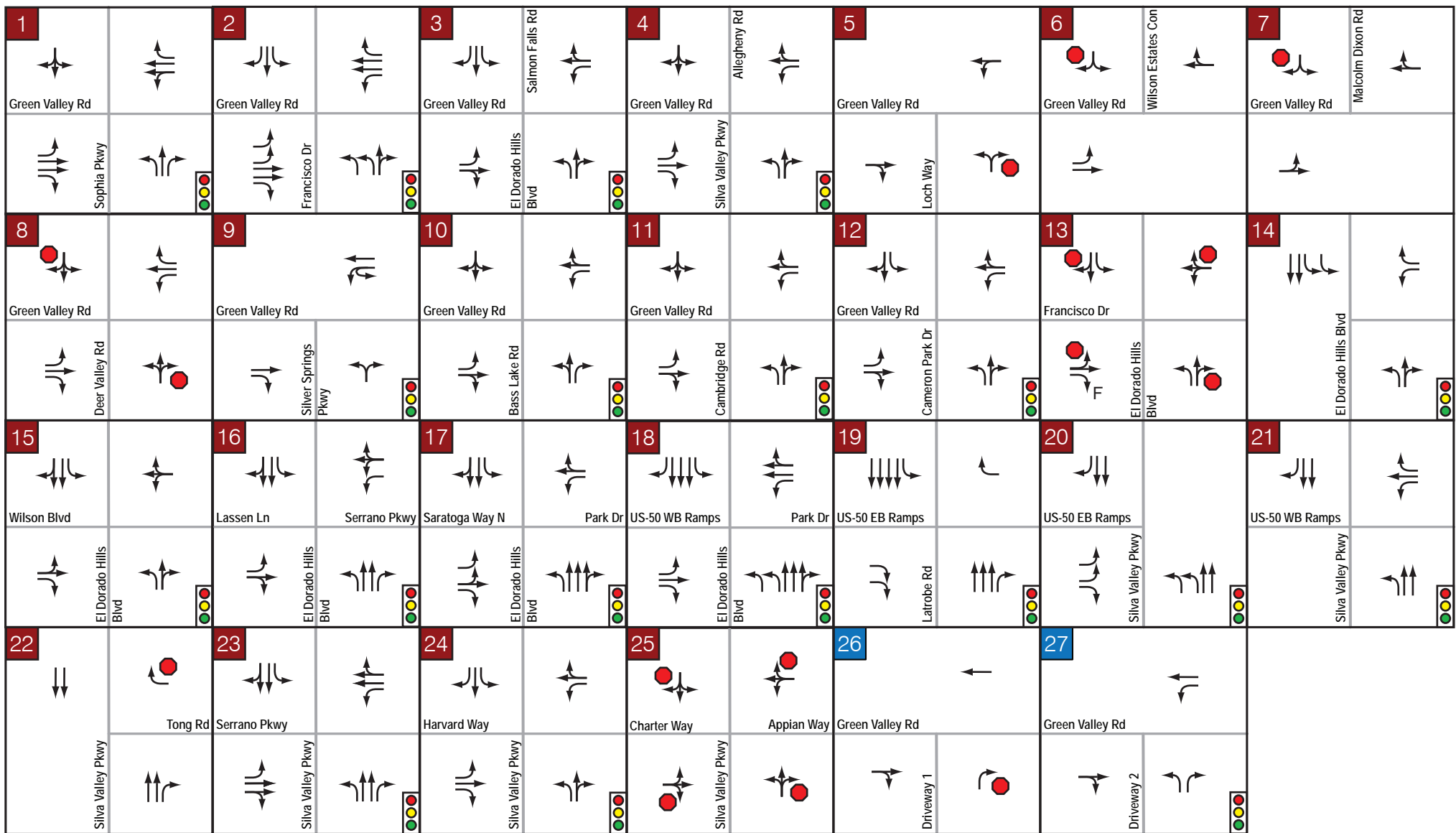
Freeway Facilities:

1. US-50 Mainline
  - a. Eastbound, west of El Dorado Hills Boulevard/Latrobe Road
  - b. Westbound, west of El Dorado Hills Boulevard/Latrobe Road
  - c. Eastbound, between Latrobe Road off-ramp and Latrobe Road on-ramp
  - d. Westbound, between El Dorado Hills Blvd off-ramp and El Dorado Hills Blvd on-ramp
  - e. Eastbound, east of El Dorado Hills Boulevard/Latrobe Road
  - f. Westbound, east of El Dorado Hills Boulevard/Latrobe Road
  - g. Eastbound, between Silva Valley Parkway off-ramp and Silva Valley Parkway on-ramp
  - h. Westbound, between Silva Valley Parkway off-ramp and Silva Valley Parkway on-ramp
  - i. Eastbound, east of Silva Valley Parkway
  - j. Westbound, east of Silva Valley Parkway
2. US-50 Ramps
  - k. Eastbound, diverge to Latrobe Road
  - l. Eastbound, diverge to El Dorado Hills Boulevard
  - m. Eastbound, weave from Latrobe Road
  - n. Eastbound, diverge to Silva Valley Parkway
  - o. Eastbound, merge from Silva Valley Parkway
  - p. Eastbound, merge from Silva Valley Parkway (Cumulative Only)
  - q. Westbound, diverge to Silva Valley Parkway
  - r. Westbound, merge from Silva Valley Parkway (Cumulative Only)
  - s. Westbound, weave from Silva Valley Parkway
  - t. Westbound, diverge to El Dorado Hills Boulevard/Latrobe Road
  - u. Westbound, merge from El Dorado Hills Boulevard/Latrobe Road

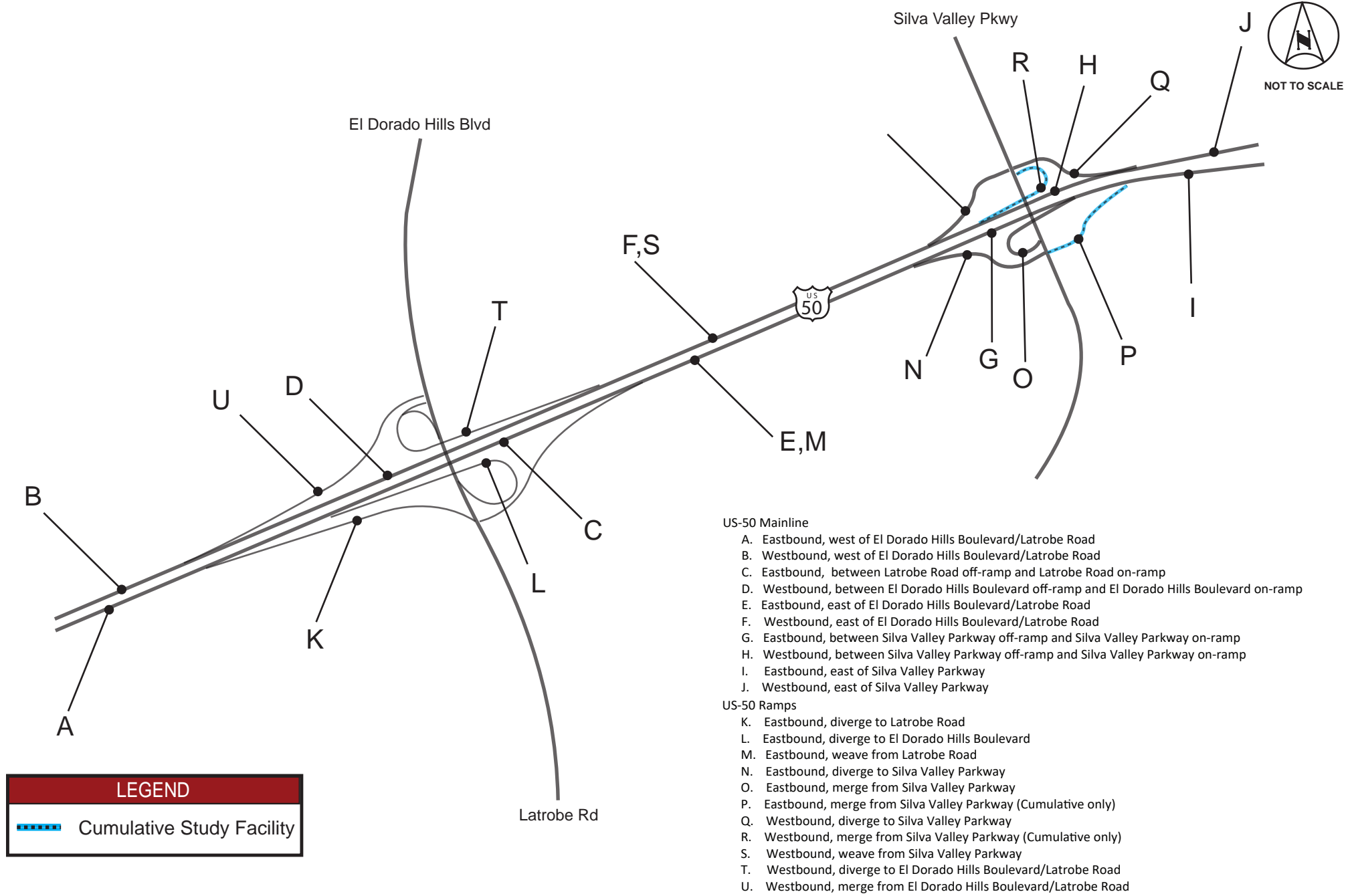
Based on the County's requirements, this transportation study was conducted for the study facilities for both No Project and Plus Project conditions under Existing (2021), Near Term (2031), and Future (2041) scenarios.

**Figure 3** illustrates the study intersections facilities, existing traffic control, and existing lane configurations. The freeway study facilities are depicted in **Figure 4**.

# Generations at Green Valley TIS



| LEGEND |                           |  |                              |
|--------|---------------------------|--|------------------------------|
|        | Study Intersection        |  | Stop Controlled Intersection |
|        | Plus Project Intersection |  | Signalized Intersection      |
|        | Free Movement             |  |                              |



## PROJECT AREA ROADWAYS

The following are descriptions of the primary roadways in the vicinity of the project:

**Green Valley Road** is an east-west arterial roadway that provides a primary connection between Folsom and Placerville. The two-lane roadway carries approximately 12,000 vehicles per day<sup>3</sup> (vpd) between Malcolm Dixon Road and Bass Lake Road in the vicinity of the proposed project location.

**Bass Lake Road** is a north-south arterial roadway that extends from US-50 and ends at Green Valley Road. The two-lane roadway carries approximately 6,100 vpd<sup>2</sup> between Mayfield Drive and Green Valley Road.

**Cameron Park Drive** is a north-south arterial roadway that provides a primary connection to US-50 for western El Dorado County. Between Green Valley Road and La Canada Drive, Cameron Park Drive carries approximately 10,400 vpd<sup>2</sup> with one through lane in each direction.

**Silva Valley Parkway** is a two-lane north-south arterial roadway that runs from US-50 and ends at Green Valley Road. Silva Valley Parkway carries approximately 7,250 vpd<sup>2</sup> between Green Valley Road and West Glenmore Way.

**El Dorado Hills Boulevard** is a north-south arterial roadway that provides a primary connection between Green Valley Road and US-50 for western El Dorado County. Between Green Valley Road and Francisco Drive, El Dorado Hills Boulevard carries approximately 4,800 vpd<sup>4</sup>.

## ASSESSMENT OF PROPOSED PROJECT

### Proposed Project Trip Generation and Assignment

The number of trips anticipated to be generated by the proposed project was approximated using data included in the *ITE Trip Generation Manual, 10<sup>th</sup> Edition*. ITE Land Use Codes 210 (Single-Family Detached Housing), 251 (Senior Adult Housing-Detached), and 411 (Public Park) were used to model the trips generated from this project. The proposed project trip generation for the weekday AM and PM peak-hours is presented in **Table 1**.

**Table 1 – Proposed Project Trip Generation**

| ITE Land Use Code          | Land Use                       | # Units | Daily Trips  | AM Peak-Hour |           |            | PM Peak-Hour |            |            |
|----------------------------|--------------------------------|---------|--------------|--------------|-----------|------------|--------------|------------|------------|
|                            |                                |         |              | Total        | In        | Out        | Total        | In         | Out        |
| 210                        | Single-Family Detached Housing | 165     | 1,650        | 122          | 30        | 92         | 164          | 104        | 60         |
| 251                        | Senior Adult Housing-Detached  | 214     | 1,100        | 73           | 24        | 49         | 87           | 53         | 34         |
| 411                        | Public Park                    | 4-ac    | 92           | 0            | 0         | 0          | 23           | 13         | 10         |
| <b>Total Project Trips</b> |                                |         | <b>2,842</b> | <b>195</b>   | <b>54</b> | <b>141</b> | <b>274</b>   | <b>170</b> | <b>104</b> |

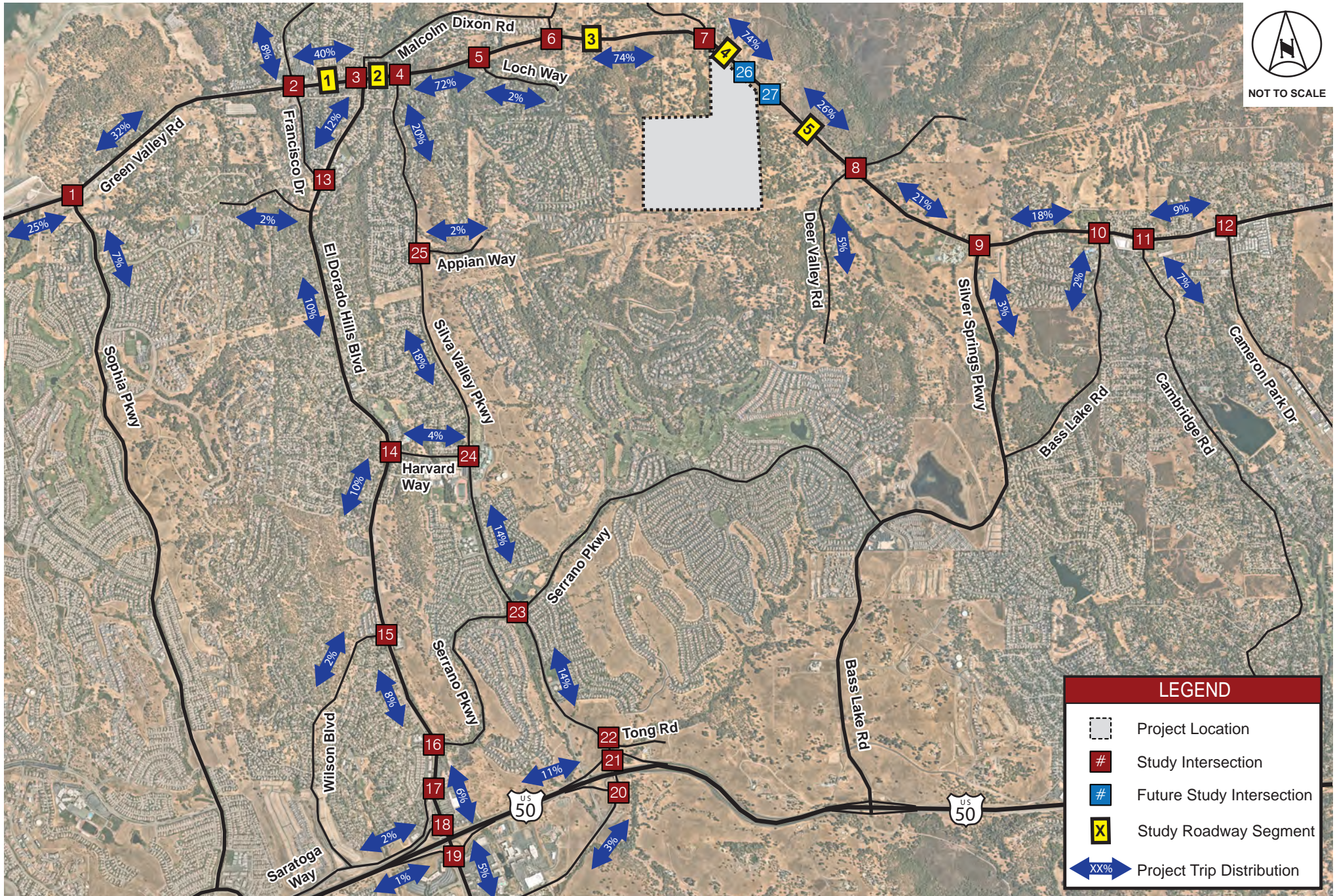
As shown in **Table 1**, the proposed project is estimated to generate 2,842 new daily trips with 195 new trips occurring during the AM peak-hour and 274 new trips occurring during the PM peak-hour.

Project traffic was distributed and assigned to the roadway network based on local understanding of vehicular patterns in the study area, output from the County’s travel demand model, and professional judgment. The proposed project trip AM and PM distribution percentages are provided in **Figure 5**. The assignment of AM and PM peak hour project trips is depicted in **Figure 6**.

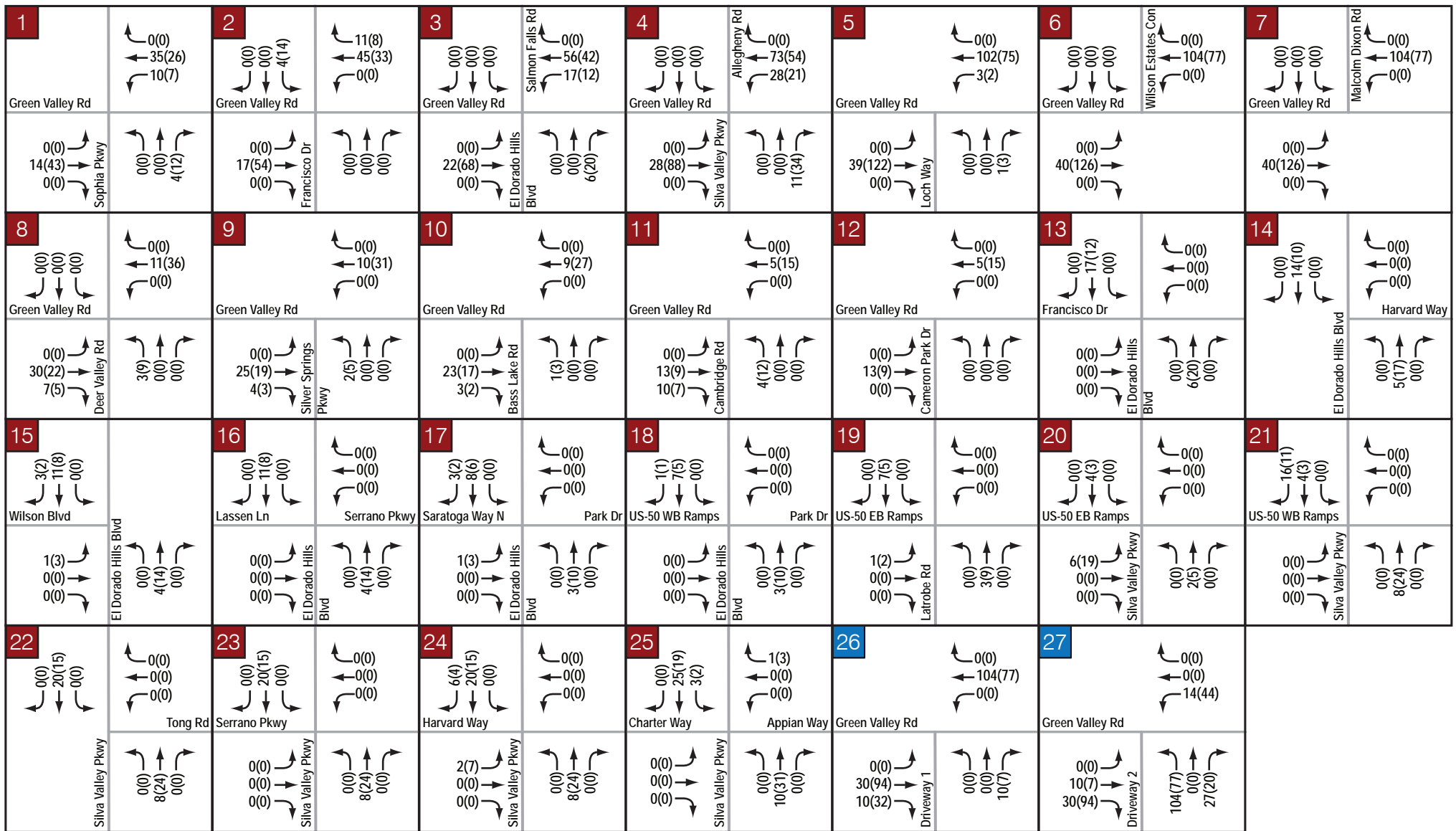
<sup>3</sup> *Annual Traffic Count Summary*, El Dorado County Department of Transportation, 2020

<sup>4</sup> *Annual Traffic Count Summary*, El Dorado County Department of Transportation, 2019

# Generations at Green Valley TIS



# Generations at Green Valley TIS



**LEGEND**

- # Study Intersection
- # Future Study Intersection
- AM(PM) Peak-Hour Turning Movement Volumes

## TRANSPORTATION STUDY METHODOLOGY

This transportation study was performed in accordance with the County’s transportation study guidelines<sup>2</sup>.

### Level of Service Definitions

The level of service (LOS) of a facility is a qualitative measure used to describe operational conditions. LOS ranges from A, which represents minimal delay, to F, which represents heavy delay and a facility that is operating at or near its functional capacity. LOS for this study was determined using methods defined in the *Highway Capacity Manual (HCM) 6<sup>th</sup> Edition* (“HCM6”).

### Intersection Analysis

The HCM includes procedures for analyzing side-street stop controlled (SSSC), all-way stop controlled (AWSC), and signalized intersections. The SSSC procedure defines LOS as a function of average control delay for each minor street approach movement. Conversely, the AWSC and signalized intersection procedures define LOS as a function of average control delay for the intersection. **Table 2** presents intersection LOS definitions as defined in the HCM.

**Table 2 – Intersection Level of Service Criteria**

| Level of Service (LOS) | Un-Signalized                    | Signalized                      |
|------------------------|----------------------------------|---------------------------------|
|                        | Average Control Delay* (sec/veh) | Average Control Delay (sec/veh) |
| A                      | ≤ 10                             | ≤ 10                            |
| B                      | > 10 – 15                        | > 10 – 20                       |
| C                      | > 15 – 25                        | > 20 – 35                       |
| D                      | > 25 – 35                        | > 35 – 55                       |
| E                      | > 35 – 50                        | > 55 – 80                       |
| F                      | > 50                             | > 80                            |

Source: *Highway Capacity Manual, 6<sup>th</sup> Edition*

\* Applied to the worst lane/lane group(s) for SSSC

LOS for the study intersections was determined using the Synchro® traffic analysis software. Synchro is an interactive computer program that enables planners and engineers to: forecast the traffic impacts of new developments; conduct area-wide traffic forecasting studies; test different mitigation measures and compare different traffic scenarios. Synchro 11 uses HCM6 methodology to analyze intersection delay and LOS. Levels of service for intersections are evaluated against El Dorado County thresholds of LOS D for Rural Regions and LOS E for Community Regions<sup>2</sup>.

### Roadway Segment Analysis

The HCM also includes procedures for analyzing roadway segments. **Table 3** presents roadway segment LOS definitions as defined in the HCM. Roadway segments are assessed using the appropriate two-lane and multi-lane highway designations per HCM6 using HCS7 software. Levels of service for roadway segments are evaluated against El Dorado County thresholds of LOS D for Rural Regions and LOS E for Community Regions<sup>2</sup>.

### Freeway Segment Analysis

The HCM also includes procedures for analyzing freeway segments. The LOS criteria for freeway segments defines LOS as a function of density measured in passenger cars per mile per lane (pc/mi/ln). **Table 4** presents freeway segment LOS definitions as defined in the HCM. Caltrans District 3 requires weaving sections to be analyzed using the Leisch Method<sup>5</sup>. Level of Service E was used as the operational threshold for all Caltrans’ freeway facilities.

<sup>5</sup> *Procedure for Analysis and Design of Weaving Sections*, Federal Highway Administration, February 1984.

**Table 3 – Roadway Segment Level of Service Criteria**

| Level of Service (LOS) | Two-Lane Highway*                 | Multi-Lane Highway*      |
|------------------------|-----------------------------------|--------------------------|
|                        | Follower Density (followers/mile) | Density (pc/mi/ln)       |
| A                      | ≤ 2.5                             | ≤ 11                     |
| B                      | > 2.5 – 5.0                       | > 11 – 18                |
| C                      | > 5.0 – 10.0                      | > 18 – 26                |
| D                      | > 10.0 – 15.0                     | > 26 – 35                |
| E                      | > 15.0                            | > 35 – 45                |
| F                      | Exceeds Capacity (v/c > 1.0)      | Exceeds Capacity OR > 45 |

Source: Highway Capacity Manual, 6<sup>th</sup> Edition

\* LOS definition is for lower speed highways (speed limit less than 50 mph)

**Table 4 – Freeway Segment Level of Service Criteria**

| Level of Service (LOS) | Basic              | Weave              | Merge/Diverge      |
|------------------------|--------------------|--------------------|--------------------|
|                        | Density (pc/mi/ln) | Density (pc/mi/ln) | Density (pc/mi/ln) |
| A                      | ≤ 11               | ≤ 10               | ≤ 10               |
| B                      | > 11 – 18          | > 10 – 20          | > 10 – 20          |
| C                      | > 18 – 26          | > 20 – 28          | > 20 – 28          |
| D                      | > 26 – 35          | > 28 – 35          | > 28 – 35          |
| E                      | > 35 – 45          | > 35 – 43          | > 35               |
| F                      | > 45               | > 43               | Exceeds capacity   |

Source: Highway Capacity Manual, 6<sup>th</sup> Edition

### Analysis Scenarios

As described in the following sections, the LOS analysis was conducted for the study facilities for the following scenarios: Existing (2021) Conditions, Existing (2021) plus Proposed Project Conditions, Near Term (2031) Conditions, Near Term (2031) plus Proposed Project Conditions, Cumulative (2041) Conditions, and Cumulative (2041) plus Proposed Project Conditions.

### EXISTING (2021) CONDITIONS

Existing traffic counts were collected to establish the existing conditions of the study area intersections. Counts were performed in August and September 2021 between 6-9 AM and 4-7 PM during typical weekdays (Tuesday-Thursday) with a particular emphasis on capturing conditions when proximate area schools were in session.

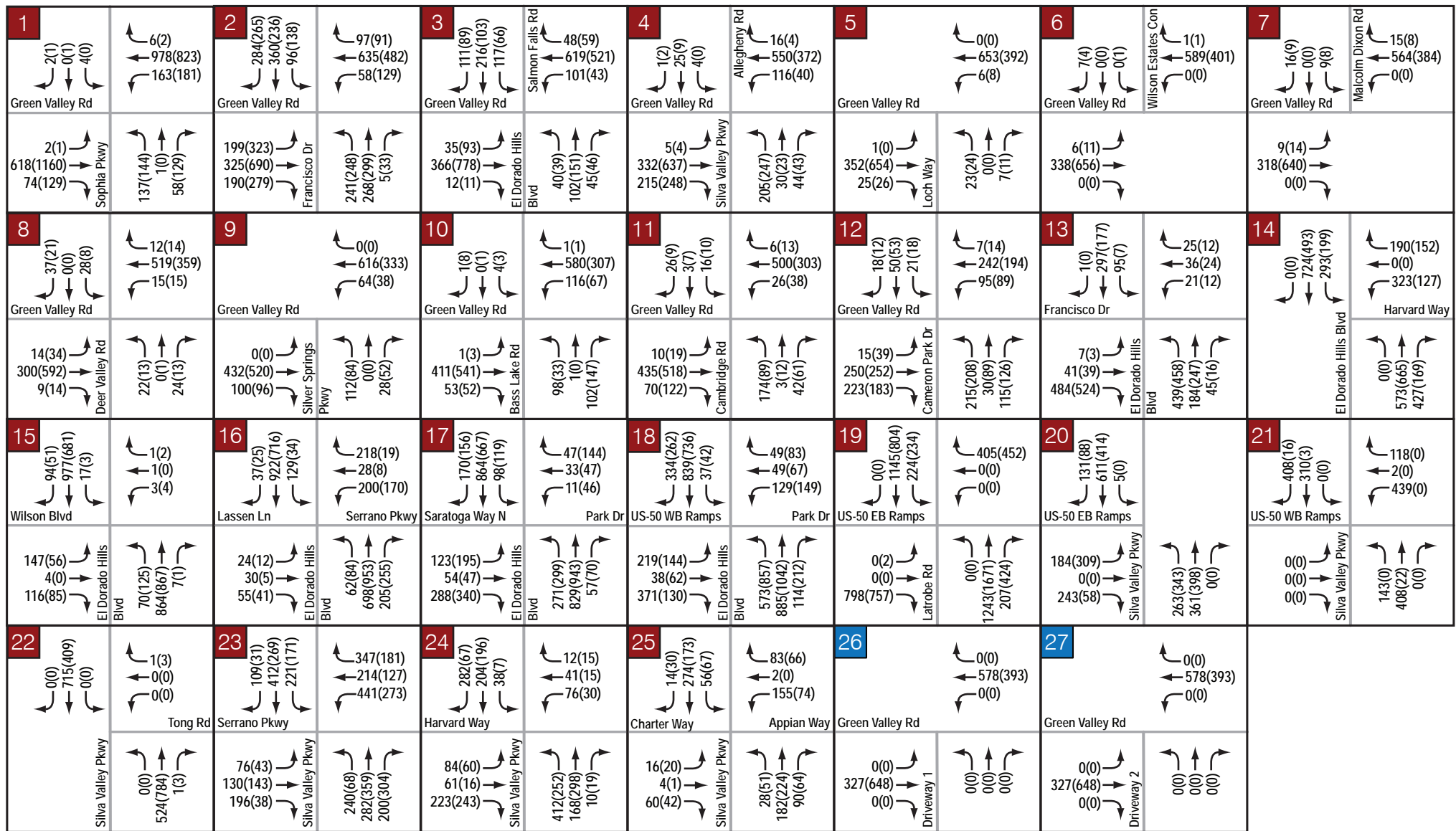
Existing (2021) Conditions AM and PM peak-hour traffic volumes are presented in **Figure 7**. The traffic count data sheets are provided in **Appendix A**.

#### Intersections

**Table 5** presents the intersection operating conditions for this scenario. As indicated in **Table 5**, the study intersections operate from LOS A to LOS E. Detailed calculations are included in **Appendix B**.



# Generations at Green Valley TIS



**LEGEND**

- # Study Intersection
- # Future Study Intersection
- AM(PM) Peak-Hour Turning Movement Volumes

Table 5 – Existing (2021) Intersection Levels of Service

| ID | Intersection  | LOS Threshold | Control | Peak Hour | Existing                 |     |
|----|---|---------------|---------|-----------|--------------------------|-----|
|    |   |               |         |           | Delay (sec)              | LOS |
| 1  | Green Valley Road @ Sophia Parkway                              | E             | Signal  | AM        | 11.6                     | B   |
|    |   |               |         | PM        | 10.4                     | B   |
| 2  | Green Valley Road @ Francisco Drive                             | E             | Signal  | AM        | 31.5                     | C   |
|    |   |               |         | PM        | 37.9                     | D   |
| 3  | Green Valley Road @ El Dorado Hills Boulevard/Salmon Falls Road | E             | Signal  | AM        | 44.9                     | D   |
|    |   |               |         | PM        | 31.4                     | C   |
| 4  | Green Valley Drive @ Silva Valley Parkway/Allegheny Road        | E             | Signal  | AM        | 23.7                     | C   |
|    |   |               |         | PM        | 17.6                     | B   |
| 5  | Green Valley Drive @ Loch Road                                  | E             | SSSC    | AM        | 0.8 (24.2 NB)            | C   |
|    |   |               |         | PM        | 1.0 (23.9 NB)            | C   |
| 6  | Green Valley Drive @ Wilson Estates Connector                   | E             | SSSC    | AM        | 0.2 (13.0 SB)            | B   |
|    |   |               |         | PM        | 0.1 (13.6 SB)            | B   |
| 7  | Green Valley Drive @ Malcolm Dixon Road                         | D             | SSSC    | AM        | 0.6 (15.9 SB)            | C   |
|    |   |               |         | PM        | 0.5 (18.0 SB)            | C   |
| 8  | Green Valley Drive @ Deer Valley Road                           | D             | SSSC    | AM        | 3.2 (22.5 SB)            | C   |
|    |   |               |         | PM        | 1.7 (23.8 NB)            | C   |
| 9  | Green Valley Drive @ Silver Springs Parkway                     | D             | Signal  | AM        | 5.9                      | A   |
|    |   |               |         | PM        | 5.7                      | A   |
| 10 | Green Valley Drive @ Bass Lake Road                             | D             | Signal  | AM        | 16.1                     | B   |
|    |   |               |         | PM        | 15.1                     | B   |
| 11 | Green Valley Drive @ Cambridge Road                             | D             | Signal  | AM        | 18.8                     | B   |
|    |   |               |         | PM        | 13.2                     | B   |
| 12 | Green Valley Drive @ Cameron Park Drive                         | D             | Signal  | AM        | 30.3                     | C   |
|    |   |               |         | PM        | 19.5                     | B   |
| 13 | El Dorado Hills Boulevard @ Francisco Drive                     | E             | AWSC    | AM        | 9.2                      | A   |
|    |   |               |         | PM        | 7.5                      | A   |
| 14 | El Dorado Hills Boulevard @ Harvard Way                         | E             | Signal  | AM        | 29.7                     | C   |
|    |   |               |         | PM        | 10.5                     | B   |
| 15 | El Dorado Hills Boulevard @ Wilson Boulevard                    | E             | Signal  | AM        | 12.9                     | B   |
|    |   |               |         | PM        | 9.3                      | A   |
| 16 | El Dorado Hills Boulevard @ Serrano Parkway/Lassen Lane         | E             | Signal  | AM        | 39.7                     | D   |
|    |   |               |         | PM        | 12.9                     | B   |
| 17 | El Dorado Hills Boulevard @ Saratoga Way (North)/Park Drive     | E             | Signal  | AM        | 46.6                     | D   |
|    |   |               |         | PM        | 36.1                     | D   |
| 18 | El Dorado Hills Boulevard @ US-50 WB Ramps/Saratoga Way (South) | E             | Signal  | AM        | 37.8                     | D   |
|    |   |               |         | PM        | 32.3                     | C   |
| 19 | Latrobe Road @ US-50 EB Ramps                                   | E             | Signal  | AM        | 10.5                     | B   |
|    |   |               |         | PM        | 10.3                     | B   |
| 20 | Silva Valley Parkway @ US-50 EB Ramps                           | E             | Signal  | AM        | 52.9                     | D   |
|    |   |               |         | PM        | 7.4                      | A   |
| 21 | Silva Valley Parkway @ US-50 WB Ramps                           | E             | Signal  | AM        | 32.2                     | C   |
|    |   |               |         | PM        | 7.4                      | A   |
| 22 | Silva Valley Parkway @ Tong Road                                | E             | SSSC    | AM        | 0.0 (10.6 WB)            | B   |
|    |   |               |         | PM        | 0.0 (11.3 WB)            | B   |
| 23 | Silva Valley Parkway @ Serrano Parkway                          | E             | Signal  | AM        | 64.0                     | E   |
|    |   |               |         | PM        | 26.5                     | C   |
| 24 | Silva Valley Parkway @ Harvard Way                              | E             | Signal  | AM        | 47.4                     | D   |
|    |   |               |         | PM        | 19.1                     | B   |
| 25 | Silva Valley Parkway @ Appian Way                               | E             | AWSC    | AM        | 23.8                     | C   |
|    |   |               |         | PM        | 12.7                     | B   |
| 26 | Green Valley Road @ Site Access Driveway (RIRO)                 | D             | SSSC    | AM<br>PM  | Not analyzed in Scenario |     |
| 27 | Green Valley Road @ Site Access Driveway (Full Access)          | D             | Signal  | AM<br>PM  | Not analyzed in Scenario |     |

Notes: **Bold** represents unacceptable operations.

Side Street Stop Controlled (SSSC) reported as intersection delay followed by worst approach's delay.

Roadway Segments

Table 6 presents the roadway segment operating conditions for this analysis scenario. As indicated, the study roadway segments operate from LOS A to LOS D.

Table 6 – Existing (2021) Roadway Segment Levels of Service

| Segment | Location  | LOS Threshold | Peak-Hour | Analysis Direction | Existing (2021) |         |
|---------|---|---------------|-----------|--------------------|-----------------|---------|
|         |   |               |           |                    | LOS             | Density |
| 1       | Green Valley Rd, Between Francisco Dr and El Dorado Hills Blvd      | E             | AM        | EB                 | C               | 6.3     |
|         |   |               |           | WB                 | D               | 12.3    |
|         |   |               | PM        | EB                 | D               | 12.9    |
|         |   |               |           | WB                 | C               | 9.9     |
| 2       | Green Valley Rd, Between El Dorado Hills Blvd and Silva Valley Pkwy | E             | AM        | EB                 | C               | 7.9     |
|         |   |               |           | WB                 | D               | 12.1    |
|         |   |               | PM        | EB                 | D               | 13.5    |
|         |   |               |           | WB                 | D               | 10.3    |
| 3       | Green Valley Rd, Between Silva Valley Pkwy and Malcolm Dixon Rd     | D             | AM        | EB                 | B               | 3.7     |
|         |   |               |           | WB                 | C               | 7.7     |
|         |   |               | PM        | EB                 | D               | 8.2     |
|         |   |               |           | WB                 | B               | 3.9     |
| 4       | Green Valley Rd, Between Malcolm Dixon Rd and Project Driveway      | E             | AM        | EB                 | B               | 3.0     |
|         |   |               |           | WB                 | C               | 7.3     |
|         |   |               | PM        | EB                 | C               | 7.0     |
|         |   |               |           | WB                 | C               | 5.1     |
| 5       | Green Valley Rd, Between Project Driveway and Deer Valley Road      | D             | AM        | EB                 | B               | 3       |
|         |   |               |           | WB                 | C               | 6.9     |
|         |   |               | PM        | EB                 | D               | 8.1     |
|         |   |               |           | WB                 | C               | 4.8     |

Note: Density is reported as vehicles per mile per lane (veh/mi/lane).

Freeway Segments

Table 7 presents the freeway segment operating conditions for this analysis scenario. As indicated, the study roadway segments operate from LOS A to LOS C.

**EXISTING (2021) PLUS PROPOSED PROJECT CONDITIONS**

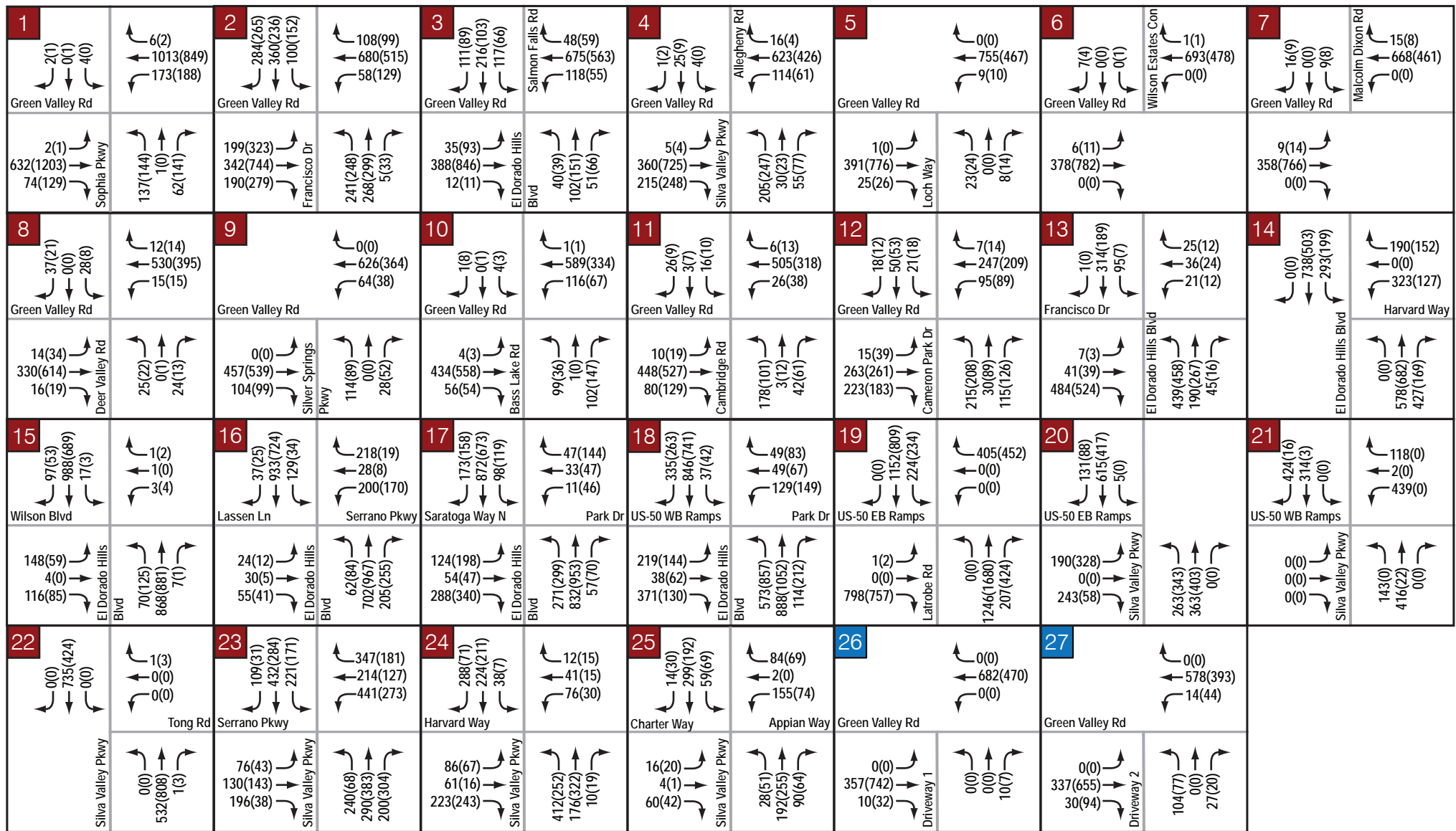
As previously discussed, the number of trips anticipated to be generated by the proposed project was derived using data included in the *ITE Trip Generation Manual, 10<sup>th</sup> Edition* for the residential and recreational land uses on the site. These trips were then assigned to the roadway network based on existing traffic volumes, output from the County’s travel demand model, and professional judgment. Using these volumes, LOS was determined at the study facilities.

Existing (2021) plus Proposed Project peak-hour traffic volumes are presented in **Figure 8** for the AM and PM peak-hours.

Intersections

Table 8 presents the intersection operating conditions for this analysis scenario. As indicated in **Table 8**, the study intersections operate from LOS B to LOS E. Detailed calculations are included in **Appendix C**.

# Generations at Green Valley TIS



**LEGEND**

- # Study Intersection
- # Future Study Intersection
- AM(PM) Peak-Hour Turning Movement Volumes

Table 7 – Existing (2021) Freeway Segment Levels of Service

| US-50     |  |   |         |           | Existing (2021)      |     |
|-----------|--|---|---------|-----------|----------------------|-----|
| Direction | ID   | Segment   | Type    | Peak Hour | Density <sup>a</sup> | LOS |
| Eastbound | A  | West of El Dorado Hills Blvd/Latrobe Rd                                       | Basic   | AM        | 22.4                 | C   |
|           |  |   |         | PM        | 22.4                 | C   |
|           | C  | El Dorado Hills Blvd Off-Ramp to Latrobe Rd On-Ramp                           | Basic   | AM        | 15.4                 | B   |
|           |  |   |         | PM        | 15.4                 | B   |
|           | E  | East of El Dorado Hills Blvd/Latrobe Rd                                       | Basic   | AM        | 17.7                 | B   |
|           |  |   |         | PM        | 18.9                 | C   |
|           | G  | Silva Valley Pkwy Southbound Off-Ramp to Silva Valley Pkwy Northbound On-Ramp | Basic   | AM        | 15.4                 | B   |
|           |  |   |         | PM        | 16.9                 | B   |
|           | I  | East of Silva Valley Pkwy   | Basic   | AM        | 17.5                 | B   |
|           |  |   |         | PM        | 19.3                 | C   |
|           | K  | Latrobe Rd Southbound Off-Ramp  | Diverge | AM        | 25.1                 | C   |
|           |  |   |         | PM        | 24.9                 | C   |
| L         | El Dorado Hills Blvd Northbound Off-Ramp               | Diverge   | AM      | 25.9      | C                    |     |
|           |  |   | PM      | 26.2      | C                    |     |
| M         | El Dorado Hills Blvd/Latrobe Road to Silva Valley Pkwy | Weave <sup>c</sup>  | AM      | -         | B                    |     |
|           |  |   | PM      | -         | B                    |     |
| N         | Silva Valley Pkwy Southbound Off-Ramp                  | Diverge   | AM      | 26.0      | C                    |     |
|           |  |   | PM      | 27.0      | C                    |     |
| O         | Silva Valley Pkwy On-Ramp                              | Merge   | AM      | 21.2      | C                    |     |
|           |  |   | PM      | 22.9      | C                    |     |
| Westbound | B  | West of El Dorado Hills Blvd/Latrobe Rd                                       | Basic   | AM        | 30.8                 | D   |
|           |  |   |         | PM        | 37.4                 | E   |
|           | D  | El Dorado Hills Blvd Off-Ramp to El Dorado Hills Blvd On-Ramp                 | Basic   | AM        | 20.1                 | C   |
|           |  |   |         | PM        | 21.7                 | C   |
|           | F  | East of El Dorado Hills Blvd/Latrobe Rd                                       | Basic   | AM        | 26.6                 | D   |
|           |  |   |         | PM        | 25.2                 | C   |
|           | H  | Silva Valley Pkwy Northbound Off-Ramp to Silva Valley Pkwy Southbound On-Ramp | Basic   | AM        | 20.8                 | C   |
|           |  |   |         | PM        | 21.9                 | C   |
|           | J  | East of Silva Valley Pkwy   | Basic   | AM        | 26.6                 | D   |
|           |  |   |         | PM        | 26.6                 | D   |
|           | Q  | Silva Valley Pkwy Northbound Off-Ramp   | Diverge | AM        | 24.7                 | C   |
|           |  |   |         | PM        | 24.5                 | C   |
| S         | Silva Valley Pkwy to El Dorado Hills Blvd/Latrobe Road | Weave <sup>c</sup>  | AM      | -         | C                    |     |
|           |  |   | PM      | 25.2      | C                    |     |
| T         | El Dorado Hills Blvd/Latrobe Rd Off-Ramp               | Diverge   | AM      | 24.5      | C                    |     |
|           |  |   | PM      | 23.2      | C                    |     |
| U         | El Dorado Hills Blvd/Latrobe Rd On-Ramp                | Merge   | AM      | 30.9      | D                    |     |
|           |  |   | PM      | 34.3      | D                    |     |

Notes:

a- Density measured in passenger cars/lane/mile (pc/ln/mi)

b- **Bold** represents unacceptable operations.

c- Weave segment LOS calculated using Leisch Method

Table 8 – Existing (2021) plus Proposed Project Intersection Levels of Service

| ID | Intersection  | LOS Threshold | Control | Peak Hour | Existing                 |     | Existing plus Proposed Project |     |
|----|---|---------------|---------|-----------|--------------------------|-----|--------------------------------|-----|
|    |   |               |         |           | Delay (sec)              | LOS | Delay (sec)                    | LOS |
| 1  | Green Valley Road @ Sophia Parkway                              | E             | Signal  | AM        | 11.6                     | B   | 12.0                           | B   |
|    |   |               |         | PM        | 10.4                     | B   | 11.0                           | B   |
| 2  | Green Valley Road @ Francisco Drive                             | E             | Signal  | AM        | 31.5                     | C   | 32.9                           | C   |
|    |   |               |         | PM        | 37.9                     | D   | 42.1                           | D   |
| 3  | Green Valley Road @ El Dorado Hills Boulevard/Salmon Falls Road | E             | Signal  | AM        | 44.9                     | D   | 55.9                           | E   |
|    |   |               |         | PM        | 31.4                     | C   | 38.4                           | D   |
| 4  | Green Valley Drive @ Silva Valley Parkway/Allegheny Road        | E             | Signal  | AM        | 23.7                     | C   | 29.4                           | C   |
|    |   |               |         | PM        | 17.6                     | B   | 21.3                           | C   |
| 5  | Green Valley Drive @ Loch Road                                  | E             | SSSC    | AM        | 0.8 (24.2 NB)            | C   | 0.9 (30.7 NB)                  | D   |
|    |   |               |         | PM        | 1.0 (23.9 NB)            | C   | 1.2 (32.1 NB)                  | C   |
| 6  | Green Valley Drive @ Wilson Estates Connector                   | E             | SSSC    | AM        | 0.2 (13.0 SB)            | B   | 0.1 (14.4 SB)                  | B   |
|    |   |               |         | PM        | 0.1 (13.6 SB)            | B   | 0.1 (15.7 SB)                  | C   |
| 7  | Green Valley Drive @ Malcolm Dixon Road                         | D             | SSSC    | AM        | 0.6 (15.9 SB)            | C   | 0.6 (18.5 SB)                  | C   |
|    |   |               |         | PM        | 0.5 (18.0 SB)            | C   | 0.5 (22.6 SB)                  | C   |
| 8  | Green Valley Drive @ Deer Valley Road                           | D             | SSSC    | AM        | 3.2 (22.5 SB)            | C   | 3.3 (23.2 SB)                  | C   |
|    |   |               |         | PM        | 1.7 (23.8 NB)            | C   | 2.2 (31.8 NB)                  | D   |
| 9  | Green Valley Drive @ Silver Springs Parkway                     | D             | Signal  | AM        | 5.9                      | A   | 6.0                            | A   |
|    |   |               |         | PM        | 5.7                      | A   | 5.7                            | A   |
| 10 | Green Valley Drive @ Bass Lake Road                             | D             | Signal  | AM        | 16.1                     | B   | 17.0                           | B   |
|    |   |               |         | PM        | 15.1                     | B   | 15.1                           | B   |
| 11 | Green Valley Drive @ Cambridge Road                             | D             | Signal  | AM        | 18.8                     | B   | 20.1                           | C   |
|    |   |               |         | PM        | 13.2                     | B   | 13.6                           | B   |
| 12 | Green Valley Drive @ Cameron Park Drive                         | D             | Signal  | AM        | 30.3                     | C   | 31.6                           | C   |
|    |   |               |         | PM        | 19.5                     | B   | 19.6                           | B   |
| 13 | El Dorado Hills Boulevard @ Francisco Drive                     | E             | AWSC    | AM        | 9.2                      | A   | 9.3                            | A   |
|    |   |               |         | PM        | 7.5                      | A   | 7.7                            | A   |
| 14 | El Dorado Hills Boulevard @ Harvard Way                         | E             | Signal  | AM        | 29.7                     | C   | 30.0                           | C   |
|    |   |               |         | PM        | 10.5                     | B   | 10.5                           | B   |
| 15 | El Dorado Hills Boulevard @ Wilson Boulevard                    | E             | Signal  | AM        | 12.9                     | B   | 13.1                           | B   |
|    |   |               |         | PM        | 9.3                      | A   | 9.4                            | A   |
| 16 | El Dorado Hills Boulevard @ Serrano Parkway/Lassen Lane         | E             | Signal  | AM        | 39.7                     | D   | 39.8                           | D   |
|    |   |               |         | PM        | 12.9                     | B   | 12.9                           | B   |
| 17 | El Dorado Hills Boulevard @ Saratoga Way (North)/Park Drive     | E             | Signal  | AM        | 46.6                     | D   | 43.2                           | D   |
|    |   |               |         | PM        | 36.1                     | D   | 37.8                           | D   |
| 18 | El Dorado Hills Boulevard @ US-50 WB Ramps/Saratoga Way (South) | E             | Signal  | AM        | 37.8                     | D   | 37.5                           | D   |
|    |   |               |         | PM        | 32.3                     | C   | 32.0                           | C   |
| 19 | Latrobe Road @ US-50 EB Ramps                                   | E             | Signal  | AM        | 10.5                     | B   | 10.4                           | B   |
|    |   |               |         | PM        | 10.3                     | B   | 10.2                           | B   |
| 20 | Silva Valley Parkway @ US-50 EB Ramps                           | E             | Signal  | AM        | 52.9                     | D   | 52.8                           | D   |
|    |   |               |         | PM        | 7.4                      | A   | 7.5                            | A   |
| 21 | Silva Valley Parkway @ US-50 WB Ramps                           | E             | Signal  | AM        | 32.2                     | C   | 33.3                           | C   |
|    |   |               |         | PM        | 7.4                      | A   | 7.5                            | A   |
| 22 | Silva Valley Parkway @ Tong Road                                | E             | SSSC    | AM        | 0.0 (10.6 WB)            | B   | 0.0 (10.6 WB)                  | B   |
|    |   |               |         | PM        | 0.0 (11.3 WB)            | B   | 0.0 (11.5 WB)                  | B   |
| 23 | Silva Valley Parkway @ Serrano Parkway                          | E             | Signal  | AM        | 64.0                     | E   | 65.4                           | E   |
|    |   |               |         | PM        | 26.5                     | C   | 26.8                           | C   |
| 24 | Silva Valley Parkway @ Harvard Way                              | E             | Signal  | AM        | 47.4                     | D   | 48.4                           | D   |
|    |   |               |         | PM        | 19.1                     | B   | 19.5                           | B   |
| 25 | Silva Valley Parkway @ Appian Way                               | E             | AWSC    | AM        | 23.8                     | C   | 29.5                           | D   |
|    |   |               |         | PM        | 12.7                     | B   | 14.0                           | D   |
| 26 | Green Valley Road @ Site Access Driveway (RIRO)                 | D             | SSSC    | AM        | Not analyzed in Scenario |     | 0.1 (10.6 NB)                  | B   |
|    |   |               |         | PM        | Not analyzed in Scenario |     | 0.1 (14.9 NB)                  | B   |
| 27 | Green Valley Road @ Site Access Driveway (Full Access)          | D             | Signal  | AM        | Not analyzed in Scenario |     | 5.5                            | A   |
|    |   |               |         | PM        | Not analyzed in Scenario |     | 5.7                            | A   |

Notes: **Bold** represents unacceptable operations. Shaded represents a project induced deficiency.  
Side Street Stop Controlled (SSSC) reported as intersection delay followed by worst approach's delay.

Roadway Segments

Table 9 presents the roadway segment operating conditions for this analysis scenario. As Table 9 indicates, the roadway segments operate from LOS B to LOS E. Detailed calculations are included in Appendix C.

Table 9 – Existing (2021) plus Proposed Project Roadway Segment Levels of Service

| Segment | Location  | LOS Threshold | Peak-Hour | Analysis Direction | Existing (2021) |         | Existing plus Project (2021) |         |
|---------|---|---------------|-----------|--------------------|-----------------|---------|------------------------------|---------|
|         |   |               |           |                    | LOS             | Density | LOS                          | Density |
| 1       | Green Valley Rd, Between Francisco Dr and El Dorado Hills Blvd      | E             | AM        | EB                 | C               | 6.3     | C                            | 6.7     |
|         |   |               |           | WB                 | D               | 12.3    | D                            | 13.4    |
|         |   |               | PM        | EB                 | D               | 12.9    | D                            | 14.0    |
|         |   |               |           | WB                 | C               | 9.9     | D                            | 10.6    |
| 2       | Green Valley Rd, Between El Dorado Hills Blvd and Silva Valley Pkwy | E             | AM        | EB                 | C               | 7.9     | C                            | 8.4     |
|         |   |               |           | WB                 | D               | 12.1    | D                            | 13.5    |
|         |   |               | PM        | EB                 | D               | 13.5    | E                            | 15.1    |
|         |   |               |           | WB                 | D               | 10.3    | D                            | 11.3    |
| 3       | Green Valley Rd, Between Silva Valley Pkwy and Malcolm Dixon Rd     | D             | AM        | EB                 | B               | 3.7     | C                            | 4.4     |
|         |   |               |           | WB                 | C               | 7.7     | D                            | 9.7     |
|         |   |               | PM        | EB                 | D               | 8.2     | D                            | 10.5    |
|         |   |               |           | WB                 | B               | 3.9     | C                            | 5.0     |
| 4       | Green Valley Rd, Between Malcolm Dixon Rd and Project Driveway      | E             | AM        | EB                 | B               | 3       | B                            | 3.6     |
|         |   |               |           | WB                 | C               | 7.3     | D                            | 9.0     |
|         |   |               | PM        | EB                 | C               | 7       | D                            | 9.2     |
|         |   |               |           | WB                 | C               | 5.1     | C                            | 6.4     |
| 5       | Green Valley Rd, Between Project Driveway and Deer Valley Road      | D             | AM        | EB                 | B               | 3       | B                            | 3.3     |
|         |   |               |           | WB                 | C               | 6.9     | C                            | 7.1     |
|         |   |               | PM        | EB                 | D               | 8.1     | D                            | 9.0     |
|         |   |               |           | WB                 | C               | 4.8     | C                            | 5.2     |

Note: Density is reported as vehicles per mile per lane (veh/mi/lane).

Freeway Segments

Table 10 presents the freeway segment operating conditions for this analysis scenario. As indicated, the study roadway segments operate from LOS B to LOS E.

Table 10 – Existing (2021) plus Proposed Project Freeway Segment Levels of Service

| US-50     |   |  |                    |           | Existing (2021)      |      | Existing (2021)<br>plus Project |     |
|-----------|---|--|--------------------|-----------|----------------------|------|---------------------------------|-----|
| Direction | ID  | Segment  | Type               | Peak Hour | Density <sup>a</sup> | LOS  | Density <sup>a</sup>            | LOS |
| Eastbound | A   | West of El Dorado Hills Blvd/Latrobe Rd  | Basic              | AM        | 22.4                 | C    | 22.5                            | C   |
|           |   |  |                    | PM        | 22.4                 | C    | 22.6                            | C   |
|           | C   | El Dorado Hills Blvd Off-Ramp to<br>Latrobe Rd On-Ramp                           | Basic              | AM        | 15.4                 | B    | 15.5                            | B   |
|           |   |  |                    | PM        | 15.4                 | B    | 15.5                            | B   |
|           | E   | East of El Dorado Hills Blvd/Latrobe Rd  | Basic              | AM        | 17.7                 | B    | 17.8                            | B   |
|           |   |  |                    | PM        | 18.9                 | C    | 19.1                            | C   |
|           | G   | Silva Valley Pkwy Southbound Off-Ramp to<br>Silva Valley Pkwy Northbound On-Ramp | Basic              | AM        | 15.4                 | B    | 15.5                            | B   |
|           |   |  |                    | PM        | 16.9                 | B    | 17.0                            | B   |
|           | I   | East of Silva Valley Pkwy  | Basic              | AM        | 17.5                 | B    | 17.6                            | B   |
|           |   |  |                    | PM        | 19.3                 | C    | 19.4                            | C   |
|           | K   | Latrobe Rd Southbound Off-Ramp   | Diverge            | AM        | 25.1                 | C    | 25.2                            | C   |
|           |   |  |                    | PM        | 24.9                 | C    | 25.1                            | C   |
|           | L   | El Dorado Hills Blvd Northbound Off-Ramp   | Diverge            | AM        | 25.9                 | C    | 26.0                            | C   |
|           |   |  |                    | PM        | 26.2                 | C    | 26.3                            | C   |
| M         | El Dorado Hills Blvd/Latrobe Road to Silva Valley<br>Pkwy | Weave <sup>c</sup>   | AM                 | -         | B                    | -    | B                               |     |
|           |   |  | PM                 | -         | B                    | -    | B                               |     |
| N         | Silva Valley Pkwy Southbound Off-Ramp                     | Diverge  | AM                 | 26.0      | C                    | 26.1 | C                               |     |
|           |   |  | PM                 | 27.0      | C                    | 27.2 | C                               |     |
| O         | Silva Valley Pkwy On-Ramp                                 | Merge  | AM                 | 21.2      | C                    | 21.3 | C                               |     |
|           |   |  | PM                 | 22.9      | C                    | 23.0 | C                               |     |
| Westbound | B   | West of El Dorado Hills Blvd/Latrobe Rd  | Basic              | AM        | 30.8                 | D    | 31.4                            | D   |
|           |   |  |                    | PM        | 37.4                 | E    | 38.2                            | E   |
|           | D   | El Dorado Hills Blvd Off-Ramp to<br>El Dorado Hills Blvd On-Ramp                 | Basic              | AM        | 20.1                 | C    | 20.4                            | C   |
|           |   |  |                    | PM        | 21.7                 | C    | 22.1                            | C   |
|           | F   | East of El Dorado Hills Blvd/Latrobe Rd  | Basic              | AM        | 26.6                 | D    | 26.9                            | D   |
|           |   |  |                    | PM        | 25.2                 | C    | 27.0                            | D   |
|           | H   | Silva Valley Pkwy Northbound Off-Ramp to<br>Silva Valley Pkwy Southbound On-Ramp | Basic              | AM        | 20.8                 | C    | 21.0                            | C   |
|           |   |  |                    | PM        | 21.9                 | C    | 22.2                            | C   |
|           | J   | East of Silva Valley Pkwy  | Basic              | AM        | 26.6                 | D    | 26.9                            | D   |
|           |   |  |                    | PM        | 26.6                 | D    | 27.0                            | D   |
|           | Q   | Silva Valley Pkwy Northbound Off-Ramp  | Diverge            | AM        | 24.7                 | C    | 24.8                            | C   |
|           |   |  |                    | PM        | 24.5                 | C    | 24.7                            | C   |
|           | S   | Silva Valley Pkwy to El Dorado Hills Blvd/Latrobe<br>Road                        | Weave <sup>c</sup> | AM        | -                    | C    | -                               | C   |
|           |   |  |                    | PM        | 25.2                 | C    | 25.7                            | C   |
| T         | El Dorado Hills Blvd/Latrobe Rd Off-Ramp                  | Diverge  | AM                 | 24.5      | C                    | 24.7 | C                               |     |
|           |   |  | PM                 | 23.2      | C                    | 23.5 | C                               |     |
| U         | El Dorado Hills Blvd/Latrobe Rd On-Ramp                   | Merge  | AM                 | 30.9      | D                    | 31.3 | D                               |     |
|           |   |  | PM                 | 34.3      | D                    | 34.6 | D                               |     |

Notes:

a- Density measured in passenger cars/lane/mile (pc/ln/mi)

b- **Bold** represents unacceptable operations.

c- Weave segment LOS calculated using Leisch Method



## NEAR TERM (2031) CONDITIONS

The number of trips anticipated in the Near-Term condition was derived using the existing traffic counts collected during 2021 and interpolating from El Dorado County's Transportation Demand Model (TDM) 2018 and 2040 analysis results. The difference between Existing and Future year volumes along model links and nodes were used to develop annual growth rates at study intersection turning movements that could then be applied to "grow" existing counts and assess the interim 2031 scenario. These trips were then assigned to the roadway network based on existing traffic volumes, output from the County's travel demand model, and professional judgment. Using these volumes, LOS was determined at the study facilities. Near Term (2031) peak-hour traffic volumes are presented in **Figure 9** for the AM and PM peak-hours. **Figure 10** presents lane geometry information for both Near Term analysis scenarios. The Near Term lane geometries reflect County Capital Improvement Program (CIP) projects anticipated to be constructed by 2031<sup>6</sup>. Study Intersection #5 geometry (Green Valley Road/Loch Way Intersection Improvement, CIP 36105056) is anticipated to be constructed by the end of Fiscal Year 2022/23. Study Intersection #8 geometry (Green Valley Road/Deer Valley Road signalization) is anticipated to be constructed as a Condition of Approval for the Summer Brook development project. Final engineering plans for this improvement were accepted by the County in 2021. Study Intersection #24 geometry (Silva Valley Parkway/Harvard Way Intersection Improvements, CIP 36105036) is anticipated to be constructed by the end of Fiscal Year 2021/22.

### *Intersections*

**Table 11** presents the intersection operating conditions for this scenario. As indicated in **Table 11**, the study intersections operate from LOS A to LOS F. Detailed calculations are included in **Appendix D**.

### *Roadway Segments*

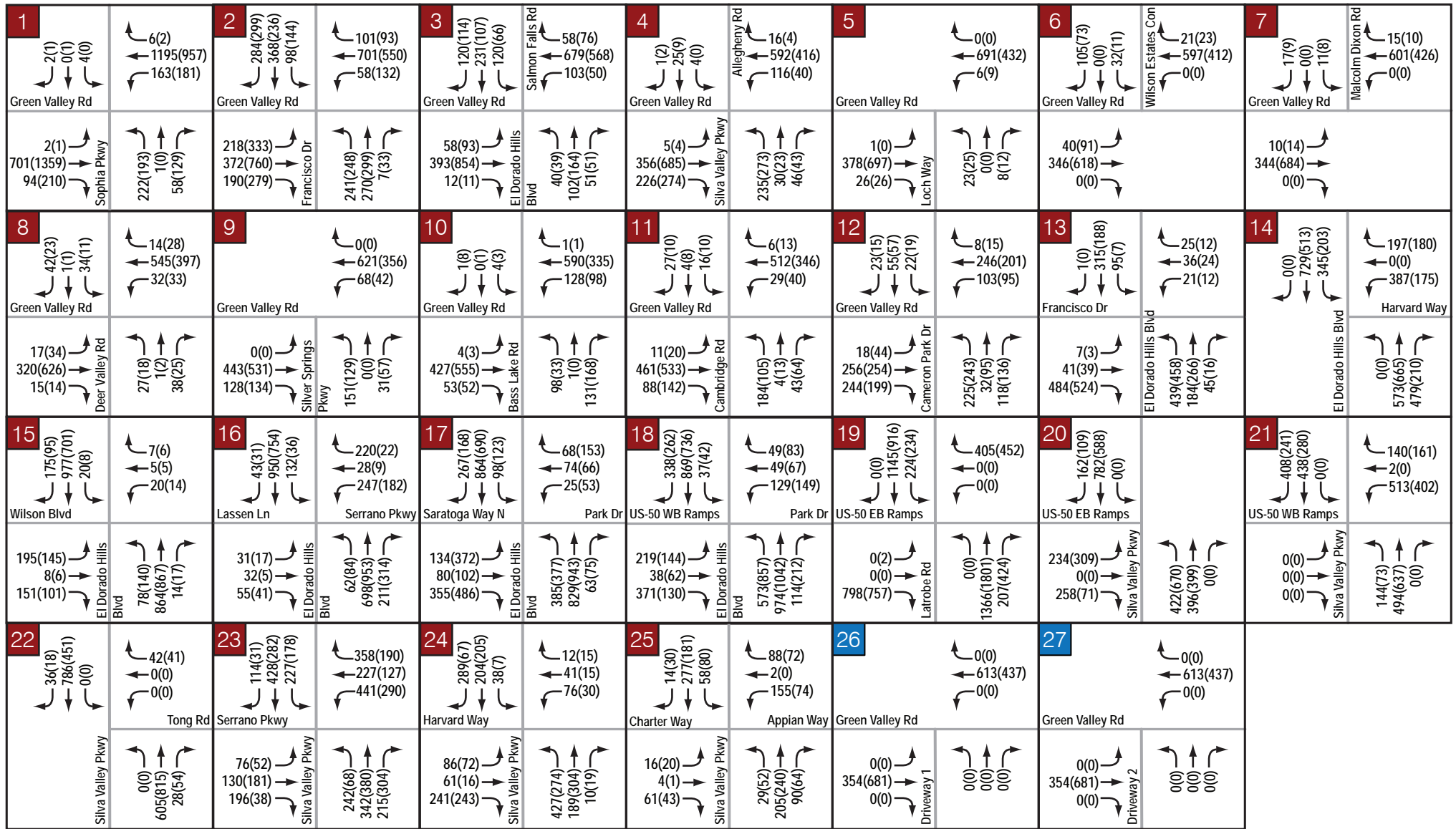
**Table 12** presents the roadway segment operating conditions for this analysis scenario. As **Table 12** indicates, the roadway segments operate from LOS A to LOS D. Detailed calculations are included in **Appendix D**.

### *Freeway Segments*

**Table 13** presents the freeway segment operating conditions for this analysis scenario. As indicated, the study roadway segments operate from LOS B to LOS D.

<sup>6</sup> Adopted 2021 Capital Improvement Program, El Dorado County Department of Transportation, June 8, 2021.

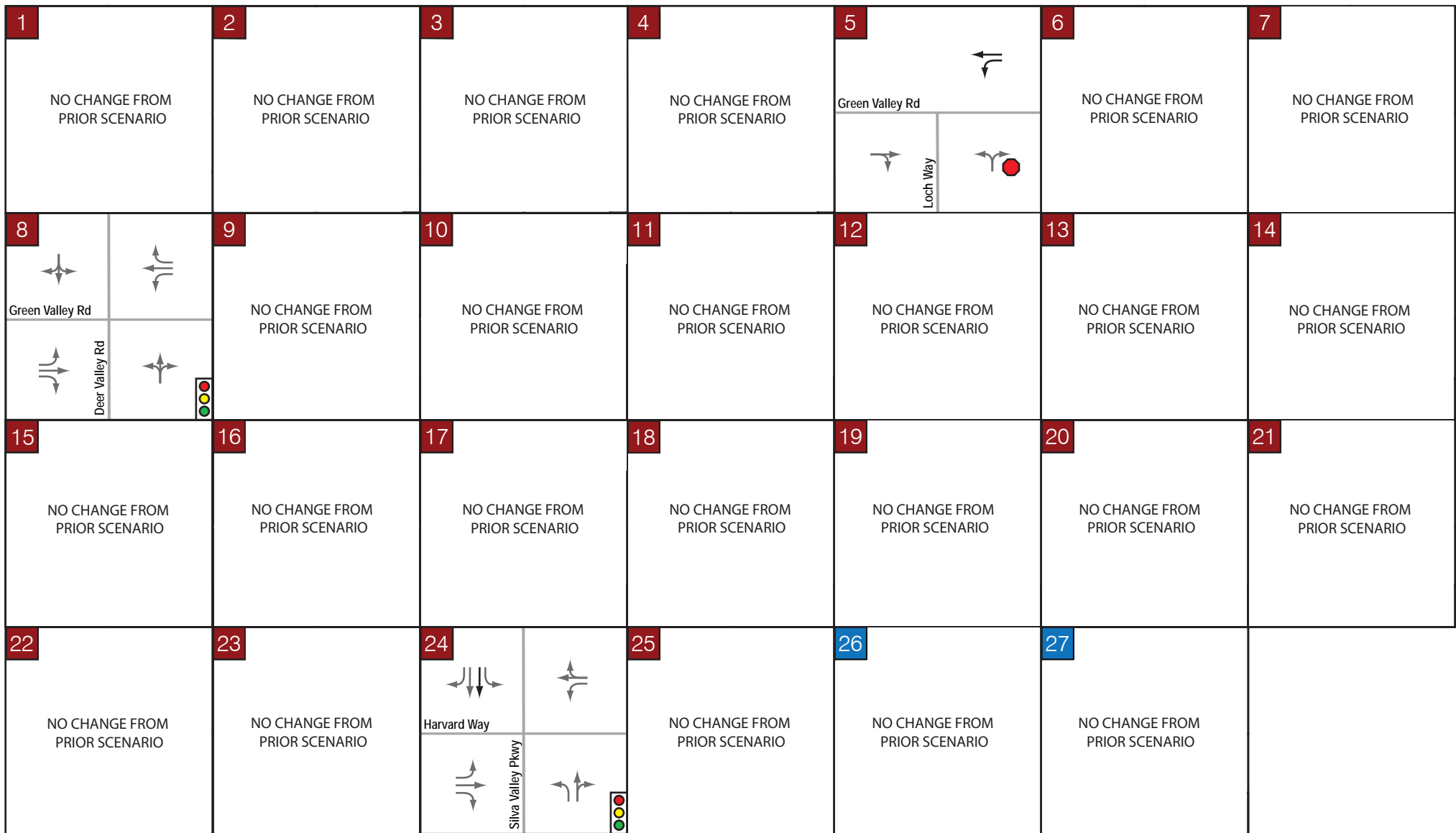
# Generations at Green Valley TIS



**LEGEND**

- # Study Intersection
- # Future Study Intersection
- AM(PM) Peak-Hour Turning Movement Volumes

# Generations at Green Valley TIS



| LEGEND |                           |   |                              |
|--------|---------------------------|---|------------------------------|
| #      | Study Intersection        | ● | Stop Controlled Intersection |
| #      | Plus Project Intersection | 🚦 | Signalized Intersection      |
| F      | Free Movement             |   |                              |

Table 11 – Near Term (2031) Intersection Levels of Service

| ID | Intersection  | LOS Threshold | Control | Peak Hour | Near Term                |          |
|----|---|---------------|---------|-----------|--------------------------|----------|
|    |   |               |         |           | Delay (sec)              | LOS      |
| 1  | Green Valley Road @ Sophia Parkway                              | E             | Signal  | AM        | 13.7                     | B        |
|    |   |               |         | PM        | 12.6                     | B        |
| 2  | Green Valley Road @ Francisco Drive                             | E             | Signal  | AM        | 35.1                     | D        |
|    |   |               |         | PM        | 46.9                     | D        |
| 3  | Green Valley Road @ El Dorado Hills Boulevard/Salmon Falls Road | E             | Signal  | AM        | 65.0                     | E        |
|    |   |               |         | PM        | 47.6                     | D        |
| 4  | Green Valley Drive @ Silva Valley Parkway/Allegheny Road        | E             | Signal  | AM        | 28.2                     | C        |
|    |   |               |         | PM        | 21.4                     | C        |
| 5  | Green Valley Drive @ Loch Road                                  | E             | SSSC    | AM        | 1.1 (23.2 NB)            | C        |
|    |   |               |         | PM        | 1.4 (27.5 NB)            | D        |
| 6  | Green Valley Drive @ Wilson Estates Connector                   | E             | SSSC    | AM        | 2.9 (21.5 SB)            | C        |
|    |   |               |         | PM        | 1.7 (15.4 SB)            | C        |
| 7  | Green Valley Drive @ Malcolm Dixon Road                         | D             | SSSC    | AM        | 0.6 (17.3 SB)            | C        |
|    |   |               |         | PM        | 0.4 (18.5 SB)            | C        |
| 8  | Green Valley Drive @ Deer Valley Road                           | D             | Signal  | AM        | 5.6                      | A        |
|    |   |               |         | PM        | 5.4                      | A        |
| 9  | Green Valley Drive @ Silver Springs Parkway                     | D             | Signal  | AM        | 5.8                      | A        |
|    |   |               |         | PM        | 5.7                      | A        |
| 10 | Green Valley Drive @ Bass Lake Road                             | D             | Signal  | AM        | 25.2                     | C        |
|    |   |               |         | PM        | 43.8                     | D        |
| 11 | Green Valley Drive @ Cambridge Road                             | D             | Signal  | AM        | 21.0                     | C        |
|    |   |               |         | PM        | 22.2                     | C        |
| 12 | Green Valley Drive @ Cameron Park Drive                         | D             | Signal  | AM        | 36.3                     | D        |
|    |   |               |         | PM        | 31.0                     | C        |
| 13 | El Dorado Hills Boulevard @ Francisco Drive                     | E             | AWSC    | AM        | 9.6                      | A        |
|    |   |               |         | PM        | 7.6                      | A        |
| 14 | El Dorado Hills Boulevard @ Harvard Way                         | E             | Signal  | AM        | 44.5                     | D        |
|    |   |               |         | PM        | 12.9                     | B        |
| 15 | El Dorado Hills Boulevard @ Wilson Boulevard                    | E             | Signal  | AM        | 14.9                     | B        |
|    |   |               |         | PM        | 11.6                     | B        |
| 16 | El Dorado Hills Boulevard @ Serrano Parkway/Lassen Lane         | E             | Signal  | AM        | 42.1                     | D        |
|    |   |               |         | PM        | 14.0                     | B        |
| 17 | El Dorado Hills Boulevard @ Saratoga Way (North)/Park Drive     | E             | Signal  | AM        | 71.4                     | E        |
|    |   |               |         | PM        | <b>138.0</b>             | <b>F</b> |
| 18 | El Dorado Hills Boulevard @ US-50 WB Ramps/Saratoga Way (South) | E             | Signal  | AM        | <b>100.9</b>             | <b>F</b> |
|    |   |               |         | PM        | 33.8                     | C        |
| 19 | Latrobe Road @ US-50 EB Ramps                                   | E             | Signal  | AM        | 14.9                     | B        |
|    |   |               |         | PM        | 8.7                      | A        |
| 20 | Silva Valley Parkway @ US-50 EB Ramps                           | E             | Signal  | AM        | 37.0                     | D        |
|    |   |               |         | PM        | 13.0                     | B        |
| 21 | Silva Valley Parkway @ US-50 WB Ramps                           | E             | Signal  | AM        | 30.9                     | C        |
|    |   |               |         | PM        | 8.1                      | A        |
| 22 | Silva Valley Parkway @ Tong Road                                | E             | SSSC    | AM        | 0.3 (10.8 WB)            | B        |
|    |   |               |         | PM        | 0.4 (12.0 WB)            | B        |
| 23 | Silva Valley Parkway @ Serrano Parkway                          | E             | Signal  | AM        | 72.4                     | E        |
|    |   |               |         | PM        | 35.5                     | D        |
| 24 | Silva Valley Parkway @ Harvard Way                              | E             | Signal  | AM        | 67.7                     | E        |
|    |   |               |         | PM        | 25.3                     | C        |
| 25 | Silva Valley Parkway @ Appian Way                               | E             | AWSC    | AM        | 29.4                     | D        |
|    |   |               |         | PM        | 13.6                     | B        |
| 26 | Green Valley Road @ Site Access Driveway (RIRO)                 | D             | SSSC    | AM<br>PM  | Not analyzed in Scenario |          |
| 27 | Green Valley Road @ Site Access Driveway (Full Access)          | D             | Signal  | AM<br>PM  | Not analyzed in Scenario |          |

Notes: **Bold** represents unacceptable operations.

Side Street Stop Controlled (SSSC) reported as intersection delay followed by worst approach's delay.

Table 12 – Near Term (2031) Roadway Segment Levels of Service

| Segment | Location  | LOS Threshold | Peak-Hour | Analysis Direction | Near Term (2031) |         |
|---------|---|---------------|-----------|--------------------|------------------|---------|
|         |   |               |           |                    | LOS              | Density |
| 1       | Green Valley Rd, Between Francisco Dr and El Dorado Hills Blvd      | E             | AM        | EB                 | C                | 6.8     |
|         |   |               |           | WB                 | D                | 13.1    |
|         |   |               | PM        | EB                 | D                | 13.5    |
|         |   |               |           | WB                 | C                | 9.7     |
| 2       | Green Valley Rd, Between El Dorado Hills Blvd and Silva Valley Pkwy | E             | AM        | EB                 | C                | 8.8     |
|         |   |               |           | WB                 | D                | 12.1    |
|         |   |               | PM        | EB                 | D                | 14.8    |
|         |   |               |           | WB                 | C                | 9.5     |
| 3       | Green Valley Rd, Between Silva Valley Pkwy and Malcolm Dixon Rd     | D             | AM        | EB                 | B                | 3.9     |
|         |   |               |           | WB                 | D                | 8.1     |
|         |   |               | PM        | EB                 | C                | 7.2     |
|         |   |               |           | WB                 | C                | 4.3     |
| 4       | Green Valley Rd, Between Malcolm Dixon Rd and Project Driveway      | E             | AM        | EB                 | B                | 3.2     |
|         |   |               |           | WB                 | C                | 6.9     |
|         |   |               | PM        | EB                 | D                | 8.3     |
|         |   |               |           | WB                 | C                | 4.7     |
| 5       | Green Valley Rd, Between Project Driveway and Deer Valley Road      | D             | AM        | EB                 | B                | 3.1     |
|         |   |               |           | WB                 | C                | 6.7     |
|         |   |               | PM        | EB                 | D                | 9.4     |
|         |   |               |           | WB                 | C                | 4.5     |

Note: Density is reported as vehicles per mile per lane (veh/mi/lane).

Table 13 – Near Term (2031) Freeway Segment Levels of Service

| US-50     |  |   |       |           | Near-Term (2031)     |     |
|-----------|--|---|-------|-----------|----------------------|-----|
| Direction | ID   | Segment   | Type  | Peak Hour | Density <sup>a</sup> | LOS |
| Eastbound | A  | West of Latrobe Rd Southbound Off- Ramp                                       | Basic | AM        | 23.6                 | C   |
|           |  |   |       | PM        | 23.2                 | C   |
|           | C  | El Dorado Hills Blvd Northbound Off-Ramp to Latrobe Rd On-Ramp                | Basic | AM        | 16.3                 | B   |
|           |  |   |       | PM        | 16.0                 | B   |
|           | E  | East of Latrobe Rd On-Ramp  | Basic | AM        | 18.7                 | C   |
|           |  |   |       | PM        | 19.7                 | C   |
|           | G  | Silva Valley Pkwy Southbound Off-Ramp to Silva Valley Pkwy Northbound On-Ramp | Basic | AM        | 16.0                 | B   |
|           |  |   |       | PM        | 17.5                 | B   |
|           | I  | East of Silva Valley Pkwy Northbound On-Ramp                                  | Basic | AM        | 19.1                 | C   |
|           |  |   |       | PM        | 22.0                 | C   |
| K         | Latrobe Rd Southbound Off-Ramp                         | Diverge   | AM    | 25.9      | C                    |     |
|           |  |   | PM    | 25.4      | C                    |     |
| L         | El Dorado Hills Blvd Northbound Off-Ramp               | Diverge   | AM    | 26.8      | C                    |     |
|           |  |   | PM    | 26.8      | C                    |     |
| M         | El Dorado Hills Blvd/Latrobe Road to Silva Valley Pkwy | Weave <sup>c</sup>  | AM    | -         | B                    |     |
|           |  |   | PM    | -         | B                    |     |
| N         | Silva Valley Pkwy Southbound Off-Ramp                  | Diverge   | AM    | 27.0      | C                    |     |
|           |  |   | PM    | 27.7      | C                    |     |
| O         | Silva Valley Pkwy Northbound On-Ramp                   | Merge   | AM    | 23.1      | C                    |     |
|           |  |   | PM    | 26.1      | C                    |     |
| Westbound | B  | West of El Dorado Hills Blvd/Latrobe Rd                                       | Basic | AM        | 28.7                 | D   |
|           |  |   |       | PM        | 34.9                 | D   |
|           | D  | El Dorado Hills Blvd Off-Ramp to El Dorado Hills Blvd On-Ramp                 | Basic | AM        | 18.7                 | C   |
|           |  |   |       | PM        | 20.4                 | C   |
|           | F  | East of El Dorado Hills Blvd/Latrobe Rd                                       | Basic | AM        | 24.8                 | C   |
|           |  |   |       | PM        | 26.5                 | C   |
|           | H  | Silva Valley Pkwy Northbound Off-Ramp to Silva Valley Pkwy Southbound On-Ramp | Basic | AM        | 19.3                 | C   |
|           |  |   |       | PM        | 20.6                 | C   |
|           | J  | East of Silva Valley Pkwy   | Basic | AM        | 25.9                 | C   |
|           |  |   |       | PM        | 26.5                 | D   |
| Q         | Silva Valley Pkwy Northbound Off-Ramp                  | Diverge   | AM    | 24.6      | C                    |     |
|           |  |   | PM    | 24.7      | C                    |     |
| S         | Silva Valley Pkwy to El Dorado Hills Blvd/Latrobe Road | Weave <sup>c</sup>  | AM    | -         | B                    |     |
|           |  |   | PM    | 23.7      | C                    |     |
| T         | El Dorado Hills Blvd/Latrobe Rd Off-Ramp               | Diverge   | AM    | 23.6      | C                    |     |
|           |  |   | PM    | 22.5      | C                    |     |
| U         | El Dorado Hills Blvd/Latrobe Rd On-Ramp                | Merge   | AM    | 29.6      | D                    |     |
|           |  |   | PM    | 33.1      | D                    |     |

Notes:

a- Density measured in passenger cars/lane/mile (pc/l/mi)

b- **Bold** represents unacceptable operations

c- Weave segment LOS calculated using Leisch Method

## NEAR TERM (2031) PLUS PROPOSED PROJECT CONDITIONS

The number of trips anticipated to be generated by the proposed project was derived using data included in the *ITE Trip Generation Manual, 10<sup>th</sup> Edition* for the residential and recreational land uses on the site. These trips were then assigned to the roadway network based on existing traffic volumes, output from the County's travel demand model, and professional judgment. Using these volumes, LOS was combined with previous developed base year Near Term volumes to evaluate operations at the study facilities.

Near Term (2031) plus Proposed Project peak-hour traffic volumes are presented in **Figure 11** for the AM and PM peak-hours.

### *Intersections*

**Table 14** presents the intersection operating conditions for this scenario. As indicated in **Table 14**, the study intersections operate from LOS A to LOS F. Detailed calculations are included in **Appendix E**.

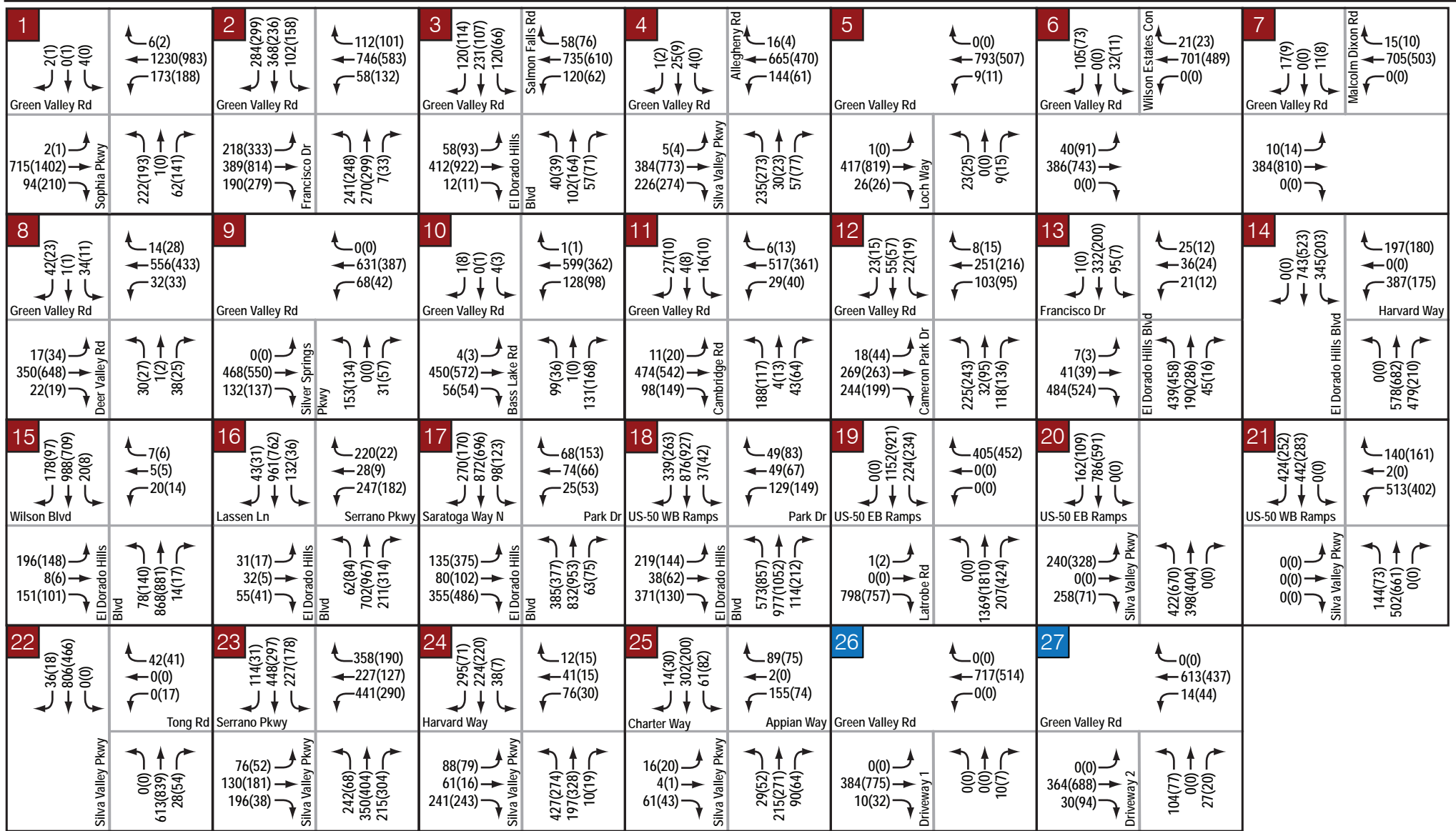
### *Roadway Segments*

**Table 15** presents the roadway segment operating conditions for this analysis scenario. As **Table 15** indicates, the roadway segments operate from LOS A to LOS D. Detailed calculations are included in **Appendix E**.

### *Freeway Segments*

**Table 16** presents the freeway segment operating conditions for this analysis scenario. As indicated, the study roadway segments operate from LOS B to LOS E.

# Generations at Green Valley TIS



**LEGEND**

- # Study Intersection
- # Future Study Intersection
- AM(PM) Peak-Hour Turning Movement Volumes



Table 14 – Near Term (2031) plus Proposed Project Intersection Levels of Service

| ID | Intersection  | LOS Threshold | Control | Peak Hour | Near Term                |          | Near Term plus Proposed Project |          |
|----|---|---------------|---------|-----------|--------------------------|----------|---------------------------------|----------|
|    |   |               |         |           | Delay (sec)              | LOS      | Delay (sec)                     | LOS      |
| 1  | Green Valley Road @ Sophia Parkway                              | E             | Signal  | AM        | 13.7                     | B        | 14.3                            | B        |
|    |   |               |         | PM        | 12.6                     | B        | 13.7                            | B        |
| 2  | Green Valley Road @ Francisco Drive                             | E             | Signal  | AM        | 35.1                     | D        | 37.0                            | D        |
|    |   |               |         | PM        | 46.9                     | D        | 51.9                            | D        |
| 3  | Green Valley Road @ El Dorado Hills Boulevard/Salmon Falls Road | E             | Signal  | AM        | 65.0                     | E        | 79.9                            | E        |
|    |   |               |         | PM        | 47.6                     | D        | 66.4                            | E        |
| 4  | Green Valley Drive @ Silva Valley Parkway/Allegheny Road        | E             | Signal  | AM        | 28.2                     | C        | 35.4                            | D        |
|    |   |               |         | PM        | 21.4                     | C        | 27.5                            | C        |
| 5  | Green Valley Drive @ Loch Road                                  | E             | SSSC    | AM        | 1.1 (23.2 NB)            | C        | 1.2 (28.6 NB)                   | D        |
|    |   |               |         | PM        | 1.4 (27.5 NB)            | D        | 1.9 (38.8 NB)                   | E        |
| 6  | Green Valley Drive @ Wilson Estates Connector                   | E             | SSSC    | AM        | 2.9 (21.5 SB)            | C        | 3.2 (27.6 SB)                   | D        |
|    |   |               |         | PM        | 1.7 (15.4 SB)            | C        | 1.7 (18.4 SB)                   | C        |
| 7  | Green Valley Drive @ Malcolm Dixon Road                         | D             | SSSC    | AM        | 0.6 (17.3 SB)            | C        | 0.6 (20.4 SB)                   | C        |
|    |   |               |         | PM        | 0.4 (18.5 SB)            | C        | 0.3 (23.1 SB)                   | C        |
| 8  | Green Valley Drive @ Deer Valley Road                           | D             | Signal  | AM        | 5.6                      | A        | 5.7                             | A        |
|    |   |               |         | PM        | 5.4                      | A        | 5.4                             | A        |
| 9  | Green Valley Drive @ Silver Springs Parkway                     | D             | Signal  | AM        | 5.8                      | A        | 5.9                             | A        |
|    |   |               |         | PM        | 5.7                      | A        | 5.7                             | A        |
| 10 | Green Valley Drive @ Bass Lake Road                             | D             | Signal  | AM        | 25.2                     | C        | 27.9                            | C        |
|    |   |               |         | PM        | 43.8                     | D        | 46.6                            | D        |
| 11 | Green Valley Drive @ Cambridge Road                             | D             | Signal  | AM        | 21.0                     | C        | 22.8                            | C        |
|    |   |               |         | PM        | 22.2                     | C        | 24.5                            | C        |
| 12 | Green Valley Drive @ Cameron Park Drive                         | D             | Signal  | AM        | 36.3                     | D        | 37.8                            | D        |
|    |   |               |         | PM        | 31.0                     | C        | 31.7                            | C        |
| 13 | El Dorado Hills Boulevard @ Francisco Drive                     | E             | AWSC    | AM        | 9.6                      | A        | 9.6                             | A        |
|    |   |               |         | PM        | 7.6                      | A        | 8.1                             | A        |
| 14 | El Dorado Hills Boulevard @ Harvard Way                         | E             | Signal  | AM        | 44.5                     | D        | 44.9                            | D        |
|    |   |               |         | PM        | 12.9                     | B        | 13.1                            | B        |
| 15 | El Dorado Hills Boulevard @ Wilson Boulevard                    | E             | Signal  | AM        | 14.9                     | B        | 15.1                            | B        |
|    |   |               |         | PM        | 11.6                     | B        | 11.7                            | B        |
| 16 | El Dorado Hills Boulevard @ Serrano Parkway/Lassen Lane         | E             | Signal  | AM        | 42.1                     | D        | 42.3                            | D        |
|    |   |               |         | PM        | 14.0                     | B        | 14.0                            | B        |
| 17 | El Dorado Hills Boulevard @ Saratoga Way (North)/Park Drive     | E             | Signal  | AM        | 71.4                     | E        | 69.7                            | E        |
|    |   |               |         | PM        | <b>138.0</b>             | <b>F</b> | <b>137.0</b>                    | <b>F</b> |
| 18 | El Dorado Hills Boulevard @ US-50 WB Ramps/Saratoga Way (South) | E             | Signal  | AM        | <b>100.9</b>             | <b>F</b> | <b>95.2</b>                     | <b>F</b> |
|    |   |               |         | PM        | 33.8                     | C        | 34.0                            | C        |
| 19 | Latrobe Road @ US-50 EB Ramps                                   | E             | Signal  | AM        | 14.9                     | B        | 12.3                            | B        |
|    |   |               |         | PM        | 8.7                      | A        | 8.5                             | A        |
| 20 | Silva Valley Parkway @ US-50 EB Ramps                           | E             | Signal  | AM        | 37.0                     | D        | 37.0                            | D        |
|    |   |               |         | PM        | 13.0                     | B        | 13.0                            | B        |
| 21 | Silva Valley Parkway @ US-50 WB Ramps                           | E             | Signal  | AM        | 30.9                     | C        | 31.6                            | C        |
|    |   |               |         | PM        | 8.1                      | A        | 8.1                             | A        |
| 22 | Silva Valley Parkway @ Tong Road                                | E             | SSSC    | AM        | 0.3 (10.8 WB)            | B        | 0.3 (10.8 WB)                   | B        |
|    |   |               |         | PM        | 0.4 (12.0 WB)            | B        | 0.4 (12.1 WB)                   | B        |
| 23 | Silva Valley Parkway @ Serrano Parkway                          | E             | Signal  | AM        | 72.4                     | E        | 74.2                            | E        |
|    |   |               |         | PM        | 35.5                     | D        | 36.4                            | D        |
| 24 | Silva Valley Parkway @ Harvard Way                              | E             | Signal  | AM        | 67.7                     | E        | 68.5                            | E        |
|    |   |               |         | PM        | 25.3                     | C        | 25.8                            | C        |
| 25 | Silva Valley Parkway @ Appian Way                               | E             | AWSC    | AM        | 29.4                     | D        | 36.1                            | E        |
|    |   |               |         | PM        | 13.6                     | B        | 15.1                            | C        |
| 26 | Green Valley Road @ Site Access Driveway (RIRO)                 | D             | SSSC    | AM        | Not analyzed in Scenario |          | 0.1 (10.8 NB)                   | B        |
|    |   |               |         | PM        |                          |          | 0.1 (15.3 NB)                   | C        |
| 27 | Green Valley Road @ Site Access Driveway (Full Access)          | D             | Signal  | AM        | Not analyzed in Scenario |          | 5.6                             | A        |
|    |   |               |         | PM        |                          |          | 5.9                             | A        |

Notes: **Bold** represents unacceptable operations. Shaded represents a project induced deficiency. Side Street Stop Controlled (SSSC) reported as intersection delay followed by worst approach's delay.

Table 15 – Near Term (2031) plus Proposed Project Roadway Segment Levels of Service

| Segment | Location  | LOS Threshold | Peak-Hour | Analysis Direction | Near Term (2031) |         | Near Term plus Project (2031) |         |
|---------|---|---------------|-----------|--------------------|------------------|---------|-------------------------------|---------|
|         |   |               |           |                    | LOS              | Density | LOS                           | Density |
| 1       | Green Valley Rd, Between Francisco Dr and El Dorado Hills Blvd      | E             | AM        | EB                 | C                | 6.8     | C                             | 7.2     |
|         |   |               |           | WB                 | D                | 13.1    | D                             | 14.2    |
|         |   |               | PM        | EB                 | D                | 13.5    | D                             | 14.6    |
|         |   |               |           | WB                 | C                | 9.7     | D                             | 10.4    |
| 2       | Green Valley Rd, Between El Dorado Hills Blvd and Silva Valley Pkwy | E             | AM        | EB                 | C                | 8.8     | C                             | 8.8     |
|         |   |               |           | WB                 | D                | 12.1    | D                             | 13.6    |
|         |   |               | PM        | EB                 | D                | 14.8    | E                             | 16.6    |
|         |   |               |           | WB                 | C                | 9.5     | D                             | 10.6    |
| 3       | Green Valley Rd, Between Silva Valley Pkwy and Malcolm Dixon Rd     | D             | AM        | EB                 | B                | 3.9     | C                             | 4.6     |
|         |   |               |           | WB                 | D                | 8.1     | D                             | 10.1    |
|         |   |               | PM        | EB                 | C                | 7.2     | D                             | 9.4     |
|         |   |               |           | WB                 | C                | 4.3     | C                             | 5.4     |
| 4       | Green Valley Rd, Between Malcolm Dixon Rd and Project Driveway      | E             | AM        | EB                 | B                | 3.2     | B                             | 3.8     |
|         |   |               |           | WB                 | C                | 6.9     | D                             | 8.7     |
|         |   |               | PM        | EB                 | D                | 8.3     | D                             | 10.6    |
|         |   |               |           | WB                 | C                | 4.7     | C                             | 6.0     |
| 5       | Green Valley Rd, Between Project Driveway and Deer Valley Road      | D             | AM        | EB                 | B                | 3.1     | B                             | 3.7     |
|         |   |               |           | WB                 | C                | 6.7     | C                             | 6.9     |
|         |   |               | PM        | EB                 | D                | 9.4     | D                             | 10.3    |
|         |   |               |           | WB                 | C                | 4.5     | C                             | 4.9     |

Note: Density is reported as vehicles per mile per lane (veh/mi/lane).

Table 16 – Near Term (2031) plus Proposed Project Freeway Segment Levels of Service

| US-50     |  |   |                    |           | Near-Term (2031)     |      | Near-Term (2031) plus Project |     |
|-----------|--|---|--------------------|-----------|----------------------|------|-------------------------------|-----|
| Direction | ID   | Segment   | Type               | Peak Hour | Density <sup>a</sup> | LOS  | Density <sup>a</sup>          | LOS |
| Eastbound | A  | West of Latrobe Rd Southbound Off- Ramp                                       | Basic              | AM        | 23.6                 | C    | 23.8                          | C   |
|           |  |   |                    | PM        | 23.2                 | C    | 23.4                          | C   |
|           | C  | El Dorado Hills Blvd Northbound Off-Ramp to Latrobe Rd On-Ramp                | Basic              | AM        | 16.3                 | B    | 16.5                          | B   |
|           |  |   |                    | PM        | 16.0                 | B    | 16.2                          | B   |
|           | E  | East of Latrobe Rd On-Ramp  | Basic              | AM        | 18.7                 | C    | 18.9                          | C   |
|           |  |   |                    | PM        | 19.7                 | C    | 19.9                          | C   |
|           | G  | Silva Valley Pkwy Southbound Off-Ramp to Silva Valley Pkwy Northbound On-Ramp | Basic              | AM        | 16.0                 | B    | 16.1                          | B   |
|           |  |   |                    | PM        | 17.5                 | B    | 17.6                          | B   |
|           | I  | East of Silva Valley Pkwy Northbound On-Ramp                                  | Basic              | AM        | 19.1                 | C    | 19.2                          | C   |
|           |  |   |                    | PM        | 22.0                 | C    | 22.1                          | C   |
|           | K  | Latrobe Rd Southbound Off-Ramp  | Diverge            | AM        | 25.9                 | C    | 26.0                          | C   |
|           |  |   |                    | PM        | 25.4                 | C    | 25.6                          | C   |
|           | L  | El Dorado Hills Blvd Northbound Off-Ramp                                      | Diverge            | AM        | 26.8                 | C    | 26.9                          | C   |
|           |  |   |                    | PM        | 26.8                 | C    | 27.0                          | C   |
| M         | El Dorado Hills Blvd/Latrobe Road to Silva Valley Pkwy | Weave <sup>c</sup>  | AM                 | -         | B                    | -    | B                             |     |
|           |  |   | PM                 | -         | B                    | -    | B                             |     |
| N         | Silva Valley Pkwy Southbound Off-Ramp                  | Diverge   | AM                 | 27.0      | C                    | 27.2 | C                             |     |
|           |  |   | PM                 | 27.7      | C                    | 27.9 | C                             |     |
| O         | Silva Valley Pkwy Northbound On-Ramp                   | Merge   | AM                 | 23.1      | C                    | 23.2 | C                             |     |
|           |  |   | PM                 | 26.1      | C                    | 26.1 | C                             |     |
| Westbound | B  | West of El Dorado Hills Blvd/Latrobe Rd                                       | Basic              | AM        | 28.7                 | D    | 29.3                          | D   |
|           |  |   |                    | PM        | 34.9                 | D    | 35.7                          | E   |
|           | D  | El Dorado Hills Blvd Off-Ramp to El Dorado Hills Blvd On-Ramp                 | Basic              | AM        | 18.7                 | C    | 19.0                          | C   |
|           |  |   |                    | PM        | 20.4                 | C    | 20.8                          | C   |
|           | F  | East of El Dorado Hills Blvd/Latrobe Rd                                       | Basic              | AM        | 24.8                 | C    | 25.2                          | C   |
|           |  |   |                    | PM        | 26.5                 | C    | 24.2                          | C   |
|           | H  | Silva Valley Pkwy Northbound Off-Ramp to Silva Valley Pkwy Southbound On-Ramp | Basic              | AM        | 19.3                 | C    | 19.5                          | C   |
|           |  |   |                    | PM        | 20.6                 | C    | 20.9                          | C   |
|           | J  | East of Silva Valley Pkwy   | Basic              | AM        | 25.9                 | C    | 26.2                          | D   |
|           |  |   |                    | PM        | 26.5                 | D    | 26.9                          | D   |
|           | Q  | Silva Valley Pkwy Northbound Off-Ramp   | Diverge            | AM        | 24.6                 | C    | 24.7                          | C   |
|           |  |   |                    | PM        | 24.7                 | C    | 24.8                          | C   |
|           | S  | Silva Valley Pkwy to El Dorado Hills Blvd/Latrobe Road                        | Weave <sup>c</sup> | AM        | -                    | B    | -                             | B   |
|           |  |   |                    | PM        | 23.7                 | C    | 24.2                          | C   |
| T         | El Dorado Hills Blvd/Latrobe Rd Off-Ramp               | Diverge   | AM                 | 23.6      | C                    | 23.8 | C                             |     |
|           |  |   | PM                 | 22.5      | C                    | 22.7 | C                             |     |
| U         | El Dorado Hills Blvd/Latrobe Rd On-Ramp                | Merge   | AM                 | 29.6      | D                    | 30.0 | D                             |     |
|           |  |   | PM                 | 33.1      | D                    | 33.5 | D                             |     |

Notes:

- a- Density measured in passenger cars/lane/mile (pc/lane/mi)
- b- **Bold** represents unacceptable operations
- c- Weave segment LOS calculated using Leisch Method

## CUMULATIVE (2041) CONDITIONS

The number of trips anticipated in the Cumulative condition was derived using the existing traffic counts collected during 2021 and interpolating from El Dorado County's Transportation Demand Model (TDM) 2018 and 2040 analysis results. The difference between Existing and Future year volumes along model links and nodes were used to develop annual growth rates at study intersection turning movements that could then be applied to "grow" existing counts and assess the cumulative 2041 scenario. These trips were then assigned to the roadway network based on existing traffic volumes, output from the County's travel demand model, and professional judgment. Using these volumes, LOS was determined at the study facilities. Cumulative (2041) peak-hour traffic volumes are presented in **Figure 12** for the AM and PM peak-hours. **Figure 13** presents lane geometry information for both Cumulative analysis scenarios. Building on the previous Near Term lane geometry modifications, the assumed Cumulative lane geometries reflect County Capital Improvement Program (CIP) projects also anticipated to be implemented by 2031<sup>6</sup>. The Study Intersection #20 and Study Intersection #21 geometries (US-50/Silva Valley Parkway Interchange-Phase 1, CIP 36104002) are anticipated to be constructed by the end of Fiscal Year 2021/22. The Study Intersection #22 geometry (Country Club Drive Extension – Silva Valley Parkway to Tong Road, CIP 36105008) is anticipated to be constructed by the end of Fiscal Year 2025/26.

### *Intersections*

**Table 17** presents the intersection operating conditions for this scenario. As indicated in **Table 17**, the study intersections operate from LOS A to LOS F. Detailed calculations are included in **Appendix F**.

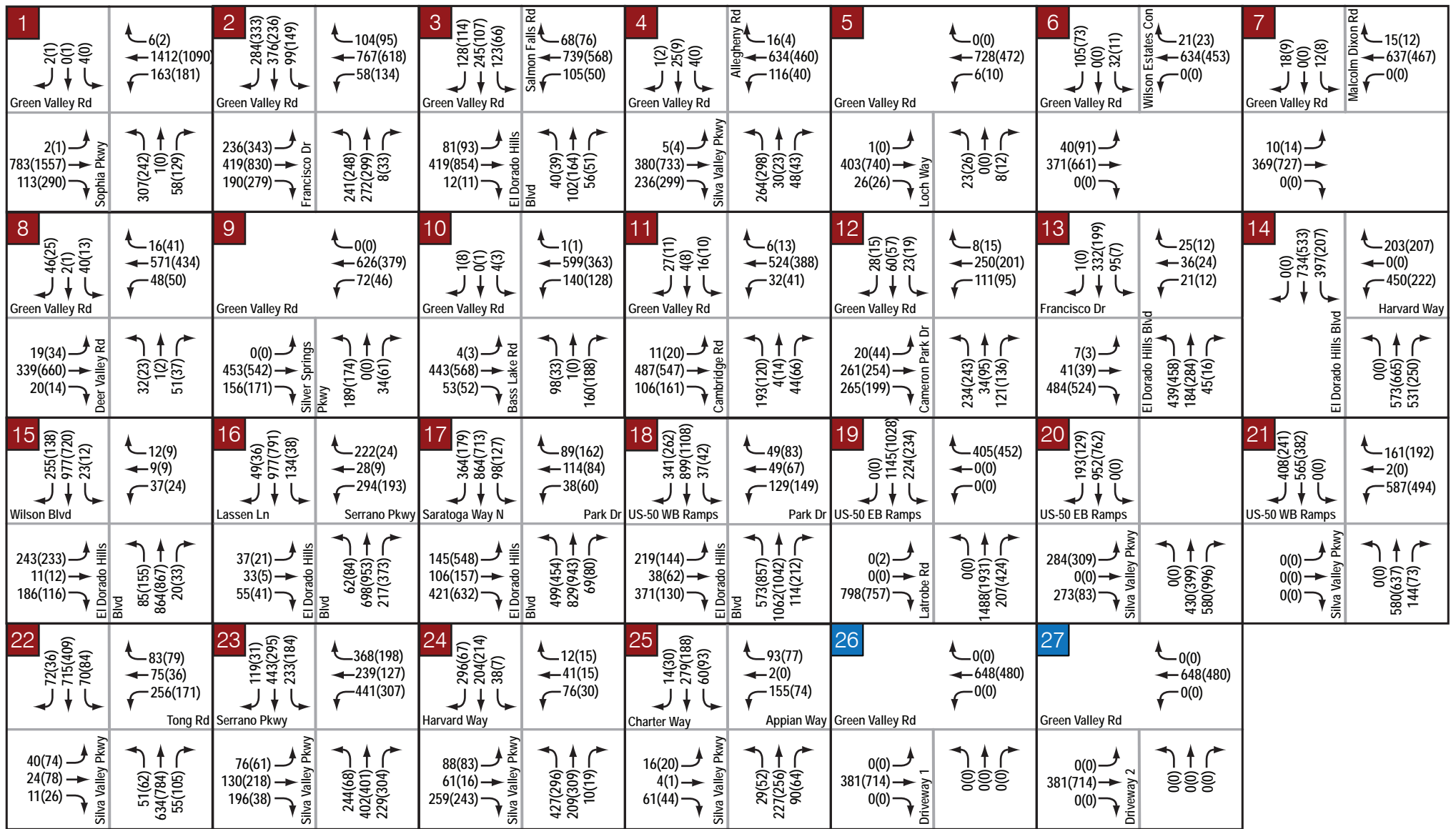
### *Roadway Segments*

**Table 18** presents the roadway segment operating conditions for this analysis scenario. As **Table 18** indicates, the roadway segments operate from LOS A to LOS D. Detailed calculations are included in **Appendix F**.

### *Freeway Segments*

**Table 19** presents the freeway segment operating conditions for this analysis scenario. As indicated, the study roadway segments operate from LOS B to LOS E.

# Generations at Green Valley TIS



**LEGEND**

- # Study Intersection
- # Future Study Intersection
- AM(PM) Peak-Hour Turning Movement Volumes

# Generations at Green Valley TIS

|                                     |                                     |                                     |                                     |                                     |                                     |                                     |
|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| 1<br>NO CHANGE FROM PRIOR SCENARIO  | 2<br>NO CHANGE FROM PRIOR SCENARIO  | 3<br>NO CHANGE FROM PRIOR SCENARIO  | 4<br>NO CHANGE FROM PRIOR SCENARIO  | 5<br>NO CHANGE FROM PRIOR SCENARIO  | 6<br>NO CHANGE FROM PRIOR SCENARIO  | 7<br>NO CHANGE FROM PRIOR SCENARIO  |
| 8<br>NO CHANGE FROM PRIOR SCENARIO  | 9<br>NO CHANGE FROM PRIOR SCENARIO  | 10<br>NO CHANGE FROM PRIOR SCENARIO | 11<br>NO CHANGE FROM PRIOR SCENARIO | 12<br>NO CHANGE FROM PRIOR SCENARIO | 13<br>NO CHANGE FROM PRIOR SCENARIO | 14<br>NO CHANGE FROM PRIOR SCENARIO |
| 15<br>NO CHANGE FROM PRIOR SCENARIO | 16<br>NO CHANGE FROM PRIOR SCENARIO | 17<br>NO CHANGE FROM PRIOR SCENARIO | 18<br>NO CHANGE FROM PRIOR SCENARIO | 19<br>NO CHANGE FROM PRIOR SCENARIO | 20<br>                              | 21<br>                              |
| 22<br>                              | 23<br>NO CHANGE FROM PRIOR SCENARIO | 24<br>NO CHANGE FROM PRIOR SCENARIO | 25<br>NO CHANGE FROM PRIOR SCENARIO | 26<br>NO CHANGE FROM PRIOR SCENARIO | 27<br>NO CHANGE FROM PRIOR SCENARIO |                                     |

| LEGEND |                              |
|--------|------------------------------|
| #      | Study Intersection           |
| #      | Plus Project Intersection    |
| F      | Free Movement                |
| ●      | Stop Controlled Intersection |
| 🚦      | Signalized Intersection      |

Table 17 – Cumulative (2041) Intersection Levels of Service

| ID | Intersection  | LOS Threshold | Control | Peak Hour | Cumulative               |          |
|----|---|---------------|---------|-----------|--------------------------|----------|
|    |   |               |         |           | Delay (sec)              | LOS      |
| 1  | Green Valley Road @ Sophia Parkway                              | E             | Signal  | AM        | 15.2                     | B        |
|    |   |               |         | PM        | 20.2                     | C        |
| 2  | Green Valley Road @ Francisco Drive                             | E             | Signal  | AM        | 33.1                     | C        |
|    |   |               |         | PM        | 36.1                     | D        |
| 3  | Green Valley Road @ El Dorado Hills Boulevard/Salmon Falls Road | E             | Signal  | AM        | 66.8                     | E        |
|    |   |               |         | PM        | <b>89.0</b>              | <b>F</b> |
| 4  | Green Valley Drive @ Silva Valley Parkway/Allegheny Road        | E             | Signal  | AM        | 26.9                     | C        |
|    |   |               |         | PM        | 26.4                     | C        |
| 5  | Green Valley Drive @ Loch Road                                  | E             | SSSC    | AM        | 1.1 (25.3 NB)            | C        |
|    |   |               |         | PM        | 1.6 (32.4 NB)            | D        |
| 6  | Green Valley Drive @ Wilson Estates Connector                   | E             | SSSC    | AM        | 3.0 (23.3 SB)            | C        |
|    |   |               |         | PM        | 1.7 (16.6 SB)            | C        |
| 7  | Green Valley Drive @ Malcolm Dixon Road                         | D             | SSSC    | AM        | 0.6 (18.7 SB)            | C        |
|    |   |               |         | PM        | 0.4 (20.4 SB)            | C        |
| 8  | Green Valley Drive @ Deer Valley Road                           | D             | Signal  | AM        | 5.7                      | A        |
|    |   |               |         | PM        | 5.5                      | A        |
| 9  | Green Valley Drive @ Silver Springs Parkway                     | D             | Signal  | AM        | 6.3                      | A        |
|    |   |               |         | PM        | 6.0                      | A        |
| 10 | Green Valley Drive @ Bass Lake Road                             | D             | Signal  | AM        | 29.6                     | C        |
|    |   |               |         | PM        | 55.6                     | E        |
| 11 | Green Valley Drive @ Cambridge Road                             | D             | Signal  | AM        | 25.3                     | C        |
|    |   |               |         | PM        | 24.4                     | C        |
| 12 | Green Valley Drive @ Cameron Park Drive                         | D             | Signal  | AM        | 43.5                     | D        |
|    |   |               |         | PM        | 37.8                     | D        |
| 13 | El Dorado Hills Boulevard @ Francisco Drive                     | E             | AWSC    | AM        | 9.6                      | A        |
|    |   |               |         | PM        | 7.9                      | A        |
| 14 | El Dorado Hills Boulevard @ Harvard Way                         | E             | Signal  | AM        | 62.3                     | E        |
|    |   |               |         | PM        | 14.6                     | B        |
| 15 | El Dorado Hills Boulevard @ Wilson Boulevard                    | E             | Signal  | AM        | 19.7                     | B        |
|    |   |               |         | PM        | 17.2                     | B        |
| 16 | El Dorado Hills Boulevard @ Serrano Parkway/Lassen Lane         | E             | Signal  | AM        | 49.2                     | D        |
|    |   |               |         | PM        | 30.5                     | C        |
| 17 | El Dorado Hills Boulevard @ Saratoga Way (North)/Park Drive     | E             | Signal  | AM        | <b>80.7</b>              | <b>F</b> |
|    |   |               |         | PM        | <b>198.3</b>             | <b>F</b> |
| 18 | El Dorado Hills Boulevard @ US-50 WB Ramps/Saratoga Way (South) | E             | Signal  | AM        | <b>125.3</b>             | <b>F</b> |
|    |   |               |         | PM        | <b>81.4</b>              | <b>F</b> |
| 19 | Latrobe Road @ US-50 EB Ramps                                   | E             | Signal  | AM        | 22.0                     | C        |
|    |   |               |         | PM        | 12.5                     | B        |
| 20 | Silva Valley Parkway @ US-50 EB Ramps                           | E             | Signal  | AM        | 8.2                      | A        |
|    |   |               |         | PM        | 12.2                     | B        |
| 21 | Silva Valley Parkway @ US-50 WB Ramps                           | E             | Signal  | AM        | 14.9                     | B        |
|    |   |               |         | PM        | 22.4                     | C        |
| 22 | Silva Valley Parkway @ Tong Road                                | E             | Signal  | AM        | 15.7                     | B        |
|    |   |               |         | PM        | 13.3                     | B        |
| 23 | Silva Valley Parkway @ Serrano Parkway                          | E             | Signal  | AM        | 76.8                     | E        |
|    |   |               |         | PM        | 39.8                     | D        |
| 24 | Silva Valley Parkway @ Harvard Way                              | E             | Signal  | AM        | 79.7                     | E        |
|    |   |               |         | PM        | 25.6                     | C        |
| 25 | Silva Valley Parkway @ Appian Way                               | E             | AWSC    | AM        | 35.1                     | E        |
|    |   |               |         | PM        | 17.2                     | B        |
| 26 | Green Valley Road @ Site Access Driveway (RIRO)                 | D             | SSSC    | AM<br>PM  | Not analyzed in Scenario |          |
| 27 | Green Valley Road @ Site Access Driveway (Full Access)          | D             | Signal  | AM<br>PM  | Not analyzed in Scenario |          |

Notes: **Bold** represents unacceptable operations.

Side Street Stop Controlled (SSSC) reported as intersection delay followed by worst approach's delay.

**Table 18** – Cumulative (2041) Roadway Segment Levels of Service

| Segment | Location  | LOS Threshold | Peak-Hour | Analysis Direction | Cumulative (2041) |         |
|---------|---|---------------|-----------|--------------------|-------------------|---------|
|         |   |               |           |                    | LOS               | Density |
| 1       | Green Valley Rd, Between Francisco Dr and El Dorado Hills Blvd      | E             | AM        | EB                 | C                 | 7.9     |
|         |   |               |           | WB                 | D                 | 14.6    |
|         |   |               | PM        | EB                 | D                 | 15.0    |
|         |   |               |           | WB                 | D                 | 11.1    |
| 2       | Green Valley Rd, Between El Dorado Hills Blvd and Silva Valley Pkwy | E             | AM        | EB                 | C                 | 8.8     |
|         |   |               |           | WB                 | D                 | 13.5    |
|         |   |               | PM        | EB                 | E                 | 16.5    |
|         |   |               |           | WB                 | D                 | 10.9    |
| 3       | Green Valley Rd, Between Silva Valley Pkwy and Malcolm Dixon Rd     | D             | AM        | EB                 | C                 | 4.3     |
|         |   |               |           | WB                 | D                 | 8.8     |
|         |   |               | PM        | EB                 | C                 | 7.9     |
|         |   |               |           | WB                 | C                 | 4.9     |
| 4       | Green Valley Rd, Between Malcolm Dixon Rd and Project Driveway      | E             | AM        | EB                 | B                 | 3.5     |
|         |   |               |           | WB                 | C                 | 7.5     |
|         |   |               | PM        | EB                 | D                 | 9.1     |
|         |   |               |           | WB                 | C                 | 5.4     |
| 5       | Green Valley Rd, Between Project Driveway and Deer Valley Road      | D             | AM        | EB                 | B                 | 3.5     |
|         |   |               |           | WB                 | C                 | 7.3     |
|         |   |               | PM        | EB                 | D                 | 10.3    |
|         |   |               |           | WB                 | C                 | 5.2     |

Note: Density is reported as vehicles per mile per lane (veh/mi/lane).



Table 19 – Cumulative (2041) Freeway Segment Levels of Service

| US-50     |  |   |         |           | Cumulative (2041)    |     |
|-----------|--|---|---------|-----------|----------------------|-----|
| Direction | ID   | Segment   | Type    | Peak Hour | Density <sup>a</sup> | LOS |
| Eastbound | A  | West of Latrobe Rd Southbound Off- Ramp                                       | Basic   | AM        | 25.0                 | C   |
|           |  |   |         | PM        | 24.1                 | C   |
|           | C  | El Dorado Hills Blvd Northbound Off-Ramp to Latrobe Rd On-Ramp                | Basic   | AM        | 17.4                 | B   |
|           |  |   |         | PM        | 16.7                 | B   |
|           | E  | East of Latrobe Rd On-Ramp  | Basic   | AM        | 19.8                 | C   |
|           |  |   |         | PM        | 20.5                 | C   |
|           | G  | Silva Valley Pkwy Southbound Off-Ramp to Silva Valley Pkwy Northbound On-Ramp | Basic   | AM        | 16.7                 | B   |
|           |  |   |         | PM        | 18.2                 | C   |
|           | I  | East of Silva Valley Pkwy Northbound On-Ramp                                  | Basic   | AM        | 21.2                 | C   |
|           |  |   |         | PM        | 25.5                 | C   |
|           | K  | Latrobe Rd Southbound Off-Ramp  | Diverge | AM        | 26.7                 | C   |
|           |  |   |         | PM        | 26.0                 | C   |
| L         | El Dorado Hills Blvd Northbound Off-Ramp               | Diverge   | AM      | 27.8      | C                    |     |
|           |  |   | PM      | 27.5      | C                    |     |
| M         | East of El Dorado Hills Blvd/Latrobe Road              | Weave <sup>c</sup>  | AM      | -         | B                    |     |
|           |  |   | PM      | -         | B                    |     |
| N         | Silva Valley Pkwy Southbound Off-Ramp                  | Diverge   | AM      | 28.1      | D                    |     |
|           |  |   | PM      | 28.3      | D                    |     |
| O         | Silva Valley Pkwy Northbound On-Ramp                   | Merge   | AM      | 24.9      | C                    |     |
|           |  |   | PM      | 29.3      | D                    |     |
| P         | Silva Valley Pkwy Southbound On-Ramp                   | Merge   | AM      | 23.2      | C                    |     |
|           |  |   | PM      | 24.0      | C                    |     |
| Westbound | B  | West of El Dorado Hills Blvd/Latrobe Rd                                       | Basic   | AM        | 26.8                 | D   |
|           |  |   |         | PM        | 32.8                 | D   |
|           | D  | El Dorado Hills Blvd Off-Ramp to El Dorado Hills Blvd On-Ramp                 | Basic   | AM        | 11.5                 | B   |
|           |  |   |         | PM        | 12.5                 | B   |
|           | F  | East of El Dorado Hills Blvd/Latrobe Rd                                       | Basic   | AM        | 23.1                 | C   |
|           |  |   |         | PM        | 22.3                 | C   |
|           | H  | Silva Valley Pkwy Northbound Off-Ramp to Silva Valley Pkwy Southbound On-Ramp | Basic   | AM        | 11.8                 | B   |
|           |  |   |         | PM        | 12.6                 | B   |
|           | J  | East of Silva Valley Pkwy   | Basic   | AM        | 25.2                 | C   |
|           |  |   |         | PM        | 26.3                 | D   |
|           | Q  | Silva Valley Pkwy Northbound Off-Ramp   | Diverge | AM        | 24.5                 | C   |
|           |  |   |         | PM        | 24.9                 | C   |
| R         | Silva Valley Pkwy Northbound On-Ramp                   | Merge   | AM      | 18.0      | B                    |     |
|           |  |   | PM      | 18.2      | B                    |     |
| S         | Silva Valley Pkwy to El Dorado Hills Blvd/Latrobe Road | Weave <sup>c</sup>  | AM      | -         | B                    |     |
|           |  |   | PM      | 23.7      | C                    |     |
| T         | El Dorado Hills Blvd/Latrobe Rd Off-Ramp               | Diverge   | AM      | 20.3      | C                    |     |
|           |  |   | PM      | 23.2      | C                    |     |
| U         | El Dorado Hills Blvd On-Ramp                           | Merge   | AM      | 20.3      | C                    |     |
|           |  |   | PM      | 23.2      | C                    |     |

Notes:

a- Density measured in passenger cars/lane/mile (pc/l/mi)

b- **Bold** represents unacceptable operations. Shaded represents significant impact.

c- Weave segment LOS calculated using Leisch Method

## CUMULATIVE (2041) PLUS PROPOSED PROJECT CONDITIONS

The number of trips anticipated to be generated by the proposed project was derived using data included in the *ITE Trip Generation Manual, 10<sup>th</sup> Edition* for the residential and recreational land uses on the site. These trips were then assigned to the roadway network based on existing traffic volumes, output from the County's travel demand model, and professional judgment. Using these volumes, LOS was combined with previous developed base year Near Term volumes to evaluate operations at the study facilities. Cumulative (2041) plus Proposed Project peak-hour traffic volumes are presented in **Figure 14** for the AM and PM peak-hours.

### *Intersections*

**Table 20** presents the intersection operating conditions for this scenario. As indicated in **Table 20**, the study intersections operate from LOS A to LOS F. Detailed calculations are included in **Appendix G**.

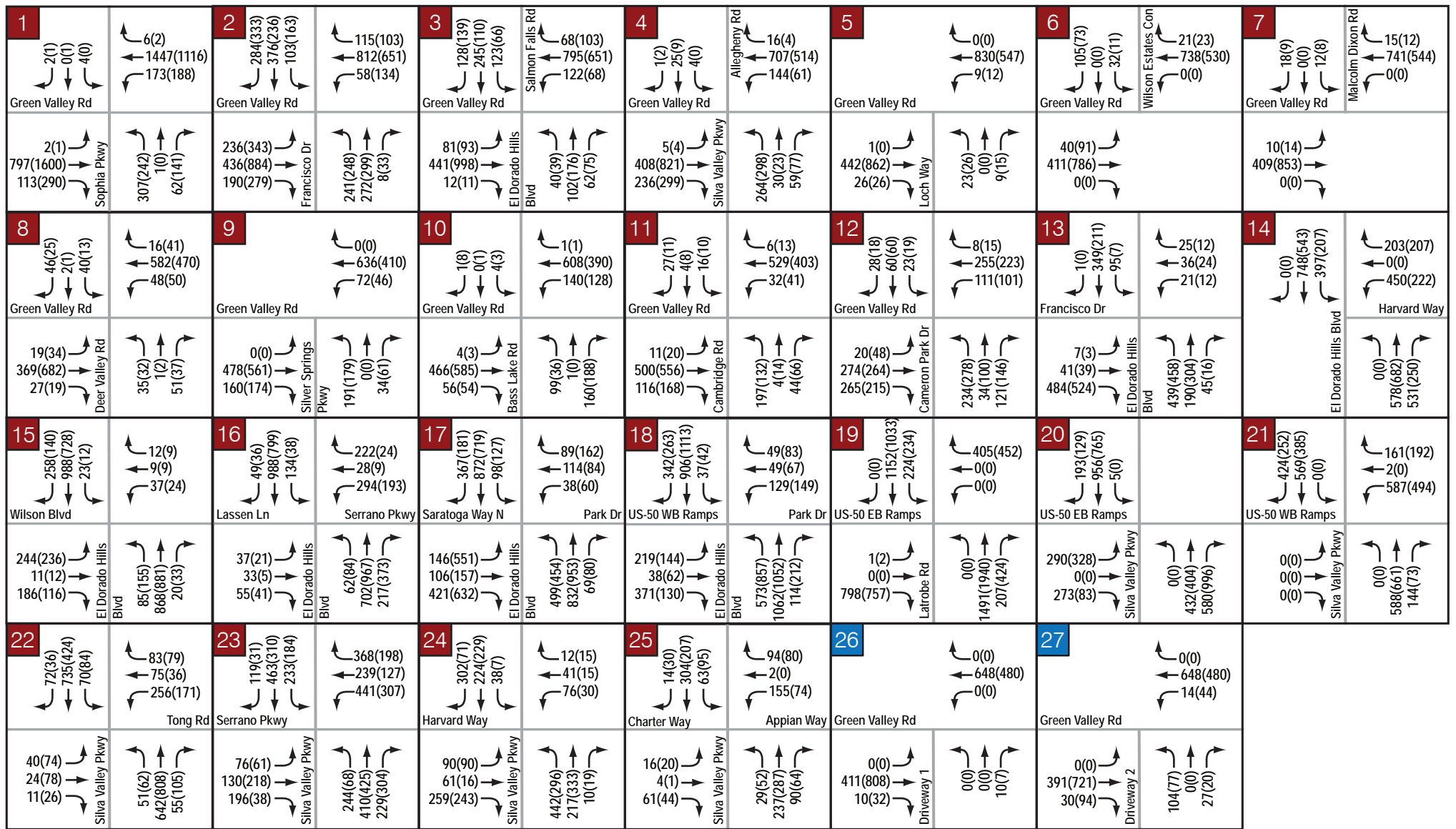
### *Roadway Segments*

**Table 21** presents the roadway segment operating conditions for this analysis scenario. As **Table 21** indicates, the roadway segments operate from LOS A to LOS D. Detailed calculations are included in **Appendix G**.

### *Freeway Segments*

**Table 22** presents the freeway segment operating conditions for this analysis scenario. As indicated, the study roadway segments operate from LOS B to LOS D.

# Generations at Green Valley TIS



**LEGEND**

- # Study Intersection
- # Future Study Intersection
- AM(PM) Peak-Hour Turning Movement Volumes

Table 20 – Cumulative (2041) plus Proposed Project Intersection Levels of Service

| ID | Intersection  | LOS Threshold | Control | Peak Hour | Cumulative               |          | Cumulative plus Proposed Project |          |
|----|---|---------------|---------|-----------|--------------------------|----------|----------------------------------|----------|
|    |   |               |         |           | Delay (sec)              | LOS      | Delay (sec)                      | LOS      |
| 1  | Green Valley Road @ Sophia Parkway                              | E             | Signal  | AM        | 15.2                     | B        | 15.8                             | B        |
|    |   |               |         | PM        | 20.2                     | C        | 22.2                             | C        |
| 2  | Green Valley Road @ Francisco Drive                             | E             | Signal  | AM        | 33.1                     | C        | 34.8                             | C        |
|    |   |               |         | PM        | 36.1                     | D        | 38.2                             | D        |
| 3  | Green Valley Road @ El Dorado Hills Boulevard/Salmon Falls Road | E             | Signal  | AM        | 66.8                     | E        | 77.2                             | E        |
|    |   |               |         | PM        | <b>89.0</b>              | <b>F</b> | <b>111.4</b>                     | <b>F</b> |
| 4  | Green Valley Drive @ Silva Valley Parkway/Allegheny Road        | E             | Signal  | AM        | 26.9                     | C        | 31.9                             | C        |
|    |   |               |         | PM        | 26.4                     | C        | 35.3                             | D        |
| 5  | Green Valley Drive @ Loch Road                                  | E             | SSSC    | AM        | 1.1 (25.3 NB)            | C        | 1.3 (31.7 NB)                    | D        |
|    |   |               |         | PM        | 1.6 (32.4 NB)            | D        | 2.2 (47.5 NB)                    | E        |
| 6  | Green Valley Drive @ Wilson Estates Connector                   | E             | SSSC    | AM        | 3.0 (23.3 SB)            | C        | 3.4 (30.3 SB)                    | D        |
|    |   |               |         | PM        | 1.7 (16.6 SB)            | C        | 1.6 (20.0 SB)                    | C        |
| 7  | Green Valley Drive @ Malcolm Dixon Road                         | D             | SSSC    | AM        | 0.6 (18.7 SB)            | C        | 0.6 (22.1 SB)                    | C        |
|    |   |               |         | PM        | 0.4 (20.4 SB)            | C        | 0.4 (25.8 SB)                    | D        |
| 8  | Green Valley Drive @ Deer Valley Road                           | D             | Signal  | AM        | 5.7                      | A        | 5.7                              | A        |
|    |   |               |         | PM        | 5.5                      | A        | 5.5                              | A        |
| 9  | Green Valley Drive @ Silver Springs Parkway                     | D             | Signal  | AM        | 6.3                      | A        | 6.4                              | A        |
|    |   |               |         | PM        | 6.0                      | A        | 6.1                              | A        |
| 10 | Green Valley Drive @ Bass Lake Road                             | D             | Signal  | AM        | 29.6                     | C        | 32.7                             | C        |
|    |   |               |         | PM        | 55.6                     | E        | 58.8                             | E        |
| 11 | Green Valley Drive @ Cambridge Road                             | D             | Signal  | AM        | 25.3                     | C        | 28.2                             | C        |
|    |   |               |         | PM        | 24.4                     | C        | 27.0                             | C        |
| 12 | Green Valley Drive @ Cameron Park Drive                         | D             | Signal  | AM        | 43.5                     | D        | 45.8                             | D        |
|    |   |               |         | PM        | 37.8                     | D        | 38.8                             | D        |
| 13 | El Dorado Hills Boulevard @ Francisco Drive                     | E             | AWSC    | AM        | 9.6                      | A        | 10.1                             | B        |
|    |   |               |         | PM        | 7.9                      | A        | 8.1                              | A        |
| 14 | El Dorado Hills Boulevard @ Harvard Way                         | E             | Signal  | AM        | 62.3                     | E        | 62.8                             | E        |
|    |   |               |         | PM        | 14.6                     | B        | 14.9                             | B        |
| 15 | El Dorado Hills Boulevard @ Wilson Boulevard                    | E             | Signal  | AM        | 19.7                     | B        | 20.1                             | C        |
|    |   |               |         | PM        | 17.2                     | B        | 17.5                             | B        |
| 16 | El Dorado Hills Boulevard @ Serrano Parkway/Lassen Lane         | E             | Signal  | AM        | 49.2                     | D        | 50.1                             | D        |
|    |   |               |         | PM        | 30.5                     | C        | 30.8                             | C        |
| 17 | El Dorado Hills Boulevard @ Saratoga Way (North)/Park Drive     | E             | Signal  | AM        | <b>80.7</b>              | <b>F</b> | <b>81.4</b>                      | <b>F</b> |
|    |   |               |         | PM        | <b>198.3</b>             | <b>F</b> | <b>194.7</b>                     | <b>F</b> |
| 18 | El Dorado Hills Boulevard @ US-50 WB Ramps/Saratoga Way (South) | E             | Signal  | AM        | <b>125.3</b>             | <b>F</b> | <b>121.3</b>                     | <b>F</b> |
|    |   |               |         | PM        | <b>81.4</b>              | <b>F</b> | 75.1                             | E        |
| 19 | Latrobe Road @ US-50 EB Ramps                                   | E             | Signal  | AM        | 22.0                     | C        | 21.6                             | C        |
|    |   |               |         | PM        | 12.5                     | B        | 11.4                             | B        |
| 20 | Silva Valley Parkway @ US-50 EB Ramps                           | E             | Signal  | AM        | 8.2                      | A        | 8.3                              | A        |
|    |   |               |         | PM        | 12.2                     | B        | 72.5                             | E        |
| 21 | Silva Valley Parkway @ US-50 WB Ramps                           | E             | Signal  | AM        | 14.9                     | B        | 15.1                             | B        |
|    |   |               |         | PM        | 22.4                     | C        | 22.2                             | C        |
| 22 | Silva Valley Parkway @ Tong Road                                | E             | Signal  | AM        | 15.7                     | B        | 16.0                             | B        |
|    |   |               |         | PM        | 13.3                     | B        | 13.6                             | B        |
| 23 | Silva Valley Parkway @ Serrano Parkway                          | E             | Signal  | AM        | 76.8                     | E        | 78.8                             | E        |
|    |   |               |         | PM        | 39.8                     | D        | 40.8                             | D        |
| 24 | Silva Valley Parkway @ Harvard Way                              | E             | Signal  | AM        | 79.7                     | E        | <b>80.4</b>                      | <b>F</b> |
|    |   |               |         | PM        | 25.6                     | C        | 26.1                             | C        |
| 25 | Silva Valley Parkway @ Appian Way                               | E             | AWSC    | AM        | 35.1                     | E        | 44.7                             | E        |
|    |   |               |         | PM        | 17.2                     | B        | 16.5                             | C        |
| 26 | Green Valley Road @ Site Access Driveway (RIRO)                 | D             | SSSC    | AM        | Not analyzed in Scenario |          | 0.1 (11.0 NB)                    | B        |
|    |   |               |         | PM        | Not analyzed in Scenario |          | 0.1 (15.9 NB)                    | C        |
| 27 | Green Valley Road @ Site Access Driveway (Full Access)          | D             | Signal  | AM        | Not analyzed in Scenario |          | 5.6                              | A        |
|    |   |               |         | PM        | Not analyzed in Scenario |          | 6.2                              | A        |

Notes: **Bold** represents unacceptable operations. Shaded represents a project induced deficiency.  
Side Street Stop Controlled (SSSC) reported as intersection delay followed by worst approach's delay.

**Table 21** – Cumulative (2041) plus Proposed Project Roadway Segment Levels of Service

| Segment | Location  | LOS Threshold | Peak-Hour | Analysis Direction | Cumulative (2041) |         | Cumulative plus Project (2041) |         |
|---------|---|---------------|-----------|--------------------|-------------------|---------|--------------------------------|---------|
|         |   |               |           |                    | LOS               | Density | LOS                            | Density |
| 1       | Green Valley Rd, Between Francisco Dr and El Dorado Hills Blvd      | E             | AM        | EB                 | C                 | 7.9     | C                              | 8.3     |
|         |   |               |           | WB                 | D                 | 14.6    | E                              | 15.7    |
|         |   |               | PM        | EB                 | D                 | 15      | E                              | 16.1    |
|         |   |               |           | WB                 | D                 | 11.1    | D                              | 11.8    |
| 2       | Green Valley Rd, Between El Dorado Hills Blvd and Silva Valley Pkwy | E             | AM        | EB                 | C                 | 8.8     | C                              | 9.5     |
|         |   |               |           | WB                 | D                 | 13.5    | E                              | 15.1    |
|         |   |               | PM        | EB                 | E                 | 16.5    | E                              | 18.3    |
|         |   |               |           | WB                 | D                 | 10.9    | D                              | 11.9    |
| 3       | Green Valley Rd, Between Silva Valley Pkwy and Malcolm Dixon Rd     | D             | AM        | EB                 | C                 | 4.3     | C                              | 5       |
|         |   |               |           | WB                 | D                 | 8.8     | D                              | 10.8    |
|         |   |               | PM        | EB                 | C                 | 7.9     | D                              | 10.1    |
|         |   |               |           | WB                 | C                 | 4.9     | C                              | 6.1     |
| 4       | Green Valley Rd, Between Malcolm Dixon Rd and Project Driveway      | E             | AM        | EB                 | B                 | 3.5     | C                              | 4.1     |
|         |   |               |           | WB                 | C                 | 7.5     | D                              | 9.3     |
|         |   |               | PM        | EB                 | D                 | 9.1     | D                              | 11.4    |
|         |   |               |           | WB                 | C                 | 5.4     | C                              | 6.8     |
| 5       | Green Valley Rd, Between Project Driveway and Deer Valley Road      | D             | AM        | EB                 | B                 | 3.5     | C                              | 4.0     |
|         |   |               |           | WB                 | C                 | 7.3     | C                              | 7.5     |
|         |   |               | PM        | EB                 | D                 | 10.3    | D                              | 11.2    |
|         |   |               |           | WB                 | C                 | 5.2     | C                              | 5.6     |

Note: Density is reported as vehicles per mile per lane (veh/mi/lane).

Table 22 – Cumulative (2041) plus Proposed Project Freeway Segment Levels of Service

| US-50     |  |   |         |           | Cumulative (2041)    |      | Cumulative (2041) plus Project |     |
|-----------|--|---|---------|-----------|----------------------|------|--------------------------------|-----|
| Direction | ID   | Segment   | Type    | Peak Hour | Density <sup>a</sup> | LOS  | Density <sup>a</sup>           | LOS |
| Eastbound | A  | West of Latrobe Rd Southbound Off- Ramp                                       | Basic   | AM        | 25.0                 | C    | 25.2                           | C   |
|           |  |   |         | PM        | 24.1                 | C    | 24.4                           | C   |
|           | C  | El Dorado Hills Blvd Northbound Off-Ramp to Latrobe Rd On-Ramp                | Basic   | AM        | 17.4                 | B    | 17.5                           | B   |
|           |  |   |         | PM        | 16.7                 | B    | 16.9                           | B   |
|           | E  | East of Latrobe Rd On-Ramp  | Basic   | AM        | 19.8                 | C    | 20.0                           | C   |
|           |  |   |         | PM        | 20.5                 | C    | 20.7                           | C   |
|           | G  | Silva Valley Pkwy Southbound Off-Ramp to Silva Valley Pkwy Northbound On-Ramp | Basic   | AM        | 16.7                 | B    | 16.8                           | B   |
|           |  |   |         | PM        | 18.2                 | C    | 18.2                           | C   |
|           | I  | East of Silva Valley Pkwy Northbound On-Ramp                                  | Basic   | AM        | 21.2                 | C    | 21.3                           | C   |
|           |  |   |         | PM        | 25.5                 | C    | 25.6                           | C   |
|           | K  | Latrobe Rd Southbound Off-Ramp  | Diverge | AM        | 26.7                 | C    | 26.8                           | C   |
|           |  |   |         | PM        | 26.0                 | C    | 26.1                           | C   |
|           | L  | El Dorado Hills Blvd Northbound Off-Ramp                                      | Diverge | AM        | 27.8                 | C    | 27.9                           | C   |
|           |  |   |         | PM        | 27.5                 | C    | 27.7                           | C   |
| M         | East of El Dorado Hills Blvd/Latrobe Road              | Weave <sup>c</sup>  | AM      | -         | B                    | -    | B                              |     |
|           |  |   | PM      | -         | B                    | -    | C                              |     |
| N         | Silva Valley Pkwy Southbound Off-Ramp                  | Diverge   | AM      | 28.1      | D                    | 28.2 | D                              |     |
|           |  |   | PM      | 28.3      | D                    | 28.5 | D                              |     |
| O         | Silva Valley Pkwy Northbound On-Ramp                   | Merge   | AM      | 24.9      | C                    | 23.3 | C                              |     |
|           |  |   | PM      | 29.3      | D                    | 24.1 | C                              |     |
| P         | Silva Valley Pkwy Southbound On-Ramp                   | Merge   | AM      | 23.2      | C                    | 25.0 | C                              |     |
|           |  |   | PM      | 24.0      | C                    | 29.4 | D                              |     |
| Westbound | B  | West of El Dorado Hills Blvd/Latrobe Rd                                       | Basic   | AM        | 26.8                 | D    | 27.3                           | D   |
|           |  |   |         | PM        | 32.8                 | D    | 33.5                           | D   |
|           | D  | El Dorado Hills Blvd Off-Ramp to El Dorado Hills Blvd On-Ramp                 | Basic   | AM        | 11.5                 | B    | 11.7                           | B   |
|           |  |   |         | PM        | 12.5                 | B    | 12.7                           | B   |
|           | F  | East of El Dorado Hills Blvd/Latrobe Rd                                       | Basic   | AM        | 23.1                 | C    | 23.5                           | C   |
|           |  |   |         | PM        | 22.3                 | C    | 22.7                           | C   |
|           | H  | Silva Valley Pkwy Northbound Off-Ramp to Silva Valley Pkwy Southbound On-Ramp | Basic   | AM        | 11.8                 | B    | 11.9                           | B   |
|           |  |   |         | PM        | 12.6                 | B    | 12.7                           | B   |
|           | J  | East of Silva Valley Pkwy   | Basic   | AM        | 25.2                 | C    | 25.5                           | C   |
|           |  |   |         | PM        | 26.3                 | D    | 26.7                           | D   |
|           | Q  | Silva Valley Pkwy Northbound Off-Ramp   | Diverge | AM        | 24.5                 | C    | 24.6                           | C   |
|           |  |   |         | PM        | 24.9                 | C    | 25.0                           | C   |
|           | R  | Silva Valley Pkwy Northbound On-Ramp  | Merge   | AM        | 18.0                 | B    | 18.1                           | B   |
|           |  |   |         | PM        | 18.2                 | B    | 18.4                           | B   |
| S         | Silva Valley Pkwy to El Dorado Hills Blvd/Latrobe Road | Weave <sup>c</sup>  | AM      | -         | B                    | -    | C                              |     |
|           |  |   | PM      | 23.7      | C                    | 22.7 | C                              |     |
| T         | El Dorado Hills Blvd/Latrobe Rd Off-Ramp               | Diverge   | AM      | 20.3      | C                    | 23.0 | C                              |     |
|           |  |   | PM      | 23.2      | C                    | 22.0 | C                              |     |
| U         | El Dorado Hills Blvd On-Ramp                           | Merge   | AM      | 20.3      | C                    | 20.5 | C                              |     |
|           |  |   | PM      | 23.2      | C                    | 23.4 | C                              |     |

Notes:

a- Density measured in passenger cars/lane/mile (pc/ln/mi)

b- **Bold** represents unacceptable operations. Shaded represents significant impact.

c- Weave segment LOS calculated using Leisch Method

## DEFICIENCIES AND IMPROVEMENTS

### Standards of Deficiency

El Dorado County's *Transportation and Circulation Element*<sup>7</sup> was referenced to identify deficiencies at the study area intersections and roadway segments. The following criteria were used:

*"Level of Service (LOS) for County-maintained roads and state highways within the unincorporated areas of the county shall not be worse than LOS E in the Community Regions or LOS D in the Rural Centers and Rural Regions..." (El Dorado County General Plan Policy TC-Xd<sup>7</sup>)* A portion of the study facilities are located within the El Dorado Hills and Cameron Park Community Regions, which maintain an acceptable LOS of E. Additional facilities are located within Rural Regions which have an LOS D threshold.

*If a project causes the peak hour LOS or volume/capacity ratio on a county road or state highway that would otherwise meet the County standards (without the project) to exceed the values listed in the above text (El Dorado County General Plan Policy TC-Xd<sup>7</sup>), then the impact [deficiency] shall be considered significant.*

*If any county road or state highway fails to meet the above listed county standards (El Dorado County General Plan Policy TC-Xd) for peak hour LOS or volume/capacity ratios without the proposed project, and the project will worsen conditions on the road or highway, then the impact [deficiency] shall be considered significant. The term, worsen is defined for the purpose of this paragraph according to General Plan Policy TC-Xe<sup>7</sup> as follows:*

- A. A 2 percent increase in traffic during the a.m. peak hour, p.m. peak hour, or daily, or*
- B. The addition of 100 or more daily trips, or*
- C. The addition of 10 or more trips during the a.m. peak hour or the p.m. peak hour"*

Additionally, the County's standards<sup>7</sup> specify the following regarding improvement:

*"When a project identifies an impact [deficiency] on the County's roadway network for a scenario with or without the project, a separate analysis must be done to identify what improvements are needed for mitigation [improvement] and when the improvements must be in place. The timing of the proposed mitigation [improvement] must be in compliance with General Plan Policy TC-Xf:*

*For all other discretionary projects that worsen (defined as a project that triggers Policy TC-Xe [A] or [B] or [C]) traffic on the County road system, the County shall do one of the following:*

- (1) condition the project to construct all road improvements necessary to maintain or attain Level of Service standards as detailed in this Transportation and Circulation Element; or*
- (2) ensure the construction of the necessary road improvements are included in the County's 20-year CIP."*

The Caltrans District 3 standard of significance was applied the US-50 interchanges with El Dorado Hills Boulevard/Latrobe Road and Silva Valley Parkway. Caltrans has established a LOS E threshold for freeway segment facilities in this area.

### Summary of Deficiencies and Improvements

#### Existing (2021) plus Proposed Project Conditions

As reflected in **Table 8**, **Table 9**, and **Table 10**, the addition of the proposed project does not result in deficient conditions. As a result, no improvements are required.

---

<sup>7</sup> El Dorado County General Plan, *Transportation and Circulation Element*, July 2004.

Near Term (2031) plus Proposed Project Conditions

As reflected in **Table 14**, the addition of the proposed project results in two (2) intersection deficiencies as defined by the County. The following is a discussion of each deficiency and its associated improvement.

Deficiencies:

*D1. Intersection #17, El Dorado Hills Boulevard @ Saratoga Way (North)/Park Drive*

As shown in **Table 14**, this intersection operates at LOS F during the PM peak-hour without the project, and the project contributes more than 10 peak-hour trips to the intersection during the PM peak-hour (**Figure 6**).

*D2. Intersection #18, El Dorado Hills Boulevard @ US-50 WB Ramps/Saratoga Way (South)*

As shown in **Table 14**, this intersection operates at LOS F during the AM peak-hour without the project, and the project contributes more than 10 peak-hour trips to the intersection during the AM peak-hour (**Figure 6**).

Improvements:

*I1. Intersection #17, El Dorado Hills Boulevard @ Saratoga Way (North)/Park Drive*

The deficiency at this intersection during the PM peak-hour can be improved by optimizing the coordinated signals on El Dorado Hills Boulevard/Latrobe Road from White Rock Road to Saratoga Way (North). As shown in **Table 23**, this improvement measure results in the intersection operating at LOS E during both the AM and PM peak-hours.

*I2. Intersection #18, El Dorado Hills Boulevard @ US-50 WB Ramps/Saratoga Way (South)*

The deficiency at this intersection during the PM peak-hour can be improved by optimizing the coordinated signals on El Dorado Hills Boulevard/Latrobe Road from White Rock Road to Saratoga Way (North) (same as Improvement I1). As shown in **Table 23**, this improvement measure results in the intersection operating at LOS C and D during both the AM and PM peak-hours, respectively.

**Table 23 – Intersection Levels of Service –  
Near Term (2031) plus Proposed Project Improved Conditions**

| ID | Intersection  | Control | Peak Hour | Near-Term (2031) |          | Near-Term (2031) plus Proposed Project |          | Near-Term (2031) plus Proposed Project (Improved) |     |
|----|---|---------|-----------|------------------|----------|--|----------|---|-----|
|    |   |         |           | Delay (sec)      | LOS      | Delay (sec)                            | LOS      | Delay (sec)                                       | LOS |
| 17 | El Dorado Hills Boulevard @ Saratoga Way (North)/Park Drive     | Signal  | AM        | 71.4             | E        | 69.7                                   | E        | 57.7  | E   |
|    |   |         | PM        | <b>138.0</b>     | <b>F</b> | <b>137.0</b>                           | <b>F</b> | 78.7  | E   |
| 18 | El Dorado Hills Boulevard @ US-50 WB Ramps/Saratoga Way (South) | Signal  | AM        | <b>100.9</b>     | <b>F</b> | <b>95.2</b>                            | <b>F</b> | 27.4  | C   |
|    |   |         | PM        | 33.8             | C        | 34.0                                   | C        | 44.7  | D   |

Notes: **Bold** represents unacceptable operations. Shaded represents a project induced deficiency.

Analysis worksheets for this scenario are provided in **Appendix E**.

Cumulative (2041) plus Proposed Project Conditions

As reflected in **Table 20**, the addition of the proposed project results in four (4) intersection deficiencies as defined by the County. The following is a discussion of the deficiency and its associated improvement.

Deficiencies:

*D3. Intersection #3, Green Valley Road @ El Dorado Hills Boulevard/Salmon Falls Road*

As shown in **Table 20**, this intersection operates at LOS F during the PM peak-hour without the project, and the project contributes more than 10 peak-hour trips to the intersection during both the PM peak-hour (**Figure 6**).

*D4. Intersection #17, El Dorado Hills Boulevard @ Saratoga Way (North)/Park Drive*

As shown in **Table 20**, this intersection operates at LOS F during both the AM and PM peak-hour without the project, and the project contributes more than 10 peak-hour trips to the intersection during both the AM and PM peak-hour (**Figure 6**).



- D5. *Intersection #18, El Dorado Hills Boulevard @ US-50 WB Ramps/Saratoga Way (South)*  
As shown in **Table 20**, this intersection operates at LOS F during the both the AM and PM peak-hour without the project, and the project contributes more than 10 peak-hour trips to the intersection during both the AM and PM peak-hour (**Figure 6**).
- D6. *Intersection #24, Silva Valley Parkway @ Harvard Way*  
As shown in **Table 20**, this intersection operates at LOS E during the AM peak-hour without the project, and at LOS F during the PM peak-hour with the project.

Improvements:

13. *Intersection #3, Green Valley Road @ El Dorado Hills Boulevard/Salmon Falls Road*  
The deficiency at this intersection during the PM peak-hour can be improved by widening Green Valley Road at both the eastbound and westbound approaches from one to two lanes as described in the El Dorado County Capital Improvement Program (CIP)<sup>8</sup> and optimizing the signal. As shown in **Table 24**, this improvement measure results in the intersection operating at LOS D during both the AM and PM peak-hours.
14. *Intersection #17, El Dorado Hills Boulevard @ Saratoga Way (North)/Park Drive*  
The deficiency at this intersection during both the AM and PM peak-hours can be improved by repurposing the existing southbound #1 receiving lane into an additional northbound left-turn lane, restriping Saratoga Way westbound from one to two lanes to receive the dual northbound left-turns as described in the CIP<sup>9</sup>, and optimizing the coordinated signals on El Dorado Hills Boulevard/Latrobe Road from White Rock Road to Saratoga Way (North). As shown in **Table 24**, this improvement measure results in the intersection operating at LOS E during both the AM and PM peak-hours.
15. *Intersection #18, El Dorado Hills Boulevard @ US-50 WB Ramps/Saratoga Way (South)*  
The deficiency at this intersection during both the AM and PM peak-hours can be improved at Intersection #17 by repurposing the existing southbound #1 receiving lane into an additional northbound left-turn lane, restriping Saratoga Way westbound from one to two lanes to receive the dual northbound left-turns as described in the El Dorado County CIP<sup>6</sup>, and optimizing the coordinated signals on El Dorado Hills Boulevard/Latrobe Road from White Rock Road to Saratoga Way (North) (same improvement as 14). This improvement does not require any geometric changes at Intersection #18 approaches. As shown in **Table 24**, this improvement measure results in the intersection operating at LOS E during both the AM and PM peak-hours.
16. *Intersection #24, Silva Valley Parkway @ Harvard Way*  
The deficiency at this intersection during the AM peak-hour can be improved by modifying traffic signal phasing and hardware to provide a southbound right-turn overlap. As shown in **Table 24**, this improvement measure results in the intersection operating at LOS E during the AM peak-hour.

<sup>8</sup> *Adopted 2021 Capital Improvement Program (Proj # 36105018)*, El Dorado County–Department of Transportation, June 8, 2021

<sup>9</sup> *Adopted 2021 Capital Improvement Program (Proj # 36105035)*, El Dorado County–Department of Transportation, June 8, 2021

**Table 24** – Intersection Levels of Service –  
Cumulative (2041) plus Proposed Project Improved Conditions

| ID | Intersection  | Control | Peak Hour | Cumulative (2041) plus Proposed Project |          | Cumulative (2041) plus Proposed Project |          | Cumulative (2041) plus Proposed Project (Improved) |     |
|----|---|---------|-----------|---|----------|---|----------|--|-----|
|    |   |         |           | Delay (sec)                             | LOS      | Delay (sec)                             | LOS      | Delay (sec)  | LOS |
| 3  | Green Valley Road @ El Dorado Hills Boulevard/Salmon Falls Road | Signal  | AM        | 66.8                                    | E        | 77.2                                    | E        | 38.1   | D   |
|    |   |         | PM        | <b>89.0</b>                             | <b>F</b> | <b>111.4</b>                            | <b>F</b> | 51.7   | D   |
| 17 | El Dorado Hills Boulevard @ Saratoga Way (North)/Park Drive     | Signal  | AM        | <b>80.7</b>                             | <b>F</b> | <b>81.4</b>                             | <b>F</b> | 61.9   | E   |
|    |   |         | PM        | <b>198.3</b>                            | <b>F</b> | <b>194.7</b>                            | <b>F</b> | 76.4   | E   |
| 18 | El Dorado Hills Boulevard @ US-50 WB Ramps/Saratoga Way (South) | Signal  | AM        | <b>125.3</b>                            | <b>F</b> | <b>121.3</b>                            | <b>F</b> | 26.6   | C   |
|    |   |         | PM        | <b>81.4</b>                             | <b>F</b> | 75.1                                    | E        | 27.2   | C   |
| 24 | Silva Valley Parkway @ Harvard Way                              | Signal  | AM        | 79.7                                    | E        | <b>80.4</b>                             | <b>F</b> | 68.4   | E   |
|    |   |         | PM        | 25.6                                    | C        | 26.1                                    | C        | 25.8   | C   |

Notes: **Bold** represents unacceptable operations. Shaded represents a project induced deficiency.

## OTHER CONSIDERATIONS

### Peak-Hour Traffic Signal Warrant Evaluation

A planning level assessment of the need for traffic signalization was performed for the un-signalized study intersections. This evaluation was performed consistently with the peak-hour warrant methodologies noted in Section 4C of the *California Manual on Uniform Traffic Control Devices (CAMUTCD)*, dated March 30, 2021. A summary of the peak-hour warrant results is presented in **Table 25**.

**Table 25 – Traffic Signal Warrant Analysis Results**

| #  | Intersection                                  | Analysis Scenario |                              |                  |                               |                   |                                |
|----|---|-------------------|------------------------------|------------------|-------------------------------|-------------------|--------------------------------|
|    |   | Existing (2021)   | Existing (2021) plus Project | Near Term (2031) | Near Term (2031) plus Project | Cumulative (2041) | Cumulative (2041) plus Project |
| 5  | Green Valley Drive @ Loch Road                | No/No             | No/No                        | No/No            | No/No                         | No/No             | No/No                          |
| 6  | Green Valley Drive @ Wilson Estates Connector | No/No             | No/No                        | No/No            | No/No                         | No/No             | No/No                          |
| 7  | Green Valley Drive @ Malcolm Dixon Road       | No/No             | No/No                        | No/No            | No/No                         | No/No             | No/No                          |
| 8  | Green Valley Drive @ Deer Valley Road         | No/No             | No/No                        | No/No            | No/No                         | Yes/No            | Yes/No                         |
| 13 | El Dorado Hills Boulevard @ Francisco Drive   | Yes/Yes           | Yes/Yes                      | Yes/Yes          | Yes/Yes                       | Yes/Yes           | Yes/Yes                        |
| 22 | Silva Valley Parkway @ Tong Road              | No/No             | No/No                        | No/No            | No/No                         | Yes/Yes           | Yes/Yes                        |
| 25 | Silva Valley Parkway @ Appian Way             | No/No             | No/No                        | No/No            | No/No                         | No/No             | No/No                          |

Results are presented in **AM / PM format**, locations where a signal is warranted during a peak hour are shaded  
Note: Peak-hour warrant is satisfied if Condition A or B is satisfied

As shown in **Table 25**, the peak-hour signal warrant is satisfied under various analysis scenarios at Green Valley Drive/Deer Valley Road (Intersection #8), El Dorado Hills Boulevard/Francisco Drive (Intersection #13), and Silva Valley Parkway/Tong Road (Intersection #22). In all analysis scenarios where a signal is warranted for the plus project condition, a signal is also warranted in the no project condition. While a signal is warranted at El Dorado Hills Boulevard/Francisco Drive (Intersection #13), it is shown to operate acceptably under all analysis scenarios. Detailed results of this analysis are presented in **Appendix H**.

### Intersection Queuing Evaluation

A queuing study was conducted to evaluate the capacity of the existing turn lanes at the study intersections. Both Synchro and SimTraffic reports were used to conduct the queuing analysis. The 95<sup>th</sup> percentile vehicle queues were compared against the existing vehicle storage lengths at select intersection movements to determine if the queues are anticipated to exceed their available storage. Results of the queuing evaluation are presented in **Table 26**. Analysis sheets that include the anticipated vehicle queues are presented in **Appendices B-G**.

As presented in **Table 26** the addition of the proposed project adds modest amounts of additional queuing. Shaded cells in the table represent conditions where the reported queue exceeds available vehicle storage capacity by more than one car length (25 ft). The addition of the proposed project results in the following:

- The westbound left-turn queue at Green Valley Road/El Dorado Hills Boulevard/Salmon Falls Road (Intersection #3) currently and will exceed the available storage capacity during the AM peak-hour under all analysis scenarios for both No Project and Plus Project conditions. The westbound left movement also exceeds storage capacity during the PM peak-hour under the Cumulative No Project scenario and all analysis scenarios for Plus Project conditions. The project adds approximately one car length to the queue under all analysis scenarios. It is anticipated that available storage length will be increased with the widening of Green Valley Road at this intersection as part of the County's long-range CIP.
- The northbound left-turn queue at Green Valley Road/Cambridge Road (Intersection #11) currently and will exceed the available storage capacity during the AM peak-hour under all analysis scenarios for both No Project and Plus Project conditions. The project adds a minimal amount to the queue under all AM peak-hour analysis scenarios.
- The eastbound left-turn queue at Silva Valley Parkway/Harvard Way (Intersection #24) will exceed the available storage capacity during the AM peak-hour under both Existing and Cumulative Plus Project conditions. The eastbound left movement also exceeds storage capacity during the PM peak-hour under Cumulative Plus Project conditions. The project adds a minimal amount to the queue under all AM peak-hour analysis scenarios and a moderate amount under all PM peak-hour analysis scenarios.

Table 26 – Intersection Queuing Evaluation Results

| Intersection / Analysis Scenario                         | Movement   | AM Peak-Hour           |                               | PM Peak-Hour           |                               |
|--|------------|------------------------|-------------------------------|------------------------|-------------------------------|
|  |            | Available Storage (ft) | 95 <sup>th</sup> % Queue (ft) | Available Storage (ft) | 95 <sup>th</sup> % Queue (ft) |
| <b>#1, Green Valley Road @ Sophia Parkway</b>            | <b>WBL</b> |                        |                               |                        |                               |
| Existing (2021)  |            | 315                    | 109                           | 315                    | 212                           |
| Existing (2021) plus Proposed Project                    |            |                        | 120                           |                        | 122                           |
| Near-Term (2031)   |            |                        | 114                           |                        | 159                           |
| Near-Term (2031) plus Proposed Project                   |            |                        | 125                           |                        | 181                           |
| Cumulative (2041)  |            |                        | 129                           |                        | 231                           |
| Cumulative (2041) plus Proposed Project                  |            |                        | 141                           |                        | 262                           |
| <b>#2, Green Valley Road @ Francisco Road</b>            | <b>WBL</b> |                        |                               |                        |                               |
| Existing (2021)  |            | 200                    | 86                            | 200                    | 200                           |
| Existing (2021) plus Proposed Project                    |            |                        | 86                            |                        | 200                           |
| Near-Term (2031)   |            |                        | 86                            |                        | 205                           |
| Near-Term (2031) plus Proposed Project                   |            |                        | 86                            |                        | 205                           |
| Cumulative (2041)  |            |                        | 86                            |                        | 202                           |
| Cumulative (2041) plus Proposed Project                  |            |                        | 86                            |                        | 202                           |
| <b>#3, Green Valley Road @ El Dorado Hills Boulevard</b> | <b>WBL</b> |                        |                               |                        |                               |
| Existing (2021)  |            | 105                    | 144                           | 105                    | 104                           |
| Existing (2021) plus Proposed Project                    |            |                        | 176                           |                        | 137                           |
| Near-Term (2031)   |            |                        | 146                           |                        | 111                           |
| Near-Term (2031) plus Proposed Project                   |            |                        | 178                           |                        | 138                           |
| Cumulative (2041)  |            |                        | 159                           |                        | 163                           |
| Cumulative (2041) plus Proposed Project                  |            |                        | 180                           |                        | 198                           |
| <b>#4, Green Valley Road @ Silva Valley Parkway</b>      | <b>WBL</b> |                        |                               |                        |                               |
| Existing (2021)  |            | 350                    | 123                           | 350                    | 70                            |
| Existing (2021) plus Proposed Project                    |            |                        | 164                           |                        | 110                           |
| Near-Term (2031)   |            |                        | 146                           |                        | 59                            |
| Near-Term (2031) plus Proposed Project                   |            |                        | 153                           |                        | 95                            |
| Cumulative (2041)  |            |                        | 150                           |                        | 99                            |
| Cumulative (2041) plus Proposed Project                  |            |                        | 202                           |                        | 151                           |
| <b>#9, Green Valley Road @ Silver Springs Parkway</b>    | <b>NBL</b> |                        |                               |                        |                               |
| Existing (2021)  |            | 135                    | 55                            | 135                    | 29                            |
| Existing (2021) plus Proposed Project                    |            |                        | 56                            |                        | 31                            |
| Near-Term (2031)   |            |                        | 74                            |                        | 44                            |
| Near-Term (2031) plus Proposed Project                   |            |                        | 75                            |                        | 46                            |
| Cumulative (2041)  |            |                        | 90                            |                        | 72                            |
| Cumulative (2041) plus Proposed Project                  |            |                        | 91                            |                        | 74                            |

Table 26 – Intersection Queuing Evaluation Results (continued)

| Intersection / Analysis Scenario                                    | Movement   | AM Peak-Hour           |                               | PM Peak-Hour           |                               |
|---|------------|------------------------|-------------------------------|------------------------|-------------------------------|
|   |            | Available Storage (ft) | 95 <sup>th</sup> % Queue (ft) | Available Storage (ft) | 95 <sup>th</sup> % Queue (ft) |
| <b>#10, Green Valley Road @ Bass Lake Road</b>                      | <b>NBL</b> |                        |                               |                        |                               |
| Existing (2021)   |            | 155                    | 88                            | 155                    | 42                            |
| Existing (2021) plus Proposed Project                               |            |                        | 88                            |                        | 47                            |
| Near-Term (2031)  |            |                        | 84                            |                        | 46                            |
| Near-Term (2031) plus Proposed Project                              |            |                        | 84                            |                        | 48                            |
| Cumulative (2041)   |            |                        | 94                            |                        | 54                            |
| Cumulative (2041) plus Proposed Project                             |            |                        | 95                            |                        | 57                            |
| <b>#11, Green Valley Road @ Cambridge Road</b>                      | <b>NBL</b> |                        |                               |                        |                               |
| Existing (2021)   |            | 125                    | 151                           | 125                    | 100                           |
| Existing (2021) plus Proposed Project                               |            |                        | 154                           |                        | 110                           |
| Near-Term (2031)  |            |                        | 163                           |                        | 110                           |
| Near-Term (2031) plus Proposed Project                              |            |                        | 167                           |                        | 121                           |
| Cumulative (2041)   |            |                        | 171                           |                        | 138                           |
| Cumulative (2041) plus Proposed Project                             |            |                        | 174                           |                        | 150                           |
| <b>#13, El Dorado Hills Boulevard @ Francisco Drive</b>             | <b>NBT</b> |                        |                               |                        |                               |
| Existing (2021)   |            | -                      | 71                            | -                      | 72                            |
| Existing (2021) plus Proposed Project                               |            |                        | 71                            |                        | 72                            |
| Near-Term (2031)  |            |                        | 67                            |                        | 73                            |
| Near-Term (2031) plus Proposed Project                              |            |                        | 73                            |                        | 86                            |
| Cumulative (2041)   |            |                        | 75                            |                        | 86                            |
| Cumulative (2041) plus Proposed Project                             |            |                        | 70                            |                        | 95                            |
|   | <b>SBT</b> |                        |                               |                        |                               |
| Existing (2021)   |            | -                      | 99                            | -                      | 66                            |
| Existing (2021) plus Proposed Project                               |            |                        | 106                           |                        | 73                            |
| Near-Term (2031)  |            |                        | 109                           |                        | 73                            |
| Near-Term (2031) plus Proposed Project                              |            |                        | 112                           |                        | 77                            |
| Cumulative (2041)   |            |                        | 117                           |                        | 75                            |
| Cumulative (2041) plus Proposed Project                             |            |                        | 124                           |                        | 79                            |
| <b>#18, El Dorado Hills Boulevard @ Saratoga Way/US-50 WB Ramps</b> | <b>EBL</b> |                        |                               |                        |                               |
| Existing (2021)   |            | -                      | 146                           | -                      | 141                           |
| Existing (2021) plus Proposed Project                               |            |                        | 150                           |                        | 135                           |
| Near-Term (2031)  |            |                        | 1224                          |                        | 141                           |
| Near-Term (2031) plus Proposed Project                              |            |                        | 1176                          |                        | 142                           |
| Cumulative (2041)   |            |                        | 1404                          |                        | 692                           |
| Cumulative (2041) plus Proposed Project                             |            |                        | 1392                          |                        | 621                           |
|   | <b>SBL</b> |                        |                               |                        |                               |
| Existing (2021)   |            | 200                    | 159                           | 200                    | 76                            |
| Existing (2021) plus Proposed Project                               |            |                        | 176                           |                        | 90                            |
| Near-Term (2031)  |            |                        | 177                           |                        | 85                            |
| Near-Term (2031) plus Proposed Project                              |            |                        | 178                           |                        | 79                            |
| Cumulative (2041)   |            |                        | 160                           |                        | 74                            |
| Cumulative (2041) plus Proposed Project                             |            |                        | 186                           |                        | 70                            |

Table 26 – Intersection Queuing Evaluation Results (continued)

| Intersection / Analysis Scenario                  | Movement | AM Peak-Hour           |                               | PM Peak-Hour           |                               |
|---|----------|------------------------|-------------------------------|------------------------|-------------------------------|
|   |          | Available Storage (ft) | 95 <sup>th</sup> % Queue (ft) | Available Storage (ft) | 95 <sup>th</sup> % Queue (ft) |
| <b>#19, Latrobe Road @ US-50 EB Ramps</b>         |          | <b>EBR</b>             |                               |                        |                               |
| Existing (2021)                                   |          | 450                    | 141                           | 450                    | 108                           |
| Existing (2021) plus Proposed Project             |          |                        | 137                           |                        | 95                            |
| Near-Term (2031)                                  |          |                        | 125                           |                        | 100                           |
| Near-Term (2031) plus Proposed Project            |          |                        | 134                           |                        | 100                           |
| Cumulative (2041)                                 |          |                        | 105                           |                        | 102                           |
| Cumulative (2041) plus Proposed Project           |          |                        | 118                           |                        | 94                            |
| <b>SBL</b>  |          |                        |                               |                        |                               |
| Existing (2021)                                   |          | 575                    | 231                           | 575                    | 244                           |
| Existing (2021) plus Proposed Project             |          |                        | 221                           |                        | 245                           |
| Near-Term (2031)                                  |          |                        | 232                           |                        | 200                           |
| Near-Term (2031) plus Proposed Project            |          |                        | 235                           |                        | 189                           |
| Cumulative (2041)                                 |          |                        | 192                           |                        | 183                           |
| Cumulative (2041) plus Proposed Project           |          |                        | 177                           |                        | 184                           |
| <b>#20, Silva Valley Parkway @ US-50 EB Ramps</b> |          |                        | <b>EBL</b>                    |                        |                               |
| Existing (2021)                                   |          | -                      | 89                            | -                      | 43                            |
| Existing (2021) plus Proposed Project             |          |                        | 91                            |                        | 46                            |
| Near-Term (2031)                                  |          |                        | 114                           |                        | 43                            |
| Near-Term (2031) plus Proposed Project            |          |                        | 117                           |                        | 45                            |
| Cumulative (2041)                                 |          |                        | 39                            |                        | 148                           |
| Cumulative (2041) plus Proposed Project           |          |                        | 40                            |                        | 157                           |
| <b>SBR</b>  |          |                        |                               |                        |                               |
| Existing (2021)                                   |          | 150                    | 44                            | 150                    | 1                             |
| Existing (2021) plus Proposed Project             |          |                        | 43                            |                        | 1                             |
| Near-Term (2031)                                  |          |                        | 41                            |                        | 0                             |
| Near-Term (2031) plus Proposed Project            |          |                        | 41                            |                        | 1                             |
| Cumulative (2041)                                 |          |                        | 0                             |                        | 13                            |
| Cumulative (2041) plus Proposed Project           |          |                        | 0                             |                        | 13                            |
| <b>#21, Silva Valley Parkway @ US-50 WB Ramps</b> |          |                        | <b>SBR</b>                    |                        |                               |
| Existing (2021)                                   |          | 500                    | 61                            | 500                    | 29                            |
| Existing (2021) plus Proposed Project             |          |                        | 62                            |                        | 30                            |
| Near-Term (2031)                                  |          |                        | 67                            |                        | 29                            |
| Near-Term (2031) plus Proposed Project            |          |                        | 69                            |                        | 30                            |
| Cumulative (2041)                                 |          |                        | 37                            |                        | 32                            |
| Cumulative (2041) plus Proposed Project           |          |                        | 38                            |                        | 32                            |
| <b>#24, Silva Valley Parkway @ Harvard Way</b>    |          |                        | <b>EBL</b>                    |                        |                               |
| Existing (2021)                                   |          | 60                     | 81                            | 60                     | 75                            |
| Existing (2021) plus Proposed Project             |          |                        | 88                            |                        | 85                            |
| Near-Term (2031)                                  |          |                        | 83                            |                        | 68                            |
| Near-Term (2031) plus Proposed Project            |          |                        | 84                            |                        | 79                            |
| Cumulative (2041)                                 |          |                        | 84                            |                        | 72                            |
| Cumulative (2041) plus Proposed Project           |          |                        | 86                            |                        | 87                            |
| <b>SBR</b>  |          |                        |                               |                        |                               |
| Existing (2021)                                   |          | 175                    | 48                            | 175                    | 0                             |
| Existing (2021) plus Proposed Project             |          |                        | 48                            |                        | 0                             |
| Near-Term (2031)                                  |          |                        | 44                            |                        | 0                             |
| Near-Term (2031) plus Proposed Project            |          | 250                    | 44                            | 250                    | 0                             |
| Cumulative (2041)                                 |          |                        | 43                            |                        | 0                             |
| Cumulative (2041) plus Proposed Project           |          |                        | 43                            |                        | 0                             |

Table 26 – Intersection Queuing Evaluation Results (continued)

| Intersection / Analysis Scenario  | Movement   | AM Peak-Hour           |                               | PM Peak-Hour           |                               |
|---|------------|------------------------|-------------------------------|------------------------|-------------------------------|
|   |            | Available Storage (ft) | 95 <sup>th</sup> % Queue (ft) | Available Storage (ft) | 95 <sup>th</sup> % Queue (ft) |
| <b>#25, Silva Valley Parkway @ Appian Way</b>   | <b>WBT</b> |                        |                               |                        |                               |
| Existing (2021)   |            |                        | 125                           |                        | 25                            |
| Existing (2021) plus Proposed Project   |            |                        | 125                           |                        | 50                            |
| Near-Term (2031)  |            |                        | 125                           |                        | 50                            |
| Near-Term (2031) plus Proposed Project  |            |                        | 125                           |                        | 50                            |
| Cumulative (2041)   |            |                        | 150                           |                        | 50                            |
| Cumulative (2041) plus Proposed Project   |            |                        | 150                           |                        | 50                            |
|   | <b>NBT</b> |                        |                               |                        |                               |
| Existing (2021)   |            |                        | 175                           |                        | 100                           |
| Existing (2021) plus Proposed Project   |            |                        | 200                           |                        | 125                           |
| Near-Term (2031)  |            |                        | 225                           |                        | 100                           |
| Near-Term (2031) plus Proposed Project  |            |                        | 250                           |                        | 125                           |
| Cumulative (2041)   |            |                        | 275                           |                        | 125                           |
| Cumulative (2041) plus Proposed Project   |            |                        | 325                           |                        | 150                           |
|   | <b>SBT</b> |                        |                               |                        |                               |
| Existing (2021)   |            |                        | 175                           |                        | 75                            |
| Existing (2021) plus Proposed Project   |            |                        | 250                           |                        | 75                            |
| Near-Term (2031)  |            |                        | 200                           |                        | 75                            |
| Near-Term (2031) plus Proposed Project  |            |                        | 275                           |                        | 100                           |
| Cumulative (2041)   |            |                        | 225                           |                        | 100                           |
| Cumulative (2041) plus Proposed Project   |            |                        | 300                           |                        | 125                           |
| <b>#27, Green Valley Road @ Driveway 2</b>  | <b>WBL</b> |                        |                               |                        |                               |
| Existing (2021)   |            |                        | -                             |                        | -                             |
| Existing (2021) plus Proposed Project   |            |                        | 6                             |                        | 16                            |
| Near-Term (2031)  |            |                        | -                             |                        | -                             |
| Near-Term (2031) plus Proposed Project  |            | 215                    | 6                             | 215                    | 17                            |
| Cumulative (2041)   |            |                        | -                             |                        | -                             |
| Cumulative (2041) plus Proposed Project   |            |                        | 6                             |                        | 18                            |
| Source: <i>Highway Capacity Manual (HCM) 2016</i> methodology per Synchro <sup>®</sup> v11/Simtraffic.    |            |                        |                               |                        |                               |
| Notes: For approaches with dual left-turn lanes, the longest queue length is reported.                    |            |                        |                               |                        |                               |
| *Minimal 95th Percentile Queue, shaded cell indicates queue exceeds storage by > 25' (one vehicle length) |            |                        |                               |                        |                               |



### On-Site Transportation Review

In accordance with the County’s *Guidelines*<sup>2</sup>, the following aspects of the proposed project were evaluated:

**1. Existence of any current traffic problems in the local area such as a high-crash location, non-standard intersection or roadway, or an intersection in need of a traffic signal**

According to the County’s 2018 *Accident Location Study*<sup>10</sup>, several study area sites (i.e., intersections and roadway segments) experienced three (3) or more accidents during a three-year period between January 1, 2016, and December 31, 2018. According to the Study, these sites were selected for investigation and determination of corrective action(s). **Table 27** provides a summary of the study area sites and their selected actions.

**Table 27 – Project Area Sites Selected for Investigation**

| Site # | Location Description                        | Accident Rate <sup>+</sup> | Identified Action |
|--------|---|----------------------------|-------------------|
| 17     | El Dorado Hills Bl, Near Saratoga Way       | 0.59                       | None Required     |
| 18     | El Dorado Hills Bl, Near Serrano Pkwy       | 0.36                       | None Required     |
| 19     | El Dorado Hills Bl, Near Francisco Dr       | 0.60                       | None Required     |
| 28     | Green Valley Rd, Near Miller Rd             | 0.18                       | None Required     |
| 29     | Green Valley Rd, Near Francisco Rd          | 0.53                       | None Required     |
| 30     | Green Valley Rd, Near El Dorado Hills Bl    | 0.82                       | None Required     |
| 31     | Green Valley Rd, East of Loch Way           | 0.26                       | None Required     |
| 32     | Green Valley Rd, Near Malcolm Dixon Rd      | 0.22                       | None Required     |
| 33     | Green Valley Rd, Near Cambridge Rd          | 0.35                       | None Required     |
| 34     | Green Valley Rd, West of Cameron Park Dr    | 0.35                       | None Required     |
| 83     | Silva Valley Pkwy, South of Serrano Pky     | 0.45                       | None Required     |
| 84     | Silva Valley Pkwy, Near Netherdale Wy       | 0.54                       | None Required     |
| 85     | Silva Valley Pkwy, Near Charter Way         | 0.54                       | None Required     |
| 86     | Silva Valley Pkwy, Near Timberline Ridge Rd | 0.37                       | None Required     |

Source: *Annual Accident Location Study 2018*, County of El Dorado Department of Transportation, April 10, 2019  
<sup>+</sup> # Accidents per Million Vehicles (MV) for single sites (intersections/curves), # Accidents per Million Vehicle Miles (MVM) for roadway sections.

According to the 2018 *Study*, seven sites “do not require further review at this time. However, these sites will continue to be monitored and any subsequent increase in the frequency of accidents may necessitate further review and analysis.” One site has a pending improvement and it is anticipated that, “upon completion, [this] improvement will substantially reduce the number of accidents.”

**2. Proximity of proposed site driveway(s) to other driveways or intersections**

Access to the site is provided at two (2) proposed driveways, both along Green Valley Road between Malcolm Dixon Road and Deer Valley Road. Both access points will be sufficient to serve delivery trucks, fire trucks, and other oversized vehicles. Detailed descriptions of the site access points are listed below:

- o One right in-right out driveway along Green Valley Road at Study Intersection #26. The driveway will be located approximately 800 feet east of Malcolm Dixon Road, and approximately 450 feet west of Lexi Way.
- o One full-access driveway Green Valley Road at Study Intersection #27. The driveway will be located approximately 600 feet east of Lexi Way

<sup>10</sup> 2018 *Annual Accident Location Study*, County of El Dorado Department of Transportation, April 10, 2019.

3. ***Adequacy of vehicle parking relative to both the anticipated demand and zoning code requirements***  
All required parking, including for the use of the public park, is anticipated to be accommodated entirely onsite.
4. ***Adequacy of the project site design to convey all vehicle types***  
The site will include access which is anticipated to accommodate the circulation needs of all vehicle types, including fire access. The proposed project will be utilizing proposed access driveways along Green Valley Road. The proposed project is considered to allow for adequate on-site circulation for all vehicle types.
5. ***Adequacy of sight distance on-site***  
An evaluation of sight distance was considered for the two proposed site access driveway intersections along Green Valley Road based on observed horizontal and vertical geometric conditions. These evaluations were performed in accordance with the guidelines presented in the *Geometric Design of Highways and Streets*, published by the American Association of State Highway and Transportation Officials (AASHTO), and the *Highway Design Manual*, published by Caltrans. The minimum required sight distance of 530' under case B2 was observed at both intersections, which will be located on a horizontal tangent section of Green Valley Road. In all cases, roadside vegetation should be maintained to preserve sight distance. In addition, according to the project site plan (**Figure 2**) there appears to be adequate sight distance on-site to facilitate safe and orderly circulation.

### **Other Transportation-Related Deficiencies and Improvement Considerations**

In accordance with the County's *Guidelines*<sup>2</sup>, the proposed project was evaluated against the following *General Plan* goals:

- ***Emergency Vehicle Access***  
*Fire Safe Regulations*<sup>11</sup> state that on-site roadways shall "provide for safe access for emergency wildland fire equipment and civilian evacuation concurrently and shall provide unobstructed traffic circulation during a wildfire emergency...". As shown in project site plan (**Figure 2**), the project site will allow fire access to all parcels. As such, the proposed project is considered to allow for adequate access and on-site circulation for emergency vehicles.
- ***Deliveries of Goods and Services***  
The proposed project is considered to allow for adequate on-site circulation for all vehicle types, including delivery vehicles for goods and services. Delivery vehicles will be able to circulate the site through the use of both two (2) proposed driveways.
- ***Access to Public Transit Services consistent with General Plan Circulation Element Goal TC-2: "To promote a safe and efficient transit system that provides service to all residents, including senior citizens, youths, the disabled, and those without access to automobiles that also helps to reduce congestion, and improves the environment."***  
There is no public transit access immediately proximate to the project site. El Dorado Transit operates *Bus Route 40: Cameron Park/Shingle Springs* along Cameron Park Drive with stops surrounding the Cameron Park Drive/Green Valley Road intersection (Study Intersection #12). Route 40 provides hourly service from 6:30 AM to 7:20 PM (Monday-Friday), providing transfers to the *50 Express* and *Sacramento Commuter* routes at Cambridge Road Park & Ride.

<sup>11</sup> *Fire Safe Regulations*, Title 14 Natural Resources, Division 1.5 Department of Forestry, Chapter 7 – Fire Protection, Subchapter 2 SRA Safe Regulations, Article 2 Emergency Access, El Dorado County Building Department.

- ***Transportation System Management consistent with General Plan Circulation Element Goal TC-3: “To reduce travel demand on the County’s road system and maximize the operating efficiency of transportation facilities, thereby reducing the quantity of motor vehicle emissions and the amount of investment required in new or expanded facilities.”***

The proposed project has sole use of both proposed access driveways. Trips generated by the project will be a mixture of both local and distant trips. As a result, the proposed project has the anticipated net effect of increasing travel demand on the County’s road system.

- ***Non-Motorized Transportation consistent with General Plan Circulation Element Goal TC-4: “To provide a safe, continuous, and easily accessible non-motorized transportation system that facilitates the use of the viable alternative transportation modes.”***

Class II Bike Lanes are presently available in both directions along Green Valley Road in the vicinity of the project site, consistent with Chapter 5 of the *El Dorado County Bicycle Transportation Plan*<sup>12</sup>. The proposed project will be accessed through proposed drives along Green Valley Road. The project will access existing bicycle and pedestrian facilities.

- ***Complete street implementation shall be considered wherever possible***

Because roadways near the site are already constructed, there are minimal opportunities for the project to implement complete street components.

- ***US-50 Safety Evaluation***

As required by Caltrans, a safety evaluation was completed to review existing US-50 deficiencies (i.e. geometric features, crash rates), as well as the effect the project may have that would substantially increase exposure or hazards. Using data obtained from TIMS (January 2014 to December 2019), and in a manner consistent with Caltrans’ *LDIGR Safety Review Practitioners Guidance (July 2020)*, the safety evaluation was completed for the following freeway study facilities:

- US-50 mainline, west of El Dorado Hills Boulevard/Latrobe Road
- US-50 mainline, between El Dorado Hills Boulevard/Latrobe Road and Silva Valley Parkway
- US-50 mainline, east of Silva Valley Parkway

As no geometric modifications to Caltrans’ facilities are anticipated to be necessitated by the project, this safety evaluation therefore focused on the incremental increase in volumes on these Caltrans’ facilities attributed to the project. Per the TIMS data obtained, there were 18 mainline incidents west of El Dorado Hills Boulevard/Latrobe Road, 24 mainline incidents between El Dorado Hills Boulevard/Latrobe Road and Silva Valley Parkway, and 11 mainline incidents east of Silva Valley Parkway. Because the project is shown to contribute less than 1-percent to the peak-hour volumes along these segments (at most only 21 trips to a segment with a total peak-hour volume of 4,346), the project’s effect is anticipated to be nominal. The comprehensive queuing analysis previously discussed documents the effect of the Proposed Project on the freeway ramp intersections. Lastly, because the project is shown to contribute nominal traffic to the freeway facilities, its addition is not anticipated to worsen bicycle or pedestrian facilities at or in the vicinity of the freeway ramp intersections.

<sup>12</sup> *Bicycle Transportation Plan*, El Dorado County Department of Transportation, November 2010.

## CONCLUSIONS

Significant findings of this study include:

- The proposed project is estimated to generate 2,842 total new daily trips, with 195 trips occurring during the AM peak-hour, and 274 new trips occurring during the PM peak-hour.
- The proposed project is not consistent with the *2004 General Plan* land use designation and zoning density for the site (Low Density Residential). As a result, new Cumulative (2041) Conditions analysis is required to comprehensively document the potential effect of the addition of the Proposed Project.
- As defined by the County, the addition of the proposed project to the Near Term (2031) and Cumulative (2041) scenarios significantly worsens conditions at multiple study intersections. However, these deficiencies can be improved to acceptable levels. The following is a summary of the required improvement which is *presumed to be the project's sole responsibility*:

*Cumulative (2041) plus Proposed Project*

- Improvement (16) modify traffic signal phasing and hardware to provide a southbound right-turn overlap at Intersection #24 (Silva Valley Parkway @ Harvard Way)

## Appendix A

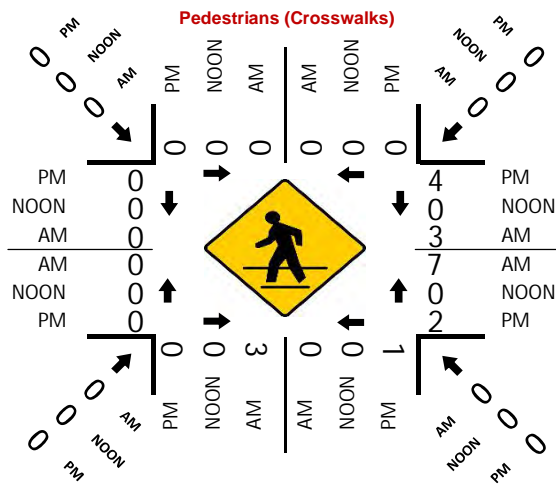
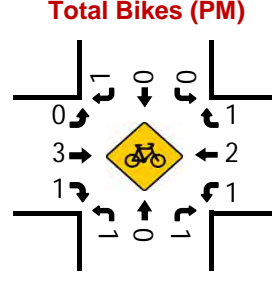
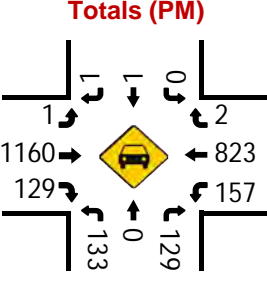
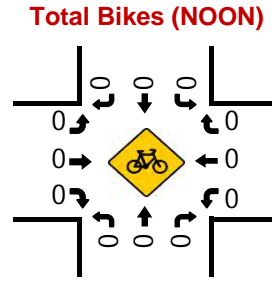
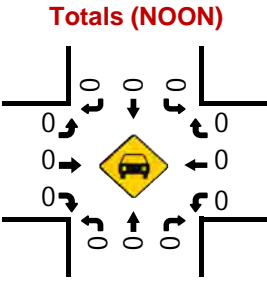
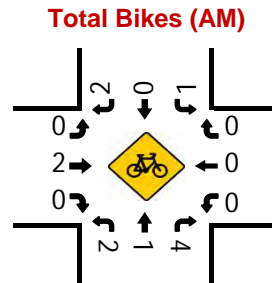
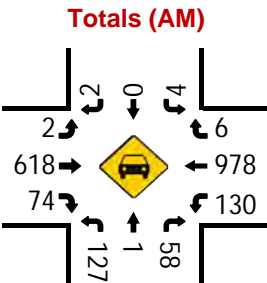
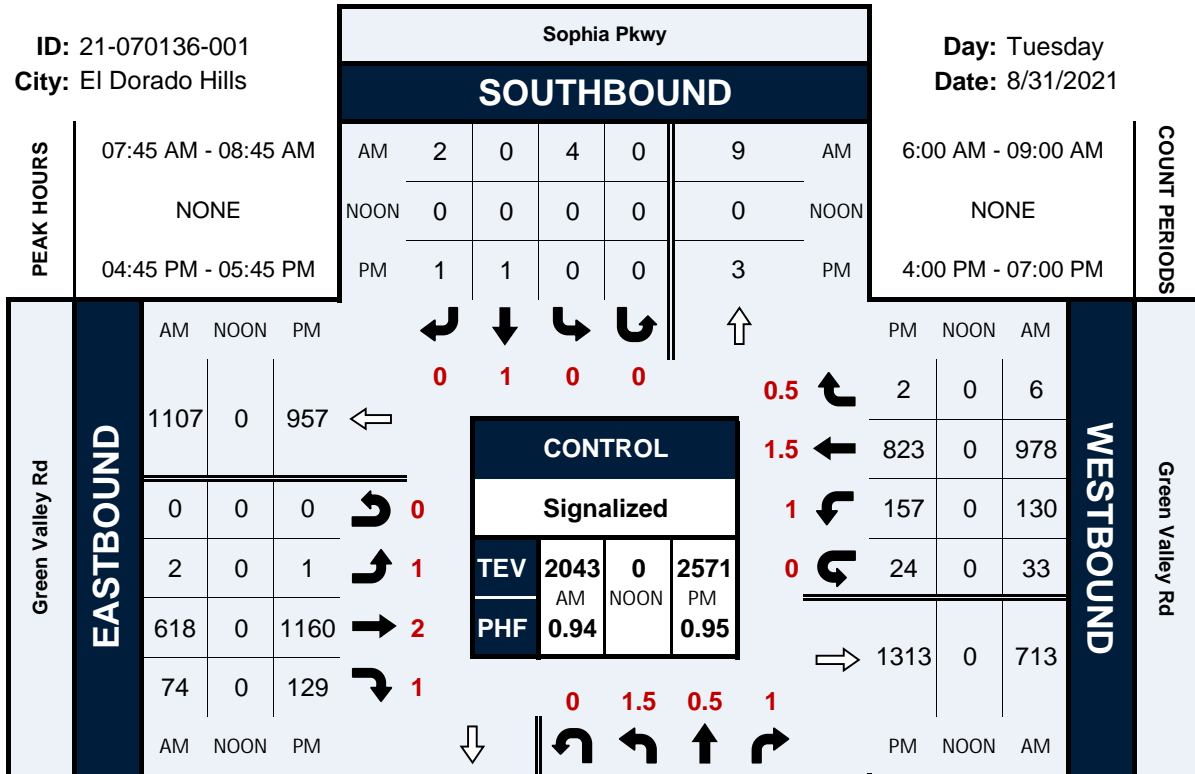
*Traffic Count Data Sheets*

# Sophia Pkwy & Green Valley Rd

## Peak Hour Turning Movement Count

ID: 21-070136-001  
City: El Dorado Hills

Day: Tuesday  
Date: 8/31/2021









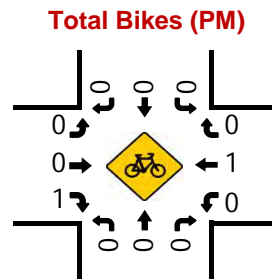
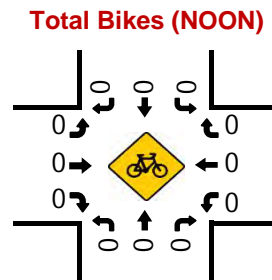
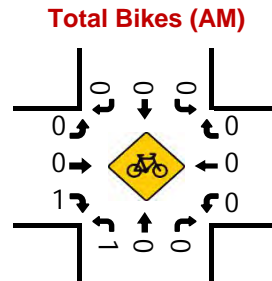
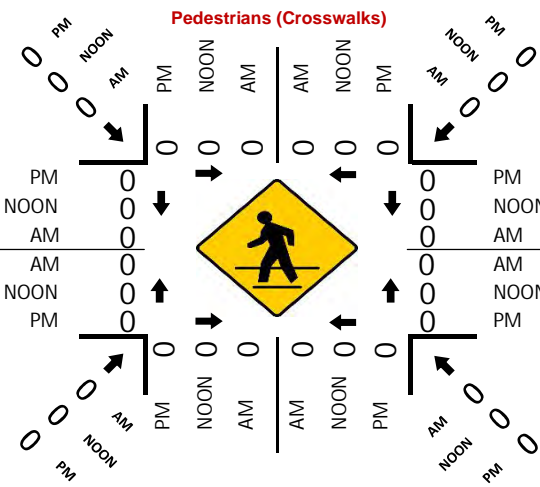
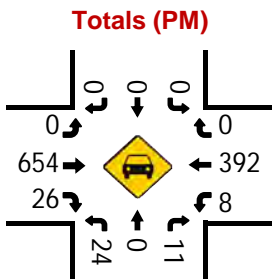
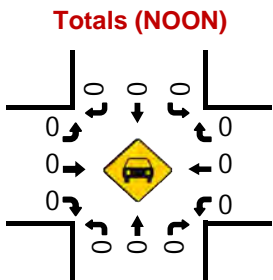
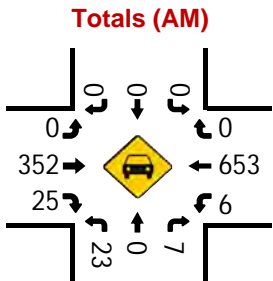
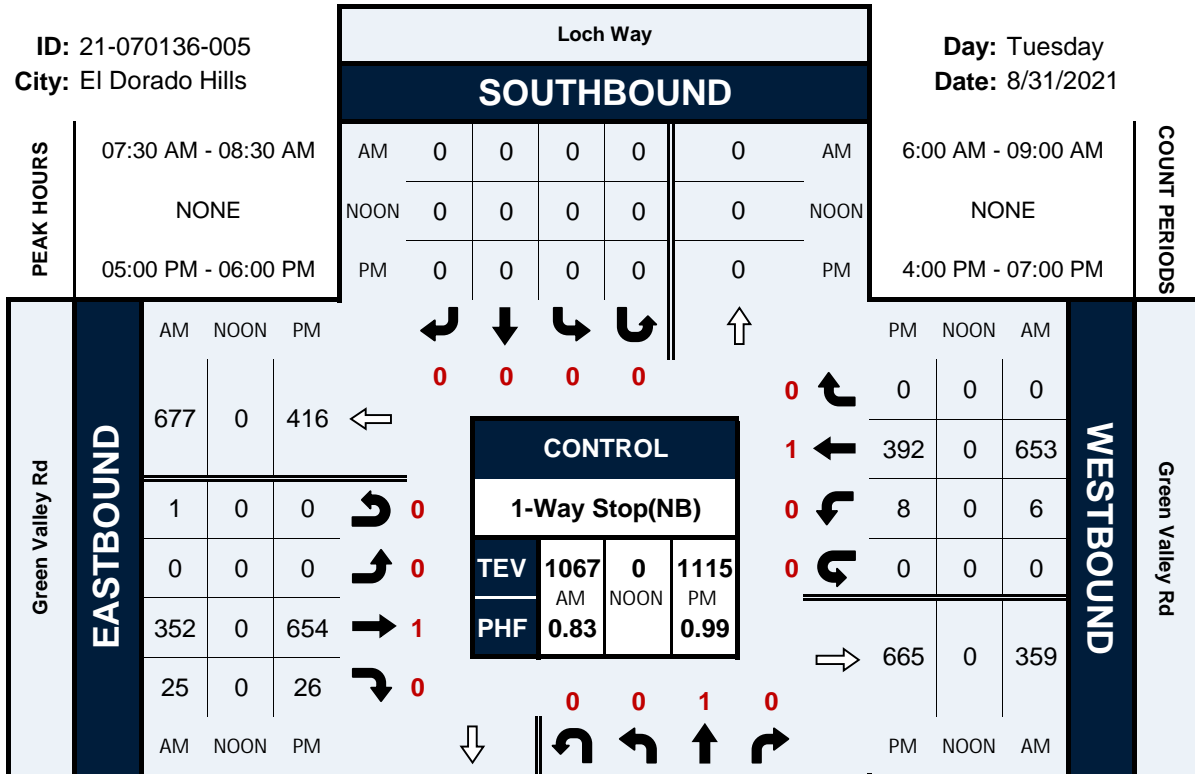


# Loch Way & Green Valley Rd

## Peak Hour Turning Movement Count

ID: 21-070136-005  
City: El Dorado Hills

Day: Tuesday  
Date: 8/31/2021

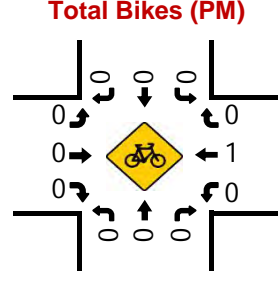
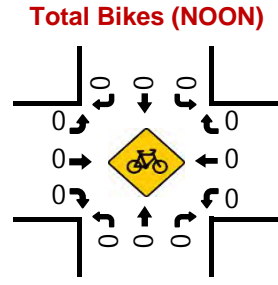
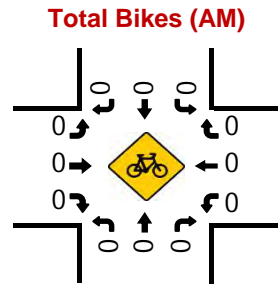
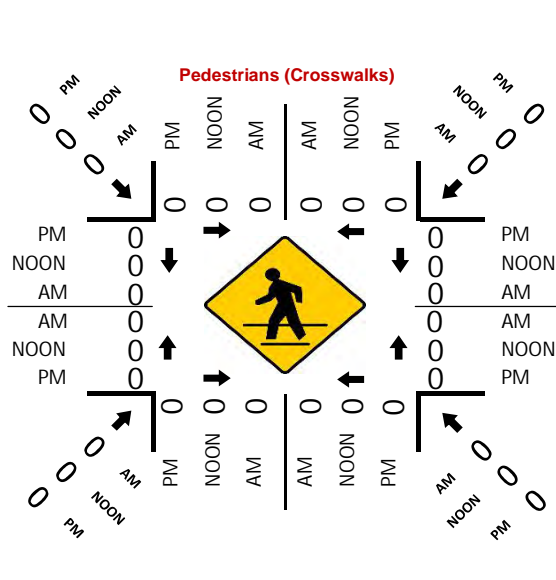
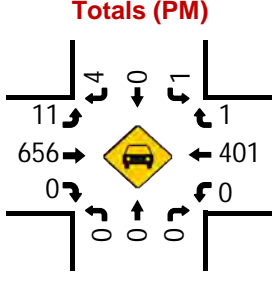
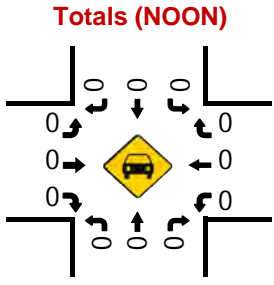
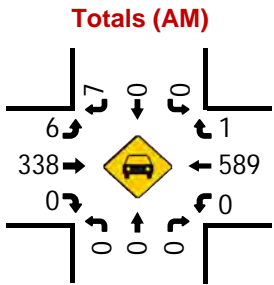
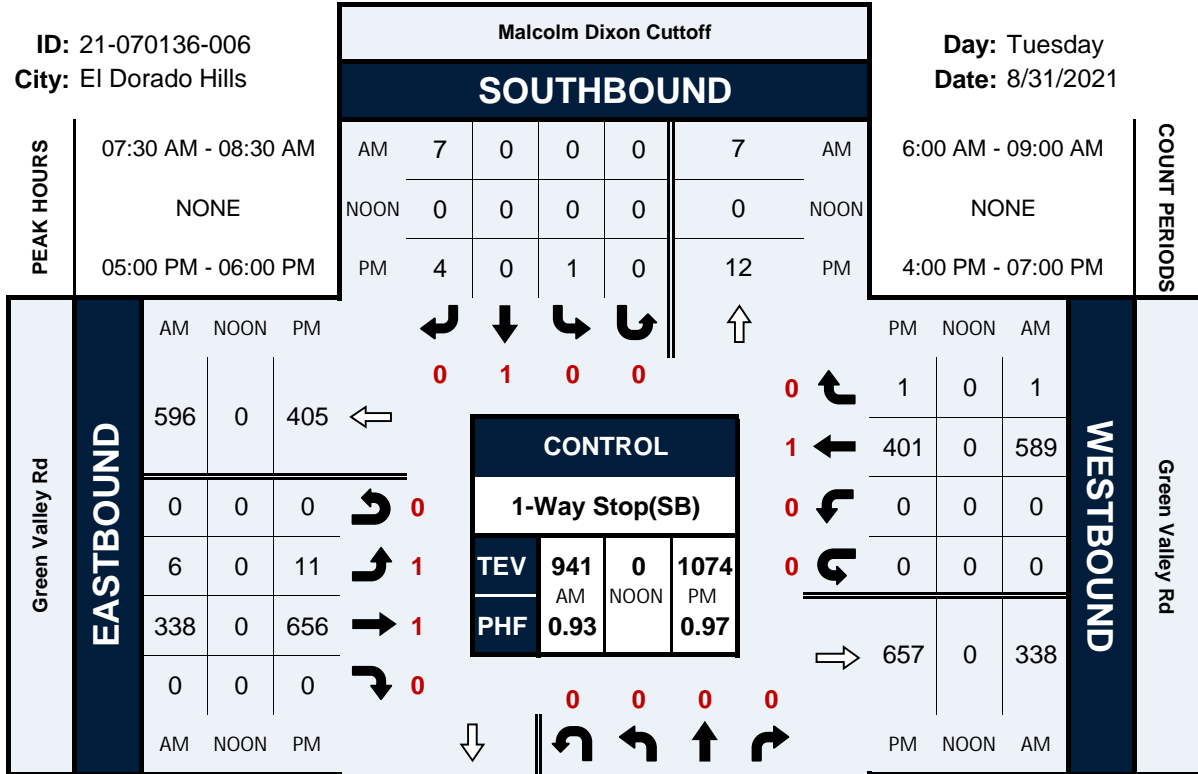


# Malcolm Dixon Cutoff & Green Valley Rd

## Peak Hour Turning Movement Count

ID: 21-070136-006  
City: El Dorado Hills

Day: Tuesday  
Date: 8/31/2021

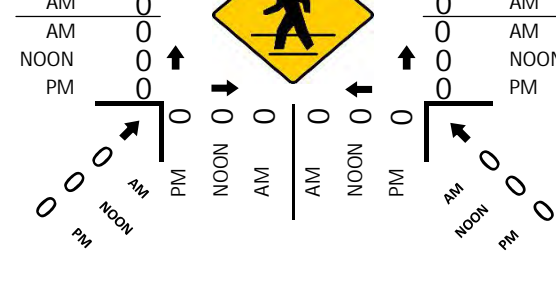
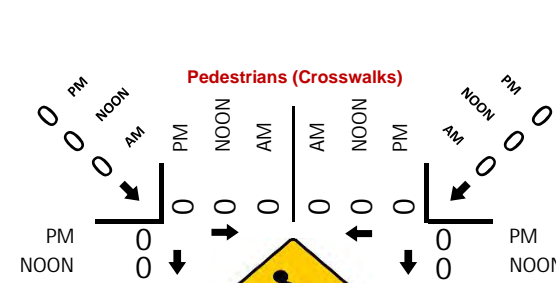
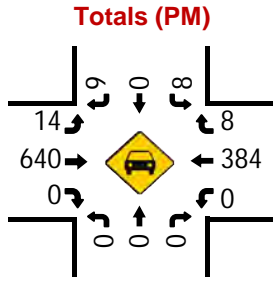
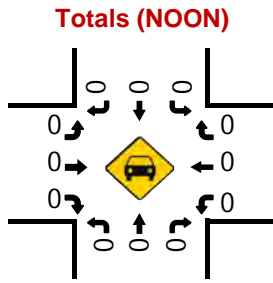
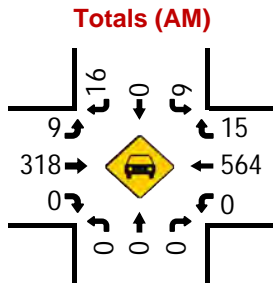
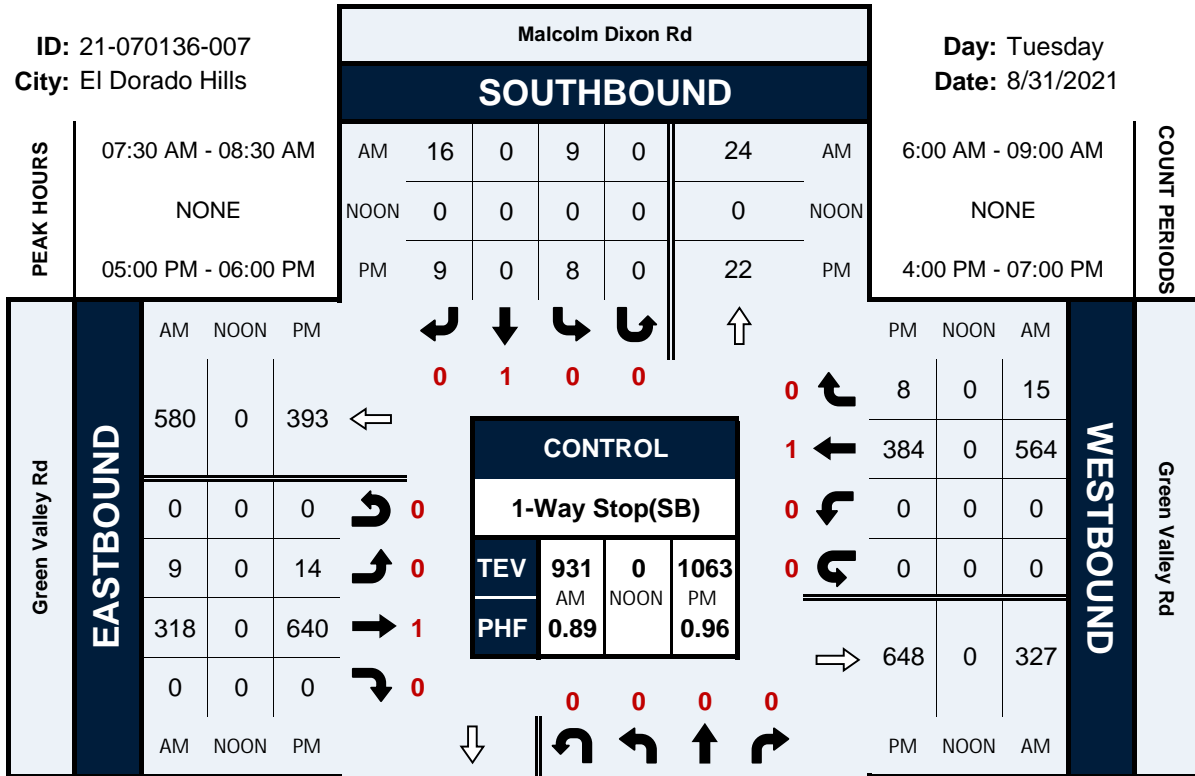


# Malcolm Dixon Rd & Green Valley Rd

## Peak Hour Turning Movement Count

ID: 21-070136-007  
City: El Dorado Hills

Day: Tuesday  
Date: 8/31/2021



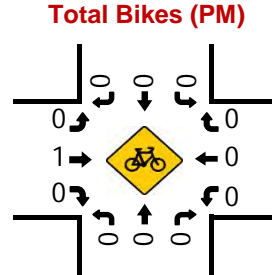
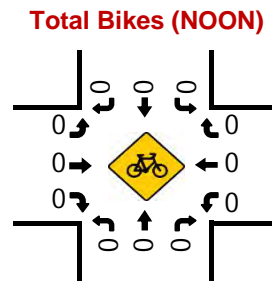
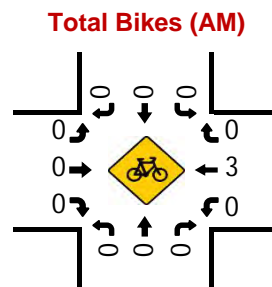
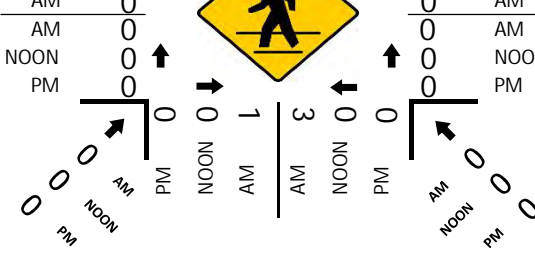
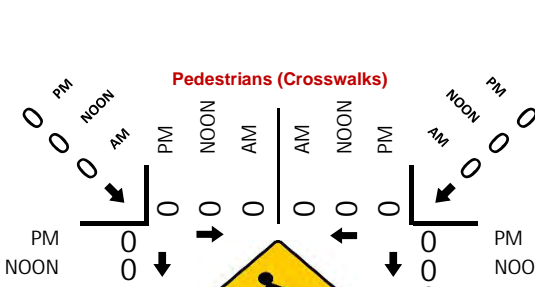
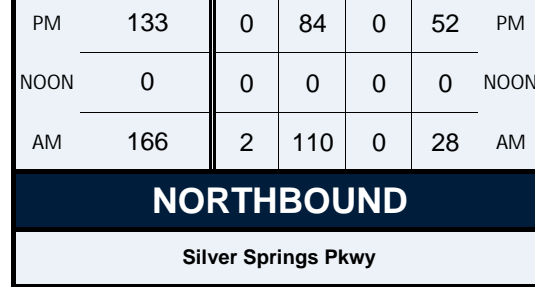
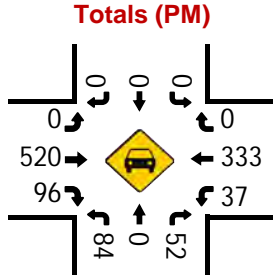
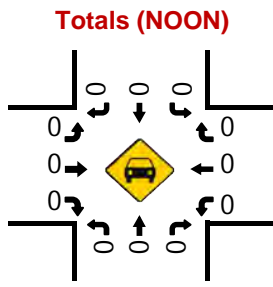
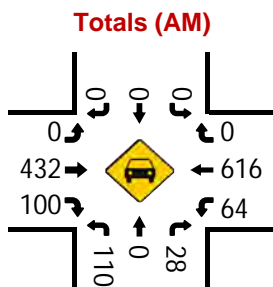
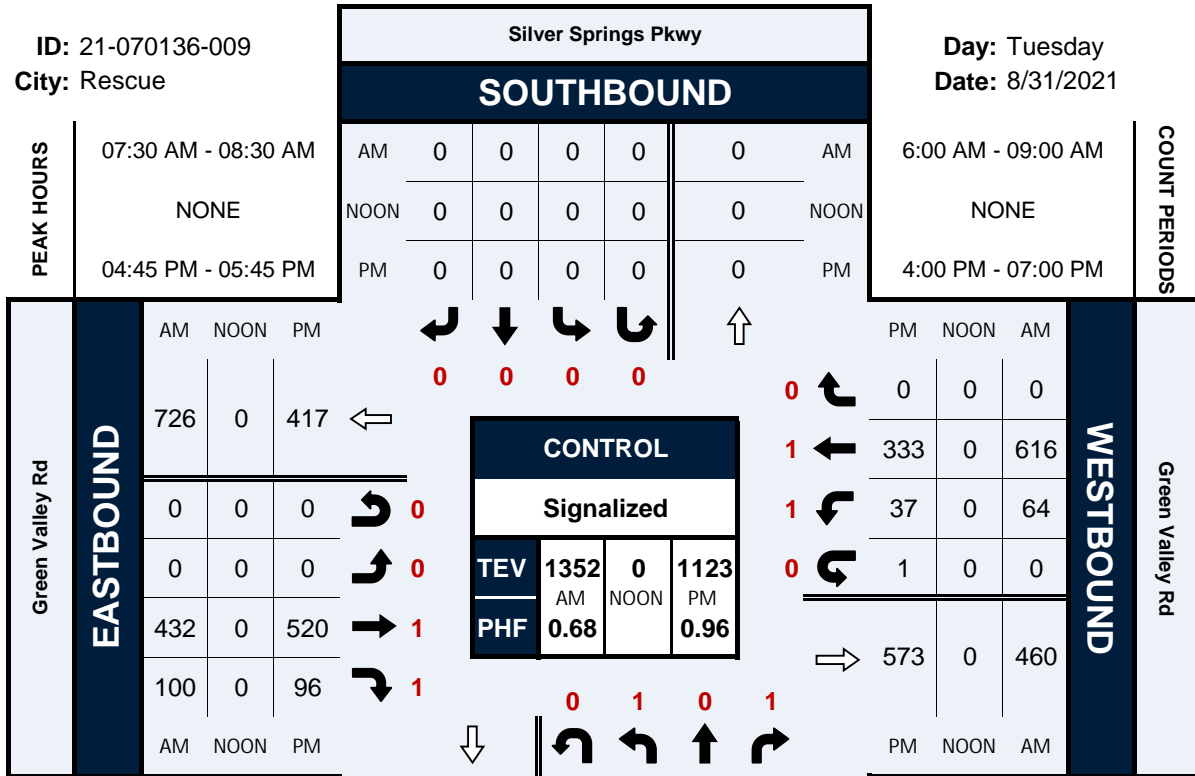


# Silver Springs Pkwy & Green Valley Rd

## Peak Hour Turning Movement Count

ID: 21-070136-009  
City: Rescue

Day: Tuesday  
Date: 8/31/2021

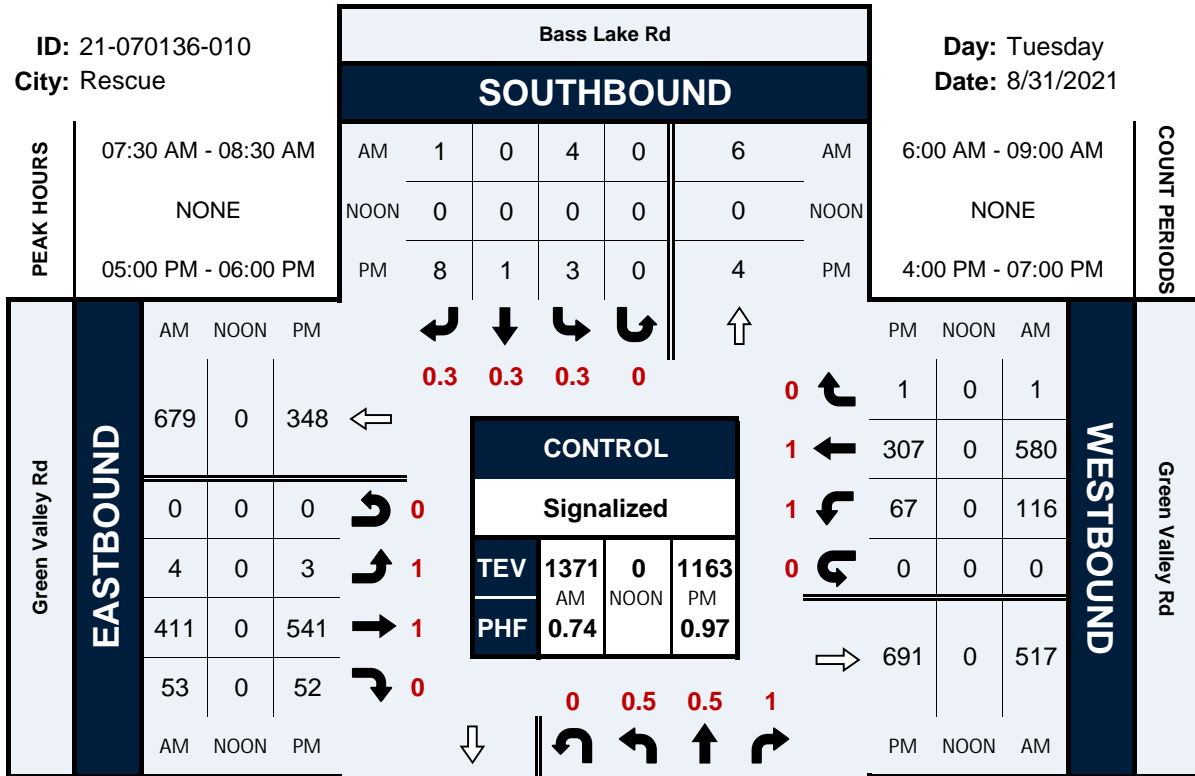


# Bass Lake Rd & Green Valley Rd

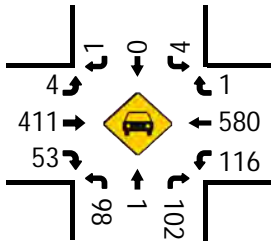
## Peak Hour Turning Movement Count

ID: 21-070136-010  
City: Rescue

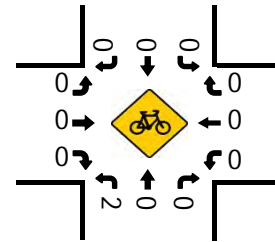
Day: Tuesday  
Date: 8/31/2021



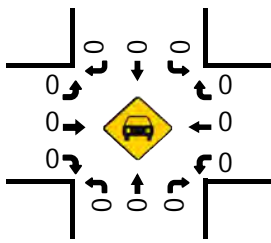
Totals (AM)



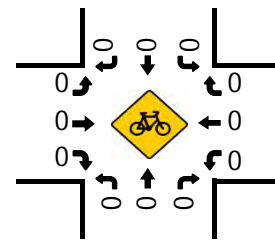
Total Bikes (AM)



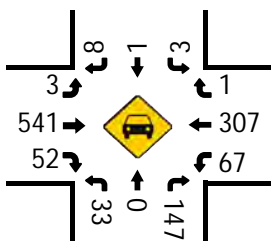
Totals (NOON)



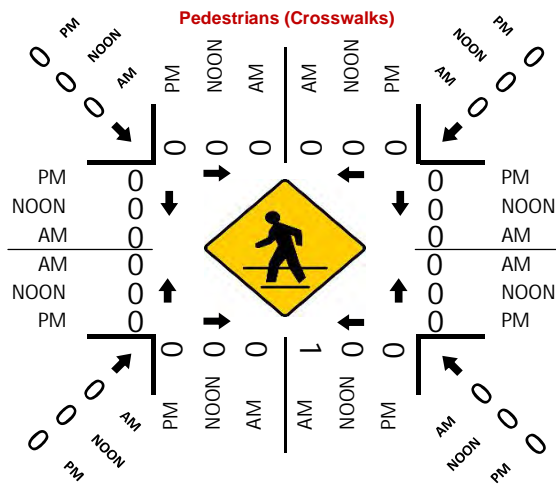
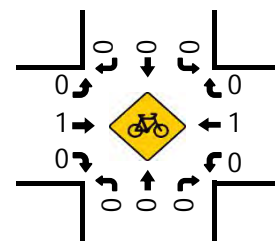
Total Bikes (NOON)



Totals (PM)



Total Bikes (PM)

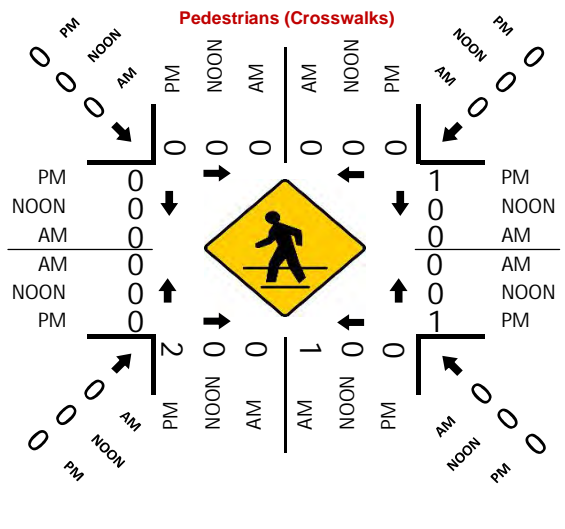
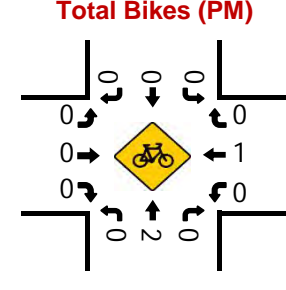
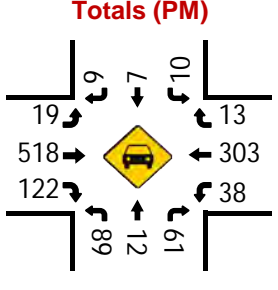
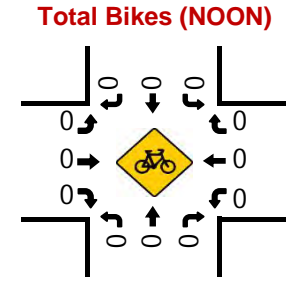
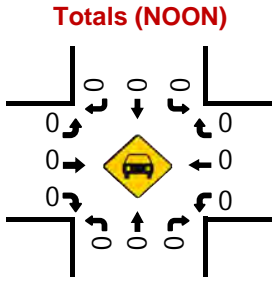
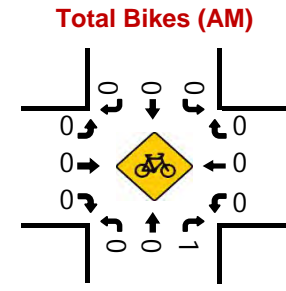
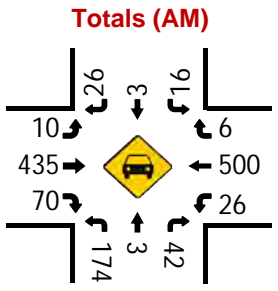
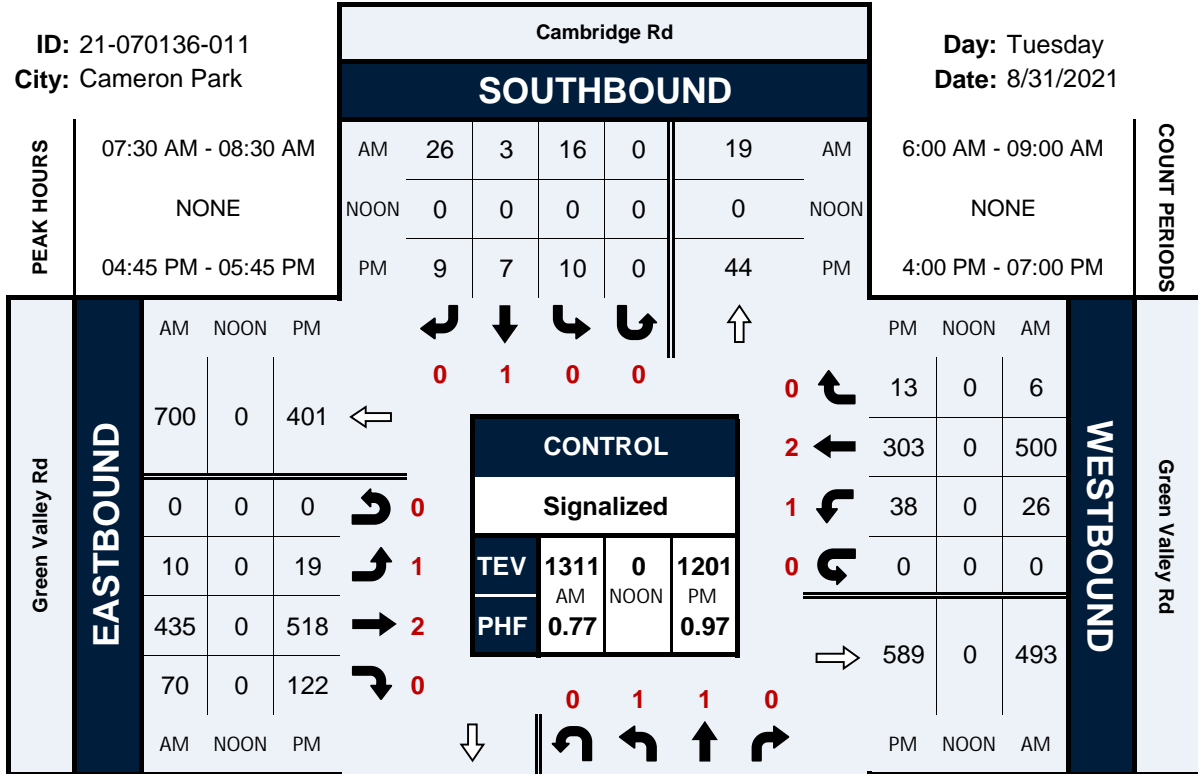


# Cambridge Rd & Green Valley Rd

## Peak Hour Turning Movement Count

ID: 21-070136-011  
City: Cameron Park

Day: Tuesday  
Date: 8/31/2021



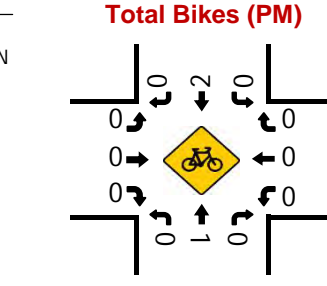
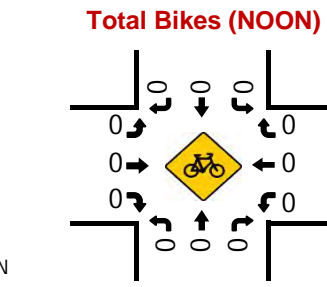
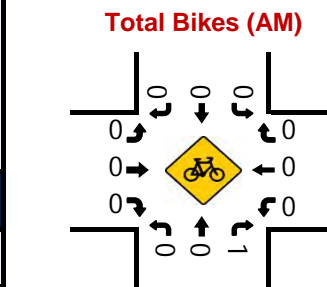
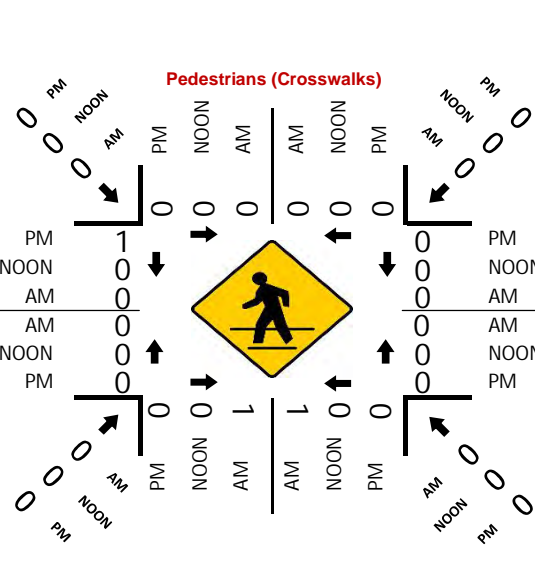
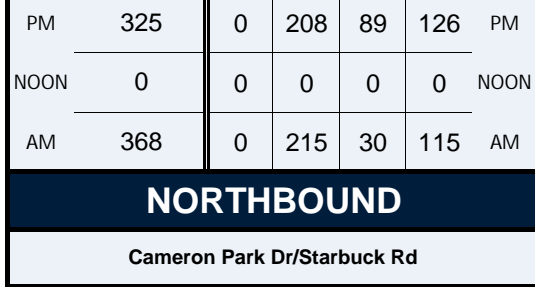
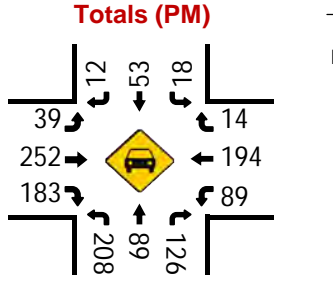
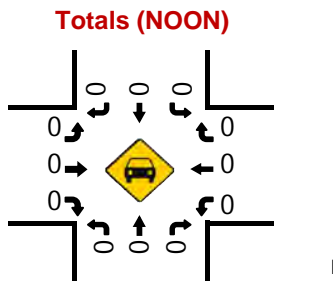
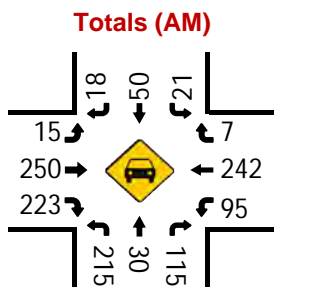
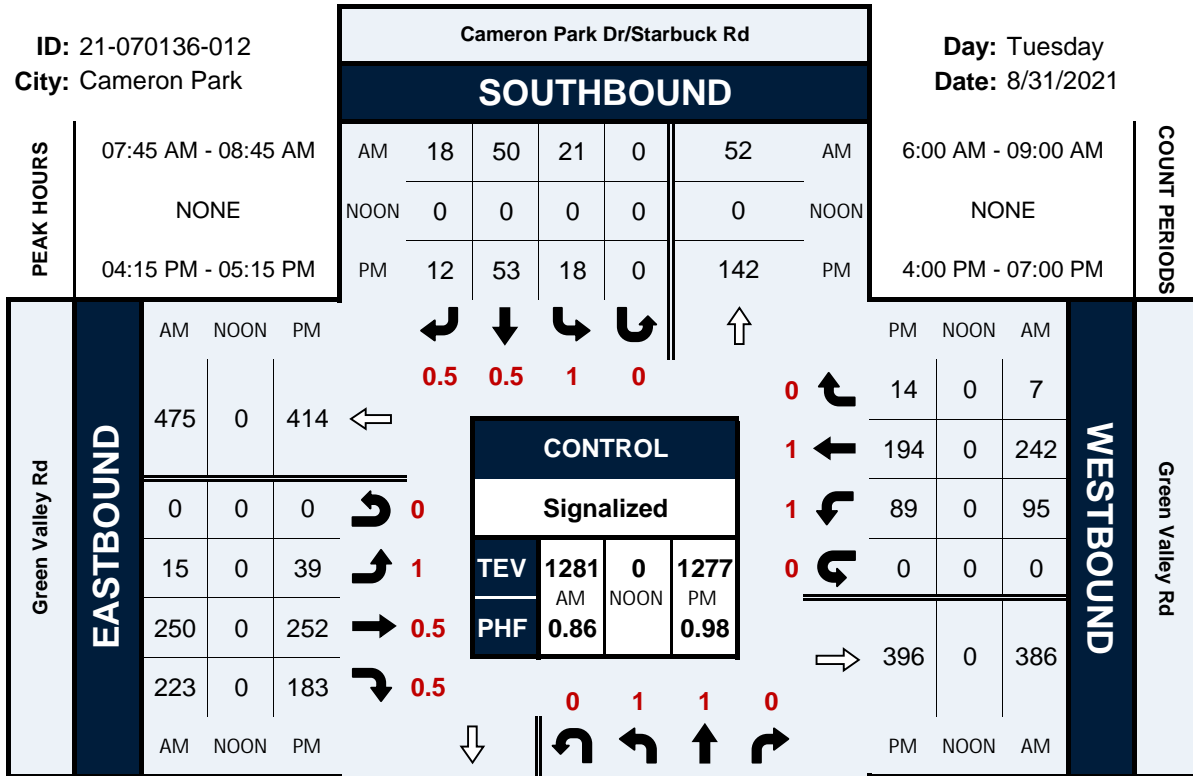


# Cameron Park Dr/Starbuck Rd & Green Valley Rd

## Peak Hour Turning Movement Count

ID: 21-070136-012  
City: Cameron Park

Day: Tuesday  
Date: 8/31/2021

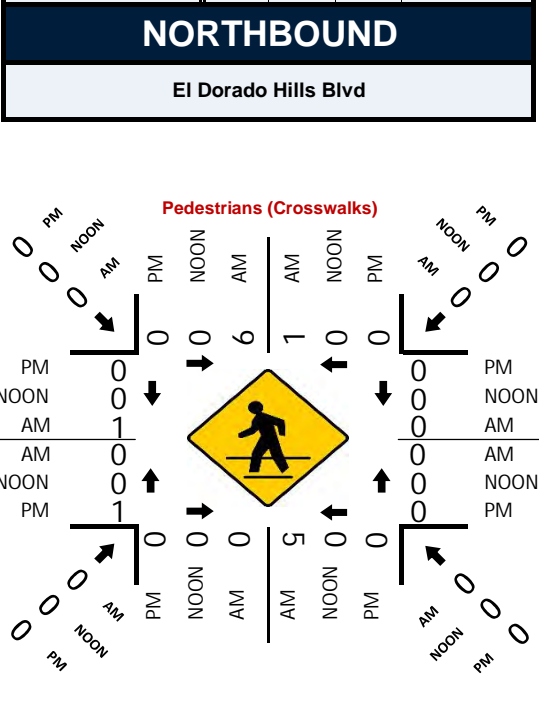
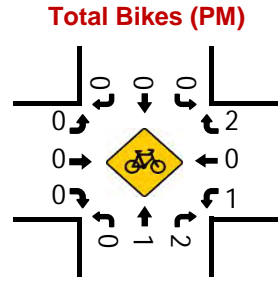
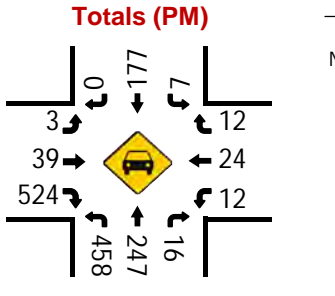
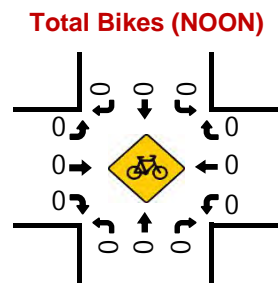
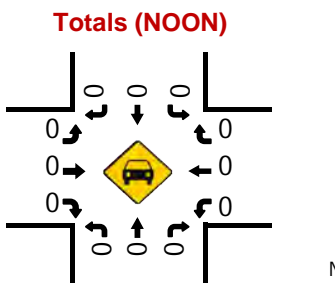
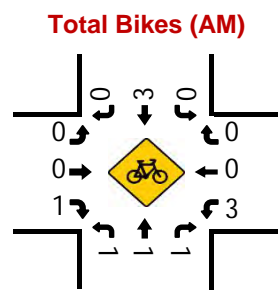
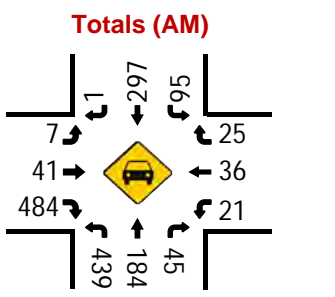
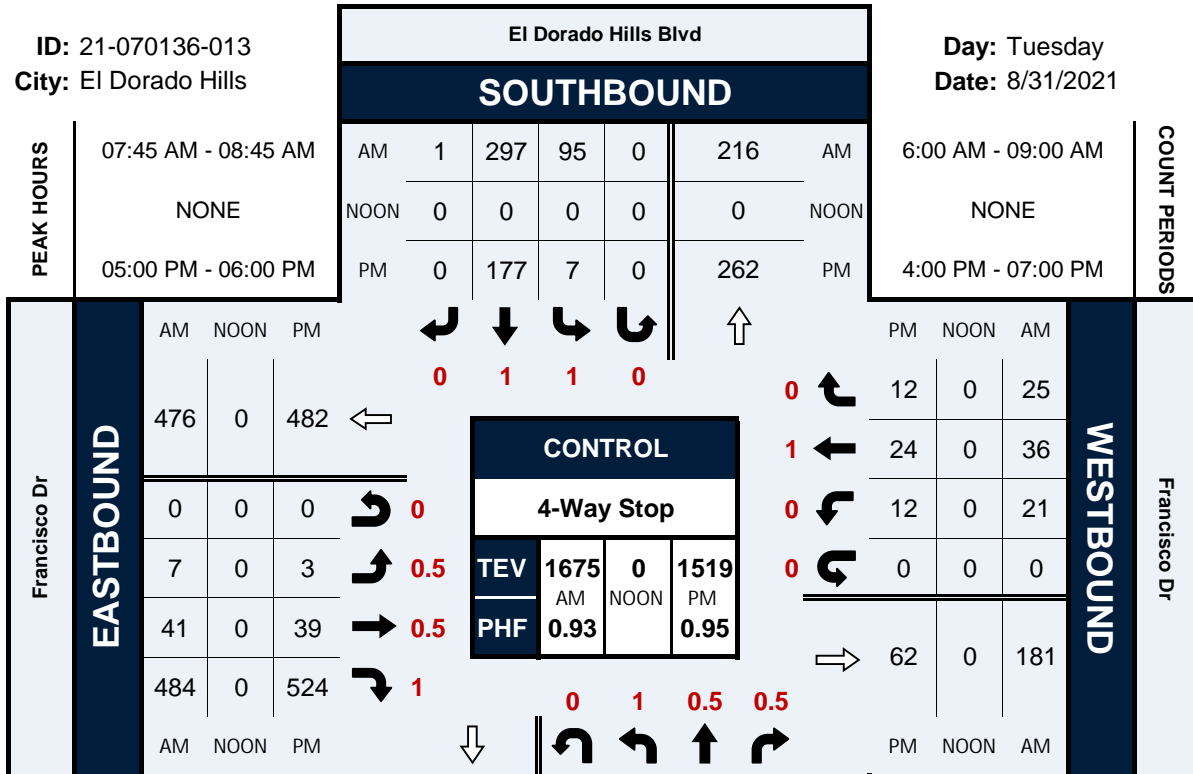


# El Dorado Hills Blvd & Francisco Dr

## Peak Hour Turning Movement Count

ID: 21-070136-013  
City: El Dorado Hills

Day: Tuesday  
Date: 8/31/2021

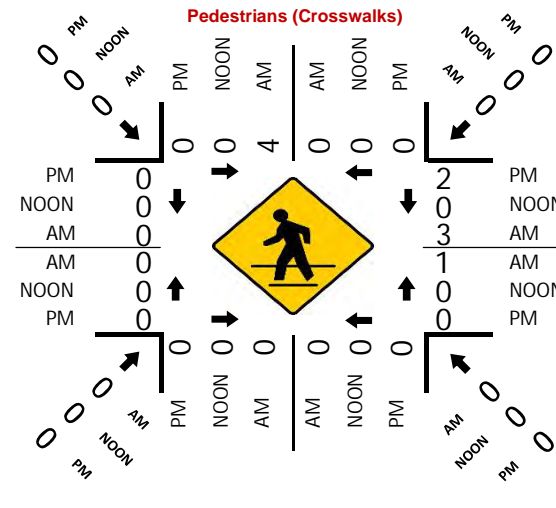
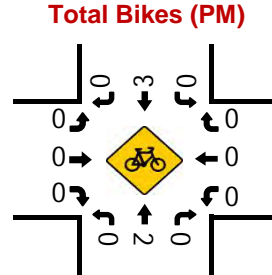
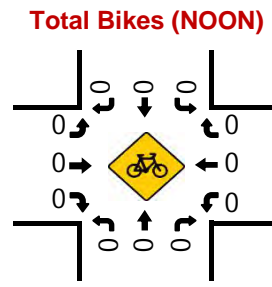
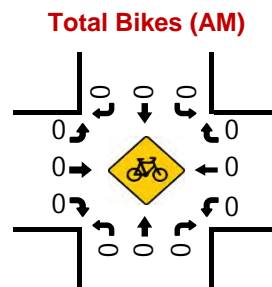
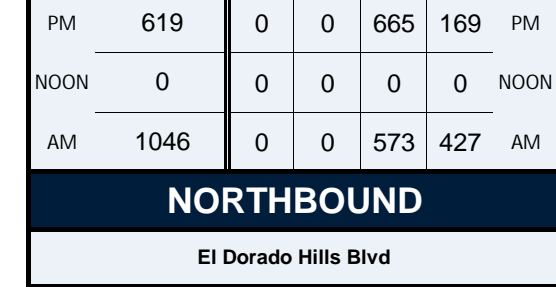
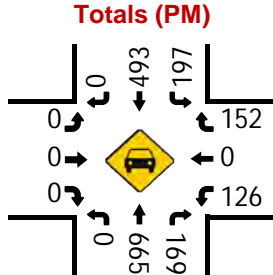
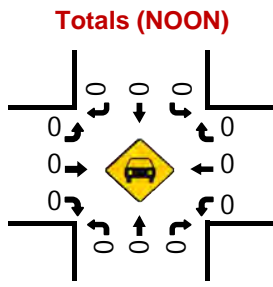
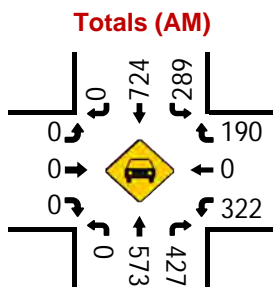
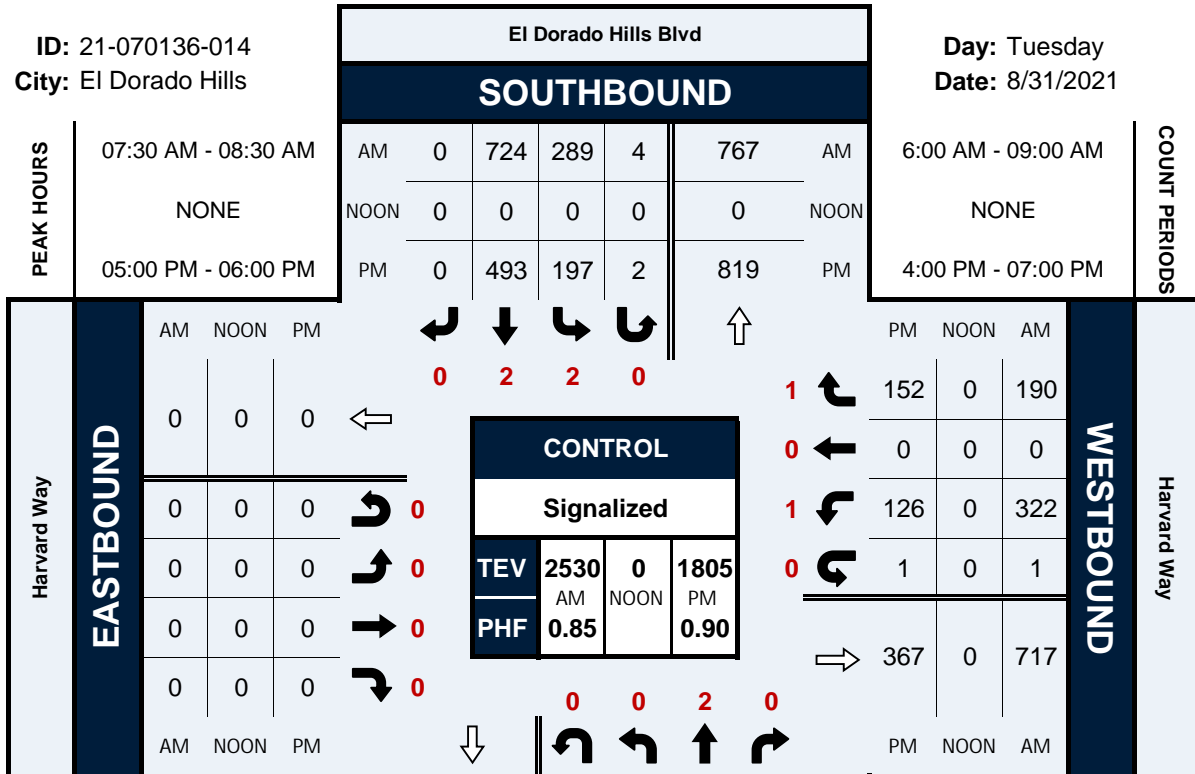


# El Dorado Hills Blvd & Harvard Way

## Peak Hour Turning Movement Count

ID: 21-070136-014  
City: El Dorado Hills

Day: Tuesday  
Date: 8/31/2021

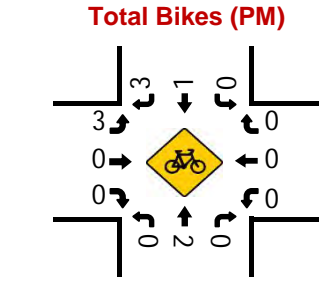
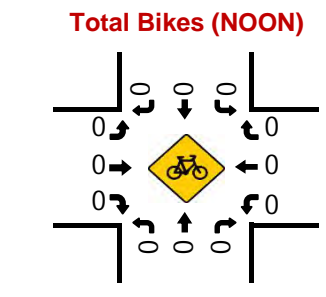
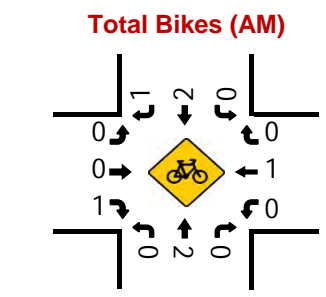
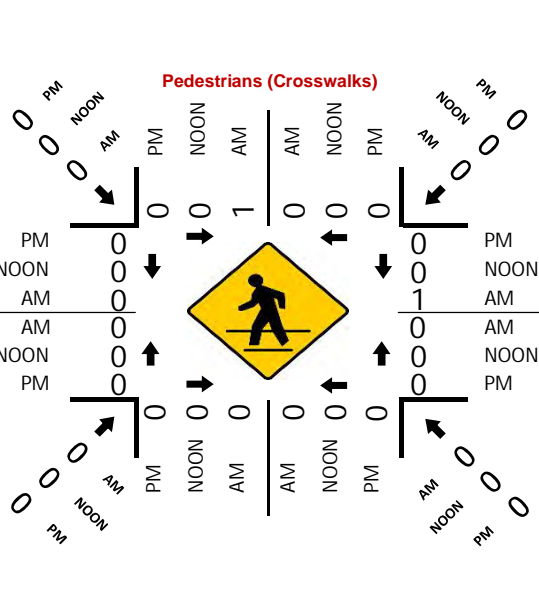
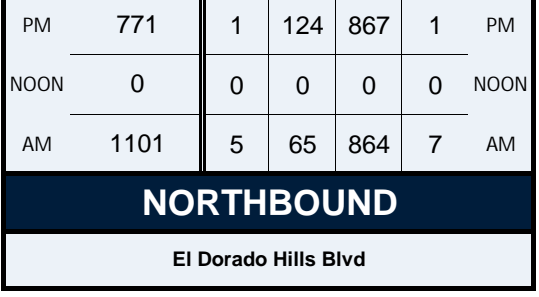
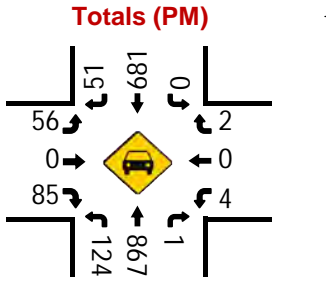
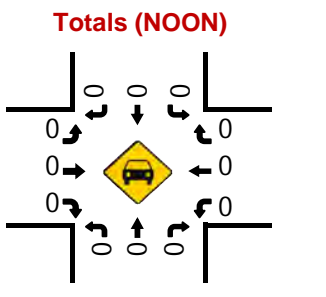
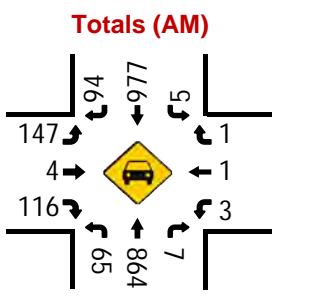
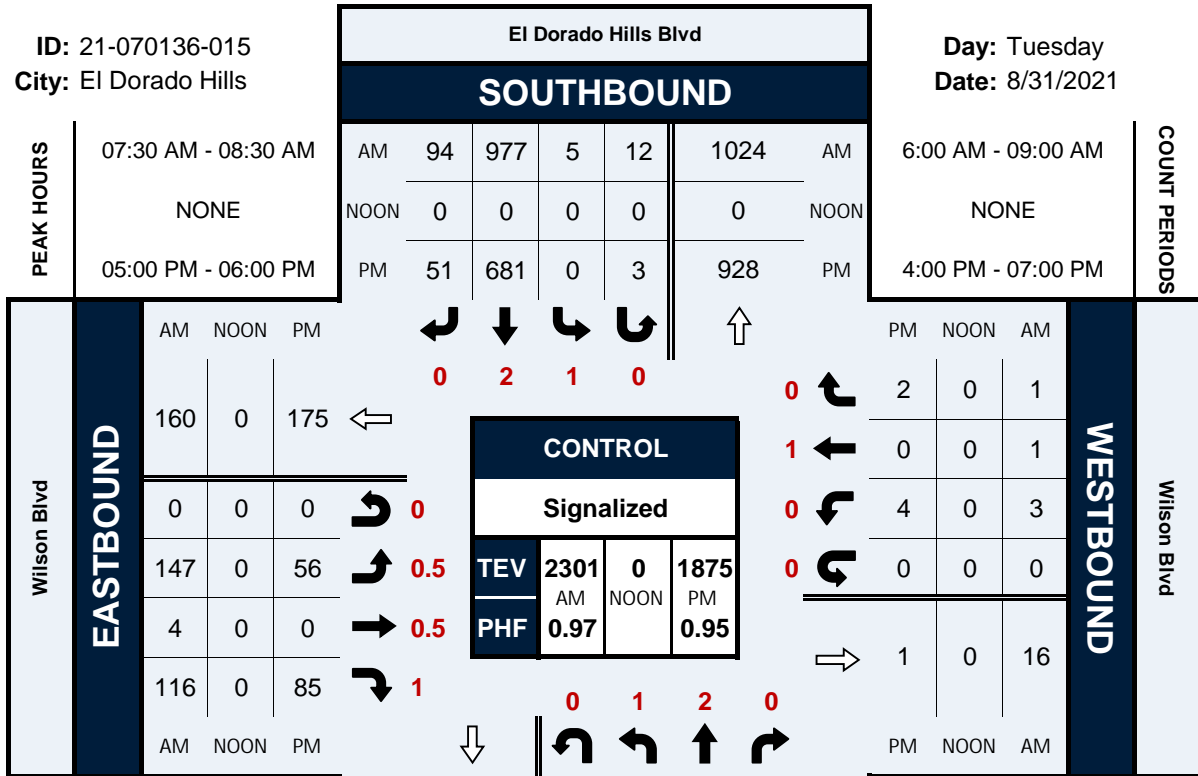


# El Dorado Hills Blvd & Wilson Blvd

## Peak Hour Turning Movement Count

ID: 21-070136-015  
City: El Dorado Hills

Day: Tuesday  
Date: 8/31/2021



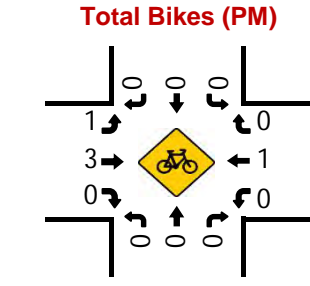
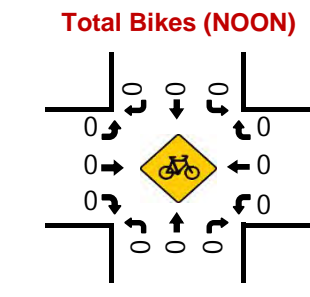
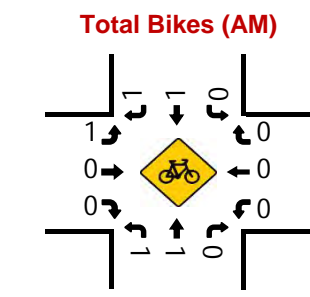
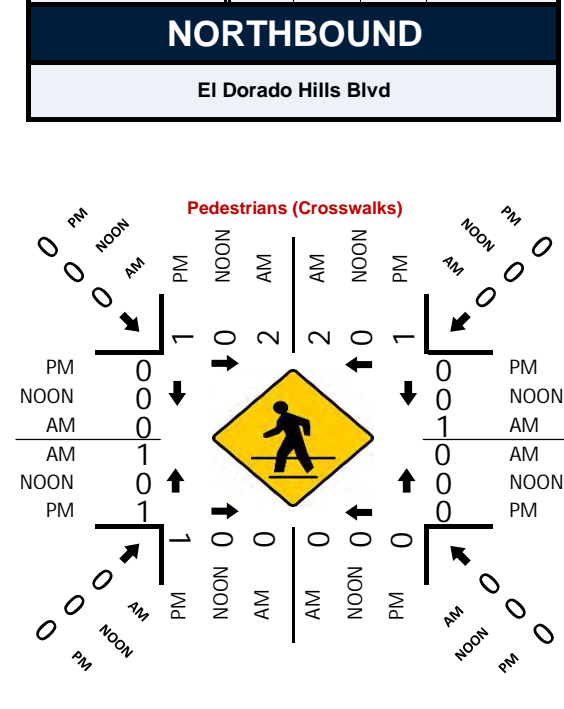
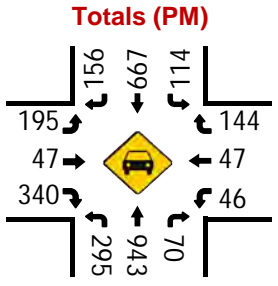
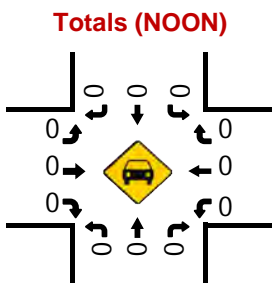
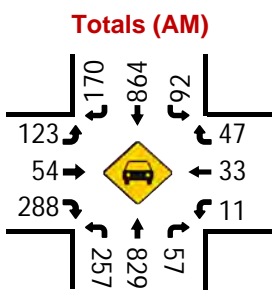
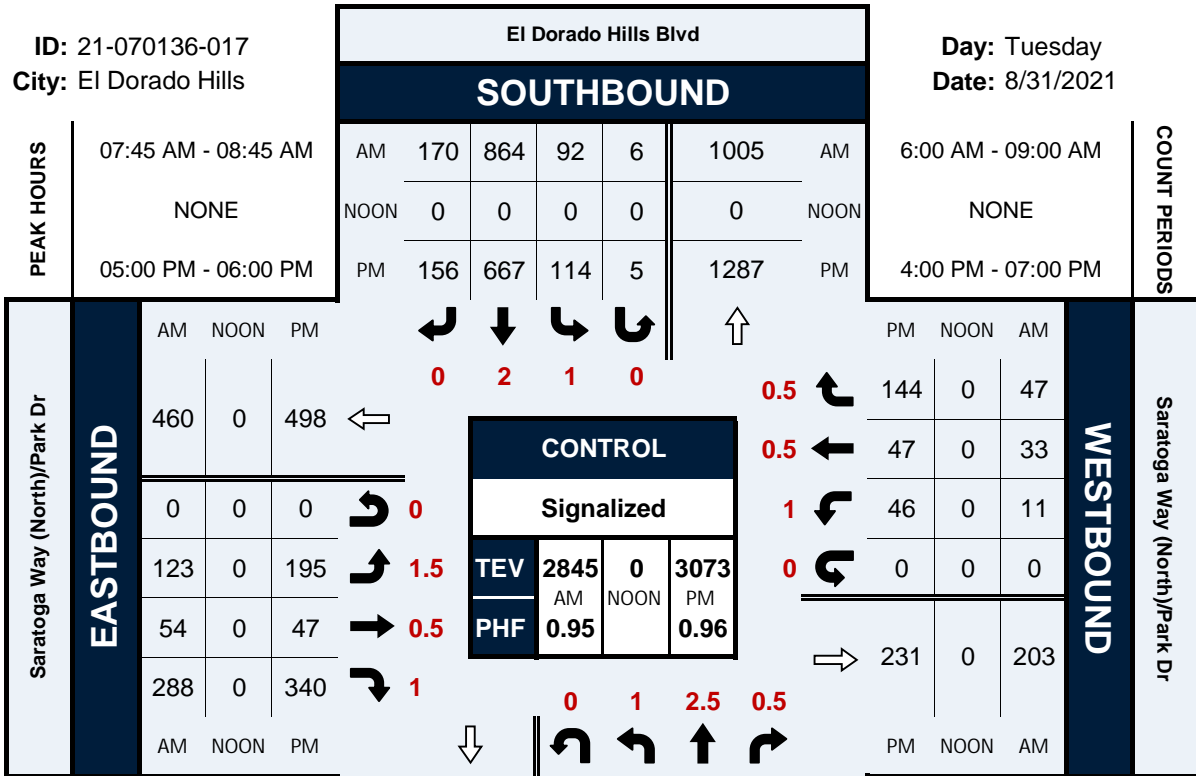


# El Dorado Hills Blvd & Saratoga Way (North)/Park Dr

## Peak Hour Turning Movement Count

ID: 21-070136-017  
City: El Dorado Hills

Day: Tuesday  
Date: 8/31/2021

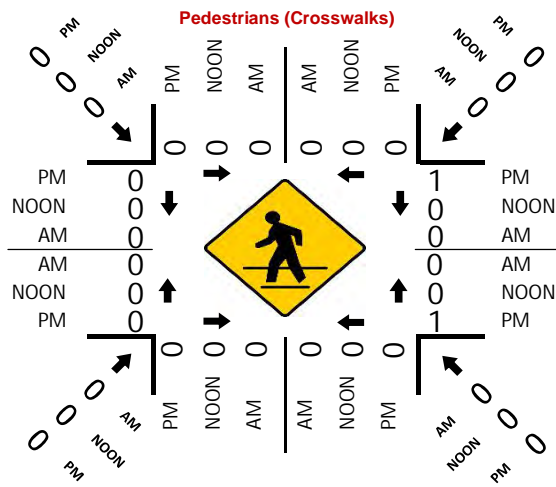
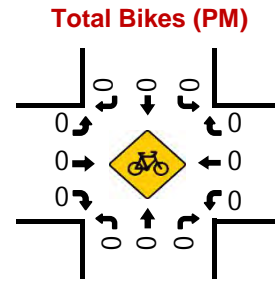
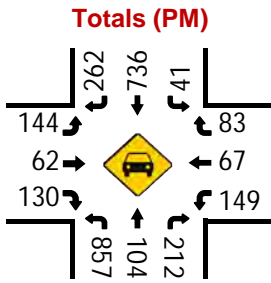
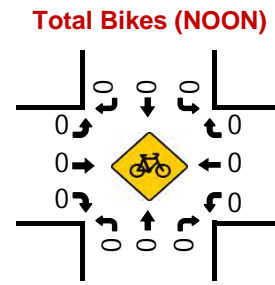
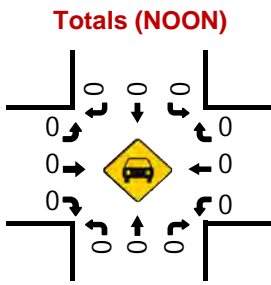
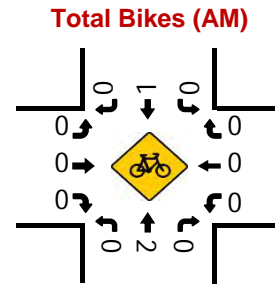
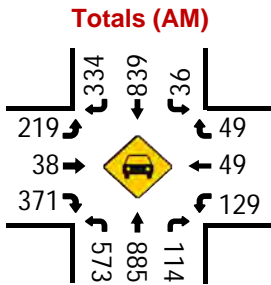
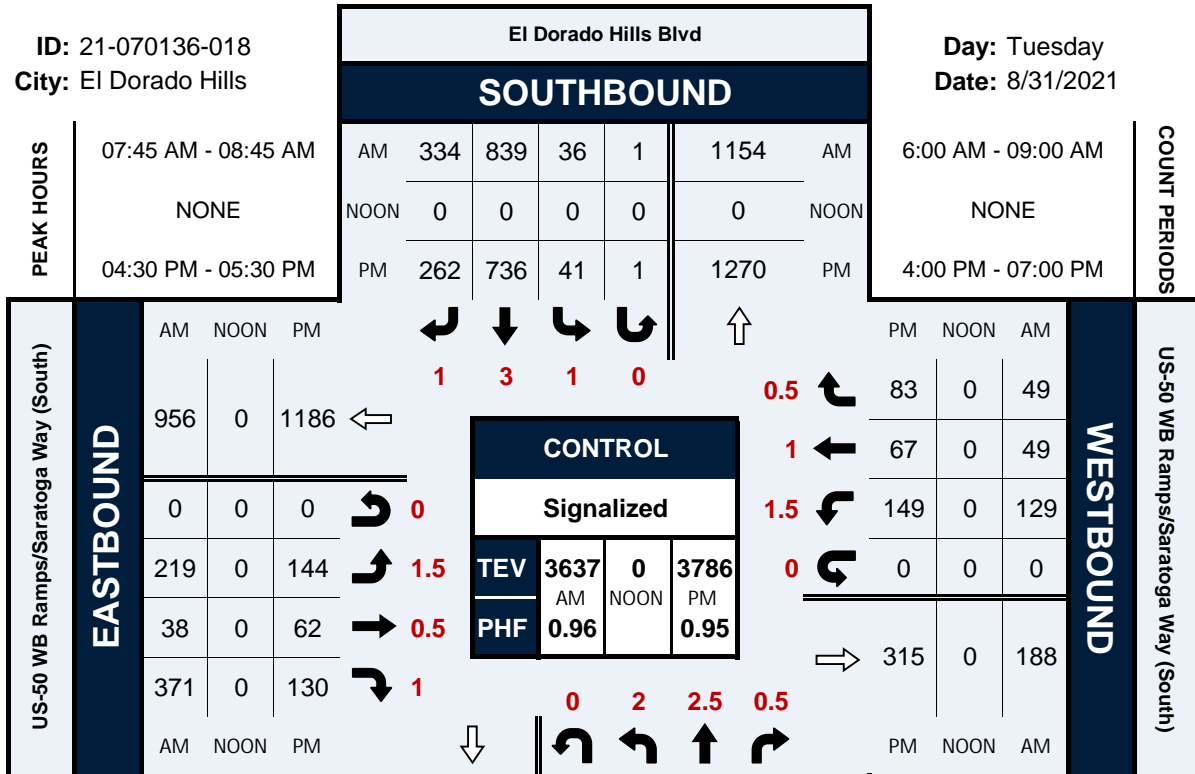


# El Dorado Hills Blvd & US-50 WB Ramps/Saratoga Way (South)

## Peak Hour Turning Movement Count

ID: 21-070136-018  
City: El Dorado Hills

Day: Tuesday  
Date: 8/31/2021

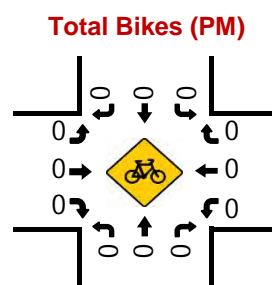
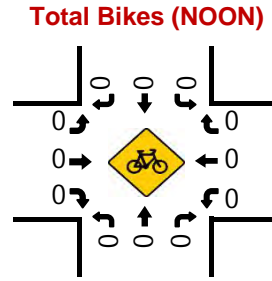
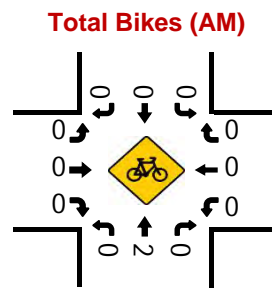
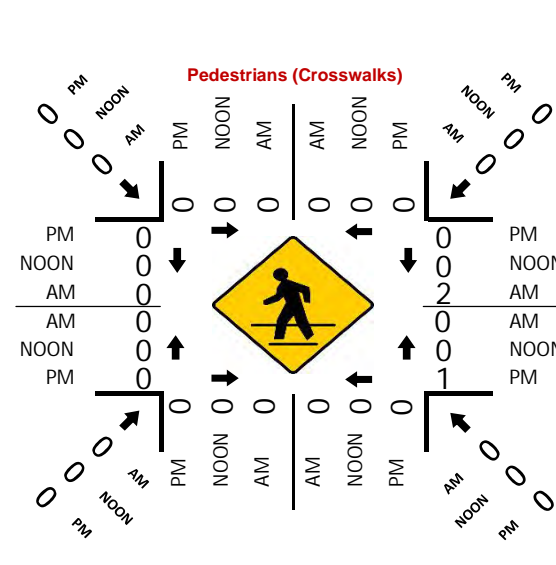
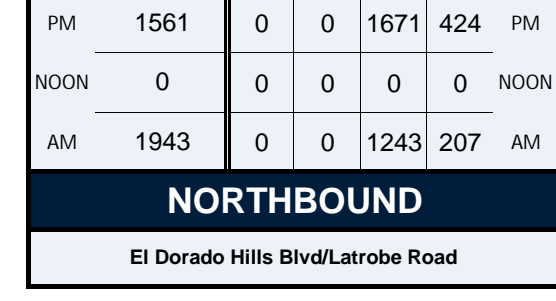
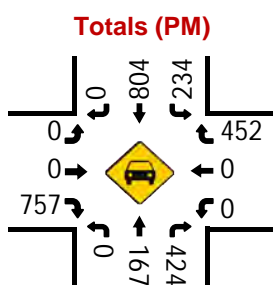
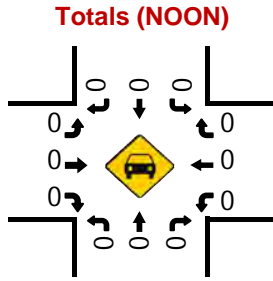
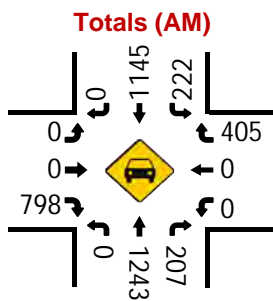
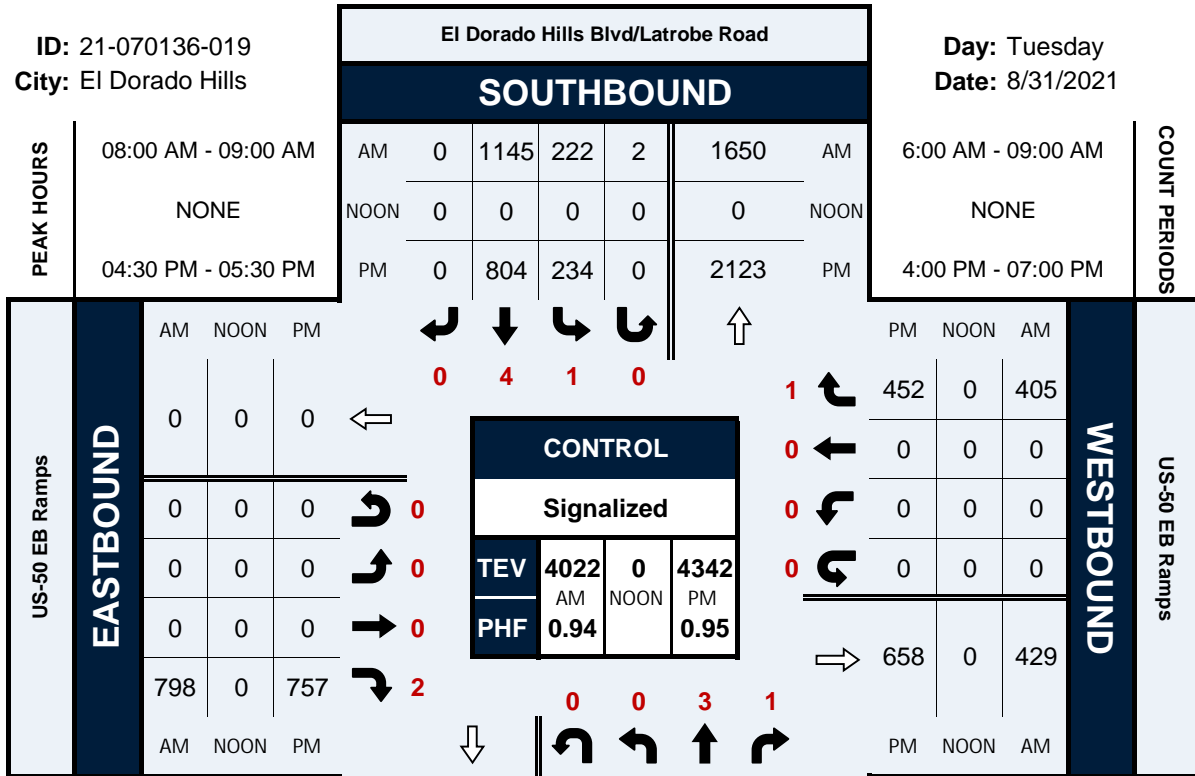


# El Dorado Hills Blvd/Latrobe Road & US-50 EB Ramps

## Peak Hour Turning Movement Count

ID: 21-070136-019  
City: El Dorado Hills

Day: Tuesday  
Date: 8/31/2021







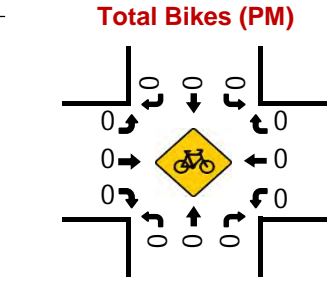
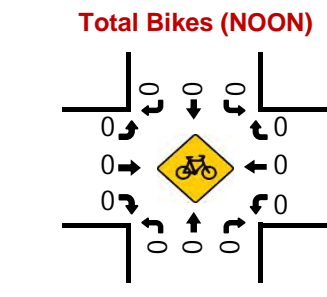
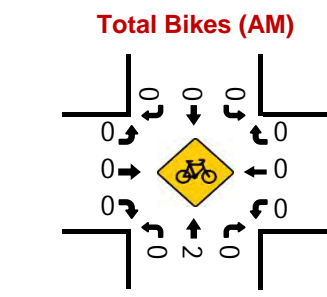
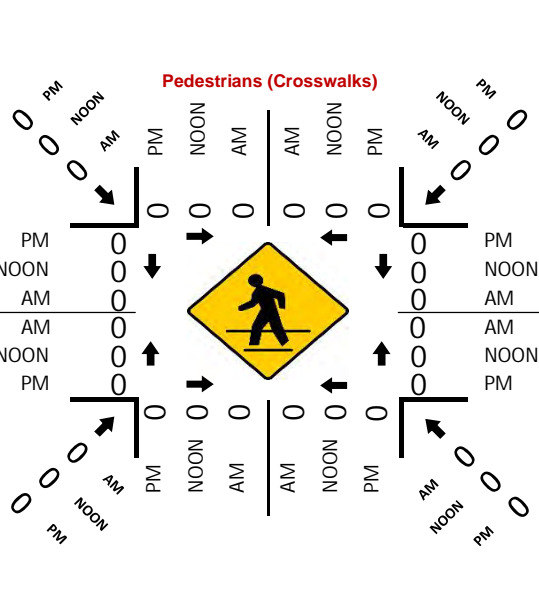
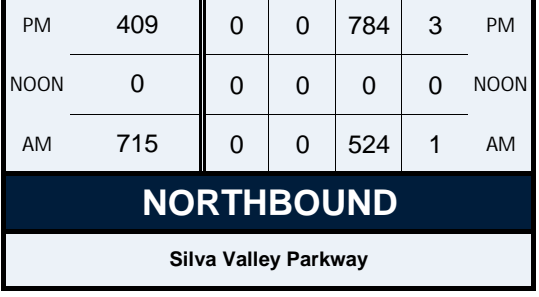
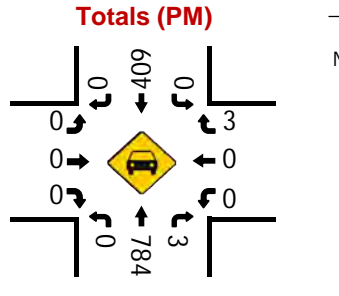
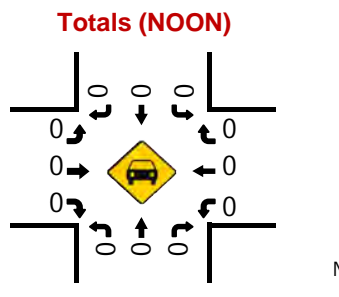
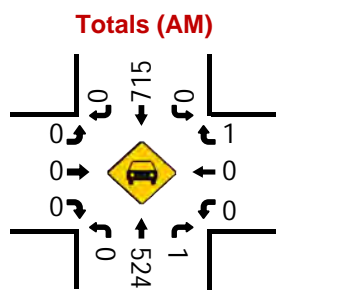
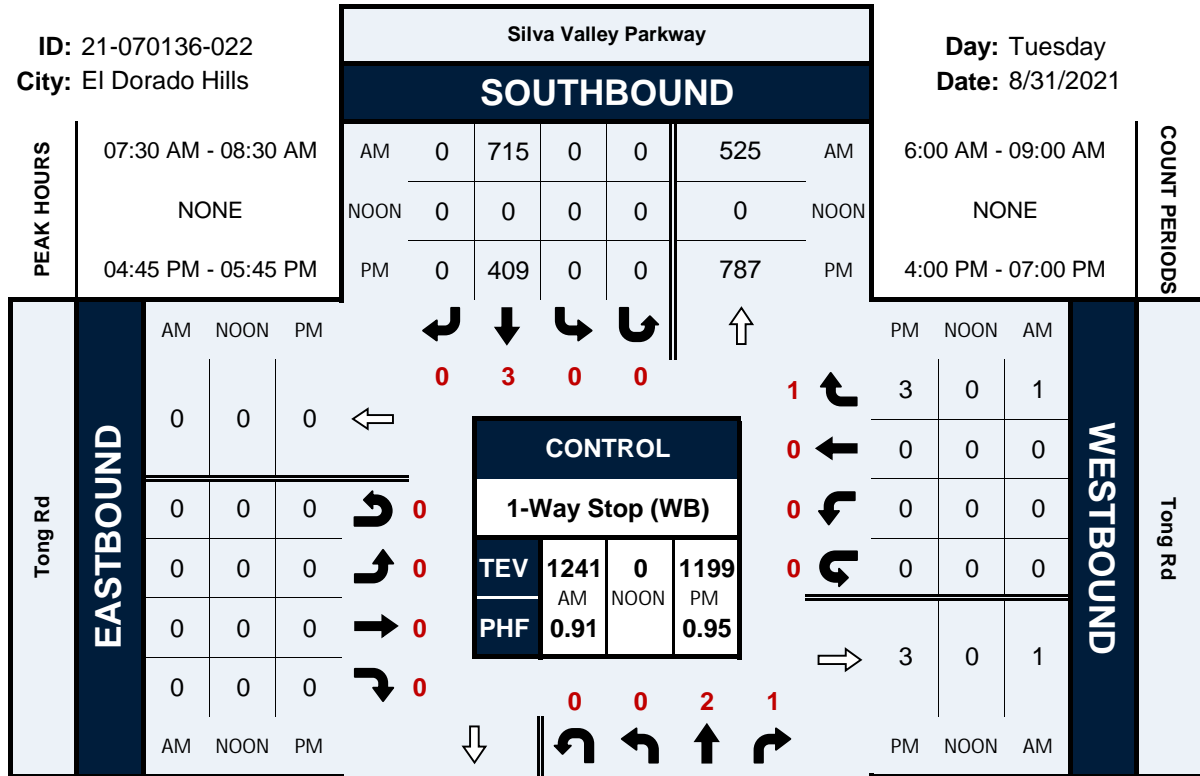


# Silva Valley Parkway & Tong Rd

## Peak Hour Turning Movement Count

ID: 21-070136-022  
City: El Dorado Hills

Day: Tuesday  
Date: 8/31/2021

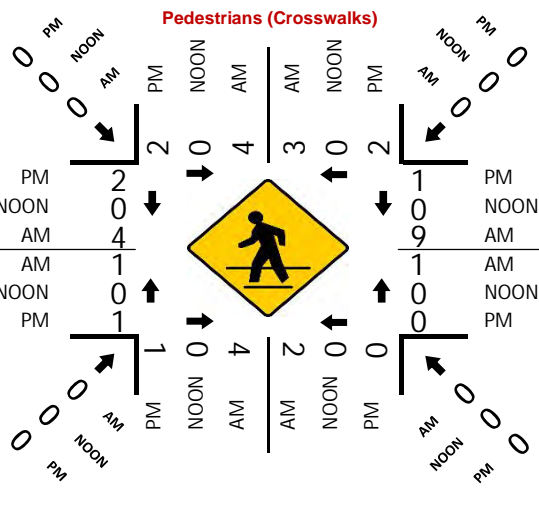
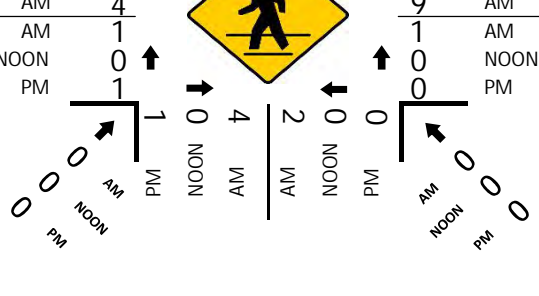
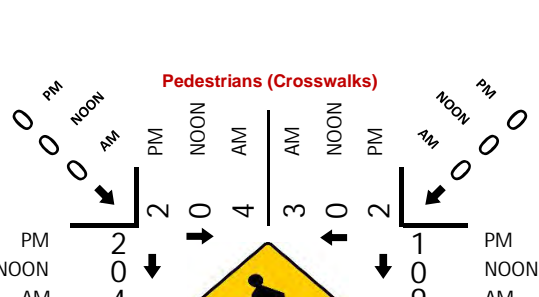
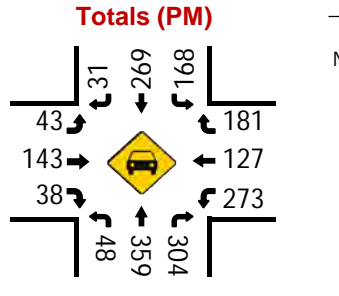
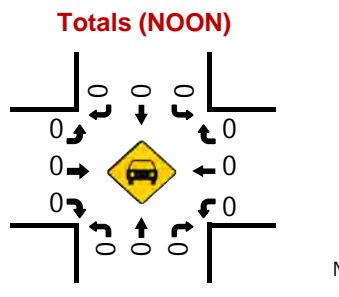
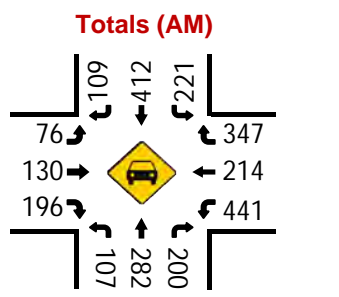
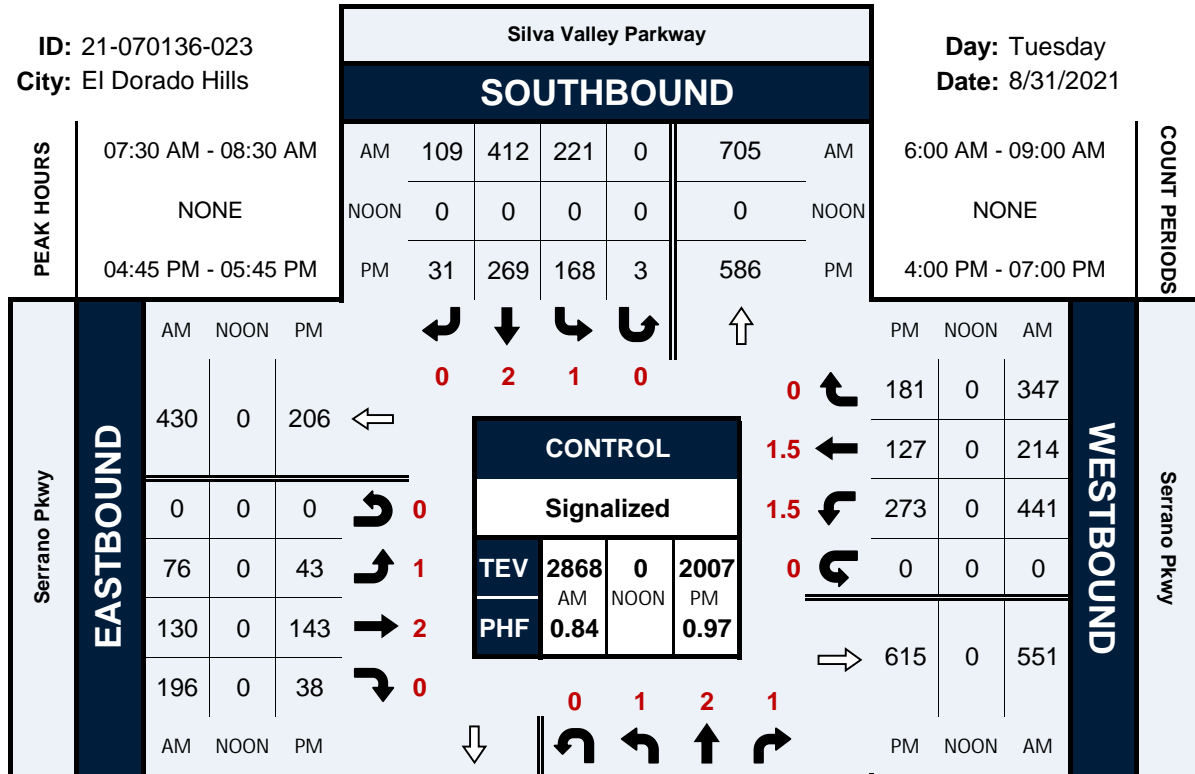


# Silva Valley Parkway & Serrano Pkwy

## Peak Hour Turning Movement Count

ID: 21-070136-023  
City: El Dorado Hills

Day: Tuesday  
Date: 8/31/2021



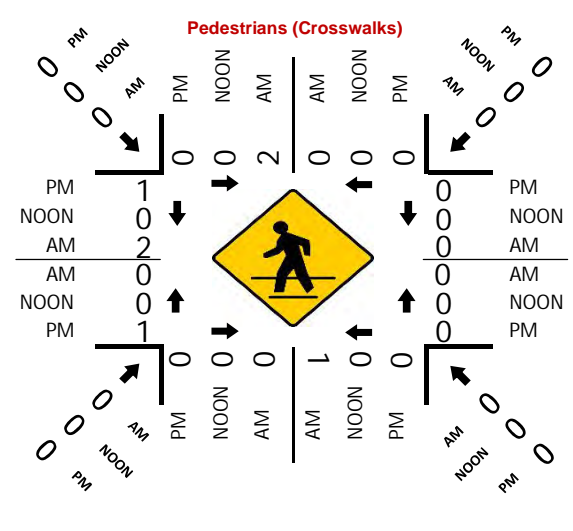
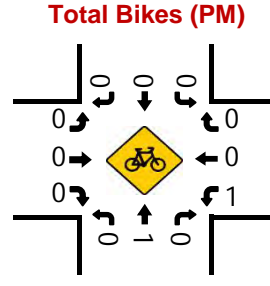
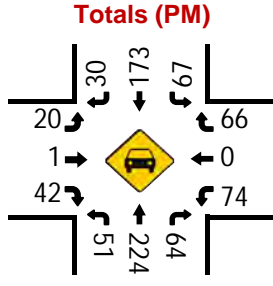
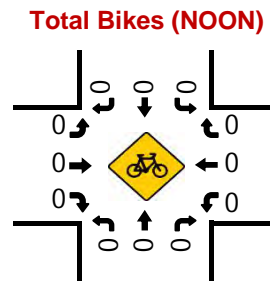
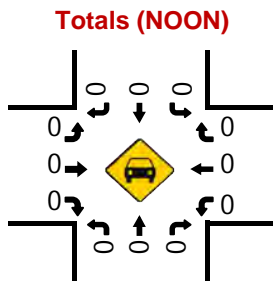
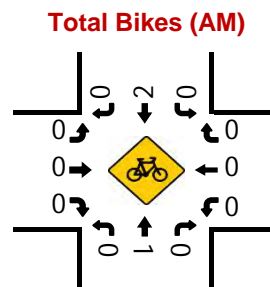
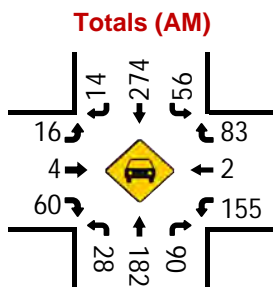
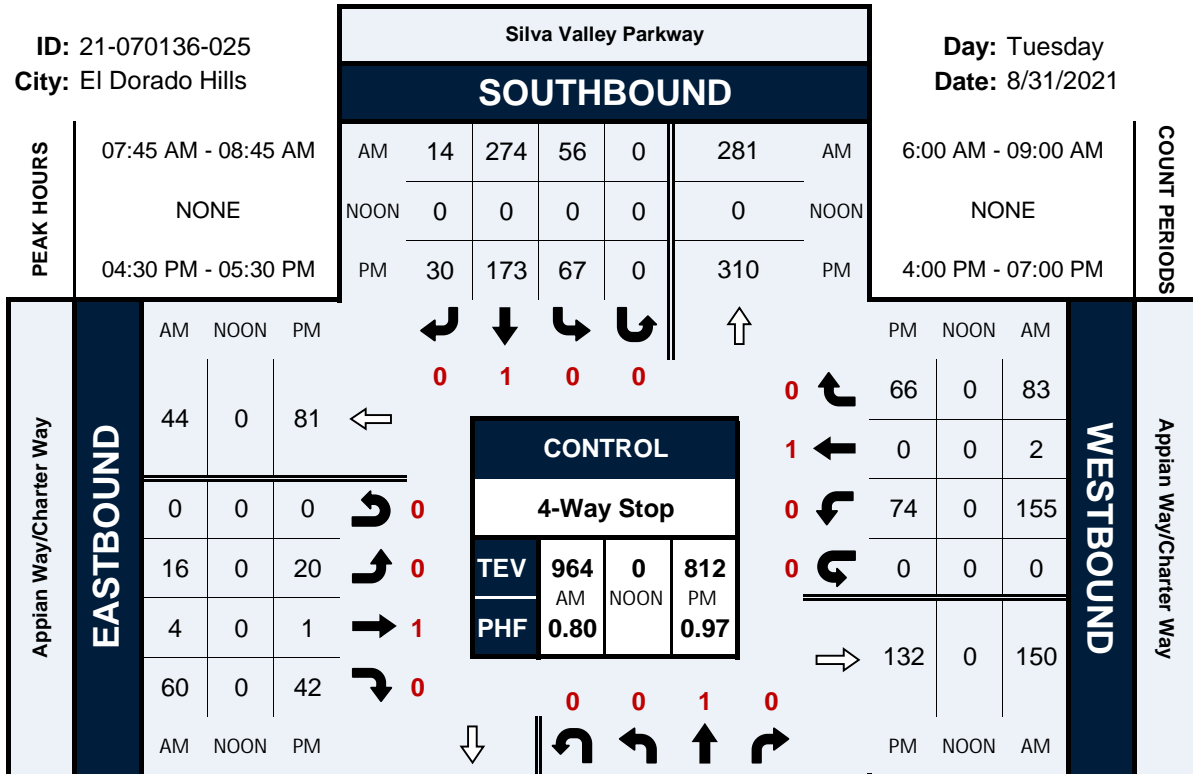


# Silva Valley Parkway & Appian Way/Charter Way

## Peak Hour Turning Movement Count

ID: 21-070136-025  
City: El Dorado Hills

Day: Tuesday  
Date: 8/31/2021

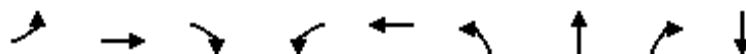


## Appendix B

*Analysis Worksheets for  
Existing (2021) Conditions*

Generations at Green Valley  
 1: Sophia Pkwy/Access Rd & Green Valley Rd

Baseline  
 Timing Plan: AM



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | NBR  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 2    | 702  | 84   | 181  | 1094 | 165  | 1    | 70   | 9    |
| v/c Ratio               | 0.01 | 0.43 | 0.11 | 0.61 | 0.66 | 0.33 | 0.00 | 0.12 | 0.02 |
| Control Delay           | 7.0  | 9.0  | 2.6  | 20.9 | 11.7 | 13.0 | 9.0  | 3.9  | 2.5  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 7.0  | 9.0  | 2.6  | 20.9 | 11.7 | 13.0 | 9.0  | 3.9  | 2.5  |
| Queue Length 50th (ft)  | 0    | 57   | 0    | 32   | 104  | 30   | 0    | 0    | 0    |
| Queue Length 95th (ft)  | 3    | 86   | 15   | #109 | 156  | 60   | 2    | 15   | 2    |
| Internal Link Dist (ft) |      | 1813 |      |      | 7016 |      | 1499 |      | 376  |
| Turn Bay Length (ft)    | 248  |      | 224  | 314  |      | 204  |      | 204  |      |
| Base Capacity (vph)     | 165  | 1651 | 783  | 299  | 1651 | 498  | 662  | 607  | 596  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.01 | 0.43 | 0.11 | 0.61 | 0.66 | 0.33 | 0.00 | 0.12 | 0.02 |

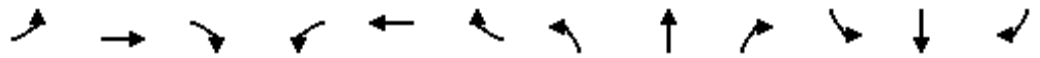
Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.



Generations at Green Valley  
1: Sophia Pkwy/Access Rd & Green Valley Rd

Baseline  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 2    | 618  | 74   | 163  | 978  | 6    | 137  | 1    | 58   | 4    | 0    | 2    |
| Future Volume (veh/h)        | 2    | 618  | 74   | 163  | 978  | 6    | 137  | 1    | 58   | 4    | 0    | 2    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 2    | 702  | 84   | 181  | 1087 | 7    | 165  | 1    | 70   | 6    | 0    | 3    |
| Peak Hour Factor             | 0.88 | 0.88 | 0.88 | 0.90 | 0.90 | 0.90 | 0.83 | 0.83 | 0.83 | 0.70 | 0.70 | 0.70 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 283  | 1658 | 740  | 391  | 1689 | 11   | 664  | 665  | 564  | 446  | 26   | 169  |
| Arrive On Green              | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.36 | 0.36 | 0.36 | 0.36 | 0.00 | 0.36 |
| Sat Flow, veh/h              | 515  | 3554 | 1585 | 689  | 3620 | 23   | 1414 | 1870 | 1585 | 878  | 74   | 476  |
| Grp Volume(v), veh/h         | 2    | 702  | 84   | 181  | 534  | 560  | 165  | 1    | 70   | 9    | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 515  | 1777 | 1585 | 689  | 1777 | 1866 | 1414 | 1870 | 1585 | 1427 | 0    | 0    |
| Q Serve(g_s), s              | 0.1  | 5.9  | 1.3  | 10.7 | 10.3 | 10.3 | 3.6  | 0.0  | 1.3  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 10.4 | 5.9  | 1.3  | 16.6 | 10.3 | 10.3 | 3.8  | 0.0  | 1.3  | 0.1  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 0.01 | 1.00 |      | 1.00 | 0.67 |      | 0.33 |
| Lane Grp Cap(c), veh/h       | 283  | 1658 | 740  | 391  | 829  | 871  | 664  | 665  | 564  | 641  | 0    | 0    |
| V/C Ratio(X)                 | 0.01 | 0.42 | 0.11 | 0.46 | 0.64 | 0.64 | 0.25 | 0.00 | 0.12 | 0.01 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 283  | 1658 | 740  | 391  | 829  | 871  | 664  | 665  | 564  | 641  | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 13.1 | 8.0  | 6.8  | 13.5 | 9.1  | 9.1  | 10.6 | 9.3  | 9.8  | 9.4  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 0.0  | 0.8  | 0.3  | 3.9  | 3.8  | 3.6  | 0.9  | 0.0  | 0.5  | 0.0  | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.0  | 1.4  | 0.3  | 1.5  | 3.1  | 3.2  | 1.0  | 0.0  | 0.4  | 0.1  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 13.2 | 8.8  | 7.1  | 17.4 | 13.0 | 12.8 | 11.4 | 9.4  | 10.2 | 9.4  | 0.0  | 0.0  |
| LnGrp LOS                    | B    | A    | A    | B    | B    | B    | B    | A    | B    | A    | A    | A    |
| Approach Vol, veh/h          |      | 788  |      |      | 1275 |      |      | 236  |      |      |      | 9    |
| Approach Delay, s/veh        |      | 8.6  |      |      | 13.5 |      |      | 11.1 |      |      |      | 9.4  |
| Approach LOS                 |      | A    |      |      | B    |      |      | B    |      |      |      | A    |
| Timer - Assigned Phs         |      | 2    |      | 4    |      | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 20.0 |      | 25.0 |      | 20.0 |      | 25.0 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  |      | 4.0  |      | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 16.0 |      | 21.0 |      | 16.0 |      | 21.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 5.8  |      | 12.4 |      | 2.1  |      | 18.6 |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.4  |      | 2.9  |      | 0.0  |      | 1.6  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      | 11.6 |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      |      | B    |      |      |      |      |      |      |      |      |

Generations at Green Valley  
 2: Green Valley Rd/Green Valley Road & Francisco Rd.

Baseline  
 Timing Plan: AM



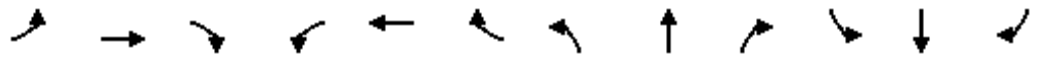
| Lane Group              | EBL   | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | SBL  | SBT  | SBR  |
|-------------------------|-------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 246   | 401  | 235  | 65   | 713  | 109  | 317  | 360  | 119  | 444  | 351  |
| v/c Ratio               | 1.02  | 0.36 | 0.36 | 0.52 | 0.71 | 0.20 | 0.94 | 0.33 | 0.80 | 0.82 | 0.59 |
| Control Delay           | 102.8 | 21.3 | 4.7  | 52.5 | 27.7 | 3.9  | 73.0 | 20.7 | 74.3 | 38.6 | 15.0 |
| Queue Delay             | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 102.8 | 21.3 | 4.7  | 52.5 | 27.7 | 3.9  | 73.0 | 20.7 | 74.3 | 38.6 | 15.0 |
| Queue Length 50th (ft)  | ~68   | 79   | 0    | 31   | 157  | 0    | ~78  | 65   | 57   | 186  | 58   |
| Queue Length 95th (ft)  | #126  | 103  | 33   | #86  | 212  | 24   | #130 | 87   | #135 | 270  | 117  |
| Internal Link Dist (ft) |       | 7016 |      |      | 1876 |      |      | 2744 |      | 705  |      |
| Turn Bay Length (ft)    | 290   |      | 210  | 200  |      | 450  | 200  |      | 183  |      |      |
| Base Capacity (vph)     | 241   | 1284 | 724  | 124  | 1284 | 657  | 338  | 1243 | 149  | 629  | 659  |
| Starvation Cap Reductn  | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 1.02  | 0.31 | 0.32 | 0.52 | 0.56 | 0.17 | 0.94 | 0.29 | 0.80 | 0.71 | 0.53 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
2: Green Valley Rd/Green Valley Road & Francisco Rd.

Baseline  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          | ↖↗   | ↑↑   | ↖    | ↖    | ↑↑   | ↖    | ↖↗   | ↑↔   |      | ↖    | ↑    | ↖    |
| Traffic Volume (veh/h)       | 199  | 325  | 190  | 58   | 635  | 97   | 241  | 268  | 5    | 96   | 360  | 284  |
| Future Volume (veh/h)        | 199  | 325  | 190  | 58   | 635  | 97   | 241  | 268  | 5    | 96   | 360  | 284  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 246  | 401  | 235  | 65   | 713  | 109  | 317  | 353  | 7    | 119  | 444  | 351  |
| Peak Hour Factor             | 0.81 | 0.81 | 0.81 | 0.89 | 0.89 | 0.89 | 0.76 | 0.76 | 0.76 | 0.81 | 0.81 | 0.81 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 256  | 1046 | 467  | 83   | 948  | 423  | 358  | 1085 | 21   | 151  | 534  | 453  |
| Arrive On Green              | 0.07 | 0.29 | 0.29 | 0.05 | 0.27 | 0.27 | 0.10 | 0.30 | 0.30 | 0.08 | 0.29 | 0.29 |
| Sat Flow, veh/h              | 3456 | 3554 | 1585 | 1781 | 3554 | 1585 | 3456 | 3564 | 71   | 1781 | 1870 | 1585 |
| Grp Volume(v), veh/h         | 246  | 401  | 235  | 65   | 713  | 109  | 317  | 176  | 184  | 119  | 444  | 351  |
| Grp Sat Flow(s),veh/h/ln     | 1728 | 1777 | 1585 | 1781 | 1777 | 1585 | 1728 | 1777 | 1858 | 1781 | 1870 | 1585 |
| Q Serve(g_s), s              | 4.8  | 6.1  | 8.3  | 2.4  | 12.4 | 3.7  | 6.1  | 5.2  | 5.2  | 4.4  | 15.0 | 13.7 |
| Cycle Q Clear(g_c), s        | 4.8  | 6.1  | 8.3  | 2.4  | 12.4 | 3.7  | 6.1  | 5.2  | 5.2  | 4.4  | 15.0 | 13.7 |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 0.04 | 1.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 256  | 1046 | 467  | 83   | 948  | 423  | 358  | 541  | 566  | 151  | 534  | 453  |
| V/C Ratio(X)                 | 0.96 | 0.38 | 0.50 | 0.79 | 0.75 | 0.26 | 0.88 | 0.32 | 0.33 | 0.79 | 0.83 | 0.78 |
| Avail Cap(c_a), veh/h        | 256  | 1359 | 606  | 132  | 1359 | 606  | 358  | 658  | 688  | 158  | 665  | 564  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 31.1 | 18.9 | 19.7 | 31.8 | 22.7 | 19.5 | 29.8 | 18.1 | 18.1 | 30.3 | 22.6 | 22.1 |
| Incr Delay (d2), s/veh       | 45.3 | 0.2  | 0.8  | 15.0 | 1.5  | 0.3  | 22.1 | 0.3  | 0.3  | 21.8 | 7.2  | 5.3  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 3.4  | 2.2  | 2.8  | 1.3  | 4.6  | 1.3  | 3.4  | 1.9  | 2.0  | 2.7  | 6.9  | 5.2  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 76.4 | 19.2 | 20.6 | 46.9 | 24.1 | 19.8 | 51.9 | 18.5 | 18.4 | 52.1 | 29.8 | 27.4 |
| LnGrp LOS                    | E    | B    | C    | D    | C    | B    | D    | B    | B    | D    | C    | C    |
| Approach Vol, veh/h          |      | 882  |      |      | 887  |      |      | 677  |      |      | 914  |      |
| Approach Delay, s/veh        |      | 35.5 |      |      | 25.3 |      |      | 34.1 |      |      | 31.8 |      |
| Approach LOS                 |      | D    |      |      | C    |      |      | C    |      |      | C    |      |
| Timer - Assigned Phs         | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 7.1  | 25.6 | 11.0 | 23.8 | 9.0  | 23.7 | 9.7  | 25.1 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 5.7  | 4.0  | 4.5  | 4.0  | 5.7  | 4.0  | 4.5  |      |      |      |      |
| Max Green Setting (Gmax), s  | 5.0  | 25.8 | 7.0  | 24.0 | 5.0  | 25.8 | 6.0  | 25.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 4.4  | 10.3 | 8.1  | 17.0 | 6.8  | 14.4 | 6.4  | 7.2  |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 2.7  | 0.0  | 2.3  | 0.0  | 3.6  | 0.0  | 1.7  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 31.5 |      |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      | C    |      |      |      |      |      |      |      |      |      |

Generations at Green Valley  
 3: El Dorado Hills Blvd./Salmon Falls Rd & Green Valley Road

Baseline  
 Timing Plan: AM



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 36   | 394  | 115  | 758  | 57   | 210  | 165  | 304  | 156  |
| v/c Ratio               | 0.56 | 0.68 | 0.67 | 1.01 | 0.19 | 0.67 | 0.44 | 0.76 | 0.34 |
| Control Delay           | 80.6 | 35.8 | 62.2 | 65.8 | 36.0 | 44.7 | 36.5 | 48.6 | 8.1  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 80.6 | 35.8 | 62.2 | 65.8 | 36.0 | 44.7 | 36.5 | 48.6 | 8.1  |
| Queue Length 50th (ft)  | 23   | 214  | 71   | ~540 | 31   | 113  | 89   | 178  | 1    |
| Queue Length 95th (ft)  | #76  | 326  | #144 | #755 | 51   | 138  | 117  | 206  | 23   |
| Internal Link Dist (ft) |      | 1876 |      | 819  |      | 2981 |      | 502  |      |
| Turn Bay Length (ft)    | 85   |      | 105  |      | 165  |      |      |      | 100  |
| Base Capacity (vph)     | 64   | 625  | 188  | 751  | 358  | 375  | 429  | 451  | 499  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.56 | 0.63 | 0.61 | 1.01 | 0.16 | 0.56 | 0.38 | 0.67 | 0.31 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
3: El Dorado Hills Blvd./Salmon Falls Rd & Green Valley Road

Baseline  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 35   | 366  | 12   | 101  | 619  | 48   | 40   | 102  | 45   | 117  | 216  | 111  |
| Future Volume (veh/h)        | 35   | 366  | 12   | 101  | 619  | 48   | 40   | 102  | 45   | 117  | 216  | 111  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 36   | 381  | 12   | 115  | 703  | 55   | 57   | 146  | 64   | 165  | 304  | 156  |
| Peak Hour Factor             | 0.96 | 0.96 | 0.96 | 0.88 | 0.88 | 0.88 | 0.70 | 0.70 | 0.70 | 0.71 | 0.71 | 0.71 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 45   | 644  | 20   | 145  | 708  | 55   | 263  | 182  | 80   | 361  | 379  | 321  |
| Arrive On Green              | 0.03 | 0.36 | 0.36 | 0.08 | 0.41 | 0.41 | 0.15 | 0.15 | 0.15 | 0.20 | 0.20 | 0.20 |
| Sat Flow, veh/h              | 1781 | 1803 | 57   | 1781 | 1712 | 134  | 1781 | 1233 | 540  | 1781 | 1870 | 1585 |
| Grp Volume(v), veh/h         | 36   | 0    | 393  | 115  | 0    | 758  | 57   | 0    | 210  | 165  | 304  | 156  |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1860 | 1781 | 0    | 1846 | 1781 | 0    | 1773 | 1781 | 1870 | 1585 |
| Q Serve(g_s), s              | 1.8  | 0.0  | 15.5 | 5.7  | 0.0  | 36.7 | 2.5  | 0.0  | 10.3 | 7.3  | 13.9 | 7.8  |
| Cycle Q Clear(g_c), s        | 1.8  | 0.0  | 15.5 | 5.7  | 0.0  | 36.7 | 2.5  | 0.0  | 10.3 | 7.3  | 13.9 | 7.8  |
| Prop In Lane                 | 1.00 |      | 0.03 | 1.00 |      | 0.07 | 1.00 |      | 0.30 | 1.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 45   | 0    | 665  | 145  | 0    | 763  | 263  | 0    | 261  | 361  | 379  | 321  |
| V/C Ratio(X)                 | 0.80 | 0.00 | 0.59 | 0.80 | 0.00 | 0.99 | 0.22 | 0.00 | 0.80 | 0.46 | 0.80 | 0.49 |
| Avail Cap(c_a), veh/h        | 65   | 0    | 665  | 192  | 0    | 763  | 367  | 0    | 365  | 439  | 460  | 390  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 43.5 | 0.0  | 23.5 | 40.5 | 0.0  | 26.2 | 33.7 | 0.0  | 37.0 | 31.5 | 34.1 | 31.7 |
| Incr Delay (d2), s/veh       | 30.1 | 0.0  | 2.2  | 13.7 | 0.0  | 30.9 | 0.7  | 0.0  | 11.6 | 1.5  | 10.0 | 1.9  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 1.1  | 0.0  | 6.5  | 2.9  | 0.0  | 20.5 | 1.1  | 0.0  | 5.1  | 3.1  | 7.0  | 0.2  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 73.7 | 0.0  | 25.7 | 54.2 | 0.0  | 57.1 | 34.4 | 0.0  | 48.6 | 33.0 | 44.0 | 33.6 |
| LnGrp LOS                    | E    | A    | C    | D    | A    | E    | C    | A    | D    | C    | D    | C    |
| Approach Vol, veh/h          |      | 429  |      |      | 873  |      |      | 267  |      |      | 625  |      |
| Approach Delay, s/veh        |      | 29.7 |      |      | 56.7 |      |      | 45.5 |      |      | 38.5 |      |
| Approach LOS                 |      | C    |      |      | E    |      |      | D    |      |      | D    |      |
| Timer - Assigned Phs         | 1    | 2    |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 10.8 | 38.1 |      | 23.7 | 5.8  | 43.1 |      | 17.2 |      |      |      |      |
| Change Period (Y+Rc), s      | 3.5  | 6.0  |      | 5.5  | 3.5  | 6.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 9.7  | 30.7 |      | 22.1 | 3.3  | 37.1 |      | 18.5 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 7.7  | 17.5 |      | 15.9 | 3.8  | 38.7 |      | 12.3 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 3.1  |      | 2.3  | 0.0  | 0.0  |      | 1.0  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      | 44.9 |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      |      | D    |      |      |      |      |      |      |      |      |

Generations at Green Valley  
 4: Silva Valley Pkwy./Allegheny Rd & Green Valley Road/Green Valley Rd.

Baseline  
 Timing Plan: AM



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 5    | 365  | 236  | 143  | 699  | 259  | 94   | 43   |
| v/c Ratio               | 0.04 | 0.61 | 0.35 | 0.59 | 0.75 | 0.68 | 0.23 | 0.23 |
| Control Delay           | 34.4 | 25.1 | 4.6  | 41.2 | 22.7 | 36.1 | 14.0 | 32.3 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 34.4 | 25.1 | 4.6  | 41.2 | 22.7 | 36.1 | 14.0 | 32.3 |
| Queue Length 50th (ft)  | 2    | 136  | 0    | 58   | 235  | 99   | 13   | 17   |
| Queue Length 95th (ft)  | 13   | 229  | 46   | #123 | #448 | 167  | 43   | 37   |
| Internal Link Dist (ft) |      | 819  |      |      | 2255 |      | 4847 | 380  |
| Turn Bay Length (ft)    | 205  |      | 205  | 350  |      | 150  |      |      |
| Base Capacity (vph)     | 113  | 754  | 781  | 255  | 935  | 436  | 460  | 649  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.04 | 0.48 | 0.30 | 0.56 | 0.75 | 0.59 | 0.20 | 0.07 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley

Baseline

4: Silva Valley Pkwy./Allegheny Rd & Green Valley Road/Green Valley Rd.

Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 5    | 332  | 215  | 116  | 550  | 16   | 205  | 30   | 44   | 4    | 25   | 1    |
| Future Volume (veh/h)        | 5    | 332  | 215  | 116  | 550  | 16   | 205  | 30   | 44   | 4    | 25   | 1    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 5    | 365  | 236  | 143  | 679  | 20   | 259  | 38   | 56   | 6    | 36   | 1    |
| Peak Hour Factor             | 0.91 | 0.91 | 0.91 | 0.81 | 0.81 | 0.81 | 0.79 | 0.79 | 0.79 | 0.70 | 0.70 | 0.70 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 117  | 719  | 609  | 182  | 761  | 22   | 319  | 122  | 180  | 9    | 53   | 1    |
| Arrive On Green              | 0.07 | 0.38 | 0.38 | 0.10 | 0.42 | 0.42 | 0.18 | 0.18 | 0.18 | 0.03 | 0.03 | 0.03 |
| Sat Flow, veh/h              | 1781 | 1870 | 1585 | 1781 | 1808 | 53   | 1781 | 683  | 1006 | 258  | 1549 | 43   |
| Grp Volume(v), veh/h         | 5    | 365  | 236  | 143  | 0    | 699  | 259  | 0    | 94   | 43   | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1870 | 1585 | 1781 | 0    | 1861 | 1781 | 0    | 1689 | 1850 | 0    | 0    |
| Q Serve(g_s), s              | 0.2  | 9.1  | 6.6  | 4.8  | 0.0  | 21.2 | 8.5  | 0.0  | 2.9  | 1.4  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 0.2  | 9.1  | 6.6  | 4.8  | 0.0  | 21.2 | 8.5  | 0.0  | 2.9  | 1.4  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 0.03 | 1.00 |      | 0.60 | 0.14 |      | 0.02 |
| Lane Grp Cap(c), veh/h       | 117  | 719  | 609  | 182  | 0    | 783  | 319  | 0    | 303  | 63   | 0    | 0    |
| V/C Ratio(X)                 | 0.04 | 0.51 | 0.39 | 0.79 | 0.00 | 0.89 | 0.81 | 0.00 | 0.31 | 0.68 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 117  | 777  | 658  | 263  | 0    | 925  | 450  | 0    | 427  | 668  | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 26.7 | 14.3 | 13.6 | 26.7 | 0.0  | 16.4 | 24.0 | 0.0  | 21.7 | 29.1 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 0.1  | 0.6  | 0.4  | 7.9  | 0.0  | 9.8  | 6.5  | 0.0  | 0.4  | 9.4  | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.1  | 3.1  | 1.9  | 2.2  | 0.0  | 8.8  | 3.7  | 0.0  | 1.1  | 0.7  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 26.8 | 14.9 | 14.0 | 34.6 | 0.0  | 26.2 | 30.5 | 0.0  | 22.2 | 38.5 | 0.0  | 0.0  |
| LnGrp LOS                    | C    | B    | B    | C    | A    | C    | C    | A    | C    | D    | A    | A    |
| Approach Vol, veh/h          |      | 606  |      |      | 842  |      |      | 353  |      |      |      | 43   |
| Approach Delay, s/veh        |      | 14.6 |      |      | 27.6 |      |      | 28.3 |      |      |      | 38.5 |
| Approach LOS                 |      | B    |      |      | C    |      |      | C    |      |      |      | D    |
| Timer - Assigned Phs         | 1    | 2    |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 8.0  | 31.3 |      | 6.1  | 10.2 | 29.1 |      | 15.5 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 5.7  |      | 4.0  | 4.0  | 5.7  |      | 4.6  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0  | 30.3 |      | 22.0 | 9.0  | 25.3 |      | 15.4 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 2.2  | 23.2 |      | 3.4  | 6.8  | 11.1 |      | 10.5 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 2.4  |      | 0.1  | 0.1  | 2.3  |      | 0.4  |      |      |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 23.7 |
| HCM 6th LOS        | C    |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.8  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↕    |      |      | ↕    | ↕    |      |
| Traffic Vol, veh/h       | 352  | 25   | 6    | 653  | 23   | 7    |
| Future Vol, veh/h        | 352  | 25   | 6    | 653  | 23   | 7    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 95   | 95   | 77   | 77   | 75   | 75   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 371  | 26   | 8    | 848  | 31   | 9    |

| Major/Minor          | Major1 | Major2 | Minor1 | Minor2 | Minor3      |
|----------------------|--------|--------|--------|--------|-------------|
| Conflicting Flow All | 0      | 0      | 397    | 0      | 1248 384    |
| Stage 1              | -      | -      | -      | -      | 384 -       |
| Stage 2              | -      | -      | -      | -      | 864 -       |
| Critical Hdwy        | -      | -      | 4.12   | -      | 6.42 6.22   |
| Critical Hdwy Stg 1  | -      | -      | -      | -      | 5.42 -      |
| Critical Hdwy Stg 2  | -      | -      | -      | -      | 5.42 -      |
| Follow-up Hdwy       | -      | -      | 2.218  | -      | 3.518 3.318 |
| Pot Cap-1 Maneuver   | -      | -      | 1162   | -      | 191 664     |
| Stage 1              | -      | -      | -      | -      | 688 -       |
| Stage 2              | -      | -      | -      | -      | 413 -       |
| Platoon blocked, %   | -      | -      | -      | -      | -           |
| Mov Cap-1 Maneuver   | -      | -      | 1162   | -      | 189 664     |
| Mov Cap-2 Maneuver   | -      | -      | -      | -      | 189 -       |
| Stage 1              | -      | -      | -      | -      | 688 -       |
| Stage 2              | -      | -      | -      | -      | 408 -       |

| Approach             | EB | WB  | NB   |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0  | 0.1 | 24.2 |
| HCM LOS              |    |     | C    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 227   | -   | -   | 1162  | -   |
| HCM Lane V/C Ratio    | 0.176 | -   | -   | 0.007 | -   |
| HCM Control Delay (s) | 24.2  | -   | -   | 8.1   | 0   |
| HCM Lane LOS          | C     | -   | -   | A     | A   |
| HCM 95th %tile Q(veh) | 0.6   | -   | -   | 0     | -   |



Generations at Green Valley  
6: Green Valley Rd & Malcolm Dixon Cutoff

Baseline  
Timing Plan: AM

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.2  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      | ↖    | ↑    | ↗    |      | ↖    |      |
| Traffic Vol, veh/h       | 6    | 338  | 589  | 1    | 0    | 7    |
| Future Vol, veh/h        | 6    | 338  | 589  | 1    | 0    | 7    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 100  | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 98   | 98   | 88   | 88   | 88   | 88   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 6    | 345  | 669  | 1    | 0    | 8    |

| Major/Minor          | Major1 | Major2 | Minor2 |   |       |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 670    | 0      | -      | 0 | 1027  |
| Stage 1              | -      | -      | -      | - | 670   |
| Stage 2              | -      | -      | -      | - | 357   |
| Critical Hdwy        | 4.12   | -      | -      | - | 6.42  |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.42  |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.42  |
| Follow-up Hdwy       | 2.218  | -      | -      | - | 3.518 |
| Pot Cap-1 Maneuver   | 920    | -      | -      | - | 260   |
| Stage 1              | -      | -      | -      | - | 509   |
| Stage 2              | -      | -      | -      | - | 708   |
| Platoon blocked, %   |        | -      | -      | - |       |
| Mov Cap-1 Maneuver   | 920    | -      | -      | - | 258   |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 258   |
| Stage 1              | -      | -      | -      | - | 505   |
| Stage 2              | -      | -      | -      | - | 708   |

| Approach             | EB  | WB | SB |
|----------------------|-----|----|----|
| HCM Control Delay, s | 0.2 | 0  | 13 |
| HCM LOS              |     |    | B  |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 920   | -   | -   | -   | 457   |
| HCM Lane V/C Ratio    | 0.007 | -   | -   | -   | 0.017 |
| HCM Control Delay (s) | 8.9   | -   | -   | -   | 13    |
| HCM Lane LOS          | A     | -   | -   | -   | B     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0.1   |

Generations at Green Valley  
7: Green Valley Rd & Malcom Dixon Rd

Baseline  
Timing Plan: AM

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.6  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      | ↕    | ↕    |      | ↕    |      |
| Traffic Vol, veh/h       | 9    | 318  | 564  | 15   | 9    | 16   |
| Future Vol, veh/h        | 9    | 318  | 564  | 15   | 9    | 16   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 93   | 93   | 87   | 87   | 78   | 78   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 10   | 342  | 648  | 17   | 12   | 21   |

| Major/Minor          | Major1 | Major2 | Minor2 |   |             |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 665    | 0      | -      | 0 | 1019 657    |
| Stage 1              | -      | -      | -      | - | 657 -       |
| Stage 2              | -      | -      | -      | - | 362 -       |
| Critical Hdwy        | 4.12   | -      | -      | - | 6.42 6.22   |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.42 -      |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.42 -      |
| Follow-up Hdwy       | 2.218  | -      | -      | - | 3.518 3.318 |
| Pot Cap-1 Maneuver   | 924    | -      | -      | - | 263 465     |
| Stage 1              | -      | -      | -      | - | 516 -       |
| Stage 2              | -      | -      | -      | - | 704 -       |
| Platoon blocked, %   |        | -      | -      | - |             |
| Mov Cap-1 Maneuver   | 924    | -      | -      | - | 260 465     |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 260 -       |
| Stage 1              | -      | -      | -      | - | 509 -       |
| Stage 2              | -      | -      | -      | - | 704 -       |

| Approach             | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.2 | 0  | 15.9 |
| HCM LOS              |     |    | C    |

| Minor Lane/Major Mvmt | EBL  | EBT | WBT | WBR | SBLn1 |
|-----------------------|------|-----|-----|-----|-------|
| Capacity (veh/h)      | 924  | -   | -   | -   | 362   |
| HCM Lane V/C Ratio    | 0.01 | -   | -   | -   | 0.089 |
| HCM Control Delay (s) | 8.9  | 0   | -   | -   | 15.9  |
| HCM Lane LOS          | A    | A   | -   | -   | C     |
| HCM 95th %tile Q(veh) | 0    | -   | -   | -   | 0.3   |

Generations at Green Valley  
8: Deer Valley Rd. & Green Valley Rd.

Baseline  
Timing Plan: AM

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 3.2  |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      | ↖    | ↑    | ↗    | ↖    | ↑    | ↗    |      | ↕    |      |      | ↕    |      |
| Traffic Vol, veh/h       | 14   | 300  | 9    | 15   | 519  | 12   | 22   | 0    | 24   | 28   | 0    | 37   |
| Future Vol, veh/h        | 14   | 300  | 9    | 15   | 519  | 12   | 22   | 0    | 24   | 28   | 0    | 37   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | 415  | -    | 415  | 415  | -    | 415  | -    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 90   | 90   | 90   | 85   | 85   | 85   | 72   | 72   | 72   | 70   | 70   | 70   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 16   | 333  | 10   | 18   | 611  | 14   | 31   | 0    | 33   | 40   | 0    | 53   |

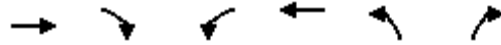
| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |       |       | Minor2 |       |       |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 625    | 0 | 0 | 343    | 0 | 0 | 1046   | 1026  | 333   | 1034   | 1022  | 611   |
| Stage 1              | -      | - | - | -      | - | - | 365    | 365   | -     | 647    | 647   | -     |
| Stage 2              | -      | - | - | -      | - | - | 681    | 661   | -     | 387    | 375   | -     |
| Critical Hdwy        | 4.12   | - | - | 4.12   | - | - | 7.12   | 6.52  | 6.22  | 7.12   | 6.52  | 6.22  |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Follow-up Hdwy       | 2.218  | - | - | 2.218  | - | - | 3.518  | 4.018 | 3.318 | 3.518  | 4.018 | 3.318 |
| Pot Cap-1 Maneuver   | 956    | - | - | 1216   | - | - | 206    | 235   | 709   | 210    | 236   | 494   |
| Stage 1              | -      | - | - | -      | - | - | 654    | 623   | -     | 460    | 467   | -     |
| Stage 2              | -      | - | - | -      | - | - | 440    | 460   | -     | 637    | 617   | -     |
| Platoon blocked, %   | -      | - | - | -      | - | - | -      | -     | -     | -      | -     | -     |
| Mov Cap-1 Maneuver   | 956    | - | - | 1216   | - | - | 180    | 227   | 709   | 195    | 228   | 494   |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | 180    | 227   | -     | 195    | 228   | -     |
| Stage 1              | -      | - | - | -      | - | - | 643    | 612   | -     | 452    | 460   | -     |
| Stage 2              | -      | - | - | -      | - | - | 387    | 453   | -     | 597    | 607   | -     |

| Approach             | EB  |  |  | WB  |  |  | NB   |  |  | SB   |  |  |
|----------------------|-----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 0.4 |  |  | 0.2 |  |  | 20.5 |  |  | 22.5 |  |  |
| HCM LOS              |     |  |  |     |  |  | C    |  |  | C    |  |  |

| Minor Lane/Major Mvmt | NBLn1 | EBL   | EBT | EBR | WBL   | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h)      | 295   | 956   | -   | -   | 1216  | -   | -   | 297   |
| HCM Lane V/C Ratio    | 0.217 | 0.016 | -   | -   | 0.015 | -   | -   | 0.313 |
| HCM Control Delay (s) | 20.5  | 8.8   | -   | -   | 8     | -   | -   | 22.5  |
| HCM Lane LOS          | C     | A     | -   | -   | A     | -   | -   | C     |
| HCM 95th %tile Q(veh) | 0.8   | 0.1   | -   | -   | 0     | -   | -   | 1.3   |

Generations at Green Valley  
 9: Silver Springs Pkwy & Green Valley Rd

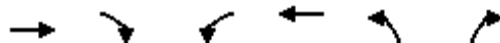
Baseline  
 Timing Plan: AM



| Lane Group                  | EBT  | EBR  | WBL  | WBT       | NBL  | NBR  |
|-----------------------------|------|------|------|-----------|------|------|
| Lane Group Flow (vph)       | 617  | 143  | 83   | 800       | 147  | 37   |
| v/c Ratio                   | 0.60 | 0.15 | 0.24 | 0.78      | 0.36 | 0.09 |
| Control Delay               | 8.9  | 1.6  | 6.8  | 14.1      | 16.5 | 6.4  |
| Queue Delay                 | 0.0  | 0.0  | 0.0  | 0.0       | 0.0  | 0.0  |
| Total Delay                 | 8.9  | 1.6  | 6.8  | 14.1      | 16.5 | 6.4  |
| Queue Length 50th (ft)      | 70   | 0    | 7    | 106       | 29   | 0    |
| Queue Length 95th (ft)      | 108  | 8    | 22   | 186       | 55   | 12   |
| Internal Link Dist (ft)     | 3999 |      |      | 3318 1349 |      |      |
| Turn Bay Length (ft)        | 230  |      | 415  |           | 135  |      |
| Base Capacity (vph)         | 1327 | 1168 | 443  | 1327      | 775  | 714  |
| Starvation Cap Reductn      | 0    | 0    | 0    | 0         | 0    | 0    |
| Spillback Cap Reductn       | 0    | 0    | 0    | 0         | 0    | 0    |
| Storage Cap Reductn         | 0    | 0    | 0    | 0         | 0    | 0    |
| Reduced v/c Ratio           | 0.46 | 0.12 | 0.19 | 0.60      | 0.19 | 0.05 |
| <b>Intersection Summary</b> |      |      |      |           |      |      |

Generations at Green Valley  
9: Silver Springs Pkwy & Green Valley Rd

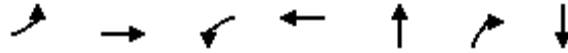
Baseline  
Timing Plan: AM



| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations          | ↑    | ↗    | ↘    | ↑    | ↖    | ↗    |
| Traffic Volume (veh/h)       | 432  | 100  | 64   | 616  | 112  | 28   |
| Future Volume (veh/h)        | 432  | 100  | 64   | 616  | 112  | 28   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 617  | 143  | 83   | 800  | 147  | 37   |
| Peak Hour Factor             | 0.70 | 0.70 | 0.77 | 0.77 | 0.76 | 0.76 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 1055 | 894  | 497  | 1055 | 281  | 250  |
| Arrive On Green              | 0.56 | 0.56 | 0.56 | 0.56 | 0.16 | 0.16 |
| Sat Flow, veh/h              | 1870 | 1585 | 706  | 1870 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 617  | 143  | 83   | 800  | 147  | 37   |
| Grp Sat Flow(s),veh/h/ln     | 1870 | 1585 | 706  | 1870 | 1781 | 1585 |
| Q Serve(g_s), s              | 6.2  | 1.2  | 2.5  | 9.4  | 2.2  | 0.6  |
| Cycle Q Clear(g_c), s        | 6.2  | 1.2  | 8.7  | 9.4  | 2.2  | 0.6  |
| Prop In Lane                 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 1055 | 894  | 497  | 1055 | 281  | 250  |
| V/C Ratio(X)                 | 0.58 | 0.16 | 0.17 | 0.76 | 0.52 | 0.15 |
| Avail Cap(c_a), veh/h        | 1692 | 1434 | 737  | 1692 | 992  | 882  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 4.1  | 3.0  | 6.9  | 4.8  | 11.1 | 10.4 |
| Incr Delay (d2), s/veh       | 0.5  | 0.1  | 0.2  | 1.1  | 1.5  | 0.3  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.2  | 0.0  | 0.1  | 0.3  | 0.6  | 0.1  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 4.6  | 3.1  | 7.0  | 5.9  | 12.6 | 10.7 |
| LnGrp LOS                    | A    | A    | A    | A    | B    | B    |
| Approach Vol, veh/h          | 760  |      |      | 883  | 184  |      |
| Approach Delay, s/veh        | 4.3  |      |      | 6.0  | 12.2 |      |
| Approach LOS                 | A    |      |      | A    | B    |      |
| Timer - Assigned Phs         |      | 2    |      | 4    |      | 8    |
| Phs Duration (G+Y+Rc), s     |      | 8.5  |      | 20.2 |      | 20.2 |
| Change Period (Y+Rc), s      |      | 4.0  |      | 4.0  |      | 4.0  |
| Max Green Setting (Gmax), s  |      | 16.0 |      | 26.0 |      | 26.0 |
| Max Q Clear Time (g_c+I1), s |      | 4.2  |      | 8.2  |      | 11.4 |
| Green Ext Time (p_c), s      |      | 0.4  |      | 3.7  |      | 4.8  |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 5.9  |      |      |      |
| HCM 6th LOS                  |      |      | A    |      |      |      |

Generations at Green Valley  
 10: Bass Lake Rd./Alexandrite Dr & Green Valley Rd.

Baseline  
 Timing Plan: AM



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBT  | NBR  | SBT  |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 6    | 663  | 151  | 754  | 132  | 136  | 7    |
| v/c Ratio               | 0.05 | 0.75 | 0.64 | 0.62 | 0.45 | 0.36 | 0.03 |
| Control Delay           | 33.5 | 21.1 | 44.4 | 11.9 | 30.7 | 8.6  | 0.2  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 33.5 | 21.1 | 44.4 | 11.9 | 30.7 | 8.6  | 0.2  |
| Queue Length 50th (ft)  | 2    | 171  | 54   | 106  | 45   | 0    | 0    |
| Queue Length 95th (ft)  | 11   | 275  | #136 | 348  | 88   | 27   | 0    |
| Internal Link Dist (ft) |      | 3318 |      | 1151 | 1084 |      | 521  |
| Turn Bay Length (ft)    | 285  |      | 435  |      |      | 150  |      |
| Base Capacity (vph)     | 117  | 1038 | 235  | 1262 | 471  | 520  | 545  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.05 | 0.64 | 0.64 | 0.60 | 0.28 | 0.26 | 0.01 |

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
10: Bass Lake Rd./Alexandrite Dr & Green Valley Rd.

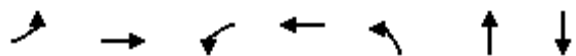
Baseline  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 4    | 411  | 53   | 116  | 580  | 1    | 98   | 1    | 102  | 4    | 0    | 1    |
| Future Volume (veh/h)        | 4    | 411  | 53   | 116  | 580  | 1    | 98   | 1    | 102  | 4    | 0    | 1    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 6    | 587  | 76   | 151  | 753  | 1    | 131  | 1    | 136  | 6    | 0    | 1    |
| Peak Hour Factor             | 0.70 | 0.70 | 0.70 | 0.77 | 0.77 | 0.77 | 0.75 | 0.75 | 0.75 | 0.70 | 0.70 | 0.70 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 11   | 700  | 91   | 193  | 997  | 1    | 235  | 2    | 211  | 11   | 0    | 2    |
| Arrive On Green              | 0.01 | 0.43 | 0.43 | 0.11 | 0.53 | 0.53 | 0.13 | 0.13 | 0.13 | 0.01 | 0.00 | 0.01 |
| Sat Flow, veh/h              | 1781 | 1622 | 210  | 1781 | 1867 | 2    | 1768 | 14   | 1585 | 1500 | 0    | 250  |
| Grp Volume(v), veh/h         | 6    | 0    | 663  | 151  | 0    | 754  | 132  | 0    | 136  | 7    | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1833 | 1781 | 0    | 1870 | 1782 | 0    | 1585 | 1750 | 0    | 0    |
| Q Serve(g_s), s              | 0.2  | 0.0  | 16.1 | 4.1  | 0.0  | 15.8 | 3.5  | 0.0  | 4.1  | 0.2  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 0.2  | 0.0  | 16.1 | 4.1  | 0.0  | 15.8 | 3.5  | 0.0  | 4.1  | 0.2  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 0.11 | 1.00 |      | 0.00 | 0.99 |      | 1.00 | 0.86 |      | 0.14 |
| Lane Grp Cap(c), veh/h       | 11   | 0    | 791  | 193  | 0    | 998  | 237  | 0    | 211  | 13   | 0    | 0    |
| V/C Ratio(X)                 | 0.53 | 0.00 | 0.84 | 0.78 | 0.00 | 0.76 | 0.56 | 0.00 | 0.64 | 0.54 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 142  | 0    | 1243 | 284  | 0    | 1418 | 569  | 0    | 506  | 559  | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 24.8 | 0.0  | 12.7 | 21.8 | 0.0  | 9.1  | 20.3 | 0.0  | 20.6 | 24.8 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 32.9 | 0.0  | 3.0  | 8.1  | 0.0  | 1.5  | 2.0  | 0.0  | 3.3  | 30.6 | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.2  | 0.0  | 4.7  | 1.8  | 0.0  | 3.5  | 1.4  | 0.0  | 1.4  | 0.2  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 57.7 | 0.0  | 15.7 | 29.9 | 0.0  | 10.6 | 22.4 | 0.0  | 23.9 | 55.4 | 0.0  | 0.0  |
| LnGrp LOS                    | E    | A    | B    | C    | A    | B    | C    | A    | C    | E    | A    | A    |
| Approach Vol, veh/h          |      | 669  |      |      | 905  |      |      | 268  |      |      |      | 7    |
| Approach Delay, s/veh        |      | 16.1 |      |      | 13.8 |      |      | 23.1 |      |      |      | 55.4 |
| Approach LOS                 |      | B    |      |      | B    |      |      | C    |      |      |      | E    |
| Timer - Assigned Phs         |      | 2    | 3    | 4    |      | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 10.7 | 9.4  | 25.6 |      | 4.4  | 4.3  | 30.8 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 16.0 | 8.0  | 34.0 |      | 16.0 | 4.0  | 38.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 6.1  | 6.1  | 18.1 |      | 2.2  | 2.2  | 17.8 |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.8  | 0.1  | 3.5  |      | 0.0  | 0.0  | 4.5  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 16.1 |      |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      | B    |      |      |      |      |      |      |      |      |      |

Generations at Green Valley  
 11: Cambridge Rd./Peridot Dr & Green Valley Rd.

Baseline  
 Timing Plan: AM

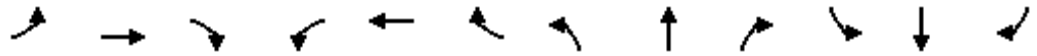


| Lane Group                  | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBT  |
|-----------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)       | 14   | 721  | 32   | 624  | 249  | 64   | 64   |
| v/c Ratio                   | 0.12 | 0.80 | 0.28 | 0.66 | 0.65 | 0.16 | 0.29 |
| Control Delay               | 39.7 | 25.1 | 43.3 | 17.9 | 37.6 | 10.3 | 22.1 |
| Queue Delay                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay                 | 39.7 | 25.1 | 43.3 | 17.9 | 37.6 | 10.3 | 22.1 |
| Queue Length 50th (ft)      | 6    | 233  | 14   | 187  | 102  | 1    | 11   |
| Queue Length 95th (ft)      | 20   | 315  | 40   | 328  | 151  | 20   | 34   |
| Internal Link Dist (ft)     |      | 1151 |      | 2235 |      | 1080 | 510  |
| Turn Bay Length (ft)        | 100  |      | 125  |      | 125  |      |      |
| Base Capacity (vph)         | 115  | 1118 | 115  | 1172 | 463  | 462  | 468  |
| Starvation Cap Reductn      | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn       | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn         | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio           | 0.12 | 0.64 | 0.28 | 0.53 | 0.54 | 0.14 | 0.14 |
| <b>Intersection Summary</b> |      |      |      |      |      |      |      |



Generations at Green Valley  
11: Cambridge Rd./Peridot Dr & Green Valley Rd.

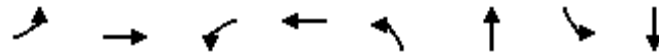
Baseline  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 10   | 435  | 70   | 26   | 500  | 6    | 174  | 3    | 42   | 16   | 3    | 26   |
| Future Volume (veh/h)        | 10   | 435  | 70   | 26   | 500  | 6    | 174  | 3    | 42   | 16   | 3    | 26   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 14   | 621  | 100  | 32   | 617  | 7    | 249  | 4    | 60   | 23   | 4    | 37   |
| Peak Hour Factor             | 0.70 | 0.70 | 0.70 | 0.81 | 0.81 | 0.81 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 25   | 722  | 116  | 50   | 874  | 10   | 318  | 18   | 268  | 29   | 5    | 47   |
| Arrive On Green              | 0.01 | 0.46 | 0.46 | 0.03 | 0.47 | 0.47 | 0.18 | 0.18 | 0.18 | 0.05 | 0.05 | 0.05 |
| Sat Flow, veh/h              | 1781 | 1572 | 253  | 1781 | 1846 | 21   | 1781 | 100  | 1500 | 599  | 104  | 964  |
| Grp Volume(v), veh/h         | 14   | 0    | 721  | 32   | 0    | 624  | 249  | 0    | 64   | 64   | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1825 | 1781 | 0    | 1867 | 1781 | 0    | 1600 | 1667 | 0    | 0    |
| Q Serve(g_s), s              | 0.4  | 0.0  | 19.8 | 1.0  | 0.0  | 14.8 | 7.5  | 0.0  | 1.9  | 2.1  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 0.4  | 0.0  | 19.8 | 1.0  | 0.0  | 14.8 | 7.5  | 0.0  | 1.9  | 2.1  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 0.14 | 1.00 |      | 0.01 | 1.00 |      | 0.94 | 0.36 |      | 0.58 |
| Lane Grp Cap(c), veh/h       | 25   | 0    | 838  | 50   | 0    | 884  | 318  | 0    | 286  | 81   | 0    | 0    |
| V/C Ratio(X)                 | 0.56 | 0.00 | 0.86 | 0.64 | 0.00 | 0.71 | 0.78 | 0.00 | 0.22 | 0.79 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 127  | 0    | 1238 | 127  | 0    | 1266 | 509  | 0    | 457  | 476  | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 27.4 | 0.0  | 13.5 | 26.9 | 0.0  | 11.7 | 22.0 | 0.0  | 19.7 | 26.4 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 18.4 | 0.0  | 4.3  | 12.9 | 0.0  | 1.0  | 4.2  | 0.0  | 0.4  | 15.7 | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.3  | 0.0  | 6.2  | 0.5  | 0.0  | 4.2  | 3.2  | 0.0  | 0.7  | 1.1  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 45.8 | 0.0  | 17.8 | 39.9 | 0.0  | 12.7 | 26.2 | 0.0  | 20.1 | 42.1 | 0.0  | 0.0  |
| LnGrp LOS                    | D    | A    | B    | D    | A    | B    | C    | A    | C    | D    | A    | A    |
| Approach Vol, veh/h          |      | 735  |      |      | 656  |      |      | 313  |      |      |      | 64   |
| Approach Delay, s/veh        |      | 18.3 |      |      | 14.0 |      |      | 25.0 |      |      |      | 42.1 |
| Approach LOS                 |      | B    |      |      | B    |      |      | C    |      |      |      | D    |
| Timer - Assigned Phs         |      | 2    | 3    | 4    |      | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 14.0 | 5.6  | 29.7 |      | 6.7  | 4.8  | 30.5 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 16.0 | 4.0  | 38.0 |      | 16.0 | 4.0  | 38.0 |      |      |      |      |
| Max Q Clear Time (g_c+l1), s |      | 9.5  | 3.0  | 21.8 |      | 4.1  | 2.4  | 16.8 |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.6  | 0.0  | 4.0  |      | 0.2  | 0.0  | 3.5  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      | 18.8 |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      |      | B    |      |      |      |      |      |      |      |      |

Generations at Green Valley  
 12: Cameron Park Dr. & Green Valley Rd.

Baseline  
 Timing Plan: AM



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 21   | 676  | 112  | 293  | 259  | 175  | 30   | 97   |
| v/c Ratio               | 0.17 | 0.87 | 0.77 | 0.30 | 0.78 | 0.31 | 0.25 | 0.43 |
| Control Delay           | 40.7 | 32.9 | 73.4 | 13.5 | 50.7 | 9.2  | 42.6 | 34.0 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 40.7 | 32.9 | 73.4 | 13.5 | 50.7 | 9.2  | 42.6 | 34.0 |
| Queue Length 50th (ft)  | 10   | 269  | 57   | 69   | 128  | 12   | 15   | 38   |
| Queue Length 95th (ft)  | 26   | 291  | #144 | 150  | #238 | 53   | 33   | 61   |
| Internal Link Dist (ft) |      | 2235 |      | 1414 |      | 1563 |      | 921  |
| Turn Bay Length (ft)    | 270  |      | 150  |      | 125  |      | 55   |      |
| Base Capacity (vph)     | 121  | 883  | 145  | 1009 | 339  | 694  | 121  | 454  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.17 | 0.77 | 0.77 | 0.29 | 0.76 | 0.25 | 0.25 | 0.21 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
12: Cameron Park Dr. & Green Valley Rd.

Baseline  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 15   | 250  | 223  | 95   | 242  | 7    | 215  | 30   | 115  | 21   | 50   | 18   |
| Future Volume (veh/h)        | 15   | 250  | 223  | 95   | 242  | 7    | 215  | 30   | 115  | 21   | 50   | 18   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 21   | 357  | 319  | 112  | 285  | 8    | 259  | 36   | 139  | 30   | 71   | 26   |
| Peak Hour Factor             | 0.70 | 0.70 | 0.70 | 0.85 | 0.85 | 0.85 | 0.83 | 0.83 | 0.83 | 0.70 | 0.70 | 0.70 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 34   | 394  | 352  | 143  | 895  | 25   | 305  | 78   | 300  | 45   | 112  | 41   |
| Arrive On Green              | 0.02 | 0.43 | 0.43 | 0.08 | 0.49 | 0.49 | 0.17 | 0.23 | 0.23 | 0.03 | 0.09 | 0.09 |
| Sat Flow, veh/h              | 1781 | 910  | 814  | 1781 | 1810 | 51   | 1781 | 337  | 1300 | 1781 | 1306 | 478  |
| Grp Volume(v), veh/h         | 21   | 0    | 676  | 112  | 0    | 293  | 259  | 0    | 175  | 30   | 0    | 97   |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1724 | 1781 | 0    | 1861 | 1781 | 0    | 1636 | 1781 | 0    | 1784 |
| Q Serve(g_s), s              | 0.8  | 0.0  | 25.4 | 4.3  | 0.0  | 6.6  | 9.8  | 0.0  | 6.4  | 1.2  | 0.0  | 3.7  |
| Cycle Q Clear(g_c), s        | 0.8  | 0.0  | 25.4 | 4.3  | 0.0  | 6.6  | 9.8  | 0.0  | 6.4  | 1.2  | 0.0  | 3.7  |
| Prop In Lane                 | 1.00 |      | 0.47 | 1.00 |      | 0.03 | 1.00 |      | 0.79 | 1.00 |      | 0.27 |
| Lane Grp Cap(c), veh/h       | 34   | 0    | 747  | 143  | 0    | 920  | 305  | 0    | 378  | 45   | 0    | 152  |
| V/C Ratio(X)                 | 0.61 | 0.00 | 0.91 | 0.79 | 0.00 | 0.32 | 0.85 | 0.00 | 0.46 | 0.67 | 0.00 | 0.64 |
| Avail Cap(c_a), veh/h        | 128  | 0    | 893  | 154  | 0    | 991  | 359  | 0    | 636  | 128  | 0    | 462  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh     | 33.8 | 0.0  | 18.4 | 31.4 | 0.0  | 10.6 | 27.9 | 0.0  | 23.0 | 33.6 | 0.0  | 30.7 |
| Incr Delay (d2), s/veh       | 16.6 | 0.0  | 11.3 | 21.6 | 0.0  | 0.2  | 15.4 | 0.0  | 0.9  | 15.6 | 0.0  | 4.4  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.5  | 0.0  | 10.0 | 2.5  | 0.0  | 2.1  | 5.1  | 0.0  | 2.3  | 0.7  | 0.0  | 1.7  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 50.4 | 0.0  | 29.6 | 53.0 | 0.0  | 10.8 | 43.3 | 0.0  | 23.9 | 49.1 | 0.0  | 35.1 |
| LnGrp LOS                    | D    | A    | C    | D    | A    | B    | D    | A    | C    | D    | A    | D    |
| Approach Vol, veh/h          |      | 697  |      |      | 405  |      |      | 434  |      |      | 127  |      |
| Approach Delay, s/veh        |      | 30.3 |      |      | 22.4 |      |      | 35.5 |      |      | 38.4 |      |
| Approach LOS                 |      | C    |      |      | C    |      |      | D    |      |      | D    |      |
| Timer - Assigned Phs         | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 5.8  | 20.1 | 9.6  | 34.1 | 15.9 | 9.9  | 5.3  | 38.3 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 5.0  | 27.0 | 6.0  | 36.0 | 14.0 | 18.0 | 5.0  | 37.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 3.2  | 8.4  | 6.3  | 27.4 | 11.8 | 5.7  | 2.8  | 8.6  |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 0.8  | 0.0  | 2.7  | 0.2  | 0.3  | 0.0  | 1.5  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 30.3 |      |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      | C    |      |      |      |      |      |      |      |      |      |

Intersection

Intersection Delay, s/veh 53.1

Intersection LOS F

| Movement            | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations |      | ↔    | ↔    |      | ↔    |      | ↔    | ↔    |      | ↔    | ↔    |      |
| Traffic Vol, veh/h  | 7    | 41   | 484  | 21   | 36   | 25   | 439  | 184  | 45   | 95   | 297  | 1    |
| Future Vol, veh/h   | 7    | 41   | 484  | 21   | 36   | 25   | 439  | 184  | 45   | 95   | 297  | 1    |
| Peak Hour Factor    | 0.72 | 0.72 | 0.72 | 0.70 | 0.70 | 0.70 | 0.71 | 0.71 | 0.71 | 0.83 | 0.83 | 0.83 |
| Heavy Vehicles, %   | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow           | 10   | 57   | 672  | 30   | 51   | 36   | 618  | 259  | 63   | 114  | 358  | 1    |
| Number of Lanes     | 0    | 1    | 1    | 0    | 1    | 0    | 1    | 1    | 0    | 1    | 1    | 0    |

| Approach                      | EB    | WB   | NB    | SB   |
|-------------------------------|-------|------|-------|------|
| Opposing Approach             | WB    | EB   | SB    | NB   |
| Opposing Lanes                | 1     | 2    | 2     | 2    |
| Conflicting Approach Left SB  |       | NB   | EB    | WB   |
| Conflicting Lanes Left        | 2     | 2    | 2     | 1    |
| Conflicting Approach Right NB |       | SB   | WB    | EB   |
| Conflicting Lanes Right       | 2     | 2    | 1     | 2    |
| HCM Control Delay             | 210.8 | 19.6 | 181.3 | 40.2 |
| HCM LOS                       | F     | C    | F     | E    |

| Lane                   | NBLn1 | NBLn2 | EBLn1 | EBLn2 | WBLn1  | SBLn1  | SBLn2 |
|------------------------|-------|-------|-------|-------|--------|--------|-------|
| Vol Left, %            | 100%  | 0%    | 15%   | 0%    | 26%    | 100%   | 0%    |
| Vol Thru, %            | 0%    | 80%   | 85%   | 0%    | 44%    | 0%     | 100%  |
| Vol Right, %           | 0%    | 20%   | 0%    | 100%  | 30%    | 0%     | 0%    |
| Sign Control           | Stop  | Stop  | Stop  | Stop  | Stop   | Stop   | Stop  |
| Traffic Vol by Lane    | 439   | 229   | 48    | 484   | 82     | 95     | 298   |
| LT Vol                 | 439   | 0     | 7     | 0     | 21     | 95     | 0     |
| Through Vol            | 0     | 184   | 41    | 0     | 36     | 0      | 297   |
| RT Vol                 | 0     | 45    | 0     | 484   | 25     | 0      | 1     |
| Lane Flow Rate         | 618   | 323   | 67    | 672   | 117    | 114    | 359   |
| Geometry Grp           | 7     | 7     | 7     | 7     | 6      | 7      | 7     |
| Degree of Util (X)     | 1.489 | 0.72  | 0.156 | 1.434 | 0.317  | 0.285  | 0.844 |
| Departure Headway (Hd) | 9.797 | 9.128 | 9.012 | 8.21  | 11.398 | 10.274 | 9.744 |
| Convergence, Y/N       | Yes   | Yes   | Yes   | Yes   | Yes    | Yes    | Yes   |
| Cap                    | 377   | 400   | 401   | 450   | 317    | 353    | 373   |
| Service Time           | 7.497 | 6.828 | 6.712 | 5.91  | 9.398  | 7.974  | 7.444 |
| HCM Lane V/C Ratio     | 1.639 | 0.807 | 0.167 | 1.493 | 0.369  | 0.323  | 0.962 |
| HCM Control Delay      | 259.2 | 32.1  | 13.4  | 230.4 | 19.6   | 17     | 47.6  |
| HCM Lane LOS           | F     | D     | B     | F     | C      | C      | E     |
| HCM 95th-tile Q        | 29.4  | 5.5   | 0.5   | 31.3  | 1.3    | 1.2    | 7.8   |

Generations at Green Valley  
 14: El Dorado Hills Blvd. & Harvard Way

Baseline  
 Timing Plan: AM



| Lane Group              | WBL  | WBR  | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|
| Lane Group Flow (vph)   | 461  | 271  | 1204 | 353  | 872  |
| v/c Ratio               | 0.86 | 0.41 | 0.85 | 0.91 | 0.45 |
| Control Delay           | 36.5 | 4.5  | 18.0 | 55.3 | 8.3  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 36.5 | 4.5  | 18.0 | 55.3 | 8.3  |
| Queue Length 50th (ft)  | 138  | 0    | 123  | 60   | 80   |
| Queue Length 95th (ft)  | 165  | 17   | 167  | #114 | 103  |
| Internal Link Dist (ft) | 2093 |      | 5028 |      | 7812 |
| Turn Bay Length (ft)    |      |      |      | 190  |      |
| Base Capacity (vph)     | 571  | 694  | 1495 | 390  | 2015 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.81 | 0.39 | 0.81 | 0.91 | 0.43 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
14: El Dorado Hills Blvd. & Harvard Way

Baseline  
Timing Plan: AM



| Movement                     | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 323  | 190  | 573  | 427  | 293  | 724  |
| Future Volume (veh/h)        | 323  | 190  | 573  | 427  | 293  | 724  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 | 1.00 |      | 1.00 | 1.00 |      |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      | No   |      |      | No   |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 461  | 271  | 690  | 514  | 353  | 872  |
| Peak Hour Factor             | 0.70 | 0.70 | 0.83 | 0.83 | 0.83 | 0.83 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 523  | 466  | 724  | 535  | 385  | 1981 |
| Arrive On Green              | 0.29 | 0.29 | 0.37 | 0.37 | 0.11 | 0.56 |
| Sat Flow, veh/h              | 1781 | 1585 | 2041 | 1440 | 3456 | 3647 |
| Grp Volume(v), veh/h         | 461  | 271  | 629  | 575  | 353  | 872  |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1585 | 1777 | 1611 | 1728 | 1777 |
| Q Serve(g_s), s              | 13.3 | 7.8  | 18.5 | 18.8 | 5.4  | 7.7  |
| Cycle Q Clear(g_c), s        | 13.3 | 7.8  | 18.5 | 18.8 | 5.4  | 7.7  |
| Prop In Lane                 | 1.00 | 1.00 |      | 0.89 | 1.00 |      |
| Lane Grp Cap(c), veh/h       | 523  | 466  | 660  | 599  | 385  | 1981 |
| V/C Ratio(X)                 | 0.88 | 0.58 | 0.95 | 0.96 | 0.92 | 0.44 |
| Avail Cap(c_a), veh/h        | 563  | 501  | 660  | 599  | 385  | 1981 |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 18.1 | 16.2 | 16.4 | 16.5 | 23.7 | 7.0  |
| Incr Delay (d2), s/veh       | 14.4 | 1.5  | 23.9 | 27.0 | 26.2 | 0.2  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 6.7  | 2.6  | 9.9  | 9.5  | 3.3  | 1.7  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 32.5 | 17.7 | 40.3 | 43.6 | 49.8 | 7.1  |
| LnGrp LOS                    | C    | B    | D    | D    | D    | A    |
| Approach Vol, veh/h          | 732  |      | 1204 |      |      | 1225 |
| Approach Delay, s/veh        | 27.0 |      | 41.9 |      |      | 19.4 |
| Approach LOS                 | C    |      | D    |      |      | B    |
| Timer - Assigned Phs         | 1    | 2    |      |      | 6    | 8    |
| Phs Duration (G+Y+Rc), s     | 10.0 | 24.0 |      |      | 34.0 | 19.8 |
| Change Period (Y+Rc), s      | 4.0  | 4.0  |      |      | 4.0  | 4.0  |
| Max Green Setting (Gmax), s  | 6.0  | 20.0 |      |      | 30.0 | 17.0 |
| Max Q Clear Time (g_c+I1), s | 7.4  | 20.8 |      |      | 9.7  | 15.3 |
| Green Ext Time (p_c), s      | 0.0  | 0.0  |      |      | 5.4  | 0.5  |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 29.7 |      |      |      |
| HCM 6th LOS                  |      |      | C    |      |      |      |

Generations at Green Valley  
15: El Dorado Hills Blvd. & Wilson Blvd

Baseline  
Timing Plan: AM



| Lane Group              | EBT  | EBR  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 198  | 153  | 6    | 84   | 1049 | 19   | 1177 |
| v/c Ratio               | 0.63 | 0.32 | 0.02 | 0.63 | 0.51 | 0.14 | 0.68 |
| Control Delay           | 27.1 | 5.3  | 13.5 | 48.7 | 8.9  | 26.1 | 14.3 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 27.1 | 5.3  | 13.5 | 48.7 | 8.9  | 26.1 | 14.3 |
| Queue Length 50th (ft)  | 53   | 0    | 1    | 25   | 78   | 6    | 143  |
| Queue Length 95th (ft)  | 86   | 22   | 6    | #76  | 178  | 22   | 237  |
| Internal Link Dist (ft) | 1459 |      | 233  |      | 3231 |      | 5028 |
| Turn Bay Length (ft)    |      |      |      | 278  |      | 90   |      |
| Base Capacity (vph)     | 412  | 588  | 472  | 134  | 2075 | 134  | 1735 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.48 | 0.26 | 0.01 | 0.63 | 0.51 | 0.14 | 0.68 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Generations at Green Valley  
15: El Dorado Hills Blvd. & Wilson Blvd

Baseline  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      | ↖    | ↗    |      | ↔    |      | ↖    | ↕    |      | ↖    | ↕    |      |
| Traffic Volume (veh/h)       | 147  | 4    | 116  | 3    | 1    | 1    | 70   | 864  | 7    | 17   | 977  | 94   |
| Future Volume (veh/h)        | 147  | 4    | 116  | 3    | 1    | 1    | 70   | 864  | 7    | 17   | 977  | 94   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 193  | 5    | 153  | 4    | 1    | 1    | 84   | 1041 | 8    | 19   | 1074 | 103  |
| Peak Hour Factor             | 0.76 | 0.76 | 0.76 | 0.70 | 0.70 | 0.70 | 0.83 | 0.83 | 0.83 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 421  | 7    | 292  | 186  | 47   | 21   | 106  | 1943 | 15   | 33   | 1629 | 156  |
| Arrive On Green              | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.06 | 0.54 | 0.54 | 0.02 | 0.50 | 0.50 |
| Sat Flow, veh/h              | 1453 | 38   | 1585 | 307  | 253  | 112  | 1781 | 3614 | 28   | 1781 | 3277 | 314  |
| Grp Volume(v), veh/h         | 198  | 0    | 153  | 6    | 0    | 0    | 84   | 512  | 537  | 19   | 582  | 595  |
| Grp Sat Flow(s),veh/h/ln     | 1490 | 0    | 1585 | 671  | 0    | 0    | 1781 | 1777 | 1865 | 1781 | 1777 | 1814 |
| Q Serve(g_s), s              | 0.0  | 0.0  | 4.0  | 0.0  | 0.0  | 0.0  | 2.2  | 8.7  | 8.7  | 0.5  | 11.3 | 11.4 |
| Cycle Q Clear(g_c), s        | 5.6  | 0.0  | 4.0  | 5.7  | 0.0  | 0.0  | 2.2  | 8.7  | 8.7  | 0.5  | 11.3 | 11.4 |
| Prop In Lane                 | 0.97 |      | 1.00 | 0.67 |      | 0.17 | 1.00 |      | 0.01 | 1.00 |      | 0.17 |
| Lane Grp Cap(c), veh/h       | 428  | 0    | 292  | 253  | 0    | 0    | 106  | 955  | 1003 | 33   | 883  | 902  |
| V/C Ratio(X)                 | 0.46 | 0.00 | 0.52 | 0.02 | 0.00 | 0.00 | 0.80 | 0.54 | 0.54 | 0.57 | 0.66 | 0.66 |
| Avail Cap(c_a), veh/h        | 658  | 0    | 548  | 473  | 0    | 0    | 154  | 955  | 1003 | 154  | 883  | 902  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 17.7 | 0.0  | 17.0 | 15.7 | 0.0  | 0.0  | 21.5 | 6.9  | 6.9  | 22.5 | 8.7  | 8.7  |
| Incr Delay (d2), s/veh       | 0.8  | 0.0  | 1.5  | 0.0  | 0.0  | 0.0  | 16.2 | 2.2  | 2.1  | 14.4 | 3.8  | 3.8  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 1.7  | 0.0  | 1.4  | 0.0  | 0.0  | 0.0  | 1.2  | 2.3  | 2.3  | 0.3  | 3.3  | 3.3  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 18.5 | 0.0  | 18.5 | 15.7 | 0.0  | 0.0  | 37.7 | 9.1  | 9.0  | 36.9 | 12.5 | 12.5 |
| LnGrp LOS                    | B    | A    | B    | B    | A    | A    | D    | A    | A    | D    | B    | B    |
| Approach Vol, veh/h          |      | 351  |      |      | 6    |      |      | 1133 |      |      | 1196 |      |
| Approach Delay, s/veh        |      | 18.5 |      |      | 15.7 |      |      | 11.2 |      |      | 12.9 |      |
| Approach LOS                 |      | B    |      |      | B    |      |      | B    |      |      | B    |      |
| Timer - Assigned Phs         | 1    | 2    |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 4.9  | 28.9 |      | 12.5 | 6.7  | 27.0 |      | 12.5 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0  | 23.0 |      | 16.0 | 4.0  | 23.0 |      | 16.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 2.5  | 10.7 |      | 7.6  | 4.2  | 13.4 |      | 7.7  |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 4.9  |      | 1.0  | 0.0  | 4.7  |      | 0.0  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      |      |      |      |      |      |      |      | 12.9 |      |
| HCM 6th LOS                  |      |      |      |      |      |      |      |      |      |      | B    |      |



Generations at Green Valley  
 16: El Dorado Hills Blvd. & Lassen Ln/Serrano Pkwy.

Baseline  
 Timing Plan: AM



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | NBR  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 30   | 107  | 257  | 380  | 73   | 821  | 241  | 145  | 1078 |
| v/c Ratio               | 0.08 | 0.26 | 0.92 | 0.87 | 0.78 | 0.73 | 0.15 | 0.87 | 0.81 |
| Control Delay           | 29.2 | 14.7 | 77.0 | 38.0 | 91.8 | 31.5 | 0.2  | 84.1 | 31.5 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 29.2 | 14.7 | 77.0 | 38.0 | 91.8 | 31.5 | 0.2  | 84.1 | 31.5 |
| Queue Length 50th (ft)  | 14   | 18   | 153  | 97   | 42   | 216  | 0    | 82   | 290  |
| Queue Length 95th (ft)  | 33   | 50   | #200 | 118  | #106 | 263  | 0    | #181 | 368  |
| Internal Link Dist (ft) |      | 321  |      | 6047 |      | 1160 |      |      | 3231 |
| Turn Bay Length (ft)    | 70   |      | 410  |      | 260  |      |      | 100  |      |
| Base Capacity (vph)     | 375  | 411  | 278  | 435  | 99   | 1131 | 1583 | 178  | 1327 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.08 | 0.26 | 0.92 | 0.87 | 0.74 | 0.73 | 0.15 | 0.81 | 0.81 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
16: El Dorado Hills Blvd. & Lassen Ln/Serrano Pkwy.

Baseline  
Timing Plan: AM

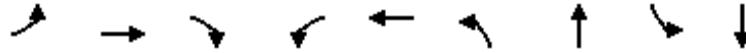


| Movement                          | EBL   | EBT  | EBR   | WBL   | WBT  | WBR  | NBL   | NBT  | NBR   | SBL   | SBT   | SBR  |
|-----------------------------------|-------|------|-------|-------|------|------|-------|------|-------|-------|-------|------|
| Lane Configurations               |       |      |       |       |      |      |       |      |       |       |       |      |
| Traffic Volume (vph)              | 24    | 30   | 55    | 200   | 28   | 218  | 62    | 698  | 205   | 129   | 922   | 37   |
| Future Volume (vph)               | 24    | 30   | 55    | 200   | 28   | 218  | 62    | 698  | 205   | 129   | 922   | 37   |
| Ideal Flow (vphpl)                | 1900  | 1900 | 1900  | 1900  | 1900 | 1900 | 1900  | 1900 | 1900  | 1900  | 1900  | 1900 |
| Total Lost time (s)               | 5.2   | 5.2  |       | 5.2   | 5.2  |      | 3.0   | 5.2  | 4.0   | 3.0   | 5.2   |      |
| Lane Util. Factor                 | 1.00  | 1.00 |       | 0.95  | 0.95 |      | 1.00  | 0.95 | 1.00  | 1.00  | 0.95  |      |
| Frt                               | 1.00  | 0.90 |       | 1.00  | 0.88 |      | 1.00  | 1.00 | 0.85  | 1.00  | 0.99  |      |
| Flt Protected                     | 0.95  | 1.00 |       | 0.95  | 1.00 |      | 0.95  | 1.00 | 1.00  | 0.95  | 1.00  |      |
| Satd. Flow (prot)                 | 1770  | 1683 |       | 1681  | 1546 |      | 1770  | 3539 | 1583  | 1770  | 3519  |      |
| Flt Permitted                     | 0.95  | 1.00 |       | 0.95  | 1.00 |      | 0.95  | 1.00 | 1.00  | 0.95  | 1.00  |      |
| Satd. Flow (perm)                 | 1770  | 1683 |       | 1681  | 1546 |      | 1770  | 3539 | 1583  | 1770  | 3519  |      |
| Peak-hour factor, PHF             | 0.80  | 0.80 | 0.80  | 0.70  | 0.70 | 0.70 | 0.85  | 0.85 | 0.85  | 0.89  | 0.89  | 0.89 |
| Adj. Flow (vph)                   | 30    | 38   | 69    | 286   | 40   | 311  | 73    | 821  | 241   | 145   | 1036  | 42   |
| RTOR Reduction (vph)              | 0     | 54   | 0     | 0     | 181  | 0    | 0     | 0    | 0     | 0     | 3     | 0    |
| Lane Group Flow (vph)             | 30    | 53   | 0     | 257   | 199  | 0    | 73    | 821  | 241   | 145   | 1075  | 0    |
| Turn Type                         | Split | NA   |       | Split | NA   |      | Prot  | NA   | Free  | Prot  | NA    |      |
| Protected Phases                  | 4     | 4    |       | 8     | 8    |      | 5     | 2    |       | 1     | 6     |      |
| Permitted Phases                  |       |      |       |       |      |      |       |      | Free  |       |       |      |
| Actuated Green, G (s)             | 19.0  | 19.0 |       | 14.8  | 14.8 |      | 4.0   | 29.3 | 90.1  | 8.4   | 33.7  |      |
| Effective Green, g (s)            | 19.0  | 19.0 |       | 14.8  | 14.8 |      | 4.0   | 29.3 | 90.1  | 8.4   | 33.7  |      |
| Actuated g/C Ratio                | 0.21  | 0.21 |       | 0.16  | 0.16 |      | 0.04  | 0.33 | 1.00  | 0.09  | 0.37  |      |
| Clearance Time (s)                | 5.2   | 5.2  |       | 5.2   | 5.2  |      | 3.0   | 5.2  |       | 3.0   | 5.2   |      |
| Vehicle Extension (s)             | 0.2   | 0.2  |       | 0.2   | 0.2  |      | 0.2   | 0.2  |       | 0.2   | 0.2   |      |
| Lane Grp Cap (vph)                | 373   | 354  |       | 276   | 253  |      | 78    | 1150 | 1583  | 165   | 1316  |      |
| v/s Ratio Prot                    | 0.02  | 0.03 |       | c0.15 | 0.13 |      | 0.04  | 0.23 |       | c0.08 | c0.31 |      |
| v/s Ratio Perm                    |       |      |       |       |      |      |       |      | c0.15 |       |       |      |
| v/c Ratio                         | 0.08  | 0.15 |       | 0.93  | 0.79 |      | 0.94  | 0.71 | 0.15  | 0.88  | 0.82  |      |
| Uniform Delay, d1                 | 28.5  | 29.0 |       | 37.1  | 36.1 |      | 42.9  | 26.7 | 0.0   | 40.3  | 25.4  |      |
| Progression Factor                | 1.00  | 1.00 |       | 1.00  | 1.00 |      | 1.00  | 1.00 | 1.00  | 1.00  | 1.00  |      |
| Incremental Delay, d2             | 0.4   | 0.9  |       | 39.0  | 21.6 |      | 78.9  | 3.8  | 0.2   | 36.4  | 5.7   |      |
| Delay (s)                         | 29.0  | 29.8 |       | 76.2  | 57.8 |      | 121.8 | 30.5 | 0.2   | 76.7  | 31.1  |      |
| Level of Service                  | C     | C    |       | E     | E    |      | F     | C    | A     | E     | C     |      |
| Approach Delay (s)                |       | 29.7 |       |       | 65.2 |      |       | 29.9 |       |       | 36.5  |      |
| Approach LOS                      |       | C    |       |       | E    |      |       | C    |       |       | D     |      |
| <b>Intersection Summary</b>       |       |      |       |       |      |      |       |      |       |       |       |      |
| HCM 2000 Control Delay            |       |      | 39.7  |       |      |      |       |      |       |       |       | D    |
| HCM 2000 Volume to Capacity ratio |       |      | 0.71  |       |      |      |       |      |       |       |       |      |
| Actuated Cycle Length (s)         |       |      | 90.1  |       |      |      |       |      |       |       | 18.6  |      |
| Intersection Capacity Utilization |       |      | 62.0% |       |      |      |       |      |       |       |       | B    |
| Analysis Period (min)             |       |      | 15    |       |      |      |       |      |       |       |       |      |

c Critical Lane Group

Generations at Green Valley  
 17: El Dorado Hills Blvd. & Saratoga Wy. (North)/Park Dr

Baseline  
 Timing Plan: AM



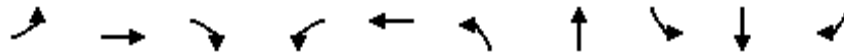
| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL    | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|--------|------|------|------|
| Lane Group Flow (vph)   | 114  | 116  | 374  | 14   | 99   | 311    | 1019 | 110  | 1162 |
| v/c Ratio               | 0.74 | 0.72 | 0.77 | 0.13 | 0.63 | 4.86   | 0.36 | 0.43 | 0.50 |
| Control Delay           | 74.0 | 72.2 | 16.1 | 50.2 | 41.5 | 1783.5 | 14.7 | 48.6 | 10.8 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0    | 0.0  | 0.0  | 0.0  |
| Total Delay             | 74.0 | 72.2 | 16.1 | 50.2 | 41.5 | 1783.5 | 14.7 | 48.6 | 10.8 |
| Queue Length 50th (ft)  | 84   | 85   | 0    | 10   | 29   | ~411   | 133  | 72   | 184  |
| Queue Length 95th (ft)  | 117  | 120  | 34   | 27   | 68   | #564   | 194  | 127  | 305  |
| Internal Link Dist (ft) |      | 1745 |      |      | 332  |        | 961  |      | 1160 |
| Turn Bay Length (ft)    | 145  |      | 145  | 125  |      | 165    |      | 70   |      |
| Base Capacity (vph)     | 244  | 252  | 549  | 482  | 505  | 64     | 2804 | 257  | 2304 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0      | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0      | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0      | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.47 | 0.46 | 0.68 | 0.03 | 0.20 | 4.86   | 0.36 | 0.43 | 0.50 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

---

HCM 6th Edition methodology expects strict NEMA phasing.



| Lane Group              | EBL   | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  | SBR  |
|-------------------------|-------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 249   | 43   | 422  | 184  | 140  | 699  | 1218 | 44   | 999  | 398  |
| v/c Ratio               | 1.00  | 0.16 | 0.27 | 0.70 | 0.26 | 0.81 | 0.46 | 0.38 | 0.60 | 0.51 |
| Control Delay           | 108.2 | 48.0 | 0.4  | 62.8 | 23.2 | 50.2 | 18.8 | 63.1 | 37.1 | 6.1  |
| Queue Delay             | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 51.4 | 2.3  |
| Total Delay             | 108.2 | 48.0 | 0.4  | 62.8 | 23.2 | 50.2 | 18.8 | 63.1 | 88.5 | 8.4  |
| Queue Length 50th (ft)  | ~211  | 30   | 0    | 137  | 25   | 262  | 211  | 33   | 234  | 0    |
| Queue Length 95th (ft)  | #364  | 64   | 0    | 152  | 34   | 275  | 235  | 68   | 300  | 56   |
| Internal Link Dist (ft) |       | 287  |      |      | 264  |      | 780  |      | 105  |      |
| Turn Bay Length (ft)    |       |      |      | 410  |      | 260  |      | 195  |      |      |
| Base Capacity (vph)     | 250   | 263  | 1583 | 390  | 777  | 1031 | 2653 | 117  | 1664 | 785  |
| Starvation Cap Reductn  | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 916  | 256  |
| Spillback Cap Reductn   | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 1.00  | 0.16 | 0.27 | 0.47 | 0.18 | 0.68 | 0.46 | 0.38 | 1.34 | 0.75 |

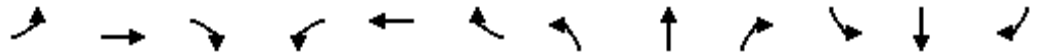
**Intersection Summary**

- ~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Generations at Green Valley

Baseline

18: Latrobe Rd./El Dorado Hills Blvd. & US-50 WB On&Off-Ramp/Saratoga Way (South) Plan: AM



| Movement                     | EBL   | EBT   | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|-------|-------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          | ↖     | ↑     | ↗    | ↖    | ↕    |      | ↖    | ↕    |      | ↖    | ↕    | ↗    |
| Traffic Volume (veh/h)       | 219   | 38    | 371  | 129  | 49   | 49   | 573  | 885  | 114  | 37   | 839  | 334  |
| Future Volume (veh/h)        | 219   | 38    | 371  | 129  | 49   | 49   | 573  | 885  | 114  | 37   | 839  | 334  |
| Initial Q (Qb), veh          | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00  |       | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |       | No    |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870  | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 249   | 43    | 0    | 184  | 70   | 70   | 699  | 1079 | 139  | 44   | 999  | 0    |
| Peak Hour Factor             | 0.88  | 0.88  | 0.88 | 0.70 | 0.70 | 0.70 | 0.82 | 0.82 | 0.82 | 0.84 | 0.84 | 0.84 |
| Percent Heavy Veh, %         | 2     | 2     | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 238   | 249   |      | 225  | 225  | 200  | 802  | 2635 | 339  | 56   | 1915 |      |
| Arrive On Green              | 0.13  | 0.13  | 0.00 | 0.13 | 0.13 | 0.13 | 0.23 | 0.58 | 0.58 | 0.03 | 0.38 | 0.00 |
| Sat Flow, veh/h              | 1781  | 1870  | 1585 | 1781 | 1780 | 1582 | 3456 | 4579 | 589  | 1781 | 5106 | 1585 |
| Grp Volume(v), veh/h         | 249   | 43    | 0    | 184  | 70   | 70   | 699  | 802  | 416  | 44   | 999  | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781  | 1870  | 1585 | 1781 | 1777 | 1586 | 1728 | 1702 | 1764 | 1781 | 1702 | 1585 |
| Q Serve(g_s), s              | 16.0  | 2.4   | 0.0  | 12.1 | 4.3  | 4.9  | 23.4 | 15.7 | 15.7 | 2.9  | 18.2 | 0.0  |
| Cycle Q Clear(g_c), s        | 16.0  | 2.4   | 0.0  | 12.1 | 4.3  | 4.9  | 23.4 | 15.7 | 15.7 | 2.9  | 18.2 | 0.0  |
| Prop In Lane                 | 1.00  |       | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 0.33 | 1.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 238   | 249   |      | 225  | 224  | 200  | 802  | 1959 | 1015 | 56   | 1915 |      |
| V/C Ratio(X)                 | 1.05  | 0.17  |      | 0.82 | 0.31 | 0.35 | 0.87 | 0.41 | 0.41 | 0.78 | 0.52 |      |
| Avail Cap(c_a), veh/h        | 238   | 249   |      | 393  | 392  | 350  | 1037 | 1959 | 1015 | 59   | 1915 |      |
| HCM Platoon Ratio            | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00  | 1.00  | 0.00 | 1.00 | 1.00 | 1.00 | 0.90 | 0.90 | 0.90 | 0.80 | 0.80 | 0.00 |
| Uniform Delay (d), s/veh     | 52.0  | 46.1  | 0.0  | 51.1 | 47.7 | 47.9 | 44.4 | 14.1 | 14.2 | 57.7 | 29.1 | 0.0  |
| Incr Delay (d2), s/veh       | 71.7  | 0.3   | 0.0  | 7.2  | 0.8  | 1.0  | 6.1  | 0.6  | 1.1  | 38.6 | 0.8  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 11.9  | 1.2   | 0.0  | 5.9  | 2.0  | 2.0  | 10.3 | 5.7  | 6.1  | 1.9  | 7.3  | 0.0  |
| Unsig. Movement Delay, s/veh |       |       |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 123.7 | 46.5  | 0.0  | 58.3 | 48.5 | 49.0 | 50.4 | 14.7 | 15.3 | 96.3 | 29.9 | 0.0  |
| LnGrp LOS                    | F     | D     |      | E    | D    | D    | D    | B    | B    | F    | C    |      |
| Approach Vol, veh/h          |       | 292   | A    |      | 324  |      |      | 1917 |      |      | 1043 | A    |
| Approach Delay, s/veh        |       | 112.3 |      |      | 54.2 |      |      | 27.9 |      |      | 32.7 |      |
| Approach LOS                 |       | F     |      |      | D    |      |      | C    |      |      | C    |      |
| Timer - Assigned Phs         | 1     | 2     |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 7.8   | 73.1  |      | 20.0 | 31.8 | 49.0 |      | 19.1 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0   | 4.0   |      | 4.0  | 4.0  | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0   | 56.2  |      | 16.0 | 36.0 | 25.5 |      | 26.5 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 4.9   | 17.7  |      | 18.0 | 25.4 | 20.2 |      | 14.1 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0   | 6.2   |      | 0.0  | 2.5  | 2.3  |      | 1.1  |      |      |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 38.6 |
| HCM 6th LOS        | D    |

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Generations at Green Valley  
 19: Latrobe Rd. & US-50 EB Off-Ramp/US-50 EB On-Ramp

Baseline  
 Timing Plan: AM



| Lane Group              | EBR  | WBR  | NBT  | NBR  | SBL   | SBT  |
|-------------------------|------|------|------|------|-------|------|
| Lane Group Flow (vph)   | 985  | 563  | 1366 | 227  | 295   | 1507 |
| v/c Ratio               | 0.86 | 0.35 | 0.48 | 0.23 | 1.22  | 0.32 |
| Control Delay           | 46.6 | 0.6  | 21.5 | 4.7  | 182.8 | 8.2  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  |
| Total Delay             | 46.6 | 0.6  | 21.5 | 4.7  | 182.8 | 8.2  |
| Queue Length 50th (ft)  | 458  | 0    | 299  | 18   | -359  | 151  |
| Queue Length 95th (ft)  | 453  | 0    | 355  | 63   | #428  | 145  |
| Internal Link Dist (ft) |      |      | 468  |      |       | 780  |
| Turn Bay Length (ft)    |      |      |      | 180  | 350   |      |
| Base Capacity (vph)     | 1226 | 1611 | 2849 | 968  | 242   | 4637 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0     | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0     | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0     | 0    |
| Reduced v/c Ratio       | 0.80 | 0.35 | 0.48 | 0.23 | 1.22  | 0.32 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

---

HCM 6th Edition methodology does not support custom phasing.



Generations at Green Valley  
 20: White Rock Rd/Silva Valley Pkwy & US-50 EB On&Off-Ramp

Baseline  
 Timing Plan: AM



| Lane Group              | EBL  | EBR  | NBL  | NBT  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 263  | 347  | 302  | 415  | 719  | 154  |
| v/c Ratio               | 0.45 | 0.62 | 0.37 | 0.16 | 0.43 | 0.19 |
| Control Delay           | 40.1 | 9.6  | 33.2 | 3.7  | 25.2 | 9.7  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 40.1 | 9.6  | 33.2 | 3.7  | 25.2 | 9.7  |
| Queue Length 50th (ft)  | 78   | 0    | 82   | 32   | 160  | 27   |
| Queue Length 95th (ft)  | 89   | 14   | 117  | 44   | m180 | m44  |
| Internal Link Dist (ft) | 706  |      |      | 516  | 832  |      |
| Turn Bay Length (ft)    |      | 195  | 480  |      |      | 148  |
| Base Capacity (vph)     | 583  | 557  | 823  | 2654 | 1663 | 825  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.45 | 0.62 | 0.37 | 0.16 | 0.43 | 0.19 |

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Generations at Green Valley  
 20: White Rock Rd/Silva Valley Pkwy & US-50 EB On&Off-Ramp

Baseline  
 Timing Plan: AM



| Movement                     | EBL   | EBR   | NBL  | NBT  | SBT  | SBR  |
|------------------------------|-------|-------|------|------|------|------|
| Lane Configurations          |       |       |      |      |      |      |
| Traffic Volume (veh/h)       | 184   | 243   | 263  | 361  | 611  | 131  |
| Future Volume (veh/h)        | 184   | 243   | 263  | 361  | 611  | 131  |
| Initial Q (Qb), veh          | 0     | 0     | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00  | 1.00  | 1.00 |      |      | 1.00 |
| Parking Bus, Adj             | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No    |       |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870  | 1870  | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 263   | 347   | 302  | 415  | 719  | 154  |
| Peak Hour Factor             | 0.70  | 0.70  | 0.87 | 0.87 | 0.85 | 0.85 |
| Percent Heavy Veh, %         | 2     | 2     | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 587   | 269   | 829  | 2665 | 1670 | 745  |
| Arrive On Green              | 0.17  | 0.17  | 0.24 | 0.75 | 0.16 | 0.16 |
| Sat Flow, veh/h              | 3456  | 1585  | 3456 | 3647 | 3647 | 1585 |
| Grp Volume(v), veh/h         | 263   | 347   | 302  | 415  | 719  | 154  |
| Grp Sat Flow(s),veh/h/ln     | 1728  | 1585  | 1728 | 1777 | 1777 | 1585 |
| Q Serve(g_s), s              | 6.8   | 17.0  | 7.3  | 3.3  | 18.3 | 8.5  |
| Cycle Q Clear(g_c), s        | 6.8   | 17.0  | 7.3  | 3.3  | 18.3 | 8.5  |
| Prop In Lane                 | 1.00  | 1.00  | 1.00 |      |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 587   | 269   | 829  | 2665 | 1670 | 745  |
| V/C Ratio(X)                 | 0.45  | 1.29  | 0.36 | 0.16 | 0.43 | 0.21 |
| Avail Cap(c_a), veh/h        | 587   | 269   | 829  | 2665 | 1670 | 745  |
| HCM Platoon Ratio            | 1.00  | 1.00  | 1.00 | 1.00 | 0.33 | 0.33 |
| Upstream Filter(l)           | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 37.3  | 41.5  | 31.6 | 3.5  | 30.1 | 26.0 |
| Incr Delay (d2), s/veh       | 2.5   | 154.5 | 1.2  | 0.1  | 0.8  | 0.6  |
| Initial Q Delay(d3),s/veh    | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 3.1   | 25.3  | 3.0  | 0.8  | 8.8  | 3.4  |
| Unsig. Movement Delay, s/veh |       |       |      |      |      |      |
| LnGrp Delay(d),s/veh         | 39.7  | 196.0 | 32.9 | 3.7  | 30.9 | 26.6 |
| LnGrp LOS                    | D     | F     | C    | A    | C    | C    |
| Approach Vol, veh/h          | 610   |       |      | 717  | 873  |      |
| Approach Delay, s/veh        | 128.7 |       |      | 16.0 | 30.2 |      |
| Approach LOS                 | F     |       |      | B    | C    |      |
| Timer - Assigned Phs         |       | 2     |      | 4    | 5    | 6    |
| Phs Duration (G+Y+Rc), s     |       | 79.0  |      | 21.0 | 28.0 | 51.0 |
| Change Period (Y+Rc), s      |       | 4.0   |      | 4.0  | 4.0  | 4.0  |
| Max Green Setting (Gmax), s  |       | 75.0  |      | 17.0 | 24.0 | 47.0 |
| Max Q Clear Time (g_c+I1), s |       | 5.3   |      | 19.0 | 9.3  | 20.3 |
| Green Ext Time (p_c), s      |       | 2.7   |      | 0.0  | 0.9  | 5.3  |
| <b>Intersection Summary</b>  |       |       |      |      |      |      |
| HCM 6th Ctrl Delay           |       |       | 52.9 |      |      |      |
| HCM 6th LOS                  |       |       | D    |      |      |      |

Generations at Green Valley  
 21: Silva Valley Pkwy & US-50 WB On-Ramp/US-50 WB Off-Ramp

Baseline  
 Timing Plan: AM



| Lane Group              | WBL  | WBT  | WBR  | NBL  | NBT  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 549  | 3    | 148  | 168  | 480  | 352  | 464  |
| v/c Ratio               | 0.91 | 0.00 | 0.23 | 0.45 | 0.23 | 0.30 | 0.56 |
| Control Delay           | 53.5 | 22.0 | 5.0  | 27.9 | 9.5  | 25.8 | 5.3  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 53.5 | 22.0 | 5.0  | 27.9 | 9.5  | 25.8 | 5.3  |
| Queue Length 50th (ft)  | 332  | 1    | 0    | 89   | 94   | 87   | 0    |
| Queue Length 95th (ft)  | #431 | 7    | 29   | 137  | 117  | 121  | 61   |
| Internal Link Dist (ft) |      | 580  |      |      | 832  | 250  |      |
| Turn Bay Length (ft)    |      |      |      | 545  |      |      |      |
| Base Capacity (vph)     | 601  | 633  | 635  | 371  | 2052 | 1167 | 833  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.91 | 0.00 | 0.23 | 0.45 | 0.23 | 0.30 | 0.56 |

Intersection Summary

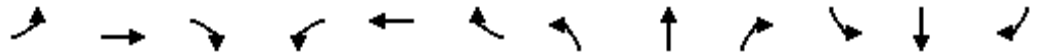
# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley

Baseline

21: Silva Valley Pkwy & US-50 WB On-Ramp/US-50 WB Off-Ramp

Timing Plan: AM



| Movement                     | EBL | EBT  | EBR | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|-----|------|-----|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |     |      |     | ↖    | ↗    | ↖    | ↖    | ↕    |      |      | ↕    | ↖    |
| Traffic Volume (veh/h)       | 0   | 0    | 0   | 439  | 2    | 118  | 143  | 408  | 0    | 0    | 310  | 408  |
| Future Volume (veh/h)        | 0   | 0    | 0   | 439  | 2    | 118  | 143  | 408  | 0    | 0    | 310  | 408  |
| Initial Q (Qb), veh          |     |      |     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |     |      |     | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             |     |      |     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |     |      |     | No   |      |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       |     |      |     | 1870 | 1870 | 1870 | 1870 | 1870 | 0    | 0    | 1870 | 1870 |
| Adj Flow Rate, veh/h         |     |      |     | 549  | 2    | 148  | 168  | 480  | 0    | 0    | 352  | 464  |
| Peak Hour Factor             |     |      |     | 0.80 | 0.80 | 0.80 | 0.85 | 0.85 | 0.85 | 0.88 | 0.88 | 0.88 |
| Percent Heavy Veh, %         |     |      |     | 2    | 2    | 2    | 2    | 2    | 0    | 0    | 2    | 2    |
| Cap, veh/h                   |     |      |     | 606  | 636  | 539  | 374  | 2061 | 0    | 0    | 1173 | 523  |
| Arrive On Green              |     |      |     | 0.34 | 0.34 | 0.34 | 0.42 | 1.00 | 0.00 | 0.00 | 0.33 | 0.33 |
| Sat Flow, veh/h              |     |      |     | 1781 | 1870 | 1585 | 1781 | 3647 | 0    | 0    | 3647 | 1585 |
| Grp Volume(v), veh/h         |     |      |     | 549  | 2    | 148  | 168  | 480  | 0    | 0    | 352  | 464  |
| Grp Sat Flow(s),veh/h/ln     |     |      |     | 1781 | 1870 | 1585 | 1781 | 1777 | 0    | 0    | 1777 | 1585 |
| Q Serve(g_s), s              |     |      |     | 29.4 | 0.1  | 6.8  | 6.7  | 0.0  | 0.0  | 0.0  | 7.4  | 27.7 |
| Cycle Q Clear(g_c), s        |     |      |     | 29.4 | 0.1  | 6.8  | 6.7  | 0.0  | 0.0  | 0.0  | 7.4  | 27.7 |
| Prop In Lane                 |     |      |     | 1.00 |      | 1.00 | 1.00 |      | 0.00 | 0.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       |     |      |     | 606  | 636  | 539  | 374  | 2061 | 0    | 0    | 1173 | 523  |
| V/C Ratio(X)                 |     |      |     | 0.91 | 0.00 | 0.27 | 0.45 | 0.23 | 0.00 | 0.00 | 0.30 | 0.89 |
| Avail Cap(c_a), veh/h        |     |      |     | 606  | 636  | 539  | 374  | 2061 | 0    | 0    | 1173 | 523  |
| HCM Platoon Ratio            |     |      |     | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           |     |      |     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     |     |      |     | 31.5 | 21.8 | 24.0 | 24.9 | 0.0  | 0.0  | 0.0  | 24.9 | 31.7 |
| Incr Delay (d2), s/veh       |     |      |     | 19.6 | 0.0  | 1.3  | 3.9  | 0.3  | 0.0  | 0.0  | 0.7  | 19.5 |
| Initial Q Delay(d3),s/veh    |     |      |     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     |     |      |     | 15.6 | 0.0  | 2.7  | 2.8  | 0.1  | 0.0  | 0.0  | 3.0  | 12.7 |
| Unsig. Movement Delay, s/veh |     |      |     |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         |     |      |     | 51.1 | 21.8 | 25.3 | 28.7 | 0.3  | 0.0  | 0.0  | 25.6 | 51.3 |
| LnGrp LOS                    |     |      |     | D    | C    | C    | C    | A    | A    | A    | C    | D    |
| Approach Vol, veh/h          |     |      |     |      | 699  |      |      | 648  |      |      | 816  |      |
| Approach Delay, s/veh        |     |      |     |      | 45.6 |      |      | 7.6  |      |      | 40.2 |      |
| Approach LOS                 |     |      |     |      | D    |      |      | A    |      |      | D    |      |
| Timer - Assigned Phs         |     | 2    |     |      | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |     | 62.0 |     |      | 25.0 | 37.0 |      | 38.0 |      |      |      |      |
| Change Period (Y+Rc), s      |     | 4.0  |     |      | 4.0  | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |     | 58.0 |     |      | 21.0 | 33.0 |      | 34.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |     | 2.0  |     |      | 8.7  | 29.7 |      | 31.4 |      |      |      |      |
| Green Ext Time (p_c), s      |     | 3.2  |     |      | 0.3  | 1.3  |      | 0.7  |      |      |      |      |
| <b>Intersection Summary</b>  |     |      |     |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |     |      |     |      |      |      |      |      |      |      | 32.2 |      |
| HCM 6th LOS                  |     |      |     |      |      |      |      |      |      |      | C    |      |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0    |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      |      | ↗    | ↕    | ↗    |      | ↕    |
| Traffic Vol, veh/h       | 0    | 1    | 524  | 1    | 0    | 715  |
| Future Vol, veh/h        | 0    | 1    | 524  | 1    | 0    | 715  |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Free | Free | Free | Free |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | 0    | -    | 160  | -    | -    |
| Veh in Median Storage, # | 0    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 70   | 70   | 75   | 75   | 88   | 88   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 0    | 1    | 699  | 1    | 0    | 813  |

| Major/Minor          | Minor1 | Major1 | Major2 |   |   |
|----------------------|--------|--------|--------|---|---|
| Conflicting Flow All | -      | 350    | 0      | 0 | - |
| Stage 1              | -      | -      | -      | - | - |
| Stage 2              | -      | -      | -      | - | - |
| Critical Hdwy        | -      | 6.94   | -      | - | - |
| Critical Hdwy Stg 1  | -      | -      | -      | - | - |
| Critical Hdwy Stg 2  | -      | -      | -      | - | - |
| Follow-up Hdwy       | -      | 3.32   | -      | - | - |
| Pot Cap-1 Maneuver   | 0      | 646    | -      | - | 0 |
| Stage 1              | 0      | -      | -      | - | 0 |
| Stage 2              | 0      | -      | -      | - | 0 |
| Platoon blocked, %   |        |        | -      | - | - |
| Mov Cap-1 Maneuver   | -      | 646    | -      | - | - |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | - |
| Stage 1              | -      | -      | -      | - | - |
| Stage 2              | -      | -      | -      | - | - |

| Approach             | WB   | NB | SB |
|----------------------|------|----|----|
| HCM Control Delay, s | 10.6 | 0  | 0  |
| HCM LOS              | B    |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBT   |
|-----------------------|-----|----------|-------|
| Capacity (veh/h)      | -   | -        | 646   |
| HCM Lane V/C Ratio    | -   | -        | 0.002 |
| HCM Control Delay (s) | -   | -        | 10.6  |
| HCM Lane LOS          | -   | -        | B     |
| HCM 95th %tile Q(veh) | -   | -        | 0     |



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | NBR  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 95   | 408  | 544  | 692  | 343  | 403  | 286  | 243  | 573  |
| v/c Ratio               | 0.57 | 0.71 | 1.03 | 0.55 | 0.86 | 0.45 | 0.47 | 0.78 | 0.80 |
| Control Delay           | 64.6 | 27.0 | 87.5 | 17.8 | 65.6 | 39.3 | 7.2  | 62.5 | 51.1 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 64.6 | 27.0 | 87.5 | 17.8 | 65.6 | 39.3 | 7.2  | 62.5 | 51.1 |
| Queue Length 50th (ft)  | 68   | 61   | ~433 | 109  | 244  | 131  | 0    | 172  | 202  |
| Queue Length 95th (ft)  | 116  | 90   | #606 | 141  | 282  | 151  | 12   | 271  | 283  |
| Internal Link Dist (ft) |      | 6047 |      | 1303 |      | 4417 |      |      | 4456 |
| Turn Bay Length (ft)    | 155  |      | 330  |      | 250  |      | 180  | 150  |      |
| Base Capacity (vph)     | 202  | 872  | 528  | 1480 | 404  | 887  | 611  | 404  | 843  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.47 | 0.47 | 1.03 | 0.47 | 0.85 | 0.45 | 0.47 | 0.60 | 0.68 |

**Intersection Summary**

- ~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Generations at Green Valley  
23: Serrano Pkwy. & Silva Valley Pkwy.

Baseline  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL   | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|-------|------|------|------|------|------|------|------|------|
| Lane Configurations          | ↖    | ↗    |      | ↖     | ↗    |      | ↖    | ↗    | ↗    | ↖    | ↗    |      |
| Traffic Volume (veh/h)       | 76   | 130  | 196  | 441   | 214  | 347  | 240  | 282  | 200  | 221  | 412  | 109  |
| Future Volume (veh/h)        | 76   | 130  | 196  | 441   | 214  | 347  | 240  | 282  | 200  | 221  | 412  | 109  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00  |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |       | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 95   | 162  | 245  | 544   | 264  | 428  | 343  | 403  | 0    | 243  | 453  | 120  |
| Peak Hour Factor             | 0.80 | 0.80 | 0.80 | 0.81  | 0.81 | 0.81 | 0.70 | 0.70 | 0.70 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2     | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 119  | 309  | 275  | 496   | 685  | 611  | 368  | 860  |      | 273  | 526  | 138  |
| Arrive On Green              | 0.07 | 0.17 | 0.17 | 0.28  | 0.39 | 0.39 | 0.21 | 0.24 | 0.00 | 0.15 | 0.19 | 0.19 |
| Sat Flow, veh/h              | 1781 | 1777 | 1585 | 1781  | 1777 | 1585 | 1781 | 3554 | 1585 | 1781 | 2784 | 732  |
| Grp Volume(v), veh/h         | 95   | 162  | 245  | 544   | 264  | 428  | 343  | 403  | 0    | 243  | 288  | 285  |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1777 | 1585 | 1781  | 1777 | 1585 | 1781 | 1777 | 1585 | 1781 | 1777 | 1739 |
| Q Serve(g_s), s              | 6.4  | 10.1 | 18.4 | 34.0  | 13.1 | 27.7 | 23.1 | 11.8 | 0.0  | 16.3 | 19.1 | 19.4 |
| Cycle Q Clear(g_c), s        | 6.4  | 10.1 | 18.4 | 34.0  | 13.1 | 27.7 | 23.1 | 11.8 | 0.0  | 16.3 | 19.1 | 19.4 |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00  |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 0.42 |
| Lane Grp Cap(c), veh/h       | 119  | 309  | 275  | 496   | 685  | 611  | 368  | 860  |      | 273  | 335  | 328  |
| V/C Ratio(X)                 | 0.80 | 0.52 | 0.89 | 1.10  | 0.39 | 0.70 | 0.93 | 0.47 |      | 0.89 | 0.86 | 0.87 |
| Avail Cap(c_a), veh/h        | 190  | 349  | 312  | 496   | 685  | 611  | 380  | 860  |      | 380  | 399  | 390  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 56.1 | 45.8 | 49.3 | 44.0  | 27.1 | 31.6 | 47.6 | 39.5 | 0.0  | 50.6 | 47.9 | 48.0 |
| Incr Delay (d2), s/veh       | 11.6 | 1.4  | 23.8 | 69.1  | 0.4  | 3.6  | 29.2 | 0.4  | 0.0  | 17.2 | 14.9 | 16.4 |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 3.2  | 4.5  | 8.9  | 23.9  | 5.4  | 10.7 | 12.9 | 5.1  | 0.0  | 8.4  | 9.6  | 9.7  |
| Unsig. Movement Delay, s/veh |      |      |      |       |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 67.7 | 47.2 | 73.0 | 113.2 | 27.4 | 35.1 | 76.8 | 39.9 | 0.0  | 67.8 | 62.8 | 64.4 |
| LnGrp LOS                    | E    | D    | E    | F     | C    | D    | E    | D    |      | E    | E    | E    |
| Approach Vol, veh/h          |      | 502  |      |       | 1236 |      |      | 746  | A    |      | 816  |      |
| Approach Delay, s/veh        |      | 63.7 |      |       | 67.8 |      |      | 56.9 |      |      | 64.9 |      |
| Approach LOS                 |      | E    |      |       | E    |      |      | E    |      |      | E    |      |
| Timer - Assigned Phs         | 1    | 2    | 3    | 4     | 5    | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 22.7 | 34.8 | 38.0 | 26.5  | 29.2 | 28.3 | 12.1 | 52.3 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 5.3  | 4.0  | 5.3   | 4.0  | 5.3  | 4.0  | 5.3  |      |      |      |      |
| Max Green Setting (Gmax), s  | 26.0 | 27.4 | 34.0 | 24.0  | 26.0 | 27.4 | 13.0 | 45.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 18.3 | 13.8 | 36.0 | 20.4  | 25.1 | 21.4 | 8.4  | 29.7 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.4  | 1.9  | 0.0  | 0.8   | 0.1  | 1.6  | 0.1  | 3.7  |      |      |      |      |

Intersection Summary

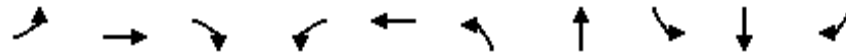
|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 64.0 |
| HCM 6th LOS        | E    |

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Generations at Green Valley  
 24: Silva Valley Pkwy. & Harvard Way

Baseline  
 Timing Plan: AM



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 120  | 87   | 319  | 109  | 76   | 448  | 194  | 45   | 243  | 336  |
| v/c Ratio               | 0.62 | 0.33 | 0.64 | 0.65 | 0.24 | 0.83 | 0.22 | 0.27 | 0.64 | 0.57 |
| Control Delay           | 46.2 | 28.9 | 10.1 | 51.4 | 23.3 | 38.1 | 12.1 | 34.2 | 32.4 | 7.4  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 46.2 | 28.9 | 10.1 | 51.4 | 23.3 | 38.1 | 12.1 | 34.2 | 32.4 | 7.4  |
| Queue Length 50th (ft)  | 46   | 32   | 0    | 43   | 22   | 162  | 45   | 17   | 86   | 0    |
| Queue Length 95th (ft)  | #81  | 53   | 18   | #84  | 42   | #367 | 98   | 46   | 156  | 48   |
| Internal Link Dist (ft) | 2093 |      |      |      |      | 328  | 4456 |      | 5798 |      |
| Turn Bay Length (ft)    | 60   |      |      |      |      | 100  |      | 65   |      | 175  |
| Base Capacity (vph)     | 196  | 501  | 659  | 168  | 468  | 560  | 911  | 168  | 472  | 652  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.61 | 0.17 | 0.48 | 0.65 | 0.16 | 0.80 | 0.21 | 0.27 | 0.51 | 0.52 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.



Generations at Green Valley  
24: Silva Valley Pkwy. & Harvard Way

Baseline  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 84   | 61   | 223  | 76   | 41   | 12   | 412  | 168  | 10   | 38   | 204  | 282  |
| Future Volume (veh/h)        | 84   | 61   | 223  | 76   | 41   | 12   | 412  | 168  | 10   | 38   | 204  | 282  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 120  | 87   | 319  | 109  | 59   | 17   | 448  | 183  | 11   | 45   | 243  | 336  |
| Peak Hour Factor             | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.92 | 0.92 | 0.92 | 0.84 | 0.84 | 0.84 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 152  | 418  | 354  | 139  | 302  | 87   | 479  | 788  | 47   | 58   | 402  | 341  |
| Arrive On Green              | 0.09 | 0.22 | 0.22 | 0.08 | 0.22 | 0.22 | 0.27 | 0.45 | 0.45 | 0.03 | 0.21 | 0.21 |
| Sat Flow, veh/h              | 1781 | 1870 | 1585 | 1781 | 1396 | 402  | 1781 | 1746 | 105  | 1781 | 1870 | 1585 |
| Grp Volume(v), veh/h         | 120  | 87   | 319  | 109  | 0    | 76   | 448  | 0    | 194  | 45   | 243  | 336  |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1870 | 1585 | 1781 | 0    | 1798 | 1781 | 0    | 1851 | 1781 | 1870 | 1585 |
| Q Serve(g_s), s              | 4.9  | 2.8  | 14.6 | 4.5  | 0.0  | 2.6  | 18.3 | 0.0  | 4.8  | 1.9  | 8.7  | 15.7 |
| Cycle Q Clear(g_c), s        | 4.9  | 2.8  | 14.6 | 4.5  | 0.0  | 2.6  | 18.3 | 0.0  | 4.8  | 1.9  | 8.7  | 15.7 |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 0.22 | 1.00 |      | 0.06 | 1.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 152  | 418  | 354  | 139  | 0    | 389  | 479  | 0    | 835  | 58   | 402  | 341  |
| V/C Ratio(X)                 | 0.79 | 0.21 | 0.90 | 0.79 | 0.00 | 0.20 | 0.94 | 0.00 | 0.23 | 0.78 | 0.60 | 0.99 |
| Avail Cap(c_a), veh/h        | 168  | 427  | 362  | 144  | 0    | 389  | 479  | 0    | 835  | 144  | 402  | 341  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 33.4 | 23.5 | 28.1 | 33.7 | 0.0  | 23.9 | 26.6 | 0.0  | 12.5 | 35.7 | 26.4 | 29.1 |
| Incr Delay (d2), s/veh       | 20.4 | 0.2  | 24.2 | 23.8 | 0.0  | 0.2  | 26.0 | 0.0  | 0.1  | 19.5 | 2.6  | 44.9 |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 2.9  | 1.2  | 7.7  | 2.8  | 0.0  | 1.1  | 10.4 | 0.0  | 1.7  | 1.1  | 3.8  | 10.0 |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 53.8 | 23.8 | 52.3 | 57.5 | 0.0  | 24.1 | 52.6 | 0.0  | 12.7 | 55.2 | 28.9 | 74.0 |
| LnGrp LOS                    | D    | C    | D    | E    | A    | C    | D    | A    | B    | E    | C    | E    |
| Approach Vol, veh/h          |      | 526  |      |      | 185  |      |      | 642  |      |      | 624  |      |
| Approach Delay, s/veh        |      | 47.9 |      |      | 43.8 |      |      | 40.5 |      |      | 55.1 |      |
| Approach LOS                 |      | D    |      |      | D    |      |      | D    |      |      | E    |      |
| Timer - Assigned Phs         | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 6.4  | 37.6 | 9.8  | 20.6 | 24.0 | 20.0 | 10.3 | 20.1 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 6.0  | 30.0 | 6.0  | 17.0 | 20.0 | 16.0 | 7.0  | 16.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 3.9  | 6.8  | 6.5  | 16.6 | 20.3 | 17.7 | 6.9  | 4.6  |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 0.9  | 0.0  | 0.1  | 0.0  | 0.0  | 0.0  | 0.2  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 47.4 |      |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      | D    |      |      |      |      |      |      |      |      |      |

Generations at Green Valley  
 25: Silva Valley Pkwy. & Charter Way/Appian Way

Baseline  
 Timing Plan: AM

|                               |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|
| Intersection                  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intersection Delay, s/veh23.8 |  |  |  |  |  |  |  |  |  |  |  |  |
| Intersection LOS C            |  |  |  |  |  |  |  |  |  |  |  |  |

| Movement            | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations |      | ↕    |      |      | ↕    |      |      | ↕    |      |      | ↕    |      |
| Traffic Vol, veh/h  | 16   | 4    | 60   | 155  | 2    | 83   | 28   | 182  | 90   | 56   | 274  | 14   |
| Future Vol, veh/h   | 16   | 4    | 60   | 155  | 2    | 83   | 28   | 182  | 90   | 56   | 274  | 14   |
| Peak Hour Factor    | 0.70 | 0.70 | 0.70 | 0.74 | 0.74 | 0.74 | 0.70 | 0.70 | 0.70 | 0.80 | 0.80 | 0.80 |
| Heavy Vehicles, %   | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow           | 23   | 6    | 86   | 209  | 3    | 112  | 40   | 260  | 129  | 70   | 343  | 18   |
| Number of Lanes     | 0    | 1    | 0    | 0    | 1    | 0    | 0    | 1    | 0    | 0    | 1    | 0    |

| Approach                      | EB   | WB   | NB   | SB   |
|-------------------------------|------|------|------|------|
| Opposing Approach             | WB   | EB   | SB   | NB   |
| Opposing Lanes                | 1    | 1    | 1    | 1    |
| Conflicting Approach Left SB  |      | NB   | EB   | WB   |
| Conflicting Lanes Left        | 1    | 1    | 1    | 1    |
| Conflicting Approach Right NB |      | SB   | WB   | EB   |
| Conflicting Lanes Right       | 1    | 1    | 1    | 1    |
| HCM Control Delay             | 12.5 | 20.2 | 25.6 | 27.6 |
| HCM LOS                       | B    | C    | D    | D    |

| Lane                   | NBLn1 | EBLn1 | WBLn1 | SBLn1 |
|------------------------|-------|-------|-------|-------|
| Vol Left, %            | 9%    | 20%   | 65%   | 16%   |
| Vol Thru, %            | 61%   | 5%    | 1%    | 80%   |
| Vol Right, %           | 30%   | 75%   | 35%   | 4%    |
| Sign Control           | Stop  | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 300   | 80    | 240   | 344   |
| LT Vol                 | 28    | 16    | 155   | 56    |
| Through Vol            | 182   | 4     | 2     | 274   |
| RT Vol                 | 90    | 60    | 83    | 14    |
| Lane Flow Rate         | 429   | 114   | 324   | 430   |
| Geometry Grp           | 1     | 1     | 1     | 1     |
| Degree of Util (X)     | 0.745 | 0.233 | 0.613 | 0.765 |
| Departure Headway (Hd) | 6.259 | 7.326 | 6.8   | 6.406 |
| Convergence, Y/N       | Yes   | Yes   | Yes   | Yes   |
| Cap                    | 574   | 493   | 525   | 559   |
| Service Time           | 4.353 | 5.326 | 4.895 | 4.5   |
| HCM Lane V/C Ratio     | 0.747 | 0.231 | 0.617 | 0.769 |
| HCM Control Delay      | 25.6  | 12.5  | 20.2  | 27.6  |
| HCM Lane LOS           | D     | B     | C     | D     |
| HCM 95th-tile Q        | 6.5   | 0.9   | 4.1   | 6.9   |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0    |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↔    |      |      | ↑    |      | ↗    |
| Traffic Vol, veh/h       | 327  | 0    | 0    | 578  | 0    | 0    |
| Future Vol, veh/h        | 327  | 0    | 0    | 578  | 0    | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | 0    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 355  | 0    | 0    | 628  | 0    | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |       |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 0      | 0      | -      | - | - 355 |
| Stage 1              | -      | -      | -      | - | -     |
| Stage 2              | -      | -      | -      | - | -     |
| Critical Hdwy        | -      | -      | -      | - | 6.22  |
| Critical Hdwy Stg 1  | -      | -      | -      | - | -     |
| Critical Hdwy Stg 2  | -      | -      | -      | - | -     |
| Follow-up Hdwy       | -      | -      | -      | - | 3.318 |
| Pot Cap-1 Maneuver   | -      | -      | 0      | - | 0 689 |
| Stage 1              | -      | -      | 0      | - | 0     |
| Stage 2              | -      | -      | 0      | - | 0     |
| Platoon blocked, %   | -      | -      | -      | - | -     |
| Mov Cap-1 Maneuver   | -      | -      | -      | - | 689   |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | -     |
| Stage 1              | -      | -      | -      | - | -     |
| Stage 2              | -      | -      | -      | - | -     |

| Approach             | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              |    |    | A  |

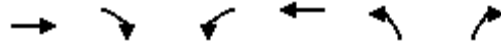
| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h)      | -     | -   | -   | -   |
| HCM Lane V/C Ratio    | -     | -   | -   | -   |
| HCM Control Delay (s) | 0     | -   | -   | -   |
| HCM Lane LOS          | A     | -   | -   | -   |
| HCM 95th %tile Q(veh) | -     | -   | -   | -   |



| Lane Group                  | EBT  | WBT  |
|-----------------------------|------|------|
| Lane Group Flow (vph)       | 355  | 628  |
| v/c Ratio                   | 0.36 | 0.64 |
| Control Delay               | 4.9  | 8.1  |
| Queue Delay                 | 0.0  | 0.0  |
| Total Delay                 | 4.9  | 8.1  |
| Queue Length 50th (ft)      | 23   | 50   |
| Queue Length 95th (ft)      | 44   | 95   |
| Internal Link Dist (ft)     | 1398 | 2852 |
| Turn Bay Length (ft)        |      |      |
| Base Capacity (vph)         | 1666 | 1666 |
| Starvation Cap Reductn      | 0    | 0    |
| Spillback Cap Reductn       | 0    | 0    |
| Storage Cap Reductn         | 0    | 0    |
| Reduced v/c Ratio           | 0.21 | 0.38 |
| <b>Intersection Summary</b> |      |      |

Generations at Green Valley  
27: Site Dwy. Full & Green Valley Rd.

Baseline  
Timing Plan: AM



| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations          | ↗    |      | ↖    | ↗    | ↖    | ↗    |
| Traffic Volume (veh/h)       | 327  | 0    | 0    | 578  | 0    | 0    |
| Future Volume (veh/h)        | 327  | 0    | 0    | 578  | 0    | 0    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 355  | 0    | 0    | 628  | 0    | 0    |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 1224 | 0    | 622  | 1224 | 15   | 14   |
| Arrive On Green              | 0.65 | 0.00 | 0.00 | 0.65 | 0.00 | 0.00 |
| Sat Flow, veh/h              | 1870 | 0    | 1026 | 1870 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 355  | 0    | 0    | 628  | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1870 | 0    | 1026 | 1870 | 1781 | 1585 |
| Q Serve(g_s), s              | 0.9  | 0.0  | 0.0  | 2.0  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 0.9  | 0.0  | 0.0  | 2.0  | 0.0  | 0.0  |
| Prop In Lane                 |      | 0.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 1224 | 0    | 622  | 1224 | 15   | 14   |
| V/C Ratio(X)                 | 0.29 | 0.00 | 0.00 | 0.51 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 4203 | 0    | 2257 | 4203 | 4003 | 3562 |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 0.9  | 0.0  | 0.0  | 1.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 0.1  | 0.0  | 0.0  | 0.3  | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.0  | 0.0  | 0.0  | 0.1  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 1.0  | 0.0  | 0.0  | 1.4  | 0.0  | 0.0  |
| LnGrp LOS                    | A    | A    | A    | A    | A    | A    |
| Approach Vol, veh/h          | 355  |      |      | 628  | 0    |      |
| Approach Delay, s/veh        | 1.0  |      |      | 1.4  | 0.0  |      |
| Approach LOS                 | A    |      |      | A    |      |      |
| Timer - Assigned Phs         |      | 2    |      |      | 6    | 8    |
| Phs Duration (G+Y+Rc), s     |      | 11.6 |      |      | 11.6 | 0.0  |
| Change Period (Y+Rc), s      |      | 4.0  |      |      | 4.0  | 4.0  |
| Max Green Setting (Gmax), s  |      | 26.0 |      |      | 26.0 | 26.0 |
| Max Q Clear Time (g_c+I1), s |      | 4.0  |      |      | 2.9  | 0.0  |
| Green Ext Time (p_c), s      |      | 3.5  |      |      | 1.7  | 0.0  |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 1.2  |      |      |      |
| HCM 6th LOS                  |      |      | A    |      |      |      |

Summary of All Intervals

| Run Number              | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|
| Start Time              | 6:50  | 6:50  | 6:50  | 6:50  | 6:50  | 6:50  | 6:50  |
| End Time                | 8:00  | 8:00  | 8:00  | 8:00  | 8:00  | 8:00  | 8:00  |
| Total Time (min)        | 70    | 70    | 70    | 70    | 70    | 70    | 70    |
| Time Recorded (min)     | 60    | 60    | 60    | 60    | 60    | 60    | 60    |
| # of Intervals          | 5     | 5     | 5     | 5     | 5     | 5     | 5     |
| # of Recorded Intervals | 4     | 4     | 4     | 4     | 4     | 4     | 4     |
| Vehs Entered            | 10975 | 10854 | 10726 | 10857 | 10794 | 10740 | 10969 |
| Vehs Exited             | 10934 | 10811 | 10702 | 10910 | 10758 | 10746 | 10958 |
| Starting Vehs           | 245   | 237   | 251   | 280   | 243   | 294   | 252   |
| Ending Vehs             | 286   | 280   | 275   | 227   | 279   | 288   | 263   |
| Travel Distance (mi)    | 3544  | 3500  | 3476  | 3503  | 3461  | 3491  | 3573  |
| Travel Time (hr)        | 590.2 | 571.7 | 592.8 | 625.1 | 566.5 | 588.5 | 573.0 |
| Total Delay (hr)        | 485.2 | 467.8 | 489.8 | 521.3 | 463.6 | 485.0 | 466.9 |
| Total Stops             | 9466  | 9233  | 9396  | 9637  | 9411  | 9668  | 9814  |
| Fuel Used (gal)         | 266.9 | 261.6 | 264.8 | 273.7 | 257.8 | 264.7 | 263.8 |

Summary of All Intervals

| Run Number              | 7     | 8     | 9     | Avg   |
|-------------------------|-------|-------|-------|-------|
| Start Time              | 6:50  | 6:50  | 6:50  | 6:50  |
| End Time                | 8:00  | 8:00  | 8:00  | 8:00  |
| Total Time (min)        | 70    | 70    | 70    | 70    |
| Time Recorded (min)     | 60    | 60    | 60    | 60    |
| # of Intervals          | 5     | 5     | 5     | 5     |
| # of Recorded Intervals | 4     | 4     | 4     | 4     |
| Vehs Entered            | 10886 | 10861 | 10707 | 10835 |
| Vehs Exited             | 10846 | 10850 | 10730 | 10822 |
| Starting Vehs           | 218   | 264   | 265   | 252   |
| Ending Vehs             | 258   | 275   | 242   | 264   |
| Travel Distance (mi)    | 3518  | 3510  | 3448  | 3502  |
| Travel Time (hr)        | 600.6 | 565.7 | 610.2 | 588.4 |
| Total Delay (hr)        | 496.0 | 461.8 | 507.7 | 484.5 |
| Total Stops             | 9501  | 9467  | 9446  | 9502  |
| Fuel Used (gal)         | 268.1 | 260.5 | 267.9 | 265.0 |

Interval #0 Information Seeding

|                                     |      |
|-------------------------------------|------|
| Start Time                          | 6:50 |
| End Time                            | 7:00 |
| Total Time (min)                    | 10   |
| Volumes adjusted by Growth Factors. |      |
| No data recorded this interval.     |      |

**Interval #1 Information**

|                  |      |
|------------------|------|
| Start Time       | 7:00 |
| End Time         | 7:15 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1    | 10    | 2     | 3     | 4    | 5    | 6    |
|----------------------|------|-------|-------|-------|------|------|------|
| Vehs Entered         | 2801 | 2852  | 2767  | 2711  | 2674 | 2735 | 2694 |
| Vehs Exited          | 2742 | 2826  | 2745  | 2743  | 2682 | 2733 | 2660 |
| Starting Vehs        | 245  | 237   | 251   | 280   | 243  | 294  | 252  |
| Ending Vehs          | 304  | 263   | 273   | 248   | 235  | 296  | 286  |
| Travel Distance (mi) | 888  | 903   | 903   | 875   | 867  | 877  | 873  |
| Travel Time (hr)     | 95.6 | 103.3 | 101.4 | 103.0 | 99.3 | 96.3 | 94.0 |
| Total Delay (hr)     | 69.3 | 76.5  | 74.7  | 77.1  | 73.5 | 70.2 | 68.0 |
| Total Stops          | 2297 | 2445  | 2480  | 2375  | 2282 | 2391 | 2348 |
| Fuel Used (gal)      | 55.1 | 57.6  | 56.6  | 56.6  | 55.0 | 54.5 | 53.9 |

**Interval #1 Information**

|                  |      |
|------------------|------|
| Start Time       | 7:00 |
| End Time         | 7:15 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7    | 8    | 9    | Avg  |
|----------------------|------|------|------|------|
| Vehs Entered         | 2752 | 2606 | 2620 | 2718 |
| Vehs Exited          | 2717 | 2619 | 2629 | 2709 |
| Starting Vehs        | 218  | 264  | 265  | 252  |
| Ending Vehs          | 253  | 251  | 256  | 264  |
| Travel Distance (mi) | 879  | 850  | 851  | 877  |
| Travel Time (hr)     | 95.1 | 90.6 | 99.0 | 97.8 |
| Total Delay (hr)     | 68.9 | 65.4 | 73.9 | 71.7 |
| Total Stops          | 2336 | 2248 | 2387 | 2360 |
| Fuel Used (gal)      | 54.5 | 52.8 | 54.5 | 55.1 |

**Interval #2 Information**

|                  |      |
|------------------|------|
| Start Time       | 7:15 |
| End Time         | 7:30 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 2724  | 2595  | 2615  | 2696  | 2671  | 2665  | 2724  |
| Vehs Exited          | 2771  | 2610  | 2638  | 2713  | 2634  | 2694  | 2732  |
| Starting Vehs        | 304   | 263   | 273   | 248   | 235   | 296   | 286   |
| Ending Vehs          | 257   | 248   | 250   | 231   | 272   | 267   | 278   |
| Travel Distance (mi) | 889   | 847   | 844   | 861   | 843   | 873   | 901   |
| Travel Time (hr)     | 130.8 | 131.0 | 126.2 | 139.1 | 125.3 | 130.2 | 129.4 |
| Total Delay (hr)     | 104.4 | 105.9 | 101.1 | 113.6 | 100.2 | 104.4 | 102.8 |
| Total Stops          | 2347  | 2210  | 2300  | 2389  | 2337  | 2427  | 2538  |
| Fuel Used (gal)      | 63.3  | 61.7  | 60.6  | 63.9  | 60.3  | 62.7  | 63.4  |

**Interval #2 Information**

|                  |      |
|------------------|------|
| Start Time       | 7:15 |
| End Time         | 7:30 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 2773  | 2742  | 2721  | 2691  |
| Vehs Exited          | 2758  | 2695  | 2737  | 2699  |
| Starting Vehs        | 253   | 251   | 256   | 264   |
| Ending Vehs          | 268   | 298   | 240   | 264   |
| Travel Distance (mi) | 899   | 871   | 887   | 872   |
| Travel Time (hr)     | 135.3 | 122.2 | 141.0 | 131.0 |
| Total Delay (hr)     | 108.6 | 96.5  | 114.5 | 105.2 |
| Total Stops          | 2408  | 2375  | 2330  | 2365  |
| Fuel Used (gal)      | 64.5  | 60.4  | 65.0  | 62.6  |



**Interval #3 Information**

|                  |      |
|------------------|------|
| Start Time       | 7:30 |
| End Time         | 7:45 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 2781  | 2755  | 2666  | 2712  | 2786  | 2682  | 2780  |
| Vehs Exited          | 2787  | 2771  | 2672  | 2675  | 2796  | 2634  | 2797  |
| Starting Vehs        | 257   | 248   | 250   | 231   | 272   | 267   | 278   |
| Ending Vehs          | 251   | 232   | 244   | 268   | 262   | 315   | 261   |
| Travel Distance (mi) | 895   | 887   | 866   | 883   | 892   | 864   | 903   |
| Travel Time (hr)     | 166.3 | 157.1 | 162.3 | 175.5 | 156.8 | 163.3 | 157.8 |
| Total Delay (hr)     | 139.7 | 130.8 | 136.7 | 149.4 | 130.4 | 137.7 | 130.9 |
| Total Stops          | 2440  | 2302  | 2336  | 2433  | 2422  | 2424  | 2455  |
| Fuel Used (gal)      | 71.2  | 69.1  | 69.3  | 72.6  | 68.6  | 69.5  | 69.5  |

**Interval #3 Information**

|                  |      |
|------------------|------|
| Start Time       | 7:30 |
| End Time         | 7:45 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 2667  | 2750  | 2682  | 2727  |
| Vehs Exited          | 2677  | 2801  | 2679  | 2729  |
| Starting Vehs        | 268   | 298   | 240   | 264   |
| Ending Vehs          | 258   | 247   | 243   | 256   |
| Travel Distance (mi) | 868   | 908   | 857   | 882   |
| Travel Time (hr)     | 169.4 | 162.2 | 168.2 | 163.9 |
| Total Delay (hr)     | 143.6 | 135.3 | 142.7 | 137.7 |
| Total Stops          | 2381  | 2461  | 2348  | 2400  |
| Fuel Used (gal)      | 70.8  | 70.8  | 70.6  | 70.2  |

Interval #4 Information Recording

|                  |      |
|------------------|------|
| Start Time       | 7:45 |
| End Time         | 8:00 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 2669  | 2652  | 2678  | 2738  | 2663  | 2658  | 2771  |
| Vehs Exited          | 2634  | 2604  | 2647  | 2779  | 2646  | 2685  | 2769  |
| Starting Vehs        | 251   | 232   | 244   | 268   | 262   | 315   | 261   |
| Ending Vehs          | 286   | 280   | 275   | 227   | 279   | 288   | 263   |
| Travel Distance (mi) | 872   | 863   | 862   | 883   | 858   | 877   | 896   |
| Travel Time (hr)     | 197.5 | 180.3 | 202.9 | 207.5 | 185.1 | 198.7 | 191.8 |
| Total Delay (hr)     | 171.7 | 154.6 | 177.4 | 181.2 | 159.6 | 172.7 | 165.2 |
| Total Stops          | 2382  | 2276  | 2280  | 2440  | 2370  | 2426  | 2473  |
| Fuel Used (gal)      | 77.3  | 73.2  | 78.2  | 80.6  | 74.0  | 78.0  | 77.0  |

Interval #4 Information Recording

|                  |      |
|------------------|------|
| Start Time       | 7:45 |
| End Time         | 8:00 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 2694  | 2763  | 2684  | 2694  |
| Vehs Exited          | 2694  | 2735  | 2685  | 2690  |
| Starting Vehs        | 258   | 247   | 243   | 256   |
| Ending Vehs          | 258   | 275   | 242   | 264   |
| Travel Distance (mi) | 872   | 880   | 854   | 872   |
| Travel Time (hr)     | 200.9 | 190.7 | 202.1 | 195.8 |
| Total Delay (hr)     | 174.9 | 164.6 | 176.7 | 169.8 |
| Total Stops          | 2376  | 2383  | 2381  | 2376  |
| Fuel Used (gal)      | 78.2  | 76.5  | 77.8  | 77.1  |

13: Francisco Dr & El Dorado Hills Blvd Performance by movement

| Movement           | EBL | EBT  | EBR | WBL | WBT | WBR | NBL  | NBT  | NBR | SBL | SBT  | SBR  |
|--------------------|-----|------|-----|-----|-----|-----|------|------|-----|-----|------|------|
| Denied Delay (hr)  | 0.0 | 0.0  | 0.5 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0 | 0.1 | 0.0  | 0.0  |
| Denied Del/Veh (s) | 1.3 | 1.2  | 3.5 | 0.1 | 0.1 | 0.2 | 0.0  | 0.0  | 0.0 | 3.5 | 0.6  | 0.9  |
| Total Delay (hr)   | 0.0 | 0.1  | 0.6 | 0.0 | 0.1 | 0.0 | 1.3  | 0.6  | 0.1 | 0.2 | 1.3  | 0.0  |
| Total Del/Veh (s)  | 9.4 | 11.7 | 4.2 | 6.8 | 8.0 | 4.1 | 10.9 | 11.3 | 4.6 | 7.6 | 14.8 | 11.9 |
| Stop Delay (hr)    | 0.0 | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 | 0.8  | 0.2  | 0.0 | 0.1 | 0.5  | 0.0  |
| Stop Del/Veh (s)   | 4.8 | 4.5  | 0.0 | 4.7 | 4.5 | 3.4 | 6.8  | 3.3  | 2.9 | 3.1 | 5.4  | 6.4  |

13: Francisco Dr & El Dorado Hills Blvd Performance by movement

| Movement           | All |
|--------------------|-----|
| Denied Delay (hr)  | 0.6 |
| Denied Del/Veh (s) | 1.3 |
| Total Delay (hr)   | 4.3 |
| Total Del/Veh (s)  | 9.2 |
| Stop Delay (hr)    | 1.7 |
| Stop Del/Veh (s)   | 3.7 |

17: El Dorado Hills Blvd #2 & Saratoga Way/Park Drive Performance by movement

| Movement           | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL   | NBT  | NBR | SBL  | SBT  | SBR  |
|--------------------|------|------|------|------|------|------|-------|------|-----|------|------|------|
| Denied Delay (hr)  | 0.0  | 0.0  | 0.3  | 0.0  | 0.0  | 0.0  | 0.1   | 0.0  | 0.0 | 0.1  | 0.1  | 0.0  |
| Denied Del/Veh (s) | 0.9  | 1.0  | 3.5  | 0.1  | 0.2  | 0.2  | 0.8   | 0.2  | 0.0 | 2.5  | 0.4  | 0.5  |
| Total Delay (hr)   | 2.0  | 0.9  | 1.3  | 0.2  | 0.5  | 0.3  | 19.9  | 3.2  | 0.2 | 2.0  | 5.2  | 0.8  |
| Total Del/Veh (s)  | 61.8 | 62.3 | 16.6 | 60.7 | 60.7 | 21.5 | 257.9 | 14.0 | 9.5 | 71.4 | 22.0 | 17.8 |
| Stop Delay (hr)    | 1.9  | 0.8  | 1.1  | 0.2  | 0.5  | 0.3  | 18.8  | 1.4  | 0.1 | 1.8  | 3.2  | 0.6  |
| Stop Del/Veh (s)   | 57.1 | 54.6 | 13.9 | 59.0 | 56.3 | 20.2 | 242.9 | 6.1  | 4.2 | 65.7 | 13.6 | 13.2 |

17: El Dorado Hills Blvd #2 & Saratoga Way/Park Drive Performance by movement

| Movement           | All  |
|--------------------|------|
| Denied Delay (hr)  | 0.6  |
| Denied Del/Veh (s) | 0.8  |
| Total Delay (hr)   | 36.5 |
| Total Del/Veh (s)  | 46.6 |
| Stop Delay (hr)    | 30.6 |
| Stop Del/Veh (s)   | 39.0 |

18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way Performance by movement

| Movement           | EBL  | EBT  | EBR | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|--------------------|------|------|-----|------|------|------|------|------|------|------|------|------|
| Denied Delay (hr)  | 0.0  | 0.0  | 0.3 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Denied Del/Veh (s) | 0.3  | 0.6  | 3.2 | 0.2  | 0.1  | 0.1  | 0.0  | 0.0  | 0.0  | 0.1  | 0.0  | 0.2  |
| Total Delay (hr)   | 3.2  | 0.6  | 0.4 | 2.2  | 0.9  | 0.9  | 10.4 | 5.6  | 0.6  | 0.7  | 11.8 | 2.0  |
| Total Del/Veh (s)  | 52.3 | 53.6 | 3.9 | 57.8 | 60.9 | 59.6 | 63.6 | 21.0 | 17.9 | 72.4 | 51.4 | 22.4 |
| Stop Delay (hr)    | 3.0  | 0.5  | 0.0 | 2.0  | 0.8  | 0.8  | 9.2  | 3.8  | 0.4  | 0.7  | 9.4  | 1.3  |
| Stop Del/Veh (s)   | 49.1 | 48.6 | 0.0 | 54.1 | 56.2 | 57.2 | 56.4 | 14.0 | 12.9 | 65.5 | 41.1 | 14.7 |

18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way Performance by movement

| Movement           | All  |
|--------------------|------|
| Denied Delay (hr)  | 0.4  |
| Denied Del/Veh (s) | 0.4  |
| Total Delay (hr)   | 39.3 |
| Total Del/Veh (s)  | 37.8 |
| Stop Delay (hr)    | 32.0 |
| Stop Del/Veh (s)   | 30.8 |

19: Latrobe Road #2/El Dorado Hills Blvd #2 & US 50 EB Ramps Performance by movement

| Movement           | EBR  | WBR | NBT | NBR | SBL  | SBT  | All  |
|--------------------|------|-----|-----|-----|------|------|------|
| Denied Delay (hr)  | 0.2  | 0.0 | 0.2 | 0.1 | 0.0  | 0.0  | 0.5  |
| Denied Del/Veh (s) | 0.7  | 0.3 | 0.4 | 2.3 | 0.0  | 0.0  | 0.4  |
| Total Delay (hr)   | 2.9  | 0.1 | 1.9 | 0.3 | 2.3  | 4.3  | 11.8 |
| Total Del/Veh (s)  | 12.8 | 0.9 | 5.6 | 4.7 | 37.8 | 13.4 | 10.5 |
| Stop Delay (hr)    | 1.8  | 0.0 | 0.8 | 0.1 | 1.8  | 1.6  | 6.1  |
| Stop Del/Veh (s)   | 7.9  | 0.0 | 2.2 | 2.4 | 29.3 | 5.1  | 5.4  |

Total Zone Performance

|                    |        |
|--------------------|--------|
| Denied Delay (hr)  | 2.1    |
| Denied Del/Veh (s) | 1.2    |
| Total Delay (hr)   | 91.9   |
| Total Del/Veh (s)  | 1407.1 |
| Stop Delay (hr)    | 70.4   |
| Stop Del/Veh (s)   | 1079.0 |

Intersection: 13: Francisco Dr & El Dorado Hills Blvd

| Movement              | EB  | WB  | NB  | NB  | SB  | SB  |
|-----------------------|-----|-----|-----|-----|-----|-----|
| Directions Served     | LT  | LTR | L   | TR  | L   | TR  |
| Maximum Queue (ft)    | 56  | 67  | 200 | 88  | 62  | 123 |
| Average Queue (ft)    | 26  | 35  | 82  | 44  | 32  | 63  |
| 95th Queue (ft)       | 51  | 58  | 149 | 71  | 52  | 99  |
| Link Distance (ft)    | 577 | 573 |     | 522 |     | 734 |
| Upstream Blk Time (%) |     |     |     |     |     |     |
| Queuing Penalty (veh) |     |     |     |     |     |     |
| Storage Bay Dist (ft) |     |     | 500 |     | 200 |     |
| Storage Blk Time (%)  |     |     |     |     |     |     |
| Queuing Penalty (veh) |     |     |     |     |     |     |

Intersection: 17: El Dorado Hills Blvd #2 & Saratoga Way/Park Drive

| Movement              | EB  | EB  | EB  | WB  | WB  | NB  | NB  | NB  | NB  | SB  | SB  | SB  |
|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Directions Served     | L   | LT  | R   | L   | TR  | L   | T   | T   | TR  | L   | T   | TR  |
| Maximum Queue (ft)    | 124 | 178 | 193 | 41  | 127 | 275 | 835 | 575 | 321 | 124 | 318 | 340 |
| Average Queue (ft)    | 45  | 89  | 89  | 6   | 52  | 264 | 507 | 90  | 73  | 80  | 163 | 184 |
| 95th Queue (ft)       | 92  | 160 | 165 | 26  | 105 | 313 | 909 | 327 | 214 | 143 | 288 | 307 |
| Link Distance (ft)    |     | 930 |     | 488 | 488 |     | 946 | 946 | 946 |     | 685 | 685 |
| Upstream Blk Time (%) |     |     |     |     |     |     | 1   | 0   | 0   |     |     |     |
| Queuing Penalty (veh) |     |     |     |     |     |     | 3   | 0   | 0   |     |     |     |
| Storage Bay Dist (ft) | 150 |     | 240 |     |     | 250 |     |     |     | 100 |     |     |
| Storage Blk Time (%)  | 0   | 0   | 0   |     |     | 75  | 2   |     |     | 8   | 15  |     |
| Queuing Penalty (veh) | 0   | 2   | 1   |     |     | 208 | 4   |     |     | 33  | 14  |     |

Intersection: 18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way

| Movement              | EB   | EB   | WB  | WB  | WB  | NB  | NB  | NB  | NB  | NB  | SB  | SB  |    |
|-----------------------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|
| Directions Served     | L    | LT   | L   | LT  | TR  | L   | L   | T   | T   | TR  | L   | T   |    |
| Maximum Queue (ft)    | 176  | 169  | 115 | 137 | 150 | 330 | 339 | 236 | 236 | 257 | 224 | 312 |    |
| Average Queue (ft)    | 88   | 87   | 47  | 82  | 68  | 221 | 224 | 135 | 129 | 144 | 55  | 210 |    |
| 95th Queue (ft)       | 144  | 146  | 92  | 124 | 120 | 316 | 318 | 222 | 218 | 231 | 159 | 291 |    |
| Link Distance (ft)    | 1059 | 1059 |     | 621 | 621 | 714 | 714 | 714 | 714 | 714 |     | 946 |    |
| Upstream Blk Time (%) |      |      |     |     |     |     |     |     |     |     |     |     |    |
| Queuing Penalty (veh) |      |      |     |     |     |     |     |     |     |     |     |     |    |
| Storage Bay Dist (ft) | 150  |      |     |     |     |     | 200 |     |     |     |     |     |    |
| Storage Blk Time (%)  |      |      |     |     |     |     | 0   |     |     | 0   |     |     | 15 |
| Queuing Penalty (veh) |      |      |     |     |     |     | 0   |     |     | 0   |     |     | 6  |

Intersection: 18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way

| Movement              | SB  | SB  | SB  |
|-----------------------|-----|-----|-----|
| Directions Served     | T   | T   | R   |
| Maximum Queue (ft)    | 294 | 348 | 225 |
| Average Queue (ft)    | 197 | 208 | 168 |
| 95th Queue (ft)       | 276 | 312 | 272 |
| Link Distance (ft)    | 946 | 946 |     |
| Upstream Blk Time (%) |     |     |     |
| Queuing Penalty (veh) |     |     |     |
| Storage Bay Dist (ft) | 200 |     |     |
| Storage Blk Time (%)  | 11  | 3   |     |
| Queuing Penalty (veh) | 37  | 8   |     |

Intersection: 19: Latrobe Road #2/El Dorado Hills Blvd #2 & US 50 EB Ramps

| Movement              | EB   | EB  | NB  | NB  | NB  | NB  | SB  | SB  | SB  | SB  | SB  |  |
|-----------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Directions Served     | R    | R   | T   | T   | T   | R   | L   | T   | T   | T   | T   |  |
| Maximum Queue (ft)    | 161  | 169 | 103 | 150 | 208 | 107 | 255 | 145 | 135 | 152 | 152 |  |
| Average Queue (ft)    | 84   | 83  | 50  | 51  | 84  | 36  | 127 | 30  | 56  | 74  | 69  |  |
| 95th Queue (ft)       | 140  | 141 | 91  | 119 | 162 | 83  | 231 | 93  | 119 | 130 | 128 |  |
| Link Distance (ft)    | 1212 |     | 718 | 718 | 718 |     |     | 714 | 714 | 714 | 714 |  |
| Upstream Blk Time (%) |      |     |     |     |     |     |     |     |     |     |     |  |
| Queuing Penalty (veh) |      |     |     |     |     |     |     |     |     |     |     |  |
| Storage Bay Dist (ft) | 450  |     |     |     | 275 |     |     |     | 575 |     |     |  |
| Storage Blk Time (%)  |      |     |     |     |     |     |     |     |     |     |     |  |
| Queuing Penalty (veh) |      |     |     |     |     |     |     |     |     |     |     |  |

Zone Summary

Zone wide Queuing Penalty: 316

Generations at Green Valley  
 1: Sophia Pkwy/Access Rd & Green Valley Rd

Baseline  
 Timing Plan: PM



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 1    | 1289 | 143  | 195  | 887  | 152  | 136  | 2    |
| v/c Ratio               | 0.00 | 0.52 | 0.12 | 0.86 | 0.36 | 0.54 | 0.35 | 0.01 |
| Control Delay           | 4.0  | 6.6  | 1.0  | 48.0 | 5.3  | 36.8 | 13.1 | 22.0 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 4.0  | 6.6  | 1.0  | 48.0 | 5.3  | 36.8 | 13.1 | 22.0 |
| Queue Length 50th (ft)  | 0    | 133  | 0    | 61   | 77   | 69   | 17   | 0    |
| Queue Length 95th (ft)  | 1    | 174  | 14   | #212 | 104  | 128  | 64   | 5    |
| Internal Link Dist (ft) |      | 1813 |      |      | 7016 |      |      | 376  |
| Turn Bay Length (ft)    | 248  |      | 224  | 314  |      | 204  | 204  |      |
| Base Capacity (vph)     | 385  | 2477 | 1151 | 226  | 2477 | 282  | 392  | 348  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.00 | 0.52 | 0.12 | 0.86 | 0.36 | 0.54 | 0.35 | 0.01 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
1: Sophia Pkwy/Access Rd & Green Valley Rd

Baseline  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 1    | 1160 | 129  | 181  | 823  | 2    | 144  | 0    | 129  | 0    | 1    | 1    |
| Future Volume (veh/h)        | 1    | 1160 | 129  | 181  | 823  | 2    | 144  | 0    | 129  | 0    | 1    | 1    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 1    | 1289 | 143  | 195  | 885  | 2    | 152  | 0    | 136  | 0    | 1    | 1    |
| Peak Hour Factor             | 0.90 | 0.90 | 0.90 | 0.93 | 0.93 | 0.93 | 0.95 | 0.95 | 0.95 | 0.70 | 0.70 | 0.70 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 468  | 2488 | 1110 | 288  | 2546 | 6    | 372  | 374  | 317  | 0    | 172  | 172  |
| Arrive On Green              | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.20 | 0.00 | 0.20 | 0.00 | 0.20 | 0.20 |
| Sat Flow, veh/h              | 627  | 3554 | 1585 | 374  | 3638 | 8    | 1415 | 1870 | 1585 | 0    | 858  | 858  |
| Grp Volume(v), veh/h         | 1    | 1289 | 143  | 195  | 432  | 455  | 152  | 0    | 136  | 0    | 0    | 2    |
| Grp Sat Flow(s),veh/h/ln     | 627  | 1777 | 1585 | 374  | 1777 | 1869 | 1415 | 1870 | 1585 | 0    | 0    | 1716 |
| Q Serve(g_s), s              | 0.1  | 13.7 | 2.4  | 41.1 | 7.7  | 7.7  | 7.7  | 0.0  | 6.0  | 0.0  | 0.0  | 0.1  |
| Cycle Q Clear(g_c), s        | 7.8  | 13.7 | 2.4  | 54.8 | 7.7  | 7.7  | 7.8  | 0.0  | 6.0  | 0.0  | 0.0  | 0.1  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 0.00 | 1.00 |      | 1.00 | 0.00 |      | 0.50 |
| Lane Grp Cap(c), veh/h       | 468  | 2488 | 1110 | 288  | 1244 | 1308 | 372  | 374  | 317  | 0    | 0    | 343  |
| V/C Ratio(X)                 | 0.00 | 0.52 | 0.13 | 0.68 | 0.35 | 0.35 | 0.41 | 0.00 | 0.43 | 0.00 | 0.00 | 0.01 |
| Avail Cap(c_a), veh/h        | 468  | 2488 | 1110 | 288  | 1244 | 1308 | 372  | 374  | 317  | 0    | 0    | 343  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh     | 6.3  | 5.6  | 4.0  | 18.5 | 4.8  | 4.8  | 28.7 | 0.0  | 28.0 | 0.0  | 0.0  | 25.6 |
| Incr Delay (d2), s/veh       | 0.0  | 0.8  | 0.2  | 12.1 | 0.8  | 0.7  | 3.3  | 0.0  | 4.2  | 0.0  | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.0  | 3.2  | 0.5  | 3.7  | 1.9  | 2.0  | 2.7  | 0.0  | 2.4  | 0.0  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 6.3  | 6.4  | 4.2  | 30.7 | 5.5  | 5.5  | 32.1 | 0.0  | 32.2 | 0.0  | 0.0  | 25.7 |
| LnGrp LOS                    | A    | A    | A    | C    | A    | A    | C    | A    | C    | A    | A    | C    |
| Approach Vol, veh/h          |      | 1433 |      |      | 1082 |      |      | 288  |      |      |      | 2    |
| Approach Delay, s/veh        |      | 6.2  |      |      | 10.0 |      |      | 32.1 |      |      |      | 25.7 |
| Approach LOS                 |      | A    |      |      | B    |      |      | C    |      |      |      | C    |
| Timer - Assigned Phs         |      | 2    |      | 4    |      | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 20.0 |      | 60.0 |      | 20.0 |      | 60.0 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  |      | 4.0  |      | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 16.0 |      | 56.0 |      | 16.0 |      | 56.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 9.8  |      | 15.7 |      | 2.1  |      | 56.8 |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.4  |      | 11.8 |      | 0.0  |      | 0.0  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      | 10.4 |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      |      | B    |      |      |      |      |      |      |      |      |



Generations at Green Valley  
 2: Green Valley Rd/Green Valley Road & Francisco Rd.

Baseline  
 Timing Plan: PM



| Lane Group              | EBL   | EBT  | EBR  | WBL   | WBT  | WBR  | NBL  | NBT  | SBL   | SBT  | SBR  |
|-------------------------|-------|------|------|-------|------|------|------|------|-------|------|------|
| Lane Group Flow (vph)   | 340   | 726  | 294  | 150   | 560  | 106  | 295  | 395  | 153   | 262  | 294  |
| v/c Ratio               | 1.11  | 0.68 | 0.43 | 1.15  | 0.55 | 0.19 | 0.66 | 0.41 | 1.17  | 0.64 | 0.55 |
| Control Delay           | 119.5 | 24.7 | 4.8  | 159.8 | 23.1 | 3.7  | 39.0 | 21.1 | 167.1 | 32.7 | 10.6 |
| Queue Delay             | 0.0   | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  |
| Total Delay             | 119.5 | 24.7 | 4.8  | 159.8 | 23.1 | 3.7  | 39.0 | 21.1 | 167.1 | 32.7 | 10.6 |
| Queue Length 50th (ft)  | ~90   | 141  | 0    | ~79   | 104  | 0    | 63   | 68   | -82   | 101  | 20   |
| Queue Length 95th (ft)  | #196  | 214  | 51   | #200  | 155  | 21   | #116 | 104  | #216  | 186  | 88   |
| Internal Link Dist (ft) |       | 7016 |      |       | 1876 |      |      | 2744 |       | 705  |      |
| Turn Bay Length (ft)    | 290   |      | 210  | 200   |      | 450  | 200  |      | 183   |      |      |
| Base Capacity (vph)     | 306   | 1411 | 807  | 131   | 1358 | 687  | 459  | 1306 | 131   | 582  | 656  |
| Starvation Cap Reductn  | 0     | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0     | 0    | 0    |
| Spillback Cap Reductn   | 0     | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0     | 0    | 0    |
| Storage Cap Reductn     | 0     | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0     | 0    | 0    |
| Reduced v/c Ratio       | 1.11  | 0.51 | 0.36 | 1.15  | 0.41 | 0.15 | 0.64 | 0.30 | 1.17  | 0.45 | 0.45 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
2: Green Valley Rd/Green Valley Road & Francisco Rd.

Baseline  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL   | WBT  | WBR  | NBL  | NBT  | NBR  | SBL   | SBT  | SBR  |
|------------------------------|------|------|------|-------|------|------|------|------|------|-------|------|------|
| Lane Configurations          | ↔↔   | ↑↑   | ↗    | ↖     | ↑↑   | ↗    | ↔↔   | ↑↑   |      | ↖     | ↑    | ↗    |
| Traffic Volume (veh/h)       | 323  | 690  | 279  | 129   | 482  | 91   | 248  | 299  | 33   | 138   | 236  | 265  |
| Future Volume (veh/h)        | 323  | 690  | 279  | 129   | 482  | 91   | 248  | 299  | 33   | 138   | 236  | 265  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00  |      | 1.00 | 1.00 |      | 1.00 | 1.00  |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |       | No   |      |      | No   |      |       | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 340  | 726  | 294  | 150   | 560  | 106  | 295  | 356  | 39   | 153   | 262  | 294  |
| Peak Hour Factor             | 0.95 | 0.95 | 0.95 | 0.86  | 0.86 | 0.86 | 0.84 | 0.84 | 0.84 | 0.90  | 0.90 | 0.90 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2     | 2    | 2    | 2    | 2    | 2    | 2     | 2    | 2    |
| Cap, veh/h                   | 327  | 1016 | 453  | 141   | 960  | 428  | 402  | 869  | 95   | 141   | 433  | 367  |
| Arrive On Green              | 0.09 | 0.29 | 0.29 | 0.08  | 0.27 | 0.27 | 0.12 | 0.27 | 0.27 | 0.08  | 0.23 | 0.23 |
| Sat Flow, veh/h              | 3456 | 3554 | 1585 | 1781  | 3554 | 1585 | 3456 | 3232 | 352  | 1781  | 1870 | 1585 |
| Grp Volume(v), veh/h         | 340  | 726  | 294  | 150   | 560  | 106  | 295  | 195  | 200  | 153   | 262  | 294  |
| Grp Sat Flow(s),veh/h/ln     | 1728 | 1777 | 1585 | 1781  | 1777 | 1585 | 1728 | 1777 | 1807 | 1781  | 1870 | 1585 |
| Q Serve(g_s), s              | 6.0  | 11.6 | 10.3 | 5.0   | 8.6  | 3.3  | 5.2  | 5.7  | 5.8  | 5.0   | 7.9  | 11.1 |
| Cycle Q Clear(g_c), s        | 6.0  | 11.6 | 10.3 | 5.0   | 8.6  | 3.3  | 5.2  | 5.7  | 5.8  | 5.0   | 7.9  | 11.1 |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00  |      | 1.00 | 1.00 |      | 0.19 | 1.00  |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 327  | 1016 | 453  | 141   | 960  | 428  | 402  | 478  | 486  | 141   | 433  | 367  |
| V/C Ratio(X)                 | 1.04 | 0.71 | 0.65 | 1.07  | 0.58 | 0.25 | 0.73 | 0.41 | 0.41 | 1.09  | 0.61 | 0.80 |
| Avail Cap(c_a), veh/h        | 327  | 1503 | 670  | 141   | 1447 | 645  | 491  | 701  | 713  | 141   | 620  | 525  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 28.7 | 20.3 | 19.8 | 29.2  | 20.0 | 18.1 | 27.0 | 19.0 | 19.0 | 29.2  | 21.8 | 23.0 |
| Incr Delay (d2), s/veh       | 60.2 | 0.9  | 1.6  | 94.9  | 0.6  | 0.3  | 4.4  | 0.6  | 0.6  | 101.5 | 1.4  | 5.8  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 4.9  | 4.1  | 3.5  | 5.6   | 3.1  | 1.1  | 2.2  | 2.2  | 2.2  | 5.9   | 3.3  | 4.3  |
| Unsig. Movement Delay, s/veh |      |      |      |       |      |      |      |      |      |       |      |      |
| LnGrp Delay(d),s/veh         | 88.9 | 21.2 | 21.4 | 124.1 | 20.6 | 18.4 | 31.5 | 19.6 | 19.6 | 130.7 | 23.1 | 28.7 |
| LnGrp LOS                    | F    | C    | C    | F     | C    | B    | C    | B    | B    | F     | C    | C    |
| Approach Vol, veh/h          |      | 1360 |      |       | 816  |      |      | 690  |      |       |      | 709  |
| Approach Delay, s/veh        |      | 38.2 |      |       | 39.3 |      |      | 24.7 |      |       |      | 48.7 |
| Approach LOS                 |      | D    |      |       | D    |      |      | C    |      |       |      | D    |
| Timer - Assigned Phs         | 1    | 2    | 3    | 4     | 5    | 6    | 7    | 8    |      |       |      |      |
| Phs Duration (G+Y+Rc), s     | 9.0  | 23.8 | 11.4 | 19.2  | 10.0 | 22.8 | 9.0  | 21.5 |      |       |      |      |
| Change Period (Y+Rc), s      | 4.0  | 5.7  | 4.0  | 4.5   | 4.0  | 5.7  | 4.0  | 4.5  |      |       |      |      |
| Max Green Setting (Gmax), s  | 5.0  | 26.8 | 9.0  | 21.0  | 6.0  | 25.8 | 5.0  | 25.0 |      |       |      |      |
| Max Q Clear Time (g_c+I1), s | 7.0  | 13.6 | 7.2  | 13.1  | 8.0  | 10.6 | 7.0  | 7.8  |      |       |      |      |
| Green Ext Time (p_c), s      | 0.0  | 4.5  | 0.2  | 1.6   | 0.0  | 3.2  | 0.0  | 1.9  |      |       |      |      |

Intersection Summary

|                    |  |  |      |  |  |  |  |  |  |  |  |  |
|--------------------|--|--|------|--|--|--|--|--|--|--|--|--|
| HCM 6th Ctrl Delay |  |  | 37.9 |  |  |  |  |  |  |  |  |  |
| HCM 6th LOS        |  |  | D    |  |  |  |  |  |  |  |  |  |

Generations at Green Valley  
 3: El Dorado Hills Blvd./Salmon Falls Rd & Green Valley Road

Baseline  
 Timing Plan: PM



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 97   | 821  | 48   | 651  | 44   | 222  | 79   | 123  | 106  |
| v/c Ratio               | 0.59 | 0.89 | 0.60 | 0.78 | 0.15 | 0.70 | 0.33 | 0.49 | 0.33 |
| Control Delay           | 65.3 | 37.5 | 85.4 | 33.3 | 42.9 | 55.0 | 49.4 | 53.0 | 8.0  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 65.3 | 37.5 | 85.4 | 33.3 | 42.9 | 55.0 | 49.4 | 53.0 | 8.0  |
| Queue Length 50th (ft)  | 70   | 513  | 36   | 395  | 28   | 150  | 55   | 87   | 0    |
| Queue Length 95th (ft)  | #132 | #824 | #104 | 579  | 64   | #255 | 96   | 138  | 27   |
| Internal Link Dist (ft) |      | 1876 |      | 819  |      | 2981 |      | 502  |      |
| Turn Bay Length (ft)    | 85   |      | 105  |      | 165  |      |      |      | 100  |
| Base Capacity (vph)     | 201  | 1112 | 80   | 975  | 356  | 370  | 331  | 348  | 399  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.48 | 0.74 | 0.60 | 0.67 | 0.12 | 0.60 | 0.24 | 0.35 | 0.27 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
 3: El Dorado Hills Blvd./Salmon Falls Rd & Green Valley Road

Baseline  
 Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          | ↖    | ↗    |      | ↖    | ↗    |      | ↖    | ↗    |      | ↖    | ↗    | ↖    |
| Traffic Volume (veh/h)       | 93   | 778  | 11   | 43   | 521  | 59   | 39   | 151  | 46   | 66   | 103  | 89   |
| Future Volume (veh/h)        | 93   | 778  | 11   | 43   | 521  | 59   | 39   | 151  | 46   | 66   | 103  | 89   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 97   | 810  | 11   | 48   | 585  | 66   | 44   | 170  | 52   | 79   | 123  | 106  |
| Peak Hour Factor             | 0.96 | 0.96 | 0.96 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.84 | 0.84 | 0.84 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 124  | 952  | 13   | 61   | 795  | 90   | 273  | 211  | 64   | 182  | 191  | 162  |
| Arrive On Green              | 0.07 | 0.52 | 0.52 | 0.03 | 0.48 | 0.48 | 0.15 | 0.15 | 0.15 | 0.10 | 0.10 | 0.10 |
| Sat Flow, veh/h              | 1781 | 1841 | 25   | 1781 | 1651 | 186  | 1781 | 1374 | 420  | 1781 | 1870 | 1585 |
| Grp Volume(v), veh/h         | 97   | 0    | 821  | 48   | 0    | 651  | 44   | 0    | 222  | 79   | 123  | 106  |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1866 | 1781 | 0    | 1837 | 1781 | 0    | 1795 | 1781 | 1870 | 1585 |
| Q Serve(g_s), s              | 4.9  | 0.0  | 34.4 | 2.4  | 0.0  | 25.8 | 1.9  | 0.0  | 10.8 | 3.8  | 5.7  | 5.8  |
| Cycle Q Clear(g_c), s        | 4.9  | 0.0  | 34.4 | 2.4  | 0.0  | 25.8 | 1.9  | 0.0  | 10.8 | 3.8  | 5.7  | 5.8  |
| Prop In Lane                 | 1.00 |      | 0.01 | 1.00 |      | 0.10 | 1.00 |      | 0.23 | 1.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 124  | 0    | 965  | 61   | 0    | 885  | 273  | 0    | 275  | 182  | 191  | 162  |
| V/C Ratio(X)                 | 0.78 | 0.00 | 0.85 | 0.79 | 0.00 | 0.74 | 0.16 | 0.00 | 0.81 | 0.43 | 0.64 | 0.65 |
| Avail Cap(c_a), veh/h        | 222  | 0    | 1221 | 88   | 0    | 1064 | 393  | 0    | 395  | 365  | 383  | 325  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 41.6 | 0.0  | 18.9 | 43.5 | 0.0  | 18.9 | 33.4 | 0.0  | 37.1 | 38.3 | 39.1 | 39.2 |
| Incr Delay (d2), s/veh       | 7.8  | 0.0  | 6.3  | 20.9 | 0.0  | 3.2  | 0.5  | 0.0  | 10.9 | 2.8  | 6.0  | 7.4  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 2.3  | 0.0  | 14.0 | 1.4  | 0.0  | 10.1 | 0.8  | 0.0  | 5.3  | 1.7  | 2.8  | 2.5  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 49.3 | 0.0  | 25.2 | 64.4 | 0.0  | 22.1 | 33.8 | 0.0  | 48.0 | 41.0 | 45.2 | 46.6 |
| LnGrp LOS                    | D    | A    | C    | E    | A    | C    | C    | A    | D    | D    | D    | D    |
| Approach Vol, veh/h          |      | 918  |      |      | 699  |      |      | 266  |      |      | 308  |      |
| Approach Delay, s/veh        |      | 27.7 |      |      | 25.0 |      |      | 45.6 |      |      | 44.6 |      |
| Approach LOS                 |      | C    |      |      | C    |      |      | D    |      |      | D    |      |
| Timer - Assigned Phs         | 1    | 2    |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 6.6  | 52.9 |      | 13.3 | 9.8  | 49.7 |      | 17.9 |      |      |      |      |
| Change Period (Y+Rc), s      | 3.5  | 6.0  |      | 4.0  | 3.5  | 6.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.5  | 59.4 |      | 18.6 | 11.3 | 52.6 |      | 20.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 4.4  | 36.4 |      | 7.8  | 6.9  | 27.8 |      | 12.8 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 10.5 |      | 1.5  | 0.1  | 8.1  |      | 1.1  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      | 31.4 |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      |      | C    |      |      |      |      |      |      |      |      |

Generations at Green Valley  
 4: Silva Valley Pkwy./Allegheny Rd & Green Valley Road/Green Valley Rd.

Baseline  
 Timing Plan: PM



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 4    | 664  | 258  | 46   | 433  | 274  | 74   | 16   |
| v/c Ratio               | 0.04 | 0.71 | 0.29 | 0.43 | 0.41 | 0.68 | 0.18 | 0.10 |
| Control Delay           | 37.0 | 21.0 | 4.7  | 50.1 | 11.8 | 35.5 | 12.8 | 31.8 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 37.0 | 21.0 | 4.7  | 50.1 | 11.8 | 35.5 | 12.8 | 31.8 |
| Queue Length 50th (ft)  | 2    | 205  | 12   | 20   | 80   | 109  | 9    | 5    |
| Queue Length 95th (ft)  | 12   | #508 | 63   | #70  | 246  | 217  | 44   | 19   |
| Internal Link Dist (ft) |      | 819  |      |      | 2255 |      | 4847 | 380  |
| Turn Bay Length (ft)    | 205  |      | 205  | 350  |      | 150  |      |      |
| Base Capacity (vph)     | 106  | 1009 | 949  | 106  | 1130 | 524  | 532  | 603  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.04 | 0.66 | 0.27 | 0.43 | 0.38 | 0.52 | 0.14 | 0.03 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley

Baseline

4: Silva Valley Pkwy./Allegheny Rd & Green Valley Road/Green Valley Rd.

Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 4    | 637  | 248  | 40   | 372  | 4    | 247  | 23   | 43   | 0    | 9    | 2    |
| Future Volume (veh/h)        | 4    | 637  | 248  | 40   | 372  | 4    | 247  | 23   | 43   | 0    | 9    | 2    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 4    | 664  | 258  | 46   | 428  | 5    | 274  | 26   | 48   | 0    | 13   | 3    |
| Peak Hour Factor             | 0.96 | 0.96 | 0.96 | 0.87 | 0.87 | 0.87 | 0.90 | 0.90 | 0.90 | 0.70 | 0.70 | 0.70 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 127  | 803  | 680  | 65   | 727  | 8    | 343  | 113  | 209  | 0    | 23   | 5    |
| Arrive On Green              | 0.07 | 0.43 | 0.43 | 0.04 | 0.39 | 0.39 | 0.19 | 0.19 | 0.19 | 0.00 | 0.02 | 0.02 |
| Sat Flow, veh/h              | 1781 | 1870 | 1585 | 1781 | 1845 | 22   | 1781 | 588  | 1086 | 0    | 1470 | 339  |
| Grp Volume(v), veh/h         | 4    | 664  | 258  | 46   | 0    | 433  | 274  | 0    | 74   | 0    | 0    | 16   |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1870 | 1585 | 1781 | 0    | 1866 | 1781 | 0    | 1675 | 0    | 0    | 1809 |
| Q Serve(g_s), s              | 0.1  | 17.6 | 6.2  | 1.4  | 0.0  | 10.3 | 8.2  | 0.0  | 2.1  | 0.0  | 0.0  | 0.5  |
| Cycle Q Clear(g_c), s        | 0.1  | 17.6 | 6.2  | 1.4  | 0.0  | 10.3 | 8.2  | 0.0  | 2.1  | 0.0  | 0.0  | 0.5  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 0.01 | 1.00 |      | 0.65 | 0.00 |      | 0.19 |
| Lane Grp Cap(c), veh/h       | 127  | 803  | 680  | 65   | 0    | 736  | 343  | 0    | 323  | 0    | 0    | 28   |
| V/C Ratio(X)                 | 0.03 | 0.83 | 0.38 | 0.71 | 0.00 | 0.59 | 0.80 | 0.00 | 0.23 | 0.00 | 0.00 | 0.56 |
| Avail Cap(c_a), veh/h        | 127  | 1200 | 1017 | 127  | 0    | 1197 | 625  | 0    | 588  | 0    | 0    | 709  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh     | 24.3 | 14.2 | 10.9 | 26.7 | 0.0  | 13.4 | 21.6 | 0.0  | 19.1 | 0.0  | 0.0  | 27.4 |
| Incr Delay (d2), s/veh       | 0.1  | 3.1  | 0.3  | 10.0 | 0.0  | 0.8  | 3.2  | 0.0  | 0.3  | 0.0  | 0.0  | 12.2 |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.0  | 5.9  | 1.6  | 0.7  | 0.0  | 3.3  | 3.2  | 0.0  | 0.7  | 0.0  | 0.0  | 0.3  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 24.3 | 17.3 | 11.3 | 36.7 | 0.0  | 14.2 | 24.8 | 0.0  | 19.4 | 0.0  | 0.0  | 39.7 |
| LnGrp LOS                    | C    | B    | B    | D    | A    | B    | C    | A    | B    | A    | A    | D    |
| Approach Vol, veh/h          |      | 926  |      |      | 479  |      |      | 348  |      |      |      | 16   |
| Approach Delay, s/veh        |      | 15.6 |      |      | 16.3 |      |      | 23.7 |      |      |      | 39.7 |
| Approach LOS                 |      | B    |      |      | B    |      |      | C    |      |      |      | D    |
| Timer - Assigned Phs         | 1    | 2    |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 8.0  | 27.8 |      | 4.9  | 6.0  | 29.8 |      | 15.4 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 5.7  |      | 4.0  | 4.0  | 5.7  |      | 4.6  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0  | 36.0 |      | 22.0 | 4.0  | 36.0 |      | 19.7 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 2.1  | 12.3 |      | 2.5  | 3.4  | 19.6 |      | 10.2 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 2.3  |      | 0.0  | 0.0  | 4.4  |      | 0.6  |      |      |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 17.6 |
| HCM 6th LOS        | B    |

Generations at Green Valley  
5: Loch Way & Green Valley Rd

Baseline  
Timing Plan: PM

Intersection

Int Delay, s/veh 1

| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      | ↕↕   |      |      | ↕    | ↕    |      |
| Traffic Vol, veh/h       | 654  | 26   | 8    | 392  | 24   | 11   |
| Future Vol, veh/h        | 654  | 26   | 8    | 392  | 24   | 11   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 85   | 85   | 70   | 70   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 711  | 28   | 9    | 461  | 34   | 16   |

| Major/Minor          | Major1 | Major2 | Minor1 | Minor2 |
|----------------------|--------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 739    | 0      |
| Stage 1              | -      | -      | -      | 725    |
| Stage 2              | -      | -      | -      | 479    |
| Critical Hdwy        | -      | -      | 4.12   | -      |
| Critical Hdwy Stg 1  | -      | -      | -      | 5.42   |
| Critical Hdwy Stg 2  | -      | -      | -      | 5.42   |
| Follow-up Hdwy       | -      | -      | 2.218  | -      |
| Pot Cap-1 Maneuver   | -      | -      | 867    | -      |
| Stage 1              | -      | -      | -      | 479    |
| Stage 2              | -      | -      | -      | 623    |
| Platoon blocked, %   | -      | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 867    | -      |
| Mov Cap-2 Maneuver   | -      | -      | -      | 200    |
| Stage 1              | -      | -      | -      | 479    |
| Stage 2              | -      | -      | -      | 614    |

| Approach             | EB | WB  | NB   |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0  | 0.2 | 23.9 |
| HCM LOS              |    |     | C    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 240   | -   | -   | 867   | -   |
| HCM Lane V/C Ratio    | 0.208 | -   | -   | 0.011 | -   |
| HCM Control Delay (s) | 23.9  | -   | -   | 9.2   | 0   |
| HCM Lane LOS          | C     | -   | -   | A     | A   |
| HCM 95th %tile Q(veh) | 0.8   | -   | -   | 0     | -   |

Generations at Green Valley  
6: Green Valley Rd & Malcolm Dixon Cutoff

Baseline  
Timing Plan: PM

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.1  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      |      |      |      |      |      |
| Traffic Vol, veh/h       | 11   | 656  | 401  | 1    | 1    | 4    |
| Future Vol, veh/h        | 11   | 656  | 401  | 1    | 1    | 4    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 100  | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 94   | 94   | 84   | 84   | 70   | 70   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 12   | 698  | 477  | 1    | 1    | 6    |

| Major/Minor          | Major1 | Major2 | Minor2 |   |       |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 478    | 0      | -      | 0 | 1200  |
| Stage 1              | -      | -      | -      | - | 478   |
| Stage 2              | -      | -      | -      | - | 722   |
| Critical Hdwy        | 4.12   | -      | -      | - | 6.42  |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.42  |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.42  |
| Follow-up Hdwy       | 2.218  | -      | -      | - | 3.518 |
| Pot Cap-1 Maneuver   | 1084   | -      | -      | - | 204   |
| Stage 1              | -      | -      | -      | - | 624   |
| Stage 2              | -      | -      | -      | - | 481   |
| Platoon blocked, %   |        | -      | -      | - |       |
| Mov Cap-1 Maneuver   | 1084   | -      | -      | - | 202   |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 202   |
| Stage 1              | -      | -      | -      | - | 617   |
| Stage 2              | -      | -      | -      | - | 481   |

| Approach             | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.1 | 0  | 13.6 |
| HCM LOS              |     |    | B    |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1084  | -   | -   | -   | 425   |
| HCM Lane V/C Ratio    | 0.011 | -   | -   | -   | 0.017 |
| HCM Control Delay (s) | 8.4   | -   | -   | -   | 13.6  |
| HCM Lane LOS          | A     | -   | -   | -   | B     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0.1   |



Generations at Green Valley  
7: Green Valley Rd & Malcom Dixon Rd

Baseline  
Timing Plan: PM

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.5  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      | ↕    | ↕    |      | ↕    |      |
| Traffic Vol, veh/h       | 14   | 640  | 384  | 8    | 8    | 9    |
| Future Vol, veh/h        | 14   | 640  | 384  | 8    | 8    | 9    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 90   | 90   | 82   | 82   | 70   | 70   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 16   | 711  | 468  | 10   | 11   | 13   |

| Major/Minor          | Major1 | Major2 | Minor2 |   |             |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 478    | 0      | -      | 0 | 1216 473    |
| Stage 1              | -      | -      | -      | - | 473 -       |
| Stage 2              | -      | -      | -      | - | 743 -       |
| Critical Hdwy        | 4.12   | -      | -      | - | 6.42 6.22   |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.42 -      |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.42 -      |
| Follow-up Hdwy       | 2.218  | -      | -      | - | 3.518 3.318 |
| Pot Cap-1 Maneuver   | 1084   | -      | -      | - | 200 591     |
| Stage 1              | -      | -      | -      | - | 627 -       |
| Stage 2              | -      | -      | -      | - | 470 -       |
| Platoon blocked, %   |        | -      | -      | - |             |
| Mov Cap-1 Maneuver   | 1084   | -      | -      | - | 195 591     |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 195 -       |
| Stage 1              | -      | -      | -      | - | 612 -       |
| Stage 2              | -      | -      | -      | - | 470 -       |

| Approach             | EB  | WB | SB |
|----------------------|-----|----|----|
| HCM Control Delay, s | 0.2 | 0  | 18 |
| HCM LOS              |     |    | C  |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1084  | -   | -   | -   | 302   |
| HCM Lane V/C Ratio    | 0.014 | -   | -   | -   | 0.08  |
| HCM Control Delay (s) | 8.4   | 0   | -   | -   | 18    |
| HCM Lane LOS          | A     | A   | -   | -   | C     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0.3   |

Generations at Green Valley  
8: Deer Valley Rd. & Green Valley Rd.

Baseline  
Timing Plan: PM

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 1.7  |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      | ↖    | ↑    | ↗    | ↖    | ↑    | ↗    |      | ↕    |      |      | ↕    |      |
| Traffic Vol, veh/h       | 34   | 592  | 14   | 15   | 359  | 14   | 13   | 1    | 13   | 8    | 0    | 21   |
| Future Vol, veh/h        | 34   | 592  | 14   | 15   | 359  | 14   | 13   | 1    | 13   | 8    | 0    | 21   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | 415  | -    | 415  | 415  | -    | 415  | -    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 95   | 95   | 95   | 84   | 84   | 84   | 70   | 70   | 70   | 72   | 72   | 72   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 36   | 623  | 15   | 18   | 427  | 17   | 19   | 1    | 19   | 11   | 0    | 29   |

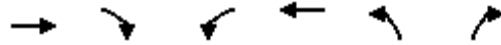
| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |       |       | Minor2 |       |       |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 444    | 0 | 0 | 638    | 0 | 0 | 1181   | 1175  | 623   | 1176   | 1173  | 427   |
| Stage 1              | -      | - | - | -      | - | - | 695    | 695   | -     | 463    | 463   | -     |
| Stage 2              | -      | - | - | -      | - | - | 486    | 480   | -     | 713    | 710   | -     |
| Critical Hdwy        | 4.12   | - | - | 4.12   | - | - | 7.12   | 6.52  | 6.22  | 7.12   | 6.52  | 6.22  |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Follow-up Hdwy       | 2.218  | - | - | 2.218  | - | - | 3.518  | 4.018 | 3.318 | 3.518  | 4.018 | 3.318 |
| Pot Cap-1 Maneuver   | 1116   | - | - | 946    | - | - | 167    | 192   | 486   | 168    | 192   | 628   |
| Stage 1              | -      | - | - | -      | - | - | 433    | 444   | -     | 579    | 564   | -     |
| Stage 2              | -      | - | - | -      | - | - | 563    | 554   | -     | 423    | 437   | -     |
| Platoon blocked, %   | -      | - | - | -      | - | - | -      | -     | -     | -      | -     | -     |
| Mov Cap-1 Maneuver   | 1116   | - | - | 946    | - | - | 153    | 182   | 486   | 154    | 182   | 628   |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | 153    | 182   | -     | 154    | 182   | -     |
| Stage 1              | -      | - | - | -      | - | - | 419    | 430   | -     | 560    | 553   | -     |
| Stage 2              | -      | - | - | -      | - | - | 527    | 543   | -     | 392    | 423   | -     |

| Approach             | EB  |  |  | WB  |  |  | NB   |  |  | SB |  |  |
|----------------------|-----|--|--|-----|--|--|------|--|--|----|--|--|
| HCM Control Delay, s | 0.4 |  |  | 0.3 |  |  | 23.8 |  |  | 17 |  |  |
| HCM LOS              |     |  |  |     |  |  | C    |  |  | C  |  |  |

| Minor Lane/Major Mvmt | NBLn1 | EBL   | EBT | EBR | WBL   | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h)      | 230   | 1116  | -   | -   | 946   | -   | -   | 340   |
| HCM Lane V/C Ratio    | 0.168 | 0.032 | -   | -   | 0.019 | -   | -   | 0.118 |
| HCM Control Delay (s) | 23.8  | 8.3   | -   | -   | 8.9   | -   | -   | 17    |
| HCM Lane LOS          | C     | A     | -   | -   | A     | -   | -   | C     |
| HCM 95th %tile Q(veh) | 0.6   | 0.1   | -   | -   | 0.1   | -   | -   | 0.4   |

Generations at Green Valley  
 9: Silver Springs Pkwy & Green Valley Rd

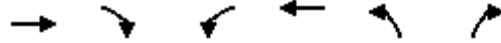
Baseline  
 Timing Plan: PM



| Lane Group                  | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|-----------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph)       | 559  | 103  | 42   | 370  | 117  | 72   |
| v/c Ratio                   | 0.65 | 0.13 | 0.14 | 0.43 | 0.26 | 0.16 |
| Control Delay               | 10.4 | 1.9  | 6.0  | 7.2  | 10.9 | 4.1  |
| Queue Delay                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay                 | 10.4 | 1.9  | 6.0  | 7.2  | 10.9 | 4.1  |
| Queue Length 50th (ft)      | 52   | 0    | 3    | 30   | 15   | 0    |
| Queue Length 95th (ft)      | 124  | 12   | 13   | 74   | 29   | 10   |
| Internal Link Dist (ft)     | 3999 |      | 3318 |      | 1349 |      |
| Turn Bay Length (ft)        | 230  |      | 415  |      | 135  |      |
| Base Capacity (vph)         | 1056 | 942  | 373  | 1056 | 1003 | 929  |
| Starvation Cap Reductn      | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn       | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn         | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio           | 0.53 | 0.11 | 0.11 | 0.35 | 0.12 | 0.08 |
| <b>Intersection Summary</b> |      |      |      |      |      |      |

Generations at Green Valley  
9: Silver Springs Pkwy & Green Valley Rd

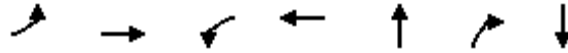
Baseline  
Timing Plan: PM



| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations          | ↑    | ↗    | ↘    | ↑    | ↗    | ↘    |
| Traffic Volume (veh/h)       | 520  | 96   | 38   | 333  | 84   | 52   |
| Future Volume (veh/h)        | 520  | 96   | 38   | 333  | 84   | 52   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 559  | 103  | 42   | 370  | 117  | 72   |
| Peak Hour Factor             | 0.93 | 0.93 | 0.90 | 0.90 | 0.72 | 0.72 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 822  | 696  | 491  | 822  | 333  | 296  |
| Arrive On Green              | 0.44 | 0.44 | 0.44 | 0.44 | 0.19 | 0.19 |
| Sat Flow, veh/h              | 1870 | 1585 | 773  | 1870 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 559  | 103  | 42   | 370  | 117  | 72   |
| Grp Sat Flow(s),veh/h/ln     | 1870 | 1585 | 773  | 1870 | 1781 | 1585 |
| Q Serve(g_s), s              | 5.1  | 0.8  | 1.0  | 3.0  | 1.2  | 0.8  |
| Cycle Q Clear(g_c), s        | 5.1  | 0.8  | 6.1  | 3.0  | 1.2  | 0.8  |
| Prop In Lane                 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 822  | 696  | 491  | 822  | 333  | 296  |
| V/C Ratio(X)                 | 0.68 | 0.15 | 0.09 | 0.45 | 0.35 | 0.24 |
| Avail Cap(c_a), veh/h        | 1398 | 1185 | 730  | 1398 | 1332 | 1185 |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 4.8  | 3.6  | 7.2  | 4.2  | 7.6  | 7.4  |
| Incr Delay (d2), s/veh       | 1.0  | 0.1  | 0.1  | 0.4  | 0.6  | 0.4  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.2  | 0.0  | 0.0  | 0.1  | 0.2  | 0.1  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 5.8  | 3.7  | 7.3  | 4.6  | 8.2  | 7.8  |
| LnGrp LOS                    | A    | A    | A    | A    | A    | A    |
| Approach Vol, veh/h          | 662  |      |      | 412  | 189  |      |
| Approach Delay, s/veh        | 5.5  |      |      | 4.9  | 8.1  |      |
| Approach LOS                 | A    |      |      | A    | A    |      |
| Timer - Assigned Phs         |      | 2    |      | 4    |      | 8    |
| Phs Duration (G+Y+Rc), s     |      | 8.0  |      | 13.4 |      | 13.4 |
| Change Period (Y+Rc), s      |      | 4.0  |      | 4.0  |      | 4.0  |
| Max Green Setting (Gmax), s  |      | 16.0 |      | 16.0 |      | 16.0 |
| Max Q Clear Time (g_c+l1), s |      | 3.2  |      | 7.1  |      | 8.1  |
| Green Ext Time (p_c), s      |      | 0.4  |      | 2.3  |      | 1.3  |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 5.7  |      |      |      |
| HCM 6th LOS                  |      |      | A    |      |      |      |

Generations at Green Valley  
 10: Bass Lake Rd./Alexandrite Dr & Green Valley Rd.

Baseline  
 Timing Plan: PM



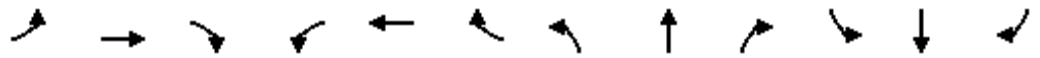
| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBT  | NBR  | SBT  |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 3    | 624  | 79   | 362  | 40   | 179  | 16   |
| v/c Ratio               | 0.02 | 0.74 | 0.36 | 0.30 | 0.16 | 0.47 | 0.08 |
| Control Delay           | 31.7 | 18.0 | 33.6 | 6.5  | 26.4 | 10.0 | 20.3 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 31.7 | 18.0 | 33.6 | 6.5  | 26.4 | 10.0 | 20.3 |
| Queue Length 50th (ft)  | 1    | 121  | 19   | 27   | 9    | 0    | 1    |
| Queue Length 95th (ft)  | 10   | 345  | #92  | 149  | 42   | 42   | 17   |
| Internal Link Dist (ft) |      | 3318 |      | 1151 | 1084 |      | 521  |
| Turn Bay Length (ft)    | 285  |      | 435  |      |      | 150  |      |
| Base Capacity (vph)     | 146  | 1719 | 219  | 1754 | 585  | 643  | 559  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.02 | 0.36 | 0.36 | 0.21 | 0.07 | 0.28 | 0.03 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
10: Bass Lake Rd./Alexandrite Dr & Green Valley Rd.

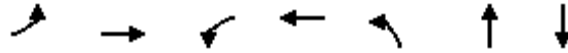
Baseline  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 3    | 541  | 52   | 67   | 307  | 1    | 33   | 0    | 147  | 3    | 1    | 8    |
| Future Volume (veh/h)        | 3    | 541  | 52   | 67   | 307  | 1    | 33   | 0    | 147  | 3    | 1    | 8    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 3    | 569  | 55   | 79   | 361  | 1    | 40   | 0    | 179  | 4    | 1    | 11   |
| Peak Hour Factor             | 0.95 | 0.95 | 0.95 | 0.85 | 0.85 | 0.85 | 0.82 | 0.82 | 0.82 | 0.75 | 0.75 | 0.75 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 6    | 713  | 69   | 99   | 890  | 2    | 271  | 0    | 241  | 7    | 2    | 18   |
| Arrive On Green              | 0.00 | 0.42 | 0.42 | 0.06 | 0.48 | 0.48 | 0.15 | 0.00 | 0.15 | 0.02 | 0.02 | 0.02 |
| Sat Flow, veh/h              | 1781 | 1679 | 162  | 1781 | 1864 | 5    | 1781 | 0    | 1585 | 412  | 103  | 1132 |
| Grp Volume(v), veh/h         | 3    | 0    | 624  | 79   | 0    | 362  | 40   | 0    | 179  | 16   | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1841 | 1781 | 0    | 1869 | 1781 | 0    | 1585 | 1646 | 0    | 0    |
| Q Serve(g_s), s              | 0.1  | 0.0  | 13.4 | 2.0  | 0.0  | 5.7  | 0.9  | 0.0  | 4.9  | 0.4  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 0.1  | 0.0  | 13.4 | 2.0  | 0.0  | 5.7  | 0.9  | 0.0  | 4.9  | 0.4  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 0.09 | 1.00 |      | 0.00 | 1.00 |      | 1.00 | 0.25 |      | 0.69 |
| Lane Grp Cap(c), veh/h       | 6    | 0    | 782  | 99   | 0    | 892  | 271  | 0    | 241  | 26   | 0    | 0    |
| V/C Ratio(X)                 | 0.51 | 0.00 | 0.80 | 0.80 | 0.00 | 0.41 | 0.15 | 0.00 | 0.74 | 0.60 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 156  | 0    | 2262 | 235  | 0    | 2379 | 625  | 0    | 556  | 578  | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 22.7 | 0.0  | 11.4 | 21.3 | 0.0  | 7.7  | 16.8 | 0.0  | 18.5 | 22.3 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 56.3 | 0.0  | 1.9  | 13.3 | 0.0  | 0.3  | 0.2  | 0.0  | 4.5  | 20.1 | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.1  | 0.0  | 3.5  | 1.0  | 0.0  | 1.2  | 0.3  | 0.0  | 1.6  | 0.3  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 79.0 | 0.0  | 13.3 | 34.5 | 0.0  | 8.0  | 17.0 | 0.0  | 22.9 | 42.4 | 0.0  | 0.0  |
| LnGrp LOS                    | E    | A    | B    | C    | A    | A    | B    | A    | C    | D    | A    | A    |
| Approach Vol, veh/h          |      | 627  |      |      | 441  |      |      | 219  |      |      |      | 16   |
| Approach Delay, s/veh        |      | 13.6 |      |      | 12.8 |      |      | 21.8 |      |      |      | 42.4 |
| Approach LOS                 |      | B    |      |      | B    |      |      | C    |      |      |      | D    |
| Timer - Assigned Phs         |      | 2    | 3    | 4    |      | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 10.9 | 6.5  | 23.4 |      | 4.7  | 4.1  | 25.8 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 16.0 | 6.0  | 56.0 |      | 16.0 | 4.0  | 58.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 6.9  | 4.0  | 15.4 |      | 2.4  | 2.1  | 7.7  |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.5  | 0.0  | 3.9  |      | 0.0  | 0.0  | 1.9  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      | 15.1 |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      |      | B    |      |      |      |      |      |      |      |      |

Generations at Green Valley  
 11: Cambridge Rd./Peridot Dr & Green Valley Rd.

Baseline  
 Timing Plan: PM



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBT  |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 20   | 660  | 40   | 336  | 99   | 81   | 32   |
| v/c Ratio               | 0.08 | 0.60 | 0.20 | 0.29 | 0.25 | 0.19 | 0.10 |
| Control Delay           | 36.1 | 14.4 | 38.5 | 9.8  | 28.9 | 12.6 | 26.5 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 36.1 | 14.4 | 38.5 | 9.8  | 28.9 | 12.6 | 26.5 |
| Queue Length 50th (ft)  | 6    | 136  | 13   | 32   | 28   | 4    | 6    |
| Queue Length 95th (ft)  | 34   | 388  | #68  | 167  | 100  | 46   | 35   |
| Internal Link Dist (ft) |      | 1151 |      | 2235 |      | 1080 | 510  |
| Turn Bay Length (ft)    | 100  |      | 125  |      | 125  |      |      |
| Base Capacity (vph)     | 253  | 1475 | 202  | 1491 | 790  | 765  | 785  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.08 | 0.45 | 0.20 | 0.23 | 0.13 | 0.11 | 0.04 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
11: Cambridge Rd./Peridot Dr & Green Valley Rd.

Baseline  
Timing Plan: PM

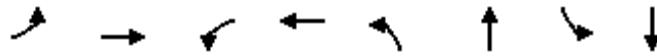


| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 19   | 518  | 122  | 38   | 303  | 13   | 89   | 12   | 61   | 10   | 7    | 9    |
| Future Volume (veh/h)        | 19   | 518  | 122  | 38   | 303  | 13   | 89   | 12   | 61   | 10   | 7    | 9    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 20   | 534  | 126  | 40   | 322  | 14   | 99   | 13   | 68   | 12   | 9    | 11   |
| Peak Hour Factor             | 0.97 | 0.97 | 0.97 | 0.94 | 0.94 | 0.94 | 0.90 | 0.90 | 0.90 | 0.81 | 0.81 | 0.81 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 35   | 671  | 158  | 63   | 844  | 37   | 176  | 26   | 134  | 19   | 14   | 18   |
| Arrive On Green              | 0.02 | 0.46 | 0.46 | 0.04 | 0.47 | 0.47 | 0.10 | 0.10 | 0.10 | 0.03 | 0.03 | 0.03 |
| Sat Flow, veh/h              | 1781 | 1463 | 345  | 1781 | 1779 | 77   | 1781 | 261  | 1364 | 649  | 487  | 595  |
| Grp Volume(v), veh/h         | 20   | 0    | 660  | 40   | 0    | 336  | 99   | 0    | 81   | 32   | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1808 | 1781 | 0    | 1856 | 1781 | 0    | 1625 | 1731 | 0    | 0    |
| Q Serve(g_s), s              | 0.5  | 0.0  | 13.2 | 0.9  | 0.0  | 4.9  | 2.2  | 0.0  | 2.0  | 0.8  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 0.5  | 0.0  | 13.2 | 0.9  | 0.0  | 4.9  | 2.2  | 0.0  | 2.0  | 0.8  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 0.19 | 1.00 |      | 0.04 | 1.00 |      | 0.84 | 0.37 |      | 0.34 |
| Lane Grp Cap(c), veh/h       | 35   | 0    | 829  | 63   | 0    | 880  | 176  | 0    | 160  | 51   | 0    | 0    |
| V/C Ratio(X)                 | 0.57 | 0.00 | 0.80 | 0.63 | 0.00 | 0.38 | 0.56 | 0.00 | 0.51 | 0.62 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 210  | 0    | 2050 | 168  | 0    | 2060 | 673  | 0    | 614  | 654  | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 20.6 | 0.0  | 9.8  | 20.2 | 0.0  | 7.1  | 18.2 | 0.0  | 18.1 | 20.3 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 13.5 | 0.0  | 1.8  | 10.0 | 0.0  | 0.3  | 2.8  | 0.0  | 2.5  | 11.8 | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.3  | 0.0  | 2.9  | 0.5  | 0.0  | 1.0  | 0.9  | 0.0  | 0.7  | 0.4  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 34.1 | 0.0  | 11.6 | 30.2 | 0.0  | 7.4  | 21.0 | 0.0  | 20.6 | 32.1 | 0.0  | 0.0  |
| LnGrp LOS                    | C    | A    | B    | C    | A    | A    | C    | A    | C    | C    | A    | A    |
| Approach Vol, veh/h          |      | 680  |      |      | 376  |      |      | 180  |      |      |      | 32   |
| Approach Delay, s/veh        |      | 12.2 |      |      | 9.8  |      |      | 20.8 |      |      |      | 32.1 |
| Approach LOS                 |      | B    |      |      | A    |      |      | C    |      |      |      | C    |
| Timer - Assigned Phs         |      | 2    | 3    | 4    |      | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 8.2  | 5.5  | 23.4 |      | 5.3  | 4.8  | 24.1 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 16.0 | 4.0  | 48.0 |      | 16.0 | 5.0  | 47.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 4.2  | 2.9  | 15.2 |      | 2.8  | 2.5  | 6.9  |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.5  | 0.0  | 4.2  |      | 0.1  | 0.0  | 1.8  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      | 13.2 |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      |      | B    |      |      |      |      |      |      |      |      |



Generations at Green Valley  
12: Cameron Park Dr. & Green Valley Rd.

Baseline  
Timing Plan: PM



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 43   | 483  | 103  | 242  | 226  | 234  | 23   | 81   |
| v/c Ratio               | 0.21 | 0.73 | 0.46 | 0.33 | 0.58 | 0.39 | 0.14 | 0.31 |
| Control Delay           | 35.3 | 25.2 | 41.6 | 17.0 | 34.4 | 16.2 | 36.7 | 30.1 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 35.3 | 25.2 | 41.6 | 17.0 | 34.4 | 16.2 | 36.7 | 30.1 |
| Queue Length 50th (ft)  | 17   | 165  | 42   | 76   | 86   | 41   | 9    | 28   |
| Queue Length 95th (ft)  | 54   | 289  | #120 | 131  | #212 | 132  | 32   | 65   |
| Internal Link Dist (ft) |      | 2235 |      | 1414 |      | 1563 |      | 921  |
| Turn Bay Length (ft)    | 270  |      | 150  |      | 125  |      | 55   |      |
| Base Capacity (vph)     | 229  | 1038 | 229  | 1079 | 490  | 916  | 163  | 610  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.19 | 0.47 | 0.45 | 0.22 | 0.46 | 0.26 | 0.14 | 0.13 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Generations at Green Valley  
12: Cameron Park Dr. & Green Valley Rd.

Baseline  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 39   | 252  | 183  | 89   | 194  | 14   | 208  | 89   | 126  | 18   | 53   | 12   |
| Future Volume (veh/h)        | 39   | 252  | 183  | 89   | 194  | 14   | 208  | 89   | 126  | 18   | 53   | 12   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 43   | 280  | 203  | 103  | 226  | 16   | 226  | 97   | 137  | 22   | 66   | 15   |
| Peak Hour Factor             | 0.90 | 0.90 | 0.90 | 0.86 | 0.86 | 0.86 | 0.92 | 0.92 | 0.92 | 0.80 | 0.80 | 0.80 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 65   | 349  | 253  | 132  | 663  | 47   | 288  | 161  | 227  | 38   | 130  | 30   |
| Arrive On Green              | 0.04 | 0.35 | 0.35 | 0.07 | 0.38 | 0.38 | 0.16 | 0.23 | 0.23 | 0.02 | 0.09 | 0.09 |
| Sat Flow, veh/h              | 1781 | 1008 | 731  | 1781 | 1726 | 122  | 1781 | 701  | 991  | 1781 | 1475 | 335  |
| Grp Volume(v), veh/h         | 43   | 0    | 483  | 103  | 0    | 242  | 226  | 0    | 234  | 22   | 0    | 81   |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1739 | 1781 | 0    | 1848 | 1781 | 0    | 1692 | 1781 | 0    | 1810 |
| Q Serve(g_s), s              | 1.2  | 0.0  | 12.2 | 2.8  | 0.0  | 4.5  | 5.9  | 0.0  | 6.0  | 0.6  | 0.0  | 2.1  |
| Cycle Q Clear(g_c), s        | 1.2  | 0.0  | 12.2 | 2.8  | 0.0  | 4.5  | 5.9  | 0.0  | 6.0  | 0.6  | 0.0  | 2.1  |
| Prop In Lane                 | 1.00 |      | 0.42 | 1.00 |      | 0.07 | 1.00 |      | 0.59 | 1.00 |      | 0.19 |
| Lane Grp Cap(c), veh/h       | 65   | 0    | 602  | 132  | 0    | 710  | 288  | 0    | 387  | 38   | 0    | 159  |
| V/C Ratio(X)                 | 0.67 | 0.00 | 0.80 | 0.78 | 0.00 | 0.34 | 0.78 | 0.00 | 0.60 | 0.58 | 0.00 | 0.51 |
| Avail Cap(c_a), veh/h        | 257  | 0    | 1218 | 257  | 0    | 1295 | 550  | 0    | 976  | 183  | 0    | 671  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh     | 23.1 | 0.0  | 14.4 | 22.1 | 0.0  | 10.6 | 19.5 | 0.0  | 16.7 | 23.5 | 0.0  | 21.1 |
| Incr Delay (d2), s/veh       | 11.2 | 0.0  | 2.6  | 9.5  | 0.0  | 0.3  | 4.7  | 0.0  | 1.5  | 13.5 | 0.0  | 2.5  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.6  | 0.0  | 3.6  | 1.3  | 0.0  | 1.3  | 2.4  | 0.0  | 2.0  | 0.4  | 0.0  | 0.9  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 34.3 | 0.0  | 16.9 | 31.6 | 0.0  | 10.9 | 24.2 | 0.0  | 18.3 | 37.1 | 0.0  | 23.6 |
| LnGrp LOS                    | C    | A    | B    | C    | A    | B    | C    | A    | B    | D    | A    | C    |
| Approach Vol, veh/h          |      | 526  |      |      | 345  |      |      | 460  |      |      |      | 103  |
| Approach Delay, s/veh        |      | 18.3 |      |      | 17.1 |      |      | 21.2 |      |      |      | 26.5 |
| Approach LOS                 |      | B    |      |      | B    |      |      | C    |      |      |      | C    |
| Timer - Assigned Phs         | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 5.0  | 15.1 | 7.6  | 20.8 | 11.9 | 8.3  | 5.8  | 22.6 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 5.0  | 28.0 | 7.0  | 34.0 | 15.0 | 18.0 | 7.0  | 34.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 2.6  | 8.0  | 4.8  | 14.2 | 7.9  | 4.1  | 3.2  | 6.5  |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 1.2  | 0.0  | 2.6  | 0.3  | 0.2  | 0.0  | 1.2  |      |      |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 19.5 |
| HCM 6th LOS        | B    |

| Intersection              |     |  |  |  |  |  |  |  |  |  |  |  |
|---------------------------|-----|--|--|--|--|--|--|--|--|--|--|--|
| Intersection Delay, s/veh | 1.9 |  |  |  |  |  |  |  |  |  |  |  |
| Intersection LOS          | F   |  |  |  |  |  |  |  |  |  |  |  |

| Movement            | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations |      | ↔    | ↔    |      | ↔    |      | ↔    | ↔    |      | ↔    | ↔    |      |
| Traffic Vol, veh/h  | 3    | 39   | 524  | 12   | 24   | 12   | 458  | 247  | 16   | 7    | 177  | 0    |
| Future Vol, veh/h   | 3    | 39   | 524  | 12   | 24   | 12   | 458  | 247  | 16   | 7    | 177  | 0    |
| Peak Hour Factor    | 0.91 | 0.91 | 0.91 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles, %   | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow           | 3    | 43   | 576  | 13   | 26   | 13   | 498  | 268  | 17   | 8    | 197  | 0    |
| Number of Lanes     | 0    | 1    | 1    | 0    | 1    | 0    | 1    | 1    | 0    | 1    | 1    | 0    |

| Approach                   | EB   | WB   | NB   | SB   |
|----------------------------|------|------|------|------|
| Opposing Approach          | WB   | EB   | SB   | NB   |
| Opposing Lanes             | 1    | 2    | 2    | 2    |
| Conflicting Approach Left  |      | NB   | EB   | WB   |
| Conflicting Lanes Left     | 2    | 2    | 2    | 1    |
| Conflicting Approach Right | NB   | SB   | WB   | EB   |
| Conflicting Lanes Right    | 2    | 2    | 1    | 2    |
| HCM Control Delay          | 79.8 | 13.4 | 62.6 | 17.3 |
| HCM LOS                    | F    | B    | F    | C    |

| Lane                   | NBLn1 | NBLn2 | EBLn1 | EBLn2 | WBLn1 | SBLn1 | SBLn2 |
|------------------------|-------|-------|-------|-------|-------|-------|-------|
| Vol Left, %            | 100%  | 0%    | 7%    | 0%    | 25%   | 100%  | 0%    |
| Vol Thru, %            | 0%    | 94%   | 93%   | 0%    | 50%   | 0%    | 100%  |
| Vol Right, %           | 0%    | 6%    | 0%    | 100%  | 25%   | 0%    | 0%    |
| Sign Control           | Stop  | Stop  | Stop  | Stop  | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 458   | 263   | 42    | 524   | 48    | 7     | 177   |
| LT Vol                 | 458   | 0     | 3     | 0     | 12    | 7     | 0     |
| Through Vol            | 0     | 247   | 39    | 0     | 24    | 0     | 177   |
| RT Vol                 | 0     | 16    | 0     | 524   | 12    | 0     | 0     |
| Lane Flow Rate         | 498   | 286   | 46    | 576   | 52    | 8     | 197   |
| Geometry Grp           | 7     | 7     | 7     | 7     | 6     | 7     | 7     |
| Degree of Util (X)     | 1.06  | 0.566 | 0.095 | 1.071 | 0.125 | 0.018 | 0.439 |
| Departure Headway (Hd) | 7.995 | 7.437 | 7.628 | 6.876 | 9.065 | 8.937 | 8.417 |
| Convergence, Y/N       | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   |
| Cap                    | 458   | 489   | 473   | 530   | 398   | 403   | 431   |
| Service Time           | 5.695 | 5.137 | 5.328 | 4.576 | 7.065 | 6.637 | 6.117 |
| HCM Lane V/C Ratio     | 1.087 | 0.585 | 0.097 | 1.087 | 0.131 | 0.02  | 0.457 |
| HCM Control Delay      | 87.4  | 19.4  | 11.1  | 85.3  | 13.4  | 11.8  | 17.5  |
| HCM Lane LOS           | F     | C     | B     | F     | B     | B     | C     |
| HCM 95th-tile Q        | 15.2  | 3.5   | 0.3   | 17    | 0.4   | 0.1   | 2.2   |

Generations at Green Valley  
 14: El Dorado Hills Blvd. & Harvard Way

Baseline  
 Timing Plan: PM



| Lane Group              | WBL  | WBR  | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|
| Lane Group Flow (vph)   | 157  | 188  | 970  | 224  | 554  |
| v/c Ratio               | 0.43 | 0.40 | 0.66 | 0.59 | 0.25 |
| Control Delay           | 20.2 | 6.1  | 12.8 | 29.4 | 4.7  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 20.2 | 6.1  | 12.8 | 29.4 | 4.7  |
| Queue Length 50th (ft)  | 36   | 0    | 91   | 29   | 27   |
| Queue Length 95th (ft)  | 72   | 29   | 153  | #75  | 56   |
| Internal Link Dist (ft) | 2093 |      | 5028 |      | 7812 |
| Turn Bay Length (ft)    |      |      |      | 190  |      |
| Base Capacity (vph)     | 629  | 684  | 1714 | 381  | 2440 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.25 | 0.27 | 0.57 | 0.59 | 0.23 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
14: El Dorado Hills Blvd. & Harvard Way

Baseline  
Timing Plan: PM



| Movement                     | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 127  | 152  | 665  | 169  | 199  | 493  |
| Future Volume (veh/h)        | 127  | 152  | 665  | 169  | 199  | 493  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 | 1.00 |      | 1.00 | 1.00 |      |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      | No   |      |      | No   |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 157  | 188  | 773  | 197  | 224  | 554  |
| Peak Hour Factor             | 0.81 | 0.81 | 0.86 | 0.86 | 0.89 | 0.89 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 319  | 284  | 1111 | 283  | 364  | 2161 |
| Arrive On Green              | 0.18 | 0.18 | 0.40 | 0.40 | 0.11 | 0.61 |
| Sat Flow, veh/h              | 1781 | 1585 | 2897 | 715  | 3456 | 3647 |
| Grp Volume(v), veh/h         | 157  | 188  | 490  | 480  | 224  | 554  |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1585 | 1777 | 1742 | 1728 | 1777 |
| Q Serve(g_s), s              | 3.0  | 4.2  | 8.6  | 8.6  | 2.3  | 2.7  |
| Cycle Q Clear(g_c), s        | 3.0  | 4.2  | 8.6  | 8.6  | 2.3  | 2.7  |
| Prop In Lane                 | 1.00 | 1.00 |      | 0.41 | 1.00 |      |
| Lane Grp Cap(c), veh/h       | 319  | 284  | 704  | 690  | 364  | 2161 |
| V/C Ratio(X)                 | 0.49 | 0.66 | 0.70 | 0.70 | 0.62 | 0.26 |
| Avail Cap(c_a), veh/h        | 758  | 674  | 1039 | 1019 | 459  | 2929 |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 13.9 | 14.4 | 9.5  | 9.5  | 16.1 | 3.4  |
| Incr Delay (d2), s/veh       | 1.2  | 2.6  | 1.3  | 1.3  | 1.7  | 0.1  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 1.0  | 1.4  | 2.0  | 1.9  | 0.7  | 0.1  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 15.1 | 17.0 | 10.7 | 10.7 | 17.8 | 3.5  |
| LnGrp LOS                    | B    | B    | B    | B    | B    | A    |
| Approach Vol, veh/h          | 345  |      | 970  |      |      | 778  |
| Approach Delay, s/veh        | 16.1 |      | 10.7 |      |      | 7.6  |
| Approach LOS                 | B    |      | B    |      |      | A    |
| Timer - Assigned Phs         | 1    | 2    |      |      | 6    | 8    |
| Phs Duration (G+Y+Rc), s     | 8.0  | 18.9 |      |      | 26.9 | 10.7 |
| Change Period (Y+Rc), s      | 4.0  | 4.0  |      |      | 4.0  | 4.0  |
| Max Green Setting (Gmax), s  | 5.0  | 22.0 |      |      | 31.0 | 16.0 |
| Max Q Clear Time (g_c+I1), s | 4.3  | 10.6 |      |      | 4.7  | 6.2  |
| Green Ext Time (p_c), s      | 0.0  | 4.3  |      |      | 3.4  | 0.8  |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 10.5 |      |      |      |
| HCM 6th LOS                  |      |      | B    |      |      |      |

Generations at Green Valley  
 15: El Dorado Hills Blvd. & Wilson Blvd

Baseline  
 Timing Plan: PM



| Lane Group              | EBT  | EBR  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 64   | 97   | 9    | 134  | 933  | 3    | 804  |
| v/c Ratio               | 0.25 | 0.26 | 0.03 | 0.52 | 0.40 | 0.02 | 0.45 |
| Control Delay           | 17.2 | 5.6  | 0.2  | 26.5 | 6.2  | 18.0 | 10.4 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 17.2 | 5.6  | 0.2  | 26.5 | 6.2  | 18.0 | 10.4 |
| Queue Length 50th (ft)  | 13   | 0    | 0    | 29   | 42   | 1    | 71   |
| Queue Length 95th (ft)  | 35   | 22   | 0    | #86  | 141  | 6    | 126  |
| Internal Link Dist (ft) | 1459 |      | 233  |      | 3231 |      | 5028 |
| Turn Bay Length (ft)    |      |      |      | 278  |      | 90   |      |
| Base Capacity (vph)     | 547  | 685  | 626  | 259  | 2342 | 173  | 1787 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.12 | 0.14 | 0.01 | 0.52 | 0.40 | 0.02 | 0.45 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
15: El Dorado Hills Blvd. & Wilson Blvd

Baseline  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      | ↕    | ↗    |      | ↔    |      | ↖    | ↕↔   |      | ↖    | ↕↔   |      |
| Traffic Volume (veh/h)       | 56   | 0    | 85   | 4    | 0    | 2    | 125  | 867  | 1    | 3    | 681  | 51   |
| Future Volume (veh/h)        | 56   | 0    | 85   | 4    | 0    | 2    | 125  | 867  | 1    | 3    | 681  | 51   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 64   | 0    | 97   | 6    | 0    | 3    | 134  | 932  | 1    | 3    | 748  | 56   |
| Peak Hour Factor             | 0.88 | 0.88 | 0.88 | 0.70 | 0.70 | 0.70 | 0.93 | 0.93 | 0.93 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 364  | 0    | 163  | 236  | 29   | 47   | 171  | 2005 | 2    | 6    | 1534 | 115  |
| Arrive On Green              | 0.10 | 0.00 | 0.10 | 0.10 | 0.00 | 0.10 | 0.10 | 0.55 | 0.55 | 0.00 | 0.46 | 0.46 |
| Sat Flow, veh/h              | 1533 | 0    | 1585 | 622  | 281  | 452  | 1781 | 3643 | 4    | 1781 | 3351 | 251  |
| Grp Volume(v), veh/h         | 64   | 0    | 97   | 9    | 0    | 0    | 134  | 455  | 478  | 3    | 396  | 408  |
| Grp Sat Flow(s),veh/h/ln     | 1533 | 0    | 1585 | 1356 | 0    | 0    | 1781 | 1777 | 1870 | 1781 | 1777 | 1825 |
| Q Serve(g_s), s              | 0.0  | 0.0  | 2.0  | 0.0  | 0.0  | 0.0  | 2.6  | 5.4  | 5.4  | 0.1  | 5.4  | 5.4  |
| Cycle Q Clear(g_c), s        | 1.2  | 0.0  | 2.0  | 1.2  | 0.0  | 0.0  | 2.6  | 5.4  | 5.4  | 0.1  | 5.4  | 5.4  |
| Prop In Lane                 | 1.00 |      | 1.00 | 0.67 |      | 0.33 | 1.00 |      | 0.00 | 1.00 |      | 0.14 |
| Lane Grp Cap(c), veh/h       | 364  | 0    | 163  | 311  | 0    | 0    | 171  | 978  | 1029 | 6    | 813  | 835  |
| V/C Ratio(X)                 | 0.18 | 0.00 | 0.59 | 0.03 | 0.00 | 0.00 | 0.78 | 0.46 | 0.46 | 0.51 | 0.49 | 0.49 |
| Avail Cap(c_a), veh/h        | 865  | 0    | 725  | 801  | 0    | 0    | 306  | 978  | 1029 | 204  | 813  | 835  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 14.6 | 0.0  | 15.0 | 14.1 | 0.0  | 0.0  | 15.4 | 4.7  | 4.7  | 17.4 | 6.6  | 6.6  |
| Incr Delay (d2), s/veh       | 0.2  | 0.0  | 3.4  | 0.0  | 0.0  | 0.0  | 7.6  | 1.6  | 1.5  | 55.7 | 2.1  | 2.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.4  | 0.0  | 0.8  | 0.1  | 0.0  | 0.0  | 1.1  | 0.9  | 0.9  | 0.1  | 1.2  | 1.2  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 14.8 | 0.0  | 18.4 | 14.2 | 0.0  | 0.0  | 23.1 | 6.3  | 6.3  | 73.1 | 8.7  | 8.7  |
| LnGrp LOS                    | B    | A    | B    | B    | A    | A    | C    | A    | A    | E    | A    | A    |
| Approach Vol, veh/h          |      | 161  |      |      | 9    |      |      | 1067 |      |      | 807  |      |
| Approach Delay, s/veh        |      | 17.0 |      |      | 14.2 |      |      | 8.4  |      |      | 8.9  |      |
| Approach LOS                 |      | B    |      |      | B    |      |      | A    |      |      | A    |      |
| Timer - Assigned Phs         | 1    | 2    |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 4.1  | 23.2 |      | 7.6  | 7.4  | 20.0 |      | 7.6  |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0  | 18.0 |      | 16.0 | 6.0  | 16.0 |      | 16.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 2.1  | 7.4  |      | 4.0  | 4.6  | 7.4  |      | 3.2  |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 4.0  |      | 0.4  | 0.0  | 2.9  |      | 0.0  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 9.3  |      |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      | A    |      |      |      |      |      |      |      |      |      |

Generations at Green Valley  
 16: El Dorado Hills Blvd. & Lassen Ln/Serrano Pkwy.

Baseline  
 Timing Plan: PM



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | NBR  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 16   | 61   | 116  | 115  | 88   | 993  | 266  | 37   | 797  |
| v/c Ratio               | 0.14 | 0.40 | 0.55 | 0.51 | 0.49 | 0.44 | 0.17 | 0.33 | 0.42 |
| Control Delay           | 26.5 | 18.3 | 30.1 | 25.5 | 31.1 | 8.3  | 0.2  | 32.1 | 10.7 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 26.5 | 18.3 | 30.1 | 25.5 | 31.1 | 8.3  | 0.2  | 32.1 | 10.7 |
| Queue Length 50th (ft)  | 5    | 2    | 33   | 27   | 25   | 72   | 0    | 11   | 84   |
| Queue Length 95th (ft)  | 17   | 23   | 70   | 64   | 63   | 173  | 0    | #40  | 147  |
| Internal Link Dist (ft) |      | 321  |      | 6047 |      | 1160 |      |      | 3231 |
| Turn Bay Length (ft)    | 70   |      | 410  |      | 260  |      |      | 100  |      |
| Base Capacity (vph)     | 112  | 152  | 921  | 917  | 223  | 2251 | 1583 | 112  | 1918 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.14 | 0.40 | 0.13 | 0.13 | 0.39 | 0.44 | 0.17 | 0.33 | 0.42 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.



Generations at Green Valley  
 16: El Dorado Hills Blvd. & Lassen Ln/Serrano Pkwy.

Baseline  
 Timing Plan: PM



| Movement               | EBL   | EBT  | EBR  | WBL   | WBT  | WBR  | NBL  | NBT   | NBR   | SBL   | SBT  | SBR  |
|------------------------|-------|------|------|-------|------|------|------|-------|-------|-------|------|------|
| Lane Configurations    | ↖     | ↗    |      | ↖     | ↔    |      | ↖    | ↕     | ↗     | ↖     | ↕    | ↗    |
| Traffic Volume (vph)   | 12    | 5    | 41   | 170   | 8    | 19   | 84   | 953   | 255   | 34    | 716  | 25   |
| Future Volume (vph)    | 12    | 5    | 41   | 170   | 8    | 19   | 84   | 953   | 255   | 34    | 716  | 25   |
| Ideal Flow (vphpl)     | 1900  | 1900 | 1900 | 1900  | 1900 | 1900 | 1900 | 1900  | 1900  | 1900  | 1900 | 1900 |
| Total Lost time (s)    | 3.0   | 3.0  |      | 3.0   | 3.0  |      | 3.0  | 5.2   | 4.0   | 3.0   | 5.2  |      |
| Lane Util. Factor      | 1.00  | 1.00 |      | 0.95  | 0.95 |      | 1.00 | 0.95  | 1.00  | 1.00  | 0.95 |      |
| Frt                    | 1.00  | 0.87 |      | 1.00  | 0.97 |      | 1.00 | 1.00  | 0.85  | 1.00  | 0.99 |      |
| Flt Protected          | 0.95  | 1.00 |      | 0.95  | 0.96 |      | 0.95 | 1.00  | 1.00  | 0.95  | 1.00 |      |
| Satd. Flow (prot)      | 1770  | 1615 |      | 1681  | 1658 |      | 1770 | 3539  | 1583  | 1770  | 3521 |      |
| Flt Permitted          | 0.95  | 1.00 |      | 0.95  | 0.96 |      | 0.95 | 1.00  | 1.00  | 0.95  | 1.00 |      |
| Satd. Flow (perm)      | 1770  | 1615 |      | 1681  | 1658 |      | 1770 | 3539  | 1583  | 1770  | 3521 |      |
| Peak-hour factor, PHF  | 0.76  | 0.76 | 0.76 | 0.85  | 0.85 | 0.85 | 0.96 | 0.96  | 0.96  | 0.93  | 0.93 | 0.93 |
| Adj. Flow (vph)        | 16    | 7    | 54   | 200   | 9    | 22   | 88   | 993   | 266   | 37    | 770  | 27   |
| RTOR Reduction (vph)   | 0     | 52   | 0    | 0     | 17   | 0    | 0    | 0     | 0     | 0     | 3    | 0    |
| Lane Group Flow (vph)  | 16    | 9    | 0    | 116   | 98   | 0    | 88   | 993   | 266   | 37    | 794  | 0    |
| Turn Type              | Split | NA   |      | Split | NA   |      | Prot | NA    | Free  | Prot  | NA   |      |
| Protected Phases       | 4     | 4    |      | 8     | 8    |      | 5    | 2     |       | 1     | 6    |      |
| Permitted Phases       |       |      |      |       |      |      |      |       | Free  |       |      |      |
| Actuated Green, G (s)  | 1.7   | 1.7  |      | 5.4   | 5.4  |      | 5.5  | 29.3  | 51.7  | 1.1   | 24.9 |      |
| Effective Green, g (s) | 1.7   | 1.7  |      | 5.4   | 5.4  |      | 5.5  | 29.3  | 51.7  | 1.1   | 24.9 |      |
| Actuated g/C Ratio     | 0.03  | 0.03 |      | 0.10  | 0.10 |      | 0.11 | 0.57  | 1.00  | 0.02  | 0.48 |      |
| Clearance Time (s)     | 3.0   | 3.0  |      | 3.0   | 3.0  |      | 3.0  | 5.2   |       | 3.0   | 5.2  |      |
| Vehicle Extension (s)  | 0.2   | 0.2  |      | 0.2   | 0.2  |      | 0.2  | 0.2   |       | 0.2   | 0.2  |      |
| Lane Grp Cap (vph)     | 58    | 53   |      | 175   | 173  |      | 188  | 2005  | 1583  | 37    | 1695 |      |
| v/s Ratio Prot         | 0.01  | 0.01 |      | c0.07 | 0.06 |      | 0.05 | c0.28 |       | c0.02 | 0.23 |      |
| v/s Ratio Perm         |       |      |      |       |      |      |      |       | c0.17 |       |      |      |
| v/c Ratio              | 0.28  | 0.17 |      | 0.66  | 0.57 |      | 0.47 | 0.50  | 0.17  | 1.00  | 0.47 |      |
| Uniform Delay, d1      | 24.4  | 24.3 |      | 22.3  | 22.0 |      | 21.7 | 6.7   | 0.0   | 25.3  | 9.0  |      |
| Progression Factor     | 1.00  | 1.00 |      | 1.00  | 1.00 |      | 1.00 | 1.00  | 1.00  | 1.00  | 1.00 |      |
| Incremental Delay, d2  | 0.9   | 0.5  |      | 7.1   | 2.5  |      | 0.7  | 0.9   | 0.2   | 148.0 | 0.9  |      |
| Delay (s)              | 25.3  | 24.8 |      | 29.4  | 24.6 |      | 22.4 | 7.6   | 0.2   | 173.3 | 9.9  |      |
| Level of Service       | C     | C    |      | C     | C    |      | C    | A     | A     | F     | A    |      |
| Approach Delay (s)     |       | 25.0 |      |       | 27.0 |      |      | 7.1   |       |       | 17.2 |      |
| Approach LOS           |       | C    |      |       | C    |      |      | A     |       |       | B    |      |

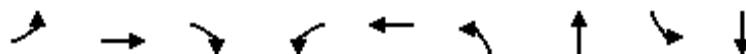
Intersection Summary

|                                   |       |                           |      |
|-----------------------------------|-------|---------------------------|------|
| HCM 2000 Control Delay            | 12.9  | HCM 2000 Level of Service | B    |
| HCM 2000 Volume to Capacity ratio | 0.53  |                           |      |
| Actuated Cycle Length (s)         | 51.7  | Sum of lost time (s)      | 14.2 |
| Intersection Capacity Utilization | 52.8% | ICU Level of Service      | A    |
| Analysis Period (min)             | 15    |                           |      |

c Critical Lane Group

Generations at Green Valley  
 17: El Dorado Hills Blvd. & Saratoga Wy. (North)/Park Dr

Baseline  
 Timing Plan: PM



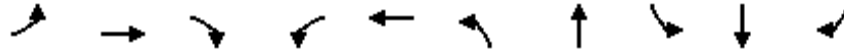
| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL    | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|--------|------|------|------|
| Lane Group Flow (vph)   | 132  | 137  | 378  | 58   | 239  | 322    | 1089 | 131  | 904  |
| v/c Ratio               | 0.76 | 0.77 | 0.75 | 0.33 | 0.84 | 5.03   | 0.43 | 0.51 | 0.42 |
| Control Delay           | 73.1 | 74.0 | 14.7 | 49.1 | 44.5 | 1860.2 | 19.0 | 51.1 | 12.8 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0    | 0.0  | 0.0  | 0.0  |
| Total Delay             | 73.1 | 74.0 | 14.7 | 49.1 | 44.5 | 1860.2 | 19.0 | 51.1 | 12.8 |
| Queue Length 50th (ft)  | 96   | 101  | 0    | 39   | 71   | ~427   | 166  | 86   | 153  |
| Queue Length 95th (ft)  | 157  | 162  | 90   | 66   | 117  | #604   | 260  | 150  | 271  |
| Internal Link Dist (ft) |      | 1745 |      |      | 332  |        | 961  |      | 1160 |
| Turn Bay Length (ft)    | 145  |      | 145  | 125  |      | 165    |      | 70   |      |
| Base Capacity (vph)     | 247  | 252  | 555  | 482  | 550  | 64     | 2556 | 257  | 2130 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0      | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0      | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0      | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.53 | 0.54 | 0.68 | 0.12 | 0.43 | 5.03   | 0.43 | 0.51 | 0.42 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

---

HCM 6th Edition methodology expects strict NEMA phasing.



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 160  | 69   | 144  | 155  | 156  | 893  | 1306 | 47   | 818  | 291  |
| v/c Ratio               | 0.75 | 0.31 | 0.09 | 0.67 | 0.31 | 0.85 | 0.47 | 0.38 | 0.52 | 0.42 |
| Control Delay           | 72.0 | 51.3 | 0.1  | 62.9 | 22.5 | 47.7 | 17.4 | 61.3 | 37.6 | 6.5  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 45.5 | 1.6  |
| Total Delay             | 72.0 | 51.3 | 0.1  | 62.9 | 22.5 | 47.7 | 17.4 | 61.3 | 83.1 | 8.0  |
| Queue Length 50th (ft)  | 119  | 49   | 0    | 116  | 25   | 332  | 220  | 35   | 196  | 0    |
| Queue Length 95th (ft)  | #208 | 95   | 0    | 178  | 55   | 393  | 295  | 75   | 269  | 74   |
| Internal Link Dist (ft) |      | 287  |      |      | 264  |      | 780  |      | 105  |      |
| Turn Bay Length (ft)    |      |      |      | 410  |      | 260  |      | 195  |      |      |
| Base Capacity (vph)     | 237  | 249  | 1583 | 390  | 783  | 1087 | 2795 | 125  | 1569 | 689  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 815  | 238  |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.68 | 0.28 | 0.09 | 0.40 | 0.20 | 0.82 | 0.47 | 0.38 | 1.08 | 0.65 |

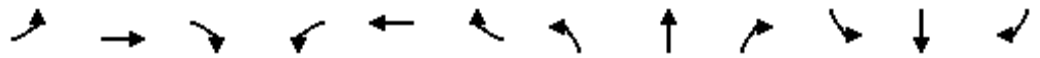
**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley

Baseline

18: Latrobe Rd./El Dorado Hills Blvd. & US-50 WB On&Off-Ramp/Saratoga Way (South) Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          | ↖    | ↑    | ↗    | ↖    | ↕    |      | ↖    | ↕    |      | ↖    | ↕    | ↗    |
| Traffic Volume (veh/h)       | 144  | 62   | 130  | 149  | 67   | 83   | 857  | 1042 | 212  | 42   | 736  | 262  |
| Future Volume (veh/h)        | 144  | 62   | 130  | 149  | 67   | 83   | 857  | 1042 | 212  | 42   | 736  | 262  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 160  | 69   | 0    | 155  | 70   | 86   | 893  | 1085 | 221  | 47   | 818  | 0    |
| Peak Hour Factor             | 0.90 | 0.90 | 0.90 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 191  | 200  |      | 197  | 196  | 175  | 971  | 2617 | 533  | 60   | 1880 |      |
| Arrive On Green              | 0.11 | 0.11 | 0.00 | 0.11 | 0.11 | 0.11 | 0.28 | 0.62 | 0.62 | 0.03 | 0.37 | 0.00 |
| Sat Flow, veh/h              | 1781 | 1870 | 1585 | 1781 | 1777 | 1585 | 3456 | 4253 | 866  | 1781 | 5106 | 1585 |
| Grp Volume(v), veh/h         | 160  | 69   | 0    | 155  | 70   | 86   | 893  | 868  | 438  | 47   | 818  | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1870 | 1585 | 1781 | 1777 | 1585 | 1728 | 1702 | 1715 | 1781 | 1702 | 1585 |
| Q Serve(g_s), s              | 10.6 | 4.1  | 0.0  | 10.2 | 4.4  | 6.1  | 30.1 | 15.8 | 15.8 | 3.1  | 14.5 | 0.0  |
| Cycle Q Clear(g_c), s        | 10.6 | 4.1  | 0.0  | 10.2 | 4.4  | 6.1  | 30.1 | 15.8 | 15.8 | 3.1  | 14.5 | 0.0  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 0.50 | 1.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 191  | 200  |      | 197  | 196  | 175  | 971  | 2095 | 1055 | 60   | 1880 |      |
| V/C Ratio(X)                 | 0.84 | 0.34 |      | 0.79 | 0.36 | 0.49 | 0.92 | 0.41 | 0.41 | 0.78 | 0.44 |      |
| Avail Cap(c_a), veh/h        | 238  | 249  |      | 393  | 392  | 350  | 1037 | 2095 | 1055 | 79   | 1880 |      |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.90 | 0.90 | 0.90 | 0.85 | 0.85 | 0.00 |
| Uniform Delay (d), s/veh     | 52.6 | 49.7 | 0.0  | 52.0 | 49.4 | 50.2 | 41.8 | 11.9 | 11.9 | 57.5 | 28.5 | 0.0  |
| Incr Delay (d2), s/veh       | 19.1 | 1.0  | 0.0  | 6.9  | 1.1  | 2.1  | 11.4 | 0.5  | 1.1  | 26.0 | 0.6  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 5.7  | 2.0  | 0.0  | 5.0  | 2.0  | 2.6  | 13.8 | 5.5  | 5.8  | 1.8  | 5.8  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 71.7 | 50.7 | 0.0  | 58.9 | 50.5 | 52.3 | 53.2 | 12.5 | 13.0 | 83.5 | 29.1 | 0.0  |
| LnGrp LOS                    | E    | D    |      | E    | D    | D    | D    | B    | B    | F    | C    |      |
| Approach Vol, veh/h          |      | 229  | A    |      | 311  |      |      | 2199 |      |      | 865  | A    |
| Approach Delay, s/veh        |      | 65.4 |      |      | 55.2 |      |      | 29.1 |      |      | 32.1 |      |
| Approach LOS                 |      | E    |      |      | E    |      |      | C    |      |      | C    |      |
| Timer - Assigned Phs         | 1    | 2    |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 8.1  | 77.8 |      | 16.8 | 37.7 | 48.2 |      | 17.3 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 5.3  | 56.2 |      | 16.0 | 36.0 | 25.5 |      | 26.5 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 5.1  | 17.8 |      | 12.6 | 32.1 | 16.5 |      | 12.2 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 6.9  |      | 0.3  | 1.7  | 2.6  |      | 1.1  |      |      |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 34.4 |
| HCM 6th LOS        | C    |

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Generations at Green Valley  
 19: Latrobe Rd. & US-50 EB Off-Ramp/US-50 EB On-Ramp

Baseline  
 Timing Plan: PM



| Lane Group              | EBR  | WBR  | NBT  | NBR  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 797  | 481  | 1778 | 451  | 269  | 924  |
| v/c Ratio               | 0.73 | 0.30 | 0.47 | 0.37 | 0.80 | 0.18 |
| Control Delay           | 26.1 | 0.5  | 6.4  | 4.0  | 61.1 | 2.6  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 26.1 | 0.5  | 6.4  | 4.0  | 61.1 | 2.6  |
| Queue Length 50th (ft)  | 210  | 0    | 160  | 54   | 183  | 25   |
| Queue Length 95th (ft)  | 240  | 0    | 186  | 94   | #293 | 61   |
| Internal Link Dist (ft) |      |      | 468  |      |      | 780  |
| Turn Bay Length (ft)    |      |      |      | 180  | 350  |      |
| Base Capacity (vph)     | 1717 | 1611 | 3744 | 1210 | 337  | 5243 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.46 | 0.30 | 0.47 | 0.37 | 0.80 | 0.18 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

---

HCM 6th Edition methodology does not support custom phasing.

Generations at Green Valley  
 20: White Rock Rd/Silva Valley Pkwy & US-50 EB On&Off-Ramp

Baseline  
 Timing Plan: PM



| Lane Group              | EBL  | EBR  | NBL  | NBT  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 347  | 65   | 365  | 423  | 476  | 101  |
| v/c Ratio               | 0.25 | 0.10 | 0.53 | 0.30 | 0.34 | 0.15 |
| Control Delay           | 8.6  | 3.2  | 12.5 | 8.9  | 5.7  | 1.6  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 8.6  | 3.2  | 12.5 | 8.9  | 5.7  | 1.6  |
| Queue Length 50th (ft)  | 24   | 0    | 29   | 31   | 17   | 0    |
| Queue Length 95th (ft)  | 43   | 14   | 58   | 54   | 30   | m1   |
| Internal Link Dist (ft) | 706  |      |      | 516  | 832  |      |
| Turn Bay Length (ft)    |      | 195  | 480  |      |      | 148  |
| Base Capacity (vph)     | 1373 | 672  | 694  | 1415 | 1415 | 693  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.25 | 0.10 | 0.53 | 0.30 | 0.34 | 0.15 |

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.



Generations at Green Valley  
 20: White Rock Rd/Silva Valley Pkwy & US-50 EB On&Off-Ramp

Baseline  
 Timing Plan: PM



| Movement                     | EBL  | EBR  | NBL  | NBT  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations          | ↖↗   | ↗    | ↖↗   | ↑↑   | ↑↑   | ↗    |
| Traffic Volume (veh/h)       | 309  | 58   | 343  | 398  | 414  | 88   |
| Future Volume (veh/h)        | 309  | 58   | 343  | 398  | 414  | 88   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 | 1.00 | 1.00 |      |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 347  | 65   | 365  | 423  | 476  | 101  |
| Peak Hour Factor             | 0.89 | 0.89 | 0.94 | 0.94 | 0.87 | 0.87 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 1382 | 634  | 950  | 1421 | 1421 | 634  |
| Arrive On Green              | 0.40 | 0.40 | 0.40 | 0.40 | 0.80 | 0.80 |
| Sat Flow, veh/h              | 3456 | 1585 | 1623 | 3647 | 3647 | 1585 |
| Grp Volume(v), veh/h         | 347  | 65   | 365  | 423  | 476  | 101  |
| Grp Sat Flow(s),veh/h/ln     | 1728 | 1585 | 811  | 1777 | 1777 | 1585 |
| Q Serve(g_s), s              | 2.7  | 1.0  | 7.4  | 3.2  | 1.5  | 0.6  |
| Cycle Q Clear(g_c), s        | 2.7  | 1.0  | 8.9  | 3.2  | 1.5  | 0.6  |
| Prop In Lane                 | 1.00 | 1.00 | 1.00 |      |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 1382 | 634  | 950  | 1421 | 1421 | 634  |
| V/C Ratio(X)                 | 0.25 | 0.10 | 0.38 | 0.30 | 0.33 | 0.16 |
| Avail Cap(c_a), veh/h        | 1382 | 634  | 950  | 1421 | 1421 | 634  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 8.0  | 7.5  | 10.5 | 8.2  | 2.5  | 2.5  |
| Incr Delay (d2), s/veh       | 0.4  | 0.3  | 1.2  | 0.5  | 0.6  | 0.5  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.8  | 0.3  | 1.0  | 0.9  | 0.4  | 0.2  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 8.4  | 7.8  | 11.6 | 8.7  | 3.2  | 3.0  |
| LnGrp LOS                    | A    | A    | B    | A    | A    | A    |
| Approach Vol, veh/h          | 412  |      |      | 788  | 577  |      |
| Approach Delay, s/veh        | 8.3  |      |      | 10.1 | 3.1  |      |
| Approach LOS                 | A    |      |      | B    | A    |      |
| Timer - Assigned Phs         |      | 2    |      | 4    |      | 6    |
| Phs Duration (G+Y+Rc), s     |      | 20.0 |      | 20.0 |      | 20.0 |
| Change Period (Y+Rc), s      |      | 4.0  |      | 4.0  |      | 4.0  |
| Max Green Setting (Gmax), s  |      | 16.0 |      | 16.0 |      | 16.0 |
| Max Q Clear Time (g_c+I1), s |      | 10.9 |      | 4.7  |      | 3.5  |
| Green Ext Time (p_c), s      |      | 2.3  |      | 1.1  |      | 2.6  |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 7.4  |      |      |      |
| HCM 6th LOS                  |      |      | A    |      |      |      |

Generations at Green Valley  
 21: Silva Valley Pkwy & US-50 WB On-Ramp/US-50 WB Off-Ramp

Baseline  
 Timing Plan: PM



| Lane Group                  | WBL  | WBR  | NBL  | NBT  | SBT  | SBR  |
|-----------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph)       | 364  | 153  | 74   | 657  | 198  | 268  |
| v/c Ratio                   | 0.51 | 0.22 | 0.16 | 0.46 | 0.14 | 0.34 |
| Control Delay               | 12.3 | 3.8  | 10.0 | 10.6 | 8.0  | 2.9  |
| Queue Delay                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay                 | 12.3 | 3.8  | 10.0 | 10.6 | 8.0  | 2.9  |
| Queue Length 50th (ft)      | 58   | 4    | 9    | 58   | 13   | 0    |
| Queue Length 95th (ft)      | 103  | 24   | 37   | 104  | 27   | 29   |
| Internal Link Dist (ft)     |      |      |      | 832  | 250  |      |
| Turn Bay Length (ft)        |      |      | 545  |      |      |      |
| Base Capacity (vph)         | 708  | 708  | 467  | 1415 | 1415 | 794  |
| Starvation Cap Reductn      | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn       | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn         | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio           | 0.51 | 0.22 | 0.16 | 0.46 | 0.14 | 0.34 |
| <b>Intersection Summary</b> |      |      |      |      |      |      |

Generations at Green Valley  
 21: Silva Valley Pkwy & US-50 WB On-Ramp/US-50 WB Off-Ramp

Baseline  
 Timing Plan: PM



| Movement                     | EBL | EBT  | EBR | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|-----|------|-----|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |     |      |     | ↖    | ↗    | ↖    | ↖    | ↗    |      |      | ↗    | ↖    |
| Traffic Volume (veh/h)       | 0   | 0    | 0   | 309  | 0    | 130  | 72   | 637  | 0    | 0    | 178  | 241  |
| Future Volume (veh/h)        | 0   | 0    | 0   | 309  | 0    | 130  | 72   | 637  | 0    | 0    | 178  | 241  |
| Initial Q (Qb), veh          |     |      |     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |     |      |     | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             |     |      |     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |     |      |     | No   |      |      | No   |      |      | No   |      |      |
| Adj Sat Flow, veh/h/ln       |     |      |     | 1870 | 1870 | 1870 | 1870 | 1870 | 0    | 0    | 1870 | 1870 |
| Adj Flow Rate, veh/h         |     |      |     | 364  | 0    | 153  | 74   | 657  | 0    | 0    | 198  | 268  |
| Peak Hour Factor             |     |      |     | 0.85 | 0.85 | 0.85 | 0.97 | 0.97 | 0.97 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, %         |     |      |     | 2    | 2    | 2    | 2    | 2    | 0    | 0    | 2    | 2    |
| Cap, veh/h                   |     |      |     | 713  | 748  | 634  | 518  | 1421 | 0    | 0    | 1421 | 634  |
| Arrive On Green              |     |      |     | 0.40 | 0.00 | 0.40 | 0.80 | 0.80 | 0.00 | 0.00 | 0.40 | 0.40 |
| Sat Flow, veh/h              |     |      |     | 1781 | 1870 | 1585 | 927  | 3647 | 0    | 0    | 3647 | 1585 |
| Grp Volume(v), veh/h         |     |      |     | 364  | 0    | 153  | 74   | 657  | 0    | 0    | 198  | 268  |
| Grp Sat Flow(s),veh/h/ln     |     |      |     | 1781 | 1870 | 1585 | 927  | 1777 | 0    | 0    | 1777 | 1585 |
| Q Serve(g_s), s              |     |      |     | 6.2  | 0.0  | 2.6  | 1.0  | 2.3  | 0.0  | 0.0  | 1.4  | 4.9  |
| Cycle Q Clear(g_c), s        |     |      |     | 6.2  | 0.0  | 2.6  | 2.4  | 2.3  | 0.0  | 0.0  | 1.4  | 4.9  |
| Prop In Lane                 |     |      |     | 1.00 |      | 1.00 | 1.00 |      | 0.00 | 0.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       |     |      |     | 713  | 748  | 634  | 518  | 1421 | 0    | 0    | 1421 | 634  |
| V/C Ratio(X)                 |     |      |     | 0.51 | 0.00 | 0.24 | 0.14 | 0.46 | 0.00 | 0.00 | 0.14 | 0.42 |
| Avail Cap(c_a), veh/h        |     |      |     | 713  | 748  | 634  | 518  | 1421 | 0    | 0    | 1421 | 634  |
| HCM Platoon Ratio            |     |      |     | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           |     |      |     | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     |     |      |     | 9.0  | 0.0  | 8.0  | 2.9  | 2.6  | 0.0  | 0.0  | 7.6  | 8.7  |
| Incr Delay (d2), s/veh       |     |      |     | 2.6  | 0.0  | 0.9  | 0.6  | 1.1  | 0.0  | 0.0  | 0.2  | 2.1  |
| Initial Q Delay(d3),s/veh    |     |      |     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     |     |      |     | 2.2  | 0.0  | 0.8  | 0.2  | 0.6  | 0.0  | 0.0  | 0.4  | 1.4  |
| Unsig. Movement Delay, s/veh |     |      |     |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         |     |      |     | 11.7 | 0.0  | 8.9  | 3.5  | 3.7  | 0.0  | 0.0  | 7.8  | 10.7 |
| LnGrp LOS                    |     |      |     | B    | A    | A    | A    | A    | A    | A    | A    | B    |
| Approach Vol, veh/h          |     |      |     |      | 517  |      |      | 731  |      |      | 466  |      |
| Approach Delay, s/veh        |     |      |     |      | 10.8 |      |      | 3.7  |      |      | 9.5  |      |
| Approach LOS                 |     |      |     |      | B    |      |      | A    |      |      | A    |      |
| Timer - Assigned Phs         |     | 2    |     |      |      | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |     | 20.0 |     |      |      | 20.0 |      | 20.0 |      |      |      |      |
| Change Period (Y+Rc), s      |     | 4.0  |     |      |      | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |     | 16.0 |     |      |      | 16.0 |      | 16.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |     | 4.4  |     |      |      | 6.9  |      | 8.2  |      |      |      |      |
| Green Ext Time (p_c), s      |     | 3.4  |     |      |      | 1.4  |      | 1.1  |      |      |      |      |

Intersection Summary

|                    |     |
|--------------------|-----|
| HCM 6th Ctrl Delay | 7.4 |
| HCM 6th LOS        | A   |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0    |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      |      | ↗    | ↕↕   | ↗    |      | ↕↕   |
| Traffic Vol, veh/h       | 0    | 3    | 784  | 3    | 0    | 409  |
| Future Vol, veh/h        | 0    | 3    | 784  | 3    | 0    | 409  |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Free | Free | Free | Free |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | 0    | -    | 160  | -    | -    |
| Veh in Median Storage, # | 0    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 70   | 70   | 91   | 91   | 87   | 87   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 0    | 4    | 862  | 3    | 0    | 470  |

| Major/Minor          | Minor1 | Major1 | Major2 |   |   |
|----------------------|--------|--------|--------|---|---|
| Conflicting Flow All | -      | 431    | 0      | 0 | - |
| Stage 1              | -      | -      | -      | - | - |
| Stage 2              | -      | -      | -      | - | - |
| Critical Hdwy        | -      | 6.94   | -      | - | - |
| Critical Hdwy Stg 1  | -      | -      | -      | - | - |
| Critical Hdwy Stg 2  | -      | -      | -      | - | - |
| Follow-up Hdwy       | -      | 3.32   | -      | - | - |
| Pot Cap-1 Maneuver   | 0      | 573    | -      | - | 0 |
| Stage 1              | 0      | -      | -      | - | 0 |
| Stage 2              | 0      | -      | -      | - | 0 |
| Platoon blocked, %   |        |        | -      | - | - |
| Mov Cap-1 Maneuver   | -      | 573    | -      | - | - |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | - |
| Stage 1              | -      | -      | -      | - | - |
| Stage 2              | -      | -      | -      | - | - |

| Approach             | WB   | NB | SB |
|----------------------|------|----|----|
| HCM Control Delay, s | 11.3 | 0  | 0  |
| HCM LOS              | B    |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBT   |
|-----------------------|-----|----------|-------|
| Capacity (veh/h)      | -   | -        | 573   |
| HCM Lane V/C Ratio    | -   | -        | 0.007 |
| HCM Control Delay (s) | -   | -        | 11.3  |
| HCM Lane LOS          | -   | -        | B     |
| HCM 95th %tile Q(veh) | -   | -        | 0     |

Generations at Green Valley  
 23: Serrano Pkwy. & Silva Valley Pkwy.

Baseline  
 Timing Plan: PM



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | NBR  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 49   | 206  | 310  | 350  | 72   | 378  | 320  | 201  | 352  |
| v/c Ratio               | 0.27 | 0.35 | 0.92 | 0.30 | 0.43 | 0.51 | 0.55 | 0.79 | 0.35 |
| Control Delay           | 31.1 | 21.8 | 62.1 | 9.3  | 36.8 | 24.6 | 6.9  | 52.8 | 18.8 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 31.1 | 21.8 | 62.1 | 9.3  | 36.8 | 24.6 | 6.9  | 52.8 | 18.8 |
| Queue Length 50th (ft)  | 17   | 30   | 116  | 22   | 26   | 67   | 0    | 75   | 55   |
| Queue Length 95th (ft)  | 48   | 61   | #273 | 55   | #69  | 106  | 55   | #180 | 84   |
| Internal Link Dist (ft) |      | 6047 |      | 1303 |      | 4417 |      |      | 4456 |
| Turn Bay Length (ft)    | 155  |      | 330  |      | 250  |      | 180  | 150  |      |
| Base Capacity (vph)     | 196  | 1331 | 337  | 1599 | 168  | 1486 | 850  | 253  | 1637 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.25 | 0.15 | 0.92 | 0.22 | 0.43 | 0.25 | 0.38 | 0.79 | 0.22 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
23: Serrano Pkwy. & Silva Valley Pkwy.

Baseline  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          | ↖    | ↗    |      | ↖    | ↗    |      | ↖    | ↗    | ↗    | ↖    | ↗    |      |
| Traffic Volume (veh/h)       | 43   | 143  | 38   | 273  | 127  | 181  | 68   | 359  | 304  | 171  | 269  | 31   |
| Future Volume (veh/h)        | 43   | 143  | 38   | 273  | 127  | 181  | 68   | 359  | 304  | 171  | 269  | 31   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 49   | 162  | 43   | 310  | 144  | 206  | 72   | 378  | 0    | 201  | 316  | 36   |
| Peak Hour Factor             | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.95 | 0.95 | 0.95 | 0.85 | 0.85 | 0.85 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 67   | 480  | 124  | 359  | 596  | 532  | 91   | 599  |      | 247  | 824  | 93   |
| Arrive On Green              | 0.04 | 0.17 | 0.17 | 0.20 | 0.34 | 0.34 | 0.05 | 0.17 | 0.00 | 0.14 | 0.26 | 0.26 |
| Sat Flow, veh/h              | 1781 | 2796 | 722  | 1781 | 1777 | 1585 | 1781 | 3554 | 1585 | 1781 | 3218 | 364  |
| Grp Volume(v), veh/h         | 49   | 101  | 104  | 310  | 144  | 206  | 72   | 378  | 0    | 201  | 173  | 179  |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1777 | 1740 | 1781 | 1777 | 1585 | 1781 | 1777 | 1585 | 1781 | 1777 | 1805 |
| Q Serve(g_s), s              | 1.6  | 2.9  | 3.1  | 9.8  | 3.4  | 5.8  | 2.3  | 5.8  | 0.0  | 6.4  | 4.7  | 4.8  |
| Cycle Q Clear(g_c), s        | 1.6  | 2.9  | 3.1  | 9.8  | 3.4  | 5.8  | 2.3  | 5.8  | 0.0  | 6.4  | 4.7  | 4.8  |
| Prop In Lane                 | 1.00 |      | 0.41 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 0.20 |
| Lane Grp Cap(c), veh/h       | 67   | 305  | 299  | 359  | 596  | 532  | 91   | 599  |      | 247  | 455  | 462  |
| V/C Ratio(X)                 | 0.73 | 0.33 | 0.35 | 0.86 | 0.24 | 0.39 | 0.79 | 0.63 |      | 0.81 | 0.38 | 0.39 |
| Avail Cap(c_a), veh/h        | 214  | 732  | 717  | 367  | 885  | 789  | 184  | 1611 |      | 275  | 897  | 911  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 27.7 | 21.2 | 21.2 | 22.5 | 14.0 | 14.8 | 27.3 | 22.5 | 0.0  | 24.3 | 17.9 | 17.9 |
| Incr Delay (d2), s/veh       | 14.2 | 0.6  | 0.7  | 18.4 | 0.2  | 0.5  | 13.8 | 1.1  | 0.0  | 15.4 | 0.5  | 0.5  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.9  | 1.1  | 1.1  | 5.4  | 1.2  | 1.8  | 1.2  | 2.2  | 0.0  | 3.4  | 1.7  | 1.7  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 41.9 | 21.8 | 21.9 | 40.9 | 14.2 | 15.2 | 41.1 | 23.6 | 0.0  | 39.7 | 18.4 | 18.4 |
| LnGrp LOS                    | D    | C    | C    | D    | B    | B    | D    | C    |      | D    | B    | B    |
| Approach Vol, veh/h          |      | 254  |      |      | 660  |      |      | 450  | A    |      | 553  |      |
| Approach Delay, s/veh        |      | 25.7 |      |      | 27.1 |      |      | 26.4 |      |      | 26.2 |      |
| Approach LOS                 |      | C    |      |      | C    |      |      | C    |      |      | C    |      |
| Timer - Assigned Phs         | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 12.1 | 15.1 | 15.7 | 15.3 | 7.0  | 20.2 | 6.2  | 24.9 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 5.3  | 4.0  | 5.3  | 4.0  | 5.3  | 4.0  | 5.3  |      |      |      |      |
| Max Green Setting (Gmax), s  | 9.0  | 26.4 | 12.0 | 24.0 | 6.0  | 29.4 | 7.0  | 29.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 8.4  | 7.8  | 11.8 | 5.1  | 4.3  | 6.8  | 3.6  | 7.8  |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 2.0  | 0.0  | 0.9  | 0.0  | 1.8  | 0.0  | 1.9  |      |      |      |      |

Intersection Summary

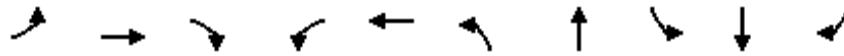
|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 26.5 |
| HCM 6th LOS        | C    |

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Generations at Green Valley  
 24: Silva Valley Pkwy. & Harvard Way

Baseline  
 Timing Plan: PM



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  | SBR  |     |
|-------------------------|------|------|------|------|------|------|------|------|------|------|-----|
| Lane Group Flow (vph)   | 69   | 18   | 279  | 43   | 42   | 283  | 356  | 8    | 228  | 78   |     |
| v/c Ratio               | 0.39 | 0.06 | 0.57 | 0.26 | 0.14 | 0.61 | 0.34 | 0.05 | 0.50 | 0.14 |     |
| Control Delay           | 33.1 | 19.6 | 8.6  | 28.3 | 14.3 | 26.6 | 8.6  | 25.3 | 20.3 | 0.5  |     |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |     |
| Total Delay             | 33.1 | 19.6 | 8.6  | 28.3 | 14.3 | 26.6 | 8.6  | 25.3 | 20.3 | 0.5  |     |
| Queue Length 50th (ft)  | 15   | 4    | 0    | 10   | 4    | 54   | 24   | 2    | 43   | 0    |     |
| Queue Length 95th (ft)  | #75  | 19   | 48   | 33   | 20   | #215 | 155  | 14   | 119  | 0    |     |
| Internal Link Dist (ft) | 2093 |      |      | 328  |      |      | 4456 |      | 5798 |      |     |
| Turn Bay Length (ft)    | 60   |      |      |      |      |      | 100  |      | 65   |      | 175 |
| Base Capacity (vph)     | 179  | 687  | 760  | 163  | 649  | 490  | 1115 | 163  | 731  | 753  |     |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |     |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |     |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |     |
| Reduced v/c Ratio       | 0.39 | 0.03 | 0.37 | 0.26 | 0.06 | 0.58 | 0.32 | 0.05 | 0.31 | 0.10 |     |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
24: Silva Valley Pkwy. & Harvard Way

Baseline  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 60   | 16   | 243  | 30   | 15   | 15   | 252  | 298  | 19   | 7    | 196  | 67   |
| Future Volume (veh/h)        | 60   | 16   | 243  | 30   | 15   | 15   | 252  | 298  | 19   | 7    | 196  | 67   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 69   | 18   | 279  | 43   | 21   | 21   | 283  | 335  | 21   | 8    | 228  | 78   |
| Peak Hour Factor             | 0.87 | 0.87 | 0.87 | 0.70 | 0.70 | 0.70 | 0.89 | 0.89 | 0.89 | 0.86 | 0.86 | 0.86 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 92   | 417  | 353  | 66   | 179  | 179  | 350  | 643  | 40   | 15   | 338  | 287  |
| Arrive On Green              | 0.05 | 0.22 | 0.22 | 0.04 | 0.21 | 0.21 | 0.20 | 0.37 | 0.37 | 0.01 | 0.18 | 0.18 |
| Sat Flow, veh/h              | 1781 | 1870 | 1585 | 1781 | 858  | 858  | 1781 | 1742 | 109  | 1781 | 1870 | 1585 |
| Grp Volume(v), veh/h         | 69   | 18   | 279  | 43   | 0    | 42   | 283  | 0    | 356  | 8    | 228  | 78   |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1870 | 1585 | 1781 | 0    | 1716 | 1781 | 0    | 1851 | 1781 | 1870 | 1585 |
| Q Serve(g_s), s              | 1.7  | 0.3  | 7.3  | 1.1  | 0.0  | 0.9  | 6.7  | 0.0  | 6.6  | 0.2  | 5.0  | 1.9  |
| Cycle Q Clear(g_c), s        | 1.7  | 0.3  | 7.3  | 1.1  | 0.0  | 0.9  | 6.7  | 0.0  | 6.6  | 0.2  | 5.0  | 1.9  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 0.50 | 1.00 |      | 0.06 | 1.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 92   | 417  | 353  | 66   | 0    | 357  | 350  | 0    | 683  | 15   | 338  | 287  |
| V/C Ratio(X)                 | 0.75 | 0.04 | 0.79 | 0.65 | 0.00 | 0.12 | 0.81 | 0.00 | 0.52 | 0.53 | 0.67 | 0.27 |
| Avail Cap(c_a), veh/h        | 161  | 678  | 575  | 161  | 0    | 622  | 484  | 0    | 1048 | 161  | 721  | 611  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 20.6 | 13.5 | 16.2 | 21.0 | 0.0  | 14.2 | 16.9 | 0.0  | 10.9 | 21.8 | 16.9 | 15.6 |
| Incr Delay (d2), s/veh       | 11.4 | 0.0  | 4.0  | 10.3 | 0.0  | 0.1  | 6.9  | 0.0  | 0.6  | 25.9 | 2.3  | 0.5  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.9  | 0.1  | 2.7  | 0.6  | 0.0  | 0.3  | 2.8  | 0.0  | 1.9  | 0.2  | 1.9  | 0.6  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 32.1 | 13.5 | 20.2 | 31.2 | 0.0  | 14.3 | 23.9 | 0.0  | 11.5 | 47.7 | 19.2 | 16.1 |
| LnGrp LOS                    | C    | B    | C    | C    | A    | B    | C    | A    | B    | D    | B    | B    |
| Approach Vol, veh/h          |      | 366  |      |      | 85   |      |      | 639  |      |      | 314  |      |
| Approach Delay, s/veh        |      | 22.1 |      |      | 22.9 |      |      | 17.0 |      |      | 19.2 |      |
| Approach LOS                 |      | C    |      |      | C    |      |      | B    |      |      | B    |      |
| Timer - Assigned Phs         | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 4.4  | 20.3 | 5.6  | 13.8 | 12.7 | 12.0 | 6.3  | 13.2 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0  | 25.0 | 4.0  | 16.0 | 12.0 | 17.0 | 4.0  | 16.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 2.2  | 8.6  | 3.1  | 9.3  | 8.7  | 7.0  | 3.7  | 2.9  |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 1.7  | 0.0  | 0.6  | 0.3  | 1.0  | 0.0  | 0.1  |      |      |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 19.1 |
| HCM 6th LOS        | B    |



Generations at Green Valley  
 25: Silva Valley Pkwy. & Charter Way/Appian Way

Baseline  
 Timing Plan: PM

|                               |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|
| Intersection                  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intersection Delay, s/veh12.7 |  |  |  |  |  |  |  |  |  |  |  |  |
| Intersection LOS B            |  |  |  |  |  |  |  |  |  |  |  |  |

| Movement            | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations |      | ↕    |      |      | ↕    |      |      | ↕    |      |      | ↕    |      |
| Traffic Vol, veh/h  | 20   | 1    | 42   | 74   | 0    | 66   | 51   | 224  | 64   | 67   | 173  | 30   |
| Future Vol, veh/h   | 20   | 1    | 42   | 74   | 0    | 66   | 51   | 224  | 64   | 67   | 173  | 30   |
| Peak Hour Factor    | 0.79 | 0.79 | 0.79 | 0.88 | 0.88 | 0.88 | 0.86 | 0.86 | 0.86 | 0.83 | 0.83 | 0.83 |
| Heavy Vehicles, %   | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow           | 25   | 1    | 53   | 84   | 0    | 75   | 59   | 260  | 74   | 81   | 208  | 36   |
| Number of Lanes     | 0    | 1    | 0    | 0    | 1    | 0    | 0    | 1    | 0    | 0    | 1    | 0    |

| Approach                      | EB  | WB   | NB   | SB   |
|-------------------------------|-----|------|------|------|
| Opposing Approach             | WB  | EB   | SB   | NB   |
| Opposing Lanes                | 1   | 1    | 1    | 1    |
| Conflicting Approach Left SB  |     | NB   | EB   | WB   |
| Conflicting Lanes Left        | 1   | 1    | 1    | 1    |
| Conflicting Approach Right NB |     | SB   | WB   | EB   |
| Conflicting Lanes Right       | 1   | 1    | 1    | 1    |
| HCM Control Delay             | 9.6 | 10.7 | 14.1 | 12.7 |
| HCM LOS                       | A   | B    | B    | B    |

| Lane                   | NBLn1 | EBLn1 | WBLn1 | SBLn1 |
|------------------------|-------|-------|-------|-------|
| Vol Left, %            | 15%   | 32%   | 53%   | 25%   |
| Vol Thru, %            | 66%   | 2%    | 0%    | 64%   |
| Vol Right, %           | 19%   | 67%   | 47%   | 11%   |
| Sign Control           | Stop  | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 339   | 63    | 140   | 270   |
| LT Vol                 | 51    | 20    | 74    | 67    |
| Through Vol            | 224   | 1     | 0     | 173   |
| RT Vol                 | 64    | 42    | 66    | 30    |
| Lane Flow Rate         | 394   | 80    | 159   | 325   |
| Geometry Grp           | 1     | 1     | 1     | 1     |
| Degree of Util (X)     | 0.55  | 0.127 | 0.253 | 0.467 |
| Departure Headway (Hd) | 5.019 | 5.738 | 5.716 | 5.169 |
| Convergence, Y/N       | Yes   | Yes   | Yes   | Yes   |
| Cap                    | 717   | 623   | 627   | 696   |
| Service Time           | 3.054 | 3.793 | 3.764 | 3.206 |
| HCM Lane V/C Ratio     | 0.55  | 0.128 | 0.254 | 0.467 |
| HCM Control Delay      | 14.1  | 9.6   | 10.7  | 12.7  |
| HCM Lane LOS           | B     | A     | B     | B     |
| HCM 95th-tile Q        | 3.4   | 0.4   | 1     | 2.5   |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0    |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↔    |      |      | ↑    |      | ↗    |
| Traffic Vol, veh/h       | 648  | 0    | 0    | 393  | 0    | 0    |
| Future Vol, veh/h        | 648  | 0    | 0    | 393  | 0    | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | 0    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 704  | 0    | 0    | 427  | 0    | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |   |       |
|----------------------|--------|--------|--------|---|---|-------|
| Conflicting Flow All | 0      | 0      | -      | - | - | 704   |
| Stage 1              | -      | -      | -      | - | - | -     |
| Stage 2              | -      | -      | -      | - | - | -     |
| Critical Hdwy        | -      | -      | -      | - | - | 6.22  |
| Critical Hdwy Stg 1  | -      | -      | -      | - | - | -     |
| Critical Hdwy Stg 2  | -      | -      | -      | - | - | -     |
| Follow-up Hdwy       | -      | -      | -      | - | - | 3.318 |
| Pot Cap-1 Maneuver   | -      | -      | 0      | - | 0 | 437   |
| Stage 1              | -      | -      | 0      | - | 0 | -     |
| Stage 2              | -      | -      | 0      | - | 0 | -     |
| Platoon blocked, %   | -      | -      | -      | - | - | -     |
| Mov Cap-1 Maneuver   | -      | -      | -      | - | - | 437   |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | - | -     |
| Stage 1              | -      | -      | -      | - | - | -     |
| Stage 2              | -      | -      | -      | - | - | -     |

| Approach             | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              |    |    | A  |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h)      | -     | -   | -   | -   |
| HCM Lane V/C Ratio    | -     | -   | -   | -   |
| HCM Control Delay (s) | 0     | -   | -   | -   |
| HCM Lane LOS          | A     | -   | -   | -   |
| HCM 95th %tile Q(veh) | -     | -   | -   | -   |



| Lane Group                  | EBT  | WBT  |
|-----------------------------|------|------|
| Lane Group Flow (vph)       | 704  | 427  |
| v/c Ratio                   | 0.65 | 0.40 |
| Control Delay               | 7.8  | 4.8  |
| Queue Delay                 | 0.0  | 0.0  |
| Total Delay                 | 7.8  | 4.8  |
| Queue Length 50th (ft)      | 59   | 29   |
| Queue Length 95th (ft)      | 114  | 55   |
| Internal Link Dist (ft)     | 1398 | 2852 |
| Turn Bay Length (ft)        |      |      |
| Base Capacity (vph)         | 1515 | 1515 |
| Starvation Cap Reductn      | 0    | 0    |
| Spillback Cap Reductn       | 0    | 0    |
| Storage Cap Reductn         | 0    | 0    |
| Reduced v/c Ratio           | 0.46 | 0.28 |
| <b>Intersection Summary</b> |      |      |

Generations at Green Valley  
27: Site Dwy. Full & Green Valley Rd.

Baseline  
Timing Plan: PM



| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 648  | 0    | 0    | 393  | 0    | 0    |
| Future Volume (veh/h)        | 648  | 0    | 0    | 393  | 0    | 0    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 704  | 0    | 0    | 427  | 0    | 0    |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 1275 | 0    | 573  | 1275 | 14   | 13   |
| Arrive On Green              | 0.68 | 0.00 | 0.00 | 0.68 | 0.00 | 0.00 |
| Sat Flow, veh/h              | 1870 | 0    | 743  | 1870 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 704  | 0    | 0    | 427  | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1870 | 0    | 743  | 1870 | 1781 | 1585 |
| Q Serve(g_s), s              | 2.4  | 0.0  | 0.0  | 1.2  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 2.4  | 0.0  | 0.0  | 1.2  | 0.0  | 0.0  |
| Prop In Lane                 |      | 0.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 1275 | 0    | 573  | 1275 | 14   | 13   |
| V/C Ratio(X)                 | 0.55 | 0.00 | 0.00 | 0.34 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 3873 | 0    | 1606 | 3873 | 3689 | 3282 |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 1.0  | 0.0  | 0.0  | 0.8  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 0.4  | 0.0  | 0.0  | 0.2  | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.1  | 0.0  | 0.0  | 0.1  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 1.4  | 0.0  | 0.0  | 1.0  | 0.0  | 0.0  |
| LnGrp LOS                    | A    | A    | A    | A    | A    | A    |
| Approach Vol, veh/h          | 704  |      |      | 427  | 0    |      |
| Approach Delay, s/veh        | 1.4  |      |      | 1.0  | 0.0  |      |
| Approach LOS                 | A    |      |      | A    |      |      |
| Timer - Assigned Phs         |      | 2    |      |      | 6    | 8    |
| Phs Duration (G+Y+Rc), s     |      | 12.6 |      |      | 12.6 | 0.0  |
| Change Period (Y+Rc), s      |      | 4.0  |      |      | 4.0  | 4.0  |
| Max Green Setting (Gmax), s  |      | 26.0 |      |      | 26.0 | 26.0 |
| Max Q Clear Time (g_c+I1), s |      | 3.2  |      |      | 4.4  | 0.0  |
| Green Ext Time (p_c), s      |      | 2.2  |      |      | 4.1  | 0.0  |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 1.2  |      |      |      |
| HCM 6th LOS                  |      |      | A    |      |      |      |

Summary of All Intervals

| Run Number              | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|
| Start Time              | 4:50  | 4:50  | 4:50  | 4:50  | 4:50  | 4:50  | 4:50  |
| End Time                | 6:00  | 6:00  | 6:00  | 6:00  | 6:00  | 6:00  | 6:00  |
| Total Time (min)        | 70    | 70    | 70    | 70    | 70    | 70    | 70    |
| Time Recorded (min)     | 60    | 60    | 60    | 60    | 60    | 60    | 60    |
| # of Intervals          | 5     | 5     | 5     | 5     | 5     | 5     | 5     |
| # of Recorded Intervals | 4     | 4     | 4     | 4     | 4     | 4     | 4     |
| Vehs Entered            | 11751 | 11945 | 11805 | 11911 | 11923 | 11932 | 12119 |
| Vehs Exited             | 11754 | 11888 | 11826 | 11908 | 11857 | 11979 | 12110 |
| Starting Vehs           | 252   | 235   | 284   | 293   | 246   | 297   | 286   |
| Ending Vehs             | 249   | 292   | 263   | 296   | 312   | 250   | 295   |
| Travel Distance (mi)    | 3762  | 3769  | 3755  | 3765  | 3751  | 3778  | 3832  |
| Travel Time (hr)        | 424.2 | 457.2 | 415.3 | 426.7 | 452.5 | 476.2 | 392.4 |
| Total Delay (hr)        | 311.1 | 343.9 | 302.4 | 313.6 | 340.2 | 363.1 | 277.1 |
| Total Stops             | 9859  | 10028 | 9938  | 10069 | 9948  | 9952  | 10298 |
| Fuel Used (gal)         | 235.5 | 243.3 | 233.8 | 236.7 | 241.6 | 248.3 | 230.5 |

Summary of All Intervals

| Run Number              | 7     | 8     | 9     | Avg   |
|-------------------------|-------|-------|-------|-------|
| Start Time              | 4:50  | 4:50  | 4:50  | 4:50  |
| End Time                | 6:00  | 6:00  | 6:00  | 6:00  |
| Total Time (min)        | 70    | 70    | 70    | 70    |
| Time Recorded (min)     | 60    | 60    | 60    | 60    |
| # of Intervals          | 5     | 5     | 5     | 5     |
| # of Recorded Intervals | 4     | 4     | 4     | 4     |
| Vehs Entered            | 11700 | 11808 | 12023 | 11891 |
| Vehs Exited             | 11733 | 11811 | 11974 | 11882 |
| Starting Vehs           | 286   | 271   | 253   | 262   |
| Ending Vehs             | 253   | 268   | 302   | 272   |
| Travel Distance (mi)    | 3729  | 3747  | 3825  | 3771  |
| Travel Time (hr)        | 479.3 | 411.8 | 431.4 | 436.7 |
| Total Delay (hr)        | 367.1 | 299.2 | 316.5 | 323.4 |
| Total Stops             | 9956  | 9862  | 10489 | 10042 |
| Fuel Used (gal)         | 247.4 | 231.5 | 240.2 | 238.9 |

Interval #0 Information Seeding

|                                     |      |
|-------------------------------------|------|
| Start Time                          | 4:50 |
| End Time                            | 5:00 |
| Total Time (min)                    | 10   |
| Volumes adjusted by Growth Factors. |      |
| No data recorded this interval.     |      |

**Interval #1 Information**

|                  |      |
|------------------|------|
| Start Time       | 5:00 |
| End Time         | 5:15 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1    | 10   | 2    | 3    | 4    | 5    | 6    |
|----------------------|------|------|------|------|------|------|------|
| Vehs Entered         | 2947 | 3048 | 3020 | 3017 | 2933 | 2984 | 2974 |
| Vehs Exited          | 2911 | 3021 | 3022 | 3025 | 2915 | 3000 | 2976 |
| Starting Vehs        | 252  | 235  | 284  | 293  | 246  | 297  | 286  |
| Ending Vehs          | 288  | 262  | 282  | 285  | 264  | 281  | 284  |
| Travel Distance (mi) | 937  | 951  | 955  | 958  | 909  | 944  | 933  |
| Travel Time (hr)     | 82.3 | 84.5 | 81.9 | 84.1 | 84.7 | 92.1 | 74.5 |
| Total Delay (hr)     | 54.1 | 56.0 | 53.1 | 55.2 | 57.4 | 63.9 | 46.5 |
| Total Stops          | 2493 | 2480 | 2550 | 2612 | 2435 | 2555 | 2449 |
| Fuel Used (gal)      | 53.0 | 54.2 | 54.0 | 54.7 | 53.0 | 56.1 | 51.5 |

**Interval #1 Information**

|                  |      |
|------------------|------|
| Start Time       | 5:00 |
| End Time         | 5:15 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7    | 8    | 9    | Avg  |
|----------------------|------|------|------|------|
| Vehs Entered         | 2938 | 2913 | 3035 | 2984 |
| Vehs Exited          | 2944 | 2908 | 3003 | 2971 |
| Starting Vehs        | 286  | 271  | 253  | 262  |
| Ending Vehs          | 280  | 276  | 285  | 275  |
| Travel Distance (mi) | 940  | 919  | 965  | 941  |
| Travel Time (hr)     | 94.0 | 75.9 | 85.1 | 83.9 |
| Total Delay (hr)     | 65.5 | 48.3 | 56.2 | 55.6 |
| Total Stops          | 2536 | 2432 | 2618 | 2513 |
| Fuel Used (gal)      | 56.2 | 51.2 | 55.6 | 53.9 |

**Interval #2 Information**

|                  |      |
|------------------|------|
| Start Time       | 5:15 |
| End Time         | 5:30 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1    | 10    | 2    | 3    | 4     | 5     | 6    |
|----------------------|------|-------|------|------|-------|-------|------|
| Vehs Entered         | 2904 | 2930  | 2988 | 3026 | 3012  | 2980  | 2980 |
| Vehs Exited          | 2926 | 2957  | 2991 | 2998 | 2995  | 2974  | 2984 |
| Starting Vehs        | 288  | 262   | 282  | 285  | 264   | 281   | 284  |
| Ending Vehs          | 266  | 235   | 279  | 313  | 281   | 287   | 280  |
| Travel Distance (mi) | 927  | 935   | 965  | 952  | 957   | 942   | 943  |
| Travel Time (hr)     | 99.0 | 107.6 | 98.7 | 96.0 | 100.0 | 109.9 | 95.1 |
| Total Delay (hr)     | 71.2 | 79.4  | 69.6 | 67.6 | 71.2  | 81.7  | 66.8 |
| Total Stops          | 2398 | 2440  | 2568 | 2514 | 2519  | 2413  | 2519 |
| Fuel Used (gal)      | 57.2 | 59.0  | 58.2 | 57.4 | 57.9  | 59.8  | 56.4 |

**Interval #2 Information**

|                  |      |
|------------------|------|
| Start Time       | 5:15 |
| End Time         | 5:30 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8    | 9    | Avg   |
|----------------------|-------|------|------|-------|
| Vehs Entered         | 2998  | 2968 | 3067 | 2988  |
| Vehs Exited          | 2979  | 2964 | 3078 | 2985  |
| Starting Vehs        | 280   | 276  | 285  | 275   |
| Ending Vehs          | 299   | 280  | 274  | 280   |
| Travel Distance (mi) | 959   | 940  | 973  | 949   |
| Travel Time (hr)     | 114.1 | 92.9 | 96.7 | 101.0 |
| Total Delay (hr)     | 85.5  | 64.9 | 67.3 | 72.5  |
| Total Stops          | 2546  | 2496 | 2683 | 2509  |
| Fuel Used (gal)      | 61.7  | 55.9 | 58.5 | 58.2  |

**Interval #3 Information**

|                  |      |
|------------------|------|
| Start Time       | 5:30 |
| End Time         | 5:45 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 2951  | 2986  | 2829  | 2962  | 3022  | 2998  | 3110  |
| Vehs Exited          | 2922  | 2976  | 2860  | 2988  | 3028  | 2988  | 3093  |
| Starting Vehs        | 266   | 235   | 279   | 313   | 281   | 287   | 280   |
| Ending Vehs          | 295   | 245   | 248   | 287   | 275   | 297   | 297   |
| Travel Distance (mi) | 935   | 942   | 897   | 949   | 955   | 948   | 983   |
| Travel Time (hr)     | 114.6 | 122.1 | 110.8 | 115.9 | 126.0 | 130.2 | 107.7 |
| Total Delay (hr)     | 86.6  | 93.8  | 83.9  | 87.4  | 97.5  | 101.8 | 78.0  |
| Total Stops          | 2424  | 2502  | 2368  | 2514  | 2620  | 2599  | 2730  |
| Fuel Used (gal)      | 60.4  | 62.4  | 58.4  | 61.4  | 64.0  | 64.5  | 60.6  |

**Interval #3 Information**

|                  |      |
|------------------|------|
| Start Time       | 5:30 |
| End Time         | 5:45 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 2864  | 2978  | 2881  | 2953  |
| Vehs Exited          | 2915  | 2986  | 2841  | 2961  |
| Starting Vehs        | 299   | 280   | 274   | 280   |
| Ending Vehs          | 248   | 272   | 314   | 282   |
| Travel Distance (mi) | 919   | 937   | 919   | 938   |
| Travel Time (hr)     | 130.2 | 112.5 | 111.0 | 118.1 |
| Total Delay (hr)     | 102.5 | 84.1  | 83.4  | 89.9  |
| Total Stops          | 2460  | 2464  | 2517  | 2517  |
| Fuel Used (gal)      | 63.5  | 60.0  | 59.0  | 61.4  |



Interval #4 Information Recording

|                  |      |
|------------------|------|
| Start Time       | 5:45 |
| End Time         | 6:00 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 2949  | 2981  | 2968  | 2906  | 2956  | 2970  | 3055  |
| Vehs Exited          | 2995  | 2934  | 2953  | 2897  | 2919  | 3017  | 3057  |
| Starting Vehs        | 295   | 245   | 248   | 287   | 275   | 297   | 297   |
| Ending Vehs          | 249   | 292   | 263   | 296   | 312   | 250   | 295   |
| Travel Distance (mi) | 963   | 942   | 937   | 906   | 931   | 944   | 974   |
| Travel Time (hr)     | 128.3 | 142.9 | 123.9 | 130.7 | 141.8 | 143.9 | 115.1 |
| Total Delay (hr)     | 99.3  | 114.7 | 95.8  | 103.4 | 114.1 | 115.7 | 85.8  |
| Total Stops          | 2544  | 2606  | 2452  | 2429  | 2374  | 2385  | 2600  |
| Fuel Used (gal)      | 64.9  | 67.8  | 63.2  | 63.2  | 66.8  | 67.9  | 62.1  |

Interval #4 Information Recording

|                  |      |
|------------------|------|
| Start Time       | 5:45 |
| End Time         | 6:00 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 2900  | 2949  | 3040  | 2960  |
| Vehs Exited          | 2895  | 2953  | 3052  | 2966  |
| Starting Vehs        | 248   | 272   | 314   | 282   |
| Ending Vehs          | 253   | 268   | 302   | 272   |
| Travel Distance (mi) | 910   | 950   | 968   | 943   |
| Travel Time (hr)     | 141.0 | 130.5 | 138.6 | 133.7 |
| Total Delay (hr)     | 113.6 | 102.0 | 109.5 | 105.4 |
| Total Stops          | 2414  | 2470  | 2671  | 2493  |
| Fuel Used (gal)      | 66.0  | 64.4  | 67.2  | 65.3  |

13: Francisco Dr & El Dorado Hills Blvd Performance by movement

| Movement           | EBL | EBT  | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT  | All |
|--------------------|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|
| Denied Delay (hr)  | 0.0 | 0.0  | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.5 |
| Denied Del/Veh (s) | 1.0 | 1.3  | 3.4 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 3.7 | 0.2  | 1.3 |
| Total Delay (hr)   | 0.0 | 0.1  | 0.7 | 0.0 | 0.0 | 0.0 | 1.1 | 0.7 | 0.0 | 0.0 | 0.6  | 3.2 |
| Total Del/Veh (s)  | 6.9 | 11.3 | 4.4 | 5.7 | 7.1 | 3.6 | 8.3 | 9.7 | 3.9 | 5.3 | 11.6 | 7.5 |
| Stop Delay (hr)    | 0.0 | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 0.2 | 0.0 | 0.0 | 0.2  | 1.2 |
| Stop Del/Veh (s)   | 3.2 | 3.9  | 0.0 | 3.8 | 3.8 | 3.3 | 5.3 | 2.9 | 2.7 | 2.7 | 3.6  | 2.7 |

17: El Dorado Hills Blvd #2 & Saratoga Way/Park Drive Performance by movement

| Movement           | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Denied Delay (hr)  | 0.1  | 0.0  | 0.3  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.1  | 0.1  | 0.0  |
| Denied Del/Veh (s) | 1.1  | 1.1  | 3.4  | 0.1  | 0.2  | 0.3  | 0.2  | 0.0  | 0.0  | 2.8  | 0.4  | 0.4  |
| Total Delay (hr)   | 3.7  | 0.9  | 1.8  | 0.6  | 0.8  | 1.2  | 7.1  | 5.8  | 0.4  | 2.4  | 5.6  | 0.9  |
| Total Del/Veh (s)  | 65.3 | 71.7 | 18.1 | 48.3 | 55.8 | 27.8 | 85.2 | 22.0 | 19.9 | 70.8 | 30.2 | 22.3 |
| Stop Delay (hr)    | 3.4  | 0.8  | 1.4  | 0.6  | 0.7  | 1.1  | 6.3  | 3.9  | 0.3  | 2.2  | 3.9  | 0.7  |
| Stop Del/Veh (s)   | 59.5 | 62.6 | 14.7 | 45.8 | 50.2 | 24.8 | 75.0 | 14.8 | 15.4 | 64.5 | 21.0 | 17.6 |

17: El Dorado Hills Blvd #2 & Saratoga Way/Park Drive Performance by movement

| Movement           | All  |
|--------------------|------|
| Denied Delay (hr)  | 0.6  |
| Denied Del/Veh (s) | 0.7  |
| Total Delay (hr)   | 31.3 |
| Total Del/Veh (s)  | 36.1 |
| Stop Delay (hr)    | 25.3 |
| Stop Del/Veh (s)   | 29.2 |

18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way Performance by movement

| Movement           | EBL  | EBT  | EBR | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|--------------------|------|------|-----|------|------|------|------|------|------|------|------|------|
| Denied Delay (hr)  | 0.0  | 0.0  | 0.1 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Denied Del/Veh (s) | 0.2  | 0.4  | 3.6 | 0.3  | 0.1  | 0.2  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay (hr)   | 2.4  | 1.0  | 0.1 | 2.3  | 1.1  | 1.3  | 12.2 | 4.5  | 0.7  | 0.9  | 6.4  | 1.6  |
| Total Del/Veh (s)  | 57.6 | 58.4 | 3.2 | 54.8 | 56.6 | 56.6 | 50.8 | 15.6 | 12.0 | 81.9 | 29.7 | 22.3 |
| Stop Delay (hr)    | 2.3  | 0.9  | 0.0 | 2.2  | 1.0  | 1.3  | 9.8  | 2.4  | 0.4  | 0.8  | 5.1  | 1.3  |
| Stop Del/Veh (s)   | 54.5 | 53.5 | 0.0 | 51.0 | 51.6 | 53.6 | 40.5 | 8.4  | 6.2  | 77.3 | 23.6 | 17.6 |

18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way Performance by movement

| Movement           | All  |
|--------------------|------|
| Denied Delay (hr)  | 0.2  |
| Denied Del/Veh (s) | 0.2  |
| Total Delay (hr)   | 34.7 |
| Total Del/Veh (s)  | 32.3 |
| Stop Delay (hr)    | 27.4 |
| Stop Del/Veh (s)   | 25.5 |

19: Latrobe Road #2/EI Dorado Hills Blvd #2 & US 50 EB Ramps Performance by movement

| Movement           | EBR  | WBR | NBT | NBR | SBL  | SBT  | All  |
|--------------------|------|-----|-----|-----|------|------|------|
| Denied Delay (hr)  | 0.1  | 0.0 | 0.4 | 0.3 | 0.0  | 0.0  | 0.9  |
| Denied Del/Veh (s) | 0.7  | 0.4 | 0.9 | 2.3 | 0.0  | 0.0  | 0.7  |
| Total Delay (hr)   | 2.3  | 0.1 | 3.3 | 0.8 | 3.6  | 2.5  | 12.5 |
| Total Del/Veh (s)  | 10.9 | 1.1 | 7.0 | 6.4 | 52.8 | 10.8 | 10.3 |
| Stop Delay (hr)    | 1.3  | 0.0 | 1.2 | 0.4 | 3.1  | 0.9  | 6.9  |
| Stop Del/Veh (s)   | 6.2  | 0.0 | 2.7 | 3.1 | 45.8 | 4.1  | 5.7  |

Total Zone Performance

|                    |        |
|--------------------|--------|
| Denied Delay (hr)  | 2.2    |
| Denied Del/Veh (s) | 1.2    |
| Total Delay (hr)   | 81.6   |
| Total Del/Veh (s)  | 1790.8 |
| Stop Delay (hr)    | 60.7   |
| Stop Del/Veh (s)   | 1333.1 |

Intersection: 13: Francisco Dr & El Dorado Hills Blvd

| Movement              | EB  | WB  | NB  | NB  | SB  | SB  |
|-----------------------|-----|-----|-----|-----|-----|-----|
| Directions Served     | LT  | LTR | L   | TR  | L   | TR  |
| Maximum Queue (ft)    | 50  | 55  | 172 | 84  | 30  | 86  |
| Average Queue (ft)    | 24  | 27  | 84  | 47  | 6   | 42  |
| 95th Queue (ft)       | 49  | 49  | 141 | 72  | 24  | 66  |
| Link Distance (ft)    | 577 | 573 |     | 275 |     | 734 |
| Upstream Blk Time (%) |     |     |     |     |     |     |
| Queuing Penalty (veh) |     |     |     |     |     |     |
| Storage Bay Dist (ft) |     |     | 500 |     | 200 |     |
| Storage Blk Time (%)  |     |     |     |     |     |     |
| Queuing Penalty (veh) |     |     |     |     |     |     |

Intersection: 17: El Dorado Hills Blvd #2 & Saratoga Way/Park Drive

| Movement              | EB  | EB  | EB  | WB  | WB  | NB  | NB  | NB  | NB  | SB  | SB  | SB  |
|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Directions Served     | L   | LT  | R   | L   | TR  | L   | T   | T   | TR  | L   | T   | TR  |
| Maximum Queue (ft)    | 172 | 289 | 224 | 84  | 267 | 275 | 466 | 348 | 237 | 124 | 315 | 310 |
| Average Queue (ft)    | 86  | 127 | 108 | 28  | 116 | 233 | 202 | 133 | 118 | 91  | 173 | 176 |
| 95th Queue (ft)       | 157 | 221 | 191 | 71  | 222 | 312 | 459 | 272 | 200 | 151 | 287 | 289 |
| Link Distance (ft)    |     | 930 |     | 488 | 488 |     | 946 | 946 | 946 |     | 685 | 685 |
| Upstream Blk Time (%) |     |     |     |     |     |     |     |     |     |     |     |     |
| Queuing Penalty (veh) |     |     |     |     |     |     |     |     |     |     |     |     |
| Storage Bay Dist (ft) | 150 |     | 240 |     |     | 250 |     |     |     | 100 |     |     |
| Storage Blk Time (%)  | 1   | 5   | 0   |     |     | 20  | 1   |     |     | 15  | 18  |     |
| Queuing Penalty (veh) | 5   | 21  | 0   |     |     | 63  | 2   |     |     | 48  | 22  |     |

**Intersection: 18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way**

| Movement              | EB   | EB   | WB  | WB  | WB  | NB  | NB  | NB  | NB  | NB  | SB | SB  |
|-----------------------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|
| Directions Served     | L    | LT   | L   | LT  | TR  | L   | L   | T   | T   | TR  | L  | T   |
| Maximum Queue (ft)    | 148  | 168  | 132 | 152 | 184 | 433 | 443 | 236 | 223 | 252 | 91 | 195 |
| Average Queue (ft)    | 71   | 80   | 58  | 94  | 96  | 272 | 276 | 122 | 116 | 138 | 37 | 108 |
| 95th Queue (ft)       | 122  | 141  | 107 | 140 | 165 | 397 | 401 | 213 | 202 | 232 | 76 | 173 |
| Link Distance (ft)    | 1059 | 1059 |     | 621 | 621 | 714 | 714 | 714 | 714 | 714 |    | 946 |
| Upstream Blk Time (%) |      |      |     |     |     |     |     |     |     |     |    |     |
| Queuing Penalty (veh) |      |      |     |     |     |     |     |     |     |     |    |     |
| Storage Bay Dist (ft) | 150  |      |     |     |     | 200 |     |     |     |     |    |     |
| Storage Blk Time (%)  | 0    |      |     |     |     | 0   |     |     |     |     |    |     |
| Queuing Penalty (veh) | 0    |      |     |     |     | 0   |     |     |     |     |    |     |

**Intersection: 18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way**

| Movement              | SB  | SB  | SB  |
|-----------------------|-----|-----|-----|
| Directions Served     | T   | T   | R   |
| Maximum Queue (ft)    | 178 | 214 | 209 |
| Average Queue (ft)    | 92  | 109 | 99  |
| 95th Queue (ft)       | 152 | 170 | 183 |
| Link Distance (ft)    | 946 | 946 |     |
| Upstream Blk Time (%) |     |     |     |
| Queuing Penalty (veh) |     |     |     |
| Storage Bay Dist (ft) | 200 |     |     |
| Storage Blk Time (%)  | 0   | 1   |     |
| Queuing Penalty (veh) | 0   | 2   |     |

**Intersection: 19: Latrobe Road #2/El Dorado Hills Blvd #2 & US 50 EB Ramps**

| Movement              | EB   | EB  | NB  | NB  | NB  | NB  | SB  | SB  | SB  | SB  | SB  |  |
|-----------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Directions Served     | R    | R   | T   | T   | T   | R   | L   | T   | T   | T   | T   |  |
| Maximum Queue (ft)    | 139  | 142 | 165 | 251 | 291 | 177 | 264 | 171 | 155 | 145 | 154 |  |
| Average Queue (ft)    | 63   | 64  | 67  | 85  | 121 | 74  | 140 | 30  | 51  | 63  | 67  |  |
| 95th Queue (ft)       | 108  | 108 | 127 | 190 | 220 | 139 | 244 | 103 | 116 | 127 | 140 |  |
| Link Distance (ft)    | 1212 |     | 718 | 718 | 718 |     |     | 714 | 714 | 714 | 714 |  |
| Upstream Blk Time (%) |      |     |     |     |     |     |     |     |     |     |     |  |
| Queuing Penalty (veh) |      |     |     |     |     |     |     |     |     |     |     |  |
| Storage Bay Dist (ft) | 450  |     |     |     |     | 275 | 575 |     |     |     |     |  |
| Storage Blk Time (%)  |      |     |     |     |     | 0   |     |     |     |     |     |  |
| Queuing Penalty (veh) |      |     |     |     |     | 0   |     |     |     |     |     |  |

**Zone Summary**

Zone wide Queuing Penalty: 164

# HCS7 Two-Lane Highway Report

## Project Information

|                     |   |                      |                         |
|---------------------|---|----------------------|-------------------------|
| Analyst             | Kimley-Horn   | Date                 | 11/29/2021              |
| Agency              |   | Analysis Year        | 2021                    |
| Jurisdiction        | El Dorado County  | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Francisco Dr to El Dorado Hills Blvd EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2059 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 1.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 568  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.80 | Total Trucks, %                  | 1.70 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.33 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 56.7    |
| Speed Slope Coefficient           | 3.59431  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.38808 | PF Power Coefficient             | 0.73983 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 6.3     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2059       | -          | -                 | 54.1                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 54.1 | Percent Followers, %               | 59.9 |
| Segment Travel Time, minutes | 0.43 | Followers Density, followers/mi/ln | 6.3  |
| Vehicle LOS                  | C    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |   |                      |                         |
|---------------------|---|----------------------|-------------------------|
| Analyst             | Kimley-Horn   | Date                 | 11/29/2021              |
| Agency              |   | Analysis Year        | 2021                    |
| Jurisdiction        | El Dorado County  | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Francisco Dr to El Dorado Hills Blvd EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2059 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 1.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 936  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.97 | Total Trucks, %                  | 1.70 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.55 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 56.7    |
| Speed Slope Coefficient           | 3.59431  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.38808 | PF Power Coefficient             | 0.73983 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 12.9    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2059       | -          | -                 | 53.4                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 53.4 | Percent Followers, %               | 73.3 |
| Segment Travel Time, minutes | 0.44 | Followers Density, followers/mi/ln | 12.9 |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |   |                      |                         |
|---------------------|---|----------------------|-------------------------|
| Analyst             | Kimley-Horn   | Date                 | 11/29/2021              |
| Agency              |   | Analysis Year        | 2021                    |
| Jurisdiction        | El Dorado County  | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Francisco Dr to El Dorado Hills Blvd WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2059 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 1.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 908  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.88 | Total Trucks, %                  | 0.70 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.53 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 56.7    |
| Speed Slope Coefficient           | 3.59612  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.38793 | PF Power Coefficient             | 0.73977 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 12.3    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2059       | -          | -                 | 53.4                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 53.4 | Percent Followers, %               | 72.5 |
| Segment Travel Time, minutes | 0.44 | Followers Density, followers/mi/ln | 12.3 |
| Vehicle LOS                  | D    |                                    |      |



# HCS7 Two-Lane Highway Report

## Project Information

|                     |   |                      |                         |
|---------------------|---|----------------------|-------------------------|
| Analyst             | Kimley-Horn   | Date                 | 11/29/2021              |
| Agency              |   | Analysis Year        | 2021                    |
| Jurisdiction        | El Dorado County  | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Francisco Dr to El Dorado Hills Blvd WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2059 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 1.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 780  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.94 | Total Trucks, %                  | 0.70 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.46 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 56.7    |
| Speed Slope Coefficient           | 3.59612  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.38793 | PF Power Coefficient             | 0.73977 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 9.9     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2059       | -          | -                 | 53.7                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 53.7 | Percent Followers, %               | 68.5 |
| Segment Travel Time, minutes | 0.44 | Followers Density, followers/mi/ln | 9.9  |
| Vehicle LOS                  | C    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2021                    |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - El Dorado Hills Blvd to Silva Valley Pkwy EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |     |
|-------------------|---------------------|------------------------------|-----|
| Segment Type      | Passing Constrained | Length, ft                   | 905 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6   |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 0.0 |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 656  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.83 | Total Trucks, %                  | 0.90 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.39 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 57.0    |
| Speed Slope Coefficient           | 3.59650  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.42390 | PF Power Coefficient             | 0.72929 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 7.9     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 905        | -          | -                 | 54.2                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 54.2 | Percent Followers, %               | 64.9 |
| Segment Travel Time, minutes | 0.19 | Followers Density, followers/mi/ln | 7.9  |
| Vehicle LOS                  | C    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2021                    |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - El Dorado Hills Blvd to Silva Valley Pkwy EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |     |
|-------------------|---------------------|------------------------------|-----|
| Segment Type      | Passing Constrained | Length, ft                   | 905 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6   |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 0.0 |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 964  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.93 | Total Trucks, %                  | 0.90 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.57 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 57.0    |
| Speed Slope Coefficient           | 3.59650  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.42390 | PF Power Coefficient             | 0.72929 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 13.5    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 905        | -          | -                 | 53.6                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 53.6 | Percent Followers, %               | 75.0 |
| Segment Travel Time, minutes | 0.19 | Followers Density, followers/mi/ln | 13.5 |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2021                    |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - El Dorado Hills Blvd to Silva Valley Pkwy WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |     |
|-------------------|---------------------|------------------------------|-----|
| Segment Type      | Passing Constrained | Length, ft                   | 905 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6   |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 0.0 |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 892  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.92 | Total Trucks, %                  | 0.90 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.52 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 57.0    |
| Speed Slope Coefficient           | 3.59650  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.42390 | PF Power Coefficient             | 0.72929 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 12.1    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 905        | -          | -                 | 53.7                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 53.7 | Percent Followers, %               | 73.0 |
| Segment Travel Time, minutes | 0.19 | Followers Density, followers/mi/ln | 12.1 |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2021                    |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - El Dorado Hills Blvd to Silva Valley Pkwy WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |     |
|-------------------|---------------------|------------------------------|-----|
| Segment Type      | Passing Constrained | Length, ft                   | 905 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6   |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 0.0 |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 796  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.92 | Total Trucks, %                  | 0.90 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.47 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 57.0    |
| Speed Slope Coefficient           | 3.59650  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.42390 | PF Power Coefficient             | 0.72929 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 10.3    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 905        | -          | -                 | 53.9                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 53.9 | Percent Followers, %               | 70.0 |
| Segment Travel Time, minutes | 0.19 | Followers Density, followers/mi/ln | 10.3 |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2021                    |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Silva Valley Pkwy to Malcolm Dixon Rd EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 8765 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 444  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.82 | Total Trucks, %                  | 1.00 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.26 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.95929  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.27608 | PF Power Coefficient             | 0.75149 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 3.7     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 8765       | -          | -                 | 59.6                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.6 | Percent Followers, %               | 50.0 |
| Segment Travel Time, minutes | 1.67 | Followers Density, followers/mi/ln | 3.7  |
| Vehicle LOS                  | B    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2021                    |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Silva Valley Pkwy to Malcolm Dixon Rd EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 8765 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 752  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.92 | Total Trucks, %                  | 1.00 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.44 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.95929  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.27608 | PF Power Coefficient             | 0.75149 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 8.2     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 8765       | -          | -                 | 58.9                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 58.9 | Percent Followers, %               | 64.3 |
| Segment Travel Time, minutes | 1.69 | Followers Density, followers/mi/ln | 8.2  |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2021                    |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Silva Valley Pkwy to Malcolm Dixon Rd WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 8765 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 720  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.83 | Total Trucks, %                  | 1.20 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.42 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.95892  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.27611 | PF Power Coefficient             | 0.75150 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 7.7     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 8765       | -          | -                 | 58.9                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 58.9 | Percent Followers, %               | 63.1 |
| Segment Travel Time, minutes | 1.69 | Followers Density, followers/mi/ln | 7.7  |
| Vehicle LOS                  | C    |                                    |      |



# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2021                    |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Silva Valley Pkwy to Malcolm Dixon Rd WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 8765 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 456  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.90 | Total Trucks, %                  | 1.20 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.27 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.95892  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.27611 | PF Power Coefficient             | 0.75150 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 3.9     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 8765       | -          | -                 | 59.6                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.6 | Percent Followers, %               | 50.7 |
| Segment Travel Time, minutes | 1.67 | Followers Density, followers/mi/ln | 3.9  |
| Vehicle LOS                  | B    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2021                    |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Malcolm Dixon Rd to Project EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2304 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 380  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.90 | Total Trucks, %                  | 0.30 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.22 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.89594  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.33086 | PF Power Coefficient             | 0.75550 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 3.0     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2304       | -          | -                 | 59.9                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.9 | Percent Followers, %               | 47.3 |
| Segment Travel Time, minutes | 0.44 | Followers Density, followers/mi/ln | 3.0  |
| Vehicle LOS                  | B    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2021                    |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Malcolm Dixon Rd to Project EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2304 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 664  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.93 | Total Trucks, %                  | 0.30 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.39 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.89594  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.33086 | PF Power Coefficient             | 0.75550 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 7.0     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2304       | -          | -                 | 59.1                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.1 | Percent Followers, %               | 62.3 |
| Segment Travel Time, minutes | 0.44 | Followers Density, followers/mi/ln | 7.0  |
| Vehicle LOS                  | C    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2021                    |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Malcolm Dixon Rd to Project WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2304 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 680  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.94 | Total Trucks, %                  | 0.00 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.40 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.89648  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.33081 | PF Power Coefficient             | 0.75548 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 7.3     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2304       | -          | -                 | 59.1                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.1 | Percent Followers, %               | 63.0 |
| Segment Travel Time, minutes | 0.44 | Followers Density, followers/mi/ln | 7.3  |
| Vehicle LOS                  | C    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2021                    |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Malcolm Dixon Rd to Project WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2304 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 536  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.86 | Total Trucks, %                  | 0.00 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.32 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.89648  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.33081 | PF Power Coefficient             | 0.75548 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 5.1     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2304       | -          | -                 | 59.4                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.4 | Percent Followers, %               | 56.4 |
| Segment Travel Time, minutes | 0.44 | Followers Density, followers/mi/ln | 5.1  |
| Vehicle LOS                  | C    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2021                    |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Project to Deer Valley Rd EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 3152 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 380  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.86 | Total Trucks, %                  | 0.30 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.22 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.90747  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.30740 | PF Power Coefficient             | 0.76221 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 3.0     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 3152       | -          | -                 | 59.9                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.9 | Percent Followers, %               | 46.5 |
| Segment Travel Time, minutes | 0.60 | Followers Density, followers/mi/ln | 3.0  |
| Vehicle LOS                  | B    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2021                    |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Project to Deer Valley Rd EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 3152 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 740  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.84 | Total Trucks, %                  | 0.30 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.44 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.90747  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.30740 | PF Power Coefficient             | 0.76221 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 8.1     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 3152       | -          | -                 | 58.9                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 58.9 | Percent Followers, %               | 64.6 |
| Segment Travel Time, minutes | 0.61 | Followers Density, followers/mi/ln | 8.1  |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2021                    |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Project to Deer Valley Rd WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 3152 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 664  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.95 | Total Trucks, %                  | 0.00 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.39 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.90802  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.30735 | PF Power Coefficient             | 0.76219 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 6.9     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 3152       | -          | -                 | 59.1                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.1 | Percent Followers, %               | 61.6 |
| Segment Travel Time, minutes | 0.61 | Followers Density, followers/mi/ln | 6.9  |
| Vehicle LOS                  | C    |                                    |      |



# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2021                    |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Project to Deer Valley Rd WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 3152 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 520  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.88 | Total Trucks, %                  | 0.00 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.31 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.90802  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.30735 | PF Power Coefficient             | 0.76219 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 4.8     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 3152       | -          | -                 | 59.5                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.5 | Percent Followers, %               | 54.8 |
| Segment Travel Time, minutes | 0.60 | Followers Density, followers/mi/ln | 4.8  |
| Vehicle LOS                  | C    |                                    |      |

| Segment Inputs   |   |                        |                               | Existing (2021) Conditions |         |                             |               |             |                 |         |                             |               |             |                 |     |         |         |         |
|--|---|------------------------|-------------------------------|----------------------------|---------|-----------------------------|---------------|-------------|-----------------|---------|-----------------------------|---------------|-------------|-----------------|-----|---------|---------|---------|
|  |   |                        |                               | Flow Inputs                |         | AM LOS Performance Measures |               |             |                 |         | PM LOS Performance Measures |               |             |                 |     |         |         |         |
|  | Length<br>(ft)  | Number of Lanes<br>(N) | Interchange Density<br>(I/mi) | AM Peak                    | PM Peak | V <sub>p</sub><br>(pc/h/ln) | FFS<br>(mi/h) | S<br>(mi/h) | D<br>(pc/mi/ln) | LOS     | V <sub>p</sub><br>(pc/h/ln) | FFS<br>(mi/h) | S<br>(mi/h) | D<br>(pc/mi/ln) | LOS |         |         |         |
|  |   |                        |                               | (veh/h)                    | (veh/h) |                             |               |             |                 |         |                             |               |             |                 |     | (veh/h) | (veh/h) | (veh/h) |
| EB   | West of Latrobe Rd SB Off Ramp                                      | 6690                   | 3                             | 0.33                       | 4,346   | 4,346                       | 1590.38       | 74.12       | 75              | 71.1415 | 22.3552                     | C             | 1590.384    | 74.12           | 75  | 71.1415 | 22.4    | C       |
|  | Latrobe Rd NB Off Ramp to Latrobe Rd On Ramp                        | 1990                   | 3                             | 0.50                       | 3,143   | 3,137                       | 1150.16       | 73.6        | 75              | 74.7504 | 15.3866                     | B             | 1147.96     | 73.6            | 75  | 74.7577 | 15.3558 | B       |
|  | Silva Valley Pkwy SB/NB Off Ramp to Silva Valley Pkwy NB/SB On Ramp | 2375                   | 3                             | 0.50                       | 3,147   | 3,428                       | 1151.62       | 73.6        | 75              | 74.7455 | 15.4072                     | B             | 1254.449    | 73.6            | 75  | 74.2833 | 16.8874 | B       |
|  | East of Silva Valley Pkwy NB/SB On Ramp                             | 3400                   | 3                             | 0.50                       | 3,541   | 3,859                       | 1295.8        | 73.6        | 75              | 74.0314 | 17.5034                     | B             | 1412.17     | 73.6            | 75  | 73.1194 | 19.3132 | C       |
|  | East of El Dorado Hills Blvd/Latrobe Road                           | 2000                   | 3                             | 0.50                       | 3,574   | 3,795                       | 1307.88       | 73.6        | 75              | 73.9507 | 17.6858                     | B             | 1388.75     | 73.6            | 75  | 73.327  | 18.9391 | C       |
| WB   | Silva Valley Pkwy NB/SB Off Ramp to Silva Valley Pkwy SB/NB On Ramp | 2350                   | 2                             | 0.50                       | 2,731   | 2,851                       | 1499.08       | 73.6        | 75              | 72.2427 | 20.7506                     | C             | 1564.951    | 73.6            | 75  | 71.4668 | 21.8976 | C       |
|  | El Dorado Hills Blvd Off Ramp to El Dorado Hills Blvd On Ramp       | 3565                   | 2                             | 0.50                       | 2,656   | 2,828                       | 1457.91       | 73.6        | 75              | 72.6788 | 20.0597                     | C             | 1552.326    | 73.6            | 75  | 71.6229 | 21.6736 | C       |
|  | West of El Dorado Hills Blvd On Ramp                                | 5890                   | 2                             | 0.33                       | 3,612   | 4,014                       | 1,983         | 74.12       | 75              | 64.3103 | 30.8298                     | D             | 2203.337    | 74.12           | 75  | 58.9704 | 37.3634 | E       |
|  | East of El Dorado Hills Blvd/Latrobe Road                           | 2000                   | 2                             | 0.50                       | 3,284   | 3,164                       | 1,803         | 73.6        | 75              | 67.8685 | 26.5606                     | D             | 1736.761    | 73.6            | 75  | 68.991  | 25.1737 | C       |
|  | East of Silva Valley Pkwy NB/SB On Ramp                             | 5500                   | 2                             | 0.33                       | 3,290   | 3,290                       | 1805.92       | 74.13       | 75              | 67.8099 | 26.6322                     | D             | 1805.924    | 74.13           | 75  | 67.8099 | 26.6322 | D       |
| Universal Inputs:<br>PHF 0.92<br>(P <sub>s</sub> ) 2%<br>f <sub>w</sub> 0.99009901 |   |                        |                               |                            |         |                             |               |             |                 |         |                             |               |             |                 |     |         |         |         |

| Segment Inputs |                 |                      | Existing (2021) Conditions                    |                       |                     |                             |                |                |                |                   |          |                |                |        |        |        |                       |                     |                 |                             |                |                |                   |          |                |                |        |        |        |        |        |        |        |        |   |
|----------------|-----------------|----------------------|---|-----------------------|---------------------|-----------------------------|----------------|----------------|----------------|-------------------|----------|----------------|----------------|--------|--------|--------|-----------------------|---------------------|-----------------|-----------------------------|----------------|----------------|-------------------|----------|----------------|----------------|--------|--------|--------|--------|--------|--------|--------|--------|---|
|                |                 |                      | AM Flow Inputs                                |                       |                     | AM LOS Performance Measures |                |                |                |                   |          |                |                |        |        |        | PM Flow Inputs        |                     |                 | PM LOS Performance Measures |                |                |                   |          |                |                |        |        |        |        |        |        |        |        |   |
| ID             | Number of Lanes | Number of Ramp Lanes | Length of Acceleration Lane (L <sub>a</sub> ) | Downstream Volume (D) | Upstream Volume (F) | Ramp Volume (R)             | v <sub>0</sub> | v <sub>1</sub> | v <sub>2</sub> | w/S <sub>FR</sub> | Capacity | v <sub>1</sub> | v <sub>2</sub> | v/c    | D      | LOS    | Downstream Volume (D) | Upstream Volume (F) | Ramp Volume (R) | v <sub>0</sub>              | v <sub>1</sub> | v <sub>2</sub> | w/S <sub>FR</sub> | Capacity | v <sub>1</sub> | v <sub>2</sub> | v/c    | D      | LOS    |        |        |        |        |        |   |
|                |                 |                      |   | (veh/h)               | (veh/h)             | (veh/h)                     | (mi/h)         | (mi/h)         | (mi/h)         | (mi/h)            | (mi/h)   | (mi/h)         | (mi/h)         | (mi/h) | (mi/h) | (mi/h) | (mi/h)                | (mi/h)              | (mi/h)          | (veh/h)                     | (veh/h)        | (veh/h)        | (mi/h)            | (mi/h)   | (mi/h)         | (mi/h)         | (mi/h) | (mi/h) | (mi/h) | (mi/h) | (mi/h) | (mi/h) |        |        |   |
|                | (ft)            | (ft)                 |   |                       |                     |                             |                |                |                |                   |          |                |                |        |        |        |                       |                     |                 |                             |                |                |                   |          |                |                |        |        |        |        |        |        |        |        |   |
| 10             | 3               | 1                    | 110   | 3574                  | 3143                | 431                         | 3924           | 3450           | 473            | 99                | 0.5806   | 2003.3         | 7200           | 724    | 1502   | 2003   | 0.5449                | 23.884              | C               | 3795                        | 3137           | 658            | 4166              | 3444     | 722            | 98             | 0.5806 | 1999.4 | 7200   | 722    | 1500   | 1999   | 0.5786 | 25.683 | C |
| 11             | 3               | 1                    | 550   | 3541                  | 3147                | 394                         | 3887           | 3455           | 433            | 99                | 0.5929   | 2048.4         | 7200           | 703    | 1536   | 2048   | 0.5399                | 21.179              | C               | 3859                        | 3428           | 431            | 4237              | 3763     | 473            | 108            | 0.5929 | 2231.3 | 7200   | 766    | 1673   | 2231   | 0.5884 | 22.904 | C |
| 12             | 2               | 1                    | 795   | 3612                  | 2656                | 956                         | 3965           | 2916           | 1050           | 83                | 1        | 2915.8         | 4800           | 0      | 2187   | 2916   | 0.8261                | 30.937              | D               | 4014                        | 2828           | 1186           | 4407              | 3105     | 1302           | 89             | 1      | 3104.7 | 4800   | 0      | 2328   | 3105   | 0.9181 | 34.263 | D |
| 13             | 2               | 1                    | 800   | 3284                  | 2731                | 553                         | 3605           | 2998           | 607            | 86                | 1        | 2998.2         | 4800           | 0      | 2249   | 2998   | 0.7511                | 28.301              | D               | 3164                        | 2851           | 313            | 3474              | 3130     | 344            | 89             | 1      | 3129.9 | 4800   | 0      | 2347   | 3130   | 0.7237 | 27.394 | C |

General Inputs  
 Length: 1500 (ft)  
 S<sub>0</sub>: 70 (mi/h)  
 S<sub>1</sub>: 35 (mi/h)  
 PAF: 0.82  
 P<sub>0</sub>: 2%  
 S<sub>0</sub>: 0.9909901

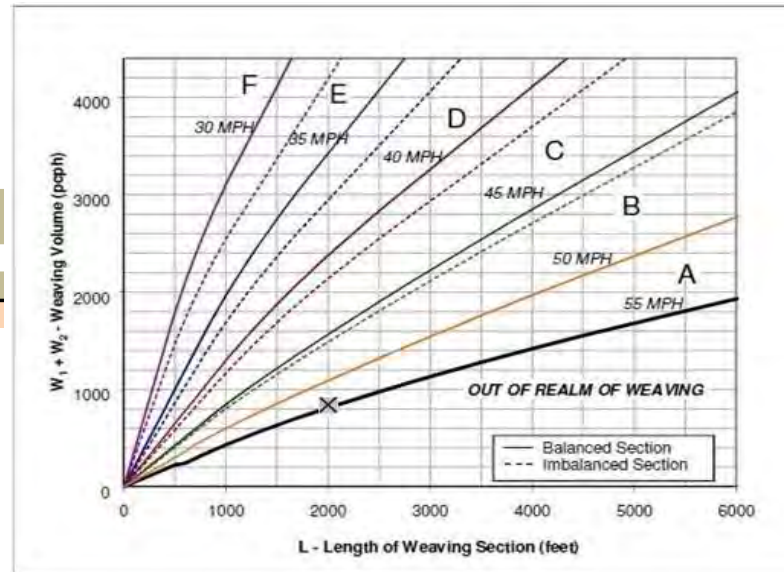


### EB US-50, East of Latrobe Rd On Ramp, Existing Conditons (AM)

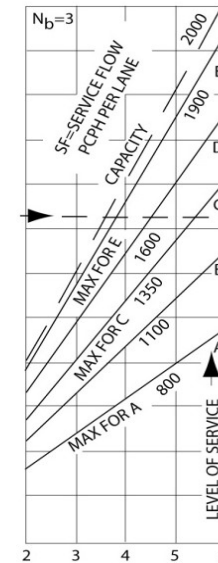
|                                    |    |      |
|------------------------------------|----|------|
| Number of Entering Mainline Lanes  | Nb | 3    |
| Number of Lanes in Weaving Section | N  | 4    |
| Length of Weaving Section (feet)   | L  | 2000 |

| Total Weaving Section (V) |       | On ramp to Mainline (W1) |     | Mainline to Off ramp (W2) |     |
|---------------------------|-------|--------------------------|-----|---------------------------|-----|
| Volume (vph)              | 3,574 | Volume (vph)             | 431 | Volume (vph)              | 427 |
| Truck Percentage          | 6%    | Truck Percentage         | 2%  | Truck Percentage          | 2%  |
| PCE for Trucks            | 1.5   | PCE for Trucks           | 1.5 | PCE for Trucks            | 1.5 |
| Volume (pcph)             | 3,681 | Volume (pcph)            | 435 | Volume (pcph)             | 431 |

|   |      |
|---|------|
| W1 + W2                                   | 867  |
| In between                                |      |
| Speed 1                                   | 45   |
| Speed 2                                   | 50   |
| Interpolated Weaving Speed (Sw, mph)      | 49.0 |
| Weaving Intensity Factor (k)              | 1.00 |
| Service Volume ((SV, pcph)                |      |
| $SV = (1/N) * [V + (k-1) * \min(W1, W2)]$ | 920  |
| Level of Service (LOS)                    | B    |



Nb=NUMBER OF BASIC LANES ON APPROACH  
SEE CHART FOR DEFINITION OF OTHER TERMS

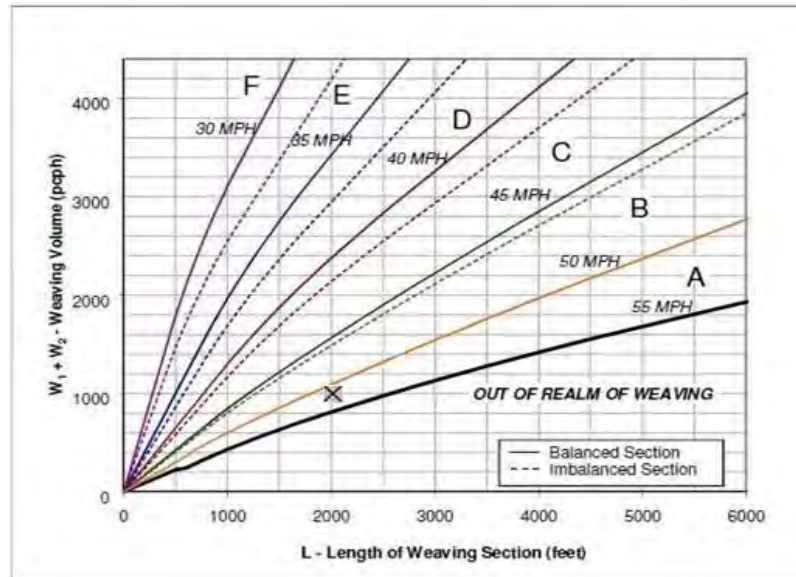


### EB US-50, East of Latrobe Rd On Ramp, Existing Conditons (PM)

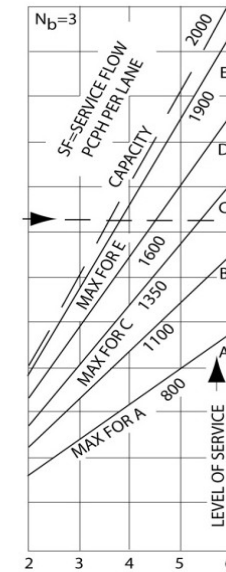
|                                    |    |      |
|------------------------------------|----|------|
| Number of Entering Mainline Lanes  | Nb | 3    |
| Number of Lanes in Weaving Section | N  | 4    |
| Length of Weaving Section (feet)   | L  | 2000 |

| Total Weaving Section (V) |       | On ramp to Mainline (W1) |     | Mainline to Off ramp (W2) |     |
|---------------------------|-------|--------------------------|-----|---------------------------|-----|
| Volume (vph)              | 3,795 | Volume (vph)             | 658 | Volume (vph)              | 367 |
| Truck Percentage          | 6%    | Truck Percentage         | 2%  | Truck Percentage          | 2%  |
| PCE for Trucks            | 1.5   | PCE for Trucks           | 1.5 | PCE for Trucks            | 1.5 |
| Volume (pcph)             | 3,909 | Volume (pcph)            | 665 | Volume (pcph)             | 371 |

|   |       |
|---|-------|
| W1 + W2                                   | 1,035 |
| In between                                |       |
| Speed 1                                   | 45    |
| Speed 2                                   | 50    |
| Interpolated Weaving Speed (Sw, mph)      | 49.5  |
| Weaving Intensity Factor (k)              | 1.60  |
| Service Volume ((SV, pcph)                |       |
| $SV = (1/N) * [V + (k-1) * \min(W1, W2)]$ | 1,033 |
| Level of Service (LOS)                    | B     |



Nb=NUMBER OF BASIC LANES ON APPROACH  
SEE CHART FOR DEFINITION OF OTHER TERMS

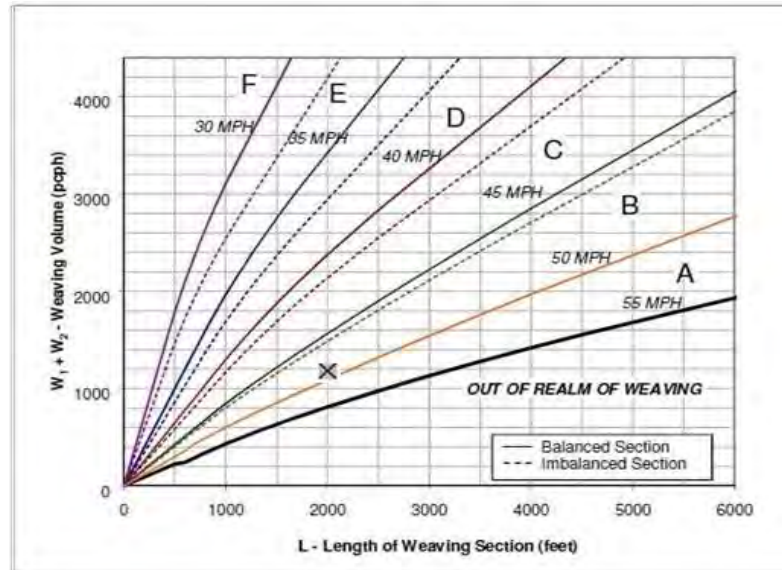


### WB US-50, East of El Dorado Hills Blvd Off Ramp, Existing Conditons (AM)

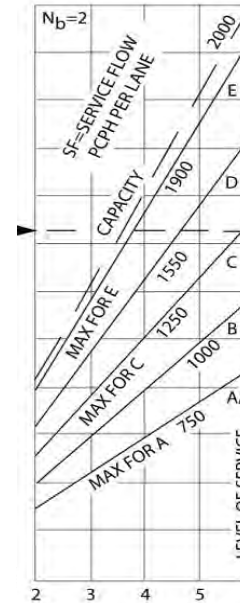
|                                    |    |      |
|------------------------------------|----|------|
| Number of Entering Mainline Lanes  | Nb | 2    |
| Number of Lanes in Weaving Section | N  | 3    |
| Length of Weaving Section (feet)   | L  | 2000 |

| Total Weaving Section (V) |       | On ramp to Mainline (W1) |     | Mainline to Off ramp (W2) |     |
|---------------------------|-------|--------------------------|-----|---------------------------|-----|
| Volume (vph)              | 3,284 | Volume (vph)             | 553 | Volume (vph)              | 628 |
| Truck Percentage          | 6%    | Truck Percentage         | 2%  | Truck Percentage          | 2%  |
| PCE for Trucks            | 1.5   | PCE for Trucks           | 1.5 | PCE for Trucks            | 1.5 |
| Volume (pcph)             | 3,383 | Volume (pcph)            | 559 | Volume (pcph)             | 634 |

|   |       |
|---|-------|
| W1 + W2                                   | 1,193 |
| In between                                |       |
| Speed 1                                   | 50    |
| Speed 2                                   | 55    |
| Interpolated Weaving Speed (Sw, mph)      | 52.8  |
| Weaving Intensity Factor (k)              | 1.00  |
| Service Volume ((SV, pcph)                |       |
| $SV = (1/N) * [V + (k-1) * \min(W1, W2)]$ | 1,128 |
| Level of Service (LOS)                    | C     |



Nb=NUMBER OF BASIC LANES ON APPROACH  
SEE CHART FOR DEFINITION OF OTHER TERMS



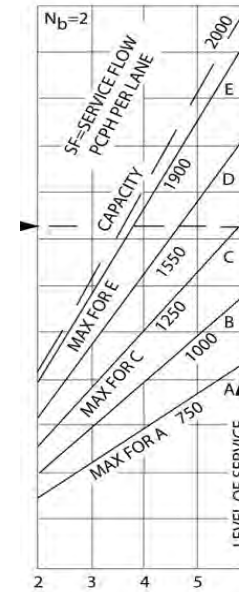
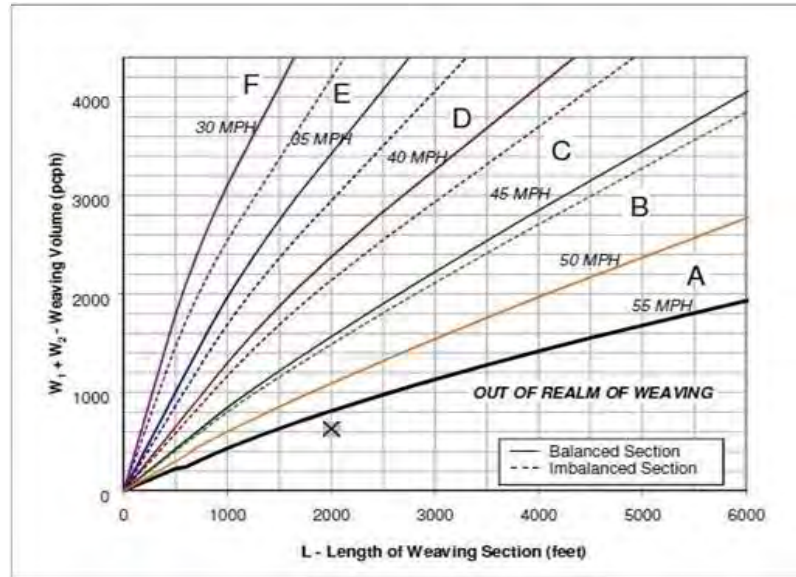
### WB US-50, East of El Dorado Hills Blvd Off Ramp, Existing Conditons (PM)

|                                    |                |      |
|------------------------------------|----------------|------|
| Number of Entering Mainline Lanes  | N <sub>b</sub> | 2    |
| Number of Lanes in Weaving Section | N              | 3    |
| Length of Weaving Section (feet)   | L              | 2000 |

N<sub>b</sub>=NUMBER OF BASIC LANES ON APPROACH  
SEE CHART FOR DEFINITION OF OTHER TERMS

| Total Weaving Section (V) |       | On ramp to Mainline (W1) |     | Mainline to Off ramp (W2) |     |
|---------------------------|-------|--------------------------|-----|---------------------------|-----|
| Volume (vph)              | 3,164 | Volume (vph)             | 313 | Volume (vph)              | 336 |
| Truck Percentage          | 6%    | Truck Percentage         | 2%  | Truck Percentage          | 2%  |
| PCE for Trucks            | 1.5   | PCE for Trucks           | 1.5 | PCE for Trucks            | 1.5 |
| Volume (pcph)             | 3,259 | Volume (pcph)            | 316 | Volume (pcph)             | 339 |

|   |       |
|---|-------|
| W1 + W2   | 655   |
| In between  |       |
| Speed 1   | 50    |
| Speed 2   | 55    |
| Interpolated Weaving Speed (S <sub>w</sub> , mph) | 55.4  |
| Weaving Intensity Factor (k)                      | 1.00  |
| Service Volume ((SV, pcph)                        |       |
| $SV = (1/N) * [V + (k-1) * \min(W1, W2)]$         | 1,086 |
| Level of Service (LOS)                            |       |
| <b>OUT OF REALM</b>                               |       |



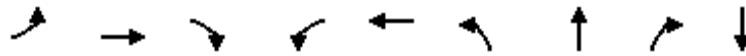


## Appendix C

*Analysis Worksheets for  
Existing (2021) plus Proposed Project Conditions*

Generations at Green Valley  
 1: Sophia Pkwy/Access Rd & Green Valley Rd

Plus Project  
 Timing Plan: AM



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | NBR  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 2    | 718  | 84   | 192  | 1133 | 165  | 1    | 75   | 9    |
| v/c Ratio               | 0.01 | 0.43 | 0.11 | 0.66 | 0.69 | 0.33 | 0.00 | 0.12 | 0.02 |
| Control Delay           | 7.0  | 9.1  | 2.6  | 24.4 | 12.1 | 13.0 | 9.0  | 3.9  | 2.5  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 7.0  | 9.1  | 2.6  | 24.4 | 12.1 | 13.0 | 9.0  | 3.9  | 2.5  |
| Queue Length 50th (ft)  | 0    | 59   | 0    | 35   | 109  | 30   | 0    | 0    | 0    |
| Queue Length 95th (ft)  | 3    | 89   | 15   | #120 | 164  | 60   | 2    | 16   | 2    |
| Internal Link Dist (ft) |      | 1813 |      |      | 7016 |      | 1499 |      | 376  |
| Turn Bay Length (ft)    | 248  |      | 224  | 314  |      | 204  |      | 204  |      |
| Base Capacity (vph)     | 165  | 1651 | 783  | 292  | 1651 | 498  | 662  | 611  | 596  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.01 | 0.43 | 0.11 | 0.66 | 0.69 | 0.33 | 0.00 | 0.12 | 0.02 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
1: Sophia Pkwy/Access Rd & Green Valley Rd

Plus Project  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 2    | 632  | 74   | 173  | 1013 | 6    | 137  | 1    | 62   | 4    | 0    | 2    |
| Future Volume (veh/h)        | 2    | 632  | 74   | 173  | 1013 | 6    | 137  | 1    | 62   | 4    | 0    | 2    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 2    | 718  | 84   | 192  | 1126 | 7    | 165  | 1    | 75   | 6    | 0    | 3    |
| Peak Hour Factor             | 0.88 | 0.88 | 0.88 | 0.90 | 0.90 | 0.90 | 0.83 | 0.83 | 0.83 | 0.70 | 0.70 | 0.70 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 272  | 1658 | 740  | 385  | 1690 | 11   | 664  | 665  | 564  | 445  | 26   | 169  |
| Arrive On Green              | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.36 | 0.36 | 0.36 | 0.36 | 0.00 | 0.36 |
| Sat Flow, veh/h              | 497  | 3554 | 1585 | 678  | 3621 | 23   | 1414 | 1870 | 1585 | 875  | 74   | 474  |
| Grp Volume(v), veh/h         | 2    | 718  | 84   | 192  | 553  | 580  | 165  | 1    | 75   | 9    | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 497  | 1777 | 1585 | 678  | 1777 | 1866 | 1414 | 1870 | 1585 | 1423 | 0    | 0    |
| Q Serve(g_s), s              | 0.1  | 6.1  | 1.3  | 11.9 | 10.8 | 10.8 | 3.6  | 0.0  | 1.4  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 11.0 | 6.1  | 1.3  | 17.9 | 10.8 | 10.8 | 3.8  | 0.0  | 1.4  | 0.1  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 0.01 | 1.00 |      | 1.00 | 0.67 |      | 0.33 |
| Lane Grp Cap(c), veh/h       | 272  | 1658 | 740  | 385  | 829  | 871  | 664  | 665  | 564  | 639  | 0    | 0    |
| V/C Ratio(X)                 | 0.01 | 0.43 | 0.11 | 0.50 | 0.67 | 0.67 | 0.25 | 0.00 | 0.13 | 0.01 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 272  | 1658 | 740  | 385  | 829  | 871  | 664  | 665  | 564  | 639  | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 13.5 | 8.0  | 6.8  | 14.0 | 9.3  | 9.3  | 10.6 | 9.3  | 9.8  | 9.4  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 0.0  | 0.8  | 0.3  | 4.6  | 4.2  | 4.0  | 0.9  | 0.0  | 0.5  | 0.0  | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.0  | 1.5  | 0.3  | 1.7  | 3.3  | 3.4  | 1.0  | 0.0  | 0.4  | 0.1  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 13.6 | 8.8  | 7.1  | 18.6 | 13.5 | 13.3 | 11.4 | 9.4  | 10.3 | 9.4  | 0.0  | 0.0  |
| LnGrp LOS                    | B    | A    | A    | B    | B    | B    | B    | A    | B    | A    | A    | A    |
| Approach Vol, veh/h          |      | 804  |      |      | 1325 |      |      | 241  |      |      |      | 9    |
| Approach Delay, s/veh        |      | 8.7  |      |      | 14.2 |      |      | 11.1 |      |      |      | 9.4  |
| Approach LOS                 |      | A    |      |      | B    |      |      | B    |      |      |      | A    |
| Timer - Assigned Phs         |      | 2    |      | 4    |      | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 20.0 |      | 25.0 |      | 20.0 |      | 25.0 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  |      | 4.0  |      | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 16.0 |      | 21.0 |      | 16.0 |      | 21.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 5.8  |      | 13.0 |      | 2.1  |      | 19.9 |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.5  |      | 2.9  |      | 0.0  |      | 0.8  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      | 12.0 |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      |      | B    |      |      |      |      |      |      |      |      |

Generations at Green Valley  
 2: Green Valley Rd/Green Valley Road & Francisco Rd.

Plus Project  
 Timing Plan: AM



| Lane Group              | EBL   | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | SBL  | SBT  | SBR  |
|-------------------------|-------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 246   | 422  | 235  | 65   | 764  | 121  | 317  | 360  | 123  | 444  | 351  |
| v/c Ratio               | 1.03  | 0.37 | 0.35 | 0.53 | 0.74 | 0.22 | 0.95 | 0.34 | 0.84 | 0.83 | 0.60 |
| Control Delay           | 106.6 | 21.3 | 4.7  | 53.3 | 28.5 | 4.7  | 76.2 | 21.0 | 80.4 | 39.5 | 15.8 |
| Queue Delay             | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 106.6 | 21.3 | 4.7  | 53.3 | 28.5 | 4.7  | 76.2 | 21.0 | 80.4 | 39.5 | 15.8 |
| Queue Length 50th (ft)  | ~71   | 84   | 0    | 31   | 172  | 0    | -81  | 67   | 60   | 192  | 63   |
| Queue Length 95th (ft)  | #126  | 108  | 33   | #86  | 229  | 30   | #130 | 87   | #139 | 270  | 121  |
| Internal Link Dist (ft) |       | 7016 |      |      | 1876 |      |      | 2744 |      | 705  |      |
| Turn Bay Length (ft)    | 290   |      | 210  | 200  |      | 450  | 200  |      | 183  |      |      |
| Base Capacity (vph)     | 238   | 1268 | 717  | 122  | 1268 | 650  | 333  | 1227 | 147  | 620  | 648  |
| Starvation Cap Reductn  | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 1.03  | 0.33 | 0.33 | 0.53 | 0.60 | 0.19 | 0.95 | 0.29 | 0.84 | 0.72 | 0.54 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
2: Green Valley Rd/Green Valley Road & Francisco Rd.

Plus Project  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          | ↖↗   | ↕    | ↖    | ↗    | ↕    | ↖    | ↖↗   | ↕    |      | ↖    | ↕    | ↖    |
| Traffic Volume (veh/h)       | 199  | 342  | 190  | 58   | 680  | 108  | 241  | 268  | 5    | 100  | 360  | 284  |
| Future Volume (veh/h)        | 199  | 342  | 190  | 58   | 680  | 108  | 241  | 268  | 5    | 100  | 360  | 284  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 246  | 422  | 235  | 65   | 764  | 121  | 317  | 353  | 7    | 123  | 444  | 351  |
| Peak Hour Factor             | 0.81 | 0.81 | 0.81 | 0.89 | 0.89 | 0.89 | 0.76 | 0.76 | 0.76 | 0.81 | 0.81 | 0.81 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 250  | 1084 | 483  | 83   | 991  | 442  | 350  | 1063 | 21   | 155  | 531  | 450  |
| Arrive On Green              | 0.07 | 0.30 | 0.30 | 0.05 | 0.28 | 0.28 | 0.10 | 0.30 | 0.30 | 0.09 | 0.28 | 0.28 |
| Sat Flow, veh/h              | 3456 | 3554 | 1585 | 1781 | 3554 | 1585 | 3456 | 3564 | 71   | 1781 | 1870 | 1585 |
| Grp Volume(v), veh/h         | 246  | 422  | 235  | 65   | 764  | 121  | 317  | 176  | 184  | 123  | 444  | 351  |
| Grp Sat Flow(s),veh/h/ln     | 1728 | 1777 | 1585 | 1781 | 1777 | 1585 | 1728 | 1777 | 1858 | 1781 | 1870 | 1585 |
| Q Serve(g_s), s              | 4.9  | 6.5  | 8.4  | 2.5  | 13.6 | 4.1  | 6.3  | 5.3  | 5.3  | 4.7  | 15.4 | 14.1 |
| Cycle Q Clear(g_c), s        | 4.9  | 6.5  | 8.4  | 2.5  | 13.6 | 4.1  | 6.3  | 5.3  | 5.3  | 4.7  | 15.4 | 14.1 |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 0.04 | 1.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 250  | 1084 | 483  | 83   | 991  | 442  | 350  | 530  | 554  | 155  | 531  | 450  |
| V/C Ratio(X)                 | 0.98 | 0.39 | 0.49 | 0.79 | 0.77 | 0.27 | 0.90 | 0.33 | 0.33 | 0.79 | 0.84 | 0.78 |
| Avail Cap(c_a), veh/h        | 250  | 1328 | 592  | 129  | 1328 | 592  | 350  | 643  | 673  | 155  | 650  | 551  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 32.0 | 18.9 | 19.6 | 32.6 | 22.9 | 19.4 | 30.7 | 18.9 | 18.9 | 30.9 | 23.2 | 22.8 |
| Incr Delay (d2), s/veh       | 52.0 | 0.2  | 0.8  | 15.3 | 2.0  | 0.3  | 25.9 | 0.4  | 0.3  | 24.2 | 7.9  | 5.8  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 3.7  | 2.3  | 2.9  | 1.3  | 5.2  | 1.4  | 3.7  | 2.0  | 2.1  | 2.9  | 7.2  | 5.4  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 84.0 | 19.2 | 20.3 | 47.9 | 24.9 | 19.8 | 56.6 | 19.2 | 19.2 | 55.1 | 31.1 | 28.6 |
| LnGrp LOS                    | F    | B    | C    | D    | C    | B    | E    | B    | B    | E    | C    | C    |
| Approach Vol, veh/h          |      | 903  |      |      | 950  |      |      | 677  |      |      | 918  |      |
| Approach Delay, s/veh        |      | 37.1 |      |      | 25.8 |      |      | 36.7 |      |      | 33.4 |      |
| Approach LOS                 |      | D    |      |      | C    |      |      | D    |      |      | C    |      |
| Timer - Assigned Phs         | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 7.2  | 26.8 | 11.0 | 24.1 | 9.0  | 25.0 | 10.0 | 25.1 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 5.7  | 4.0  | 4.5  | 4.0  | 5.7  | 4.0  | 4.5  |      |      |      |      |
| Max Green Setting (Gmax), s  | 5.0  | 25.8 | 7.0  | 24.0 | 5.0  | 25.8 | 6.0  | 25.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 4.5  | 10.4 | 8.3  | 17.4 | 6.9  | 15.6 | 6.7  | 7.3  |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 2.8  | 0.0  | 2.2  | 0.0  | 3.6  | 0.0  | 1.7  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 32.9 |      |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      | C    |      |      |      |      |      |      |      |      |      |

Generations at Green Valley  
 3: El Dorado Hills Blvd./Salmon Falls Rd & Green Valley Road

Plus Project  
 Timing Plan: AM



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 36   | 417  | 134  | 822  | 57   | 219  | 165  | 304  | 156  |
| v/c Ratio               | 0.57 | 0.73 | 0.75 | 1.10 | 0.19 | 0.69 | 0.44 | 0.76 | 0.34 |
| Control Delay           | 81.2 | 38.2 | 68.7 | 91.7 | 36.0 | 45.2 | 36.6 | 48.7 | 8.1  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 81.2 | 38.2 | 68.7 | 91.7 | 36.0 | 45.2 | 36.6 | 48.7 | 8.1  |
| Queue Length 50th (ft)  | 23   | 232  | 84   | ~630 | 31   | 117  | 90   | 179  | 2    |
| Queue Length 95th (ft)  | #76  | 349  | #176 | #845 | 51   | 142  | 117  | 206  | 23   |
| Internal Link Dist (ft) |      | 1876 |      | 819  |      | 2981 |      | 502  |      |
| Turn Bay Length (ft)    | 85   |      | 105  |      | 165  |      |      |      | 100  |
| Base Capacity (vph)     | 63   | 623  | 187  | 750  | 358  | 375  | 428  | 450  | 498  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.57 | 0.67 | 0.72 | 1.10 | 0.16 | 0.58 | 0.39 | 0.68 | 0.31 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
3: El Dorado Hills Blvd./Salmon Falls Rd & Green Valley Road

Plus Project  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 35   | 388  | 12   | 118  | 675  | 48   | 40   | 102  | 51   | 117  | 216  | 111  |
| Future Volume (veh/h)        | 35   | 388  | 12   | 118  | 675  | 48   | 40   | 102  | 51   | 117  | 216  | 111  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 36   | 404  | 12   | 134  | 767  | 55   | 57   | 146  | 73   | 165  | 304  | 156  |
| Peak Hour Factor             | 0.96 | 0.96 | 0.96 | 0.88 | 0.88 | 0.88 | 0.70 | 0.70 | 0.70 | 0.71 | 0.71 | 0.71 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 45   | 619  | 18   | 165  | 708  | 51   | 272  | 179  | 90   | 360  | 378  | 320  |
| Arrive On Green              | 0.03 | 0.34 | 0.34 | 0.09 | 0.41 | 0.41 | 0.15 | 0.15 | 0.15 | 0.20 | 0.20 | 0.20 |
| Sat Flow, veh/h              | 1781 | 1807 | 54   | 1781 | 1724 | 124  | 1781 | 1176 | 588  | 1781 | 1870 | 1585 |
| Grp Volume(v), veh/h         | 36   | 0    | 416  | 134  | 0    | 822  | 57   | 0    | 219  | 165  | 304  | 156  |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1861 | 1781 | 0    | 1848 | 1781 | 0    | 1764 | 1781 | 1870 | 1585 |
| Q Serve(g_s), s              | 1.8  | 0.0  | 17.1 | 6.7  | 0.0  | 37.1 | 2.5  | 0.0  | 10.9 | 7.4  | 14.0 | 7.9  |
| Cycle Q Clear(g_c), s        | 1.8  | 0.0  | 17.1 | 6.7  | 0.0  | 37.1 | 2.5  | 0.0  | 10.9 | 7.4  | 14.0 | 7.9  |
| Prop In Lane                 | 1.00 |      | 0.03 | 1.00 |      | 0.07 | 1.00 |      | 0.33 | 1.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 45   | 0    | 638  | 165  | 0    | 758  | 272  | 0    | 269  | 360  | 378  | 320  |
| V/C Ratio(X)                 | 0.80 | 0.00 | 0.65 | 0.81 | 0.00 | 1.08 | 0.21 | 0.00 | 0.81 | 0.46 | 0.80 | 0.49 |
| Avail Cap(c_a), veh/h        | 65   | 0    | 638  | 191  | 0    | 758  | 364  | 0    | 361  | 435  | 457  | 387  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 43.9 | 0.0  | 25.2 | 40.2 | 0.0  | 26.7 | 33.5 | 0.0  | 37.1 | 31.7 | 34.4 | 31.9 |
| Incr Delay (d2), s/veh       | 30.7 | 0.0  | 3.3  | 19.0 | 0.0  | 57.8 | 0.7  | 0.0  | 12.8 | 1.6  | 10.2 | 2.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 1.1  | 0.0  | 7.4  | 3.6  | 0.0  | 26.4 | 1.1  | 0.0  | 5.4  | 3.1  | 7.0  | 0.2  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 74.5 | 0.0  | 28.4 | 59.2 | 0.0  | 84.5 | 34.2 | 0.0  | 49.9 | 33.3 | 44.6 | 33.9 |
| LnGrp LOS                    | E    | A    | C    | E    | A    | F    | C    | A    | D    | C    | D    | C    |
| Approach Vol, veh/h          |      | 452  |      |      | 956  |      |      | 276  |      |      | 625  |      |
| Approach Delay, s/veh        |      | 32.1 |      |      | 80.9 |      |      | 46.6 |      |      | 38.9 |      |
| Approach LOS                 |      | C    |      |      | F    |      |      | D    |      |      | D    |      |
| Timer - Assigned Phs         | 1    | 2    |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 11.9 | 37.0 |      | 23.8 | 5.8  | 43.1 |      | 17.8 |      |      |      |      |
| Change Period (Y+Rc), s      | 3.5  | 6.0  |      | 5.5  | 3.5  | 6.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 9.7  | 30.7 |      | 22.1 | 3.3  | 37.1 |      | 18.5 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 8.7  | 19.1 |      | 16.0 | 3.8  | 39.1 |      | 12.9 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 3.1  |      | 2.3  | 0.0  | 0.0  |      | 0.9  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 55.9 |      |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      | E    |      |      |      |      |      |      |      |      |      |

Generations at Green Valley  
 4: Silva Valley Pkwy./Allegheny Rd & Green Valley Road/Green Valley Rd.

Plus Project  
 Timing Plan: AM



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 5    | 396  | 236  | 178  | 789  | 259  | 108  | 43   |
| v/c Ratio               | 0.05 | 0.66 | 0.35 | 0.71 | 0.84 | 0.69 | 0.26 | 0.23 |
| Control Delay           | 34.8 | 26.4 | 4.6  | 48.7 | 27.2 | 36.9 | 13.4 | 32.8 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 34.8 | 26.4 | 4.6  | 48.7 | 27.2 | 36.9 | 13.4 | 32.8 |
| Queue Length 50th (ft)  | 2    | 151  | 0    | 76   | 288  | 103  | 13   | 17   |
| Queue Length 95th (ft)  | 13   | 252  | 46   | #164 | #539 | 167  | 44   | 37   |
| Internal Link Dist (ft) |      | 819  |      |      | 2255 |      | 4847 | 380  |
| Turn Bay Length (ft)    | 205  |      | 205  | 350  |      | 150  |      |      |
| Base Capacity (vph)     | 111  | 745  | 774  | 251  | 944  | 430  | 462  | 641  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.05 | 0.53 | 0.30 | 0.71 | 0.84 | 0.60 | 0.23 | 0.07 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.



Generations at Green Valley  
4: Silva Valley Pkwy./Allegheny Rd & Green Valley Road/Green Valley Rd.

Plus Project  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 5    | 360  | 215  | 144  | 623  | 16   | 205  | 30   | 55   | 4    | 25   | 1    |
| Future Volume (veh/h)        | 5    | 360  | 215  | 144  | 623  | 16   | 205  | 30   | 55   | 4    | 25   | 1    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 5    | 396  | 236  | 178  | 769  | 20   | 259  | 38   | 70   | 6    | 36   | 1    |
| Peak Hour Factor             | 0.91 | 0.91 | 0.91 | 0.81 | 0.81 | 0.81 | 0.79 | 0.79 | 0.79 | 0.70 | 0.70 | 0.70 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 109  | 724  | 614  | 219  | 815  | 21   | 315  | 104  | 192  | 9    | 51   | 1    |
| Arrive On Green              | 0.06 | 0.39 | 0.39 | 0.12 | 0.45 | 0.45 | 0.18 | 0.18 | 0.18 | 0.03 | 0.03 | 0.03 |
| Sat Flow, veh/h              | 1781 | 1870 | 1585 | 1781 | 1815 | 47   | 1781 | 589  | 1086 | 258  | 1549 | 43   |
| Grp Volume(v), veh/h         | 5    | 396  | 236  | 178  | 0    | 789  | 259  | 0    | 108  | 43   | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1870 | 1585 | 1781 | 0    | 1862 | 1781 | 0    | 1675 | 1850 | 0    | 0    |
| Q Serve(g_s), s              | 0.2  | 10.8 | 7.0  | 6.4  | 0.0  | 26.5 | 9.2  | 0.0  | 3.7  | 1.5  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 0.2  | 10.8 | 7.0  | 6.4  | 0.0  | 26.5 | 9.2  | 0.0  | 3.7  | 1.5  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 0.03 | 1.00 |      | 0.65 | 0.14 |      | 0.02 |
| Lane Grp Cap(c), veh/h       | 109  | 724  | 614  | 219  | 0    | 836  | 315  | 0    | 296  | 61   | 0    | 0    |
| V/C Ratio(X)                 | 0.05 | 0.55 | 0.38 | 0.81 | 0.00 | 0.94 | 0.82 | 0.00 | 0.36 | 0.70 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 109  | 724  | 614  | 245  | 0    | 862  | 419  | 0    | 394  | 622  | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 28.9 | 15.6 | 14.4 | 27.9 | 0.0  | 17.2 | 25.9 | 0.0  | 23.7 | 31.3 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 0.1  | 0.9  | 0.4  | 16.0 | 0.0  | 18.2 | 8.5  | 0.0  | 0.6  | 10.3 | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.1  | 3.9  | 2.1  | 3.4  | 0.0  | 12.7 | 4.2  | 0.0  | 1.4  | 0.8  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 29.1 | 16.5 | 14.8 | 44.0 | 0.0  | 35.4 | 34.5 | 0.0  | 24.3 | 41.6 | 0.0  | 0.0  |
| LnGrp LOS                    | C    | B    | B    | D    | A    | D    | C    | A    | C    | D    | A    | A    |
| Approach Vol, veh/h          |      | 637  |      |      | 967  |      |      | 367  |      |      |      | 43   |
| Approach Delay, s/veh        |      | 16.0 |      |      | 37.0 |      |      | 31.5 |      |      |      | 41.6 |
| Approach LOS                 |      | B    |      |      | D    |      |      | C    |      |      |      | D    |
| Timer - Assigned Phs         | 1    | 2    |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 8.0  | 35.1 |      | 6.2  | 12.1 | 31.0 |      | 16.2 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 5.7  |      | 4.0  | 4.0  | 5.7  |      | 4.6  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0  | 30.3 |      | 22.0 | 9.0  | 25.3 |      | 15.4 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 2.2  | 28.5 |      | 3.5  | 8.4  | 12.8 |      | 11.2 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 0.9  |      | 0.1  | 0.0  | 2.4  |      | 0.4  |      |      |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 29.4 |
| HCM 6th LOS        | C    |

**Intersection**

Int Delay, s/veh 0.9

| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      | ↕    |      |      | ↕    | ↕    |      |
| Traffic Vol, veh/h       | 391  | 25   | 9    | 755  | 23   | 8    |
| Future Vol, veh/h        | 391  | 25   | 9    | 755  | 23   | 8    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 95   | 95   | 77   | 77   | 75   | 75   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 412  | 26   | 12   | 981  | 31   | 11   |

| Major/Minor          | Major1 | Major2 | Minor1 | Minor2 | Minor3 |
|----------------------|--------|--------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 438    | 0      | 1430   |
| Stage 1              | -      | -      | -      | -      | 425    |
| Stage 2              | -      | -      | -      | -      | 1005   |
| Critical Hdwy        | -      | -      | 4.12   | -      | 6.42   |
| Critical Hdwy Stg 1  | -      | -      | -      | -      | 5.42   |
| Critical Hdwy Stg 2  | -      | -      | -      | -      | 5.42   |
| Follow-up Hdwy       | -      | -      | 2.218  | -      | 3.518  |
| Pot Cap-1 Maneuver   | -      | -      | 1122   | -      | 148    |
| Stage 1              | -      | -      | -      | -      | 659    |
| Stage 2              | -      | -      | -      | -      | 354    |
| Platoon blocked, %   | -      | -      | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 1122   | -      | 145    |
| Mov Cap-2 Maneuver   | -      | -      | -      | -      | 145    |
| Stage 1              | -      | -      | -      | -      | 659    |
| Stage 2              | -      | -      | -      | -      | 346    |

| Approach             | EB | WB  | NB   |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0  | 0.1 | 30.7 |
| HCM LOS              |    |     | D    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL  | WBT |
|-----------------------|-------|-----|-----|------|-----|
| Capacity (veh/h)      | 181   | -   | -   | 1122 | -   |
| HCM Lane V/C Ratio    | 0.228 | -   | -   | 0.01 | -   |
| HCM Control Delay (s) | 30.7  | -   | -   | 8.2  | 0   |
| HCM Lane LOS          | D     | -   | -   | A    | A   |
| HCM 95th %tile Q(veh) | 0.8   | -   | -   | 0    | -   |

Generations at Green Valley  
6: Green Valley Rd & Malcolm Dixon Cutoff

Plus Project  
Timing Plan: AM

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.1  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      |      |      |      |      |      |
| Traffic Vol, veh/h       | 6    | 378  | 693  | 1    | 0    | 7    |
| Future Vol, veh/h        | 6    | 378  | 693  | 1    | 0    | 7    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 100  | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 98   | 98   | 88   | 88   | 88   | 88   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 6    | 386  | 788  | 1    | 0    | 8    |

| Major/Minor          | Major1 | Major2 | Minor2 |   |             |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 789    | 0      | -      | 0 | 1187 789    |
| Stage 1              | -      | -      | -      | - | 789 -       |
| Stage 2              | -      | -      | -      | - | 398 -       |
| Critical Hdwy        | 4.12   | -      | -      | - | 6.42 6.22   |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.42 -      |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.42 -      |
| Follow-up Hdwy       | 2.218  | -      | -      | - | 3.518 3.318 |
| Pot Cap-1 Maneuver   | 831    | -      | -      | - | 208 391     |
| Stage 1              | -      | -      | -      | - | 448 -       |
| Stage 2              | -      | -      | -      | - | 678 -       |
| Platoon blocked, %   |        | -      | -      | - |             |
| Mov Cap-1 Maneuver   | 831    | -      | -      | - | 207 391     |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 207 -       |
| Stage 1              | -      | -      | -      | - | 445 -       |
| Stage 2              | -      | -      | -      | - | 678 -       |

| Approach             | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.1 | 0  | 14.4 |
| HCM LOS              |     |    | B    |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 831   | -   | -   | -   | 391   |
| HCM Lane V/C Ratio    | 0.007 | -   | -   | -   | 0.02  |
| HCM Control Delay (s) | 9.4   | -   | -   | -   | 14.4  |
| HCM Lane LOS          | A     | -   | -   | -   | B     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0.1   |

Generations at Green Valley  
7: Green Valley Rd & Malcom Dixon Rd

Plus Project  
Timing Plan: AM

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.6  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      | ↕    | ↕    |      | ↕    |      |
| Traffic Vol, veh/h       | 9    | 358  | 668  | 15   | 9    | 16   |
| Future Vol, veh/h        | 9    | 358  | 668  | 15   | 9    | 16   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 93   | 93   | 87   | 87   | 78   | 78   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 10   | 385  | 768  | 17   | 12   | 21   |

| Major/Minor          | Major1 | Major2 | Minor2 |   |             |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 785    | 0      | -      | 0 | 1182 777    |
| Stage 1              | -      | -      | -      | - | 777 -       |
| Stage 2              | -      | -      | -      | - | 405 -       |
| Critical Hdwy        | 4.12   | -      | -      | - | 6.42 6.22   |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.42 -      |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.42 -      |
| Follow-up Hdwy       | 2.218  | -      | -      | - | 3.518 3.318 |
| Pot Cap-1 Maneuver   | 834    | -      | -      | - | 210 397     |
| Stage 1              | -      | -      | -      | - | 453 -       |
| Stage 2              | -      | -      | -      | - | 673 -       |
| Platoon blocked, %   |        | -      | -      | - |             |
| Mov Cap-1 Maneuver   | 834    | -      | -      | - | 207 397     |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 207 -       |
| Stage 1              | -      | -      | -      | - | 446 -       |
| Stage 2              | -      | -      | -      | - | 673 -       |

| Approach             | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.2 | 0  | 18.5 |
| HCM LOS              |     |    | C    |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 834   | -   | -   | -   | 298   |
| HCM Lane V/C Ratio    | 0.012 | -   | -   | -   | 0.108 |
| HCM Control Delay (s) | 9.4   | 0   | -   | -   | 18.5  |
| HCM Lane LOS          | A     | A   | -   | -   | C     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0.4   |

Generations at Green Valley  
8: Deer Valley Rd. & Green Valley Rd.

Plus Project  
Timing Plan: AM

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 3.3  |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Vol, veh/h       | 14   | 330  | 16   | 15   | 530  | 12   | 25   | 0    | 24   | 28   | 0    | 37   |
| Future Vol, veh/h        | 14   | 330  | 16   | 15   | 530  | 12   | 25   | 0    | 24   | 28   | 0    | 37   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | 415  | -    | 415  | 415  | -    | 415  | -    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 90   | 90   | 90   | 85   | 85   | 85   | 72   | 72   | 72   | 70   | 70   | 70   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 16   | 367  | 18   | 18   | 624  | 14   | 35   | 0    | 33   | 40   | 0    | 53   |

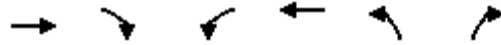
| Major/Minor          | Major1 |   |   | Major2 |   |   | Minor1 |       |       | Minor2 |       |       |
|----------------------|--------|---|---|--------|---|---|--------|-------|-------|--------|-------|-------|
| Conflicting Flow All | 638    | 0 | 0 | 385    | 0 | 0 | 1093   | 1073  | 367   | 1085   | 1077  | 624   |
| Stage 1              | -      | - | - | -      | - | - | 399    | 399   | -     | 660    | 660   | -     |
| Stage 2              | -      | - | - | -      | - | - | 694    | 674   | -     | 425    | 417   | -     |
| Critical Hdwy        | 4.12   | - | - | 4.12   | - | - | 7.12   | 6.52  | 6.22  | 7.12   | 6.52  | 6.22  |
| Critical Hdwy Stg 1  | -      | - | - | -      | - | - | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Critical Hdwy Stg 2  | -      | - | - | -      | - | - | 6.12   | 5.52  | -     | 6.12   | 5.52  | -     |
| Follow-up Hdwy       | 2.218  | - | - | 2.218  | - | - | 3.518  | 4.018 | 3.318 | 3.518  | 4.018 | 3.318 |
| Pot Cap-1 Maneuver   | 946    | - | - | 1173   | - | - | 192    | 220   | 678   | 194    | 219   | 485   |
| Stage 1              | -      | - | - | -      | - | - | 627    | 602   | -     | 452    | 460   | -     |
| Stage 2              | -      | - | - | -      | - | - | 433    | 454   | -     | 607    | 591   | -     |
| Platoon blocked, %   | -      | - | - | -      | - | - | -      | -     | -     | -      | -     | -     |
| Mov Cap-1 Maneuver   | 946    | - | - | 1173   | - | - | 167    | 213   | 678   | 180    | 212   | 485   |
| Mov Cap-2 Maneuver   | -      | - | - | -      | - | - | 167    | 213   | -     | 180    | 212   | -     |
| Stage 1              | -      | - | - | -      | - | - | 616    | 592   | -     | 444    | 453   | -     |
| Stage 2              | -      | - | - | -      | - | - | 380    | 447   | -     | 567    | 581   | -     |

| Approach             | EB  |  |  | WB  |  |  | NB   |  |  | SB   |  |  |
|----------------------|-----|--|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 0.3 |  |  | 0.2 |  |  | 23.2 |  |  | 24.1 |  |  |
| HCM LOS              |     |  |  |     |  |  | C    |  |  | C    |  |  |

| Minor Lane/Major Mvmt | NBLn1 | EBL   | EBT | EBR | WBL   | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h)      | 265   | 946   | -   | -   | 1173  | -   | -   | 280   |
| HCM Lane V/C Ratio    | 0.257 | 0.016 | -   | -   | 0.015 | -   | -   | 0.332 |
| HCM Control Delay (s) | 23.2  | 8.9   | -   | -   | 8.1   | -   | -   | 24.1  |
| HCM Lane LOS          | C     | A     | -   | -   | A     | -   | -   | C     |
| HCM 95th %tile Q(veh) | 1     | 0.1   | -   | -   | 0     | -   | -   | 1.4   |

Generations at Green Valley  
 9: Silver Springs Pkwy & Green Valley Rd

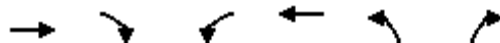
Plus Project  
 Timing Plan: AM



| Lane Group                  | EBT  | EBR  | WBL  | WBT       | NBL  | NBR  |
|-----------------------------|------|------|------|-----------|------|------|
| Lane Group Flow (vph)       | 653  | 149  | 83   | 813       | 150  | 37   |
| v/c Ratio                   | 0.63 | 0.16 | 0.26 | 0.79      | 0.37 | 0.09 |
| Control Delay               | 9.4  | 1.6  | 7.3  | 14.5      | 16.8 | 6.4  |
| Queue Delay                 | 0.0  | 0.0  | 0.0  | 0.0       | 0.0  | 0.0  |
| Total Delay                 | 9.4  | 1.6  | 7.3  | 14.5      | 16.8 | 6.4  |
| Queue Length 50th (ft)      | 76   | 0    | 7    | 109       | 30   | 0    |
| Queue Length 95th (ft)      | 117  | 8    | 23   | 192       | 56   | 12   |
| Internal Link Dist (ft)     | 3999 |      |      | 3318 1349 |      |      |
| Turn Bay Length (ft)        | 230  |      | 415  |           | 135  |      |
| Base Capacity (vph)         | 1309 | 1157 | 403  | 1309      | 765  | 706  |
| Starvation Cap Reductn      | 0    | 0    | 0    | 0         | 0    | 0    |
| Spillback Cap Reductn       | 0    | 0    | 0    | 0         | 0    | 0    |
| Storage Cap Reductn         | 0    | 0    | 0    | 0         | 0    | 0    |
| Reduced v/c Ratio           | 0.50 | 0.13 | 0.21 | 0.62      | 0.20 | 0.05 |
| <b>Intersection Summary</b> |      |      |      |           |      |      |

Generations at Green Valley  
9: Silver Springs Pkwy & Green Valley Rd

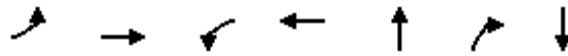
Plus Project  
Timing Plan: AM



| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations          | ↑    | ↗    | ↖    | ↑    | ↖    | ↗    |
| Traffic Volume (veh/h)       | 457  | 104  | 64   | 626  | 114  | 28   |
| Future Volume (veh/h)        | 457  | 104  | 64   | 626  | 114  | 28   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 653  | 149  | 83   | 813  | 150  | 37   |
| Peak Hour Factor             | 0.70 | 0.70 | 0.77 | 0.77 | 0.76 | 0.76 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 1063 | 901  | 475  | 1063 | 282  | 251  |
| Arrive On Green              | 0.57 | 0.57 | 0.57 | 0.57 | 0.16 | 0.16 |
| Sat Flow, veh/h              | 1870 | 1585 | 678  | 1870 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 653  | 149  | 83   | 813  | 150  | 37   |
| Grp Sat Flow(s),veh/h/ln     | 1870 | 1585 | 678  | 1870 | 1781 | 1585 |
| Q Serve(g_s), s              | 6.8  | 1.3  | 2.7  | 9.7  | 2.3  | 0.6  |
| Cycle Q Clear(g_c), s        | 6.8  | 1.3  | 9.5  | 9.7  | 2.3  | 0.6  |
| Prop In Lane                 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 1063 | 901  | 475  | 1063 | 282  | 251  |
| V/C Ratio(X)                 | 0.61 | 0.17 | 0.17 | 0.76 | 0.53 | 0.15 |
| Avail Cap(c_a), veh/h        | 1663 | 1409 | 692  | 1663 | 975  | 867  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 4.2  | 3.0  | 7.3  | 4.8  | 11.3 | 10.6 |
| Incr Delay (d2), s/veh       | 0.6  | 0.1  | 0.2  | 1.2  | 1.6  | 0.3  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.2  | 0.0  | 0.1  | 0.3  | 0.6  | 0.1  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 4.8  | 3.1  | 7.5  | 6.0  | 12.9 | 10.9 |
| LnGrp LOS                    | A    | A    | A    | A    | B    | B    |
| Approach Vol, veh/h          | 802  |      |      | 896  | 187  |      |
| Approach Delay, s/veh        | 4.5  |      |      | 6.1  | 12.5 |      |
| Approach LOS                 | A    |      |      | A    | B    |      |
| Timer - Assigned Phs         |      | 2    |      | 4    |      | 8    |
| Phs Duration (G+Y+Rc), s     |      | 8.6  |      | 20.6 |      | 20.6 |
| Change Period (Y+Rc), s      |      | 4.0  |      | 4.0  |      | 4.0  |
| Max Green Setting (Gmax), s  |      | 16.0 |      | 26.0 |      | 26.0 |
| Max Q Clear Time (g_c+l1), s |      | 4.3  |      | 8.8  |      | 11.7 |
| Green Ext Time (p_c), s      |      | 0.4  |      | 3.9  |      | 4.9  |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 6.0  |      |      |      |
| HCM 6th LOS                  |      |      | A    |      |      |      |

Generations at Green Valley  
 10: Bass Lake Rd./Alexandrite Dr & Green Valley Rd.

Plus Project  
 Timing Plan: AM



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBT  | NBR  | SBT  |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 6    | 700  | 151  | 766  | 133  | 136  | 7    |
| v/c Ratio               | 0.06 | 0.74 | 0.70 | 0.61 | 0.48 | 0.38 | 0.03 |
| Control Delay           | 33.8 | 20.6 | 49.2 | 11.7 | 32.3 | 8.8  | 0.2  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 33.8 | 20.6 | 49.2 | 11.7 | 32.3 | 8.8  | 0.2  |
| Queue Length 50th (ft)  | 2    | 186  | 57   | 109  | 48   | 0    | 0    |
| Queue Length 95th (ft)  | 11   | 297  | #137 | 358  | 88   | 27   | 0    |
| Internal Link Dist (ft) |      | 3318 |      | 1151 | 1084 |      | 521  |
| Turn Bay Length (ft)    | 285  |      | 435  |      |      | 150  |      |
| Base Capacity (vph)     | 108  | 960  | 217  | 1261 | 436  | 491  | 512  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.06 | 0.73 | 0.70 | 0.61 | 0.31 | 0.28 | 0.01 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.



Generations at Green Valley  
10: Bass Lake Rd./Alexandrite Dr & Green Valley Rd.

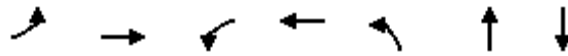
Plus Project  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          | ↖    | ↗    |      | ↖    | ↗    |      |      | ↖    | ↗    |      | ↕    |      |
| Traffic Volume (veh/h)       | 4    | 434  | 56   | 116  | 589  | 1    | 99   | 1    | 102  | 4    | 0    | 1    |
| Future Volume (veh/h)        | 4    | 434  | 56   | 116  | 589  | 1    | 99   | 1    | 102  | 4    | 0    | 1    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 6    | 620  | 80   | 151  | 765  | 1    | 132  | 1    | 136  | 6    | 0    | 1    |
| Peak Hour Factor             | 0.70 | 0.70 | 0.70 | 0.77 | 0.77 | 0.77 | 0.75 | 0.75 | 0.75 | 0.70 | 0.70 | 0.70 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 11   | 726  | 94   | 193  | 1026 | 1    | 232  | 2    | 208  | 11   | 0    | 2    |
| Arrive On Green              | 0.01 | 0.45 | 0.45 | 0.11 | 0.55 | 0.55 | 0.13 | 0.13 | 0.13 | 0.01 | 0.00 | 0.01 |
| Sat Flow, veh/h              | 1781 | 1623 | 209  | 1781 | 1867 | 2    | 1769 | 13   | 1585 | 1500 | 0    | 250  |
| Grp Volume(v), veh/h         | 6    | 0    | 700  | 151  | 0    | 766  | 133  | 0    | 136  | 7    | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1833 | 1781 | 0    | 1870 | 1782 | 0    | 1585 | 1750 | 0    | 0    |
| Q Serve(g_s), s              | 0.2  | 0.0  | 17.9 | 4.3  | 0.0  | 16.4 | 3.7  | 0.0  | 4.3  | 0.2  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 0.2  | 0.0  | 17.9 | 4.3  | 0.0  | 16.4 | 3.7  | 0.0  | 4.3  | 0.2  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 0.11 | 1.00 |      | 0.00 | 0.99 |      | 1.00 | 0.86 |      | 0.14 |
| Lane Grp Cap(c), veh/h       | 11   | 0    | 820  | 193  | 0    | 1027 | 234  | 0    | 208  | 13   | 0    | 0    |
| V/C Ratio(X)                 | 0.53 | 0.00 | 0.85 | 0.78 | 0.00 | 0.75 | 0.57 | 0.00 | 0.65 | 0.54 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 136  | 0    | 1189 | 272  | 0    | 1356 | 544  | 0    | 484  | 534  | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 26.0 | 0.0  | 12.9 | 22.8 | 0.0  | 9.0  | 21.4 | 0.0  | 21.6 | 25.9 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 33.1 | 0.0  | 4.3  | 9.3  | 0.0  | 1.6  | 2.2  | 0.0  | 3.4  | 30.8 | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.2  | 0.0  | 5.5  | 2.0  | 0.0  | 3.8  | 1.5  | 0.0  | 1.5  | 0.2  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 59.0 | 0.0  | 17.2 | 32.1 | 0.0  | 10.6 | 23.5 | 0.0  | 25.1 | 56.7 | 0.0  | 0.0  |
| LnGrp LOS                    | E    | A    | B    | C    | A    | B    | C    | A    | C    | E    | A    | A    |
| Approach Vol, veh/h          |      | 706  |      |      | 917  |      |      | 269  |      |      |      | 7    |
| Approach Delay, s/veh        |      | 17.6 |      |      | 14.1 |      |      | 24.3 |      |      |      | 56.7 |
| Approach LOS                 |      | B    |      |      | B    |      |      | C    |      |      |      | E    |
| Timer - Assigned Phs         |      | 2    | 3    | 4    |      | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 10.9 | 9.7  | 27.5 |      | 4.4  | 4.3  | 32.8 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 16.0 | 8.0  | 34.0 |      | 16.0 | 4.0  | 38.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 6.3  | 6.3  | 19.9 |      | 2.2  | 2.2  | 18.4 |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.8  | 0.1  | 3.6  |      | 0.0  | 0.0  | 4.5  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      | 17.0 |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      |      | B    |      |      |      |      |      |      |      |      |

Generations at Green Valley  
 11: Cambridge Rd./Peridot Dr & Green Valley Rd.

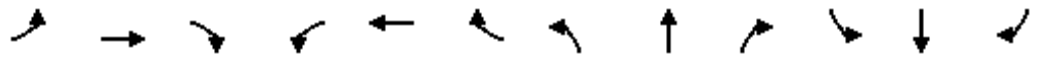
Plus Project  
 Timing Plan: AM



| Lane Group                  | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBT  |
|-----------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)       | 14   | 754  | 32   | 630  | 254  | 64   | 64   |
| v/c Ratio                   | 0.13 | 0.81 | 0.30 | 0.64 | 0.68 | 0.17 | 0.31 |
| Control Delay               | 40.1 | 25.6 | 44.5 | 17.4 | 39.9 | 10.3 | 22.4 |
| Queue Delay                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay                 | 40.1 | 25.6 | 44.5 | 17.4 | 39.9 | 10.3 | 22.4 |
| Queue Length 50th (ft)      | 6    | 252  | 14   | 190  | 104  | 1    | 11   |
| Queue Length 95th (ft)      | 20   | 336  | 40   | 333  | 154  | 20   | 34   |
| Internal Link Dist (ft)     |      | 1151 |      | 2235 |      | 1080 | 510  |
| Turn Bay Length (ft)        | 100  |      | 125  |      | 125  |      |      |
| Base Capacity (vph)         | 107  | 1056 | 107  | 1110 | 430  | 434  | 438  |
| Starvation Cap Reductn      | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn       | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn         | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio           | 0.13 | 0.71 | 0.30 | 0.57 | 0.59 | 0.15 | 0.15 |
| <b>Intersection Summary</b> |      |      |      |      |      |      |      |

Generations at Green Valley  
11: Cambridge Rd./Peridot Dr & Green Valley Rd.

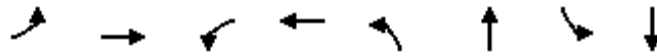
Plus Project  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          | ↖    | ↗    |      | ↖    | ↗    |      | ↖    | ↗    |      |      | ↕    |      |
| Traffic Volume (veh/h)       | 10   | 448  | 80   | 26   | 505  | 6    | 178  | 3    | 42   | 16   | 3    | 26   |
| Future Volume (veh/h)        | 10   | 448  | 80   | 26   | 505  | 6    | 178  | 3    | 42   | 16   | 3    | 26   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 14   | 640  | 114  | 32   | 623  | 7    | 254  | 4    | 60   | 23   | 4    | 37   |
| Peak Hour Factor             | 0.70 | 0.70 | 0.70 | 0.81 | 0.81 | 0.81 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 25   | 731  | 130  | 49   | 899  | 10   | 319  | 18   | 269  | 29   | 5    | 47   |
| Arrive On Green              | 0.01 | 0.47 | 0.47 | 0.03 | 0.49 | 0.49 | 0.18 | 0.18 | 0.18 | 0.05 | 0.05 | 0.05 |
| Sat Flow, veh/h              | 1781 | 1546 | 275  | 1781 | 1846 | 21   | 1781 | 100  | 1500 | 599  | 104  | 964  |
| Grp Volume(v), veh/h         | 14   | 0    | 754  | 32   | 0    | 630  | 254  | 0    | 64   | 64   | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1821 | 1781 | 0    | 1867 | 1781 | 0    | 1600 | 1667 | 0    | 0    |
| Q Serve(g_s), s              | 0.5  | 0.0  | 22.0 | 1.0  | 0.0  | 15.4 | 8.0  | 0.0  | 2.0  | 2.2  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 0.5  | 0.0  | 22.0 | 1.0  | 0.0  | 15.4 | 8.0  | 0.0  | 2.0  | 2.2  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 0.15 | 1.00 |      | 0.01 | 1.00 |      | 0.94 | 0.36 |      | 0.58 |
| Lane Grp Cap(c), veh/h       | 25   | 0    | 862  | 49   | 0    | 909  | 319  | 0    | 287  | 81   | 0    | 0    |
| V/C Ratio(X)                 | 0.57 | 0.00 | 0.88 | 0.65 | 0.00 | 0.69 | 0.80 | 0.00 | 0.22 | 0.79 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 121  | 0    | 1173 | 121  | 0    | 1203 | 483  | 0    | 434  | 452  | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 28.9 | 0.0  | 14.0 | 28.4 | 0.0  | 11.7 | 23.2 | 0.0  | 20.7 | 27.8 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 18.7 | 0.0  | 5.8  | 13.5 | 0.0  | 1.1  | 5.3  | 0.0  | 0.4  | 15.5 | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.3  | 0.0  | 7.3  | 0.6  | 0.0  | 4.5  | 3.5  | 0.0  | 0.7  | 1.2  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 47.5 | 0.0  | 19.8 | 41.8 | 0.0  | 12.8 | 28.5 | 0.0  | 21.1 | 43.2 | 0.0  | 0.0  |
| LnGrp LOS                    | D    | A    | B    | D    | A    | B    | C    | A    | C    | D    | A    | A    |
| Approach Vol, veh/h          |      | 768  |      |      | 662  |      |      | 318  |      |      |      | 64   |
| Approach Delay, s/veh        |      | 20.3 |      |      | 14.2 |      |      | 27.0 |      |      |      | 43.2 |
| Approach LOS                 |      | C    |      |      | B    |      |      | C    |      |      |      | D    |
| Timer - Assigned Phs         |      | 2    | 3    | 4    |      | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 14.6 | 5.6  | 31.9 |      | 6.9  | 4.8  | 32.7 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 16.0 | 4.0  | 38.0 |      | 16.0 | 4.0  | 38.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 10.0 | 3.0  | 24.0 |      | 4.2  | 2.5  | 17.4 |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.6  | 0.0  | 3.9  |      | 0.2  | 0.0  | 3.5  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 20.1 |      |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      | C    |      |      |      |      |      |      |      |      |      |

Generations at Green Valley  
12: Cameron Park Dr. & Green Valley Rd.

Plus Project  
Timing Plan: AM



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 21   | 695  | 112  | 299  | 259  | 175  | 30   | 97   |
| v/c Ratio               | 0.18 | 0.88 | 0.79 | 0.30 | 0.79 | 0.32 | 0.25 | 0.43 |
| Control Delay           | 40.9 | 33.3 | 76.9 | 13.4 | 52.4 | 9.2  | 43.0 | 34.5 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 40.9 | 33.3 | 76.9 | 13.4 | 52.4 | 9.2  | 43.0 | 34.5 |
| Queue Length 50th (ft)  | 10   | 284  | 57   | 71   | 128  | 12   | 15   | 38   |
| Queue Length 95th (ft)  | 26   | 305  | #144 | 152  | #238 | 53   | 33   | 61   |
| Internal Link Dist (ft) |      | 2235 |      | 1414 |      | 1563 |      | 921  |
| Turn Bay Length (ft)    | 270  |      | 150  |      | 125  |      | 55   |      |
| Base Capacity (vph)     | 118  | 863  | 141  | 1001 | 331  | 680  | 118  | 443  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.18 | 0.81 | 0.79 | 0.30 | 0.78 | 0.26 | 0.25 | 0.22 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Generations at Green Valley  
12: Cameron Park Dr. & Green Valley Rd.

Plus Project  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 15   | 263  | 223  | 95   | 247  | 7    | 215  | 30   | 115  | 21   | 50   | 18   |
| Future Volume (veh/h)        | 15   | 263  | 223  | 95   | 247  | 7    | 215  | 30   | 115  | 21   | 50   | 18   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 21   | 376  | 319  | 112  | 291  | 8    | 259  | 36   | 139  | 30   | 71   | 26   |
| Peak Hour Factor             | 0.70 | 0.70 | 0.70 | 0.85 | 0.85 | 0.85 | 0.83 | 0.83 | 0.83 | 0.70 | 0.70 | 0.70 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 34   | 411  | 349  | 143  | 907  | 25   | 303  | 77   | 299  | 45   | 111  | 41   |
| Arrive On Green              | 0.02 | 0.44 | 0.44 | 0.08 | 0.50 | 0.50 | 0.17 | 0.23 | 0.23 | 0.03 | 0.08 | 0.08 |
| Sat Flow, veh/h              | 1781 | 935  | 793  | 1781 | 1812 | 50   | 1781 | 337  | 1300 | 1781 | 1306 | 478  |
| Grp Volume(v), veh/h         | 21   | 0    | 695  | 112  | 0    | 299  | 259  | 0    | 175  | 30   | 0    | 97   |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1728 | 1781 | 0    | 1861 | 1781 | 0    | 1636 | 1781 | 0    | 1784 |
| Q Serve(g_s), s              | 0.8  | 0.0  | 26.8 | 4.4  | 0.0  | 6.8  | 10.0 | 0.0  | 6.6  | 1.2  | 0.0  | 3.7  |
| Cycle Q Clear(g_c), s        | 0.8  | 0.0  | 26.8 | 4.4  | 0.0  | 6.8  | 10.0 | 0.0  | 6.6  | 1.2  | 0.0  | 3.7  |
| Prop In Lane                 | 1.00 |      | 0.46 | 1.00 |      | 0.03 | 1.00 |      | 0.79 | 1.00 |      | 0.27 |
| Lane Grp Cap(c), veh/h       | 34   | 0    | 760  | 143  | 0    | 932  | 303  | 0    | 376  | 45   | 0    | 151  |
| V/C Ratio(X)                 | 0.62 | 0.00 | 0.91 | 0.79 | 0.00 | 0.32 | 0.85 | 0.00 | 0.47 | 0.67 | 0.00 | 0.64 |
| Avail Cap(c_a), veh/h        | 125  | 0    | 875  | 150  | 0    | 969  | 351  | 0    | 621  | 125  | 0    | 452  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh     | 34.6 | 0.0  | 18.7 | 32.1 | 0.0  | 10.6 | 28.6 | 0.0  | 23.6 | 34.4 | 0.0  | 31.5 |
| Incr Delay (d2), s/veh       | 16.8 | 0.0  | 12.9 | 22.5 | 0.0  | 0.2  | 16.3 | 0.0  | 0.9  | 15.9 | 0.0  | 4.5  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.5  | 0.0  | 10.9 | 2.6  | 0.0  | 2.2  | 5.3  | 0.0  | 2.4  | 0.7  | 0.0  | 1.7  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 51.4 | 0.0  | 31.5 | 54.6 | 0.0  | 10.8 | 45.0 | 0.0  | 24.5 | 50.3 | 0.0  | 36.0 |
| LnGrp LOS                    | D    | A    | C    | D    | A    | B    | D    | A    | C    | D    | A    | D    |
| Approach Vol, veh/h          |      | 716  |      |      | 411  |      |      | 434  |      |      |      | 127  |
| Approach Delay, s/veh        |      | 32.1 |      |      | 22.7 |      |      | 36.7 |      |      |      | 39.4 |
| Approach LOS                 |      | C    |      |      | C    |      |      | D    |      |      |      | D    |
| Timer - Assigned Phs         | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 5.8  | 20.3 | 9.7  | 35.3 | 16.1 | 10.0 | 5.4  | 39.6 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 5.0  | 27.0 | 6.0  | 36.0 | 14.0 | 18.0 | 5.0  | 37.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 3.2  | 8.6  | 6.4  | 28.8 | 12.0 | 5.7  | 2.8  | 8.8  |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 0.8  | 0.0  | 2.5  | 0.1  | 0.3  | 0.0  | 1.5  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 31.6 |      |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      | C    |      |      |      |      |      |      |      |      |      |

Intersection

Intersection Delay, s/veh 56.1

Intersection LOS F

| Movement            | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations |      | ↔    | ↔    |      | ↔    |      | ↔    | ↔    |      | ↔    | ↔    |      |
| Traffic Vol, veh/h  | 7    | 41   | 484  | 21   | 36   | 25   | 439  | 190  | 45   | 95   | 314  | 1    |
| Future Vol, veh/h   | 7    | 41   | 484  | 21   | 36   | 25   | 439  | 190  | 45   | 95   | 314  | 1    |
| Peak Hour Factor    | 0.72 | 0.72 | 0.72 | 0.70 | 0.70 | 0.70 | 0.71 | 0.71 | 0.71 | 0.83 | 0.83 | 0.83 |
| Heavy Vehicles, %   | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow           | 10   | 57   | 672  | 30   | 51   | 36   | 618  | 268  | 63   | 114  | 378  | 1    |
| Number of Lanes     | 0    | 1    | 1    | 0    | 1    | 0    | 1    | 1    | 0    | 1    | 1    | 0    |

| Approach                   | EB    | WB   | NB    | SB   |
|----------------------------|-------|------|-------|------|
| Opposing Approach          | WB    | EB   | SB    | NB   |
| Opposing Lanes             | 1     | 2    | 2     | 2    |
| Conflicting Approach Left  | SB    | NB   | EB    | WB   |
| Conflicting Lanes Left     | 2     | 2    | 2     | 1    |
| Conflicting Approach Right | NB    | SB   | WB    | EB   |
| Conflicting Lanes Right    | 2     | 2    | 1     | 2    |
| HCM Control Delay          | 215.2 | 19.8 | 183.8 | 46.6 |
| HCM LOS                    | F     | C    | F     | E    |

| Lane                   | NBLn1 | NBLn2 | EBLn1 | EBLn2 | WBLn1  | SBLn1  | SBLn2 |
|------------------------|-------|-------|-------|-------|--------|--------|-------|
| Vol Left, %            | 100%  | 0%    | 15%   | 0%    | 26%    | 100%   | 0%    |
| Vol Thru, %            | 0%    | 81%   | 85%   | 0%    | 44%    | 0%     | 100%  |
| Vol Right, %           | 0%    | 19%   | 0%    | 100%  | 30%    | 0%     | 0%    |
| Sign Control           | Stop  | Stop  | Stop  | Stop  | Stop   | Stop   | Stop  |
| Traffic Vol by Lane    | 439   | 235   | 48    | 484   | 82     | 95     | 315   |
| LT Vol                 | 439   | 0     | 7     | 0     | 21     | 95     | 0     |
| Through Vol            | 0     | 190   | 41    | 0     | 36     | 0      | 314   |
| RT Vol                 | 0     | 45    | 0     | 484   | 25     | 0      | 1     |
| Lane Flow Rate         | 618   | 331   | 67    | 672   | 117    | 114    | 380   |
| Geometry Grp           | 7     | 7     | 7     | 7     | 6      | 7      | 7     |
| Degree of Util (X)     | 1.499 | 0.744 | 0.158 | 1.445 | 0.32   | 0.285  | 0.893 |
| Departure Headway (Hd) | 9.887 | 9.221 | 9.068 | 8.265 | 11.509 | 10.285 | 9.755 |
| Convergence, Y/N       | Yes   | Yes   | Yes   | Yes   | Yes    | Yes    | Yes   |
| Cap                    | 371   | 394   | 398   | 444   | 315    | 351    | 376   |
| Service Time           | 7.587 | 6.921 | 6.768 | 5.965 | 9.509  | 7.985  | 7.455 |
| HCM Lane V/C Ratio     | 1.666 | 0.84  | 0.168 | 1.514 | 0.371  | 0.325  | 1.011 |
| HCM Control Delay      | 263.7 | 34.4  | 13.5  | 235.2 | 19.8   | 17     | 55.5  |
| HCM Lane LOS           | F     | D     | B     | F     | C      | C      | F     |
| HCM 95th-tile Q        | 29.6  | 5.9   | 0.6   | 31.7  | 1.3    | 1.2    | 8.9   |

Generations at Green Valley  
 14: El Dorado Hills Blvd. & Harvard Way

Plus Project  
 Timing Plan: AM



| Lane Group              | WBL  | WBR  | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|
| Lane Group Flow (vph)   | 461  | 271  | 1210 | 353  | 889  |
| v/c Ratio               | 0.86 | 0.41 | 0.85 | 0.91 | 0.46 |
| Control Delay           | 36.6 | 4.5  | 18.3 | 55.5 | 8.4  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 36.6 | 4.5  | 18.3 | 55.5 | 8.4  |
| Queue Length 50th (ft)  | 138  | 0    | 125  | 60   | 82   |
| Queue Length 95th (ft)  | 165  | 17   | 170  | #114 | 106  |
| Internal Link Dist (ft) | 2093 |      | 5028 |      | 7812 |
| Turn Bay Length (ft)    |      |      |      | 190  |      |
| Base Capacity (vph)     | 570  | 693  | 1492 | 390  | 2013 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.81 | 0.39 | 0.81 | 0.91 | 0.44 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
14: El Dorado Hills Blvd. & Harvard Way

Plus Project  
Timing Plan: AM



| Movement                     | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 323  | 190  | 578  | 427  | 293  | 738  |
| Future Volume (veh/h)        | 323  | 190  | 578  | 427  | 293  | 738  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 | 1.00 |      | 1.00 | 1.00 |      |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      | No   |      |      | No   |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 461  | 271  | 696  | 514  | 353  | 889  |
| Peak Hour Factor             | 0.70 | 0.70 | 0.83 | 0.83 | 0.83 | 0.83 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 523  | 466  | 727  | 533  | 385  | 1981 |
| Arrive On Green              | 0.29 | 0.29 | 0.37 | 0.37 | 0.11 | 0.56 |
| Sat Flow, veh/h              | 1781 | 1585 | 2049 | 1434 | 3456 | 3647 |
| Grp Volume(v), veh/h         | 461  | 271  | 632  | 578  | 353  | 889  |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1585 | 1777 | 1612 | 1728 | 1777 |
| Q Serve(g_s), s              | 13.3 | 7.8  | 18.7 | 18.9 | 5.4  | 7.9  |
| Cycle Q Clear(g_c), s        | 13.3 | 7.8  | 18.7 | 18.9 | 5.4  | 7.9  |
| Prop In Lane                 | 1.00 | 1.00 |      | 0.89 | 1.00 |      |
| Lane Grp Cap(c), veh/h       | 523  | 466  | 660  | 599  | 385  | 1981 |
| V/C Ratio(X)                 | 0.88 | 0.58 | 0.96 | 0.96 | 0.92 | 0.45 |
| Avail Cap(c_a), veh/h        | 563  | 501  | 660  | 599  | 385  | 1981 |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 18.1 | 16.2 | 16.5 | 16.6 | 23.7 | 7.0  |
| Incr Delay (d2), s/veh       | 14.4 | 1.5  | 24.8 | 28.0 | 26.2 | 0.2  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 6.7  | 2.6  | 10.1 | 9.7  | 3.3  | 1.7  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 32.5 | 17.7 | 41.2 | 44.6 | 49.8 | 7.2  |
| LnGrp LOS                    | C    | B    | D    | D    | D    | A    |
| Approach Vol, veh/h          | 732  |      | 1210 |      |      | 1242 |
| Approach Delay, s/veh        | 27.0 |      | 42.8 |      |      | 19.3 |
| Approach LOS                 | C    |      | D    |      |      | B    |
| Timer - Assigned Phs         | 1    | 2    |      |      | 6    | 8    |
| Phs Duration (G+Y+Rc), s     | 10.0 | 24.0 |      |      | 34.0 | 19.8 |
| Change Period (Y+Rc), s      | 4.0  | 4.0  |      |      | 4.0  | 4.0  |
| Max Green Setting (Gmax), s  | 6.0  | 20.0 |      |      | 30.0 | 17.0 |
| Max Q Clear Time (g_c+l1), s | 7.4  | 20.9 |      |      | 9.9  | 15.3 |
| Green Ext Time (p_c), s      | 0.0  | 0.0  |      |      | 5.5  | 0.5  |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 30.0 |      |      |      |
| HCM 6th LOS                  |      |      | C    |      |      |      |





| Lane Group              | EBT  | EBR  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 200  | 153  | 6    | 84   | 1054 | 19   | 1193 |
| v/c Ratio               | 0.63 | 0.32 | 0.02 | 0.63 | 0.51 | 0.14 | 0.69 |
| Control Delay           | 27.3 | 5.3  | 13.5 | 48.7 | 9.0  | 26.2 | 14.6 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 27.3 | 5.3  | 13.5 | 48.7 | 9.0  | 26.2 | 14.6 |
| Queue Length 50th (ft)  | 54   | 0    | 1    | 25   | 80   | 6    | 146  |
| Queue Length 95th (ft)  | 86   | 22   | 6    | #76  | 180  | 22   | #247 |
| Internal Link Dist (ft) | 1459 |      | 233  |      | 3231 |      | 5028 |
| Turn Bay Length (ft)    |      |      |      | 278  |      | 90   |      |
| Base Capacity (vph)     | 412  | 588  | 472  | 134  | 2073 | 134  | 1734 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.49 | 0.26 | 0.01 | 0.63 | 0.51 | 0.14 | 0.69 |

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
15: El Dorado Hills Blvd. & Wilson Blvd

Plus Project  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      | ↖    | ↗    |      | ↔    |      | ↖    | ↕    |      | ↖    | ↕    |      |
| Traffic Volume (veh/h)       | 148  | 4    | 116  | 3    | 1    | 1    | 70   | 868  | 7    | 17   | 988  | 97   |
| Future Volume (veh/h)        | 148  | 4    | 116  | 3    | 1    | 1    | 70   | 868  | 7    | 17   | 988  | 97   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 195  | 5    | 153  | 4    | 1    | 1    | 84   | 1046 | 8    | 19   | 1086 | 107  |
| Peak Hour Factor             | 0.76 | 0.76 | 0.76 | 0.70 | 0.70 | 0.70 | 0.83 | 0.83 | 0.83 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 423  | 7    | 295  | 186  | 46   | 21   | 106  | 1939 | 15   | 33   | 1620 | 159  |
| Arrive On Green              | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.06 | 0.54 | 0.54 | 0.02 | 0.50 | 0.50 |
| Sat Flow, veh/h              | 1446 | 37   | 1585 | 303  | 249  | 110  | 1781 | 3615 | 28   | 1781 | 3268 | 322  |
| Grp Volume(v), veh/h         | 200  | 0    | 153  | 6    | 0    | 0    | 84   | 514  | 540  | 19   | 590  | 603  |
| Grp Sat Flow(s),veh/h/ln     | 1483 | 0    | 1585 | 662  | 0    | 0    | 1781 | 1777 | 1865 | 1781 | 1777 | 1812 |
| Q Serve(g_s), s              | 0.0  | 0.0  | 4.0  | 0.0  | 0.0  | 0.0  | 2.2  | 8.8  | 8.8  | 0.5  | 11.6 | 11.7 |
| Cycle Q Clear(g_c), s        | 5.8  | 0.0  | 4.0  | 5.8  | 0.0  | 0.0  | 2.2  | 8.8  | 8.8  | 0.5  | 11.6 | 11.7 |
| Prop In Lane                 | 0.97 |      | 1.00 | 0.67 |      | 0.17 | 1.00 |      | 0.01 | 1.00 |      | 0.18 |
| Lane Grp Cap(c), veh/h       | 430  | 0    | 295  | 253  | 0    | 0    | 106  | 953  | 1001 | 33   | 881  | 899  |
| V/C Ratio(X)                 | 0.47 | 0.00 | 0.52 | 0.02 | 0.00 | 0.00 | 0.80 | 0.54 | 0.54 | 0.57 | 0.67 | 0.67 |
| Avail Cap(c_a), veh/h        | 655  | 0    | 547  | 468  | 0    | 0    | 154  | 953  | 1001 | 154  | 881  | 899  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 17.7 | 0.0  | 17.0 | 15.7 | 0.0  | 0.0  | 21.5 | 7.0  | 7.0  | 22.6 | 8.8  | 8.8  |
| Incr Delay (d2), s/veh       | 0.8  | 0.0  | 1.4  | 0.0  | 0.0  | 0.0  | 16.3 | 2.2  | 2.1  | 14.4 | 4.0  | 4.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 1.7  | 0.0  | 1.4  | 0.0  | 0.0  | 0.0  | 1.2  | 2.3  | 2.4  | 0.3  | 3.4  | 3.4  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 18.5 | 0.0  | 18.4 | 15.7 | 0.0  | 0.0  | 37.8 | 9.2  | 9.1  | 36.9 | 12.9 | 12.8 |
| LnGrp LOS                    | B    | A    | B    | B    | A    | A    | D    | A    | A    | D    | B    | B    |
| Approach Vol, veh/h          |      | 353  |      |      | 6    |      |      | 1138 |      |      | 1212 |      |
| Approach Delay, s/veh        |      | 18.5 |      |      | 15.7 |      |      | 11.3 |      |      | 13.2 |      |
| Approach LOS                 |      | B    |      |      | B    |      |      | B    |      |      | B    |      |
| Timer - Assigned Phs         | 1    | 2    |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 4.9  | 28.9 |      | 12.6 | 6.8  | 27.0 |      | 12.6 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0  | 23.0 |      | 16.0 | 4.0  | 23.0 |      | 16.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 2.5  | 10.8 |      | 7.8  | 4.2  | 13.7 |      | 7.8  |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 4.9  |      | 1.0  | 0.0  | 4.7  |      | 0.0  |      |      |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 13.1 |
| HCM 6th LOS        | B    |

Generations at Green Valley  
 16: El Dorado Hills Blvd. & Lassen Ln/Serrano Pkwy.

Plus Project  
 Timing Plan: AM



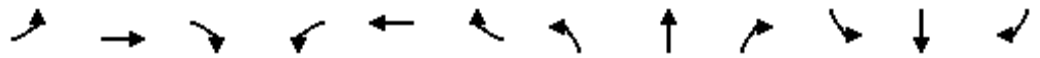
| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | NBR  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 30   | 107  | 257  | 380  | 73   | 826  | 241  | 145  | 1090 |
| v/c Ratio               | 0.08 | 0.26 | 0.92 | 0.87 | 0.78 | 0.73 | 0.15 | 0.87 | 0.82 |
| Control Delay           | 29.2 | 14.7 | 77.0 | 38.0 | 91.8 | 31.7 | 0.2  | 84.1 | 32.0 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 29.2 | 14.7 | 77.0 | 38.0 | 91.8 | 31.7 | 0.2  | 84.1 | 32.0 |
| Queue Length 50th (ft)  | 14   | 18   | 153  | 97   | 42   | 217  | 0    | 82   | 295  |
| Queue Length 95th (ft)  | 33   | 50   | #200 | 118  | #106 | 265  | 0    | #181 | 374  |
| Internal Link Dist (ft) |      | 321  |      | 6047 |      | 1160 |      |      | 3231 |
| Turn Bay Length (ft)    | 70   |      | 410  |      | 260  |      |      | 100  |      |
| Base Capacity (vph)     | 375  | 411  | 278  | 435  | 99   | 1131 | 1583 | 178  | 1327 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.08 | 0.26 | 0.92 | 0.87 | 0.74 | 0.73 | 0.15 | 0.81 | 0.82 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
16: El Dorado Hills Blvd. & Lassen Ln/Serrano Pkwy.

Plus Project  
Timing Plan: AM

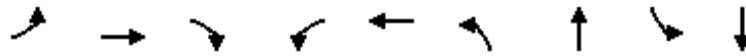


| Movement               | EBL   | EBT  | EBR  | WBL   | WBT  | WBR  | NBL   | NBT  | NBR   | SBL   | SBT   | SBR  |
|------------------------|-------|------|------|-------|------|------|-------|------|-------|-------|-------|------|
| Lane Configurations    | ↖     | ↗    |      | ↖     | ↔    |      | ↖     | ↕    | ↗     | ↖     | ↕     | ↗    |
| Traffic Volume (vph)   | 24    | 30   | 55   | 200   | 28   | 218  | 62    | 702  | 205   | 129   | 933   | 37   |
| Future Volume (vph)    | 24    | 30   | 55   | 200   | 28   | 218  | 62    | 702  | 205   | 129   | 933   | 37   |
| Ideal Flow (vphpl)     | 1900  | 1900 | 1900 | 1900  | 1900 | 1900 | 1900  | 1900 | 1900  | 1900  | 1900  | 1900 |
| Total Lost time (s)    | 5.2   | 5.2  |      | 5.2   | 5.2  |      | 3.0   | 5.2  | 4.0   | 3.0   | 5.2   |      |
| Lane Util. Factor      | 1.00  | 1.00 |      | 0.95  | 0.95 |      | 1.00  | 0.95 | 1.00  | 1.00  | 0.95  |      |
| Frt                    | 1.00  | 0.90 |      | 1.00  | 0.88 |      | 1.00  | 1.00 | 0.85  | 1.00  | 0.99  |      |
| Flt Protected          | 0.95  | 1.00 |      | 0.95  | 1.00 |      | 0.95  | 1.00 | 1.00  | 0.95  | 1.00  |      |
| Satd. Flow (prot)      | 1770  | 1683 |      | 1681  | 1546 |      | 1770  | 3539 | 1583  | 1770  | 3519  |      |
| Flt Permitted          | 0.95  | 1.00 |      | 0.95  | 1.00 |      | 0.95  | 1.00 | 1.00  | 0.95  | 1.00  |      |
| Satd. Flow (perm)      | 1770  | 1683 |      | 1681  | 1546 |      | 1770  | 3539 | 1583  | 1770  | 3519  |      |
| Peak-hour factor, PHF  | 0.80  | 0.80 | 0.80 | 0.70  | 0.70 | 0.70 | 0.85  | 0.85 | 0.85  | 0.89  | 0.89  | 0.89 |
| Adj. Flow (vph)        | 30    | 38   | 69   | 286   | 40   | 311  | 73    | 826  | 241   | 145   | 1048  | 42   |
| RTOR Reduction (vph)   | 0     | 54   | 0    | 0     | 181  | 0    | 0     | 0    | 0     | 0     | 3     | 0    |
| Lane Group Flow (vph)  | 30    | 53   | 0    | 257   | 199  | 0    | 73    | 826  | 241   | 145   | 1087  | 0    |
| Turn Type              | Split | NA   |      | Split | NA   |      | Prot  | NA   | Free  | Prot  | NA    |      |
| Protected Phases       | 4     | 4    |      | 8     | 8    |      | 5     | 2    |       | 1     | 6     |      |
| Permitted Phases       |       |      |      |       |      |      |       |      | Free  |       |       |      |
| Actuated Green, G (s)  | 19.0  | 19.0 |      | 14.8  | 14.8 |      | 4.0   | 29.3 | 90.1  | 8.4   | 33.7  |      |
| Effective Green, g (s) | 19.0  | 19.0 |      | 14.8  | 14.8 |      | 4.0   | 29.3 | 90.1  | 8.4   | 33.7  |      |
| Actuated g/C Ratio     | 0.21  | 0.21 |      | 0.16  | 0.16 |      | 0.04  | 0.33 | 1.00  | 0.09  | 0.37  |      |
| Clearance Time (s)     | 5.2   | 5.2  |      | 5.2   | 5.2  |      | 3.0   | 5.2  |       | 3.0   | 5.2   |      |
| Vehicle Extension (s)  | 0.2   | 0.2  |      | 0.2   | 0.2  |      | 0.2   | 0.2  |       | 0.2   | 0.2   |      |
| Lane Grp Cap (vph)     | 373   | 354  |      | 276   | 253  |      | 78    | 1150 | 1583  | 165   | 1316  |      |
| v/s Ratio Prot         | 0.02  | 0.03 |      | c0.15 | 0.13 |      | 0.04  | 0.23 |       | c0.08 | c0.31 |      |
| v/s Ratio Perm         |       |      |      |       |      |      |       |      | c0.15 |       |       |      |
| v/c Ratio              | 0.08  | 0.15 |      | 0.93  | 0.79 |      | 0.94  | 0.72 | 0.15  | 0.88  | 0.83  |      |
| Uniform Delay, d1      | 28.5  | 29.0 |      | 37.1  | 36.1 |      | 42.9  | 26.8 | 0.0   | 40.3  | 25.5  |      |
| Progression Factor     | 1.00  | 1.00 |      | 1.00  | 1.00 |      | 1.00  | 1.00 | 1.00  | 1.00  | 1.00  |      |
| Incremental Delay, d2  | 0.4   | 0.9  |      | 39.0  | 21.6 |      | 78.9  | 3.9  | 0.2   | 36.4  | 6.0   |      |
| Delay (s)              | 29.0  | 29.8 |      | 76.2  | 57.8 |      | 121.8 | 30.6 | 0.2   | 76.7  | 31.6  |      |
| Level of Service       | C     | C    |      | E     | E    |      | F     | C    | A     | E     | C     |      |
| Approach Delay (s)     |       | 29.7 |      |       | 65.2 |      |       | 30.0 |       |       | 36.9  |      |
| Approach LOS           |       | C    |      |       | E    |      |       | C    |       |       | D     |      |

Intersection Summary

|                                   |       |                           |      |
|-----------------------------------|-------|---------------------------|------|
| HCM 2000 Control Delay            | 39.8  | HCM 2000 Level of Service | D    |
| HCM 2000 Volume to Capacity ratio | 0.71  |                           |      |
| Actuated Cycle Length (s)         | 90.1  | Sum of lost time (s)      | 18.6 |
| Intersection Capacity Utilization | 62.3% | ICU Level of Service      | B    |
| Analysis Period (min)             | 15    |                           |      |

c Critical Lane Group



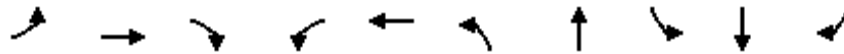
| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL    | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|--------|------|------|------|
| Lane Group Flow (vph)   | 114  | 117  | 374  | 14   | 99   | 311    | 1022 | 110  | 1174 |
| v/c Ratio               | 0.73 | 0.73 | 0.77 | 0.13 | 0.63 | 4.86   | 0.36 | 0.43 | 0.51 |
| Control Delay           | 73.7 | 72.6 | 16.0 | 50.2 | 41.5 | 1783.5 | 14.7 | 48.6 | 10.9 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0    | 0.0  | 0.0  | 0.0  |
| Total Delay             | 73.7 | 72.6 | 16.0 | 50.2 | 41.5 | 1783.5 | 14.7 | 48.6 | 10.9 |
| Queue Length 50th (ft)  | 84   | 86   | 0    | 10   | 29   | ~411   | 133  | 72   | 186  |
| Queue Length 95th (ft)  | 117  | 121  | 34   | 27   | 68   | #564   | 195  | 127  | 310  |
| Internal Link Dist (ft) |      | 1745 |      |      | 332  |        | 961  |      | 1160 |
| Turn Bay Length (ft)    | 145  |      | 145  | 125  |      | 165    |      | 70   |      |
| Base Capacity (vph)     | 244  | 252  | 549  | 482  | 505  | 64     | 2802 | 257  | 2303 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0      | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0      | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0      | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.47 | 0.46 | 0.68 | 0.03 | 0.20 | 4.86   | 0.36 | 0.43 | 0.51 |

**Intersection Summary**

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

---

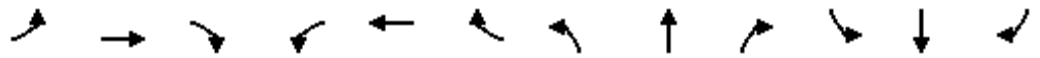
HCM 6th Edition methodology expects strict NEMA phasing.



| Lane Group              | EBL   | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  | SBR  |
|-------------------------|-------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 249   | 43   | 422  | 184  | 140  | 699  | 1222 | 44   | 1007 | 399  |
| v/c Ratio               | 1.00  | 0.16 | 0.27 | 0.70 | 0.26 | 0.81 | 0.46 | 0.38 | 0.60 | 0.51 |
| Control Delay           | 109.1 | 48.0 | 0.4  | 62.8 | 23.2 | 50.2 | 18.8 | 63.1 | 37.1 | 6.1  |
| Queue Delay             | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 51.4 | 2.3  |
| Total Delay             | 109.1 | 48.0 | 0.4  | 62.8 | 23.2 | 50.2 | 18.8 | 63.1 | 88.5 | 8.4  |
| Queue Length 50th (ft)  | ~211  | 30   | 0    | 137  | 25   | 262  | 212  | 33   | 236  | 0    |
| Queue Length 95th (ft)  | #364  | 64   | 0    | 152  | 34   | 275  | 236  | 68   | 303  | 55   |
| Internal Link Dist (ft) |       | 287  |      |      | 264  |      | 780  |      | 105  |      |
| Turn Bay Length (ft)    |       |      |      | 410  |      | 260  |      | 195  |      |      |
| Base Capacity (vph)     | 249   | 262  | 1583 | 390  | 777  | 1031 | 2655 | 117  | 1666 | 787  |
| Starvation Cap Reductn  | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 915  | 256  |
| Spillback Cap Reductn   | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 1.00  | 0.16 | 0.27 | 0.47 | 0.18 | 0.68 | 0.46 | 0.38 | 1.34 | 0.75 |

**Intersection Summary**

- ~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.



| Movement                     | EBL   | EBT   | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|-------|-------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          | ↖     | ↑     | ↗    | ↖    | ↕    |      | ↖    | ↕    |      | ↖    | ↕    | ↗    |
| Traffic Volume (veh/h)       | 219   | 38    | 371  | 129  | 49   | 49   | 573  | 888  | 114  | 37   | 846  | 335  |
| Future Volume (veh/h)        | 219   | 38    | 371  | 129  | 49   | 49   | 573  | 888  | 114  | 37   | 846  | 335  |
| Initial Q (Qb), veh          | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00  |       | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |       | No    |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870  | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 249   | 43    | 0    | 184  | 70   | 70   | 699  | 1083 | 139  | 44   | 1007 | 0    |
| Peak Hour Factor             | 0.88  | 0.88  | 0.88 | 0.70 | 0.70 | 0.70 | 0.82 | 0.82 | 0.82 | 0.84 | 0.84 | 0.84 |
| Percent Heavy Veh, %         | 2     | 2     | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 238   | 249   |      | 225  | 225  | 200  | 802  | 2637 | 338  | 56   | 1915 |      |
| Arrive On Green              | 0.13  | 0.13  | 0.00 | 0.13 | 0.13 | 0.13 | 0.23 | 0.58 | 0.58 | 0.03 | 0.38 | 0.00 |
| Sat Flow, veh/h              | 1781  | 1870  | 1585 | 1781 | 1780 | 1582 | 3456 | 4581 | 587  | 1781 | 5106 | 1585 |
| Grp Volume(v), veh/h         | 249   | 43    | 0    | 184  | 70   | 70   | 699  | 804  | 418  | 44   | 1007 | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781  | 1870  | 1585 | 1781 | 1777 | 1586 | 1728 | 1702 | 1765 | 1781 | 1702 | 1585 |
| Q Serve(g_s), s              | 16.0  | 2.4   | 0.0  | 12.1 | 4.3  | 4.9  | 23.4 | 15.8 | 15.8 | 2.9  | 18.4 | 0.0  |
| Cycle Q Clear(g_c), s        | 16.0  | 2.4   | 0.0  | 12.1 | 4.3  | 4.9  | 23.4 | 15.8 | 15.8 | 2.9  | 18.4 | 0.0  |
| Prop In Lane                 | 1.00  |       | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 0.33 | 1.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 238   | 249   |      | 225  | 224  | 200  | 802  | 1959 | 1016 | 56   | 1915 |      |
| V/C Ratio(X)                 | 1.05  | 0.17  |      | 0.82 | 0.31 | 0.35 | 0.87 | 0.41 | 0.41 | 0.78 | 0.53 |      |
| Avail Cap(c_a), veh/h        | 238   | 249   |      | 393  | 392  | 350  | 1037 | 1959 | 1016 | 59   | 1915 |      |
| HCM Platoon Ratio            | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00  | 1.00  | 0.00 | 1.00 | 1.00 | 1.00 | 0.90 | 0.90 | 0.90 | 0.80 | 0.80 | 0.00 |
| Uniform Delay (d), s/veh     | 52.0  | 46.1  | 0.0  | 51.1 | 47.7 | 47.9 | 44.4 | 14.2 | 14.2 | 57.7 | 29.2 | 0.0  |
| Incr Delay (d2), s/veh       | 71.7  | 0.3   | 0.0  | 7.2  | 0.8  | 1.0  | 6.1  | 0.6  | 1.1  | 38.6 | 0.8  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 11.9  | 1.2   | 0.0  | 5.9  | 2.0  | 2.0  | 10.3 | 5.7  | 6.1  | 1.9  | 7.4  | 0.0  |
| Unsig. Movement Delay, s/veh |       |       |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 123.7 | 46.5  | 0.0  | 58.3 | 48.5 | 49.0 | 50.4 | 14.7 | 15.3 | 96.3 | 30.0 | 0.0  |
| LnGrp LOS                    | F     | D     |      | E    | D    | D    | D    | B    | B    | F    | C    |      |
| Approach Vol, veh/h          |       | 292   | A    |      | 324  |      |      | 1921 |      |      | 1051 | A    |
| Approach Delay, s/veh        |       | 112.3 |      |      | 54.2 |      |      | 27.8 |      |      | 32.8 |      |
| Approach LOS                 |       | F     |      |      | D    |      |      | C    |      |      | C    |      |
| Timer - Assigned Phs         | 1     | 2     |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 7.8   | 73.1  |      | 20.0 | 31.8 | 49.0 |      | 19.1 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0   | 4.0   |      | 4.0  | 4.0  | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0   | 56.2  |      | 16.0 | 36.0 | 25.5 |      | 26.5 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 4.9   | 17.8  |      | 18.0 | 25.4 | 20.4 |      | 14.1 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0   | 6.2   |      | 0.0  | 2.5  | 2.2  |      | 1.1  |      |      |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 38.5 |
| HCM 6th LOS        | D    |

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.





| Lane Group              | EBR  | WBR  | NBT  | NBR  | SBL   | SBT  |
|-------------------------|------|------|------|------|-------|------|
| Lane Group Flow (vph)   | 985  | 563  | 1369 | 227  | 295   | 1516 |
| v/c Ratio               | 0.86 | 0.35 | 0.48 | 0.23 | 1.22  | 0.33 |
| Control Delay           | 46.7 | 0.6  | 21.5 | 4.7  | 182.8 | 8.2  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  |
| Total Delay             | 46.7 | 0.6  | 21.5 | 4.7  | 182.8 | 8.2  |
| Queue Length 50th (ft)  | 459  | 0    | 300  | 18   | -359  | 152  |
| Queue Length 95th (ft)  | 454  | 0    | 356  | 63   | #428  | 146  |
| Internal Link Dist (ft) |      |      | 468  |      |       | 780  |
| Turn Bay Length (ft)    |      |      |      | 180  | 350   |      |
| Base Capacity (vph)     | 1225 | 1611 | 2847 | 968  | 242   | 4635 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0     | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0     | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0     | 0    |
| Reduced v/c Ratio       | 0.80 | 0.35 | 0.48 | 0.23 | 1.22  | 0.33 |

**Intersection Summary**

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

---

HCM 6th Edition methodology does not support custom phasing.



| Lane Group              | EBL  | EBR  | NBL  | NBT  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 271  | 347  | 302  | 417  | 724  | 154  |
| v/c Ratio               | 0.46 | 0.62 | 0.37 | 0.16 | 0.44 | 0.19 |
| Control Delay           | 40.4 | 9.6  | 33.2 | 3.7  | 25.1 | 9.6  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 40.4 | 9.6  | 33.2 | 3.7  | 25.1 | 9.6  |
| Queue Length 50th (ft)  | 80   | 0    | 82   | 32   | 160  | 27   |
| Queue Length 95th (ft)  | 91   | 14   | 117  | 44   | m180 | m43  |
| Internal Link Dist (ft) | 706  |      |      | 516  | 832  |      |
| Turn Bay Length (ft)    |      | 195  | 480  |      |      | 148  |
| Base Capacity (vph)     | 583  | 557  | 823  | 2654 | 1663 | 825  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.46 | 0.62 | 0.37 | 0.16 | 0.44 | 0.19 |

**Intersection Summary**

m Volume for 95th percentile queue is metered by upstream signal.

Generations at Green Valley  
 20: White Rock Rd/Silva Valley Pkwy & US-50 EB On&Off-Ramp

Plus Project  
 Timing Plan: AM



| Movement                     | EBL   | EBR   | NBL  | NBT  | SBT  | SBR  |
|------------------------------|-------|-------|------|------|------|------|
| Lane Configurations          |       |       |      |      |      |      |
| Traffic Volume (veh/h)       | 190   | 243   | 263  | 363  | 615  | 131  |
| Future Volume (veh/h)        | 190   | 243   | 263  | 363  | 615  | 131  |
| Initial Q (Qb), veh          | 0     | 0     | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00  | 1.00  | 1.00 |      |      | 1.00 |
| Parking Bus, Adj             | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No    |       |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870  | 1870  | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 271   | 347   | 302  | 417  | 724  | 154  |
| Peak Hour Factor             | 0.70  | 0.70  | 0.87 | 0.87 | 0.85 | 0.85 |
| Percent Heavy Veh, %         | 2     | 2     | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 587   | 269   | 829  | 2665 | 1670 | 745  |
| Arrive On Green              | 0.17  | 0.17  | 0.24 | 0.75 | 0.16 | 0.16 |
| Sat Flow, veh/h              | 3456  | 1585  | 3456 | 3647 | 3647 | 1585 |
| Grp Volume(v), veh/h         | 271   | 347   | 302  | 417  | 724  | 154  |
| Grp Sat Flow(s),veh/h/ln     | 1728  | 1585  | 1728 | 1777 | 1777 | 1585 |
| Q Serve(g_s), s              | 7.1   | 17.0  | 7.3  | 3.3  | 18.5 | 8.5  |
| Cycle Q Clear(g_c), s        | 7.1   | 17.0  | 7.3  | 3.3  | 18.5 | 8.5  |
| Prop In Lane                 | 1.00  | 1.00  | 1.00 |      |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 587   | 269   | 829  | 2665 | 1670 | 745  |
| V/C Ratio(X)                 | 0.46  | 1.29  | 0.36 | 0.16 | 0.43 | 0.21 |
| Avail Cap(c_a), veh/h        | 587   | 269   | 829  | 2665 | 1670 | 745  |
| HCM Platoon Ratio            | 1.00  | 1.00  | 1.00 | 1.00 | 0.33 | 0.33 |
| Upstream Filter(l)           | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 37.4  | 41.5  | 31.6 | 3.5  | 30.2 | 26.0 |
| Incr Delay (d2), s/veh       | 2.6   | 154.5 | 1.2  | 0.1  | 0.8  | 0.6  |
| Initial Q Delay(d3),s/veh    | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 3.2   | 25.3  | 3.0  | 0.8  | 8.8  | 3.4  |
| Unsig. Movement Delay, s/veh |       |       |      |      |      |      |
| LnGrp Delay(d),s/veh         | 40.0  | 196.0 | 32.9 | 3.7  | 31.0 | 26.6 |
| LnGrp LOS                    | D     | F     | C    | A    | C    | C    |
| Approach Vol, veh/h          | 618   |       |      | 719  | 878  |      |
| Approach Delay, s/veh        | 127.6 |       |      | 15.9 | 30.2 |      |
| Approach LOS                 | F     |       |      | B    | C    |      |
| Timer - Assigned Phs         |       | 2     |      | 4    | 5    | 6    |
| Phs Duration (G+Y+Rc), s     |       | 79.0  |      | 21.0 | 28.0 | 51.0 |
| Change Period (Y+Rc), s      |       | 4.0   |      | 4.0  | 4.0  | 4.0  |
| Max Green Setting (Gmax), s  |       | 75.0  |      | 17.0 | 24.0 | 47.0 |
| Max Q Clear Time (g_c+I1), s |       | 5.3   |      | 19.0 | 9.3  | 20.5 |
| Green Ext Time (p_c), s      |       | 2.7   |      | 0.0  | 0.9  | 5.4  |
| <b>Intersection Summary</b>  |       |       |      |      |      |      |
| HCM 6th Ctrl Delay           |       |       | 52.8 |      |      |      |
| HCM 6th LOS                  |       |       | D    |      |      |      |

Generations at Green Valley  
 21: Silva Valley Pkwy & US-50 WB On-Ramp/US-50 WB Off-Ramp

Plus Project  
 Timing Plan: AM



| Lane Group              | WBL  | WBT  | WBR  | NBL  | NBT  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 549  | 3    | 148  | 168  | 489  | 357  | 482  |
| v/c Ratio               | 0.91 | 0.00 | 0.23 | 0.45 | 0.24 | 0.31 | 0.57 |
| Control Delay           | 53.5 | 22.0 | 5.0  | 27.8 | 9.5  | 25.9 | 5.3  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 53.5 | 22.0 | 5.0  | 27.8 | 9.5  | 25.9 | 5.3  |
| Queue Length 50th (ft)  | 332  | 1    | 0    | 89   | 96   | 88   | 0    |
| Queue Length 95th (ft)  | #431 | 7    | 29   | 137  | 121  | 123  | 62   |
| Internal Link Dist (ft) |      | 580  |      |      | 832  | 250  |      |
| Turn Bay Length (ft)    |      |      |      | 545  |      |      |      |
| Base Capacity (vph)     | 601  | 633  | 635  | 371  | 2052 | 1167 | 845  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.91 | 0.00 | 0.23 | 0.45 | 0.24 | 0.31 | 0.57 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
 21: Silva Valley Pkwy & US-50 WB On-Ramp/US-50 WB Off-Ramp

Plus Project  
 Timing Plan: AM



| Movement                     | EBL | EBT  | EBR | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|-----|------|-----|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |     |      |     | ↖    | ↗    | ↖    | ↖    | ↗    |      |      | ↗    | ↖    |
| Traffic Volume (veh/h)       | 0   | 0    | 0   | 439  | 2    | 118  | 143  | 416  | 0    | 0    | 314  | 424  |
| Future Volume (veh/h)        | 0   | 0    | 0   | 439  | 2    | 118  | 143  | 416  | 0    | 0    | 314  | 424  |
| Initial Q (Qb), veh          |     |      |     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |     |      |     | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             |     |      |     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |     |      |     | No   |      |      | No   |      |      | No   |      |      |
| Adj Sat Flow, veh/h/ln       |     |      |     | 1870 | 1870 | 1870 | 1870 | 1870 | 0    | 0    | 1870 | 1870 |
| Adj Flow Rate, veh/h         |     |      |     | 549  | 2    | 148  | 168  | 489  | 0    | 0    | 357  | 482  |
| Peak Hour Factor             |     |      |     | 0.80 | 0.80 | 0.80 | 0.85 | 0.85 | 0.85 | 0.88 | 0.88 | 0.88 |
| Percent Heavy Veh, %         |     |      |     | 2    | 2    | 2    | 2    | 2    | 0    | 0    | 2    | 2    |
| Cap, veh/h                   |     |      |     | 606  | 636  | 539  | 374  | 2061 | 0    | 0    | 1173 | 523  |
| Arrive On Green              |     |      |     | 0.34 | 0.34 | 0.34 | 0.42 | 1.00 | 0.00 | 0.00 | 0.33 | 0.33 |
| Sat Flow, veh/h              |     |      |     | 1781 | 1870 | 1585 | 1781 | 3647 | 0    | 0    | 3647 | 1585 |
| Grp Volume(v), veh/h         |     |      |     | 549  | 2    | 148  | 168  | 489  | 0    | 0    | 357  | 482  |
| Grp Sat Flow(s),veh/h/ln     |     |      |     | 1781 | 1870 | 1585 | 1781 | 1777 | 0    | 0    | 1777 | 1585 |
| Q Serve(g_s), s              |     |      |     | 29.4 | 0.1  | 6.8  | 6.7  | 0.0  | 0.0  | 0.0  | 7.5  | 29.3 |
| Cycle Q Clear(g_c), s        |     |      |     | 29.4 | 0.1  | 6.8  | 6.7  | 0.0  | 0.0  | 0.0  | 7.5  | 29.3 |
| Prop In Lane                 |     |      |     | 1.00 |      | 1.00 | 1.00 |      | 0.00 | 0.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       |     |      |     | 606  | 636  | 539  | 374  | 2061 | 0    | 0    | 1173 | 523  |
| V/C Ratio(X)                 |     |      |     | 0.91 | 0.00 | 0.27 | 0.45 | 0.24 | 0.00 | 0.00 | 0.30 | 0.92 |
| Avail Cap(c_a), veh/h        |     |      |     | 606  | 636  | 539  | 374  | 2061 | 0    | 0    | 1173 | 523  |
| HCM Platoon Ratio            |     |      |     | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           |     |      |     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     |     |      |     | 31.5 | 21.8 | 24.0 | 24.9 | 0.0  | 0.0  | 0.0  | 25.0 | 32.3 |
| Incr Delay (d2), s/veh       |     |      |     | 19.6 | 0.0  | 1.3  | 3.9  | 0.3  | 0.0  | 0.0  | 0.7  | 24.0 |
| Initial Q Delay(d3),s/veh    |     |      |     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     |     |      |     | 15.6 | 0.0  | 2.7  | 2.8  | 0.1  | 0.0  | 0.0  | 3.1  | 13.9 |
| Unsig. Movement Delay, s/veh |     |      |     |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         |     |      |     | 51.1 | 21.8 | 25.3 | 28.7 | 0.3  | 0.0  | 0.0  | 25.6 | 56.3 |
| LnGrp LOS                    |     |      |     | D    | C    | C    | C    | A    | A    | A    | C    | E    |
| Approach Vol, veh/h          |     |      |     |      | 699  |      |      | 657  |      |      | 839  |      |
| Approach Delay, s/veh        |     |      |     |      | 45.6 |      |      | 7.5  |      |      | 43.2 |      |
| Approach LOS                 |     |      |     |      | D    |      |      | A    |      |      | D    |      |
| Timer - Assigned Phs         |     | 2    |     |      | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |     | 62.0 |     |      | 25.0 | 37.0 |      | 38.0 |      |      |      |      |
| Change Period (Y+Rc), s      |     | 4.0  |     |      | 4.0  | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |     | 58.0 |     |      | 21.0 | 33.0 |      | 34.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |     | 2.0  |     |      | 8.7  | 31.3 |      | 31.4 |      |      |      |      |
| Green Ext Time (p_c), s      |     | 3.3  |     |      | 0.3  | 0.7  |      | 0.7  |      |      |      |      |
| <b>Intersection Summary</b>  |     |      |     |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |     |      |     |      |      |      |      |      |      |      | 33.3 |      |
| HCM 6th LOS                  |     |      |     |      |      |      |      |      |      |      | C    |      |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0    |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      |      | ↗    | ↕↕   | ↗    |      | ↕↕   |
| Traffic Vol, veh/h       | 0    | 1    | 532  | 1    | 0    | 735  |
| Future Vol, veh/h        | 0    | 1    | 532  | 1    | 0    | 735  |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Free | Free | Free | Free |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | 0    | -    | 160  | -    | -    |
| Veh in Median Storage, # | 0    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 70   | 70   | 75   | 75   | 88   | 88   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 0    | 1    | 709  | 1    | 0    | 835  |

| Major/Minor          | Minor1 | Major1 | Major2 |   |   |
|----------------------|--------|--------|--------|---|---|
| Conflicting Flow All | -      | 355    | 0      | 0 | - |
| Stage 1              | -      | -      | -      | - | - |
| Stage 2              | -      | -      | -      | - | - |
| Critical Hdwy        | -      | 6.94   | -      | - | - |
| Critical Hdwy Stg 1  | -      | -      | -      | - | - |
| Critical Hdwy Stg 2  | -      | -      | -      | - | - |
| Follow-up Hdwy       | -      | 3.32   | -      | - | - |
| Pot Cap-1 Maneuver   | 0      | 641    | -      | - | 0 |
| Stage 1              | 0      | -      | -      | - | 0 |
| Stage 2              | 0      | -      | -      | - | 0 |
| Platoon blocked, %   |        |        | -      | - | - |
| Mov Cap-1 Maneuver   | -      | 641    | -      | - | - |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | - |
| Stage 1              | -      | -      | -      | - | - |
| Stage 2              | -      | -      | -      | - | - |

| Approach             | WB   | NB | SB |
|----------------------|------|----|----|
| HCM Control Delay, s | 10.6 | 0  | 0  |
| HCM LOS              | B    |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBT   |
|-----------------------|-----|----------|-------|
| Capacity (veh/h)      | -   | -        | 641   |
| HCM Lane V/C Ratio    | -   | -        | 0.002 |
| HCM Control Delay (s) | -   | -        | 10.6  |
| HCM Lane LOS          | -   | -        | B     |
| HCM 95th %tile Q(veh) | -   | -        | 0     |



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | NBR  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 95   | 408  | 544  | 692  | 343  | 414  | 286  | 243  | 595  |
| v/c Ratio               | 0.57 | 0.72 | 1.04 | 0.56 | 0.87 | 0.46 | 0.47 | 0.78 | 0.82 |
| Control Delay           | 64.9 | 27.2 | 89.4 | 18.0 | 66.4 | 39.3 | 7.1  | 62.8 | 52.0 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 64.9 | 27.2 | 89.4 | 18.0 | 66.4 | 39.3 | 7.1  | 62.8 | 52.0 |
| Queue Length 50th (ft)  | 68   | 61   | ~441 | 111  | 247  | 135  | 0    | 174  | 213  |
| Queue Length 95th (ft)  | 116  | 90   | #606 | 141  | 282  | 155  | 12   | 271  | 296  |
| Internal Link Dist (ft) |      | 6047 |      | 1303 |      | 4417 |      |      | 4456 |
| Turn Bay Length (ft)    | 155  |      | 330  |      | 250  |      | 180  | 150  |      |
| Base Capacity (vph)     | 200  | 868  | 525  | 1473 | 402  | 900  | 615  | 402  | 838  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.47 | 0.47 | 1.04 | 0.47 | 0.85 | 0.46 | 0.47 | 0.60 | 0.71 |

**Intersection Summary**

- ~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.



Generations at Green Valley  
23: Serrano Pkwy. & Silva Valley Pkwy.

Plus Project  
Timing Plan: AM



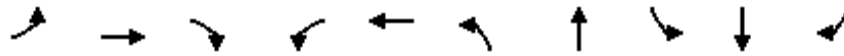
| Movement                     | EBL  | EBT  | EBR  | WBL   | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|-------|------|------|------|------|------|------|------|------|
| Lane Configurations          | ↖    | ↗    |      | ↖     | ↗    |      | ↖    | ↗    | ↗    | ↖    | ↗    |      |
| Traffic Volume (veh/h)       | 76   | 130  | 196  | 441   | 214  | 347  | 240  | 290  | 200  | 221  | 432  | 109  |
| Future Volume (veh/h)        | 76   | 130  | 196  | 441   | 214  | 347  | 240  | 290  | 200  | 221  | 432  | 109  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00  |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |       | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 95   | 162  | 245  | 544   | 264  | 428  | 343  | 414  | 0    | 243  | 475  | 120  |
| Peak Hour Factor             | 0.80 | 0.80 | 0.80 | 0.81  | 0.81 | 0.81 | 0.70 | 0.70 | 0.70 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2     | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 119  | 308  | 275  | 492   | 680  | 606  | 367  | 876  |      | 273  | 544  | 137  |
| Arrive On Green              | 0.07 | 0.17 | 0.17 | 0.28  | 0.38 | 0.38 | 0.21 | 0.25 | 0.00 | 0.15 | 0.19 | 0.19 |
| Sat Flow, veh/h              | 1781 | 1777 | 1585 | 1781  | 1777 | 1585 | 1781 | 3554 | 1585 | 1781 | 2814 | 706  |
| Grp Volume(v), veh/h         | 95   | 162  | 245  | 544   | 264  | 428  | 343  | 414  | 0    | 243  | 299  | 296  |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1777 | 1585 | 1781  | 1777 | 1585 | 1781 | 1777 | 1585 | 1781 | 1777 | 1743 |
| Q Serve(g_s), s              | 6.5  | 10.2 | 18.6 | 34.0  | 13.3 | 28.1 | 23.3 | 12.2 | 0.0  | 16.5 | 20.1 | 20.3 |
| Cycle Q Clear(g_c), s        | 6.5  | 10.2 | 18.6 | 34.0  | 13.3 | 28.1 | 23.3 | 12.2 | 0.0  | 16.5 | 20.1 | 20.3 |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00  |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 0.41 |
| Lane Grp Cap(c), veh/h       | 119  | 308  | 275  | 492   | 680  | 606  | 367  | 876  |      | 273  | 344  | 337  |
| V/C Ratio(X)                 | 0.80 | 0.53 | 0.89 | 1.11  | 0.39 | 0.71 | 0.93 | 0.47 |      | 0.89 | 0.87 | 0.88 |
| Avail Cap(c_a), veh/h        | 188  | 346  | 309  | 492   | 680  | 606  | 376  | 876  |      | 376  | 395  | 388  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 56.7 | 46.3 | 49.8 | 44.6  | 27.6 | 32.2 | 48.1 | 39.6 | 0.0  | 51.1 | 48.2 | 48.3 |
| Incr Delay (d2), s/veh       | 12.0 | 1.4  | 24.4 | 72.9  | 0.4  | 3.7  | 29.8 | 0.4  | 0.0  | 17.6 | 16.7 | 18.2 |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 3.2  | 4.5  | 9.0  | 24.4  | 5.5  | 10.9 | 13.1 | 5.3  | 0.0  | 8.5  | 10.2 | 10.3 |
| Unsig. Movement Delay, s/veh |      |      |      |       |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 68.7 | 47.7 | 74.2 | 117.5 | 27.9 | 35.9 | 77.9 | 40.0 | 0.0  | 68.8 | 64.9 | 66.5 |
| LnGrp LOS                    | E    | D    | E    | F     | C    | D    | E    | D    |      | E    | E    | E    |
| Approach Vol, veh/h          |      | 502  |      |       | 1236 |      |      | 757  | A    |      | 838  |      |
| Approach Delay, s/veh        |      | 64.6 |      |       | 70.1 |      |      | 57.1 |      |      | 66.6 |      |
| Approach LOS                 |      | E    |      |       | E    |      |      | E    |      |      | E    |      |
| Timer - Assigned Phs         | 1    | 2    | 3    | 4     | 5    | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 22.9 | 35.7 | 38.0 | 26.6  | 29.4 | 29.1 | 12.2 | 52.4 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 5.3  | 4.0  | 5.3   | 4.0  | 5.3  | 4.0  | 5.3  |      |      |      |      |
| Max Green Setting (Gmax), s  | 26.0 | 27.4 | 34.0 | 24.0  | 26.0 | 27.4 | 13.0 | 45.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 18.5 | 14.2 | 36.0 | 20.6  | 25.3 | 22.3 | 8.5  | 30.1 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.4  | 2.0  | 0.0  | 0.7   | 0.1  | 1.5  | 0.1  | 3.6  |      |      |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 65.4 |
| HCM 6th LOS        | E    |

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 123  | 87   | 319  | 109  | 76   | 448  | 202  | 45   | 267  | 343  |
| v/c Ratio               | 0.64 | 0.33 | 0.64 | 0.66 | 0.24 | 0.84 | 0.22 | 0.28 | 0.68 | 0.57 |
| Control Delay           | 47.7 | 29.1 | 10.1 | 52.3 | 23.4 | 39.0 | 12.1 | 34.5 | 33.9 | 7.3  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 47.7 | 29.1 | 10.1 | 52.3 | 23.4 | 39.0 | 12.1 | 34.5 | 33.9 | 7.3  |
| Queue Length 50th (ft)  | 49   | 33   | 0    | 44   | 22   | 167  | 47   | 17   | 97   | 0    |
| Queue Length 95th (ft)  | #88  | 53   | 18   | #84  | 42   | #367 | 102  | 46   | 172  | 48   |
| Internal Link Dist (ft) | 2093 |      |      |      | 328  |      | 4456 |      | 5798 |      |
| Turn Bay Length (ft)    | 60   |      |      |      |      |      | 100  |      | 65   |      |
| Base Capacity (vph)     | 194  | 496  | 655  | 166  | 463  | 554  | 909  | 166  | 467  | 654  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.63 | 0.18 | 0.49 | 0.66 | 0.16 | 0.81 | 0.22 | 0.27 | 0.57 | 0.52 |

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
24: Silva Valley Pkwy. & Harvard Way

Plus Project  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 86   | 61   | 223  | 76   | 41   | 12   | 412  | 176  | 10   | 38   | 224  | 288  |
| Future Volume (veh/h)        | 86   | 61   | 223  | 76   | 41   | 12   | 412  | 176  | 10   | 38   | 224  | 288  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 123  | 87   | 319  | 109  | 59   | 17   | 448  | 191  | 11   | 45   | 267  | 343  |
| Peak Hour Factor             | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.92 | 0.92 | 0.92 | 0.84 | 0.84 | 0.84 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 155  | 418  | 354  | 139  | 299  | 86   | 479  | 790  | 45   | 58   | 402  | 341  |
| Arrive On Green              | 0.09 | 0.22 | 0.22 | 0.08 | 0.21 | 0.21 | 0.27 | 0.45 | 0.45 | 0.03 | 0.21 | 0.21 |
| Sat Flow, veh/h              | 1781 | 1870 | 1585 | 1781 | 1396 | 402  | 1781 | 1751 | 101  | 1781 | 1870 | 1585 |
| Grp Volume(v), veh/h         | 123  | 87   | 319  | 109  | 0    | 76   | 448  | 0    | 202  | 45   | 267  | 343  |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1870 | 1585 | 1781 | 0    | 1798 | 1781 | 0    | 1852 | 1781 | 1870 | 1585 |
| Q Serve(g_s), s              | 5.0  | 2.8  | 14.6 | 4.5  | 0.0  | 2.6  | 18.3 | 0.0  | 5.0  | 1.9  | 9.7  | 16.0 |
| Cycle Q Clear(g_c), s        | 5.0  | 2.8  | 14.6 | 4.5  | 0.0  | 2.6  | 18.3 | 0.0  | 5.0  | 1.9  | 9.7  | 16.0 |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 0.22 | 1.00 |      | 0.05 | 1.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 155  | 418  | 354  | 139  | 0    | 385  | 479  | 0    | 835  | 58   | 402  | 341  |
| V/C Ratio(X)                 | 0.79 | 0.21 | 0.90 | 0.79 | 0.00 | 0.20 | 0.94 | 0.00 | 0.24 | 0.78 | 0.66 | 1.01 |
| Avail Cap(c_a), veh/h        | 168  | 427  | 362  | 144  | 0    | 386  | 479  | 0    | 835  | 144  | 402  | 341  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 33.3 | 23.5 | 28.1 | 33.7 | 0.0  | 24.0 | 26.6 | 0.0  | 12.6 | 35.7 | 26.8 | 29.2 |
| Incr Delay (d2), s/veh       | 21.1 | 0.2  | 24.2 | 23.8 | 0.0  | 0.2  | 26.0 | 0.0  | 0.1  | 19.5 | 4.1  | 50.5 |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 3.0  | 1.2  | 7.7  | 2.8  | 0.0  | 1.1  | 10.4 | 0.0  | 1.8  | 1.1  | 4.4  | 10.7 |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 54.4 | 23.8 | 52.3 | 57.5 | 0.0  | 24.2 | 52.6 | 0.0  | 12.7 | 55.2 | 30.8 | 79.7 |
| LnGrp LOS                    | D    | C    | D    | E    | A    | C    | D    | A    | B    | E    | C    | F    |
| Approach Vol, veh/h          |      | 529  |      |      | 185  |      |      | 650  |      |      | 655  |      |
| Approach Delay, s/veh        |      | 48.1 |      |      | 43.8 |      |      | 40.2 |      |      | 58.1 |      |
| Approach LOS                 |      | D    |      |      | D    |      |      | D    |      |      | E    |      |
| Timer - Assigned Phs         | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 6.4  | 37.6 | 9.8  | 20.6 | 24.0 | 20.0 | 10.5 | 20.0 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 6.0  | 30.0 | 6.0  | 17.0 | 20.0 | 16.0 | 7.0  | 16.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 3.9  | 7.0  | 6.5  | 16.6 | 20.3 | 18.0 | 7.0  | 4.6  |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 1.0  | 0.0  | 0.1  | 0.0  | 0.0  | 0.0  | 0.2  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 48.4 |      |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      | D    |      |      |      |      |      |      |      |      |      |

Intersection

Intersection Delay, s/veh29.5

Intersection LOS D

| Movement            | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations |      | ↕    |      |      | ↕    |      |      | ↕    |      |      | ↕    |      |
| Traffic Vol, veh/h  | 16   | 4    | 60   | 155  | 2    | 84   | 28   | 192  | 90   | 59   | 299  | 14   |
| Future Vol, veh/h   | 16   | 4    | 60   | 155  | 2    | 84   | 28   | 192  | 90   | 59   | 299  | 14   |
| Peak Hour Factor    | 0.70 | 0.70 | 0.70 | 0.74 | 0.74 | 0.74 | 0.70 | 0.70 | 0.70 | 0.80 | 0.80 | 0.80 |
| Heavy Vehicles, %   | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow           | 23   | 6    | 86   | 209  | 3    | 114  | 40   | 274  | 129  | 74   | 374  | 18   |
| Number of Lanes     | 0    | 1    | 0    | 0    | 1    | 0    | 0    | 1    | 0    | 0    | 1    | 0    |

| Approach                      | EB   | WB   | NB | SB   |
|-------------------------------|------|------|----|------|
| Opposing Approach             | WB   | EB   | SB | NB   |
| Opposing Lanes                | 1    | 1    | 1  | 1    |
| Conflicting Approach Left SB  |      | NB   | EB | WB   |
| Conflicting Lanes Left        | 1    | 1    | 1  | 1    |
| Conflicting Approach Right NB |      | SB   | WB | EB   |
| Conflicting Lanes Right       | 1    | 1    | 1  | 1    |
| HCM Control Delay             | 13.2 | 22.2 | 31 | 37.3 |
| HCM LOS                       | B    | C    | D  | E    |

| Lane                   | NBLn1 | EBLn1 | WBLn1 | SBLn1 |
|------------------------|-------|-------|-------|-------|
| Vol Left, %            | 9%    | 20%   | 64%   | 16%   |
| Vol Thru, %            | 62%   | 5%    | 1%    | 80%   |
| Vol Right, %           | 29%   | 75%   | 35%   | 4%    |
| Sign Control           | Stop  | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 310   | 80    | 241   | 372   |
| LT Vol                 | 28    | 16    | 155   | 59    |
| Through Vol            | 192   | 4     | 2     | 299   |
| RT Vol                 | 90    | 60    | 84    | 14    |
| Lane Flow Rate         | 443   | 114   | 326   | 465   |
| Geometry Grp           | 1     | 1     | 1     | 1     |
| Degree of Util (X)     | 0.802 | 0.242 | 0.643 | 0.855 |
| Departure Headway (Hd) | 6.523 | 7.633 | 7.111 | 6.622 |
| Convergence, Y/N       | Yes   | Yes   | Yes   | Yes   |
| Cap                    | 554   | 469   | 508   | 549   |
| Service Time           | 4.572 | 5.707 | 5.162 | 4.669 |
| HCM Lane V/C Ratio     | 0.8   | 0.243 | 0.642 | 0.847 |
| HCM Control Delay      | 31    | 13.2  | 22.2  | 37.3  |
| HCM Lane LOS           | D     | B     | C     | E     |
| HCM 95th-tile Q        | 7.7   | 0.9   | 4.5   | 9.1   |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.1  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↔    |      |      | ↑    |      | ↗    |
| Traffic Vol, veh/h       | 357  | 10   | 0    | 682  | 0    | 10   |
| Future Vol, veh/h        | 357  | 10   | 0    | 682  | 0    | 10   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | 0    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 388  | 11   | 0    | 741  | 0    | 11   |

| Major/Minor          | Major1 | Major2 | Minor1 |   |       |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 0      | 0      | -      | - | 394   |
| Stage 1              | -      | -      | -      | - | -     |
| Stage 2              | -      | -      | -      | - | -     |
| Critical Hdwy        | -      | -      | -      | - | 6.22  |
| Critical Hdwy Stg 1  | -      | -      | -      | - | -     |
| Critical Hdwy Stg 2  | -      | -      | -      | - | -     |
| Follow-up Hdwy       | -      | -      | -      | - | 3.318 |
| Pot Cap-1 Maneuver   | -      | -      | 0      | - | 655   |
| Stage 1              | -      | -      | 0      | - | -     |
| Stage 2              | -      | -      | 0      | - | -     |
| Platoon blocked, %   | -      | -      | -      | - | -     |
| Mov Cap-1 Maneuver   | -      | -      | -      | - | 655   |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | -     |
| Stage 1              | -      | -      | -      | - | -     |
| Stage 2              | -      | -      | -      | - | -     |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 10.6 |
| HCM LOS              |    |    | B    |

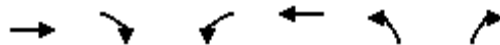
| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h)      | 655   | -   | -   | -   |
| HCM Lane V/C Ratio    | 0.017 | -   | -   | -   |
| HCM Control Delay (s) | 10.6  | -   | -   | -   |
| HCM Lane LOS          | B     | -   | -   | -   |
| HCM 95th %tile Q(veh) | 0.1   | -   | -   | -   |



| Lane Group                  | EBT  | WBL  | WBT  | NBL  | NBR  |
|-----------------------------|------|------|------|------|------|
| Lane Group Flow (vph)       | 399  | 15   | 628  | 113  | 29   |
| v/c Ratio                   | 0.42 | 0.03 | 0.66 | 0.27 | 0.07 |
| Control Delay               | 6.5  | 4.2  | 10.0 | 13.8 | 6.7  |
| Queue Delay                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay                 | 6.5  | 4.2  | 10.0 | 13.8 | 6.7  |
| Queue Length 50th (ft)      | 34   | 1    | 65   | 16   | 0    |
| Queue Length 95th (ft)      | 81   | 6    | 152  | 55   | 14   |
| Internal Link Dist (ft)     | 1398 |      | 2852 | 640  |      |
| Turn Bay Length (ft)        |      | 215  |      | 250  |      |
| Base Capacity (vph)         | 1483 | 763  | 1498 | 1423 | 1278 |
| Starvation Cap Reductn      | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn       | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn         | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio           | 0.27 | 0.02 | 0.42 | 0.08 | 0.02 |
| <b>Intersection Summary</b> |      |      |      |      |      |

Generations at Green Valley  
27: Site Dwy. Full & Green Valley Rd.

Plus Project  
Timing Plan: AM



| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations          | ↩    |      | ↩    | ↩    | ↩    | ↩    |
| Traffic Volume (veh/h)       | 337  | 30   | 14   | 578  | 104  | 27   |
| Future Volume (veh/h)        | 337  | 30   | 14   | 578  | 104  | 27   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 366  | 33   | 15   | 628  | 113  | 29   |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 826  | 74   | 649  | 914  | 304  | 270  |
| Arrive On Green              | 0.49 | 0.49 | 0.49 | 0.49 | 0.17 | 0.17 |
| Sat Flow, veh/h              | 1691 | 152  | 986  | 1870 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 0    | 399  | 15   | 628  | 113  | 29   |
| Grp Sat Flow(s),veh/h/ln     | 0    | 1843 | 986  | 1870 | 1781 | 1585 |
| Q Serve(g_s), s              | 0.0  | 3.3  | 0.2  | 6.1  | 1.3  | 0.4  |
| Cycle Q Clear(g_c), s        | 0.0  | 3.3  | 3.6  | 6.1  | 1.3  | 0.4  |
| Prop In Lane                 |      | 0.08 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 0    | 901  | 649  | 914  | 304  | 270  |
| V/C Ratio(X)                 | 0.00 | 0.44 | 0.02 | 0.69 | 0.37 | 0.11 |
| Avail Cap(c_a), veh/h        | 0    | 2042 | 1259 | 2072 | 1973 | 1756 |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 0.0  | 3.9  | 5.1  | 4.6  | 8.6  | 8.2  |
| Incr Delay (d2), s/veh       | 0.0  | 0.3  | 0.0  | 0.9  | 0.8  | 0.2  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.0  | 0.1  | 0.0  | 0.2  | 0.4  | 0.1  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 0.0  | 4.3  | 5.1  | 5.5  | 9.4  | 8.4  |
| LnGrp LOS                    | A    | A    | A    | A    | A    | A    |
| Approach Vol, veh/h          | 399  |      |      | 643  | 142  |      |
| Approach Delay, s/veh        | 4.3  |      |      | 5.5  | 9.2  |      |
| Approach LOS                 | A    |      |      | A    | A    |      |
| Timer - Assigned Phs         |      | 2    |      |      | 6    | 8    |
| Phs Duration (G+Y+Rc), s     |      | 15.5 |      |      | 15.5 | 8.0  |
| Change Period (Y+Rc), s      |      | 4.0  |      |      | 4.0  | 4.0  |
| Max Green Setting (Gmax), s  |      | 26.0 |      |      | 26.0 | 26.0 |
| Max Q Clear Time (g_c+I1), s |      | 8.1  |      |      | 5.3  | 3.3  |
| Green Ext Time (p_c), s      |      | 3.4  |      |      | 2.0  | 0.4  |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 5.5  |      |      |      |
| HCM 6th LOS                  |      |      | A    |      |      |      |

Summary of All Intervals

| Run Number              | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|
| Start Time              | 6:50  | 6:50  | 6:50  | 6:50  | 6:50  | 6:50  | 6:50  |
| End Time                | 8:00  | 8:00  | 8:00  | 8:00  | 8:00  | 8:00  | 8:00  |
| Total Time (min)        | 70    | 70    | 70    | 70    | 70    | 70    | 70    |
| Time Recorded (min)     | 60    | 60    | 60    | 60    | 60    | 60    | 60    |
| # of Intervals          | 5     | 5     | 5     | 5     | 5     | 5     | 5     |
| # of Recorded Intervals | 4     | 4     | 4     | 4     | 4     | 4     | 4     |
| Vehs Entered            | 11013 | 11272 | 11163 | 11258 | 11241 | 11313 | 11412 |
| Vehs Exited             | 10951 | 11225 | 11166 | 11202 | 11267 | 11285 | 11370 |
| Starting Vehs           | 230   | 232   | 258   | 233   | 285   | 280   | 240   |
| Ending Vehs             | 292   | 279   | 255   | 289   | 259   | 308   | 282   |
| Travel Distance (mi)    | 3474  | 3568  | 3580  | 3601  | 3590  | 3607  | 3617  |
| Travel Time (hr)        | 735.1 | 736.8 | 721.6 | 715.2 | 692.2 | 736.0 | 700.0 |
| Total Delay (hr)        | 632.0 | 630.7 | 615.6 | 608.3 | 585.8 | 628.7 | 592.7 |
| Total Stops             | 9447  | 9731  | 9898  | 9910  | 9805  | 10043 | 9790  |
| Fuel Used (gal)         | 298.8 | 301.6 | 297.8 | 296.9 | 292.7 | 303.0 | 295.8 |

Summary of All Intervals

| Run Number              | 7     | 8     | 9     | Avg   |
|-------------------------|-------|-------|-------|-------|
| Start Time              | 6:50  | 6:50  | 6:50  | 6:50  |
| End Time                | 8:00  | 8:00  | 8:00  | 8:00  |
| Total Time (min)        | 70    | 70    | 70    | 70    |
| Time Recorded (min)     | 60    | 60    | 60    | 60    |
| # of Intervals          | 5     | 5     | 5     | 5     |
| # of Recorded Intervals | 4     | 4     | 4     | 4     |
| Vehs Entered            | 11195 | 10979 | 11226 | 11206 |
| Vehs Exited             | 11114 | 10937 | 11209 | 11171 |
| Starting Vehs           | 250   | 267   | 239   | 248   |
| Ending Vehs             | 331   | 309   | 256   | 280   |
| Travel Distance (mi)    | 3558  | 3509  | 3557  | 3566  |
| Travel Time (hr)        | 699.7 | 701.1 | 715.0 | 715.3 |
| Total Delay (hr)        | 594.3 | 596.9 | 609.5 | 609.5 |
| Total Stops             | 9788  | 9469  | 9624  | 9752  |
| Fuel Used (gal)         | 293.3 | 290.5 | 296.0 | 296.6 |

Interval #0 Information Seeding

|                                     |      |
|-------------------------------------|------|
| Start Time                          | 6:50 |
| End Time                            | 7:00 |
| Total Time (min)                    | 10   |
| Volumes adjusted by Growth Factors. |      |
| No data recorded this interval.     |      |



**Interval #1 Information**

|                  |      |
|------------------|------|
| Start Time       | 7:00 |
| End Time         | 7:15 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 2780  | 2919  | 2862  | 2782  | 2761  | 2756  | 2808  |
| Vehs Exited          | 2725  | 2880  | 2859  | 2736  | 2801  | 2732  | 2772  |
| Starting Vehs        | 230   | 232   | 258   | 233   | 285   | 280   | 240   |
| Ending Vehs          | 285   | 271   | 261   | 279   | 245   | 304   | 276   |
| Travel Distance (mi) | 874   | 918   | 918   | 896   | 880   | 881   | 892   |
| Travel Time (hr)     | 113.5 | 115.0 | 113.2 | 109.1 | 108.2 | 114.1 | 110.7 |
| Total Delay (hr)     | 87.6  | 87.7  | 86.1  | 82.5  | 82.2  | 88.0  | 84.2  |
| Total Stops          | 2301  | 2404  | 2532  | 2499  | 2430  | 2443  | 2476  |
| Fuel Used (gal)      | 58.5  | 60.6  | 60.0  | 57.8  | 57.9  | 58.9  | 58.5  |

**Interval #1 Information**

|                  |      |
|------------------|------|
| Start Time       | 7:00 |
| End Time         | 7:15 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 2913  | 2653  | 2837  | 2805  |
| Vehs Exited          | 2927  | 2688  | 2820  | 2796  |
| Starting Vehs        | 250   | 267   | 239   | 248   |
| Ending Vehs          | 236   | 232   | 256   | 260   |
| Travel Distance (mi) | 928   | 852   | 910   | 895   |
| Travel Time (hr)     | 109.5 | 103.1 | 114.3 | 111.1 |
| Total Delay (hr)     | 82.1  | 77.8  | 87.2  | 84.5  |
| Total Stops          | 2516  | 2228  | 2441  | 2425  |
| Fuel Used (gal)      | 59.7  | 55.6  | 60.4  | 58.8  |

**Interval #2 Information**

|                  |      |
|------------------|------|
| Start Time       | 7:15 |
| End Time         | 7:30 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 2754  | 2735  | 2715  | 2844  | 2769  | 2779  | 2811  |
| Vehs Exited          | 2790  | 2754  | 2737  | 2860  | 2744  | 2802  | 2808  |
| Starting Vehs        | 285   | 271   | 261   | 279   | 245   | 304   | 276   |
| Ending Vehs          | 249   | 252   | 239   | 263   | 270   | 281   | 279   |
| Travel Distance (mi) | 870   | 865   | 882   | 907   | 892   | 880   | 877   |
| Travel Time (hr)     | 169.7 | 159.3 | 159.5 | 157.3 | 155.5 | 163.3 | 150.8 |
| Total Delay (hr)     | 143.9 | 133.6 | 133.3 | 130.3 | 129.2 | 137.2 | 124.7 |
| Total Stops          | 2399  | 2410  | 2439  | 2481  | 2454  | 2417  | 2349  |
| Fuel Used (gal)      | 72.2  | 69.0  | 69.3  | 69.8  | 69.0  | 70.8  | 67.7  |

**Interval #2 Information**

|                  |      |
|------------------|------|
| Start Time       | 7:15 |
| End Time         | 7:30 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 2862  | 2723  | 2824  | 2784  |
| Vehs Exited          | 2819  | 2711  | 2819  | 2783  |
| Starting Vehs        | 236   | 232   | 256   | 260   |
| Ending Vehs          | 279   | 244   | 261   | 255   |
| Travel Distance (mi) | 904   | 874   | 887   | 884   |
| Travel Time (hr)     | 156.6 | 153.9 | 155.3 | 158.1 |
| Total Delay (hr)     | 129.8 | 128.0 | 128.9 | 131.9 |
| Total Stops          | 2483  | 2357  | 2399  | 2417  |
| Fuel Used (gal)      | 69.5  | 67.8  | 68.7  | 69.4  |

**Interval #3 Information**

|                  |      |
|------------------|------|
| Start Time       | 7:30 |
| End Time         | 7:45 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 2748  | 2819  | 2782  | 2833  | 2852  | 2992  | 2896  |
| Vehs Exited          | 2743  | 2791  | 2770  | 2809  | 2866  | 2939  | 2926  |
| Starting Vehs        | 249   | 252   | 239   | 263   | 270   | 281   | 279   |
| Ending Vehs          | 254   | 280   | 251   | 287   | 256   | 334   | 249   |
| Travel Distance (mi) | 867   | 901   | 891   | 905   | 907   | 951   | 934   |
| Travel Time (hr)     | 203.5 | 209.3 | 200.3 | 203.1 | 196.8 | 212.4 | 198.4 |
| Total Delay (hr)     | 177.7 | 182.5 | 173.9 | 176.4 | 169.9 | 184.0 | 170.8 |
| Total Stops          | 2377  | 2485  | 2491  | 2494  | 2443  | 2710  | 2430  |
| Fuel Used (gal)      | 79.3  | 81.1  | 78.9  | 79.9  | 79.1  | 83.8  | 80.1  |

**Interval #3 Information**

|                  |      |
|------------------|------|
| Start Time       | 7:30 |
| End Time         | 7:45 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 2686  | 2789  | 2754  | 2816  |
| Vehs Exited          | 2693  | 2740  | 2770  | 2804  |
| Starting Vehs        | 279   | 244   | 261   | 255   |
| Ending Vehs          | 272   | 293   | 245   | 268   |
| Travel Distance (mi) | 855   | 885   | 871   | 897   |
| Travel Time (hr)     | 197.5 | 197.4 | 199.9 | 201.9 |
| Total Delay (hr)     | 172.0 | 171.4 | 174.1 | 175.3 |
| Total Stops          | 2422  | 2508  | 2406  | 2477  |
| Fuel Used (gal)      | 77.3  | 77.6  | 78.1  | 79.5  |

**Interval #4 Information Recording**

|                  |      |
|------------------|------|
| Start Time       | 7:45 |
| End Time         | 8:00 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 2731  | 2799  | 2804  | 2799  | 2859  | 2786  | 2897  |
| Vehs Exited          | 2693  | 2800  | 2800  | 2797  | 2856  | 2812  | 2864  |
| Starting Vehs        | 254   | 280   | 251   | 287   | 256   | 334   | 249   |
| Ending Vehs          | 292   | 279   | 255   | 289   | 259   | 308   | 282   |
| Travel Distance (mi) | 862   | 884   | 889   | 893   | 910   | 896   | 915   |
| Travel Time (hr)     | 248.4 | 253.3 | 248.6 | 245.6 | 231.6 | 246.3 | 240.2 |
| Total Delay (hr)     | 222.7 | 227.0 | 222.3 | 219.1 | 204.5 | 219.6 | 213.1 |
| Total Stops          | 2370  | 2432  | 2436  | 2436  | 2478  | 2473  | 2535  |
| Fuel Used (gal)      | 88.9  | 90.9  | 89.6  | 89.5  | 86.7  | 89.5  | 89.5  |

**Interval #4 Information Recording**

|                  |      |
|------------------|------|
| Start Time       | 7:45 |
| End Time         | 8:00 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 2734  | 2814  | 2811  | 2801  |
| Vehs Exited          | 2675  | 2798  | 2800  | 2790  |
| Starting Vehs        | 272   | 293   | 245   | 268   |
| Ending Vehs          | 331   | 309   | 256   | 280   |
| Travel Distance (mi) | 871   | 899   | 889   | 891   |
| Travel Time (hr)     | 236.1 | 246.7 | 245.5 | 244.2 |
| Total Delay (hr)     | 210.3 | 219.8 | 219.3 | 217.8 |
| Total Stops          | 2367  | 2376  | 2378  | 2429  |
| Fuel Used (gal)      | 86.7  | 89.5  | 88.8  | 88.9  |

13: Francisco Dr & El Dorado Hills Blvd Performance by movement

| Movement           | EBL | EBT  | EBR | WBL | WBT | WBR | NBL  | NBT  | NBR | SBL | SBT  | SBR  |
|--------------------|-----|------|-----|-----|-----|-----|------|------|-----|-----|------|------|
| Denied Delay (hr)  | 0.0 | 0.0  | 0.5 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0 | 0.1 | 0.1  | 0.0  |
| Denied Del/Veh (s) | 1.4 | 1.3  | 3.5 | 0.2 | 0.1 | 0.2 | 0.0  | 0.0  | 0.0 | 3.5 | 0.6  | 0.5  |
| Total Delay (hr)   | 0.0 | 0.1  | 0.5 | 0.0 | 0.1 | 0.0 | 1.3  | 0.6  | 0.1 | 0.2 | 1.3  | 0.0  |
| Total Del/Veh (s)  | 7.9 | 11.6 | 4.1 | 6.8 | 8.1 | 4.0 | 11.0 | 11.4 | 4.8 | 7.7 | 15.0 | 11.3 |
| Stop Delay (hr)    | 0.0 | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 | 0.8  | 0.2  | 0.0 | 0.1 | 0.5  | 0.0  |
| Stop Del/Veh (s)   | 4.1 | 4.5  | 0.0 | 4.6 | 4.5 | 3.4 | 6.9  | 3.4  | 3.0 | 3.2 | 5.5  | 6.7  |

13: Francisco Dr & El Dorado Hills Blvd Performance by movement

| Movement           | All |
|--------------------|-----|
| Denied Delay (hr)  | 0.6 |
| Denied Del/Veh (s) | 1.3 |
| Total Delay (hr)   | 4.3 |
| Total Del/Veh (s)  | 9.3 |
| Stop Delay (hr)    | 1.8 |
| Stop Del/Veh (s)   | 3.8 |

17: El Dorado Hills Blvd #2 & Saratoga Way/Park Drive Performance by movement

| Movement           | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL   | NBT  | NBR | SBL  | SBT  | SBR  |
|--------------------|------|------|------|------|------|------|-------|------|-----|------|------|------|
| Denied Delay (hr)  | 0.0  | 0.0  | 0.3  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0 | 0.1  | 0.1  | 0.0  |
| Denied Del/Veh (s) | 0.9  | 1.0  | 3.5  | 0.1  | 0.1  | 0.1  | 0.2   | 0.0  | 0.0 | 2.6  | 0.4  | 0.5  |
| Total Delay (hr)   | 2.1  | 1.0  | 1.5  | 0.2  | 0.6  | 0.3  | 16.9  | 3.1  | 0.2 | 1.9  | 5.6  | 0.9  |
| Total Del/Veh (s)  | 61.4 | 67.2 | 17.8 | 60.3 | 62.7 | 22.6 | 219.9 | 13.7 | 9.8 | 71.1 | 23.4 | 18.3 |
| Stop Delay (hr)    | 1.9  | 0.9  | 1.2  | 0.2  | 0.5  | 0.3  | 15.8  | 1.4  | 0.1 | 1.8  | 3.5  | 0.6  |
| Stop Del/Veh (s)   | 56.4 | 59.3 | 15.0 | 58.8 | 58.3 | 21.0 | 205.3 | 6.0  | 4.8 | 65.0 | 14.6 | 13.3 |

17: El Dorado Hills Blvd #2 & Saratoga Way/Park Drive Performance by movement

| Movement           | All  |
|--------------------|------|
| Denied Delay (hr)  | 0.5  |
| Denied Del/Veh (s) | 0.7  |
| Total Delay (hr)   | 34.3 |
| Total Del/Veh (s)  | 43.2 |
| Stop Delay (hr)    | 28.2 |
| Stop Del/Veh (s)   | 35.5 |

**18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way Performance by movement**

| Movement           | EBL  | EBT  | EBR | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|--------------------|------|------|-----|------|------|------|------|------|------|------|------|------|
| Denied Delay (hr)  | 0.0  | 0.0  | 0.3 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Denied Del/Veh (s) | 0.4  | 0.8  | 3.2 | 0.2  | 0.1  | 0.1  | 0.0  | 0.0  | 0.0  | 0.2  | 0.0  | 0.1  |
| Total Delay (hr)   | 2.9  | 0.6  | 0.4 | 2.1  | 0.8  | 0.8  | 10.3 | 5.7  | 0.6  | 0.8  | 12.0 | 2.1  |
| Total Del/Veh (s)  | 49.3 | 48.8 | 4.1 | 58.0 | 59.8 | 60.5 | 63.3 | 21.1 | 17.5 | 74.2 | 51.7 | 22.5 |
| Stop Delay (hr)    | 2.7  | 0.5  | 0.0 | 2.0  | 0.7  | 0.8  | 9.2  | 3.8  | 0.4  | 0.7  | 9.5  | 1.4  |
| Stop Del/Veh (s)   | 46.1 | 43.6 | 0.0 | 54.3 | 55.2 | 58.2 | 56.2 | 14.2 | 12.6 | 67.2 | 41.3 | 14.8 |

**18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way Performance by movement**

| Movement           | All  |
|--------------------|------|
| Denied Delay (hr)  | 0.4  |
| Denied Del/Veh (s) | 0.4  |
| Total Delay (hr)   | 39.1 |
| Total Del/Veh (s)  | 37.5 |
| Stop Delay (hr)    | 31.8 |
| Stop Del/Veh (s)   | 30.5 |

**19: Latrobe Road #2/El Dorado Hills Blvd #2 & US 50 EB Ramps Performance by movement**

| Movement           | EBR  | WBR | NBT | NBR | SBL  | SBT  | All  |
|--------------------|------|-----|-----|-----|------|------|------|
| Denied Delay (hr)  | 0.1  | 0.0 | 0.1 | 0.1 | 0.0  | 0.0  | 0.5  |
| Denied Del/Veh (s) | 0.7  | 0.3 | 0.4 | 2.3 | 0.0  | 0.0  | 0.4  |
| Total Delay (hr)   | 2.9  | 0.1 | 2.0 | 0.3 | 2.2  | 4.3  | 11.7 |
| Total Del/Veh (s)  | 12.9 | 0.9 | 5.7 | 4.6 | 36.2 | 13.4 | 10.4 |
| Stop Delay (hr)    | 1.8  | 0.0 | 0.8 | 0.1 | 1.7  | 1.6  | 6.0  |
| Stop Del/Veh (s)   | 7.9  | 0.0 | 2.2 | 2.4 | 28.0 | 5.1  | 5.3  |

**Total Zone Performance**

|                    |        |
|--------------------|--------|
| Denied Delay (hr)  | 2.0    |
| Denied Del/Veh (s) | 1.2    |
| Total Delay (hr)   | 89.4   |
| Total Del/Veh (s)  | 1387.2 |
| Stop Delay (hr)    | 67.8   |
| Stop Del/Veh (s)   | 1051.7 |

Intersection: 13: Francisco Dr & El Dorado Hills Blvd

| Movement              | EB  | WB  | NB  | NB  | SB  | SB  |
|-----------------------|-----|-----|-----|-----|-----|-----|
| Directions Served     | LT  | LTR | L   | TR  | L   | TR  |
| Maximum Queue (ft)    | 64  | 61  | 197 | 87  | 72  | 132 |
| Average Queue (ft)    | 27  | 34  | 83  | 46  | 33  | 64  |
| 95th Queue (ft)       | 53  | 56  | 150 | 71  | 53  | 106 |
| Link Distance (ft)    | 577 | 573 |     | 522 |     | 734 |
| Upstream Blk Time (%) |     |     |     |     |     |     |
| Queuing Penalty (veh) |     |     |     |     |     |     |
| Storage Bay Dist (ft) |     |     | 500 |     | 200 |     |
| Storage Blk Time (%)  |     |     |     |     |     |     |
| Queuing Penalty (veh) |     |     |     |     |     |     |

Intersection: 17: El Dorado Hills Blvd #2 & Saratoga Way/Park Drive

| Movement              | EB  | EB  | EB  | WB  | WB  | NB  | NB  | NB  | NB  | SB  | SB  | SB  |
|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Directions Served     | L   | LT  | R   | L   | TR  | L   | T   | T   | TR  | L   | T   | TR  |
| Maximum Queue (ft)    | 119 | 162 | 200 | 37  | 142 | 275 | 728 | 558 | 301 | 124 | 335 | 378 |
| Average Queue (ft)    | 48  | 91  | 96  | 6   | 56  | 267 | 433 | 88  | 71  | 76  | 174 | 195 |
| 95th Queue (ft)       | 98  | 145 | 168 | 22  | 115 | 301 | 798 | 289 | 190 | 140 | 305 | 335 |
| Link Distance (ft)    |     | 930 |     | 488 | 488 |     | 946 | 946 | 946 |     | 685 | 685 |
| Upstream Blk Time (%) |     |     |     |     |     |     |     |     |     |     |     | 0   |
| Queuing Penalty (veh) |     |     |     |     |     |     |     |     |     |     |     | 0   |
| Storage Bay Dist (ft) | 150 |     | 240 |     |     | 250 |     |     |     | 100 |     |     |
| Storage Blk Time (%)  | 0   | 1   | 0   |     |     | 68  | 0   |     |     | 9   | 15  |     |
| Queuing Penalty (veh) | 0   | 2   | 0   |     |     | 189 | 1   |     |     | 37  | 15  |     |

Intersection: 18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way

| Movement              | EB   | EB   | WB  | WB  | WB  | NB  | NB  | NB  | NB  | NB  | SB  | SB  |
|-----------------------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Directions Served     | L    | LT   | L   | LT  | TR  | L   | L   | T   | T   | TR  | L   | T   |
| Maximum Queue (ft)    | 155  | 177  | 111 | 132 | 135 | 328 | 325 | 244 | 237 | 249 | 212 | 321 |
| Average Queue (ft)    | 82   | 85   | 44  | 79  | 65  | 216 | 218 | 134 | 127 | 138 | 64  | 214 |
| 95th Queue (ft)       | 139  | 150  | 88  | 121 | 118 | 302 | 306 | 216 | 207 | 218 | 176 | 304 |
| Link Distance (ft)    | 1059 | 1059 |     | 621 | 621 | 714 | 714 | 714 | 714 | 714 |     | 946 |
| Upstream Blk Time (%) |      |      |     |     |     |     |     |     |     |     |     |     |
| Queuing Penalty (veh) |      |      |     |     |     |     |     |     |     |     |     |     |
| Storage Bay Dist (ft) | 150  |      |     |     |     |     | 200 |     |     |     |     |     |
| Storage Blk Time (%)  | 0    |      |     |     |     |     | 0   |     |     |     |     |     |
| Queuing Penalty (veh) | 0    |      |     |     |     |     | 0   |     |     |     |     |     |

Intersection: 18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way

| Movement              | SB  | SB  | SB  |
|-----------------------|-----|-----|-----|
| Directions Served     | T   | T   | R   |
| Maximum Queue (ft)    | 306 | 337 | 225 |
| Average Queue (ft)    | 202 | 209 | 169 |
| 95th Queue (ft)       | 294 | 315 | 268 |
| Link Distance (ft)    | 946 | 946 |     |
| Upstream Blk Time (%) |     |     |     |
| Queuing Penalty (veh) |     |     |     |
| Storage Bay Dist (ft) | 200 |     |     |
| Storage Blk Time (%)  | 11  | 3   |     |
| Queuing Penalty (veh) | 36  | 9   |     |

Intersection: 19: Latrobe Road #2/El Dorado Hills Blvd #2 & US 50 EB Ramps

| Movement              | EB   | EB  | NB  | NB  | NB  | NB | SB  | SB  | SB  | SB  | SB  |  |
|-----------------------|------|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|--|
| Directions Served     | R    | R   | T   | T   | T   | R  | L   | T   | T   | T   | T   |  |
| Maximum Queue (ft)    | 162  | 170 | 115 | 143 | 174 | 96 | 242 | 123 | 145 | 153 | 154 |  |
| Average Queue (ft)    | 83   | 83  | 51  | 49  | 85  | 36 | 122 | 26  | 56  | 74  | 70  |  |
| 95th Queue (ft)       | 136  | 137 | 97  | 111 | 153 | 79 | 221 | 77  | 117 | 129 | 131 |  |
| Link Distance (ft)    | 1212 |     | 718 | 718 | 718 |    |     | 714 | 714 | 714 | 714 |  |
| Upstream Blk Time (%) |      |     |     |     |     |    |     |     |     |     |     |  |
| Queuing Penalty (veh) |      |     |     |     |     |    |     |     |     |     |     |  |
| Storage Bay Dist (ft) | 450  |     |     |     | 275 |    |     |     | 575 |     |     |  |
| Storage Blk Time (%)  |      |     |     |     |     |    |     |     |     |     |     |  |
| Queuing Penalty (veh) |      |     |     |     |     |    |     |     |     |     |     |  |

Zone Summary

Zone wide Queuing Penalty: 296



Generations at Green Valley  
 1: Sophia Pkwy/Access Rd & Green Valley Rd

Plus Project  
 Timing Plan: PM



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 1    | 1337 | 143  | 202  | 915  | 152  | 148  | 2    |
| v/c Ratio               | 0.00 | 0.54 | 0.12 | 0.95 | 0.37 | 0.54 | 0.38 | 0.01 |
| Control Delay           | 4.0  | 6.8  | 1.0  | 68.3 | 5.4  | 36.8 | 16.2 | 22.0 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 4.0  | 6.8  | 1.0  | 68.3 | 5.4  | 36.8 | 16.2 | 22.0 |
| Queue Length 50th (ft)  | 0    | 141  | 0    | 76   | 81   | 69   | 26   | 0    |
| Queue Length 95th (ft)  | 1    | 185  | 14   | #122 | 108  | 128  | 76   | 5    |
| Internal Link Dist (ft) |      | 1813 |      |      | 7016 |      |      | 376  |
| Turn Bay Length (ft)    | 248  |      | 224  | 314  |      | 204  | 204  |      |
| Base Capacity (vph)     | 371  | 2477 | 1151 | 212  | 2477 | 282  | 385  | 348  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.00 | 0.54 | 0.12 | 0.95 | 0.37 | 0.54 | 0.38 | 0.01 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
1: Sophia Pkwy/Access Rd & Green Valley Rd

Plus Project  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 1    | 1203 | 129  | 188  | 849  | 2    | 144  | 0    | 141  | 0    | 1    | 1    |
| Future Volume (veh/h)        | 1    | 1203 | 129  | 188  | 849  | 2    | 144  | 0    | 141  | 0    | 1    | 1    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 1    | 1337 | 143  | 202  | 913  | 2    | 152  | 0    | 148  | 0    | 1    | 1    |
| Peak Hour Factor             | 0.90 | 0.90 | 0.90 | 0.93 | 0.93 | 0.93 | 0.95 | 0.95 | 0.95 | 0.70 | 0.70 | 0.70 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 456  | 2488 | 1110 | 275  | 2546 | 6    | 372  | 374  | 317  | 0    | 172  | 172  |
| Arrive On Green              | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.20 | 0.00 | 0.20 | 0.00 | 0.20 | 0.20 |
| Sat Flow, veh/h              | 610  | 3554 | 1585 | 357  | 3638 | 8    | 1415 | 1870 | 1585 | 0    | 858  | 858  |
| Grp Volume(v), veh/h         | 1    | 1337 | 143  | 202  | 446  | 469  | 152  | 0    | 148  | 0    | 0    | 2    |
| Grp Sat Flow(s),veh/h/ln     | 610  | 1777 | 1585 | 357  | 1777 | 1869 | 1415 | 1870 | 1585 | 0    | 0    | 1716 |
| Q Serve(g_s), s              | 0.1  | 14.5 | 2.4  | 41.5 | 8.0  | 8.0  | 7.7  | 0.0  | 6.6  | 0.0  | 0.0  | 0.1  |
| Cycle Q Clear(g_c), s        | 8.1  | 14.5 | 2.4  | 56.0 | 8.0  | 8.0  | 7.8  | 0.0  | 6.6  | 0.0  | 0.0  | 0.1  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 0.00 | 1.00 |      | 1.00 | 0.00 |      | 0.50 |
| Lane Grp Cap(c), veh/h       | 456  | 2488 | 1110 | 275  | 1244 | 1308 | 372  | 374  | 317  | 0    | 0    | 343  |
| V/C Ratio(X)                 | 0.00 | 0.54 | 0.13 | 0.73 | 0.36 | 0.36 | 0.41 | 0.00 | 0.47 | 0.00 | 0.00 | 0.01 |
| Avail Cap(c_a), veh/h        | 456  | 2488 | 1110 | 275  | 1244 | 1308 | 372  | 374  | 317  | 0    | 0    | 343  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh     | 6.4  | 5.8  | 4.0  | 21.0 | 4.8  | 4.8  | 28.7 | 0.0  | 28.2 | 0.0  | 0.0  | 25.6 |
| Incr Delay (d2), s/veh       | 0.0  | 0.8  | 0.2  | 15.9 | 0.8  | 0.8  | 3.3  | 0.0  | 4.9  | 0.0  | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.0  | 3.4  | 0.5  | 4.4  | 2.0  | 2.1  | 2.7  | 0.0  | 2.7  | 0.0  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 6.4  | 6.6  | 4.2  | 36.9 | 5.6  | 5.6  | 32.1 | 0.0  | 33.1 | 0.0  | 0.0  | 25.7 |
| LnGrp LOS                    | A    | A    | A    | D    | A    | A    | C    | A    | C    | A    | A    | C    |
| Approach Vol, veh/h          |      | 1481 |      |      | 1117 |      |      | 300  |      |      |      | 2    |
| Approach Delay, s/veh        |      | 6.4  |      |      | 11.3 |      |      | 32.6 |      |      |      | 25.7 |
| Approach LOS                 |      | A    |      |      | B    |      |      | C    |      |      |      | C    |
| Timer - Assigned Phs         |      | 2    |      | 4    |      | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 20.0 |      | 60.0 |      | 20.0 |      | 60.0 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  |      | 4.0  |      | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 16.0 |      | 56.0 |      | 16.0 |      | 56.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 9.8  |      | 16.5 |      | 2.1  |      | 58.0 |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.5  |      | 12.4 |      | 0.0  |      | 0.0  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      | 11.0 |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      |      | B    |      |      |      |      |      |      |      |      |

Generations at Green Valley  
 2: Green Valley Rd/Green Valley Road & Francisco Rd.

Plus Project  
 Timing Plan: PM



| Lane Group              | EBL   | EBT  | EBR  | WBL   | WBT  | WBR  | NBL  | NBT  | SBL   | SBT  | SBR  |
|-------------------------|-------|------|------|-------|------|------|------|------|-------|------|------|
| Lane Group Flow (vph)   | 340   | 783  | 294  | 150   | 599  | 115  | 295  | 395  | 169   | 262  | 294  |
| v/c Ratio               | 1.13  | 0.71 | 0.42 | 1.16  | 0.57 | 0.20 | 0.67 | 0.41 | 1.31  | 0.64 | 0.57 |
| Control Delay           | 125.9 | 25.4 | 4.7  | 165.1 | 23.3 | 4.3  | 39.9 | 21.5 | 215.9 | 33.2 | 11.8 |
| Queue Delay             | 0.0   | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  |
| Total Delay             | 125.9 | 25.4 | 4.7  | 165.1 | 23.3 | 4.3  | 39.9 | 21.5 | 215.9 | 33.2 | 11.8 |
| Queue Length 50th (ft)  | ~94   | 155  | 0    | ~82   | 114  | 0    | 64   | 70   | ~100  | 104  | 25   |
| Queue Length 95th (ft)  | #196  | 234  | 51   | #200  | 166  | 25   | #116 | 104  | #238  | 186  | 95   |
| Internal Link Dist (ft) |       | 7016 |      |       | 1876 |      |      | 2744 |       | 705  |      |
| Turn Bay Length (ft)    | 290   |      | 210  | 200   |      | 450  | 200  |      | 183   |      |      |
| Base Capacity (vph)     | 301   | 1390 | 800  | 129   | 1338 | 679  | 453  | 1287 | 129   | 573  | 641  |
| Starvation Cap Reductn  | 0     | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0     | 0    | 0    |
| Spillback Cap Reductn   | 0     | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0     | 0    | 0    |
| Storage Cap Reductn     | 0     | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0     | 0    | 0    |
| Reduced v/c Ratio       | 1.13  | 0.56 | 0.37 | 1.16  | 0.45 | 0.17 | 0.65 | 0.31 | 1.31  | 0.46 | 0.46 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
2: Green Valley Rd/Green Valley Road & Francisco Rd.

Plus Project  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL   | WBT  | WBR  | NBL  | NBT  | NBR  | SBL   | SBT  | SBR  |
|------------------------------|------|------|------|-------|------|------|------|------|------|-------|------|------|
| Lane Configurations          | ↔↔   | ↑↑   | ↗    | ↖     | ↑↑   | ↗    | ↔↔   | ↑↑   |      | ↖     | ↑    | ↗    |
| Traffic Volume (veh/h)       | 323  | 744  | 279  | 129   | 515  | 99   | 248  | 299  | 33   | 152   | 236  | 265  |
| Future Volume (veh/h)        | 323  | 744  | 279  | 129   | 515  | 99   | 248  | 299  | 33   | 152   | 236  | 265  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00  |      | 1.00 | 1.00 |      | 1.00 | 1.00  |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |       | No   |      |      | No   |      |       | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 340  | 783  | 294  | 150   | 599  | 115  | 295  | 356  | 39   | 169   | 262  | 294  |
| Peak Hour Factor             | 0.95 | 0.95 | 0.95 | 0.86  | 0.86 | 0.86 | 0.84 | 0.84 | 0.84 | 0.90  | 0.90 | 0.90 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2     | 2    | 2    | 2    | 2    | 2    | 2     | 2    | 2    |
| Cap, veh/h                   | 318  | 1062 | 474  | 137   | 1008 | 449  | 399  | 867  | 94   | 137   | 430  | 364  |
| Arrive On Green              | 0.09 | 0.30 | 0.30 | 0.08  | 0.28 | 0.28 | 0.12 | 0.27 | 0.27 | 0.08  | 0.23 | 0.23 |
| Sat Flow, veh/h              | 3456 | 3554 | 1585 | 1781  | 3554 | 1585 | 3456 | 3232 | 352  | 1781  | 1870 | 1585 |
| Grp Volume(v), veh/h         | 340  | 783  | 294  | 150   | 599  | 115  | 295  | 195  | 200  | 169   | 262  | 294  |
| Grp Sat Flow(s),veh/h/ln     | 1728 | 1777 | 1585 | 1781  | 1777 | 1585 | 1728 | 1777 | 1807 | 1781  | 1870 | 1585 |
| Q Serve(g_s), s              | 6.0  | 12.9 | 10.4 | 5.0   | 9.5  | 3.7  | 5.4  | 5.9  | 5.9  | 5.0   | 8.2  | 11.4 |
| Cycle Q Clear(g_c), s        | 6.0  | 12.9 | 10.4 | 5.0   | 9.5  | 3.7  | 5.4  | 5.9  | 5.9  | 5.0   | 8.2  | 11.4 |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00  |      | 1.00 | 1.00 |      | 0.19 | 1.00  |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 318  | 1062 | 474  | 137   | 1008 | 449  | 399  | 477  | 485  | 137   | 430  | 364  |
| V/C Ratio(X)                 | 1.07 | 0.74 | 0.62 | 1.10  | 0.59 | 0.26 | 0.74 | 0.41 | 0.41 | 1.24  | 0.61 | 0.81 |
| Avail Cap(c_a), veh/h        | 318  | 1462 | 652  | 137   | 1407 | 628  | 477  | 682  | 693  | 137   | 603  | 511  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 29.6 | 20.5 | 19.7 | 30.1  | 20.1 | 18.0 | 27.9 | 19.6 | 19.6 | 30.1  | 22.5 | 23.7 |
| Incr Delay (d2), s/veh       | 69.7 | 1.3  | 1.3  | 105.4 | 0.6  | 0.3  | 4.9  | 0.6  | 0.6  | 153.9 | 1.4  | 6.5  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 5.3  | 4.6  | 3.5  | 5.9   | 3.4  | 1.2  | 2.3  | 2.2  | 2.3  | 7.8   | 3.4  | 4.5  |
| Unsig. Movement Delay, s/veh |      |      |      |       |      |      |      |      |      |       |      |      |
| LnGrp Delay(d),s/veh         | 99.3 | 21.8 | 21.0 | 135.5 | 20.7 | 18.3 | 32.8 | 20.1 | 20.2 | 184.0 | 23.9 | 30.2 |
| LnGrp LOS                    | F    | C    | C    | F     | C    | B    | C    | C    | C    | F     | C    | C    |
| Approach Vol, veh/h          |      | 1417 |      |       | 864  |      |      | 690  |      |       | 725  |      |
| Approach Delay, s/veh        |      | 40.2 |      |       | 40.3 |      |      | 25.6 |      |       | 63.8 |      |
| Approach LOS                 |      | D    |      |       | D    |      |      | C    |      |       | E    |      |
| Timer - Assigned Phs         | 1    | 2    | 3    | 4     | 5    | 6    | 7    | 8    |      |       |      |      |
| Phs Duration (G+Y+Rc), s     | 9.0  | 25.2 | 11.5 | 19.5  | 10.0 | 24.2 | 9.0  | 22.0 |      |       |      |      |
| Change Period (Y+Rc), s      | 4.0  | 5.7  | 4.0  | 4.5   | 4.0  | 5.7  | 4.0  | 4.5  |      |       |      |      |
| Max Green Setting (Gmax), s  | 5.0  | 26.8 | 9.0  | 21.0  | 6.0  | 25.8 | 5.0  | 25.0 |      |       |      |      |
| Max Q Clear Time (g_c+I1), s | 7.0  | 14.9 | 7.4  | 13.4  | 8.0  | 11.5 | 7.0  | 7.9  |      |       |      |      |
| Green Ext Time (p_c), s      | 0.0  | 4.6  | 0.2  | 1.5   | 0.0  | 3.4  | 0.0  | 1.9  |      |       |      |      |
| <b>Intersection Summary</b>  |      |      |      |       |      |      |      |      |      |       |      |      |
| HCM 6th Ctrl Delay           |      |      | 42.1 |       |      |      |      |      |      |       |      |      |
| HCM 6th LOS                  |      |      | D    |       |      |      |      |      |      |       |      |      |

Generations at Green Valley  
 3: El Dorado Hills Blvd./Salmon Falls Rd & Green Valley Road

Plus Project  
 Timing Plan: PM



| Lane Group              | EBL  | EBT  | WBL   | WBT  | NBL  | NBT  | SBL  | SBT  | SBR  |
|-------------------------|------|------|-------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 97   | 892  | 62    | 699  | 44   | 244  | 79   | 123  | 106  |
| v/c Ratio               | 0.63 | 0.94 | 0.87  | 0.82 | 0.15 | 0.79 | 0.36 | 0.53 | 0.34 |
| Control Delay           | 69.4 | 44.7 | 132.9 | 36.2 | 43.3 | 62.4 | 50.7 | 55.5 | 8.1  |
| Queue Delay             | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 69.4 | 44.7 | 132.9 | 36.2 | 43.3 | 62.4 | 50.7 | 55.5 | 8.1  |
| Queue Length 50th (ft)  | 70   | 598  | 47    | 442  | 28   | 164  | 55   | 87   | 0    |
| Queue Length 95th (ft)  | #132 | #945 | #137  | #691 | 64   | #293 | 96   | 138  | 27   |
| Internal Link Dist (ft) |      | 1876 |       | 819  |      | 2981 |      | 502  |      |
| Turn Bay Length (ft)    | 85   |      | 105   |      | 165  |      |      |      | 100  |
| Base Capacity (vph)     | 179  | 990  | 71    | 876  | 317  | 332  | 295  | 310  | 369  |
| Starvation Cap Reductn  | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.54 | 0.90 | 0.87  | 0.80 | 0.14 | 0.73 | 0.27 | 0.40 | 0.29 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
3: El Dorado Hills Blvd./Salmon Falls Rd & Green Valley Road

Plus Project  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          | ↖    | ↗    |      | ↖    | ↗    |      | ↖    | ↗    |      | ↖    | ↗    | ↖    |
| Traffic Volume (veh/h)       | 93   | 846  | 11   | 55   | 563  | 59   | 39   | 151  | 66   | 66   | 103  | 89   |
| Future Volume (veh/h)        | 93   | 846  | 11   | 55   | 563  | 59   | 39   | 151  | 66   | 66   | 103  | 89   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 97   | 881  | 11   | 62   | 633  | 66   | 44   | 170  | 74   | 79   | 123  | 106  |
| Peak Hour Factor             | 0.96 | 0.96 | 0.96 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.84 | 0.84 | 0.84 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 123  | 973  | 12   | 78   | 837  | 87   | 287  | 199  | 87   | 174  | 182  | 155  |
| Arrive On Green              | 0.07 | 0.53 | 0.53 | 0.04 | 0.50 | 0.50 | 0.16 | 0.16 | 0.16 | 0.10 | 0.10 | 0.10 |
| Sat Flow, veh/h              | 1781 | 1843 | 23   | 1781 | 1665 | 174  | 1781 | 1236 | 538  | 1781 | 1870 | 1585 |
| Grp Volume(v), veh/h         | 97   | 0    | 892  | 62   | 0    | 699  | 44   | 0    | 244  | 79   | 123  | 106  |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1866 | 1781 | 0    | 1839 | 1781 | 0    | 1774 | 1781 | 1870 | 1585 |
| Q Serve(g_s), s              | 5.5  | 0.0  | 44.5 | 3.6  | 0.0  | 31.4 | 2.2  | 0.0  | 13.8 | 4.3  | 6.5  | 6.7  |
| Cycle Q Clear(g_c), s        | 5.5  | 0.0  | 44.5 | 3.6  | 0.0  | 31.4 | 2.2  | 0.0  | 13.8 | 4.3  | 6.5  | 6.7  |
| Prop In Lane                 | 1.00 |      | 0.01 | 1.00 |      | 0.09 | 1.00 |      | 0.30 | 1.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 123  | 0    | 985  | 78   | 0    | 925  | 287  | 0    | 285  | 174  | 182  | 155  |
| V/C Ratio(X)                 | 0.79 | 0.00 | 0.91 | 0.80 | 0.00 | 0.76 | 0.15 | 0.00 | 0.85 | 0.45 | 0.67 | 0.69 |
| Avail Cap(c_a), veh/h        | 195  | 0    | 1076 | 78   | 0    | 939  | 346  | 0    | 344  | 322  | 338  | 286  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 47.2 | 0.0  | 22.0 | 48.8 | 0.0  | 20.5 | 37.2 | 0.0  | 42.1 | 43.9 | 44.9 | 45.0 |
| Incr Delay (d2), s/veh       | 8.2  | 0.0  | 11.3 | 41.2 | 0.0  | 4.2  | 0.4  | 0.0  | 18.4 | 3.2  | 7.2  | 8.9  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 2.6  | 0.0  | 19.7 | 2.4  | 0.0  | 12.9 | 1.0  | 0.0  | 7.2  | 2.0  | 3.3  | 2.9  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 55.4 | 0.0  | 33.3 | 90.1 | 0.0  | 24.8 | 37.6 | 0.0  | 60.4 | 47.1 | 52.1 | 53.8 |
| LnGrp LOS                    | E    | A    | C    | F    | A    | C    | D    | A    | E    | D    | D    | D    |
| Approach Vol, veh/h          |      | 989  |      |      | 761  |      |      | 288  |      |      | 308  |      |
| Approach Delay, s/veh        |      | 35.4 |      |      | 30.1 |      |      | 56.9 |      |      | 51.4 |      |
| Approach LOS                 |      | D    |      |      | C    |      |      | E    |      |      | D    |      |
| Timer - Assigned Phs         | 1    | 2    |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 8.0  | 60.4 |      | 14.0 | 10.6 | 57.8 |      | 20.6 |      |      |      |      |
| Change Period (Y+Rc), s      | 3.5  | 6.0  |      | 4.0  | 3.5  | 6.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.5  | 59.4 |      | 18.6 | 11.3 | 52.6 |      | 20.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 5.6  | 46.5 |      | 8.7  | 7.5  | 33.4 |      | 15.8 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 7.9  |      | 1.4  | 0.0  | 7.8  |      | 0.8  |      |      |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 38.4 |
| HCM 6th LOS        | D    |

Generations at Green Valley  
 4: Silva Valley Pkwy./Allegheny Rd & Green Valley Road/Green Valley Rd.

Plus Project  
 Timing Plan: PM



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 4    | 755  | 258  | 70   | 495  | 274  | 112  | 16   |
| v/c Ratio               | 0.04 | 0.81 | 0.29 | 0.71 | 0.45 | 0.71 | 0.26 | 0.11 |
| Control Delay           | 37.0 | 25.8 | 5.5  | 75.6 | 12.2 | 37.8 | 10.7 | 32.0 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 37.0 | 25.8 | 5.5  | 75.6 | 12.2 | 37.8 | 10.7 | 32.0 |
| Queue Length 50th (ft)  | 2    | 251  | 17   | 31   | 96   | 109  | 9    | 5    |
| Queue Length 95th (ft)  | 12   | #619 | 74   | #110 | 290  | 217  | 52   | 19   |
| Internal Link Dist (ft) |      | 819  |      |      | 2255 |      | 4847 | 380  |
| Turn Bay Length (ft)    | 205  |      | 205  | 350  |      | 150  |      |      |
| Base Capacity (vph)     | 98   | 933  | 881  | 98   | 1104 | 485  | 514  | 558  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.04 | 0.81 | 0.29 | 0.71 | 0.45 | 0.56 | 0.22 | 0.03 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
4: Silva Valley Pkwy./Allegheny Rd & Green Valley Road/Green Valley Rd.

Plus Project  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 4    | 725  | 248  | 61   | 426  | 4    | 247  | 23   | 77   | 0    | 9    | 2    |
| Future Volume (veh/h)        | 4    | 725  | 248  | 61   | 426  | 4    | 247  | 23   | 77   | 0    | 9    | 2    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 4    | 755  | 258  | 70   | 490  | 5    | 274  | 26   | 86   | 0    | 13   | 3    |
| Peak Hour Factor             | 0.96 | 0.96 | 0.96 | 0.87 | 0.87 | 0.87 | 0.90 | 0.90 | 0.90 | 0.70 | 0.70 | 0.70 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 111  | 861  | 730  | 89   | 828  | 8    | 337  | 72   | 239  | 0    | 23   | 5    |
| Arrive On Green              | 0.06 | 0.46 | 0.46 | 0.05 | 0.45 | 0.45 | 0.19 | 0.19 | 0.19 | 0.00 | 0.02 | 0.02 |
| Sat Flow, veh/h              | 1781 | 1870 | 1585 | 1781 | 1848 | 19   | 1781 | 381  | 1262 | 0    | 1470 | 339  |
| Grp Volume(v), veh/h         | 4    | 755  | 258  | 70   | 0    | 495  | 274  | 0    | 112  | 0    | 0    | 16   |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1870 | 1585 | 1781 | 0    | 1867 | 1781 | 0    | 1643 | 0    | 0    | 1809 |
| Q Serve(g_s), s              | 0.1  | 23.5 | 6.7  | 2.5  | 0.0  | 12.8 | 9.5  | 0.0  | 3.8  | 0.0  | 0.0  | 0.6  |
| Cycle Q Clear(g_c), s        | 0.1  | 23.5 | 6.7  | 2.5  | 0.0  | 12.8 | 9.5  | 0.0  | 3.8  | 0.0  | 0.0  | 0.6  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 0.01 | 1.00 |      | 0.77 | 0.00 |      | 0.19 |
| Lane Grp Cap(c), veh/h       | 111  | 861  | 730  | 89   | 0    | 836  | 337  | 0    | 311  | 0    | 0    | 28   |
| V/C Ratio(X)                 | 0.04 | 0.88 | 0.35 | 0.79 | 0.00 | 0.59 | 0.81 | 0.00 | 0.36 | 0.00 | 0.00 | 0.57 |
| Avail Cap(c_a), veh/h        | 111  | 1049 | 889  | 111  | 0    | 1047 | 547  | 0    | 504  | 0    | 0    | 620  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh     | 28.3 | 15.7 | 11.2 | 30.2 | 0.0  | 13.3 | 24.9 | 0.0  | 22.6 | 0.0  | 0.0  | 31.4 |
| Incr Delay (d2), s/veh       | 0.1  | 7.4  | 0.3  | 22.9 | 0.0  | 0.7  | 3.6  | 0.0  | 0.5  | 0.0  | 0.0  | 12.9 |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.1  | 9.1  | 1.9  | 1.5  | 0.0  | 4.2  | 3.9  | 0.0  | 1.4  | 0.0  | 0.0  | 0.3  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 28.4 | 23.1 | 11.5 | 53.1 | 0.0  | 14.0 | 28.6 | 0.0  | 23.2 | 0.0  | 0.0  | 44.3 |
| LnGrp LOS                    | C    | C    | B    | D    | A    | B    | C    | A    | C    | A    | A    | D    |
| Approach Vol, veh/h          |      | 1017 |      |      | 565  |      |      | 386  |      |      |      | 16   |
| Approach Delay, s/veh        |      | 20.1 |      |      | 18.8 |      |      | 27.0 |      |      |      | 44.3 |
| Approach LOS                 |      | C    |      |      | B    |      |      | C    |      |      |      | D    |
| Timer - Assigned Phs         | 1    | 2    |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 8.0  | 34.5 |      | 5.0  | 7.2  | 35.3 |      | 16.8 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 5.7  |      | 4.0  | 4.0  | 5.7  |      | 4.6  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0  | 36.0 |      | 22.0 | 4.0  | 36.0 |      | 19.7 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 2.1  | 14.8 |      | 2.6  | 4.5  | 25.5 |      | 11.5 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 2.7  |      | 0.0  | 0.0  | 4.1  |      | 0.7  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      | 21.3 |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      |      | C    |      |      |      |      |      |      |      |      |



| Intersection             |        |        |        |       |       |       |
|--------------------------|--------|--------|--------|-------|-------|-------|
| Int Delay, s/veh         | 1.2    |        |        |       |       |       |
| Movement                 | EBT    | EBR    | WBL    | WBT   | NBL   | NBR   |
| Lane Configurations      | ↕↔     |        |        | ↕     | ↕↔    |       |
| Traffic Vol, veh/h       | 776    | 26     | 10     | 467   | 24    | 14    |
| Future Vol, veh/h        | 776    | 26     | 10     | 467   | 24    | 14    |
| Conflicting Peds, #/hr   | 0      | 0      | 0      | 0     | 0     | 0     |
| Sign Control             | Free   | Free   | Free   | Free  | Stop  | Stop  |
| RT Channelized           | -      | None   | -      | None  | -     | None  |
| Storage Length           | -      | -      | -      | -     | 0     | -     |
| Veh in Median Storage, # | 0      | -      | -      | 0     | 0     | -     |
| Grade, %                 | 0      | -      | -      | 0     | 0     | -     |
| Peak Hour Factor         | 92     | 92     | 85     | 85    | 70    | 70    |
| Heavy Vehicles, %        | 2      | 2      | 2      | 2     | 2     | 2     |
| Mvmt Flow                | 843    | 28     | 12     | 549   | 34    | 20    |
| Major/Minor              | Major1 | Major2 | Minor1 |       |       |       |
| Conflicting Flow All     | 0      | 0      | 871    | 0     | 1430  | 857   |
| Stage 1                  | -      | -      | -      | -     | 857   | -     |
| Stage 2                  | -      | -      | -      | -     | 573   | -     |
| Critical Hdwy            | -      | -      | 4.12   | -     | 6.42  | 6.22  |
| Critical Hdwy Stg 1      | -      | -      | -      | -     | 5.42  | -     |
| Critical Hdwy Stg 2      | -      | -      | -      | -     | 5.42  | -     |
| Follow-up Hdwy           | -      | -      | 2.218  | -     | 3.518 | 3.318 |
| Pot Cap-1 Maneuver       | -      | -      | 774    | -     | 148   | 357   |
| Stage 1                  | -      | -      | -      | -     | 416   | -     |
| Stage 2                  | -      | -      | -      | -     | 564   | -     |
| Platoon blocked, %       | -      | -      | -      | -     | -     | -     |
| Mov Cap-1 Maneuver       | -      | -      | 774    | -     | 145   | 357   |
| Mov Cap-2 Maneuver       | -      | -      | -      | -     | 145   | -     |
| Stage 1                  | -      | -      | -      | -     | 416   | -     |
| Stage 2                  | -      | -      | -      | -     | 552   | -     |
| Approach                 | EB     | WB     | NB     |       |       |       |
| HCM Control Delay, s     | 0      | 0.2    | 32.1   |       |       |       |
| HCM LOS                  |        |        |        |       |       | D     |
| Minor Lane/Major Mvmt    | NBLn1  | EBT    | EBR    | WBL   | WBT   |       |
| Capacity (veh/h)         | 186    | -      | -      | 774   | -     |       |
| HCM Lane V/C Ratio       | 0.292  | -      | -      | 0.015 | -     |       |
| HCM Control Delay (s)    | 32.1   | -      | -      | 9.7   | 0     |       |
| HCM Lane LOS             | D      | -      | -      | A     | A     |       |
| HCM 95th %tile Q(veh)    | 1.2    | -      | -      | 0     | -     |       |

Generations at Green Valley  
6: Green Valley Rd & Malcolm Dixon Cutoff

Plus Project  
Timing Plan: PM

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.1  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      |      |      |      |      |      |
| Traffic Vol, veh/h       | 11   | 782  | 478  | 1    | 1    | 4    |
| Future Vol, veh/h        | 11   | 782  | 478  | 1    | 1    | 4    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 100  | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 94   | 94   | 84   | 84   | 70   | 70   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 12   | 832  | 569  | 1    | 1    | 6    |

| Major/Minor          | Major1 | Major2 | Minor2 |   |       |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 570    | 0      | -      | 0 | 1426  |
| Stage 1              | -      | -      | -      | - | 570   |
| Stage 2              | -      | -      | -      | - | 856   |
| Critical Hdwy        | 4.12   | -      | -      | - | 6.42  |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.42  |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.42  |
| Follow-up Hdwy       | 2.218  | -      | -      | - | 3.518 |
| Pot Cap-1 Maneuver   | 1002   | -      | -      | - | 149   |
| Stage 1              | -      | -      | -      | - | 566   |
| Stage 2              | -      | -      | -      | - | 416   |
| Platoon blocked, %   |        | -      | -      | - |       |
| Mov Cap-1 Maneuver   | 1002   | -      | -      | - | 147   |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 147   |
| Stage 1              | -      | -      | -      | - | 559   |
| Stage 2              | -      | -      | -      | - | 416   |

| Approach             | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.1 | 0  | 15.7 |
| HCM LOS              |     |    | C    |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1002  | -   | -   | -   | 345   |
| HCM Lane V/C Ratio    | 0.012 | -   | -   | -   | 0.021 |
| HCM Control Delay (s) | 8.6   | -   | -   | -   | 15.7  |
| HCM Lane LOS          | A     | -   | -   | -   | C     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0.1   |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.5  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      | ↕    | ↕    |      | ↕    |      |
| Traffic Vol, veh/h       | 14   | 766  | 461  | 8    | 8    | 9    |
| Future Vol, veh/h        | 14   | 766  | 461  | 8    | 8    | 9    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 90   | 90   | 82   | 82   | 70   | 70   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 16   | 851  | 562  | 10   | 11   | 13   |

| Major/Minor          | Major1 | Major2 | Minor2 |   |             |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 572    | 0      | -      | 0 | 1450 567    |
| Stage 1              | -      | -      | -      | - | 567 -       |
| Stage 2              | -      | -      | -      | - | 883 -       |
| Critical Hdwy        | 4.12   | -      | -      | - | 6.42 6.22   |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.42 -      |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.42 -      |
| Follow-up Hdwy       | 2.218  | -      | -      | - | 3.518 3.318 |
| Pot Cap-1 Maneuver   | 1001   | -      | -      | - | 144 523     |
| Stage 1              | -      | -      | -      | - | 568 -       |
| Stage 2              | -      | -      | -      | - | 404 -       |
| Platoon blocked, %   |        | -      | -      | - |             |
| Mov Cap-1 Maneuver   | 1001   | -      | -      | - | 140 523     |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 140 -       |
| Stage 1              | -      | -      | -      | - | 551 -       |
| Stage 2              | -      | -      | -      | - | 404 -       |

| Approach             | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.2 | 0  | 22.6 |
| HCM LOS              |     |    | C    |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1001  | -   | -   | -   | 229   |
| HCM Lane V/C Ratio    | 0.016 | -   | -   | -   | 0.106 |
| HCM Control Delay (s) | 8.7   | 0   | -   | -   | 22.6  |
| HCM Lane LOS          | A     | A   | -   | -   | C     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0.4   |

Generations at Green Valley  
8: Deer Valley Rd. & Green Valley Rd.

Plus Project  
Timing Plan: PM

| Intersection             |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Int Delay, s/veh         | 2.2  |      |      |      |      |      |      |      |      |      |      |      |
| Movement                 | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
| Lane Configurations      | ↖    | ↑    | ↗    | ↖    | ↑    | ↗    |      | ↕    |      |      | ↕    |      |
| Traffic Vol, veh/h       | 34   | 614  | 19   | 15   | 395  | 14   | 22   | 1    | 13   | 8    | 0    | 21   |
| Future Vol, veh/h        | 34   | 614  | 19   | 15   | 395  | 14   | 22   | 1    | 13   | 8    | 0    | 21   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized           | -    | -    | None | -    | -    | None | -    | -    | None | -    | -    | None |
| Storage Length           | 415  | -    | 415  | 415  | -    | 415  | -    | -    | -    | -    | -    | -    |
| Veh in Median Storage, # | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Grade, %                 | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    | -    | 0    | -    |
| Peak Hour Factor         | 95   | 95   | 95   | 84   | 84   | 84   | 70   | 70   | 70   | 72   | 72   | 72   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 36   | 646  | 20   | 18   | 470  | 17   | 31   | 1    | 19   | 11   | 0    | 29   |

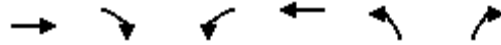
| Major/Minor          | Major1 |   | Major2 |       |   | Minor1 |       |       | Minor2 |       |       |       |
|----------------------|--------|---|--------|-------|---|--------|-------|-------|--------|-------|-------|-------|
| Conflicting Flow All | 487    | 0 | 0      | 666   | 0 | 0      | 1247  | 1241  | 646    | 1244  | 1244  | 470   |
| Stage 1              | -      | - | -      | -     | - | -      | 718   | 718   | -      | 506   | 506   | -     |
| Stage 2              | -      | - | -      | -     | - | -      | 529   | 523   | -      | 738   | 738   | -     |
| Critical Hdwy        | 4.12   | - | -      | 4.12  | - | -      | 7.12  | 6.52  | 6.22   | 7.12  | 6.52  | 6.22  |
| Critical Hdwy Stg 1  | -      | - | -      | -     | - | -      | 6.12  | 5.52  | -      | 6.12  | 5.52  | -     |
| Critical Hdwy Stg 2  | -      | - | -      | -     | - | -      | 6.12  | 5.52  | -      | 6.12  | 5.52  | -     |
| Follow-up Hdwy       | 2.218  | - | -      | 2.218 | - | -      | 3.518 | 4.018 | 3.318  | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver   | 1076   | - | -      | 923   | - | -      | 150   | 175   | 472    | 151   | 174   | 594   |
| Stage 1              | -      | - | -      | -     | - | -      | 420   | 433   | -      | 549   | 540   | -     |
| Stage 2              | -      | - | -      | -     | - | -      | 533   | 530   | -      | 410   | 424   | -     |
| Platoon blocked, %   |        | - | -      |       | - | -      |       |       |        |       |       |       |
| Mov Cap-1 Maneuver   | 1076   | - | -      | 923   | - | -      | 137   | 166   | 472    | 138   | 165   | 594   |
| Mov Cap-2 Maneuver   | -      | - | -      | -     | - | -      | 137   | 166   | -      | 138   | 165   | -     |
| Stage 1              | -      | - | -      | -     | - | -      | 406   | 419   | -      | 531   | 529   | -     |
| Stage 2              | -      | - | -      | -     | - | -      | 497   | 519   | -      | 379   | 410   | -     |

| Approach             | EB  |  | WB  |  |  | NB   |  |  | SB   |  |  |
|----------------------|-----|--|-----|--|--|------|--|--|------|--|--|
| HCM Control Delay, s | 0.4 |  | 0.3 |  |  | 31.8 |  |  | 18.3 |  |  |
| HCM LOS              |     |  |     |  |  | D    |  |  | C    |  |  |

| Minor Lane/Major Mvmt | NBLn1 | EBL   | EBT | EBR | WBL   | WBT | WBR | SBLn1 |
|-----------------------|-------|-------|-----|-----|-------|-----|-----|-------|
| Capacity (veh/h)      | 185   | 1076  | -   | -   | 923   | -   | -   | 311   |
| HCM Lane V/C Ratio    | 0.278 | 0.033 | -   | -   | 0.019 | -   | -   | 0.13  |
| HCM Control Delay (s) | 31.8  | 8.5   | -   | -   | 9     | -   | -   | 18.3  |
| HCM Lane LOS          | D     | A     | -   | -   | A     | -   | -   | C     |
| HCM 95th %tile Q(veh) | 1.1   | 0.1   | -   | -   | 0.1   | -   | -   | 0.4   |

Generations at Green Valley  
 9: Silver Springs Pkwy & Green Valley Rd

Plus Project  
 Timing Plan: PM



| Lane Group                  | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|-----------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph)       | 580  | 106  | 42   | 404  | 124  | 72   |
| v/c Ratio                   | 0.67 | 0.13 | 0.15 | 0.47 | 0.27 | 0.16 |
| Control Delay               | 10.8 | 1.9  | 6.2  | 7.6  | 11.1 | 4.1  |
| Queue Delay                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay                 | 10.8 | 1.9  | 6.2  | 7.6  | 11.1 | 4.1  |
| Queue Length 50th (ft)      | 55   | 0    | 3    | 34   | 16   | 0    |
| Queue Length 95th (ft)      | 134  | 12   | 14   | 83   | 31   | 10   |
| Internal Link Dist (ft)     | 3999 |      |      | 3318 | 1349 |      |
| Turn Bay Length (ft)        |      | 230  | 415  |      | 135  |      |
| Base Capacity (vph)         | 1040 | 931  | 348  | 1040 | 988  | 916  |
| Starvation Cap Reductn      | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn       | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn         | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio           | 0.56 | 0.11 | 0.12 | 0.39 | 0.13 | 0.08 |
| <b>Intersection Summary</b> |      |      |      |      |      |      |

Generations at Green Valley  
9: Silver Springs Pkwy & Green Valley Rd

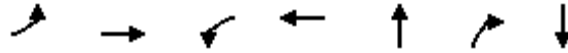
Plus Project  
Timing Plan: PM



| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations          | ↑    | ↑    | ↔    | ↑    | ↑    | ↑    |
| Traffic Volume (veh/h)       | 539  | 99   | 38   | 364  | 89   | 52   |
| Future Volume (veh/h)        | 539  | 99   | 38   | 364  | 89   | 52   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 580  | 106  | 42   | 404  | 124  | 72   |
| Peak Hour Factor             | 0.93 | 0.93 | 0.90 | 0.90 | 0.72 | 0.72 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 842  | 713  | 483  | 842  | 327  | 291  |
| Arrive On Green              | 0.45 | 0.45 | 0.45 | 0.45 | 0.18 | 0.18 |
| Sat Flow, veh/h              | 1870 | 1585 | 756  | 1870 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 580  | 106  | 42   | 404  | 124  | 72   |
| Grp Sat Flow(s),veh/h/ln     | 1870 | 1585 | 756  | 1870 | 1781 | 1585 |
| Q Serve(g_s), s              | 5.4  | 0.9  | 1.0  | 3.3  | 1.3  | 0.8  |
| Cycle Q Clear(g_c), s        | 5.4  | 0.9  | 6.4  | 3.3  | 1.3  | 0.8  |
| Prop In Lane                 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 842  | 713  | 483  | 842  | 327  | 291  |
| V/C Ratio(X)                 | 0.69 | 0.15 | 0.09 | 0.48 | 0.38 | 0.25 |
| Avail Cap(c_a), veh/h        | 1372 | 1162 | 697  | 1372 | 1306 | 1162 |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 4.8  | 3.5  | 7.3  | 4.2  | 7.8  | 7.6  |
| Incr Delay (d2), s/veh       | 1.0  | 0.1  | 0.1  | 0.4  | 0.7  | 0.4  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.2  | 0.0  | 0.0  | 0.1  | 0.2  | 0.1  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 5.8  | 3.6  | 7.4  | 4.6  | 8.5  | 8.1  |
| LnGrp LOS                    | A    | A    | A    | A    | A    | A    |
| Approach Vol, veh/h          | 686  |      |      | 446  | 196  |      |
| Approach Delay, s/veh        | 5.5  |      |      | 4.9  | 8.4  |      |
| Approach LOS                 | A    |      |      | A    | A    |      |
| Timer - Assigned Phs         |      | 2    |      | 4    |      | 8    |
| Phs Duration (G+Y+Rc), s     |      | 8.0  |      | 13.8 |      | 13.8 |
| Change Period (Y+Rc), s      |      | 4.0  |      | 4.0  |      | 4.0  |
| Max Green Setting (Gmax), s  |      | 16.0 |      | 16.0 |      | 16.0 |
| Max Q Clear Time (g_c+I1), s |      | 3.3  |      | 7.4  |      | 8.4  |
| Green Ext Time (p_c), s      |      | 0.4  |      | 2.4  |      | 1.4  |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 5.7  |      |      |      |
| HCM 6th LOS                  |      |      | A    |      |      |      |

Generations at Green Valley  
 10: Bass Lake Rd./Alexandrite Dr & Green Valley Rd.

Plus Project  
 Timing Plan: PM



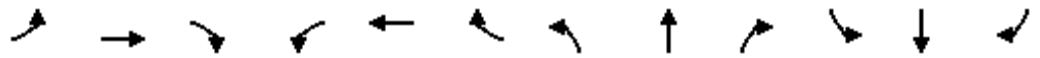
| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBT  | NBR  | SBT  |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 3    | 644  | 79   | 394  | 44   | 179  | 16   |
| v/c Ratio               | 0.02 | 0.75 | 0.37 | 0.33 | 0.17 | 0.47 | 0.08 |
| Control Delay           | 32.7 | 18.1 | 34.9 | 6.6  | 27.3 | 10.2 | 21.0 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 32.7 | 18.1 | 34.9 | 6.6  | 27.3 | 10.2 | 21.0 |
| Queue Length 50th (ft)  | 1    | 128  | 20   | 31   | 11   | 0    | 1    |
| Queue Length 95th (ft)  | 11   | 363  | #97  | 165  | 47   | 42   | 17   |
| Internal Link Dist (ft) |      | 3318 |      | 1151 | 1084 |      | 521  |
| Turn Bay Length (ft)    | 285  |      | 435  |      |      | 150  |      |
| Base Capacity (vph)     | 143  | 1699 | 214  | 1742 | 572  | 633  | 547  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.02 | 0.38 | 0.37 | 0.23 | 0.08 | 0.28 | 0.03 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
10: Bass Lake Rd./Alexandrite Dr & Green Valley Rd.

Plus Project  
Timing Plan: PM

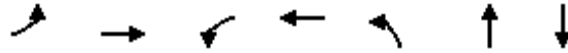


| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          | ↖    | ↗    |      | ↖    | ↗    |      |      | ↖    | ↗    |      | ↕    |      |
| Traffic Volume (veh/h)       | 3    | 558  | 54   | 67   | 334  | 1    | 36   | 0    | 147  | 3    | 1    | 8    |
| Future Volume (veh/h)        | 3    | 558  | 54   | 67   | 334  | 1    | 36   | 0    | 147  | 3    | 1    | 8    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 3    | 587  | 57   | 79   | 393  | 1    | 44   | 0    | 179  | 4    | 1    | 11   |
| Peak Hour Factor             | 0.95 | 0.95 | 0.95 | 0.85 | 0.85 | 0.85 | 0.82 | 0.82 | 0.82 | 0.75 | 0.75 | 0.75 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 6    | 729  | 71   | 100  | 908  | 2    | 271  | 0    | 241  | 7    | 2    | 18   |
| Arrive On Green              | 0.00 | 0.43 | 0.43 | 0.06 | 0.49 | 0.49 | 0.15 | 0.00 | 0.15 | 0.02 | 0.02 | 0.02 |
| Sat Flow, veh/h              | 1781 | 1678 | 163  | 1781 | 1865 | 5    | 1781 | 0    | 1585 | 412  | 103  | 1132 |
| Grp Volume(v), veh/h         | 3    | 0    | 644  | 79   | 0    | 394  | 44   | 0    | 179  | 16   | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1841 | 1781 | 0    | 1870 | 1781 | 0    | 1585 | 1646 | 0    | 0    |
| Q Serve(g_s), s              | 0.1  | 0.0  | 14.3 | 2.1  | 0.0  | 6.4  | 1.0  | 0.0  | 5.1  | 0.5  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 0.1  | 0.0  | 14.3 | 2.1  | 0.0  | 6.4  | 1.0  | 0.0  | 5.1  | 0.5  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 0.09 | 1.00 |      | 0.00 | 1.00 |      | 1.00 | 0.25 |      | 0.69 |
| Lane Grp Cap(c), veh/h       | 6    | 0    | 800  | 100  | 0    | 911  | 271  | 0    | 241  | 26   | 0    | 0    |
| V/C Ratio(X)                 | 0.52 | 0.00 | 0.81 | 0.79 | 0.00 | 0.43 | 0.16 | 0.00 | 0.74 | 0.61 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 152  | 0    | 2200 | 228  | 0    | 2314 | 608  | 0    | 541  | 562  | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 23.3 | 0.0  | 11.5 | 21.9 | 0.0  | 7.8  | 17.3 | 0.0  | 19.0 | 22.9 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 56.4 | 0.0  | 2.0  | 13.2 | 0.0  | 0.3  | 0.3  | 0.0  | 4.5  | 20.3 | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.1  | 0.0  | 3.8  | 1.0  | 0.0  | 1.4  | 0.4  | 0.0  | 1.7  | 0.3  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 79.7 | 0.0  | 13.5 | 35.0 | 0.0  | 8.1  | 17.5 | 0.0  | 23.4 | 43.2 | 0.0  | 0.0  |
| LnGrp LOS                    | E    | A    | B    | D    | A    | A    | B    | A    | C    | D    | A    | A    |
| Approach Vol, veh/h          |      | 647  |      |      | 473  |      |      | 223  |      |      |      | 16   |
| Approach Delay, s/veh        |      | 13.8 |      |      | 12.6 |      |      | 22.3 |      |      |      | 43.2 |
| Approach LOS                 |      | B    |      |      | B    |      |      | C    |      |      |      | D    |
| Timer - Assigned Phs         |      | 2    | 3    | 4    |      | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 11.1 | 6.6  | 24.4 |      | 4.8  | 4.2  | 26.8 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 16.0 | 6.0  | 56.0 |      | 16.0 | 4.0  | 58.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 7.1  | 4.1  | 16.3 |      | 2.5  | 2.1  | 8.4  |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.5  | 0.0  | 4.1  |      | 0.0  | 0.0  | 2.1  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      | 15.1 |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      |      | B    |      |      |      |      |      |      |      |      |



Generations at Green Valley  
 11: Cambridge Rd./Peridot Dr & Green Valley Rd.

Plus Project  
 Timing Plan: PM



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBT  |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 20   | 676  | 40   | 352  | 112  | 81   | 32   |
| v/c Ratio               | 0.08 | 0.61 | 0.21 | 0.30 | 0.28 | 0.19 | 0.11 |
| Control Delay           | 37.0 | 14.9 | 39.7 | 10.1 | 29.4 | 12.5 | 27.1 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 37.0 | 14.9 | 39.7 | 10.1 | 29.4 | 12.5 | 27.1 |
| Queue Length 50th (ft)  | 6    | 146  | 13   | 36   | 33   | 4    | 6    |
| Queue Length 95th (ft)  | 34   | 414  | #69  | 180  | 110  | 46   | 34   |
| Internal Link Dist (ft) |      | 1151 |      | 2235 |      | 1080 | 510  |
| Turn Bay Length (ft)    | 100  |      | 125  |      | 125  |      |      |
| Base Capacity (vph)     | 244  | 1452 | 195  | 1470 | 771  | 747  | 766  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.08 | 0.47 | 0.21 | 0.24 | 0.15 | 0.11 | 0.04 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
11: Cambridge Rd./Peridot Dr & Green Valley Rd.

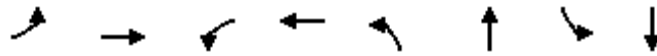
Plus Project  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 19   | 527  | 129  | 38   | 318  | 13   | 101  | 12   | 61   | 10   | 7    | 9    |
| Future Volume (veh/h)        | 19   | 527  | 129  | 38   | 318  | 13   | 101  | 12   | 61   | 10   | 7    | 9    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 20   | 543  | 133  | 40   | 338  | 14   | 112  | 13   | 68   | 12   | 9    | 11   |
| Peak Hour Factor             | 0.97 | 0.97 | 0.97 | 0.94 | 0.94 | 0.94 | 0.90 | 0.90 | 0.90 | 0.81 | 0.81 | 0.81 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 35   | 675  | 165  | 63   | 857  | 35   | 189  | 28   | 145  | 19   | 14   | 18   |
| Arrive On Green              | 0.02 | 0.47 | 0.47 | 0.04 | 0.48 | 0.48 | 0.11 | 0.11 | 0.11 | 0.03 | 0.03 | 0.03 |
| Sat Flow, veh/h              | 1781 | 1451 | 355  | 1781 | 1783 | 74   | 1781 | 261  | 1364 | 649  | 487  | 595  |
| Grp Volume(v), veh/h         | 20   | 0    | 676  | 40   | 0    | 352  | 112  | 0    | 81   | 32   | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1806 | 1781 | 0    | 1857 | 1781 | 0    | 1625 | 1731 | 0    | 0    |
| Q Serve(g_s), s              | 0.5  | 0.0  | 14.1 | 1.0  | 0.0  | 5.3  | 2.6  | 0.0  | 2.1  | 0.8  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 0.5  | 0.0  | 14.1 | 1.0  | 0.0  | 5.3  | 2.6  | 0.0  | 2.1  | 0.8  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 0.20 | 1.00 |      | 0.04 | 1.00 |      | 0.84 | 0.37 |      | 0.34 |
| Lane Grp Cap(c), veh/h       | 35   | 0    | 840  | 63   | 0    | 892  | 189  | 0    | 173  | 51   | 0    | 0    |
| V/C Ratio(X)                 | 0.57 | 0.00 | 0.80 | 0.64 | 0.00 | 0.39 | 0.59 | 0.00 | 0.47 | 0.63 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 203  | 0    | 1973 | 162  | 0    | 1986 | 649  | 0    | 592  | 630  | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 21.4 | 0.0  | 10.0 | 20.9 | 0.0  | 7.3  | 18.7 | 0.0  | 18.5 | 21.1 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 13.7 | 0.0  | 1.9  | 10.3 | 0.0  | 0.3  | 2.9  | 0.0  | 2.0  | 12.0 | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.3  | 0.0  | 3.2  | 0.5  | 0.0  | 1.1  | 1.1  | 0.0  | 0.8  | 0.5  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 35.0 | 0.0  | 11.9 | 31.2 | 0.0  | 7.6  | 21.7 | 0.0  | 20.4 | 33.1 | 0.0  | 0.0  |
| LnGrp LOS                    | D    | A    | B    | C    | A    | A    | C    | A    | C    | C    | A    | A    |
| Approach Vol, veh/h          |      | 696  |      |      | 392  |      |      | 193  |      |      |      | 32   |
| Approach Delay, s/veh        |      | 12.6 |      |      | 10.0 |      |      | 21.2 |      |      |      | 33.1 |
| Approach LOS                 |      | B    |      |      | B    |      |      | C    |      |      |      | C    |
| Timer - Assigned Phs         |      | 2    | 3    | 4    |      | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 8.7  | 5.5  | 24.4 |      | 5.3  | 4.9  | 25.1 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 16.0 | 4.0  | 48.0 |      | 16.0 | 5.0  | 47.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 4.6  | 3.0  | 16.1 |      | 2.8  | 2.5  | 7.3  |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.5  | 0.0  | 4.4  |      | 0.1  | 0.0  | 1.9  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      | 13.6 |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      |      | B    |      |      |      |      |      |      |      |      |

Generations at Green Valley  
12: Cameron Park Dr. & Green Valley Rd.

Plus Project  
Timing Plan: PM



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 43   | 493  | 103  | 259  | 226  | 234  | 23   | 81   |
| v/c Ratio               | 0.21 | 0.74 | 0.46 | 0.35 | 0.58 | 0.39 | 0.14 | 0.31 |
| Control Delay           | 35.5 | 25.6 | 41.9 | 17.2 | 34.8 | 16.3 | 36.9 | 30.3 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 35.5 | 25.6 | 41.9 | 17.2 | 34.8 | 16.3 | 36.9 | 30.3 |
| Queue Length 50th (ft)  | 17   | 172  | 43   | 83   | 87   | 42   | 9    | 28   |
| Queue Length 95th (ft)  | 54   | 298  | #120 | 140  | #212 | 132  | 32   | 65   |
| Internal Link Dist (ft) |      | 2235 |      | 1414 |      | 1563 |      | 921  |
| Turn Bay Length (ft)    | 270  |      | 150  |      | 125  |      | 55   |      |
| Base Capacity (vph)     | 227  | 1034 | 227  | 1074 | 487  | 913  | 162  | 605  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.19 | 0.48 | 0.45 | 0.24 | 0.46 | 0.26 | 0.14 | 0.13 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Generations at Green Valley  
12: Cameron Park Dr. & Green Valley Rd.

Plus Project  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 39   | 261  | 183  | 89   | 209  | 14   | 208  | 89   | 126  | 18   | 53   | 12   |
| Future Volume (veh/h)        | 39   | 261  | 183  | 89   | 209  | 14   | 208  | 89   | 126  | 18   | 53   | 12   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 43   | 290  | 203  | 103  | 243  | 16   | 226  | 97   | 137  | 22   | 66   | 15   |
| Peak Hour Factor             | 0.90 | 0.90 | 0.90 | 0.86 | 0.86 | 0.86 | 0.92 | 0.92 | 0.92 | 0.80 | 0.80 | 0.80 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 64   | 359  | 252  | 132  | 675  | 44   | 288  | 160  | 226  | 38   | 129  | 29   |
| Arrive On Green              | 0.04 | 0.35 | 0.35 | 0.07 | 0.39 | 0.39 | 0.16 | 0.23 | 0.23 | 0.02 | 0.09 | 0.09 |
| Sat Flow, veh/h              | 1781 | 1024 | 717  | 1781 | 1736 | 114  | 1781 | 701  | 991  | 1781 | 1475 | 335  |
| Grp Volume(v), veh/h         | 43   | 0    | 493  | 103  | 0    | 259  | 226  | 0    | 234  | 22   | 0    | 81   |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1741 | 1781 | 0    | 1850 | 1781 | 0    | 1692 | 1781 | 0    | 1810 |
| Q Serve(g_s), s              | 1.2  | 0.0  | 12.6 | 2.8  | 0.0  | 4.9  | 6.0  | 0.0  | 6.1  | 0.6  | 0.0  | 2.1  |
| Cycle Q Clear(g_c), s        | 1.2  | 0.0  | 12.6 | 2.8  | 0.0  | 4.9  | 6.0  | 0.0  | 6.1  | 0.6  | 0.0  | 2.1  |
| Prop In Lane                 | 1.00 |      | 0.41 | 1.00 |      | 0.06 | 1.00 |      | 0.59 | 1.00 |      | 0.19 |
| Lane Grp Cap(c), veh/h       | 64   | 0    | 611  | 132  | 0    | 720  | 288  | 0    | 386  | 38   | 0    | 159  |
| V/C Ratio(X)                 | 0.67 | 0.00 | 0.81 | 0.78 | 0.00 | 0.36 | 0.78 | 0.00 | 0.61 | 0.58 | 0.00 | 0.51 |
| Avail Cap(c_a), veh/h        | 254  | 0    | 1205 | 254  | 0    | 1280 | 544  | 0    | 964  | 181  | 0    | 663  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh     | 23.4 | 0.0  | 14.4 | 22.4 | 0.0  | 10.7 | 19.8 | 0.0  | 17.0 | 23.8 | 0.0  | 21.4 |
| Incr Delay (d2), s/veh       | 11.3 | 0.0  | 2.6  | 9.5  | 0.0  | 0.3  | 4.7  | 0.0  | 1.5  | 13.6 | 0.0  | 2.5  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.6  | 0.0  | 3.8  | 1.3  | 0.0  | 1.4  | 2.4  | 0.0  | 2.1  | 0.4  | 0.0  | 0.9  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 34.7 | 0.0  | 17.0 | 31.8 | 0.0  | 11.0 | 24.5 | 0.0  | 18.5 | 37.4 | 0.0  | 23.9 |
| LnGrp LOS                    | C    | A    | B    | C    | A    | B    | C    | A    | B    | D    | A    | C    |
| Approach Vol, veh/h          |      | 536  |      |      | 362  |      |      | 460  |      |      |      | 103  |
| Approach Delay, s/veh        |      | 18.4 |      |      | 16.9 |      |      | 21.4 |      |      |      | 26.8 |
| Approach LOS                 |      | B    |      |      | B    |      |      | C    |      |      |      | C    |
| Timer - Assigned Phs         | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 5.0  | 15.2 | 7.6  | 21.2 | 11.9 | 8.3  | 5.8  | 23.1 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 5.0  | 28.0 | 7.0  | 34.0 | 15.0 | 18.0 | 7.0  | 34.0 |      |      |      |      |
| Max Q Clear Time (g_c+l1), s | 2.6  | 8.1  | 4.8  | 14.6 | 8.0  | 4.1  | 3.2  | 6.9  |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 1.2  | 0.0  | 2.6  | 0.3  | 0.2  | 0.0  | 1.3  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      | 19.6 |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      |      | B    |      |      |      |      |      |      |      |      |

Intersection

Intersection Delay, s/veh63.1

Intersection LOS F

| Movement            | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations |      | ↔    | ↔    |      | ↔    |      | ↔    | ↔    |      | ↔    | ↔    |      |
| Traffic Vol, veh/h  | 3    | 39   | 524  | 12   | 24   | 12   | 458  | 267  | 16   | 7    | 189  | 0    |
| Future Vol, veh/h   | 3    | 39   | 524  | 12   | 24   | 12   | 458  | 267  | 16   | 7    | 189  | 0    |
| Peak Hour Factor    | 0.91 | 0.91 | 0.91 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.90 | 0.90 | 0.90 |
| Heavy Vehicles, %   | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow           | 3    | 43   | 576  | 13   | 26   | 13   | 498  | 290  | 17   | 8    | 210  | 0    |
| Number of Lanes     | 0    | 1    | 1    | 0    | 1    | 0    | 1    | 1    | 0    | 1    | 1    | 0    |

| Approach                      | EB   | WB   | NB   | SB   |
|-------------------------------|------|------|------|------|
| Opposing Approach             | WB   | EB   | SB   | NB   |
| Opposing Lanes                | 1    | 2    | 2    | 2    |
| Conflicting Approach Left SB  |      | NB   | EB   | WB   |
| Conflicting Lanes Left        | 2    | 2    | 2    | 1    |
| Conflicting Approach Right NB |      | SB   | WB   | EB   |
| Conflicting Lanes Right       | 2    | 2    | 1    | 2    |
| HCM Control Delay             | 82.4 | 13.5 | 63.5 | 18.2 |
| HCM LOS                       | F    | B    | F    | C    |

| Lane                   | NBLn1 | NBLn2 | EBLn1 | EBLn2 | WBLn1 | SBLn1 | SBLn2 |
|------------------------|-------|-------|-------|-------|-------|-------|-------|
| Vol Left, %            | 100%  | 0%    | 7%    | 0%    | 25%   | 100%  | 0%    |
| Vol Thru, %            | 0%    | 94%   | 93%   | 0%    | 50%   | 0%    | 100%  |
| Vol Right, %           | 0%    | 6%    | 0%    | 100%  | 25%   | 0%    | 0%    |
| Sign Control           | Stop  | Stop  | Stop  | Stop  | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 458   | 283   | 42    | 524   | 48    | 7     | 189   |
| LT Vol                 | 458   | 0     | 3     | 0     | 12    | 7     | 0     |
| Through Vol            | 0     | 267   | 39    | 0     | 24    | 0     | 189   |
| RT Vol                 | 0     | 16    | 0     | 524   | 12    | 0     | 0     |
| Lane Flow Rate         | 498   | 308   | 46    | 576   | 52    | 8     | 210   |
| Geometry Grp           | 7     | 7     | 7     | 7     | 6     | 7     | 7     |
| Degree of Util (X)     | 1.066 | 0.612 | 0.096 | 1.079 | 0.126 | 0.018 | 0.469 |
| Departure Headway (Hd) | 8.056 | 7.5   | 7.686 | 6.933 | 9.161 | 8.966 | 8.446 |
| Convergence, Y/N       | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   |
| Cap                    | 453   | 486   | 469   | 530   | 394   | 402   | 428   |
| Service Time           | 5.756 | 5.2   | 5.386 | 4.633 | 7.161 | 6.666 | 6.146 |
| HCM Lane V/C Ratio     | 1.099 | 0.634 | 0.098 | 1.087 | 0.132 | 0.02  | 0.491 |
| HCM Control Delay      | 89.5  | 21.3  | 11.2  | 88.1  | 13.5  | 11.8  | 18.4  |
| HCM Lane LOS           | F     | C     | B     | F     | B     | B     | C     |
| HCM 95th-tile Q        | 15.3  | 4     | 0.3   | 17.3  | 0.4   | 0.1   | 2.4   |

Generations at Green Valley  
 14: El Dorado Hills Blvd. & Harvard Way

Plus Project  
 Timing Plan: PM



| Lane Group              | WBL  | WBR  | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|
| Lane Group Flow (vph)   | 157  | 188  | 990  | 224  | 565  |
| v/c Ratio               | 0.43 | 0.40 | 0.67 | 0.59 | 0.26 |
| Control Delay           | 20.3 | 6.1  | 13.0 | 29.6 | 4.7  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 20.3 | 6.1  | 13.0 | 29.6 | 4.7  |
| Queue Length 50th (ft)  | 36   | 0    | 95   | 29   | 28   |
| Queue Length 95th (ft)  | 72   | 29   | 158  | #75  | 57   |
| Internal Link Dist (ft) | 2093 |      | 5028 |      | 7812 |
| Turn Bay Length (ft)    |      |      |      | 190  |      |
| Base Capacity (vph)     | 626  | 682  | 1706 | 379  | 2429 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.25 | 0.28 | 0.58 | 0.59 | 0.23 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
14: El Dorado Hills Blvd. & Harvard Way

Plus Project  
Timing Plan: PM



| Movement                     | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 127  | 152  | 682  | 169  | 199  | 503  |
| Future Volume (veh/h)        | 127  | 152  | 682  | 169  | 199  | 503  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 | 1.00 |      | 1.00 | 1.00 |      |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      | No   |      |      | No   |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 157  | 188  | 793  | 197  | 224  | 565  |
| Peak Hour Factor             | 0.81 | 0.81 | 0.86 | 0.86 | 0.89 | 0.89 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 318  | 283  | 1129 | 281  | 363  | 2170 |
| Arrive On Green              | 0.18 | 0.18 | 0.40 | 0.40 | 0.11 | 0.61 |
| Sat Flow, veh/h              | 1781 | 1585 | 2914 | 701  | 3456 | 3647 |
| Grp Volume(v), veh/h         | 157  | 188  | 500  | 490  | 224  | 565  |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1585 | 1777 | 1744 | 1728 | 1777 |
| Q Serve(g_s), s              | 3.0  | 4.2  | 8.9  | 8.9  | 2.4  | 2.8  |
| Cycle Q Clear(g_c), s        | 3.0  | 4.2  | 8.9  | 8.9  | 2.4  | 2.8  |
| Prop In Lane                 | 1.00 | 1.00 |      | 0.40 | 1.00 |      |
| Lane Grp Cap(c), veh/h       | 318  | 283  | 711  | 698  | 363  | 2170 |
| V/C Ratio(X)                 | 0.49 | 0.66 | 0.70 | 0.70 | 0.62 | 0.26 |
| Avail Cap(c_a), veh/h        | 750  | 668  | 1029 | 1010 | 455  | 2900 |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 14.1 | 14.5 | 9.5  | 9.5  | 16.3 | 3.4  |
| Incr Delay (d2), s/veh       | 1.2  | 2.7  | 1.3  | 1.3  | 1.7  | 0.1  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 1.1  | 1.4  | 2.0  | 2.0  | 0.8  | 0.1  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 15.2 | 17.2 | 10.8 | 10.8 | 18.0 | 3.5  |
| LnGrp LOS                    | B    | B    | B    | B    | B    | A    |
| Approach Vol, veh/h          | 345  |      | 990  |      |      | 789  |
| Approach Delay, s/veh        | 16.3 |      | 10.8 |      |      | 7.6  |
| Approach LOS                 | B    |      | B    |      |      | A    |
| Timer - Assigned Phs         | 1    | 2    |      |      | 6    | 8    |
| Phs Duration (G+Y+Rc), s     | 8.0  | 19.2 |      |      | 27.2 | 10.8 |
| Change Period (Y+Rc), s      | 4.0  | 4.0  |      |      | 4.0  | 4.0  |
| Max Green Setting (Gmax), s  | 5.0  | 22.0 |      |      | 31.0 | 16.0 |
| Max Q Clear Time (g_c+l1), s | 4.4  | 10.9 |      |      | 4.8  | 6.2  |
| Green Ext Time (p_c), s      | 0.0  | 4.3  |      |      | 3.4  | 0.8  |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 10.5 |      |      |      |
| HCM 6th LOS                  |      |      | B    |      |      |      |



| Lane Group              | EBT  | EBR  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 67   | 97   | 9    | 134  | 948  | 3    | 815  |
| v/c Ratio               | 0.26 | 0.26 | 0.03 | 0.52 | 0.41 | 0.02 | 0.46 |
| Control Delay           | 17.3 | 5.5  | 0.2  | 26.5 | 6.3  | 18.3 | 10.5 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 17.3 | 5.5  | 0.2  | 26.5 | 6.3  | 18.3 | 10.5 |
| Queue Length 50th (ft)  | 14   | 0    | 0    | 29   | 44   | 1    | 73   |
| Queue Length 95th (ft)  | 37   | 22   | 0    | #86  | 144  | 6    | 129  |
| Internal Link Dist (ft) | 1459 |      | 233  |      | 3231 |      | 5028 |
| Turn Bay Length (ft)    |      |      |      | 278  |      | 90   |      |
| Base Capacity (vph)     | 547  | 685  | 627  | 259  | 2336 | 173  | 1780 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.12 | 0.14 | 0.01 | 0.52 | 0.41 | 0.02 | 0.46 |

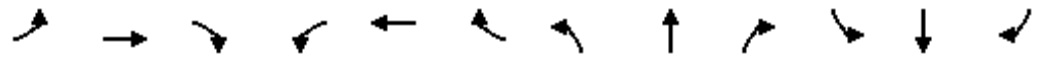
**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.



Generations at Green Valley  
15: El Dorado Hills Blvd. & Wilson Blvd

Plus Project  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      | ↖    | ↗    |      | ↔    |      | ↖    | ↕    |      | ↖    | ↕    |      |
| Traffic Volume (veh/h)       | 59   | 0    | 85   | 4    | 0    | 2    | 125  | 881  | 1    | 3    | 689  | 53   |
| Future Volume (veh/h)        | 59   | 0    | 85   | 4    | 0    | 2    | 125  | 881  | 1    | 3    | 689  | 53   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 67   | 0    | 97   | 6    | 0    | 3    | 134  | 947  | 1    | 3    | 757  | 58   |
| Peak Hour Factor             | 0.88 | 0.88 | 0.88 | 0.70 | 0.70 | 0.70 | 0.93 | 0.93 | 0.93 | 0.91 | 0.91 | 0.91 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 366  | 0    | 165  | 235  | 29   | 46   | 171  | 2003 | 2    | 6    | 1529 | 117  |
| Arrive On Green              | 0.10 | 0.00 | 0.10 | 0.10 | 0.00 | 0.10 | 0.10 | 0.55 | 0.55 | 0.00 | 0.46 | 0.46 |
| Sat Flow, veh/h              | 1538 | 0    | 1585 | 611  | 280  | 445  | 1781 | 3643 | 4    | 1781 | 3345 | 256  |
| Grp Volume(v), veh/h         | 67   | 0    | 97   | 9    | 0    | 0    | 134  | 462  | 486  | 3    | 402  | 413  |
| Grp Sat Flow(s),veh/h/ln     | 1538 | 0    | 1585 | 1335 | 0    | 0    | 1781 | 1777 | 1870 | 1781 | 1777 | 1824 |
| Q Serve(g_s), s              | 0.0  | 0.0  | 2.0  | 0.0  | 0.0  | 0.0  | 2.6  | 5.5  | 5.5  | 0.1  | 5.6  | 5.6  |
| Cycle Q Clear(g_c), s        | 1.2  | 0.0  | 2.0  | 1.2  | 0.0  | 0.0  | 2.6  | 5.5  | 5.5  | 0.1  | 5.6  | 5.6  |
| Prop In Lane                 | 1.00 |      | 1.00 | 0.67 |      | 0.33 | 1.00 |      | 0.00 | 1.00 |      | 0.14 |
| Lane Grp Cap(c), veh/h       | 366  | 0    | 165  | 310  | 0    | 0    | 171  | 977  | 1028 | 6    | 812  | 834  |
| V/C Ratio(X)                 | 0.18 | 0.00 | 0.59 | 0.03 | 0.00 | 0.00 | 0.78 | 0.47 | 0.47 | 0.51 | 0.49 | 0.50 |
| Avail Cap(c_a), veh/h        | 865  | 0    | 725  | 798  | 0    | 0    | 305  | 977  | 1028 | 204  | 812  | 834  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 14.6 | 0.0  | 15.0 | 14.1 | 0.0  | 0.0  | 15.5 | 4.8  | 4.8  | 17.4 | 6.7  | 6.7  |
| Incr Delay (d2), s/veh       | 0.2  | 0.0  | 3.3  | 0.0  | 0.0  | 0.0  | 7.6  | 1.6  | 1.6  | 55.7 | 2.2  | 2.1  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.4  | 0.0  | 0.8  | 0.1  | 0.0  | 0.0  | 1.1  | 1.0  | 1.0  | 0.1  | 1.3  | 1.3  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 14.8 | 0.0  | 18.3 | 14.2 | 0.0  | 0.0  | 23.1 | 6.4  | 6.4  | 73.2 | 8.8  | 8.8  |
| LnGrp LOS                    | B    | A    | B    | B    | A    | A    | C    | A    | A    | E    | A    | A    |
| Approach Vol, veh/h          |      | 164  |      |      | 9    |      |      | 1082 |      |      | 818  |      |
| Approach Delay, s/veh        |      | 16.9 |      |      | 14.2 |      |      | 8.5  |      |      | 9.0  |      |
| Approach LOS                 |      | B    |      |      | B    |      |      | A    |      |      | A    |      |
| Timer - Assigned Phs         | 1    | 2    |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 4.1  | 23.2 |      | 7.6  | 7.4  | 20.0 |      | 7.6  |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0  | 18.0 |      | 16.0 | 6.0  | 16.0 |      | 16.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 2.1  | 7.5  |      | 4.0  | 4.6  | 7.6  |      | 3.2  |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 4.0  |      | 0.4  | 0.0  | 2.9  |      | 0.0  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 9.4  |      |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      | A    |      |      |      |      |      |      |      |      |      |



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | NBR  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 16   | 61   | 116  | 115  | 88   | 1007 | 266  | 37   | 805  |
| v/c Ratio               | 0.14 | 0.40 | 0.55 | 0.51 | 0.49 | 0.45 | 0.17 | 0.33 | 0.42 |
| Control Delay           | 26.5 | 18.3 | 30.1 | 25.5 | 31.1 | 8.4  | 0.2  | 32.1 | 10.7 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 26.5 | 18.3 | 30.1 | 25.5 | 31.1 | 8.4  | 0.2  | 32.1 | 10.7 |
| Queue Length 50th (ft)  | 5    | 2    | 33   | 27   | 25   | 73   | 0    | 11   | 85   |
| Queue Length 95th (ft)  | 17   | 23   | 70   | 64   | 63   | 176  | 0    | #40  | 148  |
| Internal Link Dist (ft) |      | 321  |      | 6047 |      | 1160 |      |      | 3231 |
| Turn Bay Length (ft)    | 70   |      | 410  |      | 260  |      |      | 100  |      |
| Base Capacity (vph)     | 112  | 152  | 921  | 917  | 223  | 2251 | 1583 | 112  | 1918 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.14 | 0.40 | 0.13 | 0.13 | 0.39 | 0.45 | 0.17 | 0.33 | 0.42 |

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
16: El Dorado Hills Blvd. & Lassen Ln/Serrano Pkwy.

Plus Project  
Timing Plan: PM

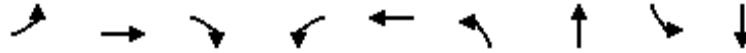


| Movement               | EBL   | EBT  | EBR  | WBL   | WBT  | WBR  | NBL  | NBT   | NBR   | SBL   | SBT  | SBR  |
|------------------------|-------|------|------|-------|------|------|------|-------|-------|-------|------|------|
| Lane Configurations    |       |      |      |       |      |      |      |       |       |       |      |      |
| Traffic Volume (vph)   | 12    | 5    | 41   | 170   | 8    | 19   | 84   | 967   | 255   | 34    | 724  | 25   |
| Future Volume (vph)    | 12    | 5    | 41   | 170   | 8    | 19   | 84   | 967   | 255   | 34    | 724  | 25   |
| Ideal Flow (vphpl)     | 1900  | 1900 | 1900 | 1900  | 1900 | 1900 | 1900 | 1900  | 1900  | 1900  | 1900 | 1900 |
| Total Lost time (s)    | 3.0   | 3.0  |      | 3.0   | 3.0  |      | 3.0  | 5.2   | 4.0   | 3.0   | 5.2  |      |
| Lane Util. Factor      | 1.00  | 1.00 |      | 0.95  | 0.95 |      | 1.00 | 0.95  | 1.00  | 1.00  | 0.95 |      |
| Frt                    | 1.00  | 0.87 |      | 1.00  | 0.97 |      | 1.00 | 1.00  | 0.85  | 1.00  | 0.99 |      |
| Flt Protected          | 0.95  | 1.00 |      | 0.95  | 0.96 |      | 0.95 | 1.00  | 1.00  | 0.95  | 1.00 |      |
| Satd. Flow (prot)      | 1770  | 1615 |      | 1681  | 1658 |      | 1770 | 3539  | 1583  | 1770  | 3521 |      |
| Flt Permitted          | 0.95  | 1.00 |      | 0.95  | 0.96 |      | 0.95 | 1.00  | 1.00  | 0.95  | 1.00 |      |
| Satd. Flow (perm)      | 1770  | 1615 |      | 1681  | 1658 |      | 1770 | 3539  | 1583  | 1770  | 3521 |      |
| Peak-hour factor, PHF  | 0.76  | 0.76 | 0.76 | 0.85  | 0.85 | 0.85 | 0.96 | 0.96  | 0.96  | 0.93  | 0.93 | 0.93 |
| Adj. Flow (vph)        | 16    | 7    | 54   | 200   | 9    | 22   | 88   | 1007  | 266   | 37    | 778  | 27   |
| RTOR Reduction (vph)   | 0     | 52   | 0    | 0     | 17   | 0    | 0    | 0     | 0     | 0     | 3    | 0    |
| Lane Group Flow (vph)  | 16    | 9    | 0    | 116   | 98   | 0    | 88   | 1007  | 266   | 37    | 802  | 0    |
| Turn Type              | Split | NA   |      | Split | NA   |      | Prot | NA    | Free  | Prot  | NA   |      |
| Protected Phases       | 4     | 4    |      | 8     | 8    |      | 5    | 2     |       | 1     | 6    |      |
| Permitted Phases       |       |      |      |       |      |      |      |       | Free  |       |      |      |
| Actuated Green, G (s)  | 1.7   | 1.7  |      | 5.4   | 5.4  |      | 5.5  | 29.3  | 51.7  | 1.1   | 24.9 |      |
| Effective Green, g (s) | 1.7   | 1.7  |      | 5.4   | 5.4  |      | 5.5  | 29.3  | 51.7  | 1.1   | 24.9 |      |
| Actuated g/C Ratio     | 0.03  | 0.03 |      | 0.10  | 0.10 |      | 0.11 | 0.57  | 1.00  | 0.02  | 0.48 |      |
| Clearance Time (s)     | 3.0   | 3.0  |      | 3.0   | 3.0  |      | 3.0  | 5.2   |       | 3.0   | 5.2  |      |
| Vehicle Extension (s)  | 0.2   | 0.2  |      | 0.2   | 0.2  |      | 0.2  | 0.2   |       | 0.2   | 0.2  |      |
| Lane Grp Cap (vph)     | 58    | 53   |      | 175   | 173  |      | 188  | 2005  | 1583  | 37    | 1695 |      |
| v/s Ratio Prot         | 0.01  | 0.01 |      | c0.07 | 0.06 |      | 0.05 | c0.28 |       | c0.02 | 0.23 |      |
| v/s Ratio Perm         |       |      |      |       |      |      |      |       | c0.17 |       |      |      |
| v/c Ratio              | 0.28  | 0.17 |      | 0.66  | 0.57 |      | 0.47 | 0.50  | 0.17  | 1.00  | 0.47 |      |
| Uniform Delay, d1      | 24.4  | 24.3 |      | 22.3  | 22.0 |      | 21.7 | 6.8   | 0.0   | 25.3  | 9.0  |      |
| Progression Factor     | 1.00  | 1.00 |      | 1.00  | 1.00 |      | 1.00 | 1.00  | 1.00  | 1.00  | 1.00 |      |
| Incremental Delay, d2  | 0.9   | 0.5  |      | 7.1   | 2.5  |      | 0.7  | 0.9   | 0.2   | 148.0 | 1.0  |      |
| Delay (s)              | 25.3  | 24.8 |      | 29.4  | 24.6 |      | 22.4 | 7.7   | 0.2   | 173.3 | 9.9  |      |
| Level of Service       | C     | C    |      | C     | C    |      | C    | A     | A     | F     | A    |      |
| Approach Delay (s)     |       | 25.0 |      |       | 27.0 |      |      | 7.2   |       |       | 17.1 |      |
| Approach LOS           |       | C    |      |       | C    |      |      | A     |       |       | B    |      |

Intersection Summary

|                                   |       |                           |      |
|-----------------------------------|-------|---------------------------|------|
| HCM 2000 Control Delay            | 12.9  | HCM 2000 Level of Service | B    |
| HCM 2000 Volume to Capacity ratio | 0.54  |                           |      |
| Actuated Cycle Length (s)         | 51.7  | Sum of lost time (s)      | 14.2 |
| Intersection Capacity Utilization | 53.2% | ICU Level of Service      | A    |
| Analysis Period (min)             | 15    |                           |      |

c Critical Lane Group



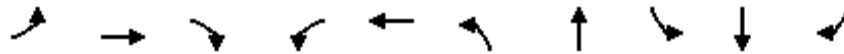
| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL    | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|--------|------|------|------|
| Lane Group Flow (vph)   | 134  | 138  | 378  | 58   | 239  | 322    | 1100 | 131  | 914  |
| v/c Ratio               | 0.77 | 0.77 | 0.75 | 0.33 | 0.84 | 5.03   | 0.43 | 0.51 | 0.43 |
| Control Delay           | 73.8 | 74.0 | 14.6 | 49.1 | 44.5 | 1860.2 | 19.1 | 51.1 | 12.9 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0    | 0.0  | 0.0  | 0.0  |
| Total Delay             | 73.8 | 74.0 | 14.6 | 49.1 | 44.5 | 1860.2 | 19.1 | 51.1 | 12.9 |
| Queue Length 50th (ft)  | 98   | 101  | 0    | 39   | 71   | ~427   | 168  | 86   | 156  |
| Queue Length 95th (ft)  | 160  | 164  | 90   | 66   | 117  | #604   | 264  | 150  | 276  |
| Internal Link Dist (ft) |      | 1745 |      |      | 332  |        | 961  |      | 1160 |
| Turn Bay Length (ft)    | 145  |      | 145  | 125  |      | 165    |      | 70   |      |
| Base Capacity (vph)     | 247  | 252  | 555  | 482  | 550  | 64     | 2553 | 257  | 2126 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0      | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0      | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0      | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.54 | 0.55 | 0.68 | 0.12 | 0.43 | 5.03   | 0.43 | 0.51 | 0.43 |

**Intersection Summary**

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

---

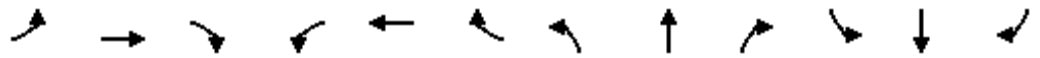
HCM 6th Edition methodology expects strict NEMA phasing.



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 160  | 69   | 144  | 155  | 156  | 893  | 1317 | 47   | 823  | 292  |
| v/c Ratio               | 0.75 | 0.31 | 0.09 | 0.67 | 0.31 | 0.85 | 0.47 | 0.38 | 0.52 | 0.42 |
| Control Delay           | 72.0 | 51.3 | 0.1  | 62.9 | 22.5 | 47.7 | 17.5 | 61.3 | 37.7 | 6.5  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 47.5 | 1.6  |
| Total Delay             | 72.0 | 51.3 | 0.1  | 62.9 | 22.5 | 47.7 | 17.5 | 61.3 | 85.2 | 8.0  |
| Queue Length 50th (ft)  | 119  | 49   | 0    | 116  | 25   | 332  | 223  | 35   | 197  | 0    |
| Queue Length 95th (ft)  | #208 | 95   | 0    | 178  | 55   | 393  | 299  | 75   | 271  | 74   |
| Internal Link Dist (ft) |      | 287  |      |      | 264  |      | 780  |      | 105  |      |
| Turn Bay Length (ft)    |      |      |      | 410  |      | 260  |      | 195  |      |      |
| Base Capacity (vph)     | 237  | 249  | 1583 | 390  | 783  | 1087 | 2795 | 125  | 1569 | 690  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 814  | 238  |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.68 | 0.28 | 0.09 | 0.40 | 0.20 | 0.82 | 0.47 | 0.38 | 1.09 | 0.65 |

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          | ↖    | ↑    | ↗    | ↖    | ↕    |      | ↖    | ↕    |      | ↖    | ↕    | ↗    |
| Traffic Volume (veh/h)       | 144  | 62   | 130  | 149  | 67   | 83   | 857  | 1052 | 212  | 42   | 741  | 263  |
| Future Volume (veh/h)        | 144  | 62   | 130  | 149  | 67   | 83   | 857  | 1052 | 212  | 42   | 741  | 263  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 160  | 69   | 0    | 155  | 70   | 86   | 893  | 1096 | 221  | 47   | 823  | 0    |
| Peak Hour Factor             | 0.90 | 0.90 | 0.90 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.96 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 191  | 200  |      | 197  | 196  | 175  | 971  | 2622 | 528  | 60   | 1880 |      |
| Arrive On Green              | 0.11 | 0.11 | 0.00 | 0.11 | 0.11 | 0.11 | 0.28 | 0.62 | 0.62 | 0.03 | 0.37 | 0.00 |
| Sat Flow, veh/h              | 1781 | 1870 | 1585 | 1781 | 1777 | 1585 | 3456 | 4261 | 859  | 1781 | 5106 | 1585 |
| Grp Volume(v), veh/h         | 160  | 69   | 0    | 155  | 70   | 86   | 893  | 875  | 442  | 47   | 823  | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1870 | 1585 | 1781 | 1777 | 1585 | 1728 | 1702 | 1716 | 1781 | 1702 | 1585 |
| Q Serve(g_s), s              | 10.6 | 4.1  | 0.0  | 10.2 | 4.4  | 6.1  | 30.1 | 16.0 | 16.0 | 3.1  | 14.6 | 0.0  |
| Cycle Q Clear(g_c), s        | 10.6 | 4.1  | 0.0  | 10.2 | 4.4  | 6.1  | 30.1 | 16.0 | 16.0 | 3.1  | 14.6 | 0.0  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 0.50 | 1.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 191  | 200  |      | 197  | 196  | 175  | 971  | 2095 | 1056 | 60   | 1880 |      |
| V/C Ratio(X)                 | 0.84 | 0.34 |      | 0.79 | 0.36 | 0.49 | 0.92 | 0.42 | 0.42 | 0.78 | 0.44 |      |
| Avail Cap(c_a), veh/h        | 238  | 249  |      | 393  | 392  | 350  | 1037 | 2095 | 1056 | 79   | 1880 |      |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.90 | 0.90 | 0.90 | 0.85 | 0.85 | 0.00 |
| Uniform Delay (d), s/veh     | 52.6 | 49.7 | 0.0  | 52.0 | 49.4 | 50.2 | 41.8 | 11.9 | 12.0 | 57.5 | 28.5 | 0.0  |
| Incr Delay (d2), s/veh       | 19.1 | 1.0  | 0.0  | 6.9  | 1.1  | 2.1  | 11.4 | 0.6  | 1.1  | 26.0 | 0.6  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 5.7  | 2.0  | 0.0  | 5.0  | 2.0  | 2.6  | 13.8 | 5.6  | 5.8  | 1.8  | 5.8  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 71.7 | 50.7 | 0.0  | 58.9 | 50.5 | 52.3 | 53.2 | 12.5 | 13.1 | 83.5 | 29.2 | 0.0  |
| LnGrp LOS                    | E    | D    |      | E    | D    | D    | D    | B    | B    | F    | C    |      |
| Approach Vol, veh/h          |      | 229  | A    |      | 311  |      |      | 2210 |      |      | 870  | A    |
| Approach Delay, s/veh        |      | 65.4 |      |      | 55.2 |      |      | 29.0 |      |      | 32.1 |      |
| Approach LOS                 |      | E    |      |      | E    |      |      | C    |      |      | C    |      |
| Timer - Assigned Phs         | 1    | 2    |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 8.1  | 77.8 |      | 16.8 | 37.7 | 48.2 |      | 17.3 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 5.3  | 56.2 |      | 16.0 | 36.0 | 25.5 |      | 26.5 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 5.1  | 18.0 |      | 12.6 | 32.1 | 16.6 |      | 12.2 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 7.0  |      | 0.3  | 1.7  | 2.6  |      | 1.1  |      |      |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 34.3 |
| HCM 6th LOS        | C    |

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.



| Lane Group              | EBR  | WBR  | NBT  | NBR  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 797  | 481  | 1787 | 451  | 269  | 930  |
| v/c Ratio               | 0.73 | 0.30 | 0.48 | 0.37 | 0.80 | 0.18 |
| Control Delay           | 26.2 | 0.5  | 6.4  | 4.0  | 61.1 | 2.7  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 26.2 | 0.5  | 6.4  | 4.0  | 61.1 | 2.7  |
| Queue Length 50th (ft)  | 211  | 0    | 161  | 54   | 183  | 25   |
| Queue Length 95th (ft)  | 241  | 0    | 187  | 94   | #293 | 62   |
| Internal Link Dist (ft) |      |      | 468  |      |      | 780  |
| Turn Bay Length (ft)    |      |      |      | 180  | 350  |      |
| Base Capacity (vph)     | 1715 | 1611 | 3744 | 1210 | 337  | 5238 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.46 | 0.30 | 0.48 | 0.37 | 0.80 | 0.18 |

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.



---

HCM 6th Edition methodology does not support custom phasing.

Generations at Green Valley  
 20: White Rock Rd/Silva Valley Pkwy & US-50 EB On&Off-Ramp

Plus Project  
 Timing Plan: PM



| Lane Group              | EBL  | EBR  | NBL  | NBT  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 369  | 65   | 365  | 429  | 479  | 101  |
| v/c Ratio               | 0.27 | 0.10 | 0.53 | 0.30 | 0.34 | 0.15 |
| Control Delay           | 8.7  | 3.2  | 12.6 | 8.9  | 5.8  | 1.6  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 8.7  | 3.2  | 12.6 | 8.9  | 5.8  | 1.6  |
| Queue Length 50th (ft)  | 26   | 0    | 29   | 32   | 18   | 0    |
| Queue Length 95th (ft)  | 46   | 14   | 58   | 55   | 31   | m1   |
| Internal Link Dist (ft) | 706  |      |      | 516  | 832  |      |
| Turn Bay Length (ft)    |      | 195  | 480  |      |      | 148  |
| Base Capacity (vph)     | 1373 | 672  | 690  | 1415 | 1415 | 693  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.27 | 0.10 | 0.53 | 0.30 | 0.34 | 0.15 |

**Intersection Summary**

m Volume for 95th percentile queue is metered by upstream signal.

Generations at Green Valley  
 20: White Rock Rd/Silva Valley Pkwy & US-50 EB On&Off-Ramp

Plus Project  
 Timing Plan: PM



| Movement                     | EBL  | EBR  | NBL  | NBT  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 328  | 58   | 343  | 403  | 417  | 88   |
| Future Volume (veh/h)        | 328  | 58   | 343  | 403  | 417  | 88   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 | 1.00 | 1.00 |      |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 369  | 65   | 365  | 429  | 479  | 101  |
| Peak Hour Factor             | 0.89 | 0.89 | 0.94 | 0.94 | 0.87 | 0.87 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 1382 | 634  | 948  | 1421 | 1421 | 634  |
| Arrive On Green              | 0.40 | 0.40 | 0.40 | 0.40 | 0.80 | 0.80 |
| Sat Flow, veh/h              | 3456 | 1585 | 1618 | 3647 | 3647 | 1585 |
| Grp Volume(v), veh/h         | 369  | 65   | 365  | 429  | 479  | 101  |
| Grp Sat Flow(s),veh/h/ln     | 1728 | 1585 | 809  | 1777 | 1777 | 1585 |
| Q Serve(g_s), s              | 2.9  | 1.0  | 7.4  | 3.3  | 1.5  | 0.6  |
| Cycle Q Clear(g_c), s        | 2.9  | 1.0  | 8.9  | 3.3  | 1.5  | 0.6  |
| Prop In Lane                 | 1.00 | 1.00 | 1.00 |      |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 1382 | 634  | 948  | 1421 | 1421 | 634  |
| V/C Ratio(X)                 | 0.27 | 0.10 | 0.39 | 0.30 | 0.34 | 0.16 |
| Avail Cap(c_a), veh/h        | 1382 | 634  | 948  | 1421 | 1421 | 634  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 8.1  | 7.5  | 10.5 | 8.2  | 2.5  | 2.5  |
| Incr Delay (d2), s/veh       | 0.5  | 0.3  | 1.2  | 0.5  | 0.6  | 0.5  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.9  | 0.3  | 1.0  | 0.9  | 0.4  | 0.2  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 8.5  | 7.8  | 11.7 | 8.7  | 3.2  | 3.0  |
| LnGrp LOS                    | A    | A    | B    | A    | A    | A    |
| Approach Vol, veh/h          | 434  |      |      | 794  | 580  |      |
| Approach Delay, s/veh        | 8.4  |      |      | 10.1 | 3.2  |      |
| Approach LOS                 | A    |      |      | B    | A    |      |
| Timer - Assigned Phs         |      | 2    |      | 4    |      | 6    |
| Phs Duration (G+Y+Rc), s     |      | 20.0 |      | 20.0 |      | 20.0 |
| Change Period (Y+Rc), s      |      | 4.0  |      | 4.0  |      | 4.0  |
| Max Green Setting (Gmax), s  |      | 16.0 |      | 16.0 |      | 16.0 |
| Max Q Clear Time (g_c+l1), s |      | 10.9 |      | 4.9  |      | 3.5  |
| Green Ext Time (p_c), s      |      | 2.3  |      | 1.2  |      | 2.6  |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 7.5  |      |      |      |
| HCM 6th LOS                  |      |      | A    |      |      |      |

Generations at Green Valley  
 21: Silva Valley Pkwy & US-50 WB On-Ramp/US-50 WB Off-Ramp

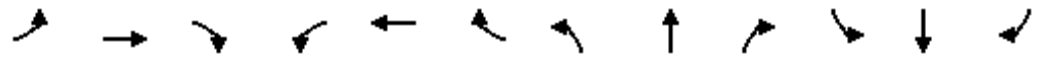
Plus Project  
 Timing Plan: PM



| Lane Group                  | WBL  | WBR  | NBL  | NBT  | SBT  | SBR  |
|-----------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph)       | 364  | 153  | 74   | 681  | 201  | 280  |
| v/c Ratio                   | 0.51 | 0.22 | 0.16 | 0.48 | 0.14 | 0.35 |
| Control Delay               | 12.3 | 4.1  | 10.0 | 10.7 | 8.0  | 2.9  |
| Queue Delay                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay                 | 12.3 | 4.1  | 10.0 | 10.7 | 8.0  | 2.9  |
| Queue Length 50th (ft)      | 58   | 5    | 9    | 62   | 14   | 0    |
| Queue Length 95th (ft)      | 103  | 25   | 36   | 108  | 27   | 30   |
| Internal Link Dist (ft)     |      |      |      | 832  | 250  |      |
| Turn Bay Length (ft)        |      |      | 545  |      |      |      |
| Base Capacity (vph)         | 708  | 702  | 466  | 1415 | 1415 | 801  |
| Starvation Cap Reductn      | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn       | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn         | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio           | 0.51 | 0.22 | 0.16 | 0.48 | 0.14 | 0.35 |
| <b>Intersection Summary</b> |      |      |      |      |      |      |

Generations at Green Valley  
 21: Silva Valley Pkwy & US-50 WB On-Ramp/US-50 WB Off-Ramp

Plus Project  
 Timing Plan: PM



| Movement                     | EBL | EBT  | EBR | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|-----|------|-----|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |     |      |     | ↖    | ↗    | ↖    | ↖    | ↗    |      |      | ↗    | ↖    |
| Traffic Volume (veh/h)       | 0   | 0    | 0   | 309  | 0    | 130  | 72   | 661  | 0    | 0    | 181  | 252  |
| Future Volume (veh/h)        | 0   | 0    | 0   | 309  | 0    | 130  | 72   | 661  | 0    | 0    | 181  | 252  |
| Initial Q (Qb), veh          |     |      |     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |     |      |     | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             |     |      |     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |     |      |     | No   |      |      | No   |      |      | No   |      |      |
| Adj Sat Flow, veh/h/ln       |     |      |     | 1870 | 1870 | 1870 | 1870 | 1870 | 0    | 0    | 1870 | 1870 |
| Adj Flow Rate, veh/h         |     |      |     | 364  | 0    | 153  | 74   | 681  | 0    | 0    | 201  | 280  |
| Peak Hour Factor             |     |      |     | 0.85 | 0.85 | 0.85 | 0.97 | 0.97 | 0.97 | 0.90 | 0.90 | 0.90 |
| Percent Heavy Veh, %         |     |      |     | 2    | 2    | 2    | 2    | 2    | 0    | 0    | 2    | 2    |
| Cap, veh/h                   |     |      |     | 713  | 748  | 634  | 513  | 1421 | 0    | 0    | 1421 | 634  |
| Arrive On Green              |     |      |     | 0.40 | 0.00 | 0.40 | 0.80 | 0.80 | 0.00 | 0.00 | 0.40 | 0.40 |
| Sat Flow, veh/h              |     |      |     | 1781 | 1870 | 1585 | 914  | 3647 | 0    | 0    | 3647 | 1585 |
| Grp Volume(v), veh/h         |     |      |     | 364  | 0    | 153  | 74   | 681  | 0    | 0    | 201  | 280  |
| Grp Sat Flow(s),veh/h/ln     |     |      |     | 1781 | 1870 | 1585 | 914  | 1777 | 0    | 0    | 1777 | 1585 |
| Q Serve(g_s), s              |     |      |     | 6.2  | 0.0  | 2.6  | 1.1  | 2.5  | 0.0  | 0.0  | 1.4  | 5.1  |
| Cycle Q Clear(g_c), s        |     |      |     | 6.2  | 0.0  | 2.6  | 2.5  | 2.5  | 0.0  | 0.0  | 1.4  | 5.1  |
| Prop In Lane                 |     |      |     | 1.00 |      | 1.00 | 1.00 |      | 0.00 | 0.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       |     |      |     | 713  | 748  | 634  | 513  | 1421 | 0    | 0    | 1421 | 634  |
| V/C Ratio(X)                 |     |      |     | 0.51 | 0.00 | 0.24 | 0.14 | 0.48 | 0.00 | 0.00 | 0.14 | 0.44 |
| Avail Cap(c_a), veh/h        |     |      |     | 713  | 748  | 634  | 513  | 1421 | 0    | 0    | 1421 | 634  |
| HCM Platoon Ratio            |     |      |     | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           |     |      |     | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     |     |      |     | 9.0  | 0.0  | 8.0  | 2.9  | 2.6  | 0.0  | 0.0  | 7.6  | 8.7  |
| Incr Delay (d2), s/veh       |     |      |     | 2.6  | 0.0  | 0.9  | 0.6  | 1.2  | 0.0  | 0.0  | 0.2  | 2.2  |
| Initial Q Delay(d3),s/veh    |     |      |     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     |     |      |     | 2.2  | 0.0  | 0.8  | 0.2  | 0.6  | 0.0  | 0.0  | 0.4  | 1.4  |
| Unsig. Movement Delay, s/veh |     |      |     |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         |     |      |     | 11.7 | 0.0  | 8.9  | 3.5  | 3.8  | 0.0  | 0.0  | 7.8  | 11.0 |
| LnGrp LOS                    |     |      |     | B    | A    | A    | A    | A    | A    | A    | A    | B    |
| Approach Vol, veh/h          |     |      |     |      | 517  |      |      | 755  |      |      | 481  |      |
| Approach Delay, s/veh        |     |      |     |      | 10.8 |      |      | 3.8  |      |      | 9.7  |      |
| Approach LOS                 |     |      |     |      | B    |      |      | A    |      |      | A    |      |
| Timer - Assigned Phs         |     | 2    |     |      |      | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |     | 20.0 |     |      |      | 20.0 |      | 20.0 |      |      |      |      |
| Change Period (Y+Rc), s      |     | 4.0  |     |      |      | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |     | 16.0 |     |      |      | 16.0 |      | 16.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |     | 4.5  |     |      |      | 7.1  |      | 8.2  |      |      |      |      |
| Green Ext Time (p_c), s      |     | 3.6  |     |      |      | 1.4  |      | 1.1  |      |      |      |      |
| <b>Intersection Summary</b>  |     |      |     |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |     |      |     | 7.5  |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |     |      |     | A    |      |      |      |      |      |      |      |      |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0    |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      |      | ↗    | ↗↗   | ↗    |      | ↗↗   |
| Traffic Vol, veh/h       | 0    | 3    | 808  | 3    | 0    | 424  |
| Future Vol, veh/h        | 0    | 3    | 808  | 3    | 0    | 424  |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Free | Free | Free | Free |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | 0    | -    | 160  | -    | -    |
| Veh in Median Storage, # | 0    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 70   | 70   | 91   | 91   | 87   | 87   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 0    | 4    | 888  | 3    | 0    | 487  |

| Major/Minor          | Minor1 | Major1 | Major2 |   |   |
|----------------------|--------|--------|--------|---|---|
| Conflicting Flow All | -      | 444    | 0      | 0 | - |
| Stage 1              | -      | -      | -      | - | - |
| Stage 2              | -      | -      | -      | - | - |
| Critical Hdwy        | -      | 6.94   | -      | - | - |
| Critical Hdwy Stg 1  | -      | -      | -      | - | - |
| Critical Hdwy Stg 2  | -      | -      | -      | - | - |
| Follow-up Hdwy       | -      | 3.32   | -      | - | - |
| Pot Cap-1 Maneuver   | 0      | 561    | -      | - | 0 |
| Stage 1              | 0      | -      | -      | - | 0 |
| Stage 2              | 0      | -      | -      | - | 0 |
| Platoon blocked, %   |        |        | -      | - | - |
| Mov Cap-1 Maneuver   | -      | 561    | -      | - | - |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | - |
| Stage 1              | -      | -      | -      | - | - |
| Stage 2              | -      | -      | -      | - | - |

| Approach             | WB   | NB | SB |
|----------------------|------|----|----|
| HCM Control Delay, s | 11.5 | 0  | 0  |
| HCM LOS              | B    |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBT   |
|-----------------------|-----|----------|-------|
| Capacity (veh/h)      | -   | -        | 561   |
| HCM Lane V/C Ratio    | -   | -        | 0.008 |
| HCM Control Delay (s) | -   | -        | 11.5  |
| HCM Lane LOS          | -   | -        | B     |
| HCM 95th %tile Q(veh) | -   | -        | 0     |



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | NBR  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 49   | 206  | 310  | 350  | 72   | 403  | 320  | 201  | 370  |
| v/c Ratio               | 0.27 | 0.35 | 0.93 | 0.30 | 0.43 | 0.53 | 0.54 | 0.80 | 0.36 |
| Control Delay           | 31.5 | 22.0 | 63.7 | 9.4  | 37.2 | 24.8 | 6.7  | 53.9 | 18.9 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 31.5 | 22.0 | 63.7 | 9.4  | 37.2 | 24.8 | 6.7  | 53.9 | 18.9 |
| Queue Length 50th (ft)  | 17   | 30   | 117  | 23   | 26   | 72   | 0    | 75   | 58   |
| Queue Length 95th (ft)  | 49   | 61   | #277 | 56   | #69  | 113  | 55   | #182 | 88   |
| Internal Link Dist (ft) |      | 6047 |      | 1303 |      | 4417 |      |      | 4456 |
| Turn Bay Length (ft)    | 155  |      | 330  |      | 250  |      | 180  | 150  |      |
| Base Capacity (vph)     | 195  | 1321 | 335  | 1589 | 167  | 1475 | 846  | 251  | 1625 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.25 | 0.16 | 0.93 | 0.22 | 0.43 | 0.27 | 0.38 | 0.80 | 0.23 |

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Generations at Green Valley  
23: Serrano Pkwy. & Silva Valley Pkwy.

Plus Project  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          | ↖    | ↗    |      | ↖    | ↗    |      | ↖    | ↗    | ↗    | ↖    | ↗    |      |
| Traffic Volume (veh/h)       | 43   | 143  | 38   | 273  | 127  | 181  | 68   | 383  | 304  | 171  | 284  | 31   |
| Future Volume (veh/h)        | 43   | 143  | 38   | 273  | 127  | 181  | 68   | 383  | 304  | 171  | 284  | 31   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 49   | 162  | 43   | 310  | 144  | 206  | 72   | 403  | 0    | 201  | 334  | 36   |
| Peak Hour Factor             | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.88 | 0.95 | 0.95 | 0.95 | 0.85 | 0.85 | 0.85 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 67   | 473  | 122  | 358  | 592  | 528  | 92   | 626  |      | 247  | 853  | 91   |
| Arrive On Green              | 0.04 | 0.17 | 0.17 | 0.20 | 0.33 | 0.33 | 0.05 | 0.18 | 0.00 | 0.14 | 0.26 | 0.26 |
| Sat Flow, veh/h              | 1781 | 2796 | 722  | 1781 | 1777 | 1585 | 1781 | 3554 | 1585 | 1781 | 3238 | 347  |
| Grp Volume(v), veh/h         | 49   | 101  | 104  | 310  | 144  | 206  | 72   | 403  | 0    | 201  | 182  | 188  |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1777 | 1740 | 1781 | 1777 | 1585 | 1781 | 1777 | 1585 | 1781 | 1777 | 1808 |
| Q Serve(g_s), s              | 1.6  | 3.0  | 3.1  | 9.9  | 3.5  | 5.9  | 2.4  | 6.2  | 0.0  | 6.5  | 5.0  | 5.0  |
| Cycle Q Clear(g_c), s        | 1.6  | 3.0  | 3.1  | 9.9  | 3.5  | 5.9  | 2.4  | 6.2  | 0.0  | 6.5  | 5.0  | 5.0  |
| Prop In Lane                 | 1.00 |      | 0.41 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 0.19 |
| Lane Grp Cap(c), veh/h       | 67   | 301  | 295  | 358  | 592  | 528  | 92   | 626  |      | 247  | 468  | 476  |
| V/C Ratio(X)                 | 0.74 | 0.34 | 0.35 | 0.87 | 0.24 | 0.39 | 0.79 | 0.64 |      | 0.81 | 0.39 | 0.39 |
| Avail Cap(c_a), veh/h        | 211  | 722  | 707  | 362  | 872  | 778  | 181  | 1588 |      | 271  | 884  | 900  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 28.1 | 21.6 | 21.7 | 22.8 | 14.3 | 15.1 | 27.7 | 22.6 | 0.0  | 24.7 | 17.9 | 17.9 |
| Incr Delay (d2), s/veh       | 14.5 | 0.7  | 0.7  | 19.1 | 0.2  | 0.5  | 13.7 | 1.1  | 0.0  | 15.9 | 0.5  | 0.5  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.9  | 1.1  | 1.2  | 5.5  | 1.2  | 1.8  | 1.3  | 2.4  | 0.0  | 3.5  | 1.8  | 1.9  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 42.6 | 22.3 | 22.4 | 41.9 | 14.5 | 15.6 | 41.4 | 23.7 | 0.0  | 40.6 | 18.4 | 18.4 |
| LnGrp LOS                    | D    | C    | C    | D    | B    | B    | D    | C    |      | D    | B    | B    |
| Approach Vol, veh/h          |      | 254  |      |      | 660  |      |      | 475  | A    |      | 571  |      |
| Approach Delay, s/veh        |      | 26.2 |      |      | 27.7 |      |      | 26.4 |      |      | 26.2 |      |
| Approach LOS                 |      | C    |      |      | C    |      |      | C    |      |      | C    |      |
| Timer - Assigned Phs         | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 12.2 | 15.7 | 15.9 | 15.3 | 7.0  | 20.9 | 6.2  | 25.0 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 5.3  | 4.0  | 5.3  | 4.0  | 5.3  | 4.0  | 5.3  |      |      |      |      |
| Max Green Setting (Gmax), s  | 9.0  | 26.4 | 12.0 | 24.0 | 6.0  | 29.4 | 7.0  | 29.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 8.5  | 8.2  | 11.9 | 5.1  | 4.4  | 7.0  | 3.6  | 7.9  |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 2.2  | 0.0  | 0.9  | 0.0  | 1.9  | 0.0  | 1.9  |      |      |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 26.8 |
| HCM 6th LOS        | C    |

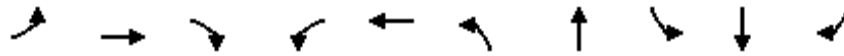
Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



Generations at Green Valley  
24: Silva Valley Pkwy. & Harvard Way

Plus Project  
Timing Plan: PM



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 77   | 18   | 279  | 43   | 42   | 283  | 383  | 8    | 245  | 83   |
| v/c Ratio               | 0.40 | 0.06 | 0.57 | 0.27 | 0.14 | 0.62 | 0.36 | 0.05 | 0.52 | 0.15 |
| Control Delay           | 33.9 | 19.7 | 8.6  | 28.6 | 14.4 | 26.9 | 8.8  | 25.4 | 20.7 | 0.6  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 33.9 | 19.7 | 8.6  | 28.6 | 14.4 | 26.9 | 8.8  | 25.4 | 20.7 | 0.6  |
| Queue Length 50th (ft)  | 17   | 4    | 0    | 10   | 4    | 55   | 26   | 2    | 47   | 0    |
| Queue Length 95th (ft)  | #85  | 19   | 48   | 33   | 20   | #215 | 169  | 14   | 128  | 0    |
| Internal Link Dist (ft) | 2093 |      |      |      |      | 328  | 4456 |      | 5798 |      |
| Turn Bay Length (ft)    | 60   |      |      |      |      | 100  |      | 65   | 175  |      |
| Base Capacity (vph)     | 191  | 681  | 755  | 161  | 643  | 485  | 1113 | 161  | 723  | 748  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.40 | 0.03 | 0.37 | 0.27 | 0.07 | 0.58 | 0.34 | 0.05 | 0.34 | 0.11 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Generations at Green Valley  
24: Silva Valley Pkwy. & Harvard Way

Plus Project  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 67   | 16   | 243  | 30   | 15   | 15   | 252  | 322  | 19   | 7    | 211  | 71   |
| Future Volume (veh/h)        | 67   | 16   | 243  | 30   | 15   | 15   | 252  | 322  | 19   | 7    | 211  | 71   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 77   | 18   | 279  | 43   | 21   | 21   | 283  | 362  | 21   | 8    | 245  | 83   |
| Peak Hour Factor             | 0.87 | 0.87 | 0.87 | 0.70 | 0.70 | 0.70 | 0.89 | 0.89 | 0.89 | 0.86 | 0.86 | 0.86 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 98   | 415  | 352  | 66   | 175  | 175  | 349  | 660  | 38   | 15   | 354  | 300  |
| Arrive On Green              | 0.05 | 0.22 | 0.22 | 0.04 | 0.20 | 0.20 | 0.20 | 0.38 | 0.38 | 0.01 | 0.19 | 0.19 |
| Sat Flow, veh/h              | 1781 | 1870 | 1585 | 1781 | 858  | 858  | 1781 | 1751 | 102  | 1781 | 1870 | 1585 |
| Grp Volume(v), veh/h         | 77   | 18   | 279  | 43   | 0    | 42   | 283  | 0    | 383  | 8    | 245  | 83   |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1870 | 1585 | 1781 | 0    | 1716 | 1781 | 0    | 1852 | 1781 | 1870 | 1585 |
| Q Serve(g_s), s              | 1.9  | 0.3  | 7.5  | 1.1  | 0.0  | 0.9  | 6.8  | 0.0  | 7.3  | 0.2  | 5.5  | 2.0  |
| Cycle Q Clear(g_c), s        | 1.9  | 0.3  | 7.5  | 1.1  | 0.0  | 0.9  | 6.8  | 0.0  | 7.3  | 0.2  | 5.5  | 2.0  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 0.50 | 1.00 |      | 0.05 | 1.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 98   | 415  | 352  | 66   | 0    | 350  | 349  | 0    | 698  | 15   | 354  | 300  |
| V/C Ratio(X)                 | 0.79 | 0.04 | 0.79 | 0.65 | 0.00 | 0.12 | 0.81 | 0.00 | 0.55 | 0.53 | 0.69 | 0.28 |
| Avail Cap(c_a), veh/h        | 158  | 665  | 564  | 158  | 0    | 610  | 475  | 0    | 1029 | 158  | 707  | 599  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 21.0 | 13.7 | 16.5 | 21.4 | 0.0  | 14.6 | 17.3 | 0.0  | 11.0 | 22.2 | 17.0 | 15.6 |
| Incr Delay (d2), s/veh       | 12.9 | 0.0  | 4.1  | 10.4 | 0.0  | 0.2  | 7.4  | 0.0  | 0.7  | 26.0 | 2.4  | 0.5  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 1.1  | 0.1  | 2.8  | 0.6  | 0.0  | 0.3  | 2.9  | 0.0  | 2.2  | 0.2  | 2.1  | 0.7  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 33.9 | 13.8 | 20.6 | 31.8 | 0.0  | 14.8 | 24.7 | 0.0  | 11.7 | 48.2 | 19.4 | 16.1 |
| LnGrp LOS                    | C    | B    | C    | C    | A    | B    | C    | A    | B    | D    | B    | B    |
| Approach Vol, veh/h          |      | 374  |      |      | 85   |      |      | 666  |      |      | 336  |      |
| Approach Delay, s/veh        |      | 23.0 |      |      | 23.4 |      |      | 17.2 |      |      | 19.3 |      |
| Approach LOS                 |      | C    |      |      | C    |      |      | B    |      |      | B    |      |
| Timer - Assigned Phs         | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 4.4  | 21.0 | 5.7  | 14.0 | 12.8 | 12.5 | 6.5  | 13.2 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0  | 25.0 | 4.0  | 16.0 | 12.0 | 17.0 | 4.0  | 16.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 2.2  | 9.3  | 3.1  | 9.5  | 8.8  | 7.5  | 3.9  | 2.9  |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 1.8  | 0.0  | 0.6  | 0.3  | 1.0  | 0.0  | 0.1  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 19.5 |      |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      | B    |      |      |      |      |      |      |      |      |      |

|                           |    |  |  |  |  |  |  |  |  |  |  |  |
|---------------------------|----|--|--|--|--|--|--|--|--|--|--|--|
| <b>Intersection</b>       |    |  |  |  |  |  |  |  |  |  |  |  |
| Intersection Delay, s/veh | 14 |  |  |  |  |  |  |  |  |  |  |  |
| Intersection LOS          | B  |  |  |  |  |  |  |  |  |  |  |  |

| Movement            | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations |      | ↕    |      |      | ↕    |      |      | ↕    |      |      | ↕    |      |
| Traffic Vol, veh/h  | 20   | 1    | 42   | 74   | 0    | 69   | 51   | 255  | 64   | 69   | 192  | 30   |
| Future Vol, veh/h   | 20   | 1    | 42   | 74   | 0    | 69   | 51   | 255  | 64   | 69   | 192  | 30   |
| Peak Hour Factor    | 0.79 | 0.79 | 0.79 | 0.88 | 0.88 | 0.88 | 0.86 | 0.86 | 0.86 | 0.83 | 0.83 | 0.83 |
| Heavy Vehicles, %   | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow           | 25   | 1    | 53   | 84   | 0    | 78   | 59   | 297  | 74   | 83   | 231  | 36   |
| Number of Lanes     | 0    | 1    | 0    | 0    | 1    | 0    | 0    | 1    | 0    | 0    | 1    | 0    |

| Approach                   | EB  | WB   | NB   | SB   |
|----------------------------|-----|------|------|------|
| Opposing Approach          | WB  | EB   | SB   | NB   |
| Opposing Lanes             | 1   | 1    | 1    | 1    |
| Conflicting Approach Left  | SB  | NB   | EB   | WB   |
| Conflicting Lanes Left     | 1   | 1    | 1    | 1    |
| Conflicting Approach Right | NB  | SB   | WB   | EB   |
| Conflicting Lanes Right    | 1   | 1    | 1    | 1    |
| HCM Control Delay          | 9.9 | 11.1 | 15.9 | 13.8 |
| HCM LOS                    | A   | B    | C    | B    |

| Lane                   | NBLn1 | EBLn1 | WBLn1 | SBLn1 |
|------------------------|-------|-------|-------|-------|
| Vol Left, %            | 14%   | 32%   | 52%   | 24%   |
| Vol Thru, %            | 69%   | 2%    | 0%    | 66%   |
| Vol Right, %           | 17%   | 67%   | 48%   | 10%   |
| Sign Control           | Stop  | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 370   | 63    | 143   | 291   |
| LT Vol                 | 51    | 20    | 74    | 69    |
| Through Vol            | 255   | 1     | 0     | 192   |
| RT Vol                 | 64    | 42    | 69    | 30    |
| Lane Flow Rate         | 430   | 80    | 162   | 351   |
| Geometry Grp           | 1     | 1     | 1     | 1     |
| Degree of Util (X)     | 0.61  | 0.132 | 0.266 | 0.513 |
| Departure Headway (Hd) | 5.104 | 5.94  | 5.885 | 5.265 |
| Convergence, Y/N       | Yes   | Yes   | Yes   | Yes   |
| Cap                    | 706   | 600   | 608   | 684   |
| Service Time           | 3.147 | 4.007 | 3.944 | 3.31  |
| HCM Lane V/C Ratio     | 0.609 | 0.133 | 0.266 | 0.513 |
| HCM Control Delay      | 15.9  | 9.9   | 11.1  | 13.8  |
| HCM Lane LOS           | C     | A     | B     | B     |
| HCM 95th-tile Q        | 4.2   | 0.5   | 1.1   | 2.9   |

Intersection

Int Delay, s/veh 0.1

| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|--------------------------|------|------|------|------|------|------|
| Lane Configurations      | ↔    |      |      | ↑    |      | ↗    |
| Traffic Vol, veh/h       | 742  | 32   | 0    | 470  | 0    | 7    |
| Future Vol, veh/h        | 742  | 32   | 0    | 470  | 0    | 7    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | 0    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 807  | 35   | 0    | 511  | 0    | 8    |

| Major/Minor          | Major1 | Major2 | Minor1      |
|----------------------|--------|--------|-------------|
| Conflicting Flow All | 0      | 0      | - - - 825   |
| Stage 1              | -      | -      | - - -       |
| Stage 2              | -      | -      | - - -       |
| Critical Hdwy        | -      | -      | - - - 6.22  |
| Critical Hdwy Stg 1  | -      | -      | - - -       |
| Critical Hdwy Stg 2  | -      | -      | - - -       |
| Follow-up Hdwy       | -      | -      | - - - 3.318 |
| Pot Cap-1 Maneuver   | -      | -      | 0 - 0 372   |
| Stage 1              | -      | -      | 0 - 0 -     |
| Stage 2              | -      | -      | 0 - 0 -     |
| Platoon blocked, %   | -      | -      | -           |
| Mov Cap-1 Maneuver   | -      | -      | - - - 372   |
| Mov Cap-2 Maneuver   | -      | -      | - - -       |
| Stage 1              | -      | -      | - - -       |
| Stage 2              | -      | -      | - - -       |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 14.9 |
| HCM LOS              |    |    | B    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h)      | 372   | -   | -   | -   |
| HCM Lane V/C Ratio    | 0.02  | -   | -   | -   |
| HCM Control Delay (s) | 14.9  | -   | -   | -   |
| HCM Lane LOS          | B     | -   | -   | -   |
| HCM 95th %tile Q(veh) | 0.1   | -   | -   | -   |



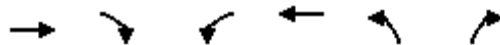
| Lane Group              | EBT  | WBL  | WBT  | NBL  | NBR  |
|-------------------------|------|------|------|------|------|
| Lane Group Flow (vph)   | 814  | 48   | 427  | 84   | 22   |
| v/c Ratio               | 0.70 | 0.17 | 0.36 | 0.27 | 0.07 |
| Control Delay           | 10.1 | 5.5  | 5.1  | 16.9 | 8.0  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 10.1 | 5.5  | 5.1  | 16.9 | 8.0  |
| Queue Length 50th (ft)  | 93   | 4    | 36   | 17   | 0    |
| Queue Length 95th (ft)  | #238 | 16   | 82   | 44   | 12   |
| Internal Link Dist (ft) | 1398 |      | 2852 | 640  |      |
| Turn Bay Length (ft)    |      | 215  |      | 250  |      |
| Base Capacity (vph)     | 1157 | 281  | 1172 | 1114 | 1004 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.70 | 0.17 | 0.36 | 0.08 | 0.02 |

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
27: Site Dwy. Full & Green Valley Rd.

Plus Project  
Timing Plan: PM



| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations          | ↩    |      | ↩    | ↩    | ↩    | ↩    |
| Traffic Volume (veh/h)       | 655  | 94   | 44   | 393  | 77   | 20   |
| Future Volume (veh/h)        | 655  | 94   | 44   | 393  | 77   | 20   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 712  | 102  | 48   | 427  | 84   | 22   |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 915  | 131  | 410  | 1070 | 254  | 226  |
| Arrive On Green              | 0.57 | 0.57 | 0.57 | 0.57 | 0.14 | 0.14 |
| Sat Flow, veh/h              | 1600 | 229  | 671  | 1870 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 0    | 814  | 48   | 427  | 84   | 22   |
| Grp Sat Flow(s),veh/h/ln     | 0    | 1829 | 671  | 1870 | 1781 | 1585 |
| Q Serve(g_s), s              | 0.0  | 9.6  | 1.7  | 3.6  | 1.2  | 0.3  |
| Cycle Q Clear(g_c), s        | 0.0  | 9.6  | 11.3 | 3.6  | 1.2  | 0.3  |
| Prop In Lane                 |      | 0.13 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 0    | 1047 | 410  | 1070 | 254  | 226  |
| V/C Ratio(X)                 | 0.00 | 0.78 | 0.12 | 0.40 | 0.33 | 0.10 |
| Avail Cap(c_a), veh/h        | 0    | 1695 | 648  | 1734 | 1651 | 1469 |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 0.0  | 4.6  | 9.0  | 3.3  | 10.8 | 10.5 |
| Incr Delay (d2), s/veh       | 0.0  | 1.3  | 0.1  | 0.2  | 0.8  | 0.2  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.0  | 0.4  | 0.1  | 0.1  | 0.4  | 0.1  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 0.0  | 5.9  | 9.1  | 3.6  | 11.6 | 10.6 |
| LnGrp LOS                    | A    | A    | A    | A    | B    | B    |
| Approach Vol, veh/h          | 814  |      |      | 475  | 106  |      |
| Approach Delay, s/veh        | 5.9  |      |      | 4.1  | 11.4 |      |
| Approach LOS                 | A    |      |      | A    | B    |      |
| Timer - Assigned Phs         |      | 2    |      |      | 6    | 8    |
| Phs Duration (G+Y+Rc), s     |      | 20.1 |      |      | 20.1 | 8.0  |
| Change Period (Y+Rc), s      |      | 4.0  |      |      | 4.0  | 4.0  |
| Max Green Setting (Gmax), s  |      | 26.0 |      |      | 26.0 | 26.0 |
| Max Q Clear Time (g_c+I1), s |      | 13.3 |      |      | 11.6 | 3.2  |
| Green Ext Time (p_c), s      |      | 2.1  |      |      | 4.4  | 0.3  |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 5.7  |      |      |      |
| HCM 6th LOS                  |      |      | A    |      |      |      |

Summary of All Intervals

| Run Number              | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|
| Start Time              | 4:50  | 4:50  | 4:50  | 4:50  | 4:50  | 4:50  | 4:50  |
| End Time                | 6:00  | 6:00  | 6:00  | 6:00  | 6:00  | 6:00  | 6:00  |
| Total Time (min)        | 70    | 70    | 70    | 70    | 70    | 70    | 70    |
| Time Recorded (min)     | 60    | 60    | 60    | 60    | 60    | 60    | 60    |
| # of Intervals          | 5     | 5     | 5     | 5     | 5     | 5     | 5     |
| # of Recorded Intervals | 4     | 4     | 4     | 4     | 4     | 4     | 4     |
| Vehs Entered            | 12397 | 12756 | 12522 | 12532 | 12621 | 12533 | 12471 |
| Vehs Exited             | 12358 | 12751 | 12547 | 12509 | 12589 | 12508 | 12434 |
| Starting Vehs           | 268   | 288   | 287   | 290   | 268   | 285   | 288   |
| Ending Vehs             | 307   | 293   | 262   | 313   | 300   | 310   | 325   |
| Travel Distance (mi)    | 3814  | 3959  | 3904  | 3859  | 3913  | 3868  | 3867  |
| Travel Time (hr)        | 546.4 | 543.8 | 584.3 | 554.5 | 595.5 | 545.6 | 602.8 |
| Total Delay (hr)        | 432.0 | 424.9 | 466.9 | 439.1 | 478.2 | 429.4 | 487.1 |
| Total Stops             | 10256 | 10753 | 10444 | 10327 | 10611 | 10337 | 10411 |
| Fuel Used (gal)         | 266.2 | 271.4 | 277.8 | 269.6 | 279.9 | 267.4 | 280.5 |

Summary of All Intervals

| Run Number              | 7     | 8     | 9     | Avg   |
|-------------------------|-------|-------|-------|-------|
| Start Time              | 4:50  | 4:50  | 4:50  | 4:50  |
| End Time                | 6:00  | 6:00  | 6:00  | 6:00  |
| Total Time (min)        | 70    | 70    | 70    | 70    |
| Time Recorded (min)     | 60    | 60    | 60    | 60    |
| # of Intervals          | 5     | 5     | 5     | 5     |
| # of Recorded Intervals | 4     | 4     | 4     | 4     |
| Vehs Entered            | 12518 | 12413 | 12584 | 12537 |
| Vehs Exited             | 12515 | 12324 | 12596 | 12511 |
| Starting Vehs           | 269   | 259   | 273   | 270   |
| Ending Vehs             | 272   | 348   | 261   | 297   |
| Travel Distance (mi)    | 3895  | 3867  | 3874  | 3882  |
| Travel Time (hr)        | 571.7 | 553.4 | 568.5 | 566.6 |
| Total Delay (hr)        | 455.0 | 437.2 | 451.7 | 450.2 |
| Total Stops             | 10450 | 10483 | 10565 | 10461 |
| Fuel Used (gal)         | 274.1 | 267.7 | 273.0 | 272.8 |

Interval #0 Information Seeding

|                                     |      |
|-------------------------------------|------|
| Start Time                          | 4:50 |
| End Time                            | 5:00 |
| Total Time (min)                    | 10   |
| Volumes adjusted by Growth Factors. |      |
| No data recorded this interval.     |      |

**Interval #1 Information**

|                  |      |
|------------------|------|
| Start Time       | 5:00 |
| End Time         | 5:15 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10   | 2     | 3    | 4     | 5    | 6    |
|----------------------|-------|------|-------|------|-------|------|------|
| Vehs Entered         | 3131  | 3323 | 3238  | 3138 | 3103  | 3137 | 3053 |
| Vehs Exited          | 3092  | 3271 | 3205  | 3151 | 3076  | 3106 | 2997 |
| Starting Vehs        | 268   | 288  | 287   | 290  | 268   | 285  | 288  |
| Ending Vehs          | 307   | 340  | 320   | 277  | 295   | 316  | 344  |
| Travel Distance (mi) | 956   | 1014 | 1005  | 970  | 960   | 961  | 927  |
| Travel Time (hr)     | 104.1 | 98.6 | 102.2 | 99.2 | 103.5 | 95.8 | 93.4 |
| Total Delay (hr)     | 75.4  | 68.2 | 72.1  | 70.1 | 74.7  | 67.0 | 65.7 |
| Total Stops          | 2608  | 2866 | 2699  | 2541 | 2637  | 2535 | 2410 |
| Fuel Used (gal)      | 59.2  | 60.3 | 60.5  | 58.7 | 58.8  | 57.3 | 55.5 |

**Interval #1 Information**

|                  |      |
|------------------|------|
| Start Time       | 5:00 |
| End Time         | 5:15 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7    | 8    | 9    | Avg  |
|----------------------|------|------|------|------|
| Vehs Entered         | 3110 | 3058 | 3266 | 3158 |
| Vehs Exited          | 3054 | 3008 | 3188 | 3114 |
| Starting Vehs        | 269  | 259  | 273  | 270  |
| Ending Vehs          | 325  | 309  | 351  | 315  |
| Travel Distance (mi) | 954  | 936  | 984  | 967  |
| Travel Time (hr)     | 94.9 | 93.2 | 97.2 | 98.2 |
| Total Delay (hr)     | 66.1 | 65.1 | 67.6 | 69.2 |
| Total Stops          | 2629 | 2514 | 2717 | 2615 |
| Fuel Used (gal)      | 56.8 | 55.1 | 58.5 | 58.1 |



**Interval #2 Information**

|                  |      |
|------------------|------|
| Start Time       | 5:15 |
| End Time         | 5:30 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 3048  | 3126  | 3096  | 3188  | 3155  | 3102  | 3113  |
| Vehs Exited          | 3070  | 3180  | 3137  | 3155  | 3166  | 3164  | 3125  |
| Starting Vehs        | 307   | 340   | 320   | 277   | 295   | 316   | 344   |
| Ending Vehs          | 285   | 286   | 279   | 310   | 284   | 254   | 332   |
| Travel Distance (mi) | 940   | 981   | 975   | 969   | 980   | 967   | 976   |
| Travel Time (hr)     | 120.1 | 124.1 | 128.6 | 122.2 | 125.9 | 125.6 | 140.2 |
| Total Delay (hr)     | 91.8  | 94.7  | 99.4  | 93.2  | 96.6  | 96.5  | 111.1 |
| Total Stops          | 2467  | 2675  | 2636  | 2489  | 2547  | 2575  | 2730  |
| Fuel Used (gal)      | 62.1  | 65.0  | 65.6  | 63.5  | 64.7  | 64.6  | 68.4  |

**Interval #2 Information**

|                  |      |
|------------------|------|
| Start Time       | 5:15 |
| End Time         | 5:30 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 3169  | 3152  | 3116  | 3124  |
| Vehs Exited          | 3179  | 3169  | 3194  | 3153  |
| Starting Vehs        | 325   | 309   | 351   | 315   |
| Ending Vehs          | 315   | 292   | 273   | 288   |
| Travel Distance (mi) | 1004  | 991   | 977   | 976   |
| Travel Time (hr)     | 132.0 | 126.0 | 128.9 | 127.4 |
| Total Delay (hr)     | 102.1 | 96.2  | 99.6  | 98.1  |
| Total Stops          | 2658  | 2704  | 2646  | 2611  |
| Fuel Used (gal)      | 67.3  | 65.2  | 65.4  | 65.2  |

**Interval #3 Information**

|                  |      |
|------------------|------|
| Start Time       | 5:30 |
| End Time         | 5:45 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 3166  | 3199  | 3080  | 3094  | 3206  | 3169  | 3151  |
| Vehs Exited          | 3142  | 3181  | 3083  | 3112  | 3148  | 3150  | 3157  |
| Starting Vehs        | 285   | 286   | 279   | 310   | 284   | 254   | 332   |
| Ending Vehs          | 309   | 304   | 276   | 292   | 342   | 273   | 326   |
| Travel Distance (mi) | 972   | 1003  | 966   | 963   | 988   | 982   | 974   |
| Travel Time (hr)     | 145.0 | 151.6 | 162.7 | 145.3 | 170.9 | 148.1 | 170.8 |
| Total Delay (hr)     | 115.9 | 121.5 | 133.6 | 116.4 | 141.3 | 118.5 | 141.7 |
| Total Stops          | 2638  | 2729  | 2604  | 2551  | 2727  | 2599  | 2623  |
| Fuel Used (gal)      | 69.1  | 71.6  | 73.0  | 68.7  | 75.2  | 70.2  | 74.6  |

**Interval #3 Information**

|                  |      |
|------------------|------|
| Start Time       | 5:30 |
| End Time         | 5:45 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 3110  | 3081  | 3071  | 3131  |
| Vehs Exited          | 3122  | 3071  | 3048  | 3123  |
| Starting Vehs        | 315   | 292   | 273   | 288   |
| Ending Vehs          | 303   | 302   | 296   | 295   |
| Travel Distance (mi) | 968   | 967   | 949   | 973   |
| Travel Time (hr)     | 158.9 | 153.8 | 155.7 | 156.3 |
| Total Delay (hr)     | 129.8 | 124.8 | 127.0 | 127.0 |
| Total Stops          | 2553  | 2567  | 2602  | 2617  |
| Fuel Used (gal)      | 71.5  | 70.6  | 70.7  | 71.5  |

**Interval #4 Information Recording**

|                  |      |
|------------------|------|
| Start Time       | 5:45 |
| End Time         | 6:00 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 3052  | 3108  | 3108  | 3112  | 3157  | 3125  | 3154  |
| Vehs Exited          | 3054  | 3119  | 3122  | 3091  | 3199  | 3088  | 3155  |
| Starting Vehs        | 309   | 304   | 276   | 292   | 342   | 273   | 326   |
| Ending Vehs          | 307   | 293   | 262   | 313   | 300   | 310   | 325   |
| Travel Distance (mi) | 945   | 961   | 958   | 957   | 985   | 959   | 991   |
| Travel Time (hr)     | 177.2 | 169.4 | 190.7 | 187.8 | 195.2 | 176.1 | 198.4 |
| Total Delay (hr)     | 148.9 | 140.5 | 161.9 | 159.3 | 165.7 | 147.3 | 168.7 |
| Total Stops          | 2543  | 2483  | 2505  | 2746  | 2700  | 2628  | 2648  |
| Fuel Used (gal)      | 75.8  | 74.5  | 78.7  | 78.7  | 81.2  | 75.3  | 82.0  |

**Interval #4 Information Recording**

|                  |      |
|------------------|------|
| Start Time       | 5:45 |
| End Time         | 6:00 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 3129  | 3122  | 3131  | 3118  |
| Vehs Exited          | 3160  | 3076  | 3166  | 3124  |
| Starting Vehs        | 303   | 302   | 296   | 295   |
| Ending Vehs          | 272   | 348   | 261   | 297   |
| Travel Distance (mi) | 968   | 973   | 965   | 966   |
| Travel Time (hr)     | 186.0 | 180.4 | 186.7 | 184.8 |
| Total Delay (hr)     | 157.0 | 151.2 | 157.5 | 155.8 |
| Total Stops          | 2610  | 2698  | 2600  | 2616  |
| Fuel Used (gal)      | 78.5  | 76.9  | 78.4  | 78.0  |

13: Francisco Dr & El Dorado Hills Blvd Performance by movement

| Movement           | EBL  | EBT  | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT  | All |
|--------------------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|
| Denied Delay (hr)  | 0.0  | 0.0  | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.5 |
| Denied Del/Veh (s) | 1.8  | 1.4  | 3.4 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 3.5 | 0.2  | 1.2 |
| Total Delay (hr)   | 0.0  | 0.1  | 0.6 | 0.0 | 0.0 | 0.0 | 1.1 | 0.7 | 0.0 | 0.0 | 0.6  | 3.3 |
| Total Del/Veh (s)  | 10.2 | 11.2 | 4.3 | 6.5 | 7.0 | 3.4 | 8.6 | 9.7 | 3.8 | 4.3 | 12.0 | 7.7 |
| Stop Delay (hr)    | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 0.2 | 0.0 | 0.0 | 0.2  | 1.2 |
| Stop Del/Veh (s)   | 4.6  | 3.9  | 0.0 | 4.4 | 3.7 | 3.0 | 5.7 | 2.9 | 2.5 | 2.2 | 3.8  | 2.9 |

17: El Dorado Hills Blvd #2 & Saratoga Way/Park Drive Performance by movement

| Movement           | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Denied Delay (hr)  | 0.1  | 0.0  | 0.3  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.1  | 0.1  | 0.0  |
| Denied Del/Veh (s) | 1.1  | 1.1  | 3.3  | 0.1  | 0.2  | 0.3  | 0.1  | 0.0  | 0.0  | 2.7  | 0.4  | 0.4  |
| Total Delay (hr)   | 3.8  | 1.0  | 1.8  | 0.7  | 0.8  | 1.2  | 8.3  | 5.9  | 0.4  | 2.4  | 5.9  | 1.1  |
| Total Del/Veh (s)  | 65.1 | 72.7 | 18.3 | 52.6 | 57.8 | 28.7 | 96.8 | 21.8 | 20.7 | 68.7 | 31.2 | 24.5 |
| Stop Delay (hr)    | 3.4  | 0.9  | 1.5  | 0.6  | 0.7  | 1.1  | 7.4  | 3.9  | 0.3  | 2.2  | 4.1  | 0.9  |
| Stop Del/Veh (s)   | 59.1 | 63.8 | 14.9 | 50.1 | 52.2 | 25.7 | 85.8 | 14.4 | 15.9 | 62.5 | 21.7 | 19.4 |

17: El Dorado Hills Blvd #2 & Saratoga Way/Park Drive Performance by movement

| Movement           | All  |
|--------------------|------|
| Denied Delay (hr)  | 0.6  |
| Denied Del/Veh (s) | 0.7  |
| Total Delay (hr)   | 33.1 |
| Total Del/Veh (s)  | 37.8 |
| Stop Delay (hr)    | 26.8 |
| Stop Del/Veh (s)   | 30.6 |

18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way Performance by movement

| Movement           | EBL  | EBT  | EBR | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|--------------------|------|------|-----|------|------|------|------|------|------|------|------|------|
| Denied Delay (hr)  | 0.0  | 0.0  | 0.1 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Denied Del/Veh (s) | 0.2  | 0.4  | 3.6 | 0.2  | 0.1  | 0.2  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay (hr)   | 2.2  | 1.0  | 0.1 | 2.3  | 1.1  | 1.4  | 12.1 | 4.6  | 0.7  | 1.0  | 6.3  | 1.7  |
| Total Del/Veh (s)  | 54.5 | 57.8 | 3.2 | 54.2 | 59.5 | 57.2 | 50.4 | 15.4 | 11.9 | 82.0 | 29.7 | 23.1 |
| Stop Delay (hr)    | 2.1  | 0.9  | 0.0 | 2.1  | 1.0  | 1.3  | 9.6  | 2.5  | 0.4  | 0.9  | 5.0  | 1.4  |
| Stop Del/Veh (s)   | 51.5 | 53.0 | 0.0 | 50.5 | 54.5 | 54.3 | 40.1 | 8.2  | 6.0  | 77.7 | 23.6 | 18.3 |

18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way Performance by movement

| Movement           | All  |
|--------------------|------|
| Denied Delay (hr)  | 0.2  |
| Denied Del/Veh (s) | 0.1  |
| Total Delay (hr)   | 34.4 |
| Total Del/Veh (s)  | 32.0 |
| Stop Delay (hr)    | 27.1 |
| Stop Del/Veh (s)   | 25.2 |

19: Latrobe Road #2/EI Dorado Hills Blvd #2 & US 50 EB Ramps Performance by movement

| Movement           | EBR  | WBR | NBT | NBR | SBL  | SBT  | All  |
|--------------------|------|-----|-----|-----|------|------|------|
| Denied Delay (hr)  | 0.1  | 0.0 | 0.4 | 0.3 | 0.0  | 0.0  | 0.8  |
| Denied Del/Veh (s) | 0.6  | 0.4 | 0.9 | 2.3 | 0.0  | 0.0  | 0.7  |
| Total Delay (hr)   | 2.2  | 0.1 | 3.3 | 0.7 | 3.5  | 2.4  | 12.4 |
| Total Del/Veh (s)  | 10.5 | 1.0 | 7.1 | 6.1 | 53.6 | 10.9 | 10.2 |
| Stop Delay (hr)    | 1.2  | 0.0 | 1.3 | 0.3 | 3.0  | 0.9  | 6.8  |
| Stop Del/Veh (s)   | 5.9  | 0.0 | 2.7 | 3.0 | 46.5 | 4.2  | 5.6  |

Total Zone Performance

|                    |        |
|--------------------|--------|
| Denied Delay (hr)  | 2.1    |
| Denied Del/Veh (s) | 1.2    |
| Total Delay (hr)   | 83.2   |
| Total Del/Veh (s)  | 1827.3 |
| Stop Delay (hr)    | 62.1   |
| Stop Del/Veh (s)   | 1362.5 |

Intersection: 13: Francisco Dr & El Dorado Hills Blvd

| Movement              | EB  | WB  | NB  | NB  | SB  | SB  |
|-----------------------|-----|-----|-----|-----|-----|-----|
| Directions Served     | LT  | LTR | L   | TR  | L   | TR  |
| Maximum Queue (ft)    | 50  | 54  | 180 | 84  | 30  | 91  |
| Average Queue (ft)    | 25  | 26  | 84  | 48  | 5   | 44  |
| 95th Queue (ft)       | 49  | 49  | 143 | 72  | 23  | 73  |
| Link Distance (ft)    | 577 | 573 |     | 275 |     | 734 |
| Upstream Blk Time (%) |     |     |     |     |     |     |
| Queuing Penalty (veh) |     |     |     |     |     |     |
| Storage Bay Dist (ft) |     |     | 500 |     | 200 |     |
| Storage Blk Time (%)  |     |     |     |     |     |     |
| Queuing Penalty (veh) |     |     |     |     |     |     |

Intersection: 17: El Dorado Hills Blvd #2 & Saratoga Way/Park Drive

| Movement              | EB  | EB  | EB  | WB  | WB  | NB  | NB  | NB  | NB  | SB  | SB  | SB  |
|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Directions Served     | L   | LT  | R   | L   | TR  | L   | T   | T   | TR  | L   | T   | TR  |
| Maximum Queue (ft)    | 174 | 264 | 242 | 102 | 232 | 275 | 525 | 415 | 251 | 124 | 354 | 350 |
| Average Queue (ft)    | 86  | 129 | 112 | 30  | 115 | 243 | 250 | 144 | 121 | 91  | 181 | 189 |
| 95th Queue (ft)       | 157 | 217 | 203 | 73  | 213 | 320 | 527 | 314 | 209 | 148 | 306 | 306 |
| Link Distance (ft)    |     | 930 |     | 488 | 488 |     | 946 | 946 | 946 |     | 685 | 685 |
| Upstream Blk Time (%) |     |     |     |     |     |     |     |     |     |     |     |     |
| Queuing Penalty (veh) |     |     |     |     |     |     |     |     |     |     |     |     |
| Storage Bay Dist (ft) | 150 |     | 240 |     |     | 250 |     |     |     | 100 |     |     |
| Storage Blk Time (%)  | 1   | 6   | 1   |     |     | 30  | 0   |     |     | 13  | 18  |     |
| Queuing Penalty (veh) | 6   | 25  | 2   |     |     | 95  | 0   |     |     | 44  | 22  |     |

**Intersection: 18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way**

| Movement              | EB   | EB   | WB  | WB  | WB  | NB  | NB  | NB  | NB  | NB  | SB  | SB  |
|-----------------------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Directions Served     | L    | LT   | L   | LT  | TR  | L   | L   | T   | T   | TR  | L   | T   |
| Maximum Queue (ft)    | 144  | 149  | 143 | 161 | 187 | 432 | 436 | 251 | 225 | 256 | 120 | 207 |
| Average Queue (ft)    | 66   | 78   | 56  | 93  | 96  | 268 | 269 | 122 | 115 | 132 | 41  | 113 |
| 95th Queue (ft)       | 120  | 135  | 107 | 139 | 159 | 392 | 393 | 225 | 211 | 234 | 90  | 183 |
| Link Distance (ft)    | 1059 | 1059 |     | 621 | 621 | 714 | 714 | 714 | 714 | 714 |     | 946 |
| Upstream Blk Time (%) |      |      |     |     |     |     |     |     |     |     |     |     |
| Queuing Penalty (veh) |      |      |     |     |     |     |     |     |     |     |     |     |
| Storage Bay Dist (ft) | 150  |      |     |     |     |     | 200 |     |     |     |     |     |
| Storage Blk Time (%)  | 0    |      |     |     |     |     | 0   |     |     |     |     |     |
| Queuing Penalty (veh) | 0    |      |     |     |     |     | 0   |     |     |     |     |     |

**Intersection: 18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way**

| Movement              | SB  | SB  | SB  |
|-----------------------|-----|-----|-----|
| Directions Served     | T   | T   | R   |
| Maximum Queue (ft)    | 182 | 212 | 208 |
| Average Queue (ft)    | 92  | 106 | 104 |
| 95th Queue (ft)       | 158 | 177 | 191 |
| Link Distance (ft)    | 946 | 946 |     |
| Upstream Blk Time (%) |     |     |     |
| Queuing Penalty (veh) |     |     |     |
| Storage Bay Dist (ft) | 200 |     |     |
| Storage Blk Time (%)  | 0   | 1   |     |
| Queuing Penalty (veh) | 1   | 3   |     |

**Intersection: 19: Latrobe Road #2/El Dorado Hills Blvd #2 & US 50 EB Ramps**

| Movement              | EB   | EB  | NB  | NB  | NB  | NB  | SB  | SB  | SB  | SB  | SB  |  |
|-----------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Directions Served     | R    | R   | T   | T   | T   | R   | L   | T   | T   | T   | T   |  |
| Maximum Queue (ft)    | 109  | 110 | 158 | 229 | 271 | 188 | 266 | 148 | 152 | 140 | 153 |  |
| Average Queue (ft)    | 60   | 62  | 74  | 90  | 121 | 69  | 137 | 29  | 50  | 62  | 63  |  |
| 95th Queue (ft)       | 92   | 95  | 131 | 176 | 219 | 146 | 245 | 92  | 115 | 123 | 130 |  |
| Link Distance (ft)    | 1212 |     | 718 | 718 | 718 |     |     | 714 | 714 | 714 | 714 |  |
| Upstream Blk Time (%) |      |     |     |     |     |     |     |     |     |     |     |  |
| Queuing Penalty (veh) |      |     |     |     |     |     |     |     |     |     |     |  |
| Storage Bay Dist (ft) | 450  |     |     |     | 275 |     |     |     | 575 |     |     |  |
| Storage Blk Time (%)  |      |     |     |     | 0   |     |     |     | 0   |     |     |  |
| Queuing Penalty (veh) |      |     |     |     | 0   |     |     |     | 0   |     |     |  |

**Zone Summary**

Zone wide Queuing Penalty: 200

# HCS7 Two-Lane Highway Report

## Project Information

|                     |   |                      |                         |
|---------------------|---|----------------------|-------------------------|
| Analyst             | Kimley-Horn   | Date                 | 11/29/2021              |
| Agency              |   | Analysis Year        | 2021 plus Project       |
| Jurisdiction        | El Dorado County  | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Francisco Dr to El Dorado Hills Blvd EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2059 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 1.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 592  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.80 | Total Trucks, %                  | 1.70 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.35 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 56.7    |
| Speed Slope Coefficient           | 3.59431  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.38808 | PF Power Coefficient             | 0.73983 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 6.7     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2059       | -          | -                 | 54.0                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 54.0 | Percent Followers, %               | 61.0 |
| Segment Travel Time, minutes | 0.43 | Followers Density, followers/mi/ln | 6.7  |
| Vehicle LOS                  | C    |                                    |      |



# HCS7 Two-Lane Highway Report

## Project Information

|                     |   |                      |                         |
|---------------------|---|----------------------|-------------------------|
| Analyst             | Kimley-Horn   | Date                 | 11/29/2021              |
| Agency              |   | Analysis Year        | 2021 plus Project       |
| Jurisdiction        | El Dorado County  | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Francisco Dr to El Dorado Hills Blvd EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2059 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 1.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 997  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.97 | Total Trucks, %                  | 1.70 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.59 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 56.7    |
| Speed Slope Coefficient           | 3.59431  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.38808 | PF Power Coefficient             | 0.73983 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 14.0    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2059       | -          | -                 | 53.3                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 53.3 | Percent Followers, %               | 75.0 |
| Segment Travel Time, minutes | 0.44 | Followers Density, followers/mi/ln | 14.0 |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |   |                      |                         |
|---------------------|---|----------------------|-------------------------|
| Analyst             | Kimley-Horn   | Date                 | 11/29/2021              |
| Agency              |   | Analysis Year        | 2021 plus Project       |
| Jurisdiction        | El Dorado County  | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Francisco Dr to El Dorado Hills Blvd WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2059 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 1.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 964  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.88 | Total Trucks, %                  | 0.70 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.57 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 56.7    |
| Speed Slope Coefficient           | 3.59612  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.38793 | PF Power Coefficient             | 0.73977 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 13.4    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2059       | -          | -                 | 53.3                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 53.3 | Percent Followers, %               | 74.1 |
| Segment Travel Time, minutes | 0.44 | Followers Density, followers/mi/ln | 13.4 |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |   |                      |                         |
|---------------------|---|----------------------|-------------------------|
| Analyst             | Kimley-Horn   | Date                 | 11/29/2021              |
| Agency              |   | Analysis Year        | 2021 plus Project       |
| Jurisdiction        | El Dorado County  | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Francisco Dr to El Dorado Hills Blvd WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2059 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 1.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 818  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.94 | Total Trucks, %                  | 0.70 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.48 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 56.7    |
| Speed Slope Coefficient           | 3.59612  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.38793 | PF Power Coefficient             | 0.73977 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 10.6    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2059       | -          | -                 | 53.6                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 53.6 | Percent Followers, %               | 69.8 |
| Segment Travel Time, minutes | 0.44 | Followers Density, followers/mi/ln | 10.6 |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2021 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - El Dorado Hills Blvd to Silva Valley Pkwy EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 1900 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 0.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 694  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.83 | Total Trucks, %                  | 0.90 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.41 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 57.0    |
| Speed Slope Coefficient           | 3.60677  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.39272 | PF Power Coefficient             | 0.73846 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 8.4     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 1900       | -          | -                 | 54.1                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 54.1 | Percent Followers, %               | 65.5 |
| Segment Travel Time, minutes | 0.40 | Followers Density, followers/mi/ln | 8.4  |
| Vehicle LOS                  | C    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2021 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - El Dorado Hills Blvd to Silva Valley Pkwy EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 1900 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 0.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 1055 | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.93 | Total Trucks, %                  | 0.90 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.62 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 57.0    |
| Speed Slope Coefficient           | 3.60677  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.39272 | PF Power Coefficient             | 0.73846 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 15.1    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 1900       | -          | -                 | 53.4                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 53.4 | Percent Followers, %               | 76.5 |
| Segment Travel Time, minutes | 0.40 | Followers Density, followers/mi/ln | 15.1 |
| Vehicle LOS                  | E    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2021 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - El Dorado Hills Blvd to Silva Valley Pkwy WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 1900 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 0.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 971  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.92 | Total Trucks, %                  | 0.90 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.57 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 57.0    |
| Speed Slope Coefficient           | 3.60677  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.39272 | PF Power Coefficient             | 0.73846 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 13.5    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 1900       | -          | -                 | 53.6                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 53.6 | Percent Followers, %               | 74.4 |
| Segment Travel Time, minutes | 0.40 | Followers Density, followers/mi/ln | 13.5 |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2021 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - El Dorado Hills Blvd to Silva Valley Pkwy WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 1900 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 0.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 855  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.92 | Total Trucks, %                  | 0.90 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.50 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 57.0    |
| Speed Slope Coefficient           | 3.60677  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.39272 | PF Power Coefficient             | 0.73846 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 11.3    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 1900       | -          | -                 | 53.8                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 53.8 | Percent Followers, %               | 71.1 |
| Segment Travel Time, minutes | 0.40 | Followers Density, followers/mi/ln | 11.3 |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2021 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Silva Valley Pkwy to Malcolm Dixon Rd EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 8765 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 493  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.82 | Total Trucks, %                  | 1.00 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.29 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.95929  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.27608 | PF Power Coefficient             | 0.75149 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 4.4     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 8765       | -          | -                 | 59.5                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.5 | Percent Followers, %               | 52.7 |
| Segment Travel Time, minutes | 1.67 | Followers Density, followers/mi/ln | 4.4  |
| Vehicle LOS                  | C    |                                    |      |



# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2021 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Silva Valley Pkwy to Malcolm Dixon Rd EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 8765 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 889  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.92 | Total Trucks, %                  | 1.00 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.52 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.95929  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.27608 | PF Power Coefficient             | 0.75149 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 10.5    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 8765       | -          | -                 | 58.6                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 58.6 | Percent Followers, %               | 68.9 |
| Segment Travel Time, minutes | 1.70 | Followers Density, followers/mi/ln | 10.5 |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2021 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Silva Valley Pkwy to Malcolm Dixon Rd WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 8765 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 845  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.83 | Total Trucks, %                  | 1.20 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.50 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.95892  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.27611 | PF Power Coefficient             | 0.75150 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 9.7     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 8765       | -          | -                 | 58.7                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 58.7 | Percent Followers, %               | 67.5 |
| Segment Travel Time, minutes | 1.70 | Followers Density, followers/mi/ln | 9.7  |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2021 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Silva Valley Pkwy to Malcolm Dixon Rd WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 8765 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 542  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.90 | Total Trucks, %                  | 1.20 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.32 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.95892  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.27611 | PF Power Coefficient             | 0.75150 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 5.0     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 8765       | -          | -                 | 59.3                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.3 | Percent Followers, %               | 55.3 |
| Segment Travel Time, minutes | 1.68 | Followers Density, followers/mi/ln | 5.0  |
| Vehicle LOS                  | C    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2021 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Malcolm Dixon Rd to Project EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2304 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 424  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.90 | Total Trucks, %                  | 0.30 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.25 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.89594  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.33086 | PF Power Coefficient             | 0.75550 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 3.6     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2304       | -          | -                 | 59.8                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.8 | Percent Followers, %               | 50.2 |
| Segment Travel Time, minutes | 0.44 | Followers Density, followers/mi/ln | 3.6  |
| Vehicle LOS                  | B    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2021 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Malcolm Dixon Rd to Project EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2304 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 800  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.93 | Total Trucks, %                  | 0.30 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.47 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.89594  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.33086 | PF Power Coefficient             | 0.75550 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 9.2     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2304       | -          | -                 | 58.8                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 58.8 | Percent Followers, %               | 67.5 |
| Segment Travel Time, minutes | 0.45 | Followers Density, followers/mi/ln | 9.2  |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2021 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Malcolm Dixon Rd to Project WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2304 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 791  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.94 | Total Trucks, %                  | 0.00 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.47 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.89648  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.33081 | PF Power Coefficient             | 0.75548 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 9.0     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2304       | -          | -                 | 58.9                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 58.9 | Percent Followers, %               | 67.2 |
| Segment Travel Time, minutes | 0.44 | Followers Density, followers/mi/ln | 9.0  |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2021 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Malcolm Dixon Rd to Project WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2304 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 626  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.86 | Total Trucks, %                  | 0.00 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.37 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.89648  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.33081 | PF Power Coefficient             | 0.75548 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 6.4     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2304       | -          | -                 | 59.2                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.2 | Percent Followers, %               | 60.7 |
| Segment Travel Time, minutes | 0.44 | Followers Density, followers/mi/ln | 6.4  |
| Vehicle LOS                  | C    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2021 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Project to Deer Valley Rd EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 3152 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 405  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.90 | Total Trucks, %                  | 0.30 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.24 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.90747  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.30740 | PF Power Coefficient             | 0.76221 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 3.3     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 3152       | -          | -                 | 59.8                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.8 | Percent Followers, %               | 48.2 |
| Segment Travel Time, minutes | 0.60 | Followers Density, followers/mi/ln | 3.3  |
| Vehicle LOS                  | B    |                                    |      |



# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2021 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Project to Deer Valley Rd EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 3152 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 793  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.84 | Total Trucks, %                  | 0.30 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.47 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.90747  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.30740 | PF Power Coefficient             | 0.76221 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 9.0     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 3152       | -          | -                 | 58.8                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 58.8 | Percent Followers, %               | 66.6 |
| Segment Travel Time, minutes | 0.61 | Followers Density, followers/mi/ln | 9.0  |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2021 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Project to Deer Valley Rd WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 3152 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 679  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.95 | Total Trucks, %                  | 0.00 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.40 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.90802  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.30735 | PF Power Coefficient             | 0.76219 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 7.1     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 3152       | -          | -                 | 59.1                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.1 | Percent Followers, %               | 62.2 |
| Segment Travel Time, minutes | 0.61 | Followers Density, followers/mi/ln | 7.1  |
| Vehicle LOS                  | C    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2021 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Project to Deer Valley Rd WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 3152 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 551  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.88 | Total Trucks, %                  | 0.00 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.32 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.90802  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.30735 | PF Power Coefficient             | 0.76219 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 5.2     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 3152       | -          | -                 | 59.4                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.4 | Percent Followers, %               | 56.4 |
| Segment Travel Time, minutes | 0.60 | Followers Density, followers/mi/ln | 5.2  |
| Vehicle LOS                  | C    |                                    |      |

| Segment Inputs             |   |                        |                               | Existing (2021) PP Conditions |         |                             |               |             |                 |         |                             |               |             |                 |     |         |         |         |
|----------------------------|---|------------------------|-------------------------------|-------------------------------|---------|-----------------------------|---------------|-------------|-----------------|---------|-----------------------------|---------------|-------------|-----------------|-----|---------|---------|---------|
|                            |   |                        |                               | Flow Inputs                   |         | AM LOS Performance Measures |               |             |                 |         | PM LOS Performance Measures |               |             |                 |     |         |         |         |
|                            | Length<br>(ft)  | Number of Lanes<br>(N) | Interchange Density<br>(I/mi) | AM Peak                       | PM Peak | V <sub>p</sub><br>(pc/h/ln) | FFS<br>(mi/h) | S<br>(mi/h) | D<br>(pc/mi/ln) | LOS     | V <sub>p</sub><br>(pc/h/ln) | FFS<br>(mi/h) | S<br>(mi/h) | D<br>(pc/mi/ln) | LOS |         |         |         |
|                            |   |                        |                               | (veh/h)                       | (veh/h) |                             |               |             |                 |         |                             |               |             |                 |     | (veh/h) | (veh/h) | (veh/h) |
| EB                         | West of Latrobe Rd SB Off Ramp                                      | 6690                   | 3                             | 0.33                          | 4,369   | 4,379                       | 1598.95       | 74.12       | 75              | 71.0288 | 22.5113                     | C             | 1602.416    | 74.12           | 75  | 70.9826 | 22.6    | C       |
|                            | Latrobe Rd NB Off Ramp to Latrobe Rd On Ramp                        | 1990                   | 3                             | 0.50                          | 3,165   | 3,168                       | 1158.35       | 73.6        | 75              | 74.7224 | 15.5021                     | B             | 1159.26     | 73.6            | 75  | 74.7192 | 15.5149 | B       |
|                            | Silva Valley Pkwy SB/NB Off Ramp to Silva Valley Pkwy NB/SB On Ramp | 2375                   | 3                             | 0.50                          | 3,163   | 3,440                       | 1157.62       | 73.6        | 75              | 74.725  | 15.4918                     | B             | 1258.797    | 73.6            | 75  | 74.2586 | 16.9515 | B       |
|                            | East of Silva Valley Pkwy NB/SB On Ramp                             | 3400                   | 3                             | 0.50                          | 3,557   | 3,871                       | 1301.8        | 73.6        | 75              | 73.9917 | 17.5939                     | B             | 1416.518    | 73.6            | 75  | 73.0795 | 19.3832 | C       |
|                            | East of El Dorado Hills Blvd/Latrobe Road                           | 2000                   | 3                             | 0.50                          | 3,596   | 3,826                       | 1315.93       | 73.6        | 75              | 73.8951 | 17.808                      | B             | 1400.094    | 73.6            | 75  | 73.228  | 19.1197 | C       |
| WB                         | Silva Valley Pkwy NB/SB Off Ramp to Silva Valley Pkwy SB/NB On Ramp | 2350                   | 2                             | 0.50                          | 2,754   | 2,884                       | 1511.93       | 73.6        | 75              | 72.0989 | 20.9702                     | C             | 1582.999    | 73.6            | 75  | 71.2374 | 22.2    | C       |
|                            | El Dorado Hills Blvd Off Ramp to El Dorado Hills Blvd On Ramp       | 3565                   | 2                             | 0.50                          | 2,695   | 2,872                       | 1479.54       | 73.6        | 75              | 72.4544 | 20.4203                     | C             | 1576.412    | 73.6            | 75  | 71.322  | 22.1028 | C       |
|                            | West of El Dorado Hills Blvd On Ramp                                | 5890                   | 2                             | 0.33                          | 3,652   | 4,059                       | 2004.85       | 74.12       | 75              | 63.8224 | 31.413                      | D             | 2227.972    | 74.12           | 75  | 58.3074 | 38.2108 | E       |
|                            | East of El Dorado Hills Blvd/Latrobe Road                           | 2000                   | 2                             | 0.50                          | 3,313   | 3,323                       | 1818.55       | 73.6        | 75              | 67.5829 | 26.9084                     | D             | 1824.038    | 73.6            | 75  | 67.483  | 27.0296 | D       |
|                            | East of Silva Valley Pkwy NB/SB On Ramp                             | 5500                   | 2                             | 0.33                          | 3,313   | 3,323                       | 1818.55       | 74.13       | 75              | 67.5829 | 26.9084                     | D             | 1824.038    | 74.13           | 75  | 67.483  | 27.0296 | D       |
| Universal Inputs:          |   |                        |                               |                               |         |                             |               |             |                 |         |                             |               |             |                 |     |         |         |         |
| PHF 0.92                   |   |                        |                               |                               |         |                             |               |             |                 |         |                             |               |             |                 |     |         |         |         |
| (P-) 2%                    |   |                        |                               |                               |         |                             |               |             |                 |         |                             |               |             |                 |     |         |         |         |
| f <sub>av</sub> 0.99009901 |   |                        |                               |                               |         |                             |               |             |                 |         |                             |               |             |                 |     |         |         |         |

| Segment Inputs |                              |                      | Existing (2021) PP Conditions                 |                       |                     |                             |                |         |                |                   |          |                |                 |         |         |         |                       |                     |                 |                |                             |                |                   |          |                |                 |         |         |         |         |         |         |        |        |   |
|----------------|------------------------------|----------------------|---|-----------------------|---------------------|-----------------------------|----------------|---------|----------------|-------------------|----------|----------------|-----------------|---------|---------|---------|-----------------------|---------------------|-----------------|----------------|-----------------------------|----------------|-------------------|----------|----------------|-----------------|---------|---------|---------|---------|---------|---------|--------|--------|---|
|                |                              |                      | AM Flow Inputs                                |                       |                     | AM LOS Performance Measures |                |         |                |                   |          |                |                 |         |         |         |                       | PM Flow Inputs      |                 |                | PM LOS Performance Measures |                |                   |          |                |                 |         |         |         |         |         |         |        |        |   |
| ID             | Number of Lanes              | Number of Ramp Lanes | Length of Acceleration Lane (L <sub>a</sub> ) | Downstream Volume (D) | Upstream Volume (F) | Ramp Volume (R)             | v <sub>0</sub> | w       | v <sub>8</sub> | w/S <sub>FR</sub> | Capacity | v <sub>1</sub> | v <sub>20</sub> | v/c     | D       | LOS     | Downstream Volume (D) | Upstream Volume (F) | Ramp Volume (R) | v <sub>0</sub> | w                           | v <sub>8</sub> | w/S <sub>FR</sub> | Capacity | v <sub>1</sub> | v <sub>20</sub> | v/c     | D       | LOS     |         |         |         |        |        |   |
|                |                              |                      |   | (veh/h)               | (veh/h)             | (veh/h)                     | (veh/h)        | (veh/h) | (veh/h)        | (veh/h)           | (veh/h)  | (veh/h)        | (veh/h)         | (veh/h) | (veh/h) | (veh/h) | (veh/h)               | (veh/h)             | (veh/h)         | (veh/h)        | (veh/h)                     | (veh/h)        | (veh/h)           | (veh/h)  | (veh/h)        | (veh/h)         | (veh/h) | (veh/h) | (veh/h) | (veh/h) | (veh/h) | (veh/h) |        |        |   |
| 10             | Latrobe Rd On Ramp           | 1                    | 110   | 3596.4                | 3165.4              | 431                         | 3948           | 3475    | 473            | 99                | 0.5806   | 2017.5         | 7200            | 729     | 1513    | 2018    | 0.5484                | 23.995              | C               | 3825.88        | 3167.88                     | 658            | 4200              | 3478     | 722            | 99              | 0.5806  | 2019.1  | 7200    | 729     | 1514    | 2019    | 0.5834 | 25.837 | C |
|                | Silva Valley On Ramp         | 3                    | 550   | 3557.4                | 3163.4              | 394                         | 3905           | 3473    | 433            | 99                | 0.5929   | 2059.1         | 7200            | 707     | 1544    | 2059    | 0.5424                | 21.262              | C               | 3870.88        | 3439.88                     | 431            | 4250              | 3776     | 473            | 108             | 0.5929  | 2239    | 7200    | 769     | 1679    | 2239    | 0.5902 | 22.964 | C |
| 10             | El Dorado Hills Blvd On Ramp | 1                    | 795   | 3652.4                | 2695.4              | 957                         | 4010           | 2959    | 1051           | 85                | 1        | 2959.1         | 4800            | 0       | 2219    | 2959    | 0.8354                | 31.283              | D               | 4058.88        | 2871.88                     | 1187           | 4456              | 3153     | 1303           | 90              | 1       | 3152.8  | 4800    | 0       | 2365    | 3153    | 0.9283 | 34.647 | D |
|                | Silva Valley On Ramp         | 2                    | 800   | 3232.4                | 2754.4              | 569                         | 3649           | 3024    | 625            | 86                | 1        | 3023.9         | 4800            | 0       | 2268    | 3024    | 0.7601                | 28.63               | D               | 3207.88        | 2883.88                     | 324            | 3522              | 3166     | 356            | 90              | 1       | 3166    | 4800    | 0       | 2374    | 3166    | 0.7337 | 27.765 | C |

General Notes:  
 Length: 1500 (ft)  
 S<sub>0</sub>: 70 (mi/h)  
 S<sub>85</sub>: 35 (mi/h)  
 PAF: 0.82 (mi/h)  
 P<sub>0</sub>: 2%  
 S<sub>0</sub>: 0.9909981

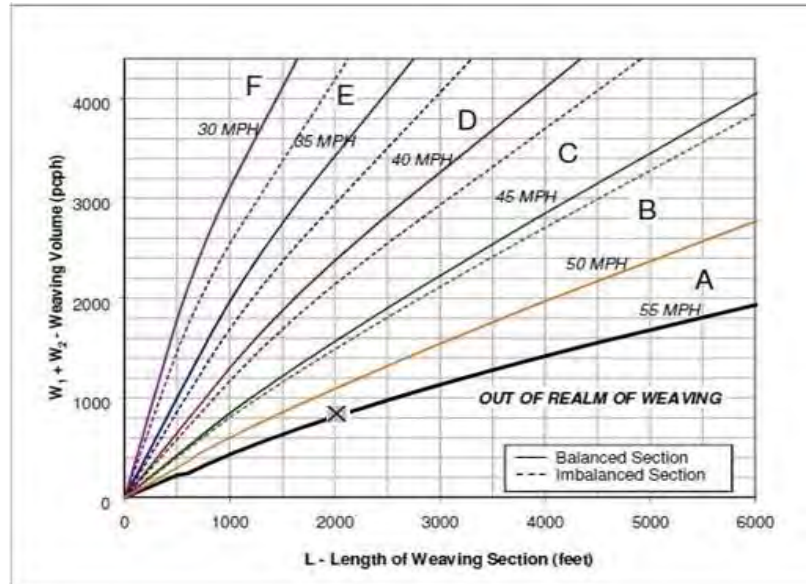
| Existing (2021) PP Conditions |                               |                      |   |      |                   |                 |             |                             |                |                |          |                |                  |      |                |      |                       |                             |                 |                |                |                |          |                |                  |       |        |        |         |         |         |         |         |         |         |
|-------------------------------|-------------------------------|----------------------|---|------|-------------------|-----------------|-------------|-----------------------------|----------------|----------------|----------|----------------|------------------|------|----------------|------|-----------------------|-----------------------------|-----------------|----------------|----------------|----------------|----------|----------------|------------------|-------|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| Segment Inputs                |                               |                      |   |      | AM Flow Inputs    |                 |             | AM LOS Performance Measures |                |                |          |                |                  |      | PM Flow Inputs |      |                       | PM LOS Performance Measures |                 |                |                |                |          |                |                  |       |        |        |         |         |         |         |         |         |         |
|                               | Number of Lanes               | Number of Ramp Lanes | Length of Deceleration Lane (L <sub>d</sub> ) |      | Downstream Volume | Upstream Volume | Ramp Volume | V <sub>0</sub>              | V <sub>1</sub> | V <sub>2</sub> | Capacity | V <sub>3</sub> | V <sub>12a</sub> | v/c  | D              | LOS  | Downstream Volume (D) | Upstream Volume (F)         | Ramp Volume (R) | V <sub>0</sub> | V <sub>1</sub> | V <sub>2</sub> | Capacity | V <sub>3</sub> | V <sub>12a</sub> | v/c   | D      | LOS    |         |         |         |         |         |         |         |
|                               |                               |                      | (ft)  | (ft) |                   |                 |             |                             |                |                |          |                |                  |      |                |      |                       |                             |                 |                |                |                |          |                |                  |       |        |        | (veh/h) | (veh/h) | (veh/h) | (veh/h) | (veh/h) | (veh/h) | (veh/h) |
| SB                            | Latrobe SB Off Ramp           | 3                    | 1   | 661  | 140               | 3570.4          | 4369        | 799                         | 444.62         | 4797           | 877.2    | 0.436          | 2586.1           | 7200 | 1105           | 1940 | 2586                  | 0.6662                      | 25.233          | C              | 3620           | 4379           | 759      | 496.217        | 4807             | 833.3 | 0.436  | 2565.9 | 7200    | 1121    | 1924    | 2566    | 0.6677  | 25.059  | C       |
|                               | Latrobe NB Off Ramp           | 3                    | 1   | -    | 140               | 3165.4          | 3570        | 405                         | -              | 3920           | 444.6    | 0.6416         | 2674.1           | 7200 | 1246           | 2006 | 2674                  | 0.5444                      | 25.989          | C              | 3168           | 3620           | 452      | -              | 3974             | 496.2 | 0.6378 | 2714.4 | 7200    | 1260    | 2036    | 2714    | 0.5519  | 26.336  | C       |
|                               | Silva Valley SB Off Ramp      | 3                    | 1   | -    | 150               | 3163.4          | 3596        | 433                         | -              | 3948           | 475.4    | 0.6394         | 2696             | 7200 | 626            | 2022 | 2696                  | 0.5484                      | 26.088          | C              | 3440           | 3826           | 386      | -              | 4200             | 423.8 | 0.6355 | 2823.7 | 7200    | 1376    | 2118    | 2824    | 0.5834  | 27.186  | C       |
| NB                            | El Dorado Hills Blvd Off Ramp | 3                    | 1   | -    | 190               | 2695.4          | 3323        | 628                         | -              | 3649           | 689.4    | 0.6371         | 2574.6           | 7200 | 1074           | 1931 | 2575                  | 0.5067                      | 24.683          | C              | 2872           | 3208           | 336      | -              | 3522             | 368.9 | 0.655  | 2433.9 | 7200    | 1088    | 1825    | 2434    | 0.4891  | 23.474  | C       |
|                               | Silva Valley NB Off Ramp      | 3                    | 1   | -    | 150               | 2754.4          | 3313        | 559                         | -              | 3638           | 613.7    | 0.6408         | 2551.5           | 7200 | 1086           | 1914 | 2551                  | 0.5052                      | 24.845          | C              | 2884           | 3323           | 439      | -              | 3648             | 481.9 | 0.6466 | 2529.2 | 7200    | 1119    | 1897    | 2529    | 0.5067  | 24.653  | C       |
| Universal inputs              |                               |                      |   |      |                   |                 |             |                             |                |                |          |                |                  |      |                |      |                       |                             |                 |                |                |                |          |                |                  |       |        |        |         |         |         |         |         |         |         |
| Leng 1500                     |                               |                      |   |      | (ft)              |                 |             |                             |                |                |          |                |                  |      |                |      |                       |                             |                 |                |                |                |          |                |                  |       |        |        |         |         |         |         |         |         |         |
| S <sub>0</sub> 70             |                               |                      |   |      | (ft/h)            |                 |             |                             |                |                |          |                |                  |      |                |      |                       |                             |                 |                |                |                |          |                |                  |       |        |        |         |         |         |         |         |         |         |
| S <sub>1a</sub> 35            |                               |                      |   |      | (ft/h)            |                 |             |                             |                |                |          |                |                  |      |                |      |                       |                             |                 |                |                |                |          |                |                  |       |        |        |         |         |         |         |         |         |         |
| PHF 0.92                      |                               |                      |   |      | (ft/h)            |                 |             |                             |                |                |          |                |                  |      |                |      |                       |                             |                 |                |                |                |          |                |                  |       |        |        |         |         |         |         |         |         |         |
| PHI 2%                        |                               |                      |   |      |                   |                 |             |                             |                |                |          |                |                  |      |                |      |                       |                             |                 |                |                |                |          |                |                  |       |        |        |         |         |         |         |         |         |         |
| ID: 02800990                  |                               |                      |   |      |                   |                 |             |                             |                |                |          |                |                  |      |                |      |                       |                             |                 |                |                |                |          |                |                  |       |        |        |         |         |         |         |         |         |         |

### EB US-50, East of Latrobe Rd On Ramp, Existing plus Project Conditons (AM)

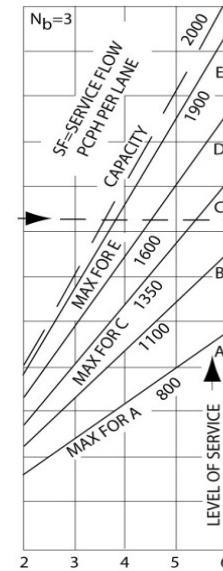
|                                    |                |      |
|------------------------------------|----------------|------|
| Number of Entering Mainline Lanes  | N <sub>b</sub> | 3    |
| Number of Lanes in Weaving Section | N              | 4    |
| Length of Weaving Section (feet)   | L              | 2000 |

| Total Weaving Section (V) |       | On ramp to Mainline (W1) |     | Mainline to Off ramp (W2) |     |
|---------------------------|-------|--------------------------|-----|---------------------------|-----|
| Volume (vph)              | 3,596 | Volume (vph)             | 431 | Volume (vph)              | 433 |
| Truck Percentage          | 6%    | Truck Percentage         | 2%  | Truck Percentage          | 2%  |
| PCE for Trucks            | 1.5   | PCE for Trucks           | 1.5 | PCE for Trucks            | 1.5 |
| Volume (pcph)             | 3,704 | Volume (pcph)            | 435 | Volume (pcph)             | 437 |

|   |      |
|---|------|
| W1 + W2   | 873  |
| In between  |      |
| Speed 1   | 50   |
| Speed 2   | 55   |
| Interpolated Weaving Speed (S <sub>w</sub> , mph) | 54.8 |
| Weaving Intensity Factor (k)                      | 1.00 |
| Service Volume ((SV, pcph)                        |      |
| $SV = (1/N) * [V + (k-1) * \min(W1, W2)]$         | 926  |
| Level of Service (LOS)                            | B    |



N<sub>b</sub>=NUMBER OF BASIC LANES ON APPROACH  
SEE CHART FOR DEFINITION OF OTHER TERMS



### EB US-50, East of Latrobe Rd On Ramp, Existing plus Project Conditons (PM)

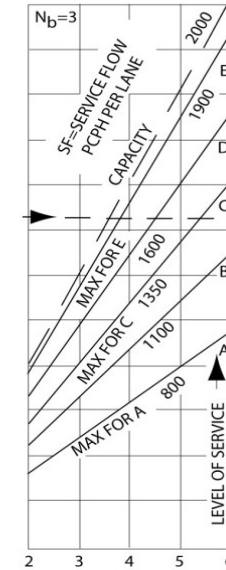
|                                    |    |      |
|------------------------------------|----|------|
| Number of Entering Mainline Lanes  | Nb | 3    |
| Number of Lanes in Weaving Section | N  | 4    |
| Length of Weaving Section (feet)   | L  | 2000 |

| Total Weaving Section (V) |       | On ramp to Mainline (W1) |     | Mainline to Off ramp (W2) |     |
|---------------------------|-------|--------------------------|-----|---------------------------|-----|
| Volume (vph)              | 3,826 | Volume (vph)             | 658 | Volume (vph)              | 386 |
| Truck Percentage          | 6%    | Truck Percentage         | 2%  | Truck Percentage          | 2%  |
| PCE for Trucks            | 1.5   | PCE for Trucks           | 1.5 | PCE for Trucks            | 1.5 |
| Volume (pcph)             | 3,941 | Volume (pcph)            | 665 | Volume (pcph)             | 390 |

|   |       |
|---|-------|
| W1 + W2                                   | 1,054 |
| In between                                |       |
| Speed 1                                   | 45    |
| Speed 2                                   | 50    |
| Interpolated Weaving Speed (Sw, mph)      | 49.0  |
| Weaving Intensity Factor (k)              | 1.60  |
| Service Volume ((SV, pcph)                |       |
| $SV = (1/N) * [V + (k-1) * \min(W1, W2)]$ | 1,044 |
| Level of Service (LOS)                    | B     |



Nb=NUMBER OF BASIC LANES ON APPROACH  
SEE CHART FOR DEFINITION OF OTHER TERMS



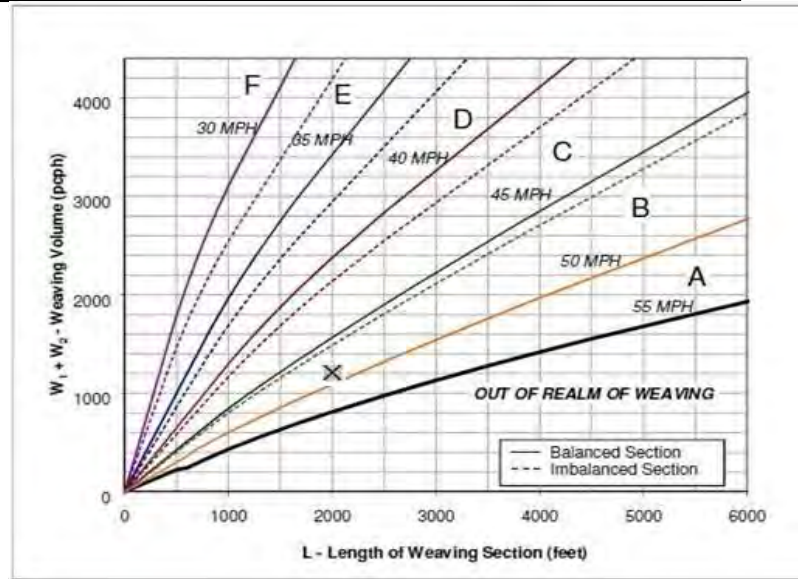


### WB US-50, East of El Dorado Hills Blvd Off Ramp, Existing plus Project Conditons (AM)

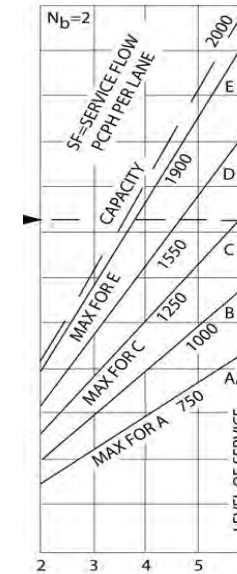
|                                    |                |      |
|------------------------------------|----------------|------|
| Number of Entering Mainline Lanes  | N <sub>b</sub> | 2    |
| Number of Lanes in Weaving Section | N              | 3    |
| Length of Weaving Section (feet)   | L              | 2000 |

| Total Weaving Section (V) |       | On ramp to Mainline (W1) |     | Mainline to Off ramp (W2) |     |
|---------------------------|-------|--------------------------|-----|---------------------------|-----|
| Volume (vph)              | 3,323 | Volume (vph)             | 569 | Volume (vph)              | 628 |
| Truck Percentage          | 6%    | Truck Percentage         | 2%  | Truck Percentage          | 2%  |
| PCE for Trucks            | 1.5   | PCE for Trucks           | 1.5 | PCE for Trucks            | 1.5 |
| Volume (pcph)             | 3,423 | Volume (pcph)            | 575 | Volume (pcph)             | 634 |

|   |       |
|---|-------|
| W1 + W2   | 1,209 |
| In between  |       |
| Speed 1   | 50    |
| Speed 2   | 55    |
| Interpolated Weaving Speed (S <sub>w</sub> , mph) | 52.8  |
| Weaving Intensity Factor (k)                      | 1.00  |
| Service Volume ((SV, pcph)                        |       |
| $SV = (1/N) * [V + (k-1) * \min(W1, W2)]$         | 1,141 |
| Level of Service (LOS)                            | C     |



N<sub>b</sub>=NUMBER OF BASIC LANES ON APPROACH  
SEE CHART FOR DEFINITION OF OTHER TERMS



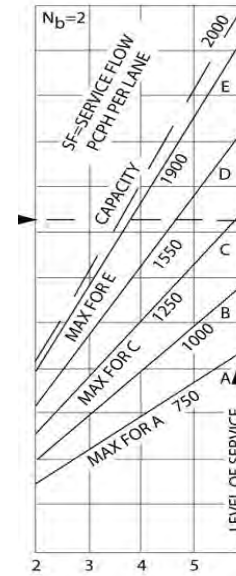
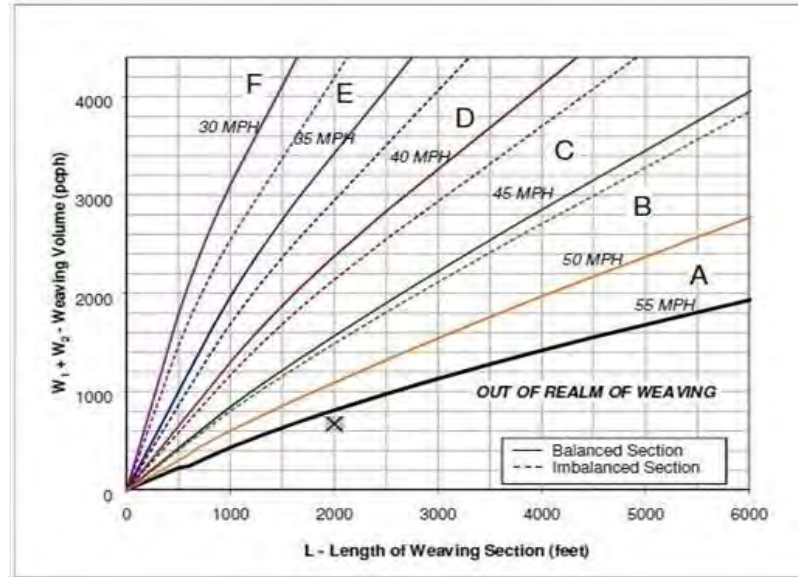
### WB US-50, East of El Dorado Hills Blvd Off Ramp, Existing plus Project Conditons (PM)

|                                    |                |      |
|------------------------------------|----------------|------|
| Number of Entering Mainline Lanes  | N <sub>b</sub> | 2    |
| Number of Lanes in Weaving Section | N              | 3    |
| Length of Weaving Section (feet)   | L              | 2000 |

N<sub>b</sub>=NUMBER OF BASIC LANES ON APPROACH  
SEE CHART FOR DEFINITION OF OTHER TERMS

| Total Weaving Section (V) |       | On ramp to Mainline (W1) |     | Mainline to Off ramp (W2) |     |
|---------------------------|-------|--------------------------|-----|---------------------------|-----|
| Volume (vph)              | 3,208 | Volume (vph)             | 324 | Volume (vph)              | 336 |
| Truck Percentage          | 6%    | Truck Percentage         | 2%  | Truck Percentage          | 2%  |
| PCE for Trucks            | 1.5   | PCE for Trucks           | 1.5 | PCE for Trucks            | 1.5 |
| Volume (pcph)             | 3,304 | Volume (pcph)            | 327 | Volume (pcph)             | 339 |

|   |       |
|---|-------|
| W1 + W2   | 667   |
| In between  |       |
| Speed 1   | 50    |
| Speed 2   | 55    |
| Interpolated Weaving Speed (S <sub>w</sub> , mph) | 55.4  |
| Weaving Intensity Factor (k)                      | 1.00  |
| Service Volume ((SV, pcph)                        |       |
| $SV = (1/N) * [V + (k-1) * \min(W1, W2)]$         | 1,101 |
| Level of Service (LOS)                            |       |
| <b>OUT OF REALM</b>                               |       |

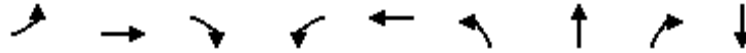


## Appendix D

*Analysis Worksheets for  
Near Term (2031) Conditions*

Generations at Green Valley  
 1: Sophia Pkwy/Access Rd & Green Valley Rd

Near Term  
 Timing Plan: AM



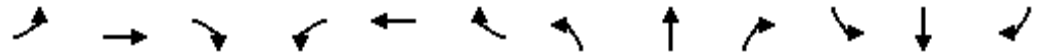
| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | NBR  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 2    | 762  | 102  | 177  | 1306 | 241  | 1    | 63   | 6    |
| v/c Ratio               | 0.01 | 0.46 | 0.13 | 0.65 | 0.79 | 0.48 | 0.00 | 0.10 | 0.01 |
| Control Delay           | 7.0  | 9.3  | 2.5  | 25.1 | 14.9 | 15.3 | 9.0  | 4.0  | 1.7  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 7.0  | 9.3  | 2.5  | 25.1 | 14.9 | 15.3 | 9.0  | 4.0  | 1.7  |
| Queue Length 50th (ft)  | 0    | 63   | 0    | 32   | 136  | 47   | 0    | 0    | 0    |
| Queue Length 95th (ft)  | 3    | 98   | 17   | #114 | #205 | 96   | 2    | 17   | 2    |
| Internal Link Dist (ft) |      | 1813 |      |      | 7016 |      | 1499 |      | 376  |
| Turn Bay Length (ft)    | 248  |      | 224  | 314  |      | 204  |      | 204  |      |
| Base Capacity (vph)     | 165  | 1651 | 793  | 272  | 1651 | 499  | 662  | 603  | 600  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.01 | 0.46 | 0.13 | 0.65 | 0.79 | 0.48 | 0.00 | 0.10 | 0.01 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
1: Sophia Pkwy/Access Rd & Green Valley Rd

Near Term  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          | ↖    | ↗    | ↘    | ↖    | ↗    |      | ↖    | ↗    | ↘    |      | ↕    |      |
| Traffic Volume (veh/h)       | 2    | 701  | 94   | 163  | 1195 | 6    | 222  | 1    | 58   | 4    | 0    | 2    |
| Future Volume (veh/h)        | 2    | 701  | 94   | 163  | 1195 | 6    | 222  | 1    | 58   | 4    | 0    | 2    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 2    | 762  | 102  | 177  | 1299 | 7    | 241  | 1    | 63   | 4    | 0    | 2    |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 231  | 1658 | 740  | 366  | 1691 | 9    | 664  | 665  | 564  | 447  | 26   | 170  |
| Arrive On Green              | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.36 | 0.36 | 0.36 | 0.36 | 0.00 | 0.36 |
| Sat Flow, veh/h              | 421  | 3554 | 1585 | 640  | 3624 | 20   | 1415 | 1870 | 1585 | 882  | 74   | 478  |
| Grp Volume(v), veh/h         | 2    | 762  | 102  | 177  | 637  | 669  | 241  | 1    | 63   | 6    | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 421  | 1777 | 1585 | 640  | 1777 | 1867 | 1415 | 1870 | 1585 | 1433 | 0    | 0    |
| Q Serve(g_s), s              | 0.2  | 6.6  | 1.7  | 11.7 | 13.4 | 13.4 | 5.8  | 0.0  | 1.2  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 13.6 | 6.6  | 1.7  | 18.2 | 13.4 | 13.4 | 5.9  | 0.0  | 1.2  | 0.1  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 0.01 | 1.00 |      | 1.00 | 0.67 |      | 0.33 |
| Lane Grp Cap(c), veh/h       | 231  | 1658 | 740  | 366  | 829  | 871  | 664  | 665  | 564  | 643  | 0    | 0    |
| V/C Ratio(X)                 | 0.01 | 0.46 | 0.14 | 0.48 | 0.77 | 0.77 | 0.36 | 0.00 | 0.11 | 0.01 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 231  | 1658 | 740  | 366  | 829  | 871  | 664  | 665  | 564  | 643  | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 15.6 | 8.1  | 6.8  | 14.3 | 10.0 | 10.0 | 11.2 | 9.3  | 9.7  | 9.4  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 0.1  | 0.9  | 0.4  | 4.5  | 6.7  | 6.4  | 1.5  | 0.0  | 0.4  | 0.0  | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.0  | 1.6  | 0.4  | 1.6  | 4.4  | 4.6  | 1.5  | 0.0  | 0.3  | 0.0  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 15.7 | 9.1  | 7.2  | 18.9 | 16.7 | 16.4 | 12.8 | 9.4  | 10.1 | 9.4  | 0.0  | 0.0  |
| LnGrp LOS                    | B    | A    | A    | B    | B    | B    | B    | A    | B    | A    | A    | A    |
| Approach Vol, veh/h          |      | 866  |      |      | 1483 |      |      | 305  |      |      |      | 6    |
| Approach Delay, s/veh        |      | 8.9  |      |      | 16.8 |      |      | 12.2 |      |      |      | 9.4  |
| Approach LOS                 |      | A    |      |      | B    |      |      | B    |      |      |      | A    |
| Timer - Assigned Phs         |      | 2    |      | 4    |      | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 20.0 |      | 25.0 |      | 20.0 |      | 25.0 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  |      | 4.0  |      | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 16.0 |      | 21.0 |      | 16.0 |      | 21.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 7.9  |      | 15.6 |      | 2.1  |      | 20.2 |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.5  |      | 2.3  |      | 0.0  |      | 0.6  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      | 13.7 |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      |      | B    |      |      |      |      |      |      |      |      |

Generations at Green Valley  
 2: Green Valley Rd/Green Valley Road & Francisco Rd.

Near Term  
 Timing Plan: AM



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | SBL   | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|------|------|-------|------|------|
| Lane Group Flow (vph)   | 269  | 459  | 235  | 65   | 788  | 113  | 317  | 364  | 121   | 454  | 351  |
| v/c Ratio               | 0.98 | 0.39 | 0.34 | 0.56 | 0.76 | 0.20 | 0.87 | 0.33 | 1.03  | 0.88 | 0.61 |
| Control Delay           | 89.1 | 21.2 | 4.4  | 55.6 | 29.6 | 4.1  | 59.6 | 20.9 | 133.0 | 47.6 | 16.8 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  |
| Total Delay             | 89.1 | 21.2 | 4.4  | 55.6 | 29.6 | 4.1  | 59.6 | 20.9 | 133.0 | 47.6 | 16.8 |
| Queue Length 50th (ft)  | ~70  | 91   | 0    | 31   | 178  | 0    | 79   | 68   | ~66   | 208  | 65   |
| Queue Length 95th (ft)  | #128 | 115  | 32   | #86  | 237  | 26   | #119 | 88   | #149  | #319 | 125  |
| Internal Link Dist (ft) |      | 7016 |      |      | 1876 |      |      | 2744 |       | 705  |      |
| Turn Bay Length (ft)    | 290  |      | 210  | 200  |      | 450  | 200  |      | 183   |      |      |
| Base Capacity (vph)     | 274  | 1264 | 716  | 117  | 1217 | 629  | 366  | 1177 | 117   | 546  | 594  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    |
| Reduced v/c Ratio       | 0.98 | 0.36 | 0.33 | 0.56 | 0.65 | 0.18 | 0.87 | 0.31 | 1.03  | 0.83 | 0.59 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
2: Green Valley Rd/Green Valley Road & Francisco Rd.

Near Term  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL   | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|-------|------|------|
| Lane Configurations          | ↖↗   | ↑↑   | ↖    | ↖    | ↑↑   | ↖    | ↖↗   | ↑↔   |      | ↖     | ↑    | ↖    |
| Traffic Volume (veh/h)       | 218  | 372  | 190  | 58   | 701  | 101  | 241  | 270  | 7    | 98    | 368  | 284  |
| Future Volume (veh/h)        | 218  | 372  | 190  | 58   | 701  | 101  | 241  | 270  | 7    | 98    | 368  | 284  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00  |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |       | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 269  | 459  | 235  | 65   | 788  | 113  | 317  | 355  | 9    | 121   | 454  | 351  |
| Peak Hour Factor             | 0.81 | 0.81 | 0.81 | 0.89 | 0.89 | 0.89 | 0.76 | 0.76 | 0.76 | 0.81  | 0.81 | 0.81 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2     | 2    | 2    |
| Cap, veh/h                   | 285  | 1123 | 501  | 83   | 994  | 444  | 381  | 1127 | 29   | 123   | 518  | 439  |
| Arrive On Green              | 0.08 | 0.32 | 0.32 | 0.05 | 0.28 | 0.28 | 0.11 | 0.32 | 0.32 | 0.07  | 0.28 | 0.28 |
| Sat Flow, veh/h              | 3456 | 3554 | 1585 | 1781 | 3554 | 1585 | 3456 | 3541 | 90   | 1781  | 1870 | 1585 |
| Grp Volume(v), veh/h         | 269  | 459  | 235  | 65   | 788  | 113  | 317  | 178  | 186  | 121   | 454  | 351  |
| Grp Sat Flow(s),veh/h/ln     | 1728 | 1777 | 1585 | 1781 | 1777 | 1585 | 1728 | 1777 | 1854 | 1781  | 1870 | 1585 |
| Q Serve(g_s), s              | 5.6  | 7.4  | 8.6  | 2.6  | 14.9 | 4.0  | 6.5  | 5.5  | 5.5  | 4.9   | 16.8 | 14.9 |
| Cycle Q Clear(g_c), s        | 5.6  | 7.4  | 8.6  | 2.6  | 14.9 | 4.0  | 6.5  | 5.5  | 5.5  | 4.9   | 16.8 | 14.9 |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 0.05 | 1.00  |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 285  | 1123 | 501  | 83   | 994  | 444  | 381  | 565  | 590  | 123   | 518  | 439  |
| V/C Ratio(X)                 | 0.94 | 0.41 | 0.47 | 0.78 | 0.79 | 0.25 | 0.83 | 0.31 | 0.32 | 0.99  | 0.88 | 0.80 |
| Avail Cap(c_a), veh/h        | 285  | 1311 | 585  | 123  | 1262 | 563  | 381  | 612  | 638  | 123   | 567  | 480  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 33.1 | 19.5 | 20.0 | 34.3 | 24.2 | 20.3 | 31.7 | 18.8 | 18.8 | 33.8  | 25.1 | 24.4 |
| Incr Delay (d2), s/veh       | 38.0 | 0.2  | 0.7  | 17.6 | 2.8  | 0.3  | 14.6 | 0.3  | 0.3  | 76.9  | 13.7 | 8.7  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 3.7  | 2.7  | 3.0  | 1.4  | 5.8  | 1.4  | 3.3  | 2.1  | 2.2  | 4.6   | 8.7  | 6.1  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |       |      |      |
| LnGrp Delay(d),s/veh         | 71.1 | 19.8 | 20.6 | 51.8 | 27.0 | 20.6 | 46.2 | 19.1 | 19.1 | 110.7 | 38.8 | 33.1 |
| LnGrp LOS                    | E    | B    | C    | D    | C    | C    | D    | B    | B    | F     | D    | C    |
| Approach Vol, veh/h          |      | 963  |      |      | 966  |      |      | 681  |      |       | 926  |      |
| Approach Delay, s/veh        |      | 34.3 |      |      | 27.9 |      |      | 31.7 |      |       | 46.0 |      |
| Approach LOS                 |      | C    |      |      | C    |      |      | C    |      |       | D    |      |
| Timer - Assigned Phs         | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |      |       |      |      |
| Phs Duration (G+Y+Rc), s     | 7.4  | 28.6 | 12.0 | 24.6 | 10.0 | 26.0 | 9.0  | 27.6 |      |       |      |      |
| Change Period (Y+Rc), s      | 4.0  | 5.7  | 4.0  | 4.5  | 4.0  | 5.7  | 4.0  | 4.5  |      |       |      |      |
| Max Green Setting (Gmax), s  | 5.0  | 26.8 | 8.0  | 22.0 | 6.0  | 25.8 | 5.0  | 25.0 |      |       |      |      |
| Max Q Clear Time (g_c+I1), s | 4.6  | 10.6 | 8.5  | 18.8 | 7.6  | 16.9 | 6.9  | 7.5  |      |       |      |      |
| Green Ext Time (p_c), s      | 0.0  | 3.1  | 0.0  | 1.3  | 0.0  | 3.4  | 0.0  | 1.8  |      |       |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |       |      |      |
| HCM 6th Ctrl Delay           |      |      | 35.1 |      |      |      |      |      |      |       |      |      |
| HCM 6th LOS                  |      |      | D    |      |      |      |      |      |      |       |      |      |

Generations at Green Valley  
 3: El Dorado Hills Blvd./Salmon Falls Rd & Green Valley Road

Near Term  
 Timing Plan: AM



| Lane Group              | EBL   | EBT  | WBL  | WBT   | NBL  | NBT  | SBL  | SBT  | SBR  |
|-------------------------|-------|------|------|-------|------|------|------|------|------|
| Lane Group Flow (vph)   | 60    | 422  | 117  | 838   | 57   | 219  | 169  | 325  | 169  |
| v/c Ratio               | 1.09  | 0.70 | 0.69 | 1.16  | 0.19 | 0.70 | 0.45 | 0.81 | 0.37 |
| Control Delay           | 196.6 | 36.8 | 64.9 | 117.1 | 36.5 | 47.2 | 37.5 | 53.8 | 9.6  |
| Queue Delay             | 0.0   | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 196.6 | 36.8 | 64.9 | 117.1 | 36.5 | 47.2 | 37.5 | 53.8 | 9.6  |
| Queue Length 50th (ft)  | ~44   | 236  | 72   | ~647  | 31   | 117  | 92   | 194  | 8    |
| Queue Length 95th (ft)  | #127  | 355  | #146 | #863  | 51   | 142  | 120  | 221  | 30   |
| Internal Link Dist (ft) |       | 1876 |      | 819   |      | 2981 |      | 502  |      |
| Turn Bay Length (ft)    | 85    |      | 105  |       | 165  |      |      |      | 100  |
| Base Capacity (vph)     | 55    | 605  | 182  | 722   | 341  | 358  | 405  | 426  | 480  |
| Starvation Cap Reductn  | 0     | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0     | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0     | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 1.09  | 0.70 | 0.64 | 1.16  | 0.17 | 0.61 | 0.42 | 0.76 | 0.35 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.



Generations at Green Valley  
3: El Dorado Hills Blvd./Salmon Falls Rd & Green Valley Road

Near Term  
Timing Plan: AM



| Movement                     | EBL   | EBT  | EBR  | WBL  | WBT  | WBR   | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|-------|------|------|------|------|-------|------|------|------|------|------|------|
| Lane Configurations          |       |      |      |      |      |       |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 58    | 393  | 12   | 103  | 679  | 58    | 40   | 102  | 51   | 120  | 231  | 120  |
| Future Volume (veh/h)        | 58    | 393  | 12   | 103  | 679  | 58    | 40   | 102  | 51   | 120  | 231  | 120  |
| Initial Q (Qb), veh          | 0     | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00  |      | 1.00 | 1.00 |      | 1.00  | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |       | No   |      |      | No   |       |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870  | 1870 | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 60    | 409  | 12   | 117  | 772  | 66    | 57   | 146  | 73   | 169  | 325  | 169  |
| Peak Hour Factor             | 0.96  | 0.96 | 0.96 | 0.88 | 0.88 | 0.88  | 0.70 | 0.70 | 0.70 | 0.71 | 0.71 | 0.71 |
| Percent Heavy Veh, %         | 2     | 2    | 2    | 2    | 2    | 2     | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 58    | 639  | 19   | 146  | 686  | 59    | 270  | 178  | 89   | 371  | 390  | 330  |
| Arrive On Green              | 0.03  | 0.35 | 0.35 | 0.08 | 0.40 | 0.40  | 0.15 | 0.15 | 0.15 | 0.21 | 0.21 | 0.21 |
| Sat Flow, veh/h              | 1781  | 1808 | 53   | 1781 | 1699 | 145   | 1781 | 1176 | 588  | 1781 | 1870 | 1585 |
| Grp Volume(v), veh/h         | 60    | 0    | 421  | 117  | 0    | 838   | 57   | 0    | 219  | 169  | 325  | 169  |
| Grp Sat Flow(s),veh/h/ln     | 1781  | 0    | 1861 | 1781 | 0    | 1844  | 1781 | 0    | 1764 | 1781 | 1870 | 1585 |
| Q Serve(g_s), s              | 3.0   | 0.0  | 17.6 | 6.0  | 0.0  | 37.5  | 2.6  | 0.0  | 11.2 | 7.7  | 15.5 | 8.8  |
| Cycle Q Clear(g_c), s        | 3.0   | 0.0  | 17.6 | 6.0  | 0.0  | 37.5  | 2.6  | 0.0  | 11.2 | 7.7  | 15.5 | 8.8  |
| Prop In Lane                 | 1.00  |      | 0.03 | 1.00 |      | 0.08  | 1.00 |      | 0.33 | 1.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 58    | 0    | 658  | 146  | 0    | 744   | 270  | 0    | 267  | 371  | 390  | 330  |
| V/C Ratio(X)                 | 1.04  | 0.00 | 0.64 | 0.80 | 0.00 | 1.13  | 0.21 | 0.00 | 0.82 | 0.46 | 0.83 | 0.51 |
| Avail Cap(c_a), veh/h        | 58    | 0    | 658  | 190  | 0    | 744   | 355  | 0    | 351  | 422  | 443  | 375  |
| HCM Platoon Ratio            | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00  | 0.00 | 1.00 | 1.00 | 0.00 | 1.00  | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 45.0  | 0.0  | 25.1 | 41.9 | 0.0  | 27.7  | 34.6 | 0.0  | 38.2 | 32.2 | 35.2 | 32.6 |
| Incr Delay (d2), s/veh       | 131.4 | 0.0  | 2.9  | 15.0 | 0.0  | 73.4  | 0.7  | 0.0  | 13.8 | 1.5  | 13.1 | 2.1  |
| Initial Q Delay(d3),s/veh    | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 3.4   | 0.0  | 7.5  | 3.1  | 0.0  | 29.7  | 1.1  | 0.0  | 5.6  | 3.3  | 8.0  | 3.4  |
| Unsig. Movement Delay, s/veh |       |      |      |      |      |       |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 176.3 | 0.0  | 28.0 | 56.9 | 0.0  | 101.1 | 35.2 | 0.0  | 52.0 | 33.7 | 48.4 | 34.7 |
| LnGrp LOS                    | F     | A    | C    | E    | A    | F     | D    | A    | D    | C    | D    | C    |
| Approach Vol, veh/h          |       | 481  |      |      | 955  |       |      | 276  |      |      | 663  |      |
| Approach Delay, s/veh        |       | 46.5 |      |      | 95.7 |       |      | 48.5 |      |      | 41.1 |      |
| Approach LOS                 |       | D    |      |      | F    |       |      | D    |      |      | D    |      |
| Timer - Assigned Phs         | 1     | 2    |      | 4    | 5    | 6     |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 11.1  | 38.9 |      | 24.9 | 6.5  | 43.5  |      | 18.1 |      |      |      |      |
| Change Period (Y+Rc), s      | 3.5   | 6.0  |      | 5.5  | 3.5  | 6.0   |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 9.9   | 30.6 |      | 22.0 | 3.0  | 37.5  |      | 18.5 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 8.0   | 19.6 |      | 17.5 | 5.0  | 39.5  |      | 13.2 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0   | 3.0  |      | 1.9  | 0.0  | 0.0   |      | 0.9  |      |      |      |      |
| <b>Intersection Summary</b>  |       |      |      |      |      |       |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |       |      | 65.0 |      |      |       |      |      |      |      |      |      |
| HCM 6th LOS                  |       |      | E    |      |      |       |      |      |      |      |      |      |

Generations at Green Valley  
 4: Silva Valley Pkwy./Allegheny Rd & Green Valley Road/Green Valley Rd.

Near Term  
 Timing Plan: AM



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 5    | 391  | 248  | 143  | 751  | 297  | 96   | 43   |
| v/c Ratio               | 0.05 | 0.62 | 0.35 | 0.58 | 0.78 | 0.82 | 0.25 | 0.23 |
| Control Delay           | 34.4 | 24.6 | 4.3  | 39.6 | 22.8 | 49.3 | 14.9 | 32.5 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 34.4 | 24.6 | 4.3  | 39.6 | 22.8 | 49.3 | 14.9 | 32.5 |
| Queue Length 50th (ft)  | 2    | 144  | 0    | 56   | 245  | 121  | 13   | 17   |
| Queue Length 95th (ft)  | 13   | 242  | 45   | 109  | #473 | #239 | 45   | 37   |
| Internal Link Dist (ft) |      | 819  |      |      | 2255 |      | 4847 | 380  |
| Turn Bay Length (ft)    | 205  |      | 205  | 350  |      | 150  |      |      |
| Base Capacity (vph)     | 109  | 763  | 794  | 273  | 965  | 361  | 391  | 628  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.05 | 0.51 | 0.31 | 0.52 | 0.78 | 0.82 | 0.25 | 0.07 |

Intersection Summary

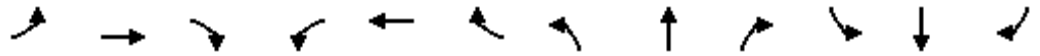
# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley

4: Silva Valley Pkwy./Allegheny Rd & Green Valley Road/Green Valley Rd.

Near Term

Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 5    | 356  | 226  | 116  | 592  | 16   | 235  | 30   | 46   | 4    | 25   | 1    |
| Future Volume (veh/h)        | 5    | 356  | 226  | 116  | 592  | 16   | 235  | 30   | 46   | 4    | 25   | 1    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 5    | 391  | 248  | 143  | 731  | 20   | 297  | 38   | 58   | 6    | 36   | 1    |
| Peak Hour Factor             | 0.91 | 0.91 | 0.91 | 0.81 | 0.81 | 0.81 | 0.79 | 0.79 | 0.79 | 0.70 | 0.70 | 0.70 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 107  | 746  | 632  | 181  | 798  | 22   | 343  | 128  | 196  | 9    | 51   | 1    |
| Arrive On Green              | 0.06 | 0.40 | 0.40 | 0.10 | 0.44 | 0.44 | 0.19 | 0.19 | 0.19 | 0.03 | 0.03 | 0.03 |
| Sat Flow, veh/h              | 1781 | 1870 | 1585 | 1781 | 1812 | 50   | 1781 | 668  | 1019 | 258  | 1549 | 43   |
| Grp Volume(v), veh/h         | 5    | 391  | 248  | 143  | 0    | 751  | 297  | 0    | 96   | 43   | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1870 | 1585 | 1781 | 0    | 1861 | 1781 | 0    | 1687 | 1850 | 0    | 0    |
| Q Serve(g_s), s              | 0.2  | 10.6 | 7.4  | 5.2  | 0.0  | 25.2 | 10.8 | 0.0  | 3.2  | 1.5  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 0.2  | 10.6 | 7.4  | 5.2  | 0.0  | 25.2 | 10.8 | 0.0  | 3.2  | 1.5  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 0.03 | 1.00 |      | 0.60 | 0.14 |      | 0.02 |
| Lane Grp Cap(c), veh/h       | 107  | 746  | 632  | 181  | 0    | 820  | 343  | 0    | 324  | 61   | 0    | 0    |
| V/C Ratio(X)                 | 0.05 | 0.52 | 0.39 | 0.79 | 0.00 | 0.92 | 0.87 | 0.00 | 0.30 | 0.71 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 107  | 746  | 632  | 267  | 0    | 907  | 353  | 0    | 334  | 610  | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 29.5 | 15.2 | 14.3 | 29.3 | 0.0  | 17.5 | 26.1 | 0.0  | 23.1 | 31.9 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 0.1  | 0.7  | 0.4  | 7.6  | 0.0  | 13.0 | 19.1 | 0.0  | 0.4  | 10.5 | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.1  | 3.8  | 2.2  | 2.4  | 0.0  | 11.3 | 5.9  | 0.0  | 1.2  | 0.8  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 29.7 | 15.9 | 14.7 | 36.9 | 0.0  | 30.6 | 45.2 | 0.0  | 23.4 | 42.4 | 0.0  | 0.0  |
| LnGrp LOS                    | C    | B    | B    | D    | A    | C    | D    | A    | C    | D    | A    | A    |
| Approach Vol, veh/h          |      | 644  |      |      | 894  |      |      | 393  |      |      |      | 43   |
| Approach Delay, s/veh        |      | 15.5 |      |      | 31.6 |      |      | 39.9 |      |      |      | 42.4 |
| Approach LOS                 |      | B    |      |      | C    |      |      | D    |      |      |      | D    |
| Timer - Assigned Phs         | 1    | 2    |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 8.0  | 35.1 |      | 6.2  | 10.8 | 32.3 |      | 17.4 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 5.7  |      | 4.0  | 4.0  | 5.7  |      | 4.6  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0  | 32.5 |      | 22.0 | 10.0 | 26.5 |      | 13.2 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 2.2  | 27.2 |      | 3.5  | 7.2  | 12.6 |      | 12.8 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 2.1  |      | 0.1  | 0.1  | 2.5  |      | 0.1  |      |      |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 28.2 |
| HCM 6th LOS        | C    |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 1.1  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      |      |      |      |      |      |      |
| Traffic Vol, veh/h       | 378  | 26   | 6    | 691  | 23   | 8    |
| Future Vol, veh/h        | 378  | 26   | 6    | 691  | 23   | 8    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | 100  | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 91   | 91   | 94   | 94   | 56   | 56   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 415  | 29   | 6    | 735  | 41   | 14   |

| Major/Minor          | Major1 | Major2 | Minor1 | Minor2 | Minor3 |
|----------------------|--------|--------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 444    | 0      | 1177   |
| Stage 1              | -      | -      | -      | -      | 430    |
| Stage 2              | -      | -      | -      | -      | 747    |
| Critical Hdwy        | -      | -      | 4.12   | -      | 6.42   |
| Critical Hdwy Stg 1  | -      | -      | -      | -      | 5.42   |
| Critical Hdwy Stg 2  | -      | -      | -      | -      | 5.42   |
| Follow-up Hdwy       | -      | -      | 2.218  | -      | 3.518  |
| Pot Cap-1 Maneuver   | -      | -      | 1116   | -      | 211    |
| Stage 1              | -      | -      | -      | -      | 656    |
| Stage 2              | -      | -      | -      | -      | 468    |
| Platoon blocked, %   | -      | -      | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 1116   | -      | 210    |
| Mov Cap-2 Maneuver   | -      | -      | -      | -      | 210    |
| Stage 1              | -      | -      | -      | -      | 656    |
| Stage 2              | -      | -      | -      | -      | 466    |

| Approach             | EB | WB  | NB   |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0  | 0.1 | 23.2 |
| HCM LOS              |    |     | C    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 253   | -   | -   | 1116  | -   |
| HCM Lane V/C Ratio    | 0.219 | -   | -   | 0.006 | -   |
| HCM Control Delay (s) | 23.2  | -   | -   | 8.2   | -   |
| HCM Lane LOS          | C     | -   | -   | A     | -   |
| HCM 95th %tile Q(veh) | 0.8   | -   | -   | 0     | -   |

Generations at Green Valley  
6: Green Valley Rd & Malcolm Dixon Cutoff

Near Term  
Timing Plan: AM

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 2.9  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      |      |      |      |      |      |
| Traffic Vol, veh/h       | 40   | 346  | 597  | 21   | 32   | 105  |
| Future Vol, veh/h        | 40   | 346  | 597  | 21   | 32   | 105  |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 100  | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 43   | 376  | 649  | 23   | 35   | 114  |

| Major/Minor          | Major1 | Major2 | Minor2 |   |             |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 672    | 0      | -      | 0 | 1123 661    |
| Stage 1              | -      | -      | -      | - | 661 -       |
| Stage 2              | -      | -      | -      | - | 462 -       |
| Critical Hdwy        | 4.12   | -      | -      | - | 6.42 6.22   |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.42 -      |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.42 -      |
| Follow-up Hdwy       | 2.218  | -      | -      | - | 3.518 3.318 |
| Pot Cap-1 Maneuver   | 919    | -      | -      | - | 227 462     |
| Stage 1              | -      | -      | -      | - | 514 -       |
| Stage 2              | -      | -      | -      | - | 634 -       |
| Platoon blocked, %   |        | -      | -      | - |             |
| Mov Cap-1 Maneuver   | 919    | -      | -      | - | 216 462     |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 216 -       |
| Stage 1              | -      | -      | -      | - | 490 -       |
| Stage 2              | -      | -      | -      | - | 634 -       |

| Approach             | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.9 | 0  | 21.5 |
| HCM LOS              |     |    | C    |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 919   | -   | -   | -   | 365   |
| HCM Lane V/C Ratio    | 0.047 | -   | -   | -   | 0.408 |
| HCM Control Delay (s) | 9.1   | -   | -   | -   | 21.5  |
| HCM Lane LOS          | A     | -   | -   | -   | C     |
| HCM 95th %tile Q(veh) | 0.1   | -   | -   | -   | 1.9   |

Generations at Green Valley  
7: Green Valley Rd & Malcom Dixon Rd

Near Term  
Timing Plan: AM

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.6  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      | ↕    | ↕    |      | ↕    |      |
| Traffic Vol, veh/h       | 10   | 344  | 601  | 15   | 11   | 17   |
| Future Vol, veh/h        | 10   | 344  | 601  | 15   | 11   | 17   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 93   | 93   | 86   | 86   | 91   | 91   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 11   | 370  | 699  | 17   | 12   | 19   |

| Major/Minor          | Major1 | Major2 | Minor2 |   |             |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 716    | 0      | -      | 0 | 1100 708    |
| Stage 1              | -      | -      | -      | - | 708 -       |
| Stage 2              | -      | -      | -      | - | 392 -       |
| Critical Hdwy        | 4.12   | -      | -      | - | 6.42 6.22   |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.42 -      |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.42 -      |
| Follow-up Hdwy       | 2.218  | -      | -      | - | 3.518 3.318 |
| Pot Cap-1 Maneuver   | 885    | -      | -      | - | 235 435     |
| Stage 1              | -      | -      | -      | - | 488 -       |
| Stage 2              | -      | -      | -      | - | 683 -       |
| Platoon blocked, %   |        | -      | -      | - |             |
| Mov Cap-1 Maneuver   | 885    | -      | -      | - | 231 435     |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 231 -       |
| Stage 1              | -      | -      | -      | - | 480 -       |
| Stage 2              | -      | -      | -      | - | 683 -       |

| Approach             | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.3 | 0  | 17.3 |
| HCM LOS              |     |    | C    |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 885   | -   | -   | -   | 323   |
| HCM Lane V/C Ratio    | 0.012 | -   | -   | -   | 0.095 |
| HCM Control Delay (s) | 9.1   | 0   | -   | -   | 17.3  |
| HCM Lane LOS          | A     | A   | -   | -   | C     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0.3   |

Generations at Green Valley  
8: Deer Valley Rd. & Green Valley Rd.

Near Term  
Timing Plan: AM



| Lane Group                  | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBT  | SBT  |
|-----------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)       | 19   | 352  | 16   | 37   | 626  | 16   | 95   | 106  |
| v/c Ratio                   | 0.06 | 0.38 | 0.02 | 0.07 | 0.67 | 0.02 | 0.26 | 0.29 |
| Control Delay               | 4.6  | 6.0  | 1.9  | 4.3  | 10.0 | 1.9  | 8.5  | 8.9  |
| Queue Delay                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay                 | 4.6  | 6.0  | 1.9  | 4.3  | 10.0 | 1.9  | 8.5  | 8.9  |
| Queue Length 50th (ft)      | 1    | 26   | 0    | 2    | 56   | 0    | 5    | 6    |
| Queue Length 95th (ft)      | 7    | 68   | 4    | 11   | 135  | 4    | 20   | 24   |
| Internal Link Dist (ft)     |      | 2852 |      |      | 3999 |      | 988  | 946  |
| Turn Bay Length (ft)        | 415  |      | 415  | 415  |      | 415  |      |      |
| Base Capacity (vph)         | 422  | 1335 | 1141 | 734  | 1335 | 1141 | 805  | 798  |
| Starvation Cap Reductn      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio           | 0.05 | 0.26 | 0.01 | 0.05 | 0.47 | 0.01 | 0.12 | 0.13 |
| <b>Intersection Summary</b> |      |      |      |      |      |      |      |      |

Generations at Green Valley  
8: Deer Valley Rd. & Green Valley Rd.

Near Term  
Timing Plan: AM

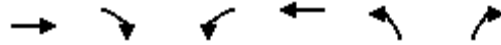


| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 17   | 320  | 15   | 32   | 545  | 14   | 27   | 1    | 38   | 34   | 1    | 42   |
| Future Volume (veh/h)        | 17   | 320  | 15   | 32   | 545  | 14   | 27   | 1    | 38   | 34   | 1    | 42   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 19   | 352  | 16   | 37   | 626  | 16   | 39   | 1    | 55   | 47   | 1    | 58   |
| Peak Hour Factor             | 0.91 | 0.91 | 0.91 | 0.87 | 0.87 | 0.87 | 0.69 | 0.69 | 0.69 | 0.72 | 0.72 | 0.72 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 485  | 900  | 762  | 677  | 900  | 762  | 307  | 27   | 156  | 322  | 24   | 147  |
| Arrive On Green              | 0.48 | 0.48 | 0.48 | 0.48 | 0.48 | 0.48 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 |
| Sat Flow, veh/h              | 787  | 1870 | 1585 | 1014 | 1870 | 1585 | 504  | 154  | 904  | 561  | 141  | 848  |
| Grp Volume(v), veh/h         | 19   | 352  | 16   | 37   | 626  | 16   | 95   | 0    | 0    | 106  | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 787  | 1870 | 1585 | 1014 | 1870 | 1585 | 1562 | 0    | 0    | 1550 | 0    | 0    |
| Q Serve(g_s), s              | 0.4  | 2.8  | 0.1  | 0.6  | 6.0  | 0.1  | 0.0  | 0.0  | 0.0  | 0.1  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 6.5  | 2.8  | 0.1  | 3.3  | 6.0  | 0.1  | 1.1  | 0.0  | 0.0  | 1.3  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 0.41 |      | 0.58 | 0.44 |      | 0.55 |
| Lane Grp Cap(c), veh/h       | 485  | 900  | 762  | 677  | 900  | 762  | 490  | 0    | 0    | 493  | 0    | 0    |
| V/C Ratio(X)                 | 0.04 | 0.39 | 0.02 | 0.05 | 0.70 | 0.02 | 0.19 | 0.00 | 0.00 | 0.22 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 821  | 1699 | 1440 | 1111 | 1699 | 1440 | 1257 | 0    | 0    | 1257 | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 7.2  | 3.8  | 3.1  | 4.9  | 4.7  | 3.1  | 8.4  | 0.0  | 0.0  | 8.4  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 0.0  | 0.3  | 0.0  | 0.0  | 1.0  | 0.0  | 0.2  | 0.0  | 0.0  | 0.2  | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.0  | 0.1  | 0.0  | 0.0  | 0.2  | 0.0  | 0.2  | 0.0  | 0.0  | 0.3  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 7.2  | 4.1  | 3.2  | 4.9  | 5.7  | 3.2  | 8.6  | 0.0  | 0.0  | 8.6  | 0.0  | 0.0  |
| LnGrp LOS                    | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    |
| Approach Vol, veh/h          |      | 387  |      |      | 679  |      |      | 95   |      |      |      | 106  |
| Approach Delay, s/veh        |      | 4.2  |      |      | 5.6  |      |      | 8.6  |      |      |      | 8.6  |
| Approach LOS                 |      | A    |      |      | A    |      |      | A    |      |      |      | A    |
| Timer - Assigned Phs         |      | 2    |      | 4    |      | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 8.0  |      | 15.1 |      | 8.0  |      | 15.1 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  |      | 4.0  |      | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 16.0 |      | 21.0 |      | 16.0 |      | 21.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 3.1  |      | 8.5  |      | 3.3  |      | 8.0  |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.3  |      | 1.5  |      | 0.4  |      | 3.1  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      | 5.6  |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      |      | A    |      |      |      |      |      |      |      |      |



Generations at Green Valley  
 9: Silver Springs Pkwy & Green Valley Rd

Near Term  
 Timing Plan: AM



| Lane Group                  | EBT  | EBR  | WBL  | WBT       | NBL  | NBR  |
|-----------------------------|------|------|------|-----------|------|------|
| Lane Group Flow (vph)       | 482  | 139  | 74   | 675       | 164  | 34   |
| v/c Ratio                   | 0.51 | 0.16 | 0.18 | 0.72      | 0.36 | 0.08 |
| Control Delay               | 8.2  | 1.8  | 6.2  | 12.1      | 15.0 | 6.2  |
| Queue Delay                 | 0.0  | 0.0  | 0.0  | 0.0       | 0.0  | 0.0  |
| Total Delay                 | 8.2  | 1.8  | 6.2  | 12.1      | 15.0 | 6.2  |
| Queue Length 50th (ft)      | 48   | 0    | 6    | 79        | 25   | 0    |
| Queue Length 95th (ft)      | 122  | 16   | 24   | 200       | 74   | 15   |
| Internal Link Dist (ft)     | 3999 |      |      | 3318 1349 |      |      |
| Turn Bay Length (ft)        | 230  |      | 415  |           | 135  |      |
| Base Capacity (vph)         | 1420 | 1239 | 606  | 1420      | 852  | 780  |
| Starvation Cap Reductn      | 0    | 0    | 0    | 0         | 0    | 0    |
| Spillback Cap Reductn       | 0    | 0    | 0    | 0         | 0    | 0    |
| Storage Cap Reductn         | 0    | 0    | 0    | 0         | 0    | 0    |
| Reduced v/c Ratio           | 0.34 | 0.11 | 0.12 | 0.48      | 0.19 | 0.04 |
| <b>Intersection Summary</b> |      |      |      |           |      |      |

Generations at Green Valley  
9: Silver Springs Pkwy & Green Valley Rd

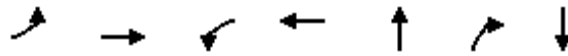
Near Term  
Timing Plan: AM



| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations          | ↑    | ↗    | ↖    | ↑    | ↖    | ↗    |
| Traffic Volume (veh/h)       | 443  | 128  | 68   | 621  | 151  | 31   |
| Future Volume (veh/h)        | 443  | 128  | 68   | 621  | 151  | 31   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 482  | 139  | 74   | 675  | 164  | 34   |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 957  | 811  | 555  | 957  | 314  | 280  |
| Arrive On Green              | 0.51 | 0.51 | 0.51 | 0.51 | 0.18 | 0.18 |
| Sat Flow, veh/h              | 1870 | 1585 | 803  | 1870 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 482  | 139  | 74   | 675  | 164  | 34   |
| Grp Sat Flow(s),veh/h/ln     | 1870 | 1585 | 803  | 1870 | 1781 | 1585 |
| Q Serve(g_s), s              | 4.4  | 1.2  | 1.7  | 7.1  | 2.1  | 0.5  |
| Cycle Q Clear(g_c), s        | 4.4  | 1.2  | 6.1  | 7.1  | 2.1  | 0.5  |
| Prop In Lane                 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 957  | 811  | 555  | 957  | 314  | 280  |
| V/C Ratio(X)                 | 0.50 | 0.17 | 0.13 | 0.71 | 0.52 | 0.12 |
| Avail Cap(c_a), veh/h        | 1895 | 1606 | 958  | 1895 | 1110 | 988  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 4.1  | 3.4  | 6.1  | 4.8  | 9.6  | 8.9  |
| Incr Delay (d2), s/veh       | 0.4  | 0.1  | 0.1  | 1.0  | 1.3  | 0.2  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.1  | 0.0  | 0.1  | 0.3  | 0.5  | 0.1  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 4.5  | 3.5  | 6.2  | 5.7  | 10.9 | 9.1  |
| LnGrp LOS                    | A    | A    | A    | A    | B    | A    |
| Approach Vol, veh/h          | 621  |      |      | 749  | 198  |      |
| Approach Delay, s/veh        | 4.3  |      |      | 5.8  | 10.6 |      |
| Approach LOS                 | A    |      |      | A    | B    |      |
| Timer - Assigned Phs         |      | 2    |      | 4    |      | 8    |
| Phs Duration (G+Y+Rc), s     |      | 8.5  |      | 17.1 |      | 17.1 |
| Change Period (Y+Rc), s      |      | 4.0  |      | 4.0  |      | 4.0  |
| Max Green Setting (Gmax), s  |      | 16.0 |      | 26.0 |      | 26.0 |
| Max Q Clear Time (g_c+l1), s |      | 4.1  |      | 6.4  |      | 9.1  |
| Green Ext Time (p_c), s      |      | 0.4  |      | 2.9  |      | 4.1  |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 5.8  |      |      |      |
| HCM 6th LOS                  |      |      | A    |      |      |      |

Generations at Green Valley  
 10: Bass Lake Rd./Alexandrite Dr & Green Valley Rd.

Near Term  
 Timing Plan: AM



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBT  | NBR  | SBT  |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 7    | 787  | 168  | 777  | 155  | 205  | 10   |
| v/c Ratio               | 0.07 | 0.84 | 0.79 | 0.62 | 0.53 | 0.48 | 0.04 |
| Control Delay           | 34.5 | 26.1 | 58.8 | 12.4 | 33.2 | 8.4  | 0.4  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 34.5 | 26.1 | 58.8 | 12.4 | 33.2 | 8.4  | 0.4  |
| Queue Length 50th (ft)  | 3    | 236  | 66   | 120  | 57   | 0    | 0    |
| Queue Length 95th (ft)  | 11   | 286  | #154 | 365  | 84   | 11   | 0    |
| Internal Link Dist (ft) |      | 3318 |      | 1151 | 1084 |      | 521  |
| Turn Bay Length (ft)    | 285  |      | 435  |      |      | 150  |      |
| Base Capacity (vph)     | 106  | 939  | 212  | 1250 | 427  | 536  | 502  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.07 | 0.84 | 0.79 | 0.62 | 0.36 | 0.38 | 0.02 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
10: Bass Lake Rd./Alexandrite Dr & Green Valley Rd.

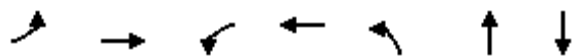
Near Term  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          | ↖    | ↗    |      | ↖    | ↗    |      |      | ↖    | ↗    |      | ↕    |      |
| Traffic Volume (veh/h)       | 4    | 427  | 53   | 128  | 590  | 1    | 98   | 1    | 131  | 4    | 0    | 1    |
| Future Volume (veh/h)        | 4    | 427  | 53   | 128  | 590  | 1    | 98   | 1    | 131  | 4    | 0    | 1    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 7    | 700  | 87   | 168  | 776  | 1    | 153  | 2    | 205  | 8    | 0    | 2    |
| Peak Hour Factor             | 0.61 | 0.61 | 0.61 | 0.76 | 0.76 | 0.76 | 0.64 | 0.64 | 0.64 | 0.50 | 0.50 | 0.50 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 13   | 760  | 94   | 208  | 1074 | 1    | 291  | 4    | 262  | 14   | 0    | 4    |
| Arrive On Green              | 0.01 | 0.47 | 0.47 | 0.12 | 0.58 | 0.58 | 0.17 | 0.17 | 0.17 | 0.01 | 0.00 | 0.01 |
| Sat Flow, veh/h              | 1781 | 1631 | 203  | 1781 | 1868 | 2    | 1759 | 23   | 1585 | 1391 | 0    | 348  |
| Grp Volume(v), veh/h         | 7    | 0    | 787  | 168  | 0    | 777  | 155  | 0    | 205  | 10   | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1834 | 1781 | 0    | 1870 | 1782 | 0    | 1585 | 1738 | 0    | 0    |
| Q Serve(g_s), s              | 0.3  | 0.0  | 26.6 | 6.1  | 0.0  | 20.0 | 5.3  | 0.0  | 8.2  | 0.4  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 0.3  | 0.0  | 26.6 | 6.1  | 0.0  | 20.0 | 5.3  | 0.0  | 8.2  | 0.4  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 0.11 | 1.00 |      | 0.00 | 0.99 |      | 1.00 | 0.80 |      | 0.20 |
| Lane Grp Cap(c), veh/h       | 13   | 0    | 854  | 208  | 0    | 1076 | 295  | 0    | 262  | 18   | 0    | 0    |
| V/C Ratio(X)                 | 0.54 | 0.00 | 0.92 | 0.81 | 0.00 | 0.72 | 0.53 | 0.00 | 0.78 | 0.57 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 108  | 0    | 942  | 215  | 0    | 1076 | 431  | 0    | 383  | 420  | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 32.7 | 0.0  | 16.5 | 28.5 | 0.0  | 10.2 | 25.2 | 0.0  | 26.5 | 32.6 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 30.4 | 0.0  | 13.3 | 19.5 | 0.0  | 2.4  | 1.5  | 0.0  | 6.3  | 25.5 | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.2  | 0.0  | 11.2 | 3.4  | 0.0  | 5.7  | 2.2  | 0.0  | 3.1  | 0.3  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 63.2 | 0.0  | 29.8 | 48.0 | 0.0  | 12.6 | 26.7 | 0.0  | 32.7 | 58.1 | 0.0  | 0.0  |
| LnGrp LOS                    | E    | A    | C    | D    | A    | B    | C    | A    | C    | E    | A    | A    |
| Approach Vol, veh/h          |      | 794  |      |      | 945  |      |      | 360  |      |      |      | 10   |
| Approach Delay, s/veh        |      | 30.1 |      |      | 18.9 |      |      | 30.1 |      |      |      | 58.1 |
| Approach LOS                 |      | C    |      |      | B    |      |      | C    |      |      |      | E    |
| Timer - Assigned Phs         |      | 2    | 3    | 4    |      | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 14.9 | 11.7 | 34.8 |      | 4.7  | 4.5  | 42.1 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 16.0 | 8.0  | 34.0 |      | 16.0 | 4.0  | 38.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 10.2 | 8.1  | 28.6 |      | 2.4  | 2.3  | 22.0 |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.8  | 0.0  | 2.3  |      | 0.0  | 0.0  | 4.3  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 25.2 |      |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      | C    |      |      |      |      |      |      |      |      |      |

Generations at Green Valley  
 11: Cambridge Rd./Peridot Dr & Green Valley Rd.

Near Term  
 Timing Plan: AM



| Lane Group                  | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBT  |
|-----------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)       | 16   | 807  | 38   | 673  | 233  | 59   | 59   |
| v/c Ratio                   | 0.16 | 0.81 | 0.38 | 0.62 | 0.68 | 0.17 | 0.30 |
| Control Delay               | 41.5 | 26.0 | 48.9 | 16.1 | 40.4 | 11.1 | 23.5 |
| Queue Delay                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay                 | 41.5 | 26.0 | 48.9 | 16.1 | 40.4 | 11.1 | 23.5 |
| Queue Length 50th (ft)      | 8    | 362  | 19   | 209  | 109  | 2    | 12   |
| Queue Length 95th (ft)      | 21   | 351  | 43   | 334  | 163  | 26   | 39   |
| Internal Link Dist (ft)     |      | 1151 |      | 2235 |      | 1080 | 510  |
| Turn Bay Length (ft)        | 100  |      | 125  |      | 125  |      |      |
| Base Capacity (vph)         | 101  | 996  | 101  | 1086 | 406  | 410  | 413  |
| Starvation Cap Reductn      | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn       | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn         | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio           | 0.16 | 0.81 | 0.38 | 0.62 | 0.57 | 0.14 | 0.14 |
| <b>Intersection Summary</b> |      |      |      |      |      |      |      |

Generations at Green Valley  
11: Cambridge Rd./Peridot Dr & Green Valley Rd.

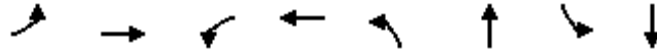
Near Term  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          | ↖    | ↗    |      | ↖    | ↗    |      | ↖    | ↗    |      |      | ↕    |      |
| Traffic Volume (veh/h)       | 11   | 461  | 88   | 29   | 512  | 6    | 184  | 4    | 43   | 16   | 4    | 27   |
| Future Volume (veh/h)        | 11   | 461  | 88   | 29   | 512  | 6    | 184  | 4    | 43   | 16   | 4    | 27   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 16   | 678  | 129  | 38   | 665  | 8    | 233  | 5    | 54   | 20   | 5    | 34   |
| Peak Hour Factor             | 0.68 | 0.68 | 0.68 | 0.77 | 0.77 | 0.77 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 28   | 760  | 145  | 55   | 946  | 11   | 295  | 23   | 244  | 25   | 6    | 43   |
| Arrive On Green              | 0.02 | 0.50 | 0.50 | 0.03 | 0.51 | 0.51 | 0.17 | 0.17 | 0.17 | 0.04 | 0.04 | 0.04 |
| Sat Flow, veh/h              | 1781 | 1527 | 291  | 1781 | 1844 | 22   | 1781 | 136  | 1470 | 566  | 141  | 962  |
| Grp Volume(v), veh/h         | 16   | 0    | 807  | 38   | 0    | 673  | 233  | 0    | 59   | 59   | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1818 | 1781 | 0    | 1866 | 1781 | 0    | 1606 | 1669 | 0    | 0    |
| Q Serve(g_s), s              | 0.5  | 0.0  | 24.6 | 1.3  | 0.0  | 16.8 | 7.7  | 0.0  | 1.9  | 2.1  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 0.5  | 0.0  | 24.6 | 1.3  | 0.0  | 16.8 | 7.7  | 0.0  | 1.9  | 2.1  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 0.16 | 1.00 |      | 0.01 | 1.00 |      | 0.92 | 0.34 |      | 0.58 |
| Lane Grp Cap(c), veh/h       | 28   | 0    | 904  | 55   | 0    | 957  | 295  | 0    | 266  | 74   | 0    | 0    |
| V/C Ratio(X)                 | 0.58 | 0.00 | 0.89 | 0.69 | 0.00 | 0.70 | 0.79 | 0.00 | 0.22 | 0.79 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 116  | 0    | 1128 | 116  | 0    | 1158 | 465  | 0    | 420  | 436  | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 29.9 | 0.0  | 13.9 | 29.4 | 0.0  | 11.4 | 24.5 | 0.0  | 22.1 | 29.0 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 17.5 | 0.0  | 7.9  | 14.0 | 0.0  | 1.5  | 4.7  | 0.0  | 0.4  | 17.1 | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.3  | 0.0  | 8.5  | 0.7  | 0.0  | 4.9  | 3.4  | 0.0  | 0.7  | 1.2  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 47.5 | 0.0  | 21.8 | 43.3 | 0.0  | 12.9 | 29.2 | 0.0  | 22.5 | 46.1 | 0.0  | 0.0  |
| LnGrp LOS                    | D    | A    | C    | D    | A    | B    | C    | A    | C    | D    | A    | A    |
| Approach Vol, veh/h          |      | 823  |      |      | 711  |      |      | 292  |      |      |      | 59   |
| Approach Delay, s/veh        |      | 22.3 |      |      | 14.5 |      |      | 27.9 |      |      |      | 46.1 |
| Approach LOS                 |      | C    |      |      | B    |      |      | C    |      |      |      | D    |
| Timer - Assigned Phs         |      | 2    | 3    | 4    |      | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 14.1 | 5.9  | 34.5 |      | 6.7  | 5.0  | 35.4 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 16.0 | 4.0  | 38.0 |      | 16.0 | 4.0  | 38.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 9.7  | 3.3  | 26.6 |      | 4.1  | 2.5  | 18.8 |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.5  | 0.0  | 3.9  |      | 0.2  | 0.0  | 3.8  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 21.0 |      |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      | C    |      |      |      |      |      |      |      |      |      |

Generations at Green Valley  
 12: Cameron Park Dr. & Green Valley Rd.

Near Term  
 Timing Plan: AM



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 26   | 715  | 123  | 303  | 256  | 170  | 33   | 118  |
| v/c Ratio               | 0.23 | 0.89 | 0.90 | 0.31 | 0.81 | 0.33 | 0.29 | 0.50 |
| Control Delay           | 42.9 | 35.3 | 95.7 | 13.8 | 55.0 | 9.6  | 44.8 | 35.2 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 42.9 | 35.3 | 95.7 | 13.8 | 55.0 | 9.6  | 44.8 | 35.2 |
| Queue Length 50th (ft)  | 13   | 303  | 64   | 74   | 128  | 15   | 17   | 47   |
| Queue Length 95th (ft)  | 30   | 323  | #160 | 157  | #264 | 60   | 34   | 66   |
| Internal Link Dist (ft) |      | 2235 |      | 1414 |      | 1563 |      | 921  |
| Turn Bay Length (ft)    | 270  |      | 150  |      | 125  |      | 55   |      |
| Base Capacity (vph)     | 114  | 839  | 137  | 986  | 320  | 661  | 114  | 431  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.23 | 0.85 | 0.90 | 0.31 | 0.80 | 0.26 | 0.29 | 0.27 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
12: Cameron Park Dr. & Green Valley Rd.

Near Term  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 18   | 256  | 244  | 103  | 246  | 8    | 225  | 32   | 118  | 22   | 55   | 23   |
| Future Volume (veh/h)        | 18   | 256  | 244  | 103  | 246  | 8    | 225  | 32   | 118  | 22   | 55   | 23   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 26   | 366  | 349  | 123  | 293  | 10   | 256  | 36   | 134  | 33   | 83   | 35   |
| Peak Hour Factor             | 0.70 | 0.70 | 0.70 | 0.84 | 0.84 | 0.84 | 0.88 | 0.88 | 0.88 | 0.66 | 0.66 | 0.66 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 40   | 391  | 373  | 142  | 903  | 31   | 298  | 82   | 305  | 47   | 120  | 50   |
| Arrive On Green              | 0.02 | 0.44 | 0.44 | 0.08 | 0.50 | 0.50 | 0.17 | 0.24 | 0.24 | 0.03 | 0.10 | 0.10 |
| Sat Flow, veh/h              | 1781 | 880  | 839  | 1781 | 1798 | 61   | 1781 | 347  | 1291 | 1781 | 1249 | 527  |
| Grp Volume(v), veh/h         | 26   | 0    | 715  | 123  | 0    | 303  | 256  | 0    | 170  | 33   | 0    | 118  |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1719 | 1781 | 0    | 1859 | 1781 | 0    | 1638 | 1781 | 0    | 1776 |
| Q Serve(g_s), s              | 1.1  | 0.0  | 29.7 | 5.1  | 0.0  | 7.3  | 10.5 | 0.0  | 6.7  | 1.4  | 0.0  | 4.8  |
| Cycle Q Clear(g_c), s        | 1.1  | 0.0  | 29.7 | 5.1  | 0.0  | 7.3  | 10.5 | 0.0  | 6.7  | 1.4  | 0.0  | 4.8  |
| Prop In Lane                 | 1.00 |      | 0.49 | 1.00 |      | 0.03 | 1.00 |      | 0.79 | 1.00 |      | 0.30 |
| Lane Grp Cap(c), veh/h       | 40   | 0    | 765  | 142  | 0    | 934  | 298  | 0    | 387  | 47   | 0    | 170  |
| V/C Ratio(X)                 | 0.65 | 0.00 | 0.94 | 0.87 | 0.00 | 0.32 | 0.86 | 0.00 | 0.44 | 0.70 | 0.00 | 0.69 |
| Avail Cap(c_a), veh/h        | 118  | 0    | 823  | 142  | 0    | 934  | 331  | 0    | 588  | 118  | 0    | 425  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh     | 36.5 | 0.0  | 19.9 | 34.2 | 0.0  | 11.1 | 30.5 | 0.0  | 24.5 | 36.3 | 0.0  | 33.0 |
| Incr Delay (d2), s/veh       | 16.8 | 0.0  | 17.0 | 39.2 | 0.0  | 0.2  | 18.5 | 0.0  | 0.8  | 17.0 | 0.0  | 5.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.6  | 0.0  | 12.9 | 3.6  | 0.0  | 2.4  | 5.7  | 0.0  | 2.4  | 0.8  | 0.0  | 2.2  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 53.3 | 0.0  | 36.9 | 73.4 | 0.0  | 11.3 | 49.0 | 0.0  | 25.3 | 53.4 | 0.0  | 38.0 |
| LnGrp LOS                    | D    | A    | D    | E    | A    | B    | D    | A    | C    | D    | A    | D    |
| Approach Vol, veh/h          |      | 741  |      |      | 426  |      |      | 426  |      |      |      | 151  |
| Approach Delay, s/veh        |      | 37.4 |      |      | 29.3 |      |      | 39.5 |      |      |      | 41.3 |
| Approach LOS                 |      | D    |      |      | C    |      |      | D    |      |      |      | D    |
| Timer - Assigned Phs         | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 6.0  | 21.8 | 10.0 | 37.5 | 16.6 | 11.2 | 5.7  | 41.8 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 5.0  | 27.0 | 6.0  | 36.0 | 14.0 | 18.0 | 5.0  | 37.0 |      |      |      |      |
| Max Q Clear Time (g_c+l1), s | 3.4  | 8.7  | 7.1  | 31.7 | 12.5 | 6.8  | 3.1  | 9.3  |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 0.8  | 0.0  | 1.7  | 0.1  | 0.4  | 0.0  | 1.6  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 36.3 |      |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      | D    |      |      |      |      |      |      |      |      |      |



Intersection

Intersection Delay, s/veh98.6

Intersection LOS F

| Movement            | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations |      | ↔    | ↔    |      | ↔    |      | ↔    | ↔    |      | ↔    | ↔    |      |
| Traffic Vol, veh/h  | 7    | 41   | 484  | 21   | 36   | 25   | 439  | 184  | 45   | 95   | 315  | 1    |
| Future Vol, veh/h   | 7    | 41   | 484  | 21   | 36   | 25   | 439  | 184  | 45   | 95   | 315  | 1    |
| Peak Hour Factor    | 0.86 | 0.86 | 0.86 | 0.52 | 0.52 | 0.52 | 0.92 | 0.92 | 0.92 | 0.75 | 0.75 | 0.75 |
| Heavy Vehicles, %   | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow           | 8    | 48   | 563  | 40   | 69   | 48   | 477  | 200  | 49   | 127  | 420  | 1    |
| Number of Lanes     | 0    | 1    | 1    | 0    | 1    | 0    | 1    | 1    | 0    | 1    | 1    | 0    |

| Approach                      | EB  | WB   | NB    | SB   |
|-------------------------------|-----|------|-------|------|
| Opposing Approach             | WB  | EB   | SB    | NB   |
| Opposing Lanes                | 1   | 2    | 2     | 2    |
| Conflicting Approach Left SB  |     | NB   | EB    | WB   |
| Conflicting Lanes Left        | 2   | 2    | 2     | 1    |
| Conflicting Approach Right NB |     | SB   | WB    | EB   |
| Conflicting Lanes Right       | 2   | 2    | 1     | 2    |
| HCM Control Delay             | 143 | 22.7 | 102.2 | 65.6 |
| HCM LOS                       | F   | C    | F     | F    |

| Lane                   | NBLn1 | NBLn2 | EBLn1 | EBLn2 | WBLn1  | SBLn1  | SBLn2 |
|------------------------|-------|-------|-------|-------|--------|--------|-------|
| Vol Left, %            | 100%  | 0%    | 15%   | 0%    | 26%    | 100%   | 0%    |
| Vol Thru, %            | 0%    | 80%   | 85%   | 0%    | 44%    | 0%     | 100%  |
| Vol Right, %           | 0%    | 20%   | 0%    | 100%  | 30%    | 0%     | 0%    |
| Sign Control           | Stop  | Stop  | Stop  | Stop  | Stop   | Stop   | Stop  |
| Traffic Vol by Lane    | 439   | 229   | 48    | 484   | 82     | 95     | 316   |
| LT Vol                 | 439   | 0     | 7     | 0     | 21     | 95     | 0     |
| Through Vol            | 0     | 184   | 41    | 0     | 36     | 0      | 315   |
| RT Vol                 | 0     | 45    | 0     | 484   | 25     | 0      | 1     |
| Lane Flow Rate         | 477   | 249   | 56    | 563   | 158    | 127    | 421   |
| Geometry Grp           | 7     | 7     | 7     | 7     | 6      | 7      | 7     |
| Degree of Util (X)     | 1.199 | 0.582 | 0.136 | 1.249 | 0.439  | 0.321  | 1.009 |
| Departure Headway (Hd) | 9.885 | 9.215 | 9.223 | 8.417 | 11.186 | 10.059 | 9.531 |
| Convergence, Y/N       | Yes   | Yes   | Yes   | Yes   | Yes    | Yes    | Yes   |
| Cap                    | 372   | 393   | 391   | 433   | 325    | 360    | 383   |
| Service Time           | 7.585 | 6.915 | 6.923 | 6.117 | 9.186  | 7.759  | 7.231 |
| HCM Lane V/C Ratio     | 1.282 | 0.634 | 0.143 | 1.3   | 0.486  | 0.353  | 1.099 |
| HCM Control Delay      | 143   | 24    | 13.4  | 155.9 | 22.7   | 17.4   | 80.1  |
| HCM Lane LOS           | F     | C     | B     | F     | C      | C      | F     |
| HCM 95th-tile Q        | 18.1  | 3.6   | 0.5   | 22.3  | 2.1    | 1.4    | 12.2  |

Generations at Green Valley  
 14: El Dorado Hills Blvd. & Harvard Way

Near Term  
 Timing Plan: AM



| Lane Group              | WBL  | WBR  | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|
| Lane Group Flow (vph)   | 538  | 274  | 1267 | 379  | 801  |
| v/c Ratio               | 0.97 | 0.40 | 0.88 | 1.00 | 0.42 |
| Control Delay           | 53.9 | 4.4  | 19.7 | 74.9 | 8.3  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 53.9 | 4.4  | 19.7 | 74.9 | 8.3  |
| Queue Length 50th (ft)  | 172  | 0    | 128  | -66  | 72   |
| Queue Length 95th (ft)  | #239 | 19   | 175  | #141 | 105  |
| Internal Link Dist (ft) | 2093 |      | 5028 |      | 7812 |
| Turn Bay Length (ft)    |      |      |      | 190  |      |
| Base Capacity (vph)     | 556  | 685  | 1491 | 380  | 1963 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.97 | 0.40 | 0.85 | 1.00 | 0.41 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
14: El Dorado Hills Blvd. & Harvard Way

Near Term  
Timing Plan: AM



| Movement                     | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 387  | 197  | 573  | 479  | 345  | 729  |
| Future Volume (veh/h)        | 387  | 197  | 573  | 479  | 345  | 729  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 | 1.00 |      | 1.00 | 1.00 |      |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      | No   |      |      | No   |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 538  | 274  | 690  | 577  | 379  | 801  |
| Peak Hour Factor             | 0.72 | 0.72 | 0.83 | 0.83 | 0.91 | 0.91 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 551  | 490  | 672  | 555  | 377  | 1938 |
| Arrive On Green              | 0.31 | 0.31 | 0.36 | 0.36 | 0.11 | 0.55 |
| Sat Flow, veh/h              | 1781 | 1585 | 1941 | 1525 | 3456 | 3647 |
| Grp Volume(v), veh/h         | 538  | 274  | 663  | 604  | 379  | 801  |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1585 | 1777 | 1596 | 1728 | 1777 |
| Q Serve(g_s), s              | 16.4 | 7.9  | 20.0 | 20.0 | 6.0  | 7.3  |
| Cycle Q Clear(g_c), s        | 16.4 | 7.9  | 20.0 | 20.0 | 6.0  | 7.3  |
| Prop In Lane                 | 1.00 | 1.00 |      | 0.96 | 1.00 |      |
| Lane Grp Cap(c), veh/h       | 551  | 490  | 646  | 580  | 377  | 1938 |
| V/C Ratio(X)                 | 0.98 | 0.56 | 1.03 | 1.04 | 1.01 | 0.41 |
| Avail Cap(c_a), veh/h        | 551  | 490  | 646  | 580  | 377  | 1938 |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 18.8 | 15.9 | 17.5 | 17.5 | 24.5 | 7.3  |
| Incr Delay (d2), s/veh       | 32.4 | 1.4  | 42.3 | 48.3 | 47.7 | 0.1  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 10.7 | 0.2  | 13.6 | 13.2 | 4.6  | 1.7  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 51.2 | 17.3 | 59.8 | 65.8 | 72.2 | 7.5  |
| LnGrp LOS                    | D    | B    | F    | F    | F    | A    |
| Approach Vol, veh/h          | 812  |      | 1267 |      |      | 1180 |
| Approach Delay, s/veh        | 39.8 |      | 62.7 |      |      | 28.3 |
| Approach LOS                 | D    |      | E    |      |      | C    |
| Timer - Assigned Phs         | 1    | 2    |      |      | 6    | 8    |
| Phs Duration (G+Y+Rc), s     | 10.0 | 24.0 |      |      | 34.0 | 21.0 |
| Change Period (Y+Rc), s      | 4.0  | 4.0  |      |      | 4.0  | 4.0  |
| Max Green Setting (Gmax), s  | 6.0  | 20.0 |      |      | 30.0 | 17.0 |
| Max Q Clear Time (g_c+I1), s | 8.0  | 22.0 |      |      | 9.3  | 18.4 |
| Green Ext Time (p_c), s      | 0.0  | 0.0  |      |      | 4.9  | 0.0  |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 44.5 |      |      |      |
| HCM 6th LOS                  |      |      | D    |      |      |      |

Generations at Green Valley  
15: El Dorado Hills Blvd. & Wilson Blvd

Near Term  
Timing Plan: AM



| Lane Group              | EBT  | EBR  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 221  | 164  | 35   | 85   | 954  | 22   | 1252 |
| v/c Ratio               | 0.69 | 0.32 | 0.10 | 0.64 | 0.47 | 0.17 | 0.73 |
| Control Delay           | 29.8 | 5.1  | 12.8 | 50.4 | 8.8  | 26.9 | 15.9 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 29.8 | 5.1  | 12.8 | 50.4 | 8.8  | 26.9 | 15.9 |
| Queue Length 50th (ft)  | 61   | 0    | 6    | 27   | 75   | 7    | 163  |
| Queue Length 95th (ft)  | 121  | 34   | 23   | #87  | 178  | 25   | #300 |
| Internal Link Dist (ft) | 1459 |      | 233  |      | 3231 |      | 5028 |
| Turn Bay Length (ft)    |      |      |      | 278  |      | 90   |      |
| Base Capacity (vph)     | 396  | 589  | 432  | 132  | 2043 | 132  | 1707 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.56 | 0.28 | 0.08 | 0.64 | 0.47 | 0.17 | 0.73 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Generations at Green Valley  
15: El Dorado Hills Blvd. & Wilson Blvd

Near Term  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      | ↖    | ↗    |      | ↔    |      | ↖    | ↕    |      | ↖    | ↕    |      |
| Traffic Volume (veh/h)       | 195  | 8    | 151  | 20   | 5    | 7    | 78   | 864  | 14   | 20   | 977  | 175  |
| Future Volume (veh/h)        | 195  | 8    | 151  | 20   | 5    | 7    | 78   | 864  | 14   | 20   | 977  | 175  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 212  | 9    | 164  | 22   | 5    | 8    | 85   | 939  | 15   | 22   | 1062 | 190  |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 428  | 12   | 338  | 173  | 46   | 29   | 107  | 1849 | 30   | 38   | 1439 | 257  |
| Arrive On Green              | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.06 | 0.52 | 0.52 | 0.02 | 0.48 | 0.48 |
| Sat Flow, veh/h              | 1320 | 56   | 1585 | 242  | 214  | 135  | 1781 | 3580 | 57   | 1781 | 3013 | 538  |
| Grp Volume(v), veh/h         | 221  | 0    | 164  | 35   | 0    | 0    | 85   | 466  | 488  | 22   | 625  | 627  |
| Grp Sat Flow(s),veh/h/ln     | 1376 | 0    | 1585 | 590  | 0    | 0    | 1781 | 1777 | 1860 | 1781 | 1777 | 1774 |
| Q Serve(g_s), s              | 0.0  | 0.0  | 4.4  | 0.2  | 0.0  | 0.0  | 2.3  | 8.3  | 8.3  | 0.6  | 13.7 | 13.7 |
| Cycle Q Clear(g_c), s        | 7.3  | 0.0  | 4.4  | 7.5  | 0.0  | 0.0  | 2.3  | 8.3  | 8.3  | 0.6  | 13.7 | 13.7 |
| Prop In Lane                 | 0.96 |      | 1.00 | 0.63 |      | 0.23 | 1.00 |      | 0.03 | 1.00 |      | 0.30 |
| Lane Grp Cap(c), veh/h       | 440  | 0    | 338  | 247  | 0    | 0    | 107  | 918  | 961  | 38   | 849  | 847  |
| V/C Ratio(X)                 | 0.50 | 0.00 | 0.49 | 0.14 | 0.00 | 0.00 | 0.79 | 0.51 | 0.51 | 0.58 | 0.74 | 0.74 |
| Avail Cap(c_a), veh/h        | 608  | 0    | 527  | 409  | 0    | 0    | 148  | 918  | 961  | 148  | 849  | 847  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 17.8 | 0.0  | 16.6 | 15.6 | 0.0  | 0.0  | 22.3 | 7.6  | 7.6  | 23.4 | 10.1 | 10.2 |
| Incr Delay (d2), s/veh       | 0.9  | 0.0  | 1.1  | 0.3  | 0.0  | 0.0  | 17.9 | 2.0  | 1.9  | 13.5 | 5.7  | 5.8  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 2.0  | 0.0  | 1.5  | 0.3  | 0.0  | 0.0  | 1.3  | 2.3  | 2.4  | 0.3  | 4.4  | 4.5  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 18.7 | 0.0  | 17.7 | 15.9 | 0.0  | 0.0  | 40.3 | 9.6  | 9.5  | 36.8 | 15.8 | 15.9 |
| LnGrp LOS                    | B    | A    | B    | B    | A    | A    | D    | A    | A    | D    | B    | B    |
| Approach Vol, veh/h          |      | 385  |      |      | 35   |      |      | 1039 |      |      | 1274 |      |
| Approach Delay, s/veh        |      | 18.3 |      |      | 15.9 |      |      | 12.1 |      |      | 16.2 |      |
| Approach LOS                 |      | B    |      |      | B    |      |      | B    |      |      | B    |      |
| Timer - Assigned Phs         | 1    | 2    |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 5.0  | 28.9 |      | 14.3 | 6.9  | 27.0 |      | 14.3 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0  | 23.0 |      | 16.0 | 4.0  | 23.0 |      | 16.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 2.6  | 10.3 |      | 9.3  | 4.3  | 15.7 |      | 9.5  |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 4.5  |      | 1.0  | 0.0  | 4.1  |      | 0.0  |      |      |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 14.9 |
| HCM 6th LOS        | B    |

Generations at Green Valley  
 16: El Dorado Hills Blvd. & Lassen Ln/Serrano Pkwy.

Near Term  
 Timing Plan: AM



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | NBR  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 42   | 119  | 282  | 344  | 76   | 851  | 257  | 150  | 1129 |
| v/c Ratio               | 0.11 | 0.29 | 1.02 | 0.81 | 0.81 | 0.75 | 0.16 | 0.89 | 0.85 |
| Control Delay           | 29.7 | 15.0 | 97.9 | 31.6 | 96.4 | 32.5 | 0.2  | 87.3 | 33.6 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 29.7 | 15.0 | 97.9 | 31.6 | 96.4 | 32.5 | 0.2  | 87.3 | 33.6 |
| Queue Length 50th (ft)  | 19   | 20   | ~175 | 81   | 44   | 226  | 0    | 86   | 311  |
| Queue Length 95th (ft)  | 38   | 45   | #280 | #143 | #105 | 262  | 0    | #186 | #400 |
| Internal Link Dist (ft) |      | 321  |      | 6047 |      | 1160 |      |      | 3231 |
| Turn Bay Length (ft)    | 70   |      | 410  |      | 260  |      |      | 100  |      |
| Base Capacity (vph)     | 375  | 417  | 277  | 424  | 98   | 1130 | 1583 | 178  | 1328 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.11 | 0.29 | 1.02 | 0.81 | 0.78 | 0.75 | 0.16 | 0.84 | 0.85 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
16: El Dorado Hills Blvd. & Lassen Ln/Serrano Pkwy.

Near Term  
Timing Plan: AM

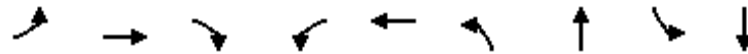


| Movement                          | EBL   | EBT  | EBR   | WBL   | WBT  | WBR  | NBL   | NBT  | NBR   | SBL   | SBT   | SBR  |
|-----------------------------------|-------|------|-------|-------|------|------|-------|------|-------|-------|-------|------|
| Lane Configurations               | ↖     | ↗    |       | ↖     | ↔    |      | ↖     | ↑↑   | ↗     | ↖     | ↗     |      |
| Traffic Volume (vph)              | 31    | 32   | 55    | 247   | 28   | 220  | 62    | 698  | 211   | 132   | 950   | 43   |
| Future Volume (vph)               | 31    | 32   | 55    | 247   | 28   | 220  | 62    | 698  | 211   | 132   | 950   | 43   |
| Ideal Flow (vphpl)                | 1900  | 1900 | 1900  | 1900  | 1900 | 1900 | 1900  | 1900 | 1900  | 1900  | 1900  | 1900 |
| Total Lost time (s)               | 5.2   | 5.2  |       | 5.2   | 5.2  |      | 3.0   | 5.2  | 4.0   | 3.0   | 5.2   |      |
| Lane Util. Factor                 | 1.00  | 1.00 |       | 0.95  | 0.95 |      | 1.00  | 0.95 | 1.00  | 1.00  | 0.95  |      |
| Frt                               | 1.00  | 0.91 |       | 1.00  | 0.88 |      | 1.00  | 1.00 | 0.85  | 1.00  | 0.99  |      |
| Flt Protected                     | 0.95  | 1.00 |       | 0.95  | 1.00 |      | 0.95  | 1.00 | 1.00  | 0.95  | 1.00  |      |
| Satd. Flow (prot)                 | 1770  | 1687 |       | 1681  | 1548 |      | 1770  | 3539 | 1583  | 1770  | 3516  |      |
| Flt Permitted                     | 0.95  | 1.00 |       | 0.95  | 1.00 |      | 0.95  | 1.00 | 1.00  | 0.95  | 1.00  |      |
| Satd. Flow (perm)                 | 1770  | 1687 |       | 1681  | 1548 |      | 1770  | 3539 | 1583  | 1770  | 3516  |      |
| Peak-hour factor, PHF             | 0.73  | 0.73 | 0.73  | 0.79  | 0.79 | 0.79 | 0.82  | 0.82 | 0.82  | 0.88  | 0.88  | 0.88 |
| Adj. Flow (vph)                   | 42    | 44   | 75    | 313   | 35   | 278  | 76    | 851  | 257   | 150   | 1080  | 49   |
| RTOR Reduction (vph)              | 0     | 59   | 0     | 0     | 169  | 0    | 0     | 0    | 0     | 0     | 4     | 0    |
| Lane Group Flow (vph)             | 42    | 60   | 0     | 282   | 175  | 0    | 76    | 851  | 257   | 150   | 1125  | 0    |
| Turn Type                         | Split | NA   |       | Split | NA   |      | Prot  | NA   | Free  | Prot  | NA    |      |
| Protected Phases                  | 4     | 4    |       | 8     | 8    |      | 5     | 2    |       | 1     | 6     |      |
| Permitted Phases                  |       |      |       |       |      |      |       |      | Free  |       |       |      |
| Actuated Green, G (s)             | 19.0  | 19.0 |       | 14.8  | 14.8 |      | 4.0   | 29.3 | 90.2  | 8.5   | 33.8  |      |
| Effective Green, g (s)            | 19.0  | 19.0 |       | 14.8  | 14.8 |      | 4.0   | 29.3 | 90.2  | 8.5   | 33.8  |      |
| Actuated g/C Ratio                | 0.21  | 0.21 |       | 0.16  | 0.16 |      | 0.04  | 0.32 | 1.00  | 0.09  | 0.37  |      |
| Clearance Time (s)                | 5.2   | 5.2  |       | 5.2   | 5.2  |      | 3.0   | 5.2  |       | 3.0   | 5.2   |      |
| Vehicle Extension (s)             | 0.2   | 0.2  |       | 0.2   | 0.2  |      | 0.2   | 0.2  |       | 0.2   | 0.2   |      |
| Lane Grp Cap (vph)                | 372   | 355  |       | 275   | 253  |      | 78    | 1149 | 1583  | 166   | 1317  |      |
| v/s Ratio Prot                    | 0.02  | 0.04 |       | c0.17 | 0.11 |      | 0.04  | 0.24 |       | c0.08 | c0.32 |      |
| v/s Ratio Perm                    |       |      |       |       |      |      |       |      | c0.16 |       |       |      |
| v/c Ratio                         | 0.11  | 0.17 |       | 1.03  | 0.69 |      | 0.97  | 0.74 | 0.16  | 0.90  | 0.85  |      |
| Uniform Delay, d1                 | 28.8  | 29.1 |       | 37.7  | 35.6 |      | 43.0  | 27.1 | 0.0   | 40.4  | 25.9  |      |
| Progression Factor                | 1.00  | 1.00 |       | 1.00  | 1.00 |      | 1.00  | 1.00 | 1.00  | 1.00  | 1.00  |      |
| Incremental Delay, d2             | 0.6   | 1.0  |       | 61.0  | 14.5 |      | 92.2  | 4.3  | 0.2   | 42.2  | 7.2   |      |
| Delay (s)                         | 29.4  | 30.2 |       | 98.7  | 50.0 |      | 135.3 | 31.4 | 0.2   | 82.7  | 33.2  |      |
| Level of Service                  | C     | C    |       | F     | D    |      | F     | C    | A     | F     | C     |      |
| Approach Delay (s)                |       | 30.0 |       |       | 72.0 |      |       | 31.3 |       |       | 39.0  |      |
| Approach LOS                      |       | C    |       |       | E    |      |       | C    |       |       | D     |      |
| <b>Intersection Summary</b>       |       |      |       |       |      |      |       |      |       |       |       |      |
| HCM 2000 Control Delay            |       |      | 42.1  |       |      |      |       |      |       |       |       | D    |
| HCM 2000 Volume to Capacity ratio |       |      | 0.75  |       |      |      |       |      |       |       |       |      |
| Actuated Cycle Length (s)         |       |      | 90.2  |       |      |      |       |      |       |       | 18.6  |      |
| Intersection Capacity Utilization |       |      | 66.8% |       |      |      |       |      |       |       |       | C    |
| Analysis Period (min)             |       |      | 15    |       |      |      |       |      |       |       |       |      |

c Critical Lane Group

Generations at Green Valley  
 17: El Dorado Hills Blvd. & Saratoga Wy. (North)/Park Dr

Near Term  
 Timing Plan: AM



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL    | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|--------|------|------|------|
| Lane Group Flow (vph)   | 108  | 112  | 366  | 32   | 182  | 428    | 991  | 117  | 1347 |
| v/c Ratio               | 0.72 | 0.71 | 0.77 | 0.17 | 0.81 | 6.69   | 0.39 | 0.46 | 0.63 |
| Control Delay           | 72.9 | 71.9 | 16.4 | 43.8 | 62.3 | 2600.8 | 18.1 | 49.4 | 15.9 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0    | 0.0  | 0.0  | 0.0  |
| Total Delay             | 72.9 | 71.9 | 16.4 | 43.8 | 62.3 | 2600.8 | 18.1 | 49.4 | 15.9 |
| Queue Length 50th (ft)  | 80   | 82   | 0    | 21   | 99   | ~583   | 147  | 77   | 278  |
| Queue Length 95th (ft)  | 134  | 138  | 90   | 41   | 136  | #779   | 226  | 126  | 411  |
| Internal Link Dist (ft) |      | 1745 |      |      | 332  |        | 961  |      | 1160 |
| Turn Bay Length (ft)    | 145  |      | 145  | 125  |      | 165    |      | 70   |      |
| Base Capacity (vph)     | 244  | 254  | 543  | 482  | 501  | 64     | 2571 | 257  | 2131 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0      | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0      | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0      | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.44 | 0.44 | 0.67 | 0.07 | 0.36 | 6.69   | 0.39 | 0.46 | 0.63 |

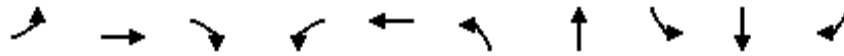
Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.



---

HCM 6th Edition methodology expects strict NEMA phasing.



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 238  | 41   | 403  | 157  | 120  | 644  | 1222 | 43   | 1010 | 393  |
| v/c Ratio               | 0.95 | 0.16 | 0.25 | 0.67 | 0.25 | 0.80 | 0.45 | 0.35 | 0.55 | 0.48 |
| Control Delay           | 97.4 | 47.9 | 0.4  | 63.1 | 24.4 | 51.2 | 18.0 | 61.0 | 33.6 | 5.4  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 51.4 | 2.5  |
| Total Delay             | 97.4 | 47.9 | 0.4  | 63.1 | 24.4 | 51.2 | 18.0 | 61.0 | 85.0 | 7.9  |
| Queue Length 50th (ft)  | ~189 | 29   | 0    | 117  | 22   | 244  | 205  | 32   | 223  | 0    |
| Queue Length 95th (ft)  | #356 | 64   | 0    | 162  | 42   | 286  | 265  | 68   | 298  | 60   |
| Internal Link Dist (ft) |      | 287  |      |      | 264  |      | 780  |      | 105  |      |
| Turn Bay Length (ft)    |      |      |      | 410  |      | 260  |      | 195  |      |      |
| Base Capacity (vph)     | 250  | 263  | 1583 | 390  | 769  | 1029 | 2713 | 123  | 1822 | 819  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1057 | 298  |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.95 | 0.16 | 0.25 | 0.40 | 0.16 | 0.63 | 0.45 | 0.35 | 1.32 | 0.75 |

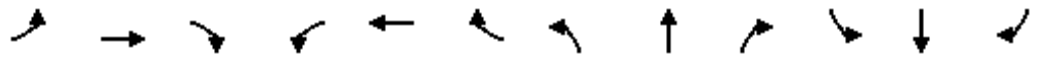
**Intersection Summary**

- ~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Generations at Green Valley

Near Term

18: Latrobe Rd./El Dorado Hills Blvd. & US-50 WB On&Off-Ramp/Saratoga Way (South) Plan: AM



| Movement                     | EBL   | EBT   | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|-------|-------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          | ↖     | ↑     | ↗    | ↖    | ↕    |      | ↖    | ↕    |      | ↖    | ↕    | ↗    |
| Traffic Volume (veh/h)       | 219   | 38    | 371  | 129  | 49   | 49   | 573  | 974  | 114  | 37   | 869  | 338  |
| Future Volume (veh/h)        | 219   | 38    | 371  | 129  | 49   | 49   | 573  | 974  | 114  | 37   | 869  | 338  |
| Initial Q (Qb), veh          | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00  |       | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |       | No    |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870  | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 238   | 41    | 0    | 157  | 60   | 60   | 644  | 1094 | 128  | 43   | 1010 | 0    |
| Peak Hour Factor             | 0.92  | 0.92  | 0.92 | 0.82 | 0.82 | 0.82 | 0.89 | 0.89 | 0.89 | 0.86 | 0.86 | 0.86 |
| Percent Heavy Veh, %         | 2     | 2     | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 238   | 249   |      | 197  | 197  | 174  | 748  | 2744 | 321  | 55   | 2076 |      |
| Arrive On Green              | 0.13  | 0.13  | 0.00 | 0.11 | 0.11 | 0.11 | 0.22 | 0.59 | 0.59 | 0.03 | 0.41 | 0.00 |
| Sat Flow, veh/h              | 1781  | 1870  | 1585 | 1781 | 1785 | 1578 | 3456 | 4635 | 542  | 1781 | 5106 | 1585 |
| Grp Volume(v), veh/h         | 238   | 41    | 0    | 157  | 60   | 60   | 644  | 803  | 419  | 43   | 1010 | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781  | 1870  | 1585 | 1781 | 1777 | 1586 | 1728 | 1702 | 1773 | 1781 | 1702 | 1585 |
| Q Serve(g_s), s              | 16.0  | 2.3   | 0.0  | 10.3 | 3.7  | 4.2  | 21.5 | 15.1 | 15.1 | 2.9  | 17.6 | 0.0  |
| Cycle Q Clear(g_c), s        | 16.0  | 2.3   | 0.0  | 10.3 | 3.7  | 4.2  | 21.5 | 15.1 | 15.1 | 2.9  | 17.6 | 0.0  |
| Prop In Lane                 | 1.00  |       | 1.00 | 1.00 |      | 0.99 | 1.00 |      | 0.31 | 1.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 238   | 249   |      | 197  | 196  | 175  | 748  | 2015 | 1049 | 55   | 2076 |      |
| V/C Ratio(X)                 | 1.00  | 0.16  |      | 0.80 | 0.30 | 0.34 | 0.86 | 0.40 | 0.40 | 0.78 | 0.49 |      |
| Avail Cap(c_a), veh/h        | 238   | 249   |      | 393  | 392  | 350  | 1037 | 2015 | 1049 | 59   | 2076 |      |
| HCM Platoon Ratio            | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00  | 1.00  | 0.00 | 1.00 | 1.00 | 1.00 | 0.89 | 0.89 | 0.89 | 0.71 | 0.71 | 0.00 |
| Uniform Delay (d), s/veh     | 52.0  | 46.1  | 0.0  | 52.1 | 49.1 | 49.4 | 45.3 | 13.1 | 13.1 | 57.7 | 26.3 | 0.0  |
| Incr Delay (d2), s/veh       | 58.9  | 0.3   | 0.0  | 7.2  | 0.9  | 1.2  | 5.0  | 0.5  | 1.0  | 34.6 | 0.6  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 11.0  | 1.1   | 0.0  | 5.0  | 1.7  | 1.7  | 9.5  | 5.4  | 5.8  | 1.8  | 6.9  | 0.0  |
| Unsig. Movement Delay, s/veh |       |       |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 110.9 | 46.4  | 0.0  | 59.3 | 50.0 | 50.5 | 50.3 | 13.6 | 14.1 | 92.3 | 26.9 | 0.0  |
| LnGrp LOS                    | F     | D     |      | E    | D    | D    | D    | B    | B    | F    | C    |      |
| Approach Vol, veh/h          |       | 279   | A    |      | 277  |      |      | 1866 |      |      | 1053 | A    |
| Approach Delay, s/veh        |       | 101.4 |      |      | 55.4 |      |      | 26.4 |      |      | 29.6 |      |
| Approach LOS                 |       | F     |      |      | E    |      |      | C    |      |      | C    |      |
| Timer - Assigned Phs         | 1     | 2     |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 7.7   | 75.0  |      | 20.0 | 30.0 | 52.8 |      | 17.2 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0   | 4.0   |      | 4.0  | 4.0  | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0   | 56.2  |      | 16.0 | 36.0 | 25.5 |      | 26.5 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 4.9   | 17.1  |      | 18.0 | 23.5 | 19.6 |      | 12.3 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0   | 6.2   |      | 0.0  | 2.4  | 2.5  |      | 0.9  |      |      |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 35.7 |
| HCM 6th LOS        | D    |

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Generations at Green Valley  
 19: Latrobe Rd. & US-50 EB Off-Ramp/US-50 EB On-Ramp

Near Term  
 Timing Plan: AM



| Lane Group              | EBR  | WBR  | NBT  | NBR  | SBL   | SBT  |
|-------------------------|------|------|------|------|-------|------|
| Lane Group Flow (vph)   | 961  | 506  | 1469 | 223  | 273   | 1396 |
| v/c Ratio               | 0.85 | 0.31 | 0.51 | 0.23 | 1.13  | 0.30 |
| Control Delay           | 44.8 | 0.5  | 21.4 | 5.4  | 153.8 | 7.6  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  |
| Total Delay             | 44.8 | 0.5  | 21.4 | 5.4  | 153.8 | 7.6  |
| Queue Length 50th (ft)  | 435  | 0    | 320  | 23   | -314  | 129  |
| Queue Length 95th (ft)  | 442  | 0    | 391  | 70   | #436  | 146  |
| Internal Link Dist (ft) |      |      | 468  |      |       | 780  |
| Turn Bay Length (ft)    |      |      |      | 180  | 350   |      |
| Base Capacity (vph)     | 1242 | 1611 | 2897 | 975  | 242   | 4698 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0     | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0     | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0     | 0    |
| Reduced v/c Ratio       | 0.77 | 0.31 | 0.51 | 0.23 | 1.13  | 0.30 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

---

HCM 6th Edition methodology does not support custom phasing.

Generations at Green Valley  
 20: White Rock Rd/Silva Valley Pkwy & US-50 EB On&Off-Ramp

Near Term  
 Timing Plan: AM



| Lane Group              | EBL  | EBR  | NBL  | NBT  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 254  | 280  | 459  | 430  | 850  | 176  |
| v/c Ratio               | 0.44 | 0.56 | 0.56 | 0.16 | 0.51 | 0.21 |
| Control Delay           | 39.9 | 9.3  | 36.4 | 3.7  | 22.7 | 7.3  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 39.9 | 9.3  | 36.4 | 3.7  | 22.7 | 7.3  |
| Queue Length 50th (ft)  | 75   | 0    | 132  | 34   | 167  | 23   |
| Queue Length 95th (ft)  | 114  | 71   | 182  | 47   | m190 | m41  |
| Internal Link Dist (ft) | 706  |      |      | 516  | 832  |      |
| Turn Bay Length (ft)    |      | 195  | 480  |      |      | 148  |
| Base Capacity (vph)     | 583  | 501  | 823  | 2654 | 1663 | 837  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.44 | 0.56 | 0.56 | 0.16 | 0.51 | 0.21 |

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Generations at Green Valley  
 20: White Rock Rd/Silva Valley Pkwy & US-50 EB On&Off-Ramp

Near Term  
 Timing Plan: AM



| Movement                     | EBL  | EBR   | NBL  | NBT  | SBT  | SBR  |
|------------------------------|------|-------|------|------|------|------|
| Lane Configurations          |      |       |      |      |      |      |
| Traffic Volume (veh/h)       | 234  | 258   | 422  | 396  | 782  | 162  |
| Future Volume (veh/h)        | 234  | 258   | 422  | 396  | 782  | 162  |
| Initial Q (Qb), veh          | 0    | 0     | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 | 1.00  | 1.00 |      |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |       |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 254  | 280   | 459  | 430  | 850  | 176  |
| Peak Hour Factor             | 0.92 | 0.92  | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2     | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 587  | 269   | 829  | 2665 | 1670 | 745  |
| Arrive On Green              | 0.17 | 0.17  | 0.24 | 0.75 | 0.16 | 0.16 |
| Sat Flow, veh/h              | 3456 | 1585  | 3456 | 3647 | 3647 | 1585 |
| Grp Volume(v), veh/h         | 254  | 280   | 459  | 430  | 850  | 176  |
| Grp Sat Flow(s),veh/h/ln     | 1728 | 1585  | 1728 | 1777 | 1777 | 1585 |
| Q Serve(g_s), s              | 6.6  | 17.0  | 11.6 | 3.4  | 21.9 | 9.7  |
| Cycle Q Clear(g_c), s        | 6.6  | 17.0  | 11.6 | 3.4  | 21.9 | 9.7  |
| Prop In Lane                 | 1.00 | 1.00  | 1.00 |      |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 587  | 269   | 829  | 2665 | 1670 | 745  |
| V/C Ratio(X)                 | 0.43 | 1.04  | 0.55 | 0.16 | 0.51 | 0.24 |
| Avail Cap(c_a), veh/h        | 587  | 269   | 829  | 2665 | 1670 | 745  |
| HCM Platoon Ratio            | 1.00 | 1.00  | 1.00 | 1.00 | 0.33 | 0.33 |
| Upstream Filter(l)           | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 37.2 | 41.5  | 33.3 | 3.6  | 31.7 | 26.5 |
| Incr Delay (d2), s/veh       | 2.3  | 65.4  | 2.7  | 0.1  | 1.1  | 0.7  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 3.0  | 18.6  | 4.9  | 0.9  | 10.5 | 3.9  |
| Unsig. Movement Delay, s/veh |      |       |      |      |      |      |
| LnGrp Delay(d),s/veh         | 39.5 | 106.9 | 36.0 | 3.7  | 32.8 | 27.2 |
| LnGrp LOS                    | D    | F     | D    | A    | C    | C    |
| Approach Vol, veh/h          | 534  |       |      | 889  | 1026 |      |
| Approach Delay, s/veh        | 74.8 |       |      | 20.3 | 31.8 |      |
| Approach LOS                 | E    |       |      | C    | C    |      |
| Timer - Assigned Phs         |      | 2     |      | 4    | 5    | 6    |
| Phs Duration (G+Y+Rc), s     |      | 79.0  |      | 21.0 | 28.0 | 51.0 |
| Change Period (Y+Rc), s      |      | 4.0   |      | 4.0  | 4.0  | 4.0  |
| Max Green Setting (Gmax), s  |      | 75.0  |      | 17.0 | 24.0 | 47.0 |
| Max Q Clear Time (g_c+I1), s |      | 5.4   |      | 19.0 | 13.6 | 23.9 |
| Green Ext Time (p_c), s      |      | 2.8   |      | 0.0  | 1.2  | 6.3  |
| <b>Intersection Summary</b>  |      |       |      |      |      |      |
| HCM 6th Ctrl Delay           |      |       | 37.0 |      |      |      |
| HCM 6th LOS                  |      |       | D    |      |      |      |

Generations at Green Valley  
 21: Silva Valley Pkwy & US-50 WB On-Ramp/US-50 WB Off-Ramp

Near Term  
 Timing Plan: AM



| Lane Group              | WBL  | WBT  | WBR  | NBL  | NBT  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 558  | 2    | 152  | 157  | 537  | 476  | 443  |
| v/c Ratio               | 0.93 | 0.00 | 0.24 | 0.42 | 0.26 | 0.41 | 0.54 |
| Control Delay           | 55.9 | 22.0 | 4.9  | 28.0 | 9.8  | 27.3 | 5.2  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 55.9 | 22.0 | 4.9  | 28.0 | 9.8  | 27.3 | 5.2  |
| Queue Length 50th (ft)  | 340  | 1    | 0    | 83   | 103  | 122  | 0    |
| Queue Length 95th (ft)  | #548 | 6    | 42   | 137  | 135  | 167  | 67   |
| Internal Link Dist (ft) |      | 580  |      |      | 832  | 250  |      |
| Turn Bay Length (ft)    |      |      |      | 545  |      |      |      |
| Base Capacity (vph)     | 601  | 633  | 638  | 371  | 2052 | 1167 | 819  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.93 | 0.00 | 0.24 | 0.42 | 0.26 | 0.41 | 0.54 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.



Generations at Green Valley  
 21: Silva Valley Pkwy & US-50 WB On-Ramp/US-50 WB Off-Ramp

Near Term  
 Timing Plan: AM



| Movement                     | EBL | EBT  | EBR | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|-----|------|-----|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |     |      |     | ↖    | ↗    | ↖    | ↖    | ↕    |      |      | ↕    | ↖    |
| Traffic Volume (veh/h)       | 0   | 0    | 0   | 513  | 2    | 140  | 144  | 494  | 0    | 0    | 438  | 408  |
| Future Volume (veh/h)        | 0   | 0    | 0   | 513  | 2    | 140  | 144  | 494  | 0    | 0    | 438  | 408  |
| Initial Q (Qb), veh          |     |      |     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |     |      |     | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             |     |      |     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |     |      |     | No   |      |      | No   |      |      | No   |      |      |
| Adj Sat Flow, veh/h/ln       |     |      |     | 1870 | 1870 | 1870 | 1870 | 1870 | 0    | 0    | 1870 | 1870 |
| Adj Flow Rate, veh/h         |     |      |     | 558  | 2    | 152  | 157  | 537  | 0    | 0    | 476  | 443  |
| Peak Hour Factor             |     |      |     | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         |     |      |     | 2    | 2    | 2    | 2    | 2    | 0    | 0    | 2    | 2    |
| Cap, veh/h                   |     |      |     | 606  | 636  | 539  | 374  | 2061 | 0    | 0    | 1173 | 523  |
| Arrive On Green              |     |      |     | 0.34 | 0.34 | 0.34 | 0.42 | 1.00 | 0.00 | 0.00 | 0.33 | 0.33 |
| Sat Flow, veh/h              |     |      |     | 1781 | 1870 | 1585 | 1781 | 3647 | 0    | 0    | 3647 | 1585 |
| Grp Volume(v), veh/h         |     |      |     | 558  | 2    | 152  | 157  | 537  | 0    | 0    | 476  | 443  |
| Grp Sat Flow(s),veh/h/ln     |     |      |     | 1781 | 1870 | 1585 | 1781 | 1777 | 0    | 0    | 1777 | 1585 |
| Q Serve(g_s), s              |     |      |     | 30.1 | 0.1  | 7.0  | 6.2  | 0.0  | 0.0  | 0.0  | 10.4 | 26.0 |
| Cycle Q Clear(g_c), s        |     |      |     | 30.1 | 0.1  | 7.0  | 6.2  | 0.0  | 0.0  | 0.0  | 10.4 | 26.0 |
| Prop In Lane                 |     |      |     | 1.00 |      | 1.00 | 1.00 |      | 0.00 | 0.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       |     |      |     | 606  | 636  | 539  | 374  | 2061 | 0    | 0    | 1173 | 523  |
| V/C Ratio(X)                 |     |      |     | 0.92 | 0.00 | 0.28 | 0.42 | 0.26 | 0.00 | 0.00 | 0.41 | 0.85 |
| Avail Cap(c_a), veh/h        |     |      |     | 606  | 636  | 539  | 374  | 2061 | 0    | 0    | 1173 | 523  |
| HCM Platoon Ratio            |     |      |     | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           |     |      |     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     |     |      |     | 31.7 | 21.8 | 24.1 | 24.7 | 0.0  | 0.0  | 0.0  | 25.9 | 31.2 |
| Incr Delay (d2), s/veh       |     |      |     | 21.6 | 0.0  | 1.3  | 3.4  | 0.3  | 0.0  | 0.0  | 1.0  | 15.5 |
| Initial Q Delay(d3),s/veh    |     |      |     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     |     |      |     | 16.2 | 0.0  | 2.8  | 2.6  | 0.1  | 0.0  | 0.0  | 4.3  | 11.5 |
| Unsig. Movement Delay, s/veh |     |      |     |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         |     |      |     | 53.3 | 21.8 | 25.4 | 28.1 | 0.3  | 0.0  | 0.0  | 27.0 | 46.7 |
| LnGrp LOS                    |     |      |     | D    | C    | C    | C    | A    | A    | A    | C    | D    |
| Approach Vol, veh/h          |     |      |     |      | 712  |      |      | 694  |      |      | 919  |      |
| Approach Delay, s/veh        |     |      |     |      | 47.3 |      |      | 6.6  |      |      | 36.5 |      |
| Approach LOS                 |     |      |     |      | D    |      |      | A    |      |      | D    |      |
| Timer - Assigned Phs         |     | 2    |     |      | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |     | 62.0 |     |      | 25.0 | 37.0 |      | 38.0 |      |      |      |      |
| Change Period (Y+Rc), s      |     | 4.0  |     |      | 4.0  | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |     | 58.0 |     |      | 21.0 | 33.0 |      | 34.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |     | 2.0  |     |      | 8.2  | 28.0 |      | 32.1 |      |      |      |      |
| Green Ext Time (p_c), s      |     | 3.6  |     |      | 0.3  | 2.1  |      | 0.6  |      |      |      |      |
| <b>Intersection Summary</b>  |     |      |     |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |     |      |     | 30.9 |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |     |      |     | C    |      |      |      |      |      |      |      |      |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.3  |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      |      | ↗    | ↕    | ↗    |      | ↕    |
| Traffic Vol, veh/h       | 0    | 42   | 605  | 28   | 0    | 786  |
| Future Vol, veh/h        | 0    | 42   | 605  | 28   | 0    | 786  |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Free | Free | Free | Free |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | 0    | -    | 160  | -    | -    |
| Veh in Median Storage, # | 0    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 0    | 46   | 658  | 30   | 0    | 854  |

| Major/Minor          | Minor1 | Major1 | Major2 |   |   |
|----------------------|--------|--------|--------|---|---|
| Conflicting Flow All | -      | 329    | 0      | 0 | - |
| Stage 1              | -      | -      | -      | - | - |
| Stage 2              | -      | -      | -      | - | - |
| Critical Hdwy        | -      | 6.94   | -      | - | - |
| Critical Hdwy Stg 1  | -      | -      | -      | - | - |
| Critical Hdwy Stg 2  | -      | -      | -      | - | - |
| Follow-up Hdwy       | -      | 3.32   | -      | - | - |
| Pot Cap-1 Maneuver   | 0      | 667    | -      | - | 0 |
| Stage 1              | 0      | -      | -      | - | 0 |
| Stage 2              | 0      | -      | -      | - | 0 |
| Platoon blocked, %   |        |        | -      | - | - |
| Mov Cap-1 Maneuver   | -      | 667    | -      | - | - |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | - |
| Stage 1              | -      | -      | -      | - | - |
| Stage 2              | -      | -      | -      | - | - |

| Approach             | WB   | NB | SB |
|----------------------|------|----|----|
| HCM Control Delay, s | 10.8 | 0  | 0  |
| HCM LOS              | B    |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBT   |
|-----------------------|-----|----------|-------|
| Capacity (veh/h)      | -   | -        | 667   |
| HCM Lane V/C Ratio    | -   | -        | 0.068 |
| HCM Control Delay (s) | -   | -        | 10.8  |
| HCM Lane LOS          | -   | -        | B     |
| HCM 95th %tile Q(veh) | -   | -        | 0.2   |

Generations at Green Valley  
 23: Serrano Pkwy. & Silva Valley Pkwy.

Near Term  
 Timing Plan: AM



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | NBR  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 96   | 413  | 496  | 657  | 384  | 543  | 341  | 299  | 713  |
| v/c Ratio               | 0.59 | 0.73 | 0.98 | 0.55 | 0.99 | 0.62 | 0.53 | 0.84 | 0.89 |
| Control Delay           | 66.9 | 28.1 | 77.0 | 18.2 | 89.6 | 44.2 | 7.4  | 67.1 | 57.8 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 66.9 | 28.1 | 77.0 | 18.2 | 89.6 | 44.2 | 7.4  | 67.1 | 57.8 |
| Queue Length 50th (ft)  | 71   | 63   | 373  | 105  | 292  | 197  | 0    | 214  | 267  |
| Queue Length 95th (ft)  | 115  | 87   | #623 | 163  | 280  | 180  | 0    | 272  | 291  |
| Internal Link Dist (ft) |      | 6047 |      | 1303 |      | 4417 |      |      | 4456 |
| Turn Bay Length (ft)    | 155  |      | 330  |      | 250  |      | 180  | 150  |      |
| Base Capacity (vph)     | 194  | 851  | 508  | 1430 | 389  | 876  | 648  | 389  | 811  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.49 | 0.49 | 0.98 | 0.46 | 0.99 | 0.62 | 0.53 | 0.77 | 0.88 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
23: Serrano Pkwy. & Silva Valley Pkwy.

Near Term  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL   | WBT  | WBR  | NBL   | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|-------|------|------|-------|------|------|------|------|------|
| Lane Configurations          | ↖    | ↗    |      | ↖     | ↗    |      | ↖     | ↗    | ↗    | ↖    | ↗    |      |
| Traffic Volume (veh/h)       | 76   | 130  | 196  | 441   | 227  | 358  | 242   | 342  | 215  | 227  | 428  | 114  |
| Future Volume (veh/h)        | 76   | 130  | 196  | 441   | 227  | 358  | 242   | 342  | 215  | 227  | 428  | 114  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0     | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00  |      | 1.00 | 1.00  |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |       | No   |      |       | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 96   | 165  | 248  | 496   | 255  | 402  | 384   | 543  | 0    | 299  | 563  | 150  |
| Peak Hour Factor             | 0.79 | 0.79 | 0.79 | 0.89  | 0.89 | 0.89 | 0.63  | 0.63 | 0.63 | 0.76 | 0.76 | 0.76 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2     | 2    | 2    | 2     | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 119  | 308  | 274  | 472   | 660  | 589  | 361   | 832  |      | 325  | 594  | 158  |
| Arrive On Green              | 0.07 | 0.17 | 0.17 | 0.27  | 0.37 | 0.37 | 0.20  | 0.23 | 0.00 | 0.18 | 0.21 | 0.21 |
| Sat Flow, veh/h              | 1781 | 1777 | 1585 | 1781  | 1777 | 1585 | 1781  | 3554 | 1585 | 1781 | 2777 | 737  |
| Grp Volume(v), veh/h         | 96   | 165  | 248  | 496   | 255  | 402  | 384   | 543  | 0    | 299  | 360  | 353  |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1777 | 1585 | 1781  | 1777 | 1585 | 1781  | 1777 | 1585 | 1781 | 1777 | 1738 |
| Q Serve(g_s), s              | 6.8  | 10.9 | 19.7 | 34.0  | 13.5 | 27.4 | 26.0  | 17.7 | 0.0  | 21.1 | 25.6 | 25.7 |
| Cycle Q Clear(g_c), s        | 6.8  | 10.9 | 19.7 | 34.0  | 13.5 | 27.4 | 26.0  | 17.7 | 0.0  | 21.1 | 25.6 | 25.7 |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00  |      | 1.00 | 1.00  |      | 1.00 | 1.00 |      | 0.42 |
| Lane Grp Cap(c), veh/h       | 119  | 308  | 274  | 472   | 660  | 589  | 361   | 832  |      | 325  | 380  | 371  |
| V/C Ratio(X)                 | 0.80 | 0.54 | 0.90 | 1.05  | 0.39 | 0.68 | 1.06  | 0.65 |      | 0.92 | 0.95 | 0.95 |
| Avail Cap(c_a), veh/h        | 181  | 333  | 297  | 472   | 660  | 589  | 361   | 832  |      | 361  | 380  | 371  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00  | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 59.0 | 48.3 | 52.0 | 47.1  | 29.6 | 33.9 | 51.1  | 44.4 | 0.0  | 51.5 | 49.7 | 49.7 |
| Incr Delay (d2), s/veh       | 14.2 | 1.5  | 27.8 | 55.1  | 0.4  | 3.2  | 65.0  | 1.8  | 0.0  | 26.7 | 32.7 | 34.2 |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 3.5  | 4.8  | 9.7  | 21.8  | 5.7  | 10.7 | 17.8  | 7.8  | 0.0  | 11.6 | 14.5 | 14.4 |
| Unsig. Movement Delay, s/veh |      |      |      |       |      |      |       |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 73.2 | 49.8 | 79.8 | 102.2 | 29.9 | 37.2 | 116.1 | 46.2 | 0.0  | 78.1 | 82.4 | 84.0 |
| LnGrp LOS                    | E    | D    | E    | F     | C    | D    | F     | D    |      | E    | F    | F    |
| Approach Vol, veh/h          |      | 509  |      |       | 1153 |      |       | 927  | A    |      | 1012 |      |
| Approach Delay, s/veh        |      | 68.8 |      |       | 63.6 |      |       | 75.2 |      |      | 81.7 |      |
| Approach LOS                 |      | E    |      |       | E    |      |       | E    |      |      | F    |      |
| Timer - Assigned Phs         | 1    | 2    | 3    | 4     | 5    | 6    | 7     | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 27.4 | 35.3 | 38.0 | 27.5  | 30.0 | 32.7 | 12.6  | 52.9 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 5.3  | 4.0  | 5.3   | 4.0  | 5.3  | 4.0   | 5.3  |      |      |      |      |
| Max Green Setting (Gmax), s  | 26.0 | 27.4 | 34.0 | 24.0  | 26.0 | 27.4 | 13.0  | 45.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 23.1 | 19.7 | 36.0 | 21.7  | 28.0 | 27.7 | 8.8   | 29.4 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.3  | 2.0  | 0.0  | 0.5   | 0.0  | 0.0  | 0.1   | 3.5  |      |      |      |      |

Intersection Summary

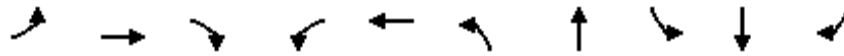
|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 72.4 |
| HCM 6th LOS        | E    |

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Generations at Green Valley  
 24: Silva Valley Pkwy. & Harvard Way

Near Term  
 Timing Plan: AM



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 151  | 107  | 423  | 97   | 68   | 474  | 221  | 47   | 252  | 357  |
| v/c Ratio               | 0.51 | 0.34 | 0.68 | 0.50 | 0.25 | 0.80 | 0.24 | 0.28 | 0.42 | 0.63 |
| Control Delay           | 39.0 | 29.5 | 9.5  | 42.1 | 24.3 | 34.0 | 13.2 | 36.4 | 28.1 | 9.2  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 39.0 | 29.5 | 9.5  | 42.1 | 24.3 | 34.0 | 13.2 | 36.4 | 28.1 | 9.2  |
| Queue Length 50th (ft)  | 62   | 41   | 0    | 39   | 20   | 172  | 57   | 19   | 51   | 0    |
| Queue Length 95th (ft)  | 83   | 54   | 0    | #88  | 47   | #399 | 117  | 50   | 81   | 44   |
| Internal Link Dist (ft) |      | 2093 |      |      | 328  |      | 4456 |      | 402  |      |
| Turn Bay Length (ft)    | 60   |      |      |      |      | 200  |      | 150  |      | 250  |
| Base Capacity (vph)     | 296  | 521  | 747  | 203  | 485  | 699  | 1037 | 174  | 932  | 679  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.51 | 0.21 | 0.57 | 0.48 | 0.14 | 0.68 | 0.21 | 0.27 | 0.27 | 0.53 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
24: Silva Valley Pkwy. & Harvard Way

Near Term  
Timing Plan: AM



| Movement                     | EBL  | EBT   | EBR   | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR   |
|------------------------------|------|-------|-------|------|------|------|------|------|------|------|------|-------|
| Lane Configurations          |      |       |       |      |      |      |      |      |      |      |      |       |
| Traffic Volume (veh/h)       | 86   | 61    | 241   | 76   | 41   | 12   | 427  | 189  | 10   | 38   | 204  | 289   |
| Future Volume (veh/h)        | 86   | 61    | 241   | 76   | 41   | 12   | 427  | 189  | 10   | 38   | 204  | 289   |
| Initial Q (Qb), veh          | 0    | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     |
| Ped-Bike Adj(A_pbT)          | 1.00 |       | 1.00  | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00  |
| Parking Bus, Adj             | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  |
| Work Zone On Approach        |      | No    |       |      | No   |      |      | No   |      |      | No   |       |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870  | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870  |
| Adj Flow Rate, veh/h         | 151  | 107   | 423   | 97   | 53   | 15   | 474  | 210  | 11   | 47   | 252  | 357   |
| Peak Hour Factor             | 0.57 | 0.57  | 0.57  | 0.78 | 0.78 | 0.78 | 0.90 | 0.90 | 0.90 | 0.81 | 0.81 | 0.81  |
| Percent Heavy Veh, %         | 2    | 2     | 2     | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2     |
| Cap, veh/h                   | 186  | 416   | 353   | 124  | 263  | 74   | 515  | 820  | 43   | 59   | 744  | 332   |
| Arrive On Green              | 0.10 | 0.22  | 0.22  | 0.07 | 0.19 | 0.19 | 0.29 | 0.47 | 0.47 | 0.03 | 0.21 | 0.21  |
| Sat Flow, veh/h              | 1781 | 1870  | 1585  | 1781 | 1402 | 397  | 1781 | 1761 | 92   | 1781 | 3554 | 1585  |
| Grp Volume(v), veh/h         | 151  | 107   | 423   | 97   | 0    | 68   | 474  | 0    | 221  | 47   | 252  | 357   |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1870  | 1585  | 1781 | 0    | 1799 | 1781 | 0    | 1854 | 1781 | 1777 | 1585  |
| Q Serve(g_s), s              | 6.3  | 3.6   | 17.0  | 4.1  | 0.0  | 2.4  | 19.7 | 0.0  | 5.5  | 2.0  | 4.6  | 16.0  |
| Cycle Q Clear(g_c), s        | 6.3  | 3.6   | 17.0  | 4.1  | 0.0  | 2.4  | 19.7 | 0.0  | 5.5  | 2.0  | 4.6  | 16.0  |
| Prop In Lane                 | 1.00 |       | 1.00  | 1.00 |      | 0.22 | 1.00 |      | 0.05 | 1.00 |      | 1.00  |
| Lane Grp Cap(c), veh/h       | 186  | 416   | 353   | 124  | 0    | 337  | 515  | 0    | 863  | 59   | 744  | 332   |
| V/C Ratio(X)                 | 0.81 | 0.26  | 1.20  | 0.78 | 0.00 | 0.20 | 0.92 | 0.00 | 0.26 | 0.80 | 0.34 | 1.08  |
| Avail Cap(c_a), veh/h        | 186  | 416   | 353   | 163  | 0    | 377  | 559  | 0    | 863  | 140  | 744  | 332   |
| HCM Platoon Ratio            | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  |
| Upstream Filter(l)           | 1.00 | 1.00  | 1.00  | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00  |
| Uniform Delay (d), s/veh     | 33.5 | 24.5  | 29.7  | 35.0 | 0.0  | 26.2 | 26.3 | 0.0  | 12.4 | 36.7 | 25.7 | 30.2  |
| Incr Delay (d2), s/veh       | 22.8 | 0.3   | 114.1 | 16.1 | 0.0  | 0.3  | 19.8 | 0.0  | 0.2  | 20.9 | 0.3  | 71.1  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   |
| %ile BackOfQ(50%),veh/ln     | 3.8  | 1.6   | 17.4  | 2.3  | 0.0  | 1.1  | 10.3 | 0.0  | 2.0  | 1.2  | 1.8  | 12.5  |
| Unsig. Movement Delay, s/veh |      |       |       |      |      |      |      |      |      |      |      |       |
| LnGrp Delay(d),s/veh         | 56.3 | 24.8  | 143.8 | 51.1 | 0.0  | 26.5 | 46.1 | 0.0  | 12.6 | 57.6 | 26.0 | 101.3 |
| LnGrp LOS                    | E    | C     | F     | D    | A    | C    | D    | A    | B    | E    | C    | F     |
| Approach Vol, veh/h          |      | 681   |       |      | 165  |      |      | 695  |      |      | 656  |       |
| Approach Delay, s/veh        |      | 105.7 |       |      | 41.0 |      |      | 35.4 |      |      | 69.2 |       |
| Approach LOS                 |      | F     |       |      | D    |      |      | D    |      |      | E    |       |
| Timer - Assigned Phs         | 1    | 2     | 3     | 4    | 5    | 6    | 7    | 8    |      |      |      |       |
| Phs Duration (G+Y+Rc), s     | 6.5  | 39.6  | 9.3   | 21.0 | 26.1 | 20.0 | 12.0 | 18.3 |      |      |      |       |
| Change Period (Y+Rc), s      | 4.0  | 4.0   | 4.0   | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  |      |      |      |       |
| Max Green Setting (Gmax), s  | 6.0  | 34.0  | 7.0   | 17.0 | 24.0 | 16.0 | 8.0  | 16.0 |      |      |      |       |
| Max Q Clear Time (g_c+I1), s | 4.0  | 7.5   | 6.1   | 19.0 | 21.7 | 18.0 | 8.3  | 4.4  |      |      |      |       |
| Green Ext Time (p_c), s      | 0.0  | 1.1   | 0.0   | 0.0  | 0.4  | 0.0  | 0.0  | 0.2  |      |      |      |       |
| <b>Intersection Summary</b>  |      |       |       |      |      |      |      |      |      |      |      |       |
| HCM 6th Ctrl Delay           |      |       | 67.7  |      |      |      |      |      |      |      |      |       |
| HCM 6th LOS                  |      |       | E     |      |      |      |      |      |      |      |      |       |

| Intersection              |      |  |  |  |  |  |  |  |  |  |  |  |
|---------------------------|------|--|--|--|--|--|--|--|--|--|--|--|
| Intersection Delay, s/veh | 29.4 |  |  |  |  |  |  |  |  |  |  |  |
| Intersection LOS          | D    |  |  |  |  |  |  |  |  |  |  |  |

| Movement            | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations |      | ↕    |      |      | ↕    |      |      | ↕    |      |      | ↕    |      |
| Traffic Vol, veh/h  | 16   | 4    | 61   | 155  | 2    | 88   | 29   | 205  | 90   | 58   | 277  | 14   |
| Future Vol, veh/h   | 16   | 4    | 61   | 155  | 2    | 88   | 29   | 205  | 90   | 58   | 277  | 14   |
| Peak Hour Factor    | 0.70 | 0.70 | 0.70 | 0.74 | 0.74 | 0.74 | 0.70 | 0.70 | 0.70 | 0.80 | 0.80 | 0.80 |
| Heavy Vehicles, %   | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow           | 23   | 6    | 87   | 209  | 3    | 119  | 41   | 293  | 129  | 73   | 346  | 18   |
| Number of Lanes     | 0    | 1    | 0    | 0    | 1    | 0    | 0    | 1    | 0    | 0    | 1    | 0    |

| Approach                   | EB   | WB   | NB   | SB   |
|----------------------------|------|------|------|------|
| Opposing Approach          | WB   | EB   | SB   | NB   |
| Opposing Lanes             | 1    | 1    | 1    | 1    |
| Conflicting Approach Left  | SB   | NB   | EB   | WB   |
| Conflicting Lanes Left     | 1    | 1    | 1    | 1    |
| Conflicting Approach Right | NB   | SB   | WB   | EB   |
| Conflicting Lanes Right    | 1    | 1    | 1    | 1    |
| HCM Control Delay          | 13.2 | 22.6 | 35.2 | 32.6 |
| HCM LOS                    | B    | C    | E    | D    |

| Lane                   | NBLn1 | EBLn1 | WBLn1 | SBLn1 |
|------------------------|-------|-------|-------|-------|
| Vol Left, %            | 9%    | 20%   | 63%   | 17%   |
| Vol Thru, %            | 63%   | 5%    | 1%    | 79%   |
| Vol Right, %           | 28%   | 75%   | 36%   | 4%    |
| Sign Control           | Stop  | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 324   | 81    | 245   | 349   |
| LT Vol                 | 29    | 16    | 155   | 58    |
| Through Vol            | 205   | 4     | 2     | 277   |
| RT Vol                 | 90    | 61    | 88    | 14    |
| Lane Flow Rate         | 463   | 116   | 331   | 436   |
| Geometry Grp           | 1     | 1     | 1     | 1     |
| Degree of Util (X)     | 0.842 | 0.245 | 0.652 | 0.811 |
| Departure Headway (Hd) | 6.547 | 7.622 | 7.086 | 6.689 |
| Convergence, Y/N       | Yes   | Yes   | Yes   | Yes   |
| Cap                    | 555   | 469   | 510   | 541   |
| Service Time           | 4.547 | 5.715 | 5.153 | 4.752 |
| HCM Lane V/C Ratio     | 0.834 | 0.247 | 0.649 | 0.806 |
| HCM Control Delay      | 35.2  | 13.2  | 22.6  | 32.6  |
| HCM Lane LOS           | E     | B     | C     | D     |
| HCM 95th-tile Q        | 8.8   | 1     | 4.6   | 7.9   |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0    |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↔    |      |      | ↑    |      | ↗    |
| Traffic Vol, veh/h       | 354  | 0    | 0    | 613  | 0    | 0    |
| Future Vol, veh/h        | 354  | 0    | 0    | 613  | 0    | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | 0    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 385  | 0    | 0    | 666  | 0    | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |       |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 0      | 0      | -      | - | 385   |
| Stage 1              | -      | -      | -      | - | -     |
| Stage 2              | -      | -      | -      | - | -     |
| Critical Hdwy        | -      | -      | -      | - | 6.22  |
| Critical Hdwy Stg 1  | -      | -      | -      | - | -     |
| Critical Hdwy Stg 2  | -      | -      | -      | - | -     |
| Follow-up Hdwy       | -      | -      | -      | - | 3.318 |
| Pot Cap-1 Maneuver   | -      | -      | 0      | - | 663   |
| Stage 1              | -      | -      | 0      | - | -     |
| Stage 2              | -      | -      | 0      | - | -     |
| Platoon blocked, %   | -      | -      | -      | - | -     |
| Mov Cap-1 Maneuver   | -      | -      | -      | - | 663   |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | -     |
| Stage 1              | -      | -      | -      | - | -     |
| Stage 2              | -      | -      | -      | - | -     |

| Approach             | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              |    |    | A  |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h)      | -     | -   | -   | -   |
| HCM Lane V/C Ratio    | -     | -   | -   | -   |
| HCM Control Delay (s) | 0     | -   | -   | -   |
| HCM Lane LOS          | A     | -   | -   | -   |
| HCM 95th %tile Q(veh) | -     | -   | -   | -   |

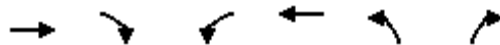




| Lane Group                  | EBT  | WBT  |
|-----------------------------|------|------|
| Lane Group Flow (vph)       | 385  | 666  |
| v/c Ratio                   | 0.38 | 0.65 |
| Control Delay               | 4.9  | 8.2  |
| Queue Delay                 | 0.0  | 0.0  |
| Total Delay                 | 4.9  | 8.2  |
| Queue Length 50th (ft)      | 25   | 54   |
| Queue Length 95th (ft)      | 49   | 105  |
| Internal Link Dist (ft)     | 1398 | 2852 |
| Turn Bay Length (ft)        |      |      |
| Base Capacity (vph)         | 1608 | 1608 |
| Starvation Cap Reductn      | 0    | 0    |
| Spillback Cap Reductn       | 0    | 0    |
| Storage Cap Reductn         | 0    | 0    |
| Reduced v/c Ratio           | 0.24 | 0.41 |
| <b>Intersection Summary</b> |      |      |

Generations at Green Valley  
27: Site Dwy. Full & Green Valley Rd.

Near Term  
Timing Plan: AM



| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations          | ↔    |      | ↔    | ↔    | ↔    | ↔    |
| Traffic Volume (veh/h)       | 354  | 0    | 0    | 613  | 0    | 0    |
| Future Volume (veh/h)        | 354  | 0    | 0    | 613  | 0    | 0    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 385  | 0    | 0    | 666  | 0    | 0    |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 1250 | 0    | 597  | 1250 | 15   | 13   |
| Arrive On Green              | 0.67 | 0.00 | 0.00 | 0.67 | 0.00 | 0.00 |
| Sat Flow, veh/h              | 1870 | 0    | 998  | 1870 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 385  | 0    | 0    | 666  | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1870 | 0    | 998  | 1870 | 1781 | 1585 |
| Q Serve(g_s), s              | 1.0  | 0.0  | 0.0  | 2.2  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 1.0  | 0.0  | 0.0  | 2.2  | 0.0  | 0.0  |
| Prop In Lane                 |      | 0.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 1250 | 0    | 597  | 1250 | 15   | 13   |
| V/C Ratio(X)                 | 0.31 | 0.00 | 0.00 | 0.53 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 4035 | 0    | 2084 | 4035 | 3843 | 3420 |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 0.8  | 0.0  | 0.0  | 1.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 0.1  | 0.0  | 0.0  | 0.4  | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.0  | 0.0  | 0.0  | 0.1  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 1.0  | 0.0  | 0.0  | 1.4  | 0.0  | 0.0  |
| LnGrp LOS                    | A    | A    | A    | A    | A    | A    |
| Approach Vol, veh/h          | 385  |      |      | 666  | 0    |      |
| Approach Delay, s/veh        | 1.0  |      |      | 1.4  | 0.0  |      |
| Approach LOS                 | A    |      |      | A    |      |      |
| Timer - Assigned Phs         |      | 2    |      |      | 6    | 8    |
| Phs Duration (G+Y+Rc), s     |      | 12.1 |      |      | 12.1 | 0.0  |
| Change Period (Y+Rc), s      |      | 4.0  |      |      | 4.0  | 4.0  |
| Max Green Setting (Gmax), s  |      | 26.0 |      |      | 26.0 | 26.0 |
| Max Q Clear Time (g_c+I1), s |      | 4.2  |      |      | 3.0  | 0.0  |
| Green Ext Time (p_c), s      |      | 3.8  |      |      | 1.9  | 0.0  |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 1.2  |      |      |      |
| HCM 6th LOS                  |      |      | A    |      |      |      |

Summary of All Intervals

| Run Number              | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|
| Start Time              | 6:50  | 6:50  | 6:50  | 6:50  | 6:50  | 6:50  | 6:50  |
| End Time                | 8:00  | 8:00  | 8:00  | 8:00  | 8:00  | 8:00  | 8:00  |
| Total Time (min)        | 70    | 70    | 70    | 70    | 70    | 70    | 70    |
| Time Recorded (min)     | 60    | 60    | 60    | 60    | 60    | 60    | 60    |
| # of Intervals          | 5     | 5     | 5     | 5     | 5     | 5     | 5     |
| # of Recorded Intervals | 4     | 4     | 4     | 4     | 4     | 4     | 4     |
| Vehs Entered            | 11351 | 11469 | 11229 | 11191 | 11264 | 11107 | 11477 |
| Vehs Exited             | 11227 | 11364 | 11040 | 11042 | 11102 | 10935 | 11324 |
| Starting Vehs           | 300   | 294   | 313   | 269   | 300   | 294   | 279   |
| Ending Vehs             | 424   | 399   | 502   | 418   | 462   | 466   | 432   |
| Travel Distance (mi)    | 3571  | 3642  | 3526  | 3520  | 3517  | 3475  | 3606  |
| Travel Time (hr)        | 815.9 | 782.7 | 920.7 | 770.6 | 820.0 | 875.1 | 846.6 |
| Total Delay (hr)        | 709.8 | 673.8 | 816.0 | 666.3 | 715.3 | 771.8 | 739.5 |
| Total Stops             | 10874 | 10737 | 11288 | 10599 | 10656 | 10888 | 11073 |
| Fuel Used (gal)         | 318.1 | 313.2 | 341.5 | 305.7 | 319.0 | 329.9 | 327.1 |

Summary of All Intervals

| Run Number              | 7     | 8     | 9     | Avg   |
|-------------------------|-------|-------|-------|-------|
| Start Time              | 6:50  | 6:50  | 6:50  | 6:50  |
| End Time                | 8:00  | 8:00  | 8:00  | 8:00  |
| Total Time (min)        | 70    | 70    | 70    | 70    |
| Time Recorded (min)     | 60    | 60    | 60    | 60    |
| # of Intervals          | 5     | 5     | 5     | 5     |
| # of Recorded Intervals | 4     | 4     | 4     | 4     |
| Vehs Entered            | 11155 | 10941 | 11172 | 11236 |
| Vehs Exited             | 10979 | 10842 | 10947 | 11078 |
| Starting Vehs           | 268   | 304   | 257   | 285   |
| Ending Vehs             | 444   | 403   | 482   | 444   |
| Travel Distance (mi)    | 3514  | 3453  | 3503  | 3533  |
| Travel Time (hr)        | 842.3 | 873.8 | 870.1 | 841.8 |
| Total Delay (hr)        | 737.9 | 771.5 | 766.1 | 736.8 |
| Total Stops             | 10854 | 10299 | 10852 | 10807 |
| Fuel Used (gal)         | 323.2 | 327.5 | 329.0 | 323.4 |

Interval #0 Information Seeding

|                                     |      |
|-------------------------------------|------|
| Start Time                          | 6:50 |
| End Time                            | 7:00 |
| Total Time (min)                    | 10   |
| Volumes adjusted by Growth Factors. |      |
| No data recorded this interval.     |      |

Interval #1 Information

|                  |      |
|------------------|------|
| Start Time       | 7:00 |
| End Time         | 7:15 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 2920  | 2934  | 2912  | 2856  | 2822  | 2875  | 2887  |
| Vehs Exited          | 2896  | 2889  | 2891  | 2847  | 2793  | 2851  | 2849  |
| Starting Vehs        | 300   | 294   | 313   | 269   | 300   | 294   | 279   |
| Ending Vehs          | 324   | 339   | 334   | 278   | 329   | 318   | 317   |
| Travel Distance (mi) | 933   | 940   | 944   | 910   | 897   | 909   | 913   |
| Travel Time (hr)     | 118.5 | 125.2 | 128.7 | 110.7 | 119.4 | 119.3 | 120.0 |
| Total Delay (hr)     | 90.8  | 97.2  | 100.6 | 83.6  | 92.7  | 92.3  | 92.9  |
| Total Stops          | 2802  | 2723  | 2736  | 2569  | 2605  | 2599  | 2568  |
| Fuel Used (gal)      | 61.8  | 63.5  | 64.5  | 59.1  | 60.9  | 61.4  | 61.3  |

Interval #1 Information

|                  |      |
|------------------|------|
| Start Time       | 7:00 |
| End Time         | 7:15 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 2875  | 2656  | 2910  | 2861  |
| Vehs Exited          | 2854  | 2665  | 2860  | 2836  |
| Starting Vehs        | 268   | 304   | 257   | 285   |
| Ending Vehs          | 289   | 295   | 307   | 312   |
| Travel Distance (mi) | 929   | 855   | 925   | 916   |
| Travel Time (hr)     | 126.8 | 114.7 | 119.3 | 120.3 |
| Total Delay (hr)     | 99.0  | 89.2  | 91.7  | 93.0  |
| Total Stops          | 2682  | 2383  | 2606  | 2626  |
| Fuel Used (gal)      | 63.6  | 57.8  | 61.5  | 61.5  |

**Interval #2 Information**

|                  |      |
|------------------|------|
| Start Time       | 7:15 |
| End Time         | 7:30 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 2878  | 2854  | 2816  | 2872  | 2824  | 2767  | 2890  |
| Vehs Exited          | 2839  | 2828  | 2786  | 2803  | 2739  | 2714  | 2848  |
| Starting Vehs        | 324   | 339   | 334   | 278   | 329   | 318   | 317   |
| Ending Vehs          | 363   | 365   | 364   | 347   | 414   | 371   | 359   |
| Travel Distance (mi) | 909   | 906   | 887   | 907   | 877   | 874   | 928   |
| Travel Time (hr)     | 165.4 | 172.3 | 184.4 | 156.8 | 172.4 | 177.4 | 176.7 |
| Total Delay (hr)     | 138.3 | 145.1 | 157.9 | 129.6 | 146.4 | 151.4 | 149.0 |
| Total Stops          | 2677  | 2685  | 2598  | 2655  | 2618  | 2644  | 2807  |
| Fuel Used (gal)      | 71.5  | 72.7  | 75.3  | 69.0  | 72.0  | 73.2  | 74.4  |

**Interval #2 Information**

|                  |      |
|------------------|------|
| Start Time       | 7:15 |
| End Time         | 7:30 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 2944  | 2876  | 2805  | 2851  |
| Vehs Exited          | 2878  | 2782  | 2770  | 2797  |
| Starting Vehs        | 289   | 295   | 307   | 312   |
| Ending Vehs          | 355   | 389   | 342   | 362   |
| Travel Distance (mi) | 921   | 896   | 893   | 900   |
| Travel Time (hr)     | 174.6 | 174.9 | 169.0 | 172.4 |
| Total Delay (hr)     | 147.2 | 148.3 | 142.5 | 145.6 |
| Total Stops          | 2723  | 2747  | 2495  | 2667  |
| Fuel Used (gal)      | 74.2  | 73.3  | 72.1  | 72.8  |

**Interval #3 Information**

|                  |      |
|------------------|------|
| Start Time       | 7:30 |
| End Time         | 7:45 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 2807  | 2894  | 2803  | 2800  | 2876  | 2855  | 2940  |
| Vehs Exited          | 2782  | 2864  | 2766  | 2737  | 2899  | 2791  | 2894  |
| Starting Vehs        | 363   | 365   | 364   | 347   | 414   | 371   | 359   |
| Ending Vehs          | 388   | 395   | 401   | 410   | 391   | 435   | 405   |
| Travel Distance (mi) | 879   | 926   | 878   | 888   | 918   | 882   | 929   |
| Travel Time (hr)     | 222.4 | 217.3 | 249.3 | 213.7 | 226.3 | 239.4 | 234.3 |
| Total Delay (hr)     | 196.3 | 189.8 | 223.3 | 187.8 | 198.9 | 213.2 | 206.7 |
| Total Stops          | 2682  | 2766  | 2965  | 2775  | 2692  | 2781  | 2843  |
| Fuel Used (gal)      | 83.0  | 84.0  | 89.7  | 81.8  | 86.2  | 87.4  | 87.9  |

**Interval #3 Information**

|                  |      |
|------------------|------|
| Start Time       | 7:30 |
| End Time         | 7:45 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 2797  | 2704  | 2749  | 2821  |
| Vehs Exited          | 2763  | 2695  | 2647  | 2783  |
| Starting Vehs        | 355   | 389   | 342   | 362   |
| Ending Vehs          | 389   | 398   | 444   | 402   |
| Travel Distance (mi) | 882   | 846   | 854   | 888   |
| Travel Time (hr)     | 225.7 | 246.1 | 236.9 | 231.1 |
| Total Delay (hr)     | 199.5 | 221.2 | 211.5 | 204.8 |
| Total Stops          | 2811  | 2570  | 2693  | 2758  |
| Fuel Used (gal)      | 84.3  | 87.7  | 85.5  | 85.7  |

Interval #4 Information Recording

|                  |      |
|------------------|------|
| Start Time       | 7:45 |
| End Time         | 8:00 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 2746  | 2787  | 2698  | 2663  | 2742  | 2610  | 2760  |
| Vehs Exited          | 2710  | 2783  | 2597  | 2655  | 2671  | 2579  | 2733  |
| Starting Vehs        | 388   | 395   | 401   | 410   | 391   | 435   | 405   |
| Ending Vehs          | 424   | 399   | 502   | 418   | 462   | 466   | 432   |
| Travel Distance (mi) | 849   | 871   | 817   | 814   | 825   | 811   | 835   |
| Travel Time (hr)     | 309.6 | 267.8 | 358.4 | 289.4 | 301.9 | 339.0 | 315.6 |
| Total Delay (hr)     | 284.3 | 241.7 | 334.3 | 265.3 | 277.3 | 315.0 | 290.9 |
| Total Stops          | 2713  | 2563  | 2989  | 2600  | 2741  | 2864  | 2855  |
| Fuel Used (gal)      | 101.8 | 93.1  | 112.0 | 95.8  | 99.9  | 107.9 | 103.4 |

Interval #4 Information Recording

|                  |      |
|------------------|------|
| Start Time       | 7:45 |
| End Time         | 8:00 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 2539  | 2705  | 2708  | 2692  |
| Vehs Exited          | 2484  | 2700  | 2670  | 2657  |
| Starting Vehs        | 389   | 398   | 444   | 402   |
| Ending Vehs          | 444   | 403   | 482   | 444   |
| Travel Distance (mi) | 782   | 856   | 831   | 829   |
| Travel Time (hr)     | 315.2 | 338.2 | 344.8 | 318.0 |
| Total Delay (hr)     | 292.1 | 312.7 | 320.4 | 293.4 |
| Total Stops          | 2638  | 2599  | 3058  | 2759  |
| Fuel Used (gal)      | 101.2 | 108.7 | 110.0 | 103.4 |

13: Francisco Dr & El Dorado Hills Blvd Performance by movement

| Movement           | EBL | EBT  | EBR | WBL | WBT | WBR | NBL  | NBT  | NBR | SBL | SBT  | SBR  |
|--------------------|-----|------|-----|-----|-----|-----|------|------|-----|-----|------|------|
| Denied Delay (hr)  | 0.0 | 0.0  | 0.5 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0 | 0.1 | 0.0  | 0.0  |
| Denied Del/Veh (s) | 1.4 | 1.2  | 3.5 | 0.1 | 0.1 | 0.1 | 0.0  | 0.0  | 0.0 | 3.5 | 0.6  | 0.5  |
| Total Delay (hr)   | 0.0 | 0.1  | 0.6 | 0.0 | 0.1 | 0.0 | 1.5  | 0.6  | 0.1 | 0.2 | 1.4  | 0.0  |
| Total Del/Veh (s)  | 9.3 | 11.9 | 4.1 | 6.9 | 8.2 | 4.0 | 12.0 | 11.3 | 4.4 | 7.6 | 15.5 | 14.1 |
| Stop Delay (hr)    | 0.0 | 0.1  | 0.0 | 0.0 | 0.1 | 0.0 | 1.0  | 0.2  | 0.0 | 0.1 | 0.5  | 0.0  |
| Stop Del/Veh (s)   | 4.8 | 4.7  | 0.0 | 4.8 | 4.7 | 3.3 | 7.9  | 3.4  | 2.9 | 3.2 | 6.0  | 9.0  |

13: Francisco Dr & El Dorado Hills Blvd Performance by movement

| Movement           | All |
|--------------------|-----|
| Denied Delay (hr)  | 0.6 |
| Denied Del/Veh (s) | 1.3 |
| Total Delay (hr)   | 4.5 |
| Total Del/Veh (s)  | 9.6 |
| Stop Delay (hr)    | 2.0 |
| Stop Del/Veh (s)   | 4.1 |

17: El Dorado Hills Blvd #2 & Saratoga Way/Park Drive Performance by movement

| Movement           | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL   | NBT  | NBR  | SBL  | SBT  | SBR  |
|--------------------|------|------|------|------|------|------|-------|------|------|------|------|------|
| Denied Delay (hr)  | 0.0  | 0.0  | 0.3  | 0.0  | 0.0  | 0.0  | 4.2   | 8.7  | 0.9  | 0.1  | 0.1  | 0.0  |
| Denied Del/Veh (s) | 1.1  | 1.1  | 3.4  | 0.1  | 0.2  | 0.2  | 54.5  | 43.1 | 63.0 | 2.5  | 0.4  | 0.6  |
| Total Delay (hr)   | 2.4  | 1.7  | 2.3  | 0.4  | 1.2  | 0.6  | 38.2  | 2.1  | 0.1  | 2.1  | 7.5  | 2.0  |
| Total Del/Veh (s)  | 65.6 | 75.9 | 22.5 | 57.3 | 58.1 | 34.0 | 473.1 | 10.4 | 6.8  | 75.9 | 30.4 | 26.0 |
| Stop Delay (hr)    | 2.2  | 1.5  | 1.9  | 0.4  | 1.1  | 0.6  | 37.2  | 0.9  | 0.0  | 1.9  | 4.8  | 1.4  |
| Stop Del/Veh (s)   | 59.7 | 66.9 | 19.2 | 55.3 | 52.5 | 31.3 | 460.0 | 4.4  | 2.4  | 69.2 | 19.5 | 18.4 |

17: El Dorado Hills Blvd #2 & Saratoga Way/Park Drive Performance by movement

| Movement           | All  |
|--------------------|------|
| Denied Delay (hr)  | 14.4 |
| Denied Del/Veh (s) | 17.2 |
| Total Delay (hr)   | 60.6 |
| Total Del/Veh (s)  | 71.4 |
| Stop Delay (hr)    | 53.9 |
| Stop Del/Veh (s)   | 63.5 |



18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way Performance by movement

| Movement           | EBL   | EBT   | EBR   | WBL  | WBT  | WBR    | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|--------------------|-------|-------|-------|------|------|--------|------|------|------|------|------|------|
| Denied Delay (hr)  | 12.6  | 2.1   | 22.6  | 2.1  | 0.7  | 1.2    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Denied Del/Veh (s) | 211.6 | 212.4 | 220.6 | 57.3 | 54.6 | 86.3   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay (hr)   | 26.0  | 0.8   | 7.5   | 2.3  | 1.2  | 13.1   | 8.0  | 23.4 | 0.9  | 0.9  | 15.7 | 2.1  |
| Total Del/Veh (s)  | 616.7 | 104.3 | 106.9 | 68.7 | 96.5 | 1098.7 | 51.0 | 79.5 | 29.2 | 84.7 | 64.1 | 22.2 |
| Stop Delay (hr)    | 25.8  | 0.7   | 7.2   | 2.1  | 1.1  | 13.1   | 6.9  | 21.0 | 0.7  | 0.8  | 12.8 | 1.3  |
| Stop Del/Veh (s)   | 612.0 | 98.6  | 102.5 | 64.7 | 90.9 | 1096.0 | 43.9 | 71.4 | 21.4 | 76.8 | 52.4 | 13.3 |

18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way Performance by movement

| Movement           | All   |
|--------------------|-------|
| Denied Delay (hr)  | 41.3  |
| Denied Del/Veh (s) | 39.0  |
| Total Delay (hr)   | 101.8 |
| Total Del/Veh (s)  | 100.9 |
| Stop Delay (hr)    | 93.5  |
| Stop Del/Veh (s)   | 92.6  |

19: Latrobe Road #2/El Dorado Hills Blvd #2 & US 50 EB Ramps Performance by movement

| Movement           | EBR  | WBR | NBT  | NBR  | SBL  | SBT  | All  |
|--------------------|------|-----|------|------|------|------|------|
| Denied Delay (hr)  | 0.2  | 0.0 | 6.0  | 1.0  | 0.0  | 0.0  | 7.2  |
| Denied Del/Veh (s) | 0.7  | 0.4 | 15.8 | 17.4 | 0.0  | 0.0  | 6.5  |
| Total Delay (hr)   | 2.6  | 0.2 | 5.1  | 0.4  | 3.1  | 5.0  | 16.4 |
| Total Del/Veh (s)  | 11.4 | 1.7 | 13.9 | 7.5  | 49.8 | 18.0 | 14.9 |
| Stop Delay (hr)    | 1.5  | 0.1 | 3.5  | 0.3  | 2.5  | 2.3  | 10.1 |
| Stop Del/Veh (s)   | 6.6  | 0.6 | 9.5  | 4.7  | 40.4 | 8.3  | 9.2  |

Total Zone Performance

|                    |        |
|--------------------|--------|
| Denied Delay (hr)  | 63.5   |
| Denied Del/Veh (s) | 34.6   |
| Total Delay (hr)   | 183.3  |
| Total Del/Veh (s)  | 1552.9 |
| Stop Delay (hr)    | 159.4  |
| Stop Del/Veh (s)   | 1350.5 |

Intersection: 13: Francisco Dr & El Dorado Hills Blvd

| Movement              | EB  | WB  | NB  | NB  | SB  | SB  |
|-----------------------|-----|-----|-----|-----|-----|-----|
| Directions Served     | LT  | LTR | L   | TR  | L   | TR  |
| Maximum Queue (ft)    | 61  | 65  | 229 | 81  | 59  | 135 |
| Average Queue (ft)    | 28  | 34  | 91  | 43  | 33  | 67  |
| 95th Queue (ft)       | 55  | 56  | 167 | 67  | 51  | 109 |
| Link Distance (ft)    | 577 | 573 |     | 522 |     | 734 |
| Upstream Blk Time (%) |     |     |     |     |     |     |
| Queuing Penalty (veh) |     |     |     |     |     |     |
| Storage Bay Dist (ft) |     |     | 500 |     | 200 |     |
| Storage Blk Time (%)  |     |     |     |     |     |     |
| Queuing Penalty (veh) |     |     |     |     |     |     |

Intersection: 17: El Dorado Hills Blvd #2 & Saratoga Way/Park Drive

| Movement              | EB  | EB  | EB  | WB  | WB  | NB  | NB   | NB  | NB  | SB  | SB  | SB  |
|-----------------------|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| Directions Served     | L   | LT  | R   | L   | TR  | L   | T    | T   | TR  | L   | T   | TR  |
| Maximum Queue (ft)    | 169 | 277 | 251 | 65  | 225 | 275 | 963  | 708 | 234 | 124 | 400 | 464 |
| Average Queue (ft)    | 66  | 120 | 126 | 17  | 99  | 274 | 924  | 93  | 40  | 77  | 222 | 265 |
| 95th Queue (ft)       | 144 | 211 | 224 | 46  | 184 | 276 | 1066 | 476 | 151 | 144 | 361 | 413 |
| Link Distance (ft)    |     | 930 |     | 488 | 488 |     | 946  | 946 | 946 |     | 685 | 685 |
| Upstream Blk Time (%) |     |     |     |     |     |     | 56   | 0   |     |     |     |     |
| Queuing Penalty (veh) |     |     |     |     |     |     | 233  | 0   |     |     |     |     |
| Storage Bay Dist (ft) | 150 |     | 240 |     |     | 250 |      |     |     | 100 |     |     |
| Storage Blk Time (%)  | 0   | 5   | 1   |     |     | 91  | 0    |     |     | 9   | 23  |     |
| Queuing Penalty (veh) | 1   | 23  | 2   |     |     | 250 | 2    |     |     | 40  | 23  |     |

Intersection: 18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way

| Movement              | EB   | EB   | EB  | WB  | WB  | WB  | NB  | NB  | NB  | NB  | NB  | SB  |
|-----------------------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Directions Served     | L    | LT   | R   | L   | LT  | TR  | L   | L   | T   | T   | TR  | L   |
| Maximum Queue (ft)    | 954  | 1070 | 64  | 142 | 514 | 588 | 689 | 730 | 784 | 713 | 804 | 225 |
| Average Queue (ft)    | 537  | 483  | 2   | 50  | 152 | 317 | 265 | 368 | 456 | 373 | 325 | 64  |
| 95th Queue (ft)       | 1088 | 1224 | 47  | 117 | 439 | 685 | 547 | 745 | 856 | 779 | 726 | 177 |
| Link Distance (ft)    | 1059 | 1059 |     |     | 621 | 621 | 714 | 714 | 714 | 714 | 714 |     |
| Upstream Blk Time (%) | 3    | 32   |     |     | 9   | 18  | 0   | 8   | 13  | 3   | 2   |     |
| Queuing Penalty (veh) | 0    | 0    |     |     | 0   | 0   | 1   | 28  | 47  | 11  | 6   |     |
| Storage Bay Dist (ft) |      |      | 300 | 150 |     |     |     |     |     |     |     | 200 |
| Storage Blk Time (%)  |      | 0    | 0   | 0   | 2   |     |     |     |     |     |     | 0   |
| Queuing Penalty (veh) |      | 0    | 0   | 0   | 1   |     |     |     |     |     |     | 0   |

Intersection: 18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way

| Movement              | SB  | SB  | SB  | SB  |
|-----------------------|-----|-----|-----|-----|
| Directions Served     | T   | T   | T   | R   |
| Maximum Queue (ft)    | 368 | 360 | 410 | 225 |
| Average Queue (ft)    | 243 | 232 | 247 | 181 |
| 95th Queue (ft)       | 328 | 324 | 357 | 285 |
| Link Distance (ft)    | 946 | 946 | 946 |     |
| Upstream Blk Time (%) |     |     |     |     |
| Queuing Penalty (veh) |     |     |     |     |
| Storage Bay Dist (ft) |     |     |     | 200 |
| Storage Blk Time (%)  | 27  |     | 20  | 2   |
| Queuing Penalty (veh) | 10  |     | 67  | 5   |

Intersection: 19: Latrobe Road #2/El Dorado Hills Blvd #2 & US 50 EB Ramps

| Movement              | EB   | EB  | WB  | NB  | NB  | NB  | NB  | SB  | SB  | SB  | SB  | SB  |
|-----------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Directions Served     | R    | R   | R   | T   | T   | T   | R   | L   | T   | T   | T   | T   |
| Maximum Queue (ft)    | 152  | 154 | 107 | 292 | 321 | 353 | 244 | 255 | 154 | 163 | 178 | 187 |
| Average Queue (ft)    | 74   | 73  | 6   | 81  | 111 | 149 | 72  | 120 | 56  | 81  | 101 | 102 |
| 95th Queue (ft)       | 125  | 122 | 78  | 224 | 296 | 336 | 225 | 232 | 129 | 149 | 164 | 175 |
| Link Distance (ft)    | 1212 |     | 968 | 718 | 718 | 718 |     |     | 714 | 714 | 714 | 714 |
| Upstream Blk Time (%) |      |     |     |     |     |     |     |     |     |     |     |     |
| Queuing Penalty (veh) |      |     |     |     |     |     |     |     |     |     |     |     |
| Storage Bay Dist (ft) |      | 450 |     |     |     |     | 275 | 575 |     |     |     |     |
| Storage Blk Time (%)  |      |     |     |     |     | 11  | 0   |     |     |     |     |     |
| Queuing Penalty (veh) |      |     |     |     |     | 23  | 0   |     |     |     |     |     |

Zone Summary

Zone wide Queuing Penalty: 773

Generations at Green Valley  
 1: Sophia Pkwy/Access Rd & Green Valley Rd

Near Term  
 Timing Plan: PM



| Lane Group              | EBL  | EBT  | EBR  | WBL   | WBT  | NBL  | NBR  | SBT  |
|-------------------------|------|------|------|-------|------|------|------|------|
| Lane Group Flow (vph)   | 1    | 1477 | 228  | 197   | 1042 | 210  | 140  | 2    |
| v/c Ratio               | 0.00 | 0.60 | 0.19 | 1.15  | 0.42 | 0.74 | 0.38 | 0.01 |
| Control Delay           | 4.0  | 7.4  | 1.0  | 133.1 | 5.7  | 48.3 | 19.0 | 22.5 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 4.0  | 7.4  | 1.0  | 133.1 | 5.7  | 48.3 | 19.0 | 22.5 |
| Queue Length 50th (ft)  | 0    | 166  | 0    | ~117  | 97   | 100  | 32   | 0    |
| Queue Length 95th (ft)  | 1    | 218  | 18   | #159  | 128  | #203 | 82   | 6    |
| Internal Link Dist (ft) |      | 1813 |      |       | 7016 |      |      | 376  |
| Turn Bay Length (ft)    | 248  |      | 224  | 314   |      | 204  | 204  |      |
| Base Capacity (vph)     | 317  | 2477 | 1176 | 172   | 2477 | 282  | 368  | 348  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.00 | 0.60 | 0.19 | 1.15  | 0.42 | 0.74 | 0.38 | 0.01 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
1: Sophia Pkwy/Access Rd & Green Valley Rd

Near Term  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          | ↖    | ↗↗   | ↖    | ↖    | ↗↗   |      | ↖    | ↗    | ↖    |      | ↕    |      |
| Traffic Volume (veh/h)       | 1    | 1359 | 210  | 181  | 957  | 2    | 193  | 0    | 129  | 0    | 1    | 1    |
| Future Volume (veh/h)        | 1    | 1359 | 210  | 181  | 957  | 2    | 193  | 0    | 129  | 0    | 1    | 1    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 1    | 1477 | 228  | 197  | 1040 | 2    | 210  | 0    | 140  | 0    | 1    | 1    |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 404  | 2488 | 1110 | 230  | 2547 | 5    | 372  | 374  | 317  | 0    | 172  | 172  |
| Arrive On Green              | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.20 | 0.00 | 0.20 | 0.00 | 0.20 | 0.20 |
| Sat Flow, veh/h              | 541  | 3554 | 1585 | 287  | 3639 | 7    | 1415 | 1870 | 1585 | 0    | 858  | 858  |
| Grp Volume(v), veh/h         | 1    | 1477 | 228  | 197  | 508  | 534  | 210  | 0    | 140  | 0    | 0    | 2    |
| Grp Sat Flow(s),veh/h/ln     | 541  | 1777 | 1585 | 287  | 1777 | 1869 | 1415 | 1870 | 1585 | 0    | 0    | 1716 |
| Q Serve(g_s), s              | 0.1  | 17.1 | 4.0  | 38.9 | 9.6  | 9.6  | 11.2 | 0.0  | 6.2  | 0.0  | 0.0  | 0.1  |
| Cycle Q Clear(g_c), s        | 9.7  | 17.1 | 4.0  | 56.0 | 9.6  | 9.6  | 11.2 | 0.0  | 6.2  | 0.0  | 0.0  | 0.1  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 0.00 | 1.00 |      | 1.00 | 0.00 |      | 0.50 |
| Lane Grp Cap(c), veh/h       | 404  | 2488 | 1110 | 230  | 1244 | 1308 | 372  | 374  | 317  | 0    | 0    | 343  |
| V/C Ratio(X)                 | 0.00 | 0.59 | 0.21 | 0.86 | 0.41 | 0.41 | 0.57 | 0.00 | 0.44 | 0.00 | 0.00 | 0.01 |
| Avail Cap(c_a), veh/h        | 404  | 2488 | 1110 | 230  | 1244 | 1308 | 372  | 374  | 317  | 0    | 0    | 343  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh     | 7.1  | 6.2  | 4.2  | 26.2 | 5.0  | 5.0  | 30.1 | 0.0  | 28.1 | 0.0  | 0.0  | 25.6 |
| Incr Delay (d2), s/veh       | 0.0  | 1.1  | 0.4  | 31.6 | 1.0  | 0.9  | 6.1  | 0.0  | 4.4  | 0.0  | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.0  | 4.0  | 0.9  | 5.6  | 2.4  | 2.5  | 4.1  | 0.0  | 2.5  | 0.0  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 7.1  | 7.2  | 4.6  | 57.8 | 6.0  | 6.0  | 36.2 | 0.0  | 32.5 | 0.0  | 0.0  | 25.7 |
| LnGrp LOS                    | A    | A    | A    | E    | A    | A    | D    | A    | C    | A    | A    | C    |
| Approach Vol, veh/h          |      | 1706 |      |      | 1239 |      |      | 350  |      |      |      | 2    |
| Approach Delay, s/veh        |      | 6.9  |      |      | 14.2 |      |      | 34.7 |      |      |      | 25.7 |
| Approach LOS                 |      | A    |      |      | B    |      |      | C    |      |      |      | C    |
| Timer - Assigned Phs         |      | 2    |      | 4    |      | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 20.0 |      | 60.0 |      | 20.0 |      | 60.0 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  |      | 4.0  |      | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 16.0 |      | 56.0 |      | 16.0 |      | 56.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 13.2 |      | 19.1 |      | 2.1  |      | 58.0 |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.3  |      | 14.7 |      | 0.0  |      | 0.0  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      | 12.6 |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      |      | B    |      |      |      |      |      |      |      |      |

Generations at Green Valley  
 2: Green Valley Rd/Green Valley Road & Francisco Rd.

Near Term  
 Timing Plan: PM



| Lane Group              | EBL   | EBT  | EBR  | WBL   | WBT  | WBR  | NBL  | NBT  | SBL   | SBT  | SBR  |
|-------------------------|-------|------|------|-------|------|------|------|------|-------|------|------|
| Lane Group Flow (vph)   | 351   | 800  | 294  | 153   | 640  | 108  | 295  | 395  | 160   | 262  | 332  |
| v/c Ratio               | 1.17  | 0.71 | 0.42 | 1.20  | 0.60 | 0.19 | 0.67 | 0.41 | 1.25  | 0.65 | 0.65 |
| Control Delay           | 141.3 | 25.6 | 4.6  | 176.1 | 23.8 | 3.8  | 40.3 | 21.7 | 194.8 | 33.5 | 16.2 |
| Queue Delay             | 0.0   | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  |
| Total Delay             | 141.3 | 25.6 | 4.6  | 176.1 | 23.8 | 3.8  | 40.3 | 21.7 | 194.8 | 33.5 | 16.2 |
| Queue Length 50th (ft)  | ~103  | 160  | 0    | -88   | 124  | 0    | 67   | 72   | -95   | 107  | 45   |
| Queue Length 95th (ft)  | #203  | 241  | 51   | #205  | 178  | 22   | #116 | 104  | #227  | 186  | 128  |
| Internal Link Dist (ft) |       | 7016 |      |       | 1876 |      |      | 2744 |       | 705  |      |
| Turn Bay Length (ft)    | 290   |      | 210  | 200   |      | 450  | 200  |      | 183   |      |      |
| Base Capacity (vph)     | 299   | 1380 | 796  | 128   | 1329 | 675  | 449  | 1278 | 128   | 569  | 631  |
| Starvation Cap Reductn  | 0     | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0     | 0    | 0    |
| Spillback Cap Reductn   | 0     | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0     | 0    | 0    |
| Storage Cap Reductn     | 0     | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0     | 0    | 0    |
| Reduced v/c Ratio       | 1.17  | 0.58 | 0.37 | 1.20  | 0.48 | 0.16 | 0.66 | 0.31 | 1.25  | 0.46 | 0.53 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
2: Green Valley Rd/Green Valley Road & Francisco Rd.

Near Term  
Timing Plan: PM



| Movement                     | EBL   | EBT  | EBR  | WBL   | WBT  | WBR  | NBL  | NBT  | NBR  | SBL   | SBT  | SBR  |
|------------------------------|-------|------|------|-------|------|------|------|------|------|-------|------|------|
| Lane Configurations          | ↖↗    | ↑↑   | ↖    | ↖     | ↑↑   | ↖    | ↖↗   | ↑↔   |      | ↖     | ↑    | ↖    |
| Traffic Volume (veh/h)       | 333   | 760  | 279  | 132   | 550  | 93   | 248  | 299  | 33   | 144   | 236  | 299  |
| Future Volume (veh/h)        | 333   | 760  | 279  | 132   | 550  | 93   | 248  | 299  | 33   | 144   | 236  | 299  |
| Initial Q (Qb), veh          | 0     | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00  |      | 1.00 | 1.00  |      | 1.00 | 1.00 |      | 1.00 | 1.00  |      | 1.00 |
| Parking Bus, Adj             | 1.00  | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 |
| Work Zone On Approach        |       | No   |      |       | No   |      |      | No   |      |       | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870  | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 351   | 800  | 294  | 153   | 640  | 108  | 295  | 356  | 39   | 160   | 262  | 332  |
| Peak Hour Factor             | 0.95  | 0.95 | 0.95 | 0.86  | 0.86 | 0.86 | 0.84 | 0.84 | 0.84 | 0.90  | 0.90 | 0.90 |
| Percent Heavy Veh, %         | 2     | 2    | 2    | 2     | 2    | 2    | 2    | 2    | 2    | 2     | 2    | 2    |
| Cap, veh/h                   | 304   | 1059 | 473  | 131   | 1007 | 449  | 393  | 932  | 101  | 131   | 464  | 393  |
| Arrive On Green              | 0.09  | 0.30 | 0.30 | 0.07  | 0.28 | 0.28 | 0.11 | 0.29 | 0.29 | 0.07  | 0.25 | 0.25 |
| Sat Flow, veh/h              | 3456  | 3554 | 1585 | 1781  | 3554 | 1585 | 3456 | 3232 | 352  | 1781  | 1870 | 1585 |
| Grp Volume(v), veh/h         | 351   | 800  | 294  | 153   | 640  | 108  | 295  | 195  | 200  | 160   | 262  | 332  |
| Grp Sat Flow(s),veh/h/ln     | 1728  | 1777 | 1585 | 1781  | 1777 | 1585 | 1728 | 1777 | 1807 | 1781  | 1870 | 1585 |
| Q Serve(g_s), s              | 6.0   | 13.9 | 10.9 | 5.0   | 10.7 | 3.6  | 5.6  | 6.0  | 6.1  | 5.0   | 8.4  | 13.6 |
| Cycle Q Clear(g_c), s        | 6.0   | 13.9 | 10.9 | 5.0   | 10.7 | 3.6  | 5.6  | 6.0  | 6.1  | 5.0   | 8.4  | 13.6 |
| Prop In Lane                 | 1.00  |      | 1.00 | 1.00  |      | 1.00 | 1.00 |      | 0.19 | 1.00  |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 304   | 1059 | 473  | 131   | 1007 | 449  | 393  | 512  | 521  | 131   | 464  | 393  |
| V/C Ratio(X)                 | 1.15  | 0.76 | 0.62 | 1.17  | 0.64 | 0.24 | 0.75 | 0.38 | 0.38 | 1.22  | 0.57 | 0.85 |
| Avail Cap(c_a), veh/h        | 304   | 1397 | 623  | 131   | 1345 | 600  | 456  | 652  | 663  | 131   | 576  | 488  |
| HCM Platoon Ratio            | 1.00  | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00  | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 31.1  | 21.7 | 20.6 | 31.6  | 21.3 | 18.8 | 29.3 | 19.4 | 19.4 | 31.6  | 22.4 | 24.4 |
| Incr Delay (d2), s/veh       | 100.1 | 1.7  | 1.3  | 132.1 | 0.7  | 0.3  | 5.8  | 0.5  | 0.5  | 151.3 | 1.1  | 10.8 |
| Initial Q Delay(d3),s/veh    | 0.0   | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 6.5   | 5.2  | 3.8  | 6.7   | 3.9  | 1.2  | 2.5  | 2.3  | 2.4  | 7.5   | 3.5  | 5.8  |
| Unsig. Movement Delay, s/veh |       |      |      |       |      |      |      |      |      |       |      |      |
| LnGrp Delay(d),s/veh         | 131.2 | 23.4 | 22.0 | 163.6 | 22.0 | 19.1 | 35.1 | 19.9 | 19.9 | 182.9 | 23.5 | 35.2 |
| LnGrp LOS                    | F     | C    | C    | F     | C    | B    | D    | B    | B    | F     | C    | D    |
| Approach Vol, veh/h          |       | 1445 |      |       | 901  |      |      | 690  |      |       | 754  |      |
| Approach Delay, s/veh        |       | 49.3 |      |       | 45.7 |      |      | 26.4 |      |       | 62.5 |      |
| Approach LOS                 |       | D    |      |       | D    |      |      | C    |      |       | E    |      |
| Timer - Assigned Phs         | 1     | 2    | 3    | 4     | 5    | 6    | 7    | 8    |      |       |      |      |
| Phs Duration (G+Y+Rc), s     | 9.0   | 26.0 | 11.8 | 21.4  | 10.0 | 25.0 | 9.0  | 24.2 |      |       |      |      |
| Change Period (Y+Rc), s      | 4.0   | 5.7  | 4.0  | 4.5   | 4.0  | 5.7  | 4.0  | 4.5  |      |       |      |      |
| Max Green Setting (Gmax), s  | 5.0   | 26.8 | 9.0  | 21.0  | 6.0  | 25.8 | 5.0  | 25.0 |      |       |      |      |
| Max Q Clear Time (g_c+I1), s | 7.0   | 15.9 | 7.6  | 15.6  | 8.0  | 12.7 | 7.0  | 8.1  |      |       |      |      |
| Green Ext Time (p_c), s      | 0.0   | 4.4  | 0.1  | 1.3   | 0.0  | 3.4  | 0.0  | 1.9  |      |       |      |      |
| <b>Intersection Summary</b>  |       |      |      |       |      |      |      |      |      |       |      |      |
| HCM 6th Ctrl Delay           |       |      | 46.9 |       |      |      |      |      |      |       |      |      |
| HCM 6th LOS                  |       |      | D    |       |      |      |      |      |      |       |      |      |

Generations at Green Valley  
 3: El Dorado Hills Blvd./Salmon Falls Rd & Green Valley Road

Near Term  
 Timing Plan: PM



| Lane Group              | EBL  | EBT  | WBL   | WBT  | NBL  | NBT  | SBL  | SBT  | SBR  |
|-------------------------|------|------|-------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 97   | 901  | 56    | 723  | 44   | 241  | 79   | 127  | 136  |
| v/c Ratio               | 0.73 | 1.08 | 0.80  | 0.95 | 0.14 | 0.73 | 0.31 | 0.48 | 0.40 |
| Control Delay           | 76.2 | 82.3 | 109.2 | 50.7 | 34.2 | 48.1 | 39.3 | 43.0 | 10.1 |
| Queue Delay             | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 76.2 | 82.3 | 109.2 | 50.7 | 34.2 | 48.1 | 39.3 | 43.0 | 10.1 |
| Queue Length 50th (ft)  | 58   | -620 | 34    | 411  | 22   | 127  | 43   | 71   | 0    |
| Queue Length 95th (ft)  | #152 | #928 | #111  | #702 | 54   | #223 | 80   | 117  | 41   |
| Internal Link Dist (ft) |      | 1876 |       | 819  |      | 2981 |      | 502  |      |
| Turn Bay Length (ft)    | 85   |      | 105   |      | 165  |      |      |      | 100  |
| Base Capacity (vph)     | 132  | 835  | 70    | 763  | 355  | 372  | 355  | 374  | 426  |
| Starvation Cap Reductn  | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.73 | 1.08 | 0.80  | 0.95 | 0.12 | 0.65 | 0.22 | 0.34 | 0.32 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.



Generations at Green Valley  
3: El Dorado Hills Blvd./Salmon Falls Rd & Green Valley Road

Near Term  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          | ↖    | ↗    |      | ↖    | ↗    |      | ↖    | ↗    |      | ↖    | ↗    | ↖    |
| Traffic Volume (veh/h)       | 93   | 854  | 11   | 50   | 568  | 76   | 39   | 164  | 51   | 66   | 107  | 114  |
| Future Volume (veh/h)        | 93   | 854  | 11   | 50   | 568  | 76   | 39   | 164  | 51   | 66   | 107  | 114  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 97   | 890  | 11   | 56   | 638  | 85   | 44   | 184  | 57   | 79   | 127  | 136  |
| Peak Hour Factor             | 0.96 | 0.96 | 0.96 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.84 | 0.84 | 0.84 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 123  | 875  | 11   | 72   | 720  | 96   | 291  | 224  | 69   | 218  | 229  | 194  |
| Arrive On Green              | 0.07 | 0.47 | 0.47 | 0.04 | 0.45 | 0.45 | 0.16 | 0.16 | 0.16 | 0.12 | 0.12 | 0.12 |
| Sat Flow, veh/h              | 1781 | 1843 | 23   | 1781 | 1616 | 215  | 1781 | 1370 | 424  | 1781 | 1870 | 1585 |
| Grp Volume(v), veh/h         | 97   | 0    | 901  | 56   | 0    | 723  | 44   | 0    | 241  | 79   | 127  | 136  |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1866 | 1781 | 0    | 1832 | 1781 | 0    | 1794 | 1781 | 1870 | 1585 |
| Q Serve(g_s), s              | 4.7  | 0.0  | 41.6 | 2.7  | 0.0  | 31.7 | 1.9  | 0.0  | 11.4 | 3.6  | 5.6  | 7.2  |
| Cycle Q Clear(g_c), s        | 4.7  | 0.0  | 41.6 | 2.7  | 0.0  | 31.7 | 1.9  | 0.0  | 11.4 | 3.6  | 5.6  | 7.2  |
| Prop In Lane                 | 1.00 |      | 0.01 | 1.00 |      | 0.12 | 1.00 |      | 0.24 | 1.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 123  | 0    | 886  | 72   | 0    | 816  | 291  | 0    | 293  | 218  | 229  | 194  |
| V/C Ratio(X)                 | 0.79 | 0.00 | 1.02 | 0.78 | 0.00 | 0.89 | 0.15 | 0.00 | 0.82 | 0.36 | 0.56 | 0.70 |
| Avail Cap(c_a), veh/h        | 140  | 0    | 886  | 75   | 0    | 816  | 378  | 0    | 381  | 378  | 397  | 336  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 40.2 | 0.0  | 23.0 | 41.7 | 0.0  | 22.3 | 31.5 | 0.0  | 35.4 | 35.3 | 36.2 | 36.9 |
| Incr Delay (d2), s/veh       | 21.2 | 0.0  | 34.6 | 37.4 | 0.0  | 12.2 | 0.4  | 0.0  | 13.2 | 1.7  | 3.6  | 7.6  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 2.7  | 0.0  | 23.7 | 1.9  | 0.0  | 14.3 | 0.8  | 0.0  | 5.8  | 1.6  | 2.7  | 3.1  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 61.4 | 0.0  | 57.6 | 79.1 | 0.0  | 34.4 | 31.9 | 0.0  | 48.7 | 37.1 | 39.8 | 44.6 |
| LnGrp LOS                    | E    | A    | F    | E    | A    | C    | C    | A    | D    | D    | D    | D    |
| Approach Vol, veh/h          |      | 998  |      |      | 779  |      |      | 285  |      |      | 342  |      |
| Approach Delay, s/veh        |      | 58.0 |      |      | 37.6 |      |      | 46.1 |      |      | 41.1 |      |
| Approach LOS                 |      | E    |      |      | D    |      |      | D    |      |      | D    |      |
| Timer - Assigned Phs         | 1    | 2    |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 7.0  | 47.6 |      | 14.7 | 9.6  | 45.1 |      | 18.3 |      |      |      |      |
| Change Period (Y+Rc), s      | 3.5  | 6.0  |      | 4.0  | 3.5  | 6.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 3.7  | 41.6 |      | 18.6 | 6.9  | 38.4 |      | 18.6 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 4.7  | 43.6 |      | 9.2  | 6.7  | 33.7 |      | 13.4 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 0.0  |      | 1.5  | 0.0  | 2.8  |      | 0.9  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      | 47.6 |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      |      | D    |      |      |      |      |      |      |      |      |

Generations at Green Valley  
 4: Silva Valley Pkwy./Allegheny Rd & Green Valley Road/Green Valley Rd.

Near Term  
 Timing Plan: PM



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 4    | 714  | 285  | 46   | 483  | 303  | 74   | 16   |
| v/c Ratio               | 0.04 | 0.76 | 0.31 | 0.41 | 0.47 | 0.75 | 0.18 | 0.10 |
| Control Delay           | 32.0 | 21.7 | 4.3  | 43.2 | 11.8 | 39.0 | 12.8 | 28.1 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 32.0 | 21.7 | 4.3  | 43.2 | 11.8 | 39.0 | 12.8 | 28.1 |
| Queue Length 50th (ft)  | 2    | 213  | 11   | 18   | 84   | 111  | 8    | 5    |
| Queue Length 95th (ft)  | 11   | #515 | 61   | #59  | 251  | #279 | 43   | 18   |
| Internal Link Dist (ft) |      | 819  |      |      | 2255 |      | 4847 | 380  |
| Turn Bay Length (ft)    | 205  |      | 205  | 350  |      | 150  |      |      |
| Base Capacity (vph)     | 113  | 942  | 912  | 113  | 1034 | 403  | 420  | 644  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.04 | 0.76 | 0.31 | 0.41 | 0.47 | 0.75 | 0.18 | 0.02 |

Intersection Summary

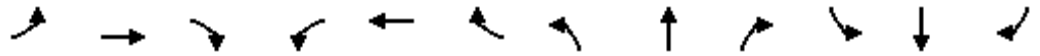
# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley

Near Term

4: Silva Valley Pkwy./Allegheny Rd & Green Valley Road/Green Valley Rd.

Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 4    | 685  | 274  | 40   | 416  | 4    | 273  | 23   | 43   | 0    | 9    | 2    |
| Future Volume (veh/h)        | 4    | 685  | 274  | 40   | 416  | 4    | 273  | 23   | 43   | 0    | 9    | 2    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 4    | 714  | 285  | 46   | 478  | 5    | 303  | 26   | 48   | 0    | 13   | 3    |
| Peak Hour Factor             | 0.96 | 0.96 | 0.96 | 0.87 | 0.87 | 0.87 | 0.90 | 0.90 | 0.90 | 0.70 | 0.70 | 0.70 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 120  | 822  | 697  | 64   | 754  | 8    | 359  | 119  | 219  | 0    | 23   | 5    |
| Arrive On Green              | 0.07 | 0.44 | 0.44 | 0.04 | 0.41 | 0.41 | 0.20 | 0.20 | 0.20 | 0.00 | 0.02 | 0.02 |
| Sat Flow, veh/h              | 1781 | 1870 | 1585 | 1781 | 1848 | 19   | 1781 | 588  | 1086 | 0    | 1470 | 339  |
| Grp Volume(v), veh/h         | 4    | 714  | 285  | 46   | 0    | 483  | 303  | 0    | 74   | 0    | 0    | 16   |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1870 | 1585 | 1781 | 0    | 1867 | 1781 | 0    | 1675 | 0    | 0    | 1809 |
| Q Serve(g_s), s              | 0.1  | 20.6 | 7.3  | 1.5  | 0.0  | 12.3 | 9.7  | 0.0  | 2.2  | 0.0  | 0.0  | 0.5  |
| Cycle Q Clear(g_c), s        | 0.1  | 20.6 | 7.3  | 1.5  | 0.0  | 12.3 | 9.7  | 0.0  | 2.2  | 0.0  | 0.0  | 0.5  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 0.01 | 1.00 |      | 0.65 | 0.00 |      | 0.19 |
| Lane Grp Cap(c), veh/h       | 120  | 822  | 697  | 64   | 0    | 762  | 359  | 0    | 337  | 0    | 0    | 28   |
| V/C Ratio(X)                 | 0.03 | 0.87 | 0.41 | 0.72 | 0.00 | 0.63 | 0.84 | 0.00 | 0.22 | 0.00 | 0.00 | 0.57 |
| Avail Cap(c_a), veh/h        | 120  | 990  | 839  | 120  | 0    | 988  | 425  | 0    | 400  | 0    | 0    | 669  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh     | 25.9 | 15.1 | 11.4 | 28.4 | 0.0  | 14.1 | 22.9 | 0.0  | 19.8 | 0.0  | 0.0  | 29.1 |
| Incr Delay (d2), s/veh       | 0.1  | 7.2  | 0.4  | 10.8 | 0.0  | 0.9  | 12.0 | 0.0  | 0.2  | 0.0  | 0.0  | 12.5 |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.0  | 8.0  | 2.0  | 0.8  | 0.0  | 4.1  | 4.7  | 0.0  | 0.8  | 0.0  | 0.0  | 0.3  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 26.0 | 22.4 | 11.8 | 39.2 | 0.0  | 14.9 | 34.9 | 0.0  | 20.1 | 0.0  | 0.0  | 41.6 |
| LnGrp LOS                    | C    | C    | B    | D    | A    | B    | C    | A    | C    | A    | A    | D    |
| Approach Vol, veh/h          |      | 1003 |      |      | 529  |      |      | 377  |      |      |      | 16   |
| Approach Delay, s/veh        |      | 19.4 |      |      | 17.0 |      |      | 32.0 |      |      |      | 41.6 |
| Approach LOS                 |      | B    |      |      | B    |      |      | C    |      |      |      | D    |
| Timer - Assigned Phs         | 1    | 2    |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 8.0  | 30.0 |      | 4.9  | 6.1  | 31.9 |      | 16.6 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 5.7  |      | 4.0  | 4.0  | 5.7  |      | 4.6  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0  | 31.5 |      | 22.0 | 4.0  | 31.5 |      | 14.2 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 2.1  | 14.3 |      | 2.5  | 3.5  | 22.6 |      | 11.7 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 2.4  |      | 0.0  | 0.0  | 3.6  |      | 0.3  |      |      |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 21.4 |
| HCM 6th LOS        | C    |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 1.4  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      |      |      |      |      |      |      |
| Traffic Vol, veh/h       | 697  | 26   | 9    | 432  | 25   | 12   |
| Future Vol, veh/h        | 697  | 26   | 9    | 432  | 25   | 12   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | 100  | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 91   | 91   | 94   | 94   | 56   | 56   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 766  | 29   | 10   | 460  | 45   | 21   |

| Major/Minor          | Major1 | Major2 | Minor1 |   |             |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 0      | 0      | 795    | 0 | 1261 781    |
| Stage 1              | -      | -      | -      | - | 781 -       |
| Stage 2              | -      | -      | -      | - | 480 -       |
| Critical Hdwy        | -      | -      | 4.12   | - | 6.42 6.22   |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.42 -      |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.42 -      |
| Follow-up Hdwy       | -      | -      | 2.218  | - | 3.518 3.318 |
| Pot Cap-1 Maneuver   | -      | -      | 826    | - | 188 395     |
| Stage 1              | -      | -      | -      | - | 451 -       |
| Stage 2              | -      | -      | -      | - | 622 -       |
| Platoon blocked, %   | -      | -      | -      | - | -           |
| Mov Cap-1 Maneuver   | -      | -      | 826    | - | 186 395     |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 186 -       |
| Stage 1              | -      | -      | -      | - | 451 -       |
| Stage 2              | -      | -      | -      | - | 615 -       |

| Approach             | EB | WB  | NB   |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0  | 0.2 | 27.5 |
| HCM LOS              |    |     | D    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 225   | -   | -   | 826   | -   |
| HCM Lane V/C Ratio    | 0.294 | -   | -   | 0.012 | -   |
| HCM Control Delay (s) | 27.5  | -   | -   | 9.4   | -   |
| HCM Lane LOS          | D     | -   | -   | A     | -   |
| HCM 95th %tile Q(veh) | 1.2   | -   | -   | 0     | -   |

Generations at Green Valley  
6: Green Valley Rd & Malcolm Dixon Cutoff

Near Term  
Timing Plan: PM

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 1.7  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      |      |      |      |      |      |
| Traffic Vol, veh/h       | 91   | 618  | 412  | 23   | 11   | 73   |
| Future Vol, veh/h        | 91   | 618  | 412  | 23   | 11   | 73   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 100  | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 99   | 672  | 448  | 25   | 12   | 79   |

| Major/Minor          | Major1 | Major2 | Minor2 |   |             |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 473    | 0      | -      | 0 | 1331 461    |
| Stage 1              | -      | -      | -      | - | 461 -       |
| Stage 2              | -      | -      | -      | - | 870 -       |
| Critical Hdwy        | 4.12   | -      | -      | - | 6.42 6.22   |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.42 -      |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.42 -      |
| Follow-up Hdwy       | 2.218  | -      | -      | - | 3.518 3.318 |
| Pot Cap-1 Maneuver   | 1089   | -      | -      | - | 170 600     |
| Stage 1              | -      | -      | -      | - | 635 -       |
| Stage 2              | -      | -      | -      | - | 410 -       |
| Platoon blocked, %   |        | -      | -      | - |             |
| Mov Cap-1 Maneuver   | 1089   | -      | -      | - | 155 600     |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 155 -       |
| Stage 1              | -      | -      | -      | - | 577 -       |
| Stage 2              | -      | -      | -      | - | 410 -       |

| Approach             | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 1.1 | 0  | 15.4 |
| HCM LOS              |     |    | C    |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1089  | -   | -   | -   | 436   |
| HCM Lane V/C Ratio    | 0.091 | -   | -   | -   | 0.209 |
| HCM Control Delay (s) | 8.6   | -   | -   | -   | 15.4  |
| HCM Lane LOS          | A     | -   | -   | -   | C     |
| HCM 95th %tile Q(veh) | 0.3   | -   | -   | -   | 0.8   |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.4  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      | ↶    | ↷    |      | ↶    | ↷    |
| Traffic Vol, veh/h       | 14   | 684  | 426  | 10   | 8    | 9    |
| Future Vol, veh/h        | 14   | 684  | 426  | 10   | 8    | 9    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 93   | 93   | 86   | 86   | 91   | 91   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 15   | 735  | 495  | 12   | 9    | 10   |

| Major/Minor          | Major1 | Major2 | Minor2 |   |             |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 507    | 0      | -      | 0 | 1266 501    |
| Stage 1              | -      | -      | -      | - | 501 -       |
| Stage 2              | -      | -      | -      | - | 765 -       |
| Critical Hdwy        | 4.12   | -      | -      | - | 6.42 6.22   |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.42 -      |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.42 -      |
| Follow-up Hdwy       | 2.218  | -      | -      | - | 3.518 3.318 |
| Pot Cap-1 Maneuver   | 1058   | -      | -      | - | 187 570     |
| Stage 1              | -      | -      | -      | - | 609 -       |
| Stage 2              | -      | -      | -      | - | 459 -       |
| Platoon blocked, %   |        | -      | -      | - |             |
| Mov Cap-1 Maneuver   | 1058   | -      | -      | - | 183 570     |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 183 -       |
| Stage 1              | -      | -      | -      | - | 594 -       |
| Stage 2              | -      | -      | -      | - | 459 -       |

| Approach             | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.2 | 0  | 18.5 |
| HCM LOS              |     |    | C    |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1058  | -   | -   | -   | 286   |
| HCM Lane V/C Ratio    | 0.014 | -   | -   | -   | 0.065 |
| HCM Control Delay (s) | 8.5   | 0   | -   | -   | 18.5  |
| HCM Lane LOS          | A     | A   | -   | -   | C     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0.2   |

Generations at Green Valley  
8: Deer Valley Rd. & Green Valley Rd.

Near Term  
Timing Plan: PM



| Lane Group                  | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBT  | SBT  |
|-----------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)       | 37   | 688  | 15   | 38   | 456  | 32   | 65   | 48   |
| v/c Ratio                   | 0.08 | 0.70 | 0.02 | 0.14 | 0.46 | 0.04 | 0.19 | 0.14 |
| Control Delay               | 3.9  | 9.9  | 1.6  | 4.8  | 6.2  | 1.7  | 9.6  | 8.9  |
| Queue Delay                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay                 | 3.9  | 9.9  | 1.6  | 4.8  | 6.2  | 1.7  | 9.6  | 8.9  |
| Queue Length 50th (ft)      | 2    | 62   | 0    | 2    | 34   | 0    | 4    | 2    |
| Queue Length 95th (ft)      | 10   | 150  | 3    | 11   | 78   | 5    | 19   | 16   |
| Internal Link Dist (ft)     |      | 2852 |      |      | 3999 |      | 988  | 946  |
| Turn Bay Length (ft)        | 415  |      | 415  | 415  |      | 415  |      |      |
| Base Capacity (vph)         | 734  | 1559 | 1328 | 439  | 1559 | 1330 | 804  | 816  |
| Starvation Cap Reductn      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio           | 0.05 | 0.44 | 0.01 | 0.09 | 0.29 | 0.02 | 0.08 | 0.06 |
| <b>Intersection Summary</b> |      |      |      |      |      |      |      |      |

Generations at Green Valley  
8: Deer Valley Rd. & Green Valley Rd.

Near Term  
Timing Plan: PM

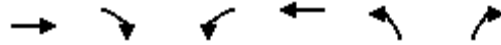


| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 34   | 626  | 14   | 33   | 397  | 28   | 18   | 2    | 25   | 11   | 1    | 23   |
| Future Volume (veh/h)        | 34   | 626  | 14   | 33   | 397  | 28   | 18   | 2    | 25   | 11   | 1    | 23   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 37   | 688  | 15   | 38   | 456  | 32   | 26   | 3    | 36   | 15   | 1    | 32   |
| Peak Hour Factor             | 0.91 | 0.91 | 0.91 | 0.87 | 0.87 | 0.87 | 0.69 | 0.69 | 0.69 | 0.72 | 0.72 | 0.72 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 619  | 970  | 822  | 466  | 970  | 822  | 275  | 38   | 138  | 242  | 31   | 167  |
| Arrive On Green              | 0.52 | 0.52 | 0.52 | 0.52 | 0.52 | 0.52 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 |
| Sat Flow, veh/h              | 908  | 1870 | 1585 | 744  | 1870 | 1585 | 453  | 239  | 860  | 325  | 196  | 1042 |
| Grp Volume(v), veh/h         | 37   | 688  | 15   | 38   | 456  | 32   | 65   | 0    | 0    | 48   | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 908  | 1870 | 1585 | 744  | 1870 | 1585 | 1553 | 0    | 0    | 1563 | 0    | 0    |
| Q Serve(g_s), s              | 0.7  | 7.0  | 0.1  | 1.0  | 3.9  | 0.2  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 4.5  | 7.0  | 0.1  | 8.0  | 3.9  | 0.2  | 0.8  | 0.0  | 0.0  | 0.6  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 0.40 |      | 0.55 | 0.31 |      | 0.67 |
| Lane Grp Cap(c), veh/h       | 619  | 970  | 822  | 466  | 970  | 822  | 451  | 0    | 0    | 441  | 0    | 0    |
| V/C Ratio(X)                 | 0.06 | 0.71 | 0.02 | 0.08 | 0.47 | 0.04 | 0.14 | 0.00 | 0.00 | 0.11 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 1095 | 1951 | 1654 | 857  | 1951 | 1654 | 1176 | 0    | 0    | 1170 | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 5.3  | 4.6  | 2.9  | 7.6  | 3.8  | 2.9  | 9.1  | 0.0  | 0.0  | 9.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 0.0  | 1.0  | 0.0  | 0.1  | 0.4  | 0.0  | 0.1  | 0.0  | 0.0  | 0.1  | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.0  | 0.3  | 0.0  | 0.1  | 0.1  | 0.0  | 0.2  | 0.0  | 0.0  | 0.1  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 5.3  | 5.5  | 2.9  | 7.7  | 4.2  | 3.0  | 9.3  | 0.0  | 0.0  | 9.2  | 0.0  | 0.0  |
| LnGrp LOS                    | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    |
| Approach Vol, veh/h          |      | 740  |      |      | 526  |      |      | 65   |      |      |      | 48   |
| Approach Delay, s/veh        |      | 5.5  |      |      | 4.4  |      |      | 9.3  |      |      |      | 9.2  |
| Approach LOS                 |      | A    |      |      | A    |      |      | A    |      |      |      | A    |
| Timer - Assigned Phs         |      | 2    |      | 4    |      | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 8.0  |      | 16.9 |      | 8.0  |      | 16.9 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  |      | 4.0  |      | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 16.0 |      | 26.0 |      | 16.0 |      | 26.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 2.8  |      | 9.0  |      | 2.6  |      | 10.0 |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.2  |      | 3.9  |      | 0.1  |      | 2.5  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      | 5.4  |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      |      | A    |      |      |      |      |      |      |      |      |



Generations at Green Valley  
 9: Silver Springs Pkwy & Green Valley Rd

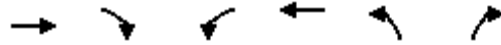
Near Term  
 Timing Plan: PM



| Lane Group                  | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|-----------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph)       | 577  | 146  | 46   | 387  | 140  | 62   |
| v/c Ratio                   | 0.67 | 0.18 | 0.16 | 0.45 | 0.30 | 0.13 |
| Control Delay               | 11.2 | 2.0  | 6.6  | 7.6  | 11.3 | 4.1  |
| Queue Delay                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay                 | 11.2 | 2.0  | 6.6  | 7.6  | 11.3 | 4.1  |
| Queue Length 50th (ft)      | 57   | 0    | 3    | 33   | 19   | 0    |
| Queue Length 95th (ft)      | 138  | 15   | 15   | 82   | 44   | 14   |
| Internal Link Dist (ft)     | 3999 |      |      | 3318 | 1349 |      |
| Turn Bay Length (ft)        |      | 230  | 415  |      | 135  |      |
| Base Capacity (vph)         | 1032 | 942  | 344  | 1032 | 981  | 905  |
| Starvation Cap Reductn      | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn       | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn         | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio           | 0.56 | 0.15 | 0.13 | 0.38 | 0.14 | 0.07 |
| <b>Intersection Summary</b> |      |      |      |      |      |      |

Generations at Green Valley  
9: Silver Springs Pkwy & Green Valley Rd

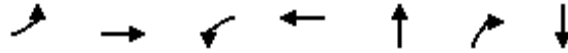
Near Term  
Timing Plan: PM



| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations          | ↑    | ↗    | ↘    | ↑    | ↗    | ↘    |
| Traffic Volume (veh/h)       | 531  | 134  | 42   | 356  | 129  | 57   |
| Future Volume (veh/h)        | 531  | 134  | 42   | 356  | 129  | 57   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 577  | 146  | 46   | 387  | 140  | 62   |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 844  | 715  | 480  | 844  | 326  | 290  |
| Arrive On Green              | 0.45 | 0.45 | 0.45 | 0.45 | 0.18 | 0.18 |
| Sat Flow, veh/h              | 1870 | 1585 | 730  | 1870 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 577  | 146  | 46   | 387  | 140  | 62   |
| Grp Sat Flow(s),veh/h/ln     | 1870 | 1585 | 730  | 1870 | 1781 | 1585 |
| Q Serve(g_s), s              | 5.4  | 1.2  | 1.2  | 3.1  | 1.5  | 0.7  |
| Cycle Q Clear(g_c), s        | 5.4  | 1.2  | 6.5  | 3.1  | 1.5  | 0.7  |
| Prop In Lane                 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 844  | 715  | 480  | 844  | 326  | 290  |
| V/C Ratio(X)                 | 0.68 | 0.20 | 0.10 | 0.46 | 0.43 | 0.21 |
| Avail Cap(c_a), veh/h        | 1368 | 1160 | 685  | 1368 | 1303 | 1160 |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 4.8  | 3.6  | 7.3  | 4.2  | 7.9  | 7.6  |
| Incr Delay (d2), s/veh       | 1.0  | 0.1  | 0.1  | 0.4  | 0.9  | 0.4  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.2  | 0.0  | 0.1  | 0.1  | 0.3  | 0.1  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 5.7  | 3.8  | 7.4  | 4.5  | 8.8  | 8.0  |
| LnGrp LOS                    | A    | A    | A    | A    | A    | A    |
| Approach Vol, veh/h          | 723  |      |      | 433  | 202  |      |
| Approach Delay, s/veh        | 5.3  |      |      | 4.8  | 8.6  |      |
| Approach LOS                 | A    |      |      | A    | A    |      |
| Timer - Assigned Phs         |      | 2    |      | 4    |      | 8    |
| Phs Duration (G+Y+Rc), s     |      | 8.0  |      | 13.9 |      | 13.9 |
| Change Period (Y+Rc), s      |      | 4.0  |      | 4.0  |      | 4.0  |
| Max Green Setting (Gmax), s  |      | 16.0 |      | 16.0 |      | 16.0 |
| Max Q Clear Time (g_c+l1), s |      | 3.5  |      | 7.4  |      | 8.5  |
| Green Ext Time (p_c), s      |      | 0.4  |      | 2.4  |      | 1.4  |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 5.7  |      |      |      |
| HCM 6th LOS                  |      |      | A    |      |      |      |

Generations at Green Valley  
 10: Bass Lake Rd./Alexandrite Dr & Green Valley Rd.

Near Term  
 Timing Plan: PM



| Lane Group              | EBL  | EBT  | WBL   | WBT  | NBT  | NBR  | SBT  |
|-------------------------|------|------|-------|------|------|------|------|
| Lane Group Flow (vph)   | 5    | 995  | 129   | 442  | 52   | 263  | 24   |
| v/c Ratio               | 0.06 | 0.83 | 1.06  | 0.32 | 0.30 | 0.67 | 0.18 |
| Control Delay           | 46.0 | 22.2 | 141.1 | 6.4  | 42.4 | 14.4 | 27.5 |
| Queue Delay             | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 46.0 | 22.2 | 141.1 | 6.4  | 42.4 | 14.4 | 27.5 |
| Queue Length 50th (ft)  | 3    | 296  | 67    | 40   | 25   | 0    | 4    |
| Queue Length 95th (ft)  | 10   | 371  | #174  | 169  | 46   | 5    | 12   |
| Internal Link Dist (ft) |      | 3318 |       | 1151 | 1084 |      | 521  |
| Turn Bay Length (ft)    | 285  |      | 435   |      |      | 150  |      |
| Base Capacity (vph)     | 81   | 1192 | 122   | 1391 | 327  | 507  | 322  |
| Starvation Cap Reductn  | 0    | 0    | 0     | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0     | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0     | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.06 | 0.83 | 1.06  | 0.32 | 0.16 | 0.52 | 0.07 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
10: Bass Lake Rd./Alexandrite Dr & Green Valley Rd.

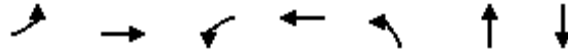
Near Term  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL   | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|-------|------|------|------|------|------|------|------|------|
| Lane Configurations          | ↖    | ↗    |      | ↖     | ↗    |      |      | ↖    | ↗    |      | ↕    |      |
| Traffic Volume (veh/h)       | 3    | 555  | 52   | 98    | 335  | 1    | 33   | 0    | 168  | 3    | 1    | 8    |
| Future Volume (veh/h)        | 3    | 555  | 52   | 98    | 335  | 1    | 33   | 0    | 168  | 3    | 1    | 8    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00  |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |       | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 5    | 910  | 85   | 129   | 441  | 1    | 52   | 0    | 262  | 6    | 2    | 16   |
| Peak Hour Factor             | 0.61 | 0.61 | 0.61 | 0.76  | 0.76 | 0.76 | 0.64 | 0.64 | 0.64 | 0.50 | 0.50 | 0.50 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2     | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 9    | 958  | 89   | 116   | 1172 | 3    | 309  | 0    | 275  | 8    | 3    | 22   |
| Arrive On Green              | 0.01 | 0.57 | 0.57 | 0.06  | 0.63 | 0.63 | 0.17 | 0.00 | 0.17 | 0.02 | 0.02 | 0.02 |
| Sat Flow, veh/h              | 1781 | 1685 | 157  | 1781  | 1865 | 4    | 1781 | 0    | 1585 | 413  | 138  | 1101 |
| Grp Volume(v), veh/h         | 5    | 0    | 995  | 129   | 0    | 442  | 52   | 0    | 262  | 24   | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1842 | 1781  | 0    | 1870 | 1781 | 0    | 1585 | 1652 | 0    | 0    |
| Q Serve(g_s), s              | 0.3  | 0.0  | 46.8 | 6.0   | 0.0  | 10.6 | 2.3  | 0.0  | 15.1 | 1.3  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 0.3  | 0.0  | 46.8 | 6.0   | 0.0  | 10.6 | 2.3  | 0.0  | 15.1 | 1.3  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 0.09 | 1.00  |      | 0.00 | 1.00 |      | 1.00 | 0.25 |      | 0.67 |
| Lane Grp Cap(c), veh/h       | 9    | 0    | 1047 | 116   | 0    | 1175 | 309  | 0    | 275  | 33   | 0    | 0    |
| V/C Ratio(X)                 | 0.54 | 0.00 | 0.95 | 1.11  | 0.00 | 0.38 | 0.17 | 0.00 | 0.95 | 0.73 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 77   | 0    | 1117 | 116   | 0    | 1175 | 309  | 0    | 275  | 286  | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 1.00 | 1.00  | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 45.8 | 0.0  | 18.7 | 43.2  | 0.0  | 8.4  | 32.5 | 0.0  | 37.8 | 45.0 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 40.8 | 0.0  | 15.9 | 117.9 | 0.0  | 0.2  | 0.3  | 0.0  | 41.8 | 26.3 | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.2  | 0.0  | 19.9 | 6.3   | 0.0  | 3.3  | 1.0  | 0.0  | 8.6  | 0.8  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |       |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 86.6 | 0.0  | 34.5 | 161.0 | 0.0  | 8.6  | 32.8 | 0.0  | 79.6 | 71.3 | 0.0  | 0.0  |
| LnGrp LOS                    | F    | A    | C    | F     | A    | A    | C    | A    | E    | E    | A    | A    |
| Approach Vol, veh/h          |      | 1000 |      |       | 571  |      |      | 314  |      |      |      | 24   |
| Approach Delay, s/veh        |      | 34.8 |      |       | 43.0 |      |      | 71.9 |      |      |      | 71.3 |
| Approach LOS                 |      | C    |      |       | D    |      |      | E    |      |      |      | E    |
| Timer - Assigned Phs         |      | 2    | 3    | 4     |      | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 20.0 | 10.0 | 56.5  |      | 5.8  | 4.5  | 62.0 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  | 4.0  | 4.0   |      | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 16.0 | 6.0  | 56.0  |      | 16.0 | 4.0  | 58.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 17.1 | 8.0  | 48.8  |      | 3.3  | 2.3  | 12.6 |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.0  | 0.0  | 3.7   |      | 0.0  | 0.0  | 2.5  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |       |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 43.8 |       |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      | D    |       |      |      |      |      |      |      |      |      |

Generations at Green Valley  
 11: Cambridge Rd./Peridot Dr & Green Valley Rd.

Near Term  
 Timing Plan: PM



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBT  |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 29   | 993  | 52   | 466  | 133  | 97   | 36   |
| v/c Ratio               | 0.26 | 0.90 | 0.58 | 0.39 | 0.54 | 0.33 | 0.23 |
| Control Delay           | 46.8 | 31.1 | 69.1 | 11.2 | 42.7 | 14.5 | 31.4 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 46.8 | 31.1 | 69.1 | 11.2 | 42.7 | 14.5 | 31.4 |
| Queue Length 50th (ft)  | 15   | 486  | 28   | 104  | 69   | 8    | 12   |
| Queue Length 95th (ft)  | 34   | 470  | #73  | 204  | 110  | 39   | 36   |
| Internal Link Dist (ft) |      | 1151 |      | 2235 |      | 1080 | 510  |
| Turn Bay Length (ft)    | 100  |      | 125  |      | 125  |      |      |
| Base Capacity (vph)     | 111  | 1098 | 89   | 1189 | 357  | 393  | 361  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.26 | 0.90 | 0.58 | 0.39 | 0.37 | 0.25 | 0.10 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
11: Cambridge Rd./Peridot Dr & Green Valley Rd.

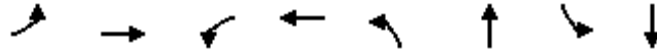
Near Term  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 20   | 533  | 142  | 40   | 346  | 13   | 105  | 13   | 64   | 10   | 8    | 10   |
| Future Volume (veh/h)        | 20   | 533  | 142  | 40   | 346  | 13   | 105  | 13   | 64   | 10   | 8    | 10   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 29   | 784  | 209  | 52   | 449  | 17   | 133  | 16   | 81   | 13   | 10   | 13   |
| Peak Hour Factor             | 0.68 | 0.68 | 0.68 | 0.77 | 0.77 | 0.77 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 44   | 850  | 227  | 65   | 1091 | 41   | 192  | 29   | 146  | 18   | 14   | 18   |
| Arrive On Green              | 0.02 | 0.60 | 0.60 | 0.04 | 0.61 | 0.61 | 0.11 | 0.11 | 0.11 | 0.03 | 0.03 | 0.03 |
| Sat Flow, veh/h              | 1781 | 1423 | 379  | 1781 | 1790 | 68   | 1781 | 268  | 1358 | 624  | 480  | 624  |
| Grp Volume(v), veh/h         | 29   | 0    | 993  | 52   | 0    | 466  | 133  | 0    | 97   | 36   | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1802 | 1781 | 0    | 1858 | 1781 | 0    | 1626 | 1727 | 0    | 0    |
| Q Serve(g_s), s              | 1.1  | 0.0  | 34.4 | 2.0  | 0.0  | 9.1  | 5.0  | 0.0  | 3.9  | 1.4  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 1.1  | 0.0  | 34.4 | 2.0  | 0.0  | 9.1  | 5.0  | 0.0  | 3.9  | 1.4  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 0.21 | 1.00 |      | 0.04 | 1.00 |      | 0.84 | 0.36 |      | 0.36 |
| Lane Grp Cap(c), veh/h       | 44   | 0    | 1077 | 65   | 0    | 1133 | 192  | 0    | 175  | 50   | 0    | 0    |
| V/C Ratio(X)                 | 0.66 | 0.00 | 0.92 | 0.80 | 0.00 | 0.41 | 0.69 | 0.00 | 0.55 | 0.72 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 128  | 0    | 1240 | 102  | 0    | 1252 | 409  | 0    | 373  | 396  | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 33.7 | 0.0  | 12.6 | 33.3 | 0.0  | 7.1  | 30.0 | 0.0  | 29.5 | 33.6 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 15.6 | 0.0  | 10.5 | 20.5 | 0.0  | 0.2  | 4.5  | 0.0  | 2.7  | 17.9 | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.6  | 0.0  | 11.5 | 1.2  | 0.0  | 2.3  | 2.3  | 0.0  | 1.6  | 0.8  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 49.4 | 0.0  | 23.0 | 53.8 | 0.0  | 7.3  | 34.5 | 0.0  | 32.3 | 51.5 | 0.0  | 0.0  |
| LnGrp LOS                    | D    | A    | C    | D    | A    | A    | C    | A    | C    | D    | A    | A    |
| Approach Vol, veh/h          |      | 1022 |      |      | 518  |      |      | 230  |      |      |      | 36   |
| Approach Delay, s/veh        |      | 23.8 |      |      | 12.0 |      |      | 33.5 |      |      |      | 51.5 |
| Approach LOS                 |      | C    |      |      | B    |      |      | C    |      |      |      | D    |
| Timer - Assigned Phs         |      | 2    | 3    | 4    |      | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 11.5 | 6.6  | 45.7 |      | 6.0  | 5.7  | 46.5 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 16.0 | 4.0  | 48.0 |      | 16.0 | 5.0  | 47.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 7.0  | 4.0  | 36.4 |      | 3.4  | 3.1  | 11.1 |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.6  | 0.0  | 5.2  |      | 0.1  | 0.0  | 2.6  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      | 22.2 |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      |      | C    |      |      |      |      |      |      |      |      |

Generations at Green Valley  
 12: Cameron Park Dr. & Green Valley Rd.

Near Term  
 Timing Plan: PM



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 63   | 647  | 113  | 257  | 276  | 263  | 29   | 109  |
| v/c Ratio               | 0.41 | 0.87 | 0.68 | 0.31 | 0.80 | 0.47 | 0.25 | 0.46 |
| Control Delay           | 44.7 | 35.3 | 60.6 | 17.3 | 51.9 | 19.3 | 43.2 | 36.6 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 44.7 | 35.3 | 60.6 | 17.3 | 51.9 | 19.3 | 43.2 | 36.6 |
| Queue Length 50th (ft)  | 31   | 272  | 58   | 85   | 138  | 66   | 14   | 46   |
| Queue Length 95th (ft)  | 56   | 296  | #134 | 140  | #278 | 147  | 31   | 65   |
| Internal Link Dist (ft) |      | 2235 |      | 1414 |      | 1563 |      | 921  |
| Turn Bay Length (ft)    | 270  |      | 150  |      | 125  |      | 55   |      |
| Base Capacity (vph)     | 165  | 817  | 165  | 839  | 354  | 690  | 118  | 443  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.38 | 0.79 | 0.68 | 0.31 | 0.78 | 0.38 | 0.25 | 0.25 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
12: Cameron Park Dr. & Green Valley Rd.

Near Term  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          | ↖    | ↗    |      | ↖    | ↗    |      | ↖    | ↗    |      | ↖    | ↗    |      |
| Traffic Volume (veh/h)       | 44   | 254  | 199  | 95   | 201  | 15   | 243  | 95   | 136  | 19   | 57   | 15   |
| Future Volume (veh/h)        | 44   | 254  | 199  | 95   | 201  | 15   | 243  | 95   | 136  | 19   | 57   | 15   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 63   | 363  | 284  | 113  | 239  | 18   | 276  | 108  | 155  | 29   | 86   | 23   |
| Peak Hour Factor             | 0.70 | 0.70 | 0.70 | 0.84 | 0.84 | 0.84 | 0.88 | 0.88 | 0.88 | 0.66 | 0.66 | 0.66 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 80   | 402  | 314  | 144  | 772  | 58   | 323  | 173  | 248  | 44   | 131  | 35   |
| Arrive On Green              | 0.05 | 0.41 | 0.41 | 0.08 | 0.45 | 0.45 | 0.18 | 0.25 | 0.25 | 0.02 | 0.09 | 0.09 |
| Sat Flow, veh/h              | 1781 | 973  | 761  | 1781 | 1718 | 129  | 1781 | 694  | 997  | 1781 | 1422 | 380  |
| Grp Volume(v), veh/h         | 63   | 0    | 647  | 113  | 0    | 257  | 276  | 0    | 263  | 29   | 0    | 109  |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1733 | 1781 | 0    | 1847 | 1781 | 0    | 1691 | 1781 | 0    | 1802 |
| Q Serve(g_s), s              | 2.4  | 0.0  | 24.1 | 4.3  | 0.0  | 6.1  | 10.4 | 0.0  | 9.5  | 1.1  | 0.0  | 4.0  |
| Cycle Q Clear(g_c), s        | 2.4  | 0.0  | 24.1 | 4.3  | 0.0  | 6.1  | 10.4 | 0.0  | 9.5  | 1.1  | 0.0  | 4.0  |
| Prop In Lane                 | 1.00 |      | 0.44 | 1.00 |      | 0.07 | 1.00 |      | 0.59 | 1.00 |      | 0.21 |
| Lane Grp Cap(c), veh/h       | 80   | 0    | 716  | 144  | 0    | 830  | 323  | 0    | 421  | 44   | 0    | 166  |
| V/C Ratio(X)                 | 0.78 | 0.00 | 0.90 | 0.78 | 0.00 | 0.31 | 0.85 | 0.00 | 0.62 | 0.66 | 0.00 | 0.65 |
| Avail Cap(c_a), veh/h        | 181  | 0    | 855  | 181  | 0    | 911  | 388  | 0    | 687  | 129  | 0    | 470  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh     | 32.6 | 0.0  | 18.9 | 31.1 | 0.0  | 12.1 | 27.3 | 0.0  | 23.0 | 33.3 | 0.0  | 30.2 |
| Incr Delay (d2), s/veh       | 15.2 | 0.0  | 11.5 | 16.0 | 0.0  | 0.2  | 14.7 | 0.0  | 1.5  | 15.5 | 0.0  | 4.3  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 1.3  | 0.0  | 9.7  | 2.3  | 0.0  | 2.1  | 5.3  | 0.0  | 3.5  | 0.6  | 0.0  | 1.9  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 47.8 | 0.0  | 30.4 | 47.1 | 0.0  | 12.4 | 42.0 | 0.0  | 24.6 | 48.8 | 0.0  | 34.5 |
| LnGrp LOS                    | D    | A    | C    | D    | A    | B    | D    | A    | C    | D    | A    | C    |
| Approach Vol, veh/h          |      | 710  |      |      | 370  |      |      | 539  |      |      | 138  |      |
| Approach Delay, s/veh        |      | 32.0 |      |      | 23.0 |      |      | 33.5 |      |      | 37.5 |      |
| Approach LOS                 |      | C    |      |      | C    |      |      | C    |      |      | D    |      |
| Timer - Assigned Phs         | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 5.7  | 21.2 | 9.6  | 32.5 | 16.5 | 10.4 | 7.1  | 35.0 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 5.0  | 28.0 | 7.0  | 34.0 | 15.0 | 18.0 | 7.0  | 34.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 3.1  | 11.5 | 6.3  | 26.1 | 12.4 | 6.0  | 4.4  | 8.1  |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 1.3  | 0.0  | 2.4  | 0.2  | 0.3  | 0.0  | 1.3  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 31.0 |      |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      | C    |      |      |      |      |      |      |      |      |      |



Intersection

Intersection Delay, s/veh80.4

Intersection LOS F

| Movement            | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations |      | ↔    | ↔    |      | ↔    |      | ↔    | ↔    |      | ↔    | ↔    |      |
| Traffic Vol, veh/h  | 3    | 39   | 524  | 12   | 24   | 12   | 458  | 266  | 16   | 7    | 188  | 0    |
| Future Vol, veh/h   | 3    | 39   | 524  | 12   | 24   | 12   | 458  | 266  | 16   | 7    | 188  | 0    |
| Peak Hour Factor    | 0.86 | 0.86 | 0.86 | 0.52 | 0.52 | 0.52 | 0.92 | 0.92 | 0.92 | 0.75 | 0.75 | 0.75 |
| Heavy Vehicles, %   | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow           | 3    | 45   | 609  | 23   | 46   | 23   | 498  | 289  | 17   | 9    | 251  | 0    |
| Number of Lanes     | 0    | 1    | 1    | 0    | 1    | 0    | 1    | 1    | 0    | 1    | 1    | 0    |

| Approach                      | EB    | WB   | NB   | SB   |
|-------------------------------|-------|------|------|------|
| Opposing Approach             | WB    | EB   | SB   | NB   |
| Opposing Lanes                | 1     | 2    | 2    | 2    |
| Conflicting Approach Left SB  |       | NB   | EB   | WB   |
| Conflicting Lanes Left        | 2     | 2    | 2    | 1    |
| Conflicting Approach Right NB |       | SB   | WB   | EB   |
| Conflicting Lanes Right       | 2     | 2    | 1    | 2    |
| HCM Control Delay             | 119.3 | 15.6 | 74.8 | 22.6 |
| HCM LOS                       | F     | C    | F    | C    |

| Lane                   | NBLn1 | NBLn2 | EBLn1 | EBLn2 | WBLn1 | SBLn1 | SBLn2 |
|------------------------|-------|-------|-------|-------|-------|-------|-------|
| Vol Left, %            | 100%  | 0%    | 7%    | 0%    | 25%   | 100%  | 0%    |
| Vol Thru, %            | 0%    | 94%   | 93%   | 0%    | 50%   | 0%    | 100%  |
| Vol Right, %           | 0%    | 6%    | 0%    | 100%  | 25%   | 0%    | 0%    |
| Sign Control           | Stop  | Stop  | Stop  | Stop  | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 458   | 282   | 42    | 524   | 48    | 7     | 188   |
| LT Vol                 | 458   | 0     | 3     | 0     | 12    | 7     | 0     |
| Through Vol            | 0     | 266   | 39    | 0     | 24    | 0     | 188   |
| RT Vol                 | 0     | 16    | 0     | 524   | 12    | 0     | 0     |
| Lane Flow Rate         | 498   | 307   | 49    | 609   | 92    | 9     | 251   |
| Geometry Grp           | 7     | 7     | 7     | 7     | 6     | 7     | 7     |
| Degree of Util (X)     | 1.11  | 0.637 | 0.105 | 1.189 | 0.231 | 0.023 | 0.575 |
| Departure Headway (Hd) | 8.624 | 8.064 | 8.017 | 7.261 | 9.71  | 9.433 | 8.91  |
| Convergence, Y/N       | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   |
| Cap                    | 423   | 451   | 450   | 506   | 372   | 382   | 409   |
| Service Time           | 6.324 | 5.764 | 5.717 | 4.961 | 7.71  | 7.133 | 6.61  |
| HCM Lane V/C Ratio     | 1.177 | 0.681 | 0.109 | 1.204 | 0.247 | 0.024 | 0.614 |
| HCM Control Delay      | 106.2 | 23.9  | 11.7  | 127.9 | 15.6  | 12.4  | 23    |
| HCM Lane LOS           | F     | C     | B     | F     | C     | B     | C     |
| HCM 95th-tile Q        | 16.4  | 4.3   | 0.3   | 21.8  | 0.9   | 0.1   | 3.5   |

Generations at Green Valley  
 14: El Dorado Hills Blvd. & Harvard Way

Near Term  
 Timing Plan: PM



| Lane Group              | WBL  | WBR  | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|
| Lane Group Flow (vph)   | 243  | 250  | 1054 | 223  | 564  |
| v/c Ratio               | 0.57 | 0.44 | 0.75 | 0.61 | 0.27 |
| Control Delay           | 22.2 | 5.4  | 15.6 | 32.1 | 5.7  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 22.2 | 5.4  | 15.6 | 32.1 | 5.7  |
| Queue Length 50th (ft)  | 64   | 0    | 114  | 33   | 34   |
| Queue Length 95th (ft)  | 91   | 20   | 173  | #81  | 67   |
| Internal Link Dist (ft) | 2093 |      | 5028 |      | 7812 |
| Turn Bay Length (ft)    |      |      |      | 190  |      |
| Base Capacity (vph)     | 604  | 704  | 1649 | 366  | 2340 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.40 | 0.36 | 0.64 | 0.61 | 0.24 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
14: El Dorado Hills Blvd. & Harvard Way

Near Term  
Timing Plan: PM



| Movement                     | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 175  | 180  | 665  | 210  | 203  | 513  |
| Future Volume (veh/h)        | 175  | 180  | 665  | 210  | 203  | 513  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 | 1.00 |      | 1.00 | 1.00 |      |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      | No   |      |      | No   |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 243  | 250  | 801  | 253  | 223  | 564  |
| Peak Hour Factor             | 0.72 | 0.72 | 0.83 | 0.83 | 0.91 | 0.91 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 387  | 344  | 1064 | 336  | 351  | 2116 |
| Arrive On Green              | 0.22 | 0.22 | 0.40 | 0.40 | 0.10 | 0.60 |
| Sat Flow, veh/h              | 1781 | 1585 | 2751 | 839  | 3456 | 3647 |
| Grp Volume(v), veh/h         | 243  | 250  | 536  | 518  | 223  | 564  |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1585 | 1777 | 1719 | 1728 | 1777 |
| Q Serve(g_s), s              | 5.3  | 6.3  | 11.1 | 11.1 | 2.6  | 3.3  |
| Cycle Q Clear(g_c), s        | 5.3  | 6.3  | 11.1 | 11.1 | 2.6  | 3.3  |
| Prop In Lane                 | 1.00 | 1.00 |      | 0.49 | 1.00 |      |
| Lane Grp Cap(c), veh/h       | 387  | 344  | 711  | 688  | 351  | 2116 |
| V/C Ratio(X)                 | 0.63 | 0.73 | 0.75 | 0.75 | 0.63 | 0.27 |
| Avail Cap(c_a), veh/h        | 667  | 593  | 915  | 885  | 404  | 2578 |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 15.2 | 15.5 | 11.0 | 11.0 | 18.4 | 4.2  |
| Incr Delay (d2), s/veh       | 1.7  | 2.9  | 2.6  | 2.7  | 2.6  | 0.1  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 1.9  | 2.1  | 3.1  | 3.0  | 0.9  | 0.3  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 16.8 | 18.5 | 13.6 | 13.7 | 21.0 | 4.2  |
| LnGrp LOS                    | B    | B    | B    | B    | C    | A    |
| Approach Vol, veh/h          |      |      | 1054 |      |      | 787  |
| Approach Delay, s/veh        |      |      | 13.7 |      |      | 9.0  |
| Approach LOS                 |      |      | B    |      |      | A    |
| Timer - Assigned Phs         | 1    | 2    |      |      | 6    | 8    |
| Phs Duration (G+Y+Rc), s     | 8.3  | 21.1 |      |      | 29.4 | 13.3 |
| Change Period (Y+Rc), s      | 4.0  | 4.0  |      |      | 4.0  | 4.0  |
| Max Green Setting (Gmax), s  | 5.0  | 22.0 |      |      | 31.0 | 16.0 |
| Max Q Clear Time (g_c+l1), s | 4.6  | 13.1 |      |      | 5.3  | 8.3  |
| Green Ext Time (p_c), s      | 0.0  | 4.0  |      |      | 3.4  | 1.1  |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 12.9 |      |      |      |
| HCM 6th LOS                  |      |      | B    |      |      |      |

Generations at Green Valley  
 15: El Dorado Hills Blvd. & Wilson Blvd

Near Term  
 Timing Plan: PM



| Lane Group              | EBT  | EBR  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 165  | 110  | 27   | 152  | 960  | 9    | 865  |
| v/c Ratio               | 0.52 | 0.24 | 0.08 | 0.63 | 0.44 | 0.06 | 0.51 |
| Control Delay           | 20.7 | 4.9  | 11.2 | 35.5 | 8.5  | 21.4 | 13.5 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 20.7 | 4.9  | 11.2 | 35.5 | 8.5  | 21.4 | 13.5 |
| Queue Length 50th (ft)  | 37   | 0    | 4    | 38   | 60   | 2    | 91   |
| Queue Length 95th (ft)  | 79   | 25   | 17   | #119 | 183  | 13   | #174 |
| Internal Link Dist (ft) | 1459 |      | 233  |      | 3231 |      | 5028 |
| Turn Bay Length (ft)    |      |      |      | 278  |      | 90   |      |
| Base Capacity (vph)     | 487  | 648  | 540  | 242  | 2194 | 161  | 1681 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.34 | 0.17 | 0.05 | 0.63 | 0.44 | 0.06 | 0.51 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
15: El Dorado Hills Blvd. & Wilson Blvd

Near Term  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      | ↖    | ↗    |      | ↔    |      | ↖    | ↕    |      | ↖    | ↕    |      |
| Traffic Volume (veh/h)       | 145  | 6    | 101  | 14   | 5    | 6    | 140  | 867  | 17   | 8    | 701  | 95   |
| Future Volume (veh/h)        | 145  | 6    | 101  | 14   | 5    | 6    | 140  | 867  | 17   | 8    | 701  | 95   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 158  | 7    | 110  | 15   | 5    | 7    | 152  | 942  | 18   | 9    | 762  | 103  |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 426  | 11   | 245  | 202  | 69   | 43   | 194  | 1856 | 35   | 17   | 1324 | 179  |
| Arrive On Green              | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.11 | 0.52 | 0.52 | 0.01 | 0.42 | 0.42 |
| Sat Flow, veh/h              | 1556 | 69   | 1585 | 352  | 445  | 279  | 1781 | 3567 | 68   | 1781 | 3146 | 425  |
| Grp Volume(v), veh/h         | 165  | 0    | 110  | 27   | 0    | 0    | 152  | 469  | 491  | 9    | 430  | 435  |
| Grp Sat Flow(s),veh/h/ln     | 1624 | 0    | 1585 | 1075 | 0    | 0    | 1781 | 1777 | 1858 | 1781 | 1777 | 1794 |
| Q Serve(g_s), s              | 0.0  | 0.0  | 2.4  | 0.0  | 0.0  | 0.0  | 3.2  | 6.5  | 6.5  | 0.2  | 7.0  | 7.0  |
| Cycle Q Clear(g_c), s        | 3.3  | 0.0  | 2.4  | 3.3  | 0.0  | 0.0  | 3.2  | 6.5  | 6.5  | 0.2  | 7.0  | 7.0  |
| Prop In Lane                 | 0.96 |      | 1.00 | 0.56 |      | 0.26 | 1.00 |      | 0.04 | 1.00 |      | 0.24 |
| Lane Grp Cap(c), veh/h       | 436  | 0    | 245  | 313  | 0    | 0    | 194  | 925  | 967  | 17   | 748  | 755  |
| V/C Ratio(X)                 | 0.38 | 0.00 | 0.45 | 0.09 | 0.00 | 0.00 | 0.78 | 0.51 | 0.51 | 0.53 | 0.58 | 0.58 |
| Avail Cap(c_a), veh/h        | 814  | 0    | 667  | 695  | 0    | 0    | 281  | 925  | 967  | 187  | 748  | 755  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 15.0 | 0.0  | 14.6 | 13.8 | 0.0  | 0.0  | 16.5 | 5.9  | 5.9  | 18.7 | 8.4  | 8.4  |
| Incr Delay (d2), s/veh       | 0.5  | 0.0  | 1.3  | 0.1  | 0.0  | 0.0  | 8.6  | 2.0  | 1.9  | 23.2 | 3.2  | 3.2  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 1.1  | 0.0  | 0.8  | 0.2  | 0.0  | 0.0  | 1.4  | 1.5  | 1.5  | 0.2  | 2.0  | 2.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 15.5 | 0.0  | 15.9 | 14.0 | 0.0  | 0.0  | 25.1 | 7.9  | 7.8  | 42.0 | 11.6 | 11.6 |
| LnGrp LOS                    | B    | A    | B    | B    | A    | A    | C    | A    | A    | D    | B    | B    |
| Approach Vol, veh/h          |      | 275  |      |      | 27   |      |      | 1112 |      |      |      | 874  |
| Approach Delay, s/veh        |      | 15.7 |      |      | 14.0 |      |      | 10.2 |      |      |      | 11.9 |
| Approach LOS                 |      | B    |      |      | B    |      |      | B    |      |      |      | B    |
| Timer - Assigned Phs         | 1    | 2    |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 4.4  | 23.8 |      | 9.9  | 8.1  | 20.0 |      | 9.9  |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0  | 18.0 |      | 16.0 | 6.0  | 16.0 |      | 16.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 2.2  | 8.5  |      | 5.3  | 5.2  | 9.0  |      | 5.3  |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 3.8  |      | 0.9  | 0.0  | 2.7  |      | 0.0  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      |      |      |      |      |      |      |      | 11.6 |      |
| HCM 6th LOS                  |      |      |      |      |      |      |      |      |      |      | B    |      |

Generations at Green Valley  
 16: El Dorado Hills Blvd. & Lassen Ln/Serrano Pkwy.

Near Term  
 Timing Plan: PM



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | NBR  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 23   | 63   | 136  | 133  | 102  | 1162 | 383  | 41   | 892  |
| v/c Ratio               | 0.21 | 0.42 | 0.60 | 0.55 | 0.55 | 0.56 | 0.24 | 0.38 | 0.52 |
| Control Delay           | 28.9 | 19.3 | 31.3 | 25.8 | 34.4 | 9.9  | 0.4  | 36.0 | 12.1 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 28.9 | 19.3 | 31.3 | 25.8 | 34.4 | 9.9  | 0.4  | 36.0 | 12.1 |
| Queue Length 50th (ft)  | 7    | 2    | 41   | 32   | 29   | 94   | 0    | 12   | 103  |
| Queue Length 95th (ft)  | 21   | 22   | 74   | 65   | 64   | 191  | 0    | #44  | 168  |
| Internal Link Dist (ft) |      | 321  |      | 6047 |      | 1160 |      |      | 3231 |
| Turn Bay Length (ft)    | 70   |      | 410  |      | 260  |      |      | 100  |      |
| Base Capacity (vph)     | 108  | 151  | 889  | 885  | 216  | 2064 | 1583 | 108  | 1721 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.21 | 0.42 | 0.15 | 0.15 | 0.47 | 0.56 | 0.24 | 0.38 | 0.52 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
 16: El Dorado Hills Blvd. & Lassen Ln/Serrano Pkwy.

Near Term  
 Timing Plan: PM



| Movement               | EBL   | EBT  | EBR  | WBL   | WBT  | WBR  | NBL  | NBT   | NBR   | SBL   | SBT  | SBR  |
|------------------------|-------|------|------|-------|------|------|------|-------|-------|-------|------|------|
| Lane Configurations    | ↖     | ↗    |      | ↖     | ↔    |      | ↖    | ↑↑    | ↗     | ↖     | ↗    |      |
| Traffic Volume (vph)   | 17    | 5    | 41   | 182   | 9    | 22   | 84   | 953   | 314   | 36    | 754  | 31   |
| Future Volume (vph)    | 17    | 5    | 41   | 182   | 9    | 22   | 84   | 953   | 314   | 36    | 754  | 31   |
| Ideal Flow (vphpl)     | 1900  | 1900 | 1900 | 1900  | 1900 | 1900 | 1900 | 1900  | 1900  | 1900  | 1900 | 1900 |
| Total Lost time (s)    | 3.0   | 3.0  |      | 3.0   | 3.0  |      | 3.0  | 5.2   | 4.0   | 3.0   | 5.2  |      |
| Lane Util. Factor      | 1.00  | 1.00 |      | 0.95  | 0.95 |      | 1.00 | 0.95  | 1.00  | 1.00  | 0.95 |      |
| Frt                    | 1.00  | 0.87 |      | 1.00  | 0.97 |      | 1.00 | 1.00  | 0.85  | 1.00  | 0.99 |      |
| Flt Protected          | 0.95  | 1.00 |      | 0.95  | 0.97 |      | 0.95 | 1.00  | 1.00  | 0.95  | 1.00 |      |
| Satd. Flow (prot)      | 1770  | 1614 |      | 1681  | 1655 |      | 1770 | 3539  | 1583  | 1770  | 3518 |      |
| Flt Permitted          | 0.95  | 1.00 |      | 0.95  | 0.97 |      | 0.95 | 1.00  | 1.00  | 0.95  | 1.00 |      |
| Satd. Flow (perm)      | 1770  | 1614 |      | 1681  | 1655 |      | 1770 | 3539  | 1583  | 1770  | 3518 |      |
| Peak-hour factor, PHF  | 0.73  | 0.73 | 0.73 | 0.79  | 0.79 | 0.79 | 0.82 | 0.82  | 0.82  | 0.88  | 0.88 | 0.88 |
| Adj. Flow (vph)        | 23    | 7    | 56   | 230   | 11   | 28   | 102  | 1162  | 383   | 41    | 857  | 35   |
| RTOR Reduction (vph)   | 0     | 54   | 0    | 0     | 19   | 0    | 0    | 0     | 0     | 0     | 3    | 0    |
| Lane Group Flow (vph)  | 23    | 9    | 0    | 136   | 114  | 0    | 102  | 1162  | 383   | 41    | 889  | 0    |
| Turn Type              | Split | NA   |      | Split | NA   |      | Prot | NA    | Free  | Prot  | NA   |      |
| Protected Phases       | 4     | 4    |      | 8     | 8    |      | 5    | 2     |       | 1     | 6    |      |
| Permitted Phases       |       |      |      |       |      |      |      |       | Free  |       |      |      |
| Actuated Green, G (s)  | 1.7   | 1.7  |      | 6.7   | 6.7  |      | 5.8  | 28.9  | 52.6  | 1.1   | 24.2 |      |
| Effective Green, g (s) | 1.7   | 1.7  |      | 6.7   | 6.7  |      | 5.8  | 28.9  | 52.6  | 1.1   | 24.2 |      |
| Actuated g/C Ratio     | 0.03  | 0.03 |      | 0.13  | 0.13 |      | 0.11 | 0.55  | 1.00  | 0.02  | 0.46 |      |
| Clearance Time (s)     | 3.0   | 3.0  |      | 3.0   | 3.0  |      | 3.0  | 5.2   |       | 3.0   | 5.2  |      |
| Vehicle Extension (s)  | 0.2   | 0.2  |      | 0.2   | 0.2  |      | 0.2  | 0.2   |       | 0.2   | 0.2  |      |
| Lane Grp Cap (vph)     | 57    | 52   |      | 214   | 210  |      | 195  | 1944  | 1583  | 37    | 1618 |      |
| v/s Ratio Prot         | 0.01  | 0.01 |      | c0.08 | 0.07 |      | 0.06 | c0.33 |       | c0.02 | 0.25 |      |
| v/s Ratio Perm         |       |      |      |       |      |      |      |       | c0.24 |       |      |      |
| v/c Ratio              | 0.40  | 0.17 |      | 0.64  | 0.54 |      | 0.52 | 0.60  | 0.24  | 1.11  | 0.55 |      |
| Uniform Delay, d1      | 25.0  | 24.8 |      | 21.8  | 21.5 |      | 22.1 | 8.0   | 0.0   | 25.8  | 10.3 |      |
| Progression Factor     | 1.00  | 1.00 |      | 1.00  | 1.00 |      | 1.00 | 1.00  | 1.00  | 1.00  | 1.00 |      |
| Incremental Delay, d2  | 1.7   | 0.6  |      | 4.5   | 1.5  |      | 1.2  | 1.4   | 0.4   | 182.0 | 1.3  |      |
| Delay (s)              | 26.7  | 25.3 |      | 26.3  | 23.0 |      | 23.3 | 9.3   | 0.4   | 207.7 | 11.6 |      |
| Level of Service       | C     | C    |      | C     | C    |      | C    | A     | A     | F     | B    |      |
| Approach Delay (s)     |       | 25.7 |      |       | 24.7 |      |      | 8.1   |       |       | 20.2 |      |
| Approach LOS           |       | C    |      |       | C    |      |      | A     |       |       | C    |      |

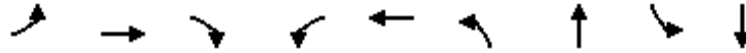
Intersection Summary

|                                   |       |                           |      |
|-----------------------------------|-------|---------------------------|------|
| HCM 2000 Control Delay            | 14.0  | HCM 2000 Level of Service | B    |
| HCM 2000 Volume to Capacity ratio | 0.62  |                           |      |
| Actuated Cycle Length (s)         | 52.6  | Sum of lost time (s)      | 14.2 |
| Intersection Capacity Utilization | 53.3% | ICU Level of Service      | A    |
| Analysis Period (min)             | 15    |                           |      |

c Critical Lane Group

Generations at Green Valley  
 17: El Dorado Hills Blvd. & Saratoga Wy. (North)/Park Dr

Near Term  
 Timing Plan: PM



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL    | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|--------|------|------|------|
| Lane Group Flow (vph)   | 242  | 247  | 501  | 68   | 281  | 419    | 1131 | 146  | 1021 |
| v/c Ratio               | 0.76 | 0.76 | 0.77 | 0.28 | 0.88 | 6.55   | 0.59 | 0.57 | 0.60 |
| Control Delay           | 57.8 | 57.3 | 15.4 | 42.6 | 54.7 | 2537.9 | 30.0 | 53.3 | 23.1 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0    | 0.0  | 0.0  | 0.0  |
| Total Delay             | 57.8 | 57.3 | 15.4 | 42.6 | 54.7 | 2537.9 | 30.0 | 53.3 | 23.1 |
| Queue Length 50th (ft)  | 170  | 173  | 39   | 44   | 126  | ~570   | 231  | 97   | 261  |
| Queue Length 95th (ft)  | #282 | #286 | 166  | 68   | 161  | #764   | 318  | 152  | 348  |
| Internal Link Dist (ft) |      | 1745 |      |      | 332  |        | 961  |      | 1160 |
| Turn Bay Length (ft)    | 145  |      | 145  | 125  |      | 165    |      | 70   |      |
| Base Capacity (vph)     | 320  | 327  | 654  | 482  | 530  | 64     | 1914 | 257  | 1694 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0      | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0      | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0      | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.76 | 0.76 | 0.77 | 0.14 | 0.53 | 6.55   | 0.59 | 0.57 | 0.60 |

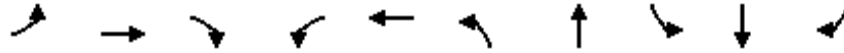
Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.



---

HCM 6th Edition methodology expects strict NEMA phasing.



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 157  | 67   | 141  | 182  | 183  | 963  | 1409 | 49   | 1072 | 305  |
| v/c Ratio               | 0.74 | 0.30 | 0.09 | 0.70 | 0.33 | 0.87 | 0.51 | 0.41 | 0.76 | 0.46 |
| Control Delay           | 71.8 | 51.2 | 0.1  | 62.8 | 21.3 | 47.8 | 18.8 | 63.8 | 45.4 | 6.9  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 50.5 | 1.5  |
| Total Delay             | 71.8 | 51.2 | 0.1  | 62.8 | 21.3 | 47.8 | 18.8 | 63.8 | 95.9 | 8.5  |
| Queue Length 50th (ft)  | 117  | 47   | 0    | 136  | 29   | 350  | 253  | 37   | 291  | 0    |
| Queue Length 95th (ft)  | #202 | 93   | 0    | 181  | 51   | #441 | 321  | 75   | #375 | 60   |
| Internal Link Dist (ft) |      | 287  |      |      | 264  |      | 780  |      | 105  |      |
| Turn Bay Length (ft)    |      |      |      | 410  |      | 260  |      | 195  |      |      |
| Base Capacity (vph)     | 236  | 248  | 1583 | 390  | 795  | 1119 | 2743 | 119  | 1413 | 660  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 646  | 198  |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.67 | 0.27 | 0.09 | 0.47 | 0.23 | 0.86 | 0.51 | 0.41 | 1.40 | 0.66 |

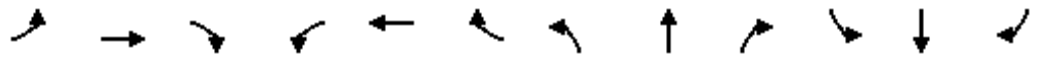
**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley

Near Term

18: Latrobe Rd./El Dorado Hills Blvd. & US-50 WB On&Off-Ramp/Saratoga Way (South) Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          | ↖    | ↑    | ↗    | ↖    | ↕    |      | ↖    | ↕    |      | ↖    | ↕    | ↗    |
| Traffic Volume (veh/h)       | 144  | 62   | 130  | 149  | 67   | 83   | 857  | 1042 | 212  | 42   | 922  | 262  |
| Future Volume (veh/h)        | 144  | 62   | 130  | 149  | 67   | 83   | 857  | 1042 | 212  | 42   | 922  | 262  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 157  | 67   | 0    | 182  | 82   | 101  | 963  | 1171 | 238  | 49   | 1072 | 0    |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.82 | 0.82 | 0.82 | 0.89 | 0.89 | 0.89 | 0.86 | 0.86 | 0.86 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 188  | 197  |      | 225  | 224  | 200  | 1019 | 2551 | 518  | 63   | 1737 |      |
| Arrive On Green              | 0.11 | 0.11 | 0.00 | 0.13 | 0.13 | 0.13 | 0.29 | 0.60 | 0.60 | 0.04 | 0.34 | 0.00 |
| Sat Flow, veh/h              | 1781 | 1870 | 1585 | 1781 | 1777 | 1585 | 3456 | 4254 | 865  | 1781 | 5106 | 1585 |
| Grp Volume(v), veh/h         | 157  | 67   | 0    | 182  | 82   | 101  | 963  | 937  | 472  | 49   | 1072 | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1870 | 1585 | 1781 | 1777 | 1585 | 1728 | 1702 | 1715 | 1781 | 1702 | 1585 |
| Q Serve(g_s), s              | 10.4 | 4.0  | 0.0  | 11.9 | 5.1  | 7.1  | 32.7 | 18.2 | 18.2 | 3.3  | 21.0 | 0.0  |
| Cycle Q Clear(g_c), s        | 10.4 | 4.0  | 0.0  | 11.9 | 5.1  | 7.1  | 32.7 | 18.2 | 18.2 | 3.3  | 21.0 | 0.0  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 0.50 | 1.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 188  | 197  |      | 225  | 224  | 200  | 1019 | 2041 | 1028 | 63   | 1737 |      |
| V/C Ratio(X)                 | 0.84 | 0.34 |      | 0.81 | 0.37 | 0.50 | 0.95 | 0.46 | 0.46 | 0.78 | 0.62 |      |
| Avail Cap(c_a), veh/h        | 238  | 249  |      | 393  | 392  | 350  | 1037 | 2041 | 1028 | 79   | 1737 |      |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.87 | 0.87 | 0.87 | 0.72 | 0.72 | 0.00 |
| Uniform Delay (d), s/veh     | 52.7 | 49.8 | 0.0  | 51.0 | 48.0 | 48.9 | 41.4 | 13.3 | 13.3 | 57.4 | 33.1 | 0.0  |
| Incr Delay (d2), s/veh       | 18.4 | 1.0  | 0.0  | 6.8  | 1.0  | 2.0  | 14.8 | 0.6  | 1.3  | 23.8 | 1.2  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 5.6  | 1.9  | 0.0  | 5.8  | 2.3  | 3.0  | 15.4 | 6.5  | 6.8  | 1.9  | 8.5  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 71.1 | 50.8 | 0.0  | 57.8 | 49.0 | 50.9 | 56.1 | 13.9 | 14.6 | 81.2 | 34.3 | 0.0  |
| LnGrp LOS                    | E    | D    |      | E    | D    | D    | E    | B    | B    | F    | C    |      |
| Approach Vol, veh/h          |      | 224  | A    |      | 365  |      |      | 2372 |      |      | 1121 | A    |
| Approach Delay, s/veh        |      | 65.0 |      |      | 53.9 |      |      | 31.2 |      |      | 36.3 |      |
| Approach LOS                 |      | E    |      |      | D    |      |      | C    |      |      | D    |      |
| Timer - Assigned Phs         | 1    | 2    |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 8.2  | 76.0 |      | 16.6 | 39.4 | 44.8 |      | 19.2 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 5.3  | 56.2 |      | 16.0 | 36.0 | 25.5 |      | 26.5 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 5.3  | 20.2 |      | 12.4 | 34.7 | 23.0 |      | 13.9 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 7.6  |      | 0.3  | 0.7  | 1.3  |      | 1.2  |      |      |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 36.5 |
| HCM 6th LOS        | D    |

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Generations at Green Valley  
 19: Latrobe Rd. & US-50 EB Off-Ramp/US-50 EB On-Ramp

Near Term  
 Timing Plan: PM



| Lane Group              | EBR  | WBR  | NBT  | NBR  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 912  | 565  | 1937 | 456  | 285  | 1117 |
| v/c Ratio               | 0.75 | 0.35 | 0.52 | 0.38 | 0.85 | 0.23 |
| Control Delay           | 26.7 | 0.6  | 6.8  | 4.3  | 66.1 | 5.1  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 26.7 | 0.6  | 6.8  | 4.3  | 66.1 | 5.1  |
| Queue Length 50th (ft)  | 260  | 0    | 183  | 60   | 196  | 60   |
| Queue Length 95th (ft)  | 245  | 0    | 212  | 102  | #287 | 95   |
| Internal Link Dist (ft) |      |      | 468  |      |      | 780  |
| Turn Bay Length (ft)    |      |      |      | 180  | 350  |      |
| Base Capacity (vph)     | 1681 | 1611 | 3744 | 1205 | 337  | 4802 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.54 | 0.35 | 0.52 | 0.38 | 0.85 | 0.23 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

---

HCM 6th Edition methodology does not support custom phasing.

Generations at Green Valley  
 20: White Rock Rd/Silva Valley Pkwy & US-50 EB On&Off-Ramp

Near Term  
 Timing Plan: PM



| Lane Group              | EBL  | EBR  | NBL   | NBT  | SBT  | SBR  |
|-------------------------|------|------|-------|------|------|------|
| Lane Group Flow (vph)   | 336  | 77   | 728   | 434  | 639  | 118  |
| v/c Ratio               | 0.24 | 0.11 | 1.36  | 0.31 | 0.45 | 0.17 |
| Control Delay           | 8.6  | 3.1  | 194.6 | 9.0  | 7.2  | 2.0  |
| Queue Delay             | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| Total Delay             | 8.6  | 3.1  | 194.6 | 9.0  | 7.2  | 2.0  |
| Queue Length 50th (ft)  | 24   | 0    | ~119  | 32   | 26   | 0    |
| Queue Length 95th (ft)  | 43   | 16   | #197  | 55   | 60   | m0   |
| Internal Link Dist (ft) | 706  |      |       | 516  | 832  |      |
| Turn Bay Length (ft)    |      | 195  | 480   |      |      | 148  |
| Base Capacity (vph)     | 1373 | 679  | 534   | 1415 | 1415 | 704  |
| Starvation Cap Reductn  | 0    | 0    | 0     | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0     | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0     | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.24 | 0.11 | 1.36  | 0.31 | 0.45 | 0.17 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Generations at Green Valley  
 20: White Rock Rd/Silva Valley Pkwy & US-50 EB On&Off-Ramp

Near Term  
 Timing Plan: PM



| Movement                     | EBL  | EBR  | NBL  | NBT  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 309  | 71   | 670  | 399  | 588  | 109  |
| Future Volume (veh/h)        | 309  | 71   | 670  | 399  | 588  | 109  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 | 1.00 | 1.00 |      |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 336  | 77   | 728  | 434  | 639  | 118  |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 1382 | 634  | 832  | 1421 | 1421 | 634  |
| Arrive On Green              | 0.40 | 0.40 | 0.40 | 0.40 | 0.80 | 0.80 |
| Sat Flow, veh/h              | 3456 | 1585 | 1373 | 3647 | 3647 | 1585 |
| Grp Volume(v), veh/h         | 336  | 77   | 728  | 434  | 639  | 118  |
| Grp Sat Flow(s),veh/h/ln     | 1728 | 1585 | 686  | 1777 | 1777 | 1585 |
| Q Serve(g_s), s              | 2.6  | 1.2  | 13.8 | 3.3  | 2.2  | 0.7  |
| Cycle Q Clear(g_c), s        | 2.6  | 1.2  | 16.0 | 3.3  | 2.2  | 0.7  |
| Prop In Lane                 | 1.00 | 1.00 | 1.00 |      |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 1382 | 634  | 832  | 1421 | 1421 | 634  |
| V/C Ratio(X)                 | 0.24 | 0.12 | 0.88 | 0.31 | 0.45 | 0.19 |
| Avail Cap(c_a), veh/h        | 1382 | 634  | 832  | 1421 | 1421 | 634  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 8.0  | 7.6  | 15.5 | 8.2  | 2.6  | 2.5  |
| Incr Delay (d2), s/veh       | 0.4  | 0.4  | 12.4 | 0.6  | 1.0  | 0.6  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.8  | 0.4  | 4.2  | 0.9  | 0.6  | 0.2  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 8.4  | 8.0  | 28.0 | 8.8  | 3.7  | 3.1  |
| LnGrp LOS                    | A    | A    | C    | A    | A    | A    |
| Approach Vol, veh/h          | 413  |      |      | 1162 | 757  |      |
| Approach Delay, s/veh        | 8.3  |      |      | 20.8 | 3.6  |      |
| Approach LOS                 | A    |      |      | C    | A    |      |
| Timer - Assigned Phs         |      | 2    |      | 4    |      | 6    |
| Phs Duration (G+Y+Rc), s     |      | 20.0 |      | 20.0 |      | 20.0 |
| Change Period (Y+Rc), s      |      | 4.0  |      | 4.0  |      | 4.0  |
| Max Green Setting (Gmax), s  |      | 16.0 |      | 16.0 |      | 16.0 |
| Max Q Clear Time (g_c+l1), s |      | 18.0 |      | 4.6  |      | 4.2  |
| Green Ext Time (p_c), s      |      | 0.0  |      | 1.1  |      | 3.4  |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 13.0 |      |      |      |
| HCM 6th LOS                  |      |      | B    |      |      |      |

Generations at Green Valley  
 21: Silva Valley Pkwy & US-50 WB On-Ramp/US-50 WB Off-Ramp

Near Term  
 Timing Plan: PM



| Lane Group                  | WBL  | WBR  | NBL  | NBT  | SBT  | SBR  |
|-----------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph)       | 437  | 175  | 79   | 692  | 304  | 262  |
| v/c Ratio                   | 0.62 | 0.25 | 0.19 | 0.49 | 0.21 | 0.33 |
| Control Delay               | 14.2 | 4.8  | 10.7 | 11.0 | 8.4  | 2.9  |
| Queue Delay                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay                 | 14.2 | 4.8  | 10.7 | 11.0 | 8.4  | 2.9  |
| Queue Length 50th (ft)      | 73   | 9    | 11   | 63   | 22   | 0    |
| Queue Length 95th (ft)      | 141  | 34   | 39   | 110  | 40   | 29   |
| Internal Link Dist (ft)     |      |      |      | 832  | 250  |      |
| Turn Bay Length (ft)        |      |      | 545  |      |      |      |
| Base Capacity (vph)         | 708  | 699  | 422  | 1415 | 1415 | 790  |
| Starvation Cap Reductn      | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn       | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn         | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio           | 0.62 | 0.25 | 0.19 | 0.49 | 0.21 | 0.33 |
| <b>Intersection Summary</b> |      |      |      |      |      |      |



Generations at Green Valley  
 21: Silva Valley Pkwy & US-50 WB On-Ramp/US-50 WB Off-Ramp

Near Term  
 Timing Plan: PM



| Movement                     | EBL | EBT  | EBR | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|-----|------|-----|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |     |      |     | ↖    | ↗    | ↖    | ↖    | ↕    |      |      | ↕    | ↖    |
| Traffic Volume (veh/h)       | 0   | 0    | 0   | 402  | 0    | 161  | 73   | 637  | 0    | 0    | 280  | 241  |
| Future Volume (veh/h)        | 0   | 0    | 0   | 402  | 0    | 161  | 73   | 637  | 0    | 0    | 280  | 241  |
| Initial Q (Qb), veh          |     |      |     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |     |      |     | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             |     |      |     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |     |      |     | No   |      |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       |     |      |     | 1870 | 1870 | 1870 | 1870 | 1870 | 0    | 0    | 1870 | 1870 |
| Adj Flow Rate, veh/h         |     |      |     | 437  | 0    | 175  | 79   | 692  | 0    | 0    | 304  | 262  |
| Peak Hour Factor             |     |      |     | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         |     |      |     | 2    | 2    | 2    | 2    | 2    | 0    | 0    | 2    | 2    |
| Cap, veh/h                   |     |      |     | 713  | 748  | 634  | 471  | 1421 | 0    | 0    | 1421 | 634  |
| Arrive On Green              |     |      |     | 0.40 | 0.00 | 0.40 | 0.80 | 0.80 | 0.00 | 0.00 | 0.40 | 0.40 |
| Sat Flow, veh/h              |     |      |     | 1781 | 1870 | 1585 | 845  | 3647 | 0    | 0    | 3647 | 1585 |
| Grp Volume(v), veh/h         |     |      |     | 437  | 0    | 175  | 79   | 692  | 0    | 0    | 304  | 262  |
| Grp Sat Flow(s),veh/h/ln     |     |      |     | 1781 | 1870 | 1585 | 845  | 1777 | 0    | 0    | 1777 | 1585 |
| Q Serve(g_s), s              |     |      |     | 7.8  | 0.0  | 3.0  | 1.4  | 2.6  | 0.0  | 0.0  | 2.2  | 4.8  |
| Cycle Q Clear(g_c), s        |     |      |     | 7.8  | 0.0  | 3.0  | 3.7  | 2.6  | 0.0  | 0.0  | 2.2  | 4.8  |
| Prop In Lane                 |     |      |     | 1.00 |      | 1.00 | 1.00 |      | 0.00 | 0.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       |     |      |     | 713  | 748  | 634  | 471  | 1421 | 0    | 0    | 1421 | 634  |
| V/C Ratio(X)                 |     |      |     | 0.61 | 0.00 | 0.28 | 0.17 | 0.49 | 0.00 | 0.00 | 0.21 | 0.41 |
| Avail Cap(c_a), veh/h        |     |      |     | 713  | 748  | 634  | 471  | 1421 | 0    | 0    | 1421 | 634  |
| HCM Platoon Ratio            |     |      |     | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           |     |      |     | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     |     |      |     | 9.5  | 0.0  | 8.1  | 3.2  | 2.7  | 0.0  | 0.0  | 7.9  | 8.6  |
| Incr Delay (d2), s/veh       |     |      |     | 3.9  | 0.0  | 1.1  | 0.8  | 1.2  | 0.0  | 0.0  | 0.3  | 2.0  |
| Initial Q Delay(d3),s/veh    |     |      |     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     |     |      |     | 3.0  | 0.0  | 0.9  | 0.2  | 0.6  | 0.0  | 0.0  | 0.6  | 1.3  |
| Unsig. Movement Delay, s/veh |     |      |     |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         |     |      |     | 13.5 | 0.0  | 9.2  | 4.0  | 3.9  | 0.0  | 0.0  | 8.2  | 10.6 |
| LnGrp LOS                    |     |      |     | B    | A    | A    | A    | A    | A    | A    | A    | B    |
| Approach Vol, veh/h          |     |      |     |      | 612  |      |      | 771  |      |      | 566  |      |
| Approach Delay, s/veh        |     |      |     |      | 12.2 |      |      | 3.9  |      |      | 9.3  |      |
| Approach LOS                 |     |      |     |      | B    |      |      | A    |      |      | A    |      |
| Timer - Assigned Phs         |     | 2    |     |      |      | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |     | 20.0 |     |      |      | 20.0 |      | 20.0 |      |      |      |      |
| Change Period (Y+Rc), s      |     | 4.0  |     |      |      | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |     | 16.0 |     |      |      | 16.0 |      | 16.0 |      |      |      |      |
| Max Q Clear Time (g_c+l1), s |     | 5.7  |     |      |      | 6.8  |      | 9.8  |      |      |      |      |
| Green Ext Time (p_c), s      |     | 3.4  |     |      |      | 1.8  |      | 1.2  |      |      |      |      |
| <b>Intersection Summary</b>  |     |      |     |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |     |      |     | 8.1  |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |     |      |     | A    |      |      |      |      |      |      |      |      |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.4  |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      |      | ↗    | ↕    | ↗    |      | ↕    |
| Traffic Vol, veh/h       | 0    | 41   | 815  | 54   | 0    | 451  |
| Future Vol, veh/h        | 0    | 41   | 815  | 54   | 0    | 451  |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Free | Free | Free | Free |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | 0    | -    | 160  | -    | -    |
| Veh in Median Storage, # | 0    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 0    | 45   | 886  | 59   | 0    | 490  |

| Major/Minor          | Minor1 | Major1 | Major2 |   |   |
|----------------------|--------|--------|--------|---|---|
| Conflicting Flow All | -      | 443    | 0      | 0 | - |
| Stage 1              | -      | -      | -      | - | - |
| Stage 2              | -      | -      | -      | - | - |
| Critical Hdwy        | -      | 6.94   | -      | - | - |
| Critical Hdwy Stg 1  | -      | -      | -      | - | - |
| Critical Hdwy Stg 2  | -      | -      | -      | - | - |
| Follow-up Hdwy       | -      | 3.32   | -      | - | - |
| Pot Cap-1 Maneuver   | 0      | 562    | -      | - | 0 |
| Stage 1              | 0      | -      | -      | - | 0 |
| Stage 2              | 0      | -      | -      | - | 0 |
| Platoon blocked, %   |        |        | -      | - | - |
| Mov Cap-1 Maneuver   | -      | 562    | -      | - | - |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | - |
| Stage 1              | -      | -      | -      | - | - |
| Stage 2              | -      | -      | -      | - | - |

| Approach             | WB | NB | SB |
|----------------------|----|----|----|
| HCM Control Delay, s | 12 | 0  | 0  |
| HCM LOS              | B  |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBT   |
|-----------------------|-----|----------|-------|
| Capacity (veh/h)      | -   | -        | 562   |
| HCM Lane V/C Ratio    | -   | -        | 0.079 |
| HCM Control Delay (s) | -   | -        | 12    |
| HCM Lane LOS          | -   | -        | B     |
| HCM 95th %tile Q(veh) | -   | -        | 0.3   |

Generations at Green Valley  
23: Serrano Pkwy. & Silva Valley Pkwy.

Near Term  
Timing Plan: PM



| Lane Group              | EBL  | EBT  | WBL   | WBT  | NBL  | NBT  | NBR  | SBL   | SBT  |
|-------------------------|------|------|-------|------|------|------|------|-------|------|
| Lane Group Flow (vph)   | 66   | 277  | 326   | 356  | 108  | 603  | 483  | 234   | 412  |
| v/c Ratio               | 0.40 | 0.49 | 1.08  | 0.32 | 0.72 | 0.61 | 0.62 | 1.04  | 0.36 |
| Control Delay           | 39.9 | 28.4 | 109.6 | 10.5 | 62.7 | 25.0 | 6.6  | 107.2 | 18.7 |
| Queue Delay             | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  |
| Total Delay             | 39.9 | 28.4 | 109.6 | 10.5 | 62.7 | 25.0 | 6.6  | 107.2 | 18.7 |
| Queue Length 50th (ft)  | 27   | 53   | ~162  | 26   | 47   | 117  | 6    | ~112  | 67   |
| Queue Length 95th (ft)  | 62   | 82   | #354  | 63   | #78  | 113  | 0    | #218  | 88   |
| Internal Link Dist (ft) |      | 6047 |       | 1303 |      | 4417 |      |       | 4456 |
| Turn Bay Length (ft)    | 155  |      | 330   |      | 250  |      | 180  | 150   |      |
| Base Capacity (vph)     | 175  | 1189 | 301   | 1448 | 150  | 1323 | 882  | 225   | 1459 |
| Starvation Cap Reductn  | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0     | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0     | 0    |
| Storage Cap Reductn     | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0     | 0    |
| Reduced v/c Ratio       | 0.38 | 0.23 | 1.08  | 0.25 | 0.72 | 0.46 | 0.55 | 1.04  | 0.28 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Generations at Green Valley  
23: Serrano Pkwy. & Silva Valley Pkwy.

Near Term  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          | ↖    | ↗    |      | ↖    | ↗    |      | ↖    | ↗    | ↗    | ↖    | ↗    |      |
| Traffic Volume (veh/h)       | 52   | 181  | 38   | 290  | 127  | 190  | 68   | 380  | 304  | 178  | 282  | 31   |
| Future Volume (veh/h)        | 52   | 181  | 38   | 290  | 127  | 190  | 68   | 380  | 304  | 178  | 282  | 31   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 66   | 229  | 48   | 326  | 143  | 213  | 108  | 603  | 0    | 234  | 371  | 41   |
| Peak Hour Factor             | 0.79 | 0.79 | 0.79 | 0.89 | 0.89 | 0.89 | 0.63 | 0.63 | 0.63 | 0.76 | 0.76 | 0.76 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 84   | 452  | 93   | 329  | 519  | 463  | 138  | 837  |      | 247  | 958  | 105  |
| Arrive On Green              | 0.05 | 0.15 | 0.15 | 0.18 | 0.29 | 0.29 | 0.08 | 0.24 | 0.00 | 0.14 | 0.30 | 0.30 |
| Sat Flow, veh/h              | 1781 | 2934 | 604  | 1781 | 1777 | 1585 | 1781 | 3554 | 1585 | 1781 | 3229 | 355  |
| Grp Volume(v), veh/h         | 66   | 137  | 140  | 326  | 143  | 213  | 108  | 603  | 0    | 234  | 203  | 209  |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1777 | 1762 | 1781 | 1777 | 1585 | 1781 | 1777 | 1585 | 1781 | 1777 | 1807 |
| Q Serve(g_s), s              | 2.4  | 4.6  | 4.7  | 11.8 | 4.0  | 7.1  | 3.9  | 10.1 | 0.0  | 8.5  | 5.9  | 6.0  |
| Cycle Q Clear(g_c), s        | 2.4  | 4.6  | 4.7  | 11.8 | 4.0  | 7.1  | 3.9  | 10.1 | 0.0  | 8.5  | 5.9  | 6.0  |
| Prop In Lane                 | 1.00 |      | 0.34 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 0.20 |
| Lane Grp Cap(c), veh/h       | 84   | 274  | 272  | 329  | 519  | 463  | 138  | 837  |      | 247  | 527  | 536  |
| V/C Ratio(X)                 | 0.79 | 0.50 | 0.52 | 0.99 | 0.28 | 0.46 | 0.78 | 0.72 |      | 0.95 | 0.39 | 0.39 |
| Avail Cap(c_a), veh/h        | 192  | 657  | 652  | 329  | 794  | 708  | 165  | 1446 |      | 247  | 805  | 819  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 30.6 | 25.2 | 25.2 | 26.4 | 17.7 | 18.8 | 29.4 | 22.8 | 0.0  | 27.7 | 18.1 | 18.1 |
| Incr Delay (d2), s/veh       | 14.7 | 1.4  | 1.5  | 46.6 | 0.3  | 0.7  | 18.2 | 1.2  | 0.0  | 42.7 | 0.5  | 0.5  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 1.3  | 1.8  | 1.9  | 8.7  | 1.5  | 2.4  | 2.2  | 3.8  | 0.0  | 6.2  | 2.2  | 2.2  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 45.3 | 26.6 | 26.7 | 73.0 | 18.0 | 19.5 | 47.6 | 24.0 | 0.0  | 70.5 | 18.6 | 18.6 |
| LnGrp LOS                    | D    | C    | C    | E    | B    | B    | D    | C    |      | E    | B    | B    |
| Approach Vol, veh/h          |      | 343  |      |      | 682  |      |      | 711  | A    |      | 646  |      |
| Approach Delay, s/veh        |      | 30.2 |      |      | 44.8 |      |      | 27.6 |      |      | 37.4 |      |
| Approach LOS                 |      | C    |      |      | D    |      |      | C    |      |      | D    |      |
| Timer - Assigned Phs         | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 13.0 | 20.6 | 16.0 | 15.3 | 9.0  | 24.6 | 7.1  | 24.2 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 5.3  | 4.0  | 5.3  | 4.0  | 5.3  | 4.0  | 5.3  |      |      |      |      |
| Max Green Setting (Gmax), s  | 9.0  | 26.4 | 12.0 | 24.0 | 6.0  | 29.4 | 7.0  | 29.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 10.5 | 12.1 | 13.8 | 6.7  | 5.9  | 8.0  | 4.4  | 9.1  |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 3.1  | 0.0  | 1.2  | 0.0  | 2.1  | 0.0  | 1.9  |      |      |      |      |

Intersection Summary

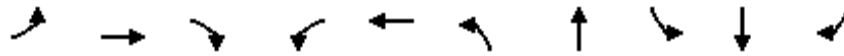
|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 35.5 |
| HCM 6th LOS        | D    |

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Generations at Green Valley  
 24: Silva Valley Pkwy. & Harvard Way

Near Term  
 Timing Plan: PM



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 126  | 28   | 426  | 38   | 38   | 304  | 359  | 9    | 253  | 83   |
| v/c Ratio               | 0.56 | 0.08 | 0.67 | 0.23 | 0.12 | 0.62 | 0.35 | 0.05 | 0.35 | 0.17 |
| Control Delay           | 37.4 | 17.5 | 8.3  | 27.7 | 13.2 | 26.8 | 10.1 | 25.6 | 18.3 | 0.7  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 37.4 | 17.5 | 8.3  | 27.7 | 13.2 | 26.8 | 10.1 | 25.6 | 18.3 | 0.7  |
| Queue Length 50th (ft)  | 25   | 5    | 0    | 8    | 3    | 51   | 25   | 2    | 23   | 0    |
| Queue Length 95th (ft)  | #68  | 16   | 0    | 35   | 21   | #253 | 180  | 14   | 63   | 0    |
| Internal Link Dist (ft) | 2093 |      |      | 328  |      |      | 4456 |      | 377  |      |
| Turn Bay Length (ft)    | 60   |      |      |      |      | 200  |      | 150  |      | 250  |
| Base Capacity (vph)     | 227  | 740  | 885  | 165  | 656  | 496  | 1051 | 165  | 1324 | 728  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.56 | 0.04 | 0.48 | 0.23 | 0.06 | 0.61 | 0.34 | 0.05 | 0.19 | 0.11 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
24: Silva Valley Pkwy. & Harvard Way

Near Term  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 72   | 16   | 243  | 30   | 15   | 15   | 274  | 304  | 19   | 7    | 205  | 67   |
| Future Volume (veh/h)        | 72   | 16   | 243  | 30   | 15   | 15   | 274  | 304  | 19   | 7    | 205  | 67   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 126  | 28   | 426  | 38   | 19   | 19   | 304  | 338  | 21   | 9    | 253  | 83   |
| Peak Hour Factor             | 0.57 | 0.57 | 0.57 | 0.78 | 0.78 | 0.78 | 0.90 | 0.90 | 0.90 | 0.81 | 0.81 | 0.81 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 161  | 571  | 484  | 59   | 213  | 213  | 365  | 570  | 35   | 17   | 469  | 209  |
| Arrive On Green              | 0.09 | 0.31 | 0.31 | 0.03 | 0.25 | 0.25 | 0.20 | 0.33 | 0.33 | 0.01 | 0.13 | 0.13 |
| Sat Flow, veh/h              | 1781 | 1870 | 1585 | 1781 | 858  | 858  | 1781 | 1743 | 108  | 1781 | 3554 | 1585 |
| Grp Volume(v), veh/h         | 126  | 28   | 426  | 38   | 0    | 38   | 304  | 0    | 359  | 9    | 253  | 83   |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1870 | 1585 | 1781 | 0    | 1716 | 1781 | 0    | 1851 | 1781 | 1777 | 1585 |
| Q Serve(g_s), s              | 3.4  | 0.5  | 12.6 | 1.0  | 0.0  | 0.8  | 8.1  | 0.0  | 8.0  | 0.2  | 3.3  | 2.4  |
| Cycle Q Clear(g_c), s        | 3.4  | 0.5  | 12.6 | 1.0  | 0.0  | 0.8  | 8.1  | 0.0  | 8.0  | 0.2  | 3.3  | 2.4  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 0.50 | 1.00 |      | 0.06 | 1.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 161  | 571  | 484  | 59   | 0    | 425  | 365  | 0    | 606  | 17   | 469  | 209  |
| V/C Ratio(X)                 | 0.78 | 0.05 | 0.88 | 0.65 | 0.00 | 0.09 | 0.83 | 0.00 | 0.59 | 0.54 | 0.54 | 0.40 |
| Avail Cap(c_a), veh/h        | 181  | 646  | 548  | 145  | 0    | 558  | 434  | 0    | 903  | 145  | 1155 | 515  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 21.9 | 12.1 | 16.2 | 23.5 | 0.0  | 14.2 | 18.8 | 0.0  | 13.8 | 24.3 | 20.0 | 19.6 |
| Incr Delay (d2), s/veh       | 17.9 | 0.0  | 14.1 | 11.4 | 0.0  | 0.1  | 11.3 | 0.0  | 0.9  | 24.1 | 1.0  | 1.2  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 2.1  | 0.2  | 5.9  | 0.6  | 0.0  | 0.3  | 3.8  | 0.0  | 2.7  | 0.2  | 1.2  | 0.9  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 39.9 | 12.1 | 30.4 | 34.9 | 0.0  | 14.3 | 30.1 | 0.0  | 14.7 | 48.4 | 20.9 | 20.8 |
| LnGrp LOS                    | D    | B    | C    | C    | A    | B    | C    | A    | B    | D    | C    | C    |
| Approach Vol, veh/h          |      | 580  |      |      | 76   |      |      | 663  |      |      | 345  |      |
| Approach Delay, s/veh        |      | 31.6 |      |      | 24.6 |      |      | 21.8 |      |      | 21.6 |      |
| Approach LOS                 |      | C    |      |      | C    |      |      | C    |      |      | C    |      |
| Timer - Assigned Phs         | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 4.5  | 20.1 | 5.6  | 19.0 | 14.1 | 10.5 | 8.4  | 16.2 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0  | 24.0 | 4.0  | 17.0 | 12.0 | 16.0 | 5.0  | 16.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 2.2  | 10.0 | 3.0  | 14.6 | 10.1 | 5.3  | 5.4  | 2.8  |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 1.6  | 0.0  | 0.5  | 0.2  | 1.2  | 0.0  | 0.1  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 25.3 |      |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      | C    |      |      |      |      |      |      |      |      |      |

Generations at Green Valley  
 25: Silva Valley Pkwy. & Charter Way/Appian Way

Near Term  
 Timing Plan: PM

|                               |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|
| Intersection                  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intersection Delay, s/veh13.6 |  |  |  |  |  |  |  |  |  |  |  |  |
| Intersection LOS B            |  |  |  |  |  |  |  |  |  |  |  |  |

| Movement            | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations |      | ↕    |      |      | ↕    |      |      | ↕    |      |      | ↕    |      |
| Traffic Vol, veh/h  | 20   | 1    | 43   | 74   | 0    | 72   | 52   | 240  | 64   | 80   | 181  | 30   |
| Future Vol, veh/h   | 20   | 1    | 43   | 74   | 0    | 72   | 52   | 240  | 64   | 80   | 181  | 30   |
| Peak Hour Factor    | 0.79 | 0.79 | 0.79 | 0.88 | 0.88 | 0.88 | 0.86 | 0.86 | 0.86 | 0.83 | 0.83 | 0.83 |
| Heavy Vehicles, %   | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow           | 25   | 1    | 54   | 84   | 0    | 82   | 60   | 279  | 74   | 96   | 218  | 36   |
| Number of Lanes     | 0    | 1    | 0    | 0    | 1    | 0    | 0    | 1    | 0    | 0    | 1    | 0    |

| Approach                      | EB  | WB   | NB   | SB   |
|-------------------------------|-----|------|------|------|
| Opposing Approach             | WB  | EB   | SB   | NB   |
| Opposing Lanes                | 1   | 1    | 1    | 1    |
| Conflicting Approach Left SB  |     | NB   | EB   | WB   |
| Conflicting Lanes Left        | 1   | 1    | 1    | 1    |
| Conflicting Approach Right NB |     | SB   | WB   | EB   |
| Conflicting Lanes Right       | 1   | 1    | 1    | 1    |
| HCM Control Delay             | 9.9 | 11.1 | 15.2 | 13.7 |
| HCM LOS                       | A   | B    | C    | B    |

| Lane                   | NBLn1 | EBLn1 | WBLn1 | SBLn1 |
|------------------------|-------|-------|-------|-------|
| Vol Left, %            | 15%   | 31%   | 51%   | 27%   |
| Vol Thru, %            | 67%   | 2%    | 0%    | 62%   |
| Vol Right, %           | 18%   | 67%   | 49%   | 10%   |
| Sign Control           | Stop  | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 356   | 64    | 146   | 291   |
| LT Vol                 | 52    | 20    | 74    | 80    |
| Through Vol            | 240   | 1     | 0     | 181   |
| RT Vol                 | 64    | 43    | 72    | 30    |
| Lane Flow Rate         | 414   | 81    | 166   | 351   |
| Geometry Grp           | 1     | 1     | 1     | 1     |
| Degree of Util (X)     | 0.588 | 0.133 | 0.269 | 0.512 |
| Departure Headway (Hd) | 5.11  | 5.9   | 5.84  | 5.259 |
| Convergence, Y/N       | Yes   | Yes   | Yes   | Yes   |
| Cap                    | 704   | 604   | 612   | 684   |
| Service Time           | 3.152 | 3.965 | 3.897 | 3.304 |
| HCM Lane V/C Ratio     | 0.588 | 0.134 | 0.271 | 0.513 |
| HCM Control Delay      | 15.2  | 9.9   | 11.1  | 13.7  |
| HCM Lane LOS           | C     | A     | B     | B     |
| HCM 95th-tile Q        | 3.9   | 0.5   | 1.1   | 2.9   |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0    |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↔    |      |      | ↑    |      | ↗    |
| Traffic Vol, veh/h       | 681  | 0    | 0    | 437  | 0    | 0    |
| Future Vol, veh/h        | 681  | 0    | 0    | 437  | 0    | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | 0    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 740  | 0    | 0    | 475  | 0    | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |   |       |
|----------------------|--------|--------|--------|---|---|-------|
| Conflicting Flow All | 0      | 0      | -      | - | - | 740   |
| Stage 1              | -      | -      | -      | - | - | -     |
| Stage 2              | -      | -      | -      | - | - | -     |
| Critical Hdwy        | -      | -      | -      | - | - | 6.22  |
| Critical Hdwy Stg 1  | -      | -      | -      | - | - | -     |
| Critical Hdwy Stg 2  | -      | -      | -      | - | - | -     |
| Follow-up Hdwy       | -      | -      | -      | - | - | 3.318 |
| Pot Cap-1 Maneuver   | -      | -      | 0      | - | 0 | 417   |
| Stage 1              | -      | -      | 0      | - | 0 | -     |
| Stage 2              | -      | -      | 0      | - | 0 | -     |
| Platoon blocked, %   | -      | -      | -      | - | - | -     |
| Mov Cap-1 Maneuver   | -      | -      | -      | - | - | 417   |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | - | -     |
| Stage 1              | -      | -      | -      | - | - | -     |
| Stage 2              | -      | -      | -      | - | - | -     |

| Approach             | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              |    |    | A  |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h)      | -     | -   | -   | -   |
| HCM Lane V/C Ratio    | -     | -   | -   | -   |
| HCM Control Delay (s) | 0     | -   | -   | -   |
| HCM Lane LOS          | A     | -   | -   | -   |
| HCM 95th %tile Q(veh) | -     | -   | -   | -   |





| Lane Group                  | EBT  | WBT  |
|-----------------------------|------|------|
| Lane Group Flow (vph)       | 740  | 475  |
| v/c Ratio                   | 0.66 | 0.42 |
| Control Delay               | 7.7  | 4.8  |
| Queue Delay                 | 0.0  | 0.0  |
| Total Delay                 | 7.7  | 4.8  |
| Queue Length 50th (ft)      | 64   | 34   |
| Queue Length 95th (ft)      | 126  | 64   |
| Internal Link Dist (ft)     | 1398 | 2852 |
| Turn Bay Length (ft)        |      |      |
| Base Capacity (vph)         | 1423 | 1423 |
| Starvation Cap Reductn      | 0    | 0    |
| Spillback Cap Reductn       | 0    | 0    |
| Storage Cap Reductn         | 0    | 0    |
| Reduced v/c Ratio           | 0.52 | 0.33 |
| <b>Intersection Summary</b> |      |      |

Generations at Green Valley  
27: Site Dwy. Full & Green Valley Rd.

Near Term  
Timing Plan: PM



| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations          | ↔    |      | ↔    | ↔    | ↔    | ↔    |
| Traffic Volume (veh/h)       | 681  | 0    | 0    | 437  | 0    | 0    |
| Future Volume (veh/h)        | 681  | 0    | 0    | 437  | 0    | 0    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 740  | 0    | 0    | 475  | 0    | 0    |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 1297 | 0    | 551  | 1297 | 14   | 12   |
| Arrive On Green              | 0.69 | 0.00 | 0.00 | 0.69 | 0.00 | 0.00 |
| Sat Flow, veh/h              | 1870 | 0    | 719  | 1870 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 740  | 0    | 0    | 475  | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1870 | 0    | 719  | 1870 | 1781 | 1585 |
| Q Serve(g_s), s              | 2.6  | 0.0  | 0.0  | 1.4  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 2.6  | 0.0  | 0.0  | 1.4  | 0.0  | 0.0  |
| Prop In Lane                 |      | 0.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 1297 | 0    | 551  | 1297 | 14   | 12   |
| V/C Ratio(X)                 | 0.57 | 0.00 | 0.00 | 0.37 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 3724 | 0    | 1484 | 3724 | 3547 | 3156 |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 1.0  | 0.0  | 0.0  | 0.8  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 0.4  | 0.0  | 0.0  | 0.2  | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.1  | 0.0  | 0.0  | 0.1  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 1.4  | 0.0  | 0.0  | 1.0  | 0.0  | 0.0  |
| LnGrp LOS                    | A    | A    | A    | A    | A    | A    |
| Approach Vol, veh/h          | 740  |      |      | 475  | 0    |      |
| Approach Delay, s/veh        | 1.4  |      |      | 1.0  | 0.0  |      |
| Approach LOS                 | A    |      |      | A    |      |      |
| Timer - Assigned Phs         |      | 2    |      |      | 6    | 8    |
| Phs Duration (G+Y+Rc), s     |      | 13.1 |      |      | 13.1 | 0.0  |
| Change Period (Y+Rc), s      |      | 4.0  |      |      | 4.0  | 4.0  |
| Max Green Setting (Gmax), s  |      | 26.0 |      |      | 26.0 | 26.0 |
| Max Q Clear Time (g_c+I1), s |      | 3.4  |      |      | 4.6  | 0.0  |
| Green Ext Time (p_c), s      |      | 2.5  |      |      | 4.4  | 0.0  |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 1.2  |      |      |      |
| HCM 6th LOS                  |      |      | A    |      |      |      |

Summary of All Intervals

| Run Number              | 1      | 10     | 2      | 3      | 4      | 5      | 6      |
|-------------------------|--------|--------|--------|--------|--------|--------|--------|
| Start Time              | 4:50   | 4:50   | 4:50   | 4:50   | 4:50   | 4:50   | 4:50   |
| End Time                | 6:00   | 6:00   | 6:00   | 6:00   | 6:00   | 6:00   | 6:00   |
| Total Time (min)        | 70     | 70     | 70     | 70     | 70     | 70     | 70     |
| Time Recorded (min)     | 60     | 60     | 60     | 60     | 60     | 60     | 60     |
| # of Intervals          | 5      | 5      | 5      | 5      | 5      | 5      | 5      |
| # of Recorded Intervals | 4      | 4      | 4      | 4      | 4      | 4      | 4      |
| Vehs Entered            | 12808  | 12856  | 12763  | 12967  | 12731  | 12706  | 13003  |
| Vehs Exited             | 12772  | 12789  | 12672  | 12914  | 12606  | 12606  | 12957  |
| Starting Vehs           | 385    | 344    | 356    | 364    | 325    | 314    | 356    |
| Ending Vehs             | 421    | 411    | 447    | 417    | 450    | 414    | 402    |
| Travel Distance (mi)    | 3887   | 3904   | 3874   | 3946   | 3850   | 3842   | 3911   |
| Travel Time (hr)        | 1249.1 | 1181.1 | 1295.1 | 1146.6 | 1265.2 | 1187.3 | 1187.0 |
| Total Delay (hr)        | 1131.8 | 1063.1 | 1178.2 | 1027.7 | 1149.1 | 1071.1 | 1068.7 |
| Total Stops             | 11684  | 12070  | 11961  | 11827  | 11497  | 11540  | 11688  |
| Fuel Used (gal)         | 428.2  | 413.6  | 438.8  | 408.1  | 431.0  | 412.0  | 415.7  |

Summary of All Intervals

| Run Number              | 7      | 8      | 9      | Avg    |
|-------------------------|--------|--------|--------|--------|
| Start Time              | 4:50   | 4:50   | 4:50   | 4:50   |
| End Time                | 6:00   | 6:00   | 6:00   | 6:00   |
| Total Time (min)        | 70     | 70     | 70     | 70     |
| Time Recorded (min)     | 60     | 60     | 60     | 60     |
| # of Intervals          | 5      | 5      | 5      | 5      |
| # of Recorded Intervals | 4      | 4      | 4      | 4      |
| Vehs Entered            | 12735  | 12713  | 12907  | 12818  |
| Vehs Exited             | 12644  | 12630  | 12853  | 12747  |
| Starting Vehs           | 332    | 331    | 358    | 343    |
| Ending Vehs             | 423    | 414    | 412    | 415    |
| Travel Distance (mi)    | 3850   | 3787   | 3902   | 3875   |
| Travel Time (hr)        | 1129.6 | 1194.4 | 1193.8 | 1202.9 |
| Total Delay (hr)        | 1013.4 | 1079.8 | 1076.2 | 1085.9 |
| Total Stops             | 11437  | 11202  | 12057  | 11695  |
| Fuel Used (gal)         | 399.8  | 412.2  | 416.6  | 417.6  |

Interval #0 Information Seeding

|                                     |      |
|-------------------------------------|------|
| Start Time                          | 4:50 |
| End Time                            | 5:00 |
| Total Time (min)                    | 10   |
| Volumes adjusted by Growth Factors. |      |
| No data recorded this interval.     |      |

Interval #1 Information

|                  |      |
|------------------|------|
| Start Time       | 5:00 |
| End Time         | 5:15 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 3207  | 3259  | 3217  | 3359  | 3135  | 3185  | 3284  |
| Vehs Exited          | 3206  | 3198  | 3117  | 3333  | 3035  | 3093  | 3241  |
| Starting Vehs        | 385   | 344   | 356   | 364   | 325   | 314   | 356   |
| Ending Vehs          | 386   | 405   | 456   | 390   | 425   | 406   | 399   |
| Travel Distance (mi) | 964   | 990   | 946   | 1015  | 933   | 953   | 978   |
| Travel Time (hr)     | 174.7 | 174.8 | 168.8 | 176.1 | 175.2 | 162.7 | 157.6 |
| Total Delay (hr)     | 145.5 | 144.9 | 140.1 | 145.6 | 147.1 | 133.8 | 128.0 |
| Total Stops          | 2876  | 3058  | 2935  | 3134  | 2884  | 2936  | 2984  |
| Fuel Used (gal)      | 75.6  | 76.3  | 73.5  | 77.8  | 74.9  | 71.9  | 72.0  |

Interval #1 Information

|                  |      |
|------------------|------|
| Start Time       | 5:00 |
| End Time         | 5:15 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 3201  | 3192  | 3295  | 3231  |
| Vehs Exited          | 3174  | 3145  | 3243  | 3177  |
| Starting Vehs        | 332   | 331   | 358   | 343   |
| Ending Vehs          | 359   | 378   | 410   | 398   |
| Travel Distance (mi) | 961   | 938   | 990   | 967   |
| Travel Time (hr)     | 160.4 | 150.7 | 168.4 | 166.9 |
| Total Delay (hr)     | 131.3 | 122.2 | 138.4 | 137.7 |
| Total Stops          | 2796  | 2790  | 3205  | 2962  |
| Fuel Used (gal)      | 72.0  | 69.1  | 75.1  | 73.8  |

Interval #2 Information

|                  |      |
|------------------|------|
| Start Time       | 5:15 |
| End Time         | 5:30 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 3118  | 3265  | 3156  | 3295  | 3144  | 3129  | 3230  |
| Vehs Exited          | 3118  | 3266  | 3185  | 3285  | 3186  | 3168  | 3249  |
| Starting Vehs        | 386   | 405   | 456   | 390   | 425   | 406   | 399   |
| Ending Vehs          | 386   | 404   | 427   | 400   | 383   | 367   | 380   |
| Travel Distance (mi) | 954   | 987   | 975   | 1008  | 965   | 957   | 978   |
| Travel Time (hr)     | 272.2 | 250.6 | 274.0 | 247.4 | 275.4 | 257.1 | 256.0 |
| Total Delay (hr)     | 243.3 | 220.7 | 244.7 | 216.9 | 246.3 | 228.3 | 226.6 |
| Total Stops          | 2913  | 2990  | 2991  | 3003  | 2867  | 2889  | 2851  |
| Fuel Used (gal)      | 97.5  | 94.0  | 98.7  | 93.6  | 98.4  | 94.6  | 95.2  |

Interval #2 Information

|                  |      |
|------------------|------|
| Start Time       | 5:15 |
| End Time         | 5:30 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 3229  | 3154  | 3227  | 3195  |
| Vehs Exited          | 3204  | 3154  | 3240  | 3206  |
| Starting Vehs        | 359   | 378   | 410   | 398   |
| Ending Vehs          | 384   | 378   | 397   | 385   |
| Travel Distance (mi) | 978   | 948   | 981   | 973   |
| Travel Time (hr)     | 248.9 | 249.3 | 256.3 | 258.7 |
| Total Delay (hr)     | 219.4 | 220.5 | 226.8 | 229.4 |
| Total Stops          | 2960  | 2761  | 2911  | 2912  |
| Fuel Used (gal)      | 93.1  | 91.8  | 94.8  | 95.2  |

**Interval #3 Information**

|                  |      |
|------------------|------|
| Start Time       | 5:30 |
| End Time         | 5:45 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 3257  | 3186  | 3194  | 3196  | 3208  | 3160  | 3237  |
| Vehs Exited          | 3221  | 3128  | 3140  | 3197  | 3197  | 3130  | 3210  |
| Starting Vehs        | 386   | 404   | 427   | 400   | 383   | 367   | 380   |
| Ending Vehs          | 422   | 462   | 481   | 399   | 394   | 397   | 407   |
| Travel Distance (mi) | 982   | 957   | 975   | 977   | 981   | 964   | 969   |
| Travel Time (hr)     | 354.9 | 329.6 | 383.1 | 319.5 | 366.6 | 337.8 | 342.7 |
| Total Delay (hr)     | 325.3 | 300.8 | 354.0 | 290.1 | 336.9 | 308.7 | 313.3 |
| Total Stops          | 2935  | 2940  | 3080  | 2922  | 2814  | 2856  | 2932  |
| Fuel Used (gal)      | 116.7 | 110.1 | 123.6 | 109.1 | 119.4 | 112.5 | 114.0 |

**Interval #3 Information**

|                  |      |
|------------------|------|
| Start Time       | 5:30 |
| End Time         | 5:45 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 3117  | 3240  | 3166  | 3200  |
| Vehs Exited          | 3081  | 3198  | 3163  | 3166  |
| Starting Vehs        | 384   | 378   | 397   | 385   |
| Ending Vehs          | 420   | 420   | 400   | 414   |
| Travel Distance (mi) | 943   | 956   | 967   | 967   |
| Travel Time (hr)     | 319.8 | 349.5 | 340.3 | 344.4 |
| Total Delay (hr)     | 291.4 | 320.6 | 311.2 | 315.2 |
| Total Stops          | 2898  | 2821  | 2982  | 2916  |
| Fuel Used (gal)      | 107.4 | 114.6 | 113.4 | 114.1 |

**Interval #4 Information Recording**

|                  |      |
|------------------|------|
| Start Time       | 5:45 |
| End Time         | 6:00 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 3226  | 3146  | 3196  | 3117  | 3244  | 3232  | 3252  |
| Vehs Exited          | 3227  | 3197  | 3230  | 3099  | 3188  | 3215  | 3257  |
| Starting Vehs        | 422   | 462   | 481   | 399   | 394   | 397   | 407   |
| Ending Vehs          | 421   | 411   | 447   | 417   | 450   | 414   | 402   |
| Travel Distance (mi) | 987   | 970   | 978   | 946   | 971   | 968   | 986   |
| Travel Time (hr)     | 447.4 | 426.1 | 469.2 | 403.5 | 448.1 | 429.7 | 430.7 |
| Total Delay (hr)     | 417.7 | 396.6 | 439.4 | 375.1 | 418.8 | 400.2 | 400.8 |
| Total Stops          | 2960  | 3082  | 2955  | 2768  | 2932  | 2859  | 2921  |
| Fuel Used (gal)      | 138.5 | 133.1 | 143.1 | 127.5 | 138.3 | 133.1 | 134.6 |

**Interval #4 Information Recording**

|                  |      |
|------------------|------|
| Start Time       | 5:45 |
| End Time         | 6:00 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 3188  | 3127  | 3219  | 3196  |
| Vehs Exited          | 3185  | 3133  | 3207  | 3196  |
| Starting Vehs        | 420   | 420   | 400   | 414   |
| Ending Vehs          | 423   | 414   | 412   | 415   |
| Travel Distance (mi) | 969   | 945   | 964   | 968   |
| Travel Time (hr)     | 400.5 | 444.8 | 428.8 | 432.9 |
| Total Delay (hr)     | 371.3 | 416.5 | 399.8 | 403.6 |
| Total Stops          | 2783  | 2830  | 2959  | 2909  |
| Fuel Used (gal)      | 127.3 | 136.7 | 133.3 | 134.5 |

13: Francisco Dr & El Dorado Hills Blvd Performance by movement

| Movement           | EBL | EBT  | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT  | All |
|--------------------|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|
| Denied Delay (hr)  | 0.0 | 0.0  | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.5 |
| Denied Del/Veh (s) | 1.3 | 1.4  | 3.4 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 3.4 | 0.2  | 1.3 |
| Total Delay (hr)   | 0.0 | 0.1  | 0.6 | 0.0 | 0.0 | 0.0 | 1.0 | 0.7 | 0.0 | 0.0 | 0.6  | 3.2 |
| Total Del/Veh (s)  | 9.0 | 11.0 | 4.3 | 6.1 | 7.3 | 3.4 | 8.2 | 9.8 | 4.1 | 5.4 | 11.8 | 7.6 |
| Stop Delay (hr)    | 0.0 | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 0.2 | 0.0 | 0.0 | 0.2  | 1.2 |
| Stop Del/Veh (s)   | 4.0 | 3.7  | 0.0 | 4.0 | 3.9 | 2.9 | 5.2 | 2.9 | 2.7 | 2.5 | 3.7  | 2.7 |

17: El Dorado Hills Blvd #2 & Saratoga Way/Park Drive Performance by movement

| Movement           | EBL    | EBT    | EBR    | WBL   | WBT   | WBR   | NBL   | NBT  | NBR  | SBL   | SBT   | SBR   |
|--------------------|--------|--------|--------|-------|-------|-------|-------|------|------|-------|-------|-------|
| Denied Delay (hr)  | 112.7  | 202.5  | 139.8  | 10.1  | 53.5  | 18.0  | 0.1   | 0.1  | 0.0  | 11.9  | 30.9  | 13.4  |
| Denied Del/Veh (s) | 1343.8 | 1357.8 | 1353.3 | 441.8 | 434.6 | 439.0 | 0.9   | 0.4  | 0.5  | 164.4 | 165.5 | 159.1 |
| Total Delay (hr)   | 10.7   | 20.7   | 8.9    | 1.3   | 14.7  | 4.7   | 10.2  | 10.1 | 1.3  | 14.4  | 25.6  | 10.7  |
| Total Del/Veh (s)  | 356.8  | 383.0  | 252.7  | 71.6  | 147.4 | 140.8 | 117.5 | 38.8 | 32.2 | 214.7 | 150.3 | 138.0 |
| Stop Delay (hr)    | 10.2   | 19.6   | 8.4    | 1.2   | 13.3  | 4.3   | 9.2   | 7.5  | 1.0  | 13.6  | 22.4  | 9.6   |
| Stop Del/Veh (s)   | 338.7  | 362.1  | 237.0  | 68.3  | 133.2 | 129.1 | 105.5 | 28.8 | 25.7 | 203.8 | 131.5 | 123.4 |

17: El Dorado Hills Blvd #2 & Saratoga Way/Park Drive Performance by movement

| Movement           | All   |
|--------------------|-------|
| Denied Delay (hr)  | 593.1 |
| Denied Del/Veh (s) | 474.5 |
| Total Delay (hr)   | 133.5 |
| Total Del/Veh (s)  | 137.1 |
| Stop Delay (hr)    | 120.4 |
| Stop Del/Veh (s)   | 123.7 |

18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way Performance by movement

| Movement           | EBL  | EBT  | EBR | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|--------------------|------|------|-----|------|------|------|------|------|------|------|------|------|
| Denied Delay (hr)  | 0.0  | 0.0  | 0.1 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Denied Del/Veh (s) | 0.2  | 0.4  | 3.5 | 0.3  | 0.1  | 0.1  | 0.0  | 0.0  | 0.0  | 0.5  | 0.0  | 0.6  |
| Total Delay (hr)   | 2.3  | 1.0  | 0.1 | 2.4  | 1.0  | 1.4  | 11.9 | 4.3  | 0.7  | 0.7  | 8.3  | 1.6  |
| Total Del/Veh (s)  | 56.8 | 58.3 | 3.2 | 56.4 | 57.1 | 60.0 | 49.8 | 13.0 | 11.7 | 83.5 | 43.6 | 30.3 |
| Stop Delay (hr)    | 2.2  | 0.9  | 0.0 | 2.2  | 1.0  | 1.3  | 9.5  | 2.2  | 0.4  | 0.7  | 7.0  | 1.4  |
| Stop Del/Veh (s)   | 53.8 | 53.3 | 0.0 | 52.6 | 52.1 | 57.1 | 39.7 | 6.6  | 6.1  | 78.5 | 36.5 | 25.6 |

18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way Performance by movement

| Movement           | All  |
|--------------------|------|
| Denied Delay (hr)  | 0.2  |
| Denied Del/Veh (s) | 0.2  |
| Total Delay (hr)   | 35.9 |
| Total Del/Veh (s)  | 33.8 |
| Stop Delay (hr)    | 28.7 |
| Stop Del/Veh (s)   | 27.0 |



19: Latrobe Road #2/EI Dorado Hills Blvd #2 & US 50 EB Ramps Performance by movement

| Movement           | EBR  | WBR | NBT | NBR | SBL  | SBT | All  |
|--------------------|------|-----|-----|-----|------|-----|------|
| Denied Delay (hr)  | 0.1  | 0.0 | 0.5 | 0.3 | 0.0  | 0.0 | 0.9  |
| Denied Del/Veh (s) | 0.7  | 0.4 | 1.0 | 2.3 | 0.0  | 0.0 | 0.8  |
| Total Delay (hr)   | 2.2  | 0.1 | 3.2 | 0.7 | 2.5  | 2.1 | 10.7 |
| Total Del/Veh (s)  | 10.4 | 1.1 | 6.4 | 5.6 | 50.2 | 9.3 | 8.7  |
| Stop Delay (hr)    | 1.2  | 0.0 | 1.1 | 0.3 | 2.2  | 0.7 | 5.5  |
| Stop Del/Veh (s)   | 5.6  | 0.0 | 2.2 | 2.4 | 43.9 | 3.3 | 4.5  |

Total Zone Performance

|                    |        |
|--------------------|--------|
| Denied Delay (hr)  | 594.8  |
| Denied Del/Veh (s) | 261.0  |
| Total Delay (hr)   | 183.3  |
| Total Del/Veh (s)  | 1563.6 |
| Stop Delay (hr)    | 155.7  |
| Stop Del/Veh (s)   | 1328.6 |

Intersection: 13: Francisco Dr & El Dorado Hills Blvd

| Movement              | EB  | WB  | NB  | NB  | SB  | SB  |
|-----------------------|-----|-----|-----|-----|-----|-----|
| Directions Served     | LT  | LTR | L   | TR  | L   | TR  |
| Maximum Queue (ft)    | 52  | 50  | 168 | 82  | 31  | 86  |
| Average Queue (ft)    | 24  | 25  | 80  | 50  | 5   | 44  |
| 95th Queue (ft)       | 49  | 48  | 134 | 73  | 24  | 73  |
| Link Distance (ft)    | 577 | 573 |     | 275 |     | 734 |
| Upstream Blk Time (%) |     |     |     |     |     |     |
| Queuing Penalty (veh) |     |     |     |     |     |     |
| Storage Bay Dist (ft) |     |     | 500 |     | 200 |     |
| Storage Blk Time (%)  |     |     |     |     |     |     |
| Queuing Penalty (veh) |     |     |     |     |     |     |

Intersection: 17: El Dorado Hills Blvd #2 & Saratoga Way/Park Drive

| Movement              | EB  | EB  | EB  | WB  | WB  | NB  | NB  | NB  | NB  | SB  | SB  | SB  |
|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Directions Served     | L   | LT  | R   | L   | TR  | L   | T   | T   | TR  | L   | T   | TR  |
| Maximum Queue (ft)    | 175 | 982 | 265 | 512 | 531 | 275 | 515 | 435 | 291 | 125 | 732 | 732 |
| Average Queue (ft)    | 133 | 950 | 213 | 402 | 506 | 251 | 307 | 221 | 172 | 122 | 684 | 687 |
| 95th Queue (ft)       | 226 | 966 | 365 | 706 | 519 | 312 | 568 | 405 | 255 | 137 | 785 | 773 |
| Link Distance (ft)    |     | 930 |     | 488 | 488 |     | 946 | 946 | 946 |     | 685 | 685 |
| Upstream Blk Time (%) |     | 92  |     | 29  | 88  |     |     |     |     |     | 59  | 51  |
| Queuing Penalty (veh) |     | 0   |     | 0   | 0   |     |     |     |     |     | 0   | 0   |
| Storage Bay Dist (ft) | 150 |     | 240 |     |     | 250 |     |     |     | 100 |     |     |
| Storage Blk Time (%)  | 1   | 86  | 0   |     |     | 39  | 0   |     |     | 64  | 24  |     |
| Queuing Penalty (veh) | 13  | 412 | 1   |     |     | 123 | 1   |     |     | 214 | 62  |     |

Intersection: 18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way

| Movement              | EB   | EB   | WB  | WB  | WB  | NB  | NB  | NB  | NB  | NB  | SB  | SB  |   |
|-----------------------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---|
| Directions Served     | L    | LT   | L   | LT  | TR  | L   | L   | T   | T   | TR  | L   | T   |   |
| Maximum Queue (ft)    | 136  | 164  | 130 | 152 | 162 | 427 | 421 | 227 | 215 | 241 | 117 | 227 |   |
| Average Queue (ft)    | 68   | 82   | 56  | 93  | 94  | 274 | 278 | 104 | 101 | 127 | 35  | 139 |   |
| 95th Queue (ft)       | 116  | 141  | 105 | 138 | 149 | 393 | 394 | 187 | 180 | 212 | 85  | 202 |   |
| Link Distance (ft)    | 1059 | 1059 |     | 621 | 621 | 714 | 714 | 714 | 714 | 714 |     | 946 |   |
| Upstream Blk Time (%) |      |      |     |     |     |     |     |     |     |     |     |     |   |
| Queuing Penalty (veh) |      |      |     |     |     |     |     |     |     |     |     |     |   |
| Storage Bay Dist (ft) |      |      |     |     | 150 |     |     |     |     | 200 |     |     |   |
| Storage Blk Time (%)  |      |      |     |     | 0   | 1   |     |     |     |     |     |     | 2 |
| Queuing Penalty (veh) |      |      |     |     | 0   | 1   |     |     |     |     |     |     | 1 |

Intersection: 18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way

| Movement              | SB  | SB  | SB  |
|-----------------------|-----|-----|-----|
| Directions Served     | T   | T   | R   |
| Maximum Queue (ft)    | 210 | 188 | 199 |
| Average Queue (ft)    | 120 | 106 | 106 |
| 95th Queue (ft)       | 185 | 162 | 176 |
| Link Distance (ft)    | 946 | 946 |     |
| Upstream Blk Time (%) |     |     |     |
| Queuing Penalty (veh) |     |     |     |
| Storage Bay Dist (ft) | 200 |     |     |
| Storage Blk Time (%)  | 0   | 0   |     |
| Queuing Penalty (veh) | 1   | 1   |     |

Intersection: 19: Latrobe Road #2/El Dorado Hills Blvd #2 & US 50 EB Ramps

| Movement              | EB   | EB  | NB  | NB  | NB  | NB  | SB  | SB  | SB  | SB  | SB  |  |
|-----------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Directions Served     | R    | R   | T   | T   | T   | R   | L   | T   | T   | T   | T   |  |
| Maximum Queue (ft)    | 116  | 127 | 167 | 263 | 274 | 204 | 232 | 96  | 113 | 117 | 135 |  |
| Average Queue (ft)    | 61   | 60  | 69  | 86  | 112 | 69  | 105 | 18  | 34  | 50  | 46  |  |
| 95th Queue (ft)       | 96   | 100 | 135 | 192 | 214 | 154 | 200 | 62  | 88  | 105 | 110 |  |
| Link Distance (ft)    | 1212 |     | 718 | 718 | 718 |     |     | 714 | 714 | 714 | 714 |  |
| Upstream Blk Time (%) |      |     |     |     |     |     |     |     |     |     |     |  |
| Queuing Penalty (veh) |      |     |     |     |     |     |     |     |     |     |     |  |
| Storage Bay Dist (ft) | 450  |     |     |     |     |     | 275 | 575 |     |     |     |  |
| Storage Blk Time (%)  |      |     |     |     |     |     | 0   | 0   |     |     |     |  |
| Queuing Penalty (veh) |      |     |     |     |     |     | 1   | 0   |     |     |     |  |

Zone Summary

Zone wide Queuing Penalty: 831

# HCS7 Two-Lane Highway Report

## Project Information

|                     |   |                      |                         |
|---------------------|---|----------------------|-------------------------|
| Analyst             | Kimley-Horn   | Date                 | 11/29/2021              |
| Agency              |   | Analysis Year        | 2031                    |
| Jurisdiction        | El Dorado County  | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Francisco Dr to El Dorado Hills Blvd EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2059 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 1.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 599  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.80 | Total Trucks, %                  | 1.70 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.35 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 56.7    |
| Speed Slope Coefficient           | 3.59431  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.38808 | PF Power Coefficient             | 0.73983 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 6.8     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2059       | -          | -                 | 54.0                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 54.0 | Percent Followers, %               | 61.3 |
| Segment Travel Time, minutes | 0.43 | Followers Density, followers/mi/ln | 6.8  |
| Vehicle LOS                  | C    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |   |                      |                         |
|---------------------|---|----------------------|-------------------------|
| Analyst             | Kimley-Horn   | Date                 | 11/29/2021              |
| Agency              |   | Analysis Year        | 2031                    |
| Jurisdiction        | El Dorado County  | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Francisco Dr to El Dorado Hills Blvd EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2059 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 1.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 967  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.97 | Total Trucks, %                  | 1.70 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.57 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 56.7    |
| Speed Slope Coefficient           | 3.59431  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.38808 | PF Power Coefficient             | 0.73983 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 13.5    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2059       | -          | -                 | 53.3                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 53.3 | Percent Followers, %               | 74.2 |
| Segment Travel Time, minutes | 0.44 | Followers Density, followers/mi/ln | 13.5 |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |   |                      |                         |
|---------------------|---|----------------------|-------------------------|
| Analyst             | Kimley-Horn   | Date                 | 11/29/2021              |
| Agency              |   | Analysis Year        | 2031                    |
| Jurisdiction        | El Dorado County  | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Francisco Dr to El Dorado Hills Blvd WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2059 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 1.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 951  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.88 | Total Trucks, %                  | 0.70 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.56 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 56.7    |
| Speed Slope Coefficient           | 3.59612  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.38793 | PF Power Coefficient             | 0.73977 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 13.1    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2059       | -          | -                 | 53.4                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 53.4 | Percent Followers, %               | 73.8 |
| Segment Travel Time, minutes | 0.44 | Followers Density, followers/mi/ln | 13.1 |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |   |                      |                         |
|---------------------|---|----------------------|-------------------------|
| Analyst             | Kimley-Horn   | Date                 | 11/29/2021              |
| Agency              |   | Analysis Year        | 2031                    |
| Jurisdiction        | El Dorado County  | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Francisco Dr to El Dorado Hills Blvd WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2059 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 1.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 764  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.94 | Total Trucks, %                  | 0.70 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.45 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 56.7    |
| Speed Slope Coefficient           | 3.59612  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.38793 | PF Power Coefficient             | 0.73977 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 9.7     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2059       | -          | -                 | 53.7                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 53.7 | Percent Followers, %               | 67.9 |
| Segment Travel Time, minutes | 0.44 | Followers Density, followers/mi/ln | 9.7  |
| Vehicle LOS                  | C    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |   |                      |                         |
|---------------------|---|----------------------|-------------------------|
| Analyst             | Kimley-Horn   | Date                 | 11/29/2021              |
| Agency              |   | Analysis Year        | 2031                    |
| Jurisdiction        | El Dorado County  | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Francisco Dr to El Dorado Hills Blvd EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 1900 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 0.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 715  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.83 | Total Trucks, %                  | 0.90 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.42 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 57.0    |
| Speed Slope Coefficient           | 3.60677  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.39272 | PF Power Coefficient             | 0.73846 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 8.8     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 1900       | -          | -                 | 54.0                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 54.0 | Percent Followers, %               | 66.3 |
| Segment Travel Time, minutes | 0.40 | Followers Density, followers/mi/ln | 8.8  |
| Vehicle LOS                  | C    |                                    |      |



# HCS7 Two-Lane Highway Report

## Project Information

|                     |   |                      |                         |
|---------------------|---|----------------------|-------------------------|
| Analyst             | Kimley-Horn   | Date                 | 11/29/2021              |
| Agency              |   | Analysis Year        | 2031                    |
| Jurisdiction        | El Dorado County  | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Francisco Dr to El Dorado Hills Blvd EB | Unit                 | United States Customary |

## Segment 1

## Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 1900 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 0.0  |

## Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 1040 | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.93 | Total Trucks, %                  | 0.90 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.61 |

## Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 57.0    |
| Speed Slope Coefficient           | 3.60677  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.39272 | PF Power Coefficient             | 0.73846 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 14.8    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

## Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 1900       | -          | -                 | 53.5                |

## Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 53.5 | Percent Followers, %               | 76.1 |
| Segment Travel Time, minutes | 0.40 | Followers Density, followers/mi/ln | 14.8 |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |   |                      |                         |
|---------------------|---|----------------------|-------------------------|
| Analyst             | Kimley-Horn   | Date                 | 11/29/2021              |
| Agency              |   | Analysis Year        | 2031                    |
| Jurisdiction        | El Dorado County  | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Francisco Dr to El Dorado Hills Blvd WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 1900 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 0.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 897  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.92 | Total Trucks, %                  | 0.90 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.53 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 57.0    |
| Speed Slope Coefficient           | 3.60677  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.39272 | PF Power Coefficient             | 0.73846 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 12.1    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 1900       | -          | -                 | 53.7                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 53.7 | Percent Followers, %               | 72.3 |
| Segment Travel Time, minutes | 0.40 | Followers Density, followers/mi/ln | 12.1 |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |   |                      |                         |
|---------------------|---|----------------------|-------------------------|
| Analyst             | Kimley-Horn   | Date                 | 11/29/2021              |
| Agency              |   | Analysis Year        | 2031                    |
| Jurisdiction        | El Dorado County  | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Francisco Dr to El Dorado Hills Blvd WB | Unit                 | United States Customary |

## Segment 1

## Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 1900 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 0.0  |

## Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 755  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.92 | Total Trucks, %                  | 0.90 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.44 |

## Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 57.0    |
| Speed Slope Coefficient           | 3.60677  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.39272 | PF Power Coefficient             | 0.73846 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 9.5     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

## Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 1900       | -          | -                 | 53.9                |

## Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 53.9 | Percent Followers, %               | 67.8 |
| Segment Travel Time, minutes | 0.40 | Followers Density, followers/mi/ln | 9.5  |
| Vehicle LOS                  | C    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2031                    |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Silva Valley Pkwy to Malcolm Dixon Rd EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 8765 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 459  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.82 | Total Trucks, %                  | 1.00 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.27 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.95929  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.27608 | PF Power Coefficient             | 0.75149 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 3.9     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 8765       | -          | -                 | 59.6                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.6 | Percent Followers, %               | 50.9 |
| Segment Travel Time, minutes | 1.67 | Followers Density, followers/mi/ln | 3.9  |
| Vehicle LOS                  | B    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2031                    |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Silva Valley Pkwy to Malcolm Dixon Rd EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 8765 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 685  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.92 | Total Trucks, %                  | 1.00 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.40 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.95929  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.27608 | PF Power Coefficient             | 0.75149 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 7.2     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 8765       | -          | -                 | 59.0                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.0 | Percent Followers, %               | 61.7 |
| Segment Travel Time, minutes | 1.69 | Followers Density, followers/mi/ln | 7.2  |
| Vehicle LOS                  | C    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2031                    |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Silva Valley Pkwy to Malcolm Dixon Rd WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 8765 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 742  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.83 | Total Trucks, %                  | 1.20 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.44 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.95892  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.27611 | PF Power Coefficient             | 0.75150 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 8.1     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 8765       | -          | -                 | 58.9                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 58.9 | Percent Followers, %               | 63.9 |
| Segment Travel Time, minutes | 1.69 | Followers Density, followers/mi/ln | 8.1  |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2031                    |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Silva Valley Pkwy to Malcolm Dixon Rd WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 8765 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 484  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.90 | Total Trucks, %                  | 1.20 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.28 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.95892  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.27611 | PF Power Coefficient             | 0.75150 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 4.3     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 8765       | -          | -                 | 59.5                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.5 | Percent Followers, %               | 52.3 |
| Segment Travel Time, minutes | 1.67 | Followers Density, followers/mi/ln | 4.3  |
| Vehicle LOS                  | C    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2031                    |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Malcolm Dixon Rd to Project EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2304 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 394  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.90 | Total Trucks, %                  | 0.30 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.23 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.89594  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.33086 | PF Power Coefficient             | 0.75550 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 3.2     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2304       | -          | -                 | 59.8                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.8 | Percent Followers, %               | 48.3 |
| Segment Travel Time, minutes | 0.44 | Followers Density, followers/mi/ln | 3.2  |
| Vehicle LOS                  | B    |                                    |      |



# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2031                    |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Malcolm Dixon Rd to Project EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2304 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 748  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.93 | Total Trucks, %                  | 0.30 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.44 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.89594  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.33086 | PF Power Coefficient             | 0.75550 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 8.3     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2304       | -          | -                 | 58.9                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 58.9 | Percent Followers, %               | 65.7 |
| Segment Travel Time, minutes | 0.44 | Followers Density, followers/mi/ln | 8.3  |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2031                    |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Malcolm Dixon Rd to Project WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2304 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 657  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.94 | Total Trucks, %                  | 0.00 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.39 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.89648  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.33081 | PF Power Coefficient             | 0.75548 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 6.9     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2304       | -          | -                 | 59.1                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.1 | Percent Followers, %               | 62.0 |
| Segment Travel Time, minutes | 0.44 | Followers Density, followers/mi/ln | 6.9  |
| Vehicle LOS                  | C    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2031                    |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Malcolm Dixon Rd to Project WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2304 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 509  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.86 | Total Trucks, %                  | 0.00 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.30 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.89648  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.33081 | PF Power Coefficient             | 0.75548 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 4.7     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2304       | -          | -                 | 59.5                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.5 | Percent Followers, %               | 55.0 |
| Segment Travel Time, minutes | 0.44 | Followers Density, followers/mi/ln | 4.7  |
| Vehicle LOS                  | C    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2031                    |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Project to Deer Valley Rd EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 3152 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 395  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.90 | Total Trucks, %                  | 0.30 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.23 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.90747  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.30740 | PF Power Coefficient             | 0.76221 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 3.1     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 3152       | -          | -                 | 59.8                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.8 | Percent Followers, %               | 47.5 |
| Segment Travel Time, minutes | 0.60 | Followers Density, followers/mi/ln | 3.1  |
| Vehicle LOS                  | B    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2031                    |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Project to Deer Valley Rd EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 3152 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 822  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.84 | Total Trucks, %                  | 0.30 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.48 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.90747  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.30740 | PF Power Coefficient             | 0.76221 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 9.4     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 3152       | -          | -                 | 58.8                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 58.8 | Percent Followers, %               | 67.6 |
| Segment Travel Time, minutes | 0.61 | Followers Density, followers/mi/ln | 9.4  |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2031                    |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Project to Deer Valley Rd WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 3152 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 649  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.95 | Total Trucks, %                  | 0.00 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.38 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.90802  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.30735 | PF Power Coefficient             | 0.76219 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 6.7     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 3152       | -          | -                 | 59.2                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.2 | Percent Followers, %               | 61.0 |
| Segment Travel Time, minutes | 0.61 | Followers Density, followers/mi/ln | 6.7  |
| Vehicle LOS                  | C    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2031                    |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Project to Deer Valley Rd WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 3152 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 497  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.88 | Total Trucks, %                  | 0.00 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.29 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.90802  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.30735 | PF Power Coefficient             | 0.76219 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 4.5     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 3152       | -          | -                 | 59.5                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.5 | Percent Followers, %               | 53.6 |
| Segment Travel Time, minutes | 0.60 | Followers Density, followers/mi/ln | 4.5  |
| Vehicle LOS                  | C    |                                    |      |

| Segment Inputs |   |                        |                               | Near Term (2031) Conditions |         |                             |         |        |            |           |                             |        |            |       |     |         |         |   |
|----------------|---|------------------------|-------------------------------|-----------------------------|---------|-----------------------------|---------|--------|------------|-----------|-----------------------------|--------|------------|-------|-----|---------|---------|---|
|                |   |                        |                               | Flow Inputs                 |         | AM LOS Performance Measures |         |        |            |           | PM LOS Performance Measures |        |            |       |     |         |         |   |
|                | Length<br>(ft)  | Number of Lanes<br>(N) | Interchange Density<br>(I/mi) | AM Peak                     | PM Peak | V <sub>p</sub>              | FFS     | S      | D          | LOS       | V <sub>p</sub>              | FFS    | S          | D     | LOS |         |         |   |
|                |   |                        |                               | (veh/h)                     | (veh/h) | (pc/h/ln)                   | (mi/h)  | (mi/h) | (pc/mi/ln) | (pc/h/ln) | (mi/h)                      | (mi/h) | (pc/mi/ln) |       |     |         |         |   |
| EB             | West of Latrobe Rd SB Off Ramp                                      | 6690                   | 3                             | 0.33                        | 4,529   | 4,473                       | 1657.46 | 74.12  | 75         | 70.215    | 23.6055                     | C      | 1636.925   | 74.12 | 75  | 70.5092 | 23.2    | C |
|                | Latrobe Rd NB Off Ramp to Latrobe Rd On Ramp                        | 1990                   | 3                             | 0.50                        | 3,326   | 3,264                       | 1217.23 | 73.6   | 75         | 74.4776   | 16.3436                     | B      | 1194.501   | 73.6  | 75  | 74.5812 | 16.0161 | B |
|                | Silva Valley Pkwy SB/NB Off Ramp to Silva Valley Pkwy NB/SB On Ramp | 2375                   | 3                             | 0.50                        | 3,265   | 3,542                       | 1194.91 | 73.6   | 75         | 74.5795   | 16.022                      | B      | 1296.233   | 73.6  | 75  | 74.0286 | 17.5099 | B |
|                | East of Silva Valley Pkwy NB/SB On Ramp                             | 3400                   | 3                             | 0.50                        | 3,826   | 4,294                       | 1400.2  | 73.6   | 75         | 73.227    | 19.1214                     | C      | 1571.421   | 73.6  | 75  | 71.3854 | 22.0132 | C |
|                | East of El Dorado Hills Blvd/Latrobe Road                           | 2000                   | 3                             | 0.50                        | 3,757   | 3,922                       | 1374.84 | 73.6   | 75         | 73.4446   | 18.7195                     | C      | 1435.225   | 73.6  | 75  | 72.9031 | 19.6867 | C |
| WB             | Silva Valley Pkwy NB/SB Off Ramp to Silva Valley Pkwy SB/NB On Ramp | 2350                   | 2                             | 0.50                        | 2,574   | 2,714                       | 1412.83 | 73.6   | 75         | 73.1134   | 19.3238                     | C      | 1489.615   | 73.6  | 75  | 72.3463 | 20.5901 | C |
|                | El Dorado Hills Blvd Off Ramp to El Dorado Hills Blvd On Ramp       | 3565                   | 2                             | 0.50                        | 2,499   | 2,691                       | 1371.66 | 73.6   | 75         | 73.4709   | 18.6694                     | C      | 1476.99    | 73.6  | 75  | 72.4814 | 20.3775 | C |
|                | West of El Dorado Hills Blvd On Ramp                                | 5890                   | 2                             | 0.33                        | 3,459   | 3,877                       | 1898.61 | 74.12  | 75         | 66.0609   | 28.7404                     | D      | 2128       | 74.12 | 75  | 60.9147 | 34.9341 | D |
|                | East of El Dorado Hills Blvd/Latrobe Road                           | 2000                   | 2                             | 0.50                        | 3,127   | 3,276                       | 1716.45 | 74.13  | 75         | 69.3177   | 24.7621                     | C      | 1798.239   | 74.13 | 75  | 67.9464 | 26.4656 | D |
|                | East of Silva Valley Pkwy NB/SB On Ramp                             | 5500                   | 2                             | 0.33                        | 3,228   | 3,276                       | 1771.89 | 74.13  | 75         | 68.4043   | 25.9032                     | C      | 1798.239   | 74.13 | 75  | 67.9464 | 26.4656 | D |

Universal Inputs:  
PHF 0.92  
(P-) 2%  
f<sub>hw</sub> 0.99009901



| Segment Inputs |                              |                      | Near Term (2031) Conditions                   |                       |                     |                             |                |                |                |                   |          |                |                 |        |        |        |                       |                     |                 |                |                              |                |                   |             |                |                 |        |        |        |        |        |        |      |     |      |      |        |        |   |
|----------------|------------------------------|----------------------|---|-----------------------|---------------------|-----------------------------|----------------|----------------|----------------|-------------------|----------|----------------|-----------------|--------|--------|--------|-----------------------|---------------------|-----------------|----------------|------------------------------|----------------|-------------------|-------------|----------------|-----------------|--------|--------|--------|--------|--------|--------|------|-----|------|------|--------|--------|---|
|                |                              |                      | AM Flow Inputs                                |                       |                     | AM LOS Performance Measures |                |                |                |                   |          |                |                 |        |        |        |                       | PM Flow Inputs      |                 |                | PM LOS Performance Measures  |                |                   |             |                |                 |        |        |        |        |        |        |      |     |      |      |        |        |   |
| ID             | Number of Lanes              | Number of Ramp Lanes | Length of Acceleration Lane (L <sub>a</sub> ) | Downstream Volume (D) | Upstream Volume (F) | Ramp Volume (R)             | v <sub>0</sub> | v <sub>1</sub> | v <sub>2</sub> | w/S <sub>FR</sub> | Capacity | v <sub>3</sub> | v <sub>2a</sub> | v/c    | D      | LOS    | Downstream Volume (D) | Upstream Volume (F) | Ramp Volume (R) | v <sub>0</sub> | v <sub>1</sub>               | v <sub>2</sub> | w/S <sub>FR</sub> | Capacity    | v <sub>3</sub> | v <sub>2a</sub> | v/c    | D      | LOS    |        |        |        |      |     |      |      |        |        |   |
|                |                              |                      |   | (veh/h)               | (veh/h)             | (veh/h)                     | (ft/h)         | (ft/h)         | (ft/h)         | (ft/h)            | (ft/h)   | (ft/h)         | (ft/h)          | (ft/h) | (ft/h) | (ft/h) | (ft/h)                | (ft/h)              | (ft/h)          | (veh/h)        | (veh/h)                      | (veh/h)        | (ft/h)            | (ft/h)      | (ft/h)         | (ft/h)          | (ft/h) | (ft/h) | (ft/h) | (ft/h) | (ft/h) | (ft/h) |      |     |      |      |        |        |   |
| AM             | Latrobe Rd On Ramp           | 1                    | 110   | 3757.296189           | 3326.29619          | 431                         | 4125           | 3652           | 473            | 104               | 0.5806   | 2120.1         | 7200            | 766    | 1590   | 2120   | 0.5729                | 34.795              | C               | PM             | Latrobe Rd On Ramp           | 1              | 110               | 3757.296189 | 3326.29619     | 431             | 4125   | 3652   | 473    | 104    | 0.5806 | 2120.1 | 7200 | 766 | 1590 | 2120 | 0.5729 | 34.795 | C |
|                | Silva Valley On Ramp         | 3                    | 550   | 3826.296189           | 3265.29619          | 561                         | 4201           | 3585           | 616            | 102               | 0.5929   | 2125.4         | 7200            | 730    | 1594   | 2125   | 0.5834                | 23.125              | C               |                | Silva Valley On Ramp         | 3              | 550               | 3826.296189 | 3265.29619     | 561             | 4201   | 3585   | 616    | 102    | 0.5929 | 2125.4 | 7200 | 730 | 1594 | 2125 | 0.5834 | 23.125 | C |
| PM             | El Dorado Hills Blvd On Ramp | 1                    | 795   | 3458.861662           | 2498.86166          | 960                         | 3797           | 2743           | 1054           | 78                | 1        | 2743.3         | 4800            | 0      | 2057   | 2743   | 0.7911                | 29.624              | D               | PM             | El Dorado Hills Blvd On Ramp | 1              | 795               | 3458.861662 | 2498.86166     | 960             | 3797   | 2743   | 1054   | 78     | 1      | 2743.3 | 4800 | 0   | 2057 | 2743 | 0.7911 | 29.624 | D |
|                | Silva Valley On Ramp         | 2                    | 800   | 3126.861662           | 2573.86166          | 553                         | 3433           | 2826           | 607            | 81                | 1        | 2825.7         | 4800            | 0      | 2119   | 2826   | 0.7152                | 26.955              | C               |                | Silva Valley On Ramp         | 2              | 800               | 3126.861662 | 2573.86166     | 553             | 3433   | 2826   | 607    | 81     | 1      | 2825.7 | 4800 | 0   | 2119 | 2826 | 0.7152 | 26.955 | C |

General Inputs  
 Length: 1500 (ft)  
 S<sub>u</sub>: 70 (mi/h)  
 S<sub>l</sub>: 35 (mi/h)  
 PEF: 0.82 (mi/h)  
 P<sub>a</sub>: 2%  
 S<sub>o</sub>: 0.0000901

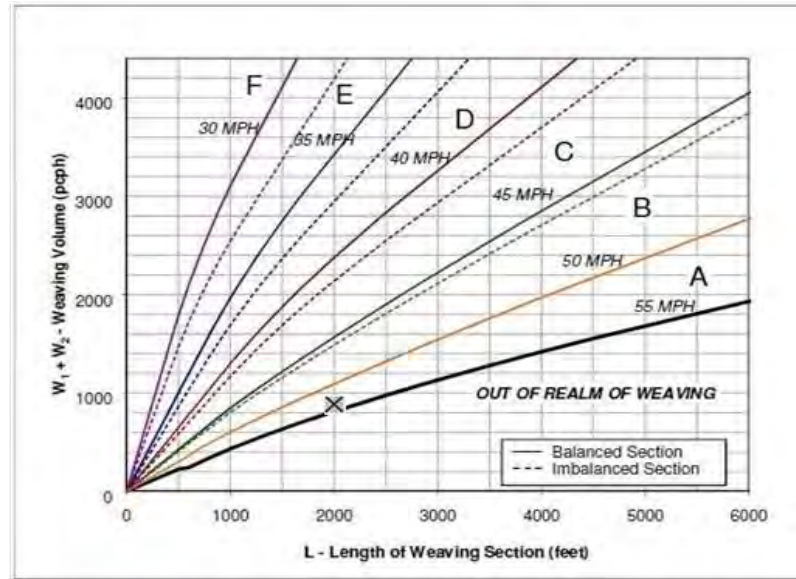
| Near Term (2031) Conditions |                               |                      |   |        |                   |                 |             |                             |                |                |          |                |                  |      |                |      |                       |                             |                 |                |                |                |          |                |                  |       |        |        |         |         |         |         |         |         |         |
|-----------------------------|-------------------------------|----------------------|---|--------|-------------------|-----------------|-------------|-----------------------------|----------------|----------------|----------|----------------|------------------|------|----------------|------|-----------------------|-----------------------------|-----------------|----------------|----------------|----------------|----------|----------------|------------------|-------|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| Segment Inputs              |                               |                      |   |        | AM Flow Inputs    |                 |             | AM LOS Performance Measures |                |                |          |                |                  |      | PM Flow Inputs |      |                       | PM LOS Performance Measures |                 |                |                |                |          |                |                  |       |        |        |         |         |         |         |         |         |         |
|                             | Number of Lanes               | Number of Ramp Lanes | Length of Deceleration Lane (L <sub>d</sub> ) |        | Downstream Volume | Upstream Volume | Ramp Volume | V <sub>0</sub>              | V <sub>1</sub> | V <sub>2</sub> | Capacity | V <sub>3</sub> | V <sub>12a</sub> | v/c  | D              | LOS  | Downstream Volume (D) | Upstream Volume (F)         | Ramp Volume (R) | V <sub>0</sub> | V <sub>1</sub> | V <sub>2</sub> | Capacity | V <sub>3</sub> | V <sub>12a</sub> | v/c   | D      | LOS    |         |         |         |         |         |         |         |
|                             |                               |                      | (ft)  | (ft)   |                   |                 |             |                             |                |                |          |                |                  |      |                |      |                       |                             |                 |                |                |                |          |                |                  |       |        |        | (veh/h) | (veh/h) | (veh/h) | (veh/h) | (veh/h) | (veh/h) | (veh/h) |
| SB                          | Latrobe SB Off Ramp           | 3                    | 1   | 666    | 140               | 3731.296189     | 4529.29619  | 798                         | 444.62         | 4972           | 876.1    | 0.436          | 2662.1           | 7200 | 1155           | 1997 | 2662                  | 0.6906                      | 25.886          | C              | 3716           | 4473           | 757      | 496.217        | 4911             | 831.1 | 0.436  | 2609.8 | 7200    | 1150    | 1957    | 2610    | 0.6821  | 25.436  | C       |
|                             | Latrobe NB Off Ramp           | 3                    | 1   | -      | 140               | 3326.296189     | 3731        | 405                         | -              | 4096           | 444.6    | 0.6371         | 2775.3           | 7200 | 1325           | 2078 | 2771                  | 0.5689                      | 26.825          | C              | 3264           | 3716           | 452      | -              | 4080             | 496.2 | 0.6352 | 2772.4 | 7200    | 1307    | 2079    | 2772    | 0.5666  | 26.835  | C       |
|                             | Silva Valley SB Off Ramp      | 3                    | 1   | -      | 150               | 3265.296189     | 3757        | 492                         | -              | 4125           | 540.1    | 0.632          | 2805.8           | 7200 | 660            | 2104 | 2806                  | 0.5729                      | 27.032          | C              | 3542           | 3922           | 380      | -              | 4306             | 417.2 | 0.6332 | 2879.4 | 7200    | 1427    | 2160    | 2879    | 0.5998  | 27.664  | C       |
| NB                          | El Dorado Hills Blvd Off Ramp | 3                    | 1   | -      | 190               | 2498.861662     | 3127        | 628                         | -              | 3433           | 689.4    | 0.6425         | 2451.9           | 7200 | 981            | 1839 | 2452                  | 0.4768                      | 23.629          | C              | 2691           | 3027           | 336      | -              | 3323             | 368.9 | 0.66   | 2318.4 | 7200    | 1004    | 1739    | 2318    | 0.4615  | 22.48   | C       |
|                             | Silva Valley NB Off Ramp      | 3                    | 1   | -      | 150               | 2573.861662     | 3229        | 655                         | -              | 3545           | 719.1    | 0.6383         | 2522.7           | 7200 | 1022           | 1892 | 2523                  | 0.4923                      | 24.597          | C              | 2714           | 3277           | 563      | -              | 3597             | 618.1 | 0.6416 | 2529.7 | 7200    | 1068    | 1897    | 2530    | 0.4996  | 24.657  | C       |
|                             | Universal Inputs              |                      |   |        |                   |                 |             |                             |                |                |          |                |                  |      |                |      |                       |                             |                 |                |                |                |          |                |                  |       |        |        |         |         |         |         |         |         |         |
| Leng 1500                   |                               |                      |   | (ft)   |                   |                 |             |                             |                |                |          |                |                  |      |                |      |                       |                             |                 |                |                |                |          |                |                  |       |        |        |         |         |         |         |         |         |         |
| S <sub>0</sub> 70           |                               |                      |   | (ft/h) |                   |                 |             |                             |                |                |          |                |                  |      |                |      |                       |                             |                 |                |                |                |          |                |                  |       |        |        |         |         |         |         |         |         |         |
| S <sub>1a</sub> 35          |                               |                      |   | (ft/h) |                   |                 |             |                             |                |                |          |                |                  |      |                |      |                       |                             |                 |                |                |                |          |                |                  |       |        |        |         |         |         |         |         |         |         |
| PHF 0.92                    |                               |                      |   |        |                   |                 |             |                             |                |                |          |                |                  |      |                |      |                       |                             |                 |                |                |                |          |                |                  |       |        |        |         |         |         |         |         |         |         |
| PIJ 2%                      |                               |                      |   |        |                   |                 |             |                             |                |                |          |                |                  |      |                |      |                       |                             |                 |                |                |                |          |                |                  |       |        |        |         |         |         |         |         |         |         |
| ID 0.000090                 |                               |                      |   |        |                   |                 |             |                             |                |                |          |                |                  |      |                |      |                       |                             |                 |                |                |                |          |                |                  |       |        |        |         |         |         |         |         |         |         |

### EB US-50, East of Latrobe Rd On Ramp, Near-Term (2031) Conditons (AM)

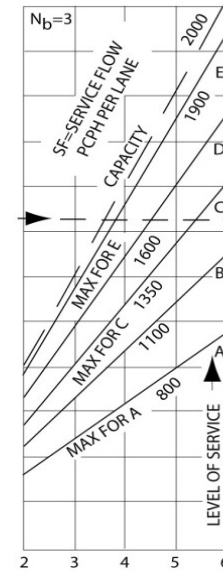
|                                    |                |      |
|------------------------------------|----------------|------|
| Number of Entering Mainline Lanes  | N <sub>b</sub> | 3    |
| Number of Lanes in Weaving Section | N              | 4    |
| Length of Weaving Section (feet)   | L              | 2000 |

| Total Weaving Section (V) |       | On ramp to Mainline (W1) |     | Mainline to Off ramp (W2) |     |
|---------------------------|-------|--------------------------|-----|---------------------------|-----|
| Volume (vph)              | 3,757 | Volume (vph)             | 431 | Volume (vph)              | 492 |
| Truck Percentage          | 4%    | Truck Percentage         | 2%  | Truck Percentage          | 2%  |
| PCE for Trucks            | 1.5   | PCE for Trucks           | 1.5 | PCE for Trucks            | 1.5 |
| Volume (pcph)             | 3,832 | Volume (pcph)            | 435 | Volume (pcph)             | 497 |

|   |      |
|---|------|
| W1 + W2   | 932  |
| In between  |      |
| Speed 1   | 50   |
| Speed 2   | 55   |
| Interpolated Weaving Speed (S <sub>w</sub> , mph) | 54.8 |
| Weaving Intensity Factor (k)                      | 1.00 |
| Service Volume ((SV, pcph)                        |      |
| $SV = (1/N) * [V + (k-1) * \min(W1, W2)]$         | 958  |
| Level of Service (LOS)                            | B    |



N<sub>b</sub>=NUMBER OF BASIC LANES ON APPROACH  
SEE CHART FOR DEFINITION OF OTHER TERMS

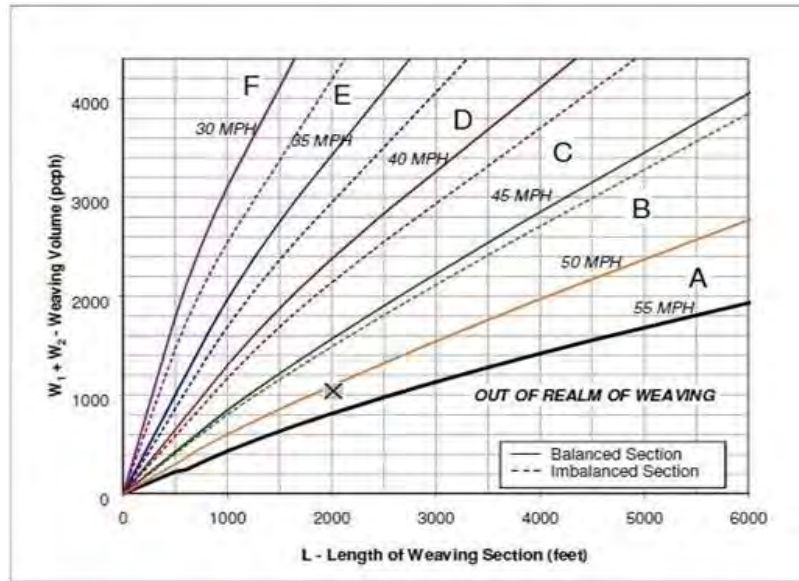


### EB US-50, East of Latrobe Rd On Ramp, Near-Term (2031) Conditons (PM)

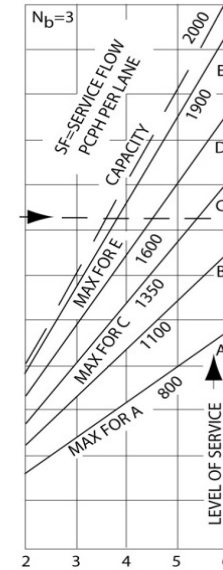
|                                    |    |      |
|------------------------------------|----|------|
| Number of Entering Mainline Lanes  | Nb | 3    |
| Number of Lanes in Weaving Section | N  | 4    |
| Length of Weaving Section (feet)   | L  | 2000 |

| Total Weaving Section (V) |       | On ramp to Mainline (W1) |     | Mainline to Off ramp (W2) |     |
|---------------------------|-------|--------------------------|-----|---------------------------|-----|
| Volume (vph)              | 3,922 | Volume (vph)             | 658 | Volume (vph)              | 380 |
| Truck Percentage          | 2%    | Truck Percentage         | 2%  | Truck Percentage          | 2%  |
| PCE for Trucks            | 1.5   | PCE for Trucks           | 1.5 | PCE for Trucks            | 1.5 |
| Volume (pcph)             | 3,961 | Volume (pcph)            | 665 | Volume (pcph)             | 384 |

|   |       |
|---|-------|
| W1 + W2                                   | 1,048 |
| In between                                |       |
| Speed 1                                   | 45    |
| Speed 2                                   | 50    |
| Interpolated Weaving Speed (Sw, mph)      | 47.0  |
| Weaving Intensity Factor (k)              | 1.60  |
| Service Volume ((SV, pcph)                |       |
| $SV = (1/N) * [V + (k-1) * \min(W1, W2)]$ | 1,048 |
| Level of Service (LOS)                    | B     |



Nb=NUMBER OF BASIC LANES ON APPROACH  
SEE CHART FOR DEFINITION OF OTHER TERMS

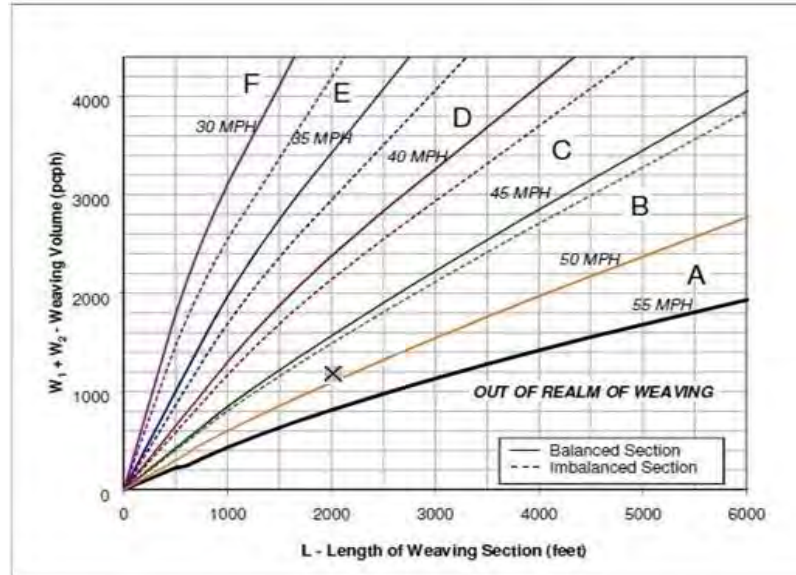


### WB US-50, East of El Dorado Hills Blvd Off Ramp, Near-Term (2031) Conditons (AM)

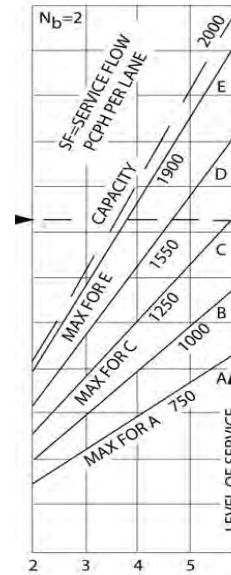
|                                    |    |      |
|------------------------------------|----|------|
| Number of Entering Mainline Lanes  | Nb | 2    |
| Number of Lanes in Weaving Section | N  | 3    |
| Length of Weaving Section (feet)   | L  | 2000 |

| Total Weaving Section (V) |       | On ramp to Mainline (W1) |     | Mainline to Off ramp (W2) |     |
|---------------------------|-------|--------------------------|-----|---------------------------|-----|
| Volume (vph)              | 3,127 | Volume (vph)             | 553 | Volume (vph)              | 628 |
| Truck Percentage          | 2%    | Truck Percentage         | 2%  | Truck Percentage          | 2%  |
| PCE for Trucks            | 1.5   | PCE for Trucks           | 1.5 | PCE for Trucks            | 1.5 |
| Volume (pcph)             | 3,158 | Volume (pcph)            | 559 | Volume (pcph)             | 634 |

|   |       |
|---|-------|
| W1 + W2                                   | 1,193 |
| In between                                |       |
| Speed 1                                   | 50    |
| Speed 2                                   | 55    |
| Interpolated Weaving Speed (Sw, mph)      | 52.8  |
| Weaving Intensity Factor (k)              | 1.00  |
| Service Volume ((SV, pcph)                |       |
| $SV = (1/N) * [V + (k-1) * \min(W1, W2)]$ | 1,053 |
| Level of Service (LOS)                    | C     |



Nb=NUMBER OF BASIC LANES ON APPROACH  
SEE CHART FOR DEFINITION OF OTHER TERMS

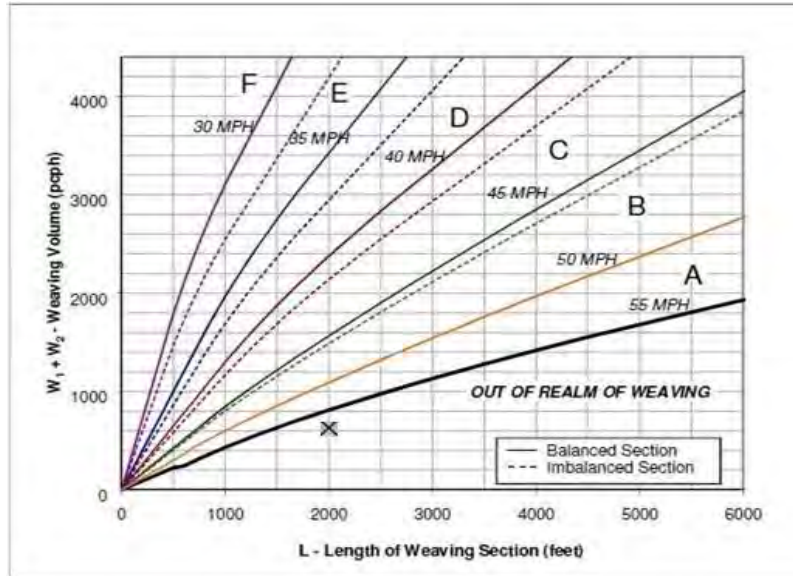


### WB US-50, East of El Dorado Hills Blvd Off Ramp, Near-Term (2031) Conditons (PM)

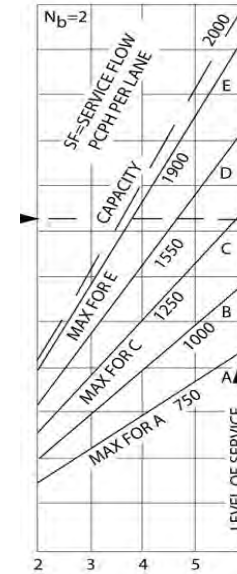
|                                    |                |      |
|------------------------------------|----------------|------|
| Number of Entering Mainline Lanes  | N <sub>b</sub> | 2    |
| Number of Lanes in Weaving Section | N              | 3    |
| Length of Weaving Section (feet)   | L              | 2000 |

| Total Weaving Section (V) |       | On ramp to Mainline (W1) |     | Mainline to Off ramp (W2) |     |
|---------------------------|-------|--------------------------|-----|---------------------------|-----|
| Volume (vph)              | 3,027 | Volume (vph)             | 313 | Volume (vph)              | 336 |
| Truck Percentage          | 2%    | Truck Percentage         | 2%  | Truck Percentage          | 2%  |
| PCE for Trucks            | 1.5   | PCE for Trucks           | 1.5 | PCE for Trucks            | 1.5 |
| Volume (pcph)             | 3,057 | Volume (pcph)            | 316 | Volume (pcph)             | 339 |

|   |       |
|---|-------|
| W1 + W2   | 655   |
| In between  |       |
| Speed 1   | 50    |
| Speed 2   | 55    |
| Interpolated Weaving Speed (S <sub>w</sub> , mph) | 55.4  |
| Weaving Intensity Factor (k)                      | 1.00  |
| Service Volume ((SV, pcph)                        |       |
| $SV = (1/N) * [V + (k-1) * \min(W1, W2)]$         | 1,019 |
| Level of Service (LOS)                            |       |
| <b>OUT OF REALM</b>                               |       |



N<sub>b</sub>=NUMBER OF BASIC LANES ON APPROACH  
SEE CHART FOR DEFINITION OF OTHER TERMS

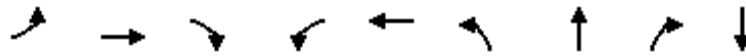


## Appendix E

*Analysis Worksheets for  
Near Term (2031) plus Proposed Project Conditions*

Generations at Green Valley  
 1: Sophia Pkwy/Access Rd & Green Valley Rd

Near Term plus Project  
 Timing Plan: AM



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | NBR  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 2    | 777  | 102  | 188  | 1344 | 241  | 1    | 67   | 6    |
| v/c Ratio               | 0.01 | 0.47 | 0.13 | 0.71 | 0.81 | 0.48 | 0.00 | 0.11 | 0.01 |
| Control Delay           | 7.0  | 9.4  | 2.5  | 29.7 | 15.9 | 15.3 | 9.0  | 4.0  | 1.7  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 7.0  | 9.4  | 2.5  | 29.7 | 15.9 | 15.3 | 9.0  | 4.0  | 1.7  |
| Queue Length 50th (ft)  | 0    | 65   | 0    | 35   | 142  | 47   | 0    | 0    | 0    |
| Queue Length 95th (ft)  | 3    | 101  | 17   | #125 | #227 | 96   | 2    | 17   | 2    |
| Internal Link Dist (ft) |      | 1813 |      |      | 7016 |      | 1499 |      | 376  |
| Turn Bay Length (ft)    | 248  |      | 224  | 314  |      | 204  |      | 204  |      |
| Base Capacity (vph)     | 165  | 1651 | 793  | 265  | 1651 | 499  | 662  | 606  | 600  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.01 | 0.47 | 0.13 | 0.71 | 0.81 | 0.48 | 0.00 | 0.11 | 0.01 |

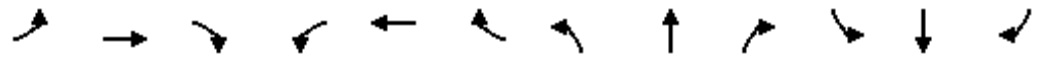
Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.



Generations at Green Valley  
1: Sophia Pkwy/Access Rd & Green Valley Rd

Near Term plus Project  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 2    | 715  | 94   | 173  | 1230 | 6    | 222  | 1    | 62   | 4    | 0    | 2    |
| Future Volume (veh/h)        | 2    | 715  | 94   | 173  | 1230 | 6    | 222  | 1    | 62   | 4    | 0    | 2    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 2    | 777  | 102  | 188  | 1337 | 7    | 241  | 1    | 67   | 4    | 0    | 2    |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 223  | 1658 | 740  | 360  | 1692 | 9    | 664  | 665  | 564  | 446  | 26   | 169  |
| Arrive On Green              | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.36 | 0.36 | 0.36 | 0.36 | 0.00 | 0.36 |
| Sat Flow, veh/h              | 406  | 3554 | 1585 | 631  | 3625 | 19   | 1415 | 1870 | 1585 | 880  | 74   | 477  |
| Grp Volume(v), veh/h         | 2    | 777  | 102  | 188  | 655  | 689  | 241  | 1    | 67   | 6    | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 406  | 1777 | 1585 | 631  | 1777 | 1867 | 1415 | 1870 | 1585 | 1430 | 0    | 0    |
| Q Serve(g_s), s              | 0.2  | 6.7  | 1.7  | 13.0 | 14.0 | 14.0 | 5.8  | 0.0  | 1.3  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 14.2 | 6.7  | 1.7  | 19.7 | 14.0 | 14.0 | 5.9  | 0.0  | 1.3  | 0.1  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 0.01 | 1.00 |      | 1.00 | 0.67 |      | 0.33 |
| Lane Grp Cap(c), veh/h       | 223  | 1658 | 740  | 360  | 829  | 871  | 664  | 665  | 564  | 642  | 0    | 0    |
| V/C Ratio(X)                 | 0.01 | 0.47 | 0.14 | 0.52 | 0.79 | 0.79 | 0.36 | 0.00 | 0.12 | 0.01 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 223  | 1658 | 740  | 360  | 829  | 871  | 664  | 665  | 564  | 642  | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 16.1 | 8.2  | 6.8  | 14.9 | 10.1 | 10.1 | 11.2 | 9.3  | 9.8  | 9.4  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 0.1  | 1.0  | 0.4  | 5.3  | 7.6  | 7.2  | 1.5  | 0.0  | 0.4  | 0.0  | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.0  | 1.7  | 0.4  | 1.8  | 4.7  | 4.9  | 1.5  | 0.0  | 0.4  | 0.0  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 16.2 | 9.1  | 7.2  | 20.2 | 17.7 | 17.4 | 12.8 | 9.4  | 10.2 | 9.4  | 0.0  | 0.0  |
| LnGrp LOS                    | B    | A    | A    | C    | B    | B    | B    | A    | B    | A    | A    | A    |
| Approach Vol, veh/h          |      | 881  |      |      | 1532 |      |      | 309  |      |      |      | 6    |
| Approach Delay, s/veh        |      | 8.9  |      |      | 17.9 |      |      | 12.2 |      |      |      | 9.4  |
| Approach LOS                 |      | A    |      |      | B    |      |      | B    |      |      |      | A    |
| Timer - Assigned Phs         |      | 2    |      | 4    |      | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 20.0 |      | 25.0 |      | 20.0 |      | 25.0 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  |      | 4.0  |      | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 16.0 |      | 21.0 |      | 16.0 |      | 21.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 7.9  |      | 16.2 |      | 2.1  |      | 21.7 |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.5  |      | 2.2  |      | 0.0  |      | 0.0  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      | 14.3 |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      |      | B    |      |      |      |      |      |      |      |      |

Generations at Green Valley  
 2: Green Valley Rd/Green Valley Road & Francisco Rd.

Near Term plus Project  
 Timing Plan: AM



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | SBL   | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|------|------|-------|------|------|
| Lane Group Flow (vph)   | 269  | 480  | 235  | 65   | 838  | 126  | 317  | 364  | 126   | 454  | 351  |
| v/c Ratio               | 1.00 | 0.39 | 0.34 | 0.56 | 0.78 | 0.22 | 0.88 | 0.33 | 1.09  | 0.89 | 0.62 |
| Control Delay           | 93.3 | 21.1 | 4.4  | 56.6 | 30.3 | 4.9  | 61.9 | 21.4 | 149.3 | 49.6 | 17.6 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  |
| Total Delay             | 93.3 | 21.1 | 4.4  | 56.6 | 30.3 | 4.9  | 61.9 | 21.4 | 149.3 | 49.6 | 17.6 |
| Queue Length 50th (ft)  | ~76  | 95   | 0    | 32   | 193  | 0    | 82   | 72   | ~75   | 217  | 71   |
| Queue Length 95th (ft)  | #128 | 121  | 32   | #86  | 256  | 33   | #119 | 88   | #156  | #319 | 128  |
| Internal Link Dist (ft) |      | 7016 |      |      | 1876 |      |      | 2744 |       | 705  |      |
| Turn Bay Length (ft)    | 290  |      | 210  | 200  |      | 450  | 200  |      | 183   |      |      |
| Base Capacity (vph)     | 270  | 1248 | 710  | 116  | 1200 | 622  | 361  | 1160 | 116   | 538  | 584  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    |
| Reduced v/c Ratio       | 1.00 | 0.38 | 0.33 | 0.56 | 0.70 | 0.20 | 0.88 | 0.31 | 1.09  | 0.84 | 0.60 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
2: Green Valley Rd/Green Valley Road & Francisco Rd.

Near Term plus Project  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL   | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|-------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |       |      |      |
| Traffic Volume (veh/h)       | 218  | 389  | 190  | 58   | 746  | 112  | 241  | 270  | 7    | 102   | 368  | 284  |
| Future Volume (veh/h)        | 218  | 389  | 190  | 58   | 746  | 112  | 241  | 270  | 7    | 102   | 368  | 284  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00  |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |       | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 269  | 480  | 235  | 65   | 838  | 126  | 317  | 355  | 9    | 126   | 454  | 351  |
| Peak Hour Factor             | 0.81 | 0.81 | 0.81 | 0.89 | 0.89 | 0.89 | 0.76 | 0.76 | 0.76 | 0.81  | 0.81 | 0.81 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2     | 2    | 2    |
| Cap, veh/h                   | 280  | 1154 | 515  | 83   | 1032 | 460  | 373  | 1117 | 28   | 120   | 514  | 436  |
| Arrive On Green              | 0.08 | 0.32 | 0.32 | 0.05 | 0.29 | 0.29 | 0.11 | 0.32 | 0.32 | 0.07  | 0.27 | 0.27 |
| Sat Flow, veh/h              | 3456 | 3554 | 1585 | 1781 | 3554 | 1585 | 3456 | 3541 | 90   | 1781  | 1870 | 1585 |
| Grp Volume(v), veh/h         | 269  | 480  | 235  | 65   | 838  | 126  | 317  | 178  | 186  | 126   | 454  | 351  |
| Grp Sat Flow(s),veh/h/ln     | 1728 | 1777 | 1585 | 1781 | 1777 | 1585 | 1728 | 1777 | 1854 | 1781  | 1870 | 1585 |
| Q Serve(g_s), s              | 5.7  | 7.8  | 8.7  | 2.7  | 16.2 | 4.5  | 6.7  | 5.6  | 5.7  | 5.0   | 17.2 | 15.3 |
| Cycle Q Clear(g_c), s        | 5.7  | 7.8  | 8.7  | 2.7  | 16.2 | 4.5  | 6.7  | 5.6  | 5.7  | 5.0   | 17.2 | 15.3 |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 0.05 | 1.00  |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 280  | 1154 | 515  | 83   | 1032 | 460  | 373  | 560  | 585  | 120   | 514  | 436  |
| V/C Ratio(X)                 | 0.96 | 0.42 | 0.46 | 0.78 | 0.81 | 0.27 | 0.85 | 0.32 | 0.32 | 1.05  | 0.88 | 0.81 |
| Avail Cap(c_a), veh/h        | 280  | 1286 | 574  | 120  | 1238 | 552  | 373  | 600  | 626  | 120   | 556  | 471  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 33.9 | 19.5 | 19.8 | 34.9 | 24.4 | 20.3 | 32.4 | 19.3 | 19.3 | 34.5  | 25.7 | 25.0 |
| Incr Delay (d2), s/veh       | 43.0 | 0.2  | 0.6  | 18.5 | 3.6  | 0.3  | 16.6 | 0.3  | 0.3  | 95.4  | 14.7 | 9.3  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 3.9  | 2.8  | 3.0  | 1.5  | 6.4  | 1.6  | 3.5  | 2.2  | 2.3  | 5.2   | 9.0  | 6.3  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |       |      |      |
| LnGrp Delay(d),s/veh         | 76.9 | 19.8 | 20.5 | 53.4 | 28.0 | 20.6 | 49.1 | 19.6 | 19.6 | 129.9 | 40.5 | 34.3 |
| LnGrp LOS                    | E    | B    | C    | D    | C    | C    | D    | B    | B    | F     | D    | C    |
| Approach Vol, veh/h          |      | 984  |      |      | 1029 |      |      | 681  |      |       | 931  |      |
| Approach Delay, s/veh        |      | 35.5 |      |      | 28.7 |      |      | 33.3 |      |       | 50.3 |      |
| Approach LOS                 |      | D    |      |      | C    |      |      | C    |      |       | D    |      |
| Timer - Assigned Phs         | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |      |       |      |      |
| Phs Duration (G+Y+Rc), s     | 7.4  | 29.8 | 12.0 | 24.9 | 10.0 | 27.2 | 9.0  | 27.9 |      |       |      |      |
| Change Period (Y+Rc), s      | 4.0  | 5.7  | 4.0  | 4.5  | 4.0  | 5.7  | 4.0  | 4.5  |      |       |      |      |
| Max Green Setting (Gmax), s  | 5.0  | 26.8 | 8.0  | 22.0 | 6.0  | 25.8 | 5.0  | 25.0 |      |       |      |      |
| Max Q Clear Time (g_c+I1), s | 4.7  | 10.7 | 8.7  | 19.2 | 7.7  | 18.2 | 7.0  | 7.7  |      |       |      |      |
| Green Ext Time (p_c), s      | 0.0  | 3.2  | 0.0  | 1.1  | 0.0  | 3.3  | 0.0  | 1.7  |      |       |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 37.0 |
| HCM 6th LOS        | D    |

Generations at Green Valley  
 3: El Dorado Hills Blvd./Salmon Falls Rd & Green Valley Road

Near Term plus Project  
 Timing Plan: AM



| Lane Group              | EBL   | EBT  | WBL  | WBT   | NBL  | NBT  | SBL  | SBT  | SBR  |
|-------------------------|-------|------|------|-------|------|------|------|------|------|
| Lane Group Flow (vph)   | 60    | 445  | 136  | 901   | 57   | 227  | 169  | 325  | 169  |
| v/c Ratio               | 1.09  | 0.74 | 0.78 | 1.25  | 0.19 | 0.72 | 0.45 | 0.82 | 0.37 |
| Control Delay           | 196.7 | 39.1 | 73.2 | 152.7 | 36.5 | 47.7 | 37.6 | 54.1 | 9.6  |
| Queue Delay             | 0.0   | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 196.7 | 39.1 | 73.2 | 152.7 | 36.5 | 47.7 | 37.6 | 54.1 | 9.6  |
| Queue Length 50th (ft)  | ~44   | 254  | 86   | ~736  | 31   | 120  | 93   | 195  | 8    |
| Queue Length 95th (ft)  | #127  | #404 | #178 | #950  | 51   | 146  | 120  | 221  | 30   |
| Internal Link Dist (ft) |       | 1876 |      | 819   |      | 2981 |      | 502  |      |
| Turn Bay Length (ft)    | 85    |      | 105  |       | 165  |      |      |      | 100  |
| Base Capacity (vph)     | 55    | 599  | 182  | 721   | 340  | 359  | 404  | 425  | 480  |
| Starvation Cap Reductn  | 0     | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0     | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0     | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 1.09  | 0.74 | 0.75 | 1.25  | 0.17 | 0.63 | 0.42 | 0.76 | 0.35 |

**Intersection Summary**

~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
3: El Dorado Hills Blvd./Salmon Falls Rd & Green Valley Road

Near Term plus Project  
Timing Plan: AM



| Movement                     | EBL   | EBT  | EBR  | WBL  | WBT   | WBR   | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|-------|------|------|------|-------|-------|------|------|------|------|------|------|
| Lane Configurations          |       |      |      |      |       |       |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 58    | 415  | 12   | 120  | 735   | 58    | 40   | 102  | 57   | 120  | 231  | 120  |
| Future Volume (veh/h)        | 58    | 415  | 12   | 120  | 735   | 58    | 40   | 102  | 57   | 120  | 231  | 120  |
| Initial Q (Qb), veh          | 0     | 0    | 0    | 0    | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00  |      | 1.00 | 1.00 |       | 1.00  | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |       | No   |      |      | No    |       |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870  | 1870 | 1870 | 1870 | 1870  | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 60    | 432  | 12   | 136  | 835   | 66    | 57   | 146  | 81   | 169  | 325  | 169  |
| Peak Hour Factor             | 0.96  | 0.96 | 0.96 | 0.88 | 0.88  | 0.88  | 0.70 | 0.70 | 0.70 | 0.71 | 0.71 | 0.71 |
| Percent Heavy Veh, %         | 2     | 2    | 2    | 2    | 2     | 2     | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 57    | 615  | 17   | 167  | 686   | 54    | 277  | 176  | 98   | 370  | 389  | 329  |
| Arrive On Green              | 0.03  | 0.34 | 0.34 | 0.09 | 0.40  | 0.40  | 0.16 | 0.16 | 0.16 | 0.21 | 0.21 | 0.21 |
| Sat Flow, veh/h              | 1781  | 1811 | 50   | 1781 | 1711  | 135   | 1781 | 1130 | 627  | 1781 | 1870 | 1585 |
| Grp Volume(v), veh/h         | 60    | 0    | 444  | 136  | 0     | 901   | 57   | 0    | 227  | 169  | 325  | 169  |
| Grp Sat Flow(s),veh/h/ln     | 1781  | 0    | 1861 | 1781 | 0     | 1846  | 1781 | 0    | 1757 | 1781 | 1870 | 1585 |
| Q Serve(g_s), s              | 3.0   | 0.0  | 19.3 | 7.0  | 0.0   | 37.5  | 2.6  | 0.0  | 11.7 | 7.8  | 15.6 | 8.8  |
| Cycle Q Clear(g_c), s        | 3.0   | 0.0  | 19.3 | 7.0  | 0.0   | 37.5  | 2.6  | 0.0  | 11.7 | 7.8  | 15.6 | 8.8  |
| Prop In Lane                 | 1.00  |      | 0.03 | 1.00 |       | 0.07  | 1.00 |      | 0.36 | 1.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 57    | 0    | 632  | 167  | 0     | 740   | 277  | 0    | 274  | 370  | 389  | 329  |
| V/C Ratio(X)                 | 1.05  | 0.00 | 0.70 | 0.81 | 0.00  | 1.22  | 0.21 | 0.00 | 0.83 | 0.46 | 0.84 | 0.51 |
| Avail Cap(c_a), veh/h        | 57    | 0    | 632  | 189  | 0     | 740   | 352  | 0    | 348  | 419  | 440  | 373  |
| HCM Platoon Ratio            | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00  | 0.00 | 1.00 | 1.00 | 0.00  | 1.00  | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 45.2  | 0.0  | 26.8 | 41.6 | 0.0   | 28.0  | 34.4 | 0.0  | 38.3 | 32.4 | 35.5 | 32.8 |
| Incr Delay (d2), s/veh       | 133.6 | 0.0  | 4.4  | 20.3 | 0.0   | 109.7 | 0.6  | 0.0  | 15.1 | 1.5  | 13.4 | 2.1  |
| Initial Q Delay(d3),s/veh    | 0.0   | 0.0  | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 3.4   | 0.0  | 8.6  | 3.8  | 0.0   | 37.1  | 1.1  | 0.0  | 5.9  | 3.3  | 8.1  | 3.4  |
| Unsig. Movement Delay, s/veh |       |      |      |      |       |       |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 178.9 | 0.0  | 31.2 | 61.9 | 0.0   | 137.7 | 35.0 | 0.0  | 53.3 | 33.9 | 48.9 | 34.9 |
| LnGrp LOS                    | F     | A    | C    | E    | A     | F     | D    | A    | D    | C    | D    | C    |
| Approach Vol, veh/h          |       | 504  |      |      | 1037  |       |      | 284  |      |      | 663  |      |
| Approach Delay, s/veh        |       | 48.8 |      |      | 127.7 |       |      | 49.6 |      |      | 41.5 |      |
| Approach LOS                 |       | D    |      |      | F     |       |      | D    |      |      | D    |      |
| Timer - Assigned Phs         | 1     | 2    |      | 4    | 5     | 6     |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 12.3  | 37.7 |      | 24.9 | 6.5   | 43.5  |      | 18.6 |      |      |      |      |
| Change Period (Y+Rc), s      | 3.5   | 6.0  |      | 5.5  | 3.5   | 6.0   |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 9.9   | 30.6 |      | 22.0 | 3.0   | 37.5  |      | 18.5 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 9.0   | 21.3 |      | 17.6 | 5.0   | 39.5  |      | 13.7 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0   | 2.8  |      | 1.9  | 0.0   | 0.0   |      | 0.9  |      |      |      |      |
| <b>Intersection Summary</b>  |       |      |      |      |       |       |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |       |      |      |      |       |       |      |      |      |      |      | 79.9 |
| HCM 6th LOS                  |       |      |      |      |       |       |      |      |      |      |      | E    |



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 5    | 422  | 248  | 178  | 841  | 297  | 110  | 43   |
| v/c Ratio               | 0.05 | 0.68 | 0.36 | 0.67 | 0.86 | 0.83 | 0.28 | 0.23 |
| Control Delay           | 35.0 | 26.3 | 4.3  | 44.2 | 27.6 | 51.4 | 14.4 | 33.2 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 35.0 | 26.3 | 4.3  | 44.2 | 27.6 | 51.4 | 14.4 | 33.2 |
| Queue Length 50th (ft)  | 2    | 160  | 0    | 74   | 299  | 126  | 14   | 17   |
| Queue Length 95th (ft)  | 13   | 264  | 45   | #153 | #563 | #239 | 46   | 37   |
| Internal Link Dist (ft) |      | 819  |      |      | 2255 |      | 4847 | 380  |
| Turn Bay Length (ft)    | 205  |      | 205  | 350  |      | 150  |      |      |
| Base Capacity (vph)     | 108  | 752  | 787  | 270  | 977  | 356  | 396  | 619  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.05 | 0.56 | 0.32 | 0.66 | 0.86 | 0.83 | 0.28 | 0.07 |

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 5    | 384  | 226  | 144  | 665  | 16   | 235  | 30   | 57   | 4    | 25   | 1    |
| Future Volume (veh/h)        | 5    | 384  | 226  | 144  | 665  | 16   | 235  | 30   | 57   | 4    | 25   | 1    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 5    | 422  | 248  | 178  | 821  | 20   | 297  | 38   | 72   | 6    | 36   | 1    |
| Peak Hour Factor             | 0.91 | 0.91 | 0.91 | 0.81 | 0.81 | 0.81 | 0.79 | 0.79 | 0.79 | 0.70 | 0.70 | 0.70 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 101  | 742  | 629  | 218  | 841  | 20   | 335  | 109  | 206  | 8    | 50   | 1    |
| Arrive On Green              | 0.06 | 0.40 | 0.40 | 0.12 | 0.46 | 0.46 | 0.19 | 0.19 | 0.19 | 0.03 | 0.03 | 0.03 |
| Sat Flow, veh/h              | 1781 | 1870 | 1585 | 1781 | 1818 | 44   | 1781 | 578  | 1095 | 258  | 1549 | 43   |
| Grp Volume(v), veh/h         | 5    | 422  | 248  | 178  | 0    | 841  | 297  | 0    | 110  | 43   | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1870 | 1585 | 1781 | 0    | 1862 | 1781 | 0    | 1673 | 1850 | 0    | 0    |
| Q Serve(g_s), s              | 0.2  | 12.3 | 7.9  | 6.8  | 0.0  | 31.1 | 11.4 | 0.0  | 4.0  | 1.6  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 0.2  | 12.3 | 7.9  | 6.8  | 0.0  | 31.1 | 11.4 | 0.0  | 4.0  | 1.6  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 0.02 | 1.00 |      | 0.65 | 0.14 |      | 0.02 |
| Lane Grp Cap(c), veh/h       | 101  | 742  | 629  | 218  | 0    | 861  | 335  | 0    | 314  | 60   | 0    | 0    |
| V/C Ratio(X)                 | 0.05 | 0.57 | 0.39 | 0.82 | 0.00 | 0.98 | 0.89 | 0.00 | 0.35 | 0.72 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 101  | 742  | 629  | 253  | 0    | 861  | 335  | 0    | 314  | 579  | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 31.3 | 16.5 | 15.2 | 30.1 | 0.0  | 18.5 | 27.8 | 0.0  | 24.8 | 33.7 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 0.1  | 1.0  | 0.4  | 15.4 | 0.0  | 24.9 | 23.5 | 0.0  | 0.5  | 11.3 | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.1  | 4.5  | 2.4  | 3.6  | 0.0  | 16.2 | 6.6  | 0.0  | 1.5  | 0.9  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 31.5 | 17.5 | 15.6 | 45.4 | 0.0  | 43.4 | 51.3 | 0.0  | 25.3 | 45.0 | 0.0  | 0.0  |
| LnGrp LOS                    | C    | B    | B    | D    | A    | D    | D    | A    | C    | D    | A    | A    |
| Approach Vol, veh/h          |      | 675  |      |      | 1019 |      |      | 407  |      |      |      | 43   |
| Approach Delay, s/veh        |      | 16.9 |      |      | 43.8 |      |      | 44.3 |      |      |      | 45.0 |
| Approach LOS                 |      | B    |      |      | D    |      |      | D    |      |      |      | D    |
| Timer - Assigned Phs         | 1    | 2    |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 8.0  | 38.2 |      | 6.3  | 12.6 | 33.6 |      | 17.8 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 5.7  |      | 4.0  | 4.0  | 5.7  |      | 4.6  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0  | 32.5 |      | 22.0 | 10.0 | 26.5 |      | 13.2 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 2.2  | 33.1 |      | 3.6  | 8.8  | 14.3 |      | 13.4 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 0.0  |      | 0.1  | 0.0  | 2.5  |      | 0.0  |      |      |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 35.4 |
| HCM 6th LOS        | D    |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 1.2  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      |      |      |      |      |      |      |
| Traffic Vol, veh/h       | 417  | 26   | 9    | 793  | 23   | 9    |
| Future Vol, veh/h        | 417  | 26   | 9    | 793  | 23   | 9    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | 100  | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 91   | 91   | 94   | 94   | 56   | 56   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 458  | 29   | 10   | 844  | 41   | 16   |

| Major/Minor          | Major1 | Major2 | Minor1 |   |             |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 0      | 0      | 487    | 0 | 1337 473    |
| Stage 1              | -      | -      | -      | - | 473 -       |
| Stage 2              | -      | -      | -      | - | 864 -       |
| Critical Hdwy        | -      | -      | 4.12   | - | 6.42 6.22   |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.42 -      |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.42 -      |
| Follow-up Hdwy       | -      | -      | 2.218  | - | 3.518 3.318 |
| Pot Cap-1 Maneuver   | -      | -      | 1076   | - | 169 591     |
| Stage 1              | -      | -      | -      | - | 627 -       |
| Stage 2              | -      | -      | -      | - | 413 -       |
| Platoon blocked, %   | -      | -      | -      | - | -           |
| Mov Cap-1 Maneuver   | -      | -      | 1076   | - | 167 591     |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 167 -       |
| Stage 1              | -      | -      | -      | - | 627 -       |
| Stage 2              | -      | -      | -      | - | 409 -       |

| Approach             | EB | WB  | NB   |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0  | 0.1 | 28.6 |
| HCM LOS              |    |     | D    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 209   | -   | -   | 1076  | -   |
| HCM Lane V/C Ratio    | 0.273 | -   | -   | 0.009 | -   |
| HCM Control Delay (s) | 28.6  | -   | -   | 8.4   | -   |
| HCM Lane LOS          | D     | -   | -   | A     | -   |
| HCM 95th %tile Q(veh) | 1.1   | -   | -   | 0     | -   |



| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 3.2  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      |      |      |      |      |      |
| Traffic Vol, veh/h       | 40   | 386  | 701  | 21   | 32   | 105  |
| Future Vol, veh/h        | 40   | 386  | 701  | 21   | 32   | 105  |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 100  | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 43   | 420  | 762  | 23   | 35   | 114  |

| Major/Minor          | Major1 | Major2 | Minor2 |   |             |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 785    | 0      | -      | 0 | 1280 774    |
| Stage 1              | -      | -      | -      | - | 774 -       |
| Stage 2              | -      | -      | -      | - | 506 -       |
| Critical Hdwy        | 4.12   | -      | -      | - | 6.42 6.22   |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.42 -      |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.42 -      |
| Follow-up Hdwy       | 2.218  | -      | -      | - | 3.518 3.318 |
| Pot Cap-1 Maneuver   | 834    | -      | -      | - | 183 398     |
| Stage 1              | -      | -      | -      | - | 455 -       |
| Stage 2              | -      | -      | -      | - | 606 -       |
| Platoon blocked, %   |        | -      | -      | - |             |
| Mov Cap-1 Maneuver   | 834    | -      | -      | - | 173 398     |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 173 -       |
| Stage 1              | -      | -      | -      | - | 431 -       |
| Stage 2              | -      | -      | -      | - | 606 -       |

| Approach             | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.9 | 0  | 27.6 |
| HCM LOS              |     |    | D    |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 834   | -   | -   | -   | 305   |
| HCM Lane V/C Ratio    | 0.052 | -   | -   | -   | 0.488 |
| HCM Control Delay (s) | 9.6   | -   | -   | -   | 27.6  |
| HCM Lane LOS          | A     | -   | -   | -   | D     |
| HCM 95th %tile Q(veh) | 0.2   | -   | -   | -   | 2.5   |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.6  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      | ↕    | ↕    |      | ↕    |      |
| Traffic Vol, veh/h       | 10   | 384  | 705  | 15   | 11   | 17   |
| Future Vol, veh/h        | 10   | 384  | 705  | 15   | 11   | 17   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 93   | 93   | 86   | 86   | 91   | 91   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 11   | 413  | 820  | 17   | 12   | 19   |

| Major/Minor          | Major1 | Major2 | Minor2 |   |             |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 837    | 0      | -      | 0 | 1264 829    |
| Stage 1              | -      | -      | -      | - | 829 -       |
| Stage 2              | -      | -      | -      | - | 435 -       |
| Critical Hdwy        | 4.12   | -      | -      | - | 6.42 6.22   |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.42 -      |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.42 -      |
| Follow-up Hdwy       | 2.218  | -      | -      | - | 3.518 3.318 |
| Pot Cap-1 Maneuver   | 797    | -      | -      | - | 187 370     |
| Stage 1              | -      | -      | -      | - | 429 -       |
| Stage 2              | -      | -      | -      | - | 653 -       |
| Platoon blocked, %   |        | -      | -      | - |             |
| Mov Cap-1 Maneuver   | 797    | -      | -      | - | 184 370     |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 184 -       |
| Stage 1              | -      | -      | -      | - | 421 -       |
| Stage 2              | -      | -      | -      | - | 653 -       |

| Approach             | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.2 | 0  | 20.4 |
| HCM LOS              |     |    | C    |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 797   | -   | -   | -   | 265   |
| HCM Lane V/C Ratio    | 0.013 | -   | -   | -   | 0.116 |
| HCM Control Delay (s) | 9.6   | 0   | -   | -   | 20.4  |
| HCM Lane LOS          | A     | A   | -   | -   | C     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0.4   |

Generations at Green Valley  
8: Deer Valley Rd. & Green Valley Rd.

Near Term plus Project  
Timing Plan: AM



| Lane Group                  | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBT  | SBT  |
|-----------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)       | 19   | 385  | 24   | 37   | 639  | 16   | 99   | 106  |
| v/c Ratio                   | 0.07 | 0.41 | 0.03 | 0.07 | 0.68 | 0.02 | 0.27 | 0.29 |
| Control Delay               | 4.6  | 6.2  | 2.2  | 4.3  | 10.1 | 1.9  | 8.8  | 9.0  |
| Queue Delay                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay                 | 4.6  | 6.2  | 2.2  | 4.3  | 10.1 | 1.9  | 8.8  | 9.0  |
| Queue Length 50th (ft)      | 1    | 29   | 0    | 2    | 57   | 0    | 6    | 6    |
| Queue Length 95th (ft)      | 7    | 75   | 6    | 11   | 141  | 4    | 21   | 24   |
| Internal Link Dist (ft)     |      | 2852 |      |      | 3999 |      | 988  | 946  |
| Turn Bay Length (ft)        | 415  |      | 415  | 415  |      | 415  |      |      |
| Base Capacity (vph)         | 406  | 1320 | 1129 | 702  | 1320 | 1129 | 789  | 788  |
| Starvation Cap Reductn      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio           | 0.05 | 0.29 | 0.02 | 0.05 | 0.48 | 0.01 | 0.13 | 0.13 |
| <b>Intersection Summary</b> |      |      |      |      |      |      |      |      |

Generations at Green Valley  
8: Deer Valley Rd. & Green Valley Rd.

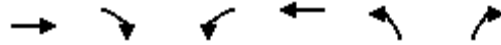
Near Term plus Project  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 17   | 350  | 22   | 32   | 556  | 14   | 30   | 1    | 38   | 34   | 1    | 42   |
| Future Volume (veh/h)        | 17   | 350  | 22   | 32   | 556  | 14   | 30   | 1    | 38   | 34   | 1    | 42   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 19   | 385  | 24   | 37   | 639  | 16   | 43   | 1    | 55   | 47   | 1    | 58   |
| Peak Hour Factor             | 0.91 | 0.91 | 0.91 | 0.87 | 0.87 | 0.87 | 0.69 | 0.69 | 0.69 | 0.72 | 0.72 | 0.72 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 479  | 910  | 771  | 653  | 910  | 771  | 314  | 25   | 148  | 319  | 24   | 146  |
| Arrive On Green              | 0.49 | 0.49 | 0.49 | 0.49 | 0.49 | 0.49 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 | 0.17 |
| Sat Flow, veh/h              | 778  | 1870 | 1585 | 977  | 1870 | 1585 | 545  | 149  | 868  | 565  | 139  | 851  |
| Grp Volume(v), veh/h         | 19   | 385  | 24   | 37   | 639  | 16   | 99   | 0    | 0    | 106  | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 778  | 1870 | 1585 | 977  | 1870 | 1585 | 1562 | 0    | 0    | 1555 | 0    | 0    |
| Q Serve(g_s), s              | 0.5  | 3.1  | 0.2  | 0.6  | 6.2  | 0.1  | 0.0  | 0.0  | 0.0  | 0.1  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 6.7  | 3.1  | 0.2  | 3.7  | 6.2  | 0.1  | 1.2  | 0.0  | 0.0  | 1.3  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 0.43 |      | 0.56 | 0.44 |      | 0.55 |
| Lane Grp Cap(c), veh/h       | 479  | 910  | 771  | 653  | 910  | 771  | 488  | 0    | 0    | 488  | 0    | 0    |
| V/C Ratio(X)                 | 0.04 | 0.42 | 0.03 | 0.06 | 0.70 | 0.02 | 0.20 | 0.00 | 0.00 | 0.22 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 800  | 1680 | 1424 | 1055 | 1680 | 1424 | 1244 | 0    | 0    | 1244 | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 7.3  | 3.9  | 3.1  | 5.1  | 4.7  | 3.1  | 8.5  | 0.0  | 0.0  | 8.6  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 0.0  | 0.3  | 0.0  | 0.0  | 1.0  | 0.0  | 0.2  | 0.0  | 0.0  | 0.2  | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.0  | 0.1  | 0.0  | 0.0  | 0.3  | 0.0  | 0.3  | 0.0  | 0.0  | 0.3  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 7.3  | 4.2  | 3.1  | 5.1  | 5.7  | 3.1  | 8.7  | 0.0  | 0.0  | 8.8  | 0.0  | 0.0  |
| LnGrp LOS                    | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    |
| Approach Vol, veh/h          |      | 428  |      |      | 692  |      |      | 99   |      |      | 106  |      |
| Approach Delay, s/veh        |      | 4.3  |      |      | 5.6  |      |      | 8.7  |      |      | 8.8  |      |
| Approach LOS                 |      | A    |      |      | A    |      |      | A    |      |      | A    |      |
| Timer - Assigned Phs         |      | 2    |      | 4    |      | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 8.0  |      | 15.4 |      | 8.0  |      | 15.4 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  |      | 4.0  |      | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 16.0 |      | 21.0 |      | 16.0 |      | 21.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 3.2  |      | 8.7  |      | 3.3  |      | 8.2  |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.3  |      | 1.7  |      | 0.4  |      | 3.2  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      | 5.7  |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      |      | A    |      |      |      |      |      |      |      |      |

Generations at Green Valley  
 9: Silver Springs Pkwy & Green Valley Rd

Near Term plus Project  
 Timing Plan: AM

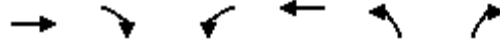


| Lane Group              | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|-------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 509  | 143  | 74   | 686  | 166  | 34   |
| v/c Ratio               | 0.54 | 0.16 | 0.19 | 0.73 | 0.37 | 0.08 |
| Control Delay           | 8.5  | 1.8  | 6.4  | 12.3 | 15.1 | 6.2  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 8.5  | 1.8  | 6.4  | 12.3 | 15.1 | 6.2  |
| Queue Length 50th (ft)  | 53   | 0    | 6    | 82   | 25   | 0    |
| Queue Length 95th (ft)  | 132  | 16   | 25   | 207  | 75   | 15   |
| Internal Link Dist (ft) | 3999 |      | 3318 |      | 1349 |      |
| Turn Bay Length (ft)    | 230  |      | 415  |      | 135  |      |
| Base Capacity (vph)     | 1411 | 1233 | 570  | 1411 | 845  | 773  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.36 | 0.12 | 0.13 | 0.49 | 0.20 | 0.04 |

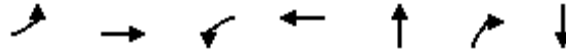
Intersection Summary

Generations at Green Valley  
 9: Silver Springs Pkwy & Green Valley Rd

Near Term plus Project  
 Timing Plan: AM



| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations          | ↑    | ↑    | ↔    | ↑    | ↑    | ↑    |
| Traffic Volume (veh/h)       | 468  | 132  | 68   | 631  | 153  | 31   |
| Future Volume (veh/h)        | 468  | 132  | 68   | 631  | 153  | 31   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 509  | 143  | 74   | 686  | 166  | 34   |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 965  | 818  | 538  | 965  | 314  | 280  |
| Arrive On Green              | 0.52 | 0.52 | 0.52 | 0.52 | 0.18 | 0.18 |
| Sat Flow, veh/h              | 1870 | 1585 | 780  | 1870 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 509  | 143  | 74   | 686  | 166  | 34   |
| Grp Sat Flow(s),veh/h/ln     | 1870 | 1585 | 780  | 1870 | 1781 | 1585 |
| Q Serve(g_s), s              | 4.7  | 1.2  | 1.8  | 7.3  | 2.2  | 0.5  |
| Cycle Q Clear(g_c), s        | 4.7  | 1.2  | 6.5  | 7.3  | 2.2  | 0.5  |
| Prop In Lane                 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 965  | 818  | 538  | 965  | 314  | 280  |
| V/C Ratio(X)                 | 0.53 | 0.17 | 0.14 | 0.71 | 0.53 | 0.12 |
| Avail Cap(c_a), veh/h        | 1868 | 1583 | 915  | 1868 | 1095 | 974  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 4.2  | 3.3  | 6.4  | 4.8  | 9.7  | 9.0  |
| Incr Delay (d2), s/veh       | 0.4  | 0.1  | 0.1  | 1.0  | 1.4  | 0.2  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.1  | 0.0  | 0.1  | 0.3  | 0.5  | 0.1  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 4.6  | 3.4  | 6.5  | 5.8  | 11.1 | 9.2  |
| LnGrp LOS                    | A    | A    | A    | A    | B    | A    |
| Approach Vol, veh/h          | 652  |      |      | 760  | 200  |      |
| Approach Delay, s/veh        | 4.4  |      |      | 5.9  | 10.8 |      |
| Approach LOS                 | A    |      |      | A    | B    |      |
| Timer - Assigned Phs         |      | 2    |      | 4    |      | 8    |
| Phs Duration (G+Y+Rc), s     |      | 8.6  |      | 17.4 |      | 17.4 |
| Change Period (Y+Rc), s      |      | 4.0  |      | 4.0  |      | 4.0  |
| Max Green Setting (Gmax), s  |      | 16.0 |      | 26.0 |      | 26.0 |
| Max Q Clear Time (g_c+l1), s |      | 4.2  |      | 6.7  |      | 9.3  |
| Green Ext Time (p_c), s      |      | 0.4  |      | 3.1  |      | 4.1  |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 5.9  |      |      |      |
| HCM 6th LOS                  |      |      | A    |      |      |      |



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBT  | NBR  | SBT  |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 7    | 830  | 168  | 789  | 157  | 205  | 10   |
| v/c Ratio               | 0.07 | 0.88 | 0.79 | 0.63 | 0.54 | 0.47 | 0.04 |
| Control Delay           | 34.5 | 29.9 | 58.9 | 12.7 | 33.3 | 8.4  | 0.4  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 34.5 | 29.9 | 58.9 | 12.7 | 33.3 | 8.4  | 0.4  |
| Queue Length 50th (ft)  | 3    | 260  | 66   | 123  | 57   | 0    | 0    |
| Queue Length 95th (ft)  | 11   | 308  | #154 | 374  | 84   | 11   | 0    |
| Internal Link Dist (ft) |      | 3318 |      | 1151 | 1084 |      | 521  |
| Turn Bay Length (ft)    | 285  |      | 435  |      |      | 150  |      |
| Base Capacity (vph)     | 106  | 938  | 212  | 1249 | 426  | 536  | 501  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.07 | 0.88 | 0.79 | 0.63 | 0.37 | 0.38 | 0.02 |

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
10: Bass Lake Rd./Alexandrite Dr & Green Valley Rd.

Near Term plus Project  
Timing Plan: AM

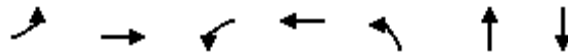


| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 4    | 450  | 56   | 128  | 599  | 1    | 99   | 1    | 131  | 4    | 0    | 1    |
| Future Volume (veh/h)        | 4    | 450  | 56   | 128  | 599  | 1    | 99   | 1    | 131  | 4    | 0    | 1    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 7    | 738  | 92   | 168  | 788  | 1    | 155  | 2    | 205  | 8    | 0    | 2    |
| Peak Hour Factor             | 0.61 | 0.61 | 0.61 | 0.76 | 0.76 | 0.76 | 0.64 | 0.64 | 0.64 | 0.50 | 0.50 | 0.50 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 13   | 779  | 97   | 207  | 1095 | 1    | 288  | 4    | 260  | 14   | 0    | 4    |
| Arrive On Green              | 0.01 | 0.48 | 0.48 | 0.12 | 0.59 | 0.59 | 0.16 | 0.16 | 0.16 | 0.01 | 0.00 | 0.01 |
| Sat Flow, veh/h              | 1781 | 1631 | 203  | 1781 | 1868 | 2    | 1760 | 23   | 1585 | 1391 | 0    | 348  |
| Grp Volume(v), veh/h         | 7    | 0    | 830  | 168  | 0    | 789  | 157  | 0    | 205  | 10   | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1834 | 1781 | 0    | 1870 | 1782 | 0    | 1585 | 1738 | 0    | 0    |
| Q Serve(g_s), s              | 0.3  | 0.0  | 29.7 | 6.3  | 0.0  | 20.8 | 5.6  | 0.0  | 8.6  | 0.4  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 0.3  | 0.0  | 29.7 | 6.3  | 0.0  | 20.8 | 5.6  | 0.0  | 8.6  | 0.4  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 0.11 | 1.00 |      | 0.00 | 0.99 |      | 1.00 | 0.80 |      | 0.20 |
| Lane Grp Cap(c), veh/h       | 13   | 0    | 876  | 207  | 0    | 1097 | 292  | 0    | 260  | 18   | 0    | 0    |
| V/C Ratio(X)                 | 0.54 | 0.00 | 0.95 | 0.81 | 0.00 | 0.72 | 0.54 | 0.00 | 0.79 | 0.57 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 103  | 0    | 906  | 207  | 0    | 1097 | 414  | 0    | 368  | 404  | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 34.1 | 0.0  | 17.2 | 29.7 | 0.0  | 10.2 | 26.4 | 0.0  | 27.7 | 33.9 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 30.6 | 0.0  | 18.2 | 21.2 | 0.0  | 2.3  | 1.5  | 0.0  | 7.4  | 25.8 | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.2  | 0.0  | 13.5 | 3.6  | 0.0  | 6.0  | 2.3  | 0.0  | 3.4  | 0.3  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 64.7 | 0.0  | 35.4 | 50.8 | 0.0  | 12.5 | 27.9 | 0.0  | 35.0 | 59.7 | 0.0  | 0.0  |
| LnGrp LOS                    | E    | A    | D    | D    | A    | B    | C    | A    | D    | E    | A    | A    |
| Approach Vol, veh/h          |      | 837  |      |      | 957  |      |      | 362  |      |      |      | 10   |
| Approach Delay, s/veh        |      | 35.6 |      |      | 19.2 |      |      | 32.0 |      |      |      | 59.7 |
| Approach LOS                 |      | D    |      |      | B    |      |      | C    |      |      |      | E    |
| Timer - Assigned Phs         |      | 2    | 3    | 4    |      | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 15.3 | 12.0 | 36.9 |      | 4.7  | 4.5  | 44.4 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 16.0 | 8.0  | 34.0 |      | 16.0 | 4.0  | 38.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 10.6 | 8.3  | 31.7 |      | 2.4  | 2.3  | 22.8 |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.7  | 0.0  | 1.1  |      | 0.0  | 0.0  | 4.3  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      | 27.9 |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      |      | C    |      |      |      |      |      |      |      |      |



Generations at Green Valley  
 11: Cambridge Rd./Peridot Dr & Green Valley Rd.

Near Term plus Project  
 Timing Plan: AM

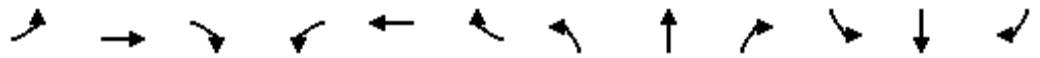


| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBT  |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 16   | 841  | 38   | 679  | 238  | 59   | 59   |
| v/c Ratio               | 0.16 | 0.85 | 0.38 | 0.63 | 0.69 | 0.17 | 0.30 |
| Control Delay           | 41.5 | 28.6 | 49.0 | 16.3 | 40.9 | 11.1 | 23.4 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 41.5 | 28.6 | 49.0 | 16.3 | 40.9 | 11.1 | 23.4 |
| Queue Length 50th (ft)  | 8    | 392  | 19   | 212  | 112  | 2    | 12   |
| Queue Length 95th (ft)  | 21   | 374  | 43   | 338  | 167  | 26   | 39   |
| Internal Link Dist (ft) |      | 1151 |      | 2235 |      | 1080 | 510  |
| Turn Bay Length (ft)    | 100  |      | 125  |      | 125  |      |      |
| Base Capacity (vph)     | 101  | 993  | 101  | 1084 | 405  | 409  | 412  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.16 | 0.85 | 0.38 | 0.63 | 0.59 | 0.14 | 0.14 |

Intersection Summary

Generations at Green Valley  
11: Cambridge Rd./Peridot Dr & Green Valley Rd.

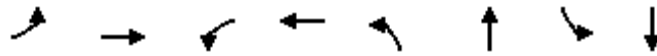
Near Term plus Project  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 11   | 474  | 98   | 29   | 517  | 6    | 188  | 4    | 43   | 16   | 4    | 27   |
| Future Volume (veh/h)        | 11   | 474  | 98   | 29   | 517  | 6    | 188  | 4    | 43   | 16   | 4    | 27   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 16   | 697  | 144  | 38   | 671  | 8    | 238  | 5    | 54   | 20   | 5    | 34   |
| Peak Hour Factor             | 0.68 | 0.68 | 0.68 | 0.77 | 0.77 | 0.77 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 28   | 766  | 158  | 55   | 967  | 12   | 297  | 23   | 245  | 25   | 6    | 43   |
| Arrive On Green              | 0.02 | 0.51 | 0.51 | 0.03 | 0.52 | 0.52 | 0.17 | 0.17 | 0.17 | 0.04 | 0.04 | 0.04 |
| Sat Flow, veh/h              | 1781 | 1504 | 311  | 1781 | 1844 | 22   | 1781 | 136  | 1470 | 566  | 141  | 962  |
| Grp Volume(v), veh/h         | 16   | 0    | 841  | 38   | 0    | 679  | 238  | 0    | 59   | 59   | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1814 | 1781 | 0    | 1866 | 1781 | 0    | 1606 | 1669 | 0    | 0    |
| Q Serve(g_s), s              | 0.6  | 0.0  | 27.3 | 1.4  | 0.0  | 17.5 | 8.3  | 0.0  | 2.0  | 2.3  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 0.6  | 0.0  | 27.3 | 1.4  | 0.0  | 17.5 | 8.3  | 0.0  | 2.0  | 2.3  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 0.17 | 1.00 |      | 0.01 | 1.00 |      | 0.92 | 0.34 |      | 0.58 |
| Lane Grp Cap(c), veh/h       | 28   | 0    | 924  | 55   | 0    | 979  | 297  | 0    | 268  | 74   | 0    | 0    |
| V/C Ratio(X)                 | 0.58 | 0.00 | 0.91 | 0.70 | 0.00 | 0.69 | 0.80 | 0.00 | 0.22 | 0.79 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 111  | 0    | 1072 | 111  | 0    | 1103 | 443  | 0    | 400  | 415  | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 31.4 | 0.0  | 14.4 | 30.9 | 0.0  | 11.4 | 25.8 | 0.0  | 23.2 | 30.4 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 17.9 | 0.0  | 10.4 | 14.7 | 0.0  | 1.6  | 6.3  | 0.0  | 0.4  | 16.9 | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.4  | 0.0  | 10.1 | 0.7  | 0.0  | 5.2  | 3.8  | 0.0  | 0.8  | 1.2  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 49.3 | 0.0  | 24.8 | 45.6 | 0.0  | 13.1 | 32.0 | 0.0  | 23.6 | 47.3 | 0.0  | 0.0  |
| LnGrp LOS                    | D    | A    | C    | D    | A    | B    | C    | A    | C    | D    | A    | A    |
| Approach Vol, veh/h          |      | 857  |      |      | 717  |      |      | 297  |      |      |      | 59   |
| Approach Delay, s/veh        |      | 25.3 |      |      | 14.8 |      |      | 30.4 |      |      |      | 47.3 |
| Approach LOS                 |      | C    |      |      | B    |      |      | C    |      |      |      | D    |
| Timer - Assigned Phs         |      | 2    | 3    | 4    |      | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 14.7 | 6.0  | 36.7 |      | 6.9  | 5.0  | 37.7 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 16.0 | 4.0  | 38.0 |      | 16.0 | 4.0  | 38.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 10.3 | 3.4  | 29.3 |      | 4.3  | 2.6  | 19.5 |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.5  | 0.0  | 3.5  |      | 0.2  | 0.0  | 3.8  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 22.8 |      |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      | C    |      |      |      |      |      |      |      |      |      |

Generations at Green Valley  
 12: Cameron Park Dr. & Green Valley Rd.

Near Term plus Project  
 Timing Plan: AM



| Lane Group              | EBL  | EBT  | WBL   | WBT  | NBL  | NBT  | SBL  | SBT  |
|-------------------------|------|------|-------|------|------|------|------|------|
| Lane Group Flow (vph)   | 26   | 733  | 123   | 309  | 256  | 170  | 33   | 118  |
| v/c Ratio               | 0.23 | 0.89 | 0.92  | 0.31 | 0.83 | 0.33 | 0.30 | 0.50 |
| Control Delay           | 43.2 | 35.8 | 101.1 | 13.8 | 57.6 | 9.6  | 45.2 | 35.2 |
| Queue Delay             | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 43.2 | 35.8 | 101.1 | 13.8 | 57.6 | 9.6  | 45.2 | 35.2 |
| Queue Length 50th (ft)  | 13   | 318  | 64    | 76   | 128  | 15   | 17   | 47   |
| Queue Length 95th (ft)  | 30   | 338  | #160  | 161  | #264 | 60   | 34   | 66   |
| Internal Link Dist (ft) |      | 2235 |       | 1414 |      | 1563 |      | 921  |
| Turn Bay Length (ft)    | 270  |      | 150   |      | 125  |      | 55   |      |
| Base Capacity (vph)     | 111  | 820  | 134   | 999  | 312  | 648  | 111  | 421  |
| Starvation Cap Reductn  | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.23 | 0.89 | 0.92  | 0.31 | 0.82 | 0.26 | 0.30 | 0.28 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
12: Cameron Park Dr. & Green Valley Rd.

Near Term plus Project  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 18   | 269  | 244  | 103  | 251  | 8    | 225  | 32   | 118  | 22   | 55   | 23   |
| Future Volume (veh/h)        | 18   | 269  | 244  | 103  | 251  | 8    | 225  | 32   | 118  | 22   | 55   | 23   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 26   | 384  | 349  | 123  | 299  | 10   | 256  | 36   | 134  | 33   | 83   | 35   |
| Peak Hour Factor             | 0.70 | 0.70 | 0.70 | 0.84 | 0.84 | 0.84 | 0.88 | 0.88 | 0.88 | 0.66 | 0.66 | 0.66 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 40   | 406  | 369  | 140  | 911  | 30   | 297  | 82   | 304  | 47   | 119  | 50   |
| Arrive On Green              | 0.02 | 0.45 | 0.45 | 0.08 | 0.51 | 0.51 | 0.17 | 0.24 | 0.24 | 0.03 | 0.10 | 0.10 |
| Sat Flow, veh/h              | 1781 | 902  | 820  | 1781 | 1799 | 60   | 1781 | 347  | 1291 | 1781 | 1249 | 527  |
| Grp Volume(v), veh/h         | 26   | 0    | 733  | 123  | 0    | 309  | 256  | 0    | 170  | 33   | 0    | 118  |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1723 | 1781 | 0    | 1860 | 1781 | 0    | 1638 | 1781 | 0    | 1776 |
| Q Serve(g_s), s              | 1.1  | 0.0  | 31.1 | 5.2  | 0.0  | 7.5  | 10.7 | 0.0  | 6.8  | 1.4  | 0.0  | 4.9  |
| Cycle Q Clear(g_c), s        | 1.1  | 0.0  | 31.1 | 5.2  | 0.0  | 7.5  | 10.7 | 0.0  | 6.8  | 1.4  | 0.0  | 4.9  |
| Prop In Lane                 | 1.00 |      | 0.48 | 1.00 |      | 0.03 | 1.00 |      | 0.79 | 1.00 |      | 0.30 |
| Lane Grp Cap(c), veh/h       | 40   | 0    | 775  | 140  | 0    | 942  | 297  | 0    | 386  | 47   | 0    | 169  |
| V/C Ratio(X)                 | 0.66 | 0.00 | 0.95 | 0.88 | 0.00 | 0.33 | 0.86 | 0.00 | 0.44 | 0.70 | 0.00 | 0.70 |
| Avail Cap(c_a), veh/h        | 117  | 0    | 812  | 140  | 0    | 942  | 326  | 0    | 579  | 117  | 0    | 418  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh     | 37.1 | 0.0  | 20.1 | 34.8 | 0.0  | 11.2 | 31.0 | 0.0  | 24.9 | 36.9 | 0.0  | 33.5 |
| Incr Delay (d2), s/veh       | 17.0 | 0.0  | 19.1 | 42.6 | 0.0  | 0.2  | 19.2 | 0.0  | 0.8  | 17.3 | 0.0  | 5.1  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.6  | 0.0  | 13.9 | 3.7  | 0.0  | 2.5  | 5.8  | 0.0  | 2.5  | 0.8  | 0.0  | 2.3  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 54.1 | 0.0  | 39.2 | 77.4 | 0.0  | 11.4 | 50.2 | 0.0  | 25.7 | 54.2 | 0.0  | 38.6 |
| LnGrp LOS                    | D    | A    | D    | E    | A    | B    | D    | A    | C    | D    | A    | D    |
| Approach Vol, veh/h          |      | 759  |      |      | 432  |      |      | 426  |      |      | 151  |      |
| Approach Delay, s/veh        |      | 39.7 |      |      | 30.2 |      |      | 40.4 |      |      | 42.0 |      |
| Approach LOS                 |      | D    |      |      | C    |      |      | D    |      |      | D    |      |
| Timer - Assigned Phs         | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 6.0  | 22.0 | 10.0 | 38.4 | 16.7 | 11.3 | 5.7  | 42.7 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 5.0  | 27.0 | 6.0  | 36.0 | 14.0 | 18.0 | 5.0  | 37.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 3.4  | 8.8  | 7.2  | 33.1 | 12.7 | 6.9  | 3.1  | 9.5  |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 0.8  | 0.0  | 1.3  | 0.1  | 0.4  | 0.0  | 1.6  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      | 37.8 |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      |      | D    |      |      |      |      |      |      |      |      |

| Intersection                  |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|
| Intersection Delay, s/veh 103 |  |  |  |  |  |  |  |  |  |  |  |  |
| Intersection LOS F            |  |  |  |  |  |  |  |  |  |  |  |  |

| Movement            | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations |      | ↔    | ↔    |      | ↔    |      | ↔    | ↔    |      | ↔    | ↔    |      |
| Traffic Vol, veh/h  | 7    | 41   | 484  | 21   | 36   | 25   | 439  | 190  | 45   | 95   | 332  | 1    |
| Future Vol, veh/h   | 7    | 41   | 484  | 21   | 36   | 25   | 439  | 190  | 45   | 95   | 332  | 1    |
| Peak Hour Factor    | 0.86 | 0.86 | 0.86 | 0.52 | 0.52 | 0.52 | 0.92 | 0.92 | 0.92 | 0.75 | 0.75 | 0.75 |
| Heavy Vehicles, %   | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow           | 8    | 48   | 563  | 40   | 69   | 48   | 477  | 207  | 49   | 127  | 443  | 1    |
| Number of Lanes     | 0    | 1    | 1    | 0    | 1    | 0    | 1    | 1    | 0    | 1    | 1    | 0    |

| Approach                      | EB    | WB   | NB    | SB   |
|-------------------------------|-------|------|-------|------|
| Opposing Approach             | WB    | EB   | SB    | NB   |
| Opposing Lanes                | 1     | 2    | 2     | 2    |
| Conflicting Approach Left SB  |       | NB   | EB    | WB   |
| Conflicting Lanes Left        | 2     | 2    | 2     | 1    |
| Conflicting Approach Right NB |       | SB   | WB    | EB   |
| Conflicting Lanes Right       | 2     | 2    | 1     | 2    |
| HCM Control Delay             | 145.4 | 22.9 | 103.3 | 78.7 |
| HCM LOS                       | F     | C    | F     | F    |

| Lane                   | NBLn1 | NBLn2 | EBLn1 | EBLn2 | WBLn1  | SBLn1  | SBLn2 |
|------------------------|-------|-------|-------|-------|--------|--------|-------|
| Vol Left, %            | 100%  | 0%    | 15%   | 0%    | 26%    | 100%   | 0%    |
| Vol Thru, %            | 0%    | 81%   | 85%   | 0%    | 44%    | 0%     | 100%  |
| Vol Right, %           | 0%    | 19%   | 0%    | 100%  | 30%    | 0%     | 0%    |
| Sign Control           | Stop  | Stop  | Stop  | Stop  | Stop   | Stop   | Stop  |
| Traffic Vol by Lane    | 439   | 235   | 48    | 484   | 82     | 95     | 333   |
| LT Vol                 | 439   | 0     | 7     | 0     | 21     | 95     | 0     |
| Through Vol            | 0     | 190   | 41    | 0     | 36     | 0      | 332   |
| RT Vol                 | 0     | 45    | 0     | 484   | 25     | 0      | 1     |
| Lane Flow Rate         | 477   | 255   | 56    | 563   | 158    | 127    | 444   |
| Geometry Grp           | 7     | 7     | 7     | 7     | 6      | 7      | 7     |
| Degree of Util (X)     | 1.204 | 0.6   | 0.136 | 1.255 | 0.441  | 0.321  | 1.065 |
| Departure Headway (Hd) | 9.972 | 9.306 | 9.294 | 8.488 | 11.313 | 10.074 | 9.546 |
| Convergence, Y/N       | Yes   | Yes   | Yes   | Yes   | Yes    | Yes    | Yes   |
| Cap                    | 367   | 391   | 388   | 433   | 320    | 360    | 382   |
| Service Time           | 7.672 | 7.006 | 6.994 | 6.188 | 9.313  | 7.774  | 7.246 |
| HCM Lane V/C Ratio     | 1.3   | 0.652 | 0.144 | 1.3   | 0.494  | 0.353  | 1.162 |
| HCM Control Delay      | 145.2 | 25    | 13.5  | 158.5 | 22.9   | 17.5   | 96.1  |
| HCM Lane LOS           | F     | C     | B     | F     | C      | C      | F     |
| HCM 95th-tile Q        | 18.2  | 3.8   | 0.5   | 22.4  | 2.2    | 1.4    | 13.9  |



| Lane Group              | WBL  | WBR  | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|
| Lane Group Flow (vph)   | 538  | 274  | 1273 | 379  | 816  |
| v/c Ratio               | 0.97 | 0.40 | 0.88 | 1.00 | 0.43 |
| Control Delay           | 54.1 | 4.4  | 20.1 | 75.2 | 8.3  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 54.1 | 4.4  | 20.1 | 75.2 | 8.3  |
| Queue Length 50th (ft)  | 172  | 0    | 131  | -66  | 73   |
| Queue Length 95th (ft)  | #239 | 19   | 176  | #141 | 107  |
| Internal Link Dist (ft) | 2093 |      | 5028 |      | 7812 |
| Turn Bay Length (ft)    |      |      |      | 190  |      |
| Base Capacity (vph)     | 556  | 685  | 1488 | 380  | 1961 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.97 | 0.40 | 0.86 | 1.00 | 0.42 |

**Intersection Summary**

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
14: El Dorado Hills Blvd. & Harvard Way

Near Term plus Project  
Timing Plan: AM



| Movement                     | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 387  | 197  | 578  | 479  | 345  | 743  |
| Future Volume (veh/h)        | 387  | 197  | 578  | 479  | 345  | 743  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 | 1.00 |      | 1.00 | 1.00 |      |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      | No   |      |      | No   |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 538  | 274  | 696  | 577  | 379  | 816  |
| Peak Hour Factor             | 0.72 | 0.72 | 0.83 | 0.83 | 0.91 | 0.91 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 551  | 490  | 675  | 552  | 377  | 1938 |
| Arrive On Green              | 0.31 | 0.31 | 0.36 | 0.36 | 0.11 | 0.55 |
| Sat Flow, veh/h              | 1781 | 1585 | 1949 | 1518 | 3456 | 3647 |
| Grp Volume(v), veh/h         | 538  | 274  | 666  | 607  | 379  | 816  |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1585 | 1777 | 1597 | 1728 | 1777 |
| Q Serve(g_s), s              | 16.4 | 7.9  | 20.0 | 20.0 | 6.0  | 7.5  |
| Cycle Q Clear(g_c), s        | 16.4 | 7.9  | 20.0 | 20.0 | 6.0  | 7.5  |
| Prop In Lane                 | 1.00 | 1.00 |      | 0.95 | 1.00 |      |
| Lane Grp Cap(c), veh/h       | 551  | 490  | 646  | 581  | 377  | 1938 |
| V/C Ratio(X)                 | 0.98 | 0.56 | 1.03 | 1.05 | 1.01 | 0.42 |
| Avail Cap(c_a), veh/h        | 551  | 490  | 646  | 581  | 377  | 1938 |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 18.8 | 15.9 | 17.5 | 17.5 | 24.5 | 7.4  |
| Incr Delay (d2), s/veh       | 32.4 | 1.4  | 43.5 | 49.7 | 47.7 | 0.1  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 10.7 | 0.2  | 13.8 | 13.4 | 4.6  | 1.7  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 51.2 | 17.3 | 61.0 | 67.2 | 72.2 | 7.5  |
| LnGrp LOS                    | D    | B    | F    | F    | F    | A    |
| Approach Vol, veh/h          | 812  |      | 1273 |      |      | 1195 |
| Approach Delay, s/veh        | 39.8 |      | 64.0 |      |      | 28.0 |
| Approach LOS                 | D    |      | E    |      |      | C    |
| Timer - Assigned Phs         | 1    | 2    |      |      | 6    | 8    |
| Phs Duration (G+Y+Rc), s     | 10.0 | 24.0 |      |      | 34.0 | 21.0 |
| Change Period (Y+Rc), s      | 4.0  | 4.0  |      |      | 4.0  | 4.0  |
| Max Green Setting (Gmax), s  | 6.0  | 20.0 |      |      | 30.0 | 17.0 |
| Max Q Clear Time (g_c+I1), s | 8.0  | 22.0 |      |      | 9.5  | 18.4 |
| Green Ext Time (p_c), s      | 0.0  | 0.0  |      |      | 5.0  | 0.0  |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 44.9 |      |      |      |
| HCM 6th LOS                  |      |      | D    |      |      |      |



| Lane Group              | EBT  | EBR  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 222  | 164  | 35   | 85   | 958  | 22   | 1267 |
| v/c Ratio               | 0.69 | 0.32 | 0.10 | 0.64 | 0.47 | 0.17 | 0.74 |
| Control Delay           | 30.0 | 5.1  | 12.8 | 50.4 | 8.8  | 26.9 | 16.2 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 30.0 | 5.1  | 12.8 | 50.4 | 8.8  | 26.9 | 16.2 |
| Queue Length 50th (ft)  | 61   | 0    | 6    | 27   | 75   | 7    | 166  |
| Queue Length 95th (ft)  | 121  | 34   | 23   | #87  | 179  | 25   | #305 |
| Internal Link Dist (ft) | 1459 |      | 233  |      | 3231 |      | 5028 |
| Turn Bay Length (ft)    |      |      |      | 278  |      | 90   |      |
| Base Capacity (vph)     | 396  | 589  | 432  | 132  | 2043 | 132  | 1707 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.56 | 0.28 | 0.08 | 0.64 | 0.47 | 0.17 | 0.74 |

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.



Generations at Green Valley  
15: El Dorado Hills Blvd. & Wilson Blvd

Near Term plus Project  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      | ↖    | ↗    |      | ↔    |      | ↖    | ↕    |      | ↖    | ↕    |      |
| Traffic Volume (veh/h)       | 196  | 8    | 151  | 20   | 5    | 7    | 78   | 868  | 14   | 20   | 988  | 178  |
| Future Volume (veh/h)        | 196  | 8    | 151  | 20   | 5    | 7    | 78   | 868  | 14   | 20   | 988  | 178  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 213  | 9    | 164  | 22   | 5    | 8    | 85   | 943  | 15   | 22   | 1074 | 193  |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 428  | 12   | 339  | 173  | 45   | 29   | 107  | 1847 | 29   | 38   | 1436 | 257  |
| Arrive On Green              | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.06 | 0.52 | 0.52 | 0.02 | 0.48 | 0.48 |
| Sat Flow, veh/h              | 1318 | 56   | 1585 | 240  | 212  | 134  | 1781 | 3580 | 57   | 1781 | 3011 | 539  |
| Grp Volume(v), veh/h         | 222  | 0    | 164  | 35   | 0    | 0    | 85   | 468  | 490  | 22   | 633  | 634  |
| Grp Sat Flow(s),veh/h/ln     | 1374 | 0    | 1585 | 587  | 0    | 0    | 1781 | 1777 | 1860 | 1781 | 1777 | 1773 |
| Q Serve(g_s), s              | 0.0  | 0.0  | 4.4  | 0.2  | 0.0  | 0.0  | 2.3  | 8.3  | 8.3  | 0.6  | 13.9 | 14.0 |
| Cycle Q Clear(g_c), s        | 7.4  | 0.0  | 4.4  | 7.6  | 0.0  | 0.0  | 2.3  | 8.3  | 8.3  | 0.6  | 13.9 | 14.0 |
| Prop In Lane                 | 0.96 |      | 1.00 | 0.63 |      | 0.23 | 1.00 |      | 0.03 | 1.00 |      | 0.30 |
| Lane Grp Cap(c), veh/h       | 440  | 0    | 339  | 247  | 0    | 0    | 107  | 917  | 960  | 38   | 848  | 846  |
| V/C Ratio(X)                 | 0.50 | 0.00 | 0.48 | 0.14 | 0.00 | 0.00 | 0.79 | 0.51 | 0.51 | 0.58 | 0.75 | 0.75 |
| Avail Cap(c_a), veh/h        | 607  | 0    | 526  | 407  | 0    | 0    | 148  | 917  | 960  | 148  | 848  | 846  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 17.8 | 0.0  | 16.6 | 15.6 | 0.0  | 0.0  | 22.4 | 7.7  | 7.7  | 23.4 | 10.2 | 10.3 |
| Incr Delay (d2), s/veh       | 0.9  | 0.0  | 1.1  | 0.3  | 0.0  | 0.0  | 18.0 | 2.0  | 1.9  | 13.5 | 5.9  | 6.1  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 2.0  | 0.0  | 1.5  | 0.3  | 0.0  | 0.0  | 1.3  | 2.4  | 2.4  | 0.3  | 4.6  | 4.6  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 18.7 | 0.0  | 17.7 | 15.9 | 0.0  | 0.0  | 40.3 | 9.7  | 9.6  | 36.9 | 16.2 | 16.3 |
| LnGrp LOS                    | B    | A    | B    | B    | A    | A    | D    | A    | A    | D    | B    | B    |
| Approach Vol, veh/h          |      | 386  |      |      | 35   |      |      | 1043 |      |      | 1289 |      |
| Approach Delay, s/veh        |      | 18.3 |      |      | 15.9 |      |      | 12.2 |      |      | 16.6 |      |
| Approach LOS                 |      | B    |      |      | B    |      |      | B    |      |      | B    |      |
| Timer - Assigned Phs         | 1    | 2    |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 5.0  | 28.9 |      | 14.3 | 6.9  | 27.0 |      | 14.3 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0  | 23.0 |      | 16.0 | 4.0  | 23.0 |      | 16.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 2.6  | 10.3 |      | 9.4  | 4.3  | 16.0 |      | 9.6  |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 4.5  |      | 1.0  | 0.0  | 4.0  |      | 0.0  |      |      |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 15.1 |
| HCM 6th LOS        | B    |



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | NBR  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 42   | 119  | 282  | 344  | 76   | 856  | 257  | 150  | 1141 |
| v/c Ratio               | 0.11 | 0.29 | 1.02 | 0.81 | 0.81 | 0.76 | 0.16 | 0.89 | 0.86 |
| Control Delay           | 29.7 | 15.0 | 97.9 | 31.6 | 96.4 | 32.6 | 0.2  | 87.3 | 34.1 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 29.7 | 15.0 | 97.9 | 31.6 | 96.4 | 32.6 | 0.2  | 87.3 | 34.1 |
| Queue Length 50th (ft)  | 19   | 20   | ~175 | 81   | 44   | 228  | 0    | 86   | 315  |
| Queue Length 95th (ft)  | 38   | 45   | #280 | #143 | #105 | 263  | 0    | #186 | #423 |
| Internal Link Dist (ft) |      | 321  |      | 6047 |      | 1160 |      |      | 3231 |
| Turn Bay Length (ft)    | 70   |      | 410  |      | 260  |      |      | 100  |      |
| Base Capacity (vph)     | 375  | 417  | 277  | 424  | 98   | 1130 | 1583 | 178  | 1330 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.11 | 0.29 | 1.02 | 0.81 | 0.78 | 0.76 | 0.16 | 0.84 | 0.86 |

**Intersection Summary**

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

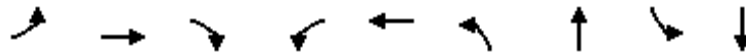
Generations at Green Valley  
16: El Dorado Hills Blvd. & Lassen Ln/Serrano Pkwy.

Near Term plus Project  
Timing Plan: AM



| Movement                          | EBL   | EBT  | EBR   | WBL   | WBT  | WBR  | NBL   | NBT  | NBR   | SBL   | SBT   | SBR                       |      |
|-----------------------------------|-------|------|-------|-------|------|------|-------|------|-------|-------|-------|---------------------------|------|
| Lane Configurations               |       |      |       |       |      |      |       |      |       |       |       |                           |      |
| Traffic Volume (vph)              | 31    | 32   | 55    | 247   | 28   | 220  | 62    | 702  | 211   | 132   | 961   | 43                        |      |
| Future Volume (vph)               | 31    | 32   | 55    | 247   | 28   | 220  | 62    | 702  | 211   | 132   | 961   | 43                        |      |
| Ideal Flow (vphpl)                | 1900  | 1900 | 1900  | 1900  | 1900 | 1900 | 1900  | 1900 | 1900  | 1900  | 1900  | 1900                      |      |
| Total Lost time (s)               | 5.2   | 5.2  |       | 5.2   | 5.2  |      | 3.0   | 5.2  | 4.0   | 3.0   | 5.2   |                           |      |
| Lane Util. Factor                 | 1.00  | 1.00 |       | 0.95  | 0.95 |      | 1.00  | 0.95 | 1.00  | 1.00  | 0.95  |                           |      |
| Frt                               | 1.00  | 0.91 |       | 1.00  | 0.88 |      | 1.00  | 1.00 | 0.85  | 1.00  | 0.99  |                           |      |
| Flt Protected                     | 0.95  | 1.00 |       | 0.95  | 1.00 |      | 0.95  | 1.00 | 1.00  | 0.95  | 1.00  |                           |      |
| Satd. Flow (prot)                 | 1770  | 1687 |       | 1681  | 1548 |      | 1770  | 3539 | 1583  | 1770  | 3516  |                           |      |
| Flt Permitted                     | 0.95  | 1.00 |       | 0.95  | 1.00 |      | 0.95  | 1.00 | 1.00  | 0.95  | 1.00  |                           |      |
| Satd. Flow (perm)                 | 1770  | 1687 |       | 1681  | 1548 |      | 1770  | 3539 | 1583  | 1770  | 3516  |                           |      |
| Peak-hour factor, PHF             | 0.73  | 0.73 | 0.73  | 0.79  | 0.79 | 0.79 | 0.82  | 0.82 | 0.82  | 0.88  | 0.88  | 0.88                      |      |
| Adj. Flow (vph)                   | 42    | 44   | 75    | 313   | 35   | 278  | 76    | 856  | 257   | 150   | 1092  | 49                        |      |
| RTOR Reduction (vph)              | 0     | 59   | 0     | 0     | 169  | 0    | 0     | 0    | 0     | 0     | 4     | 0                         |      |
| Lane Group Flow (vph)             | 42    | 60   | 0     | 282   | 175  | 0    | 76    | 856  | 257   | 150   | 1137  | 0                         |      |
| Turn Type                         | Split | NA   |       | Split | NA   |      | Prot  | NA   | Free  | Prot  | NA    |                           |      |
| Protected Phases                  | 4     | 4    |       | 8     | 8    |      | 5     | 2    |       | 1     | 6     |                           |      |
| Permitted Phases                  |       |      |       |       |      |      |       |      | Free  |       |       |                           |      |
| Actuated Green, G (s)             | 19.0  | 19.0 |       | 14.8  | 14.8 |      | 4.0   | 29.3 | 90.2  | 8.5   | 33.8  |                           |      |
| Effective Green, g (s)            | 19.0  | 19.0 |       | 14.8  | 14.8 |      | 4.0   | 29.3 | 90.2  | 8.5   | 33.8  |                           |      |
| Actuated g/C Ratio                | 0.21  | 0.21 |       | 0.16  | 0.16 |      | 0.04  | 0.32 | 1.00  | 0.09  | 0.37  |                           |      |
| Clearance Time (s)                | 5.2   | 5.2  |       | 5.2   | 5.2  |      | 3.0   | 5.2  |       | 3.0   | 5.2   |                           |      |
| Vehicle Extension (s)             | 0.2   | 0.2  |       | 0.2   | 0.2  |      | 0.2   | 0.2  |       | 0.2   | 0.2   |                           |      |
| Lane Grp Cap (vph)                | 372   | 355  |       | 275   | 253  |      | 78    | 1149 | 1583  | 166   | 1317  |                           |      |
| v/s Ratio Prot                    | 0.02  | 0.04 |       | c0.17 | 0.11 |      | 0.04  | 0.24 |       | c0.08 | c0.32 |                           |      |
| v/s Ratio Perm                    |       |      |       |       |      |      |       |      | c0.16 |       |       |                           |      |
| v/c Ratio                         | 0.11  | 0.17 |       | 1.03  | 0.69 |      | 0.97  | 0.74 | 0.16  | 0.90  | 0.86  |                           |      |
| Uniform Delay, d1                 | 28.8  | 29.1 |       | 37.7  | 35.6 |      | 43.0  | 27.1 | 0.0   | 40.4  | 26.1  |                           |      |
| Progression Factor                | 1.00  | 1.00 |       | 1.00  | 1.00 |      | 1.00  | 1.00 | 1.00  | 1.00  | 1.00  |                           |      |
| Incremental Delay, d2             | 0.6   | 1.0  |       | 61.0  | 14.5 |      | 92.2  | 4.4  | 0.2   | 42.2  | 7.7   |                           |      |
| Delay (s)                         | 29.4  | 30.2 |       | 98.7  | 50.0 |      | 135.3 | 31.5 | 0.2   | 82.7  | 33.8  |                           |      |
| Level of Service                  | C     | C    |       | F     | D    |      | F     | C    | A     | F     | C     |                           |      |
| Approach Delay (s)                |       | 30.0 |       |       | 72.0 |      |       | 31.4 |       |       | 39.4  |                           |      |
| Approach LOS                      |       | C    |       |       | E    |      |       | C    |       |       | D     |                           |      |
| <b>Intersection Summary</b>       |       |      |       |       |      |      |       |      |       |       |       |                           |      |
| HCM 2000 Control Delay            |       |      | 42.3  |       |      |      |       |      |       |       |       | HCM 2000 Level of Service | D    |
| HCM 2000 Volume to Capacity ratio |       |      | 0.76  |       |      |      |       |      |       |       |       |                           |      |
| Actuated Cycle Length (s)         |       |      | 90.2  |       |      |      |       |      |       |       |       | Sum of lost time (s)      | 18.6 |
| Intersection Capacity Utilization |       |      | 67.1% |       |      |      |       |      |       |       |       | ICU Level of Service      | C    |
| Analysis Period (min)             |       |      | 15    |       |      |      |       |      |       |       |       |                           |      |

c Critical Lane Group



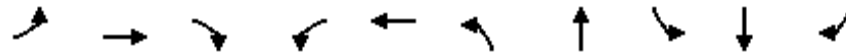
| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL    | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|--------|------|------|------|
| Lane Group Flow (vph)   | 108  | 113  | 366  | 32   | 182  | 428    | 994  | 117  | 1359 |
| v/c Ratio               | 0.72 | 0.72 | 0.77 | 0.17 | 0.81 | 6.69   | 0.39 | 0.46 | 0.64 |
| Control Delay           | 72.6 | 72.3 | 16.3 | 43.8 | 62.3 | 2600.8 | 18.2 | 49.4 | 16.0 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0    | 0.0  | 0.0  | 0.0  |
| Total Delay             | 72.6 | 72.3 | 16.3 | 43.8 | 62.3 | 2600.8 | 18.2 | 49.4 | 16.0 |
| Queue Length 50th (ft)  | 80   | 83   | 0    | 21   | 99   | ~583   | 148  | 77   | 284  |
| Queue Length 95th (ft)  | 134  | 140  | 90   | 41   | 136  | #779   | 227  | 126  | 417  |
| Internal Link Dist (ft) |      | 1745 |      |      | 332  |        | 961  |      | 1160 |
| Turn Bay Length (ft)    | 145  |      | 145  | 125  |      | 165    |      | 70   |      |
| Base Capacity (vph)     | 244  | 253  | 543  | 482  | 501  | 64     | 2569 | 257  | 2130 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0      | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0      | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0      | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.44 | 0.45 | 0.67 | 0.07 | 0.36 | 6.69   | 0.39 | 0.46 | 0.64 |

**Intersection Summary**

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

---

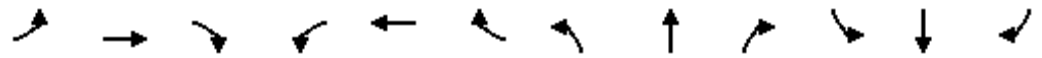
HCM 6th Edition methodology expects strict NEMA phasing.



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 238  | 41   | 403  | 157  | 120  | 644  | 1226 | 43   | 1019 | 394  |
| v/c Ratio               | 0.96 | 0.16 | 0.25 | 0.67 | 0.25 | 0.80 | 0.45 | 0.35 | 0.56 | 0.48 |
| Control Delay           | 98.3 | 47.9 | 0.4  | 63.1 | 24.4 | 51.2 | 18.0 | 61.0 | 33.6 | 5.4  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 51.3 | 2.5  |
| Total Delay             | 98.3 | 47.9 | 0.4  | 63.1 | 24.4 | 51.2 | 18.0 | 61.0 | 85.0 | 7.9  |
| Queue Length 50th (ft)  | ~189 | 29   | 0    | 117  | 22   | 244  | 206  | 32   | 226  | 0    |
| Queue Length 95th (ft)  | #356 | 64   | 0    | 162  | 42   | 286  | 266  | 68   | 301  | 60   |
| Internal Link Dist (ft) |      | 287  |      |      | 264  |      | 780  |      | 105  |      |
| Turn Bay Length (ft)    |      |      |      | 410  |      | 260  |      | 195  |      |      |
| Base Capacity (vph)     | 249  | 262  | 1583 | 390  | 769  | 1029 | 2716 | 123  | 1825 | 820  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1054 | 297  |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.96 | 0.16 | 0.25 | 0.40 | 0.16 | 0.63 | 0.45 | 0.35 | 1.32 | 0.75 |

**Intersection Summary**

- ~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.



| Movement                     | EBL   | EBT   | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|-------|-------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |       |       |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 219   | 38    | 371  | 129  | 49   | 49   | 573  | 977  | 114  | 37   | 876  | 339  |
| Future Volume (veh/h)        | 219   | 38    | 371  | 129  | 49   | 49   | 573  | 977  | 114  | 37   | 876  | 339  |
| Initial Q (Qb), veh          | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00  |       | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |       | No    |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870  | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 238   | 41    | 0    | 157  | 60   | 60   | 644  | 1098 | 128  | 43   | 1019 | 0    |
| Peak Hour Factor             | 0.92  | 0.92  | 0.92 | 0.82 | 0.82 | 0.82 | 0.89 | 0.89 | 0.89 | 0.86 | 0.86 | 0.86 |
| Percent Heavy Veh, %         | 2     | 2     | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 238   | 249   |      | 197  | 197  | 174  | 748  | 2745 | 320  | 55   | 2076 |      |
| Arrive On Green              | 0.13  | 0.13  | 0.00 | 0.11 | 0.11 | 0.11 | 0.22 | 0.59 | 0.59 | 0.03 | 0.41 | 0.00 |
| Sat Flow, veh/h              | 1781  | 1870  | 1585 | 1781 | 1785 | 1578 | 3456 | 4637 | 540  | 1781 | 5106 | 1585 |
| Grp Volume(v), veh/h         | 238   | 41    | 0    | 157  | 60   | 60   | 644  | 806  | 420  | 43   | 1019 | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781  | 1870  | 1585 | 1781 | 1777 | 1586 | 1728 | 1702 | 1773 | 1781 | 1702 | 1585 |
| Q Serve(g_s), s              | 16.0  | 2.3   | 0.0  | 10.3 | 3.7  | 4.2  | 21.5 | 15.2 | 15.2 | 2.9  | 17.8 | 0.0  |
| Cycle Q Clear(g_c), s        | 16.0  | 2.3   | 0.0  | 10.3 | 3.7  | 4.2  | 21.5 | 15.2 | 15.2 | 2.9  | 17.8 | 0.0  |
| Prop In Lane                 | 1.00  |       | 1.00 | 1.00 |      | 0.99 | 1.00 |      | 0.30 | 1.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 238   | 249   |      | 197  | 196  | 175  | 748  | 2015 | 1050 | 55   | 2076 |      |
| V/C Ratio(X)                 | 1.00  | 0.16  |      | 0.80 | 0.30 | 0.34 | 0.86 | 0.40 | 0.40 | 0.78 | 0.49 |      |
| Avail Cap(c_a), veh/h        | 238   | 249   |      | 393  | 392  | 350  | 1037 | 2015 | 1050 | 59   | 2076 |      |
| HCM Platoon Ratio            | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00  | 1.00  | 0.00 | 1.00 | 1.00 | 1.00 | 0.89 | 0.89 | 0.89 | 0.71 | 0.71 | 0.00 |
| Uniform Delay (d), s/veh     | 52.0  | 46.1  | 0.0  | 52.1 | 49.1 | 49.4 | 45.3 | 13.1 | 13.1 | 57.7 | 26.4 | 0.0  |
| Incr Delay (d2), s/veh       | 58.9  | 0.3   | 0.0  | 7.2  | 0.9  | 1.2  | 5.0  | 0.5  | 1.0  | 34.6 | 0.6  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 11.0  | 1.1   | 0.0  | 5.0  | 1.7  | 1.7  | 9.5  | 5.4  | 5.8  | 1.8  | 7.0  | 0.0  |
| Unsig. Movement Delay, s/veh |       |       |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 110.9 | 46.4  | 0.0  | 59.3 | 50.0 | 50.5 | 50.3 | 13.6 | 14.1 | 92.3 | 27.0 | 0.0  |
| LnGrp LOS                    | F     | D     |      | E    | D    | D    | D    | B    | B    | F    | C    |      |
| Approach Vol, veh/h          |       | 279   | A    |      | 277  |      |      | 1870 |      |      | 1062 | A    |
| Approach Delay, s/veh        |       | 101.4 |      |      | 55.4 |      |      | 26.3 |      |      | 29.6 |      |
| Approach LOS                 |       | F     |      |      | E    |      |      | C    |      |      | C    |      |
| Timer - Assigned Phs         | 1     | 2     |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 7.7   | 75.0  |      | 20.0 | 30.0 | 52.8 |      | 17.2 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0   | 4.0   |      | 4.0  | 4.0  | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0   | 56.2  |      | 16.0 | 36.0 | 25.5 |      | 26.5 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 4.9   | 17.2  |      | 18.0 | 23.5 | 19.8 |      | 12.3 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0   | 6.2   |      | 0.0  | 2.4  | 2.5  |      | 0.9  |      |      |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 35.7 |
| HCM 6th LOS        | D    |

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.



| Lane Group              | EBT    | EBR  | WBR  | NBT  | NBR  | SBL   | SBT  |
|-------------------------|--------|------|------|------|------|-------|------|
| Lane Group Flow (vph)   | 1      | 961  | 506  | 1472 | 223  | 273   | 1405 |
| v/c Ratio               | no cap | 0.85 | 0.31 | 0.51 | 0.23 | 1.13  | 0.30 |
| Control Delay           |        | 44.9 | 0.5  | 21.4 | 5.4  | 153.8 | 7.6  |
| Queue Delay             |        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  |
| Total Delay             | Error  | 44.9 | 0.5  | 21.4 | 5.4  | 153.8 | 7.6  |
| Queue Length 50th (ft)  | 0      | 435  | 0    | 322  | 23   | ~314  | 131  |
| Queue Length 95th (ft)  | 0      | 442  | 0    | 392  | 70   | #436  | 147  |
| Internal Link Dist (ft) | 378    |      |      | 468  |      |       | 780  |
| Turn Bay Length (ft)    |        |      |      |      | 180  | 350   |      |
| Base Capacity (vph)     | 1      | 1240 | 1611 | 2896 | 974  | 242   | 4696 |
| Starvation Cap Reductn  | 0      | 0    | 0    | 0    | 0    | 0     | 0    |
| Spillback Cap Reductn   | 0      | 0    | 0    | 0    | 0    | 0     | 0    |
| Storage Cap Reductn     | 0      | 0    | 0    | 0    | 0    | 0     | 0    |
| Reduced v/c Ratio       | 1.00   | 0.78 | 0.31 | 0.51 | 0.23 | 1.13  | 0.30 |

**Intersection Summary**

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.



---

HCM 6th Edition methodology does not support custom phasing.



| Lane Group              | EBL  | EBR  | NBL  | NBT  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 261  | 280  | 459  | 433  | 854  | 176  |
| v/c Ratio               | 0.45 | 0.56 | 0.56 | 0.16 | 0.51 | 0.21 |
| Control Delay           | 40.1 | 9.3  | 36.4 | 3.7  | 22.7 | 7.2  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 40.1 | 9.3  | 36.4 | 3.7  | 22.7 | 7.2  |
| Queue Length 50th (ft)  | 77   | 0    | 132  | 34   | 167  | 23   |
| Queue Length 95th (ft)  | 117  | 71   | 182  | 47   | m191 | m41  |
| Internal Link Dist (ft) | 706  |      |      | 516  | 832  |      |
| Turn Bay Length (ft)    |      | 195  | 480  |      |      | 148  |
| Base Capacity (vph)     | 583  | 501  | 823  | 2654 | 1663 | 837  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.45 | 0.56 | 0.56 | 0.16 | 0.51 | 0.21 |

**Intersection Summary**

m Volume for 95th percentile queue is metered by upstream signal.

Generations at Green Valley  
 20: White Rock Rd/Silva Valley Pkwy & US-50 EB On&Off-Ramp

Near Term plus Project  
 Timing Plan: AM



| Movement                     | EBL  | EBR   | NBL  | NBT  | SBT  | SBR  |
|------------------------------|------|-------|------|------|------|------|
| Lane Configurations          |      |       |      |      |      |      |
| Traffic Volume (veh/h)       | 240  | 258   | 422  | 398  | 786  | 162  |
| Future Volume (veh/h)        | 240  | 258   | 422  | 398  | 786  | 162  |
| Initial Q (Qb), veh          | 0    | 0     | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 | 1.00  | 1.00 |      |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |       |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 261  | 280   | 459  | 433  | 854  | 176  |
| Peak Hour Factor             | 0.92 | 0.92  | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2     | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 587  | 269   | 829  | 2665 | 1670 | 745  |
| Arrive On Green              | 0.17 | 0.17  | 0.24 | 0.75 | 0.16 | 0.16 |
| Sat Flow, veh/h              | 3456 | 1585  | 3456 | 3647 | 3647 | 1585 |
| Grp Volume(v), veh/h         | 261  | 280   | 459  | 433  | 854  | 176  |
| Grp Sat Flow(s),veh/h/ln     | 1728 | 1585  | 1728 | 1777 | 1777 | 1585 |
| Q Serve(g_s), s              | 6.8  | 17.0  | 11.6 | 3.5  | 22.1 | 9.7  |
| Cycle Q Clear(g_c), s        | 6.8  | 17.0  | 11.6 | 3.5  | 22.1 | 9.7  |
| Prop In Lane                 | 1.00 | 1.00  | 1.00 |      |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 587  | 269   | 829  | 2665 | 1670 | 745  |
| V/C Ratio(X)                 | 0.44 | 1.04  | 0.55 | 0.16 | 0.51 | 0.24 |
| Avail Cap(c_a), veh/h        | 587  | 269   | 829  | 2665 | 1670 | 745  |
| HCM Platoon Ratio            | 1.00 | 1.00  | 1.00 | 1.00 | 0.33 | 0.33 |
| Upstream Filter(l)           | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 37.3 | 41.5  | 33.3 | 3.6  | 31.7 | 26.5 |
| Incr Delay (d2), s/veh       | 2.4  | 65.4  | 2.7  | 0.1  | 1.1  | 0.7  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 3.0  | 18.6  | 4.9  | 0.9  | 10.6 | 3.9  |
| Unsig. Movement Delay, s/veh |      |       |      |      |      |      |
| LnGrp Delay(d),s/veh         | 39.7 | 106.9 | 36.0 | 3.7  | 32.8 | 27.2 |
| LnGrp LOS                    | D    | F     | D    | A    | C    | C    |
| Approach Vol, veh/h          | 541  |       |      | 892  | 1030 |      |
| Approach Delay, s/veh        | 74.5 |       |      | 20.3 | 31.9 |      |
| Approach LOS                 | E    |       |      | C    | C    |      |
| Timer - Assigned Phs         |      | 2     |      | 4    | 5    | 6    |
| Phs Duration (G+Y+Rc), s     |      | 79.0  |      | 21.0 | 28.0 | 51.0 |
| Change Period (Y+Rc), s      |      | 4.0   |      | 4.0  | 4.0  | 4.0  |
| Max Green Setting (Gmax), s  |      | 75.0  |      | 17.0 | 24.0 | 47.0 |
| Max Q Clear Time (g_c+I1), s |      | 5.5   |      | 19.0 | 13.6 | 24.1 |
| Green Ext Time (p_c), s      |      | 2.8   |      | 0.0  | 1.2  | 6.3  |
| <b>Intersection Summary</b>  |      |       |      |      |      |      |
| HCM 6th Ctrl Delay           |      |       | 37.0 |      |      |      |
| HCM 6th LOS                  |      |       | D    |      |      |      |



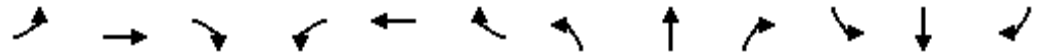
| Lane Group              | WBL  | WBT  | WBR  | NBL  | NBT  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 558  | 2    | 152  | 157  | 546  | 480  | 461  |
| v/c Ratio               | 0.93 | 0.00 | 0.24 | 0.42 | 0.27 | 0.41 | 0.55 |
| Control Delay           | 55.9 | 22.0 | 4.9  | 27.8 | 9.8  | 27.3 | 5.2  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 55.9 | 22.0 | 4.9  | 27.8 | 9.8  | 27.3 | 5.2  |
| Queue Length 50th (ft)  | 340  | 1    | 0    | 83   | 106  | 124  | 0    |
| Queue Length 95th (ft)  | #548 | 6    | 42   | 136  | 138  | 169  | 69   |
| Internal Link Dist (ft) |      | 580  |      |      | 832  | 250  |      |
| Turn Bay Length (ft)    |      |      |      | 545  |      |      |      |
| Base Capacity (vph)     | 601  | 633  | 638  | 371  | 2052 | 1167 | 831  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.93 | 0.00 | 0.24 | 0.42 | 0.27 | 0.41 | 0.55 |

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
 21: Silva Valley Pkwy & US-50 WB On-Ramp/US-50 WB Off-Ramp

Near Term plus Project  
 Timing Plan: AM



| Movement                     | EBL | EBT  | EBR | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|-----|------|-----|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |     |      |     | ↖    | ↗    | ↖    | ↖    | ↗    |      |      | ↗    | ↖    |
| Traffic Volume (veh/h)       | 0   | 0    | 0   | 513  | 2    | 140  | 144  | 502  | 0    | 0    | 442  | 424  |
| Future Volume (veh/h)        | 0   | 0    | 0   | 513  | 2    | 140  | 144  | 502  | 0    | 0    | 442  | 424  |
| Initial Q (Qb), veh          |     |      |     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |     |      |     | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             |     |      |     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |     |      |     | No   |      |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       |     |      |     | 1870 | 1870 | 1870 | 1870 | 1870 | 0    | 0    | 1870 | 1870 |
| Adj Flow Rate, veh/h         |     |      |     | 558  | 2    | 152  | 157  | 546  | 0    | 0    | 480  | 461  |
| Peak Hour Factor             |     |      |     | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         |     |      |     | 2    | 2    | 2    | 2    | 2    | 0    | 0    | 2    | 2    |
| Cap, veh/h                   |     |      |     | 606  | 636  | 539  | 374  | 2061 | 0    | 0    | 1173 | 523  |
| Arrive On Green              |     |      |     | 0.34 | 0.34 | 0.34 | 0.42 | 1.00 | 0.00 | 0.00 | 0.33 | 0.33 |
| Sat Flow, veh/h              |     |      |     | 1781 | 1870 | 1585 | 1781 | 3647 | 0    | 0    | 3647 | 1585 |
| Grp Volume(v), veh/h         |     |      |     | 558  | 2    | 152  | 157  | 546  | 0    | 0    | 480  | 461  |
| Grp Sat Flow(s),veh/h/ln     |     |      |     | 1781 | 1870 | 1585 | 1781 | 1777 | 0    | 0    | 1777 | 1585 |
| Q Serve(g_s), s              |     |      |     | 30.1 | 0.1  | 7.0  | 6.2  | 0.0  | 0.0  | 0.0  | 10.5 | 27.5 |
| Cycle Q Clear(g_c), s        |     |      |     | 30.1 | 0.1  | 7.0  | 6.2  | 0.0  | 0.0  | 0.0  | 10.5 | 27.5 |
| Prop In Lane                 |     |      |     | 1.00 |      | 1.00 | 1.00 |      | 0.00 | 0.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       |     |      |     | 606  | 636  | 539  | 374  | 2061 | 0    | 0    | 1173 | 523  |
| V/C Ratio(X)                 |     |      |     | 0.92 | 0.00 | 0.28 | 0.42 | 0.26 | 0.00 | 0.00 | 0.41 | 0.88 |
| Avail Cap(c_a), veh/h        |     |      |     | 606  | 636  | 539  | 374  | 2061 | 0    | 0    | 1173 | 523  |
| HCM Platoon Ratio            |     |      |     | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           |     |      |     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     |     |      |     | 31.7 | 21.8 | 24.1 | 24.7 | 0.0  | 0.0  | 0.0  | 26.0 | 31.7 |
| Incr Delay (d2), s/veh       |     |      |     | 21.6 | 0.0  | 1.3  | 3.4  | 0.3  | 0.0  | 0.0  | 1.1  | 18.9 |
| Initial Q Delay(d3),s/veh    |     |      |     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     |     |      |     | 16.2 | 0.0  | 2.8  | 2.6  | 0.1  | 0.0  | 0.0  | 4.3  | 12.5 |
| Unsig. Movement Delay, s/veh |     |      |     |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         |     |      |     | 53.3 | 21.8 | 25.4 | 28.1 | 0.3  | 0.0  | 0.0  | 27.0 | 50.5 |
| LnGrp LOS                    |     |      |     | D    | C    | C    | C    | A    | A    | A    | C    | D    |
| Approach Vol, veh/h          |     |      |     |      | 712  |      |      | 703  |      |      | 941  |      |
| Approach Delay, s/veh        |     |      |     |      | 47.3 |      |      | 6.5  |      |      | 38.5 |      |
| Approach LOS                 |     |      |     |      | D    |      |      | A    |      |      | D    |      |
| Timer - Assigned Phs         |     | 2    |     |      | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |     | 62.0 |     |      | 25.0 | 37.0 |      | 38.0 |      |      |      |      |
| Change Period (Y+Rc), s      |     | 4.0  |     |      | 4.0  | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |     | 58.0 |     |      | 21.0 | 33.0 |      | 34.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |     | 2.0  |     |      | 8.2  | 29.5 |      | 32.1 |      |      |      |      |
| Green Ext Time (p_c), s      |     | 3.7  |     |      | 0.3  | 1.6  |      | 0.6  |      |      |      |      |
| <b>Intersection Summary</b>  |     |      |     |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |     |      |     | 31.6 |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |     |      |     | C    |      |      |      |      |      |      |      |      |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.3  |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      |      | ↗    | ↕    | ↗    |      | ↕    |
| Traffic Vol, veh/h       | 0    | 42   | 613  | 28   | 0    | 806  |
| Future Vol, veh/h        | 0    | 42   | 613  | 28   | 0    | 806  |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Free | Free | Free | Free |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | 0    | -    | 160  | -    | -    |
| Veh in Median Storage, # | 0    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 0    | 46   | 666  | 30   | 0    | 876  |

| Major/Minor          | Minor1 | Major1 | Major2 |   |   |
|----------------------|--------|--------|--------|---|---|
| Conflicting Flow All | -      | 333    | 0      | 0 | - |
| Stage 1              | -      | -      | -      | - | - |
| Stage 2              | -      | -      | -      | - | - |
| Critical Hdwy        | -      | 6.94   | -      | - | - |
| Critical Hdwy Stg 1  | -      | -      | -      | - | - |
| Critical Hdwy Stg 2  | -      | -      | -      | - | - |
| Follow-up Hdwy       | -      | 3.32   | -      | - | - |
| Pot Cap-1 Maneuver   | 0      | 663    | -      | - | 0 |
| Stage 1              | 0      | -      | -      | - | 0 |
| Stage 2              | 0      | -      | -      | - | 0 |
| Platoon blocked, %   |        |        | -      | - | - |
| Mov Cap-1 Maneuver   | -      | 663    | -      | - | - |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | - |
| Stage 1              | -      | -      | -      | - | - |
| Stage 2              | -      | -      | -      | - | - |

| Approach             | WB   | NB | SB |
|----------------------|------|----|----|
| HCM Control Delay, s | 10.8 | 0  | 0  |
| HCM LOS              | B    |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBT   |
|-----------------------|-----|----------|-------|
| Capacity (veh/h)      | -   | -        | 663   |
| HCM Lane V/C Ratio    | -   | -        | 0.069 |
| HCM Control Delay (s) | -   | -        | 10.8  |
| HCM Lane LOS          | -   | -        | B     |
| HCM 95th %tile Q(veh) | -   | -        | 0.2   |



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | NBR  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 96   | 413  | 496  | 657  | 384  | 556  | 341  | 299  | 739  |
| v/c Ratio               | 0.59 | 0.73 | 0.98 | 0.55 | 0.99 | 0.63 | 0.53 | 0.85 | 0.91 |
| Control Delay           | 67.0 | 28.2 | 78.0 | 18.3 | 90.7 | 44.4 | 7.8  | 67.6 | 60.2 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 67.0 | 28.2 | 78.0 | 18.3 | 90.7 | 44.4 | 7.8  | 67.6 | 60.2 |
| Queue Length 50th (ft)  | 71   | 63   | 373  | 105  | 292  | 203  | 4    | 214  | 281  |
| Queue Length 95th (ft)  | 115  | 87   | #623 | 163  | 280  | 184  | 0    | 272  | 304  |
| Internal Link Dist (ft) |      | 6047 |      | 1303 |      | 4417 |      |      | 4456 |
| Turn Bay Length (ft)    | 155  |      | 330  |      | 250  |      | 180  | 150  |      |
| Base Capacity (vph)     | 194  | 849  | 506  | 1426 | 387  | 885  | 647  | 387  | 809  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.49 | 0.49 | 0.98 | 0.46 | 0.99 | 0.63 | 0.53 | 0.77 | 0.91 |

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Generations at Green Valley  
23: Serrano Pkwy. & Silva Valley Pkwy.

Near Term plus Project  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL   | WBT  | WBR  | NBL   | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|-------|------|------|-------|------|------|------|------|------|
| Lane Configurations          | ↖    | ↗    |      | ↖     | ↗    |      | ↖     | ↗    | ↗    | ↖    | ↗    |      |
| Traffic Volume (veh/h)       | 76   | 130  | 196  | 441   | 227  | 358  | 242   | 350  | 215  | 227  | 448  | 114  |
| Future Volume (veh/h)        | 76   | 130  | 196  | 441   | 227  | 358  | 242   | 350  | 215  | 227  | 448  | 114  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0     | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00  |      | 1.00 | 1.00  |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |       | No   |      |       | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 96   | 165  | 248  | 496   | 255  | 402  | 384   | 556  | 0    | 299  | 589  | 150  |
| Peak Hour Factor             | 0.79 | 0.79 | 0.79 | 0.89  | 0.89 | 0.89 | 0.63  | 0.63 | 0.63 | 0.76 | 0.76 | 0.76 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2     | 2    | 2    | 2     | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 119  | 308  | 274  | 472   | 660  | 589  | 361   | 832  |      | 325  | 600  | 152  |
| Arrive On Green              | 0.07 | 0.17 | 0.17 | 0.27  | 0.37 | 0.37 | 0.20  | 0.23 | 0.00 | 0.18 | 0.21 | 0.21 |
| Sat Flow, veh/h              | 1781 | 1777 | 1585 | 1781  | 1777 | 1585 | 1781  | 3554 | 1585 | 1781 | 2806 | 713  |
| Grp Volume(v), veh/h         | 96   | 165  | 248  | 496   | 255  | 402  | 384   | 556  | 0    | 299  | 372  | 367  |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1777 | 1585 | 1781  | 1777 | 1585 | 1781  | 1777 | 1585 | 1781 | 1777 | 1742 |
| Q Serve(g_s), s              | 6.8  | 10.9 | 19.7 | 34.0  | 13.5 | 27.4 | 26.0  | 18.2 | 0.0  | 21.1 | 26.7 | 26.9 |
| Cycle Q Clear(g_c), s        | 6.8  | 10.9 | 19.7 | 34.0  | 13.5 | 27.4 | 26.0  | 18.2 | 0.0  | 21.1 | 26.7 | 26.9 |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00  |      | 1.00 | 1.00  |      | 1.00 | 1.00 |      | 0.41 |
| Lane Grp Cap(c), veh/h       | 119  | 308  | 274  | 472   | 660  | 589  | 361   | 832  |      | 325  | 380  | 372  |
| V/C Ratio(X)                 | 0.80 | 0.54 | 0.90 | 1.05  | 0.39 | 0.68 | 1.06  | 0.67 |      | 0.92 | 0.98 | 0.98 |
| Avail Cap(c_a), veh/h        | 181  | 333  | 297  | 472   | 660  | 589  | 361   | 832  |      | 361  | 380  | 372  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00  | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 59.0 | 48.3 | 52.0 | 47.1  | 29.6 | 33.9 | 51.1  | 44.6 | 0.0  | 51.5 | 50.1 | 50.2 |
| Incr Delay (d2), s/veh       | 14.2 | 1.5  | 27.8 | 55.1  | 0.4  | 3.2  | 65.0  | 2.1  | 0.0  | 26.7 | 40.9 | 42.4 |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 3.5  | 4.8  | 9.7  | 21.8  | 5.7  | 10.7 | 17.8  | 8.1  | 0.0  | 11.6 | 15.8 | 15.7 |
| Unsig. Movement Delay, s/veh |      |      |      |       |      |      |       |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 73.2 | 49.8 | 79.8 | 102.2 | 29.9 | 37.2 | 116.1 | 46.6 | 0.0  | 78.1 | 91.0 | 92.6 |
| LnGrp LOS                    | E    | D    | E    | F     | C    | D    | F     | D    |      | E    | F    | F    |
| Approach Vol, veh/h          |      | 509  |      |       | 1153 |      |       | 940  | A    |      | 1038 |      |
| Approach Delay, s/veh        |      | 68.8 |      |       | 63.6 |      |       | 75.0 |      |      | 87.9 |      |
| Approach LOS                 |      | E    |      |       | E    |      |       | E    |      |      | F    |      |
| Timer - Assigned Phs         | 1    | 2    | 3    | 4     | 5    | 6    | 7     | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 27.4 | 35.3 | 38.0 | 27.5  | 30.0 | 32.7 | 12.6  | 52.9 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 5.3  | 4.0  | 5.3   | 4.0  | 5.3  | 4.0   | 5.3  |      |      |      |      |
| Max Green Setting (Gmax), s  | 26.0 | 27.4 | 34.0 | 24.0  | 26.0 | 27.4 | 13.0  | 45.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 23.1 | 20.2 | 36.0 | 21.7  | 28.0 | 28.9 | 8.8   | 29.4 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.3  | 1.9  | 0.0  | 0.5   | 0.0  | 0.0  | 0.1   | 3.5  |      |      |      |      |

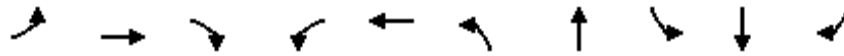
Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 74.2 |
| HCM 6th LOS        | E    |

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.





| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 154  | 107  | 423  | 97   | 68   | 474  | 230  | 47   | 277  | 364  |
| v/c Ratio               | 0.53 | 0.34 | 0.68 | 0.50 | 0.25 | 0.80 | 0.25 | 0.28 | 0.44 | 0.63 |
| Control Delay           | 40.1 | 29.9 | 9.6  | 42.6 | 24.6 | 34.7 | 13.2 | 36.9 | 28.2 | 8.9  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 40.1 | 29.9 | 9.6  | 42.6 | 24.6 | 34.7 | 13.2 | 36.9 | 28.2 | 8.9  |
| Queue Length 50th (ft)  | 64   | 41   | 0    | 40   | 20   | 174  | 59   | 19   | 56   | 0    |
| Queue Length 95th (ft)  | 84   | 54   | 0    | #88  | 47   | #399 | 121  | 50   | 88   | 44   |
| Internal Link Dist (ft) | 2093 |      |      |      |      | 328  | 4456 |      | 402  |      |
| Turn Bay Length (ft)    | 60   |      |      |      |      | 200  |      | 150  |      | 250  |
| Base Capacity (vph)     | 293  | 516  | 744  | 201  | 480  | 692  | 1027 | 173  | 922  | 681  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.53 | 0.21 | 0.57 | 0.48 | 0.14 | 0.68 | 0.22 | 0.27 | 0.30 | 0.53 |

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Generations at Green Valley  
24: Silva Valley Pkwy. & Harvard Way

Near Term plus Project  
Timing Plan: AM



| Movement                     | EBL  | EBT   | EBR   | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR   |
|------------------------------|------|-------|-------|------|------|------|------|------|------|------|------|-------|
| Lane Configurations          |      |       |       |      |      |      |      |      |      |      |      |       |
| Traffic Volume (veh/h)       | 88   | 61    | 241   | 76   | 41   | 12   | 427  | 197  | 10   | 38   | 224  | 295   |
| Future Volume (veh/h)        | 88   | 61    | 241   | 76   | 41   | 12   | 427  | 197  | 10   | 38   | 224  | 295   |
| Initial Q (Qb), veh          | 0    | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     |
| Ped-Bike Adj(A_pbT)          | 1.00 |       | 1.00  | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00  |
| Parking Bus, Adj             | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  |
| Work Zone On Approach        |      | No    |       |      | No   |      |      | No   |      |      | No   |       |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870  | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870  |
| Adj Flow Rate, veh/h         | 154  | 107   | 423   | 97   | 53   | 15   | 474  | 219  | 11   | 47   | 277  | 364   |
| Peak Hour Factor             | 0.57 | 0.57  | 0.57  | 0.78 | 0.78 | 0.78 | 0.90 | 0.90 | 0.90 | 0.81 | 0.81 | 0.81  |
| Percent Heavy Veh, %         | 2    | 2     | 2     | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2     |
| Cap, veh/h                   | 186  | 416   | 353   | 124  | 263  | 74   | 515  | 822  | 41   | 59   | 744  | 332   |
| Arrive On Green              | 0.10 | 0.22  | 0.22  | 0.07 | 0.19 | 0.19 | 0.29 | 0.47 | 0.47 | 0.03 | 0.21 | 0.21  |
| Sat Flow, veh/h              | 1781 | 1870  | 1585  | 1781 | 1402 | 397  | 1781 | 1766 | 89   | 1781 | 3554 | 1585  |
| Grp Volume(v), veh/h         | 154  | 107   | 423   | 97   | 0    | 68   | 474  | 0    | 230  | 47   | 277  | 364   |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1870  | 1585  | 1781 | 0    | 1799 | 1781 | 0    | 1854 | 1781 | 1777 | 1585  |
| Q Serve(g_s), s              | 6.5  | 3.6   | 17.0  | 4.1  | 0.0  | 2.4  | 19.7 | 0.0  | 5.8  | 2.0  | 5.1  | 16.0  |
| Cycle Q Clear(g_c), s        | 6.5  | 3.6   | 17.0  | 4.1  | 0.0  | 2.4  | 19.7 | 0.0  | 5.8  | 2.0  | 5.1  | 16.0  |
| Prop In Lane                 | 1.00 |       | 1.00  | 1.00 |      | 0.22 | 1.00 |      | 0.05 | 1.00 |      | 1.00  |
| Lane Grp Cap(c), veh/h       | 186  | 416   | 353   | 124  | 0    | 337  | 515  | 0    | 863  | 59   | 744  | 332   |
| V/C Ratio(X)                 | 0.83 | 0.26  | 1.20  | 0.78 | 0.00 | 0.20 | 0.92 | 0.00 | 0.27 | 0.80 | 0.37 | 1.10  |
| Avail Cap(c_a), veh/h        | 186  | 416   | 353   | 163  | 0    | 377  | 559  | 0    | 863  | 140  | 744  | 332   |
| HCM Platoon Ratio            | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  |
| Upstream Filter(I)           | 1.00 | 1.00  | 1.00  | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00  |
| Uniform Delay (d), s/veh     | 33.5 | 24.5  | 29.7  | 35.0 | 0.0  | 26.2 | 26.3 | 0.0  | 12.5 | 36.7 | 25.9 | 30.2  |
| Incr Delay (d2), s/veh       | 25.2 | 0.3   | 114.1 | 16.1 | 0.0  | 0.3  | 19.8 | 0.0  | 0.2  | 20.9 | 0.3  | 78.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   |
| %ile BackOfQ(50%),veh/ln     | 4.0  | 1.6   | 17.4  | 2.3  | 0.0  | 1.1  | 10.3 | 0.0  | 2.1  | 1.2  | 2.0  | 13.1  |
| Unsig. Movement Delay, s/veh |      |       |       |      |      |      |      |      |      |      |      |       |
| LnGrp Delay(d),s/veh         | 58.7 | 24.8  | 143.8 | 51.1 | 0.0  | 26.5 | 46.1 | 0.0  | 12.6 | 57.6 | 26.2 | 108.2 |
| LnGrp LOS                    | E    | C     | F     | D    | A    | C    | D    | A    | B    | E    | C    | F     |
| Approach Vol, veh/h          |      | 684   |       |      | 165  |      |      | 704  |      |      | 688  |       |
| Approach Delay, s/veh        |      | 106.0 |       |      | 41.0 |      |      | 35.2 |      |      | 71.7 |       |
| Approach LOS                 |      | F     |       |      | D    |      |      | D    |      |      | E    |       |
| Timer - Assigned Phs         | 1    | 2     | 3     | 4    | 5    | 6    | 7    | 8    |      |      |      |       |
| Phs Duration (G+Y+Rc), s     | 6.5  | 39.6  | 9.3   | 21.0 | 26.1 | 20.0 | 12.0 | 18.3 |      |      |      |       |
| Change Period (Y+Rc), s      | 4.0  | 4.0   | 4.0   | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  |      |      |      |       |
| Max Green Setting (Gmax), s  | 6.0  | 34.0  | 7.0   | 17.0 | 24.0 | 16.0 | 8.0  | 16.0 |      |      |      |       |
| Max Q Clear Time (g_c+I1), s | 4.0  | 7.8   | 6.1   | 19.0 | 21.7 | 18.0 | 8.5  | 4.4  |      |      |      |       |
| Green Ext Time (p_c), s      | 0.0  | 1.2   | 0.0   | 0.0  | 0.4  | 0.0  | 0.0  | 0.2  |      |      |      |       |
| <b>Intersection Summary</b>  |      |       |       |      |      |      |      |      |      |      |      |       |
| HCM 6th Ctrl Delay           |      |       | 68.5  |      |      |      |      |      |      |      |      |       |
| HCM 6th LOS                  |      |       | E     |      |      |      |      |      |      |      |      |       |

Intersection

Intersection Delay, s/veh36.1

Intersection LOS E

| Movement            | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations |      | ↕    |      |      | ↕    |      |      | ↕    |      |      | ↕    |      |
| Traffic Vol, veh/h  | 16   | 4    | 61   | 155  | 2    | 89   | 29   | 215  | 90   | 61   | 302  | 14   |
| Future Vol, veh/h   | 16   | 4    | 61   | 155  | 2    | 89   | 29   | 215  | 90   | 61   | 302  | 14   |
| Peak Hour Factor    | 0.70 | 0.70 | 0.70 | 0.74 | 0.74 | 0.74 | 0.70 | 0.70 | 0.70 | 0.80 | 0.80 | 0.80 |
| Heavy Vehicles, %   | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow           | 23   | 6    | 87   | 209  | 3    | 120  | 41   | 307  | 129  | 76   | 378  | 18   |
| Number of Lanes     | 0    | 1    | 0    | 0    | 1    | 0    | 0    | 1    | 0    | 0    | 1    | 0    |

| Approach                      | EB   | WB   | NB | SB   |
|-------------------------------|------|------|----|------|
| Opposing Approach             | WB   | EB   | SB | NB   |
| Opposing Lanes                | 1    | 1    | 1  | 1    |
| Conflicting Approach Left SB  |      | NB   | EB | WB   |
| Conflicting Lanes Left        | 1    | 1    | 1  | 1    |
| Conflicting Approach Right NB |      | SB   | WB | EB   |
| Conflicting Lanes Right       | 1    | 1    | 1  | 1    |
| HCM Control Delay             | 13.8 | 24.4 | 42 | 43.9 |
| HCM LOS                       | B    | C    | E  | E    |

| Lane                   | NBLn1 | EBLn1 | WBLn1 | SBLn1 |
|------------------------|-------|-------|-------|-------|
| Vol Left, %            | 9%    | 20%   | 63%   | 16%   |
| Vol Thru, %            | 64%   | 5%    | 1%    | 80%   |
| Vol Right, %           | 27%   | 75%   | 36%   | 4%    |
| Sign Control           | Stop  | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 334   | 81    | 246   | 377   |
| LT Vol                 | 29    | 16    | 155   | 61    |
| Through Vol            | 215   | 4     | 2     | 302   |
| RT Vol                 | 90    | 61    | 89    | 14    |
| Lane Flow Rate         | 477   | 116   | 332   | 471   |
| Geometry Grp           | 1     | 1     | 1     | 1     |
| Degree of Util (X)     | 0.886 | 0.256 | 0.676 | 0.894 |
| Departure Headway (Hd) | 6.685 | 7.95  | 7.322 | 6.832 |
| Convergence, Y/N       | Yes   | Yes   | Yes   | Yes   |
| Cap                    | 539   | 449   | 492   | 528   |
| Service Time           | 4.75  | 6.049 | 5.389 | 4.898 |
| HCM Lane V/C Ratio     | 0.885 | 0.258 | 0.675 | 0.892 |
| HCM Control Delay      | 42    | 13.8  | 24.4  | 43.9  |
| HCM Lane LOS           | E     | B     | C     | E     |
| HCM 95th-tile Q        | 10    | 1     | 5     | 10.2  |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.1  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↔    |      |      | ↑    |      | ↗    |
| Traffic Vol, veh/h       | 384  | 10   | 0    | 717  | 0    | 10   |
| Future Vol, veh/h        | 384  | 10   | 0    | 717  | 0    | 10   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | 0    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 417  | 11   | 0    | 779  | 0    | 11   |

| Major/Minor          | Major1 | Major2 | Minor1 |   |   |       |
|----------------------|--------|--------|--------|---|---|-------|
| Conflicting Flow All | 0      | 0      | -      | - | - | 423   |
| Stage 1              | -      | -      | -      | - | - | -     |
| Stage 2              | -      | -      | -      | - | - | -     |
| Critical Hdwy        | -      | -      | -      | - | - | 6.22  |
| Critical Hdwy Stg 1  | -      | -      | -      | - | - | -     |
| Critical Hdwy Stg 2  | -      | -      | -      | - | - | -     |
| Follow-up Hdwy       | -      | -      | -      | - | - | 3.318 |
| Pot Cap-1 Maneuver   | -      | -      | 0      | - | 0 | 631   |
| Stage 1              | -      | -      | 0      | - | 0 | -     |
| Stage 2              | -      | -      | 0      | - | 0 | -     |
| Platoon blocked, %   | -      | -      | -      | - | - | -     |
| Mov Cap-1 Maneuver   | -      | -      | -      | - | - | 631   |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | - | -     |
| Stage 1              | -      | -      | -      | - | - | -     |
| Stage 2              | -      | -      | -      | - | - | -     |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 10.8 |
| HCM LOS              |    |    | B    |

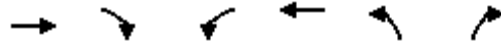
| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h)      | 631   | -   | -   | -   |
| HCM Lane V/C Ratio    | 0.017 | -   | -   | -   |
| HCM Control Delay (s) | 10.8  | -   | -   | -   |
| HCM Lane LOS          | B     | -   | -   | -   |
| HCM 95th %tile Q(veh) | 0.1   | -   | -   | -   |



| Lane Group                  | EBT  | WBL  | WBT  | NBL  | NBR  |
|-----------------------------|------|------|------|------|------|
| Lane Group Flow (vph)       | 429  | 15   | 666  | 113  | 29   |
| v/c Ratio                   | 0.44 | 0.03 | 0.68 | 0.27 | 0.07 |
| Control Delay               | 6.5  | 4.1  | 10.3 | 14.4 | 6.9  |
| Queue Delay                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay                 | 6.5  | 4.1  | 10.3 | 14.4 | 6.9  |
| Queue Length 50th (ft)      | 38   | 1    | 71   | 17   | 0    |
| Queue Length 95th (ft)      | 89   | 6    | 167  | 55   | 14   |
| Internal Link Dist (ft)     | 1398 |      | 2852 | 640  |      |
| Turn Bay Length (ft)        |      | 215  |      | 250  |      |
| Base Capacity (vph)         | 1444 | 705  | 1457 | 1384 | 1244 |
| Starvation Cap Reductn      | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn       | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn         | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio           | 0.30 | 0.02 | 0.46 | 0.08 | 0.02 |
| <b>Intersection Summary</b> |      |      |      |      |      |

Generations at Green Valley  
27: Site Dwy. Full & Green Valley Rd.

Near Term plus Project  
Timing Plan: AM



| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations          | ↔    |      | ↔    | ↔    | ↔    | ↔    |
| Traffic Volume (veh/h)       | 364  | 30   | 14   | 613  | 104  | 27   |
| Future Volume (veh/h)        | 364  | 30   | 14   | 613  | 104  | 27   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 396  | 33   | 15   | 666  | 113  | 29   |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 861  | 72   | 638  | 946  | 293  | 261  |
| Arrive On Green              | 0.51 | 0.51 | 0.51 | 0.51 | 0.16 | 0.16 |
| Sat Flow, veh/h              | 1703 | 142  | 959  | 1870 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 0    | 429  | 15   | 666  | 113  | 29   |
| Grp Sat Flow(s),veh/h/ln     | 0    | 1845 | 959  | 1870 | 1781 | 1585 |
| Q Serve(g_s), s              | 0.0  | 3.6  | 0.2  | 6.6  | 1.4  | 0.4  |
| Cycle Q Clear(g_c), s        | 0.0  | 3.6  | 3.9  | 6.6  | 1.4  | 0.4  |
| Prop In Lane                 |      | 0.08 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 0    | 933  | 638  | 946  | 293  | 261  |
| V/C Ratio(X)                 | 0.00 | 0.46 | 0.02 | 0.70 | 0.39 | 0.11 |
| Avail Cap(c_a), veh/h        | 0    | 1976 | 1180 | 2003 | 1908 | 1698 |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 0.0  | 3.9  | 5.1  | 4.6  | 9.0  | 8.6  |
| Incr Delay (d2), s/veh       | 0.0  | 0.4  | 0.0  | 1.0  | 0.8  | 0.2  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.0  | 0.1  | 0.0  | 0.3  | 0.4  | 0.1  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 0.0  | 4.2  | 5.1  | 5.6  | 9.9  | 8.8  |
| LnGrp LOS                    | A    | A    | A    | A    | A    | A    |
| Approach Vol, veh/h          | 429  |      |      | 681  | 142  |      |
| Approach Delay, s/veh        | 4.2  |      |      | 5.6  | 9.7  |      |
| Approach LOS                 | A    |      |      | A    | A    |      |
| Timer - Assigned Phs         |      | 2    |      |      | 6    | 8    |
| Phs Duration (G+Y+Rc), s     |      | 16.3 |      |      | 16.3 | 8.0  |
| Change Period (Y+Rc), s      |      | 4.0  |      |      | 4.0  | 4.0  |
| Max Green Setting (Gmax), s  |      | 26.0 |      |      | 26.0 | 26.0 |
| Max Q Clear Time (g_c+I1), s |      | 8.6  |      |      | 5.6  | 3.4  |
| Green Ext Time (p_c), s      |      | 3.6  |      |      | 2.1  | 0.4  |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 5.6  |      |      |      |
| HCM 6th LOS                  |      |      | A    |      |      |      |

Summary of All Intervals

| Run Number              | 1     | 10    | 2     | 3     | 4      | 5     | 6     |
|-------------------------|-------|-------|-------|-------|--------|-------|-------|
| Start Time              | 6:50  | 6:50  | 6:50  | 6:50  | 6:50   | 6:50  | 6:50  |
| End Time                | 8:00  | 8:00  | 8:00  | 8:00  | 8:00   | 8:00  | 8:00  |
| Total Time (min)        | 70    | 70    | 70    | 70    | 70     | 70    | 70    |
| Time Recorded (min)     | 60    | 60    | 60    | 60    | 60     | 60    | 60    |
| # of Intervals          | 5     | 5     | 5     | 5     | 5      | 5     | 5     |
| # of Recorded Intervals | 4     | 4     | 4     | 4     | 4      | 4     | 4     |
| Vehs Entered            | 11782 | 11729 | 11850 | 11697 | 11441  | 11463 | 11890 |
| Vehs Exited             | 11588 | 11591 | 11726 | 11565 | 11296  | 11272 | 11705 |
| Starting Vehs           | 261   | 304   | 276   | 278   | 275    | 259   | 287   |
| Ending Vehs             | 455   | 442   | 400   | 410   | 420    | 450   | 472   |
| Travel Distance (mi)    | 3659  | 3674  | 3696  | 3651  | 3543   | 3513  | 3665  |
| Travel Time (hr)        | 918.2 | 888.4 | 919.7 | 910.9 | 1013.7 | 967.4 | 962.5 |
| Total Delay (hr)        | 809.6 | 778.8 | 810.1 | 802.7 | 908.7  | 863.1 | 853.7 |
| Total Stops             | 11070 | 11028 | 10938 | 10595 | 10600  | 10544 | 10920 |
| Fuel Used (gal)         | 346.4 | 340.7 | 348.3 | 344.3 | 363.5  | 351.0 | 356.5 |

Summary of All Intervals

| Run Number              | 7      | 8      | 9     | Avg   |
|-------------------------|--------|--------|-------|-------|
| Start Time              | 6:50   | 6:50   | 6:50  | 6:50  |
| End Time                | 8:00   | 8:00   | 8:00  | 8:00  |
| Total Time (min)        | 70     | 70     | 70    | 70    |
| Time Recorded (min)     | 60     | 60     | 60    | 60    |
| # of Intervals          | 5      | 5      | 5     | 5     |
| # of Recorded Intervals | 4      | 4      | 4     | 4     |
| Vehs Entered            | 11602  | 11268  | 11639 | 11633 |
| Vehs Exited             | 11502  | 11199  | 11531 | 11496 |
| Starting Vehs           | 320    | 348    | 303   | 287   |
| Ending Vehs             | 420    | 417    | 411   | 425   |
| Travel Distance (mi)    | 3580   | 3475   | 3610  | 3607  |
| Travel Time (hr)        | 1020.9 | 1102.0 | 981.8 | 968.6 |
| Total Delay (hr)        | 914.7  | 998.9  | 874.5 | 861.5 |
| Total Stops             | 10705  | 10229  | 10993 | 10765 |
| Fuel Used (gal)         | 365.5  | 380.4  | 359.7 | 355.6 |

Interval #0 Information Seeding

|                                     |      |
|-------------------------------------|------|
| Start Time                          | 6:50 |
| End Time                            | 7:00 |
| Total Time (min)                    | 10   |
| Volumes adjusted by Growth Factors. |      |
| No data recorded this interval.     |      |

**Interval #1 Information**

|                  |      |
|------------------|------|
| Start Time       | 7:00 |
| End Time         | 7:15 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 2892  | 2998  | 3005  | 2875  | 2920  | 2978  | 3047  |
| Vehs Exited          | 2844  | 2996  | 2998  | 2872  | 2854  | 2913  | 2974  |
| Starting Vehs        | 261   | 304   | 276   | 278   | 275   | 259   | 287   |
| Ending Vehs          | 309   | 306   | 283   | 281   | 341   | 324   | 360   |
| Travel Distance (mi) | 913   | 945   | 967   | 910   | 905   | 930   | 946   |
| Travel Time (hr)     | 132.0 | 126.9 | 135.8 | 131.7 | 131.7 | 131.8 | 135.4 |
| Total Delay (hr)     | 104.9 | 98.9  | 107.2 | 104.7 | 104.9 | 104.1 | 107.3 |
| Total Stops          | 2680  | 2684  | 2797  | 2621  | 2609  | 2648  | 2646  |
| Fuel Used (gal)      | 64.0  | 64.5  | 67.1  | 63.8  | 63.9  | 64.4  | 65.9  |

**Interval #1 Information**

|                  |      |
|------------------|------|
| Start Time       | 7:00 |
| End Time         | 7:15 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 3009  | 2895  | 2982  | 2959  |
| Vehs Exited          | 2979  | 2898  | 2963  | 2928  |
| Starting Vehs        | 320   | 348   | 303   | 287   |
| Ending Vehs          | 350   | 345   | 322   | 322   |
| Travel Distance (mi) | 947   | 932   | 936   | 933   |
| Travel Time (hr)     | 134.3 | 136.4 | 140.5 | 133.6 |
| Total Delay (hr)     | 106.0 | 108.6 | 112.8 | 105.9 |
| Total Stops          | 2784  | 2651  | 2720  | 2678  |
| Fuel Used (gal)      | 65.8  | 66.0  | 67.3  | 65.3  |



**Interval #2 Information**

|                  |      |
|------------------|------|
| Start Time       | 7:15 |
| End Time         | 7:30 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 2942  | 2928  | 2964  | 2966  | 2932  | 2981  | 2932  |
| Vehs Exited          | 2917  | 2904  | 2886  | 2940  | 2917  | 2939  | 2935  |
| Starting Vehs        | 309   | 306   | 283   | 281   | 341   | 324   | 360   |
| Ending Vehs          | 334   | 330   | 361   | 307   | 356   | 366   | 357   |
| Travel Distance (mi) | 916   | 909   | 919   | 932   | 913   | 928   | 905   |
| Travel Time (hr)     | 196.8 | 183.8 | 191.6 | 191.8 | 205.7 | 191.2 | 201.6 |
| Total Delay (hr)     | 169.4 | 156.4 | 164.3 | 164.1 | 178.5 | 163.4 | 174.7 |
| Total Stops          | 2742  | 2603  | 2663  | 2568  | 2705  | 2783  | 2711  |
| Fuel Used (gal)      | 79.6  | 76.1  | 77.9  | 78.9  | 81.3  | 78.5  | 80.1  |

**Interval #2 Information**

|                  |      |
|------------------|------|
| Start Time       | 7:15 |
| End Time         | 7:30 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 3034  | 2907  | 2956  | 2953  |
| Vehs Exited          | 3011  | 2846  | 2931  | 2922  |
| Starting Vehs        | 350   | 345   | 322   | 322   |
| Ending Vehs          | 373   | 406   | 347   | 351   |
| Travel Distance (mi) | 946   | 881   | 919   | 917   |
| Travel Time (hr)     | 206.4 | 216.2 | 203.1 | 198.8 |
| Total Delay (hr)     | 178.2 | 190.1 | 175.6 | 171.5 |
| Total Stops          | 2781  | 2689  | 2670  | 2694  |
| Fuel Used (gal)      | 82.2  | 82.0  | 81.2  | 79.8  |

**Interval #3 Information**

|                  |      |
|------------------|------|
| Start Time       | 7:30 |
| End Time         | 7:45 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 3071  | 2948  | 2973  | 2983  | 2860  | 2811  | 3028  |
| Vehs Exited          | 3021  | 2857  | 2927  | 2898  | 2840  | 2752  | 2979  |
| Starting Vehs        | 334   | 330   | 361   | 307   | 356   | 366   | 357   |
| Ending Vehs          | 384   | 421   | 407   | 392   | 376   | 425   | 406   |
| Travel Distance (mi) | 969   | 939   | 936   | 940   | 891   | 855   | 944   |
| Travel Time (hr)     | 262.9 | 252.1 | 259.1 | 253.0 | 281.3 | 266.6 | 265.8 |
| Total Delay (hr)     | 234.1 | 224.2 | 231.5 | 225.1 | 254.8 | 241.4 | 237.8 |
| Total Stops          | 2833  | 2799  | 2810  | 2748  | 2684  | 2590  | 2735  |
| Fuel Used (gal)      | 95.7  | 92.9  | 94.7  | 92.8  | 97.2  | 92.2  | 95.8  |

**Interval #3 Information**

|                  |      |
|------------------|------|
| Start Time       | 7:30 |
| End Time         | 7:45 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 2809  | 2697  | 2912  | 2908  |
| Vehs Exited          | 2783  | 2740  | 2877  | 2865  |
| Starting Vehs        | 373   | 406   | 347   | 351   |
| Ending Vehs          | 399   | 363   | 382   | 393   |
| Travel Distance (mi) | 859   | 824   | 905   | 906   |
| Travel Time (hr)     | 285.3 | 319.2 | 270.6 | 271.6 |
| Total Delay (hr)     | 259.9 | 294.8 | 243.7 | 244.7 |
| Total Stops          | 2640  | 2356  | 2791  | 2700  |
| Fuel Used (gal)      | 96.8  | 103.3 | 95.8  | 95.7  |

**Interval #4 Information Recording**

|                  |      |
|------------------|------|
| Start Time       | 7:45 |
| End Time         | 8:00 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 2877  | 2855  | 2908  | 2873  | 2729  | 2693  | 2883  |
| Vehs Exited          | 2806  | 2834  | 2915  | 2855  | 2685  | 2668  | 2817  |
| Starting Vehs        | 384   | 421   | 407   | 392   | 376   | 425   | 406   |
| Ending Vehs          | 455   | 442   | 400   | 410   | 420   | 450   | 472   |
| Travel Distance (mi) | 861   | 880   | 874   | 869   | 835   | 799   | 869   |
| Travel Time (hr)     | 326.5 | 325.6 | 333.1 | 334.4 | 395.0 | 377.8 | 359.7 |
| Total Delay (hr)     | 301.1 | 299.2 | 307.2 | 308.7 | 370.4 | 354.1 | 333.9 |
| Total Stops          | 2815  | 2942  | 2668  | 2658  | 2602  | 2523  | 2828  |
| Fuel Used (gal)      | 107.1 | 107.2 | 108.6 | 108.8 | 121.1 | 115.9 | 114.6 |

**Interval #4 Information Recording**

|                  |      |
|------------------|------|
| Start Time       | 7:45 |
| End Time         | 8:00 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 2750  | 2769  | 2789  | 2809  |
| Vehs Exited          | 2729  | 2715  | 2760  | 2778  |
| Starting Vehs        | 399   | 363   | 382   | 393   |
| Ending Vehs          | 420   | 417   | 411   | 425   |
| Travel Distance (mi) | 827   | 839   | 851   | 850   |
| Travel Time (hr)     | 395.0 | 430.3 | 367.6 | 364.5 |
| Total Delay (hr)     | 370.6 | 405.4 | 342.4 | 339.3 |
| Total Stops          | 2500  | 2533  | 2812  | 2685  |
| Fuel Used (gal)      | 120.6 | 129.0 | 115.4 | 114.8 |

13: Francisco Dr & El Dorado Hills Blvd Performance by movement

| Movement           | EBL | EBT  | EBR | WBL | WBT | WBR | NBL  | NBT  | NBR | SBL | SBT  | SBR  |
|--------------------|-----|------|-----|-----|-----|-----|------|------|-----|-----|------|------|
| Denied Delay (hr)  | 0.0 | 0.0  | 0.5 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0 | 0.1 | 0.1  | 0.0  |
| Denied Del/Veh (s) | 1.2 | 1.1  | 3.5 | 0.1 | 0.1 | 0.1 | 0.0  | 0.0  | 0.0 | 3.5 | 0.6  | 0.6  |
| Total Delay (hr)   | 0.0 | 0.1  | 0.6 | 0.0 | 0.1 | 0.0 | 1.4  | 0.6  | 0.1 | 0.2 | 1.5  | 0.0  |
| Total Del/Veh (s)  | 8.7 | 11.6 | 4.1 | 7.2 | 8.2 | 4.3 | 11.4 | 11.6 | 4.7 | 7.7 | 15.8 | 14.1 |
| Stop Delay (hr)    | 0.0 | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 | 0.9  | 0.2  | 0.0 | 0.1 | 0.6  | 0.0  |
| Stop Del/Veh (s)   | 4.6 | 4.7  | 0.0 | 4.9 | 4.6 | 3.5 | 7.3  | 3.5  | 3.0 | 3.2 | 6.1  | 8.0  |

13: Francisco Dr & El Dorado Hills Blvd Performance by movement

| Movement           | All |
|--------------------|-----|
| Denied Delay (hr)  | 0.6 |
| Denied Del/Veh (s) | 1.3 |
| Total Delay (hr)   | 4.6 |
| Total Del/Veh (s)  | 9.6 |
| Stop Delay (hr)    | 1.9 |
| Stop Del/Veh (s)   | 4.0 |

17: El Dorado Hills Blvd #2 & Saratoga Way/Park Drive Performance by movement

| Movement           | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL   | NBT  | NBR  | SBL  | SBT  | SBR  |
|--------------------|------|------|------|------|------|------|-------|------|------|------|------|------|
| Denied Delay (hr)  | 0.0  | 0.0  | 0.3  | 0.0  | 0.0  | 0.0  | 5.4   | 9.0  | 0.8  | 0.1  | 0.1  | 0.0  |
| Denied Del/Veh (s) | 1.1  | 1.2  | 3.4  | 0.1  | 0.2  | 0.2  | 69.4  | 44.0 | 48.5 | 2.5  | 0.5  | 0.6  |
| Total Delay (hr)   | 2.4  | 1.7  | 2.3  | 0.4  | 1.2  | 0.6  | 37.6  | 2.1  | 0.1  | 1.9  | 7.2  | 1.9  |
| Total Del/Veh (s)  | 66.0 | 69.7 | 22.4 | 56.5 | 57.1 | 29.0 | 466.9 | 10.4 | 7.2  | 71.8 | 29.6 | 25.1 |
| Stop Delay (hr)    | 2.2  | 1.5  | 1.9  | 0.4  | 1.1  | 0.5  | 36.6  | 0.8  | 0.0  | 1.7  | 4.6  | 1.4  |
| Stop Del/Veh (s)   | 60.1 | 60.5 | 19.2 | 54.5 | 51.8 | 26.3 | 454.0 | 4.2  | 2.7  | 65.3 | 18.8 | 17.7 |

17: El Dorado Hills Blvd #2 & Saratoga Way/Park Drive Performance by movement

| Movement           | All  |
|--------------------|------|
| Denied Delay (hr)  | 15.8 |
| Denied Del/Veh (s) | 18.7 |
| Total Delay (hr)   | 59.4 |
| Total Del/Veh (s)  | 69.7 |
| Stop Delay (hr)    | 52.7 |
| Stop Del/Veh (s)   | 61.9 |

**18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way Performance by movement**

| Movement           | EBL   | EBT   | EBR   | WBL   | WBT   | WBR    | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|--------------------|-------|-------|-------|-------|-------|--------|------|------|------|------|------|------|
| Denied Delay (hr)  | 11.5  | 2.5   | 20.0  | 5.9   | 2.0   | 2.2    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Denied Del/Veh (s) | 188.9 | 234.3 | 194.6 | 160.8 | 151.7 | 149.2  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay (hr)   | 24.9  | 1.2   | 6.2   | 2.0   | 1.3   | 13.2   | 8.5  | 20.4 | 0.8  | 0.9  | 15.4 | 2.1  |
| Total Del/Veh (s)  | 550.9 | 154.2 | 83.3  | 66.4  | 116.4 | 1105.8 | 53.1 | 68.9 | 24.3 | 83.6 | 63.1 | 22.1 |
| Stop Delay (hr)    | 24.7  | 1.2   | 5.9   | 1.9   | 1.2   | 13.2   | 7.4  | 18.1 | 0.5  | 0.8  | 12.6 | 1.3  |
| Stop Del/Veh (s)   | 546.3 | 148.7 | 78.8  | 62.6  | 110.9 | 1102.9 | 46.1 | 61.2 | 17.1 | 76.0 | 51.5 | 13.4 |

**18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way Performance by movement**

| Movement           | All  |
|--------------------|------|
| Denied Delay (hr)  | 44.1 |
| Denied Del/Veh (s) | 41.3 |
| Total Delay (hr)   | 96.8 |
| Total Del/Veh (s)  | 95.2 |
| Stop Delay (hr)    | 88.7 |
| Stop Del/Veh (s)   | 87.2 |

**19: Latrobe Road #2/El Dorado Hills Blvd #2 & US 50 EB Ramps Performance by movement**

| Movement           | EBR  | WBR | NBT | NBR | SBL  | SBT  | All  |
|--------------------|------|-----|-----|-----|------|------|------|
| Denied Delay (hr)  | 0.1  | 0.0 | 0.5 | 0.2 | 0.0  | 0.0  | 0.9  |
| Denied Del/Veh (s) | 0.7  | 0.3 | 1.4 | 3.4 | 0.0  | 0.0  | 0.8  |
| Total Delay (hr)   | 2.6  | 0.1 | 2.9 | 0.3 | 2.8  | 4.8  | 13.5 |
| Total Del/Veh (s)  | 11.6 | 1.0 | 7.7 | 5.4 | 47.0 | 17.3 | 12.3 |
| Stop Delay (hr)    | 1.5  | 0.0 | 1.4 | 0.2 | 2.3  | 2.2  | 7.6  |
| Stop Del/Veh (s)   | 6.8  | 0.1 | 3.8 | 3.0 | 37.7 | 7.8  | 6.9  |

**Total Zone Performance**

|                    |        |
|--------------------|--------|
| Denied Delay (hr)  | 61.4   |
| Denied Del/Veh (s) | 33.4   |
| Total Delay (hr)   | 174.4  |
| Total Del/Veh (s)  | 1527.4 |
| Stop Delay (hr)    | 150.9  |
| Stop Del/Veh (s)   | 1321.9 |

Intersection: 13: Francisco Dr & El Dorado Hills Blvd

| Movement              | EB  | WB  | NB  | NB  | SB  | SB  |
|-----------------------|-----|-----|-----|-----|-----|-----|
| Directions Served     | LT  | LTR | L   | TR  | L   | TR  |
| Maximum Queue (ft)    | 55  | 60  | 205 | 88  | 62  | 141 |
| Average Queue (ft)    | 25  | 35  | 84  | 46  | 33  | 68  |
| 95th Queue (ft)       | 51  | 58  | 151 | 73  | 51  | 112 |
| Link Distance (ft)    | 577 | 573 |     | 522 |     | 734 |
| Upstream Blk Time (%) |     |     |     |     |     |     |
| Queuing Penalty (veh) |     |     |     |     |     |     |
| Storage Bay Dist (ft) |     |     | 500 |     | 200 |     |
| Storage Blk Time (%)  |     |     |     |     |     | 0   |
| Queuing Penalty (veh) |     |     |     |     |     | 0   |

Intersection: 17: El Dorado Hills Blvd #2 & Saratoga Way/Park Drive

| Movement              | EB  | EB  | EB  | WB  | WB  | NB  | NB   | NB  | NB  | SB  | SB  | SB  |
|-----------------------|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|
| Directions Served     | L   | LT  | R   | L   | TR  | L   | T    | T   | TR  | L   | T   | TR  |
| Maximum Queue (ft)    | 153 | 297 | 256 | 63  | 230 | 275 | 964  | 938 | 299 | 124 | 389 | 471 |
| Average Queue (ft)    | 65  | 127 | 121 | 15  | 96  | 274 | 911  | 106 | 43  | 78  | 218 | 260 |
| 95th Queue (ft)       | 130 | 221 | 215 | 44  | 185 | 281 | 1102 | 510 | 182 | 144 | 349 | 407 |
| Link Distance (ft)    |     | 930 |     | 488 | 488 |     | 946  | 946 | 946 |     | 685 | 685 |
| Upstream Blk Time (%) |     |     |     |     |     |     | 54   | 0   | 0   |     |     | 0   |
| Queuing Penalty (veh) |     |     |     |     |     |     | 222  | 0   | 0   |     |     | 0   |
| Storage Bay Dist (ft) | 150 |     | 240 |     |     | 250 |      |     |     | 100 |     |     |
| Storage Blk Time (%)  | 0   | 5   | 2   |     |     | 90  | 1    |     |     | 7   | 22  |     |
| Queuing Penalty (veh) | 0   | 20  | 3   |     |     | 250 | 3    |     |     | 32  | 22  |     |

Intersection: 18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way

| Movement              | EB   | EB   | WB  | WB  | WB  | NB  | NB  | NB  | NB  | NB  | SB  | SB  |
|-----------------------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Directions Served     | L    | LT   | L   | LT  | TR  | L   | L   | T   | T   | TR  | L   | T   |
| Maximum Queue (ft)    | 950  | 1067 | 130 | 513 | 627 | 623 | 682 | 753 | 683 | 683 | 225 | 349 |
| Average Queue (ft)    | 506  | 453  | 44  | 154 | 321 | 251 | 305 | 412 | 316 | 258 | 62  | 237 |
| 95th Queue (ft)       | 1057 | 1176 | 103 | 453 | 688 | 468 | 599 | 772 | 675 | 575 | 178 | 318 |
| Link Distance (ft)    | 1059 | 1059 |     | 621 | 621 | 714 | 714 | 714 | 714 | 714 |     | 946 |
| Upstream Blk Time (%) | 4    | 27   |     | 10  | 17  | 0   | 1   | 5   | 1   | 1   |     |     |
| Queuing Penalty (veh) | 0    | 0    |     | 0   | 0   | 0   | 5   | 18  | 4   | 2   |     |     |
| Storage Bay Dist (ft) |      |      | 150 |     |     |     |     |     |     |     |     | 200 |
| Storage Blk Time (%)  |      | 0    |     | 1   |     |     |     |     |     |     | 0   | 27  |
| Queuing Penalty (veh) |      | 0    |     | 0   |     |     |     |     |     |     | 0   | 10  |

Intersection: 18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way

| Movement              | SB  | SB  | SB  |
|-----------------------|-----|-----|-----|
| Directions Served     | T   | T   | R   |
| Maximum Queue (ft)    | 345 | 404 | 225 |
| Average Queue (ft)    | 228 | 241 | 176 |
| 95th Queue (ft)       | 312 | 346 | 283 |
| Link Distance (ft)    | 946 | 946 |     |
| Upstream Blk Time (%) |     |     |     |
| Queuing Penalty (veh) |     |     |     |
| Storage Bay Dist (ft) |     |     | 200 |
| Storage Blk Time (%)  |     | 19  | 2   |
| Queuing Penalty (veh) |     | 63  | 5   |

Intersection: 19: Latrobe Road #2/El Dorado Hills Blvd #2 & US 50 EB Ramps

| Movement              | EB   | EB  | WB  | NB  | NB  | NB  | NB  | SB  | SB  | SB  | SB  | SB  |
|-----------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Directions Served     | R    | R   | R   | T   | T   | T   | R   | L   | T   | T   | T   | T   |
| Maximum Queue (ft)    | 154  | 166 | 43  | 176 | 223 | 323 | 182 | 255 | 158 | 164 | 179 | 196 |
| Average Queue (ft)    | 75   | 76  | 2   | 54  | 67  | 107 | 40  | 121 | 53  | 80  | 97  | 96  |
| 95th Queue (ft)       | 130  | 134 | 38  | 125 | 176 | 227 | 119 | 235 | 123 | 145 | 162 | 170 |
| Link Distance (ft)    | 1212 |     | 968 | 718 | 718 | 718 |     |     | 714 | 714 | 714 | 714 |
| Upstream Blk Time (%) |      |     |     |     |     |     |     |     |     |     |     |     |
| Queuing Penalty (veh) |      |     |     |     |     |     |     |     |     |     |     |     |
| Storage Bay Dist (ft) |      | 450 |     |     |     |     | 275 | 575 |     |     |     |     |
| Storage Blk Time (%)  |      |     |     |     |     | 2   | 0   |     |     |     |     |     |
| Queuing Penalty (veh) |      |     |     |     |     | 4   | 0   |     |     |     |     |     |

Zone Summary

Zone wide Queuing Penalty: 666

Generations at Green Valley  
 1: Sophia Pkwy/Access Rd & Green Valley Rd

Near Term plus Project  
 Timing Plan: PM



| Lane Group              | EBL  | EBT  | EBR  | WBL   | WBT  | NBL  | NBR  | SBT  |
|-------------------------|------|------|------|-------|------|------|------|------|
| Lane Group Flow (vph)   | 1    | 1524 | 228  | 204   | 1070 | 210  | 153  | 2    |
| v/c Ratio               | 0.00 | 0.62 | 0.19 | 1.27  | 0.43 | 0.74 | 0.42 | 0.01 |
| Control Delay           | 4.0  | 7.7  | 1.0  | 183.4 | 5.8  | 48.3 | 21.4 | 22.5 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 4.0  | 7.7  | 1.0  | 183.4 | 5.8  | 48.3 | 21.4 | 22.5 |
| Queue Length 50th (ft)  | 0    | 176  | 0    | ~131  | 101  | 100  | 40   | 0    |
| Queue Length 95th (ft)  | 1    | 230  | 18   | #181  | 133  | #203 | 94   | 6    |
| Internal Link Dist (ft) |      | 1813 |      |       | 7016 |      |      | 376  |
| Turn Bay Length (ft)    | 248  |      | 224  | 314   |      | 204  | 204  |      |
| Base Capacity (vph)     | 305  | 2477 | 1176 | 160   | 2477 | 282  | 363  | 348  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.00 | 0.62 | 0.19 | 1.27  | 0.43 | 0.74 | 0.42 | 0.01 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.



Generations at Green Valley  
1: Sophia Pkwy/Access Rd & Green Valley Rd

Near Term plus Project  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 1    | 1402 | 210  | 188  | 983  | 2    | 193  | 0    | 141  | 0    | 1    | 1    |
| Future Volume (veh/h)        | 1    | 1402 | 210  | 188  | 983  | 2    | 193  | 0    | 141  | 0    | 1    | 1    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 1    | 1524 | 228  | 204  | 1068 | 2    | 210  | 0    | 153  | 0    | 1    | 1    |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 393  | 2488 | 1110 | 220  | 2547 | 5    | 372  | 374  | 317  | 0    | 172  | 172  |
| Arrive On Green              | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.70 | 0.20 | 0.00 | 0.20 | 0.00 | 0.20 | 0.20 |
| Sat Flow, veh/h              | 527  | 3554 | 1585 | 274  | 3639 | 7    | 1415 | 1870 | 1585 | 0    | 858  | 858  |
| Grp Volume(v), veh/h         | 1    | 1524 | 228  | 204  | 521  | 549  | 210  | 0    | 153  | 0    | 0    | 2    |
| Grp Sat Flow(s),veh/h/ln     | 527  | 1777 | 1585 | 274  | 1777 | 1869 | 1415 | 1870 | 1585 | 0    | 0    | 1716 |
| Q Serve(g_s), s              | 0.1  | 18.0 | 4.0  | 38.0 | 10.0 | 10.0 | 11.2 | 0.0  | 6.8  | 0.0  | 0.0  | 0.1  |
| Cycle Q Clear(g_c), s        | 10.0 | 18.0 | 4.0  | 56.0 | 10.0 | 10.0 | 11.2 | 0.0  | 6.8  | 0.0  | 0.0  | 0.1  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 0.00 | 1.00 |      | 1.00 | 0.00 |      | 0.50 |
| Lane Grp Cap(c), veh/h       | 393  | 2488 | 1110 | 220  | 1244 | 1308 | 372  | 374  | 317  | 0    | 0    | 343  |
| V/C Ratio(X)                 | 0.00 | 0.61 | 0.21 | 0.93 | 0.42 | 0.42 | 0.57 | 0.00 | 0.48 | 0.00 | 0.00 | 0.01 |
| Avail Cap(c_a), veh/h        | 393  | 2488 | 1110 | 220  | 1244 | 1308 | 372  | 374  | 317  | 0    | 0    | 343  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh     | 7.2  | 6.3  | 4.2  | 27.9 | 5.1  | 5.1  | 30.1 | 0.0  | 28.3 | 0.0  | 0.0  | 25.6 |
| Incr Delay (d2), s/veh       | 0.0  | 1.1  | 0.4  | 44.1 | 1.0  | 1.0  | 6.1  | 0.0  | 5.2  | 0.0  | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.0  | 4.2  | 0.9  | 6.5  | 2.5  | 2.6  | 4.1  | 0.0  | 2.8  | 0.0  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 7.2  | 7.4  | 4.6  | 72.0 | 6.1  | 6.1  | 36.2 | 0.0  | 33.5 | 0.0  | 0.0  | 25.7 |
| LnGrp LOS                    | A    | A    | A    | E    | A    | A    | D    | A    | C    | A    | A    | C    |
| Approach Vol, veh/h          |      | 1753 |      |      | 1274 |      |      | 363  |      |      |      | 2    |
| Approach Delay, s/veh        |      | 7.1  |      |      | 16.7 |      |      | 35.1 |      |      |      | 25.7 |
| Approach LOS                 |      | A    |      |      | B    |      |      | D    |      |      |      | C    |
| Timer - Assigned Phs         |      | 2    |      | 4    |      | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 20.0 |      | 60.0 |      | 20.0 |      | 60.0 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  |      | 4.0  |      | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 16.0 |      | 56.0 |      | 16.0 |      | 56.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 13.2 |      | 20.0 |      | 2.1  |      | 58.0 |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.3  |      | 15.3 |      | 0.0  |      | 0.0  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      | 13.7 |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      |      | B    |      |      |      |      |      |      |      |      |

Generations at Green Valley  
 2: Green Valley Rd/Green Valley Road & Francisco Rd.

Near Term plus Project  
 Timing Plan: PM



| Lane Group              | EBL   | EBT  | EBR  | WBL   | WBT  | WBR  | NBL  | NBT  | SBL   | SBT  | SBR  |
|-------------------------|-------|------|------|-------|------|------|------|------|-------|------|------|
| Lane Group Flow (vph)   | 351   | 857  | 294  | 153   | 678  | 117  | 295  | 395  | 176   | 262  | 332  |
| v/c Ratio               | 1.19  | 0.75 | 0.41 | 1.21  | 0.62 | 0.20 | 0.68 | 0.41 | 1.40  | 0.65 | 0.66 |
| Control Delay           | 148.7 | 26.4 | 4.6  | 184.0 | 24.0 | 4.4  | 41.1 | 22.0 | 250.4 | 34.0 | 17.3 |
| Queue Delay             | 0.0   | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  |
| Total Delay             | 148.7 | 26.4 | 4.6  | 184.0 | 24.0 | 4.4  | 41.1 | 22.0 | 250.4 | 34.0 | 17.3 |
| Queue Length 50th (ft)  | ~107  | 176  | 0    | -92   | 133  | 0    | 68   | 74   | ~114  | 110  | 50   |
| Queue Length 95th (ft)  | #203  | 262  | 51   | #205  | 191  | 26   | #116 | 104  | #248  | 186  | 134  |
| Internal Link Dist (ft) |       | 7016 |      |       | 1876 |      |      | 2744 |       | 705  |      |
| Turn Bay Length (ft)    | 290   |      | 210  | 200   |      | 450  | 200  |      | 183   |      |      |
| Base Capacity (vph)     | 295   | 1358 | 788  | 126   | 1307 | 667  | 442  | 1257 | 126   | 560  | 618  |
| Starvation Cap Reductn  | 0     | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0     | 0    | 0    |
| Spillback Cap Reductn   | 0     | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0     | 0    | 0    |
| Storage Cap Reductn     | 0     | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0     | 0    | 0    |
| Reduced v/c Ratio       | 1.19  | 0.63 | 0.37 | 1.21  | 0.52 | 0.18 | 0.67 | 0.31 | 1.40  | 0.47 | 0.54 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
2: Green Valley Rd/Green Valley Road & Francisco Rd.

Near Term plus Project  
Timing Plan: PM



| Movement                     | EBL   | EBT  | EBR  | WBL   | WBT  | WBR  | NBL  | NBT  | NBR  | SBL   | SBT  | SBR  |
|------------------------------|-------|------|------|-------|------|------|------|------|------|-------|------|------|
| Lane Configurations          | ↖↗    | ↕    | ↖    | ↗     | ↕    | ↖    | ↖↗   | ↕    |      | ↖     | ↕    | ↖    |
| Traffic Volume (veh/h)       | 333   | 814  | 279  | 132   | 583  | 101  | 248  | 299  | 33   | 158   | 236  | 299  |
| Future Volume (veh/h)        | 333   | 814  | 279  | 132   | 583  | 101  | 248  | 299  | 33   | 158   | 236  | 299  |
| Initial Q (Qb), veh          | 0     | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00  |      | 1.00 | 1.00  |      | 1.00 | 1.00 |      | 1.00 | 1.00  |      | 1.00 |
| Parking Bus, Adj             | 1.00  | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 |
| Work Zone On Approach        |       | No   |      |       | No   |      |      | No   |      |       | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870  | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 351   | 857  | 294  | 153   | 678  | 117  | 295  | 356  | 39   | 176   | 262  | 332  |
| Peak Hour Factor             | 0.95  | 0.95 | 0.95 | 0.86  | 0.86 | 0.86 | 0.84 | 0.84 | 0.84 | 0.90  | 0.90 | 0.90 |
| Percent Heavy Veh, %         | 2     | 2    | 2    | 2     | 2    | 2    | 2    | 2    | 2    | 2     | 2    | 2    |
| Cap, veh/h                   | 296   | 1099 | 490  | 127   | 1049 | 468  | 390  | 929  | 101  | 127   | 460  | 390  |
| Arrive On Green              | 0.09  | 0.31 | 0.31 | 0.07  | 0.30 | 0.30 | 0.11 | 0.29 | 0.29 | 0.07  | 0.25 | 0.25 |
| Sat Flow, veh/h              | 3456  | 3554 | 1585 | 1781  | 3554 | 1585 | 3456 | 3232 | 352  | 1781  | 1870 | 1585 |
| Grp Volume(v), veh/h         | 351   | 857  | 294  | 153   | 678  | 117  | 295  | 195  | 200  | 176   | 262  | 332  |
| Grp Sat Flow(s),veh/h/ln     | 1728  | 1777 | 1585 | 1781  | 1777 | 1585 | 1728 | 1777 | 1807 | 1781  | 1870 | 1585 |
| Q Serve(g_s), s              | 6.0   | 15.4 | 11.0 | 5.0   | 11.6 | 3.9  | 5.8  | 6.1  | 6.2  | 5.0   | 8.6  | 14.0 |
| Cycle Q Clear(g_c), s        | 6.0   | 15.4 | 11.0 | 5.0   | 11.6 | 3.9  | 5.8  | 6.1  | 6.2  | 5.0   | 8.6  | 14.0 |
| Prop In Lane                 | 1.00  |      | 1.00 | 1.00  |      | 1.00 | 1.00 |      | 0.19 | 1.00  |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 296   | 1099 | 490  | 127   | 1049 | 468  | 390  | 511  | 520  | 127   | 460  | 390  |
| V/C Ratio(X)                 | 1.18  | 0.78 | 0.60 | 1.20  | 0.65 | 0.25 | 0.76 | 0.38 | 0.39 | 1.38  | 0.57 | 0.85 |
| Avail Cap(c_a), veh/h        | 296   | 1361 | 607  | 127   | 1311 | 585  | 445  | 635  | 646  | 127   | 561  | 476  |
| HCM Platoon Ratio            | 1.00  | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00  | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 32.0  | 22.0 | 20.5 | 32.5  | 21.5 | 18.8 | 30.1 | 19.9 | 20.0 | 32.5  | 23.1 | 25.1 |
| Incr Delay (d2), s/veh       | 111.9 | 2.4  | 1.2  | 143.9 | 0.8  | 0.3  | 6.4  | 0.5  | 0.5  | 213.3 | 1.1  | 11.8 |
| Initial Q Delay(d3),s/veh    | 0.0   | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 6.9   | 5.8  | 3.8  | 7.0   | 4.3  | 1.3  | 2.6  | 2.4  | 2.4  | 9.6   | 3.6  | 6.0  |
| Unsig. Movement Delay, s/veh |       |      |      |       |      |      |      |      |      |       |      |      |
| LnGrp Delay(d),s/veh         | 143.8 | 24.4 | 21.7 | 176.4 | 22.2 | 19.0 | 36.5 | 20.4 | 20.4 | 245.8 | 24.2 | 37.0 |
| LnGrp LOS                    | F     | C    | C    | F     | C    | B    | D    | C    | C    | F     | C    | D    |
| Approach Vol, veh/h          |       | 1502 |      |       | 948  |      |      | 690  |      |       |      | 770  |
| Approach Delay, s/veh        |       | 51.8 |      |       | 46.7 |      |      | 27.3 |      |       |      | 80.4 |
| Approach LOS                 |       | D    |      |       | D    |      |      | C    |      |       |      | F    |
| Timer - Assigned Phs         | 1     | 2    | 3    | 4     | 5    | 6    | 7    | 8    |      |       |      |      |
| Phs Duration (G+Y+Rc), s     | 9.0   | 27.3 | 11.9 | 21.7  | 10.0 | 26.3 | 9.0  | 24.6 |      |       |      |      |
| Change Period (Y+Rc), s      | 4.0   | 5.7  | 4.0  | 4.5   | 4.0  | 5.7  | 4.0  | 4.5  |      |       |      |      |
| Max Green Setting (Gmax), s  | 5.0   | 26.8 | 9.0  | 21.0  | 6.0  | 25.8 | 5.0  | 25.0 |      |       |      |      |
| Max Q Clear Time (g_c+I1), s | 7.0   | 17.4 | 7.8  | 16.0  | 8.0  | 13.6 | 7.0  | 8.2  |      |       |      |      |
| Green Ext Time (p_c), s      | 0.0   | 4.3  | 0.1  | 1.2   | 0.0  | 3.5  | 0.0  | 1.9  |      |       |      |      |
| <b>Intersection Summary</b>  |       |      |      |       |      |      |      |      |      |       |      |      |
| HCM 6th Ctrl Delay           |       |      |      | 51.9  |      |      |      |      |      |       |      |      |
| HCM 6th LOS                  |       |      |      | D     |      |      |      |      |      |       |      |      |

Generations at Green Valley  
 3: El Dorado Hills Blvd./Salmon Falls Rd & Green Valley Road

Near Term plus Project  
 Timing Plan: PM



| Lane Group              | EBL  | EBT   | WBL   | WBT  | NBL  | NBT  | SBL  | SBT  | SBR  |
|-------------------------|------|-------|-------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 97   | 971   | 70    | 770  | 44   | 264  | 79   | 127  | 136  |
| v/c Ratio               | 0.74 | 1.17  | 1.00  | 1.02 | 0.14 | 0.77 | 0.31 | 0.48 | 0.40 |
| Control Delay           | 77.1 | 116.4 | 158.5 | 66.2 | 34.1 | 50.8 | 39.4 | 43.2 | 10.1 |
| Queue Delay             | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 77.1 | 116.4 | 158.5 | 66.2 | 34.1 | 50.8 | 39.4 | 43.2 | 10.1 |
| Queue Length 50th (ft)  | 58   | ~710  | ~43   | ~496 | 22   | 139  | 43   | 71   | 0    |
| Queue Length 95th (ft)  | #152 | #1029 | #138  | #771 | 54   | #262 | 80   | 117  | 41   |
| Internal Link Dist (ft) |      | 1876  |       | 819  |      | 2981 |      | 502  |      |
| Turn Bay Length (ft)    | 85   |       | 105   |      | 165  |      |      |      | 100  |
| Base Capacity (vph)     | 131  | 830   | 70    | 758  | 353  | 370  | 353  | 371  | 424  |
| Starvation Cap Reductn  | 0    | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.74 | 1.17  | 1.00  | 1.02 | 0.12 | 0.71 | 0.22 | 0.34 | 0.32 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
3: El Dorado Hills Blvd./Salmon Falls Rd & Green Valley Road

Near Term plus Project  
Timing Plan: PM



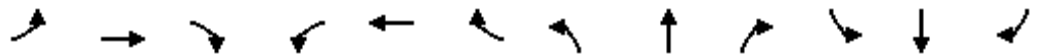
| Movement                     | EBL  | EBT  | EBR  | WBL   | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|-------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |       |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 93   | 922  | 11   | 62    | 610  | 76   | 39   | 164  | 71   | 66   | 107  | 114  |
| Future Volume (veh/h)        | 93   | 922  | 11   | 62    | 610  | 76   | 39   | 164  | 71   | 66   | 107  | 114  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00  |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |       | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 97   | 960  | 11   | 70    | 685  | 85   | 44   | 184  | 80   | 79   | 127  | 136  |
| Peak Hour Factor             | 0.96 | 0.96 | 0.96 | 0.89  | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.84 | 0.84 | 0.84 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2     | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 123  | 860  | 10   | 74    | 715  | 89   | 312  | 217  | 94   | 216  | 227  | 193  |
| Arrive On Green              | 0.07 | 0.47 | 0.47 | 0.04  | 0.44 | 0.44 | 0.18 | 0.18 | 0.18 | 0.12 | 0.12 | 0.12 |
| Sat Flow, veh/h              | 1781 | 1845 | 21   | 1781  | 1631 | 202  | 1781 | 1236 | 537  | 1781 | 1870 | 1585 |
| Grp Volume(v), veh/h         | 97   | 0    | 971  | 70    | 0    | 770  | 44   | 0    | 264  | 79   | 127  | 136  |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1867 | 1781  | 0    | 1834 | 1781 | 0    | 1774 | 1781 | 1870 | 1585 |
| Q Serve(g_s), s              | 4.8  | 0.0  | 41.6 | 3.5   | 0.0  | 36.3 | 1.9  | 0.0  | 12.9 | 3.6  | 5.7  | 7.4  |
| Cycle Q Clear(g_c), s        | 4.8  | 0.0  | 41.6 | 3.5   | 0.0  | 36.3 | 1.9  | 0.0  | 12.9 | 3.6  | 5.7  | 7.4  |
| Prop In Lane                 | 1.00 |      | 0.01 | 1.00  |      | 0.11 | 1.00 |      | 0.30 | 1.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 123  | 0    | 869  | 74    | 0    | 803  | 312  | 0    | 311  | 216  | 227  | 193  |
| V/C Ratio(X)                 | 0.79 | 0.00 | 1.12 | 0.95  | 0.00 | 0.96 | 0.14 | 0.00 | 0.85 | 0.36 | 0.56 | 0.71 |
| Avail Cap(c_a), veh/h        | 138  | 0    | 869  | 74    | 0    | 803  | 371  | 0    | 369  | 371  | 390  | 330  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 1.00 | 1.00  | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 40.9 | 0.0  | 23.9 | 42.7  | 0.0  | 24.3 | 31.1 | 0.0  | 35.7 | 36.1 | 37.0 | 37.7 |
| Incr Delay (d2), s/veh       | 22.1 | 0.0  | 67.9 | 86.6  | 0.0  | 22.4 | 0.4  | 0.0  | 16.7 | 1.8  | 3.7  | 7.9  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 2.7  | 0.0  | 31.8 | 3.2   | 0.0  | 18.5 | 0.8  | 0.0  | 6.7  | 1.6  | 2.7  | 3.1  |
| Unsig. Movement Delay, s/veh |      |      |      |       |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 63.1 | 0.0  | 91.7 | 129.3 | 0.0  | 46.7 | 31.5 | 0.0  | 52.4 | 37.8 | 40.6 | 45.6 |
| LnGrp LOS                    | E    | A    | F    | F     | A    | D    | C    | A    | D    | D    | D    | D    |
| Approach Vol, veh/h          |      | 1068 |      |       | 840  |      |      | 308  |      |      | 342  |      |
| Approach Delay, s/veh        |      | 89.1 |      |       | 53.6 |      |      | 49.4 |      |      | 41.9 |      |
| Approach LOS                 |      | F    |      |       | D    |      |      | D    |      |      | D    |      |
| Timer - Assigned Phs         | 1    | 2    |      | 4     | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 7.2  | 47.6 |      | 14.9  | 9.7  | 45.1 |      | 19.7 |      |      |      |      |
| Change Period (Y+Rc), s      | 3.5  | 6.0  |      | 4.0   | 3.5  | 6.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 3.7  | 41.6 |      | 18.6  | 6.9  | 38.4 |      | 18.6 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 5.5  | 43.6 |      | 9.4   | 6.8  | 38.3 |      | 14.9 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 0.0  |      | 1.5   | 0.0  | 0.1  |      | 0.8  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |       |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 66.4 |       |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      | E    |       |      |      |      |      |      |      |      |      |



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 4    | 805  | 285  | 70   | 545  | 303  | 112  | 16   |
| v/c Ratio               | 0.04 | 0.90 | 0.33 | 0.65 | 0.51 | 0.80 | 0.27 | 0.10 |
| Control Delay           | 32.2 | 33.1 | 5.2  | 62.6 | 12.2 | 43.5 | 10.7 | 28.2 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 32.2 | 33.1 | 5.2  | 62.6 | 12.2 | 43.5 | 10.7 | 28.2 |
| Queue Length 50th (ft)  | 2    | 261  | 17   | 27   | 99   | 111  | 8    | 5    |
| Queue Length 95th (ft)  | 11   | #612 | 70   | #95  | 294  | #279 | 51   | 18   |
| Internal Link Dist (ft) |      | 819  |      |      | 2255 |      | 4847 | 380  |
| Turn Bay Length (ft)    | 205  |      | 205  | 350  |      | 150  |      |      |
| Base Capacity (vph)     | 107  | 890  | 861  | 107  | 1075 | 381  | 422  | 608  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.04 | 0.90 | 0.33 | 0.65 | 0.51 | 0.80 | 0.27 | 0.03 |

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 4    | 773  | 274  | 61   | 470  | 4    | 273  | 23   | 77   | 0    | 9    | 2    |
| Future Volume (veh/h)        | 4    | 773  | 274  | 61   | 470  | 4    | 273  | 23   | 77   | 0    | 9    | 2    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 4    | 805  | 285  | 70   | 540  | 5    | 303  | 26   | 86   | 0    | 13   | 3    |
| Peak Hour Factor             | 0.96 | 0.96 | 0.96 | 0.87 | 0.87 | 0.87 | 0.90 | 0.90 | 0.90 | 0.70 | 0.70 | 0.70 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 108  | 861  | 730  | 89   | 832  | 8    | 352  | 75   | 249  | 0    | 23   | 5    |
| Arrive On Green              | 0.06 | 0.46 | 0.46 | 0.05 | 0.45 | 0.45 | 0.20 | 0.20 | 0.20 | 0.00 | 0.02 | 0.02 |
| Sat Flow, veh/h              | 1781 | 1870 | 1585 | 1781 | 1850 | 17   | 1781 | 381  | 1262 | 0    | 1470 | 339  |
| Grp Volume(v), veh/h         | 4    | 805  | 285  | 70   | 0    | 545  | 303  | 0    | 112  | 0    | 0    | 16   |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1870 | 1585 | 1781 | 0    | 1867 | 1781 | 0    | 1643 | 0    | 0    | 1809 |
| Q Serve(g_s), s              | 0.1  | 27.0 | 7.8  | 2.6  | 0.0  | 15.0 | 10.9 | 0.0  | 3.9  | 0.0  | 0.0  | 0.6  |
| Cycle Q Clear(g_c), s        | 0.1  | 27.0 | 7.8  | 2.6  | 0.0  | 15.0 | 10.9 | 0.0  | 3.9  | 0.0  | 0.0  | 0.6  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 0.01 | 1.00 |      | 0.77 | 0.00 |      | 0.19 |
| Lane Grp Cap(c), veh/h       | 108  | 861  | 730  | 89   | 0    | 840  | 352  | 0    | 324  | 0    | 0    | 28   |
| V/C Ratio(X)                 | 0.04 | 0.93 | 0.39 | 0.79 | 0.00 | 0.65 | 0.86 | 0.00 | 0.35 | 0.00 | 0.00 | 0.57 |
| Avail Cap(c_a), veh/h        | 108  | 891  | 755  | 108  | 0    | 890  | 383  | 0    | 353  | 0    | 0    | 602  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh     | 29.2 | 16.9 | 11.7 | 31.1 | 0.0  | 14.1 | 25.7 | 0.0  | 22.8 | 0.0  | 0.0  | 32.3 |
| Incr Delay (d2), s/veh       | 0.1  | 16.4 | 0.3  | 24.4 | 0.0  | 1.5  | 16.4 | 0.0  | 0.5  | 0.0  | 0.0  | 13.1 |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.1  | 12.5 | 2.2  | 1.6  | 0.0  | 5.2  | 5.7  | 0.0  | 1.4  | 0.0  | 0.0  | 0.3  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 29.3 | 33.3 | 12.1 | 55.4 | 0.0  | 15.7 | 42.0 | 0.0  | 23.3 | 0.0  | 0.0  | 45.4 |
| LnGrp LOS                    | C    | C    | B    | E    | A    | B    | D    | A    | C    | A    | A    | D    |
| Approach Vol, veh/h          |      | 1094 |      |      | 615  |      |      | 415  |      |      |      | 16   |
| Approach Delay, s/veh        |      | 27.7 |      |      | 20.2 |      |      | 37.0 |      |      |      | 45.4 |
| Approach LOS                 |      | C    |      |      | C    |      |      | D    |      |      |      | D    |
| Timer - Assigned Phs         | 1    | 2    |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 8.0  | 35.4 |      | 5.0  | 7.3  | 36.1 |      | 17.7 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 5.7  |      | 4.0  | 4.0  | 5.7  |      | 4.6  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0  | 31.5 |      | 22.0 | 4.0  | 31.5 |      | 14.2 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 2.1  | 17.0 |      | 2.6  | 4.6  | 29.0 |      | 12.9 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 2.6  |      | 0.0  | 0.0  | 1.5  |      | 0.2  |      |      |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 27.5 |
| HCM 6th LOS        | C    |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 1.9  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↔    |      | ↔    | ↑    | ↔    |      |
| Traffic Vol, veh/h       | 819  | 26   | 11   | 507  | 25   | 15   |
| Future Vol, veh/h        | 819  | 26   | 11   | 507  | 25   | 15   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | 100  | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 91   | 91   | 94   | 94   | 56   | 56   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 900  | 29   | 12   | 539  | 45   | 27   |

| Major/Minor          | Major1 | Major2 | Minor1 |   |       |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 0      | 0      | 929    | 0 | 1478  |
| Stage 1              | -      | -      | -      | - | 915   |
| Stage 2              | -      | -      | -      | - | 563   |
| Critical Hdwy        | -      | -      | 4.12   | - | 6.42  |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.42  |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.42  |
| Follow-up Hdwy       | -      | -      | 2.218  | - | 3.518 |
| Pot Cap-1 Maneuver   | -      | -      | 736    | - | 139   |
| Stage 1              | -      | -      | -      | - | 390   |
| Stage 2              | -      | -      | -      | - | 570   |
| Platoon blocked, %   | -      | -      | -      | - | -     |
| Mov Cap-1 Maneuver   | -      | -      | 736    | - | 137   |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 137   |
| Stage 1              | -      | -      | -      | - | 390   |
| Stage 2              | -      | -      | -      | - | 561   |

| Approach             | EB | WB  | NB   |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0  | 0.2 | 38.8 |
| HCM LOS              |    |     | E    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 176   | -   | -   | 736   | -   |
| HCM Lane V/C Ratio    | 0.406 | -   | -   | 0.016 | -   |
| HCM Control Delay (s) | 38.8  | -   | -   | 10    | -   |
| HCM Lane LOS          | E     | -   | -   | A     | -   |
| HCM 95th %tile Q(veh) | 1.8   | -   | -   | 0     | -   |



| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 1.7  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      |      |      |      |      |      |
| Traffic Vol, veh/h       | 91   | 743  | 489  | 23   | 11   | 73   |
| Future Vol, veh/h        | 91   | 743  | 489  | 23   | 11   | 73   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 100  | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 99   | 808  | 532  | 25   | 12   | 79   |

| Major/Minor          | Major1 | Major2 | Minor2 |   |             |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 557    | 0      | -      | 0 | 1551 545    |
| Stage 1              | -      | -      | -      | - | 545 -       |
| Stage 2              | -      | -      | -      | - | 1006 -      |
| Critical Hdwy        | 4.12   | -      | -      | - | 6.42 6.22   |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.42 -      |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.42 -      |
| Follow-up Hdwy       | 2.218  | -      | -      | - | 3.518 3.318 |
| Pot Cap-1 Maneuver   | 1014   | -      | -      | - | 125 538     |
| Stage 1              | -      | -      | -      | - | 581 -       |
| Stage 2              | -      | -      | -      | - | 353 -       |
| Platoon blocked, %   |        | -      | -      | - |             |
| Mov Cap-1 Maneuver   | 1014   | -      | -      | - | 113 538     |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 113 -       |
| Stage 1              | -      | -      | -      | - | 524 -       |
| Stage 2              | -      | -      | -      | - | 353 -       |

| Approach             | EB | WB | SB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 1  | 0  | 18.4 |
| HCM LOS              |    |    | C    |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1014  | -   | -   | -   | 360   |
| HCM Lane V/C Ratio    | 0.098 | -   | -   | -   | 0.254 |
| HCM Control Delay (s) | 8.9   | -   | -   | -   | 18.4  |
| HCM Lane LOS          | A     | -   | -   | -   | C     |
| HCM 95th %tile Q(veh) | 0.3   | -   | -   | -   | 1     |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.3  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      | ↶    | ↷    |      | ↶    | ↷    |
| Traffic Vol, veh/h       | 14   | 810  | 503  | 10   | 8    | 9    |
| Future Vol, veh/h        | 14   | 810  | 503  | 10   | 8    | 9    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 93   | 93   | 86   | 86   | 91   | 91   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 15   | 871  | 585  | 12   | 9    | 10   |

| Major/Minor          | Major1 | Major2 | Minor2 |   |             |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 597    | 0      | -      | 0 | 1492 591    |
| Stage 1              | -      | -      | -      | - | 591 -       |
| Stage 2              | -      | -      | -      | - | 901 -       |
| Critical Hdwy        | 4.12   | -      | -      | - | 6.42 6.22   |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.42 -      |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.42 -      |
| Follow-up Hdwy       | 2.218  | -      | -      | - | 3.518 3.318 |
| Pot Cap-1 Maneuver   | 980    | -      | -      | - | 136 507     |
| Stage 1              | -      | -      | -      | - | 553 -       |
| Stage 2              | -      | -      | -      | - | 396 -       |
| Platoon blocked, %   |        | -      | -      | - |             |
| Mov Cap-1 Maneuver   | 980    | -      | -      | - | 132 507     |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 132 -       |
| Stage 1              | -      | -      | -      | - | 536 -       |
| Stage 2              | -      | -      | -      | - | 396 -       |

| Approach             | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.1 | 0  | 23.1 |
| HCM LOS              |     |    | C    |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 980   | -   | -   | -   | 217   |
| HCM Lane V/C Ratio    | 0.015 | -   | -   | -   | 0.086 |
| HCM Control Delay (s) | 8.7   | 0   | -   | -   | 23.1  |
| HCM Lane LOS          | A     | A   | -   | -   | C     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0.3   |

Generations at Green Valley  
8: Deer Valley Rd. & Green Valley Rd.

Near Term plus Project  
Timing Plan: PM



| Lane Group                  | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBT  | SBT  |
|-----------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)       | 37   | 712  | 21   | 38   | 498  | 32   | 78   | 48   |
| v/c Ratio                   | 0.08 | 0.71 | 0.02 | 0.14 | 0.50 | 0.04 | 0.24 | 0.14 |
| Control Delay               | 4.1  | 10.2 | 1.9  | 5.1  | 6.6  | 1.8  | 10.6 | 8.9  |
| Queue Delay                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay                 | 4.1  | 10.2 | 1.9  | 5.1  | 6.6  | 1.8  | 10.6 | 8.9  |
| Queue Length 50th (ft)      | 2    | 68   | 0    | 2    | 40   | 0    | 6    | 2    |
| Queue Length 95th (ft)      | 10   | 169  | 5    | 12   | 93   | 6    | 23   | 16   |
| Internal Link Dist (ft)     |      | 2852 |      |      | 3999 |      | 988  | 946  |
| Turn Bay Length (ft)        | 415  |      | 415  | 415  |      | 415  |      |      |
| Base Capacity (vph)         | 656  | 1506 | 1284 | 403  | 1506 | 1286 | 752  | 784  |
| Starvation Cap Reductn      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio           | 0.06 | 0.47 | 0.02 | 0.09 | 0.33 | 0.02 | 0.10 | 0.06 |
| <b>Intersection Summary</b> |      |      |      |      |      |      |      |      |

Generations at Green Valley  
8: Deer Valley Rd. & Green Valley Rd.

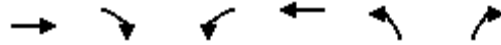
Near Term plus Project  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 34   | 648  | 19   | 33   | 433  | 28   | 27   | 2    | 25   | 11   | 1    | 23   |
| Future Volume (veh/h)        | 34   | 648  | 19   | 33   | 433  | 28   | 27   | 2    | 25   | 11   | 1    | 23   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 37   | 712  | 21   | 38   | 498  | 32   | 39   | 3    | 36   | 15   | 1    | 32   |
| Peak Hour Factor             | 0.91 | 0.91 | 0.91 | 0.87 | 0.87 | 0.87 | 0.69 | 0.69 | 0.69 | 0.72 | 0.72 | 0.72 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 596  | 990  | 839  | 456  | 990  | 839  | 307  | 34   | 111  | 237  | 31   | 164  |
| Arrive On Green              | 0.53 | 0.53 | 0.53 | 0.53 | 0.53 | 0.53 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 |
| Sat Flow, veh/h              | 874  | 1870 | 1585 | 724  | 1870 | 1585 | 606  | 216  | 704  | 326  | 195  | 1042 |
| Grp Volume(v), veh/h         | 37   | 712  | 21   | 38   | 498  | 32   | 78   | 0    | 0    | 48   | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 874  | 1870 | 1585 | 724  | 1870 | 1585 | 1526 | 0    | 0    | 1563 | 0    | 0    |
| Q Serve(g_s), s              | 0.7  | 7.4  | 0.2  | 1.1  | 4.4  | 0.2  | 0.3  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 5.1  | 7.4  | 0.2  | 8.4  | 4.4  | 0.2  | 1.1  | 0.0  | 0.0  | 0.6  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 0.50 |      | 0.46 | 0.31 |      | 0.67 |
| Lane Grp Cap(c), veh/h       | 596  | 990  | 839  | 456  | 990  | 839  | 451  | 0    | 0    | 431  | 0    | 0    |
| V/C Ratio(X)                 | 0.06 | 0.72 | 0.03 | 0.08 | 0.50 | 0.04 | 0.17 | 0.00 | 0.00 | 0.11 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 1024 | 1908 | 1617 | 811  | 1908 | 1617 | 1149 | 0    | 0    | 1144 | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 5.5  | 4.6  | 2.9  | 7.8  | 3.8  | 2.9  | 9.5  | 0.0  | 0.0  | 9.3  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 0.0  | 1.0  | 0.0  | 0.1  | 0.4  | 0.0  | 0.2  | 0.0  | 0.0  | 0.1  | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.0  | 0.3  | 0.0  | 0.1  | 0.1  | 0.0  | 0.3  | 0.0  | 0.0  | 0.2  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 5.5  | 5.6  | 2.9  | 7.9  | 4.2  | 2.9  | 9.7  | 0.0  | 0.0  | 9.4  | 0.0  | 0.0  |
| LnGrp LOS                    | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    |
| Approach Vol, veh/h          |      | 770  |      |      | 568  |      |      | 78   |      |      |      | 48   |
| Approach Delay, s/veh        |      | 5.5  |      |      | 4.4  |      |      | 9.7  |      |      |      | 9.4  |
| Approach LOS                 |      | A    |      |      | A    |      |      | A    |      |      |      | A    |
| Timer - Assigned Phs         |      | 2    |      | 4    |      | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 8.0  |      | 17.5 |      | 8.0  |      | 17.5 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  |      | 4.0  |      | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 16.0 |      | 26.0 |      | 16.0 |      | 26.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 3.1  |      | 9.4  |      | 2.6  |      | 10.4 |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.2  |      | 4.1  |      | 0.1  |      | 2.7  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      | 5.4  |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      |      | A    |      |      |      |      |      |      |      |      |

Generations at Green Valley  
 9: Silver Springs Pkwy & Green Valley Rd

Near Term plus Project  
 Timing Plan: PM



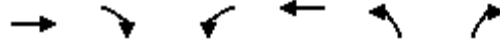
| Lane Group              | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|-------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 598  | 149  | 46   | 421  | 146  | 62   |
| v/c Ratio               | 0.69 | 0.18 | 0.17 | 0.49 | 0.32 | 0.13 |
| Control Delay           | 12.1 | 2.0  | 6.9  | 8.0  | 11.5 | 4.1  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 12.1 | 2.0  | 6.9  | 8.0  | 11.5 | 4.1  |
| Queue Length 50th (ft)  | 60   | 0    | 3    | 37   | 20   | 0    |
| Queue Length 95th (ft)  | #156 | 15   | 16   | 92   | 46   | 14   |
| Internal Link Dist (ft) | 3999 |      |      | 3318 | 1349 |      |
| Turn Bay Length (ft)    |      | 230  | 415  |      | 135  |      |
| Base Capacity (vph)     | 1016 | 931  | 320  | 1016 | 965  | 891  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.59 | 0.16 | 0.14 | 0.41 | 0.15 | 0.07 |

Intersection Summary

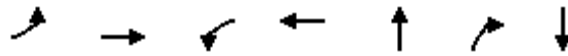
# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
9: Silver Springs Pkwy & Green Valley Rd

Near Term plus Project  
Timing Plan: PM



| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations          | ↑    | ↗    | ↖    | ↑    | ↖    | ↗    |
| Traffic Volume (veh/h)       | 550  | 137  | 42   | 387  | 134  | 57   |
| Future Volume (veh/h)        | 550  | 137  | 42   | 387  | 134  | 57   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 598  | 149  | 46   | 421  | 146  | 62   |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 863  | 731  | 470  | 863  | 323  | 288  |
| Arrive On Green              | 0.46 | 0.46 | 0.46 | 0.46 | 0.18 | 0.18 |
| Sat Flow, veh/h              | 1870 | 1585 | 714  | 1870 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 598  | 149  | 46   | 421  | 146  | 62   |
| Grp Sat Flow(s),veh/h/ln     | 1870 | 1585 | 714  | 1870 | 1781 | 1585 |
| Q Serve(g_s), s              | 5.7  | 1.3  | 1.2  | 3.5  | 1.6  | 0.7  |
| Cycle Q Clear(g_c), s        | 5.7  | 1.3  | 6.9  | 3.5  | 1.6  | 0.7  |
| Prop In Lane                 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 863  | 731  | 470  | 863  | 323  | 288  |
| V/C Ratio(X)                 | 0.69 | 0.20 | 0.10 | 0.49 | 0.45 | 0.22 |
| Avail Cap(c_a), veh/h        | 1337 | 1133 | 651  | 1337 | 1273 | 1133 |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 4.8  | 3.6  | 7.5  | 4.2  | 8.2  | 7.8  |
| Incr Delay (d2), s/veh       | 1.0  | 0.1  | 0.1  | 0.4  | 1.0  | 0.4  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.2  | 0.0  | 0.1  | 0.1  | 0.3  | 0.1  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 5.8  | 3.7  | 7.6  | 4.6  | 9.2  | 8.2  |
| LnGrp LOS                    | A    | A    | A    | A    | A    | A    |
| Approach Vol, veh/h          | 747  |      |      | 467  | 208  |      |
| Approach Delay, s/veh        | 5.4  |      |      | 4.9  | 8.9  |      |
| Approach LOS                 | A    |      |      | A    | A    |      |
| Timer - Assigned Phs         |      | 2    |      | 4    |      | 8    |
| Phs Duration (G+Y+Rc), s     |      | 8.1  |      | 14.3 |      | 14.3 |
| Change Period (Y+Rc), s      |      | 4.0  |      | 4.0  |      | 4.0  |
| Max Green Setting (Gmax), s  |      | 16.0 |      | 16.0 |      | 16.0 |
| Max Q Clear Time (g_c+I1), s |      | 3.6  |      | 7.7  |      | 8.9  |
| Green Ext Time (p_c), s      |      | 0.4  |      | 2.5  |      | 1.4  |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 5.7  |      |      |      |
| HCM 6th LOS                  |      |      | A    |      |      |      |



| Lane Group              | EBL  | EBT  | WBL   | WBT  | NBT  | NBR  | SBT  |
|-------------------------|------|------|-------|------|------|------|------|
| Lane Group Flow (vph)   | 5    | 1027 | 129   | 477  | 56   | 263  | 24   |
| v/c Ratio               | 0.06 | 0.86 | 1.06  | 0.34 | 0.32 | 0.67 | 0.18 |
| Control Delay           | 46.0 | 24.2 | 141.1 | 6.7  | 42.9 | 14.3 | 27.5 |
| Queue Delay             | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 46.0 | 24.2 | 141.1 | 6.7  | 42.9 | 14.3 | 27.5 |
| Queue Length 50th (ft)  | 3    | 320  | 68    | 44   | 27   | 0    | 4    |
| Queue Length 95th (ft)  | 10   | 390  | #174  | 185  | 48   | 5    | 12   |
| Internal Link Dist (ft) |      | 3318 |       | 1151 | 1084 |      | 521  |
| Turn Bay Length (ft)    | 285  |      | 435   |      |      | 150  |      |
| Base Capacity (vph)     | 81   | 1191 | 122   | 1390 | 327  | 506  | 322  |
| Starvation Cap Reductn  | 0    | 0    | 0     | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0     | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0     | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.06 | 0.86 | 1.06  | 0.34 | 0.17 | 0.52 | 0.07 |

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

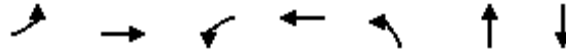
Generations at Green Valley  
10: Bass Lake Rd./Alexandrite Dr & Green Valley Rd.

Near Term plus Project  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL   | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|-------|------|------|------|------|------|------|------|------|
| Lane Configurations          | ↶    | ↷    |      | ↶     | ↷    |      |      | ↶    | ↷    |      | ↷    | ↶    |
| Traffic Volume (veh/h)       | 3    | 572  | 54   | 98    | 362  | 1    | 36   | 0    | 168  | 3    | 1    | 8    |
| Future Volume (veh/h)        | 3    | 572  | 54   | 98    | 362  | 1    | 36   | 0    | 168  | 3    | 1    | 8    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00  |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |       | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 5    | 938  | 89   | 129   | 476  | 1    | 56   | 0    | 262  | 6    | 2    | 16   |
| Peak Hour Factor             | 0.61 | 0.61 | 0.61 | 0.76  | 0.76 | 0.76 | 0.64 | 0.64 | 0.64 | 0.50 | 0.50 | 0.50 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2     | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 9    | 972  | 92   | 113   | 1187 | 2    | 302  | 0    | 269  | 8    | 3    | 22   |
| Arrive On Green              | 0.01 | 0.58 | 0.58 | 0.06  | 0.64 | 0.64 | 0.17 | 0.00 | 0.17 | 0.02 | 0.02 | 0.02 |
| Sat Flow, veh/h              | 1781 | 1682 | 160  | 1781  | 1866 | 4    | 1781 | 0    | 1585 | 413  | 138  | 1101 |
| Grp Volume(v), veh/h         | 5    | 0    | 1027 | 129   | 0    | 477  | 56   | 0    | 262  | 24   | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1842 | 1781  | 0    | 1870 | 1781 | 0    | 1585 | 1652 | 0    | 0    |
| Q Serve(g_s), s              | 0.3  | 0.0  | 50.3 | 6.0   | 0.0  | 11.8 | 2.5  | 0.0  | 15.5 | 1.4  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 0.3  | 0.0  | 50.3 | 6.0   | 0.0  | 11.8 | 2.5  | 0.0  | 15.5 | 1.4  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 0.09 | 1.00  |      | 0.00 | 1.00 |      | 1.00 | 0.25 |      | 0.67 |
| Lane Grp Cap(c), veh/h       | 9    | 0    | 1064 | 113   | 0    | 1189 | 302  | 0    | 269  | 33   | 0    | 0    |
| V/C Ratio(X)                 | 0.54 | 0.00 | 0.97 | 1.14  | 0.00 | 0.40 | 0.19 | 0.00 | 0.98 | 0.73 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 75   | 0    | 1093 | 113   | 0    | 1189 | 302  | 0    | 269  | 280  | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 1.00 | 1.00  | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 46.8 | 0.0  | 19.0 | 44.2  | 0.0  | 8.4  | 33.6 | 0.0  | 39.0 | 46.0 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 41.0 | 0.0  | 19.2 | 126.9 | 0.0  | 0.2  | 0.3  | 0.0  | 47.8 | 26.8 | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.2  | 0.0  | 22.1 | 6.5   | 0.0  | 3.6  | 1.1  | 0.0  | 9.1  | 0.8  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |       |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 87.8 | 0.0  | 38.2 | 171.1 | 0.0  | 8.6  | 33.9 | 0.0  | 86.8 | 72.9 | 0.0  | 0.0  |
| LnGrp LOS                    | F    | A    | D    | F     | A    | A    | C    | A    | F    | E    | A    | A    |
| Approach Vol, veh/h          |      | 1032 |      |       | 606  |      |      | 318  |      |      |      | 24   |
| Approach Delay, s/veh        |      | 38.5 |      |       | 43.2 |      |      | 77.5 |      |      |      | 72.9 |
| Approach LOS                 |      | D    |      |       | D    |      |      | E    |      |      |      | E    |
| Timer - Assigned Phs         |      | 2    | 3    | 4     |      | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 20.0 | 10.0 | 58.5  |      | 5.9  | 4.5  | 64.0 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  | 4.0  | 4.0   |      | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 16.0 | 6.0  | 56.0  |      | 16.0 | 4.0  | 58.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 17.5 | 8.0  | 52.3  |      | 3.4  | 2.3  | 13.8 |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.0  | 0.0  | 2.3   |      | 0.0  | 0.0  | 2.7  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |       |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 46.6 |       |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      | D    |       |      |      |      |      |      |      |      |      |





| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBT  |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 29   | 1016 | 52   | 486  | 148  | 97   | 36   |
| v/c Ratio               | 0.26 | 0.93 | 0.59 | 0.41 | 0.58 | 0.32 | 0.23 |
| Control Delay           | 47.1 | 34.9 | 70.0 | 11.6 | 43.6 | 14.2 | 31.6 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 47.1 | 34.9 | 70.0 | 11.6 | 43.6 | 14.2 | 31.6 |
| Queue Length 50th (ft)  | 16   | ~543 | 29   | 114  | 77   | 8    | 12   |
| Queue Length 95th (ft)  | 34   | 490  | #73  | 215  | 121  | 39   | 36   |
| Internal Link Dist (ft) |      | 1151 |      | 2235 |      | 1080 | 510  |
| Turn Bay Length (ft)    | 100  |      | 125  |      | 125  |      |      |
| Base Capacity (vph)     | 110  | 1091 | 88   | 1181 | 354  | 391  | 359  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.26 | 0.93 | 0.59 | 0.41 | 0.42 | 0.25 | 0.10 |

**Intersection Summary**

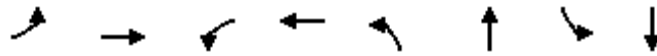
- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
11: Cambridge Rd./Peridot Dr & Green Valley Rd.

Near Term plus Project  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 20   | 542  | 149  | 40   | 361  | 13   | 117  | 13   | 64   | 10   | 8    | 10   |
| Future Volume (veh/h)        | 20   | 542  | 149  | 40   | 361  | 13   | 117  | 13   | 64   | 10   | 8    | 10   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 29   | 797  | 219  | 52   | 469  | 17   | 148  | 16   | 81   | 13   | 10   | 13   |
| Peak Hour Factor             | 0.68 | 0.68 | 0.68 | 0.77 | 0.77 | 0.77 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 43   | 850  | 234  | 65   | 1101 | 40   | 204  | 31   | 156  | 18   | 14   | 18   |
| Arrive On Green              | 0.02 | 0.60 | 0.60 | 0.04 | 0.61 | 0.61 | 0.11 | 0.11 | 0.11 | 0.03 | 0.03 | 0.03 |
| Sat Flow, veh/h              | 1781 | 1412 | 388  | 1781 | 1794 | 65   | 1781 | 268  | 1358 | 624  | 480  | 624  |
| Grp Volume(v), veh/h         | 29   | 0    | 1016 | 52   | 0    | 486  | 148  | 0    | 97   | 36   | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1801 | 1781 | 0    | 1859 | 1781 | 0    | 1626 | 1727 | 0    | 0    |
| Q Serve(g_s), s              | 1.2  | 0.0  | 37.7 | 2.1  | 0.0  | 10.0 | 5.9  | 0.0  | 4.1  | 1.5  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 1.2  | 0.0  | 37.7 | 2.1  | 0.0  | 10.0 | 5.9  | 0.0  | 4.1  | 1.5  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 0.22 | 1.00 |      | 0.03 | 1.00 |      | 0.84 | 0.36 |      | 0.36 |
| Lane Grp Cap(c), veh/h       | 43   | 0    | 1083 | 65   | 0    | 1141 | 204  | 0    | 186  | 49   | 0    | 0    |
| V/C Ratio(X)                 | 0.67 | 0.00 | 0.94 | 0.79 | 0.00 | 0.43 | 0.73 | 0.00 | 0.52 | 0.73 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 122  | 0    | 1181 | 97   | 0    | 1194 | 389  | 0    | 355  | 378  | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 35.4 | 0.0  | 13.3 | 35.0 | 0.0  | 7.4  | 31.3 | 0.0  | 30.5 | 35.3 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 16.3 | 0.0  | 13.3 | 23.0 | 0.0  | 0.3  | 4.8  | 0.0  | 2.2  | 19.0 | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.7  | 0.0  | 13.5 | 1.2  | 0.0  | 2.6  | 2.7  | 0.0  | 1.7  | 0.9  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 51.7 | 0.0  | 26.6 | 58.0 | 0.0  | 7.6  | 36.1 | 0.0  | 32.8 | 54.3 | 0.0  | 0.0  |
| LnGrp LOS                    | D    | A    | C    | E    | A    | A    | D    | A    | C    | D    | A    | A    |
| Approach Vol, veh/h          |      | 1045 |      |      | 538  |      |      | 245  |      |      |      | 36   |
| Approach Delay, s/veh        |      | 27.3 |      |      | 12.5 |      |      | 34.8 |      |      |      | 54.3 |
| Approach LOS                 |      | C    |      |      | B    |      |      | C    |      |      |      | D    |
| Timer - Assigned Phs         |      | 2    | 3    | 4    |      | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 12.4 | 6.7  | 48.0 |      | 6.1  | 5.8  | 48.9 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 16.0 | 4.0  | 48.0 |      | 16.0 | 5.0  | 47.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 7.9  | 4.1  | 39.7 |      | 3.5  | 3.2  | 12.0 |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.6  | 0.0  | 4.3  |      | 0.1  | 0.0  | 2.7  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 24.5 |      |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      | C    |      |      |      |      |      |      |      |      |      |



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 63   | 660  | 113  | 275  | 276  | 263  | 29   | 109  |
| v/c Ratio               | 0.41 | 0.88 | 0.69 | 0.33 | 0.81 | 0.47 | 0.25 | 0.47 |
| Control Delay           | 45.0 | 36.1 | 61.4 | 17.4 | 52.7 | 19.4 | 43.4 | 36.6 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 45.0 | 36.1 | 61.4 | 17.4 | 52.7 | 19.4 | 43.4 | 36.6 |
| Queue Length 50th (ft)  | 31   | 282  | 58   | 92   | 138  | 66   | 14   | 46   |
| Queue Length 95th (ft)  | 56   | 305  | #134 | 150  | #278 | 147  | 31   | 65   |
| Internal Link Dist (ft) |      | 2235 |      | 1414 |      | 1563 |      | 921  |
| Turn Bay Length (ft)    | 270  |      | 150  |      | 125  |      | 55   |      |
| Base Capacity (vph)     | 163  | 808  | 163  | 837  | 350  | 682  | 116  | 438  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.39 | 0.82 | 0.69 | 0.33 | 0.79 | 0.39 | 0.25 | 0.25 |

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
12: Cameron Park Dr. & Green Valley Rd.

Near Term plus Project  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 44   | 263  | 199  | 95   | 216  | 15   | 243  | 95   | 136  | 19   | 57   | 15   |
| Future Volume (veh/h)        | 44   | 263  | 199  | 95   | 216  | 15   | 243  | 95   | 136  | 19   | 57   | 15   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 63   | 376  | 284  | 113  | 257  | 18   | 276  | 108  | 155  | 29   | 86   | 23   |
| Peak Hour Factor             | 0.70 | 0.70 | 0.70 | 0.84 | 0.84 | 0.84 | 0.88 | 0.88 | 0.88 | 0.66 | 0.66 | 0.66 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 80   | 413  | 312  | 144  | 784  | 55   | 322  | 172  | 247  | 44   | 131  | 35   |
| Arrive On Green              | 0.05 | 0.42 | 0.42 | 0.08 | 0.45 | 0.45 | 0.18 | 0.25 | 0.25 | 0.02 | 0.09 | 0.09 |
| Sat Flow, veh/h              | 1781 | 989  | 747  | 1781 | 1728 | 121  | 1781 | 694  | 997  | 1781 | 1422 | 380  |
| Grp Volume(v), veh/h         | 63   | 0    | 660  | 113  | 0    | 275  | 276  | 0    | 263  | 29   | 0    | 109  |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1736 | 1781 | 0    | 1849 | 1781 | 0    | 1691 | 1781 | 0    | 1802 |
| Q Serve(g_s), s              | 2.5  | 0.0  | 25.0 | 4.4  | 0.0  | 6.7  | 10.5 | 0.0  | 9.7  | 1.1  | 0.0  | 4.1  |
| Cycle Q Clear(g_c), s        | 2.5  | 0.0  | 25.0 | 4.4  | 0.0  | 6.7  | 10.5 | 0.0  | 9.7  | 1.1  | 0.0  | 4.1  |
| Prop In Lane                 | 1.00 |      | 0.43 | 1.00 |      | 0.07 | 1.00 |      | 0.59 | 1.00 |      | 0.21 |
| Lane Grp Cap(c), veh/h       | 80   | 0    | 726  | 144  | 0    | 839  | 322  | 0    | 419  | 44   | 0    | 166  |
| V/C Ratio(X)                 | 0.78 | 0.00 | 0.91 | 0.78 | 0.00 | 0.33 | 0.86 | 0.00 | 0.63 | 0.66 | 0.00 | 0.66 |
| Avail Cap(c_a), veh/h        | 178  | 0    | 843  | 178  | 0    | 897  | 382  | 0    | 676  | 127  | 0    | 463  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh     | 33.1 | 0.0  | 19.1 | 31.6 | 0.0  | 12.3 | 27.8 | 0.0  | 23.4 | 33.9 | 0.0  | 30.7 |
| Incr Delay (d2), s/veh       | 15.2 | 0.0  | 12.6 | 16.5 | 0.0  | 0.2  | 15.3 | 0.0  | 1.5  | 15.7 | 0.0  | 4.4  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 1.3  | 0.0  | 10.3 | 2.4  | 0.0  | 2.3  | 5.4  | 0.0  | 3.6  | 0.7  | 0.0  | 1.9  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 48.3 | 0.0  | 31.7 | 48.1 | 0.0  | 12.5 | 43.1 | 0.0  | 25.0 | 49.5 | 0.0  | 35.1 |
| LnGrp LOS                    | D    | A    | C    | D    | A    | B    | D    | A    | C    | D    | A    | D    |
| Approach Vol, veh/h          |      | 723  |      |      | 388  |      |      | 539  |      |      |      | 138  |
| Approach Delay, s/veh        |      | 33.2 |      |      | 22.9 |      |      | 34.3 |      |      |      | 38.2 |
| Approach LOS                 |      | C    |      |      | C    |      |      | C    |      |      |      | D    |
| Timer - Assigned Phs         | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 5.7  | 21.4 | 9.7  | 33.3 | 16.7 | 10.4 | 7.2  | 35.8 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 5.0  | 28.0 | 7.0  | 34.0 | 15.0 | 18.0 | 7.0  | 34.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 3.1  | 11.7 | 6.4  | 27.0 | 12.5 | 6.1  | 4.5  | 8.7  |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 1.3  | 0.0  | 2.3  | 0.2  | 0.3  | 0.0  | 1.4  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 31.7 |      |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      | C    |      |      |      |      |      |      |      |      |      |

**Intersection**

Intersection Delay, s/veh82.3

Intersection LOS F

| Movement            | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations |      | ↔    | ↔    |      | ↔    |      | ↔    | ↔    |      | ↔    | ↔    |      |
| Traffic Vol, veh/h  | 3    | 39   | 524  | 12   | 24   | 12   | 458  | 286  | 16   | 7    | 200  | 0    |
| Future Vol, veh/h   | 3    | 39   | 524  | 12   | 24   | 12   | 458  | 286  | 16   | 7    | 200  | 0    |
| Peak Hour Factor    | 0.86 | 0.86 | 0.86 | 0.52 | 0.52 | 0.52 | 0.92 | 0.92 | 0.92 | 0.75 | 0.75 | 0.75 |
| Heavy Vehicles, %   | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow           | 3    | 45   | 609  | 23   | 46   | 23   | 498  | 311  | 17   | 9    | 267  | 0    |
| Number of Lanes     | 0    | 1    | 1    | 0    | 1    | 0    | 1    | 1    | 0    | 1    | 1    | 0    |

| Approach                      | EB    | WB   | NB   | SB   |
|-------------------------------|-------|------|------|------|
| Opposing Approach             | WB    | EB   | SB   | NB   |
| Opposing Lanes                | 1     | 2    | 2    | 2    |
| Conflicting Approach Left SB  |       | NB   | EB   | WB   |
| Conflicting Lanes Left        | 2     | 2    | 2    | 1    |
| Conflicting Approach Right NB |       | SB   | WB   | EB   |
| Conflicting Lanes Right       | 2     | 2    | 1    | 2    |
| HCM Control Delay             | 123.4 | 15.8 | 76.4 | 24.4 |
| HCM LOS                       | F     | C    | F    | C    |

| Lane                   | NBLn1 | NBLn2 | EBLn1 | EBLn2 | WBLn1 | SBLn1 | SBLn2 |
|------------------------|-------|-------|-------|-------|-------|-------|-------|
| Vol Left, %            | 100%  | 0%    | 7%    | 0%    | 25%   | 100%  | 0%    |
| Vol Thru, %            | 0%    | 95%   | 93%   | 0%    | 50%   | 0%    | 100%  |
| Vol Right, %           | 0%    | 5%    | 0%    | 100%  | 25%   | 0%    | 0%    |
| Sign Control           | Stop  | Stop  | Stop  | Stop  | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 458   | 302   | 42    | 524   | 48    | 7     | 200   |
| LT Vol                 | 458   | 0     | 3     | 0     | 12    | 7     | 0     |
| Through Vol            | 0     | 286   | 39    | 0     | 24    | 0     | 200   |
| RT Vol                 | 0     | 16    | 0     | 524   | 12    | 0     | 0     |
| Lane Flow Rate         | 498   | 328   | 49    | 609   | 92    | 9     | 267   |
| Geometry Grp           | 7     | 7     | 7     | 7     | 6     | 7     | 7     |
| Degree of Util (X)     | 1.117 | 0.688 | 0.106 | 1.2   | 0.233 | 0.023 | 0.613 |
| Departure Headway (Hd) | 8.709 | 8.152 | 8.079 | 7.323 | 9.832 | 9.46  | 8.937 |
| Convergence, Y/N       | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   |
| Cap                    | 423   | 446   | 446   | 500   | 367   | 381   | 408   |
| Service Time           | 6.409 | 5.852 | 5.779 | 5.023 | 7.832 | 7.16  | 6.637 |
| HCM Lane V/C Ratio     | 1.177 | 0.735 | 0.11  | 1.218 | 0.251 | 0.024 | 0.654 |
| HCM Control Delay      | 108.9 | 27    | 11.7  | 132.3 | 15.8  | 12.4  | 24.8  |
| HCM Lane LOS           | F     | D     | B     | F     | C     | B     | C     |
| HCM 95th-tile Q        | 16.5  | 5.1   | 0.4   | 22.2  | 0.9   | 0.1   | 4     |



| Lane Group              | WBL  | WBR  | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|
| Lane Group Flow (vph)   | 243  | 250  | 1075 | 223  | 575  |
| v/c Ratio               | 0.57 | 0.44 | 0.76 | 0.61 | 0.28 |
| Control Delay           | 22.3 | 5.4  | 16.0 | 32.3 | 5.7  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 22.3 | 5.4  | 16.0 | 32.3 | 5.7  |
| Queue Length 50th (ft)  | 64   | 0    | 118  | 34   | 35   |
| Queue Length 95th (ft)  | 91   | 20   | 178  | #81  | 68   |
| Internal Link Dist (ft) | 2093 |      | 5028 |      | 7812 |
| Turn Bay Length (ft)    |      |      |      | 190  |      |
| Base Capacity (vph)     | 601  | 702  | 1642 | 364  | 2329 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.40 | 0.36 | 0.65 | 0.61 | 0.25 |

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
14: El Dorado Hills Blvd. & Harvard Way

Near Term plus Project  
Timing Plan: PM



| Movement                     | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 175  | 180  | 682  | 210  | 203  | 523  |
| Future Volume (veh/h)        | 175  | 180  | 682  | 210  | 203  | 523  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 | 1.00 |      | 1.00 | 1.00 |      |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      | No   |      |      | No   |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 243  | 250  | 822  | 253  | 223  | 575  |
| Peak Hour Factor             | 0.72 | 0.72 | 0.83 | 0.83 | 0.91 | 0.91 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 386  | 343  | 1081 | 332  | 350  | 2125 |
| Arrive On Green              | 0.22 | 0.22 | 0.40 | 0.40 | 0.10 | 0.60 |
| Sat Flow, veh/h              | 1781 | 1585 | 2769 | 823  | 3456 | 3647 |
| Grp Volume(v), veh/h         | 243  | 250  | 546  | 529  | 223  | 575  |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1585 | 1777 | 1722 | 1728 | 1777 |
| Q Serve(g_s), s              | 5.3  | 6.3  | 11.4 | 11.4 | 2.7  | 3.3  |
| Cycle Q Clear(g_c), s        | 5.3  | 6.3  | 11.4 | 11.4 | 2.7  | 3.3  |
| Prop In Lane                 | 1.00 | 1.00 |      | 0.48 | 1.00 |      |
| Lane Grp Cap(c), veh/h       | 386  | 343  | 718  | 696  | 350  | 2125 |
| V/C Ratio(X)                 | 0.63 | 0.73 | 0.76 | 0.76 | 0.64 | 0.27 |
| Avail Cap(c_a), veh/h        | 660  | 588  | 906  | 878  | 400  | 2553 |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 15.3 | 15.7 | 11.1 | 11.1 | 18.6 | 4.2  |
| Incr Delay (d2), s/veh       | 1.7  | 3.0  | 2.9  | 3.0  | 2.7  | 0.1  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 2.0  | 2.1  | 3.2  | 3.2  | 1.0  | 0.4  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 17.0 | 18.7 | 14.0 | 14.1 | 21.3 | 4.2  |
| LnGrp LOS                    | B    | B    | B    | B    | C    | A    |
| Approach Vol, veh/h          | 493  |      | 1075 |      |      | 798  |
| Approach Delay, s/veh        | 17.9 |      | 14.0 |      |      | 9.0  |
| Approach LOS                 | B    |      | B    |      |      | A    |
| Timer - Assigned Phs         | 1    | 2    |      |      | 6    | 8    |
| Phs Duration (G+Y+Rc), s     | 8.4  | 21.4 |      |      | 29.8 | 13.3 |
| Change Period (Y+Rc), s      | 4.0  | 4.0  |      |      | 4.0  | 4.0  |
| Max Green Setting (Gmax), s  | 5.0  | 22.0 |      |      | 31.0 | 16.0 |
| Max Q Clear Time (g_c+l1), s | 4.7  | 13.4 |      |      | 5.3  | 8.3  |
| Green Ext Time (p_c), s      | 0.0  | 4.0  |      |      | 3.5  | 1.0  |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 13.1 |      |      |      |
| HCM 6th LOS                  |      |      | B    |      |      |      |



| Lane Group              | EBT  | EBR  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 168  | 110  | 27   | 152  | 976  | 9    | 876  |
| v/c Ratio               | 0.53 | 0.24 | 0.08 | 0.63 | 0.45 | 0.06 | 0.52 |
| Control Delay           | 20.9 | 4.9  | 11.1 | 35.5 | 8.8  | 21.4 | 13.7 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 20.9 | 4.9  | 11.1 | 35.5 | 8.8  | 21.4 | 13.7 |
| Queue Length 50th (ft)  | 37   | 0    | 4    | 38   | 62   | 2    | 93   |
| Queue Length 95th (ft)  | 80   | 25   | 17   | #119 | 188  | 13   | #180 |
| Internal Link Dist (ft) | 1459 |      | 233  |      | 3231 |      | 5028 |
| Turn Bay Length (ft)    |      |      |      | 278  |      | 90   |      |
| Base Capacity (vph)     | 486  | 647  | 539  | 242  | 2193 | 161  | 1680 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.35 | 0.17 | 0.05 | 0.63 | 0.45 | 0.06 | 0.52 |

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.



Generations at Green Valley  
15: El Dorado Hills Blvd. & Wilson Blvd

Near Term plus Project  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      | ↖    | ↗    |      | ↔    |      | ↖    | ↕    |      | ↖    | ↕    |      |
| Traffic Volume (veh/h)       | 148  | 6    | 101  | 14   | 5    | 6    | 140  | 881  | 17   | 8    | 709  | 97   |
| Future Volume (veh/h)        | 148  | 6    | 101  | 14   | 5    | 6    | 140  | 881  | 17   | 8    | 709  | 97   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 161  | 7    | 110  | 15   | 5    | 7    | 152  | 958  | 18   | 9    | 771  | 105  |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 428  | 11   | 248  | 202  | 69   | 43   | 194  | 1853 | 35   | 17   | 1319 | 180  |
| Arrive On Green              | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.11 | 0.52 | 0.52 | 0.01 | 0.42 | 0.42 |
| Sat Flow, veh/h              | 1558 | 68   | 1585 | 349  | 440  | 276  | 1781 | 3568 | 67   | 1781 | 3142 | 428  |
| Grp Volume(v), veh/h         | 168  | 0    | 110  | 27   | 0    | 0    | 152  | 477  | 499  | 9    | 436  | 440  |
| Grp Sat Flow(s),veh/h/ln     | 1626 | 0    | 1585 | 1066 | 0    | 0    | 1781 | 1777 | 1858 | 1781 | 1777 | 1793 |
| Q Serve(g_s), s              | 0.0  | 0.0  | 2.4  | 0.0  | 0.0  | 0.0  | 3.2  | 6.7  | 6.7  | 0.2  | 7.2  | 7.2  |
| Cycle Q Clear(g_c), s        | 3.3  | 0.0  | 2.4  | 3.4  | 0.0  | 0.0  | 3.2  | 6.7  | 6.7  | 0.2  | 7.2  | 7.2  |
| Prop In Lane                 | 0.96 |      | 1.00 | 0.56 |      | 0.26 | 1.00 |      | 0.04 | 1.00 |      | 0.24 |
| Lane Grp Cap(c), veh/h       | 439  | 0    | 248  | 314  | 0    | 0    | 194  | 923  | 965  | 17   | 746  | 753  |
| V/C Ratio(X)                 | 0.38 | 0.00 | 0.44 | 0.09 | 0.00 | 0.00 | 0.78 | 0.52 | 0.52 | 0.53 | 0.58 | 0.58 |
| Avail Cap(c_a), veh/h        | 812  | 0    | 665  | 691  | 0    | 0    | 280  | 923  | 965  | 187  | 746  | 753  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 15.0 | 0.0  | 14.6 | 13.8 | 0.0  | 0.0  | 16.5 | 6.0  | 6.0  | 18.8 | 8.5  | 8.5  |
| Incr Delay (d2), s/veh       | 0.5  | 0.0  | 1.2  | 0.1  | 0.0  | 0.0  | 8.6  | 2.1  | 2.0  | 23.2 | 3.3  | 3.3  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 1.1  | 0.0  | 0.8  | 0.2  | 0.0  | 0.0  | 1.4  | 1.5  | 1.6  | 0.2  | 2.0  | 2.1  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 15.5 | 0.0  | 15.8 | 13.9 | 0.0  | 0.0  | 25.2 | 8.1  | 8.0  | 42.0 | 11.8 | 11.8 |
| LnGrp LOS                    | B    | A    | B    | B    | A    | A    | C    | A    | A    | D    | B    | B    |
| Approach Vol, veh/h          |      | 278  |      |      | 27   |      |      | 1128 |      |      | 885  |      |
| Approach Delay, s/veh        |      | 15.6 |      |      | 13.9 |      |      | 10.3 |      |      | 12.1 |      |
| Approach LOS                 |      | B    |      |      | B    |      |      | B    |      |      | B    |      |
| Timer - Assigned Phs         | 1    | 2    |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 4.4  | 23.8 |      | 10.0 | 8.2  | 20.0 |      | 10.0 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0  | 18.0 |      | 16.0 | 6.0  | 16.0 |      | 16.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 2.2  | 8.7  |      | 5.3  | 5.2  | 9.2  |      | 5.4  |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 3.8  |      | 0.9  | 0.0  | 2.7  |      | 0.0  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      | 11.7 |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      |      | B    |      |      |      |      |      |      |      |      |



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | NBR  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 23   | 63   | 136  | 133  | 102  | 1179 | 383  | 41   | 901  |
| v/c Ratio               | 0.21 | 0.42 | 0.60 | 0.55 | 0.55 | 0.57 | 0.24 | 0.38 | 0.52 |
| Control Delay           | 28.9 | 19.3 | 31.3 | 25.8 | 34.4 | 10.0 | 0.4  | 36.0 | 12.2 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 28.9 | 19.3 | 31.3 | 25.8 | 34.4 | 10.0 | 0.4  | 36.0 | 12.2 |
| Queue Length 50th (ft)  | 7    | 2    | 41   | 32   | 29   | 96   | 0    | 12   | 105  |
| Queue Length 95th (ft)  | 21   | 22   | 74   | 65   | 64   | 195  | 0    | #44  | 171  |
| Internal Link Dist (ft) |      | 321  |      | 6047 |      | 1160 |      |      | 3231 |
| Turn Bay Length (ft)    | 70   |      | 410  |      | 260  |      |      | 100  |      |
| Base Capacity (vph)     | 108  | 151  | 889  | 885  | 216  | 2064 | 1583 | 108  | 1721 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.21 | 0.42 | 0.15 | 0.15 | 0.47 | 0.57 | 0.24 | 0.38 | 0.52 |

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
16: El Dorado Hills Blvd. & Lassen Ln/Serrano Pkwy.

Near Term plus Project  
Timing Plan: PM

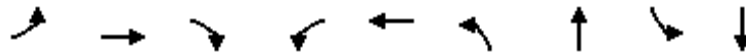


| Movement               | EBL   | EBT  | EBR  | WBL   | WBT  | WBR  | NBL  | NBT   | NBR   | SBL   | SBT  | SBR  |
|------------------------|-------|------|------|-------|------|------|------|-------|-------|-------|------|------|
| Lane Configurations    | ↖     | ↗    |      | ↖     | ↔    |      | ↖    | ↕     | ↗     | ↖     | ↕    | ↗    |
| Traffic Volume (vph)   | 17    | 5    | 41   | 182   | 9    | 22   | 84   | 967   | 314   | 36    | 762  | 31   |
| Future Volume (vph)    | 17    | 5    | 41   | 182   | 9    | 22   | 84   | 967   | 314   | 36    | 762  | 31   |
| Ideal Flow (vphpl)     | 1900  | 1900 | 1900 | 1900  | 1900 | 1900 | 1900 | 1900  | 1900  | 1900  | 1900 | 1900 |
| Total Lost time (s)    | 3.0   | 3.0  |      | 3.0   | 3.0  |      | 3.0  | 5.2   | 4.0   | 3.0   | 5.2  |      |
| Lane Util. Factor      | 1.00  | 1.00 |      | 0.95  | 0.95 |      | 1.00 | 0.95  | 1.00  | 1.00  | 0.95 |      |
| Frt                    | 1.00  | 0.87 |      | 1.00  | 0.97 |      | 1.00 | 1.00  | 0.85  | 1.00  | 0.99 |      |
| Flt Protected          | 0.95  | 1.00 |      | 0.95  | 0.97 |      | 0.95 | 1.00  | 1.00  | 0.95  | 1.00 |      |
| Satd. Flow (prot)      | 1770  | 1614 |      | 1681  | 1655 |      | 1770 | 3539  | 1583  | 1770  | 3519 |      |
| Flt Permitted          | 0.95  | 1.00 |      | 0.95  | 0.97 |      | 0.95 | 1.00  | 1.00  | 0.95  | 1.00 |      |
| Satd. Flow (perm)      | 1770  | 1614 |      | 1681  | 1655 |      | 1770 | 3539  | 1583  | 1770  | 3519 |      |
| Peak-hour factor, PHF  | 0.73  | 0.73 | 0.73 | 0.79  | 0.79 | 0.79 | 0.82 | 0.82  | 0.82  | 0.88  | 0.88 | 0.88 |
| Adj. Flow (vph)        | 23    | 7    | 56   | 230   | 11   | 28   | 102  | 1179  | 383   | 41    | 866  | 35   |
| RTOR Reduction (vph)   | 0     | 54   | 0    | 0     | 19   | 0    | 0    | 0     | 0     | 0     | 3    | 0    |
| Lane Group Flow (vph)  | 23    | 9    | 0    | 136   | 114  | 0    | 102  | 1179  | 383   | 41    | 898  | 0    |
| Turn Type              | Split | NA   |      | Split | NA   |      | Prot | NA    | Free  | Prot  | NA   |      |
| Protected Phases       | 4     | 4    |      | 8     | 8    |      | 5    | 2     |       | 1     | 6    |      |
| Permitted Phases       |       |      |      |       |      |      |      |       | Free  |       |      |      |
| Actuated Green, G (s)  | 1.7   | 1.7  |      | 6.7   | 6.7  |      | 5.8  | 28.9  | 52.6  | 1.1   | 24.2 |      |
| Effective Green, g (s) | 1.7   | 1.7  |      | 6.7   | 6.7  |      | 5.8  | 28.9  | 52.6  | 1.1   | 24.2 |      |
| Actuated g/C Ratio     | 0.03  | 0.03 |      | 0.13  | 0.13 |      | 0.11 | 0.55  | 1.00  | 0.02  | 0.46 |      |
| Clearance Time (s)     | 3.0   | 3.0  |      | 3.0   | 3.0  |      | 3.0  | 5.2   |       | 3.0   | 5.2  |      |
| Vehicle Extension (s)  | 0.2   | 0.2  |      | 0.2   | 0.2  |      | 0.2  | 0.2   |       | 0.2   | 0.2  |      |
| Lane Grp Cap (vph)     | 57    | 52   |      | 214   | 210  |      | 195  | 1944  | 1583  | 37    | 1619 |      |
| v/s Ratio Prot         | 0.01  | 0.01 |      | c0.08 | 0.07 |      | 0.06 | c0.33 |       | c0.02 | 0.26 |      |
| v/s Ratio Perm         |       |      |      |       |      |      |      |       | c0.24 |       |      |      |
| v/c Ratio              | 0.40  | 0.17 |      | 0.64  | 0.54 |      | 0.52 | 0.61  | 0.24  | 1.11  | 0.55 |      |
| Uniform Delay, d1      | 25.0  | 24.8 |      | 21.8  | 21.5 |      | 22.1 | 8.0   | 0.0   | 25.8  | 10.3 |      |
| Progression Factor     | 1.00  | 1.00 |      | 1.00  | 1.00 |      | 1.00 | 1.00  | 1.00  | 1.00  | 1.00 |      |
| Incremental Delay, d2  | 1.7   | 0.6  |      | 4.5   | 1.5  |      | 1.2  | 1.4   | 0.4   | 182.0 | 1.4  |      |
| Delay (s)              | 26.7  | 25.3 |      | 26.3  | 23.0 |      | 23.3 | 9.4   | 0.4   | 207.7 | 11.7 |      |
| Level of Service       | C     | C    |      | C     | C    |      | C    | A     | A     | F     | B    |      |
| Approach Delay (s)     |       | 25.7 |      |       | 24.7 |      |      | 8.2   |       |       | 20.2 |      |
| Approach LOS           |       | C    |      |       | C    |      |      | A     |       |       | C    |      |

Intersection Summary

|                                   |       |                           |      |
|-----------------------------------|-------|---------------------------|------|
| HCM 2000 Control Delay            | 14.0  | HCM 2000 Level of Service | B    |
| HCM 2000 Volume to Capacity ratio | 0.63  |                           |      |
| Actuated Cycle Length (s)         | 52.6  | Sum of lost time (s)      | 14.2 |
| Intersection Capacity Utilization | 53.7% | ICU Level of Service      | A    |
| Analysis Period (min)             | 15    |                           |      |

c Critical Lane Group



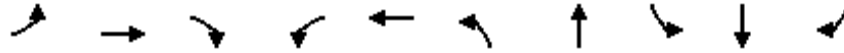
| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL    | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|--------|------|------|------|
| Lane Group Flow (vph)   | 244  | 248  | 501  | 68   | 281  | 419    | 1142 | 146  | 1031 |
| v/c Ratio               | 0.75 | 0.75 | 0.76 | 0.28 | 0.88 | 6.55   | 0.60 | 0.57 | 0.61 |
| Control Delay           | 57.2 | 56.6 | 15.3 | 42.6 | 54.7 | 2537.9 | 30.4 | 53.3 | 23.4 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0    | 0.0  | 0.0  | 0.0  |
| Total Delay             | 57.2 | 56.6 | 15.3 | 42.6 | 54.7 | 2537.9 | 30.4 | 53.3 | 23.4 |
| Queue Length 50th (ft)  | 171  | 173  | 39   | 44   | 126  | ~570   | 235  | 97   | 265  |
| Queue Length 95th (ft)  | #286 | #286 | 167  | 68   | 161  | #764   | 322  | 152  | 352  |
| Internal Link Dist (ft) |      | 1745 |      |      | 332  |        | 961  |      | 1160 |
| Turn Bay Length (ft)    | 145  |      | 145  | 125  |      | 165    |      | 70   |      |
| Base Capacity (vph)     | 324  | 332  | 657  | 482  | 530  | 64     | 1901 | 257  | 1686 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0      | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0      | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0      | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.75 | 0.75 | 0.76 | 0.14 | 0.53 | 6.55   | 0.60 | 0.57 | 0.61 |

**Intersection Summary**

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

---

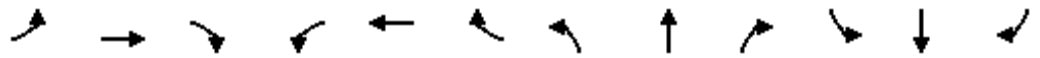
HCM 6th Edition methodology expects strict NEMA phasing.



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 157  | 67   | 141  | 182  | 183  | 963  | 1420 | 49   | 1078 | 306  |
| v/c Ratio               | 0.74 | 0.30 | 0.09 | 0.70 | 0.33 | 0.87 | 0.52 | 0.41 | 0.76 | 0.46 |
| Control Delay           | 71.8 | 51.2 | 0.1  | 62.8 | 21.3 | 47.8 | 18.9 | 63.8 | 45.5 | 6.9  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 50.5 | 1.5  |
| Total Delay             | 71.8 | 51.2 | 0.1  | 62.8 | 21.3 | 47.8 | 18.9 | 63.8 | 96.0 | 8.4  |
| Queue Length 50th (ft)  | 117  | 47   | 0    | 136  | 29   | 350  | 256  | 37   | 294  | 0    |
| Queue Length 95th (ft)  | #202 | 93   | 0    | 181  | 51   | #441 | 325  | 75   | #378 | 61   |
| Internal Link Dist (ft) |      | 287  |      |      | 264  |      | 780  |      | 105  |      |
| Turn Bay Length (ft)    |      |      |      | 410  |      | 260  |      | 195  |      |      |
| Base Capacity (vph)     | 236  | 248  | 1583 | 390  | 795  | 1119 | 2743 | 119  | 1413 | 661  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 645  | 197  |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.67 | 0.27 | 0.09 | 0.47 | 0.23 | 0.86 | 0.52 | 0.41 | 1.40 | 0.66 |

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          | ↖    | ↑    | ↗    | ↖    | ↕    |      | ↖    | ↕    |      | ↖    | ↕    | ↗    |
| Traffic Volume (veh/h)       | 144  | 62   | 130  | 149  | 67   | 83   | 857  | 1052 | 212  | 42   | 927  | 263  |
| Future Volume (veh/h)        | 144  | 62   | 130  | 149  | 67   | 83   | 857  | 1052 | 212  | 42   | 927  | 263  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 157  | 67   | 0    | 182  | 82   | 101  | 963  | 1182 | 238  | 49   | 1078 | 0    |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.82 | 0.82 | 0.82 | 0.89 | 0.89 | 0.89 | 0.86 | 0.86 | 0.86 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 188  | 197  |      | 225  | 224  | 200  | 1019 | 2556 | 515  | 63   | 1737 |      |
| Arrive On Green              | 0.11 | 0.11 | 0.00 | 0.13 | 0.13 | 0.13 | 0.29 | 0.60 | 0.60 | 0.04 | 0.34 | 0.00 |
| Sat Flow, veh/h              | 1781 | 1870 | 1585 | 1781 | 1777 | 1585 | 3456 | 4262 | 858  | 1781 | 5106 | 1585 |
| Grp Volume(v), veh/h         | 157  | 67   | 0    | 182  | 82   | 101  | 963  | 944  | 476  | 49   | 1078 | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1870 | 1585 | 1781 | 1777 | 1585 | 1728 | 1702 | 1716 | 1781 | 1702 | 1585 |
| Q Serve(g_s), s              | 10.4 | 4.0  | 0.0  | 11.9 | 5.1  | 7.1  | 32.7 | 18.4 | 18.4 | 3.3  | 21.2 | 0.0  |
| Cycle Q Clear(g_c), s        | 10.4 | 4.0  | 0.0  | 11.9 | 5.1  | 7.1  | 32.7 | 18.4 | 18.4 | 3.3  | 21.2 | 0.0  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 0.50 | 1.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 188  | 197  |      | 225  | 224  | 200  | 1019 | 2041 | 1029 | 63   | 1737 |      |
| V/C Ratio(X)                 | 0.84 | 0.34 |      | 0.81 | 0.37 | 0.50 | 0.95 | 0.46 | 0.46 | 0.78 | 0.62 |      |
| Avail Cap(c_a), veh/h        | 238  | 249  |      | 393  | 392  | 350  | 1037 | 2041 | 1029 | 79   | 1737 |      |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.89 | 0.89 | 0.89 | 0.72 | 0.72 | 0.00 |
| Uniform Delay (d), s/veh     | 52.7 | 49.8 | 0.0  | 51.0 | 48.0 | 48.9 | 41.4 | 13.3 | 13.3 | 57.4 | 33.1 | 0.0  |
| Incr Delay (d2), s/veh       | 18.4 | 1.0  | 0.0  | 6.8  | 1.0  | 2.0  | 15.0 | 0.7  | 1.3  | 23.8 | 1.2  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 5.6  | 1.9  | 0.0  | 5.8  | 2.3  | 3.0  | 15.4 | 6.6  | 6.8  | 1.9  | 8.6  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 71.1 | 50.8 | 0.0  | 57.8 | 49.0 | 50.9 | 56.4 | 14.0 | 14.6 | 81.2 | 34.3 | 0.0  |
| LnGrp LOS                    | E    | D    |      | E    | D    | D    | E    | B    | B    | F    | C    |      |
| Approach Vol, veh/h          |      | 224  | A    |      | 365  |      |      | 2383 |      |      | 1127 | A    |
| Approach Delay, s/veh        |      | 65.0 |      |      | 53.9 |      |      | 31.3 |      |      | 36.4 |      |
| Approach LOS                 |      | E    |      |      | D    |      |      | C    |      |      | D    |      |
| Timer - Assigned Phs         | 1    | 2    |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 8.2  | 76.0 |      | 16.6 | 39.4 | 44.8 |      | 19.2 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 5.3  | 56.2 |      | 16.0 | 36.0 | 25.5 |      | 26.5 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 5.3  | 20.4 |      | 12.4 | 34.7 | 23.2 |      | 13.9 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 7.7  |      | 0.3  | 0.7  | 1.2  |      | 1.2  |      |      |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 36.5 |
| HCM 6th LOS        | D    |

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.



| Lane Group              | EBT    | EBR  | WBR  | NBT  | NBR  | SBL   | SBT  |
|-------------------------|--------|------|------|------|------|-------|------|
| Lane Group Flow (vph)   | 2      | 912  | 565  | 1946 | 456  | 285   | 1123 |
| v/c Ratio               | no cap | 0.76 | 0.35 | 0.49 | 0.35 | 1.00  | 0.20 |
| Control Delay           |        | 17.2 | 0.6  | 5.7  | 1.4  | 107.6 | 1.7  |
| Queue Delay             |        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  |
| Total Delay             | Error  | 17.2 | 0.6  | 5.7  | 1.4  | 107.6 | 1.7  |
| Queue Length 50th (ft)  | 0      | 128  | 0    | 184  | 12   | 243   | 27   |
| Queue Length 95th (ft)  | 0      | 148  | 0    | 208  | 35   | #368  | 54   |
| Internal Link Dist (ft) | 378    |      |      | 468  |      |       | 780  |
| Turn Bay Length (ft)    |        |      |      |      | 180  | 350   |      |
| Base Capacity (vph)     | 1      | 1691 | 1611 | 3950 | 1315 | 285   | 5550 |
| Starvation Cap Reductn  | 0      | 0    | 0    | 0    | 0    | 0     | 0    |
| Spillback Cap Reductn   | 0      | 0    | 0    | 0    | 0    | 0     | 0    |
| Storage Cap Reductn     | 0      | 0    | 0    | 0    | 0    | 0     | 0    |
| Reduced v/c Ratio       | 2.00   | 0.54 | 0.35 | 0.49 | 0.35 | 1.00  | 0.20 |

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.



---

HCM 6th Edition methodology does not support custom phasing.



| Lane Group              | EBL  | EBR  | NBL   | NBT  | SBT  | SBR  |
|-------------------------|------|------|-------|------|------|------|
| Lane Group Flow (vph)   | 357  | 77   | 728   | 439  | 642  | 118  |
| v/c Ratio               | 0.26 | 0.11 | 1.37  | 0.31 | 0.45 | 0.17 |
| Control Delay           | 8.7  | 3.1  | 195.7 | 9.0  | 7.4  | 2.0  |
| Queue Delay             | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| Total Delay             | 8.7  | 3.1  | 195.7 | 9.0  | 7.4  | 2.0  |
| Queue Length 50th (ft)  | 25   | 0    | ~119  | 33   | 27   | 0    |
| Queue Length 95th (ft)  | 45   | 16   | #197  | 56   | 61   | m1   |
| Internal Link Dist (ft) | 706  |      |       | 516  | 832  |      |
| Turn Bay Length (ft)    |      | 195  | 480   |      |      | 148  |
| Base Capacity (vph)     | 1373 | 679  | 533   | 1415 | 1415 | 704  |
| Starvation Cap Reductn  | 0    | 0    | 0     | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0     | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0     | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.26 | 0.11 | 1.37  | 0.31 | 0.45 | 0.17 |

**Intersection Summary**

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Generations at Green Valley  
 20: White Rock Rd/Silva Valley Pkwy & US-50 EB On&Off-Ramp

Near Term plus Project  
 Timing Plan: PM



| Movement                     | EBL  | EBR  | NBL  | NBT  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 328  | 71   | 670  | 404  | 591  | 109  |
| Future Volume (veh/h)        | 328  | 71   | 670  | 404  | 591  | 109  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 | 1.00 | 1.00 |      |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 357  | 77   | 728  | 439  | 642  | 118  |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 1382 | 634  | 830  | 1421 | 1421 | 634  |
| Arrive On Green              | 0.40 | 0.40 | 0.40 | 0.40 | 0.80 | 0.80 |
| Sat Flow, veh/h              | 3456 | 1585 | 1369 | 3647 | 3647 | 1585 |
| Grp Volume(v), veh/h         | 357  | 77   | 728  | 439  | 642  | 118  |
| Grp Sat Flow(s),veh/h/ln     | 1728 | 1585 | 684  | 1777 | 1777 | 1585 |
| Q Serve(g_s), s              | 2.8  | 1.2  | 13.7 | 3.4  | 2.3  | 0.7  |
| Cycle Q Clear(g_c), s        | 2.8  | 1.2  | 16.0 | 3.4  | 2.3  | 0.7  |
| Prop In Lane                 | 1.00 | 1.00 | 1.00 |      |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 1382 | 634  | 830  | 1421 | 1421 | 634  |
| V/C Ratio(X)                 | 0.26 | 0.12 | 0.88 | 0.31 | 0.45 | 0.19 |
| Avail Cap(c_a), veh/h        | 1382 | 634  | 830  | 1421 | 1421 | 634  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 8.0  | 7.6  | 15.6 | 8.2  | 2.6  | 2.5  |
| Incr Delay (d2), s/veh       | 0.5  | 0.4  | 12.6 | 0.6  | 1.0  | 0.6  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.8  | 0.4  | 4.2  | 0.9  | 0.6  | 0.2  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 8.5  | 8.0  | 28.2 | 8.8  | 3.7  | 3.1  |
| LnGrp LOS                    | A    | A    | C    | A    | A    | A    |
| Approach Vol, veh/h          | 434  |      |      | 1167 | 760  |      |
| Approach Delay, s/veh        | 8.4  |      |      | 20.9 | 3.6  |      |
| Approach LOS                 | A    |      |      | C    | A    |      |
| Timer - Assigned Phs         |      | 2    |      | 4    |      | 6    |
| Phs Duration (G+Y+Rc), s     |      | 20.0 |      | 20.0 |      | 20.0 |
| Change Period (Y+Rc), s      |      | 4.0  |      | 4.0  |      | 4.0  |
| Max Green Setting (Gmax), s  |      | 16.0 |      | 16.0 |      | 16.0 |
| Max Q Clear Time (g_c+I1), s |      | 18.0 |      | 4.8  |      | 4.3  |
| Green Ext Time (p_c), s      |      | 0.0  |      | 1.2  |      | 3.4  |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 13.0 |      |      |      |
| HCM 6th LOS                  |      |      | B    |      |      |      |



| Lane Group                  | WBL  | WBR  | NBL  | NBT  | SBT  | SBR  |
|-----------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph)       | 437  | 175  | 79   | 718  | 308  | 274  |
| v/c Ratio                   | 0.62 | 0.25 | 0.19 | 0.51 | 0.22 | 0.34 |
| Control Delay               | 14.2 | 5.1  | 10.7 | 11.1 | 8.4  | 2.9  |
| Queue Delay                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay                 | 14.2 | 5.1  | 10.7 | 11.1 | 8.4  | 2.9  |
| Queue Length 50th (ft)      | 73   | 10   | 11   | 66   | 22   | 0    |
| Queue Length 95th (ft)      | 141  | 36   | 40   | 114  | 40   | 30   |
| Internal Link Dist (ft)     |      |      |      | 832  | 250  |      |
| Turn Bay Length (ft)        |      |      | 545  |      |      |      |
| Base Capacity (vph)         | 708  | 693  | 420  | 1415 | 1415 | 797  |
| Starvation Cap Reductn      | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn       | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn         | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio           | 0.62 | 0.25 | 0.19 | 0.51 | 0.22 | 0.34 |
| <b>Intersection Summary</b> |      |      |      |      |      |      |



| Movement                     | EBL | EBT  | EBR | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|-----|------|-----|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |     |      |     | ↖    | ↗    | ↖    | ↖    | ↕    |      |      | ↕    | ↖    |
| Traffic Volume (veh/h)       | 0   | 0    | 0   | 402  | 0    | 161  | 73   | 661  | 0    | 0    | 283  | 252  |
| Future Volume (veh/h)        | 0   | 0    | 0   | 402  | 0    | 161  | 73   | 661  | 0    | 0    | 283  | 252  |
| Initial Q (Qb), veh          |     |      |     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |     |      |     | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             |     |      |     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |     |      |     | No   |      |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       |     |      |     | 1870 | 1870 | 1870 | 1870 | 1870 | 0    | 0    | 1870 | 1870 |
| Adj Flow Rate, veh/h         |     |      |     | 437  | 0    | 175  | 79   | 718  | 0    | 0    | 308  | 274  |
| Peak Hour Factor             |     |      |     | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         |     |      |     | 2    | 2    | 2    | 2    | 2    | 0    | 0    | 2    | 2    |
| Cap, veh/h                   |     |      |     | 713  | 748  | 634  | 466  | 1421 | 0    | 0    | 1421 | 634  |
| Arrive On Green              |     |      |     | 0.40 | 0.00 | 0.40 | 0.80 | 0.80 | 0.00 | 0.00 | 0.40 | 0.40 |
| Sat Flow, veh/h              |     |      |     | 1781 | 1870 | 1585 | 833  | 3647 | 0    | 0    | 3647 | 1585 |
| Grp Volume(v), veh/h         |     |      |     | 437  | 0    | 175  | 79   | 718  | 0    | 0    | 308  | 274  |
| Grp Sat Flow(s),veh/h/ln     |     |      |     | 1781 | 1870 | 1585 | 833  | 1777 | 0    | 0    | 1777 | 1585 |
| Q Serve(g_s), s              |     |      |     | 7.8  | 0.0  | 3.0  | 1.5  | 2.7  | 0.0  | 0.0  | 2.3  | 5.0  |
| Cycle Q Clear(g_c), s        |     |      |     | 7.8  | 0.0  | 3.0  | 3.7  | 2.7  | 0.0  | 0.0  | 2.3  | 5.0  |
| Prop In Lane                 |     |      |     | 1.00 |      | 1.00 | 1.00 |      | 0.00 | 0.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       |     |      |     | 713  | 748  | 634  | 466  | 1421 | 0    | 0    | 1421 | 634  |
| V/C Ratio(X)                 |     |      |     | 0.61 | 0.00 | 0.28 | 0.17 | 0.51 | 0.00 | 0.00 | 0.22 | 0.43 |
| Avail Cap(c_a), veh/h        |     |      |     | 713  | 748  | 634  | 466  | 1421 | 0    | 0    | 1421 | 634  |
| HCM Platoon Ratio            |     |      |     | 1.00 | 1.00 | 1.00 | 2.00 | 2.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           |     |      |     | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     |     |      |     | 9.5  | 0.0  | 8.1  | 3.2  | 2.7  | 0.0  | 0.0  | 7.9  | 8.7  |
| Incr Delay (d2), s/veh       |     |      |     | 3.9  | 0.0  | 1.1  | 0.8  | 1.3  | 0.0  | 0.0  | 0.3  | 2.1  |
| Initial Q Delay(d3),s/veh    |     |      |     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     |     |      |     | 3.0  | 0.0  | 0.9  | 0.2  | 0.6  | 0.0  | 0.0  | 0.6  | 1.4  |
| Unsig. Movement Delay, s/veh |     |      |     |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         |     |      |     | 13.5 | 0.0  | 9.2  | 4.0  | 4.0  | 0.0  | 0.0  | 8.2  | 10.8 |
| LnGrp LOS                    |     |      |     | B    | A    | A    | A    | A    | A    | A    | A    | B    |
| Approach Vol, veh/h          |     |      |     |      | 612  |      |      | 797  |      |      | 582  |      |
| Approach Delay, s/veh        |     |      |     |      | 12.2 |      |      | 4.0  |      |      | 9.5  |      |
| Approach LOS                 |     |      |     |      | B    |      |      | A    |      |      | A    |      |
| Timer - Assigned Phs         |     | 2    |     |      |      | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |     | 20.0 |     |      |      | 20.0 |      | 20.0 |      |      |      |      |
| Change Period (Y+Rc), s      |     | 4.0  |     |      |      | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |     | 16.0 |     |      |      | 16.0 |      | 16.0 |      |      |      |      |
| Max Q Clear Time (g_c+l1), s |     | 5.7  |     |      |      | 7.0  |      | 9.8  |      |      |      |      |
| Green Ext Time (p_c), s      |     | 3.6  |     |      |      | 1.9  |      | 1.2  |      |      |      |      |
| <b>Intersection Summary</b>  |     |      |     |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |     |      |     | 8.1  |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |     |      |     | A    |      |      |      |      |      |      |      |      |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.4  |      |      |      |      |      |
| Movement                 | WBL  | WBR  | NBT  | NBR  | SBL  | SBT  |
| Lane Configurations      |      | ↗    | ↗↗   | ↗    |      | ↗↗   |
| Traffic Vol, veh/h       | 0    | 41   | 839  | 54   | 0    | 466  |
| Future Vol, veh/h        | 0    | 41   | 839  | 54   | 0    | 466  |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Stop | Stop | Free | Free | Free | Free |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | 0    | -    | 160  | -    | -    |
| Veh in Median Storage, # | 0    | -    | 0    | -    | -    | 0    |
| Grade, %                 | 0    | -    | 0    | -    | -    | 0    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 0    | 45   | 912  | 59   | 0    | 507  |

| Major/Minor          | Minor1 | Major1 | Major2 |   |   |
|----------------------|--------|--------|--------|---|---|
| Conflicting Flow All | -      | 456    | 0      | 0 | - |
| Stage 1              | -      | -      | -      | - | - |
| Stage 2              | -      | -      | -      | - | - |
| Critical Hdwy        | -      | 6.94   | -      | - | - |
| Critical Hdwy Stg 1  | -      | -      | -      | - | - |
| Critical Hdwy Stg 2  | -      | -      | -      | - | - |
| Follow-up Hdwy       | -      | 3.32   | -      | - | - |
| Pot Cap-1 Maneuver   | 0      | 551    | -      | - | 0 |
| Stage 1              | 0      | -      | -      | - | 0 |
| Stage 2              | 0      | -      | -      | - | 0 |
| Platoon blocked, %   |        |        | -      | - | - |
| Mov Cap-1 Maneuver   | -      | 551    | -      | - | - |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | - |
| Stage 1              | -      | -      | -      | - | - |
| Stage 2              | -      | -      | -      | - | - |

| Approach             | WB   | NB | SB |
|----------------------|------|----|----|
| HCM Control Delay, s | 12.1 | 0  | 0  |
| HCM LOS              | B    |    |    |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBT   |
|-----------------------|-----|----------|-------|
| Capacity (veh/h)      | -   | -        | 551   |
| HCM Lane V/C Ratio    | -   | -        | 0.081 |
| HCM Control Delay (s) | -   | -        | 12.1  |
| HCM Lane LOS          | -   | -        | B     |
| HCM 95th %tile Q(veh) | -   | -        | 0.3   |



| Lane Group              | EBL  | EBT  | WBL   | WBT  | NBL  | NBT  | NBR  | SBL   | SBT  |
|-------------------------|------|------|-------|------|------|------|------|-------|------|
| Lane Group Flow (vph)   | 66   | 277  | 326   | 356  | 108  | 641  | 483  | 234   | 432  |
| v/c Ratio               | 0.40 | 0.49 | 1.09  | 0.35 | 0.73 | 0.63 | 0.62 | 1.05  | 0.37 |
| Control Delay           | 40.4 | 28.7 | 113.4 | 11.1 | 64.1 | 25.3 | 6.5  | 110.2 | 18.7 |
| Queue Delay             | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  |
| Total Delay             | 40.4 | 28.7 | 113.4 | 11.1 | 64.1 | 25.3 | 6.5  | 110.2 | 18.7 |
| Queue Length 50th (ft)  | 28   | 54   | ~167  | 27   | 48   | 126  | 6    | ~115  | 72   |
| Queue Length 95th (ft)  | 62   | 82   | #354  | 63   | #78  | 121  | 0    | #218  | 93   |
| Internal Link Dist (ft) |      | 6047 |       | 1303 |      | 4417 |      |       | 4456 |
| Turn Bay Length (ft)    | 155  |      | 330   |      | 250  |      | 180  | 150   |      |
| Base Capacity (vph)     | 173  | 1177 | 298   | 1436 | 148  | 1310 | 878  | 223   | 1446 |
| Starvation Cap Reductn  | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0     | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0     | 0    |
| Storage Cap Reductn     | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0     | 0    |
| Reduced v/c Ratio       | 0.38 | 0.24 | 1.09  | 0.25 | 0.73 | 0.49 | 0.55 | 1.05  | 0.30 |

**Intersection Summary**

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
23: Serrano Pkwy. & Silva Valley Pkwy.

Near Term plus Project  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          | ↖    | ↗    |      | ↖    | ↗    |      | ↖    | ↗    | ↗    | ↖    | ↗    |      |
| Traffic Volume (veh/h)       | 52   | 181  | 38   | 290  | 127  | 190  | 68   | 404  | 304  | 178  | 297  | 31   |
| Future Volume (veh/h)        | 52   | 181  | 38   | 290  | 127  | 190  | 68   | 404  | 304  | 178  | 297  | 31   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 66   | 229  | 48   | 326  | 143  | 213  | 108  | 641  | 0    | 234  | 391  | 41   |
| Peak Hour Factor             | 0.79 | 0.79 | 0.79 | 0.89 | 0.89 | 0.89 | 0.63 | 0.63 | 0.63 | 0.76 | 0.76 | 0.76 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 84   | 446  | 92   | 325  | 510  | 455  | 138  | 875  |      | 244  | 992  | 103  |
| Arrive On Green              | 0.05 | 0.15 | 0.15 | 0.18 | 0.29 | 0.29 | 0.08 | 0.25 | 0.00 | 0.14 | 0.31 | 0.31 |
| Sat Flow, veh/h              | 1781 | 2934 | 604  | 1781 | 1777 | 1585 | 1781 | 3554 | 1585 | 1781 | 3248 | 339  |
| Grp Volume(v), veh/h         | 66   | 137  | 140  | 326  | 143  | 213  | 108  | 641  | 0    | 234  | 213  | 219  |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1777 | 1762 | 1781 | 1777 | 1585 | 1781 | 1777 | 1585 | 1781 | 1777 | 1809 |
| Q Serve(g_s), s              | 2.4  | 4.7  | 4.8  | 12.0 | 4.1  | 7.3  | 3.9  | 10.9 | 0.0  | 8.6  | 6.2  | 6.3  |
| Cycle Q Clear(g_c), s        | 2.4  | 4.7  | 4.8  | 12.0 | 4.1  | 7.3  | 3.9  | 10.9 | 0.0  | 8.6  | 6.2  | 6.3  |
| Prop In Lane                 | 1.00 |      | 0.34 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 0.19 |
| Lane Grp Cap(c), veh/h       | 84   | 270  | 268  | 325  | 510  | 455  | 138  | 875  |      | 244  | 543  | 553  |
| V/C Ratio(X)                 | 0.78 | 0.51 | 0.52 | 1.00 | 0.28 | 0.47 | 0.78 | 0.73 |      | 0.96 | 0.39 | 0.40 |
| Avail Cap(c_a), veh/h        | 190  | 648  | 643  | 325  | 783  | 699  | 162  | 1426 |      | 244  | 794  | 808  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 31.0 | 25.6 | 25.7 | 26.9 | 18.2 | 19.3 | 29.8 | 22.8 | 0.0  | 28.2 | 18.0 | 18.1 |
| Incr Delay (d2), s/veh       | 14.6 | 1.5  | 1.6  | 50.8 | 0.3  | 0.7  | 18.7 | 1.2  | 0.0  | 46.5 | 0.5  | 0.5  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 1.3  | 1.9  | 1.9  | 9.1  | 1.5  | 2.4  | 2.2  | 4.1  | 0.0  | 6.4  | 2.3  | 2.3  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 45.6 | 27.1 | 27.3 | 77.7 | 18.5 | 20.1 | 48.5 | 24.0 | 0.0  | 74.8 | 18.5 | 18.5 |
| LnGrp LOS                    | D    | C    | C    | F    | B    | C    | D    | C    |      | E    | B    | B    |
| Approach Vol, veh/h          |      | 343  |      |      | 682  |      |      | 749  | A    |      | 666  |      |
| Approach Delay, s/veh        |      | 30.7 |      |      | 47.3 |      |      | 27.5 |      |      | 38.3 |      |
| Approach LOS                 |      | C    |      |      | D    |      |      | C    |      |      | D    |      |
| Timer - Assigned Phs         | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 13.0 | 21.5 | 16.0 | 15.3 | 9.1  | 25.4 | 7.1  | 24.2 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 5.3  | 4.0  | 5.3  | 4.0  | 5.3  | 4.0  | 5.3  |      |      |      |      |
| Max Green Setting (Gmax), s  | 9.0  | 26.4 | 12.0 | 24.0 | 6.0  | 29.4 | 7.0  | 29.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 10.6 | 12.9 | 14.0 | 6.8  | 5.9  | 8.3  | 4.4  | 9.3  |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 3.3  | 0.0  | 1.2  | 0.0  | 2.2  | 0.0  | 1.9  |      |      |      |      |

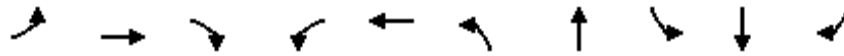
Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 36.4 |
| HCM 6th LOS        | D    |

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.





| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 139  | 28   | 426  | 38   | 38   | 304  | 385  | 9    | 272  | 88   |
| v/c Ratio               | 0.62 | 0.08 | 0.67 | 0.23 | 0.12 | 0.63 | 0.38 | 0.05 | 0.37 | 0.18 |
| Control Delay           | 41.3 | 17.8 | 8.3  | 28.1 | 13.4 | 27.2 | 10.2 | 25.9 | 18.3 | 0.8  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 41.3 | 17.8 | 8.3  | 28.1 | 13.4 | 27.2 | 10.2 | 25.9 | 18.3 | 0.8  |
| Queue Length 50th (ft)  | 28   | 5    | 0    | 8    | 4    | 52   | 27   | 2    | 25   | 0    |
| Queue Length 95th (ft)  | #79  | 16   | 0    | 35   | 22   | #256 | 195  | 14   | 67   | 0    |
| Internal Link Dist (ft) | 2093 |      |      |      | 328  |      | 4456 |      | 377  |      |
| Turn Bay Length (ft)    | 60   |      |      |      |      |      | 200  |      | 150  |      |
| Base Capacity (vph)     | 226  | 736  | 883  | 164  | 652  | 493  | 1050 | 164  | 1316 | 725  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.62 | 0.04 | 0.48 | 0.23 | 0.06 | 0.62 | 0.37 | 0.05 | 0.21 | 0.12 |

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
24: Silva Valley Pkwy. & Harvard Way

Near Term plus Project  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 79   | 16   | 243  | 30   | 15   | 15   | 274  | 328  | 19   | 7    | 220  | 71   |
| Future Volume (veh/h)        | 79   | 16   | 243  | 30   | 15   | 15   | 274  | 328  | 19   | 7    | 220  | 71   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 139  | 28   | 426  | 38   | 19   | 19   | 304  | 364  | 21   | 9    | 272  | 88   |
| Peak Hour Factor             | 0.57 | 0.57 | 0.57 | 0.78 | 0.78 | 0.78 | 0.90 | 0.90 | 0.90 | 0.81 | 0.81 | 0.81 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 177  | 569  | 482  | 58   | 204  | 204  | 364  | 582  | 34   | 17   | 489  | 218  |
| Arrive On Green              | 0.10 | 0.30 | 0.30 | 0.03 | 0.24 | 0.24 | 0.20 | 0.33 | 0.33 | 0.01 | 0.14 | 0.14 |
| Sat Flow, veh/h              | 1781 | 1870 | 1585 | 1781 | 858  | 858  | 1781 | 1751 | 101  | 1781 | 3554 | 1585 |
| Grp Volume(v), veh/h         | 139  | 28   | 426  | 38   | 0    | 38   | 304  | 0    | 385  | 9    | 272  | 88   |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1870 | 1585 | 1781 | 0    | 1716 | 1781 | 0    | 1852 | 1781 | 1777 | 1585 |
| Q Serve(g_s), s              | 3.8  | 0.5  | 12.8 | 1.1  | 0.0  | 0.9  | 8.2  | 0.0  | 8.7  | 0.3  | 3.6  | 2.5  |
| Cycle Q Clear(g_c), s        | 3.8  | 0.5  | 12.8 | 1.1  | 0.0  | 0.9  | 8.2  | 0.0  | 8.7  | 0.3  | 3.6  | 2.5  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 0.50 | 1.00 |      | 0.05 | 1.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 177  | 569  | 482  | 58   | 0    | 408  | 364  | 0    | 616  | 17   | 489  | 218  |
| V/C Ratio(X)                 | 0.79 | 0.05 | 0.88 | 0.65 | 0.00 | 0.09 | 0.84 | 0.00 | 0.62 | 0.54 | 0.56 | 0.40 |
| Avail Cap(c_a), veh/h        | 179  | 638  | 540  | 143  | 0    | 551  | 429  | 0    | 891  | 143  | 1140 | 509  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 21.9 | 12.3 | 16.5 | 23.8 | 0.0  | 14.8 | 19.0 | 0.0  | 14.0 | 24.6 | 20.1 | 19.6 |
| Incr Delay (d2), s/veh       | 20.1 | 0.0  | 14.7 | 11.5 | 0.0  | 0.1  | 11.8 | 0.0  | 1.0  | 24.2 | 1.0  | 1.2  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 2.4  | 0.2  | 6.0  | 0.6  | 0.0  | 0.3  | 3.9  | 0.0  | 2.9  | 0.2  | 1.3  | 0.9  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 42.0 | 12.3 | 31.2 | 35.3 | 0.0  | 14.9 | 30.8 | 0.0  | 15.1 | 48.8 | 21.1 | 20.8 |
| LnGrp LOS                    | D    | B    | C    | D    | A    | B    | C    | A    | B    | D    | C    | C    |
| Approach Vol, veh/h          |      | 593  |      |      | 76   |      |      | 689  |      |      | 369  |      |
| Approach Delay, s/veh        |      | 32.9 |      |      | 25.1 |      |      | 22.0 |      |      | 21.7 |      |
| Approach LOS                 |      | C    |      |      | C    |      |      | C    |      |      | C    |      |
| Timer - Assigned Phs         | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 4.5  | 20.6 | 5.6  | 19.2 | 14.2 | 10.9 | 9.0  | 15.9 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0  | 24.0 | 4.0  | 17.0 | 12.0 | 16.0 | 5.0  | 16.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 2.3  | 10.7 | 3.1  | 14.8 | 10.2 | 5.6  | 5.8  | 2.9  |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 1.7  | 0.0  | 0.4  | 0.2  | 1.3  | 0.0  | 0.1  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 25.8 |      |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      | C    |      |      |      |      |      |      |      |      |      |

Intersection

Intersection Delay, s/veh15.1  
 Intersection LOS C

| Movement            | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations |      | ↕    |      |      | ↕    |      |      | ↕    |      |      | ↕    |      |
| Traffic Vol, veh/h  | 20   | 1    | 43   | 74   | 0    | 75   | 52   | 271  | 64   | 82   | 200  | 30   |
| Future Vol, veh/h   | 20   | 1    | 43   | 74   | 0    | 75   | 52   | 271  | 64   | 82   | 200  | 30   |
| Peak Hour Factor    | 0.79 | 0.79 | 0.79 | 0.88 | 0.88 | 0.88 | 0.86 | 0.86 | 0.86 | 0.83 | 0.83 | 0.83 |
| Heavy Vehicles, %   | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow           | 25   | 1    | 54   | 84   | 0    | 85   | 60   | 315  | 74   | 99   | 241  | 36   |
| Number of Lanes     | 0    | 1    | 0    | 0    | 1    | 0    | 0    | 1    | 0    | 0    | 1    | 0    |

| Approach                      | EB   | WB   | NB   | SB |
|-------------------------------|------|------|------|----|
| Opposing Approach             | WB   | EB   | SB   | NB |
| Opposing Lanes                | 1    | 1    | 1    | 1  |
| Conflicting Approach Left SB  |      | NB   | EB   | WB |
| Conflicting Lanes Left        | 1    | 1    | 1    | 1  |
| Conflicting Approach Right NB |      | SB   | WB   | EB |
| Conflicting Lanes Right       | 1    | 1    | 1    | 1  |
| HCM Control Delay             | 10.2 | 11.5 | 17.5 | 15 |
| HCM LOS                       | B    | B    | C    | B  |

| Lane                   | NBLn1 | EBLn1 | WBLn1 | SBLn1 |
|------------------------|-------|-------|-------|-------|
| Vol Left, %            | 13%   | 31%   | 50%   | 26%   |
| Vol Thru, %            | 70%   | 2%    | 0%    | 64%   |
| Vol Right, %           | 17%   | 67%   | 50%   | 10%   |
| Sign Control           | Stop  | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 387   | 64    | 149   | 312   |
| LT Vol                 | 52    | 20    | 74    | 82    |
| Through Vol            | 271   | 1     | 0     | 200   |
| RT Vol                 | 64    | 43    | 75    | 30    |
| Lane Flow Rate         | 450   | 81    | 169   | 376   |
| Geometry Grp           | 1     | 1     | 1     | 1     |
| Degree of Util (X)     | 0.65  | 0.137 | 0.283 | 0.559 |
| Departure Headway (Hd) | 5.197 | 6.107 | 6.013 | 5.357 |
| Convergence, Y/N       | Yes   | Yes   | Yes   | Yes   |
| Cap                    | 693   | 583   | 594   | 673   |
| Service Time           | 3.246 | 4.188 | 4.08  | 3.41  |
| HCM Lane V/C Ratio     | 0.649 | 0.139 | 0.285 | 0.559 |
| HCM Control Delay      | 17.5  | 10.2  | 11.5  | 15    |
| HCM Lane LOS           | C     | B     | B     | B     |
| HCM 95th-tile Q        | 4.8   | 0.5   | 1.2   | 3.5   |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.1  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↔    |      |      | ↑    |      | ↗    |
| Traffic Vol, veh/h       | 775  | 32   | 0    | 514  | 0    | 7    |
| Future Vol, veh/h        | 775  | 32   | 0    | 514  | 0    | 7    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | 0    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 842  | 35   | 0    | 559  | 0    | 8    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |       |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 0      | 0      | -      | - | 860   |
| Stage 1              | -      | -      | -      | - | -     |
| Stage 2              | -      | -      | -      | - | -     |
| Critical Hdwy        | -      | -      | -      | - | 6.22  |
| Critical Hdwy Stg 1  | -      | -      | -      | - | -     |
| Critical Hdwy Stg 2  | -      | -      | -      | - | -     |
| Follow-up Hdwy       | -      | -      | -      | - | 3.318 |
| Pot Cap-1 Maneuver   | -      | -      | 0      | - | 356   |
| Stage 1              | -      | -      | 0      | - | -     |
| Stage 2              | -      | -      | 0      | - | -     |
| Platoon blocked, %   | -      | -      | -      | - | -     |
| Mov Cap-1 Maneuver   | -      | -      | -      | - | 356   |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | -     |
| Stage 1              | -      | -      | -      | - | -     |
| Stage 2              | -      | -      | -      | - | -     |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 15.3 |
| HCM LOS              |    |    | C    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h)      | 356   | -   | -   | -   |
| HCM Lane V/C Ratio    | 0.021 | -   | -   | -   |
| HCM Control Delay (s) | 15.3  | -   | -   | -   |
| HCM Lane LOS          | C     | -   | -   | -   |
| HCM 95th %tile Q(veh) | 0.1   | -   | -   | -   |



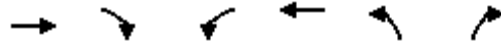
| Lane Group              | EBT  | WBL  | WBT  | NBL  | NBR  |
|-------------------------|------|------|------|------|------|
| Lane Group Flow (vph)   | 850  | 48   | 475  | 84   | 22   |
| v/c Ratio               | 0.73 | 0.19 | 0.41 | 0.27 | 0.07 |
| Control Delay           | 11.2 | 5.9  | 5.4  | 16.9 | 8.0  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 11.2 | 5.9  | 5.4  | 16.9 | 8.0  |
| Queue Length 50th (ft)  | 100  | 4    | 41   | 17   | 0    |
| Queue Length 95th (ft)  | #333 | 17   | 94   | 44   | 12   |
| Internal Link Dist (ft) | 1398 |      | 2852 | 640  |      |
| Turn Bay Length (ft)    |      | 215  |      | 250  |      |
| Base Capacity (vph)     | 1158 | 255  | 1172 | 1114 | 1004 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.73 | 0.19 | 0.41 | 0.08 | 0.02 |

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
27: Site Dwy. Full & Green Valley Rd.

Near Term plus Project  
Timing Plan: PM



| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations          | ↔    |      | ↔    | ↔    | ↔    | ↔    |
| Traffic Volume (veh/h)       | 688  | 94   | 44   | 437  | 77   | 20   |
| Future Volume (veh/h)        | 688  | 94   | 44   | 437  | 77   | 20   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 748  | 102  | 48   | 475  | 84   | 22   |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 944  | 129  | 396  | 1096 | 246  | 219  |
| Arrive On Green              | 0.59 | 0.59 | 0.59 | 0.59 | 0.14 | 0.14 |
| Sat Flow, veh/h              | 1611 | 220  | 649  | 1870 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 0    | 850  | 48   | 475  | 84   | 22   |
| Grp Sat Flow(s),veh/h/ln     | 0    | 1831 | 649  | 1870 | 1781 | 1585 |
| Q Serve(g_s), s              | 0.0  | 10.4 | 1.8  | 4.1  | 1.2  | 0.4  |
| Cycle Q Clear(g_c), s        | 0.0  | 10.4 | 12.2 | 4.1  | 1.2  | 0.4  |
| Prop In Lane                 |      | 0.12 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 0    | 1073 | 396  | 1096 | 246  | 219  |
| V/C Ratio(X)                 | 0.00 | 0.79 | 0.12 | 0.43 | 0.34 | 0.10 |
| Avail Cap(c_a), veh/h        | 0    | 1643 | 598  | 1678 | 1598 | 1422 |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 0.0  | 4.6  | 9.4  | 3.3  | 11.3 | 10.9 |
| Incr Delay (d2), s/veh       | 0.0  | 1.5  | 0.1  | 0.3  | 0.8  | 0.2  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.0  | 0.5  | 0.1  | 0.1  | 0.4  | 0.1  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 0.0  | 6.2  | 9.5  | 3.6  | 12.1 | 11.1 |
| LnGrp LOS                    | A    | A    | A    | A    | B    | B    |
| Approach Vol, veh/h          | 850  |      |      | 523  | 106  |      |
| Approach Delay, s/veh        | 6.2  |      |      | 4.1  | 11.9 |      |
| Approach LOS                 | A    |      |      | A    | B    |      |
| Timer - Assigned Phs         |      | 2    |      |      | 6    | 8    |
| Phs Duration (G+Y+Rc), s     |      | 21.0 |      |      | 21.0 | 8.0  |
| Change Period (Y+Rc), s      |      | 4.0  |      |      | 4.0  | 4.0  |
| Max Green Setting (Gmax), s  |      | 26.0 |      |      | 26.0 | 26.0 |
| Max Q Clear Time (g_c+I1), s |      | 14.2 |      |      | 12.4 | 3.2  |
| Green Ext Time (p_c), s      |      | 2.3  |      |      | 4.6  | 0.3  |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 5.9  |      |      |      |
| HCM 6th LOS                  |      |      | A    |      |      |      |

Summary of All Intervals

| Run Number              | 1      | 10     | 2      | 3      | 4      | 5      | 6      |
|-------------------------|--------|--------|--------|--------|--------|--------|--------|
| Start Time              | 4:50   | 4:50   | 4:50   | 4:50   | 4:50   | 4:50   | 4:50   |
| End Time                | 6:00   | 6:00   | 6:00   | 6:00   | 6:00   | 6:00   | 6:00   |
| Total Time (min)        | 70     | 70     | 70     | 70     | 70     | 70     | 70     |
| Time Recorded (min)     | 60     | 60     | 60     | 60     | 60     | 60     | 60     |
| # of Intervals          | 5      | 5      | 5      | 5      | 5      | 5      | 5      |
| # of Recorded Intervals | 4      | 4      | 4      | 4      | 4      | 4      | 4      |
| Vehs Entered            | 13611  | 13472  | 13651  | 13573  | 13611  | 13507  | 13644  |
| Vehs Exited             | 13567  | 13450  | 13529  | 13480  | 13523  | 13402  | 13561  |
| Starting Vehs           | 396    | 420    | 356    | 333    | 371    | 360    | 351    |
| Ending Vehs             | 440    | 442    | 478    | 426    | 459    | 465    | 434    |
| Travel Distance (mi)    | 4040   | 4005   | 4043   | 4010   | 4013   | 3972   | 4022   |
| Travel Time (hr)        | 1249.0 | 1274.6 | 1404.9 | 1289.2 | 1362.9 | 1422.9 | 1441.9 |
| Total Delay (hr)        | 1126.7 | 1153.7 | 1282.9 | 1168.1 | 1241.8 | 1303.2 | 1320.5 |
| Total Stops             | 12136  | 12531  | 12508  | 12332  | 12170  | 12322  | 12272  |
| Fuel Used (gal)         | 433.6  | 438.4  | 469.7  | 442.8  | 459.5  | 472.6  | 477.6  |

Summary of All Intervals

| Run Number              | 7      | 8      | 9      | Avg    |
|-------------------------|--------|--------|--------|--------|
| Start Time              | 4:50   | 4:50   | 4:50   | 4:50   |
| End Time                | 6:00   | 6:00   | 6:00   | 6:00   |
| Total Time (min)        | 70     | 70     | 70     | 70     |
| Time Recorded (min)     | 60     | 60     | 60     | 60     |
| # of Intervals          | 5      | 5      | 5      | 5      |
| # of Recorded Intervals | 4      | 4      | 4      | 4      |
| Vehs Entered            | 13259  | 13436  | 13601  | 13535  |
| Vehs Exited             | 13185  | 13374  | 13490  | 13457  |
| Starting Vehs           | 387    | 379    | 355    | 367    |
| Ending Vehs             | 461    | 441    | 466    | 447    |
| Travel Distance (mi)    | 3910   | 3962   | 4020   | 4000   |
| Travel Time (hr)        | 1416.9 | 1314.0 | 1351.1 | 1352.7 |
| Total Delay (hr)        | 1298.9 | 1194.1 | 1229.7 | 1232.0 |
| Total Stops             | 12301  | 12176  | 12212  | 12298  |
| Fuel Used (gal)         | 468.4  | 446.3  | 457.1  | 456.6  |

Interval #0 Information Seeding

|                                     |      |
|-------------------------------------|------|
| Start Time                          | 4:50 |
| End Time                            | 5:00 |
| Total Time (min)                    | 10   |
| Volumes adjusted by Growth Factors. |      |
| No data recorded this interval.     |      |

**Interval #1 Information**

|                  |      |
|------------------|------|
| Start Time       | 5:00 |
| End Time         | 5:15 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 3446  | 3436  | 3371  | 3421  | 3397  | 3310  | 3426  |
| Vehs Exited          | 3420  | 3404  | 3330  | 3347  | 3334  | 3225  | 3325  |
| Starting Vehs        | 396   | 420   | 356   | 333   | 371   | 360   | 351   |
| Ending Vehs          | 422   | 452   | 397   | 407   | 434   | 445   | 452   |
| Travel Distance (mi) | 1024  | 1006  | 984   | 1004  | 991   | 965   | 986   |
| Travel Time (hr)     | 184.2 | 200.8 | 203.4 | 182.9 | 189.8 | 201.8 | 195.4 |
| Total Delay (hr)     | 153.1 | 170.4 | 173.7 | 152.6 | 159.9 | 172.7 | 165.6 |
| Total Stops          | 3080  | 3397  | 2986  | 3222  | 2965  | 3009  | 3007  |
| Fuel Used (gal)      | 79.4  | 83.1  | 82.7  | 78.7  | 79.6  | 81.6  | 80.7  |

**Interval #1 Information**

|                  |      |
|------------------|------|
| Start Time       | 5:00 |
| End Time         | 5:15 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 3292  | 3297  | 3520  | 3387  |
| Vehs Exited          | 3242  | 3252  | 3427  | 3332  |
| Starting Vehs        | 387   | 379   | 355   | 367   |
| Ending Vehs          | 437   | 424   | 448   | 429   |
| Travel Distance (mi) | 966   | 970   | 1021  | 992   |
| Travel Time (hr)     | 204.2 | 171.0 | 190.4 | 192.4 |
| Total Delay (hr)     | 174.8 | 141.8 | 159.6 | 162.4 |
| Total Stops          | 3098  | 2894  | 3161  | 3080  |
| Fuel Used (gal)      | 82.4  | 74.8  | 81.1  | 80.4  |



**Interval #2 Information**

|                  |      |
|------------------|------|
| Start Time       | 5:15 |
| End Time         | 5:30 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 3366  | 3357  | 3410  | 3403  | 3397  | 3433  | 3392  |
| Vehs Exited          | 3379  | 3415  | 3433  | 3411  | 3447  | 3421  | 3442  |
| Starting Vehs        | 422   | 452   | 397   | 407   | 434   | 445   | 452   |
| Ending Vehs          | 409   | 394   | 374   | 399   | 384   | 457   | 402   |
| Travel Distance (mi) | 1004  | 1000  | 1022  | 1019  | 1016  | 1010  | 1018  |
| Travel Time (hr)     | 265.8 | 278.5 | 312.8 | 269.3 | 290.8 | 310.4 | 313.4 |
| Total Delay (hr)     | 235.5 | 248.5 | 281.9 | 238.5 | 260.2 | 279.8 | 282.7 |
| Total Stops          | 3156  | 2909  | 3130  | 3057  | 3051  | 3230  | 2932  |
| Fuel Used (gal)      | 97.8  | 100.3 | 108.8 | 99.5  | 104.2 | 108.8 | 108.8 |

**Interval #2 Information**

|                  |      |
|------------------|------|
| Start Time       | 5:15 |
| End Time         | 5:30 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 3387  | 3337  | 3353  | 3383  |
| Vehs Exited          | 3433  | 3351  | 3413  | 3414  |
| Starting Vehs        | 437   | 424   | 448   | 429   |
| Ending Vehs          | 391   | 410   | 388   | 394   |
| Travel Distance (mi) | 1003  | 990   | 1017  | 1010  |
| Travel Time (hr)     | 302.3 | 272.4 | 291.5 | 290.7 |
| Total Delay (hr)     | 272.2 | 242.5 | 260.8 | 260.3 |
| Total Stops          | 3056  | 3037  | 3024  | 3059  |
| Fuel Used (gal)      | 106.4 | 98.7  | 104.3 | 103.8 |

**Interval #3 Information**

|                  |      |
|------------------|------|
| Start Time       | 5:30 |
| End Time         | 5:45 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 3399  | 3393  | 3397  | 3406  | 3408  | 3414  | 3473  |
| Vehs Exited          | 3360  | 3373  | 3342  | 3393  | 3390  | 3378  | 3399  |
| Starting Vehs        | 409   | 394   | 374   | 399   | 384   | 457   | 402   |
| Ending Vehs          | 448   | 414   | 429   | 412   | 402   | 493   | 476   |
| Travel Distance (mi) | 989   | 1027  | 1004  | 1001  | 1018  | 1006  | 1019  |
| Travel Time (hr)     | 348.7 | 357.6 | 397.7 | 366.3 | 392.4 | 397.8 | 415.5 |
| Total Delay (hr)     | 318.7 | 326.5 | 367.4 | 336.1 | 361.6 | 367.7 | 384.8 |
| Total Stops          | 2941  | 3106  | 3024  | 3013  | 3163  | 3064  | 3287  |
| Fuel Used (gal)      | 115.8 | 119.1 | 128.0 | 120.7 | 127.0 | 128.3 | 132.4 |

**Interval #3 Information**

|                  |      |
|------------------|------|
| Start Time       | 5:30 |
| End Time         | 5:45 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 3305  | 3397  | 3353  | 3395  |
| Vehs Exited          | 3262  | 3334  | 3289  | 3351  |
| Starting Vehs        | 391   | 410   | 388   | 394   |
| Ending Vehs          | 434   | 473   | 452   | 437   |
| Travel Distance (mi) | 983   | 985   | 993   | 1002  |
| Travel Time (hr)     | 407.7 | 385.2 | 386.6 | 385.5 |
| Total Delay (hr)     | 378.2 | 355.3 | 356.6 | 355.3 |
| Total Stops          | 3144  | 3078  | 3066  | 3087  |
| Fuel Used (gal)      | 129.2 | 124.3 | 124.8 | 125.0 |

**Interval #4 Information Recording**

|                  |      |
|------------------|------|
| Start Time       | 5:45 |
| End Time         | 6:00 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 3400  | 3286  | 3473  | 3343  | 3409  | 3350  | 3353  |
| Vehs Exited          | 3408  | 3258  | 3424  | 3329  | 3352  | 3378  | 3395  |
| Starting Vehs        | 448   | 414   | 429   | 412   | 402   | 493   | 476   |
| Ending Vehs          | 440   | 442   | 478   | 426   | 459   | 465   | 434   |
| Travel Distance (mi) | 1024  | 972   | 1033  | 987   | 988   | 991   | 999   |
| Travel Time (hr)     | 450.3 | 437.7 | 491.0 | 470.7 | 489.9 | 512.9 | 517.5 |
| Total Delay (hr)     | 419.5 | 408.3 | 459.8 | 440.9 | 460.1 | 482.9 | 487.4 |
| Total Stops          | 2959  | 3119  | 3368  | 3040  | 2991  | 3019  | 3046  |
| Fuel Used (gal)      | 140.6 | 135.8 | 150.2 | 143.9 | 148.6 | 154.0 | 155.8 |

**Interval #4 Information Recording**

|                  |      |
|------------------|------|
| Start Time       | 5:45 |
| End Time         | 6:00 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 3275  | 3405  | 3375  | 3365  |
| Vehs Exited          | 3248  | 3437  | 3361  | 3361  |
| Starting Vehs        | 434   | 473   | 452   | 437   |
| Ending Vehs          | 461   | 441   | 466   | 447   |
| Travel Distance (mi) | 958   | 1017  | 989   | 996   |
| Travel Time (hr)     | 502.7 | 485.3 | 482.6 | 484.1 |
| Total Delay (hr)     | 473.7 | 454.5 | 452.7 | 454.0 |
| Total Stops          | 3003  | 3167  | 2961  | 3064  |
| Fuel Used (gal)      | 150.4 | 148.5 | 146.9 | 147.5 |

**13: Francisco Dr & El Dorado Hills Blvd Performance by movement**

| Movement           | EBL | EBT  | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT  | All |
|--------------------|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|
| Denied Delay (hr)  | 0.0 | 0.0  | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.5 |
| Denied Del/Veh (s) | 1.4 | 1.3  | 3.5 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 4.1 | 0.2  | 1.2 |
| Total Delay (hr)   | 0.0 | 0.1  | 0.6 | 0.0 | 0.1 | 0.0 | 1.2 | 0.8 | 0.0 | 0.0 | 0.7  | 3.6 |
| Total Del/Veh (s)  | 8.3 | 11.3 | 4.3 | 6.0 | 7.5 | 3.6 | 9.4 | 9.9 | 4.1 | 6.1 | 12.2 | 8.1 |
| Stop Delay (hr)    | 0.0 | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 0.2 | 0.0 | 0.0 | 0.2  | 1.4 |
| Stop Del/Veh (s)   | 3.6 | 4.0  | 0.0 | 4.1 | 4.1 | 3.2 | 6.5 | 3.0 | 2.7 | 2.8 | 4.0  | 3.2 |

**17: El Dorado Hills Blvd #2 & Saratoga Way/Park Drive Performance by movement**

| Movement           | EBL    | EBT    | EBR    | WBL   | WBT   | WBR   | NBL   | NBT  | NBR  | SBL   | SBT   | SBR   |
|--------------------|--------|--------|--------|-------|-------|-------|-------|------|------|-------|-------|-------|
| Denied Delay (hr)  | 113.0  | 201.6  | 140.4  | 9.6   | 50.8  | 17.7  | 0.1   | 0.1  | 0.0  | 12.9  | 31.2  | 15.2  |
| Denied Del/Veh (s) | 1355.5 | 1366.6 | 1365.7 | 421.0 | 424.1 | 410.1 | 0.9   | 0.3  | 0.2  | 174.1 | 169.6 | 176.7 |
| Total Delay (hr)   | 10.8   | 20.8   | 8.8    | 1.3   | 14.5  | 5.0   | 10.6  | 10.5 | 1.4  | 14.9  | 25.0  | 10.9  |
| Total Del/Veh (s)  | 357.4  | 374.1  | 242.4  | 72.4  | 147.0 | 140.9 | 122.1 | 39.5 | 34.5 | 215.0 | 150.8 | 138.1 |
| Stop Delay (hr)    | 10.2   | 19.6   | 8.2    | 1.2   | 13.0  | 4.6   | 9.5   | 7.8  | 1.1  | 14.1  | 21.9  | 9.8   |
| Stop Del/Veh (s)   | 338.2  | 352.5  | 225.1  | 69.0  | 132.6 | 129.2 | 109.9 | 29.2 | 27.7 | 204.2 | 132.1 | 123.9 |

**17: El Dorado Hills Blvd #2 & Saratoga Way/Park Drive Performance by movement**

| Movement           | All   |
|--------------------|-------|
| Denied Delay (hr)  | 592.4 |
| Denied Del/Veh (s) | 473.2 |
| Total Delay (hr)   | 134.5 |
| Total Del/Veh (s)  | 137.0 |
| Stop Delay (hr)    | 121.2 |
| Stop Del/Veh (s)   | 123.4 |

**18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way Performance by movement**

| Movement           | EBL  | EBT  | EBR | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|--------------------|------|------|-----|------|------|------|------|------|------|------|------|------|
| Denied Delay (hr)  | 0.0  | 0.0  | 0.1 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Denied Del/Veh (s) | 0.2  | 0.4  | 3.5 | 0.2  | 0.1  | 0.2  | 0.0  | 0.0  | 0.0  | 0.7  | 0.0  | 0.6  |
| Total Delay (hr)   | 2.3  | 1.0  | 0.1 | 2.2  | 1.1  | 1.4  | 12.7 | 4.4  | 0.7  | 0.7  | 8.2  | 1.7  |
| Total Del/Veh (s)  | 55.9 | 58.0 | 3.2 | 53.9 | 57.8 | 58.2 | 52.2 | 13.1 | 11.5 | 81.5 | 43.5 | 30.4 |
| Stop Delay (hr)    | 2.1  | 0.9  | 0.0 | 2.1  | 1.0  | 1.3  | 10.1 | 2.2  | 0.4  | 0.6  | 6.8  | 1.4  |
| Stop Del/Veh (s)   | 52.9 | 53.0 | 0.0 | 50.1 | 52.9 | 55.2 | 41.7 | 6.7  | 5.9  | 76.4 | 36.5 | 25.7 |

**18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way Performance by movement**

| Movement           | All  |
|--------------------|------|
| Denied Delay (hr)  | 0.2  |
| Denied Del/Veh (s) | 0.2  |
| Total Delay (hr)   | 36.4 |
| Total Del/Veh (s)  | 34.0 |
| Stop Delay (hr)    | 29.1 |
| Stop Del/Veh (s)   | 27.2 |

19: Latrobe Road #2/EI Dorado Hills Blvd #2 & US 50 EB Ramps Performance by movement

| Movement           | EBR  | WBR | NBT | NBR | SBL  | SBT | All  |
|--------------------|------|-----|-----|-----|------|-----|------|
| Denied Delay (hr)  | 0.1  | 0.1 | 0.5 | 0.3 | 0.0  | 0.0 | 0.9  |
| Denied Del/Veh (s) | 0.6  | 0.4 | 0.9 | 2.3 | 0.0  | 0.0 | 0.7  |
| Total Delay (hr)   | 2.2  | 0.1 | 3.1 | 0.6 | 2.3  | 2.2 | 10.5 |
| Total Del/Veh (s)  | 10.2 | 1.0 | 6.1 | 5.2 | 50.9 | 9.9 | 8.5  |
| Stop Delay (hr)    | 1.2  | 0.0 | 1.0 | 0.3 | 2.1  | 0.8 | 5.4  |
| Stop Del/Veh (s)   | 5.6  | 0.0 | 2.1 | 2.2 | 44.9 | 3.7 | 4.4  |

Total Zone Performance

|                    |        |
|--------------------|--------|
| Denied Delay (hr)  | 594.0  |
| Denied Del/Veh (s) | 259.8  |
| Total Delay (hr)   | 184.9  |
| Total Del/Veh (s)  | 1577.5 |
| Stop Delay (hr)    | 157.0  |
| Stop Del/Veh (s)   | 1339.7 |

Intersection: 13: Francisco Dr & El Dorado Hills Blvd

| Movement              | EB  | WB  | NB  | NB  | SB  | SB  |
|-----------------------|-----|-----|-----|-----|-----|-----|
| Directions Served     | LT  | LTR | L   | TR  | L   | TR  |
| Maximum Queue (ft)    | 61  | 52  | 197 | 113 | 31  | 98  |
| Average Queue (ft)    | 26  | 26  | 91  | 51  | 5   | 46  |
| 95th Queue (ft)       | 52  | 49  | 163 | 86  | 22  | 77  |
| Link Distance (ft)    | 577 | 573 |     | 275 |     | 734 |
| Upstream Blk Time (%) |     |     |     | 0   |     |     |
| Queuing Penalty (veh) |     |     |     | 0   |     |     |
| Storage Bay Dist (ft) |     |     | 500 |     | 200 |     |
| Storage Blk Time (%)  |     |     |     | 0   |     |     |
| Queuing Penalty (veh) |     |     |     | 0   |     |     |

Intersection: 17: El Dorado Hills Blvd #2 & Saratoga Way/Park Drive

| Movement              | EB  | EB  | EB  | WB  | WB  | NB  | NB  | NB  | NB  | SB  | SB  | SB  |
|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Directions Served     | L   | LT  | R   | L   | TR  | L   | T   | T   | TR  | L   | T   | TR  |
| Maximum Queue (ft)    | 175 | 982 | 265 | 512 | 544 | 275 | 556 | 450 | 300 | 125 | 730 | 733 |
| Average Queue (ft)    | 139 | 950 | 208 | 428 | 507 | 250 | 314 | 222 | 179 | 123 | 683 | 683 |
| 95th Queue (ft)       | 227 | 968 | 364 | 696 | 525 | 315 | 586 | 413 | 266 | 134 | 797 | 805 |
| Link Distance (ft)    |     | 930 |     | 488 | 488 |     | 946 | 946 | 946 |     | 685 | 685 |
| Upstream Blk Time (%) |     | 91  |     | 32  | 89  |     |     |     |     |     | 59  | 54  |
| Queuing Penalty (veh) |     | 0   |     | 0   | 0   |     |     |     |     |     | 0   | 0   |
| Storage Bay Dist (ft) | 150 |     | 240 |     |     | 250 |     |     |     | 100 |     |     |
| Storage Blk Time (%)  | 2   | 86  | 0   |     |     | 42  | 0   |     |     | 66  | 20  |     |
| Queuing Penalty (veh) | 16  | 414 | 2   |     |     | 132 | 1   |     |     | 221 | 53  |     |

Intersection: 18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way

| Movement              | EB   | EB   | WB  | WB  | WB  | NB  | NB  | NB  | NB  | NB  | SB | SB  |
|-----------------------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|
| Directions Served     | L    | LT   | L   | LT  | TR  | L   | L   | T   | T   | TR  | L  | T   |
| Maximum Queue (ft)    | 134  | 163  | 145 | 167 | 178 | 453 | 452 | 227 | 224 | 245 | 91 | 223 |
| Average Queue (ft)    | 65   | 81   | 54  | 95  | 98  | 287 | 292 | 113 | 107 | 130 | 32 | 135 |
| 95th Queue (ft)       | 119  | 142  | 110 | 148 | 157 | 415 | 414 | 205 | 200 | 224 | 79 | 202 |
| Link Distance (ft)    | 1059 | 1059 |     | 621 | 621 | 714 | 714 | 714 | 714 | 714 |    | 946 |
| Upstream Blk Time (%) |      |      |     |     |     |     |     |     |     |     |    |     |
| Queuing Penalty (veh) |      |      |     |     |     |     |     |     |     |     |    |     |
| Storage Bay Dist (ft) | 150  |      |     |     |     |     | 200 |     |     |     |    |     |
| Storage Blk Time (%)  | 0    |      |     | 1   |     |     |     |     |     |     |    |     |
| Queuing Penalty (veh) | 0    |      |     | 1   |     |     |     |     |     |     |    |     |

Intersection: 18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way

| Movement              | SB  | SB  | SB  |
|-----------------------|-----|-----|-----|
| Directions Served     | T   | T   | R   |
| Maximum Queue (ft)    | 199 | 192 | 208 |
| Average Queue (ft)    | 115 | 106 | 110 |
| 95th Queue (ft)       | 181 | 169 | 186 |
| Link Distance (ft)    | 946 | 946 |     |
| Upstream Blk Time (%) |     |     |     |
| Queuing Penalty (veh) |     |     |     |
| Storage Bay Dist (ft) | 200 |     |     |
| Storage Blk Time (%)  | 1   | 1   |     |
| Queuing Penalty (veh) | 2   | 2   |     |

Intersection: 19: Latrobe Road #2/El Dorado Hills Blvd #2 & US 50 EB Ramps

| Movement              | EB   | EB  | NB  | NB  | NB  | NB  | SB  | SB  | SB  | SB  | SB  |  |
|-----------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Directions Served     | R    | R   | T   | T   | T   | R   | L   | T   | T   | T   | T   |  |
| Maximum Queue (ft)    | 116  | 124 | 155 | 219 | 260 | 224 | 211 | 105 | 119 | 137 | 132 |  |
| Average Queue (ft)    | 60   | 61  | 67  | 79  | 114 | 63  | 99  | 21  | 37  | 53  | 48  |  |
| 95th Queue (ft)       | 94   | 100 | 128 | 171 | 221 | 145 | 189 | 73  | 94  | 113 | 109 |  |
| Link Distance (ft)    | 1212 |     | 718 | 718 | 718 |     |     | 714 | 714 | 714 | 714 |  |
| Upstream Blk Time (%) |      |     |     |     |     |     |     |     |     |     |     |  |
| Queuing Penalty (veh) |      |     |     |     |     |     |     |     |     |     |     |  |
| Storage Bay Dist (ft) | 450  |     |     |     | 275 |     |     |     | 575 |     |     |  |
| Storage Blk Time (%)  | 0    |     |     |     |     | 0   |     |     |     |     |     |  |
| Queuing Penalty (veh) | 0    |     |     |     |     | 0   |     |     |     |     |     |  |

Zone Summary

Zone wide Queuing Penalty: 845

# HCS7 Two-Lane Highway Report

## Project Information

|                     |   |                      |                         |
|---------------------|---|----------------------|-------------------------|
| Analyst             | Kimley-Horn   | Date                 | 11/29/2021              |
| Agency              |   | Analysis Year        | 2031 plus Project       |
| Jurisdiction        | El Dorado County  | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Francisco Dr to El Dorado Hills Blvd EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2059 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 1.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 623  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.80 | Total Trucks, %                  | 1.70 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.37 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 56.7    |
| Speed Slope Coefficient           | 3.59431  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.38808 | PF Power Coefficient             | 0.73983 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 7.2     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2059       | -          | -                 | 53.9                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 53.9 | Percent Followers, %               | 62.4 |
| Segment Travel Time, minutes | 0.43 | Followers Density, followers/mi/ln | 7.2  |
| Vehicle LOS                  | C    |                                    |      |



# HCS7 Two-Lane Highway Report

## Project Information

|                     |   |                      |                         |
|---------------------|---|----------------------|-------------------------|
| Analyst             | Kimley-Horn   | Date                 | 11/29/2021              |
| Agency              |   | Analysis Year        | 2031 plus Project       |
| Jurisdiction        | El Dorado County  | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Francisco Dr to El Dorado Hills Blvd EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2059 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 1.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 1028 | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.97 | Total Trucks, %                  | 1.70 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.60 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 56.7    |
| Speed Slope Coefficient           | 3.59431  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.38808 | PF Power Coefficient             | 0.73983 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 14.6    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2059       | -          | -                 | 53.2                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 53.2 | Percent Followers, %               | 75.7 |
| Segment Travel Time, minutes | 0.44 | Followers Density, followers/mi/ln | 14.6 |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |   |                      |                         |
|---------------------|---|----------------------|-------------------------|
| Analyst             | Kimley-Horn   | Date                 | 11/29/2021              |
| Agency              |   | Analysis Year        | 2031 plus Project       |
| Jurisdiction        | El Dorado County  | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Francisco Dr to El Dorado Hills Blvd WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2059 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 1.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 1007 | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.88 | Total Trucks, %                  | 0.70 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.59 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 56.7    |
| Speed Slope Coefficient           | 3.59612  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.38793 | PF Power Coefficient             | 0.73977 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 14.2    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2059       | -          | -                 | 53.3                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 53.3 | Percent Followers, %               | 75.2 |
| Segment Travel Time, minutes | 0.44 | Followers Density, followers/mi/ln | 14.2 |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |   |                      |                         |
|---------------------|---|----------------------|-------------------------|
| Analyst             | Kimley-Horn   | Date                 | 11/29/2021              |
| Agency              |   | Analysis Year        | 2031 plus Project       |
| Jurisdiction        | El Dorado County  | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Francisco Dr to El Dorado Hills Blvd WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2059 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 1.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 802  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.94 | Total Trucks, %                  | 0.70 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.47 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 56.7    |
| Speed Slope Coefficient           | 3.59612  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.38793 | PF Power Coefficient             | 0.73977 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 10.4    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2059       | -          | -                 | 53.6                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 53.6 | Percent Followers, %               | 69.2 |
| Segment Travel Time, minutes | 0.44 | Followers Density, followers/mi/ln | 10.4 |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2031 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - El Dorado Hills Blvd to Silva Valley Pkwy EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 1900 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 0.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 715  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.83 | Total Trucks, %                  | 0.90 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.42 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 57.0    |
| Speed Slope Coefficient           | 3.60677  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.39272 | PF Power Coefficient             | 0.73846 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 8.8     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 1900       | -          | -                 | 54.0                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 54.0 | Percent Followers, %               | 66.3 |
| Segment Travel Time, minutes | 0.40 | Followers Density, followers/mi/ln | 8.8  |
| Vehicle LOS                  | C    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2031 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - El Dorado Hills Blvd to Silva Valley Pkwy EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 1900 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 0.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 1131 | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.93 | Total Trucks, %                  | 0.90 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.67 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 57.0    |
| Speed Slope Coefficient           | 3.60677  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.39272 | PF Power Coefficient             | 0.73846 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 16.6    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 1900       | -          | -                 | 53.3                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 53.3 | Percent Followers, %               | 78.2 |
| Segment Travel Time, minutes | 0.40 | Followers Density, followers/mi/ln | 16.6 |
| Vehicle LOS                  | E    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2031 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - El Dorado Hills Blvd to Silva Valley Pkwy WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 1900 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 0.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 976  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.92 | Total Trucks, %                  | 0.90 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.57 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 57.0    |
| Speed Slope Coefficient           | 3.60677  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.39272 | PF Power Coefficient             | 0.73846 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 13.6    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 1900       | -          | -                 | 53.6                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 53.6 | Percent Followers, %               | 74.5 |
| Segment Travel Time, minutes | 0.40 | Followers Density, followers/mi/ln | 13.6 |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2031 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - El Dorado Hills Blvd to Silva Valley Pkwy WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 1900 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 0.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 814  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.92 | Total Trucks, %                  | 0.90 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.48 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 57.0    |
| Speed Slope Coefficient           | 3.60677  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.39272 | PF Power Coefficient             | 0.73846 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 10.6    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 1900       | -          | -                 | 53.8                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 53.8 | Percent Followers, %               | 69.8 |
| Segment Travel Time, minutes | 0.40 | Followers Density, followers/mi/ln | 10.6 |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2031 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Silva Valley Pkwy to Malcolm Dixon Rd EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 8765 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 507  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.82 | Total Trucks, %                  | 1.00 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.30 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.95929  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.27608 | PF Power Coefficient             | 0.75149 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 4.6     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 8765       | -          | -                 | 59.4                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.4 | Percent Followers, %               | 53.5 |
| Segment Travel Time, minutes | 1.68 | Followers Density, followers/mi/ln | 4.6  |
| Vehicle LOS                  | C    |                                    |      |



# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2031 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Silva Valley Pkwy to Malcolm Dixon Rd EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 8765 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 822  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.92 | Total Trucks, %                  | 1.00 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.48 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.95929  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.27608 | PF Power Coefficient             | 0.75149 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 9.4     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 8765       | -          | -                 | 58.7                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 58.7 | Percent Followers, %               | 66.8 |
| Segment Travel Time, minutes | 1.70 | Followers Density, followers/mi/ln | 9.4  |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2031 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Silva Valley Pkwy to Malcolm Dixon Rd WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 8765 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 867  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.83 | Total Trucks, %                  | 1.20 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.51 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.95892  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.27611 | PF Power Coefficient             | 0.75150 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 10.1    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 8765       | -          | -                 | 58.6                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 58.6 | Percent Followers, %               | 68.2 |
| Segment Travel Time, minutes | 1.70 | Followers Density, followers/mi/ln | 10.1 |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2031 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Silva Valley Pkwy to Malcolm Dixon Rd WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 8765 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 570  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.90 | Total Trucks, %                  | 1.20 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.34 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.95892  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.27611 | PF Power Coefficient             | 0.75150 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 5.4     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 8765       | -          | -                 | 59.3                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.3 | Percent Followers, %               | 56.7 |
| Segment Travel Time, minutes | 1.68 | Followers Density, followers/mi/ln | 5.4  |
| Vehicle LOS                  | C    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2031 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Malcolm Dixon Rd to Project EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2304 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 439  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.90 | Total Trucks, %                  | 0.30 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.26 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.89594  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.33086 | PF Power Coefficient             | 0.75550 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 3.8     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2304       | -          | -                 | 59.7                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.7 | Percent Followers, %               | 51.1 |
| Segment Travel Time, minutes | 0.44 | Followers Density, followers/mi/ln | 3.8  |
| Vehicle LOS                  | B    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2031 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Malcolm Dixon Rd to Project EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2304 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 884  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.93 | Total Trucks, %                  | 0.30 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.52 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.89594  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.33086 | PF Power Coefficient             | 0.75550 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 10.6    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2304       | -          | -                 | 58.7                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 58.7 | Percent Followers, %               | 70.3 |
| Segment Travel Time, minutes | 0.45 | Followers Density, followers/mi/ln | 10.6 |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2031 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Malcolm Dixon Rd to Project WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2304 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 768  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.94 | Total Trucks, %                  | 0.00 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.45 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.89648  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.33081 | PF Power Coefficient             | 0.75548 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 8.7     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2304       | -          | -                 | 58.9                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 58.9 | Percent Followers, %               | 66.4 |
| Segment Travel Time, minutes | 0.44 | Followers Density, followers/mi/ln | 8.7  |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2031 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Malcolm Dixon Rd to Project WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2304 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 599  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.86 | Total Trucks, %                  | 0.00 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.35 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.89648  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.33081 | PF Power Coefficient             | 0.75548 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 6.0     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2304       | -          | -                 | 59.3                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.3 | Percent Followers, %               | 59.5 |
| Segment Travel Time, minutes | 0.44 | Followers Density, followers/mi/ln | 6.0  |
| Vehicle LOS                  | C    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2031 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Project to Deer Valley Rd EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 3152 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 437  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.90 | Total Trucks, %                  | 0.30 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.26 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.90747  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.30740 | PF Power Coefficient             | 0.76221 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 3.7     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 3152       | -          | -                 | 59.7                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.7 | Percent Followers, %               | 50.1 |
| Segment Travel Time, minutes | 0.60 | Followers Density, followers/mi/ln | 3.7  |
| Vehicle LOS                  | B    |                                    |      |



# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2031 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Project to Deer Valley Rd EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 3152 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 875  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.84 | Total Trucks, %                  | 0.30 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.51 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.90747  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.30740 | PF Power Coefficient             | 0.76221 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 10.3    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 3152       | -          | -                 | 58.7                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 58.7 | Percent Followers, %               | 69.3 |
| Segment Travel Time, minutes | 0.61 | Followers Density, followers/mi/ln | 10.3 |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2031 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Project to Deer Valley Rd WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 3152 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                 |      |
|-------------------------------------|------|---------------------------------|------|
| Directional Demand Flow Rate, veh/h | 664  | Oposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.95 | Total Trucks, %                 | 0.00 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)           | 0.39 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.90802  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.30735 | PF Power Coefficient             | 0.76219 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 6.9     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 3152       | -          | -                 | 59.1                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.1 | Percent Followers, %               | 61.6 |
| Segment Travel Time, minutes | 0.61 | Followers Density, followers/mi/ln | 6.9  |
| Vehicle LOS                  | C    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2031 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Project to Deer Valley Rd WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 3152 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 528  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.88 | Total Trucks, %                  | 0.00 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.31 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.90802  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.30735 | PF Power Coefficient             | 0.76219 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 4.9     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 3152       | -          | -                 | 59.5                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.5 | Percent Followers, %               | 55.2 |
| Segment Travel Time, minutes | 0.60 | Followers Density, followers/mi/ln | 4.9  |
| Vehicle LOS                  | C    |                                    |      |

| Segment Inputs  |   |                        |                               | Near Term (2031) PP Conditions |         |                             |         |        |            |           |                             |        |            |       |     |         |         |   |
|---|---|------------------------|-------------------------------|--------------------------------|---------|-----------------------------|---------|--------|------------|-----------|-----------------------------|--------|------------|-------|-----|---------|---------|---|
|   |   |                        |                               | Flow Inputs                    |         | AM LOS Performance Measures |         |        |            |           | PM LOS Performance Measures |        |            |       |     |         |         |   |
|   | Length<br>(ft)  | Number of Lanes<br>(N) | Interchange Density<br>(I/mi) | AM Peak                        | PM Peak | V <sub>p</sub>              | FFS     | S      | D          | LOS       | V <sub>p</sub>              | FFS    | S          | D     | LOS |         |         |   |
|   |   |                        |                               | (veh/h)                        | (veh/h) | (pc/h/ln)                   | (mi/h)  | (mi/h) | (pc/mi/ln) | (pc/h/ln) | (mi/h)                      | (mi/h) | (pc/mi/ln) |       |     |         |         |   |
| EB  | West of Latrobe Rd SB Off Ramp                                      | 6690                   | 3                             | 0.33                           | 4,553   | 4,506                       | 1666.02 | 74.12  | 75         | 70.0895   | 23.7699                     | C      | 1648.957   | 74.12 | 75  | 70.3379 | 23.4    | C |
|   | Latrobe Rd NB Off Ramp to Latrobe Rd On Ramp                        | 1990                   | 3                             | 0.50                           | 3,349   | 3,295                       | 1225.43 | 73.6   | 75         | 74.4374   | 16.4625                     | B      | 1205.801   | 73.6  | 75  | 74.5311 | 16.1785 | B |
|   | Silva Valley Pkwy SB/NB Off Ramp to Silva Valley Pkwy NB/SB On Ramp | 2375                   | 3                             | 0.50                           | 3,282   | 3,554                       | 1200.91 | 73.6   | 75         | 74.5532   | 16.1081                     | B      | 1300.58    | 73.6  | 75  | 73.9998 | 17.5754 | B |
|   | East of Silva Valley Pkwy NB/SB On Ramp                             | 3400                   | 3                             | 0.50                           | 3,843   | 4,306                       | 1406.2  | 73.6   | 75         | 73.1734   | 19.2174                     | C      | 1575.769   | 73.6  | 75  | 71.3302 | 22.0912 | C |
|   | East of Silva Valley Pkwy NB/SB On Ramp                             | 3400                   | 3                             | 0.50                           | 3,780   | 3,953                       | 1383.26 | 73.6   | 75         | 73.3739   | 18.8522                     | C      | 1446.569   | 73.6  | 75  | 72.7924 | 19.8725 | C |
| WB  | Silva Valley Pkwy NB/SB Off Ramp to Silva Valley Pkwy SB/NB On Ramp | 2350                   | 2                             | 0.50                           | 2,597   | 2,747                       | 1425.67 | 73.6   | 75         | 72.9942   | 19.5313                     | C      | 1507.663   | 73.6  | 75  | 72.147  | 20.8971 | C |
|   | El Dorado Hills Blvd Off Ramp to El Dorado Hills Blvd On Ramp       | 3565                   | 2                             | 0.50                           | 2,538   | 2,735                       | 1393.28 | 73.6   | 75         | 73.2878   | 19.0112                     | C      | 1501.076   | 73.6  | 75  | 72.2206 | 20.7846 | C |
|   | West of El Dorado Hills Blvd On Ramp                                | 5890                   | 2                             | 0.33                           | 3,499   | 3,922                       | 1920.79 | 74.12  | 75         | 65.6142   | 29.274                      | D      | 2152.636   | 74.12 | 75  | 60.2927 | 35.7031 | E |
|   | East of El Dorado Hills Blvd/Latrobe Road                           | 2000                   | 2                             | 0.50                           | 3,166   | 3,071                       | 1737.86 | 74.13  | 75         | 68.9731   | 25.1962                     | C      | 1685.712   | 74.13 | 75  | 69.7949 | 24.1524 | C |
|   | East of Silva Valley Pkwy NB/SB On Ramp                             | 5500                   | 2                             | 0.33                           | 3,252   | 3,310                       | 1785.07 | 74.13  | 75         | 68.1773   | 26.1827                     | D      | 1816.902   | 74.13 | 75  | 67.6127 | 26.8722 | D |
| Universal Inputs:<br>PHF 0.92<br>(P <sub>v</sub> ) 2%<br>f <sub>av</sub> 0.99009901 |   |                        |                               |                                |         |                             |         |        |            |           |                             |        |            |       |     |         |         |   |



| Near Term (2031) PP Conditions |                               |                      |   |                 |                   |                 |             |                             |                |                |          |                |                  |      |      |      |                       |                     |                 |                |                             |                |          |                |                  |       |        |        |         |         |         |         |         |         |         |
|--------------------------------|-------------------------------|----------------------|---|-----------------|-------------------|-----------------|-------------|-----------------------------|----------------|----------------|----------|----------------|------------------|------|------|------|-----------------------|---------------------|-----------------|----------------|-----------------------------|----------------|----------|----------------|------------------|-------|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| Segment Inputs                 |                               |                      |   |                 | AM Flow Inputs    |                 |             | AM LOS Performance Measures |                |                |          |                |                  |      |      |      |                       | PM Flow Inputs      |                 |                | PM LOS Performance Measures |                |          |                |                  |       |        |        |         |         |         |         |         |         |         |
|                                | Number of Lanes               | Number of Ramp Lanes | Length of Deceleration Lane (L <sub>d</sub> ) |                 | Downstream Volume | Upstream Volume | Ramp Volume | V <sub>0</sub>              | V <sub>1</sub> | V <sub>2</sub> | Capacity | V <sub>3</sub> | V <sub>12a</sub> | v/c  | D    | LOS  | Downstream Volume (D) | Upstream Volume (F) | Ramp Volume (R) | V <sub>0</sub> | V <sub>1</sub>              | V <sub>2</sub> | Capacity | V <sub>3</sub> | V <sub>12a</sub> | v/c   | D      | LOS    |         |         |         |         |         |         |         |
|                                |                               |                      | L <sub>d1</sub>                               | L <sub>d2</sub> |                   |                 |             |                             |                |                |          |                |                  |      |      |      |                       |                     |                 |                |                             |                |          |                |                  |       |        |        | (veh/h) | (veh/h) | (veh/h) | (veh/h) | (veh/h) | (veh/h) | (veh/h) |
| SB                             | Latrobe SB Off Ramp           | 3                    | 1   | 667             | 140               | 3753.696189     | 4553        | 799                         | 444.62         | 4998           | 877.2    | 0.436          | 2673.9           | 7200 | 1162 | 2005 | 2674                  | 0.6942              | 25.987          | C              | 3747                        | 4506           | 759      | 496.217        | 4947             | 833.3 | 0.436  | 2626.8 | 7200    | 1160    | 1970    | 2627    | 0.6871  | 25.582  | C       |
|                                | Latrobe NB Off Ramp           | 3                    | 1   | -               | 140               | 3348.696189     | 3754        | 405                         | -              | 4121           | 444.6    | 0.6365         | 2784.7           | 7200 | 1336 | 2089 | 2785                  | 0.5723              | 26.94           | C              | 3295                        | 3747           | 452      | -              | 4114             | 496.2 | 0.6343 | 2790.9 | 7200    | 1323    | 2093    | 2791    | 0.5713  | 26.993  | C       |
|                                | Silva Valley SB Off Ramp      | 3                    | 1   | -               | 150               | 3281.696189     | 3780        | 498                         | -              | 4149           | 546.7    | 0.6311         | 2820.5           | 7200 | 664  | 2115 | 2820                  | 0.5763              | 27.158          | C              | 3554                        | 3953           | 399      | -              | 4340             | 438   | 0.6314 | 2901.4 | 7200    | 1438    | 2176    | 2901    | 0.6027  | 27.854  | C       |
| NB                             | El Dorado Hills Blvd Off Ramp | 3                    | 1   | -               | 190               | 2538.261662     | 3166        | 628                         | -              | 3476           | 689.4    | 0.6414         | 2476.7           | 7200 | 999  | 1858 | 2477                  | 0.4828              | 23.842          | C              | 2735                        | 3071           | 336      | -              | 3371             | 368.9 | 0.6588 | 2346.6 | 7200    | 1024    | 1760    | 2347    | 0.4682  | 22.722  | C       |
|                                | Silva Valley NB Off Ramp      | 3                    | 1   | -               | 150               | 2597.261662     | 3252        | 655                         | -              | 3570           | 719.1    | 0.6377         | 2537.3           | 7200 | 1033 | 1903 | 2537                  | 0.4959              | 24.723          | C              | 2747                        | 3310           | 563      | -              | 3633             | 618.1 | 0.6407 | 2550.1 | 7200    | 1083    | 1913    | 2550    | 0.5046  | 24.833  | C       |
| Universal inputs:              |                               |                      |   |                 |                   |                 |             |                             |                |                |          |                |                  |      |      |      |                       |                     |                 |                |                             |                |          |                |                  |       |        |        |         |         |         |         |         |         |         |
| Leng 1500                      |                               |                      |   |                 | (ft)              |                 |             |                             |                |                |          |                |                  |      |      |      |                       |                     |                 |                |                             |                |          |                |                  |       |        |        |         |         |         |         |         |         |         |
| S <sub>0</sub> 70              |                               |                      |   |                 | (mi/h)            |                 |             |                             |                |                |          |                |                  |      |      |      |                       |                     |                 |                |                             |                |          |                |                  |       |        |        |         |         |         |         |         |         |         |
| S <sub>14</sub> 35             |                               |                      |   |                 | (mi/h)            |                 |             |                             |                |                |          |                |                  |      |      |      |                       |                     |                 |                |                             |                |          |                |                  |       |        |        |         |         |         |         |         |         |         |
| PHF 0.92                       |                               |                      |   |                 |                   |                 |             |                             |                |                |          |                |                  |      |      |      |                       |                     |                 |                |                             |                |          |                |                  |       |        |        |         |         |         |         |         |         |         |
| PIJ 2%                         |                               |                      |   |                 |                   |                 |             |                             |                |                |          |                |                  |      |      |      |                       |                     |                 |                |                             |                |          |                |                  |       |        |        |         |         |         |         |         |         |         |
| ID 0.000090                    |                               |                      |   |                 |                   |                 |             |                             |                |                |          |                |                  |      |      |      |                       |                     |                 |                |                             |                |          |                |                  |       |        |        |         |         |         |         |         |         |         |

### EB US-50, East of Latrobe Rd On Ramp, Near-Term (2031) plus Project Conditons (AM)

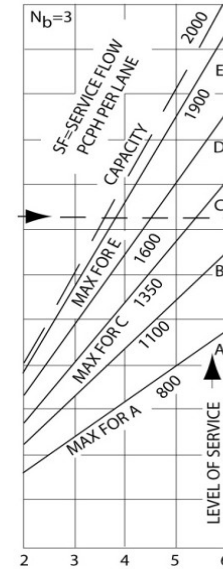
|                                    |                |      |
|------------------------------------|----------------|------|
| Number of Entering Mainline Lanes  | N <sub>b</sub> | 3    |
| Number of Lanes in Weaving Section | N              | 4    |
| Length of Weaving Section (feet)   | L              | 2000 |

| Total Weaving Section (V) |       | On ramp to Mainline (W1) |     | Mainline to Off ramp (W2) |     |
|---------------------------|-------|--------------------------|-----|---------------------------|-----|
| Volume (vph)              | 3,780 | Volume (vph)             | 431 | Volume (vph)              | 498 |
| Truck Percentage          | 4%    | Truck Percentage         | 2%  | Truck Percentage          | 2%  |
| PCE for Trucks            | 1.5   | PCE for Trucks           | 1.5 | PCE for Trucks            | 1.5 |
| Volume (pcph)             | 3,855 | Volume (pcph)            | 435 | Volume (pcph)             | 503 |

|   |      |
|---|------|
| W1 + W2   | 938  |
| In between  |      |
| Speed 1   | 50   |
| Speed 2   | 55   |
| Interpolated Weaving Speed (S <sub>w</sub> , mph) | 54.8 |
| Weaving Intensity Factor (k)                      | 1.00 |
| Service Volume ((SV, pcph)                        |      |
| $SV = (1/N) * [V + (k-1) * \min(W1, W2)]$         | 964  |
| Level of Service (LOS)                            | B    |



N<sub>b</sub>=NUMBER OF BASIC LANES ON APPROACH  
SEE CHART FOR DEFINITION OF OTHER TERMS

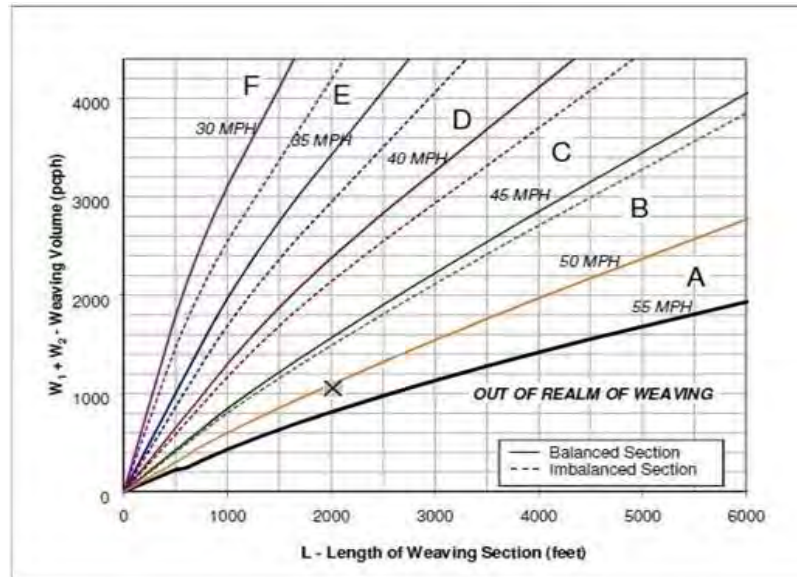


### EB US-50, East of Latrobe Rd On Ramp, Near-Term (2031) plus Project Conditons (PM)

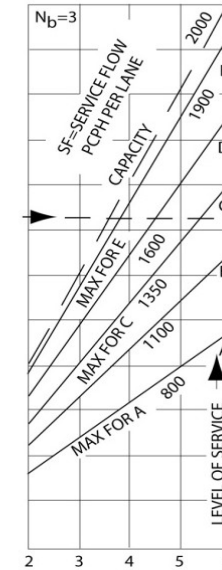
|                                    |    |      |
|------------------------------------|----|------|
| Number of Entering Mainline Lanes  | Nb | 3    |
| Number of Lanes in Weaving Section | N  | 4    |
| Length of Weaving Section (feet)   | L  | 2000 |

| Total Weaving Section (V) |       | On ramp to Mainline (W1) |     | Mainline to Off ramp (W2) |     |
|---------------------------|-------|--------------------------|-----|---------------------------|-----|
| Volume (vph)              | 3,953 | Volume (vph)             | 658 | Volume (vph)              | 399 |
| Truck Percentage          | 2%    | Truck Percentage         | 2%  | Truck Percentage          | 2%  |
| PCE for Trucks            | 1.5   | PCE for Trucks           | 1.5 | PCE for Trucks            | 1.5 |
| Volume (pcph)             | 3,993 | Volume (pcph)            | 665 | Volume (pcph)             | 403 |

|   |       |
|---|-------|
| W1 + W2                                   | 1,068 |
| In between                                |       |
| Speed 1                                   | 45    |
| Speed 2                                   | 50    |
| Interpolated Weaving Speed (Sw, mph)      | 47.0  |
| Weaving Intensity Factor (k)              | 1.60  |
| Service Volume ((SV, pcph)                |       |
| $SV = (1/N) * [V + (k-1) * \min(W1, W2)]$ | 1,059 |
| Level of Service (LOS)                    | B     |



Nb=NUMBER OF BASIC LANES ON APPROACH  
SEE CHART FOR DEFINITION OF OTHER TERMS





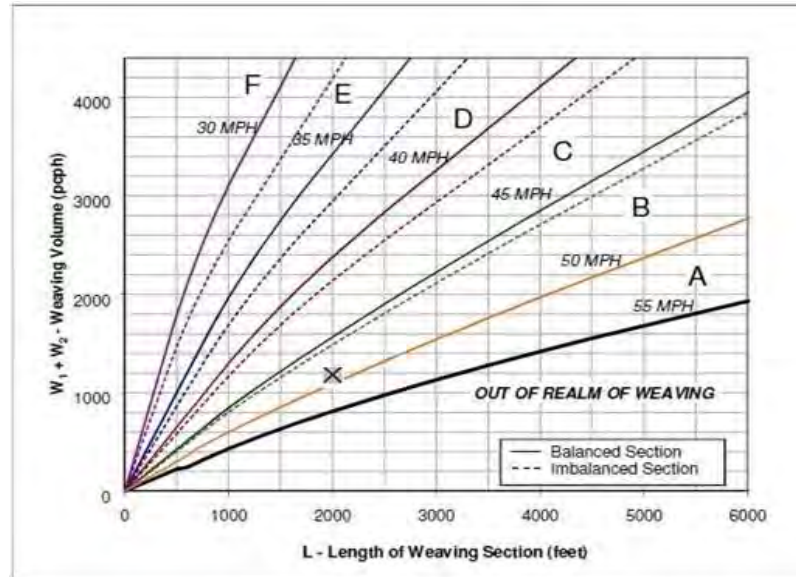
### WB US-50, East of El Dorado Hills Blvd Off Ramp, Near-Term (2031) plus Project Conditions (AM)

|                                    |                |      |
|------------------------------------|----------------|------|
| Number of Entering Mainline Lanes  | N <sub>b</sub> | 2    |
| Number of Lanes in Weaving Section | N              | 3    |
| Length of Weaving Section (feet)   | L              | 2000 |

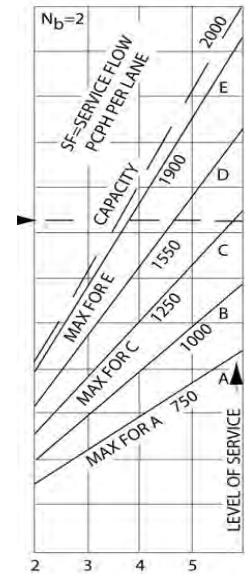
| Total Weaving Section (V) |       | On ramp to Mainline (W1) |     | Mainline to Off ramp (W2) |     |
|---------------------------|-------|--------------------------|-----|---------------------------|-----|
| Volume (vph)              | 3,166 | Volume (vph)             | 569 | Volume (vph)              | 628 |
| Truck Percentage          | 2%    | Truck Percentage         | 2%  | Truck Percentage          | 2%  |
| PCE for Trucks            | 1.5   | PCE for Trucks           | 1.5 | PCE for Trucks            | 1.5 |
| Volume (pcph)             | 3,198 | Volume (pcph)            | 575 | Volume (pcph)             | 634 |

|   |       |
|---|-------|
| W1 + W2   | 1,209 |
| In between  |       |
| Speed 1   | 50    |
| Speed 2   | 55    |
| Interpolated Weaving Speed (S <sub>w</sub> , mph) | 54.0  |
| Weaving Intensity Factor (k)                      | 1.00  |
| Service Volume ((SV, pcph)                        |       |
| $SV = (1/N) * [V + (k-1) * \min(W1, W2)]$         | 1,066 |
| Level of Service (LOS)                            | C     |

Probably out of realm...



N<sub>b</sub>=NUMBER OF BASIC LANES ON APPROACH  
SEE CHART FOR DEFINITION OF OTHER TERMS



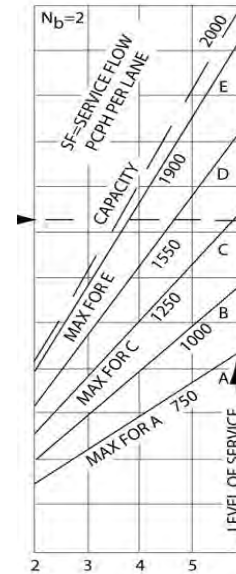
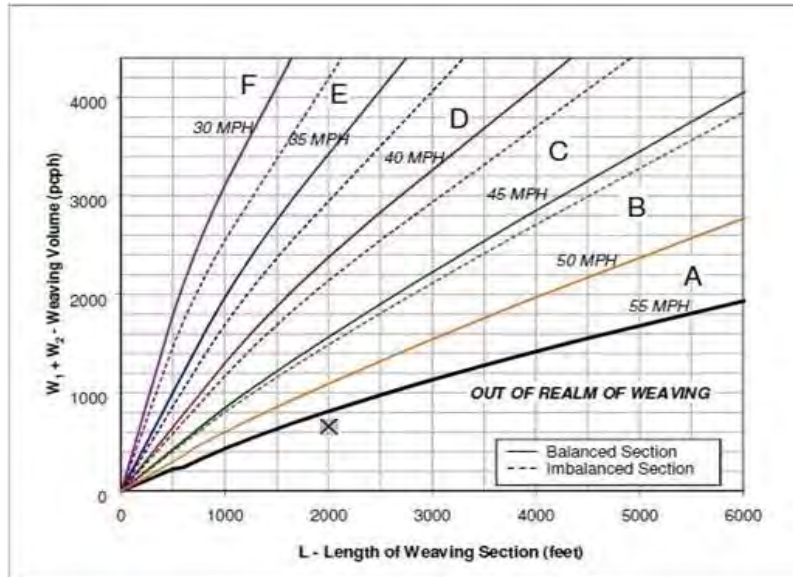
### WB US-50, East of El Dorado Hills Blvd Off Ramp, Near-Term (2031) plus Project Conditions (PM)

|                                    |                |      |
|------------------------------------|----------------|------|
| Number of Entering Mainline Lanes  | N <sub>b</sub> | 2    |
| Number of Lanes in Weaving Section | N              | 3    |
| Length of Weaving Section (feet)   | L              | 2000 |

N<sub>b</sub>=NUMBER OF BASIC LANES ON APPROACH  
SEE CHART FOR DEFINITION OF OTHER TERMS

| Total Weaving Section (V) |       | On ramp to Mainline (W1) |     | Mainline to Off ramp (W2) |     |
|---------------------------|-------|--------------------------|-----|---------------------------|-----|
| Volume (vph)              | 3,071 | Volume (vph)             | 324 | Volume (vph)              | 336 |
| Truck Percentage          | 2%    | Truck Percentage         | 2%  | Truck Percentage          | 2%  |
| PCE for Trucks            | 1.5   | PCE for Trucks           | 1.5 | PCE for Trucks            | 1.5 |
| Volume (pcph)             | 3,101 | Volume (pcph)            | 327 | Volume (pcph)             | 339 |

|   |       |
|---|-------|
| W1 + W2   | 667   |
| In between  |       |
| Speed 1   | 50    |
| Speed 2   | 55    |
| Interpolated Weaving Speed (S <sub>w</sub> , mph) | 55.4  |
| Weaving Intensity Factor (k)                      | 1.00  |
| Service Volume ((S <sub>V</sub> , pcph)           |       |
| $SV = (1/N) * [V + (k-1) * \min(W1, W2)]$         | 1,034 |
| Level of Service (LOS)                            | B     |
| <b>OUT OF REALM</b>                               |       |

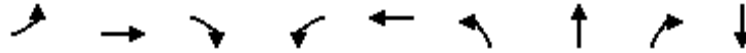


## Appendix F

*Analysis Worksheets for  
Cumulative (2041) Conditions*

Generations at Green Valley  
 1: Sophia Pkwy/Access Rd & Green Valley Rd

Cumulative  
 Timing Plan: AM



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | NBR  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 2    | 851  | 123  | 177  | 1542 | 334  | 1    | 63   | 6    |
| v/c Ratio               | 0.01 | 0.46 | 0.14 | 0.65 | 0.83 | 0.73 | 0.00 | 0.11 | 0.01 |
| Control Delay           | 6.5  | 9.1  | 2.1  | 24.2 | 16.1 | 28.2 | 12.0 | 4.9  | 2.7  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 6.5  | 9.1  | 2.1  | 24.2 | 16.1 | 28.2 | 12.0 | 4.9  | 2.7  |
| Queue Length 50th (ft)  | 0    | 82   | 0    | 37   | 199  | 95   | 0    | 0    | 0    |
| Queue Length 95th (ft)  | 3    | 119  | 18   | #129 | 286  | #205 | 3    | 20   | 3    |
| Internal Link Dist (ft) |      | 1813 |      |      | 7016 |      | 1499 |      | 376  |
| Turn Bay Length (ft)    | 248  |      | 224  | 314  |      | 204  |      | 204  |      |
| Base Capacity (vph)     | 135  | 1866 | 892  | 274  | 1864 | 459  | 609  | 560  | 553  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.01 | 0.46 | 0.14 | 0.65 | 0.83 | 0.73 | 0.00 | 0.11 | 0.01 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
1: Sophia Pkwy/Access Rd & Green Valley Rd

Cumulative  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 2    | 783  | 113  | 163  | 1412 | 6    | 307  | 1    | 58   | 4    | 0    | 2    |
| Future Volume (veh/h)        | 2    | 783  | 113  | 163  | 1412 | 6    | 307  | 1    | 58   | 4    | 0    | 2    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 2    | 851  | 123  | 177  | 1535 | 7    | 334  | 1    | 63   | 4    | 0    | 2    |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 192  | 1874 | 836  | 349  | 1913 | 9    | 595  | 612  | 519  | 400  | 21   | 156  |
| Arrive On Green              | 0.53 | 0.53 | 0.53 | 0.53 | 0.53 | 0.53 | 0.33 | 0.33 | 0.33 | 0.33 | 0.00 | 0.33 |
| Sat Flow, veh/h              | 336  | 3554 | 1585 | 577  | 3628 | 17   | 1415 | 1870 | 1585 | 889  | 65   | 477  |
| Grp Volume(v), veh/h         | 2    | 851  | 123  | 177  | 752  | 790  | 334  | 1    | 63   | 6    | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 336  | 1777 | 1585 | 577  | 1777 | 1867 | 1415 | 1870 | 1585 | 1431 | 0    | 0    |
| Q Serve(g_s), s              | 0.3  | 8.2  | 2.2  | 15.1 | 19.1 | 19.1 | 11.3 | 0.0  | 1.5  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 19.3 | 8.2  | 2.2  | 23.3 | 19.1 | 19.1 | 11.4 | 0.0  | 1.5  | 0.1  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 0.01 | 1.00 |      | 1.00 | 0.67 |      | 0.33 |
| Lane Grp Cap(c), veh/h       | 192  | 1874 | 836  | 349  | 937  | 985  | 595  | 612  | 519  | 577  | 0    | 0    |
| V/C Ratio(X)                 | 0.01 | 0.45 | 0.15 | 0.51 | 0.80 | 0.80 | 0.56 | 0.00 | 0.12 | 0.01 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 192  | 1874 | 836  | 349  | 937  | 985  | 595  | 612  | 519  | 577  | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 18.6 | 8.1  | 6.7  | 15.3 | 10.7 | 10.7 | 16.3 | 12.5 | 13.0 | 12.5 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 0.1  | 0.8  | 0.4  | 5.2  | 7.2  | 6.9  | 3.8  | 0.0  | 0.5  | 0.0  | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.0  | 2.1  | 0.5  | 2.0  | 6.3  | 6.6  | 3.5  | 0.0  | 0.5  | 0.1  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 18.7 | 8.9  | 7.0  | 20.5 | 17.9 | 17.6 | 20.1 | 12.5 | 13.4 | 12.5 | 0.0  | 0.0  |
| LnGrp LOS                    | B    | A    | A    | C    | B    | B    | C    | B    | B    | B    | A    | A    |
| Approach Vol, veh/h          |      | 976  |      |      | 1719 |      |      | 398  |      |      |      | 6    |
| Approach Delay, s/veh        |      | 8.7  |      |      | 18.0 |      |      | 19.0 |      |      |      | 12.5 |
| Approach LOS                 |      | A    |      |      | B    |      |      | B    |      |      |      | B    |
| Timer - Assigned Phs         |      | 2    |      | 4    |      | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 22.0 |      | 33.0 |      | 22.0 |      | 33.0 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  |      | 4.0  |      | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 18.0 |      | 29.0 |      | 18.0 |      | 29.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 13.4 |      | 21.3 |      | 2.1  |      | 25.3 |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.5  |      | 3.4  |      | 0.0  |      | 3.0  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      | 15.2 |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      |      | B    |      |      |      |      |      |      |      |      |

Generations at Green Valley  
 2: Green Valley Rd/Green Valley Road & Francisco Rd.

Cumulative  
 Timing Plan: AM
































| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | SBL   | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|------|------|-------|------|------|
| Lane Group Flow (vph)   | 246  | 436  | 198  | 64   | 852  | 116  | 287  | 334  | 116   | 442  | 334  |
| v/c Ratio               | 0.90 | 0.35 | 0.29 | 0.55 | 0.79 | 0.20 | 0.90 | 0.31 | 0.99  | 0.85 | 0.59 |
| Control Delay           | 72.1 | 20.4 | 4.4  | 55.3 | 30.1 | 4.3  | 67.7 | 21.2 | 122.6 | 44.1 | 16.0 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  |
| Total Delay             | 72.1 | 20.4 | 4.4  | 55.3 | 30.1 | 4.3  | 67.7 | 21.2 | 122.6 | 44.1 | 16.0 |
| Queue Length 50th (ft)  | 64   | 85   | 0    | 32   | 197  | 0    | 75   | 65   | -64   | 206  | 62   |
| Queue Length 95th (ft)  | #135 | 124  | 43   | #86  | 265  | 29   | #135 | 91   | #153  | #322 | 129  |
| Internal Link Dist (ft) |      | 7016 |      |      | 1876 |      |      | 2744 |       | 705  |      |
| Turn Bay Length (ft)    | 290  |      | 210  | 200  |      | 450  | 200  |      | 183   |      |      |
| Base Capacity (vph)     | 274  | 1264 | 692  | 117  | 1217 | 629  | 320  | 1177 | 117   | 571  | 607  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    |
| Reduced v/c Ratio       | 0.90 | 0.34 | 0.29 | 0.55 | 0.70 | 0.18 | 0.90 | 0.28 | 0.99  | 0.77 | 0.55 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
2: Green Valley Rd/Green Valley Road & Francisco Rd.

Cumulative  
Timing Plan: AM

|                              |    |    |  |  |    |  |    |    |  |  |    |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                     | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations          |   |   |  |  |   |  |   |   |   |  |   |  |
| Traffic Volume (veh/h)       | 236   | 419   | 190   | 58  | 767   | 104   | 241  | 272   | 8   | 99  | 376   | 284   |
| Future Volume (veh/h)        | 236   | 419   | 190   | 58  | 767   | 104   | 241  | 272   | 8   | 99  | 376   | 284   |
| Initial Q (Qb), veh          | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0   | 0   | 0   | 0   | 0   |
| Ped-Bike Adj(A_pbT)          | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00   |   | 1.00  | 1.00  |   | 1.00  |
| Parking Bus, Adj             | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| Work Zone On Approach        |   | No  |   |   | No  |   |  | No  |   |   | No  |   |
| Adj Sat Flow, veh/h/ln       | 1870  | 1870  | 1870  | 1870  | 1870  | 1870  | 1870   | 1870  | 1870  | 1870  | 1870  | 1870  |
| Adj Flow Rate, veh/h         | 246   | 436   | 198   | 64  | 852   | 116   | 287  | 324   | 10  | 116   | 442   | 334   |
| Peak Hour Factor             | 0.96  | 0.96  | 0.96  | 0.90  | 0.90  | 0.90  | 0.84   | 0.84  | 0.84  | 0.85  | 0.85  | 0.85  |
| Percent Heavy Veh, %         | 2   | 2   | 2   | 2   | 2   | 2   | 2  | 2   | 2   | 2   | 2   | 2   |
| Cap, veh/h                   | 285   | 1181  | 527   | 82  | 1051  | 469   | 333  | 1065  | 33  | 123   | 514   | 436   |
| Arrive On Green              | 0.08  | 0.33  | 0.33  | 0.05  | 0.30  | 0.30  | 0.10   | 0.30  | 0.30  | 0.07  | 0.27  | 0.27  |
| Sat Flow, veh/h              | 3456  | 3554  | 1585  | 1781  | 3554  | 1585  | 3456   | 3519  | 108   | 1781  | 1870  | 1585  |
| Grp Volume(v), veh/h         | 246   | 436   | 198   | 64  | 852   | 116   | 287  | 163   | 171   | 116   | 442   | 334   |
| Grp Sat Flow(s),veh/h/ln     | 1728  | 1777  | 1585  | 1781  | 1777  | 1585  | 1728   | 1777  | 1851  | 1781  | 1870  | 1585  |
| Q Serve(g_s), s              | 5.1   | 6.8   | 6.9   | 2.6   | 16.1  | 4.0   | 5.9  | 5.1   | 5.2   | 4.7   | 16.3  | 14.1  |
| Cycle Q Clear(g_c), s        | 5.1   | 6.8   | 6.9   | 2.6   | 16.1  | 4.0   | 5.9  | 5.1   | 5.2   | 4.7   | 16.3  | 14.1  |
| Prop In Lane                 | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00   |   | 0.06  | 1.00  |   | 1.00  |
| Lane Grp Cap(c), veh/h       | 285   | 1181  | 527   | 82  | 1051  | 469   | 333  | 537   | 560   | 123   | 514   | 436   |
| V/C Ratio(X)                 | 0.86  | 0.37  | 0.38  | 0.78  | 0.81  | 0.25  | 0.86   | 0.30  | 0.31  | 0.95  | 0.86  | 0.77  |
| Avail Cap(c_a), veh/h        | 285   | 1311  | 585   | 123   | 1262  | 563   | 333  | 611   | 637   | 123   | 592   | 502   |
| HCM Platoon Ratio            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| Upstream Filter(I)           | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| Uniform Delay (d), s/veh     | 32.9  | 18.5  | 18.5  | 34.3  | 23.7  | 19.4  | 32.4   | 19.5  | 19.5  | 33.7  | 25.0  | 24.2  |
| Incr Delay (d2), s/veh       | 22.6  | 0.2   | 0.4   | 17.1  | 3.5   | 0.3   | 20.0   | 0.3   | 0.3   | 64.5  | 11.0  | 6.1   |
| Initial Q Delay(d3),s/veh    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| %ile BackOfQ(50%),veh/ln     | 2.8   | 2.4   | 2.4   | 1.4   | 6.3   | 1.4   | 3.3  | 2.0   | 2.1   | 4.1   | 8.1   | 5.5   |
| Unsig. Movement Delay, s/veh |   |   |   |   |   |   |  |   |   |   |   |   |
| LnGrp Delay(d),s/veh         | 55.6  | 18.6  | 18.9  | 51.4  | 27.2  | 19.7  | 52.4   | 19.8  | 19.8  | 98.2  | 36.0  | 30.3  |
| LnGrp LOS                    | E   | B   | B   | D   | C   | B   | D  | B   | B   | F   | D   | C   |
| Approach Vol, veh/h          |   | 880   |   |   | 1032  |   |  | 621   |   |   | 892   |   |
| Approach Delay, s/veh        |   | 29.0  |   |   | 27.8  |   |  | 34.8  |   |   | 42.0  |   |
| Approach LOS                 |   | C   |   |   | C   |   |  | C   |   |   | D   |   |
| Timer - Assigned Phs         | 1   | 2   | 3   | 4   | 5   | 6   | 7  | 8   |   |   |   |   |
| Phs Duration (G+Y+Rc), s     | 7.3   | 29.9  | 11.0  | 24.5  | 10.0  | 27.2  | 9.0  | 26.5  |   |   |   |   |
| Change Period (Y+Rc), s      | 4.0   | 5.7   | 4.0   | 4.5   | 4.0   | 5.7   | 4.0  | 4.5   |   |   |   |   |
| Max Green Setting (Gmax), s  | 5.0   | 26.8  | 7.0   | 23.0  | 6.0   | 25.8  | 5.0  | 25.0  |   |   |   |   |
| Max Q Clear Time (g_c+I1), s | 4.6   | 8.9   | 7.9   | 18.3  | 7.1   | 18.1  | 6.7  | 7.2   |   |   |   |   |
| Green Ext Time (p_c), s      | 0.0   | 2.9   | 0.0   | 1.7   | 0.0   | 3.3   | 0.0  | 1.6   |   |   |   |   |
| <b>Intersection Summary</b>  |   |   |   |   |   |   |  |   |   |   |   |   |
| HCM 6th Ctrl Delay           |   |   | 33.1  |   |   |   |  |   |   |   |   |   |
| HCM 6th LOS                  |   |   | C   |   |   |   |  |   |   |   |   |   |

Generations at Green Valley  
 3: El Dorado Hills Blvd./Salmon Falls Rd & Green Valley Road

Cumulative  
 Timing Plan: AM



| Lane Group              | EBL   | EBT  | WBL  | WBT   | NBL  | NBT  | SBL  | SBT  | SBR  |
|-------------------------|-------|------|------|-------|------|------|------|------|------|
| Lane Group Flow (vph)   | 96    | 513  | 118  | 906   | 61   | 240  | 154  | 306  | 160  |
| v/c Ratio               | 0.87  | 0.63 | 0.67 | 1.03  | 0.24 | 0.91 | 0.50 | 0.94 | 0.43 |
| Control Delay           | 116.8 | 33.4 | 74.5 | 73.4  | 52.5 | 86.7 | 54.8 | 90.0 | 18.8 |
| Queue Delay             | 0.0   | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 116.8 | 33.4 | 74.5 | 73.4  | 52.5 | 86.7 | 54.8 | 90.0 | 18.8 |
| Queue Length 50th (ft)  | 82    | 333  | 97   | ~818  | 46   | 188  | 119  | 257  | 31   |
| Queue Length 95th (ft)  | #170  | 429  | 159  | #1055 | 65   | 194  | 167  | #356 | 74   |
| Internal Link Dist (ft) |       | 1876 |      | 819   |      | 2981 |      | 502  |      |
| Turn Bay Length (ft)    | 85    |      | 105  |       | 165  |      |      |      | 100  |
| Base Capacity (vph)     | 110   | 812  | 220  | 876   | 251  | 266  | 309  | 325  | 372  |
| Starvation Cap Reductn  | 0     | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0     | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0     | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.87  | 0.63 | 0.54 | 1.03  | 0.24 | 0.90 | 0.50 | 0.94 | 0.43 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.



Generations at Green Valley  
3: El Dorado Hills Blvd./Salmon Falls Rd & Green Valley Road

Cumulative  
Timing Plan: AM



| Movement                     | EBL   | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR   | SBL  | SBT  | SBR  |
|------------------------------|-------|------|------|------|------|------|------|------|-------|------|------|------|
| Lane Configurations          |       |      |      |      |      |      |      |      |       |      |      |      |
| Traffic Volume (veh/h)       | 81    | 419  | 12   | 105  | 739  | 68   | 40   | 102  | 56    | 123  | 245  | 128  |
| Future Volume (veh/h)        | 81    | 419  | 12   | 105  | 739  | 68   | 40   | 102  | 56    | 123  | 245  | 128  |
| Initial Q (Qb), veh          | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00  |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00  | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |       | No   |      |      | No   |      |      | No   |       |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 96    | 499  | 14   | 118  | 830  | 76   | 61   | 155  | 85    | 154  | 306  | 160  |
| Peak Hour Factor             | 0.84  | 0.84 | 0.84 | 0.89 | 0.89 | 0.89 | 0.66 | 0.66 | 0.66  | 0.80 | 0.80 | 0.80 |
| Percent Heavy Veh, %         | 2     | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2     | 2    | 2    | 2    |
| Cap, veh/h                   | 111   | 827  | 23   | 143  | 801  | 73   | 253  | 162  | 89    | 311  | 327  | 277  |
| Arrive On Green              | 0.06  | 0.46 | 0.46 | 0.08 | 0.47 | 0.47 | 0.14 | 0.14 | 0.14  | 0.17 | 0.17 | 0.17 |
| Sat Flow, veh/h              | 1781  | 1810 | 51   | 1781 | 1688 | 155  | 1781 | 1136 | 623   | 1781 | 1870 | 1585 |
| Grp Volume(v), veh/h         | 96    | 0    | 513  | 118  | 0    | 906  | 61   | 0    | 240   | 154  | 306  | 160  |
| Grp Sat Flow(s),veh/h/ln     | 1781  | 0    | 1861 | 1781 | 0    | 1843 | 1781 | 0    | 1758  | 1781 | 1870 | 1585 |
| Q Serve(g_s), s              | 6.9   | 0.0  | 26.9 | 8.5  | 0.0  | 61.7 | 4.0  | 0.0  | 17.6  | 10.2 | 21.0 | 12.0 |
| Cycle Q Clear(g_c), s        | 6.9   | 0.0  | 26.9 | 8.5  | 0.0  | 61.7 | 4.0  | 0.0  | 17.6  | 10.2 | 21.0 | 12.0 |
| Prop In Lane                 | 1.00  |      | 0.03 | 1.00 |      | 0.08 | 1.00 |      | 0.35  | 1.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 111   | 0    | 850  | 143  | 0    | 874  | 253  | 0    | 250   | 311  | 327  | 277  |
| V/C Ratio(X)                 | 0.86  | 0.00 | 0.60 | 0.83 | 0.00 | 1.04 | 0.24 | 0.00 | 0.96  | 0.50 | 0.94 | 0.58 |
| Avail Cap(c_a), veh/h        | 111   | 0    | 850  | 222  | 0    | 874  | 253  | 0    | 250   | 311  | 327  | 277  |
| HCM Platoon Ratio            | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00  | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00  | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 60.4  | 0.0  | 26.5 | 58.9 | 0.0  | 34.2 | 49.5 | 0.0  | 55.4  | 48.5 | 52.9 | 49.3 |
| Incr Delay (d2), s/veh       | 45.8  | 0.0  | 1.8  | 11.2 | 0.0  | 40.1 | 0.8  | 0.0  | 45.9  | 2.1  | 34.2 | 4.1  |
| Initial Q Delay(d3),s/veh    | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 4.5   | 0.0  | 11.6 | 4.2  | 0.0  | 35.0 | 1.8  | 0.0  | 10.8  | 4.6  | 12.7 | 5.0  |
| Unsig. Movement Delay, s/veh |       |      |      |      |      |      |      |      |       |      |      |      |
| LnGrp Delay(d),s/veh         | 106.2 | 0.0  | 28.3 | 70.1 | 0.0  | 74.3 | 50.3 | 0.0  | 101.2 | 50.6 | 87.1 | 53.3 |
| LnGrp LOS                    | F     | A    | C    | E    | A    | F    | D    | A    | F     | D    | F    | D    |
| Approach Vol, veh/h          |       | 609  |      |      | 1024 |      |      | 301  |       |      | 620  |      |
| Approach Delay, s/veh        |       | 40.6 |      |      | 73.8 |      |      | 90.9 |       |      | 69.3 |      |
| Approach LOS                 |       | D    |      |      | E    |      |      | F    |       |      | E    |      |
| Timer - Assigned Phs         | 1     | 2    |      | 4    | 5    | 6    |      | 8    |       |      |      |      |
| Phs Duration (G+Y+Rc), s     | 13.9  | 65.4 |      | 28.2 | 11.6 | 67.7 |      | 22.5 |       |      |      |      |
| Change Period (Y+Rc), s      | 3.5   | 6.0  |      | 5.5  | 3.5  | 6.0  |      | 4.0  |       |      |      |      |
| Max Green Setting (Gmax), s  | 16.2  | 53.6 |      | 22.7 | 8.1  | 61.7 |      | 18.5 |       |      |      |      |
| Max Q Clear Time (g_c+l1), s | 10.5  | 28.9 |      | 23.0 | 8.9  | 63.7 |      | 19.6 |       |      |      |      |
| Green Ext Time (p_c), s      | 0.1   | 5.9  |      | 0.0  | 0.0  | 0.0  |      | 0.0  |       |      |      |      |
| <b>Intersection Summary</b>  |       |      |      |      |      |      |      |      |       |      |      |      |
| HCM 6th Ctrl Delay           |       |      |      | 66.8 |      |      |      |      |       |      |      |      |
| HCM 6th LOS                  |       |      |      | E    |      |      |      |      |       |      |      |      |

Generations at Green Valley  
 4: Silva Valley Pkwy./Allegheny Rd & Green Valley Road/Green Valley Rd.

Cumulative  
 Timing Plan: AM



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 5    | 409  | 254  | 127  | 715  | 372  | 110  | 38   |
| v/c Ratio               | 0.06 | 0.64 | 0.36 | 0.60 | 0.78 | 0.74 | 0.21 | 0.25 |
| Control Delay           | 44.4 | 29.6 | 4.5  | 50.0 | 26.6 | 39.9 | 13.8 | 42.3 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 44.4 | 29.6 | 4.5  | 50.0 | 26.6 | 39.9 | 13.8 | 42.3 |
| Queue Length 50th (ft)  | 3    | 194  | 0    | 66   | 310  | 187  | 18   | 19   |
| Queue Length 95th (ft)  | 15   | 303  | 50   | #150 | #625 | 244  | 43   | 45   |
| Internal Link Dist (ft) |      | 819  |      |      | 2255 |      | 4847 | 380  |
| Turn Bay Length (ft)    | 205  |      | 205  | 350  |      | 150  |      |      |
| Base Capacity (vph)     | 86   | 809  | 831  | 239  | 971  | 509  | 534  | 499  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.06 | 0.51 | 0.31 | 0.53 | 0.74 | 0.73 | 0.21 | 0.08 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley

4: Silva Valley Pkwy./Allegheny Rd & Green Valley Road/Green Valley Rd.

Cumulative

Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 5    | 380  | 236  | 116  | 634  | 16   | 264  | 30   | 48   | 4    | 25   | 1    |
| Future Volume (veh/h)        | 5    | 380  | 236  | 116  | 634  | 16   | 264  | 30   | 48   | 4    | 25   | 1    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 5    | 409  | 254  | 127  | 697  | 18   | 372  | 42   | 68   | 5    | 32   | 1    |
| Peak Hour Factor             | 0.93 | 0.93 | 0.93 | 0.91 | 0.91 | 0.91 | 0.71 | 0.71 | 0.71 | 0.77 | 0.77 | 0.77 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 96   | 739  | 626  | 161  | 783  | 20   | 425  | 153  | 248  | 7    | 46   | 1    |
| Arrive On Green              | 0.05 | 0.39 | 0.39 | 0.09 | 0.43 | 0.43 | 0.24 | 0.24 | 0.24 | 0.03 | 0.03 | 0.03 |
| Sat Flow, veh/h              | 1781 | 1870 | 1585 | 1781 | 1815 | 47   | 1781 | 643  | 1040 | 243  | 1557 | 49   |
| Grp Volume(v), veh/h         | 5    | 409  | 254  | 127  | 0    | 715  | 372  | 0    | 110  | 38   | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1870 | 1585 | 1781 | 0    | 1862 | 1781 | 0    | 1683 | 1849 | 0    | 0    |
| Q Serve(g_s), s              | 0.2  | 12.6 | 8.6  | 5.2  | 0.0  | 26.3 | 14.9 | 0.0  | 3.9  | 1.5  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 0.2  | 12.6 | 8.6  | 5.2  | 0.0  | 26.3 | 14.9 | 0.0  | 3.9  | 1.5  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 0.03 | 1.00 |      | 0.62 | 0.13 |      | 0.03 |
| Lane Grp Cap(c), veh/h       | 96   | 739  | 626  | 161  | 0    | 804  | 425  | 0    | 401  | 54   | 0    | 0    |
| V/C Ratio(X)                 | 0.05 | 0.55 | 0.41 | 0.79 | 0.00 | 0.89 | 0.88 | 0.00 | 0.27 | 0.70 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 96   | 890  | 755  | 264  | 0    | 1062 | 562  | 0    | 531  | 549  | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 33.3 | 17.4 | 16.2 | 33.0 | 0.0  | 19.4 | 27.2 | 0.0  | 23.0 | 35.7 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 0.2  | 0.7  | 0.4  | 6.2  | 0.0  | 7.6  | 10.8 | 0.0  | 0.3  | 11.5 | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.1  | 4.7  | 2.7  | 2.3  | 0.0  | 10.9 | 7.0  | 0.0  | 1.5  | 0.8  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 33.4 | 18.0 | 16.6 | 39.2 | 0.0  | 27.1 | 38.0 | 0.0  | 23.3 | 47.2 | 0.0  | 0.0  |
| LnGrp LOS                    | C    | B    | B    | D    | A    | C    | D    | A    | C    | D    | A    | A    |
| Approach Vol, veh/h          |      | 668  |      |      | 842  |      |      | 482  |      |      |      | 38   |
| Approach Delay, s/veh        |      | 17.6 |      |      | 28.9 |      |      | 34.7 |      |      |      | 47.2 |
| Approach LOS                 |      | B    |      |      | C    |      |      | C    |      |      |      | D    |
| Timer - Assigned Phs         | 1    | 2    |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 8.0  | 37.7 |      | 6.2  | 10.7 | 35.0 |      | 22.3 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 5.7  |      | 4.0  | 4.0  | 5.7  |      | 4.6  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0  | 42.3 |      | 22.0 | 11.0 | 35.3 |      | 23.4 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 2.2  | 28.3 |      | 3.5  | 7.2  | 14.6 |      | 16.9 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 3.7  |      | 0.1  | 0.1  | 3.0  |      | 0.8  |      |      |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 26.9 |
| HCM 6th LOS        | C    |

Generations at Green Valley  
5: Loch Way & Green Valley Rd

Cumulative  
Timing Plan: AM

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 1.1  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      |      |      |      |      |      |      |
| Traffic Vol, veh/h       | 403  | 26   | 6    | 728  | 23   | 8    |
| Future Vol, veh/h        | 403  | 26   | 6    | 728  | 23   | 8    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | 100  | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 91   | 91   | 94   | 94   | 56   | 56   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 443  | 29   | 6    | 774  | 41   | 14   |

| Major/Minor          | Major1 | Major2 | Minor1 | Minor2 | Minor3 |
|----------------------|--------|--------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 472    | 0      | 1244   |
| Stage 1              | -      | -      | -      | -      | 458    |
| Stage 2              | -      | -      | -      | -      | 786    |
| Critical Hdwy        | -      | -      | 4.12   | -      | 6.42   |
| Critical Hdwy Stg 1  | -      | -      | -      | -      | 5.42   |
| Critical Hdwy Stg 2  | -      | -      | -      | -      | 5.42   |
| Follow-up Hdwy       | -      | -      | 2.218  | -      | 3.518  |
| Pot Cap-1 Maneuver   | -      | -      | 1090   | -      | 192    |
| Stage 1              | -      | -      | -      | -      | 637    |
| Stage 2              | -      | -      | -      | -      | 449    |
| Platoon blocked, %   | -      | -      | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 1090   | -      | 191    |
| Mov Cap-2 Maneuver   | -      | -      | -      | -      | 191    |
| Stage 1              | -      | -      | -      | -      | 637    |
| Stage 2              | -      | -      | -      | -      | 446    |

| Approach             | EB | WB  | NB   |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0  | 0.1 | 25.3 |
| HCM LOS              |    |     | D    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 232   | -   | -   | 1090  | -   |
| HCM Lane V/C Ratio    | 0.239 | -   | -   | 0.006 | -   |
| HCM Control Delay (s) | 25.3  | -   | -   | 8.3   | -   |
| HCM Lane LOS          | D     | -   | -   | A     | -   |
| HCM 95th %tile Q(veh) | 0.9   | -   | -   | 0     | -   |

Generations at Green Valley  
6: Green Valley Rd & Malcolm Dixon Cutoff

Cumulative  
Timing Plan: AM

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 3    |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      |      |      |      |      |      |
| Traffic Vol, veh/h       | 40   | 371  | 634  | 21   | 32   | 105  |
| Future Vol, veh/h        | 40   | 371  | 634  | 21   | 32   | 105  |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 100  | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 43   | 403  | 689  | 23   | 35   | 114  |

| Major/Minor          | Major1 | Major2 | Minor2 |   |             |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 712    | 0      | -      | 0 | 1190 701    |
| Stage 1              | -      | -      | -      | - | 701 -       |
| Stage 2              | -      | -      | -      | - | 489 -       |
| Critical Hdwy        | 4.12   | -      | -      | - | 6.42 6.22   |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.42 -      |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.42 -      |
| Follow-up Hdwy       | 2.218  | -      | -      | - | 3.518 3.318 |
| Pot Cap-1 Maneuver   | 888    | -      | -      | - | 207 439     |
| Stage 1              | -      | -      | -      | - | 492 -       |
| Stage 2              | -      | -      | -      | - | 616 -       |
| Platoon blocked, %   |        | -      | -      | - |             |
| Mov Cap-1 Maneuver   | 888    | -      | -      | - | 197 439     |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 197 -       |
| Stage 1              | -      | -      | -      | - | 468 -       |
| Stage 2              | -      | -      | -      | - | 616 -       |

| Approach             | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.9 | 0  | 23.5 |
| HCM LOS              |     |    | C    |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 888   | -   | -   | -   | 341   |
| HCM Lane V/C Ratio    | 0.049 | -   | -   | -   | 0.437 |
| HCM Control Delay (s) | 9.3   | -   | -   | -   | 23.5  |
| HCM Lane LOS          | A     | -   | -   | -   | C     |
| HCM 95th %tile Q(veh) | 0.2   | -   | -   | -   | 2.1   |

Generations at Green Valley  
7: Green Valley Rd & Malcom Dixon Rd

Cumulative  
Timing Plan: AM

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.6  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      | ↕    | ↕    |      | ↕    |      |
| Traffic Vol, veh/h       | 10   | 369  | 637  | 15   | 12   | 18   |
| Future Vol, veh/h        | 10   | 369  | 637  | 15   | 12   | 18   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 93   | 93   | 86   | 86   | 91   | 91   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 11   | 397  | 741  | 17   | 13   | 20   |

| Major/Minor          | Major1 | Major2 | Minor2 |   |             |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 758    | 0      | -      | 0 | 1169 750    |
| Stage 1              | -      | -      | -      | - | 750 -       |
| Stage 2              | -      | -      | -      | - | 419 -       |
| Critical Hdwy        | 4.12   | -      | -      | - | 6.42 6.22   |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.42 -      |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.42 -      |
| Follow-up Hdwy       | 2.218  | -      | -      | - | 3.518 3.318 |
| Pot Cap-1 Maneuver   | 853    | -      | -      | - | 213 411     |
| Stage 1              | -      | -      | -      | - | 467 -       |
| Stage 2              | -      | -      | -      | - | 664 -       |
| Platoon blocked, %   |        | -      | -      | - |             |
| Mov Cap-1 Maneuver   | 853    | -      | -      | - | 209 411     |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 209 -       |
| Stage 1              | -      | -      | -      | - | 459 -       |
| Stage 2              | -      | -      | -      | - | 664 -       |

| Approach             | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.2 | 0  | 18.7 |
| HCM LOS              |     |    | C    |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 853   | -   | -   | -   | 296   |
| HCM Lane V/C Ratio    | 0.013 | -   | -   | -   | 0.111 |
| HCM Control Delay (s) | 9.3   | 0   | -   | -   | 18.7  |
| HCM Lane LOS          | A     | A   | -   | -   | C     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0.4   |

Generations at Green Valley  
8: Deer Valley Rd. & Green Valley Rd.

Cumulative  
Timing Plan: AM



| Lane Group                  | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBT  | SBT  |
|-----------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)       | 21   | 373  | 22   | 55   | 656  | 18   | 121  | 123  |
| v/c Ratio                   | 0.08 | 0.39 | 0.03 | 0.11 | 0.69 | 0.02 | 0.32 | 0.33 |
| Control Delay               | 4.8  | 6.2  | 2.2  | 4.6  | 10.5 | 2.1  | 9.1  | 10.1 |
| Queue Delay                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay                 | 4.8  | 6.2  | 2.2  | 4.6  | 10.5 | 2.1  | 9.1  | 10.1 |
| Queue Length 50th (ft)      | 1    | 29   | 0    | 4    | 62   | 0    | 6    | 8    |
| Queue Length 95th (ft)      | 8    | 78   | 6    | 15   | 156  | 4    | 26   | 31   |
| Internal Link Dist (ft)     |      | 2852 |      |      | 3999 |      | 988  | 946  |
| Turn Bay Length (ft)        | 415  |      | 415  | 415  |      | 415  |      |      |
| Base Capacity (vph)         | 450  | 1535 | 1308 | 827  | 1535 | 1308 | 784  | 760  |
| Starvation Cap Reductn      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio           | 0.05 | 0.24 | 0.02 | 0.07 | 0.43 | 0.01 | 0.15 | 0.16 |
| <b>Intersection Summary</b> |      |      |      |      |      |      |      |      |

Generations at Green Valley  
8: Deer Valley Rd. & Green Valley Rd.

Cumulative  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 19   | 339  | 20   | 48   | 571  | 16   | 32   | 1    | 51   | 40   | 2    | 46   |
| Future Volume (veh/h)        | 19   | 339  | 20   | 48   | 571  | 16   | 32   | 1    | 51   | 40   | 2    | 46   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 21   | 373  | 22   | 55   | 656  | 18   | 46   | 1    | 74   | 56   | 3    | 64   |
| Peak Hour Factor             | 0.91 | 0.91 | 0.91 | 0.87 | 0.87 | 0.87 | 0.69 | 0.69 | 0.69 | 0.72 | 0.72 | 0.72 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 479  | 947  | 802  | 675  | 947  | 802  | 287  | 19   | 160  | 318  | 23   | 136  |
| Arrive On Green              | 0.51 | 0.51 | 0.51 | 0.51 | 0.51 | 0.51 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 |
| Sat Flow, veh/h              | 764  | 1870 | 1585 | 989  | 1870 | 1585 | 500  | 117  | 972  | 621  | 138  | 823  |
| Grp Volume(v), veh/h         | 21   | 373  | 22   | 55   | 656  | 18   | 121  | 0    | 0    | 123  | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 764  | 1870 | 1585 | 989  | 1870 | 1585 | 1590 | 0    | 0    | 1582 | 0    | 0    |
| Q Serve(g_s), s              | 0.5  | 3.0  | 0.2  | 0.9  | 6.5  | 0.1  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 7.0  | 3.0  | 0.2  | 3.9  | 6.5  | 0.1  | 1.5  | 0.0  | 0.0  | 1.5  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 0.38 |      | 0.61 | 0.46 |      | 0.52 |
| Lane Grp Cap(c), veh/h       | 479  | 947  | 802  | 675  | 947  | 802  | 466  | 0    | 0    | 476  | 0    | 0    |
| V/C Ratio(X)                 | 0.04 | 0.39 | 0.03 | 0.08 | 0.69 | 0.02 | 0.26 | 0.00 | 0.00 | 0.26 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 910  | 2002 | 1696 | 1233 | 2002 | 1696 | 1198 | 0    | 0    | 1197 | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 7.2  | 3.7  | 3.0  | 4.9  | 4.6  | 3.0  | 9.1  | 0.0  | 0.0  | 9.1  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 0.0  | 0.3  | 0.0  | 0.1  | 0.9  | 0.0  | 0.3  | 0.0  | 0.0  | 0.3  | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.0  | 0.1  | 0.0  | 0.0  | 0.2  | 0.0  | 0.4  | 0.0  | 0.0  | 0.4  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 7.3  | 4.0  | 3.0  | 4.9  | 5.5  | 3.0  | 9.4  | 0.0  | 0.0  | 9.4  | 0.0  | 0.0  |
| LnGrp LOS                    | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    |
| Approach Vol, veh/h          |      | 416  |      |      | 729  |      |      | 121  |      |      | 123  |      |
| Approach Delay, s/veh        |      | 4.1  |      |      | 5.4  |      |      | 9.4  |      |      | 9.4  |      |
| Approach LOS                 |      | A    |      |      | A    |      |      | A    |      |      | A    |      |
| Timer - Assigned Phs         |      | 2    |      | 4    |      | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 8.0  |      | 16.3 |      | 8.0  |      | 16.3 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  |      | 4.0  |      | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 16.0 |      | 26.0 |      | 16.0 |      | 26.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 3.5  |      | 9.0  |      | 3.5  |      | 8.5  |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.4  |      | 1.9  |      | 0.4  |      | 3.8  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      | 5.7  |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      |      | A    |      |      |      |      |      |      |      |      |



Generations at Green Valley  
 9: Silver Springs Pkwy & Green Valley Rd

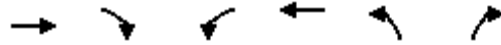
Cumulative  
 Timing Plan: AM



| Lane Group                  | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|-----------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph)       | 492  | 170  | 78   | 680  | 205  | 37   |
| v/c Ratio                   | 0.53 | 0.20 | 0.21 | 0.74 | 0.43 | 0.08 |
| Control Delay               | 8.9  | 1.9  | 7.1  | 13.1 | 15.5 | 5.9  |
| Queue Delay                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay                 | 8.9  | 1.9  | 7.1  | 13.1 | 15.5 | 5.9  |
| Queue Length 50th (ft)      | 54   | 0    | 7    | 87   | 33   | 0    |
| Queue Length 95th (ft)      | 139  | 19   | 28   | 223  | 90   | 15   |
| Internal Link Dist (ft)     | 3999 |      |      | 3318 | 1349 |      |
| Turn Bay Length (ft)        |      | 230  | 415  |      | 135  |      |
| Base Capacity (vph)         | 1375 | 1213 | 564  | 1375 | 821  | 754  |
| Starvation Cap Reductn      | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn       | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn         | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio           | 0.36 | 0.14 | 0.14 | 0.49 | 0.25 | 0.05 |
| <b>Intersection Summary</b> |      |      |      |      |      |      |

Generations at Green Valley  
9: Silver Springs Pkwy & Green Valley Rd

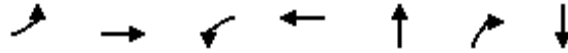
Cumulative  
Timing Plan: AM



| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations          | ↑    | ↗    | ↖    | ↑    | ↖    | ↗    |
| Traffic Volume (veh/h)       | 453  | 156  | 72   | 626  | 189  | 34   |
| Future Volume (veh/h)        | 453  | 156  | 72   | 626  | 189  | 34   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 492  | 170  | 78   | 680  | 205  | 37   |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 949  | 804  | 523  | 949  | 350  | 311  |
| Arrive On Green              | 0.51 | 0.51 | 0.51 | 0.51 | 0.20 | 0.20 |
| Sat Flow, veh/h              | 1870 | 1585 | 773  | 1870 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 492  | 170  | 78   | 680  | 205  | 37   |
| Grp Sat Flow(s),veh/h/ln     | 1870 | 1585 | 773  | 1870 | 1781 | 1585 |
| Q Serve(g_s), s              | 4.8  | 1.6  | 2.0  | 7.6  | 2.8  | 0.5  |
| Cycle Q Clear(g_c), s        | 4.8  | 1.6  | 6.8  | 7.6  | 2.8  | 0.5  |
| Prop In Lane                 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 949  | 804  | 523  | 949  | 350  | 311  |
| V/C Ratio(X)                 | 0.52 | 0.21 | 0.15 | 0.72 | 0.59 | 0.12 |
| Avail Cap(c_a), veh/h        | 1801 | 1526 | 875  | 1801 | 1055 | 939  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 4.4  | 3.7  | 6.7  | 5.2  | 9.9  | 8.9  |
| Incr Delay (d2), s/veh       | 0.4  | 0.1  | 0.1  | 1.0  | 1.6  | 0.2  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.1  | 0.0  | 0.1  | 0.3  | 0.7  | 0.1  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 4.9  | 3.8  | 6.8  | 6.2  | 11.4 | 9.1  |
| LnGrp LOS                    | A    | A    | A    | A    | B    | A    |
| Approach Vol, veh/h          | 662  |      |      | 758  | 242  |      |
| Approach Delay, s/veh        | 4.6  |      |      | 6.2  | 11.1 |      |
| Approach LOS                 | A    |      |      | A    | B    |      |
| Timer - Assigned Phs         |      | 2    |      | 4    |      | 8    |
| Phs Duration (G+Y+Rc), s     |      | 9.3  |      | 17.7 |      | 17.7 |
| Change Period (Y+Rc), s      |      | 4.0  |      | 4.0  |      | 4.0  |
| Max Green Setting (Gmax), s  |      | 16.0 |      | 26.0 |      | 26.0 |
| Max Q Clear Time (g_c+l1), s |      | 4.8  |      | 6.8  |      | 9.6  |
| Green Ext Time (p_c), s      |      | 0.5  |      | 3.0  |      | 4.1  |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 6.3  |      |      |      |
| HCM 6th LOS                  |      |      | A    |      |      |      |

Generations at Green Valley  
 10: Bass Lake Rd./Alexandrite Dr & Green Valley Rd.

Cumulative  
 Timing Plan: AM



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBT  | NBR  | SBT  |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 7    | 813  | 184  | 789  | 155  | 250  | 10   |
| v/c Ratio               | 0.08 | 0.82 | 0.80 | 0.60 | 0.57 | 0.55 | 0.04 |
| Control Delay           | 40.0 | 25.4 | 60.2 | 11.1 | 39.2 | 9.4  | 0.2  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 40.0 | 25.4 | 60.2 | 11.1 | 39.2 | 9.4  | 0.2  |
| Queue Length 50th (ft)  | 3    | 279  | 84   | 131  | 67   | 0    | 0    |
| Queue Length 95th (ft)  | 12   | 313  | #177 | 373  | 94   | 8    | 0    |
| Internal Link Dist (ft) |      | 3318 |      | 1151 | 1084 |      | 521  |
| Turn Bay Length (ft)    | 285  |      | 435  |      |      | 150  |      |
| Base Capacity (vph)     | 92   | 987  | 231  | 1308 | 395  | 546  | 477  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.08 | 0.82 | 0.80 | 0.60 | 0.39 | 0.46 | 0.02 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
10: Bass Lake Rd./Alexandrite Dr & Green Valley Rd.

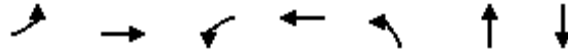
Cumulative  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 4    | 443  | 53   | 140  | 599  | 1    | 98   | 1    | 160  | 4    | 0    | 1    |
| Future Volume (veh/h)        | 4    | 443  | 53   | 140  | 599  | 1    | 98   | 1    | 160  | 4    | 0    | 1    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 7    | 726  | 87   | 184  | 788  | 1    | 153  | 2    | 250  | 8    | 0    | 2    |
| Peak Hour Factor             | 0.61 | 0.61 | 0.61 | 0.76 | 0.76 | 0.76 | 0.64 | 0.64 | 0.64 | 0.50 | 0.50 | 0.50 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 13   | 780  | 94   | 221  | 1108 | 1    | 325  | 4    | 293  | 14   | 0    | 3    |
| Arrive On Green              | 0.01 | 0.48 | 0.48 | 0.12 | 0.59 | 0.59 | 0.18 | 0.18 | 0.18 | 0.01 | 0.00 | 0.01 |
| Sat Flow, veh/h              | 1781 | 1639 | 196  | 1781 | 1868 | 2    | 1759 | 23   | 1585 | 1391 | 0    | 348  |
| Grp Volume(v), veh/h         | 7    | 0    | 813  | 184  | 0    | 789  | 155  | 0    | 250  | 10   | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1835 | 1781 | 0    | 1870 | 1782 | 0    | 1585 | 1738 | 0    | 0    |
| Q Serve(g_s), s              | 0.3  | 0.0  | 32.6 | 7.9  | 0.0  | 23.2 | 6.1  | 0.0  | 11.9 | 0.4  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 0.3  | 0.0  | 32.6 | 7.9  | 0.0  | 23.2 | 6.1  | 0.0  | 11.9 | 0.4  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 0.11 | 1.00 |      | 0.00 | 0.99 |      | 1.00 | 0.80 |      | 0.20 |
| Lane Grp Cap(c), veh/h       | 13   | 0    | 874  | 221  | 0    | 1109 | 330  | 0    | 293  | 17   | 0    | 0    |
| V/C Ratio(X)                 | 0.54 | 0.00 | 0.93 | 0.83 | 0.00 | 0.71 | 0.47 | 0.00 | 0.85 | 0.58 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 91   | 0    | 962  | 228  | 0    | 1124 | 387  | 0    | 345  | 356  | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 38.7 | 0.0  | 19.3 | 33.4 | 0.0  | 11.2 | 28.5 | 0.0  | 30.8 | 38.5 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 31.4 | 0.0  | 14.3 | 21.8 | 0.0  | 2.1  | 1.0  | 0.0  | 16.3 | 26.7 | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.2  | 0.0  | 14.2 | 4.4  | 0.0  | 7.3  | 2.5  | 0.0  | 5.4  | 0.3  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 70.1 | 0.0  | 33.5 | 55.2 | 0.0  | 13.3 | 29.5 | 0.0  | 47.1 | 65.2 | 0.0  | 0.0  |
| LnGrp LOS                    | E    | A    | C    | E    | A    | B    | C    | A    | D    | E    | A    | A    |
| Approach Vol, veh/h          |      | 820  |      |      | 973  |      |      | 405  |      |      |      | 10   |
| Approach Delay, s/veh        |      | 33.8 |      |      | 21.2 |      |      | 40.4 |      |      |      | 65.2 |
| Approach LOS                 |      | C    |      |      | C    |      |      | D    |      |      |      | E    |
| Timer - Assigned Phs         |      | 2    | 3    | 4    |      | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 18.5 | 13.7 | 41.2 |      | 4.8  | 4.6  | 50.4 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 17.0 | 10.0 | 41.0 |      | 16.0 | 4.0  | 47.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 13.9 | 9.9  | 34.6 |      | 2.4  | 2.3  | 25.2 |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.5  | 0.0  | 2.7  |      | 0.0  | 0.0  | 4.9  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 29.6 |      |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      | C    |      |      |      |      |      |      |      |      |      |

Generations at Green Valley  
 11: Cambridge Rd./Peridot Dr & Green Valley Rd.

Cumulative  
 Timing Plan: AM



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBT  |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 16   | 872  | 42   | 689  | 244  | 61   | 59   |
| v/c Ratio               | 0.16 | 0.88 | 0.42 | 0.64 | 0.70 | 0.17 | 0.30 |
| Control Delay           | 41.5 | 31.6 | 51.3 | 16.7 | 41.5 | 11.0 | 23.4 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 41.5 | 31.6 | 51.3 | 16.7 | 41.5 | 11.0 | 23.4 |
| Queue Length 50th (ft)  | 8    | -430 | 21   | 217  | 115  | 2    | 12   |
| Queue Length 95th (ft)  | 21   | 396  | #47  | 345  | 171  | 26   | 39   |
| Internal Link Dist (ft) |      | 1151 |      | 2235 |      | 1080 | 510  |
| Turn Bay Length (ft)    | 100  |      | 125  |      | 125  |      |      |
| Base Capacity (vph)     | 101  | 989  | 101  | 1082 | 404  | 410  | 412  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.16 | 0.88 | 0.42 | 0.64 | 0.60 | 0.15 | 0.14 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
11: Cambridge Rd./Peridot Dr & Green Valley Rd.

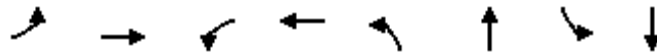
Cumulative  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 11   | 487  | 106  | 32   | 524  | 6    | 193  | 4    | 44   | 16   | 4    | 27   |
| Future Volume (veh/h)        | 11   | 487  | 106  | 32   | 524  | 6    | 193  | 4    | 44   | 16   | 4    | 27   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 16   | 716  | 156  | 42   | 681  | 8    | 244  | 5    | 56   | 20   | 5    | 34   |
| Peak Hour Factor             | 0.68 | 0.68 | 0.68 | 0.77 | 0.77 | 0.77 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 27   | 770  | 168  | 58   | 986  | 12   | 300  | 22   | 248  | 25   | 6    | 43   |
| Arrive On Green              | 0.02 | 0.52 | 0.52 | 0.03 | 0.53 | 0.53 | 0.17 | 0.17 | 0.17 | 0.04 | 0.04 | 0.04 |
| Sat Flow, veh/h              | 1781 | 1488 | 324  | 1781 | 1845 | 22   | 1781 | 132  | 1474 | 566  | 141  | 962  |
| Grp Volume(v), veh/h         | 16   | 0    | 872  | 42   | 0    | 689  | 244  | 0    | 61   | 59   | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1812 | 1781 | 0    | 1866 | 1781 | 0    | 1605 | 1669 | 0    | 0    |
| Q Serve(g_s), s              | 0.6  | 0.0  | 30.2 | 1.6  | 0.0  | 18.4 | 8.9  | 0.0  | 2.2  | 2.4  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 0.6  | 0.0  | 30.2 | 1.6  | 0.0  | 18.4 | 8.9  | 0.0  | 2.2  | 2.4  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 0.18 | 1.00 |      | 0.01 | 1.00 |      | 0.92 | 0.34 |      | 0.58 |
| Lane Grp Cap(c), veh/h       | 27   | 0    | 938  | 58   | 0    | 997  | 300  | 0    | 270  | 75   | 0    | 0    |
| V/C Ratio(X)                 | 0.58 | 0.00 | 0.93 | 0.73 | 0.00 | 0.69 | 0.81 | 0.00 | 0.23 | 0.79 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 106  | 0    | 1021 | 106  | 0    | 1051 | 423  | 0    | 381  | 396  | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 33.0 | 0.0  | 15.1 | 32.3 | 0.0  | 11.6 | 27.0 | 0.0  | 24.3 | 31.9 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 18.2 | 0.0  | 13.7 | 16.1 | 0.0  | 1.8  | 8.1  | 0.0  | 0.4  | 16.6 | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.4  | 0.0  | 12.0 | 0.9  | 0.0  | 5.7  | 4.2  | 0.0  | 0.8  | 1.3  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 51.2 | 0.0  | 28.8 | 48.5 | 0.0  | 13.4 | 35.1 | 0.0  | 24.7 | 48.5 | 0.0  | 0.0  |
| LnGrp LOS                    | D    | A    | C    | D    | A    | B    | D    | A    | C    | D    | A    | A    |
| Approach Vol, veh/h          |      | 888  |      |      | 731  |      |      | 305  |      |      |      | 59   |
| Approach Delay, s/veh        |      | 29.3 |      |      | 15.4 |      |      | 33.0 |      |      |      | 48.5 |
| Approach LOS                 |      | C    |      |      | B    |      |      | C    |      |      |      | D    |
| Timer - Assigned Phs         |      | 2    | 3    | 4    |      | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 15.4 | 6.2  | 38.9 |      | 7.0  | 5.0  | 40.0 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 16.0 | 4.0  | 38.0 |      | 16.0 | 4.0  | 38.0 |      |      |      |      |
| Max Q Clear Time (g_c+l1), s |      | 10.9 | 3.6  | 32.2 |      | 4.4  | 2.6  | 20.4 |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.5  | 0.0  | 2.7  |      | 0.2  | 0.0  | 3.8  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 25.3 |      |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      | C    |      |      |      |      |      |      |      |      |      |

Generations at Green Valley  
 12: Cameron Park Dr. & Green Valley Rd.

Cumulative  
 Timing Plan: AM



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 29   | 752  | 132  | 308  | 266  | 177  | 35   | 133  |
| v/c Ratio               | 0.28 | 0.95 | 0.90 | 0.32 | 0.91 | 0.33 | 0.28 | 0.55 |
| Control Delay           | 46.6 | 45.4 | 95.1 | 14.2 | 71.8 | 9.8  | 44.9 | 37.5 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 46.6 | 45.4 | 95.1 | 14.2 | 71.8 | 9.8  | 44.9 | 37.5 |
| Queue Length 50th (ft)  | 15   | 346  | 71   | 78   | 141  | 17   | 18   | 56   |
| Queue Length 95th (ft)  | 34   | 364  | #170 | 163  | #292 | 64   | 36   | 75   |
| Internal Link Dist (ft) |      | 2235 |      | 1414 |      | 1563 |      | 921  |
| Turn Bay Length (ft)    | 270  |      | 150  |      | 125  |      | 55   |      |
| Base Capacity (vph)     | 104  | 791  | 146  | 976  | 292  | 576  | 125  | 353  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.28 | 0.95 | 0.90 | 0.32 | 0.91 | 0.31 | 0.28 | 0.38 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
12: Cameron Park Dr. & Green Valley Rd.

Cumulative  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 20   | 261  | 265  | 111  | 250  | 8    | 234  | 34   | 121  | 23   | 60   | 28   |
| Future Volume (veh/h)        | 20   | 261  | 265  | 111  | 250  | 8    | 234  | 34   | 121  | 23   | 60   | 28   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 29   | 373  | 379  | 132  | 298  | 10   | 266  | 39   | 138  | 35   | 91   | 42   |
| Peak Hour Factor             | 0.70 | 0.70 | 0.70 | 0.84 | 0.84 | 0.84 | 0.88 | 0.88 | 0.88 | 0.66 | 0.66 | 0.66 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 42   | 382  | 388  | 151  | 919  | 31   | 302  | 88   | 312  | 48   | 123  | 57   |
| Arrive On Green              | 0.02 | 0.45 | 0.45 | 0.09 | 0.51 | 0.51 | 0.17 | 0.24 | 0.24 | 0.03 | 0.10 | 0.10 |
| Sat Flow, veh/h              | 1781 | 851  | 864  | 1781 | 1799 | 60   | 1781 | 361  | 1279 | 1781 | 1211 | 559  |
| Grp Volume(v), veh/h         | 29   | 0    | 752  | 132  | 0    | 308  | 266  | 0    | 177  | 35   | 0    | 133  |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1715 | 1781 | 0    | 1859 | 1781 | 0    | 1640 | 1781 | 0    | 1770 |
| Q Serve(g_s), s              | 1.3  | 0.0  | 35.4 | 6.0  | 0.0  | 8.0  | 12.0 | 0.0  | 7.5  | 1.6  | 0.0  | 6.0  |
| Cycle Q Clear(g_c), s        | 1.3  | 0.0  | 35.4 | 6.0  | 0.0  | 8.0  | 12.0 | 0.0  | 7.5  | 1.6  | 0.0  | 6.0  |
| Prop In Lane                 | 1.00 |      | 0.50 | 1.00 |      | 0.03 | 1.00 |      | 0.78 | 1.00 |      | 0.32 |
| Lane Grp Cap(c), veh/h       | 42   | 0    | 771  | 151  | 0    | 950  | 302  | 0    | 401  | 48   | 0    | 180  |
| V/C Ratio(X)                 | 0.69 | 0.00 | 0.98 | 0.87 | 0.00 | 0.32 | 0.88 | 0.00 | 0.44 | 0.73 | 0.00 | 0.74 |
| Avail Cap(c_a), veh/h        | 108  | 0    | 771  | 151  | 0    | 950  | 303  | 0    | 478  | 130  | 0    | 344  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh     | 39.9 | 0.0  | 22.2 | 37.2 | 0.0  | 11.8 | 33.4 | 0.0  | 26.3 | 39.8 | 0.0  | 35.9 |
| Incr Delay (d2), s/veh       | 18.3 | 0.0  | 26.4 | 38.6 | 0.0  | 0.2  | 24.4 | 0.0  | 0.8  | 19.4 | 0.0  | 5.9  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.8  | 0.0  | 17.2 | 4.1  | 0.0  | 2.8  | 6.9  | 0.0  | 2.8  | 0.9  | 0.0  | 2.8  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 58.2 | 0.0  | 48.6 | 75.8 | 0.0  | 12.0 | 57.7 | 0.0  | 27.1 | 59.1 | 0.0  | 41.8 |
| LnGrp LOS                    | E    | A    | D    | E    | A    | B    | E    | A    | C    | E    | A    | D    |
| Approach Vol, veh/h          |      | 781  |      |      | 440  |      |      | 443  |      |      | 168  |      |
| Approach Delay, s/veh        |      | 49.0 |      |      | 31.1 |      |      | 45.5 |      |      | 45.4 |      |
| Approach LOS                 |      | D    |      |      | C    |      |      | D    |      |      | D    |      |
| Timer - Assigned Phs         | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 6.2  | 24.1 | 11.0 | 41.0 | 18.0 | 12.4 | 5.9  | 46.1 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 6.0  | 24.0 | 7.0  | 37.0 | 14.0 | 16.0 | 5.0  | 39.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 3.6  | 9.5  | 8.0  | 37.4 | 14.0 | 8.0  | 3.3  | 10.0 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 0.7  | 0.0  | 0.0  | 0.0  | 0.3  | 0.0  | 1.6  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 43.5 |      |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      | D    |      |      |      |      |      |      |      |      |      |



Generations at Green Valley  
13: El Dorado Hills Blvd. & Francisco Dr.

Cumulative  
Timing Plan: AM

Intersection

Intersection Delay, s/veh: 103.1

Intersection LOS: F

| Movement            | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations |      | ↔    | ↔    |      | ↔    |      | ↔    | ↔    |      | ↔    | ↔    |      |
| Traffic Vol, veh/h  | 7    | 41   | 484  | 21   | 36   | 25   | 439  | 184  | 45   | 95   | 332  | 1    |
| Future Vol, veh/h   | 7    | 41   | 484  | 21   | 36   | 25   | 439  | 184  | 45   | 95   | 332  | 1    |
| Peak Hour Factor    | 0.86 | 0.86 | 0.86 | 0.52 | 0.52 | 0.52 | 0.92 | 0.92 | 0.92 | 0.75 | 0.75 | 0.75 |
| Heavy Vehicles, %   | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow           | 8    | 48   | 563  | 40   | 69   | 48   | 477  | 200  | 49   | 127  | 443  | 1    |
| Number of Lanes     | 0    | 1    | 1    | 0    | 1    | 0    | 1    | 1    | 0    | 1    | 1    | 0    |

| Approach                   | EB    | WB | NB    | SB   |
|----------------------------|-------|----|-------|------|
| Opposing Approach          | WB    | EB | SB    | NB   |
| Opposing Lanes             | 1     | 2  | 2     | 2    |
| Conflicting Approach Left  | SB    | NB | EB    | WB   |
| Conflicting Lanes Left     | 2     | 2  | 2     | 1    |
| Conflicting Approach Right | NB    | SB | WB    | EB   |
| Conflicting Lanes Right    | 2     | 2  | 1     | 2    |
| HCM Control Delay          | 145.4 | 23 | 103.8 | 78.4 |
| HCM LOS                    | F     | C  | F     | F    |

| Lane                   | NBLn1 | NBLn2 | EBLn1 | EBLn2 | WBLn1 | SBLn1  | SBLn2 |
|------------------------|-------|-------|-------|-------|-------|--------|-------|
| Vol Left, %            | 100%  | 0%    | 15%   | 0%    | 26%   | 100%   | 0%    |
| Vol Thru, %            | 0%    | 80%   | 85%   | 0%    | 44%   | 0%     | 100%  |
| Vol Right, %           | 0%    | 20%   | 0%    | 100%  | 30%   | 0%     | 0%    |
| Sign Control           | Stop  | Stop  | Stop  | Stop  | Stop  | Stop   | Stop  |
| Traffic Vol by Lane    | 439   | 229   | 48    | 484   | 82    | 95     | 333   |
| LT Vol                 | 439   | 0     | 7     | 0     | 21    | 95     | 0     |
| Through Vol            | 0     | 184   | 41    | 0     | 36    | 0      | 332   |
| RT Vol                 | 0     | 45    | 0     | 484   | 25    | 0      | 1     |
| Lane Flow Rate         | 477   | 249   | 56    | 563   | 158   | 127    | 444   |
| Geometry Grp           | 7     | 7     | 7     | 7     | 6     | 7      | 7     |
| Degree of Util (X)     | 1.204 | 0.584 | 0.136 | 1.255 | 0.441 | 0.321  | 1.064 |
| Departure Headway (Hd) | 9.971 | 9.301 | 9.292 | 8.486 | 11.32 | 10.078 | 9.55  |
| Convergence, Y/N       | Yes   | Yes   | Yes   | Yes   | Yes   | Yes    | Yes   |
| Cap                    | 367   | 391   | 388   | 433   | 320   | 360    | 382   |
| Service Time           | 7.671 | 7.001 | 6.992 | 6.186 | 9.32  | 7.778  | 7.25  |
| HCM Lane V/C Ratio     | 1.3   | 0.637 | 0.144 | 1.3   | 0.494 | 0.353  | 1.162 |
| HCM Control Delay      | 145.2 | 24.3  | 13.4  | 158.5 | 23    | 17.5   | 95.8  |
| HCM Lane LOS           | F     | C     | B     | F     | C     | C      | F     |
| HCM 95th-tile Q        | 18.2  | 3.6   | 0.5   | 22.4  | 2.2   | 1.4    | 13.9  |

Generations at Green Valley  
 14: El Dorado Hills Blvd. & Harvard Way

Cumulative  
 Timing Plan: AM



| Lane Group              | WBL  | WBR  | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|
| Lane Group Flow (vph)   | 625  | 282  | 1330 | 436  | 807  |
| v/c Ratio               | 0.98 | 0.38 | 0.98 | 0.95 | 0.43 |
| Control Delay           | 57.7 | 4.0  | 39.2 | 66.8 | 11.5 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 57.7 | 4.0  | 39.2 | 66.8 | 11.5 |
| Queue Length 50th (ft)  | 282  | 0    | 249  | 105  | 111  |
| Queue Length 95th (ft)  | #317 | 18   | #339 | #192 | 151  |
| Internal Link Dist (ft) | 2093 |      | 5028 |      | 7812 |
| Turn Bay Length (ft)    |      |      |      | 190  |      |
| Base Capacity (vph)     | 637  | 750  | 1361 | 457  | 1887 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.98 | 0.38 | 0.98 | 0.95 | 0.43 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
14: El Dorado Hills Blvd. & Harvard Way

Cumulative  
Timing Plan: AM



| Movement                     | WBL  | WBR  | NBT   | NBR   | SBL  | SBT  |
|------------------------------|------|------|-------|-------|------|------|
| Lane Configurations          |      |      |       |       |      |      |
| Traffic Volume (veh/h)       | 450  | 203  | 573   | 531   | 397  | 734  |
| Future Volume (veh/h)        | 450  | 203  | 573   | 531   | 397  | 734  |
| Initial Q (Qb), veh          | 0    | 0    | 0     | 0     | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 | 1.00 |       | 1.00  | 1.00 |      |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      | No    |       |      | No   |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870  | 1870  | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 625  | 282  | 690   | 640   | 436  | 807  |
| Peak Hour Factor             | 0.72 | 0.72 | 0.83  | 0.83  | 0.91 | 0.91 |
| Percent Heavy Veh, %         | 2    | 2    | 2     | 2     | 2    | 2    |
| Cap, veh/h                   | 641  | 571  | 616   | 549   | 461  | 1895 |
| Arrive On Green              | 0.36 | 0.36 | 0.35  | 0.35  | 0.13 | 0.53 |
| Sat Flow, veh/h              | 1781 | 1585 | 1870  | 1585  | 3456 | 3647 |
| Grp Volume(v), veh/h         | 625  | 282  | 690   | 640   | 436  | 807  |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1585 | 1777  | 1585  | 1728 | 1777 |
| Q Serve(g_s), s              | 25.9 | 10.4 | 26.0  | 26.0  | 9.4  | 10.3 |
| Cycle Q Clear(g_c), s        | 25.9 | 10.4 | 26.0  | 26.0  | 9.4  | 10.3 |
| Prop In Lane                 | 1.00 | 1.00 |       | 1.00  | 1.00 |      |
| Lane Grp Cap(c), veh/h       | 641  | 571  | 616   | 549   | 461  | 1895 |
| V/C Ratio(X)                 | 0.97 | 0.49 | 1.12  | 1.16  | 0.95 | 0.43 |
| Avail Cap(c_a), veh/h        | 641  | 571  | 616   | 549   | 461  | 1895 |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 23.7 | 18.7 | 24.5  | 24.5  | 32.2 | 10.6 |
| Incr Delay (d2), s/veh       | 29.1 | 0.7  | 74.0  | 92.7  | 28.8 | 0.2  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 15.0 | 3.6  | 21.9  | 22.4  | 5.4  | 3.1  |
| Unsig. Movement Delay, s/veh |      |      |       |       |      |      |
| LnGrp Delay(d),s/veh         | 52.8 | 19.3 | 98.5  | 117.2 | 61.0 | 10.7 |
| LnGrp LOS                    | D    | B    | F     | F     | E    | B    |
| Approach Vol, veh/h          | 907  |      | 1330  |       |      | 1243 |
| Approach Delay, s/veh        | 42.4 |      | 107.5 |       |      | 28.4 |
| Approach LOS                 | D    |      | F     |       |      | C    |
| Timer - Assigned Phs         | 1    | 2    |       |       | 6    | 8    |
| Phs Duration (G+Y+Rc), s     | 14.0 | 30.0 |       |       | 44.0 | 31.0 |
| Change Period (Y+Rc), s      | 4.0  | 4.0  |       |       | 4.0  | 4.0  |
| Max Green Setting (Gmax), s  | 10.0 | 26.0 |       |       | 40.0 | 27.0 |
| Max Q Clear Time (g_c+l1), s | 11.4 | 28.0 |       |       | 12.3 | 27.9 |
| Green Ext Time (p_c), s      | 0.0  | 0.0  |       |       | 5.3  | 0.0  |
| <b>Intersection Summary</b>  |      |      |       |       |      |      |
| HCM 6th Ctrl Delay           |      |      | 62.3  |       |      |      |
| HCM 6th LOS                  |      |      | E     |       |      |      |

Generations at Green Valley  
 15: El Dorado Hills Blvd. & Wilson Blvd

Cumulative  
 Timing Plan: AM



| Lane Group              | EBT  | EBR  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 276  | 202  | 63   | 92   | 961  | 25   | 1339 |
| v/c Ratio               | 0.81 | 0.37 | 0.18 | 0.60 | 0.50 | 0.20 | 0.80 |
| Control Delay           | 41.4 | 6.4  | 15.1 | 45.7 | 10.7 | 30.6 | 18.9 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 41.4 | 6.4  | 15.1 | 45.7 | 10.7 | 30.6 | 18.9 |
| Queue Length 50th (ft)  | 90   | 6    | 13   | 33   | 91   | 9    | 211  |
| Queue Length 95th (ft)  | #200 | 47   | 39   | #93  | 183  | 29   | #346 |
| Internal Link Dist (ft) | 1459 |      | 233  |      | 3231 |      | 5028 |
| Turn Bay Length (ft)    |      |      |      | 278  |      | 90   |      |
| Base Capacity (vph)     | 380  | 596  | 400  | 154  | 1915 | 123  | 1664 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.73 | 0.34 | 0.16 | 0.60 | 0.50 | 0.20 | 0.80 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
15: El Dorado Hills Blvd. & Wilson Blvd

Cumulative  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      | ↖    | ↗    |      | ↔    |      | ↖    | ↕    |      | ↖    | ↕    |      |
| Traffic Volume (veh/h)       | 243  | 11   | 186  | 37   | 9    | 12   | 85   | 864  | 20   | 23   | 977  | 255  |
| Future Volume (veh/h)        | 243  | 11   | 186  | 37   | 9    | 12   | 85   | 864  | 20   | 23   | 977  | 255  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 264  | 12   | 202  | 40   | 10   | 13   | 92   | 939  | 22   | 25   | 1062 | 277  |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 444  | 15   | 420  | 149  | 40   | 22   | 117  | 1777 | 42   | 41   | 1278 | 331  |
| Arrive On Green              | 0.27 | 0.27 | 0.27 | 0.27 | 0.27 | 0.27 | 0.07 | 0.50 | 0.50 | 0.02 | 0.46 | 0.46 |
| Sat Flow, veh/h              | 1206 | 55   | 1585 | 171  | 152  | 84   | 1781 | 3549 | 83   | 1781 | 2793 | 724  |
| Grp Volume(v), veh/h         | 276  | 0    | 202  | 63   | 0    | 0    | 92   | 470  | 491  | 25   | 673  | 666  |
| Grp Sat Flow(s),veh/h/ln     | 1261 | 0    | 1585 | 407  | 0    | 0    | 1781 | 1777 | 1855 | 1781 | 1777 | 1740 |
| Q Serve(g_s), s              | 0.0  | 0.0  | 6.1  | 1.0  | 0.0  | 0.0  | 2.9  | 10.2 | 10.2 | 0.8  | 18.8 | 19.1 |
| Cycle Q Clear(g_c), s        | 12.0 | 0.0  | 6.1  | 13.0 | 0.0  | 0.0  | 2.9  | 10.2 | 10.2 | 0.8  | 18.8 | 19.1 |
| Prop In Lane                 | 0.96 |      | 1.00 | 0.63 |      | 0.21 | 1.00 |      | 0.04 | 1.00 |      | 0.42 |
| Lane Grp Cap(c), veh/h       | 458  | 0    | 420  | 212  | 0    | 0    | 117  | 890  | 929  | 41   | 813  | 796  |
| V/C Ratio(X)                 | 0.60 | 0.00 | 0.48 | 0.30 | 0.00 | 0.00 | 0.78 | 0.53 | 0.53 | 0.61 | 0.83 | 0.84 |
| Avail Cap(c_a), veh/h        | 506  | 0    | 474  | 257  | 0    | 0    | 157  | 890  | 929  | 125  | 813  | 796  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 19.7 | 0.0  | 17.6 | 19.0 | 0.0  | 0.0  | 26.1 | 9.6  | 9.6  | 27.5 | 13.4 | 13.5 |
| Incr Delay (d2), s/veh       | 1.7  | 0.0  | 0.9  | 0.8  | 0.0  | 0.0  | 16.6 | 2.2  | 2.1  | 13.9 | 9.5  | 10.1 |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 3.1  | 0.0  | 2.1  | 0.8  | 0.0  | 0.0  | 1.6  | 3.3  | 3.4  | 0.5  | 7.3  | 7.4  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 21.4 | 0.0  | 18.4 | 19.8 | 0.0  | 0.0  | 42.8 | 11.9 | 11.8 | 41.4 | 22.9 | 23.7 |
| LnGrp LOS                    | C    | A    | B    | B    | A    | A    | D    | B    | B    | D    | C    | C    |
| Approach Vol, veh/h          |      | 478  |      |      | 63   |      |      | 1053 |      |      | 1364 |      |
| Approach Delay, s/veh        |      | 20.2 |      |      | 19.8 |      |      | 14.5 |      |      | 23.6 |      |
| Approach LOS                 |      | C    |      |      | B    |      |      | B    |      |      | C    |      |
| Timer - Assigned Phs         | 1    | 2    |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 5.3  | 32.4 |      | 19.1 | 7.7  | 30.0 |      | 19.1 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0  | 27.0 |      | 17.0 | 5.0  | 26.0 |      | 17.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 2.8  | 12.2 |      | 14.0 | 4.9  | 21.1 |      | 15.0 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 4.9  |      | 0.7  | 0.0  | 3.2  |      | 0.0  |      |      |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 19.7 |
| HCM 6th LOS        | B    |

Generations at Green Valley  
 16: El Dorado Hills Blvd. & Lassen Ln/Serrano Pkwy.

Cumulative  
 Timing Plan: AM

























| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL   | NBT  | NBR  | SBL   | SBT  |
|-------------------------|------|------|------|------|-------|------|------|-------|------|
| Lane Group Flow (vph)   | 51   | 120  | 335  | 353  | 76    | 851  | 265  | 152   | 1166 |
| v/c Ratio               | 0.14 | 0.29 | 0.99 | 0.76 | 0.97  | 0.82 | 0.17 | 0.97  | 0.98 |
| Control Delay           | 30.1 | 15.1 | 84.9 | 26.6 | 142.1 | 37.7 | 0.2  | 107.8 | 52.8 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   | 0.0  |
| Total Delay             | 30.1 | 15.1 | 84.9 | 26.6 | 142.1 | 37.7 | 0.2  | 107.8 | 52.8 |
| Queue Length 50th (ft)  | 24   | 21   | 201  | 87   | 44    | 236  | 0    | 88    | 340  |
| Queue Length 95th (ft)  | 43   | 46   | #309 | 147  | #117  | 272  | 0    | #200  | #468 |
| Internal Link Dist (ft) |      | 321  |      | 6047 |       | 1160 |      |       | 3231 |
| Turn Bay Length (ft)    | 70   |      | 410  |      | 260   |      |      | 100   |      |
| Base Capacity (vph)     | 373  | 415  | 338  | 467  | 78    | 1034 | 1583 | 157   | 1187 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0     | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0     | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0     | 0    |
| Reduced v/c Ratio       | 0.14 | 0.29 | 0.99 | 0.76 | 0.97  | 0.82 | 0.17 | 0.97  | 0.98 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
16: El Dorado Hills Blvd. & Lassen Ln/Serrano Pkwy.

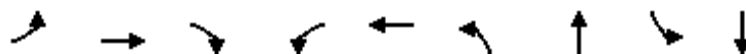
Cumulative  
Timing Plan: AM

|                                   |  |  |  |  |  |  |   |  |  |  |  |  |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|
| Movement                          | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations               |  |  |   |  |  |   |  |  |  |  |  |  |
| Traffic Volume (vph)              | 37  | 33  | 55  | 294   | 28  | 222   | 62  | 698   | 217   | 134   | 977   | 49  |
| Future Volume (vph)               | 37  | 33  | 55  | 294   | 28  | 222   | 62  | 698   | 217   | 134   | 977   | 49  |
| Ideal Flow (vphpl)                | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  | 1900  |
| Total Lost time (s)               | 5.2   | 5.2   |   | 5.2   | 5.2   |   | 3.0   | 5.2   | 4.0   | 3.0   | 5.2   |   |
| Lane Util. Factor                 | 1.00  | 1.00  |   | 0.95  | 0.95  |   | 1.00  | 0.95  | 1.00  | 1.00  | 0.95  |   |
| Frt                               | 1.00  | 0.91  |   | 1.00  | 0.88  |   | 1.00  | 1.00  | 0.85  | 1.00  | 0.99  |   |
| Flt Protected                     | 0.95  | 1.00  |   | 0.95  | 0.99  |   | 0.95  | 1.00  | 1.00  | 0.95  | 1.00  |   |
| Satd. Flow (prot)                 | 1770  | 1688  |   | 1681  | 1550  |   | 1770  | 3539  | 1583  | 1770  | 3514  |   |
| Flt Permitted                     | 0.95  | 1.00  |   | 0.95  | 0.99  |   | 0.95  | 1.00  | 1.00  | 0.95  | 1.00  |   |
| Satd. Flow (perm)                 | 1770  | 1688  |   | 1681  | 1550  |   | 1770  | 3539  | 1583  | 1770  | 3514  |   |
| Peak-hour factor, PHF             | 0.73  | 0.73  | 0.73  | 0.79  | 0.79  | 0.79  | 0.82  | 0.82  | 0.82  | 0.88  | 0.88  | 0.88  |
| Adj. Flow (vph)                   | 51  | 45  | 75  | 372   | 35  | 281   | 76  | 851   | 265   | 152   | 1110  | 56  |
| RTOR Reduction (vph)              | 0   | 59  | 0   | 0   | 156   | 0   | 0   | 0   | 0   | 0   | 4   | 0   |
| Lane Group Flow (vph)             | 51  | 61  | 0   | 335   | 197   | 0   | 76  | 851   | 265   | 152   | 1162  | 0   |
| Turn Type                         | Split   | NA  |   | Split   | NA  |   | Prot  | NA  | Free  | Prot  | NA  |   |
| Protected Phases                  | 4   | 4   |   | 8   | 8   |   | 5   | 2   |   | 1   | 6   |   |
| Permitted Phases                  |   |   |   |   |   |   |   |   | Free  |   |   |   |
| Actuated Green, G (s)             | 19.0  | 19.0  |   | 18.1  | 18.1  |   | 4.0   | 26.3  | 90.0  | 8.0   | 30.3  |   |
| Effective Green, g (s)            | 19.0  | 19.0  |   | 18.1  | 18.1  |   | 4.0   | 26.3  | 90.0  | 8.0   | 30.3  |   |
| Actuated g/C Ratio                | 0.21  | 0.21  |   | 0.20  | 0.20  |   | 0.04  | 0.29  | 1.00  | 0.09  | 0.34  |   |
| Clearance Time (s)                | 5.2   | 5.2   |   | 5.2   | 5.2   |   | 3.0   | 5.2   |   | 3.0   | 5.2   |   |
| Vehicle Extension (s)             | 0.2   | 0.2   |   | 0.2   | 0.2   |   | 0.2   | 0.2   |   | 0.2   | 0.2   |   |
| Lane Grp Cap (vph)                | 373   | 356   |   | 338   | 311   |   | 78  | 1034  | 1583  | 157   | 1183  |   |
| v/s Ratio Prot                    | 0.03  | 0.04  |   | c0.20   | 0.13  |   | 0.04  | 0.24  |   | c0.09   | c0.33   |   |
| v/s Ratio Perm                    |   |   |   |   |   |   |   |   | c0.17   |   |   |   |
| v/c Ratio                         | 0.14  | 0.17  |   | 0.99  | 0.63  |   | 0.97  | 0.82  | 0.17  | 0.97  | 0.98  |   |
| Uniform Delay, d1                 | 28.8  | 29.1  |   | 35.9  | 32.9  |   | 42.9  | 29.7  | 0.0   | 40.9  | 29.6  |   |
| Progression Factor                | 1.00  | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |   |
| Incremental Delay, d2             | 0.8   | 1.0   |   | 46.8  | 9.5   |   | 92.2  | 7.4   | 0.2   | 61.3  | 22.2  |   |
| Delay (s)                         | 29.6  | 30.1  |   | 82.6  | 42.4  |   | 135.2   | 37.1  | 0.2   | 102.2   | 51.8  |   |
| Level of Service                  | C   | C   |   | F   | D   |   | F   | D   | A   | F   | D   |   |
| Approach Delay (s)                |   | 29.9  |   |   | 62.0  |   |   | 35.1  |   |   | 57.6  |   |
| Approach LOS                      |   | C   |   |   | E   |   |   | D   |   |   | E   |   |
| <b>Intersection Summary</b>       |   |   |   |   |   |   |   |   |   |   |   |   |
| HCM 2000 Control Delay            |   |   | 49.2  |   | HCM 2000 Level of Service   |   |   |   |   | D   |   |   |
| HCM 2000 Volume to Capacity ratio |   |   | 0.81  |   |   |   |   |   |   |   |   |   |
| Actuated Cycle Length (s)         |   |   | 90.0  |   | Sum of lost time (s)  |   |   |   |   | 18.6  |   |   |
| Intersection Capacity Utilization |   |   | 69.1%   |   | ICU Level of Service  |   |   |   |   | C   |   |   |
| Analysis Period (min)             |   |   | 15  |   |   |   |   |   |   |   |   |   |

c Critical Lane Group

Generations at Green Valley  
 17: El Dorado Hills Blvd. & Saratoga Wy. (North)/Park Dr

Cumulative  
 Timing Plan: AM



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL    | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|--------|------|------|------|
| Lane Group Flow (vph)   | 85   | 173  | 434  | 49   | 260  | 554    | 998  | 117  | 1462 |
| v/c Ratio               | 0.60 | 0.59 | 0.81 | 0.18 | 0.86 | 8.66   | 0.43 | 0.46 | 0.74 |
| Control Delay           | 64.6 | 55.7 | 17.2 | 38.9 | 63.1 | 3483.7 | 22.0 | 49.4 | 21.7 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0    | 0.0  | 0.0  | 0.0  |
| Total Delay             | 64.6 | 55.7 | 17.2 | 38.9 | 63.1 | 3483.7 | 22.0 | 49.4 | 21.7 |
| Queue Length 50th (ft)  | 65   | 66   | 0    | 30   | 157  | ~769   | 162  | 77   | 355  |
| Queue Length 95th (ft)  | 113  | 96   | 97   | 52   | 191  | #981   | 260  | 126  | #563 |
| Internal Link Dist (ft) |      | 1745 |      |      | 332  |        | 961  |      | 1160 |
| Turn Bay Length (ft)    | 145  |      | 145  | 125  |      | 165    |      | 70   |      |
| Base Capacity (vph)     | 237  | 491  | 603  | 482  | 500  | 64     | 2331 | 257  | 1964 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0      | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0      | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0      | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.36 | 0.35 | 0.72 | 0.10 | 0.52 | 8.66   | 0.43 | 0.46 | 0.74 |

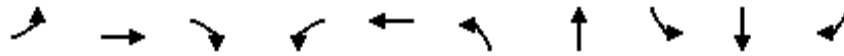
Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.



---

HCM 6th Edition methodology expects strict NEMA phasing.



| Lane Group              | EBL   | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  | SBR  |
|-------------------------|-------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 238   | 41   | 403  | 157  | 120  | 644  | 1321 | 43   | 1045 | 397  |
| v/c Ratio               | 0.97  | 0.16 | 0.25 | 0.67 | 0.25 | 0.80 | 0.48 | 0.35 | 0.57 | 0.48 |
| Control Delay           | 103.0 | 47.9 | 0.4  | 63.1 | 24.4 | 51.2 | 18.5 | 61.0 | 33.7 | 5.4  |
| Queue Delay             | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 51.2 | 2.4  |
| Total Delay             | 103.0 | 47.9 | 0.4  | 63.1 | 24.4 | 51.2 | 18.5 | 61.0 | 84.9 | 7.8  |
| Queue Length 50th (ft)  | ~189  | 29   | 0    | 117  | 22   | 244  | 228  | 32   | 233  | 0    |
| Queue Length 95th (ft)  | #356  | 64   | 0    | 162  | 42   | 286  | 293  | 68   | 310  | 60   |
| Internal Link Dist (ft) |       | 287  |      |      | 264  |      | 780  |      | 105  |      |
| Turn Bay Length (ft)    |       |      |      | 410  |      | 260  |      | 195  |      |      |
| Base Capacity (vph)     | 245   | 257  | 1583 | 390  | 769  | 1029 | 2731 | 123  | 1838 | 825  |
| Starvation Cap Reductn  | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1048 | 297  |
| Spillback Cap Reductn   | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.97  | 0.16 | 0.25 | 0.40 | 0.16 | 0.63 | 0.48 | 0.35 | 1.32 | 0.75 |

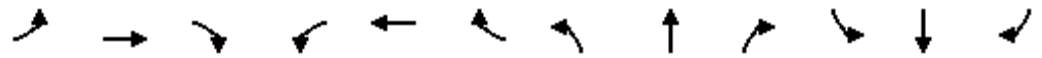
**Intersection Summary**

- ~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Generations at Green Valley

Cumulative

18: Latrobe Rd./El Dorado Hills Blvd. & US-50 WB On&Off-Ramp/Saratoga Way (South) Plan: AM



| Movement                     | EBL   | EBT   | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|-------|-------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          | ↖     | ↑     | ↗    | ↖    | ↕    |      | ↖    | ↕    |      | ↖    | ↕    | ↗    |
| Traffic Volume (veh/h)       | 219   | 38    | 371  | 129  | 49   | 49   | 573  | 1062 | 114  | 37   | 899  | 341  |
| Future Volume (veh/h)        | 219   | 38    | 371  | 129  | 49   | 49   | 573  | 1062 | 114  | 37   | 899  | 341  |
| Initial Q (Qb), veh          | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00  |       | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |       | No    |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870  | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 238   | 41    | 0    | 157  | 60   | 60   | 644  | 1193 | 128  | 43   | 1045 | 0    |
| Peak Hour Factor             | 0.92  | 0.92  | 0.92 | 0.82 | 0.82 | 0.82 | 0.89 | 0.89 | 0.89 | 0.86 | 0.86 | 0.86 |
| Percent Heavy Veh, %         | 2     | 2     | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 238   | 249   |      | 197  | 197  | 174  | 748  | 2772 | 297  | 55   | 2076 |      |
| Arrive On Green              | 0.13  | 0.13  | 0.00 | 0.11 | 0.11 | 0.11 | 0.22 | 0.59 | 0.59 | 0.03 | 0.41 | 0.00 |
| Sat Flow, veh/h              | 1781  | 1870  | 1585 | 1781 | 1785 | 1578 | 3456 | 4682 | 502  | 1781 | 5106 | 1585 |
| Grp Volume(v), veh/h         | 238   | 41    | 0    | 157  | 60   | 60   | 644  | 867  | 454  | 43   | 1045 | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781  | 1870  | 1585 | 1781 | 1777 | 1586 | 1728 | 1702 | 1780 | 1781 | 1702 | 1585 |
| Q Serve(g_s), s              | 16.0  | 2.3   | 0.0  | 10.3 | 3.7  | 4.2  | 21.5 | 16.7 | 16.7 | 2.9  | 18.3 | 0.0  |
| Cycle Q Clear(g_c), s        | 16.0  | 2.3   | 0.0  | 10.3 | 3.7  | 4.2  | 21.5 | 16.7 | 16.7 | 2.9  | 18.3 | 0.0  |
| Prop In Lane                 | 1.00  |       | 1.00 | 1.00 |      | 0.99 | 1.00 |      | 0.28 | 1.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 238   | 249   |      | 197  | 196  | 175  | 748  | 2015 | 1054 | 55   | 2076 |      |
| V/C Ratio(X)                 | 1.00  | 0.16  |      | 0.80 | 0.30 | 0.34 | 0.86 | 0.43 | 0.43 | 0.78 | 0.50 |      |
| Avail Cap(c_a), veh/h        | 238   | 249   |      | 393  | 392  | 350  | 1037 | 2015 | 1054 | 59   | 2076 |      |
| HCM Platoon Ratio            | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00  | 1.00  | 0.00 | 1.00 | 1.00 | 1.00 | 0.86 | 0.86 | 0.86 | 0.59 | 0.59 | 0.00 |
| Uniform Delay (d), s/veh     | 52.0  | 46.1  | 0.0  | 52.1 | 49.1 | 49.4 | 45.3 | 13.4 | 13.4 | 57.7 | 26.6 | 0.0  |
| Incr Delay (d2), s/veh       | 58.9  | 0.3   | 0.0  | 7.2  | 0.9  | 1.2  | 4.8  | 0.6  | 1.1  | 29.8 | 0.5  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 11.0  | 1.1   | 0.0  | 5.0  | 1.7  | 1.7  | 9.4  | 6.0  | 6.4  | 1.7  | 7.2  | 0.0  |
| Unsig. Movement Delay, s/veh |       |       |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 110.9 | 46.4  | 0.0  | 59.3 | 50.0 | 50.5 | 50.1 | 14.0 | 14.5 | 87.5 | 27.1 | 0.0  |
| LnGrp LOS                    | F     | D     |      | E    | D    | D    | D    | B    | B    | F    | C    |      |
| Approach Vol, veh/h          |       | 279   | A    |      | 277  |      |      | 1965 |      |      | 1088 | A    |
| Approach Delay, s/veh        |       | 101.4 |      |      | 55.4 |      |      | 25.9 |      |      | 29.5 |      |
| Approach LOS                 |       | F     |      |      | E    |      |      | C    |      |      | C    |      |
| Timer - Assigned Phs         | 1     | 2     |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 7.7   | 75.0  |      | 20.0 | 30.0 | 52.8 |      | 17.2 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0   | 4.0   |      | 4.0  | 4.0  | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0   | 56.2  |      | 16.0 | 36.0 | 25.5 |      | 26.5 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 4.9   | 18.7  |      | 18.0 | 23.5 | 20.3 |      | 12.3 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0   | 6.9   |      | 0.0  | 2.4  | 2.3  |      | 0.9  |      |      |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 35.1 |
| HCM 6th LOS        | D    |

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Generations at Green Valley  
 19: Latrobe Rd. & US-50 EB Off-Ramp/US-50 EB On-Ramp

Cumulative  
 Timing Plan: AM



| Lane Group              | EBR  | WBR  | NBT  | NBR  | SBL   | SBT  |
|-------------------------|------|------|------|------|-------|------|
| Lane Group Flow (vph)   | 961  | 506  | 1600 | 223  | 273   | 1396 |
| v/c Ratio               | 0.85 | 0.31 | 0.55 | 0.23 | 1.13  | 0.30 |
| Control Delay           | 44.8 | 0.5  | 22.3 | 6.2  | 153.8 | 7.6  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  |
| Total Delay             | 44.8 | 0.5  | 22.3 | 6.2  | 153.8 | 7.6  |
| Queue Length 50th (ft)  | 435  | 0    | 362  | 30   | -314  | 129  |
| Queue Length 95th (ft)  | 442  | 0    | 439  | 78   | #436  | 146  |
| Internal Link Dist (ft) |      |      | 468  |      |       | 780  |
| Turn Bay Length (ft)    |      |      |      | 180  | 350   |      |
| Base Capacity (vph)     | 1242 | 1611 | 2897 | 969  | 242   | 4698 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0     | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0     | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0     | 0    |
| Reduced v/c Ratio       | 0.77 | 0.31 | 0.55 | 0.23 | 1.13  | 0.30 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

---

HCM 6th Edition methodology does not support custom phasing.

Generations at Green Valley  
 20: White Rock Rd/Silva Valley Pkwy & US-50 EB On&Off-Ramp






















Cumulative  
 Timing Plan: AM



| Lane Group                  | EBL  | EBR  | NBT  | NBR  | SBT  | SBR  |
|-----------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph)       | 309  | 297  | 467  | 630  | 1035 | 210  |
| v/c Ratio                   | 0.29 | 0.58 | 0.28 | 0.40 | 0.62 | 0.13 |
| Control Delay               | 9.6  | 13.7 | 7.4  | 0.8  | 10.3 | 0.2  |
| Queue Delay                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay                 | 9.6  | 13.7 | 7.4  | 0.8  | 10.3 | 0.2  |
| Queue Length 50th (ft)      | 21   | 40   | 25   | 0    | 69   | 0    |
| Queue Length 95th (ft)      | 39   | 86   | 60   | 0    | 149  | 0    |
| Internal Link Dist (ft)     |      |      | 516  |      | 832  |      |
| Turn Bay Length (ft)        |      | 195  |      |      |      | 500  |
| Base Capacity (vph)         | 1527 | 722  | 1658 | 1583 | 1658 | 1583 |
| Starvation Cap Reductn      | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn       | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn         | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio           | 0.20 | 0.41 | 0.28 | 0.40 | 0.62 | 0.13 |
| <b>Intersection Summary</b> |      |      |      |      |      |      |

Generations at Green Valley  
 20: White Rock Rd/Silva Valley Pkwy & US-50 EB On&Off-Ramp

Cumulative  
 Timing Plan: AM

|   |    |  |  |  |  |  |  |    |  |  |    |  |
|---|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement  | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations   |   |   |  |   |   |   |  |   |  |   |   |  |
| Traffic Volume (veh/h)  | 284   | 0   | 273   | 0   | 0   | 0   | 0  | 430   | 580   | 0   | 952   | 193   |
| Future Volume (veh/h)   | 284   | 0   | 273   | 0   | 0   | 0   | 0  | 430   | 580   | 0   | 952   | 193   |
| Initial Q (Qb), veh   | 0   | 0   | 0   |   |   |   | 0  | 0   | 0   | 0   | 0   | 0   |
| Ped-Bike Adj(A_pbT)   | 1.00  |   | 1.00  |   |   |   | 1.00   |   | 1.00  | 1.00  |   | 1.00  |
| Parking Bus, Adj  | 1.00  | 1.00  | 1.00  |   |   |   | 1.00   | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| Work Zone On Approach   |   | No  |   |   |   |   |  | No  |   |   | No  |   |
| Adj Sat Flow, veh/h/ln  | 1870  | 0   | 1870  |   |   |   | 0  | 1870  | 1870  | 0   | 1870  | 1870  |
| Adj Flow Rate, veh/h  | 309   | 0   | 297   |   |   |   | 0  | 467   | 0   | 0   | 1035  | 0   |
| Peak Hour Factor  | 0.92  | 0.92  | 0.92  |   |   |   | 0.92   | 0.92  | 0.92  | 0.92  | 0.92  | 0.92  |
| Percent Heavy Veh, %  | 2   | 0   | 2   |   |   |   | 0  | 2   | 2   | 0   | 2   | 2   |
| Cap, veh/h  | 945   | 0   | 433   |   |   |   | 0  | 1721  |   | 0   | 1721  |   |
| Arrive On Green   | 0.27  | 0.00  | 0.27  |   |   |   | 0.00   | 0.48  | 0.00  | 0.00  | 0.48  | 0.00  |
| Sat Flow, veh/h   | 3456  | 0   | 1585  |   |   |   | 0  | 3647  | 1585  | 0   | 3647  | 1585  |
| Grp Volume(v), veh/h  | 309   | 0   | 297   |   |   |   | 0  | 467   | 0   | 0   | 1035  | 0   |
| Grp Sat Flow(s),veh/h/ln  | 1728  | 0   | 1585  |   |   |   | 0  | 1777  | 1585  | 0   | 1777  | 1585  |
| Q Serve(g_s), s   | 2.4   | 0.0   | 5.5   |   |   |   | 0.0  | 2.6   | 0.0   | 0.0   | 7.0   | 0.0   |
| Cycle Q Clear(g_c), s   | 2.4   | 0.0   | 5.5   |   |   |   | 0.0  | 2.6   | 0.0   | 0.0   | 7.0   | 0.0   |
| Prop In Lane  | 1.00  |   | 1.00  |   |   |   | 0.00   |   | 1.00  | 0.00  |   | 1.00  |
| Lane Grp Cap(c), veh/h  | 945   | 0   | 433   |   |   |   | 0  | 1721  |   | 0   | 1721  |   |
| V/C Ratio(X)  | 0.33  | 0.00  | 0.69  |   |   |   | 0.00   | 0.27  |   | 0.00  | 0.60  |   |
| Avail Cap(c_a), veh/h   | 1674  | 0   | 768   |   |   |   | 0  | 1721  |   | 0   | 1721  |   |
| HCM Platoon Ratio   | 1.00  | 1.00  | 1.00  |   |   |   | 1.00   | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| Upstream Filter(l)  | 1.00  | 0.00  | 1.00  |   |   |   | 0.00   | 1.00  | 0.00  | 0.00  | 1.00  | 0.00  |
| Uniform Delay (d), s/veh  | 9.6   | 0.0   | 10.7  |   |   |   | 0.0  | 5.1   | 0.0   | 0.0   | 6.2   | 0.0   |
| Incr Delay (d2), s/veh  | 0.2   | 0.0   | 1.9   |   |   |   | 0.0  | 0.4   | 0.0   | 0.0   | 1.6   | 0.0   |
| Initial Q Delay(d3),s/veh   | 0.0   | 0.0   | 0.0   |   |   |   | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| %ile BackOfQ(50%),veh/ln  | 0.7   | 0.0   | 1.6   |   |   |   | 0.0  | 0.4   | 0.0   | 0.0   | 1.2   | 0.0   |
| Unsig. Movement Delay, s/veh  |   |   |   |   |   |   |  |   |   |   |   |   |
| LnGrp Delay(d),s/veh  | 9.8   | 0.0   | 12.7  |   |   |   | 0.0  | 5.4   | 0.0   | 0.0   | 7.8   | 0.0   |
| LnGrp LOS   | A   | A   | B   |   |   |   | A  | A   |   | A   | A   |   |
| Approach Vol, veh/h   |   | 606   |   |   |   |   |  | 467   | A   |   | 1035  | A   |
| Approach Delay, s/veh   |   | 11.2  |   |   |   |   |  | 5.4   |   |   | 7.8   |   |
| Approach LOS  |   | B   |   |   |   |   |  | A   |   |   | A   |   |
| Timer - Assigned Phs  |   | 2   |   | 4   |   |   |  | 6   |   |   |   |   |
| Phs Duration (G+Y+Rc), s  |   | 20.0  |   | 13.0  |   |   |  | 20.0  |   |   |   |   |
| Change Period (Y+Rc), s   |   | 4.0   |   | 4.0   |   |   |  | 4.0   |   |   |   |   |
| Max Green Setting (Gmax), s   |   | 16.0  |   | 16.0  |   |   |  | 16.0  |   |   |   |   |
| Max Q Clear Time (g_c+I1), s  |   | 4.6   |   | 7.5   |   |   |  | 9.0   |   |   |   |   |
| Green Ext Time (p_c), s   |   | 2.1   |   | 1.5   |   |   |  | 3.6   |   |   |   |   |
| <b>Intersection Summary</b>   |   |   |   |   |   |   |  |   |   |   |   |   |
| HCM 6th Ctrl Delay  |   |   | 8.2   |   |   |   |  |   |   |   |   |   |
| HCM 6th LOS   |   |   | A   |   |   |   |  |   |   |   |   |   |
| <b>Notes</b>  |   |   |   |   |   |   |  |   |   |   |   |   |
| Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay. |   |   |   |   |   |   |  |   |   |   |   |   |

Generations at Green Valley  
 21: Silva Valley Pkwy & US-50 WB On-Ramp/US-50 WB Off-Ramp

Cumulative  
 Timing Plan: AM



| Lane Group              | WBL  | WBT  | WBR  | NBT  | NBR  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 638  | 2    | 175  | 630  | 157  | 614  | 443  |
| v/c Ratio               | 0.91 | 0.00 | 0.25 | 0.44 | 0.21 | 0.43 | 0.49 |
| Control Delay           | 33.8 | 7.0  | 4.0  | 9.9  | 2.8  | 9.8  | 3.4  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 33.8 | 7.0  | 4.0  | 9.9  | 2.8  | 9.8  | 3.4  |
| Queue Length 50th (ft)  | 125  | 0    | 5    | 50   | 0    | 48   | 0    |
| Queue Length 95th (ft)  | #288 | 3    | 30   | 82   | 22   | 79   | 37   |
| Internal Link Dist (ft) |      | 580  |      | 832  |      | 250  |      |
| Turn Bay Length (ft)    |      |      |      |      |      |      |      |
| Base Capacity (vph)     | 713  | 750  | 719  | 1425 | 731  | 1425 | 902  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.89 | 0.00 | 0.24 | 0.44 | 0.21 | 0.43 | 0.49 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.



Generations at Green Valley  
 21: Silva Valley Pkwy & US-50 WB On-Ramp/US-50 WB Off-Ramp

Cumulative  
 Timing Plan: AM



| Movement                     | EBL | EBT  | EBR | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|-----|------|-----|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |     |      |     | ↖    | ↗    | ↖    |      | ↕    | ↖    |      | ↕    | ↖    |
| Traffic Volume (veh/h)       | 0   | 0    | 0   | 587  | 2    | 161  | 0    | 580  | 144  | 0    | 565  | 408  |
| Future Volume (veh/h)        | 0   | 0    | 0   | 587  | 2    | 161  | 0    | 580  | 144  | 0    | 565  | 408  |
| Initial Q (Qb), veh          |     |      |     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |     |      |     | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             |     |      |     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |     |      |     | No   |      |      | No   |      |      | No   |      |      |
| Adj Sat Flow, veh/h/ln       |     |      |     | 1870 | 1870 | 1870 | 0    | 1870 | 1870 | 0    | 1870 | 1870 |
| Adj Flow Rate, veh/h         |     |      |     | 638  | 2    | 175  | 0    | 630  | 0    | 0    | 614  | 443  |
| Peak Hour Factor             |     |      |     | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         |     |      |     | 2    | 2    | 2    | 0    | 2    | 2    | 0    | 2    | 2    |
| Cap, veh/h                   |     |      |     | 702  | 738  | 625  | 0    | 1435 |      | 0    | 1435 | 640  |
| Arrive On Green              |     |      |     | 0.39 | 0.39 | 0.39 | 0.00 | 0.40 | 0.00 | 0.00 | 0.40 | 0.40 |
| Sat Flow, veh/h              |     |      |     | 1781 | 1870 | 1585 | 0    | 3647 | 1585 | 0    | 3647 | 1585 |
| Grp Volume(v), veh/h         |     |      |     | 638  | 2    | 175  | 0    | 630  | 0    | 0    | 614  | 443  |
| Grp Sat Flow(s),veh/h/ln     |     |      |     | 1781 | 1870 | 1585 | 0    | 1777 | 1585 | 0    | 1777 | 1585 |
| Q Serve(g_s), s              |     |      |     | 13.4 | 0.0  | 3.0  | 0.0  | 5.1  | 0.0  | 0.0  | 4.9  | 9.2  |
| Cycle Q Clear(g_c), s        |     |      |     | 13.4 | 0.0  | 3.0  | 0.0  | 5.1  | 0.0  | 0.0  | 4.9  | 9.2  |
| Prop In Lane                 |     |      |     | 1.00 |      | 1.00 | 0.00 |      | 1.00 | 0.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       |     |      |     | 702  | 738  | 625  | 0    | 1435 |      | 0    | 1435 | 640  |
| V/C Ratio(X)                 |     |      |     | 0.91 | 0.00 | 0.28 | 0.00 | 0.44 |      | 0.00 | 0.43 | 0.69 |
| Avail Cap(c_a), veh/h        |     |      |     | 719  | 755  | 640  | 0    | 1435 |      | 0    | 1435 | 640  |
| HCM Platoon Ratio            |     |      |     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           |     |      |     | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     |     |      |     | 11.3 | 7.3  | 8.2  | 0.0  | 8.6  | 0.0  | 0.0  | 8.5  | 9.8  |
| Incr Delay (d2), s/veh       |     |      |     | 15.2 | 0.0  | 0.2  | 0.0  | 1.0  | 0.0  | 0.0  | 0.9  | 6.1  |
| Initial Q Delay(d3),s/veh    |     |      |     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     |     |      |     | 6.7  | 0.0  | 0.8  | 0.0  | 1.3  | 0.0  | 0.0  | 1.3  | 2.9  |
| Unsig. Movement Delay, s/veh |     |      |     |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         |     |      |     | 26.6 | 7.3  | 8.4  | 0.0  | 9.5  | 0.0  | 0.0  | 9.5  | 15.8 |
| LnGrp LOS                    |     |      |     | C    | A    | A    | A    | A    |      | A    | A    | B    |
| Approach Vol, veh/h          |     |      |     |      | 815  |      |      | 630  | A    |      | 1057 |      |
| Approach Delay, s/veh        |     |      |     |      | 22.6 |      |      | 9.5  |      |      | 12.1 |      |
| Approach LOS                 |     |      |     |      | C    |      |      | A    |      |      | B    |      |
| Timer - Assigned Phs         |     | 2    |     |      |      | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |     | 20.0 |     |      |      | 20.0 |      | 19.6 |      |      |      |      |
| Change Period (Y+Rc), s      |     | 4.0  |     |      |      | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |     | 16.0 |     |      |      | 16.0 |      | 16.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |     | 7.1  |     |      |      | 11.2 |      | 15.4 |      |      |      |      |
| Green Ext Time (p_c), s      |     | 2.6  |     |      |      | 2.3  |      | 0.2  |      |      |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 14.9 |
| HCM 6th LOS        | B    |

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Generations at Green Valley  
22: Silva Valley Pkwy & Tong Rd

Cumulative  
Timing Plan: AM



| Lane Group              | EBT  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 81   | 450  | 55   | 749  | 76   | 855  |
| v/c Ratio               | 0.14 | 0.80 | 0.35 | 0.62 | 0.48 | 0.71 |
| Control Delay           | 10.4 | 27.5 | 31.1 | 16.7 | 38.3 | 18.4 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 10.4 | 27.5 | 31.1 | 16.7 | 38.3 | 18.4 |
| Queue Length 50th (ft)  | 14   | 121  | 18   | 105  | 25   | 124  |
| Queue Length 95th (ft)  | 37   | #271 | #53  | 156  | #77  | 183  |
| Internal Link Dist (ft) | 541  | 432  |      | 250  |      | 4417 |
| Turn Bay Length (ft)    |      |      | 150  |      | 150  |      |
| Base Capacity (vph)     | 670  | 659  | 157  | 1407 | 157  | 1406 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.12 | 0.68 | 0.35 | 0.53 | 0.48 | 0.61 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Generations at Green Valley  
22: Silva Valley Pkwy & Tong Rd

Cumulative  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      | ↕    |      |      | ↕    |      | ↗    | ↕    |      | ↗    | ↕    |      |
| Traffic Volume (veh/h)       | 40   | 24   | 11   | 256  | 75   | 83   | 51   | 634  | 55   | 70   | 715  | 72   |
| Future Volume (veh/h)        | 40   | 24   | 11   | 256  | 75   | 83   | 51   | 634  | 55   | 70   | 715  | 72   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 43   | 26   | 12   | 278  | 82   | 90   | 55   | 689  | 60   | 76   | 777  | 78   |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 372  | 211  | 79   | 455  | 110  | 107  | 80   | 1029 | 89   | 99   | 1049 | 105  |
| Arrive On Green              | 0.36 | 0.36 | 0.36 | 0.36 | 0.36 | 0.36 | 0.04 | 0.31 | 0.31 | 0.06 | 0.32 | 0.32 |
| Sat Flow, veh/h              | 687  | 593  | 223  | 900  | 308  | 302  | 1781 | 3308 | 288  | 1781 | 3261 | 327  |
| Grp Volume(v), veh/h         | 81   | 0    | 0    | 450  | 0    | 0    | 55   | 370  | 379  | 76   | 423  | 432  |
| Grp Sat Flow(s),veh/h/ln     | 1502 | 0    | 0    | 1510 | 0    | 0    | 1781 | 1777 | 1819 | 1781 | 1777 | 1811 |
| Q Serve(g_s), s              | 0.0  | 0.0  | 0.0  | 10.4 | 0.0  | 0.0  | 1.3  | 7.8  | 7.8  | 1.8  | 9.2  | 9.2  |
| Cycle Q Clear(g_c), s        | 1.3  | 0.0  | 0.0  | 11.7 | 0.0  | 0.0  | 1.3  | 7.8  | 7.8  | 1.8  | 9.2  | 9.2  |
| Prop In Lane                 | 0.53 |      | 0.15 | 0.62 |      | 0.20 | 1.00 |      | 0.16 | 1.00 |      | 0.18 |
| Lane Grp Cap(c), veh/h       | 662  | 0    | 0    | 672  | 0    | 0    | 80   | 553  | 566  | 99   | 571  | 583  |
| V/C Ratio(X)                 | 0.12 | 0.00 | 0.00 | 0.67 | 0.00 | 0.00 | 0.69 | 0.67 | 0.67 | 0.77 | 0.74 | 0.74 |
| Avail Cap(c_a), veh/h        | 847  | 0    | 0    | 865  | 0    | 0    | 165  | 740  | 757  | 165  | 740  | 755  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 9.4  | 0.0  | 0.0  | 12.6 | 0.0  | 0.0  | 20.3 | 13.0 | 13.0 | 20.1 | 13.1 | 13.1 |
| Incr Delay (d2), s/veh       | 0.1  | 0.0  | 0.0  | 1.3  | 0.0  | 0.0  | 10.1 | 1.4  | 1.4  | 11.9 | 2.9  | 2.8  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.4  | 0.0  | 0.0  | 3.3  | 0.0  | 0.0  | 0.7  | 2.4  | 2.5  | 0.9  | 3.0  | 3.1  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 9.5  | 0.0  | 0.0  | 14.0 | 0.0  | 0.0  | 30.5 | 14.4 | 14.4 | 32.0 | 15.9 | 15.9 |
| LnGrp LOS                    | A    | A    | A    | B    | A    | A    | C    | B    | B    | C    | B    | B    |
| Approach Vol, veh/h          |      | 81   |      |      | 450  |      |      | 804  |      |      | 931  |      |
| Approach Delay, s/veh        |      | 9.5  |      |      | 14.0 |      |      | 15.5 |      |      | 17.2 |      |
| Approach LOS                 |      | A    |      |      | B    |      |      | B    |      |      | B    |      |
| Timer - Assigned Phs         | 1    | 2    |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 6.4  | 17.4 |      | 19.4 | 5.9  | 17.9 |      | 19.4 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0  | 18.0 |      | 21.0 | 4.0  | 18.0 |      | 21.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 3.8  | 9.8  |      | 3.3  | 3.3  | 11.2 |      | 13.7 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 2.7  |      | 0.3  | 0.0  | 2.7  |      | 1.7  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      | 15.7 |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      |      | B    |      |      |      |      |      |      |      |      |

Generations at Green Valley  
23: Serrano Pkwy. & Silva Valley Pkwy.

Cumulative  
Timing Plan: AM



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | NBR  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 96   | 413  | 496  | 682  | 387  | 638  | 363  | 307  | 740  |
| v/c Ratio               | 0.60 | 0.76 | 0.96 | 0.57 | 0.95 | 0.70 | 0.58 | 0.87 | 0.93 |
| Control Delay           | 72.0 | 33.5 | 75.7 | 22.5 | 82.2 | 49.2 | 13.5 | 74.8 | 67.2 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 72.0 | 33.5 | 75.7 | 22.5 | 82.2 | 49.2 | 13.5 | 74.8 | 67.2 |
| Queue Length 50th (ft)  | 78   | 77   | 407  | 140  | 320  | 260  | 46   | 245  | 313  |
| Queue Length 95th (ft)  | 122  | 101  | #659 | 204  | 300  | 226  | 26   | 304  | 332  |
| Internal Link Dist (ft) |      | 6047 |      | 1303 |      | 4417 |      |      | 4456 |
| Turn Bay Length (ft)    | 155  |      | 330  |      | 250  |      | 180  | 150  |      |
| Base Capacity (vph)     | 204  | 786  | 518  | 1359 | 409  | 915  | 627  | 382  | 794  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.47 | 0.53 | 0.96 | 0.50 | 0.95 | 0.70 | 0.58 | 0.80 | 0.93 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Generations at Green Valley  
23: Serrano Pkwy. & Silva Valley Pkwy.

Cumulative  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL   | NBT  | NBR  | SBL  | SBT   | SBR   |
|------------------------------|------|------|------|------|------|------|-------|------|------|------|-------|-------|
| Lane Configurations          | ↖    | ↗    |      | ↖    | ↗    |      | ↖     | ↗    | ↗    | ↖    | ↗     |       |
| Traffic Volume (veh/h)       | 76   | 130  | 196  | 441  | 239  | 368  | 244   | 402  | 229  | 233  | 443   | 119   |
| Future Volume (veh/h)        | 76   | 130  | 196  | 441  | 239  | 368  | 244   | 402  | 229  | 233  | 443   | 119   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0     | 0     |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00  |      | 1.00 | 1.00 |       | 1.00  |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00  |
| Work Zone On Approach        |      | No   |      |      | No   |      |       | No   |      |      | No    |       |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870  | 1870  |
| Adj Flow Rate, veh/h         | 96   | 165  | 248  | 496  | 269  | 413  | 387   | 638  | 0    | 307  | 583   | 157   |
| Peak Hour Factor             | 0.79 | 0.79 | 0.79 | 0.89 | 0.89 | 0.89 | 0.63  | 0.63 | 0.63 | 0.76 | 0.76  | 0.76  |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2     | 2    | 2    | 2    | 2     | 2     |
| Cap, veh/h                   | 118  | 301  | 268  | 485  | 666  | 594  | 383   | 852  |      | 330  | 583   | 157   |
| Arrive On Green              | 0.07 | 0.17 | 0.17 | 0.27 | 0.37 | 0.37 | 0.21  | 0.24 | 0.00 | 0.19 | 0.21  | 0.21  |
| Sat Flow, veh/h              | 1781 | 1777 | 1585 | 1781 | 1777 | 1585 | 1781  | 3554 | 1585 | 1781 | 2769  | 744   |
| Grp Volume(v), veh/h         | 96   | 165  | 248  | 496  | 269  | 413  | 387   | 638  | 0    | 307  | 373   | 367   |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1777 | 1585 | 1781 | 1777 | 1585 | 1781  | 1777 | 1585 | 1781 | 1777  | 1736  |
| Q Serve(g_s), s              | 7.4  | 11.9 | 21.5 | 38.0 | 15.6 | 30.8 | 30.0  | 23.2 | 0.0  | 23.7 | 29.3  | 29.4  |
| Cycle Q Clear(g_c), s        | 7.4  | 11.9 | 21.5 | 38.0 | 15.6 | 30.8 | 30.0  | 23.2 | 0.0  | 23.7 | 29.3  | 29.4  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00  |      | 1.00 | 1.00 |       | 0.43  |
| Lane Grp Cap(c), veh/h       | 118  | 301  | 268  | 485  | 666  | 594  | 383   | 852  |      | 330  | 374   | 366   |
| V/C Ratio(X)                 | 0.81 | 0.55 | 0.92 | 1.02 | 0.40 | 0.69 | 1.01  | 0.75 |      | 0.93 | 1.00  | 1.00  |
| Avail Cap(c_a), veh/h        | 191  | 305  | 272  | 485  | 666  | 594  | 383   | 852  |      | 357  | 374   | 366   |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00  |
| Upstream Filter(I)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 0.00 | 1.00 | 1.00  | 1.00  |
| Uniform Delay (d), s/veh     | 64.3 | 53.1 | 57.1 | 50.8 | 32.1 | 36.9 | 54.8  | 49.2 | 0.0  | 56.0 | 55.1  | 55.1  |
| Incr Delay (d2), s/veh       | 12.5 | 2.0  | 34.8 | 46.9 | 0.4  | 3.5  | 48.9  | 3.7  | 0.0  | 29.1 | 46.1  | 47.7  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0   | 0.0   |
| %ile BackOfQ(50%),veh/ln     | 3.7  | 5.4  | 11.0 | 22.7 | 6.6  | 12.1 | 18.3  | 10.5 | 0.0  | 13.1 | 17.6  | 17.4  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |       |      |      |      |       |       |
| LnGrp Delay(d),s/veh         | 76.8 | 55.1 | 91.9 | 97.7 | 32.5 | 40.4 | 103.7 | 52.9 | 0.0  | 85.1 | 101.2 | 102.8 |
| LnGrp LOS                    | E    | E    | F    | F    | C    | D    | F     | D    |      | F    | F     | F     |
| Approach Vol, veh/h          |      | 509  |      |      | 1178 |      |       | 1025 | A    |      | 1047  |       |
| Approach Delay, s/veh        |      | 77.1 |      |      | 62.7 |      |       | 72.0 |      |      | 97.0  |       |
| Approach LOS                 |      | E    |      |      | E    |      |       | E    |      |      | F     |       |
| Timer - Assigned Phs         | 1    | 2    | 3    | 4    | 5    | 6    | 7     | 8    |      |      |       |       |
| Phs Duration (G+Y+Rc), s     | 29.9 | 38.8 | 42.0 | 28.9 | 34.0 | 34.7 | 13.3  | 57.7 |      |      |       |       |
| Change Period (Y+Rc), s      | 4.0  | 5.3  | 4.0  | 5.3  | 4.0  | 5.3  | 4.0   | 5.3  |      |      |       |       |
| Max Green Setting (Gmax), s  | 28.0 | 31.4 | 38.0 | 24.0 | 30.0 | 29.4 | 15.0  | 47.0 |      |      |       |       |
| Max Q Clear Time (g_c+I1), s | 25.7 | 25.2 | 40.0 | 23.5 | 32.0 | 31.4 | 9.4   | 32.8 |      |      |       |       |
| Green Ext Time (p_c), s      | 0.2  | 2.0  | 0.0  | 0.1  | 0.0  | 0.0  | 0.1   | 3.5  |      |      |       |       |

Intersection Summary

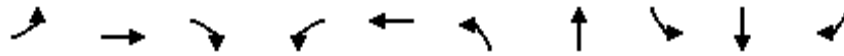
|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 76.8 |
| HCM 6th LOS        | E    |

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Generations at Green Valley  
 24: Silva Valley Pkwy. & Harvard Way

Cumulative  
 Timing Plan: AM



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 154  | 107  | 454  | 97   | 68   | 491  | 243  | 47   | 252  | 365  |
| v/c Ratio               | 0.54 | 0.35 | 0.71 | 0.51 | 0.25 | 0.80 | 0.26 | 0.28 | 0.42 | 0.64 |
| Control Delay           | 39.7 | 29.6 | 9.9  | 42.6 | 24.3 | 34.3 | 13.3 | 36.5 | 27.8 | 9.1  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 39.7 | 29.6 | 9.9  | 42.6 | 24.3 | 34.3 | 13.3 | 36.5 | 27.8 | 9.1  |
| Queue Length 50th (ft)  | 62   | 40   | 0    | 39   | 20   | 180  | 63   | 19   | 49   | 0    |
| Queue Length 95th (ft)  | 84   | 54   | 0    | #88  | 47   | #431 | 129  | 50   | 80   | 43   |
| Internal Link Dist (ft) |      | 2093 |      |      | 328  |      | 4456 |      | 402  |      |
| Turn Bay Length (ft)    | 60   |      |      |      |      | 200  |      | 150  |      | 250  |
| Base Capacity (vph)     | 286  | 505  | 760  | 197  | 471  | 649  | 1016 | 169  | 960  | 695  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.54 | 0.21 | 0.60 | 0.49 | 0.14 | 0.76 | 0.24 | 0.28 | 0.26 | 0.53 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
24: Silva Valley Pkwy. & Harvard Way

Cumulative  
Timing Plan: AM



| Movement                     | EBL  | EBT   | EBR   | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|-------|-------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |       |       |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 88   | 61    | 259   | 76   | 41   | 12   | 442  | 209  | 10   | 38   | 204  | 296  |
| Future Volume (veh/h)        | 88   | 61    | 259   | 76   | 41   | 12   | 442  | 209  | 10   | 38   | 204  | 296  |
| Initial Q (Qb), veh          | 0    | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |       | 1.00  | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No    |       |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870  | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 154  | 107   | 454   | 97   | 53   | 15   | 491  | 232  | 11   | 47   | 252  | 365  |
| Peak Hour Factor             | 0.57 | 0.57  | 0.57  | 0.78 | 0.78 | 0.78 | 0.90 | 0.90 | 0.90 | 0.81 | 0.81 | 0.81 |
| Percent Heavy Veh, %         | 2    | 2     | 2     | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 182  | 405   | 343   | 124  | 259  | 73   | 522  | 844  | 40   | 59   | 770  | 343  |
| Arrive On Green              | 0.10 | 0.22  | 0.22  | 0.07 | 0.18 | 0.18 | 0.29 | 0.48 | 0.48 | 0.03 | 0.22 | 0.22 |
| Sat Flow, veh/h              | 1781 | 1870  | 1585  | 1781 | 1402 | 397  | 1781 | 1771 | 84   | 1781 | 3554 | 1585 |
| Grp Volume(v), veh/h         | 154  | 107   | 454   | 97   | 0    | 68   | 491  | 0    | 243  | 47   | 252  | 365  |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1870  | 1585  | 1781 | 0    | 1799 | 1781 | 0    | 1855 | 1781 | 1777 | 1585 |
| Q Serve(g_s), s              | 6.7  | 3.7   | 17.0  | 4.2  | 0.0  | 2.5  | 21.1 | 0.0  | 6.2  | 2.1  | 4.7  | 17.0 |
| Cycle Q Clear(g_c), s        | 6.7  | 3.7   | 17.0  | 4.2  | 0.0  | 2.5  | 21.1 | 0.0  | 6.2  | 2.1  | 4.7  | 17.0 |
| Prop In Lane                 | 1.00 |       | 1.00  | 1.00 |      | 0.22 | 1.00 |      | 0.05 | 1.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 182  | 405   | 343   | 124  | 0    | 332  | 522  | 0    | 884  | 59   | 770  | 343  |
| V/C Ratio(X)                 | 0.85 | 0.26  | 1.32  | 0.78 | 0.00 | 0.21 | 0.94 | 0.00 | 0.27 | 0.79 | 0.33 | 1.06 |
| Avail Cap(c_a), veh/h        | 182  | 405   | 343   | 159  | 0    | 367  | 522  | 0    | 884  | 136  | 770  | 343  |
| HCM Platoon Ratio            | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 1.00  | 1.00  | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 34.6 | 25.5  | 30.7  | 35.9 | 0.0  | 27.1 | 27.1 | 0.0  | 12.4 | 37.7 | 25.9 | 30.7 |
| Incr Delay (d2), s/veh       | 29.4 | 0.3   | 164.0 | 17.2 | 0.0  | 0.3  | 25.4 | 0.0  | 0.2  | 20.7 | 0.2  | 66.2 |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 4.3  | 1.6   | 22.0  | 2.4  | 0.0  | 1.1  | 11.7 | 0.0  | 2.2  | 1.2  | 1.9  | 12.6 |
| Unsig. Movement Delay, s/veh |      |       |       |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 64.1 | 25.9  | 194.7 | 53.1 | 0.0  | 27.4 | 52.4 | 0.0  | 12.5 | 58.4 | 26.2 | 96.9 |
| LnGrp LOS                    | E    | C     | F     | D    | A    | C    | D    | A    | B    | E    | C    | F    |
| Approach Vol, veh/h          |      | 715   |       |      | 165  |      |      | 734  |      |      | 664  |      |
| Approach Delay, s/veh        |      | 141.3 |       |      | 42.5 |      |      | 39.2 |      |      | 67.3 |      |
| Approach LOS                 |      | F     |       |      | D    |      |      | D    |      |      | E    |      |
| Timer - Assigned Phs         | 1    | 2     | 3     | 4    | 5    | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 6.6  | 41.4  | 9.5   | 21.0 | 27.0 | 21.0 | 12.0 | 18.5 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0   | 4.0   | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 6.0  | 34.0  | 7.0   | 17.0 | 23.0 | 17.0 | 8.0  | 16.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 4.1  | 8.2   | 6.2   | 19.0 | 23.1 | 19.0 | 8.7  | 4.5  |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 1.2   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.2  |      |      |      |      |
| <b>Intersection Summary</b>  |      |       |       |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |       | 79.7  |      |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |       | E     |      |      |      |      |      |      |      |      |      |

Generations at Green Valley  
 25: Silva Valley Pkwy. & Charter Way/Appian Way

Cumulative  
 Timing Plan: AM

Intersection

Intersection Delay, s/veh35.1

Intersection LOS E

| Movement            | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations |      | ↕    |      |      | ↕    |      |      | ↕    |      |      | ↕    |      |
| Traffic Vol, veh/h  | 16   | 4    | 61   | 155  | 2    | 93   | 29   | 227  | 90   | 60   | 279  | 14   |
| Future Vol, veh/h   | 16   | 4    | 61   | 155  | 2    | 93   | 29   | 227  | 90   | 60   | 279  | 14   |
| Peak Hour Factor    | 0.70 | 0.70 | 0.70 | 0.74 | 0.74 | 0.74 | 0.70 | 0.70 | 0.70 | 0.80 | 0.80 | 0.80 |
| Heavy Vehicles, %   | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow           | 23   | 6    | 87   | 209  | 3    | 126  | 41   | 324  | 129  | 75   | 349  | 18   |
| Number of Lanes     | 0    | 1    | 0    | 0    | 1    | 0    | 0    | 1    | 0    | 0    | 1    | 0    |

| Approach                      | EB   | WB   | NB   | SB   |
|-------------------------------|------|------|------|------|
| Opposing Approach             | WB   | EB   | SB   | NB   |
| Opposing Lanes                | 1    | 1    | 1    | 1    |
| Conflicting Approach Left SB  |      | NB   | EB   | WB   |
| Conflicting Lanes Left        | 1    | 1    | 1    | 1    |
| Conflicting Approach Right NB |      | SB   | WB   | EB   |
| Conflicting Lanes Right       | 1    | 1    | 1    | 1    |
| HCM Control Delay             | 13.7 | 24.6 | 45.6 | 36.9 |
| HCM LOS                       | B    | C    | E    | E    |

| Lane                   | NBLn1 | EBLn1 | WBLn1 | SBLn1 |
|------------------------|-------|-------|-------|-------|
| Vol Left, %            | 8%    | 20%   | 62%   | 17%   |
| Vol Thru, %            | 66%   | 5%    | 1%    | 79%   |
| Vol Right, %           | 26%   | 75%   | 37%   | 4%    |
| Sign Control           | Stop  | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 346   | 81    | 250   | 353   |
| LT Vol                 | 29    | 16    | 155   | 60    |
| Through Vol            | 227   | 4     | 2     | 279   |
| RT Vol                 | 90    | 61    | 93    | 14    |
| Lane Flow Rate         | 494   | 116   | 338   | 441   |
| Geometry Grp           | 1     | 1     | 1     | 1     |
| Degree of Util (X)     | 0.91  | 0.254 | 0.682 | 0.843 |
| Departure Headway (Hd) | 6.63  | 7.907 | 7.266 | 6.875 |
| Convergence, Y/N       | Yes   | Yes   | Yes   | Yes   |
| Cap                    | 544   | 451   | 497   | 525   |
| Service Time           | 4.693 | 6.003 | 5.331 | 4.941 |
| HCM Lane V/C Ratio     | 0.908 | 0.257 | 0.68  | 0.84  |
| HCM Control Delay      | 45.6  | 13.7  | 24.6  | 36.9  |
| HCM Lane LOS           | E     | B     | C     | E     |
| HCM 95th-tile Q        | 10.9  | 1     | 5.1   | 8.7   |



| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0    |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↔    |      |      | ↑    |      | ↗    |
| Traffic Vol, veh/h       | 381  | 0    | 0    | 648  | 0    | 0    |
| Future Vol, veh/h        | 381  | 0    | 0    | 648  | 0    | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | 0    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 414  | 0    | 0    | 704  | 0    | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |       |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 0      | 0      | -      | - | 414   |
| Stage 1              | -      | -      | -      | - | -     |
| Stage 2              | -      | -      | -      | - | -     |
| Critical Hdwy        | -      | -      | -      | - | 6.22  |
| Critical Hdwy Stg 1  | -      | -      | -      | - | -     |
| Critical Hdwy Stg 2  | -      | -      | -      | - | -     |
| Follow-up Hdwy       | -      | -      | -      | - | 3.318 |
| Pot Cap-1 Maneuver   | -      | -      | 0      | - | 638   |
| Stage 1              | -      | -      | 0      | - | -     |
| Stage 2              | -      | -      | 0      | - | -     |
| Platoon blocked, %   | -      | -      | -      | - | -     |
| Mov Cap-1 Maneuver   | -      | -      | -      | - | 638   |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | -     |
| Stage 1              | -      | -      | -      | - | -     |
| Stage 2              | -      | -      | -      | - | -     |

| Approach             | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              |    |    | A  |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h)      | -     | -   | -   | -   |
| HCM Lane V/C Ratio    | -     | -   | -   | -   |
| HCM Control Delay (s) | 0     | -   | -   | -   |
| HCM Lane LOS          | A     | -   | -   | -   |
| HCM 95th %tile Q(veh) | -     | -   | -   | -   |

Generations at Green Valley  
 27: Site Dwy. Full & Green Valley Rd.

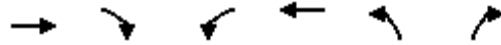
Cumulative  
 Timing Plan: AM



| Lane Group                  | EBT  | WBT  |
|-----------------------------|------|------|
| Lane Group Flow (vph)       | 414  | 704  |
| v/c Ratio                   | 0.38 | 0.65 |
| Control Delay               | 4.7  | 7.8  |
| Queue Delay                 | 0.0  | 0.0  |
| Total Delay                 | 4.7  | 7.8  |
| Queue Length 50th (ft)      | 28   | 59   |
| Queue Length 95th (ft)      | 53   | 114  |
| Internal Link Dist (ft)     | 1398 | 2852 |
| Turn Bay Length (ft)        |      |      |
| Base Capacity (vph)         | 1515 | 1515 |
| Starvation Cap Reductn      | 0    | 0    |
| Spillback Cap Reductn       | 0    | 0    |
| Storage Cap Reductn         | 0    | 0    |
| Reduced v/c Ratio           | 0.27 | 0.46 |
| <b>Intersection Summary</b> |      |      |

Generations at Green Valley  
27: Site Dwy. Full & Green Valley Rd.

Cumulative  
Timing Plan: AM



| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 381  | 0    | 0    | 648  | 0    | 0    |
| Future Volume (veh/h)        | 381  | 0    | 0    | 648  | 0    | 0    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 414  | 0    | 0    | 704  | 0    | 0    |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 1275 | 0    | 573  | 1275 | 14   | 13   |
| Arrive On Green              | 0.68 | 0.00 | 0.00 | 0.68 | 0.00 | 0.00 |
| Sat Flow, veh/h              | 1870 | 0    | 972  | 1870 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 414  | 0    | 0    | 704  | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1870 | 0    | 972  | 1870 | 1781 | 1585 |
| Q Serve(g_s), s              | 1.1  | 0.0  | 0.0  | 2.4  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 1.1  | 0.0  | 0.0  | 2.4  | 0.0  | 0.0  |
| Prop In Lane                 |      | 0.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 1275 | 0    | 573  | 1275 | 14   | 13   |
| V/C Ratio(X)                 | 0.32 | 0.00 | 0.00 | 0.55 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 3873 | 0    | 1924 | 3873 | 3689 | 3282 |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 0.8  | 0.0  | 0.0  | 1.0  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 0.1  | 0.0  | 0.0  | 0.4  | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.1  | 0.0  | 0.0  | 0.1  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 1.0  | 0.0  | 0.0  | 1.4  | 0.0  | 0.0  |
| LnGrp LOS                    | A    | A    | A    | A    | A    | A    |
| Approach Vol, veh/h          | 414  |      |      | 704  | 0    |      |
| Approach Delay, s/veh        | 1.0  |      |      | 1.4  | 0.0  |      |
| Approach LOS                 | A    |      |      | A    |      |      |
| Timer - Assigned Phs         |      | 2    |      |      | 6    | 8    |
| Phs Duration (G+Y+Rc), s     |      | 12.6 |      |      | 12.6 | 0.0  |
| Change Period (Y+Rc), s      |      | 4.0  |      |      | 4.0  | 4.0  |
| Max Green Setting (Gmax), s  |      | 26.0 |      |      | 26.0 | 26.0 |
| Max Q Clear Time (g_c+l1), s |      | 4.4  |      |      | 3.1  | 0.0  |
| Green Ext Time (p_c), s      |      | 4.1  |      |      | 2.1  | 0.0  |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 1.2  |      |      |      |
| HCM 6th LOS                  |      |      | A    |      |      |      |

Summary of All Intervals

| Run Number              | 1      | 10     | 2      | 3     | 4      | 5      | 6      |
|-------------------------|--------|--------|--------|-------|--------|--------|--------|
| Start Time              | 6:50   | 6:50   | 6:50   | 6:50  | 6:50   | 6:50   | 6:50   |
| End Time                | 8:00   | 8:00   | 8:00   | 8:00  | 8:00   | 8:00   | 8:00   |
| Total Time (min)        | 70     | 70     | 70     | 70    | 70     | 70     | 70     |
| Time Recorded (min)     | 60     | 60     | 60     | 60    | 60     | 60     | 60     |
| # of Intervals          | 5      | 5      | 5      | 5     | 5      | 5      | 5      |
| # of Recorded Intervals | 4      | 4      | 4      | 4     | 4      | 4      | 4      |
| Vehs Entered            | 11330  | 11488  | 11563  | 11620 | 11379  | 11381  | 11458  |
| Vehs Exited             | 11185  | 11350  | 11455  | 11548 | 11239  | 11245  | 11371  |
| Starting Vehs           | 338    | 310    | 316    | 385   | 348    | 354    | 340    |
| Ending Vehs             | 483    | 448    | 424    | 457   | 488    | 490    | 427    |
| Travel Distance (mi)    | 3466   | 3569   | 3614   | 3609  | 3514   | 3525   | 3518   |
| Travel Time (hr)        | 1176.4 | 1060.5 | 1051.5 | 978.8 | 1185.2 | 1144.7 | 1024.2 |
| Total Delay (hr)        | 1072.2 | 953.7  | 943.9  | 871.4 | 1080.2 | 1039.5 | 919.0  |
| Total Stops             | 11790  | 11822  | 12124  | 11524 | 12088  | 12350  | 11777  |
| Fuel Used (gal)         | 399.1  | 375.8  | 375.2  | 358.6 | 403.4  | 394.3  | 366.5  |

Summary of All Intervals

| Run Number              | 7      | 8      | 9      | Avg    |
|-------------------------|--------|--------|--------|--------|
| Start Time              | 6:50   | 6:50   | 6:50   | 6:50   |
| End Time                | 8:00   | 8:00   | 8:00   | 8:00   |
| Total Time (min)        | 70     | 70     | 70     | 70     |
| Time Recorded (min)     | 60     | 60     | 60     | 60     |
| # of Intervals          | 5      | 5      | 5      | 5      |
| # of Recorded Intervals | 4      | 4      | 4      | 4      |
| Vehs Entered            | 11390  | 11566  | 11642  | 11481  |
| Vehs Exited             | 11242  | 11414  | 11379  | 11343  |
| Starting Vehs           | 306    | 347    | 300    | 332    |
| Ending Vehs             | 454    | 499    | 563    | 467    |
| Travel Distance (mi)    | 3575   | 3588   | 3622   | 3560   |
| Travel Time (hr)        | 1166.1 | 1028.4 | 1114.0 | 1093.0 |
| Total Delay (hr)        | 1059.2 | 921.4  | 1006.0 | 986.6  |
| Total Stops             | 12311  | 11697  | 12205  | 11964  |
| Fuel Used (gal)         | 400.1  | 369.4  | 390.3  | 383.3  |

Interval #0 Information Seeding

|                                     |      |
|-------------------------------------|------|
| Start Time                          | 6:50 |
| End Time                            | 7:00 |
| Total Time (min)                    | 10   |
| Volumes adjusted by Growth Factors. |      |
| No data recorded this interval.     |      |

Interval #1 Information

|                  |      |
|------------------|------|
| Start Time       | 7:00 |
| End Time         | 7:15 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 3123  | 3123  | 3123  | 3077  | 3069  | 2982  | 3034  |
| Vehs Exited          | 3052  | 3054  | 3044  | 3120  | 3015  | 2923  | 2987  |
| Starting Vehs        | 338   | 310   | 316   | 385   | 348   | 354   | 340   |
| Ending Vehs          | 409   | 379   | 395   | 342   | 402   | 413   | 387   |
| Travel Distance (mi) | 971   | 991   | 996   | 997   | 961   | 939   | 955   |
| Travel Time (hr)     | 136.1 | 141.2 | 140.9 | 125.5 | 145.3 | 137.4 | 124.8 |
| Total Delay (hr)     | 107.0 | 111.5 | 111.1 | 95.7  | 116.6 | 109.3 | 96.1  |
| Total Stops          | 3011  | 2983  | 3012  | 2888  | 2854  | 2963  | 2833  |
| Fuel Used (gal)      | 67.2  | 69.0  | 69.0  | 65.9  | 69.1  | 66.3  | 63.9  |

Interval #1 Information

|                  |      |
|------------------|------|
| Start Time       | 7:00 |
| End Time         | 7:15 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 3041  | 2909  | 3097  | 3057  |
| Vehs Exited          | 3010  | 2935  | 3035  | 3014  |
| Starting Vehs        | 306   | 347   | 300   | 332   |
| Ending Vehs          | 337   | 321   | 362   | 370   |
| Travel Distance (mi) | 954   | 934   | 975   | 967   |
| Travel Time (hr)     | 143.8 | 128.7 | 143.6 | 136.7 |
| Total Delay (hr)     | 115.2 | 100.7 | 114.4 | 107.8 |
| Total Stops          | 2943  | 2791  | 2925  | 2917  |
| Fuel Used (gal)      | 68.0  | 64.5  | 69.5  | 67.3  |

Interval #2 Information

|                  |      |
|------------------|------|
| Start Time       | 7:15 |
| End Time         | 7:30 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 2747  | 2943  | 2986  | 2987  | 2929  | 2975  | 2951  |
| Vehs Exited          | 2751  | 2915  | 2958  | 2908  | 2852  | 2965  | 2878  |
| Starting Vehs        | 409   | 379   | 395   | 342   | 402   | 413   | 387   |
| Ending Vehs          | 405   | 407   | 423   | 421   | 479   | 423   | 460   |
| Travel Distance (mi) | 847   | 911   | 916   | 912   | 897   | 922   | 903   |
| Travel Time (hr)     | 213.0 | 201.2 | 198.3 | 183.9 | 219.6 | 227.4 | 194.7 |
| Total Delay (hr)     | 187.3 | 174.0 | 170.7 | 156.9 | 192.8 | 199.7 | 167.6 |
| Total Stops          | 2865  | 2816  | 3059  | 2882  | 3108  | 3299  | 3133  |
| Fuel Used (gal)      | 80.5  | 80.3  | 79.8  | 76.1  | 83.9  | 87.1  | 78.7  |

Interval #2 Information

|                  |      |
|------------------|------|
| Start Time       | 7:15 |
| End Time         | 7:30 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 2821  | 2998  | 2954  | 2930  |
| Vehs Exited          | 2739  | 2880  | 2855  | 2872  |
| Starting Vehs        | 337   | 321   | 362   | 370   |
| Ending Vehs          | 419   | 439   | 461   | 428   |
| Travel Distance (mi) | 870   | 918   | 906   | 900   |
| Travel Time (hr)     | 224.0 | 202.9 | 215.5 | 208.1 |
| Total Delay (hr)     | 197.9 | 175.5 | 188.6 | 181.1 |
| Total Stops          | 2962  | 2928  | 3037  | 3009  |
| Fuel Used (gal)      | 84.3  | 80.6  | 83.4  | 81.5  |

Interval #3 Information

|                  |      |
|------------------|------|
| Start Time       | 7:30 |
| End Time         | 7:45 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 2707  | 2808  | 2756  | 2783  | 2733  | 2709  | 2813  |
| Vehs Exited          | 2679  | 2762  | 2734  | 2775  | 2723  | 2659  | 2851  |
| Starting Vehs        | 405   | 407   | 423   | 421   | 479   | 423   | 460   |
| Ending Vehs          | 433   | 453   | 445   | 429   | 489   | 473   | 422   |
| Travel Distance (mi) | 810   | 861   | 865   | 856   | 839   | 825   | 844   |
| Travel Time (hr)     | 348.3 | 307.5 | 304.3 | 275.4 | 346.1 | 324.0 | 282.0 |
| Total Delay (hr)     | 324.0 | 281.9 | 278.8 | 249.9 | 321.0 | 299.5 | 256.8 |
| Total Stops          | 2864  | 3158  | 3145  | 2742  | 3048  | 2948  | 2922  |
| Fuel Used (gal)      | 110.2 | 102.7 | 102.0 | 94.8  | 110.8 | 105.2 | 96.5  |

Interval #3 Information

|                  |      |
|------------------|------|
| Start Time       | 7:30 |
| End Time         | 7:45 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 2766  | 2824  | 2795  | 2770  |
| Vehs Exited          | 2700  | 2838  | 2766  | 2749  |
| Starting Vehs        | 419   | 439   | 461   | 428   |
| Ending Vehs          | 485   | 425   | 490   | 447   |
| Travel Distance (mi) | 864   | 889   | 893   | 855   |
| Travel Time (hr)     | 343.5 | 291.6 | 321.1 | 314.4 |
| Total Delay (hr)     | 317.9 | 265.2 | 294.7 | 289.0 |
| Total Stops          | 3231  | 2863  | 3184  | 3010  |
| Fuel Used (gal)      | 110.7 | 100.0 | 106.7 | 104.0 |

Interval #4 Information Recording

|                  |      |
|------------------|------|
| Start Time       | 7:45 |
| End Time         | 8:00 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 2753  | 2614  | 2698  | 2773  | 2648  | 2715  | 2660  |
| Vehs Exited          | 2703  | 2619  | 2719  | 2745  | 2649  | 2698  | 2655  |
| Starting Vehs        | 433   | 453   | 445   | 429   | 489   | 473   | 422   |
| Ending Vehs          | 483   | 448   | 424   | 457   | 488   | 490   | 427   |
| Travel Distance (mi) | 837   | 806   | 837   | 844   | 817   | 839   | 816   |
| Travel Time (hr)     | 479.0 | 410.5 | 408.1 | 394.0 | 474.2 | 455.9 | 422.8 |
| Total Delay (hr)     | 453.9 | 386.3 | 383.3 | 368.9 | 449.8 | 431.0 | 398.4 |
| Total Stops          | 3050  | 2865  | 2908  | 3012  | 3078  | 3140  | 2889  |
| Fuel Used (gal)      | 141.1 | 123.8 | 124.4 | 121.8 | 139.6 | 135.7 | 127.4 |

Interval #4 Information Recording

|                  |      |
|------------------|------|
| Start Time       | 7:45 |
| End Time         | 8:00 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 2762  | 2835  | 2796  | 2724  |
| Vehs Exited          | 2793  | 2761  | 2723  | 2706  |
| Starting Vehs        | 485   | 425   | 490   | 447   |
| Ending Vehs          | 454   | 499   | 563   | 467   |
| Travel Distance (mi) | 887   | 847   | 847   | 838   |
| Travel Time (hr)     | 454.7 | 405.2 | 433.9 | 433.8 |
| Total Delay (hr)     | 428.3 | 380.0 | 408.4 | 408.8 |
| Total Stops          | 3175  | 3115  | 3059  | 3027  |
| Fuel Used (gal)      | 137.1 | 124.4 | 130.7 | 130.6 |



13: Francisco Dr & El Dorado Hills Blvd Performance by movement

| Movement           | EBL | EBT  | EBR | WBL | WBT | WBR | NBL  | NBT  | NBR | SBL | SBT  | SBR |
|--------------------|-----|------|-----|-----|-----|-----|------|------|-----|-----|------|-----|
| Denied Delay (hr)  | 0.0 | 0.0  | 0.5 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0 | 0.1 | 0.1  | 0.0 |
| Denied Del/Veh (s) | 1.2 | 1.2  | 3.5 | 0.2 | 0.2 | 0.2 | 0.0  | 0.0  | 0.0 | 3.5 | 0.6  | 0.5 |
| Total Delay (hr)   | 0.0 | 0.1  | 0.6 | 0.0 | 0.1 | 0.0 | 1.4  | 0.6  | 0.1 | 0.2 | 1.5  | 0.0 |
| Total Del/Veh (s)  | 9.7 | 11.9 | 4.2 | 7.4 | 8.1 | 4.0 | 11.6 | 11.5 | 4.6 | 7.7 | 15.6 | 8.9 |
| Stop Delay (hr)    | 0.0 | 0.1  | 0.0 | 0.0 | 0.0 | 0.0 | 0.9  | 0.2  | 0.0 | 0.1 | 0.6  | 0.0 |
| Stop Del/Veh (s)   | 4.9 | 4.8  | 0.0 | 5.1 | 4.6 | 3.3 | 7.5  | 3.5  | 3.0 | 3.1 | 6.0  | 5.5 |

13: Francisco Dr & El Dorado Hills Blvd Performance by movement

| Movement           | All |
|--------------------|-----|
| Denied Delay (hr)  | 0.6 |
| Denied Del/Veh (s) | 1.3 |
| Total Delay (hr)   | 4.6 |
| Total Del/Veh (s)  | 9.6 |
| Stop Delay (hr)    | 1.9 |
| Stop Del/Veh (s)   | 4.0 |

17: El Dorado Hills Blvd #2 & Saratoga Way/Park Drive Performance by movement

| Movement           | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL   | NBT   | NBR   | SBL  | SBT  | SBR  |
|--------------------|------|------|------|------|------|------|-------|-------|-------|------|------|------|
| Denied Delay (hr)  | 0.0  | 0.0  | 0.4  | 0.0  | 0.0  | 0.0  | 12.4  | 19.9  | 1.6   | 0.2  | 1.2  | 0.5  |
| Denied Del/Veh (s) | 0.5  | 0.3  | 3.2  | 0.1  | 0.3  | 0.2  | 132.6 | 111.1 | 109.9 | 6.7  | 5.1  | 4.9  |
| Total Delay (hr)   | 2.5  | 1.8  | 3.2  | 0.5  | 1.9  | 1.0  | 38.4  | 1.9   | 0.1   | 2.7  | 13.9 | 6.8  |
| Total Del/Veh (s)  | 60.9 | 62.0 | 26.8 | 46.2 | 57.0 | 36.9 | 402.6 | 10.8  | 8.1   | 96.5 | 55.9 | 64.1 |
| Stop Delay (hr)    | 2.3  | 1.6  | 2.7  | 0.5  | 1.7  | 0.9  | 36.5  | 0.8   | 0.0   | 2.4  | 9.9  | 5.2  |
| Stop Del/Veh (s)   | 56.2 | 55.0 | 23.2 | 44.0 | 50.4 | 33.0 | 382.8 | 4.6   | 3.6   | 85.6 | 39.5 | 48.9 |

17: El Dorado Hills Blvd #2 & Saratoga Way/Park Drive Performance by movement

| Movement           | All  |
|--------------------|------|
| Denied Delay (hr)  | 36.2 |
| Denied Del/Veh (s) | 39.6 |
| Total Delay (hr)   | 74.6 |
| Total Del/Veh (s)  | 80.7 |
| Stop Delay (hr)    | 64.4 |
| Stop Del/Veh (s)   | 69.7 |

18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way Performance by movement

| Movement           | EBL   | EBT   | EBR   | WBL  | WBT  | WBR    | NBL  | NBT   | NBR  | SBL  | SBT  | SBR  |
|--------------------|-------|-------|-------|------|------|--------|------|-------|------|------|------|------|
| Denied Delay (hr)  | 28.9  | 5.2   | 48.9  | 2.0  | 0.6  | 0.7    | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  |
| Denied Del/Veh (s) | 477.9 | 478.2 | 467.3 | 52.8 | 42.2 | 55.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay (hr)   | 31.2  | 1.4   | 11.7  | 2.5  | 1.2  | 13.7   | 7.6  | 35.6  | 1.1  | 0.8  | 14.3 | 1.8  |
| Total Del/Veh (s)  | 985.0 | 255.9 | 210.1 | 71.1 | 95.0 | 1122.3 | 56.5 | 121.3 | 40.9 | 75.5 | 54.5 | 18.5 |
| Stop Delay (hr)    | 31.0  | 1.4   | 11.4  | 2.3  | 1.1  | 13.7   | 6.5  | 33.2  | 0.8  | 0.7  | 11.4 | 0.9  |
| Stop Del/Veh (s)   | 980.2 | 249.6 | 205.2 | 66.6 | 89.2 | 1119.9 | 48.5 | 113.0 | 30.9 | 67.6 | 43.2 | 9.5  |

18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way Performance by movement

| Movement           | All   |
|--------------------|-------|
| Denied Delay (hr)  | 86.3  |
| Denied Del/Veh (s) | 81.6  |
| Total Delay (hr)   | 123.0 |
| Total Del/Veh (s)  | 125.3 |
| Stop Delay (hr)    | 114.6 |
| Stop Del/Veh (s)   | 116.7 |

19: Latrobe Road #2/El Dorado Hills Blvd #2 & US 50 EB Ramps Performance by movement

| Movement           | EBR  | WBR | NBT   | NBR   | SBL  | SBT  | All  |
|--------------------|------|-----|-------|-------|------|------|------|
| Denied Delay (hr)  | 0.1  | 0.0 | 78.6  | 11.4  | 0.0  | 0.0  | 90.1 |
| Denied Del/Veh (s) | 0.7  | 0.3 | 193.9 | 200.9 | 0.0  | 0.0  | 80.5 |
| Total Delay (hr)   | 2.3  | 0.5 | 13.0  | 0.8   | 2.0  | 4.5  | 23.2 |
| Total Del/Veh (s)  | 10.3 | 4.0 | 38.3  | 17.3  | 33.3 | 16.9 | 22.0 |
| Stop Delay (hr)    | 1.3  | 0.3 | 11.0  | 0.6   | 1.5  | 2.1  | 16.7 |
| Stop Del/Veh (s)   | 5.7  | 2.8 | 32.3  | 13.6  | 24.2 | 7.7  | 15.9 |

Total Zone Performance

|                    |        |
|--------------------|--------|
| Denied Delay (hr)  | 213.3  |
| Denied Del/Veh (s) | 108.7  |
| Total Delay (hr)   | 225.4  |
| Total Del/Veh (s)  | 1551.5 |
| Stop Delay (hr)    | 197.6  |
| Stop Del/Veh (s)   | 1360.3 |

Generations at Green Valley  
Queuing and Blocking Report

Cumulative  
AM Peak

Intersection: 13: Francisco Dr & El Dorado Hills Blvd

| Movement              | EB  | WB  | NB  | NB  | SB  | SB  |
|-----------------------|-----|-----|-----|-----|-----|-----|
| Directions Served     | LT  | LTR | L   | TR  | L   | TR  |
| Maximum Queue (ft)    | 59  | 68  | 199 | 90  | 60  | 150 |
| Average Queue (ft)    | 26  | 35  | 88  | 46  | 34  | 70  |
| 95th Queue (ft)       | 52  | 58  | 159 | 75  | 52  | 117 |
| Link Distance (ft)    | 577 | 573 |     | 522 |     | 734 |
| Upstream Blk Time (%) |     |     |     |     |     |     |
| Queuing Penalty (veh) |     |     |     |     |     |     |
| Storage Bay Dist (ft) |     |     | 500 |     | 200 |     |
| Storage Blk Time (%)  |     |     |     |     |     | 0   |
| Queuing Penalty (veh) |     |     |     |     |     | 0   |

Intersection: 17: El Dorado Hills Blvd #2 & Saratoga Way/Park Drive

| Movement              | EB  | EB  | EB  | EB  | WB  | WB  | NB  | NB  | NB  | NB  | SB  | SB  |
|-----------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Directions Served     | L   | LT  | T   | R   | L   | TR  | L   | T   | T   | TR  | L   | T   |
| Maximum Queue (ft)    | 129 | 149 | 337 | 260 | 86  | 297 | 275 | 950 | 599 | 276 | 125 | 705 |
| Average Queue (ft)    | 51  | 85  | 84  | 146 | 26  | 149 | 274 | 939 | 44  | 35  | 87  | 442 |
| 95th Queue (ft)       | 98  | 131 | 229 | 254 | 65  | 253 | 276 | 975 | 265 | 171 | 147 | 734 |
| Link Distance (ft)    |     | 930 | 930 |     | 489 | 489 |     | 935 | 935 | 935 |     | 686 |
| Upstream Blk Time (%) |     |     |     |     |     |     |     | 61  | 0   | 0   |     | 4   |
| Queuing Penalty (veh) |     |     |     |     |     |     |     | 269 | 0   | 0   |     | 0   |
| Storage Bay Dist (ft) | 150 |     |     | 240 |     |     | 250 |     |     |     | 100 |     |
| Storage Blk Time (%)  | 0   | 0   | 0   | 5   |     |     | 87  | 1   |     |     | 15  | 39  |
| Queuing Penalty (veh) | 0   | 0   | 0   | 3   |     |     | 240 | 6   |     |     | 63  | 38  |

Intersection: 17: El Dorado Hills Blvd #2 & Saratoga Way/Park Drive

| Movement              | SB  |
|-----------------------|-----|
| Directions Served     | TR  |
| Maximum Queue (ft)    | 715 |
| Average Queue (ft)    | 494 |
| 95th Queue (ft)       | 761 |
| Link Distance (ft)    | 686 |
| Upstream Blk Time (%) | 10  |
| Queuing Penalty (veh) | 0   |
| Storage Bay Dist (ft) |     |
| Storage Blk Time (%)  |     |
| Queuing Penalty (veh) |     |

Generations at Green Valley  
Queuing and Blocking Report

Cumulative  
AM Peak

Intersection: 18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way

| Movement              | EB   | EB   | EB  | WB  | WB  | WB  | NB  | NB  | NB  | NB  | NB  | SB  |
|-----------------------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Directions Served     | L    | LT   | R   | L   | LT  | TR  | L   | L   | T   | T   | TR  | L   |
| Maximum Queue (ft)    | 1010 | 1076 | 65  | 146 | 442 | 569 | 763 | 791 | 806 | 714 | 866 | 216 |
| Average Queue (ft)    | 667  | 644  | 2   | 51  | 150 | 333 | 356 | 577 | 666 | 579 | 511 | 58  |
| 95th Queue (ft)       | 1206 | 1404 | 47  | 112 | 432 | 667 | 759 | 953 | 966 | 931 | 964 | 160 |
| Link Distance (ft)    | 1059 | 1059 |     |     | 621 | 621 | 714 | 714 | 714 | 714 | 714 |     |
| Upstream Blk Time (%) | 17   | 51   |     |     | 7   | 12  | 2   | 24  | 42  | 8   | 7   |     |
| Queuing Penalty (veh) | 0    | 0    |     |     | 0   | 0   | 9   | 92  | 160 | 32  | 25  |     |
| Storage Bay Dist (ft) |      |      | 300 | 150 |     |     |     |     |     |     |     | 200 |
| Storage Blk Time (%)  |      | 0    | 0   | 1   | 3   |     |     |     |     |     |     | 0   |
| Queuing Penalty (veh) |      | 1    | 0   | 1   | 2   |     |     |     |     |     |     | 0   |

Intersection: 18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way

| Movement              | SB  | SB  | SB  | SB  |
|-----------------------|-----|-----|-----|-----|
| Directions Served     | T   | T   | T   | R   |
| Maximum Queue (ft)    | 328 | 329 | 380 | 225 |
| Average Queue (ft)    | 241 | 229 | 242 | 169 |
| 95th Queue (ft)       | 319 | 310 | 349 | 287 |
| Link Distance (ft)    | 935 | 935 | 935 |     |
| Upstream Blk Time (%) |     |     |     |     |
| Queuing Penalty (veh) |     |     |     |     |
| Storage Bay Dist (ft) |     |     |     | 200 |
| Storage Blk Time (%)  | 25  |     | 17  | 1   |
| Queuing Penalty (veh) | 9   |     | 59  | 3   |

Intersection: 19: Latrobe Road #2/El Dorado Hills Blvd #2 & US 50 EB Ramps

| Movement              | EB   | EB  | WB  | NB  | NB  | NB  | NB  | SB  | SB  | SB  | SB  | SB  |
|-----------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Directions Served     | R    | R   | R   | T   | T   | T   | R   | L   | T   | T   | T   | T   |
| Maximum Queue (ft)    | 124  | 128 | 279 | 396 | 412 | 419 | 300 | 230 | 147 | 170 | 168 | 165 |
| Average Queue (ft)    | 66   | 65  | 26  | 164 | 242 | 272 | 159 | 86  | 48  | 81  | 98  | 97  |
| 95th Queue (ft)       | 105  | 103 | 191 | 391 | 486 | 498 | 382 | 192 | 115 | 143 | 154 | 160 |
| Link Distance (ft)    | 1212 |     | 968 | 718 | 718 | 718 |     |     | 714 | 714 | 714 | 714 |
| Upstream Blk Time (%) |      |     |     |     |     |     |     |     |     |     |     |     |
| Queuing Penalty (veh) |      |     |     |     |     |     |     |     |     |     |     |     |
| Storage Bay Dist (ft) |      | 450 |     |     |     |     | 275 | 575 |     |     |     |     |
| Storage Blk Time (%)  |      |     |     |     |     | 46  | 0   |     |     |     |     |     |
| Queuing Penalty (veh) |      |     |     |     |     | 96  | 1   |     |     |     |     |     |

Zone Summary

Zone wide Queuing Penalty: 1110

Generations at Green Valley  
 1: Sophia Pkwy/Access Rd & Green Valley Rd

Cumulative  
 Timing Plan: PM



| Lane Group              | EBL  | EBT  | EBR  | WBL   | WBT  | NBL   | NBR  | SBT  |
|-------------------------|------|------|------|-------|------|-------|------|------|
| Lane Group Flow (vph)   | 1    | 1692 | 315  | 197   | 1187 | 263   | 140  | 2    |
| v/c Ratio               | 0.00 | 0.62 | 0.24 | 1.30  | 0.44 | 1.12  | 0.45 | 0.01 |
| Control Delay           | 3.0  | 7.5  | 0.8  | 197.0 | 5.5  | 140.3 | 31.5 | 35.5 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  |
| Total Delay             | 3.0  | 7.5  | 0.8  | 197.0 | 5.5  | 140.3 | 31.5 | 35.5 |
| Queue Length 50th (ft)  | 0    | 261  | 0    | -77   | 143  | -235  | 57   | 1    |
| Queue Length 95th (ft)  | 1    | 314  | 19   | #231  | 175  | #404  | 123  | 9    |
| Internal Link Dist (ft) |      | 1813 |      |       | 7016 |       |      | 376  |
| Turn Bay Length (ft)    | 248  |      | 224  | 314   |      | 204   | 204  |      |
| Base Capacity (vph)     | 299  | 2713 | 1287 | 151   | 2713 | 235   | 311  | 290  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0     | 0    | 0     | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0     | 0    | 0     | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0     | 0    | 0     | 0    | 0    |
| Reduced v/c Ratio       | 0.00 | 0.62 | 0.24 | 1.30  | 0.44 | 1.12  | 0.45 | 0.01 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
1: Sophia Pkwy/Access Rd & Green Valley Rd

Cumulative  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL   | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|-------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |       |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 1    | 1557 | 290  | 181   | 1090 | 2    | 242  | 0    | 129  | 0    | 1    | 1    |
| Future Volume (veh/h)        | 1    | 1557 | 290  | 181   | 1090 | 2    | 242  | 0    | 129  | 0    | 1    | 1    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00  |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |       | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 1    | 1692 | 315  | 197   | 1185 | 2    | 263  | 0    | 140  | 0    | 1    | 1    |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92  | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2     | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 369  | 2724 | 1215 | 179   | 2791 | 5    | 294  | 312  | 264  | 0    | 143  | 143  |
| Arrive On Green              | 0.77 | 0.77 | 0.77 | 0.77  | 0.77 | 0.77 | 0.17 | 0.00 | 0.17 | 0.00 | 0.17 | 0.17 |
| Sat Flow, veh/h              | 472  | 3554 | 1585 | 214   | 3640 | 6    | 1415 | 1870 | 1585 | 0    | 858  | 858  |
| Grp Volume(v), veh/h         | 1    | 1692 | 315  | 197   | 578  | 609  | 263  | 0    | 140  | 0    | 0    | 2    |
| Grp Sat Flow(s),veh/h/ln     | 472  | 1777 | 1585 | 214   | 1777 | 1869 | 1415 | 1870 | 1585 | 0    | 0    | 1716 |
| Q Serve(g_s), s              | 0.1  | 25.4 | 6.9  | 66.6  | 13.5 | 13.5 | 19.9 | 0.0  | 9.7  | 0.0  | 0.0  | 0.1  |
| Cycle Q Clear(g_c), s        | 13.6 | 25.4 | 6.9  | 92.0  | 13.5 | 13.5 | 20.0 | 0.0  | 9.7  | 0.0  | 0.0  | 0.1  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00  |      | 0.00 | 1.00 |      | 1.00 | 0.00 |      | 0.50 |
| Lane Grp Cap(c), veh/h       | 369  | 2724 | 1215 | 179   | 1362 | 1433 | 294  | 312  | 264  | 0    | 0    | 286  |
| V/C Ratio(X)                 | 0.00 | 0.62 | 0.26 | 1.10  | 0.42 | 0.42 | 0.89 | 0.00 | 0.53 | 0.00 | 0.00 | 0.01 |
| Avail Cap(c_a), veh/h        | 369  | 2724 | 1215 | 179   | 1362 | 1433 | 294  | 312  | 264  | 0    | 0    | 286  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh     | 7.2  | 6.2  | 4.1  | 37.9  | 4.8  | 4.8  | 51.1 | 0.0  | 45.7 | 0.0  | 0.0  | 41.7 |
| Incr Delay (d2), s/veh       | 0.0  | 1.1  | 0.5  | 97.6  | 1.0  | 0.9  | 31.1 | 0.0  | 7.4  | 0.0  | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.0  | 6.8  | 1.7  | 10.1  | 3.8  | 4.0  | 10.3 | 0.0  | 4.2  | 0.0  | 0.0  | 0.1  |
| Unsig. Movement Delay, s/veh |      |      |      |       |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 7.2  | 7.3  | 4.6  | 135.5 | 5.8  | 5.8  | 82.2 | 0.0  | 53.1 | 0.0  | 0.0  | 41.8 |
| LnGrp LOS                    | A    | A    | A    | F     | A    | A    | F    | A    | D    | A    | A    | D    |
| Approach Vol, veh/h          |      | 2008 |      |       | 1384 |      |      | 403  |      |      |      | 2    |
| Approach Delay, s/veh        |      | 6.9  |      |       | 24.3 |      |      | 72.1 |      |      |      | 41.8 |
| Approach LOS                 |      | A    |      |       | C    |      |      | E    |      |      |      | D    |
| Timer - Assigned Phs         |      | 2    |      | 4     |      | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 24.0 |      | 96.0  |      | 24.0 |      | 96.0 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  |      | 4.0   |      | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 20.0 |      | 92.0  |      | 20.0 |      | 92.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 22.0 |      | 27.4  |      | 2.1  |      | 94.0 |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.0  |      | 22.9  |      | 0.0  |      | 0.0  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |       |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      | 20.2  |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      |      | C     |      |      |      |      |      |      |      |      |

Generations at Green Valley  
 2: Green Valley Rd/Green Valley Road & Francisco Rd.

Cumulative  
 Timing Plan: PM
































| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | SBL  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 357  | 865  | 291  | 149  | 687  | 106  | 295  | 395  | 175  | 278  | 392  |
| v/c Ratio               | 0.82 | 0.77 | 0.42 | 0.83 | 0.67 | 0.20 | 0.70 | 0.51 | 0.78 | 0.66 | 0.73 |
| Control Delay           | 52.8 | 30.5 | 4.9  | 74.6 | 28.9 | 5.3  | 45.4 | 28.6 | 61.4 | 36.7 | 20.7 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 52.8 | 30.5 | 4.9  | 74.6 | 28.9 | 5.3  | 45.4 | 28.6 | 61.4 | 36.7 | 20.7 |
| Queue Length 50th (ft)  | 94   | 203  | 0    | 77   | 157  | 0    | 76   | 91   | 90   | 132  | 74   |
| Queue Length 95th (ft)  | #189 | 303  | 54   | #202 | 239  | 32   | #127 | 124  | #200 | 198  | 153  |
| Internal Link Dist (ft) |      | 7016 |      |      | 1876 |      |      | 2744 |      | 705  |      |
| Turn Bay Length (ft)    | 290  |      | 210  | 200  |      | 450  | 200  |      | 183  |      |      |
| Base Capacity (vph)     | 437  | 1299 | 765  | 180  | 1208 | 616  | 437  | 1119 | 225  | 593  | 661  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.82 | 0.67 | 0.38 | 0.83 | 0.57 | 0.17 | 0.68 | 0.35 | 0.78 | 0.47 | 0.59 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
2: Green Valley Rd/Green Valley Road & Francisco Rd.

Cumulative  
Timing Plan: PM

|                              |    |    |  |  |    |  |    |    |  |  |    |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                     | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations          |   |   |  |  |   |  |   |   |   |  |   |  |
| Traffic Volume (veh/h)       | 343   | 830   | 279   | 134   | 618   | 95  | 248  | 299   | 33  | 149   | 236   | 333   |
| Future Volume (veh/h)        | 343   | 830   | 279   | 134   | 618   | 95  | 248  | 299   | 33  | 149   | 236   | 333   |
| Initial Q (Qb), veh          | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0   | 0   | 0   | 0   | 0   |
| Ped-Bike Adj(A_pbT)          | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00   |   | 1.00  | 1.00  |   | 1.00  |
| Parking Bus, Adj             | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| Work Zone On Approach        |   | No  |   |   | No  |   |  | No  |   |   | No  |   |
| Adj Sat Flow, veh/h/ln       | 1870  | 1870  | 1870  | 1870  | 1870  | 1870  | 1870   | 1870  | 1870  | 1870  | 1870  | 1870  |
| Adj Flow Rate, veh/h         | 357   | 865   | 291   | 149   | 687   | 106   | 295  | 356   | 39  | 175   | 278   | 392   |
| Peak Hour Factor             | 0.96  | 0.96  | 0.96  | 0.90  | 0.90  | 0.90  | 0.84   | 0.84  | 0.84  | 0.85  | 0.85  | 0.85  |
| Percent Heavy Veh, %         | 2   | 2   | 2   | 2   | 2   | 2   | 2  | 2   | 2   | 2   | 2   | 2   |
| Cap, veh/h                   | 420   | 1058  | 472   | 173   | 972   | 434   | 376  | 859   | 93  | 211   | 515   | 436   |
| Arrive On Green              | 0.12  | 0.30  | 0.30  | 0.10  | 0.27  | 0.27  | 0.11   | 0.27  | 0.27  | 0.12  | 0.28  | 0.28  |
| Sat Flow, veh/h              | 3456  | 3554  | 1585  | 1781  | 3554  | 1585  | 3456   | 3232  | 352   | 1781  | 1870  | 1585  |
| Grp Volume(v), veh/h         | 357   | 865   | 291   | 149   | 687   | 106   | 295  | 195   | 200   | 175   | 278   | 392   |
| Grp Sat Flow(s),veh/h/ln     | 1728  | 1777  | 1585  | 1781  | 1777  | 1585  | 1728   | 1777  | 1807  | 1781  | 1870  | 1585  |
| Q Serve(g_s), s              | 8.3   | 18.6  | 13.0  | 6.8   | 14.3  | 4.3   | 6.8  | 7.4   | 7.5   | 7.9   | 10.4  | 19.6  |
| Cycle Q Clear(g_c), s        | 8.3   | 18.6  | 13.0  | 6.8   | 14.3  | 4.3   | 6.8  | 7.4   | 7.5   | 7.9   | 10.4  | 19.6  |
| Prop In Lane                 | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00   |   | 0.19  | 1.00  |   | 1.00  |
| Lane Grp Cap(c), veh/h       | 420   | 1058  | 472   | 173   | 972   | 434   | 376  | 472   | 480   | 211   | 515   | 436   |
| V/C Ratio(X)                 | 0.85  | 0.82  | 0.62  | 0.86  | 0.71  | 0.24  | 0.78   | 0.41  | 0.42  | 0.83  | 0.54  | 0.90  |
| Avail Cap(c_a), veh/h        | 420   | 1243  | 554   | 173   | 1157  | 516   | 420  | 539   | 549   | 216   | 568   | 481   |
| HCM Platoon Ratio            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| Upstream Filter(I)           | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| Uniform Delay (d), s/veh     | 35.4  | 26.8  | 24.9  | 36.6  | 26.9  | 23.3  | 35.7   | 24.9  | 25.0  | 35.5  | 25.4  | 28.7  |
| Incr Delay (d2), s/veh       | 15.3  | 3.8   | 1.5   | 33.0  | 1.6   | 0.3   | 8.5  | 0.6   | 0.6   | 22.7  | 0.9   | 18.5  |
| Initial Q Delay(d3),s/veh    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| %ile BackOfQ(50%),veh/ln     | 4.1   | 7.6   | 4.7   | 4.3   | 5.7   | 1.5   | 3.2  | 3.0   | 3.1   | 4.6   | 4.4   | 9.1   |
| Unsig. Movement Delay, s/veh |   |   |   |   |   |   |  |   |   |   |   |   |
| LnGrp Delay(d),s/veh         | 50.7  | 30.6  | 26.4  | 69.6  | 28.5  | 23.6  | 44.3   | 25.5  | 25.5  | 58.2  | 26.3  | 47.3  |
| LnGrp LOS                    | D   | C   | C   | E   | C   | C   | D  | C   | C   | E   | C   | D   |
| Approach Vol, veh/h          |   | 1513  |   |   | 942   |   |  | 690   |   |   | 845   |   |
| Approach Delay, s/veh        |   | 34.6  |   |   | 34.5  |   |  | 33.5  |   |   | 42.6  |   |
| Approach LOS                 |   | C   |   |   | C   |   |  | C   |   |   | D   |   |
| Timer - Assigned Phs         | 1   | 2   | 3   | 4   | 5   | 6   | 7  | 8   |   |   |   |   |
| Phs Duration (G+Y+Rc), s     | 12.0  | 30.2  | 13.0  | 27.2  | 14.0  | 28.2  | 13.7   | 26.4  |   |   |   |   |
| Change Period (Y+Rc), s      | 4.0   | 5.7   | 4.0   | 4.5   | 4.0   | 5.7   | 4.0  | 4.5   |   |   |   |   |
| Max Green Setting (Gmax), s  | 8.0   | 28.8  | 10.0  | 25.0  | 10.0  | 26.8  | 10.0   | 25.0  |   |   |   |   |
| Max Q Clear Time (g_c+I1), s | 8.8   | 20.6  | 8.8   | 21.6  | 10.3  | 16.3  | 9.9  | 9.5   |   |   |   |   |
| Green Ext Time (p_c), s      | 0.0   | 3.9   | 0.1   | 1.0   | 0.0   | 3.3   | 0.0  | 1.9   |   |   |   |   |
| <b>Intersection Summary</b>  |   |   |   |   |   |   |  |   |   |   |   |   |
| HCM 6th Ctrl Delay           |   |   | 36.1  |   |   |   |  |   |   |   |   |   |
| HCM 6th LOS                  |   |   | D   |   |   |   |  |   |   |   |   |   |



Generations at Green Valley  
 3: El Dorado Hills Blvd./Salmon Falls Rd & Green Valley Road

Cumulative  
 Timing Plan: PM



| Lane Group              | EBL   | EBT   | WBL   | WBT  | NBL  | NBT   | SBL  | SBT  | SBR  |
|-------------------------|-------|-------|-------|------|------|-------|------|------|------|
| Lane Group Flow (vph)   | 111   | 1120  | 63    | 794  | 59   | 350   | 83   | 138  | 174  |
| v/c Ratio               | 0.85  | 1.12  | 0.95  | 0.86 | 0.19 | 1.11  | 0.40 | 0.62 | 0.51 |
| Control Delay           | 112.9 | 97.9  | 164.8 | 42.8 | 54.6 | 135.0 | 64.5 | 73.5 | 13.1 |
| Queue Delay             | 0.0   | 0.0   | 0.0   | 3.1  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| Total Delay             | 112.9 | 97.9  | 164.8 | 45.9 | 54.6 | 135.0 | 64.5 | 73.5 | 13.1 |
| Queue Length 50th (ft)  | 106   | ~1217 | 61    | 641  | 48   | ~370  | 74   | 126  | 0    |
| Queue Length 95th (ft)  | #204  | #1387 | #163  | #934 | 69   | #353  | 114  | 175  | 44   |
| Internal Link Dist (ft) |       | 1876  |       | 819  |      | 2981  |      | 502  |      |
| Turn Bay Length (ft)    | 85    |       | 105   |      | 165  |       |      |      | 100  |
| Base Capacity (vph)     | 132   | 1004  | 66    | 924  | 304  | 316   | 267  | 282  | 387  |
| Starvation Cap Reductn  | 0     | 0     | 0     | 66   | 0    | 0     | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0     | 0     | 0     | 0    | 0    | 0     | 0    | 0    | 0    |
| Storage Cap Reductn     | 0     | 0     | 0     | 0    | 0    | 0     | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.84  | 1.12  | 0.95  | 0.93 | 0.19 | 1.11  | 0.31 | 0.49 | 0.45 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
3: El Dorado Hills Blvd./Salmon Falls Rd & Green Valley Road

Cumulative  
Timing Plan: PM



| Movement                     | EBL   | EBT   | EBR   | WBL   | WBT  | WBR  | NBL  | NBT   | NBR   | SBL  | SBT  | SBR  |
|------------------------------|-------|-------|-------|-------|------|------|------|-------|-------|------|------|------|
| Lane Configurations          | ↖     | ↗     |       | ↖     | ↗    |      | ↖    | ↗     |       | ↖    | ↗    | ↖    |
| Traffic Volume (veh/h)       | 93    | 930   | 11    | 56    | 615  | 92   | 39   | 176   | 55    | 66   | 110  | 139  |
| Future Volume (veh/h)        | 93    | 930   | 11    | 56    | 615  | 92   | 39   | 176   | 55    | 66   | 110  | 139  |
| Initial Q (Qb), veh          | 0     | 0     | 0     | 0     | 0    | 0    | 0    | 0     | 0     | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00  |       | 1.00  | 1.00  |      | 1.00 | 1.00 |       | 1.00  | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |       | No    |       |       | No   |      |      | No    |       |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870  | 1870  | 1870  | 1870  | 1870 | 1870 | 1870 | 1870  | 1870  | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 111   | 1107  | 13    | 63    | 691  | 103  | 59   | 267   | 83    | 82   | 138  | 174  |
| Peak Hour Factor             | 0.84  | 0.84  | 0.84  | 0.89  | 0.89 | 0.89 | 0.66 | 0.66  | 0.66  | 0.80 | 0.80 | 0.80 |
| Percent Heavy Veh, %         | 2     | 2     | 2     | 2     | 2    | 2    | 2    | 2     | 2     | 2    | 2    | 2    |
| Cap, veh/h                   | 132   | 987   | 12    | 67    | 792  | 118  | 303  | 233   | 72    | 228  | 239  | 203  |
| Arrive On Green              | 0.07  | 0.53  | 0.53  | 0.04  | 0.50 | 0.50 | 0.17 | 0.17  | 0.17  | 0.13 | 0.13 | 0.13 |
| Sat Flow, veh/h              | 1781  | 1845  | 22    | 1781  | 1591 | 237  | 1781 | 1368  | 425   | 1781 | 1870 | 1585 |
| Grp Volume(v), veh/h         | 111   | 0     | 1120  | 63    | 0    | 794  | 59   | 0     | 350   | 82   | 138  | 174  |
| Grp Sat Flow(s),veh/h/ln     | 1781  | 0     | 1866  | 1781  | 0    | 1828 | 1781 | 0     | 1794  | 1781 | 1870 | 1585 |
| Q Serve(g_s), s              | 9.0   | 0.0   | 78.5  | 5.2   | 0.0  | 56.6 | 4.2  | 0.0   | 25.0  | 6.2  | 10.2 | 15.8 |
| Cycle Q Clear(g_c), s        | 9.0   | 0.0   | 78.5  | 5.2   | 0.0  | 56.6 | 4.2  | 0.0   | 25.0  | 6.2  | 10.2 | 15.8 |
| Prop In Lane                 | 1.00  |       | 0.01  | 1.00  |      | 0.13 | 1.00 |       | 0.24  | 1.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 132   | 0     | 998   | 67    | 0    | 910  | 303  | 0     | 306   | 228  | 239  | 203  |
| V/C Ratio(X)                 | 0.84  | 0.00  | 1.12  | 0.94  | 0.00 | 0.87 | 0.19 | 0.00  | 1.15  | 0.36 | 0.58 | 0.86 |
| Avail Cap(c_a), veh/h        | 132   | 0     | 998   | 67    | 0    | 910  | 303  | 0     | 306   | 267  | 280  | 238  |
| HCM Platoon Ratio            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00  | 0.00  | 1.00  | 1.00  | 0.00 | 1.00 | 1.00 | 0.00  | 1.00  | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 67.1  | 0.0   | 34.1  | 70.5  | 0.0  | 32.7 | 52.2 | 0.0   | 60.9  | 58.5 | 60.3 | 62.7 |
| Incr Delay (d2), s/veh       | 34.9  | 0.0   | 68.2  | 90.0  | 0.0  | 9.9  | 0.5  | 0.0   | 96.8  | 1.6  | 3.7  | 25.5 |
| Initial Q Delay(d3),s/veh    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 5.3   | 0.0   | 51.5  | 4.0   | 0.0  | 25.9 | 1.9  | 0.0   | 19.4  | 2.9  | 5.0  | 7.7  |
| Unsig. Movement Delay, s/veh |       |       |       |       |      |      |      |       |       |      |      |      |
| LnGrp Delay(d),s/veh         | 102.0 | 0.0   | 102.3 | 160.4 | 0.0  | 42.6 | 52.8 | 0.0   | 157.7 | 60.1 | 64.0 | 88.2 |
| LnGrp LOS                    | F     | A     | F     | F     | A    | D    | D    | A     | F     | E    | E    | F    |
| Approach Vol, veh/h          |       | 1231  |       |       | 857  |      |      | 409   |       |      | 394  |      |
| Approach Delay, s/veh        |       | 102.3 |       |       | 51.3 |      |      | 142.6 |       |      | 73.9 |      |
| Approach LOS                 |       | F     |       |       | D    |      |      | F     |       |      | E    |      |
| Timer - Assigned Phs         | 1     | 2     |       | 4     | 5    | 6    |      | 8     |       |      |      |      |
| Phs Duration (G+Y+Rc), s     | 9.0   | 84.5  |       | 24.3  | 14.4 | 79.1 |      | 29.0  |       |      |      |      |
| Change Period (Y+Rc), s      | 3.5   | 6.0   |       | 5.5   | 3.5  | 6.0  |      | 4.0   |       |      |      |      |
| Max Green Setting (Gmax), s  | 5.5   | 78.5  |       | 22.0  | 10.9 | 73.1 |      | 25.0  |       |      |      |      |
| Max Q Clear Time (g_c+I1), s | 7.2   | 80.5  |       | 17.8  | 11.0 | 58.6 |      | 27.0  |       |      |      |      |
| Green Ext Time (p_c), s      | 0.0   | 0.0   |       | 1.0   | 0.0  | 7.6  |      | 0.0   |       |      |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 89.0 |
| HCM 6th LOS        | F    |

Generations at Green Valley  
 4: Silva Valley Pkwy./Allegheny Rd & Green Valley Road/Green Valley Rd.

Cumulative  
 Timing Plan: PM



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 4    | 788  | 322  | 44   | 509  | 420  | 93   | 15   |
| v/c Ratio               | 0.06 | 0.83 | 0.36 | 0.65 | 0.49 | 0.81 | 0.17 | 0.14 |
| Control Delay           | 55.0 | 32.3 | 8.4  | 93.5 | 17.5 | 50.0 | 14.4 | 46.8 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 55.0 | 32.3 | 8.4  | 93.5 | 17.5 | 50.0 | 14.4 | 46.8 |
| Queue Length 50th (ft)  | 3    | 405  | 46   | 30   | 169  | 259  | 15   | 8    |
| Queue Length 95th (ft)  | 15   | #764 | 123  | #99  | 370  | 313  | 39   | 26   |
| Internal Link Dist (ft) |      | 819  |      |      | 2255 |      | 4847 | 380  |
| Turn Bay Length (ft)    | 205  |      | 205  | 350  |      | 150  |      |      |
| Base Capacity (vph)     | 68   | 995  | 929  | 68   | 1074 | 519  | 536  | 387  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.06 | 0.79 | 0.35 | 0.65 | 0.47 | 0.81 | 0.17 | 0.04 |

Intersection Summary

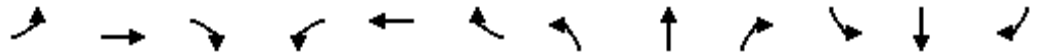
# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley

4: Silva Valley Pkwy./Allegheny Rd & Green Valley Road/Green Valley Rd.

Cumulative

Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 4    | 733  | 299  | 40   | 460  | 4    | 298  | 23   | 43   | 0    | 9    | 2    |
| Future Volume (veh/h)        | 4    | 733  | 299  | 40   | 460  | 4    | 298  | 23   | 43   | 0    | 9    | 2    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 4    | 788  | 322  | 44   | 505  | 4    | 420  | 32   | 61   | 0    | 12   | 3    |
| Peak Hour Factor             | 0.93 | 0.93 | 0.93 | 0.91 | 0.91 | 0.91 | 0.71 | 0.71 | 0.71 | 0.77 | 0.77 | 0.77 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 84   | 893  | 756  | 55   | 855  | 7    | 467  | 151  | 288  | 0    | 20   | 5    |
| Arrive On Green              | 0.05 | 0.48 | 0.48 | 0.03 | 0.46 | 0.46 | 0.26 | 0.26 | 0.26 | 0.00 | 0.01 | 0.01 |
| Sat Flow, veh/h              | 1781 | 1870 | 1585 | 1781 | 1853 | 15   | 1781 | 576  | 1097 | 0    | 1444 | 361  |
| Grp Volume(v), veh/h         | 4    | 788  | 322  | 44   | 0    | 509  | 420  | 0    | 93   | 0    | 0    | 15   |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1870 | 1585 | 1781 | 0    | 1868 | 1781 | 0    | 1673 | 0    | 0    | 1805 |
| Q Serve(g_s), s              | 0.2  | 32.4 | 11.3 | 2.1  | 0.0  | 17.2 | 19.4 | 0.0  | 3.7  | 0.0  | 0.0  | 0.7  |
| Cycle Q Clear(g_c), s        | 0.2  | 32.4 | 11.3 | 2.1  | 0.0  | 17.2 | 19.4 | 0.0  | 3.7  | 0.0  | 0.0  | 0.7  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 0.01 | 1.00 |      | 0.66 | 0.00 |      | 0.20 |
| Lane Grp Cap(c), veh/h       | 84   | 893  | 756  | 55   | 0    | 862  | 467  | 0    | 439  | 0    | 0    | 25   |
| V/C Ratio(X)                 | 0.05 | 0.88 | 0.43 | 0.80 | 0.00 | 0.59 | 0.90 | 0.00 | 0.21 | 0.00 | 0.00 | 0.59 |
| Avail Cap(c_a), veh/h        | 84   | 1216 | 1031 | 84   | 0    | 1215 | 637  | 0    | 598  | 0    | 0    | 467  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh     | 38.7 | 20.1 | 14.6 | 40.9 | 0.0  | 17.0 | 30.3 | 0.0  | 24.5 | 0.0  | 0.0  | 41.7 |
| Incr Delay (d2), s/veh       | 0.2  | 6.1  | 0.4  | 20.9 | 0.0  | 0.6  | 11.6 | 0.0  | 0.2  | 0.0  | 0.0  | 15.3 |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.1  | 13.2 | 3.5  | 1.2  | 0.0  | 6.4  | 9.1  | 0.0  | 1.4  | 0.0  | 0.0  | 0.4  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 38.9 | 26.2 | 15.0 | 61.8 | 0.0  | 17.6 | 41.9 | 0.0  | 24.7 | 0.0  | 0.0  | 56.9 |
| LnGrp LOS                    | D    | C    | B    | E    | A    | B    | D    | A    | C    | A    | A    | E    |
| Approach Vol, veh/h          |      | 1114 |      |      | 553  |      |      | 513  |      |      | 15   |      |
| Approach Delay, s/veh        |      | 23.0 |      |      | 21.1 |      |      | 38.8 |      |      | 56.9 |      |
| Approach LOS                 |      | C    |      |      | C    |      |      | D    |      |      | E    |      |
| Timer - Assigned Phs         | 1    | 2    |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 8.0  | 44.9 |      | 5.2  | 6.6  | 46.3 |      | 26.9 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 5.7  |      | 4.0  | 4.0  | 5.7  |      | 4.6  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0  | 55.3 |      | 22.0 | 4.0  | 55.3 |      | 30.4 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 2.2  | 19.2 |      | 2.7  | 4.1  | 34.4 |      | 21.4 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 3.0  |      | 0.0  | 0.0  | 6.2  |      | 1.0  |      |      |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 26.4 |
| HCM 6th LOS        | C    |

Generations at Green Valley  
5: Loch Way & Green Valley Rd

Cumulative  
Timing Plan: PM

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 1.6  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      |      |      |      |      |      |      |
| Traffic Vol, veh/h       | 740  | 26   | 10   | 472  | 26   | 12   |
| Future Vol, veh/h        | 740  | 26   | 10   | 472  | 26   | 12   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | 100  | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 91   | 91   | 94   | 94   | 56   | 56   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 813  | 29   | 11   | 502  | 46   | 21   |

| Major/Minor          | Major1 | Major2 | Minor1 | Minor2 | Minor3 |
|----------------------|--------|--------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 842    | 0      | 1352   |
| Stage 1              | -      | -      | -      | -      | 828    |
| Stage 2              | -      | -      | -      | -      | 524    |
| Critical Hdwy        | -      | -      | 4.12   | -      | 6.42   |
| Critical Hdwy Stg 1  | -      | -      | -      | -      | 5.42   |
| Critical Hdwy Stg 2  | -      | -      | -      | -      | 5.42   |
| Follow-up Hdwy       | -      | -      | 2.218  | -      | 3.518  |
| Pot Cap-1 Maneuver   | -      | -      | 794    | -      | 165    |
| Stage 1              | -      | -      | -      | -      | 429    |
| Stage 2              | -      | -      | -      | -      | 594    |
| Platoon blocked, %   | -      | -      | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 794    | -      | 163    |
| Mov Cap-2 Maneuver   | -      | -      | -      | -      | 163    |
| Stage 1              | -      | -      | -      | -      | 429    |
| Stage 2              | -      | -      | -      | -      | 586    |

| Approach             | EB | WB  | NB   |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0  | 0.2 | 32.4 |
| HCM LOS              |    |     | D    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 198   | -   | -   | 794   | -   |
| HCM Lane V/C Ratio    | 0.343 | -   | -   | 0.013 | -   |
| HCM Control Delay (s) | 32.4  | -   | -   | 9.6   | -   |
| HCM Lane LOS          | D     | -   | -   | A     | -   |
| HCM 95th %tile Q(veh) | 1.4   | -   | -   | 0     | -   |

Generations at Green Valley  
6: Green Valley Rd & Malcolm Dixon Cutoff

Cumulative  
Timing Plan: PM

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 1.7  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      |      |      |      |      |      |
| Traffic Vol, veh/h       | 91   | 661  | 453  | 23   | 11   | 73   |
| Future Vol, veh/h        | 91   | 661  | 453  | 23   | 11   | 73   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 100  | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 99   | 718  | 492  | 25   | 12   | 79   |

| Major/Minor          | Major1 | Major2 | Minor2 |   |             |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 517    | 0      | -      | 0 | 1421 505    |
| Stage 1              | -      | -      | -      | - | 505 -       |
| Stage 2              | -      | -      | -      | - | 916 -       |
| Critical Hdwy        | 4.12   | -      | -      | - | 6.42 6.22   |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.42 -      |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.42 -      |
| Follow-up Hdwy       | 2.218  | -      | -      | - | 3.518 3.318 |
| Pot Cap-1 Maneuver   | 1049   | -      | -      | - | 150 567     |
| Stage 1              | -      | -      | -      | - | 606 -       |
| Stage 2              | -      | -      | -      | - | 390 -       |
| Platoon blocked, %   |        | -      | -      | - |             |
| Mov Cap-1 Maneuver   | 1049   | -      | -      | - | 136 567     |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 136 -       |
| Stage 1              | -      | -      | -      | - | 549 -       |
| Stage 2              | -      | -      | -      | - | 390 -       |

| Approach             | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 1.1 | 0  | 16.6 |
| HCM LOS              |     |    | C    |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1049  | -   | -   | -   | 401   |
| HCM Lane V/C Ratio    | 0.094 | -   | -   | -   | 0.228 |
| HCM Control Delay (s) | 8.8   | -   | -   | -   | 16.6  |
| HCM Lane LOS          | A     | -   | -   | -   | C     |
| HCM 95th %tile Q(veh) | 0.3   | -   | -   | -   | 0.9   |

Generations at Green Valley  
7: Green Valley Rd & Malcom Dixon Rd

Cumulative  
Timing Plan: PM

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.4  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      | ↕    | ↕    |      | ↕    |      |
| Traffic Vol, veh/h       | 14   | 727  | 467  | 12   | 8    | 9    |
| Future Vol, veh/h        | 14   | 727  | 467  | 12   | 8    | 9    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 93   | 93   | 86   | 86   | 91   | 91   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 15   | 782  | 543  | 14   | 9    | 10   |

| Major/Minor          | Major1 | Major2 | Minor2 |   |             |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 557    | 0      | -      | 0 | 1362 550    |
| Stage 1              | -      | -      | -      | - | 550 -       |
| Stage 2              | -      | -      | -      | - | 812 -       |
| Critical Hdwy        | 4.12   | -      | -      | - | 6.42 6.22   |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.42 -      |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.42 -      |
| Follow-up Hdwy       | 2.218  | -      | -      | - | 3.518 3.318 |
| Pot Cap-1 Maneuver   | 1014   | -      | -      | - | 163 535     |
| Stage 1              | -      | -      | -      | - | 578 -       |
| Stage 2              | -      | -      | -      | - | 437 -       |
| Platoon blocked, %   |        | -      | -      | - |             |
| Mov Cap-1 Maneuver   | 1014   | -      | -      | - | 159 535     |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 159 -       |
| Stage 1              | -      | -      | -      | - | 563 -       |
| Stage 2              | -      | -      | -      | - | 437 -       |

| Approach             | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.2 | 0  | 20.4 |
| HCM LOS              |     |    | C    |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 1014  | -   | -   | -   | 253   |
| HCM Lane V/C Ratio    | 0.015 | -   | -   | -   | 0.074 |
| HCM Control Delay (s) | 8.6   | 0   | -   | -   | 20.4  |
| HCM Lane LOS          | A     | A   | -   | -   | C     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0.2   |

Generations at Green Valley  
8: Deer Valley Rd. & Green Valley Rd.

Cumulative  
Timing Plan: PM



| Lane Group                  | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBT  | SBT  |
|-----------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)       | 37   | 725  | 15   | 57   | 499  | 47   | 90   | 54   |
| v/c Ratio                   | 0.08 | 0.72 | 0.02 | 0.22 | 0.49 | 0.05 | 0.26 | 0.16 |
| Control Delay               | 4.0  | 10.3 | 1.6  | 6.1  | 6.5  | 1.6  | 9.6  | 9.1  |
| Queue Delay                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay                 | 4.0  | 10.3 | 1.6  | 6.1  | 6.5  | 1.6  | 9.6  | 9.1  |
| Queue Length 50th (ft)      | 2    | 69   | 0    | 4    | 39   | 0    | 5    | 3    |
| Queue Length 95th (ft)      | 10   | 175  | 4    | 17   | 93   | 7    | 22   | 17   |
| Internal Link Dist (ft)     |      | 2852 |      |      | 3999 |      | 988  | 946  |
| Turn Bay Length (ft)        | 415  |      | 415  | 415  |      | 415  |      |      |
| Base Capacity (vph)         | 651  | 1495 | 1274 | 388  | 1495 | 1279 | 774  | 768  |
| Starvation Cap Reductn      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio           | 0.06 | 0.48 | 0.01 | 0.15 | 0.33 | 0.04 | 0.12 | 0.07 |
| <b>Intersection Summary</b> |      |      |      |      |      |      |      |      |



Generations at Green Valley  
8: Deer Valley Rd. & Green Valley Rd.

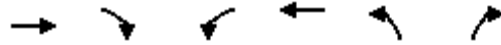
Cumulative  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 34   | 660  | 14   | 50   | 434  | 41   | 23   | 2    | 37   | 13   | 1    | 25   |
| Future Volume (veh/h)        | 34   | 660  | 14   | 50   | 434  | 41   | 23   | 2    | 37   | 13   | 1    | 25   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 37   | 725  | 15   | 57   | 499  | 47   | 33   | 3    | 54   | 18   | 1    | 35   |
| Peak Hour Factor             | 0.91 | 0.91 | 0.91 | 0.87 | 0.87 | 0.87 | 0.69 | 0.69 | 0.69 | 0.72 | 0.72 | 0.72 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 597  | 1010 | 856  | 455  | 1010 | 856  | 256  | 27   | 142  | 239  | 29   | 155  |
| Arrive On Green              | 0.54 | 0.54 | 0.54 | 0.54 | 0.54 | 0.54 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 |
| Sat Flow, veh/h              | 861  | 1870 | 1585 | 719  | 1870 | 1585 | 439  | 178  | 926  | 361  | 189  | 1013 |
| Grp Volume(v), veh/h         | 37   | 725  | 15   | 57   | 499  | 47   | 90   | 0    | 0    | 54   | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 861  | 1870 | 1585 | 719  | 1870 | 1585 | 1544 | 0    | 0    | 1563 | 0    | 0    |
| Q Serve(g_s), s              | 0.7  | 7.6  | 0.1  | 1.7  | 4.4  | 0.4  | 0.5  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 5.1  | 7.6  | 0.1  | 9.3  | 4.4  | 0.4  | 1.3  | 0.0  | 0.0  | 0.7  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 0.37 |      | 0.60 | 0.33 |      | 0.65 |
| Lane Grp Cap(c), veh/h       | 597  | 1010 | 856  | 455  | 1010 | 856  | 425  | 0    | 0    | 424  | 0    | 0    |
| V/C Ratio(X)                 | 0.06 | 0.72 | 0.02 | 0.13 | 0.49 | 0.05 | 0.21 | 0.00 | 0.00 | 0.13 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 989  | 1863 | 1579 | 783  | 1863 | 1579 | 1118 | 0    | 0    | 1114 | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 5.4  | 4.5  | 2.8  | 8.0  | 3.8  | 2.8  | 9.9  | 0.0  | 0.0  | 9.7  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 0.0  | 1.0  | 0.0  | 0.1  | 0.4  | 0.0  | 0.2  | 0.0  | 0.0  | 0.1  | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.0  | 0.3  | 0.0  | 0.1  | 0.1  | 0.0  | 0.3  | 0.0  | 0.0  | 0.2  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 5.4  | 5.5  | 2.8  | 8.1  | 4.1  | 2.9  | 10.1 | 0.0  | 0.0  | 9.8  | 0.0  | 0.0  |
| LnGrp LOS                    | A    | A    | A    | A    | A    | A    | B    | A    | A    | A    | A    | A    |
| Approach Vol, veh/h          |      | 777  |      |      | 603  |      |      | 90   |      |      |      | 54   |
| Approach Delay, s/veh        |      | 5.4  |      |      | 4.4  |      |      | 10.1 |      |      |      | 9.8  |
| Approach LOS                 |      | A    |      |      | A    |      |      | B    |      |      |      | A    |
| Timer - Assigned Phs         |      | 2    |      | 4    |      | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 8.0  |      | 18.1 |      | 8.0  |      | 18.1 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  |      | 4.0  |      | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 16.0 |      | 26.0 |      | 16.0 |      | 26.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 3.3  |      | 9.6  |      | 2.7  |      | 11.3 |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.3  |      | 4.2  |      | 0.1  |      | 2.8  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      | 5.5  |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      |      | A    |      |      |      |      |      |      |      |      |

Generations at Green Valley  
 9: Silver Springs Pkwy & Green Valley Rd

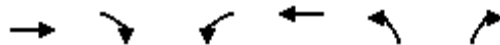
Cumulative  
 Timing Plan: PM



| Lane Group                  | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|-----------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph)       | 589  | 186  | 50   | 412  | 189  | 66   |
| v/c Ratio                   | 0.68 | 0.22 | 0.18 | 0.47 | 0.39 | 0.14 |
| Control Delay               | 11.6 | 2.0  | 7.3  | 8.2  | 13.4 | 4.6  |
| Queue Delay                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay                 | 11.6 | 2.0  | 7.3  | 8.2  | 13.4 | 4.6  |
| Queue Length 50th (ft)      | 66   | 0    | 4    | 40   | 26   | 0    |
| Queue Length 95th (ft)      | 169  | 20   | 20   | 104  | 72   | 18   |
| Internal Link Dist (ft)     | 3999 |      |      | 3318 | 1349 |      |
| Turn Bay Length (ft)        |      | 230  | 415  |      | 135  |      |
| Base Capacity (vph)         | 1252 | 1124 | 397  | 1252 | 906  | 842  |
| Starvation Cap Reductn      | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn       | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn         | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio           | 0.47 | 0.17 | 0.13 | 0.33 | 0.21 | 0.08 |
| <b>Intersection Summary</b> |      |      |      |      |      |      |

Generations at Green Valley  
9: Silver Springs Pkwy & Green Valley Rd

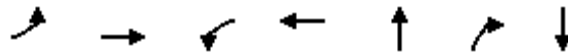
Cumulative  
Timing Plan: PM



| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations          | ↑    | ↗    | ↖    | ↑    | ↖    | ↗    |
| Traffic Volume (veh/h)       | 542  | 171  | 46   | 379  | 174  | 61   |
| Future Volume (veh/h)        | 542  | 171  | 46   | 379  | 174  | 61   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 589  | 186  | 50   | 412  | 189  | 66   |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 875  | 741  | 454  | 875  | 357  | 317  |
| Arrive On Green              | 0.47 | 0.47 | 0.47 | 0.47 | 0.20 | 0.20 |
| Sat Flow, veh/h              | 1870 | 1585 | 696  | 1870 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 589  | 186  | 50   | 412  | 189  | 66   |
| Grp Sat Flow(s),veh/h/ln     | 1870 | 1585 | 696  | 1870 | 1781 | 1585 |
| Q Serve(g_s), s              | 5.9  | 1.7  | 1.4  | 3.6  | 2.3  | 0.8  |
| Cycle Q Clear(g_c), s        | 5.9  | 1.7  | 7.3  | 3.6  | 2.3  | 0.8  |
| Prop In Lane                 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 875  | 741  | 454  | 875  | 357  | 317  |
| V/C Ratio(X)                 | 0.67 | 0.25 | 0.11 | 0.47 | 0.53 | 0.21 |
| Avail Cap(c_a), veh/h        | 1631 | 1382 | 735  | 1631 | 1183 | 1053 |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 5.0  | 3.9  | 7.8  | 4.4  | 8.6  | 8.0  |
| Incr Delay (d2), s/veh       | 0.9  | 0.2  | 0.1  | 0.4  | 1.2  | 0.3  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.2  | 0.0  | 0.1  | 0.1  | 0.5  | 0.1  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 5.9  | 4.0  | 7.9  | 4.8  | 9.8  | 8.4  |
| LnGrp LOS                    | A    | A    | A    | A    | A    | A    |
| Approach Vol, veh/h          | 775  |      |      | 462  | 255  |      |
| Approach Delay, s/veh        | 5.4  |      |      | 5.1  | 9.5  |      |
| Approach LOS                 | A    |      |      | A    | A    |      |
| Timer - Assigned Phs         |      | 2    |      | 4    |      | 8    |
| Phs Duration (G+Y+Rc), s     |      | 8.8  |      | 15.3 |      | 15.3 |
| Change Period (Y+Rc), s      |      | 4.0  |      | 4.0  |      | 4.0  |
| Max Green Setting (Gmax), s  |      | 16.0 |      | 21.0 |      | 21.0 |
| Max Q Clear Time (g_c+l1), s |      | 4.3  |      | 7.9  |      | 9.3  |
| Green Ext Time (p_c), s      |      | 0.5  |      | 3.2  |      | 1.9  |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 6.0  |      |      |      |
| HCM 6th LOS                  |      |      | A    |      |      |      |

Generations at Green Valley  
 10: Bass Lake Rd./Alexandrite Dr & Green Valley Rd.

Cumulative  
 Timing Plan: PM



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBT  | NBR  | SBT  |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 5    | 1016 | 168  | 479  | 52   | 294  | 24   |
| v/c Ratio               | 0.08 | 0.87 | 0.86 | 0.33 | 0.35 | 0.73 | 0.21 |
| Control Delay           | 57.7 | 27.9 | 86.3 | 6.4  | 54.5 | 16.9 | 33.6 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 57.7 | 27.9 | 86.3 | 6.4  | 54.5 | 16.9 | 33.6 |
| Queue Length 50th (ft)  | 4    | 575  | 121  | 92   | 36   | 0    | 6    |
| Queue Length 95th (ft)  | 12   | 448  | #210 | 189  | 54   | 0    | 14   |
| Internal Link Dist (ft) |      | 3318 |      | 1151 | 1084 |      | 521  |
| Turn Bay Length (ft)    | 285  |      | 435  |      |      | 150  |      |
| Base Capacity (vph)     | 65   | 1171 | 195  | 1435 | 277  | 496  | 260  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.08 | 0.87 | 0.86 | 0.33 | 0.19 | 0.59 | 0.09 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
10: Bass Lake Rd./Alexandrite Dr & Green Valley Rd.

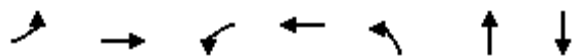
Cumulative  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT   | NBR   | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|-------|-------|------|------|------|
| Lane Configurations          | ↖    | ↗    |      | ↖    | ↗    |      |      | ↖     | ↗     |      | ↕    |      |
| Traffic Volume (veh/h)       | 3    | 568  | 52   | 128  | 363  | 1    | 33   | 0     | 188   | 3    | 1    | 8    |
| Future Volume (veh/h)        | 3    | 568  | 52   | 128  | 363  | 1    | 33   | 0     | 188   | 3    | 1    | 8    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0     | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |       | 1.00  | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No    |       |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870  | 1870  | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 5    | 931  | 85   | 168  | 478  | 1    | 52   | 0     | 294   | 6    | 2    | 16   |
| Peak Hour Factor             | 0.61 | 0.61 | 0.61 | 0.76 | 0.76 | 0.76 | 0.64 | 0.64  | 0.64  | 0.50 | 0.50 | 0.50 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2     | 2     | 2    | 2    | 2    |
| Cap, veh/h                   | 9    | 975  | 89   | 192  | 1269 | 3    | 272  | 0     | 242   | 8    | 3    | 21   |
| Arrive On Green              | 0.01 | 0.58 | 0.58 | 0.11 | 0.68 | 0.68 | 0.15 | 0.00  | 0.15  | 0.02 | 0.02 | 0.02 |
| Sat Flow, veh/h              | 1781 | 1688 | 154  | 1781 | 1866 | 4    | 1781 | 0     | 1585  | 413  | 138  | 1101 |
| Grp Volume(v), veh/h         | 5    | 0    | 1016 | 168  | 0    | 479  | 52   | 0     | 294   | 24   | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1843 | 1781 | 0    | 1870 | 1781 | 0     | 1585  | 1652 | 0    | 0    |
| Q Serve(g_s), s              | 0.3  | 0.0  | 57.9 | 10.4 | 0.0  | 12.3 | 2.8  | 0.0   | 17.0  | 1.6  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 0.3  | 0.0  | 57.9 | 10.4 | 0.0  | 12.3 | 2.8  | 0.0   | 17.0  | 1.6  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 0.08 | 1.00 |      | 0.00 | 1.00 |       | 1.00  | 0.25 |      | 0.67 |
| Lane Grp Cap(c), veh/h       | 9    | 0    | 1064 | 192  | 0    | 1272 | 272  | 0     | 242   | 31   | 0    | 0    |
| V/C Ratio(X)                 | 0.55 | 0.00 | 0.95 | 0.88 | 0.00 | 0.38 | 0.19 | 0.00  | 1.22  | 0.77 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 64   | 0    | 1140 | 192  | 0    | 1291 | 272  | 0     | 242   | 237  | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00  | 1.00  | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 55.3 | 0.0  | 22.2 | 49.0 | 0.0  | 7.7  | 41.3 | 0.0   | 47.3  | 54.5 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 42.2 | 0.0  | 16.3 | 33.5 | 0.0  | 0.2  | 0.3  | 0.0   | 129.2 | 32.3 | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.2  | 0.0  | 25.4 | 6.2  | 0.0  | 3.9  | 1.3  | 0.0   | 15.0  | 0.9  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |       |       |      |      |      |
| LnGrp Delay(d),s/veh         | 97.5 | 0.0  | 38.5 | 82.6 | 0.0  | 7.9  | 41.6 | 0.0   | 176.4 | 86.8 | 0.0  | 0.0  |
| LnGrp LOS                    | F    | A    | D    | F    | A    | A    | D    | A     | F     | F    | A    | A    |
| Approach Vol, veh/h          |      | 1021 |      |      | 647  |      |      | 346   |       |      |      | 24   |
| Approach Delay, s/veh        |      | 38.8 |      |      | 27.3 |      |      | 156.2 |       |      |      | 86.8 |
| Approach LOS                 |      | D    |      |      | C    |      |      | F     |       |      |      | F    |
| Timer - Assigned Phs         |      | 2    | 3    | 4    |      | 6    | 7    | 8     |       |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 21.0 | 16.0 | 68.4 |      | 6.1  | 4.6  | 79.9  |       |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0   |       |      |      |      |
| Max Green Setting (Gmax), s  |      | 17.0 | 12.0 | 69.0 |      | 16.0 | 4.0  | 77.0  |       |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 19.0 | 12.4 | 59.9 |      | 3.6  | 2.3  | 14.3  |       |      |      |      |
| Green Ext Time (p_c), s      |      | 0.0  | 0.0  | 4.5  |      | 0.0  | 0.0  | 2.7   |       |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |       |       |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 55.6 |      |      |      |      |       |       |      |      |      |
| HCM 6th LOS                  |      |      | E    |      |      |      |      |       |       |      |      |      |

Generations at Green Valley  
 11: Cambridge Rd./Peridot Dr & Green Valley Rd.

Cumulative  
 Timing Plan: PM



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBT  |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 29   | 1041 | 53   | 521  | 152  | 102  | 37   |
| v/c Ratio               | 0.25 | 0.90 | 0.69 | 0.44 | 0.63 | 0.34 | 0.26 |
| Control Delay           | 51.2 | 30.3 | 89.4 | 12.6 | 51.4 | 15.8 | 35.6 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 51.2 | 30.3 | 89.4 | 12.6 | 51.4 | 15.8 | 35.6 |
| Queue Length 50th (ft)  | 18   | 578  | 34   | 183  | 91   | 10   | 14   |
| Queue Length 95th (ft)  | 36   | 504  | #84  | 237  | 138  | 44   | 39   |
| Internal Link Dist (ft) |      | 1151 |      | 2235 |      | 1080 | 510  |
| Turn Bay Length (ft)    | 100  |      | 125  |      | 125  |      |      |
| Base Capacity (vph)     | 116  | 1154 | 77   | 1195 | 311  | 356  | 317  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.25 | 0.90 | 0.69 | 0.44 | 0.49 | 0.29 | 0.12 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
11: Cambridge Rd./Peridot Dr & Green Valley Rd.

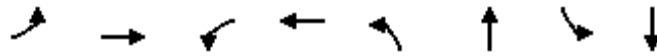
Cumulative  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 20   | 547  | 161  | 41   | 388  | 13   | 120  | 14   | 66   | 10   | 8    | 11   |
| Future Volume (veh/h)        | 20   | 547  | 161  | 41   | 388  | 13   | 120  | 14   | 66   | 10   | 8    | 11   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 29   | 804  | 237  | 53   | 504  | 17   | 152  | 18   | 84   | 13   | 10   | 14   |
| Peak Hour Factor             | 0.68 | 0.68 | 0.68 | 0.77 | 0.77 | 0.77 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 42   | 864  | 255  | 67   | 1145 | 39   | 203  | 33   | 153  | 17   | 13   | 18   |
| Arrive On Green              | 0.02 | 0.62 | 0.62 | 0.04 | 0.64 | 0.64 | 0.11 | 0.11 | 0.11 | 0.03 | 0.03 | 0.03 |
| Sat Flow, veh/h              | 1781 | 1388 | 409  | 1781 | 1799 | 61   | 1781 | 287  | 1341 | 605  | 466  | 652  |
| Grp Volume(v), veh/h         | 29   | 0    | 1041 | 53   | 0    | 521  | 152  | 0    | 102  | 37   | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1797 | 1781 | 0    | 1859 | 1781 | 0    | 1629 | 1723 | 0    | 0    |
| Q Serve(g_s), s              | 1.3  | 0.0  | 42.1 | 2.4  | 0.0  | 11.4 | 6.7  | 0.0  | 4.8  | 1.7  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 1.3  | 0.0  | 42.1 | 2.4  | 0.0  | 11.4 | 6.7  | 0.0  | 4.8  | 1.7  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 0.23 | 1.00 |      | 0.03 | 1.00 |      | 0.82 | 0.35 |      | 0.38 |
| Lane Grp Cap(c), veh/h       | 42   | 0    | 1119 | 67   | 0    | 1184 | 203  | 0    | 186  | 48   | 0    | 0    |
| V/C Ratio(X)                 | 0.69 | 0.00 | 0.93 | 0.79 | 0.00 | 0.44 | 0.75 | 0.00 | 0.55 | 0.77 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 132  | 0    | 1288 | 88   | 0    | 1287 | 352  | 0    | 322  | 341  | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 39.2 | 0.0  | 13.7 | 38.6 | 0.0  | 7.4  | 34.7 | 0.0  | 33.9 | 39.1 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 18.0 | 0.0  | 11.1 | 28.7 | 0.0  | 0.3  | 5.5  | 0.0  | 2.5  | 22.2 | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.7  | 0.0  | 14.6 | 1.5  | 0.0  | 3.1  | 3.1  | 0.0  | 2.0  | 1.0  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 57.2 | 0.0  | 24.8 | 67.3 | 0.0  | 7.7  | 40.2 | 0.0  | 36.4 | 61.3 | 0.0  | 0.0  |
| LnGrp LOS                    | E    | A    | C    | E    | A    | A    | D    | A    | D    | E    | A    | A    |
| Approach Vol, veh/h          |      | 1070 |      |      | 574  |      |      | 254  |      |      |      | 37   |
| Approach Delay, s/veh        |      | 25.7 |      |      | 13.2 |      |      | 38.7 |      |      |      | 61.3 |
| Approach LOS                 |      | C    |      |      | B    |      |      | D    |      |      |      | E    |
| Timer - Assigned Phs         |      | 2    | 3    | 4    |      | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 13.2 | 7.1  | 54.4 |      | 6.3  | 5.9  | 55.5 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 16.0 | 4.0  | 58.0 |      | 16.0 | 6.0  | 56.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 8.7  | 4.4  | 44.1 |      | 3.7  | 3.3  | 13.4 |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.6  | 0.0  | 6.3  |      | 0.1  | 0.0  | 3.0  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 24.4 |      |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      | C    |      |      |      |      |      |      |      |      |      |

Generations at Green Valley  
12: Cameron Park Dr. & Green Valley Rd.

Cumulative  
Timing Plan: PM



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 69   | 671  | 120  | 266  | 316  | 280  | 29   | 118  |
| v/c Ratio               | 0.40 | 0.90 | 0.78 | 0.33 | 0.86 | 0.48 | 0.26 | 0.50 |
| Control Delay           | 43.3 | 40.1 | 72.2 | 19.8 | 56.8 | 18.9 | 44.8 | 37.1 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 43.3 | 40.1 | 72.2 | 19.8 | 56.8 | 18.9 | 44.8 | 37.1 |
| Queue Length 50th (ft)  | 34   | 306  | 63   | 97   | 161  | 70   | 15   | 51   |
| Queue Length 95th (ft)  | 59   | 327  | #148 | 159  | #316 | 154  | 31   | 70   |
| Internal Link Dist (ft) |      | 2235 |      | 1414 |      | 1563 |      | 921  |
| Turn Bay Length (ft)    | 270  |      | 150  |      | 125  |      | 55   |      |
| Base Capacity (vph)     | 198  | 744  | 154  | 795  | 375  | 678  | 110  | 393  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.35 | 0.90 | 0.78 | 0.33 | 0.84 | 0.41 | 0.26 | 0.30 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.



Generations at Green Valley  
12: Cameron Park Dr. & Green Valley Rd.

Cumulative  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 48   | 255  | 215  | 101  | 208  | 15   | 278  | 100  | 146  | 19   | 60   | 18   |
| Future Volume (veh/h)        | 48   | 255  | 215  | 101  | 208  | 15   | 278  | 100  | 146  | 19   | 60   | 18   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 69   | 364  | 307  | 120  | 248  | 18   | 316  | 114  | 166  | 29   | 91   | 27   |
| Peak Hour Factor             | 0.70 | 0.70 | 0.70 | 0.84 | 0.84 | 0.84 | 0.88 | 0.88 | 0.88 | 0.66 | 0.66 | 0.66 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 89   | 386  | 326  | 151  | 770  | 56   | 357  | 186  | 271  | 43   | 130  | 39   |
| Arrive On Green              | 0.05 | 0.41 | 0.41 | 0.09 | 0.45 | 0.45 | 0.20 | 0.27 | 0.27 | 0.02 | 0.09 | 0.09 |
| Sat Flow, veh/h              | 1781 | 937  | 791  | 1781 | 1723 | 125  | 1781 | 688  | 1002 | 1781 | 1385 | 411  |
| Grp Volume(v), veh/h         | 69   | 0    | 671  | 120  | 0    | 266  | 316  | 0    | 280  | 29   | 0    | 118  |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1728 | 1781 | 0    | 1848 | 1781 | 0    | 1690 | 1781 | 0    | 1796 |
| Q Serve(g_s), s              | 2.9  | 0.0  | 28.7 | 5.1  | 0.0  | 7.1  | 13.2 | 0.0  | 11.1 | 1.2  | 0.0  | 4.9  |
| Cycle Q Clear(g_c), s        | 2.9  | 0.0  | 28.7 | 5.1  | 0.0  | 7.1  | 13.2 | 0.0  | 11.1 | 1.2  | 0.0  | 4.9  |
| Prop In Lane                 | 1.00 |      | 0.46 | 1.00 |      | 0.07 | 1.00 |      | 0.59 | 1.00 |      | 0.23 |
| Lane Grp Cap(c), veh/h       | 89   | 0    | 712  | 151  | 0    | 826  | 357  | 0    | 458  | 43   | 0    | 169  |
| V/C Ratio(X)                 | 0.78 | 0.00 | 0.94 | 0.79 | 0.00 | 0.32 | 0.88 | 0.00 | 0.61 | 0.68 | 0.00 | 0.70 |
| Avail Cap(c_a), veh/h        | 209  | 0    | 743  | 162  | 0    | 826  | 394  | 0    | 638  | 116  | 0    | 398  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh     | 36.0 | 0.0  | 21.7 | 34.5 | 0.0  | 13.7 | 29.8 | 0.0  | 24.5 | 37.2 | 0.0  | 33.7 |
| Incr Delay (d2), s/veh       | 13.4 | 0.0  | 19.9 | 21.7 | 0.0  | 0.2  | 19.3 | 0.0  | 1.3  | 17.1 | 0.0  | 5.1  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 1.5  | 0.0  | 13.3 | 2.9  | 0.0  | 2.5  | 7.1  | 0.0  | 4.2  | 0.7  | 0.0  | 2.3  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 49.4 | 0.0  | 41.6 | 56.2 | 0.0  | 13.9 | 49.2 | 0.0  | 25.8 | 54.2 | 0.0  | 38.8 |
| LnGrp LOS                    | D    | A    | D    | E    | A    | B    | D    | A    | C    | D    | A    | D    |
| Approach Vol, veh/h          |      | 740  |      |      | 386  |      |      | 596  |      |      |      | 147  |
| Approach Delay, s/veh        |      | 42.4 |      |      | 27.1 |      |      | 38.2 |      |      |      | 41.9 |
| Approach LOS                 |      | D    |      |      | C    |      |      | D    |      |      |      | D    |
| Timer - Assigned Phs         | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 5.8  | 24.8 | 10.5 | 35.6 | 19.4 | 11.2 | 7.8  | 38.3 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 5.0  | 29.0 | 7.0  | 33.0 | 17.0 | 17.0 | 9.0  | 31.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 3.2  | 13.1 | 7.1  | 30.7 | 15.2 | 6.9  | 4.9  | 9.1  |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 1.3  | 0.0  | 1.0  | 0.2  | 0.3  | 0.0  | 1.3  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      | 37.8 |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      |      | D    |      |      |      |      |      |      |      |      |

Generations at Green Valley  
13: El Dorado Hills Blvd. & Francisco Dr.

Cumulative  
Timing Plan: PM

| Intersection                  |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|
| Intersection Delay, s/veh82.2 |  |  |  |  |  |  |  |  |  |  |  |  |
| Intersection LOS F            |  |  |  |  |  |  |  |  |  |  |  |  |

| Movement            | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations |      | ↔    | ↔    |      | ↔    |      | ↔    | ↔    |      | ↔    | ↔    |      |
| Traffic Vol, veh/h  | 3    | 39   | 524  | 12   | 24   | 12   | 458  | 284  | 16   | 7    | 199  | 0    |
| Future Vol, veh/h   | 3    | 39   | 524  | 12   | 24   | 12   | 458  | 284  | 16   | 7    | 199  | 0    |
| Peak Hour Factor    | 0.86 | 0.86 | 0.86 | 0.52 | 0.52 | 0.52 | 0.92 | 0.92 | 0.92 | 0.75 | 0.75 | 0.75 |
| Heavy Vehicles, %   | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow           | 3    | 45   | 609  | 23   | 46   | 23   | 498  | 309  | 17   | 9    | 265  | 0    |
| Number of Lanes     | 0    | 1    | 1    | 0    | 1    | 0    | 1    | 1    | 0    | 1    | 1    | 0    |

| Approach                      | EB    | WB   | NB   | SB   |
|-------------------------------|-------|------|------|------|
| Opposing Approach             | WB    | EB   | SB   | NB   |
| Opposing Lanes                | 1     | 2    | 2    | 2    |
| Conflicting Approach Left SB  |       | NB   | EB   | WB   |
| Conflicting Lanes Left        | 2     | 2    | 2    | 1    |
| Conflicting Approach Right NB |       | SB   | WB   | EB   |
| Conflicting Lanes Right       | 2     | 2    | 1    | 2    |
| HCM Control Delay             | 123.1 | 15.8 | 76.3 | 24.2 |
| HCM LOS                       | F     | C    | F    | C    |

| Lane                   | NBLn1 | NBLn2 | EBLn1 | EBLn2 | WBLn1 | SBLn1 | SBLn2 |
|------------------------|-------|-------|-------|-------|-------|-------|-------|
| Vol Left, %            | 100%  | 0%    | 7%    | 0%    | 25%   | 100%  | 0%    |
| Vol Thru, %            | 0%    | 95%   | 93%   | 0%    | 50%   | 0%    | 100%  |
| Vol Right, %           | 0%    | 5%    | 0%    | 100%  | 25%   | 0%    | 0%    |
| Sign Control           | Stop  | Stop  | Stop  | Stop  | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 458   | 300   | 42    | 524   | 48    | 7     | 199   |
| LT Vol                 | 458   | 0     | 3     | 0     | 12    | 7     | 0     |
| Through Vol            | 0     | 284   | 39    | 0     | 24    | 0     | 199   |
| RT Vol                 | 0     | 16    | 0     | 524   | 12    | 0     | 0     |
| Lane Flow Rate         | 498   | 326   | 49    | 609   | 92    | 9     | 265   |
| Geometry Grp           | 7     | 7     | 7     | 7     | 6     | 7     | 7     |
| Degree of Util (X)     | 1.117 | 0.683 | 0.106 | 1.199 | 0.233 | 0.023 | 0.609 |
| Departure Headway (Hd) | 8.701 | 8.144 | 8.074 | 7.318 | 9.82  | 9.458 | 8.935 |
| Convergence, Y/N       | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   |
| Cap                    | 423   | 447   | 446   | 500   | 368   | 381   | 406   |
| Service Time           | 6.401 | 5.844 | 5.774 | 5.018 | 7.82  | 7.158 | 6.635 |
| HCM Lane V/C Ratio     | 1.177 | 0.729 | 0.11  | 1.218 | 0.25  | 0.024 | 0.653 |
| HCM Control Delay      | 108.9 | 26.6  | 11.7  | 132   | 15.8  | 12.4  | 24.6  |
| HCM Lane LOS           | F     | D     | B     | F     | C     | B     | C     |
| HCM 95th-tile Q        | 16.5  | 5     | 0.4   | 22.2  | 0.9   | 0.1   | 3.9   |

Generations at Green Valley  
 14: El Dorado Hills Blvd. & Harvard Way

Cumulative  
 Timing Plan: PM

















| Lane Group              | WBL  | WBR  | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|
| Lane Group Flow (vph)   | 308  | 288  | 1102 | 227  | 586  |
| v/c Ratio               | 0.70 | 0.48 | 0.75 | 0.58 | 0.28 |
| Control Delay           | 29.0 | 6.0  | 16.0 | 32.3 | 5.8  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 29.0 | 6.0  | 16.0 | 32.3 | 5.8  |
| Queue Length 50th (ft)  | 96   | 2    | 142  | 40   | 44   |
| Queue Length 95th (ft)  | 129  | 23   | 184  | #82  | 68   |
| Internal Link Dist (ft) | 2093 |      | 5028 |      | 7812 |
| Turn Bay Length (ft)    |      |      |      | 190  |      |
| Base Capacity (vph)     | 535  | 674  | 1726 | 389  | 2408 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.58 | 0.43 | 0.64 | 0.58 | 0.24 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
14: El Dorado Hills Blvd. & Harvard Way

Cumulative  
Timing Plan: PM

|                              |  |  |   |  |   |   |
|------------------------------|---|---|--|---|--|--|
| Movement                     | WBL   | WBR   | NBT  | NBR   | SBL  | SBT  |
| Lane Configurations          |  |  | <br> |   | <br> | <br> |
| Traffic Volume (veh/h)       | 222   | 207   | 665  | 250   | 207  | 533  |
| Future Volume (veh/h)        | 222   | 207   | 665  | 250   | 207  | 533  |
| Initial Q (Qb), veh          | 0   | 0   | 0  | 0   | 0  | 0  |
| Ped-Bike Adj(A_pbT)          | 1.00  | 1.00  |  | 1.00  | 1.00   |  |
| Parking Bus, Adj             | 1.00  | 1.00  | 1.00   | 1.00  | 1.00   | 1.00   |
| Work Zone On Approach        | No  |   | No   |   |  | No   |
| Adj Sat Flow, veh/h/ln       | 1870  | 1870  | 1870   | 1870  | 1870   | 1870   |
| Adj Flow Rate, veh/h         | 308   | 288   | 801  | 301   | 227  | 586  |
| Peak Hour Factor             | 0.72  | 0.72  | 0.83   | 0.83  | 0.91   | 0.91   |
| Percent Heavy Veh, %         | 2   | 2   | 2  | 2   | 2  | 2  |
| Cap, veh/h                   | 418   | 372   | 1048   | 393   | 350  | 2128   |
| Arrive On Green              | 0.23  | 0.23  | 0.41   | 0.41  | 0.10   | 0.60   |
| Sat Flow, veh/h              | 1781  | 1585  | 2621   | 949   | 3456   | 3647   |
| Grp Volume(v), veh/h         | 308   | 288   | 563  | 539   | 227  | 586  |
| Grp Sat Flow(s),veh/h/ln     | 1781  | 1585  | 1777   | 1700  | 1728   | 1777   |
| Q Serve(g_s), s              | 7.7   | 8.2   | 13.0   | 13.1  | 3.0  | 3.8  |
| Cycle Q Clear(g_c), s        | 7.7   | 8.2   | 13.0   | 13.1  | 3.0  | 3.8  |
| Prop In Lane                 | 1.00  | 1.00  |  | 0.56  | 1.00   |  |
| Lane Grp Cap(c), veh/h       | 418   | 372   | 736  | 704   | 350  | 2128   |
| V/C Ratio(X)                 | 0.74  | 0.77  | 0.76   | 0.77  | 0.65   | 0.28   |
| Avail Cap(c_a), veh/h        | 593   | 528   | 962  | 920   | 432  | 2663   |
| HCM Platoon Ratio            | 1.00  | 1.00  | 1.00   | 1.00  | 1.00   | 1.00   |
| Upstream Filter(l)           | 1.00  | 1.00  | 1.00   | 1.00  | 1.00   | 1.00   |
| Uniform Delay (d), s/veh     | 17.0  | 17.2  | 12.1   | 12.1  | 20.8   | 4.6  |
| Incr Delay (d2), s/veh       | 2.9   | 4.6   | 2.7  | 2.9   | 2.4  | 0.1  |
| Initial Q Delay(d3),s/veh    | 0.0   | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 3.0   | 0.5   | 3.9  | 3.7   | 1.1  | 0.6  |
| Unsig. Movement Delay, s/veh |   |   |  |   |  |  |
| LnGrp Delay(d),s/veh         | 19.9  | 21.8  | 14.8   | 14.9  | 23.2   | 4.7  |
| LnGrp LOS                    | B   | C   | B  | B   | C  | A  |
| Approach Vol, veh/h          | 596   |   | 1102   |   |  | 813  |
| Approach Delay, s/veh        | 20.8  |   | 14.8   |   |  | 9.9  |
| Approach LOS                 | C   |   | B  |   |  | A  |
| Timer - Assigned Phs         | 1   | 2   |  |   | 6  | 8  |
| Phs Duration (G+Y+Rc), s     | 8.9   | 23.9  |  |   | 32.8   | 15.3   |
| Change Period (Y+Rc), s      | 4.0   | 4.0   |  |   | 4.0  | 4.0  |
| Max Green Setting (Gmax), s  | 6.0   | 26.0  |  |   | 36.0   | 16.0   |
| Max Q Clear Time (g_c+l1), s | 5.0   | 15.1  |  |   | 5.8  | 10.2   |
| Green Ext Time (p_c), s      | 0.1   | 4.8   |  |   | 3.7  | 1.1  |
| <b>Intersection Summary</b>  |   |   |  |   |  |  |
| HCM 6th Ctrl Delay           |   |   | 14.6   |   |  |  |
| HCM 6th LOS                  |   |   | B  |   |  |  |

Generations at Green Valley  
 15: El Dorado Hills Blvd. & Wilson Blvd

Cumulative  
 Timing Plan: PM



| Lane Group              | EBT  | EBR  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 266  | 126  | 46   | 168  | 978  | 13   | 933  |
| v/c Ratio               | 0.78 | 0.24 | 0.12 | 0.64 | 0.48 | 0.11 | 0.62 |
| Control Delay           | 38.5 | 3.2  | 14.4 | 37.2 | 9.2  | 28.4 | 16.4 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 38.5 | 3.2  | 14.4 | 37.2 | 9.2  | 28.4 | 16.4 |
| Queue Length 50th (ft)  | 86   | 0    | 10   | 58   | 93   | 5    | 141  |
| Queue Length 95th (ft)  | #188 | 21   | 30   | #130 | 187  | 19   | 203  |
| Internal Link Dist (ft) | 1459 |      | 233  |      | 3231 |      | 5028 |
| Turn Bay Length (ft)    |      |      |      | 278  |      | 90   |      |
| Base Capacity (vph)     | 387  | 583  | 427  | 276  | 2028 | 123  | 1498 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.69 | 0.22 | 0.11 | 0.61 | 0.48 | 0.11 | 0.62 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
15: El Dorado Hills Blvd. & Wilson Blvd

Cumulative  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      | ↕    | ↗    |      | ↔    |      | ↖    | ↕↔   |      | ↖    | ↕↔   |      |
| Traffic Volume (veh/h)       | 233  | 12   | 116  | 24   | 9    | 9    | 155  | 867  | 33   | 12   | 720  | 138  |
| Future Volume (veh/h)        | 233  | 12   | 116  | 24   | 9    | 9    | 155  | 867  | 33   | 12   | 720  | 138  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 253  | 13   | 126  | 26   | 10   | 10   | 168  | 942  | 36   | 13   | 783  | 150  |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 426  | 15   | 425  | 137  | 53   | 25   | 213  | 1755 | 67   | 23   | 1179 | 226  |
| Arrive On Green              | 0.27 | 0.27 | 0.27 | 0.27 | 0.27 | 0.27 | 0.12 | 0.50 | 0.50 | 0.01 | 0.40 | 0.40 |
| Sat Flow, veh/h              | 1119 | 57   | 1585 | 133  | 197  | 92   | 1781 | 3490 | 133  | 1781 | 2975 | 570  |
| Grp Volume(v), veh/h         | 266  | 0    | 126  | 46   | 0    | 0    | 168  | 480  | 498  | 13   | 468  | 465  |
| Grp Sat Flow(s),veh/h/ln     | 1176 | 0    | 1585 | 422  | 0    | 0    | 1781 | 1777 | 1846 | 1781 | 1777 | 1768 |
| Q Serve(g_s), s              | 0.0  | 0.0  | 3.5  | 0.4  | 0.0  | 0.0  | 5.1  | 10.2 | 10.2 | 0.4  | 12.0 | 12.0 |
| Cycle Q Clear(g_c), s        | 12.4 | 0.0  | 3.5  | 12.8 | 0.0  | 0.0  | 5.1  | 10.2 | 10.2 | 0.4  | 12.0 | 12.0 |
| Prop In Lane                 | 0.95 |      | 1.00 | 0.57 |      | 0.22 | 1.00 |      | 0.07 | 1.00 |      | 0.32 |
| Lane Grp Cap(c), veh/h       | 442  | 0    | 425  | 215  | 0    | 0    | 213  | 893  | 928  | 23   | 704  | 701  |
| V/C Ratio(X)                 | 0.60 | 0.00 | 0.30 | 0.21 | 0.00 | 0.00 | 0.79 | 0.54 | 0.54 | 0.56 | 0.66 | 0.66 |
| Avail Cap(c_a), veh/h        | 496  | 0    | 486  | 269  | 0    | 0    | 289  | 893  | 928  | 128  | 704  | 701  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 19.4 | 0.0  | 16.2 | 16.4 | 0.0  | 0.0  | 23.8 | 9.4  | 9.4  | 27.2 | 13.7 | 13.7 |
| Incr Delay (d2), s/veh       | 1.7  | 0.0  | 0.4  | 0.5  | 0.0  | 0.0  | 9.9  | 2.3  | 2.2  | 19.2 | 4.9  | 4.9  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 3.0  | 0.0  | 1.2  | 0.4  | 0.0  | 0.0  | 2.4  | 3.3  | 3.4  | 0.3  | 4.5  | 4.4  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 21.1 | 0.0  | 16.5 | 16.9 | 0.0  | 0.0  | 33.7 | 11.7 | 11.6 | 46.4 | 18.6 | 18.6 |
| LnGrp LOS                    | C    | A    | B    | B    | A    | A    | C    | B    | B    | D    | B    | B    |
| Approach Vol, veh/h          |      | 392  |      |      | 46   |      |      | 1146 |      |      | 946  |      |
| Approach Delay, s/veh        |      | 19.6 |      |      | 16.9 |      |      | 14.9 |      |      | 19.0 |      |
| Approach LOS                 |      | B    |      |      | B    |      |      | B    |      |      | B    |      |
| Timer - Assigned Phs         | 1    | 2    |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 4.7  | 31.9 |      | 18.9 | 10.6 | 26.0 |      | 18.9 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0  | 27.0 |      | 17.0 | 9.0  | 22.0 |      | 17.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 2.4  | 12.2 |      | 14.4 | 7.1  | 14.0 |      | 14.8 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 5.0  |      | 0.5  | 0.1  | 3.3  |      | 0.0  |      |      |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 17.2 |
| HCM 6th LOS        | B    |

Generations at Green Valley  
 16: El Dorado Hills Blvd. & Lassen Ln/Serrano Pkwy.

Cumulative  
 Timing Plan: PM



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | NBR  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 29   | 63   | 144  | 141  | 102  | 1162 | 455  | 43   | 940  |
| v/c Ratio               | 0.07 | 0.15 | 0.77 | 0.72 | 0.74 | 0.82 | 0.29 | 0.64 | 0.76 |
| Control Delay           | 24.2 | 9.5  | 62.4 | 52.7 | 68.0 | 27.4 | 0.5  | 79.8 | 28.2 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 24.2 | 9.5  | 62.4 | 52.7 | 68.0 | 27.4 | 0.5  | 79.8 | 28.2 |
| Queue Length 50th (ft)  | 11   | 3    | 74   | 65   | 50   | 274  | 0    | 22   | 220  |
| Queue Length 95th (ft)  | 25   | 21   | #140 | #124 | #103 | 311  | 0    | #72  | 285  |
| Internal Link Dist (ft) |      | 321  |      | 6047 |      | 1160 |      |      | 3231 |
| Turn Bay Length (ft)    | 70   |      | 410  |      | 260  |      |      | 100  |      |
| Base Capacity (vph)     | 428  | 433  | 188  | 197  | 157  | 1423 | 1583 | 67   | 1232 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.07 | 0.15 | 0.77 | 0.72 | 0.65 | 0.82 | 0.29 | 0.64 | 0.76 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
16: El Dorado Hills Blvd. & Lassen Ln/Serrano Pkwy.

Cumulative  
Timing Plan: PM

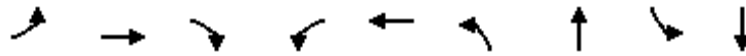
| Movement                          | EBL   | EBT  | EBR   | WBL   | WBT  | WBR  | NBL   | NBT   | NBR   | SBL   | SBT  | SBR  |
|-----------------------------------|-------|------|-------|-------|------|------|-------|-------|-------|-------|------|------|
| Lane Configurations               |       |      |       |       |      |      |       |       |       |       |      |      |
| Traffic Volume (vph)              | 21    | 5    | 41    | 193   | 9    | 24   | 84    | 953   | 373   | 38    | 791  | 36   |
| Future Volume (vph)               | 21    | 5    | 41    | 193   | 9    | 24   | 84    | 953   | 373   | 38    | 791  | 36   |
| Ideal Flow (vphpl)                | 1900  | 1900 | 1900  | 1900  | 1900 | 1900 | 1900  | 1900  | 1900  | 1900  | 1900 | 1900 |
| Total Lost time (s)               | 5.2   | 5.2  |       | 5.2   | 5.2  |      | 3.0   | 5.2   | 4.0   | 3.0   | 5.2  |      |
| Lane Util. Factor                 | 1.00  | 1.00 |       | 0.95  | 0.95 |      | 1.00  | 0.95  | 1.00  | 1.00  | 0.95 |      |
| Frt                               | 1.00  | 0.87 |       | 1.00  | 0.97 |      | 1.00  | 1.00  | 0.85  | 1.00  | 0.99 |      |
| Flt Protected                     | 0.95  | 1.00 |       | 0.95  | 0.97 |      | 0.95  | 1.00  | 1.00  | 0.95  | 1.00 |      |
| Satd. Flow (prot)                 | 1770  | 1614 |       | 1681  | 1654 |      | 1770  | 3539  | 1583  | 1770  | 3516 |      |
| Flt Permitted                     | 0.95  | 1.00 |       | 0.95  | 0.97 |      | 0.95  | 1.00  | 1.00  | 0.95  | 1.00 |      |
| Satd. Flow (perm)                 | 1770  | 1614 |       | 1681  | 1654 |      | 1770  | 3539  | 1583  | 1770  | 3516 |      |
| Peak-hour factor, PHF             | 0.73  | 0.73 | 0.73  | 0.79  | 0.79 | 0.79 | 0.82  | 0.82  | 0.82  | 0.88  | 0.88 | 0.88 |
| Adj. Flow (vph)                   | 29    | 7    | 56    | 244   | 11   | 30   | 102   | 1162  | 455   | 43    | 899  | 41   |
| RTOR Reduction (vph)              | 0     | 43   | 0     | 0     | 12   | 0    | 0     | 0     | 0     | 0     | 4    | 0    |
| Lane Group Flow (vph)             | 29    | 20   | 0     | 144   | 129  | 0    | 102   | 1162  | 455   | 43    | 936  | 0    |
| Turn Type                         | Split | NA   |       | Split | NA   |      | Prot  | NA    | Free  | Prot  | NA   |      |
| Protected Phases                  | 4     | 4    |       | 8     | 8    |      | 5     | 2     |       | 1     | 6    |      |
| Permitted Phases                  |       |      |       |       |      |      |       |       | Free  |       |      |      |
| Actuated Green, G (s)             | 19.0  | 19.0 |       | 8.8   | 8.8  |      | 5.3   | 31.6  | 79.8  | 1.8   | 28.1 |      |
| Effective Green, g (s)            | 19.0  | 19.0 |       | 8.8   | 8.8  |      | 5.3   | 31.6  | 79.8  | 1.8   | 28.1 |      |
| Actuated g/C Ratio                | 0.24  | 0.24 |       | 0.11  | 0.11 |      | 0.07  | 0.40  | 1.00  | 0.02  | 0.35 |      |
| Clearance Time (s)                | 5.2   | 5.2  |       | 5.2   | 5.2  |      | 3.0   | 5.2   |       | 3.0   | 5.2  |      |
| Vehicle Extension (s)             | 0.2   | 0.2  |       | 0.2   | 0.2  |      | 0.2   | 0.2   |       | 0.2   | 0.2  |      |
| Lane Grp Cap (vph)                | 421   | 384  |       | 185   | 182  |      | 117   | 1401  | 1583  | 39    | 1238 |      |
| v/s Ratio Prot                    | 0.02  | 0.01 |       | c0.09 | 0.08 |      | c0.06 | c0.33 |       | 0.02  | 0.27 |      |
| v/s Ratio Perm                    |       |      |       |       |      |      |       |       | c0.29 |       |      |      |
| v/c Ratio                         | 0.07  | 0.05 |       | 0.78  | 0.71 |      | 0.87  | 0.83  | 0.29  | 1.10  | 0.76 |      |
| Uniform Delay, d1                 | 23.5  | 23.5 |       | 34.6  | 34.3 |      | 36.9  | 21.7  | 0.0   | 39.0  | 22.8 |      |
| Progression Factor                | 1.00  | 1.00 |       | 1.00  | 1.00 |      | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 |      |
| Incremental Delay, d2             | 0.3   | 0.3  |       | 26.9  | 20.6 |      | 45.0  | 5.8   | 0.5   | 176.2 | 4.3  |      |
| Delay (s)                         | 23.9  | 23.7 |       | 61.5  | 54.8 |      | 81.9  | 27.5  | 0.5   | 215.2 | 27.2 |      |
| Level of Service                  | C     | C    |       | E     | D    |      | F     | C     | A     | F     | C    |      |
| Approach Delay (s)                |       | 23.8 |       |       | 58.2 |      |       | 23.6  |       |       | 35.4 |      |
| Approach LOS                      |       | C    |       |       | E    |      |       | C     |       |       | D    |      |
| <b>Intersection Summary</b>       |       |      |       |       |      |      |       |       |       |       |      |      |
| HCM 2000 Control Delay            |       |      | 30.5  |       |      |      |       |       |       |       |      | C    |
| HCM 2000 Volume to Capacity ratio |       |      | 0.72  |       |      |      |       |       |       |       |      |      |
| Actuated Cycle Length (s)         |       |      | 79.8  |       |      |      |       |       |       |       | 18.6 |      |
| Intersection Capacity Utilization |       |      | 54.7% |       |      |      |       |       |       |       |      | A    |
| Analysis Period (min)             |       |      | 15    |       |      |      |       |       |       |       |      |      |

c Critical Lane Group



Generations at Green Valley  
 17: El Dorado Hills Blvd. & Saratoga Wy. (North)/Park Dr

Cumulative  
 Timing Plan: PM



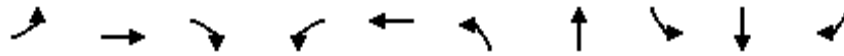
| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL    | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|--------|------|------|------|
| Lane Group Flow (vph)   | 282  | 445  | 652  | 77   | 316  | 504    | 1137 | 151  | 1062 |
| v/c Ratio               | 0.71 | 0.55 | 0.92 | 0.26 | 0.89 | 7.88   | 0.77 | 0.59 | 0.76 |
| Control Delay           | 50.9 | 40.7 | 35.6 | 39.2 | 57.1 | 3133.1 | 39.5 | 54.1 | 31.9 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0    | 0.0  | 0.0  | 0.0  |
| Total Delay             | 50.9 | 40.7 | 35.6 | 39.2 | 57.1 | 3133.1 | 39.5 | 54.1 | 31.9 |
| Queue Length 50th (ft)  | 200  | 151  | 183  | 48   | 162  | ~695   | 265  | 101  | 325  |
| Queue Length 95th (ft)  | #424 | #248 | #471 | 71   | 194  | #901   | 320  | 157  | 366  |
| Internal Link Dist (ft) |      | 1745 |      |      | 332  |        | 961  |      | 1160 |
| Turn Bay Length (ft)    | 145  |      | 145  | 125  |      | 165    |      | 70   |      |
| Base Capacity (vph)     | 399  | 814  | 706  | 482  | 520  | 64     | 1470 | 257  | 1393 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0      | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0      | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0      | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.71 | 0.55 | 0.92 | 0.16 | 0.61 | 7.88   | 0.77 | 0.59 | 0.76 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

---

HCM 6th Edition methodology expects strict NEMA phasing.



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT   | SBR  |
|-------------------------|------|------|------|------|------|------|------|------|-------|------|
| Lane Group Flow (vph)   | 157  | 67   | 141  | 182  | 183  | 963  | 1409 | 49   | 1288  | 305  |
| v/c Ratio               | 0.74 | 0.30 | 0.09 | 0.70 | 0.33 | 0.87 | 0.51 | 0.40 | 0.91  | 0.48 |
| Control Delay           | 71.8 | 51.2 | 0.1  | 62.8 | 21.3 | 47.8 | 18.8 | 63.1 | 53.6  | 9.9  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 47.9  | 2.0  |
| Total Delay             | 71.8 | 51.2 | 0.1  | 62.8 | 21.3 | 47.8 | 18.8 | 63.1 | 101.5 | 11.9 |
| Queue Length 50th (ft)  | 117  | 47   | 0    | 136  | 29   | 350  | 257  | 36   | ~391  | 20   |
| Queue Length 95th (ft)  | #202 | 93   | 0    | 181  | 51   | #441 | 314  | 76   | #498  | 88   |
| Internal Link Dist (ft) |      | 287  |      |      | 264  |      | 780  |      | 105   |      |
| Turn Bay Length (ft)    |      |      |      | 410  |      | 260  |      | 195  |       |      |
| Base Capacity (vph)     | 236  | 248  | 1583 | 390  | 795  | 1119 | 2740 | 124  | 1413  | 635  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 610   | 197  |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    |
| Reduced v/c Ratio       | 0.67 | 0.27 | 0.09 | 0.47 | 0.23 | 0.86 | 0.51 | 0.40 | 1.60  | 0.70 |

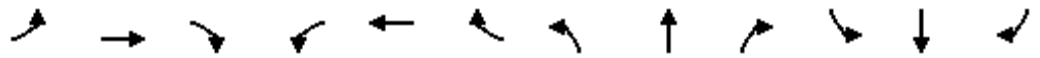
**Intersection Summary**

- ~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Generations at Green Valley

Cumulative

18: Latrobe Rd./El Dorado Hills Blvd. & US-50 WB On&Off-Ramp/Saratoga Way (South) Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 144  | 62   | 130  | 149  | 67   | 83   | 857  | 1042 | 212  | 42   | 1108 | 262  |
| Future Volume (veh/h)        | 144  | 62   | 130  | 149  | 67   | 83   | 857  | 1042 | 212  | 42   | 1108 | 262  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 157  | 67   | 0    | 182  | 82   | 101  | 963  | 1171 | 238  | 49   | 1288 | 0    |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.82 | 0.82 | 0.82 | 0.89 | 0.89 | 0.89 | 0.86 | 0.86 | 0.86 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 188  | 197  |      | 225  | 224  | 200  | 1019 | 2560 | 520  | 59   | 1737 |      |
| Arrive On Green              | 0.11 | 0.11 | 0.00 | 0.13 | 0.13 | 0.13 | 0.29 | 0.60 | 0.60 | 0.03 | 0.34 | 0.00 |
| Sat Flow, veh/h              | 1781 | 1870 | 1585 | 1781 | 1777 | 1585 | 3456 | 4254 | 865  | 1781 | 5106 | 1585 |
| Grp Volume(v), veh/h         | 157  | 67   | 0    | 182  | 82   | 101  | 963  | 937  | 472  | 49   | 1288 | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1870 | 1585 | 1781 | 1777 | 1585 | 1728 | 1702 | 1715 | 1781 | 1702 | 1585 |
| Q Serve(g_s), s              | 10.4 | 4.0  | 0.0  | 11.9 | 5.1  | 7.1  | 32.7 | 18.2 | 18.2 | 3.3  | 26.7 | 0.0  |
| Cycle Q Clear(g_c), s        | 10.4 | 4.0  | 0.0  | 11.9 | 5.1  | 7.1  | 32.7 | 18.2 | 18.2 | 3.3  | 26.7 | 0.0  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 0.50 | 1.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 188  | 197  |      | 225  | 224  | 200  | 1019 | 2048 | 1032 | 59   | 1737 |      |
| V/C Ratio(X)                 | 0.84 | 0.34 |      | 0.81 | 0.37 | 0.50 | 0.95 | 0.46 | 0.46 | 0.83 | 0.74 |      |
| Avail Cap(c_a), veh/h        | 238  | 249  |      | 393  | 392  | 350  | 1037 | 2048 | 1032 | 59   | 1737 |      |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.75 | 0.75 | 0.75 | 0.50 | 0.50 | 0.00 |
| Uniform Delay (d), s/veh     | 52.7 | 49.8 | 0.0  | 51.0 | 48.0 | 48.9 | 41.4 | 13.1 | 13.1 | 57.7 | 34.9 | 0.0  |
| Incr Delay (d2), s/veh       | 18.4 | 1.0  | 0.0  | 6.8  | 1.0  | 2.0  | 13.2 | 0.6  | 1.1  | 35.7 | 1.5  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 5.6  | 1.9  | 0.0  | 5.8  | 2.3  | 3.0  | 15.2 | 6.5  | 6.7  | 2.0  | 10.8 | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 71.1 | 50.8 | 0.0  | 57.8 | 49.0 | 50.9 | 54.6 | 13.7 | 14.2 | 93.4 | 36.4 | 0.0  |
| LnGrp LOS                    | E    | D    |      | E    | D    | D    | D    | B    | B    | F    | D    |      |
| Approach Vol, veh/h          |      | 224  | A    |      | 365  |      |      | 2372 |      |      | 1337 | A    |
| Approach Delay, s/veh        |      | 65.0 |      |      | 53.9 |      |      | 30.4 |      |      | 38.5 |      |
| Approach LOS                 |      | E    |      |      | D    |      |      | C    |      |      | D    |      |
| Timer - Assigned Phs         | 1    | 2    |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 8.0  | 76.2 |      | 16.6 | 39.4 | 44.8 |      | 19.2 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0  | 56.2 |      | 16.0 | 36.0 | 25.5 |      | 26.5 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 5.3  | 20.2 |      | 12.4 | 34.7 | 28.7 |      | 13.9 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 7.6  |      | 0.3  | 0.7  | 0.0  |      | 1.2  |      |      |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 36.7 |
| HCM 6th LOS        | D    |

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.

Generations at Green Valley  
 19: Latrobe Rd. & US-50 EB Off-Ramp/US-50 EB On-Ramp

Cumulative  
 Timing Plan: PM



| Lane Group              | EBR  | WBR  | NBT  | NBR  | SBL   | SBT  |
|-------------------------|------|------|------|------|-------|------|
| Lane Group Flow (vph)   | 912  | 565  | 2076 | 456  | 285   | 1254 |
| v/c Ratio               | 0.83 | 0.35 | 0.69 | 0.44 | 1.18  | 0.26 |
| Control Delay           | 42.5 | 0.6  | 24.1 | 9.5  | 169.2 | 6.3  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  |
| Total Delay             | 42.5 | 0.6  | 24.1 | 9.5  | 169.2 | 6.3  |
| Queue Length 50th (ft)  | 392  | 0    | 507  | 102  | -339  | 100  |
| Queue Length 95th (ft)  | 384  | 0    | 649  | 210  | #461  | 129  |
| Internal Link Dist (ft) |      |      | 468  |      |       | 780  |
| Turn Bay Length (ft)    |      |      |      | 180  | 350   |      |
| Base Capacity (vph)     | 1267 | 1611 | 3011 | 1037 | 242   | 4842 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0     | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0     | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0     | 0    |
| Reduced v/c Ratio       | 0.72 | 0.35 | 0.69 | 0.44 | 1.18  | 0.26 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

---

HCM 6th Edition methodology does not support custom phasing.

Generations at Green Valley  
 20: White Rock Rd/Silva Valley Pkwy & US-50 EB On&Off-Ramp

Cumulative  
 Timing Plan: PM



| Lane Group                  | EBL  | EBR  | NBT  | NBR  | SBT  | SBR  |
|-----------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph)       | 336  | 90   | 434  | 1083 | 828  | 140  |
| v/c Ratio                   | 0.67 | 0.29 | 0.16 | 0.74 | 0.30 | 0.11 |
| Control Delay               | 46.3 | 10.7 | 3.2  | 3.7  | 3.8  | 0.8  |
| Queue Delay                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay                 | 46.3 | 10.7 | 3.2  | 3.7  | 3.8  | 0.8  |
| Queue Length 50th (ft)      | 102  | 0    | 30   | 0    | 66   | 0    |
| Queue Length 95th (ft)      | 148  | 43   | 47   | 28   | 97   | 13   |
| Internal Link Dist (ft)     |      |      | 516  |      | 832  |      |
| Turn Bay Length (ft)        |      | 195  |      |      |      | 500  |
| Base Capacity (vph)         | 596  | 349  | 2730 | 1468 | 2730 | 1253 |
| Starvation Cap Reductn      | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn       | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn         | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio           | 0.56 | 0.26 | 0.16 | 0.74 | 0.30 | 0.11 |
| <b>Intersection Summary</b> |      |      |      |      |      |      |

Generations at Green Valley  
 20: White Rock Rd/Silva Valley Pkwy & US-50 EB On&Off-Ramp

Cumulative  
 Timing Plan: PM



| Movement   | EBL  | EBT  | EBR  | WBL  | WBT | WBR | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|--|------|------|------|------|-----|-----|------|------|------|------|------|------|
| Lane Configurations  | ↖↗   |      | ↖    |      |     |     |      | ↖↗   | ↖    |      | ↖↗   | ↖    |
| Traffic Volume (veh/h)   | 309  | 0    | 83   | 0    | 0   | 0   | 0    | 399  | 996  | 0    | 762  | 129  |
| Future Volume (veh/h)  | 309  | 0    | 83   | 0    | 0   | 0   | 0    | 399  | 996  | 0    | 762  | 129  |
| Initial Q (Qb), veh  | 0    | 0    | 0    |      |     |     | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)  | 1.00 |      | 1.00 |      |     |     | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj   | 1.00 | 1.00 | 1.00 |      |     |     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach  |      | No   |      |      |     |     |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln   | 1870 | 0    | 1870 |      |     |     | 0    | 1870 | 1870 | 0    | 1870 | 1870 |
| Adj Flow Rate, veh/h   | 336  | 0    | 90   |      |     |     | 0    | 434  | 0    | 0    | 828  | 140  |
| Peak Hour Factor   | 0.92 | 0.92 | 0.92 |      |     |     | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %   | 2    | 0    | 2    |      |     |     | 0    | 2    | 2    | 0    | 2    | 2    |
| Cap, veh/h   | 429  | 0    | 197  |      |     |     | 0    | 2812 |      | 0    | 2812 | 1254 |
| Arrive On Green  | 0.12 | 0.00 | 0.12 |      |     |     | 0.00 | 0.79 | 0.00 | 0.00 | 0.79 | 0.79 |
| Sat Flow, veh/h  | 3456 | 0    | 1585 |      |     |     | 0    | 3647 | 1585 | 0    | 3647 | 1585 |
| Grp Volume(v), veh/h   | 336  | 0    | 90   |      |     |     | 0    | 434  | 0    | 0    | 828  | 140  |
| Grp Sat Flow(s),veh/h/ln   | 1728 | 0    | 1585 |      |     |     | 0    | 1777 | 1585 | 0    | 1777 | 1585 |
| Q Serve(g_s), s  | 8.9  | 0.0  | 5.0  |      |     |     | 0.0  | 2.8  | 0.0  | 0.0  | 6.0  | 1.9  |
| Cycle Q Clear(g_c), s  | 8.9  | 0.0  | 5.0  |      |     |     | 0.0  | 2.8  | 0.0  | 0.0  | 6.0  | 1.9  |
| Prop In Lane   | 1.00 |      | 1.00 |      |     |     | 0.00 |      | 1.00 | 0.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h   | 429  | 0    | 197  |      |     |     | 0    | 2812 |      | 0    | 2812 | 1254 |
| V/C Ratio(X)   | 0.78 | 0.00 | 0.46 |      |     |     | 0.00 | 0.15 |      | 0.00 | 0.29 | 0.11 |
| Avail Cap(c_a), veh/h  | 620  | 0    | 284  |      |     |     | 0    | 2812 |      | 0    | 2812 | 1254 |
| HCM Platoon Ratio  | 1.00 | 1.00 | 1.00 |      |     |     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)   | 1.00 | 0.00 | 1.00 |      |     |     | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh   | 40.3 | 0.0  | 38.5 |      |     |     | 0.0  | 2.3  | 0.0  | 0.0  | 2.7  | 2.3  |
| Incr Delay (d2), s/veh   | 4.1  | 0.0  | 1.7  |      |     |     | 0.0  | 0.1  | 0.0  | 0.0  | 0.3  | 0.2  |
| Initial Q Delay(d3),s/veh  | 0.0  | 0.0  | 0.0  |      |     |     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln   | 4.0  | 0.0  | 2.0  |      |     |     | 0.0  | 0.5  | 0.0  | 0.0  | 1.1  | 0.4  |
| Unsig. Movement Delay, s/veh   |      |      |      |      |     |     |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh   | 44.4 | 0.0  | 40.2 |      |     |     | 0.0  | 2.5  | 0.0  | 0.0  | 3.0  | 2.4  |
| LnGrp LOS  | D    | A    | D    |      |     |     | A    | A    |      | A    | A    | A    |
| Approach Vol, veh/h  |      | 426  |      |      |     |     |      | 434  | A    |      | 968  |      |
| Approach Delay, s/veh  |      | 43.5 |      |      |     |     |      | 2.5  |      |      | 2.9  |      |
| Approach LOS   |      | D    |      |      |     |     |      | A    |      |      | A    |      |
| Timer - Assigned Phs   |      | 2    |      | 4    |     |     |      | 6    |      |      |      |      |
| Phs Duration (G+Y+Rc), s   |      | 79.0 |      | 15.8 |     |     |      | 79.0 |      |      |      |      |
| Change Period (Y+Rc), s  |      | 4.0  |      | 4.0  |     |     |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 75.0 |      | 17.0 |     |     |      | 47.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s   |      | 4.8  |      | 10.9 |     |     |      | 8.0  |      |      |      |      |
| Green Ext Time (p_c), s  |      | 2.8  |      | 0.8  |     |     |      | 6.6  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |     |     |      |      |      |      |      |      |
| HCM 6th Ctrl Delay   |      |      | 12.2 |      |     |     |      |      |      |      |      |      |
| HCM 6th LOS  |      |      | B    |      |     |     |      |      |      |      |      |      |
| <b>Notes</b>   |      |      |      |      |     |     |      |      |      |      |      |      |
| Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay. |      |      |      |      |     |     |      |      |      |      |      |      |



Generations at Green Valley  
 21: Silva Valley Pkwy & US-50 WB On-Ramp/US-50 WB Off-Ramp

Cumulative  
 Timing Plan: PM



| Lane Group              | WBL  | WBR  | NBT  | NBR  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 537  | 209  | 692  | 79   | 415  | 262  |
| v/c Ratio               | 0.93 | 0.31 | 0.33 | 0.08 | 0.20 | 0.25 |
| Control Delay           | 56.5 | 3.8  | 11.0 | 2.4  | 9.9  | 1.9  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.5  |
| Total Delay             | 56.5 | 3.8  | 11.0 | 2.4  | 9.9  | 2.4  |
| Queue Length 50th (ft)  | 321  | 0    | 113  | 0    | 61   | 0    |
| Queue Length 95th (ft)  | #518 | 38   | 148  | 19   | 86   | 32   |
| Internal Link Dist (ft) |      |      | 832  |      | 250  |      |
| Turn Bay Length (ft)    |      |      |      |      |      |      |
| Base Capacity (vph)     | 613  | 699  | 2093 | 969  | 2093 | 1043 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 451  |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.88 | 0.30 | 0.33 | 0.08 | 0.20 | 0.44 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
 21: Silva Valley Pkwy & US-50 WB On-Ramp/US-50 WB Off-Ramp

Cumulative  
 Timing Plan: PM



| Movement                     | EBL | EBT  | EBR | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|-----|------|-----|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |     |      |     | ↖    | ↗    | ↗    |      | ↖    | ↗    |      | ↖    | ↗    |
| Traffic Volume (veh/h)       | 0   | 0    | 0   | 494  | 0    | 192  | 0    | 637  | 73   | 0    | 382  | 241  |
| Future Volume (veh/h)        | 0   | 0    | 0   | 494  | 0    | 192  | 0    | 637  | 73   | 0    | 382  | 241  |
| Initial Q (Qb), veh          |     |      |     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |     |      |     | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             |     |      |     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |     |      |     | No   |      |      | No   |      |      | No   |      |      |
| Adj Sat Flow, veh/h/ln       |     |      |     | 1870 | 1870 | 1870 | 0    | 1870 | 1870 | 0    | 1870 | 1870 |
| Adj Flow Rate, veh/h         |     |      |     | 537  | 0    | 209  | 0    | 692  | 0    | 0    | 415  | 262  |
| Peak Hour Factor             |     |      |     | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         |     |      |     | 2    | 2    | 2    | 0    | 2    | 2    | 0    | 2    | 2    |
| Cap, veh/h                   |     |      |     | 576  | 604  | 512  | 0    | 2114 |      | 0    | 2114 | 943  |
| Arrive On Green              |     |      |     | 0.32 | 0.00 | 0.32 | 0.00 | 0.59 | 0.00 | 0.00 | 0.59 | 0.59 |
| Sat Flow, veh/h              |     |      |     | 1781 | 1870 | 1585 | 0    | 3647 | 1585 | 0    | 3647 | 1585 |
| Grp Volume(v), veh/h         |     |      |     | 537  | 0    | 209  | 0    | 692  | 0    | 0    | 415  | 262  |
| Grp Sat Flow(s),veh/h/ln     |     |      |     | 1781 | 1870 | 1585 | 0    | 1777 | 1585 | 0    | 1777 | 1585 |
| Q Serve(g_s), s              |     |      |     | 28.5 | 0.0  | 10.0 | 0.0  | 9.6  | 0.0  | 0.0  | 5.2  | 7.8  |
| Cycle Q Clear(g_c), s        |     |      |     | 28.5 | 0.0  | 10.0 | 0.0  | 9.6  | 0.0  | 0.0  | 5.2  | 7.8  |
| Prop In Lane                 |     |      |     | 1.00 |      | 1.00 | 0.00 |      | 1.00 | 0.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       |     |      |     | 576  | 604  | 512  | 0    | 2114 |      | 0    | 2114 | 943  |
| V/C Ratio(X)                 |     |      |     | 0.93 | 0.00 | 0.41 | 0.00 | 0.33 |      | 0.00 | 0.20 | 0.28 |
| Avail Cap(c_a), veh/h        |     |      |     | 621  | 652  | 553  | 0    | 2114 |      | 0    | 2114 | 943  |
| HCM Platoon Ratio            |     |      |     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           |     |      |     | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     |     |      |     | 32.0 | 0.0  | 25.7 | 0.0  | 9.9  | 0.0  | 0.0  | 9.1  | 9.6  |
| Incr Delay (d2), s/veh       |     |      |     | 20.4 | 0.0  | 0.5  | 0.0  | 0.4  | 0.0  | 0.0  | 0.2  | 0.7  |
| Initial Q Delay(d3),s/veh    |     |      |     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     |     |      |     | 15.1 | 0.0  | 3.8  | 0.0  | 3.3  | 0.0  | 0.0  | 1.8  | 2.5  |
| Unsig. Movement Delay, s/veh |     |      |     |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         |     |      |     | 52.4 | 0.0  | 26.3 | 0.0  | 10.4 | 0.0  | 0.0  | 9.3  | 10.3 |
| LnGrp LOS                    |     |      |     | D    | A    | C    | A    | B    |      | A    | A    | B    |
| Approach Vol, veh/h          |     |      |     |      | 746  |      |      | 692  | A    |      | 677  |      |
| Approach Delay, s/veh        |     |      |     |      | 45.1 |      |      | 10.4 |      |      | 9.7  |      |
| Approach LOS                 |     |      |     |      | D    |      |      | B    |      |      | A    |      |
| Timer - Assigned Phs         |     | 2    |     |      |      | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |     | 62.0 |     |      |      | 62.0 |      | 35.5 |      |      |      |      |
| Change Period (Y+Rc), s      |     | 4.0  |     |      |      | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |     | 58.0 |     |      |      | 33.0 |      | 34.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |     | 11.6 |     |      |      | 9.8  |      | 30.5 |      |      |      |      |
| Green Ext Time (p_c), s      |     | 4.9  |     |      |      | 3.4  |      | 1.0  |      |      |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 22.4 |
| HCM 6th LOS        | C    |

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Generations at Green Valley  
 22: Silva Valley Pkwy & Tong Rd

Cumulative  
 Timing Plan: PM



| Lane Group              | EBT  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 193  | 311  | 67   | 966  | 91   | 484  |
| v/c Ratio               | 0.43 | 0.74 | 0.33 | 0.70 | 0.57 | 0.33 |
| Control Delay           | 15.7 | 25.8 | 25.9 | 16.1 | 40.5 | 11.3 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 15.7 | 25.8 | 25.9 | 16.1 | 40.5 | 11.3 |
| Queue Length 50th (ft)  | 39   | 67   | 19   | 121  | 27   | 52   |
| Queue Length 95th (ft)  | 83   | #168 | 49   | 182  | #84  | 85   |
| Internal Link Dist (ft) | 278  | 432  |      | 250  |      | 4417 |
| Turn Bay Length (ft)    |      |      | 200  |      | 200  |      |
| Base Capacity (vph)     | 540  | 506  | 201  | 1441 | 160  | 1484 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.36 | 0.61 | 0.33 | 0.67 | 0.57 | 0.33 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
22: Silva Valley Pkwy & Tong Rd

Cumulative  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      | ↕    |      |      | ↕    |      | ↗    | ↕    |      | ↗    | ↕    |      |
| Traffic Volume (veh/h)       | 74   | 78   | 26   | 171  | 36   | 79   | 62   | 784  | 105  | 84   | 409  | 36   |
| Future Volume (veh/h)        | 74   | 78   | 26   | 171  | 36   | 79   | 62   | 784  | 105  | 84   | 409  | 36   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 80   | 85   | 28   | 186  | 39   | 86   | 67   | 852  | 114  | 91   | 445  | 39   |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 265  | 244  | 64   | 370  | 67   | 110  | 95   | 1158 | 155  | 115  | 1254 | 109  |
| Arrive On Green              | 0.26 | 0.26 | 0.26 | 0.26 | 0.26 | 0.26 | 0.05 | 0.37 | 0.37 | 0.06 | 0.38 | 0.38 |
| Sat Flow, veh/h              | 518  | 950  | 249  | 858  | 262  | 428  | 1781 | 3150 | 421  | 1781 | 3307 | 289  |
| Grp Volume(v), veh/h         | 193  | 0    | 0    | 311  | 0    | 0    | 67   | 481  | 485  | 91   | 238  | 246  |
| Grp Sat Flow(s),veh/h/ln     | 1716 | 0    | 0    | 1548 | 0    | 0    | 1781 | 1777 | 1794 | 1781 | 1777 | 1818 |
| Q Serve(g_s), s              | 0.0  | 0.0  | 0.0  | 3.5  | 0.0  | 0.0  | 1.4  | 9.1  | 9.1  | 1.9  | 3.7  | 3.7  |
| Cycle Q Clear(g_c), s        | 3.4  | 0.0  | 0.0  | 6.9  | 0.0  | 0.0  | 1.4  | 9.1  | 9.1  | 1.9  | 3.7  | 3.7  |
| Prop In Lane                 | 0.41 |      | 0.15 | 0.60 |      | 0.28 | 1.00 |      | 0.23 | 1.00 |      | 0.16 |
| Lane Grp Cap(c), veh/h       | 573  | 0    | 0    | 547  | 0    | 0    | 95   | 653  | 660  | 115  | 674  | 689  |
| V/C Ratio(X)                 | 0.34 | 0.00 | 0.00 | 0.57 | 0.00 | 0.00 | 0.71 | 0.74 | 0.74 | 0.79 | 0.35 | 0.36 |
| Avail Cap(c_a), veh/h        | 814  | 0    | 0    | 769  | 0    | 0    | 231  | 829  | 837  | 185  | 783  | 801  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 11.9 | 0.0  | 0.0  | 13.0 | 0.0  | 0.0  | 18.0 | 10.6 | 10.6 | 17.8 | 8.6  | 8.6  |
| Incr Delay (d2), s/veh       | 0.3  | 0.0  | 0.0  | 0.9  | 0.0  | 0.0  | 9.3  | 2.6  | 2.5  | 11.4 | 0.3  | 0.3  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 1.1  | 0.0  | 0.0  | 2.1  | 0.0  | 0.0  | 0.7  | 2.6  | 2.6  | 1.0  | 0.9  | 0.9  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 12.3 | 0.0  | 0.0  | 14.0 | 0.0  | 0.0  | 27.3 | 13.1 | 13.1 | 29.2 | 8.9  | 8.9  |
| LnGrp LOS                    | B    | A    | A    | B    | A    | A    | C    | B    | B    | C    | A    | A    |
| Approach Vol, veh/h          |      | 193  |      |      | 311  |      |      | 1033 |      |      | 575  |      |
| Approach Delay, s/veh        |      | 12.3 |      |      | 14.0 |      |      | 14.0 |      |      | 12.1 |      |
| Approach LOS                 |      | B    |      |      | B    |      |      | B    |      |      | B    |      |
| Timer - Assigned Phs         | 1    | 2    |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 6.5  | 18.2 |      | 13.9 | 6.0  | 18.6 |      | 13.9 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0  | 18.0 |      | 16.0 | 5.0  | 17.0 |      | 16.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 3.9  | 11.1 |      | 5.4  | 3.4  | 5.7  |      | 8.9  |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 3.1  |      | 0.7  | 0.0  | 2.0  |      | 1.1  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      | 13.3 |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      |      | B    |      |      |      |      |      |      |      |      |

Generations at Green Valley  
 23: Serrano Pkwy. & Silva Valley Pkwy.

Cumulative  
 Timing Plan: PM



| Lane Group              | EBL  | EBT  | WBL   | WBT  | NBL  | NBT  | NBR  | SBL   | SBT  |
|-------------------------|------|------|-------|------|------|------|------|-------|------|
| Lane Group Flow (vph)   | 77   | 324  | 345   | 365  | 108  | 637  | 483  | 242   | 429  |
| v/c Ratio               | 0.40 | 0.54 | 1.17  | 0.37 | 0.73 | 0.64 | 0.64 | 1.10  | 0.38 |
| Control Delay           | 38.7 | 30.2 | 139.9 | 11.4 | 65.9 | 25.9 | 7.9  | 124.8 | 19.2 |
| Queue Delay             | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  |
| Total Delay             | 38.7 | 30.2 | 139.9 | 11.4 | 65.9 | 25.9 | 7.9  | 124.8 | 19.2 |
| Queue Length 50th (ft)  | 32   | 66   | ~190  | 28   | 49   | 128  | 16   | ~126  | 73   |
| Queue Length 95th (ft)  | 69   | 96   | #387  | 66   | #80  | 123  | 8    | #233  | 95   |
| Internal Link Dist (ft) |      | 6047 |       | 1303 |      | 4417 |      |       | 4456 |
| Turn Bay Length (ft)    | 155  |      | 330   |      | 250  |      | 180  | 150   |      |
| Base Capacity (vph)     | 220  | 1166 | 294   | 1343 | 147  | 1295 | 854  | 220   | 1430 |
| Starvation Cap Reductn  | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0     | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0     | 0    |
| Storage Cap Reductn     | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0     | 0    |
| Reduced v/c Ratio       | 0.35 | 0.28 | 1.17  | 0.27 | 0.73 | 0.49 | 0.57 | 1.10  | 0.30 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
23: Serrano Pkwy. & Silva Valley Pkwy.

Cumulative  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          | ↖    | ↗    |      | ↖    | ↗    |      | ↖    | ↗    | ↗    | ↖    | ↗    |      |
| Traffic Volume (veh/h)       | 61   | 218  | 38   | 307  | 127  | 198  | 68   | 401  | 304  | 184  | 295  | 31   |
| Future Volume (veh/h)        | 61   | 218  | 38   | 307  | 127  | 198  | 68   | 401  | 304  | 184  | 295  | 31   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 77   | 276  | 48   | 345  | 143  | 222  | 108  | 637  | 0    | 242  | 388  | 41   |
| Peak Hour Factor             | 0.79 | 0.79 | 0.79 | 0.89 | 0.89 | 0.89 | 0.63 | 0.63 | 0.63 | 0.76 | 0.76 | 0.76 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 99   | 462  | 79   | 325  | 496  | 442  | 138  | 871  |      | 244  | 988  | 104  |
| Arrive On Green              | 0.06 | 0.15 | 0.15 | 0.18 | 0.28 | 0.28 | 0.08 | 0.25 | 0.00 | 0.14 | 0.30 | 0.30 |
| Sat Flow, veh/h              | 1781 | 3033 | 521  | 1781 | 1777 | 1585 | 1781 | 3554 | 1585 | 1781 | 3245 | 341  |
| Grp Volume(v), veh/h         | 77   | 160  | 164  | 345  | 143  | 222  | 108  | 637  | 0    | 242  | 211  | 218  |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1777 | 1777 | 1781 | 1777 | 1585 | 1781 | 1777 | 1585 | 1781 | 1777 | 1809 |
| Q Serve(g_s), s              | 2.8  | 5.5  | 5.7  | 12.0 | 4.1  | 7.7  | 3.9  | 10.8 | 0.0  | 8.9  | 6.2  | 6.2  |
| Cycle Q Clear(g_c), s        | 2.8  | 5.5  | 5.7  | 12.0 | 4.1  | 7.7  | 3.9  | 10.8 | 0.0  | 8.9  | 6.2  | 6.2  |
| Prop In Lane                 | 1.00 |      | 0.29 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 0.19 |
| Lane Grp Cap(c), veh/h       | 99   | 270  | 270  | 325  | 496  | 442  | 138  | 871  |      | 244  | 541  | 551  |
| V/C Ratio(X)                 | 0.78 | 0.59 | 0.61 | 1.06 | 0.29 | 0.50 | 0.78 | 0.73 |      | 0.99 | 0.39 | 0.39 |
| Avail Cap(c_a), veh/h        | 244  | 649  | 649  | 325  | 730  | 651  | 163  | 1428 |      | 244  | 795  | 809  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 30.6 | 26.0 | 26.0 | 26.9 | 18.6 | 19.9 | 29.8 | 22.8 | 0.0  | 28.3 | 18.0 | 18.1 |
| Incr Delay (d2), s/veh       | 12.1 | 2.1  | 2.2  | 66.7 | 0.3  | 0.9  | 18.7 | 1.2  | 0.0  | 55.2 | 0.5  | 0.5  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 1.4  | 2.3  | 2.3  | 10.6 | 1.5  | 2.6  | 2.2  | 4.1  | 0.0  | 7.2  | 2.3  | 2.3  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 42.7 | 28.0 | 28.2 | 93.6 | 18.9 | 20.7 | 48.4 | 24.0 | 0.0  | 83.5 | 18.5 | 18.5 |
| LnGrp LOS                    | D    | C    | C    | F    | B    | C    | D    | C    |      | F    | B    | B    |
| Approach Vol, veh/h          |      | 401  |      |      | 710  |      |      | 745  | A    |      | 671  |      |
| Approach Delay, s/veh        |      | 30.9 |      |      | 55.8 |      |      | 27.6 |      |      | 41.9 |      |
| Approach LOS                 |      | C    |      |      | E    |      |      | C    |      |      | D    |      |
| Timer - Assigned Phs         | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 13.0 | 21.4 | 16.0 | 15.3 | 9.1  | 25.3 | 7.7  | 23.6 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 5.3  | 4.0  | 5.3  | 4.0  | 5.3  | 4.0  | 5.3  |      |      |      |      |
| Max Green Setting (Gmax), s  | 9.0  | 26.4 | 12.0 | 24.0 | 6.0  | 29.4 | 9.0  | 27.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 10.9 | 12.8 | 14.0 | 7.7  | 5.9  | 8.2  | 4.8  | 9.7  |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 3.3  | 0.0  | 1.5  | 0.0  | 2.2  | 0.0  | 1.8  |      |      |      |      |

Intersection Summary

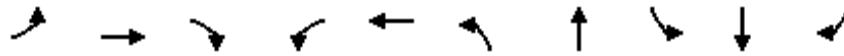
|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 39.8 |
| HCM 6th LOS        | D    |

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Generations at Green Valley  
24: Silva Valley Pkwy. & Harvard Way

Cumulative  
Timing Plan: PM



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 146  | 28   | 426  | 38   | 38   | 329  | 364  | 9    | 264  | 83   |
| v/c Ratio               | 0.61 | 0.08 | 0.67 | 0.24 | 0.13 | 0.63 | 0.35 | 0.06 | 0.37 | 0.17 |
| Control Delay           | 39.4 | 18.7 | 8.3  | 29.6 | 14.5 | 25.2 | 9.9  | 27.0 | 20.0 | 0.8  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 39.4 | 18.7 | 8.3  | 29.6 | 14.5 | 25.2 | 9.9  | 27.0 | 20.0 | 0.8  |
| Queue Length 50th (ft)  | 33   | 6    | 0    | 9    | 4    | 60   | 26   | 2    | 28   | 0    |
| Queue Length 95th (ft)  | #72  | 16   | 0    | 36   | 22   | #254 | 185  | 14   | 71   | 0    |
| Internal Link Dist (ft) |      | 2093 |      |      | 328  |      | 4456 |      | 402  |      |
| Turn Bay Length (ft)    | 60   |      |      |      |      | 200  |      | 150  |      | 250  |
| Base Capacity (vph)     | 239  | 749  | 891  | 158  | 628  | 593  | 1166 | 158  | 1344 | 727  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.61 | 0.04 | 0.48 | 0.24 | 0.06 | 0.55 | 0.31 | 0.06 | 0.20 | 0.11 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Generations at Green Valley  
24: Silva Valley Pkwy. & Harvard Way

Cumulative  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 83   | 16   | 243  | 30   | 15   | 15   | 296  | 309  | 19   | 7    | 214  | 67   |
| Future Volume (veh/h)        | 83   | 16   | 243  | 30   | 15   | 15   | 296  | 309  | 19   | 7    | 214  | 67   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 146  | 28   | 426  | 38   | 19   | 19   | 329  | 343  | 21   | 9    | 264  | 83   |
| Peak Hour Factor             | 0.57 | 0.57 | 0.57 | 0.78 | 0.78 | 0.78 | 0.90 | 0.90 | 0.90 | 0.81 | 0.81 | 0.81 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 185  | 569  | 482  | 58   | 200  | 200  | 393  | 601  | 37   | 17   | 475  | 212  |
| Arrive On Green              | 0.10 | 0.30 | 0.30 | 0.03 | 0.23 | 0.23 | 0.22 | 0.34 | 0.34 | 0.01 | 0.13 | 0.13 |
| Sat Flow, veh/h              | 1781 | 1870 | 1585 | 1781 | 858  | 858  | 1781 | 1744 | 107  | 1781 | 3554 | 1585 |
| Grp Volume(v), veh/h         | 146  | 28   | 426  | 38   | 0    | 38   | 329  | 0    | 364  | 9    | 264  | 83   |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1870 | 1585 | 1781 | 0    | 1716 | 1781 | 0    | 1851 | 1781 | 1777 | 1585 |
| Q Serve(g_s), s              | 4.1  | 0.5  | 13.2 | 1.1  | 0.0  | 0.9  | 9.1  | 0.0  | 8.3  | 0.3  | 3.6  | 2.5  |
| Cycle Q Clear(g_c), s        | 4.1  | 0.5  | 13.2 | 1.1  | 0.0  | 0.9  | 9.1  | 0.0  | 8.3  | 0.3  | 3.6  | 2.5  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 0.50 | 1.00 |      | 0.06 | 1.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 185  | 569  | 482  | 58   | 0    | 399  | 393  | 0    | 638  | 17   | 475  | 212  |
| V/C Ratio(X)                 | 0.79 | 0.05 | 0.88 | 0.66 | 0.00 | 0.10 | 0.84 | 0.00 | 0.57 | 0.54 | 0.56 | 0.39 |
| Avail Cap(c_a), veh/h        | 207  | 651  | 551  | 138  | 0    | 531  | 516  | 0    | 1002 | 138  | 1168 | 521  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 22.6 | 12.7 | 17.1 | 24.7 | 0.0  | 15.6 | 19.3 | 0.0  | 13.8 | 25.5 | 21.0 | 20.5 |
| Incr Delay (d2), s/veh       | 16.6 | 0.0  | 14.3 | 11.9 | 0.0  | 0.1  | 9.1  | 0.0  | 0.8  | 24.3 | 1.0  | 1.2  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 2.4  | 0.2  | 6.2  | 0.6  | 0.0  | 0.3  | 4.1  | 0.0  | 2.8  | 0.2  | 1.3  | 0.9  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 39.2 | 12.7 | 31.4 | 36.6 | 0.0  | 15.7 | 28.4 | 0.0  | 14.6 | 49.8 | 22.0 | 21.7 |
| LnGrp LOS                    | D    | B    | C    | D    | A    | B    | C    | A    | B    | D    | C    | C    |
| Approach Vol, veh/h          |      | 600  |      |      | 76   |      |      | 693  |      |      | 356  |      |
| Approach Delay, s/veh        |      | 32.4 |      |      | 26.1 |      |      | 21.2 |      |      | 22.6 |      |
| Approach LOS                 |      | C    |      |      | C    |      |      | C    |      |      | C    |      |
| Timer - Assigned Phs         | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 4.5  | 21.8 | 5.7  | 19.7 | 15.4 | 10.9 | 9.4  | 16.0 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0  | 28.0 | 4.0  | 18.0 | 15.0 | 17.0 | 6.0  | 16.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 2.3  | 10.3 | 3.1  | 15.2 | 11.1 | 5.6  | 6.1  | 2.9  |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 1.8  | 0.0  | 0.5  | 0.4  | 1.3  | 0.0  | 0.1  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 25.6 |      |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      | C    |      |      |      |      |      |      |      |      |      |



Generations at Green Valley  
 25: Silva Valley Pkwy. & Charter Way/Appian Way

Cumulative  
 Timing Plan: PM

|                                |  |  |  |  |  |  |  |  |  |  |  |  |
|--------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|
| Intersection                   |  |  |  |  |  |  |  |  |  |  |  |  |
| Intersection Delay, s/veh 14.6 |  |  |  |  |  |  |  |  |  |  |  |  |
| Intersection LOS B             |  |  |  |  |  |  |  |  |  |  |  |  |

| Movement            | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations |      | ↕    |      |      | ↕    |      |      | ↕    |      |      | ↕    |      |
| Traffic Vol, veh/h  | 20   | 1    | 44   | 74   | 0    | 77   | 52   | 256  | 64   | 93   | 188  | 30   |
| Future Vol, veh/h   | 20   | 1    | 44   | 74   | 0    | 77   | 52   | 256  | 64   | 93   | 188  | 30   |
| Peak Hour Factor    | 0.79 | 0.79 | 0.79 | 0.88 | 0.88 | 0.88 | 0.86 | 0.86 | 0.86 | 0.83 | 0.83 | 0.83 |
| Heavy Vehicles, %   | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow           | 25   | 1    | 56   | 84   | 0    | 88   | 60   | 298  | 74   | 112  | 227  | 36   |
| Number of Lanes     | 0    | 1    | 0    | 0    | 1    | 0    | 0    | 1    | 0    | 0    | 1    | 0    |

| Approach                      | EB   | WB   | NB   | SB   |
|-------------------------------|------|------|------|------|
| Opposing Approach             | WB   | EB   | SB   | NB   |
| Opposing Lanes                | 1    | 1    | 1    | 1    |
| Conflicting Approach Left SB  |      | NB   | EB   | WB   |
| Conflicting Lanes Left        | 1    | 1    | 1    | 1    |
| Conflicting Approach Right NB |      | SB   | WB   | EB   |
| Conflicting Lanes Right       | 1    | 1    | 1    | 1    |
| HCM Control Delay             | 10.1 | 11.4 | 16.5 | 14.9 |
| HCM LOS                       | B    | B    | C    | B    |

| Lane                   | NBLn1 | EBLn1 | WBLn1 | SBLn1 |
|------------------------|-------|-------|-------|-------|
| Vol Left, %            | 14%   | 31%   | 49%   | 30%   |
| Vol Thru, %            | 69%   | 2%    | 0%    | 60%   |
| Vol Right, %           | 17%   | 68%   | 51%   | 10%   |
| Sign Control           | Stop  | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 372   | 65    | 151   | 311   |
| LT Vol                 | 52    | 20    | 74    | 93    |
| Through Vol            | 256   | 1     | 0     | 188   |
| RT Vol                 | 64    | 44    | 77    | 30    |
| Lane Flow Rate         | 433   | 82    | 172   | 375   |
| Geometry Grp           | 1     | 1     | 1     | 1     |
| Degree of Util (X)     | 0.624 | 0.138 | 0.284 | 0.556 |
| Departure Headway (Hd) | 5.197 | 6.057 | 5.963 | 5.346 |
| Convergence, Y/N       | Yes   | Yes   | Yes   | Yes   |
| Cap                    | 692   | 588   | 601   | 674   |
| Service Time           | 3.244 | 4.132 | 4.027 | 3.394 |
| HCM Lane V/C Ratio     | 0.626 | 0.139 | 0.286 | 0.556 |
| HCM Control Delay      | 16.5  | 10.1  | 11.4  | 14.9  |
| HCM Lane LOS           | C     | B     | B     | B     |
| HCM 95th-tile Q        | 4.4   | 0.5   | 1.2   | 3.4   |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0    |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↔    |      |      | ↑    |      | ↗    |
| Traffic Vol, veh/h       | 714  | 0    | 0    | 480  | 0    | 0    |
| Future Vol, veh/h        | 714  | 0    | 0    | 480  | 0    | 0    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | 0    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 776  | 0    | 0    | 522  | 0    | 0    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |   |       |
|----------------------|--------|--------|--------|---|---|-------|
| Conflicting Flow All | 0      | 0      | -      | - | - | 776   |
| Stage 1              | -      | -      | -      | - | - | -     |
| Stage 2              | -      | -      | -      | - | - | -     |
| Critical Hdwy        | -      | -      | -      | - | - | 6.22  |
| Critical Hdwy Stg 1  | -      | -      | -      | - | - | -     |
| Critical Hdwy Stg 2  | -      | -      | -      | - | - | -     |
| Follow-up Hdwy       | -      | -      | -      | - | - | 3.318 |
| Pot Cap-1 Maneuver   | -      | -      | 0      | - | 0 | 397   |
| Stage 1              | -      | -      | 0      | - | 0 | -     |
| Stage 2              | -      | -      | 0      | - | 0 | -     |
| Platoon blocked, %   | -      | -      | -      | - | - | -     |
| Mov Cap-1 Maneuver   | -      | -      | -      | - | - | 397   |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | - | -     |
| Stage 1              | -      | -      | -      | - | - | -     |
| Stage 2              | -      | -      | -      | - | - | -     |

| Approach             | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 0  |
| HCM LOS              |    |    | A  |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h)      | -     | -   | -   | -   |
| HCM Lane V/C Ratio    | -     | -   | -   | -   |
| HCM Control Delay (s) | 0     | -   | -   | -   |
| HCM Lane LOS          | A     | -   | -   | -   |
| HCM 95th %tile Q(veh) | -     | -   | -   | -   |

Generations at Green Valley  
 27: Site Dwy. Full & Green Valley Rd.

Cumulative  
 Timing Plan: PM



| Lane Group                  | EBT  | WBT  |
|-----------------------------|------|------|
| Lane Group Flow (vph)       | 776  | 522  |
| v/c Ratio                   | 0.66 | 0.44 |
| Control Delay               | 7.5  | 4.8  |
| Queue Delay                 | 0.0  | 0.0  |
| Total Delay                 | 7.5  | 4.8  |
| Queue Length 50th (ft)      | 70   | 38   |
| Queue Length 95th (ft)      | 137  | 72   |
| Internal Link Dist (ft)     | 1398 | 2852 |
| Turn Bay Length (ft)        |      |      |
| Base Capacity (vph)         | 1326 | 1326 |
| Starvation Cap Reductn      | 0    | 0    |
| Spillback Cap Reductn       | 0    | 0    |
| Storage Cap Reductn         | 0    | 0    |
| Reduced v/c Ratio           | 0.59 | 0.39 |
| <b>Intersection Summary</b> |      |      |

Generations at Green Valley  
27: Site Dwy. Full & Green Valley Rd.

Cumulative  
Timing Plan: PM



| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 714  | 0    | 0    | 480  | 0    | 0    |
| Future Volume (veh/h)        | 714  | 0    | 0    | 480  | 0    | 0    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 776  | 0    | 0    | 522  | 0    | 0    |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 1320 | 0    | 530  | 1320 | 13   | 12   |
| Arrive On Green              | 0.71 | 0.00 | 0.00 | 0.71 | 0.00 | 0.00 |
| Sat Flow, veh/h              | 1870 | 0    | 695  | 1870 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 776  | 0    | 0    | 522  | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1870 | 0    | 695  | 1870 | 1781 | 1585 |
| Q Serve(g_s), s              | 2.8  | 0.0  | 0.0  | 1.5  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 2.8  | 0.0  | 0.0  | 1.5  | 0.0  | 0.0  |
| Prop In Lane                 |      | 0.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 1320 | 0    | 530  | 1320 | 13   | 12   |
| V/C Ratio(X)                 | 0.59 | 0.00 | 0.00 | 0.40 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 3580 | 0    | 1370 | 3580 | 3410 | 3034 |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 1.0  | 0.0  | 0.0  | 0.8  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 0.4  | 0.0  | 0.0  | 0.2  | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.2  | 0.0  | 0.0  | 0.1  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 1.4  | 0.0  | 0.0  | 1.0  | 0.0  | 0.0  |
| LnGrp LOS                    | A    | A    | A    | A    | A    | A    |
| Approach Vol, veh/h          | 776  |      |      | 522  | 0    |      |
| Approach Delay, s/veh        | 1.4  |      |      | 1.0  | 0.0  |      |
| Approach LOS                 | A    |      |      | A    |      |      |
| Timer - Assigned Phs         |      | 2    |      |      | 6    | 8    |
| Phs Duration (G+Y+Rc), s     |      | 13.6 |      |      | 13.6 | 0.0  |
| Change Period (Y+Rc), s      |      | 4.0  |      |      | 4.0  | 4.0  |
| Max Green Setting (Gmax), s  |      | 26.0 |      |      | 26.0 | 26.0 |
| Max Q Clear Time (g_c+I1), s |      | 3.5  |      |      | 4.8  | 0.0  |
| Green Ext Time (p_c), s      |      | 2.8  |      |      | 4.7  | 0.0  |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 1.3  |      |      |      |
| HCM 6th LOS                  |      |      | A    |      |      |      |

Summary of All Intervals

| Run Number              | 1      | 10     | 2      | 3      | 4      | 5      | 6      |
|-------------------------|--------|--------|--------|--------|--------|--------|--------|
| Start Time              | 4:50   | 4:50   | 4:50   | 4:50   | 4:50   | 4:50   | 4:50   |
| End Time                | 6:00   | 6:00   | 6:00   | 6:00   | 6:00   | 6:00   | 6:00   |
| Total Time (min)        | 70     | 70     | 70     | 70     | 70     | 70     | 70     |
| Time Recorded (min)     | 60     | 60     | 60     | 60     | 60     | 60     | 60     |
| # of Intervals          | 5      | 5      | 5      | 5      | 5      | 5      | 5      |
| # of Recorded Intervals | 4      | 4      | 4      | 4      | 4      | 4      | 4      |
| Vehs Entered            | 13469  | 13402  | 13191  | 13508  | 12929  | 13079  | 13369  |
| Vehs Exited             | 13321  | 13234  | 13080  | 13388  | 12790  | 12932  | 13285  |
| Starting Vehs           | 463    | 440    | 461    | 420    | 454    | 443    | 435    |
| Ending Vehs             | 611    | 608    | 572    | 540    | 593    | 590    | 519    |
| Travel Distance (mi)    | 3898   | 3853   | 3791   | 3990   | 3684   | 3752   | 3923   |
| Travel Time (hr)        | 2057.1 | 2099.6 | 2160.4 | 2052.1 | 2156.4 | 2193.4 | 2017.1 |
| Total Delay (hr)        | 1939.0 | 1982.8 | 2045.4 | 1932.1 | 2045.2 | 2079.9 | 1898.6 |
| Total Stops             | 11933  | 13089  | 13302  | 12492  | 12561  | 12967  | 12217  |
| Fuel Used (gal)         | 612.1  | 620.7  | 633.9  | 615.6  | 628.7  | 639.6  | 603.9  |

Summary of All Intervals

| Run Number              | 7      | 8      | 9      | Avg    |
|-------------------------|--------|--------|--------|--------|
| Start Time              | 4:50   | 4:50   | 4:50   | 4:50   |
| End Time                | 6:00   | 6:00   | 6:00   | 6:00   |
| Total Time (min)        | 70     | 70     | 70     | 70     |
| Time Recorded (min)     | 60     | 60     | 60     | 60     |
| # of Intervals          | 5      | 5      | 5      | 5      |
| # of Recorded Intervals | 4      | 4      | 4      | 4      |
| Vehs Entered            | 13087  | 12949  | 13591  | 13260  |
| Vehs Exited             | 12913  | 12869  | 13451  | 13126  |
| Starting Vehs           | 415    | 454    | 458    | 444    |
| Ending Vehs             | 589    | 534    | 598    | 573    |
| Travel Distance (mi)    | 3757   | 3752   | 3945   | 3834   |
| Travel Time (hr)        | 2110.1 | 2206.3 | 2023.0 | 2107.6 |
| Total Delay (hr)        | 1996.6 | 2092.9 | 1903.8 | 1991.6 |
| Total Stops             | 11869  | 13195  | 12596  | 12622  |
| Fuel Used (gal)         | 620.1  | 643.1  | 606.8  | 622.5  |

Interval #0 Information Seeding

|                                     |      |
|-------------------------------------|------|
| Start Time                          | 4:50 |
| End Time                            | 5:00 |
| Total Time (min)                    | 10   |
| Volumes adjusted by Growth Factors. |      |
| No data recorded this interval.     |      |

Interval #1 Information

|                  |      |
|------------------|------|
| Start Time       | 5:00 |
| End Time         | 5:15 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 3436  | 3425  | 3507  | 3537  | 3326  | 3335  | 3390  |
| Vehs Exited          | 3411  | 3339  | 3408  | 3419  | 3291  | 3271  | 3329  |
| Starting Vehs        | 463   | 440   | 461   | 420   | 454   | 443   | 435   |
| Ending Vehs          | 488   | 526   | 560   | 538   | 489   | 507   | 496   |
| Travel Distance (mi) | 1009  | 1001  | 1000  | 1032  | 960   | 959   | 991   |
| Travel Time (hr)     | 240.4 | 253.7 | 253.3 | 247.8 | 251.6 | 253.8 | 236.7 |
| Total Delay (hr)     | 209.7 | 223.3 | 222.9 | 216.8 | 222.6 | 224.7 | 206.6 |
| Total Stops          | 3106  | 3171  | 3253  | 3428  | 2994  | 3072  | 3099  |
| Fuel Used (gal)      | 91.8  | 94.6  | 94.5  | 94.4  | 92.9  | 93.2  | 91.0  |

Interval #1 Information

|                  |      |
|------------------|------|
| Start Time       | 5:00 |
| End Time         | 5:15 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 3358  | 3403  | 3458  | 3413  |
| Vehs Exited          | 3295  | 3347  | 3430  | 3357  |
| Starting Vehs        | 415   | 454   | 458   | 444   |
| Ending Vehs          | 478   | 510   | 486   | 503   |
| Travel Distance (mi) | 974   | 997   | 1018  | 994   |
| Travel Time (hr)     | 249.6 | 247.1 | 258.4 | 249.2 |
| Total Delay (hr)     | 220.0 | 216.9 | 227.5 | 219.1 |
| Total Stops          | 2985  | 3020  | 3336  | 3143  |
| Fuel Used (gal)      | 92.6  | 93.2  | 96.8  | 93.5  |

Interval #2 Information

|                  |      |
|------------------|------|
| Start Time       | 5:15 |
| End Time         | 5:30 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 3287  | 3417  | 3504  | 3437  | 3324  | 3403  | 3445  |
| Vehs Exited          | 3270  | 3407  | 3475  | 3435  | 3255  | 3349  | 3375  |
| Starting Vehs        | 488   | 526   | 560   | 538   | 489   | 507   | 496   |
| Ending Vehs          | 505   | 536   | 589   | 540   | 558   | 561   | 566   |
| Travel Distance (mi) | 944   | 990   | 1026  | 1028  | 958   | 983   | 1002  |
| Travel Time (hr)     | 419.8 | 417.4 | 431.7 | 415.6 | 441.7 | 436.0 | 423.0 |
| Total Delay (hr)     | 391.1 | 387.6 | 400.8 | 384.8 | 413.0 | 406.4 | 392.9 |
| Total Stops          | 2812  | 3087  | 3527  | 3170  | 3204  | 3144  | 3248  |
| Fuel Used (gal)      | 130.3 | 131.5 | 137.0 | 133.0 | 136.3 | 136.1 | 133.1 |

Interval #2 Information

|                  |      |
|------------------|------|
| Start Time       | 5:15 |
| End Time         | 5:30 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 3460  | 3334  | 3445  | 3405  |
| Vehs Exited          | 3386  | 3302  | 3421  | 3369  |
| Starting Vehs        | 478   | 510   | 486   | 503   |
| Ending Vehs          | 552   | 542   | 510   | 547   |
| Travel Distance (mi) | 1016  | 984   | 1014  | 994   |
| Travel Time (hr)     | 435.1 | 424.4 | 420.0 | 426.5 |
| Total Delay (hr)     | 404.5 | 394.7 | 389.5 | 396.5 |
| Total Stops          | 3169  | 3594  | 3135  | 3207  |
| Fuel Used (gal)      | 136.5 | 133.5 | 133.2 | 134.0 |

Interval #3 Information

|                  |      |
|------------------|------|
| Start Time       | 5:30 |
| End Time         | 5:45 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 3419  | 3356  | 3178  | 3260  | 3373  | 3187  | 3300  |
| Vehs Exited          | 3366  | 3292  | 3184  | 3291  | 3322  | 3157  | 3385  |
| Starting Vehs        | 505   | 536   | 589   | 540   | 558   | 561   | 566   |
| Ending Vehs          | 558   | 600   | 583   | 509   | 609   | 591   | 481   |
| Travel Distance (mi) | 986   | 949   | 914   | 974   | 959   | 901   | 987   |
| Travel Time (hr)     | 608.8 | 606.0 | 630.1 | 598.0 | 612.9 | 632.3 | 581.0 |
| Total Delay (hr)     | 579.1 | 577.2 | 602.3 | 568.8 | 584.0 | 605.1 | 551.2 |
| Total Stops          | 3011  | 3273  | 3544  | 2976  | 3440  | 3313  | 3043  |
| Fuel Used (gal)      | 175.2 | 172.8 | 178.0 | 172.6 | 175.1 | 177.7 | 168.6 |

Interval #3 Information

|                  |      |
|------------------|------|
| Start Time       | 5:30 |
| End Time         | 5:45 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 3193  | 3128  | 3303  | 3269  |
| Vehs Exited          | 3203  | 3034  | 3312  | 3254  |
| Starting Vehs        | 552   | 542   | 510   | 547   |
| Ending Vehs          | 542   | 636   | 501   | 559   |
| Travel Distance (mi) | 914   | 881   | 954   | 942   |
| Travel Time (hr)     | 607.6 | 646.4 | 582.6 | 610.6 |
| Total Delay (hr)     | 580.0 | 619.8 | 553.9 | 582.1 |
| Total Stops          | 2808  | 3378  | 2906  | 3168  |
| Fuel Used (gal)      | 172.4 | 180.1 | 168.1 | 174.1 |



Interval #4 Information Recording

|                  |      |
|------------------|------|
| Start Time       | 5:45 |
| End Time         | 6:00 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 3327  | 3204  | 3002  | 3274  | 2906  | 3154  | 3234  |
| Vehs Exited          | 3274  | 3196  | 3013  | 3243  | 2922  | 3155  | 3196  |
| Starting Vehs        | 558   | 600   | 583   | 509   | 609   | 591   | 481   |
| Ending Vehs          | 611   | 608   | 572   | 540   | 593   | 590   | 519   |
| Travel Distance (mi) | 959   | 913   | 850   | 956   | 807   | 909   | 942   |
| Travel Time (hr)     | 788.1 | 822.4 | 845.3 | 790.6 | 850.2 | 871.2 | 776.4 |
| Total Delay (hr)     | 759.1 | 794.7 | 819.5 | 761.8 | 825.6 | 843.7 | 747.8 |
| Total Stops          | 3004  | 3558  | 2978  | 2918  | 2923  | 3438  | 2827  |
| Fuel Used (gal)      | 214.8 | 221.7 | 224.5 | 215.6 | 224.3 | 232.6 | 211.3 |

Interval #4 Information Recording

|                  |      |
|------------------|------|
| Start Time       | 5:45 |
| End Time         | 6:00 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 3076  | 3084  | 3385  | 3162  |
| Vehs Exited          | 3029  | 3186  | 3288  | 3151  |
| Starting Vehs        | 542   | 636   | 501   | 559   |
| Ending Vehs          | 589   | 534   | 598   | 573   |
| Travel Distance (mi) | 854   | 891   | 959   | 904   |
| Travel Time (hr)     | 817.9 | 888.5 | 761.9 | 821.2 |
| Total Delay (hr)     | 792.0 | 861.5 | 732.9 | 793.9 |
| Total Stops          | 2907  | 3203  | 3219  | 3098  |
| Fuel Used (gal)      | 218.5 | 236.4 | 208.7 | 220.8 |

13: Francisco Dr & El Dorado Hills Blvd Performance by movement

| Movement           | EBL | EBT  | EBR | WBL | WBT | WBR | NBL | NBT  | NBR | SBL | SBT  | All |
|--------------------|-----|------|-----|-----|-----|-----|-----|------|-----|-----|------|-----|
| Denied Delay (hr)  | 0.0 | 0.0  | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0 | 0.0 | 0.0  | 0.5 |
| Denied Del/Veh (s) | 1.4 | 1.2  | 3.4 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0  | 0.0 | 3.6 | 0.3  | 1.2 |
| Total Delay (hr)   | 0.0 | 0.1  | 0.6 | 0.0 | 0.0 | 0.0 | 1.1 | 0.8  | 0.0 | 0.0 | 0.7  | 3.5 |
| Total Del/Veh (s)  | 7.5 | 11.0 | 4.3 | 5.9 | 7.5 | 3.8 | 8.6 | 10.1 | 4.6 | 6.0 | 12.2 | 7.9 |
| Stop Delay (hr)    | 0.0 | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 0.3  | 0.0 | 0.0 | 0.2  | 1.3 |
| Stop Del/Veh (s)   | 3.6 | 3.9  | 0.0 | 4.0 | 4.1 | 3.3 | 5.6 | 3.1  | 3.1 | 2.7 | 3.9  | 2.9 |

17: El Dorado Hills Blvd #2 & Saratoga Way/Park Drive Performance by movement

| Movement           | EBL   | EBT    | EBR    | WBL   | WBT   | WBR   | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |
|--------------------|-------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Denied Delay (hr)  | 100.3 | 275.1  | 103.6  | 31.3  | 206.0 | 39.2  | 22.0  | 61.4  | 13.8  | 104.6 | 169.8 | 115.8 |
| Denied Del/Veh (s) | 994.5 | 1011.5 | 1013.5 | 902.1 | 898.0 | 921.7 | 335.2 | 260.6 | 250.3 | 911.6 | 900.3 | 904.1 |
| Total Delay (hr)   | 17.5  | 47.9   | 12.0   | 1.1   | 15.9  | 2.8   | 39.3  | 10.0  | 2.1   | 24.4  | 13.2  | 6.3   |
| Total Del/Veh (s)  | 326.7 | 330.7  | 228.9  | 58.7  | 119.6 | 113.0 | 658.3 | 49.6  | 44.5  | 382.5 | 132.3 | 90.5  |
| Stop Delay (hr)    | 16.5  | 44.6   | 11.1   | 1.1   | 13.9  | 2.5   | 39.1  | 7.8   | 1.7   | 24.0  | 11.5  | 5.3   |
| Stop Del/Veh (s)   | 307.2 | 308.1  | 211.7  | 55.4  | 105.0 | 101.0 | 655.4 | 38.6  | 36.5  | 376.1 | 115.0 | 77.3  |

17: El Dorado Hills Blvd #2 & Saratoga Way/Park Drive Performance by movement

| Movement           | All    |
|--------------------|--------|
| Denied Delay (hr)  | 1242.9 |
| Denied Del/Veh (s) | 791.9  |
| Total Delay (hr)   | 192.6  |
| Total Del/Veh (s)  | 198.3  |
| Stop Delay (hr)    | 179.3  |
| Stop Del/Veh (s)   | 184.6  |

18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way Performance by movement

| Movement           | EBL   | EBT  | EBR  | WBL   | WBT   | WBR    | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|--------------------|-------|------|------|-------|-------|--------|------|------|------|------|------|------|
| Denied Delay (hr)  | 0.4   | 0.2  | 0.4  | 18.0  | 8.0   | 10.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.1  |
| Denied Del/Veh (s) | 9.4   | 12.7 | 10.7 | 428.2 | 441.7 | 418.9  | 0.0  | 0.0  | 0.0  | 1.3  | 0.1  | 1.2  |
| Total Delay (hr)   | 16.6  | 1.3  | 0.7  | 1.9   | 1.3   | 18.6   | 10.9 | 20.9 | 1.0  | 0.6  | 7.8  | 1.0  |
| Total Del/Veh (s)  | 417.6 | 78.5 | 19.7 | 80.6  | 126.5 | 1398.3 | 48.6 | 60.2 | 18.6 | 77.5 | 40.1 | 23.0 |
| Stop Delay (hr)    | 16.4  | 1.2  | 0.6  | 1.8   | 1.2   | 18.6   | 8.6  | 18.4 | 0.6  | 0.5  | 6.5  | 0.9  |
| Stop Del/Veh (s)   | 412.8 | 72.5 | 16.1 | 76.5  | 121.1 | 1395.3 | 38.0 | 52.9 | 11.3 | 73.0 | 33.4 | 19.6 |

18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way Performance by movement

| Movement           | All  |
|--------------------|------|
| Denied Delay (hr)  | 37.0 |
| Denied Del/Veh (s) | 35.5 |
| Total Delay (hr)   | 82.8 |
| Total Del/Veh (s)  | 81.4 |
| Stop Delay (hr)    | 75.3 |
| Stop Del/Veh (s)   | 74.1 |

19: Latrobe Road #2/EI Dorado Hills Blvd #2 & US 50 EB Ramps Performance by movement

| Movement           | EBR  | WBR | NBT  | NBR  | SBL  | SBT  | All  |
|--------------------|------|-----|------|------|------|------|------|
| Denied Delay (hr)  | 0.1  | 0.0 | 32.2 | 7.9  | 0.0  | 0.0  | 40.3 |
| Denied Del/Veh (s) | 0.6  | 0.4 | 59.8 | 68.0 | 0.0  | 0.0  | 32.4 |
| Total Delay (hr)   | 2.1  | 0.2 | 6.9  | 0.8  | 2.4  | 2.5  | 15.0 |
| Total Del/Veh (s)  | 10.2 | 1.8 | 13.8 | 7.6  | 59.9 | 11.8 | 12.5 |
| Stop Delay (hr)    | 1.2  | 0.1 | 4.6  | 0.4  | 2.2  | 1.1  | 9.5  |
| Stop Del/Veh (s)   | 5.6  | 0.6 | 9.1  | 4.1  | 53.9 | 4.9  | 7.9  |

Total Zone Performance

|                    |        |
|--------------------|--------|
| Denied Delay (hr)  | 1320.7 |
| Denied Del/Veh (s) | 481.8  |
| Total Delay (hr)   | 293.9  |
| Total Del/Veh (s)  | 1425.8 |
| Stop Delay (hr)    | 265.4  |
| Stop Del/Veh (s)   | 1287.5 |

Generations at Green Valley  
Queuing and Blocking Report

Cumulative  
PM Peak

Intersection: 13: Francisco Dr & El Dorado Hills Blvd

| Movement              | EB  | WB  | NB  | NB  | SB  | SB  |
|-----------------------|-----|-----|-----|-----|-----|-----|
| Directions Served     | LT  | LTR | L   | TR  | L   | TR  |
| Maximum Queue (ft)    | 57  | 54  | 177 | 103 | 33  | 93  |
| Average Queue (ft)    | 25  | 26  | 85  | 55  | 7   | 46  |
| 95th Queue (ft)       | 51  | 50  | 144 | 86  | 28  | 75  |
| Link Distance (ft)    | 577 | 573 |     | 275 |     | 734 |
| Upstream Blk Time (%) |     |     |     |     |     |     |
| Queuing Penalty (veh) |     |     |     |     |     |     |
| Storage Bay Dist (ft) |     |     | 500 |     | 200 |     |
| Storage Blk Time (%)  |     |     |     |     |     |     |
| Queuing Penalty (veh) |     |     |     |     |     |     |

Intersection: 17: El Dorado Hills Blvd #2 & Saratoga Way/Park Drive

| Movement              | EB  | EB  | EB  | EB  | WB  | WB  | NB  | NB   | NB  | NB  | SB  | SB  |
|-----------------------|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|
| Directions Served     | L   | LT  | T   | R   | L   | TR  | L   | T    | T   | TR  | L   | T   |
| Maximum Queue (ft)    | 175 | 977 | 978 | 265 | 508 | 533 | 275 | 951  | 928 | 540 | 125 | 735 |
| Average Queue (ft)    | 153 | 947 | 949 | 237 | 415 | 507 | 274 | 916  | 234 | 186 | 124 | 705 |
| 95th Queue (ft)       | 221 | 966 | 965 | 348 | 703 | 519 | 278 | 1050 | 637 | 354 | 127 | 721 |
| Link Distance (ft)    |     | 930 | 930 |     | 489 | 489 |     | 935  | 935 | 935 |     | 686 |
| Upstream Blk Time (%) |     | 78  | 84  |     | 27  | 85  |     | 62   | 0   | 0   |     | 88  |
| Queuing Penalty (veh) |     | 0   | 0   |     | 0   | 0   |     | 264  | 0   | 0   |     | 0   |
| Storage Bay Dist (ft) | 150 |     |     | 240 |     |     | 250 |      |     |     | 100 |     |
| Storage Blk Time (%)  | 6   | 82  | 79  | 1   |     |     | 96  | 2    |     |     | 86  | 6   |
| Queuing Penalty (veh) | 40  | 143 | 276 | 3   |     |     | 301 | 7    |     |     | 285 | 25  |

Intersection: 17: El Dorado Hills Blvd #2 & Saratoga Way/Park Drive

| Movement              | SB  |
|-----------------------|-----|
| Directions Served     | TR  |
| Maximum Queue (ft)    | 723 |
| Average Queue (ft)    | 654 |
| 95th Queue (ft)       | 881 |
| Link Distance (ft)    | 686 |
| Upstream Blk Time (%) | 23  |
| Queuing Penalty (veh) | 0   |
| Storage Bay Dist (ft) |     |
| Storage Blk Time (%)  |     |
| Queuing Penalty (veh) |     |

Generations at Green Valley  
Queuing and Blocking Report

Cumulative  
PM Peak

Intersection: 18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way

| Movement              | EB   | EB   | WB  | WB  | WB  | NB  | NB  | NB  | NB  | NB  | SB  | SB  |
|-----------------------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Directions Served     | L    | LT   | L   | LT  | TR  | L   | L   | T   | T   | TR  | L   | T   |
| Maximum Queue (ft)    | 669  | 643  | 135 | 574 | 629 | 666 | 682 | 698 | 639 | 652 | 106 | 242 |
| Average Queue (ft)    | 329  | 172  | 35  | 257 | 437 | 358 | 431 | 399 | 323 | 278 | 27  | 142 |
| 95th Queue (ft)       | 692  | 485  | 105 | 680 | 797 | 660 | 770 | 837 | 759 | 688 | 74  | 211 |
| Link Distance (ft)    | 1059 | 1059 |     | 621 | 621 | 714 | 714 | 714 | 714 | 714 |     | 935 |
| Upstream Blk Time (%) | 2    | 2    |     | 28  | 47  | 1   | 11  | 15  | 4   | 2   |     |     |
| Queuing Penalty (veh) | 0    | 0    |     | 0   | 0   | 3   | 55  | 70  | 20  | 9   |     |     |
| Storage Bay Dist (ft) |      |      | 150 |     |     |     |     |     |     |     | 200 |     |
| Storage Blk Time (%)  |      |      | 0   | 1   |     |     |     |     |     |     |     | 2   |
| Queuing Penalty (veh) |      |      | 0   | 1   |     |     |     |     |     |     |     | 1   |

Intersection: 18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way

| Movement              | SB  | SB  | SB  |
|-----------------------|-----|-----|-----|
| Directions Served     | T   | T   | R   |
| Maximum Queue (ft)    | 230 | 187 | 185 |
| Average Queue (ft)    | 127 | 108 | 77  |
| 95th Queue (ft)       | 194 | 167 | 154 |
| Link Distance (ft)    | 935 | 935 |     |
| Upstream Blk Time (%) |     |     |     |
| Queuing Penalty (veh) |     |     |     |
| Storage Bay Dist (ft) |     |     | 200 |
| Storage Blk Time (%)  |     | 0   | 0   |
| Queuing Penalty (veh) |     | 1   | 1   |

Intersection: 19: Latrobe Road #2/El Dorado Hills Blvd #2 & US 50 EB Ramps

| Movement              | EB   | EB  | WB  | NB  | NB  | NB  | NB  | SB  | SB  | SB  | SB  | SB  |
|-----------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Directions Served     | R    | R   | R   | T   | T   | T   | R   | L   | T   | T   | T   | T   |
| Maximum Queue (ft)    | 115  | 120 | 99  | 297 | 320 | 355 | 256 | 215 | 111 | 124 | 142 | 147 |
| Average Queue (ft)    | 61   | 61  | 8   | 107 | 144 | 175 | 110 | 101 | 31  | 52  | 63  | 62  |
| 95th Queue (ft)       | 99   | 102 | 94  | 257 | 344 | 380 | 288 | 183 | 84  | 111 | 125 | 129 |
| Link Distance (ft)    | 1212 |     | 968 | 718 | 718 | 718 |     |     | 714 | 714 | 714 | 714 |
| Upstream Blk Time (%) |      |     |     |     |     |     |     |     |     |     |     |     |
| Queuing Penalty (veh) |      |     |     |     |     |     |     |     |     |     |     |     |
| Storage Bay Dist (ft) |      | 450 |     |     |     |     | 275 | 575 |     |     |     |     |
| Storage Blk Time (%)  |      |     |     |     |     | 16  | 0   |     |     |     |     |     |
| Queuing Penalty (veh) |      |     |     |     |     | 66  | 1   |     |     |     |     |     |

Zone Summary

Zone wide Queuing Penalty: 1572

# HCS7 Two-Lane Highway Report

## Project Information

|                     |   |                      |                         |
|---------------------|---|----------------------|-------------------------|
| Analyst             | Kimley-Horn   | Date                 | 11/29/2021              |
| Agency              |   | Analysis Year        | 2041                    |
| Jurisdiction        | El Dorado County  | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Francisco Dr to El Dorado Hills Blvd EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2059 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 1.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 661  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.80 | Total Trucks, %                  | 1.70 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.39 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 56.7    |
| Speed Slope Coefficient           | 3.59431  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.38808 | PF Power Coefficient             | 0.73983 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 7.9     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2059       | -          | -                 | 53.9                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 53.9 | Percent Followers, %               | 64.0 |
| Segment Travel Time, minutes | 0.43 | Followers Density, followers/mi/ln | 7.9  |
| Vehicle LOS                  | C    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |   |                      |                         |
|---------------------|---|----------------------|-------------------------|
| Analyst             | Kimley-Horn   | Date                 | 11/29/2021              |
| Agency              |   | Analysis Year        | 2041                    |
| Jurisdiction        | El Dorado County  | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Francisco Dr to El Dorado Hills Blvd EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2059 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 1.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 1044 | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.97 | Total Trucks, %                  | 1.70 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.61 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 56.7    |
| Speed Slope Coefficient           | 3.59431  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.38808 | PF Power Coefficient             | 0.73983 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 15.0    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2059       | -          | -                 | 53.2                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 53.2 | Percent Followers, %               | 76.2 |
| Segment Travel Time, minutes | 0.44 | Followers Density, followers/mi/ln | 15.0 |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |   |                      |                         |
|---------------------|---|----------------------|-------------------------|
| Analyst             | Kimley-Horn   | Date                 | 11/29/2021              |
| Agency              |   | Analysis Year        | 2041                    |
| Jurisdiction        | El Dorado County  | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Francisco Dr to El Dorado Hills Blvd WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2059 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 1.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 1028 | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.88 | Total Trucks, %                  | 0.70 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.60 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 56.7    |
| Speed Slope Coefficient           | 3.59612  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.38793 | PF Power Coefficient             | 0.73977 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 14.6    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2059       | -          | -                 | 53.2                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 53.2 | Percent Followers, %               | 75.8 |
| Segment Travel Time, minutes | 0.44 | Followers Density, followers/mi/ln | 14.6 |
| Vehicle LOS                  | D    |                                    |      |



# HCS7 Two-Lane Highway Report

## Project Information

|                     |   |                      |                         |
|---------------------|---|----------------------|-------------------------|
| Analyst             | Kimley-Horn   | Date                 | 11/29/2021              |
| Agency              |   | Analysis Year        | 2041                    |
| Jurisdiction        | El Dorado County  | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Francisco Dr to El Dorado Hills Blvd WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2059 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 1.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 840  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.94 | Total Trucks, %                  | 0.70 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.49 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 56.7    |
| Speed Slope Coefficient           | 3.59612  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.38793 | PF Power Coefficient             | 0.73977 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 11.1    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2059       | -          | -                 | 53.6                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 53.6 | Percent Followers, %               | 70.5 |
| Segment Travel Time, minutes | 0.44 | Followers Density, followers/mi/ln | 11.1 |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |   |                      |                         |
|---------------------|---|----------------------|-------------------------|
| Analyst             | Kimley-Horn   | Date                 | 11/29/2021              |
| Agency              |   | Analysis Year        | 2041                    |
| Jurisdiction        | El Dorado County  | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Francisco Dr to El Dorado Hills Blvd EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 1900 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 0.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 717  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.83 | Total Trucks, %                  | 0.90 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.42 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 57.0    |
| Speed Slope Coefficient           | 3.60677  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.39272 | PF Power Coefficient             | 0.73846 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 8.8     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 1900       | -          | -                 | 54.0                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 54.0 | Percent Followers, %               | 66.4 |
| Segment Travel Time, minutes | 0.40 | Followers Density, followers/mi/ln | 8.8  |
| Vehicle LOS                  | C    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |   |                      |                         |
|---------------------|---|----------------------|-------------------------|
| Analyst             | Kimley-Horn   | Date                 | 11/29/2021              |
| Agency              |   | Analysis Year        | 2041                    |
| Jurisdiction        | El Dorado County  | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Francisco Dr to El Dorado Hills Blvd EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 1900 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 0.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 1125 | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.93 | Total Trucks, %                  | 0.90 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.66 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 57.0    |
| Speed Slope Coefficient           | 3.60677  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.39272 | PF Power Coefficient             | 0.73846 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 16.5    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 1900       | -          | -                 | 53.3                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 53.3 | Percent Followers, %               | 78.1 |
| Segment Travel Time, minutes | 0.40 | Followers Density, followers/mi/ln | 16.5 |
| Vehicle LOS                  | E    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |   |                      |                         |
|---------------------|---|----------------------|-------------------------|
| Analyst             | Kimley-Horn   | Date                 | 11/29/2021              |
| Agency              |   | Analysis Year        | 2041                    |
| Jurisdiction        | El Dorado County  | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Francisco Dr to El Dorado Hills Blvd WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 1900 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 0.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 974  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.92 | Total Trucks, %                  | 0.90 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.57 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 57.0    |
| Speed Slope Coefficient           | 3.60677  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.39272 | PF Power Coefficient             | 0.73846 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 13.5    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 1900       | -          | -                 | 53.6                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 53.6 | Percent Followers, %               | 74.5 |
| Segment Travel Time, minutes | 0.40 | Followers Density, followers/mi/ln | 13.5 |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |   |                      |                         |
|---------------------|---|----------------------|-------------------------|
| Analyst             | Kimley-Horn   | Date                 | 11/29/2021              |
| Agency              |   | Analysis Year        | 2041                    |
| Jurisdiction        | El Dorado County  | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Francisco Dr to El Dorado Hills Blvd WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 1900 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 0.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 831  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.92 | Total Trucks, %                  | 0.90 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.49 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 57.0    |
| Speed Slope Coefficient           | 3.60677  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.39272 | PF Power Coefficient             | 0.73846 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 10.9    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 1900       | -          | -                 | 53.8                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 53.8 | Percent Followers, %               | 70.3 |
| Segment Travel Time, minutes | 0.40 | Followers Density, followers/mi/ln | 10.9 |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2041                    |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Silva Valley Pkwy to Malcolm Dixon Rd EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 8765 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 489  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.82 | Total Trucks, %                  | 1.00 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.29 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.95929  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.27608 | PF Power Coefficient             | 0.75149 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 4.3     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 8765       | -          | -                 | 59.5                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.5 | Percent Followers, %               | 52.6 |
| Segment Travel Time, minutes | 1.67 | Followers Density, followers/mi/ln | 4.3  |
| Vehicle LOS                  | C    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2041                    |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Silva Valley Pkwy to Malcolm Dixon Rd EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 8765 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 732  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.92 | Total Trucks, %                  | 1.00 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.43 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.95929  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.27608 | PF Power Coefficient             | 0.75149 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 7.9     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 8765       | -          | -                 | 58.9                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 58.9 | Percent Followers, %               | 63.6 |
| Segment Travel Time, minutes | 1.69 | Followers Density, followers/mi/ln | 7.9  |
| Vehicle LOS                  | C    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2041                    |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Silva Valley Pkwy to Malcolm Dixon Rd WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 8765 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 786  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.83 | Total Trucks, %                  | 1.20 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.46 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.95892  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.27611 | PF Power Coefficient             | 0.75150 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 8.8     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 8765       | -          | -                 | 58.8                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 58.8 | Percent Followers, %               | 65.5 |
| Segment Travel Time, minutes | 1.69 | Followers Density, followers/mi/ln | 8.8  |
| Vehicle LOS                  | D    |                                    |      |



# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2041                    |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Silva Valley Pkwy to Malcolm Dixon Rd WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 8765 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 529  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.90 | Total Trucks, %                  | 1.20 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.31 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.95892  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.27611 | PF Power Coefficient             | 0.75150 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 4.9     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 8765       | -          | -                 | 59.4                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.4 | Percent Followers, %               | 54.7 |
| Segment Travel Time, minutes | 1.68 | Followers Density, followers/mi/ln | 4.9  |
| Vehicle LOS                  | C    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2041                    |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Malcolm Dixon Rd to Project EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2304 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 423  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.90 | Total Trucks, %                  | 0.30 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.25 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.89594  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.33086 | PF Power Coefficient             | 0.75550 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 3.5     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2304       | -          | -                 | 59.8                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.8 | Percent Followers, %               | 50.1 |
| Segment Travel Time, minutes | 0.44 | Followers Density, followers/mi/ln | 3.5  |
| Vehicle LOS                  | B    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2041                    |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Malcolm Dixon Rd to Project EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2304 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 795  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.93 | Total Trucks, %                  | 0.30 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.47 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.89594  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.33086 | PF Power Coefficient             | 0.75550 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 9.1     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2304       | -          | -                 | 58.8                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 58.8 | Percent Followers, %               | 67.3 |
| Segment Travel Time, minutes | 0.44 | Followers Density, followers/mi/ln | 9.1  |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2041                    |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Malcolm Dixon Rd to Project WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2304 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 694  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.94 | Total Trucks, %                  | 0.00 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.41 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.89648  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.33081 | PF Power Coefficient             | 0.75548 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 7.5     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2304       | -          | -                 | 59.1                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.1 | Percent Followers, %               | 63.6 |
| Segment Travel Time, minutes | 0.44 | Followers Density, followers/mi/ln | 7.5  |
| Vehicle LOS                  | C    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2041                    |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Malcolm Dixon Rd to Project WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2304 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 560  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.86 | Total Trucks, %                  | 0.00 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.33 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.89648  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.33081 | PF Power Coefficient             | 0.75548 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 5.4     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2304       | -          | -                 | 59.4                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.4 | Percent Followers, %               | 57.7 |
| Segment Travel Time, minutes | 0.44 | Followers Density, followers/mi/ln | 5.4  |
| Vehicle LOS                  | C    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2041                    |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Project to Deer Valley Rd EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 3152 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 424  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.90 | Total Trucks, %                  | 0.30 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.25 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.90747  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.30740 | PF Power Coefficient             | 0.76221 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 3.5     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 3152       | -          | -                 | 59.7                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.7 | Percent Followers, %               | 49.3 |
| Segment Travel Time, minutes | 0.60 | Followers Density, followers/mi/ln | 3.5  |
| Vehicle LOS                  | B    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2041                    |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Project to Deer Valley Rd EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 3152 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 873  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.84 | Total Trucks, %                  | 0.30 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.51 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.90747  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.30740 | PF Power Coefficient             | 0.76221 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 10.3    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 3152       | -          | -                 | 58.7                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 58.7 | Percent Followers, %               | 69.2 |
| Segment Travel Time, minutes | 0.61 | Followers Density, followers/mi/ln | 10.3 |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2041                    |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Project to Deer Valley Rd WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 3152 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 686  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.95 | Total Trucks, %                  | 0.00 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.40 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.90802  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.30735 | PF Power Coefficient             | 0.76219 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 7.3     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 3152       | -          | -                 | 59.1                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.1 | Percent Followers, %               | 62.5 |
| Segment Travel Time, minutes | 0.61 | Followers Density, followers/mi/ln | 7.3  |
| Vehicle LOS                  | C    |                                    |      |



# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2041                    |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Project to Deer Valley Rd WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 3152 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 547  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.88 | Total Trucks, %                  | 0.00 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.32 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.90802  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.30735 | PF Power Coefficient             | 0.76219 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 5.2     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 3152       | -          | -                 | 59.4                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.4 | Percent Followers, %               | 56.2 |
| Segment Travel Time, minutes | 0.60 | Followers Density, followers/mi/ln | 5.2  |
| Vehicle LOS                  | C    |                                    |      |

| Segment Inputs  |   |                        |                               | Cumulative (2041) Conditions |         |                             |         |        |            |           |                             |        |            |       |     |         |         |   |
|---|---|------------------------|-------------------------------|------------------------------|---------|-----------------------------|---------|--------|------------|-----------|-----------------------------|--------|------------|-------|-----|---------|---------|---|
|   |   |                        |                               | Flow Inputs                  |         | AM LOS Performance Measures |         |        |            |           | PM LOS Performance Measures |        |            |       |     |         |         |   |
|   | Length<br>(ft)  | Number of Lanes<br>(N) | Interchange Density<br>(I/mi) | AM Peak                      | PM Peak | V <sub>p</sub>              | FFS     | S      | D          | LOS       | V <sub>p</sub>              | FFS    | S          | D     | LOS |         |         |   |
|   |   |                        |                               | (veh/h)                      | (veh/h) | (pc/h/ln)                   | (mi/h)  | (mi/h) | (pc/mi/ln) | (pc/h/ln) | (mi/h)                      | (mi/h) | (pc/mi/ln) |       |     |         |         |   |
| EB  | West of Latrobe Rd SB Off Ramp                                      | 6690                   | 3                             | 0.33                         | 4,720   | 4,604                       | 1727.36 | 74.12  | 75         | 69.1433   | 24.9824                     | C      | 1684.828   | 74.12 | 75  | 69.8083 | 24.1    | C |
|   | Latrobe Rd NB Off Ramp to Latrobe Rd On Ramp                        | 1990                   | 3                             | 0.50                         | 3,517   | 3,395                       | 1287.14 | 73.6   | 75         | 74.0873   | 17.3732                     | B      | 1242.404   | 73.6  | 75  | 74.3495 | 16.7103 | B |
|   | Silva Valley Pkwy SB/NB Off Ramp to Silva Valley Pkwy NB/SB On Ramp | 2375                   | 3                             | 0.50                         | 3,391   | 3,661                       | 1241.03 | 73.6   | 75         | 74.3569   | 16.6901                     | B      | 1339.745   | 73.6  | 75  | 73.7222 | 18.1729 | C |
|   | East of El Dorado Hills Blvd/Latrobe Rd                             | 2000                   | 3                             | 0.50                         | 3,948   | 4,058                       | 1444.74 | 73.6   | 75         | 72.8104   | 19.8425                     | C      | 1484.993   | 73.6  | 75  | 72.3961 | 20.512  | C |
|   | East of Silva Valley Pkwy NB/SB On Ramp                             | 3400                   | 3                             | 0.50                         | 4,164   | 4,786                       | 1523.9  | 73.6   | 75         | 71.9616   | 21.1766                     | C      | 1751.429   | 73.6  | 75  | 68.7494 | 25.4756 | C |
| WB  | Silva Valley Pkwy NB/SB Off Ramp to Silva Valley Pkwy SB/NB On Ramp | 2350                   | 3                             | 0.50                         | 2,419   | 2,578                       | 885.162 | 73.6   | 75         | 74.854    | 11.8252                     | B      | 943.2374   | 73.6  | 75  | 74.9643 | 12.5825 | B |
|   | El Dorado Hills Blvd Off Ramp to El Dorado Hills Blvd On Ramp       | 3565                   | 3                             | 0.50                         | 2,345   | 2,556                       | 858.083 | 73.6   | 75         | 74.777    | 11.4752                     | B      | 935.1867   | 73.6  | 75  | 74.9535 | 12.4769 | B |
|   | West of El Dorado Hills Blvd On Ramp                                | 5890                   | 2                             | 0.33                         | 3,308   | 3,742                       | 1815.73 | 74.12  | 75         | 67.6339   | 26.8464                     | D      | 2053.791   | 74.12 | 75  | 62.707  | 32.7522 | D |
|   | East of El Dorado Hills Blvd/Latrobe Road                           | 2000                   | 2                             | 0.50                         | 2,973   | 2,892                       | 1631.84 | 74.13  | 75         | 70.5806   | 23.1203                     | C      | 1587.215   | 74.13 | 75  | 71.1828 | 22.2977 | C |
|   | East of Silva Valley Pkwy NB/SB On Ramp                             | 5500                   | 2                             | 0.50                         | 3,168   | 3,263                       | 1738.96 | 73.6   | 75         | 68.9552   | 25.2187                     | C      | 1791.103   | 73.6  | 75  | 68.0719 | 26.3119 | D |
| Universal Inputs:<br>PHF 0.92<br>(P <sub>v</sub> ) 2%<br>f <sub>av</sub> 0.99009901 |   |                        |                               |                              |         |                             |         |        |            |           |                             |        |            |       |     |         |         |   |



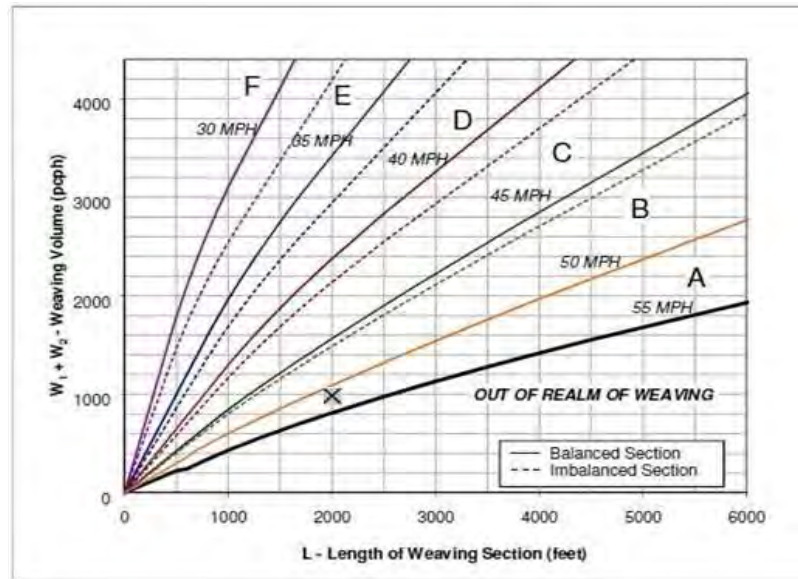


### EB US-50, East of Latrobe Rd On Ramp, Cumulative (2041) Conditons (AM)

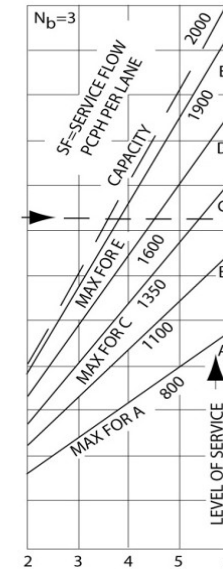
|                                    |                |      |
|------------------------------------|----------------|------|
| Number of Entering Mainline Lanes  | N <sub>b</sub> | 3    |
| Number of Lanes in Weaving Section | N              | 4    |
| Length of Weaving Section (feet)   | L              | 2000 |

| Total Weaving Section (V) |       | On ramp to Mainline (W1) |     | Mainline to Off ramp (W2) |     |
|---------------------------|-------|--------------------------|-----|---------------------------|-----|
| Volume (vph)              | 3,948 | Volume (vph)             | 431 | Volume (vph)              | 557 |
| Truck Percentage          | 4%    | Truck Percentage         | 2%  | Truck Percentage          | 2%  |
| PCE for Trucks            | 1.5   | PCE for Trucks           | 1.5 | PCE for Trucks            | 1.5 |
| Volume (pcph)             | 4,027 | Volume (pcph)            | 435 | Volume (pcph)             | 563 |

|   |       |
|---|-------|
| W1 + W2   | 998   |
| In between  |       |
| Speed 1   | 50    |
| Speed 2   | 55    |
| Interpolated Weaving Speed (S <sub>w</sub> , mph) | 51.0  |
| Weaving Intensity Factor (k)                      | 1.00  |
| Service Volume ((S <sub>v</sub> , pcph)           |       |
| $SV = (1/N) * [V + (k-1) * \min(W1, W2)]$         | 1,007 |
| Level of Service (LOS)                            | B     |



N<sub>b</sub>=NUMBER OF BASIC LANES ON APPROACH  
SEE CHART FOR DEFINITION OF OTHER TERMS

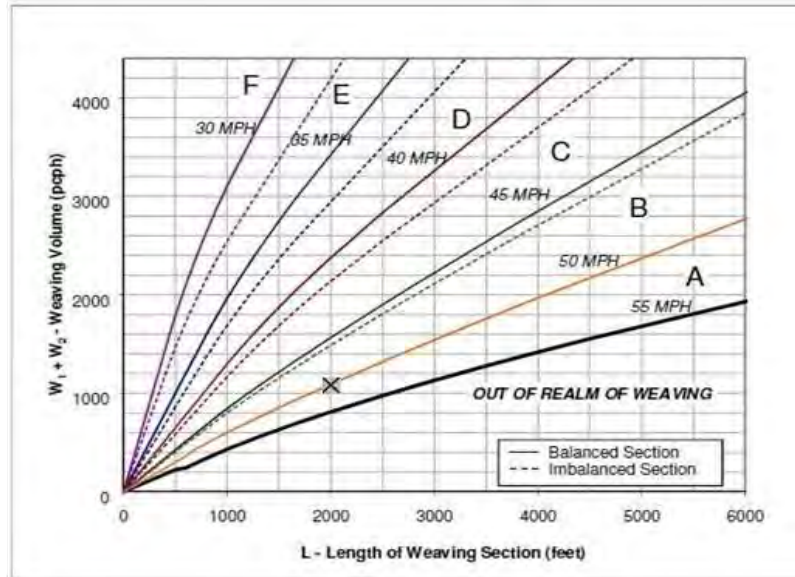


### EB US-50, East of Latrobe Rd On Ramp, Cumulative (2041) Conditons (PM)

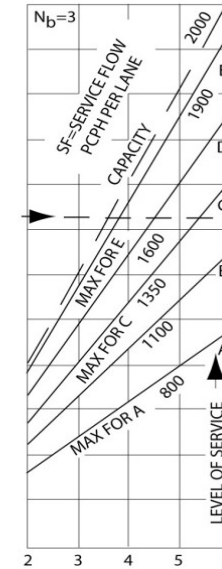
|                                    |                |      |
|------------------------------------|----------------|------|
| Number of Entering Mainline Lanes  | N <sub>b</sub> | 3    |
| Number of Lanes in Weaving Section | N              | 4    |
| Length of Weaving Section (feet)   | L              | 2000 |

| Total Weaving Section (V) |       | On ramp to Mainline (W1) |     | Mainline to Off ramp (W2) |     |
|---------------------------|-------|--------------------------|-----|---------------------------|-----|
| Volume (vph)              | 4,053 | Volume (vph)             | 658 | Volume (vph)              | 392 |
| Truck Percentage          | 4%    | Truck Percentage         | 2%  | Truck Percentage          | 2%  |
| PCE for Trucks            | 1.5   | PCE for Trucks           | 1.5 | PCE for Trucks            | 1.5 |
| Volume (pcph)             | 4,134 | Volume (pcph)            | 665 | Volume (pcph)             | 396 |

|   |       |
|---|-------|
| W1 + W2   | 1,061 |
| In between  |       |
| Speed 1   | 40    |
| Speed 2   | 45    |
| Interpolated Weaving Speed (S <sub>w</sub> , mph) | 45.4  |
| Weaving Intensity Factor (k)                      | 1.60  |
| Service Volume ((SV, pcph)                        |       |
| $SV = (1/N) * [V + (k-1) * \min(W1, W2)]$         | 1,093 |
| Level of Service (LOS)                            | B     |



N<sub>b</sub>=NUMBER OF BASIC LANES ON APPROACH  
SEE CHART FOR DEFINITION OF OTHER TERMS

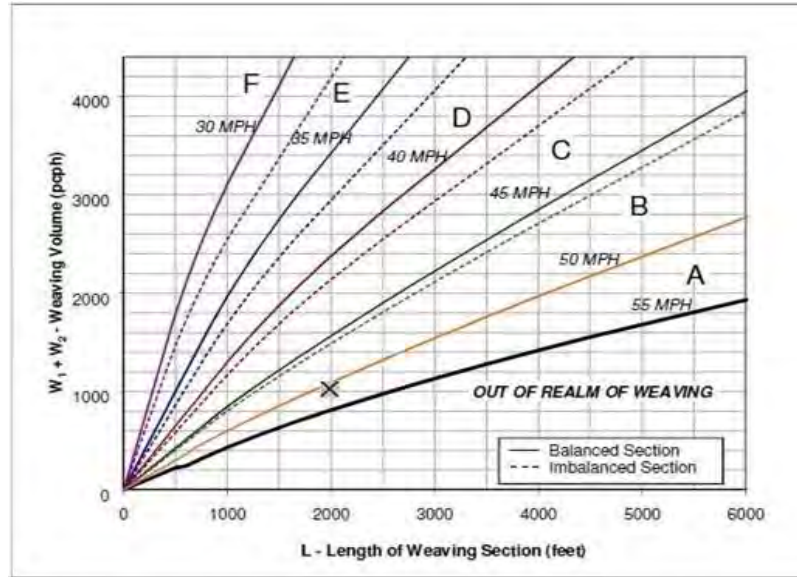


### WB US-50, East of El Dorado Hills Blvd Off Ramp, Cumulative (2041) Conditons (AM)

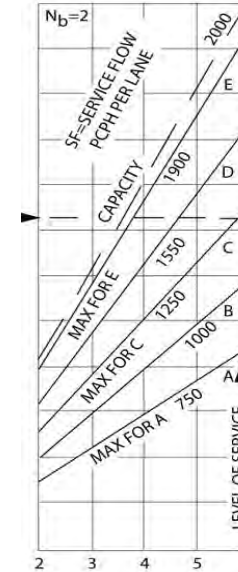
|                                    |    |      |
|------------------------------------|----|------|
| Number of Entering Mainline Lanes  | Nb | 2    |
| Number of Lanes in Weaving Section | N  | 3    |
| Length of Weaving Section (feet)   | L  | 2000 |

| Total Weaving Section (V) |       | On ramp to Mainline (W1) |     | Mainline to Off ramp (W2) |     |
|---------------------------|-------|--------------------------|-----|---------------------------|-----|
| Volume (vph)              | 2,973 | Volume (vph)             | 410 | Volume (vph)              | 628 |
| Truck Percentage          | 2%    | Truck Percentage         | 2%  | Truck Percentage          | 2%  |
| PCE for Trucks            | 1.5   | PCE for Trucks           | 1.5 | PCE for Trucks            | 1.5 |
| Volume (pcph)             | 3,003 | Volume (pcph)            | 414 | Volume (pcph)             | 634 |

|   |       |
|---|-------|
| W1 + W2                                   | 1,048 |
| In between                                |       |
| Speed 1                                   | 45    |
| Speed 2                                   | 50    |
| Interpolated Weaving Speed (Sw, mph)      | 50.0  |
| Weaving Intensity Factor (k)              | 1.40  |
| Service Volume ((SV, pcph)                |       |
| $SV = (1/N) * [V + (k-1) * \min(W1, W2)]$ | 1,056 |
| Level of Service (LOS)                    | C     |



Nb=NUMBER OF BASIC LANES ON APPROACH  
SEE CHART FOR DEFINITION OF OTHER TERMS



### WB US-50, East of El Dorado Hills Blvd Off Ramp, Cumulative (2041) Conditons (PM)

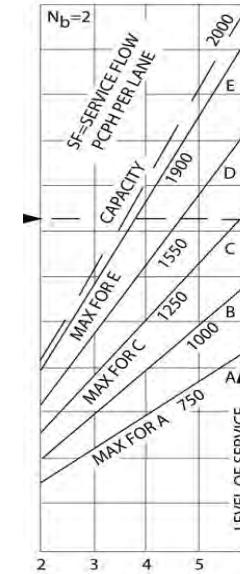
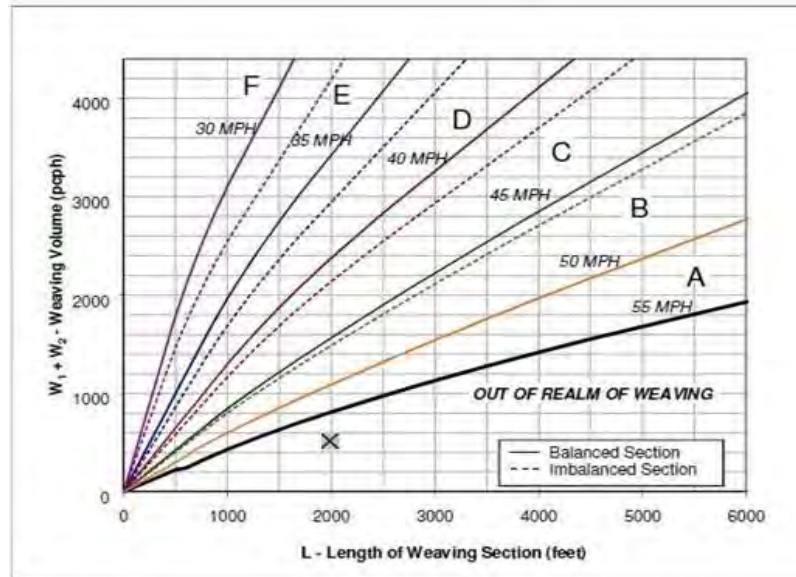
|                                    |    |      |
|------------------------------------|----|------|
| Number of Entering Mainline Lanes  | Nb | 2    |
| Number of Lanes in Weaving Section | N  | 3    |
| Length of Weaving Section (feet)   | L  | 2000 |

Nb=NUMBER OF BASIC LANES ON APPROACH  
SEE CHART FOR DEFINITION OF OTHER TERMS

| Total Weaving Section (V) |       | On ramp to Mainline (W1) |     | Mainline to Off ramp (W2) |     |
|---------------------------|-------|--------------------------|-----|---------------------------|-----|
| Volume (vph)              | 2,892 | Volume (vph)             | 241 | Volume (vph)              | 336 |
| Truck Percentage          | 2%    | Truck Percentage         | 2%  | Truck Percentage          | 2%  |
| PCE for Trucks            | 1.5   | PCE for Trucks           | 1.5 | PCE for Trucks            | 1.5 |
| Volume (pcph)             | 2,921 | Volume (pcph)            | 243 | Volume (pcph)             | 339 |

|   |      |
|---|------|
| W1 + W2                                   | 583  |
| In between                                |      |
| Speed 1                                   | 50   |
| Speed 2                                   | 55   |
| Interpolated Weaving Speed (Sw, mph)      | 54.8 |
| Weaving Intensity Factor (k)              | 1.00 |
| Service Volume ((SV, pcph)                |      |
| $SV = (1/N) * [V + (k-1) * \min(W1, W2)]$ | 974  |
| Level of Service (LOS)                    |      |

**OUT OF REALM**



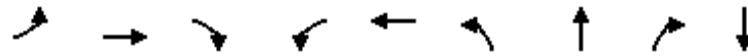


## Appendix G

*Analysis Worksheets for  
Cumulative (2041) plus Proposed Project Conditions*

Generations at Green Valley  
 1: Sophia Pkwy/Access Rd & Green Valley Rd

Cumulative plus Project  
 Timing Plan: AM



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | NBR  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 2    | 866  | 123  | 188  | 1580 | 334  | 1    | 67   | 6    |
| v/c Ratio               | 0.01 | 0.46 | 0.14 | 0.70 | 0.85 | 0.73 | 0.00 | 0.12 | 0.01 |
| Control Delay           | 6.5  | 9.2  | 2.1  | 28.5 | 17.1 | 28.2 | 12.0 | 4.9  | 2.7  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 6.5  | 9.2  | 2.1  | 28.5 | 17.1 | 28.2 | 12.0 | 4.9  | 2.7  |
| Queue Length 50th (ft)  | 0    | 84   | 0    | 41   | 208  | 95   | 0    | 0    | 0    |
| Queue Length 95th (ft)  | 3    | 122  | 18   | #141 | #314 | #205 | 3    | 21   | 3    |
| Internal Link Dist (ft) |      | 1813 |      |      | 7016 |      | 1499 |      | 376  |
| Turn Bay Length (ft)    | 248  |      | 224  | 314  |      | 204  |      | 204  |      |
| Base Capacity (vph)     | 135  | 1866 | 892  | 268  | 1864 | 459  | 609  | 563  | 553  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.01 | 0.46 | 0.14 | 0.70 | 0.85 | 0.73 | 0.00 | 0.12 | 0.01 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
1: Sophia Pkwy/Access Rd & Green Valley Rd

Cumulative plus Project  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 2    | 797  | 113  | 173  | 1447 | 6    | 307  | 1    | 62   | 4    | 0    | 2    |
| Future Volume (veh/h)        | 2    | 797  | 113  | 173  | 1447 | 6    | 307  | 1    | 62   | 4    | 0    | 2    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 2    | 866  | 123  | 188  | 1573 | 7    | 334  | 1    | 67   | 4    | 0    | 2    |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 184  | 1874 | 836  | 344  | 1913 | 9    | 595  | 612  | 519  | 399  | 21   | 156  |
| Arrive On Green              | 0.53 | 0.53 | 0.53 | 0.53 | 0.53 | 0.53 | 0.33 | 0.33 | 0.33 | 0.33 | 0.00 | 0.33 |
| Sat Flow, veh/h              | 324  | 3554 | 1585 | 569  | 3628 | 16   | 1415 | 1870 | 1585 | 886  | 65   | 476  |
| Grp Volume(v), veh/h         | 2    | 866  | 123  | 188  | 770  | 810  | 334  | 1    | 67   | 6    | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 324  | 1777 | 1585 | 569  | 1777 | 1867 | 1415 | 1870 | 1585 | 1427 | 0    | 0    |
| Q Serve(g_s), s              | 0.3  | 8.4  | 2.2  | 17.0 | 19.9 | 19.9 | 11.3 | 0.0  | 1.6  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 20.2 | 8.4  | 2.2  | 25.3 | 19.9 | 19.9 | 11.4 | 0.0  | 1.6  | 0.1  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 0.01 | 1.00 |      | 1.00 | 0.67 |      | 0.33 |
| Lane Grp Cap(c), veh/h       | 184  | 1874 | 836  | 344  | 937  | 985  | 595  | 612  | 519  | 576  | 0    | 0    |
| V/C Ratio(X)                 | 0.01 | 0.46 | 0.15 | 0.55 | 0.82 | 0.82 | 0.56 | 0.00 | 0.13 | 0.01 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 184  | 1874 | 836  | 344  | 937  | 985  | 595  | 612  | 519  | 576  | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 19.3 | 8.1  | 6.7  | 16.0 | 10.8 | 10.9 | 16.3 | 12.5 | 13.0 | 12.5 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 0.1  | 0.8  | 0.4  | 6.1  | 8.1  | 7.7  | 3.8  | 0.0  | 0.5  | 0.0  | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.0  | 2.2  | 0.5  | 2.2  | 6.7  | 7.0  | 3.5  | 0.0  | 0.5  | 0.1  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 19.4 | 8.9  | 7.0  | 22.1 | 18.9 | 18.6 | 20.1 | 12.5 | 13.5 | 12.5 | 0.0  | 0.0  |
| LnGrp LOS                    | B    | A    | A    | C    | B    | B    | C    | B    | B    | B    | A    | A    |
| Approach Vol, veh/h          |      | 991  |      |      | 1768 |      |      | 402  |      |      |      | 6    |
| Approach Delay, s/veh        |      | 8.7  |      |      | 19.1 |      |      | 19.0 |      |      |      | 12.5 |
| Approach LOS                 |      | A    |      |      | B    |      |      | B    |      |      |      | B    |
| Timer - Assigned Phs         |      | 2    |      | 4    |      | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 22.0 |      | 33.0 |      | 22.0 |      | 33.0 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  |      | 4.0  |      | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 18.0 |      | 29.0 |      | 18.0 |      | 29.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 13.4 |      | 22.2 |      | 2.1  |      | 27.3 |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.5  |      | 3.1  |      | 0.0  |      | 1.4  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      | 15.8 |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      |      | B    |      |      |      |      |      |      |      |      |

Generations at Green Valley  
 2: Green Valley Rd/Green Valley Road & Francisco Rd.

Cumulative plus Project  
 Timing Plan: AM
































| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | SBL   | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|------|------|-------|------|------|
| Lane Group Flow (vph)   | 246  | 454  | 198  | 64   | 902  | 128  | 287  | 334  | 121   | 442  | 334  |
| v/c Ratio               | 0.90 | 0.36 | 0.29 | 0.55 | 0.82 | 0.22 | 0.91 | 0.31 | 1.03  | 0.86 | 0.59 |
| Control Delay           | 73.8 | 20.5 | 4.4  | 55.7 | 31.8 | 5.0  | 69.3 | 21.3 | 135.5 | 44.5 | 16.4 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  |
| Total Delay             | 73.8 | 20.5 | 4.4  | 55.7 | 31.8 | 5.0  | 69.3 | 21.3 | 135.5 | 44.5 | 16.4 |
| Queue Length 50th (ft)  | 64   | 90   | 0    | 32   | 213  | 0    | 75   | 65   | -69   | 206  | 64   |
| Queue Length 95th (ft)  | #135 | 130  | 43   | #86  | 285  | 35   | #135 | 91   | #159  | #322 | 131  |
| Internal Link Dist (ft) |      | 7016 |      |      | 1876 |      |      | 2744 |       | 705  |      |
| Turn Bay Length (ft)    | 290  |      | 210  | 200  |      | 450  | 200  |      | 183   |      |      |
| Base Capacity (vph)     | 272  | 1263 | 692  | 117  | 1207 | 625  | 317  | 1167 | 117   | 566  | 601  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    |
| Reduced v/c Ratio       | 0.90 | 0.36 | 0.29 | 0.55 | 0.75 | 0.20 | 0.91 | 0.29 | 1.03  | 0.78 | 0.56 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
2: Green Valley Rd/Green Valley Road & Francisco Rd.

Cumulative plus Project  
Timing Plan: AM

|                              |    |    |  |  |    |  |    |    |  |  |    |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                     | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations          |   |   |  |  |   |  |   |   |   |  |   |  |
| Traffic Volume (veh/h)       | 236   | 436   | 190   | 58  | 812   | 115   | 241  | 272   | 8   | 103   | 376   | 284   |
| Future Volume (veh/h)        | 236   | 436   | 190   | 58  | 812   | 115   | 241  | 272   | 8   | 103   | 376   | 284   |
| Initial Q (Qb), veh          | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0   | 0   | 0   | 0   | 0   |
| Ped-Bike Adj(A_pbT)          | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00   |   | 1.00  | 1.00  |   | 1.00  |
| Parking Bus, Adj             | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| Work Zone On Approach        |   | No  |   |   | No  |   |  | No  |   |   | No  |   |
| Adj Sat Flow, veh/h/ln       | 1870  | 1870  | 1870  | 1870  | 1870  | 1870  | 1870   | 1870  | 1870  | 1870  | 1870  | 1870  |
| Adj Flow Rate, veh/h         | 246   | 454   | 198   | 64  | 902   | 128   | 287  | 324   | 10  | 121   | 442   | 334   |
| Peak Hour Factor             | 0.96  | 0.96  | 0.96  | 0.90  | 0.90  | 0.90  | 0.84   | 0.84  | 0.84  | 0.85  | 0.85  | 0.85  |
| Percent Heavy Veh, %         | 2   | 2   | 2   | 2   | 2   | 2   | 2  | 2   | 2   | 2   | 2   | 2   |
| Cap, veh/h                   | 280   | 1209  | 539   | 82  | 1084  | 483   | 327  | 1057  | 33  | 120   | 511   | 433   |
| Arrive On Green              | 0.08  | 0.34  | 0.34  | 0.05  | 0.31  | 0.31  | 0.09   | 0.30  | 0.30  | 0.07  | 0.27  | 0.27  |
| Sat Flow, veh/h              | 3456  | 3554  | 1585  | 1781  | 3554  | 1585  | 3456   | 3519  | 108   | 1781  | 1870  | 1585  |
| Grp Volume(v), veh/h         | 246   | 454   | 198   | 64  | 902   | 128   | 287  | 163   | 171   | 121   | 442   | 334   |
| Grp Sat Flow(s),veh/h/ln     | 1728  | 1777  | 1585  | 1781  | 1777  | 1585  | 1728   | 1777  | 1851  | 1781  | 1870  | 1585  |
| Q Serve(g_s), s              | 5.2   | 7.1   | 7.0   | 2.6   | 17.5  | 4.5   | 6.1  | 5.2   | 5.3   | 5.0   | 16.6  | 14.4  |
| Cycle Q Clear(g_c), s        | 5.2   | 7.1   | 7.0   | 2.6   | 17.5  | 4.5   | 6.1  | 5.2   | 5.3   | 5.0   | 16.6  | 14.4  |
| Prop In Lane                 | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00   |   | 0.06  | 1.00  |   | 1.00  |
| Lane Grp Cap(c), veh/h       | 280   | 1209  | 539   | 82  | 1084  | 483   | 327  | 534   | 556   | 120   | 511   | 433   |
| V/C Ratio(X)                 | 0.88  | 0.38  | 0.37  | 0.78  | 0.83  | 0.26  | 0.88   | 0.31  | 0.31  | 1.01  | 0.86  | 0.77  |
| Avail Cap(c_a), veh/h        | 280   | 1287  | 574   | 120   | 1239  | 553   | 327  | 600   | 625   | 120   | 581   | 493   |
| HCM Platoon Ratio            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| Upstream Filter(l)           | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| Uniform Delay (d), s/veh     | 33.6  | 18.5  | 18.4  | 34.9  | 23.9  | 19.4  | 33.1   | 19.9  | 20.0  | 34.5  | 25.6  | 24.8  |
| Incr Delay (d2), s/veh       | 25.5  | 0.2   | 0.4   | 18.0  | 4.5   | 0.3   | 22.6   | 0.3   | 0.3   | 83.4  | 11.8  | 6.5   |
| Initial Q Delay(d3),s/veh    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| %ile BackOfQ(50%),veh/ln     | 3.0   | 2.6   | 2.4   | 1.5   | 7.0   | 1.6   | 3.4  | 2.0   | 2.1   | 4.8   | 8.4   | 5.7   |
| Unsig. Movement Delay, s/veh |   |   |   |   |   |   |  |   |   |   |   |   |
| LnGrp Delay(d),s/veh         | 59.1  | 18.7  | 18.8  | 52.9  | 28.4  | 19.7  | 55.7   | 20.3  | 20.3  | 117.9   | 37.3  | 31.3  |
| LnGrp LOS                    | E   | B   | B   | D   | C   | B   | E  | C   | C   | F   | D   | C   |
| Approach Vol, veh/h          |   | 898   |   |   | 1094  |   |  | 621   |   |   | 897   |   |
| Approach Delay, s/veh        |   | 29.8  |   |   | 28.8  |   |  | 36.6  |   |   | 45.9  |   |
| Approach LOS                 |   | C   |   |   | C   |   |  | D   |   |   | D   |   |
| Timer - Assigned Phs         | 1   | 2   | 3   | 4   | 5   | 6   | 7  | 8   |   |   |   |   |
| Phs Duration (G+Y+Rc), s     | 7.4   | 30.9  | 11.0  | 24.7  | 10.0  | 28.3  | 9.0  | 26.7  |   |   |   |   |
| Change Period (Y+Rc), s      | 4.0   | 5.7   | 4.0   | 4.5   | 4.0   | 5.7   | 4.0  | 4.5   |   |   |   |   |
| Max Green Setting (Gmax), s  | 5.0   | 26.8  | 7.0   | 23.0  | 6.0   | 25.8  | 5.0  | 25.0  |   |   |   |   |
| Max Q Clear Time (g_c+I1), s | 4.6   | 9.1   | 8.1   | 18.6  | 7.2   | 19.5  | 7.0  | 7.3   |   |   |   |   |
| Green Ext Time (p_c), s      | 0.0   | 3.0   | 0.0   | 1.6   | 0.0   | 3.1   | 0.0  | 1.6   |   |   |   |   |
| <b>Intersection Summary</b>  |   |   |   |   |   |   |  |   |   |   |   |   |
| HCM 6th Ctrl Delay           |   |   | 34.8  |   |   |   |  |   |   |   |   |   |
| HCM 6th LOS                  |   |   | C   |   |   |   |  |   |   |   |   |   |

Generations at Green Valley  
 3: El Dorado Hills Blvd./Salmon Falls Rd & Green Valley Road

Cumulative plus Project  
 Timing Plan: AM



| Lane Group              | EBL   | EBT  | WBL  | WBT   | NBL  | NBT  | SBL  | SBT  | SBR  |
|-------------------------|-------|------|------|-------|------|------|------|------|------|
| Lane Group Flow (vph)   | 96    | 539  | 137  | 969   | 61   | 249  | 154  | 306  | 160  |
| v/c Ratio               | 0.87  | 0.67 | 0.73 | 1.11  | 0.24 | 0.93 | 0.50 | 0.94 | 0.43 |
| Control Delay           | 116.8 | 35.4 | 78.5 | 97.3  | 52.4 | 90.9 | 54.8 | 90.1 | 18.8 |
| Queue Delay             | 0.0   | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 116.8 | 35.4 | 78.5 | 97.3  | 52.4 | 90.9 | 54.8 | 90.1 | 18.8 |
| Queue Length 50th (ft)  | 82    | 363  | 113  | ~931  | 46   | 195  | 119  | 257  | 31   |
| Queue Length 95th (ft)  | #170  | 457  | 180  | #1167 | 65   | 200  | 167  | #356 | 74   |
| Internal Link Dist (ft) |       | 1876 |      | 819   |      | 2981 |      | 502  |      |
| Turn Bay Length (ft)    | 85    |      | 105  |       | 165  |      |      |      | 100  |
| Base Capacity (vph)     | 110   | 800  | 220  | 875   | 251  | 267  | 309  | 325  | 372  |
| Starvation Cap Reductn  | 0     | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0     | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0     | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.87  | 0.67 | 0.62 | 1.11  | 0.24 | 0.93 | 0.50 | 0.94 | 0.43 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
3: El Dorado Hills Blvd./Salmon Falls Rd & Green Valley Road

Cumulative plus Project  
Timing Plan: AM



| Movement                     | EBL   | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT   | NBR   | SBL  | SBT  | SBR  |
|------------------------------|-------|------|------|------|------|------|------|-------|-------|------|------|------|
| Lane Configurations          |       |      |      |      |      |      |      |       |       |      |      |      |
| Traffic Volume (veh/h)       | 81    | 441  | 12   | 122  | 795  | 68   | 40   | 102   | 62    | 123  | 245  | 128  |
| Future Volume (veh/h)        | 81    | 441  | 12   | 122  | 795  | 68   | 40   | 102   | 62    | 123  | 245  | 128  |
| Initial Q (Qb), veh          | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0     | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00  |      | 1.00 | 1.00 |      | 1.00 | 1.00 |       | 1.00  | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |       | No   |      |      | No   |      |      | No    |       |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870  | 1870  | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 96    | 525  | 14   | 137  | 893  | 76   | 61   | 155   | 94    | 154  | 306  | 160  |
| Peak Hour Factor             | 0.84  | 0.84 | 0.84 | 0.89 | 0.89 | 0.89 | 0.66 | 0.66  | 0.66  | 0.80 | 0.80 | 0.80 |
| Percent Heavy Veh, %         | 2     | 2    | 2    | 2    | 2    | 2    | 2    | 2     | 2     | 2    | 2    | 2    |
| Cap, veh/h                   | 111   | 808  | 22   | 162  | 807  | 69   | 253  | 155   | 94    | 311  | 327  | 277  |
| Arrive On Green              | 0.06  | 0.45 | 0.45 | 0.09 | 0.47 | 0.47 | 0.14 | 0.14  | 0.14  | 0.17 | 0.17 | 0.17 |
| Sat Flow, veh/h              | 1781  | 1813 | 48   | 1781 | 1700 | 145  | 1781 | 1090  | 661   | 1781 | 1870 | 1585 |
| Grp Volume(v), veh/h         | 96    | 0    | 539  | 137  | 0    | 969  | 61   | 0     | 249   | 154  | 306  | 160  |
| Grp Sat Flow(s),veh/h/ln     | 1781  | 0    | 1862 | 1781 | 0    | 1844 | 1781 | 0     | 1751  | 1781 | 1870 | 1585 |
| Q Serve(g_s), s              | 6.9   | 0.0  | 29.4 | 9.8  | 0.0  | 61.7 | 4.0  | 0.0   | 18.5  | 10.2 | 21.0 | 12.0 |
| Cycle Q Clear(g_c), s        | 6.9   | 0.0  | 29.4 | 9.8  | 0.0  | 61.7 | 4.0  | 0.0   | 18.5  | 10.2 | 21.0 | 12.0 |
| Prop In Lane                 | 1.00  |      | 0.03 | 1.00 |      | 0.08 | 1.00 |       | 0.38  | 1.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 111   | 0    | 830  | 162  | 0    | 875  | 253  | 0     | 249   | 311  | 327  | 277  |
| V/C Ratio(X)                 | 0.86  | 0.00 | 0.65 | 0.84 | 0.00 | 1.11 | 0.24 | 0.00  | 1.00  | 0.50 | 0.94 | 0.58 |
| Avail Cap(c_a), veh/h        | 111   | 0    | 830  | 222  | 0    | 875  | 253  | 0     | 249   | 311  | 327  | 277  |
| HCM Platoon Ratio            | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00  | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00  | 1.00  | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 60.4  | 0.0  | 28.1 | 58.2 | 0.0  | 34.2 | 49.5 | 0.0   | 55.7  | 48.5 | 52.9 | 49.3 |
| Incr Delay (d2), s/veh       | 45.8  | 0.0  | 2.5  | 17.2 | 0.0  | 64.1 | 0.8  | 0.0   | 56.7  | 2.1  | 34.2 | 4.1  |
| Initial Q Delay(d3),s/veh    | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 4.5   | 0.0  | 12.9 | 5.1  | 0.0  | 40.9 | 1.8  | 0.0   | 11.9  | 4.6  | 12.7 | 5.0  |
| Unsig. Movement Delay, s/veh |       |      |      |      |      |      |      |       |       |      |      |      |
| LnGrp Delay(d),s/veh         | 106.2 | 0.0  | 30.6 | 75.4 | 0.0  | 98.3 | 50.3 | 0.0   | 112.5 | 50.6 | 87.1 | 53.3 |
| LnGrp LOS                    | F     | A    | C    | E    | A    | F    | D    | A     | F     | D    | F    | D    |
| Approach Vol, veh/h          |       | 635  |      |      | 1106 |      |      | 310   |       |      | 620  |      |
| Approach Delay, s/veh        |       | 42.0 |      |      | 95.4 |      |      | 100.3 |       |      | 69.3 |      |
| Approach LOS                 |       | D    |      |      | F    |      |      | F     |       |      | E    |      |
| Timer - Assigned Phs         | 1     | 2    |      | 4    | 5    | 6    |      | 8     |       |      |      |      |
| Phs Duration (G+Y+Rc), s     | 15.3  | 64.0 |      | 28.2 | 11.6 | 67.7 |      | 22.5  |       |      |      |      |
| Change Period (Y+Rc), s      | 3.5   | 6.0  |      | 5.5  | 3.5  | 6.0  |      | 4.0   |       |      |      |      |
| Max Green Setting (Gmax), s  | 16.2  | 53.6 |      | 22.7 | 8.1  | 61.7 |      | 18.5  |       |      |      |      |
| Max Q Clear Time (g_c+l1), s | 11.8  | 31.4 |      | 23.0 | 8.9  | 63.7 |      | 20.5  |       |      |      |      |
| Green Ext Time (p_c), s      | 0.1   | 6.0  |      | 0.0  | 0.0  | 0.0  |      | 0.0   |       |      |      |      |
| <b>Intersection Summary</b>  |       |      |      |      |      |      |      |       |       |      |      |      |
| HCM 6th Ctrl Delay           |       |      |      | 77.2 |      |      |      |       |       |      |      |      |
| HCM 6th LOS                  |       |      |      | E    |      |      |      |       |       |      |      |      |

Generations at Green Valley  
 4: Silva Valley Pkwy./Allegheny Rd & Green Valley Road/Green Valley Rd.

Cumulative plus Project  
 Timing Plan: AM

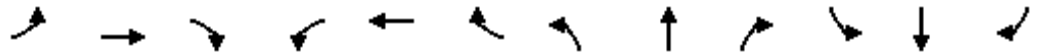


| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 5    | 439  | 254  | 158  | 795  | 372  | 125  | 38   |
| v/c Ratio               | 0.06 | 0.67 | 0.35 | 0.70 | 0.84 | 0.77 | 0.24 | 0.26 |
| Control Delay           | 44.8 | 30.6 | 4.4  | 55.9 | 30.1 | 42.5 | 12.8 | 42.9 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 44.8 | 30.6 | 4.4  | 55.9 | 30.1 | 42.5 | 12.8 | 42.9 |
| Queue Length 50th (ft)  | 3    | 213  | 0    | 84   | 370  | 187  | 18   | 19   |
| Queue Length 95th (ft)  | 15   | 330  | 50   | #202 | #735 | 244  | 43   | 45   |
| Internal Link Dist (ft) |      | 819  |      |      | 2255 |      | 4847 | 380  |
| Turn Bay Length (ft)    | 205  |      | 205  | 350  |      | 150  |      |      |
| Base Capacity (vph)     | 83   | 780  | 810  | 231  | 946  | 491  | 524  | 481  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.06 | 0.56 | 0.31 | 0.68 | 0.84 | 0.76 | 0.24 | 0.08 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.





| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 5    | 408  | 236  | 144  | 707  | 16   | 264  | 30   | 59   | 4    | 25   | 1    |
| Future Volume (veh/h)        | 5    | 408  | 236  | 144  | 707  | 16   | 264  | 30   | 59   | 4    | 25   | 1    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 5    | 439  | 254  | 158  | 777  | 18   | 372  | 42   | 83   | 5    | 32   | 1    |
| Peak Hour Factor             | 0.93 | 0.93 | 0.93 | 0.91 | 0.91 | 0.91 | 0.71 | 0.71 | 0.71 | 0.77 | 0.77 | 0.77 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 88   | 753  | 638  | 194  | 841  | 19   | 419  | 132  | 261  | 7    | 44   | 1    |
| Arrive On Green              | 0.05 | 0.40 | 0.40 | 0.11 | 0.46 | 0.46 | 0.24 | 0.24 | 0.24 | 0.03 | 0.03 | 0.03 |
| Sat Flow, veh/h              | 1781 | 1870 | 1585 | 1781 | 1821 | 42   | 1781 | 561  | 1109 | 243  | 1557 | 49   |
| Grp Volume(v), veh/h         | 5    | 439  | 254  | 158  | 0    | 795  | 372  | 0    | 125  | 38   | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1870 | 1585 | 1781 | 0    | 1863 | 1781 | 0    | 1671 | 1849 | 0    | 0    |
| Q Serve(g_s), s              | 0.2  | 14.9 | 9.3  | 7.0  | 0.0  | 32.5 | 16.4 | 0.0  | 5.0  | 1.7  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 0.2  | 14.9 | 9.3  | 7.0  | 0.0  | 32.5 | 16.4 | 0.0  | 5.0  | 1.7  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 0.02 | 1.00 |      | 0.66 | 0.13 |      | 0.03 |
| Lane Grp Cap(c), veh/h       | 88   | 753  | 638  | 194  | 0    | 861  | 419  | 0    | 393  | 52   | 0    | 0    |
| V/C Ratio(X)                 | 0.06 | 0.58 | 0.40 | 0.82 | 0.00 | 0.92 | 0.89 | 0.00 | 0.32 | 0.72 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 88   | 813  | 689  | 241  | 0    | 970  | 513  | 0    | 481  | 501  | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 36.8 | 18.9 | 17.3 | 35.4 | 0.0  | 20.5 | 30.1 | 0.0  | 25.7 | 39.2 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 0.2  | 0.9  | 0.4  | 14.6 | 0.0  | 13.1 | 14.4 | 0.0  | 0.3  | 13.1 | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.1  | 5.8  | 3.0  | 3.6  | 0.0  | 14.7 | 8.1  | 0.0  | 1.9  | 0.9  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 37.0 | 19.9 | 17.7 | 50.1 | 0.0  | 33.6 | 44.4 | 0.0  | 26.0 | 52.3 | 0.0  | 0.0  |
| LnGrp LOS                    | D    | B    | B    | D    | A    | C    | D    | A    | C    | D    | A    | A    |
| Approach Vol, veh/h          |      | 698  |      |      | 953  |      |      | 497  |      |      | 38   |      |
| Approach Delay, s/veh        |      | 19.2 |      |      | 36.3 |      |      | 39.8 |      |      | 52.3 |      |
| Approach LOS                 |      | B    |      |      | D    |      |      | D    |      |      | D    |      |
| Timer - Assigned Phs         | 1    | 2    |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 8.0  | 43.3 |      | 6.3  | 12.8 | 38.4 |      | 23.7 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 5.7  |      | 4.0  | 4.0  | 5.7  |      | 4.6  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0  | 42.3 |      | 22.0 | 11.0 | 35.3 |      | 23.4 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 2.2  | 34.5 |      | 3.7  | 9.0  | 16.9 |      | 18.4 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 3.0  |      | 0.1  | 0.1  | 3.0  |      | 0.7  |      |      |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 31.9 |
| HCM 6th LOS        | C    |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 1.3  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      |      |      |      |      |      |      |
| Traffic Vol, veh/h       | 442  | 26   | 9    | 830  | 23   | 9    |
| Future Vol, veh/h        | 442  | 26   | 9    | 830  | 23   | 9    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | 100  | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 91   | 91   | 94   | 94   | 56   | 56   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 486  | 29   | 10   | 883  | 41   | 16   |

| Major/Minor          | Major1 | Major2 | Minor1 |   |             |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 0      | 0      | 515    | 0 | 1404 501    |
| Stage 1              | -      | -      | -      | - | 501 -       |
| Stage 2              | -      | -      | -      | - | 903 -       |
| Critical Hdwy        | -      | -      | 4.12   | - | 6.42 6.22   |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.42 -      |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.42 -      |
| Follow-up Hdwy       | -      | -      | 2.218  | - | 3.518 3.318 |
| Pot Cap-1 Maneuver   | -      | -      | 1051   | - | 154 570     |
| Stage 1              | -      | -      | -      | - | 609 -       |
| Stage 2              | -      | -      | -      | - | 396 -       |
| Platoon blocked, %   | -      | -      | -      | - | -           |
| Mov Cap-1 Maneuver   | -      | -      | 1051   | - | 152 570     |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 152 -       |
| Stage 1              | -      | -      | -      | - | 609 -       |
| Stage 2              | -      | -      | -      | - | 392 -       |

| Approach             | EB | WB  | NB   |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0  | 0.1 | 31.7 |
| HCM LOS              |    |     | D    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 191   | -   | -   | 1051  | -   |
| HCM Lane V/C Ratio    | 0.299 | -   | -   | 0.009 | -   |
| HCM Control Delay (s) | 31.7  | -   | -   | 8.5   | -   |
| HCM Lane LOS          | D     | -   | -   | A     | -   |
| HCM 95th %tile Q(veh) | 1.2   | -   | -   | 0     | -   |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 3.4  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      |      |      |      |      |      |
| Traffic Vol, veh/h       | 40   | 411  | 738  | 21   | 32   | 105  |
| Future Vol, veh/h        | 40   | 411  | 738  | 21   | 32   | 105  |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 100  | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 43   | 447  | 802  | 23   | 35   | 114  |

| Major/Minor          | Major1 | Major2 | Minor2 |   |             |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 825    | 0      | -      | 0 | 1347 814    |
| Stage 1              | -      | -      | -      | - | 814 -       |
| Stage 2              | -      | -      | -      | - | 533 -       |
| Critical Hdwy        | 4.12   | -      | -      | - | 6.42 6.22   |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.42 -      |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.42 -      |
| Follow-up Hdwy       | 2.218  | -      | -      | - | 3.518 3.318 |
| Pot Cap-1 Maneuver   | 805    | -      | -      | - | 167 378     |
| Stage 1              | -      | -      | -      | - | 436 -       |
| Stage 2              | -      | -      | -      | - | 588 -       |
| Platoon blocked, %   |        | -      | -      | - |             |
| Mov Cap-1 Maneuver   | 805    | -      | -      | - | 158 378     |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 158 -       |
| Stage 1              | -      | -      | -      | - | 413 -       |
| Stage 2              | -      | -      | -      | - | 588 -       |

| Approach             | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.9 | 0  | 30.7 |
| HCM LOS              |     |    | D    |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 805   | -   | -   | -   | 285   |
| HCM Lane V/C Ratio    | 0.054 | -   | -   | -   | 0.523 |
| HCM Control Delay (s) | 9.7   | -   | -   | -   | 30.7  |
| HCM Lane LOS          | A     | -   | -   | -   | D     |
| HCM 95th %tile Q(veh) | 0.2   | -   | -   | -   | 2.8   |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.6  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      | ↶    | ↷    |      | ↶    | ↷    |
| Traffic Vol, veh/h       | 10   | 409  | 741  | 15   | 12   | 18   |
| Future Vol, veh/h        | 10   | 409  | 741  | 15   | 12   | 18   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 93   | 93   | 86   | 86   | 91   | 91   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 11   | 440  | 862  | 17   | 13   | 20   |

| Major/Minor          | Major1 | Major2 | Minor2 |       |       |
|----------------------|--------|--------|--------|-------|-------|
| Conflicting Flow All | 879    | 0      | 0      | 1333  | 871   |
| Stage 1              | -      | -      | -      | 871   | -     |
| Stage 2              | -      | -      | -      | 462   | -     |
| Critical Hdwy        | 4.12   | -      | -      | 6.42  | 6.22  |
| Critical Hdwy Stg 1  | -      | -      | -      | 5.42  | -     |
| Critical Hdwy Stg 2  | -      | -      | -      | 5.42  | -     |
| Follow-up Hdwy       | 2.218  | -      | -      | 3.518 | 3.318 |
| Pot Cap-1 Maneuver   | 769    | -      | -      | 170   | 350   |
| Stage 1              | -      | -      | -      | 410   | -     |
| Stage 2              | -      | -      | -      | 634   | -     |
| Platoon blocked, %   | -      | -      | -      | -     | -     |
| Mov Cap-1 Maneuver   | 769    | -      | -      | 167   | 350   |
| Mov Cap-2 Maneuver   | -      | -      | -      | 167   | -     |
| Stage 1              | -      | -      | -      | 402   | -     |
| Stage 2              | -      | -      | -      | 634   | -     |

| Approach             | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.2 | 0  | 22.1 |
| HCM LOS              |     |    | C    |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 769   | -   | -   | -   | 243   |
| HCM Lane V/C Ratio    | 0.014 | -   | -   | -   | 0.136 |
| HCM Control Delay (s) | 9.7   | 0   | -   | -   | 22.1  |
| HCM Lane LOS          | A     | A   | -   | -   | C     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0.5   |

Generations at Green Valley  
8: Deer Valley Rd. & Green Valley Rd.

Cumulative plus Project  
Timing Plan: AM



| Lane Group                  | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBT  | SBT  |
|-----------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)       | 21   | 405  | 30   | 55   | 669  | 18   | 126  | 123  |
| v/c Ratio                   | 0.08 | 0.43 | 0.04 | 0.11 | 0.70 | 0.02 | 0.33 | 0.34 |
| Control Delay               | 4.8  | 6.4  | 2.0  | 4.7  | 10.7 | 2.1  | 9.5  | 10.3 |
| Queue Delay                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay                 | 4.8  | 6.4  | 2.0  | 4.7  | 10.7 | 2.1  | 9.5  | 10.3 |
| Queue Length 50th (ft)      | 1    | 32   | 0    | 4    | 65   | 0    | 7    | 8    |
| Queue Length 95th (ft)      | 8    | 86   | 7    | 15   | 162  | 4    | 27   | 31   |
| Internal Link Dist (ft)     |      | 2852 |      |      | 3999 |      | 988  | 946  |
| Turn Bay Length (ft)        | 415  |      | 415  | 415  |      | 415  |      |      |
| Base Capacity (vph)         | 435  | 1527 | 1303 | 777  | 1527 | 1302 | 769  | 751  |
| Starvation Cap Reductn      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio           | 0.05 | 0.27 | 0.02 | 0.07 | 0.44 | 0.01 | 0.16 | 0.16 |
| <b>Intersection Summary</b> |      |      |      |      |      |      |      |      |

Generations at Green Valley  
8: Deer Valley Rd. & Green Valley Rd.

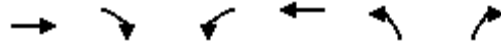
Cumulative plus Project  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 19   | 369  | 27   | 48   | 582  | 16   | 35   | 1    | 51   | 40   | 2    | 46   |
| Future Volume (veh/h)        | 19   | 369  | 27   | 48   | 582  | 16   | 35   | 1    | 51   | 40   | 2    | 46   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 21   | 405  | 30   | 55   | 669  | 18   | 51   | 1    | 74   | 56   | 3    | 64   |
| Peak Hour Factor             | 0.91 | 0.91 | 0.91 | 0.87 | 0.87 | 0.87 | 0.69 | 0.69 | 0.69 | 0.72 | 0.72 | 0.72 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 473  | 957  | 811  | 651  | 957  | 811  | 294  | 19   | 153  | 315  | 23   | 136  |
| Arrive On Green              | 0.51 | 0.51 | 0.51 | 0.51 | 0.51 | 0.51 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 |
| Sat Flow, veh/h              | 755  | 1870 | 1585 | 954  | 1870 | 1585 | 543  | 113  | 933  | 622  | 140  | 827  |
| Grp Volume(v), veh/h         | 21   | 405  | 30   | 55   | 669  | 18   | 126  | 0    | 0    | 123  | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 755  | 1870 | 1585 | 954  | 1870 | 1585 | 1589 | 0    | 0    | 1589 | 0    | 0    |
| Q Serve(g_s), s              | 0.5  | 3.3  | 0.2  | 0.9  | 6.7  | 0.1  | 0.1  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 7.2  | 3.3  | 0.2  | 4.3  | 6.7  | 0.1  | 1.6  | 0.0  | 0.0  | 1.5  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 0.40 |      | 0.59 | 0.46 |      | 0.52 |
| Lane Grp Cap(c), veh/h       | 473  | 957  | 811  | 651  | 957  | 811  | 466  | 0    | 0    | 473  | 0    | 0    |
| V/C Ratio(X)                 | 0.04 | 0.42 | 0.04 | 0.08 | 0.70 | 0.02 | 0.27 | 0.00 | 0.00 | 0.26 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 883  | 1972 | 1671 | 1169 | 1972 | 1671 | 1181 | 0    | 0    | 1181 | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 7.3  | 3.8  | 3.0  | 5.1  | 4.6  | 3.0  | 9.3  | 0.0  | 0.0  | 9.3  | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 0.0  | 0.3  | 0.0  | 0.1  | 0.9  | 0.0  | 0.3  | 0.0  | 0.0  | 0.3  | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.0  | 0.1  | 0.0  | 0.0  | 0.2  | 0.0  | 0.4  | 0.0  | 0.0  | 0.4  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 7.4  | 4.1  | 3.0  | 5.1  | 5.5  | 3.0  | 9.6  | 0.0  | 0.0  | 9.6  | 0.0  | 0.0  |
| LnGrp LOS                    | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    | A    |
| Approach Vol, veh/h          |      | 456  |      |      | 742  |      |      | 126  |      |      |      | 123  |
| Approach Delay, s/veh        |      | 4.1  |      |      | 5.4  |      |      | 9.6  |      |      |      | 9.6  |
| Approach LOS                 |      | A    |      |      | A    |      |      | A    |      |      |      | A    |
| Timer - Assigned Phs         |      | 2    |      | 4    |      | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 8.0  |      | 16.6 |      | 8.0  |      | 16.6 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  |      | 4.0  |      | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 16.0 |      | 26.0 |      | 16.0 |      | 26.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 3.6  |      | 9.2  |      | 3.5  |      | 8.7  |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.5  |      | 2.1  |      | 0.4  |      | 3.9  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      | 5.7  |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      |      | A    |      |      |      |      |      |      |      |      |

Generations at Green Valley  
 9: Silver Springs Pkwy & Green Valley Rd

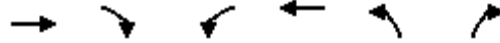
Cumulative plus Project  
 Timing Plan: AM



| Lane Group                  | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|-----------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph)       | 520  | 174  | 78   | 691  | 208  | 37   |
| v/c Ratio                   | 0.56 | 0.20 | 0.22 | 0.74 | 0.44 | 0.08 |
| Control Delay               | 9.3  | 1.9  | 7.3  | 13.3 | 15.8 | 5.9  |
| Queue Delay                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay                 | 9.3  | 1.9  | 7.3  | 13.3 | 15.8 | 5.9  |
| Queue Length 50th (ft)      | 59   | 0    | 7    | 90   | 34   | 0    |
| Queue Length 95th (ft)      | 150  | 20   | 29   | 231  | 91   | 15   |
| Internal Link Dist (ft)     | 3999 |      |      | 3318 | 1349 |      |
| Turn Bay Length (ft)        |      | 230  | 415  |      | 135  |      |
| Base Capacity (vph)         | 1362 | 1204 | 527  | 1362 | 811  | 745  |
| Starvation Cap Reductn      | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn       | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn         | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio           | 0.38 | 0.14 | 0.15 | 0.51 | 0.26 | 0.05 |
| <b>Intersection Summary</b> |      |      |      |      |      |      |

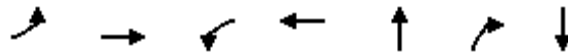
Generations at Green Valley  
9: Silver Springs Pkwy & Green Valley Rd

Cumulative plus Project  
Timing Plan: AM



| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations          | ↑    | ↗    | ↘    | ↑    | ↗    | ↘    |
| Traffic Volume (veh/h)       | 478  | 160  | 72   | 636  | 191  | 34   |
| Future Volume (veh/h)        | 478  | 160  | 72   | 636  | 191  | 34   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 520  | 174  | 78   | 691  | 208  | 37   |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 956  | 811  | 505  | 956  | 351  | 312  |
| Arrive On Green              | 0.51 | 0.51 | 0.51 | 0.51 | 0.20 | 0.20 |
| Sat Flow, veh/h              | 1870 | 1585 | 750  | 1870 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 520  | 174  | 78   | 691  | 208  | 37   |
| Grp Sat Flow(s),veh/h/ln     | 1870 | 1585 | 750  | 1870 | 1781 | 1585 |
| Q Serve(g_s), s              | 5.2  | 1.7  | 2.2  | 7.9  | 2.9  | 0.5  |
| Cycle Q Clear(g_c), s        | 5.2  | 1.7  | 7.3  | 7.9  | 2.9  | 0.5  |
| Prop In Lane                 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 956  | 811  | 505  | 956  | 351  | 312  |
| V/C Ratio(X)                 | 0.54 | 0.21 | 0.15 | 0.72 | 0.59 | 0.12 |
| Avail Cap(c_a), veh/h        | 1773 | 1503 | 833  | 1773 | 1039 | 925  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 4.5  | 3.7  | 7.0  | 5.2  | 10.0 | 9.1  |
| Incr Delay (d2), s/veh       | 0.5  | 0.1  | 0.1  | 1.0  | 1.6  | 0.2  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.1  | 0.0  | 0.1  | 0.3  | 0.7  | 0.1  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 5.0  | 3.8  | 7.2  | 6.2  | 11.6 | 9.2  |
| LnGrp LOS                    | A    | A    | A    | A    | B    | A    |
| Approach Vol, veh/h          | 694  |      |      | 769  | 245  |      |
| Approach Delay, s/veh        | 4.7  |      |      | 6.3  | 11.3 |      |
| Approach LOS                 | A    |      |      | A    | B    |      |
| Timer - Assigned Phs         |      | 2    |      | 4    |      | 8    |
| Phs Duration (G+Y+Rc), s     |      | 9.4  |      | 18.0 |      | 18.0 |
| Change Period (Y+Rc), s      |      | 4.0  |      | 4.0  |      | 4.0  |
| Max Green Setting (Gmax), s  |      | 16.0 |      | 26.0 |      | 26.0 |
| Max Q Clear Time (g_c+l1), s |      | 4.9  |      | 7.2  |      | 9.9  |
| Green Ext Time (p_c), s      |      | 0.5  |      | 3.2  |      | 4.2  |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 6.4  |      |      |      |
| HCM 6th LOS                  |      |      | A    |      |      |      |





| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBT  | NBR  | SBT  |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 7    | 856  | 184  | 801  | 157  | 250  | 10   |
| v/c Ratio               | 0.08 | 0.87 | 0.80 | 0.61 | 0.57 | 0.55 | 0.04 |
| Control Delay           | 40.0 | 28.6 | 60.3 | 11.4 | 39.2 | 9.3  | 0.2  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 40.0 | 28.6 | 60.3 | 11.4 | 39.2 | 9.3  | 0.2  |
| Queue Length 50th (ft)  | 3    | 307  | 84   | 136  | 68   | 0    | 0    |
| Queue Length 95th (ft)  | 12   | 337  | #177 | 382  | 95   | 8    | 0    |
| Internal Link Dist (ft) |      | 3318 |      | 1151 | 1084 |      | 521  |
| Turn Bay Length (ft)    | 285  |      | 435  |      |      | 150  |      |
| Base Capacity (vph)     | 92   | 986  | 231  | 1306 | 394  | 546  | 477  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.08 | 0.87 | 0.80 | 0.61 | 0.40 | 0.46 | 0.02 |

**Intersection Summary**

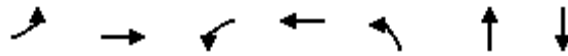
# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
10: Bass Lake Rd./Alexandrite Dr & Green Valley Rd.

Cumulative plus Project  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 4    | 466  | 56   | 140  | 608  | 1    | 99   | 1    | 160  | 4    | 0    | 1    |
| Future Volume (veh/h)        | 4    | 466  | 56   | 140  | 608  | 1    | 99   | 1    | 160  | 4    | 0    | 1    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 7    | 764  | 92   | 184  | 800  | 1    | 155  | 2    | 250  | 8    | 0    | 2    |
| Peak Hour Factor             | 0.61 | 0.61 | 0.61 | 0.76 | 0.76 | 0.76 | 0.64 | 0.64 | 0.64 | 0.50 | 0.50 | 0.50 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 13   | 799  | 96   | 219  | 1127 | 1    | 322  | 4    | 290  | 14   | 0    | 3    |
| Arrive On Green              | 0.01 | 0.49 | 0.49 | 0.12 | 0.60 | 0.60 | 0.18 | 0.18 | 0.18 | 0.01 | 0.00 | 0.01 |
| Sat Flow, veh/h              | 1781 | 1638 | 197  | 1781 | 1868 | 2    | 1760 | 23   | 1585 | 1391 | 0    | 348  |
| Grp Volume(v), veh/h         | 7    | 0    | 856  | 184  | 0    | 801  | 157  | 0    | 250  | 10   | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1835 | 1781 | 0    | 1870 | 1782 | 0    | 1585 | 1738 | 0    | 0    |
| Q Serve(g_s), s              | 0.3  | 0.0  | 36.5 | 8.2  | 0.0  | 24.2 | 6.4  | 0.0  | 12.5 | 0.5  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 0.3  | 0.0  | 36.5 | 8.2  | 0.0  | 24.2 | 6.4  | 0.0  | 12.5 | 0.5  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 0.11 | 1.00 |      | 0.00 | 0.99 |      | 1.00 | 0.80 |      | 0.20 |
| Lane Grp Cap(c), veh/h       | 13   | 0    | 896  | 219  | 0    | 1129 | 326  | 0    | 290  | 17   | 0    | 0    |
| V/C Ratio(X)                 | 0.55 | 0.00 | 0.96 | 0.84 | 0.00 | 0.71 | 0.48 | 0.00 | 0.86 | 0.58 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 87   | 0    | 923  | 219  | 0    | 1129 | 372  | 0    | 331  | 341  | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 40.3 | 0.0  | 20.0 | 35.0 | 0.0  | 11.2 | 29.8 | 0.0  | 32.3 | 40.2 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 31.7 | 0.0  | 19.5 | 24.6 | 0.0  | 2.1  | 1.1  | 0.0  | 18.4 | 27.0 | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.2  | 0.0  | 17.0 | 4.7  | 0.0  | 7.6  | 2.7  | 0.0  | 5.8  | 0.3  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 72.0 | 0.0  | 39.5 | 59.6 | 0.0  | 13.3 | 30.9 | 0.0  | 50.7 | 67.2 | 0.0  | 0.0  |
| LnGrp LOS                    | E    | A    | D    | E    | A    | B    | C    | A    | D    | E    | A    | A    |
| Approach Vol, veh/h          |      | 863  |      |      | 985  |      |      | 407  |      |      |      | 10   |
| Approach Delay, s/veh        |      | 39.7 |      |      | 21.9 |      |      | 43.1 |      |      |      | 67.2 |
| Approach LOS                 |      | D    |      |      | C    |      |      | D    |      |      |      | E    |
| Timer - Assigned Phs         |      | 2    | 3    | 4    |      | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 18.9 | 14.0 | 43.8 |      | 4.8  | 4.6  | 53.2 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 17.0 | 10.0 | 41.0 |      | 16.0 | 4.0  | 47.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 14.5 | 10.2 | 38.5 |      | 2.5  | 2.3  | 26.2 |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.4  | 0.0  | 1.3  |      | 0.0  | 0.0  | 4.9  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 32.7 |      |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      | C    |      |      |      |      |      |      |      |      |      |



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBT  |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 16   | 906  | 42   | 695  | 249  | 61   | 59   |
| v/c Ratio               | 0.16 | 0.92 | 0.42 | 0.64 | 0.71 | 0.17 | 0.30 |
| Control Delay           | 41.6 | 35.9 | 51.4 | 16.9 | 41.9 | 10.9 | 23.4 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 41.6 | 35.9 | 51.4 | 16.9 | 41.9 | 10.9 | 23.4 |
| Queue Length 50th (ft)  | 8    | ~502 | 21   | 221  | 118  | 2    | 12   |
| Queue Length 95th (ft)  | 21   | #427 | #47  | 349  | 174  | 26   | 39   |
| Internal Link Dist (ft) |      | 1151 |      | 2235 |      | 1080 | 510  |
| Turn Bay Length (ft)    | 100  |      | 125  |      | 125  |      |      |
| Base Capacity (vph)     | 100  | 987  | 100  | 1079 | 403  | 409  | 411  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.16 | 0.92 | 0.42 | 0.64 | 0.62 | 0.15 | 0.14 |

**Intersection Summary**

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
11: Cambridge Rd./Peridot Dr & Green Valley Rd.

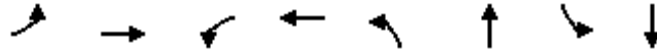
Cumulative plus Project  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 11   | 500  | 116  | 32   | 529  | 6    | 197  | 4    | 44   | 16   | 4    | 27   |
| Future Volume (veh/h)        | 11   | 500  | 116  | 32   | 529  | 6    | 197  | 4    | 44   | 16   | 4    | 27   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 16   | 735  | 171  | 42   | 687  | 8    | 249  | 5    | 56   | 20   | 5    | 34   |
| Peak Hour Factor             | 0.68 | 0.68 | 0.68 | 0.77 | 0.77 | 0.77 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 27   | 771  | 179  | 57   | 1000 | 12   | 302  | 22   | 250  | 25   | 6    | 43   |
| Arrive On Green              | 0.02 | 0.53 | 0.53 | 0.03 | 0.54 | 0.54 | 0.17 | 0.17 | 0.17 | 0.04 | 0.04 | 0.04 |
| Sat Flow, veh/h              | 1781 | 1467 | 341  | 1781 | 1845 | 21   | 1781 | 132  | 1474 | 566  | 141  | 962  |
| Grp Volume(v), veh/h         | 16   | 0    | 906  | 42   | 0    | 695  | 249  | 0    | 61   | 59   | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1809 | 1781 | 0    | 1866 | 1781 | 0    | 1605 | 1669 | 0    | 0    |
| Q Serve(g_s), s              | 0.6  | 0.0  | 33.4 | 1.6  | 0.0  | 19.0 | 9.5  | 0.0  | 2.3  | 2.5  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 0.6  | 0.0  | 33.4 | 1.6  | 0.0  | 19.0 | 9.5  | 0.0  | 2.3  | 2.5  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 0.19 | 1.00 |      | 0.01 | 1.00 |      | 0.92 | 0.34 |      | 0.58 |
| Lane Grp Cap(c), veh/h       | 27   | 0    | 950  | 57   | 0    | 1012 | 302  | 0    | 272  | 75   | 0    | 0    |
| V/C Ratio(X)                 | 0.59 | 0.00 | 0.95 | 0.74 | 0.00 | 0.69 | 0.82 | 0.00 | 0.22 | 0.79 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 102  | 0    | 981  | 102  | 0    | 1012 | 407  | 0    | 366  | 381  | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 34.3 | 0.0  | 15.8 | 33.6 | 0.0  | 11.7 | 28.1 | 0.0  | 25.1 | 33.1 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 18.5 | 0.0  | 18.2 | 17.0 | 0.0  | 2.0  | 9.8  | 0.0  | 0.4  | 16.4 | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.4  | 0.0  | 14.3 | 0.9  | 0.0  | 6.0  | 4.6  | 0.0  | 0.9  | 1.3  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 52.8 | 0.0  | 34.0 | 50.6 | 0.0  | 13.7 | 37.9 | 0.0  | 25.5 | 49.6 | 0.0  | 0.0  |
| LnGrp LOS                    | D    | A    | C    | D    | A    | B    | D    | A    | C    | D    | A    | A    |
| Approach Vol, veh/h          |      | 922  |      |      | 737  |      |      | 310  |      |      |      | 59   |
| Approach Delay, s/veh        |      | 34.4 |      |      | 15.8 |      |      | 35.4 |      |      |      | 49.6 |
| Approach LOS                 |      | C    |      |      | B    |      |      | D    |      |      |      | D    |
| Timer - Assigned Phs         |      | 2    | 3    | 4    |      | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 15.9 | 6.2  | 40.8 |      | 7.1  | 5.1  | 42.0 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 16.0 | 4.0  | 38.0 |      | 16.0 | 4.0  | 38.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 11.5 | 3.6  | 35.4 |      | 4.5  | 2.6  | 21.0 |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.5  | 0.0  | 1.5  |      | 0.2  | 0.0  | 3.8  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 28.2 |      |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      | C    |      |      |      |      |      |      |      |      |      |

Generations at Green Valley  
 12: Cameron Park Dr. & Green Valley Rd.

Cumulative plus Project  
 Timing Plan: AM



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 29   | 770  | 132  | 314  | 266  | 177  | 35   | 133  |
| v/c Ratio               | 0.28 | 0.97 | 0.90 | 0.32 | 0.91 | 0.33 | 0.28 | 0.55 |
| Control Delay           | 46.6 | 50.1 | 95.1 | 14.3 | 71.8 | 9.8  | 44.9 | 37.5 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 46.6 | 50.1 | 95.1 | 14.3 | 71.8 | 9.8  | 44.9 | 37.5 |
| Queue Length 50th (ft)  | 15   | 362  | 71   | 80   | 141  | 17   | 18   | 56   |
| Queue Length 95th (ft)  | 34   | 378  | #170 | 167  | #292 | 64   | 36   | 75   |
| Internal Link Dist (ft) |      | 2235 |      | 1414 |      | 1563 |      | 921  |
| Turn Bay Length (ft)    | 270  |      | 150  |      | 125  |      | 55   |      |
| Base Capacity (vph)     | 104  | 791  | 146  | 976  | 292  | 576  | 125  | 353  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.28 | 0.97 | 0.90 | 0.32 | 0.91 | 0.31 | 0.28 | 0.38 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
12: Cameron Park Dr. & Green Valley Rd.

Cumulative plus Project  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 20   | 274  | 265  | 111  | 255  | 8    | 234  | 34   | 121  | 23   | 60   | 28   |
| Future Volume (veh/h)        | 20   | 274  | 265  | 111  | 255  | 8    | 234  | 34   | 121  | 23   | 60   | 28   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 29   | 391  | 379  | 132  | 304  | 10   | 266  | 39   | 138  | 35   | 91   | 42   |
| Peak Hour Factor             | 0.70 | 0.70 | 0.70 | 0.84 | 0.84 | 0.84 | 0.88 | 0.88 | 0.88 | 0.66 | 0.66 | 0.66 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 42   | 392  | 380  | 151  | 920  | 30   | 302  | 88   | 312  | 48   | 123  | 57   |
| Arrive On Green              | 0.02 | 0.45 | 0.45 | 0.09 | 0.51 | 0.51 | 0.17 | 0.24 | 0.24 | 0.03 | 0.10 | 0.10 |
| Sat Flow, veh/h              | 1781 | 872  | 846  | 1781 | 1800 | 59   | 1781 | 361  | 1279 | 1781 | 1211 | 559  |
| Grp Volume(v), veh/h         | 29   | 0    | 770  | 132  | 0    | 314  | 266  | 0    | 177  | 35   | 0    | 133  |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1718 | 1781 | 0    | 1860 | 1781 | 0    | 1640 | 1781 | 0    | 1770 |
| Q Serve(g_s), s              | 1.3  | 0.0  | 36.8 | 6.0  | 0.0  | 8.2  | 12.0 | 0.0  | 7.5  | 1.6  | 0.0  | 6.0  |
| Cycle Q Clear(g_c), s        | 1.3  | 0.0  | 36.8 | 6.0  | 0.0  | 8.2  | 12.0 | 0.0  | 7.5  | 1.6  | 0.0  | 6.0  |
| Prop In Lane                 | 1.00 |      | 0.49 | 1.00 |      | 0.03 | 1.00 |      | 0.78 | 1.00 |      | 0.32 |
| Lane Grp Cap(c), veh/h       | 42   | 0    | 772  | 151  | 0    | 950  | 302  | 0    | 401  | 48   | 0    | 180  |
| V/C Ratio(X)                 | 0.69 | 0.00 | 1.00 | 0.87 | 0.00 | 0.33 | 0.88 | 0.00 | 0.44 | 0.73 | 0.00 | 0.74 |
| Avail Cap(c_a), veh/h        | 108  | 0    | 772  | 151  | 0    | 950  | 303  | 0    | 478  | 130  | 0    | 344  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh     | 39.9 | 0.0  | 22.6 | 37.2 | 0.0  | 11.8 | 33.4 | 0.0  | 26.3 | 39.8 | 0.0  | 35.9 |
| Incr Delay (d2), s/veh       | 18.3 | 0.0  | 31.6 | 38.6 | 0.0  | 0.2  | 24.4 | 0.0  | 0.8  | 19.4 | 0.0  | 5.9  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.8  | 0.0  | 18.8 | 4.1  | 0.0  | 2.8  | 6.9  | 0.0  | 2.8  | 0.9  | 0.0  | 2.8  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 58.2 | 0.0  | 54.2 | 75.8 | 0.0  | 12.0 | 57.7 | 0.0  | 27.1 | 59.1 | 0.0  | 41.8 |
| LnGrp LOS                    | E    | A    | D    | E    | A    | B    | E    | A    | C    | E    | A    | D    |
| Approach Vol, veh/h          |      | 799  |      |      | 446  |      |      | 443  |      |      | 168  |      |
| Approach Delay, s/veh        |      | 54.4 |      |      | 30.9 |      |      | 45.5 |      |      | 45.4 |      |
| Approach LOS                 |      | D    |      |      | C    |      |      | D    |      |      | D    |      |
| Timer - Assigned Phs         | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 6.2  | 24.1 | 11.0 | 41.0 | 18.0 | 12.4 | 5.9  | 46.1 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 6.0  | 24.0 | 7.0  | 37.0 | 14.0 | 16.0 | 5.0  | 39.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 3.6  | 9.5  | 8.0  | 38.8 | 14.0 | 8.0  | 3.3  | 10.2 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 0.7  | 0.0  | 0.0  | 0.0  | 0.3  | 0.0  | 1.6  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 45.8 |      |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      | D    |      |      |      |      |      |      |      |      |      |

| Intersection              |     |  |  |  |  |  |  |  |  |  |  |  |
|---------------------------|-----|--|--|--|--|--|--|--|--|--|--|--|
| Intersection Delay, s/veh | 7.3 |  |  |  |  |  |  |  |  |  |  |  |
| Intersection LOS          | F   |  |  |  |  |  |  |  |  |  |  |  |

| Movement            | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations |      | ↔    | ↔    |      | ↔    |      | ↔    | ↔    |      | ↔    | ↔    |      |
| Traffic Vol, veh/h  | 7    | 41   | 484  | 21   | 36   | 25   | 439  | 190  | 45   | 95   | 349  | 1    |
| Future Vol, veh/h   | 7    | 41   | 484  | 21   | 36   | 25   | 439  | 190  | 45   | 95   | 349  | 1    |
| Peak Hour Factor    | 0.86 | 0.86 | 0.86 | 0.52 | 0.52 | 0.52 | 0.92 | 0.92 | 0.92 | 0.75 | 0.75 | 0.75 |
| Heavy Vehicles, %   | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow           | 8    | 48   | 563  | 40   | 69   | 48   | 477  | 207  | 49   | 127  | 465  | 1    |
| Number of Lanes     | 0    | 1    | 1    | 0    | 1    | 0    | 1    | 1    | 0    | 1    | 1    | 0    |

| Approach                   | EB    | WB   | NB    | SB   |
|----------------------------|-------|------|-------|------|
| Opposing Approach          | WB    | EB   | SB    | NB   |
| Opposing Lanes             | 1     | 2    | 2     | 2    |
| Conflicting Approach Left  | SB    | NB   | EB    | WB   |
| Conflicting Lanes Left     | 2     | 2    | 2     | 1    |
| Conflicting Approach Right | NB    | SB   | WB    | EB   |
| Conflicting Lanes Right    | 2     | 2    | 1     | 2    |
| HCM Control Delay          | 146.3 | 23.2 | 103.8 | 93.4 |
| HCM LOS                    | F     | C    | F     | F    |

| Lane                   | NBLn1  | NBLn2 | EBLn1 | EBLn2 | WBLn1  | SBLn1  | SBLn2 |
|------------------------|--------|-------|-------|-------|--------|--------|-------|
| Vol Left, %            | 100%   | 0%    | 15%   | 0%    | 26%    | 100%   | 0%    |
| Vol Thru, %            | 0%     | 81%   | 85%   | 0%    | 44%    | 0%     | 100%  |
| Vol Right, %           | 0%     | 19%   | 0%    | 100%  | 30%    | 0%     | 0%    |
| Sign Control           | Stop   | Stop  | Stop  | Stop  | Stop   | Stop   | Stop  |
| Traffic Vol by Lane    | 439    | 235   | 48    | 484   | 82     | 95     | 350   |
| LT Vol                 | 439    | 0     | 7     | 0     | 21     | 95     | 0     |
| Through Vol            | 0      | 190   | 41    | 0     | 36     | 0      | 349   |
| RT Vol                 | 0      | 45    | 0     | 484   | 25     | 0      | 1     |
| Lane Flow Rate         | 477    | 255   | 56    | 563   | 158    | 127    | 467   |
| Geometry Grp           | 7      | 7     | 7     | 7     | 6      | 7      | 7     |
| Degree of Util (X)     | 1.205  | 0.6   | 0.137 | 1.257 | 0.441  | 0.322  | 1.121 |
| Departure Headway (Hd) | 10.047 | 9.38  | 9.358 | 8.551 | 11.434 | 10.079 | 9.551 |
| Convergence, Y/N       | Yes    | Yes   | Yes   | Yes   | Yes    | Yes    | Yes   |
| Cap                    | 367    | 388   | 386   | 428   | 317    | 358    | 383   |
| Service Time           | 7.747  | 7.08  | 7.058 | 6.251 | 9.434  | 7.779  | 7.251 |
| HCM Lane V/C Ratio     | 1.3    | 0.657 | 0.145 | 1.315 | 0.498  | 0.355  | 1.219 |
| HCM Control Delay      | 145.9  | 25.2  | 13.5  | 159.5 | 23.2   | 17.5   | 114   |
| HCM Lane LOS           | F      | D     | B     | F     | C      | C      | F     |
| HCM 95th-tile Q        | 18.1   | 3.8   | 0.5   | 22.4  | 2.2    | 1.4    | 15.8  |

Generations at Green Valley  
 14: El Dorado Hills Blvd. & Harvard Way

Cumulative plus Project  
 Timing Plan: AM



| Lane Group              | WBL  | WBR  | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|
| Lane Group Flow (vph)   | 625  | 282  | 1336 | 436  | 822  |
| v/c Ratio               | 0.98 | 0.38 | 0.98 | 0.95 | 0.44 |
| Control Delay           | 57.7 | 4.0  | 40.5 | 66.8 | 11.6 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 57.7 | 4.0  | 40.5 | 66.8 | 11.6 |
| Queue Length 50th (ft)  | 282  | 0    | 252  | 105  | 113  |
| Queue Length 95th (ft)  | #317 | 18   | #343 | #192 | 155  |
| Internal Link Dist (ft) | 2093 |      | 5028 |      | 7812 |
| Turn Bay Length (ft)    |      |      |      | 190  |      |
| Base Capacity (vph)     | 637  | 750  | 1359 | 457  | 1887 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.98 | 0.38 | 0.98 | 0.95 | 0.44 |

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.



Generations at Green Valley  
14: El Dorado Hills Blvd. & Harvard Way

Cumulative plus Project  
Timing Plan: AM



| Movement                     | WBL  | WBR  | NBT   | NBR   | SBL  | SBT  |
|------------------------------|------|------|-------|-------|------|------|
| Lane Configurations          |      |      |       |       |      |      |
| Traffic Volume (veh/h)       | 450  | 203  | 578   | 531   | 397  | 748  |
| Future Volume (veh/h)        | 450  | 203  | 578   | 531   | 397  | 748  |
| Initial Q (Qb), veh          | 0    | 0    | 0     | 0     | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 | 1.00 |       | 1.00  | 1.00 |      |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      | No    |       |      | No   |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870  | 1870  | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 625  | 282  | 696   | 640   | 436  | 822  |
| Peak Hour Factor             | 0.72 | 0.72 | 0.83  | 0.83  | 0.91 | 0.91 |
| Percent Heavy Veh, %         | 2    | 2    | 2     | 2     | 2    | 2    |
| Cap, veh/h                   | 641  | 571  | 616   | 549   | 461  | 1895 |
| Arrive On Green              | 0.36 | 0.36 | 0.35  | 0.35  | 0.13 | 0.53 |
| Sat Flow, veh/h              | 1781 | 1585 | 1870  | 1585  | 3456 | 3647 |
| Grp Volume(v), veh/h         | 625  | 282  | 696   | 640   | 436  | 822  |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1585 | 1777  | 1585  | 1728 | 1777 |
| Q Serve(g_s), s              | 25.9 | 10.4 | 26.0  | 26.0  | 9.4  | 10.5 |
| Cycle Q Clear(g_c), s        | 25.9 | 10.4 | 26.0  | 26.0  | 9.4  | 10.5 |
| Prop In Lane                 | 1.00 | 1.00 |       | 1.00  | 1.00 |      |
| Lane Grp Cap(c), veh/h       | 641  | 571  | 616   | 549   | 461  | 1895 |
| V/C Ratio(X)                 | 0.97 | 0.49 | 1.13  | 1.16  | 0.95 | 0.43 |
| Avail Cap(c_a), veh/h        | 641  | 571  | 616   | 549   | 461  | 1895 |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 23.7 | 18.7 | 24.5  | 24.5  | 32.2 | 10.6 |
| Incr Delay (d2), s/veh       | 29.1 | 0.7  | 77.6  | 92.7  | 28.8 | 0.2  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 15.0 | 3.6  | 22.5  | 22.4  | 5.4  | 3.2  |
| Unsig. Movement Delay, s/veh |      |      |       |       |      |      |
| LnGrp Delay(d),s/veh         | 52.8 | 19.3 | 102.1 | 117.2 | 61.0 | 10.8 |
| LnGrp LOS                    | D    | B    | F     | F     | E    | B    |
| Approach Vol, veh/h          | 907  |      | 1336  |       |      | 1258 |
| Approach Delay, s/veh        | 42.4 |      | 109.3 |       |      | 28.2 |
| Approach LOS                 | D    |      | F     |       |      | C    |
| Timer - Assigned Phs         | 1    | 2    |       |       | 6    | 8    |
| Phs Duration (G+Y+Rc), s     | 14.0 | 30.0 |       |       | 44.0 | 31.0 |
| Change Period (Y+Rc), s      | 4.0  | 4.0  |       |       | 4.0  | 4.0  |
| Max Green Setting (Gmax), s  | 10.0 | 26.0 |       |       | 40.0 | 27.0 |
| Max Q Clear Time (g_c+l1), s | 11.4 | 28.0 |       |       | 12.5 | 27.9 |
| Green Ext Time (p_c), s      | 0.0  | 0.0  |       |       | 5.5  | 0.0  |
| <b>Intersection Summary</b>  |      |      |       |       |      |      |
| HCM 6th Ctrl Delay           |      |      | 62.8  |       |      |      |
| HCM 6th LOS                  |      |      | E     |       |      |      |



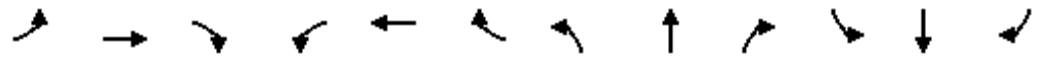
| Lane Group              | EBT  | EBR  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 277  | 202  | 63   | 92   | 965  | 25   | 1354 |
| v/c Ratio               | 0.81 | 0.37 | 0.18 | 0.60 | 0.50 | 0.20 | 0.81 |
| Control Delay           | 41.6 | 6.4  | 15.1 | 45.7 | 10.7 | 30.6 | 19.4 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 41.6 | 6.4  | 15.1 | 45.7 | 10.7 | 30.6 | 19.4 |
| Queue Length 50th (ft)  | 91   | 6    | 13   | 33   | 91   | 9    | 215  |
| Queue Length 95th (ft)  | #201 | 48   | 39   | #93  | 184  | 29   | #353 |
| Internal Link Dist (ft) | 1459 |      | 233  |      | 3231 |      | 5028 |
| Turn Bay Length (ft)    |      |      |      | 278  |      | 90   |      |
| Base Capacity (vph)     | 380  | 595  | 400  | 154  | 1914 | 123  | 1662 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.73 | 0.34 | 0.16 | 0.60 | 0.50 | 0.20 | 0.81 |

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
15: El Dorado Hills Blvd. & Wilson Blvd

Cumulative plus Project  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      | ↖    | ↗    |      | ↔    |      | ↖    | ↕    |      | ↖    | ↕    |      |
| Traffic Volume (veh/h)       | 244  | 11   | 186  | 37   | 9    | 12   | 85   | 868  | 20   | 23   | 988  | 258  |
| Future Volume (veh/h)        | 244  | 11   | 186  | 37   | 9    | 12   | 85   | 868  | 20   | 23   | 988  | 258  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 265  | 12   | 202  | 40   | 10   | 13   | 92   | 943  | 22   | 25   | 1074 | 280  |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 444  | 15   | 421  | 149  | 40   | 22   | 117  | 1775 | 41   | 41   | 1277 | 331  |
| Arrive On Green              | 0.27 | 0.27 | 0.27 | 0.27 | 0.27 | 0.27 | 0.07 | 0.50 | 0.50 | 0.02 | 0.46 | 0.46 |
| Sat Flow, veh/h              | 1205 | 55   | 1585 | 170  | 151  | 84   | 1781 | 3549 | 83   | 1781 | 2794 | 723  |
| Grp Volume(v), veh/h         | 277  | 0    | 202  | 63   | 0    | 0    | 92   | 472  | 493  | 25   | 680  | 674  |
| Grp Sat Flow(s),veh/h/ln     | 1260 | 0    | 1585 | 406  | 0    | 0    | 1781 | 1777 | 1855 | 1781 | 1777 | 1740 |
| Q Serve(g_s), s              | 0.0  | 0.0  | 6.1  | 1.0  | 0.0  | 0.0  | 2.9  | 10.3 | 10.3 | 0.8  | 19.2 | 19.5 |
| Cycle Q Clear(g_c), s        | 12.0 | 0.0  | 6.1  | 13.1 | 0.0  | 0.0  | 2.9  | 10.3 | 10.3 | 0.8  | 19.2 | 19.5 |
| Prop In Lane                 | 0.96 |      | 1.00 | 0.63 |      | 0.21 | 1.00 |      | 0.04 | 1.00 |      | 0.42 |
| Lane Grp Cap(c), veh/h       | 459  | 0    | 421  | 211  | 0    | 0    | 117  | 889  | 928  | 41   | 812  | 796  |
| V/C Ratio(X)                 | 0.60 | 0.00 | 0.48 | 0.30 | 0.00 | 0.00 | 0.78 | 0.53 | 0.53 | 0.61 | 0.84 | 0.85 |
| Avail Cap(c_a), veh/h        | 505  | 0    | 474  | 255  | 0    | 0    | 157  | 889  | 928  | 125  | 812  | 796  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 19.7 | 0.0  | 17.6 | 19.0 | 0.0  | 0.0  | 26.2 | 9.7  | 9.7  | 27.5 | 13.6 | 13.7 |
| Incr Delay (d2), s/veh       | 1.7  | 0.0  | 0.8  | 0.8  | 0.0  | 0.0  | 16.7 | 2.3  | 2.2  | 13.9 | 10.1 | 10.8 |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 3.2  | 0.0  | 2.1  | 0.6  | 0.0  | 0.0  | 1.6  | 3.4  | 3.5  | 0.5  | 7.5  | 7.6  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 21.5 | 0.0  | 18.4 | 19.8 | 0.0  | 0.0  | 42.9 | 11.9 | 11.9 | 41.4 | 23.6 | 24.5 |
| LnGrp LOS                    | C    | A    | B    | B    | A    | A    | D    | B    | B    | D    | C    | C    |
| Approach Vol, veh/h          |      | 479  |      |      | 63   |      |      | 1057 |      |      | 1379 |      |
| Approach Delay, s/veh        |      | 20.2 |      |      | 19.8 |      |      | 14.6 |      |      | 24.4 |      |
| Approach LOS                 |      | C    |      |      | B    |      |      | B    |      |      | C    |      |
| Timer - Assigned Phs         | 1    | 2    |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 5.3  | 32.4 |      | 19.1 | 7.8  | 30.0 |      | 19.1 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0  | 27.0 |      | 17.0 | 5.0  | 26.0 |      | 17.0 |      |      |      |      |
| Max Q Clear Time (g_c+l1), s | 2.8  | 12.3 |      | 14.0 | 4.9  | 21.5 |      | 15.1 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 4.9  |      | 0.7  | 0.0  | 3.0  |      | 0.0  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 20.1 |      |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      | C    |      |      |      |      |      |      |      |      |      |



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL   | NBT  | NBR  | SBL   | SBT  |
|-------------------------|------|------|------|------|-------|------|------|-------|------|
| Lane Group Flow (vph)   | 51   | 120  | 335  | 353  | 76    | 856  | 265  | 152   | 1179 |
| v/c Ratio               | 0.14 | 0.29 | 0.99 | 0.76 | 0.97  | 0.83 | 0.17 | 0.97  | 0.99 |
| Control Delay           | 30.1 | 15.1 | 84.9 | 26.6 | 142.1 | 38.0 | 0.2  | 107.8 | 55.4 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0   | 0.0  |
| Total Delay             | 30.1 | 15.1 | 84.9 | 26.6 | 142.1 | 38.0 | 0.2  | 107.8 | 55.4 |
| Queue Length 50th (ft)  | 24   | 21   | 201  | 87   | 44    | 238  | 0    | 88    | 346  |
| Queue Length 95th (ft)  | 43   | 46   | #309 | 147  | #117  | 274  | 0    | #200  | #478 |
| Internal Link Dist (ft) |      | 321  |      | 6047 |       | 1160 |      |       | 3231 |
| Turn Bay Length (ft)    | 70   |      | 410  |      | 260   |      |      | 100   |      |
| Base Capacity (vph)     | 373  | 415  | 338  | 467  | 78    | 1034 | 1583 | 157   | 1187 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0     | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0     | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0     | 0    |
| Reduced v/c Ratio       | 0.14 | 0.29 | 0.99 | 0.76 | 0.97  | 0.83 | 0.17 | 0.97  | 0.99 |

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
16: El Dorado Hills Blvd. & Lassen Ln/Serrano Pkwy.

Cumulative plus Project  
Timing Plan: AM

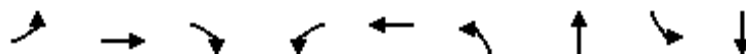


| Movement               | EBL   | EBT  | EBR  | WBL   | WBT  | WBR  | NBL   | NBT  | NBR   | SBL   | SBT   | SBR  |
|------------------------|-------|------|------|-------|------|------|-------|------|-------|-------|-------|------|
| Lane Configurations    | ↖     | ↗    |      | ↖     | ↔    |      | ↖     | ↑↑   | ↗     | ↖     | ↕     | ↗    |
| Traffic Volume (vph)   | 37    | 33   | 55   | 294   | 28   | 222  | 62    | 702  | 217   | 134   | 988   | 49   |
| Future Volume (vph)    | 37    | 33   | 55   | 294   | 28   | 222  | 62    | 702  | 217   | 134   | 988   | 49   |
| Ideal Flow (vphpl)     | 1900  | 1900 | 1900 | 1900  | 1900 | 1900 | 1900  | 1900 | 1900  | 1900  | 1900  | 1900 |
| Total Lost time (s)    | 5.2   | 5.2  |      | 5.2   | 5.2  |      | 3.0   | 5.2  | 4.0   | 3.0   | 5.2   |      |
| Lane Util. Factor      | 1.00  | 1.00 |      | 0.95  | 0.95 |      | 1.00  | 0.95 | 1.00  | 1.00  | 0.95  |      |
| Frt                    | 1.00  | 0.91 |      | 1.00  | 0.88 |      | 1.00  | 1.00 | 0.85  | 1.00  | 0.99  |      |
| Flt Protected          | 0.95  | 1.00 |      | 0.95  | 0.99 |      | 0.95  | 1.00 | 1.00  | 0.95  | 1.00  |      |
| Satd. Flow (prot)      | 1770  | 1688 |      | 1681  | 1550 |      | 1770  | 3539 | 1583  | 1770  | 3514  |      |
| Flt Permitted          | 0.95  | 1.00 |      | 0.95  | 0.99 |      | 0.95  | 1.00 | 1.00  | 0.95  | 1.00  |      |
| Satd. Flow (perm)      | 1770  | 1688 |      | 1681  | 1550 |      | 1770  | 3539 | 1583  | 1770  | 3514  |      |
| Peak-hour factor, PHF  | 0.73  | 0.73 | 0.73 | 0.79  | 0.79 | 0.79 | 0.82  | 0.82 | 0.82  | 0.88  | 0.88  | 0.88 |
| Adj. Flow (vph)        | 51    | 45   | 75   | 372   | 35   | 281  | 76    | 856  | 265   | 152   | 1123  | 56   |
| RTOR Reduction (vph)   | 0     | 59   | 0    | 0     | 156  | 0    | 0     | 0    | 0     | 0     | 4     | 0    |
| Lane Group Flow (vph)  | 51    | 61   | 0    | 335   | 197  | 0    | 76    | 856  | 265   | 152   | 1175  | 0    |
| Turn Type              | Split | NA   |      | Split | NA   |      | Prot  | NA   | Free  | Prot  | NA    |      |
| Protected Phases       | 4     | 4    |      | 8     | 8    |      | 5     | 2    |       | 1     | 6     |      |
| Permitted Phases       |       |      |      |       |      |      |       |      | Free  |       |       |      |
| Actuated Green, G (s)  | 19.0  | 19.0 |      | 18.1  | 18.1 |      | 4.0   | 26.3 | 90.0  | 8.0   | 30.3  |      |
| Effective Green, g (s) | 19.0  | 19.0 |      | 18.1  | 18.1 |      | 4.0   | 26.3 | 90.0  | 8.0   | 30.3  |      |
| Actuated g/C Ratio     | 0.21  | 0.21 |      | 0.20  | 0.20 |      | 0.04  | 0.29 | 1.00  | 0.09  | 0.34  |      |
| Clearance Time (s)     | 5.2   | 5.2  |      | 5.2   | 5.2  |      | 3.0   | 5.2  |       | 3.0   | 5.2   |      |
| Vehicle Extension (s)  | 0.2   | 0.2  |      | 0.2   | 0.2  |      | 0.2   | 0.2  |       | 0.2   | 0.2   |      |
| Lane Grp Cap (vph)     | 373   | 356  |      | 338   | 311  |      | 78    | 1034 | 1583  | 157   | 1183  |      |
| v/s Ratio Prot         | 0.03  | 0.04 |      | c0.20 | 0.13 |      | 0.04  | 0.24 |       | c0.09 | c0.33 |      |
| v/s Ratio Perm         |       |      |      |       |      |      |       |      | c0.17 |       |       |      |
| v/c Ratio              | 0.14  | 0.17 |      | 0.99  | 0.63 |      | 0.97  | 0.83 | 0.17  | 0.97  | 0.99  |      |
| Uniform Delay, d1      | 28.8  | 29.1 |      | 35.9  | 32.9 |      | 42.9  | 29.7 | 0.0   | 40.9  | 29.7  |      |
| Progression Factor     | 1.00  | 1.00 |      | 1.00  | 1.00 |      | 1.00  | 1.00 | 1.00  | 1.00  | 1.00  |      |
| Incremental Delay, d2  | 0.8   | 1.0  |      | 46.8  | 9.5  |      | 92.2  | 7.6  | 0.2   | 61.3  | 24.6  |      |
| Delay (s)              | 29.6  | 30.1 |      | 82.6  | 42.4 |      | 135.2 | 37.4 | 0.2   | 102.2 | 54.4  |      |
| Level of Service       | C     | C    |      | F     | D    |      | F     | D    | A     | F     | D     |      |
| Approach Delay (s)     |       | 29.9 |      |       | 62.0 |      |       | 35.3 |       |       | 59.8  |      |
| Approach LOS           |       | C    |      |       | E    |      |       | D    |       |       | E     |      |

Intersection Summary

|                                   |       |                           |      |
|-----------------------------------|-------|---------------------------|------|
| HCM 2000 Control Delay            | 50.1  | HCM 2000 Level of Service | D    |
| HCM 2000 Volume to Capacity ratio | 0.82  |                           |      |
| Actuated Cycle Length (s)         | 90.0  | Sum of lost time (s)      | 18.6 |
| Intersection Capacity Utilization | 69.4% | ICU Level of Service      | C    |
| Analysis Period (min)             | 15    |                           |      |

c Critical Lane Group



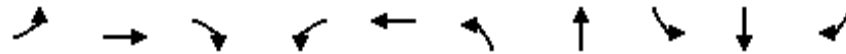
| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL    | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|--------|------|------|------|
| Lane Group Flow (vph)   | 85   | 175  | 434  | 49   | 260  | 554    | 1001 | 117  | 1475 |
| v/c Ratio               | 0.60 | 0.60 | 0.81 | 0.18 | 0.86 | 8.66   | 0.43 | 0.46 | 0.75 |
| Control Delay           | 64.6 | 56.0 | 17.2 | 38.9 | 63.1 | 3483.7 | 22.0 | 49.4 | 22.0 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0    | 0.0  | 0.0  | 0.0  |
| Total Delay             | 64.6 | 56.0 | 17.2 | 38.9 | 63.1 | 3483.7 | 22.0 | 49.4 | 22.0 |
| Queue Length 50th (ft)  | 65   | 67   | 0    | 30   | 157  | ~769   | 163  | 77   | 360  |
| Queue Length 95th (ft)  | 113  | 96   | 97   | 52   | 191  | #981   | 261  | 126  | #595 |
| Internal Link Dist (ft) |      | 1745 |      |      | 332  |        | 961  |      | 1160 |
| Turn Bay Length (ft)    | 145  |      | 145  | 125  |      | 165    |      | 70   |      |
| Base Capacity (vph)     | 237  | 490  | 603  | 482  | 500  | 64     | 2331 | 257  | 1964 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0      | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0      | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0      | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.36 | 0.36 | 0.72 | 0.10 | 0.52 | 8.66   | 0.43 | 0.46 | 0.75 |

**Intersection Summary**

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

---

HCM 6th Edition methodology expects strict NEMA phasing.



| Lane Group              | EBL   | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  | SBR  |
|-------------------------|-------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 238   | 41   | 403  | 157  | 120  | 644  | 1325 | 43   | 1053 | 398  |
| v/c Ratio               | 0.98  | 0.16 | 0.25 | 0.67 | 0.25 | 0.80 | 0.48 | 0.35 | 0.57 | 0.48 |
| Control Delay           | 104.7 | 48.0 | 0.4  | 63.1 | 24.4 | 51.2 | 18.5 | 61.0 | 33.7 | 5.4  |
| Queue Delay             | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 51.1 | 2.4  |
| Total Delay             | 104.7 | 48.0 | 0.4  | 63.1 | 24.4 | 51.2 | 18.5 | 61.0 | 84.9 | 7.8  |
| Queue Length 50th (ft)  | ~189  | 29   | 0    | 117  | 22   | 244  | 229  | 32   | 235  | 0    |
| Queue Length 95th (ft)  | #356  | 64   | 0    | 162  | 42   | 286  | 294  | 68   | 313  | 60   |
| Internal Link Dist (ft) |       | 287  |      |      | 264  |      | 780  |      | 105  |      |
| Turn Bay Length (ft)    |       |      |      | 410  |      | 260  |      | 195  |      |      |
| Base Capacity (vph)     | 243   | 256  | 1583 | 390  | 769  | 1029 | 2738 | 123  | 1843 | 827  |
| Starvation Cap Reductn  | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1045 | 297  |
| Spillback Cap Reductn   | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.98  | 0.16 | 0.25 | 0.40 | 0.16 | 0.63 | 0.48 | 0.35 | 1.32 | 0.75 |

**Intersection Summary**

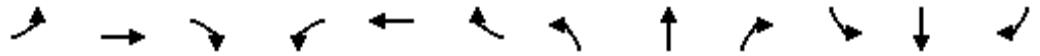
- ~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.



Generations at Green Valley

Cumulative plus Project

18: Latrobe Rd./El Dorado Hills Blvd. & US-50 WB On&Off-Ramp/Saratoga Way (South) Plan: AM



| Movement                     | EBL   | EBT   | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|-------|-------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |       |       |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 219   | 38    | 371  | 129  | 49   | 49   | 573  | 1065 | 114  | 37   | 906  | 342  |
| Future Volume (veh/h)        | 219   | 38    | 371  | 129  | 49   | 49   | 573  | 1065 | 114  | 37   | 906  | 342  |
| Initial Q (Qb), veh          | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00  |       | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |       | No    |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870  | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 238   | 41    | 0    | 157  | 60   | 60   | 644  | 1197 | 128  | 43   | 1053 | 0    |
| Peak Hour Factor             | 0.92  | 0.92  | 0.92 | 0.82 | 0.82 | 0.82 | 0.89 | 0.89 | 0.89 | 0.86 | 0.86 | 0.86 |
| Percent Heavy Veh, %         | 2     | 2     | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 238   | 249   |      | 197  | 197  | 174  | 748  | 2773 | 296  | 55   | 2076 |      |
| Arrive On Green              | 0.13  | 0.13  | 0.00 | 0.11 | 0.11 | 0.11 | 0.22 | 0.59 | 0.59 | 0.03 | 0.41 | 0.00 |
| Sat Flow, veh/h              | 1781  | 1870  | 1585 | 1781 | 1785 | 1578 | 3456 | 4684 | 501  | 1781 | 5106 | 1585 |
| Grp Volume(v), veh/h         | 238   | 41    | 0    | 157  | 60   | 60   | 644  | 870  | 455  | 43   | 1053 | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781  | 1870  | 1585 | 1781 | 1777 | 1586 | 1728 | 1702 | 1780 | 1781 | 1702 | 1585 |
| Q Serve(g_s), s              | 16.0  | 2.3   | 0.0  | 10.3 | 3.7  | 4.2  | 21.5 | 16.8 | 16.8 | 2.9  | 18.5 | 0.0  |
| Cycle Q Clear(g_c), s        | 16.0  | 2.3   | 0.0  | 10.3 | 3.7  | 4.2  | 21.5 | 16.8 | 16.8 | 2.9  | 18.5 | 0.0  |
| Prop In Lane                 | 1.00  |       | 1.00 | 1.00 |      | 0.99 | 1.00 |      | 0.28 | 1.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 238   | 249   |      | 197  | 196  | 175  | 748  | 2015 | 1054 | 55   | 2076 |      |
| V/C Ratio(X)                 | 1.00  | 0.16  |      | 0.80 | 0.30 | 0.34 | 0.86 | 0.43 | 0.43 | 0.78 | 0.51 |      |
| Avail Cap(c_a), veh/h        | 238   | 249   |      | 393  | 392  | 350  | 1037 | 2015 | 1054 | 59   | 2076 |      |
| HCM Platoon Ratio            | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00  | 1.00  | 0.00 | 1.00 | 1.00 | 1.00 | 0.86 | 0.86 | 0.86 | 0.58 | 0.58 | 0.00 |
| Uniform Delay (d), s/veh     | 52.0  | 46.1  | 0.0  | 52.1 | 49.1 | 49.4 | 45.3 | 13.4 | 13.4 | 57.7 | 26.6 | 0.0  |
| Incr Delay (d2), s/veh       | 58.9  | 0.3   | 0.0  | 7.2  | 0.9  | 1.2  | 4.8  | 0.6  | 1.1  | 29.4 | 0.5  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 11.0  | 1.1   | 0.0  | 5.0  | 1.7  | 1.7  | 9.4  | 6.0  | 6.5  | 1.7  | 7.3  | 0.0  |
| Unsig. Movement Delay, s/veh |       |       |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 110.9 | 46.4  | 0.0  | 59.3 | 50.0 | 50.5 | 50.1 | 14.0 | 14.5 | 87.1 | 27.1 | 0.0  |
| LnGrp LOS                    | F     | D     |      | E    | D    | D    | D    | B    | B    | F    | C    |      |
| Approach Vol, veh/h          |       | 279   | A    |      | 277  |      |      | 1969 |      |      | 1096 | A    |
| Approach Delay, s/veh        |       | 101.4 |      |      | 55.4 |      |      | 25.9 |      |      | 29.5 |      |
| Approach LOS                 |       | F     |      |      | E    |      |      | C    |      |      | C    |      |
| Timer - Assigned Phs         | 1     | 2     |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 7.7   | 75.0  |      | 20.0 | 30.0 | 52.8 |      | 17.2 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0   | 4.0   |      | 4.0  | 4.0  | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0   | 56.2  |      | 16.0 | 36.0 | 25.5 |      | 26.5 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 4.9   | 18.8  |      | 18.0 | 23.5 | 20.5 |      | 12.3 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0   | 6.9   |      | 0.0  | 2.4  | 2.3  |      | 0.9  |      |      |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 35.1 |
| HCM 6th LOS        | D    |

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.



| Lane Group              | EBT    | EBR  | WBR  | NBT  | NBR  | SBL   | SBT  |
|-------------------------|--------|------|------|------|------|-------|------|
| Lane Group Flow (vph)   | 1      | 961  | 506  | 1603 | 223  | 273   | 1405 |
| v/c Ratio               | no cap | 0.85 | 0.31 | 0.55 | 0.23 | 1.13  | 0.30 |
| Control Delay           |        | 44.9 | 0.5  | 22.3 | 6.2  | 153.8 | 7.6  |
| Queue Delay             |        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  |
| Total Delay             | Error  | 44.9 | 0.5  | 22.3 | 6.2  | 153.8 | 7.6  |
| Queue Length 50th (ft)  | 0      | 435  | 0    | 364  | 30   | ~314  | 131  |
| Queue Length 95th (ft)  | 0      | 442  | 0    | 440  | 78   | #436  | 147  |
| Internal Link Dist (ft) | 378    |      |      | 468  |      |       | 780  |
| Turn Bay Length (ft)    |        |      |      |      | 180  | 350   |      |
| Base Capacity (vph)     | 1      | 1240 | 1611 | 2896 | 968  | 242   | 4696 |
| Starvation Cap Reductn  | 0      | 0    | 0    | 0    | 0    | 0     | 0    |
| Spillback Cap Reductn   | 0      | 0    | 0    | 0    | 0    | 0     | 0    |
| Storage Cap Reductn     | 0      | 0    | 0    | 0    | 0    | 0     | 0    |
| Reduced v/c Ratio       | 1.00   | 0.78 | 0.31 | 0.55 | 0.23 | 1.13  | 0.30 |

**Intersection Summary**

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

HCM 6th Edition methodology does not support custom phasing.



| Lane Group                  | EBL  | EBR  | NBT  | NBR  | SBT  | SBR  |
|-----------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph)       | 315  | 297  | 470  | 630  | 1039 | 210  |
| v/c Ratio                   | 0.30 | 0.58 | 0.28 | 0.40 | 0.63 | 0.13 |
| Control Delay               | 9.6  | 13.7 | 7.4  | 0.8  | 10.4 | 0.2  |
| Queue Delay                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay                 | 9.6  | 13.7 | 7.4  | 0.8  | 10.4 | 0.2  |
| Queue Length 50th (ft)      | 22   | 40   | 25   | 0    | 69   | 0    |
| Queue Length 95th (ft)      | 40   | 86   | 60   | 0    | 150  | 0    |
| Internal Link Dist (ft)     |      |      | 516  |      | 832  |      |
| Turn Bay Length (ft)        |      | 195  |      |      |      | 500  |
| Base Capacity (vph)         | 1531 | 724  | 1656 | 1583 | 1656 | 1583 |
| Starvation Cap Reductn      | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn       | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn         | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio           | 0.21 | 0.41 | 0.28 | 0.40 | 0.63 | 0.13 |
| <b>Intersection Summary</b> |      |      |      |      |      |      |

Generations at Green Valley  
 20: White Rock Rd/Silva Valley Pkwy & US-50 EB On&Off-Ramp

Cumulative plus Project  
 Timing Plan: AM

| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT | WBR | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|-----|-----|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |     |     |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 290  | 0    | 273  | 0    | 0   | 0   | 0    | 432  | 580  | 0    | 956  | 193  |
| Future Volume (veh/h)        | 290  | 0    | 273  | 0    | 0   | 0   | 0    | 432  | 580  | 0    | 956  | 193  |
| Initial Q (Qb), veh          | 0    | 0    | 0    |      |     |     | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 |      |     |     | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 |      |     |     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      |     |     |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 0    | 1870 |      |     |     | 0    | 1870 | 1870 | 0    | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 315  | 0    | 297  |      |     |     | 0    | 470  | 0    | 0    | 1039 | 0    |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 |      |     |     | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 0    | 2    |      |     |     | 0    | 2    | 2    | 0    | 2    | 2    |
| Cap, veh/h                   | 946  | 0    | 434  |      |     |     | 0    | 1720 |      | 0    | 1720 |      |
| Arrive On Green              | 0.27 | 0.00 | 0.27 |      |     |     | 0.00 | 0.48 | 0.00 | 0.00 | 0.48 | 0.00 |
| Sat Flow, veh/h              | 3456 | 0    | 1585 |      |     |     | 0    | 3647 | 1585 | 0    | 3647 | 1585 |
| Grp Volume(v), veh/h         | 315  | 0    | 297  |      |     |     | 0    | 470  | 0    | 0    | 1039 | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1728 | 0    | 1585 |      |     |     | 0    | 1777 | 1585 | 0    | 1777 | 1585 |
| Q Serve(g_s), s              | 2.4  | 0.0  | 5.5  |      |     |     | 0.0  | 2.6  | 0.0  | 0.0  | 7.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 2.4  | 0.0  | 5.5  |      |     |     | 0.0  | 2.6  | 0.0  | 0.0  | 7.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 1.00 |      |     |     | 0.00 |      | 1.00 | 0.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 946  | 0    | 434  |      |     |     | 0    | 1720 |      | 0    | 1720 |      |
| V/C Ratio(X)                 | 0.33 | 0.00 | 0.68 |      |     |     | 0.00 | 0.27 |      | 0.00 | 0.60 |      |
| Avail Cap(c_a), veh/h        | 1673 | 0    | 767  |      |     |     | 0    | 1720 |      | 0    | 1720 |      |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 |      |     |     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 1.00 |      |     |     | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 |
| Uniform Delay (d), s/veh     | 9.6  | 0.0  | 10.7 |      |     |     | 0.0  | 5.1  | 0.0  | 0.0  | 6.2  | 0.0  |
| Incr Delay (d2), s/veh       | 0.2  | 0.0  | 1.9  |      |     |     | 0.0  | 0.4  | 0.0  | 0.0  | 1.6  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  |      |     |     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.7  | 0.0  | 1.6  |      |     |     | 0.0  | 0.4  | 0.0  | 0.0  | 1.2  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |     |     |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 9.8  | 0.0  | 12.6 |      |     |     | 0.0  | 5.5  | 0.0  | 0.0  | 7.8  | 0.0  |
| LnGrp LOS                    | A    | A    | B    |      |     |     | A    | A    |      | A    | A    |      |
| Approach Vol, veh/h          |      | 612  |      |      |     |     |      | 470  | A    |      | 1039 | A    |
| Approach Delay, s/veh        |      | 11.2 |      |      |     |     |      | 5.5  |      |      | 7.8  |      |
| Approach LOS                 |      | B    |      |      |     |     |      | A    |      |      | A    |      |
| Timer - Assigned Phs         |      | 2    |      | 4    |     |     |      | 6    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 20.0 |      | 13.0 |     |     |      | 20.0 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  |      | 4.0  |     |     |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 16.0 |      | 16.0 |     |     |      | 16.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 4.6  |      | 7.5  |     |     |      | 9.0  |      |      |      |      |
| Green Ext Time (p_c), s      |      | 2.1  |      | 1.5  |     |     |      | 3.6  |      |      |      |      |

Intersection Summary

|                    |     |
|--------------------|-----|
| HCM 6th Ctrl Delay | 8.3 |
| HCM 6th LOS        | A   |

Notes

Unsignalized Delay for [NBR, SBR] is excluded from calculations of the approach delay and intersection delay.



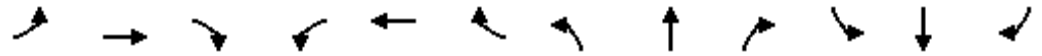
| Lane Group              | WBL  | WBT  | WBR  | NBT  | NBR  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 638  | 2    | 175  | 639  | 157  | 618  | 461  |
| v/c Ratio               | 0.91 | 0.00 | 0.25 | 0.45 | 0.21 | 0.43 | 0.51 |
| Control Delay           | 33.8 | 7.0  | 4.1  | 10.0 | 2.8  | 9.9  | 3.4  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 33.8 | 7.0  | 4.1  | 10.0 | 2.8  | 9.9  | 3.4  |
| Queue Length 50th (ft)  | 125  | 0    | 5    | 51   | 0    | 49   | 0    |
| Queue Length 95th (ft)  | #288 | 3    | 30   | 83   | 22   | 80   | 38   |
| Internal Link Dist (ft) |      | 580  |      | 832  |      | 250  |      |
| Turn Bay Length (ft)    |      |      |      |      |      |      |      |
| Base Capacity (vph)     | 713  | 750  | 717  | 1425 | 731  | 1425 | 912  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.89 | 0.00 | 0.24 | 0.45 | 0.21 | 0.43 | 0.51 |

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
 21: Silva Valley Pkwy & US-50 WB On-Ramp/US-50 WB Off-Ramp

Cumulative plus Project  
 Timing Plan: AM



| Movement                     | EBL | EBT  | EBR | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|-----|------|-----|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |     |      |     | ↖    | ↗    | ↖    |      | ↕    | ↖    |      | ↕    | ↖    |
| Traffic Volume (veh/h)       | 0   | 0    | 0   | 587  | 2    | 161  | 0    | 588  | 144  | 0    | 569  | 424  |
| Future Volume (veh/h)        | 0   | 0    | 0   | 587  | 2    | 161  | 0    | 588  | 144  | 0    | 569  | 424  |
| Initial Q (Qb), veh          |     |      |     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |     |      |     | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             |     |      |     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |     |      |     | No   |      |      | No   |      |      | No   |      |      |
| Adj Sat Flow, veh/h/ln       |     |      |     | 1870 | 1870 | 1870 | 0    | 1870 | 1870 | 0    | 1870 | 1870 |
| Adj Flow Rate, veh/h         |     |      |     | 638  | 2    | 175  | 0    | 639  | 0    | 0    | 618  | 461  |
| Peak Hour Factor             |     |      |     | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         |     |      |     | 2    | 2    | 2    | 0    | 2    | 2    | 0    | 2    | 2    |
| Cap, veh/h                   |     |      |     | 702  | 738  | 625  | 0    | 1435 |      | 0    | 1435 | 640  |
| Arrive On Green              |     |      |     | 0.39 | 0.39 | 0.39 | 0.00 | 0.40 | 0.00 | 0.00 | 0.40 | 0.40 |
| Sat Flow, veh/h              |     |      |     | 1781 | 1870 | 1585 | 0    | 3647 | 1585 | 0    | 3647 | 1585 |
| Grp Volume(v), veh/h         |     |      |     | 638  | 2    | 175  | 0    | 639  | 0    | 0    | 618  | 461  |
| Grp Sat Flow(s),veh/h/ln     |     |      |     | 1781 | 1870 | 1585 | 0    | 1777 | 1585 | 0    | 1777 | 1585 |
| Q Serve(g_s), s              |     |      |     | 13.4 | 0.0  | 3.0  | 0.0  | 5.2  | 0.0  | 0.0  | 5.0  | 9.7  |
| Cycle Q Clear(g_c), s        |     |      |     | 13.4 | 0.0  | 3.0  | 0.0  | 5.2  | 0.0  | 0.0  | 5.0  | 9.7  |
| Prop In Lane                 |     |      |     | 1.00 |      | 1.00 | 0.00 |      | 1.00 | 0.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       |     |      |     | 702  | 738  | 625  | 0    | 1435 |      | 0    | 1435 | 640  |
| V/C Ratio(X)                 |     |      |     | 0.91 | 0.00 | 0.28 | 0.00 | 0.45 |      | 0.00 | 0.43 | 0.72 |
| Avail Cap(c_a), veh/h        |     |      |     | 719  | 755  | 640  | 0    | 1435 |      | 0    | 1435 | 640  |
| HCM Platoon Ratio            |     |      |     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           |     |      |     | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     |     |      |     | 11.3 | 7.3  | 8.2  | 0.0  | 8.6  | 0.0  | 0.0  | 8.5  | 9.9  |
| Incr Delay (d2), s/veh       |     |      |     | 15.2 | 0.0  | 0.2  | 0.0  | 1.0  | 0.0  | 0.0  | 0.9  | 6.9  |
| Initial Q Delay(d3),s/veh    |     |      |     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     |     |      |     | 6.7  | 0.0  | 0.8  | 0.0  | 1.4  | 0.0  | 0.0  | 1.3  | 3.2  |
| Unsig. Movement Delay, s/veh |     |      |     |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         |     |      |     | 26.6 | 7.3  | 8.4  | 0.0  | 9.6  | 0.0  | 0.0  | 9.5  | 16.8 |
| LnGrp LOS                    |     |      |     | C    | A    | A    | A    | A    |      | A    | A    | B    |
| Approach Vol, veh/h          |     |      |     |      | 815  |      |      | 639  | A    |      | 1079 |      |
| Approach Delay, s/veh        |     |      |     |      | 22.6 |      |      | 9.6  |      |      | 12.6 |      |
| Approach LOS                 |     |      |     |      | C    |      |      | A    |      |      | B    |      |
| Timer - Assigned Phs         |     | 2    |     |      |      | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |     | 20.0 |     |      |      | 20.0 |      | 19.6 |      |      |      |      |
| Change Period (Y+Rc), s      |     | 4.0  |     |      |      | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |     | 16.0 |     |      |      | 16.0 |      | 16.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |     | 7.2  |     |      |      | 11.7 |      | 15.4 |      |      |      |      |
| Green Ext Time (p_c), s      |     | 2.6  |     |      |      | 2.2  |      | 0.2  |      |      |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 15.1 |
| HCM 6th LOS        | B    |

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.



| Lane Group              | EBT  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 81   | 450  | 55   | 758  | 76   | 877  |
| v/c Ratio               | 0.14 | 0.80 | 0.35 | 0.63 | 0.49 | 0.73 |
| Control Delay           | 10.4 | 27.6 | 31.2 | 16.7 | 38.4 | 18.9 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 10.4 | 27.6 | 31.2 | 16.7 | 38.4 | 18.9 |
| Queue Length 50th (ft)  | 14   | 121  | 18   | 106  | 25   | 128  |
| Queue Length 95th (ft)  | 37   | #271 | #53  | 158  | #77  | 188  |
| Internal Link Dist (ft) | 541  | 432  |      | 250  |      | 4417 |
| Turn Bay Length (ft)    |      |      | 150  |      | 150  |      |
| Base Capacity (vph)     | 667  | 656  | 156  | 1400 | 156  | 1400 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.12 | 0.69 | 0.35 | 0.54 | 0.49 | 0.63 |

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.



Generations at Green Valley  
22: Silva Valley Pkwy & Tong Rd

Cumulative plus Project  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      | ↕    |      |      | ↕    |      | ↗    | ↕    |      | ↗    | ↕    |      |
| Traffic Volume (veh/h)       | 40   | 24   | 11   | 256  | 75   | 83   | 51   | 642  | 55   | 70   | 735  | 72   |
| Future Volume (veh/h)        | 40   | 24   | 11   | 256  | 75   | 83   | 51   | 642  | 55   | 70   | 735  | 72   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 43   | 26   | 12   | 278  | 82   | 90   | 55   | 698  | 60   | 76   | 799  | 78   |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 370  | 210  | 79   | 453  | 109  | 107  | 79   | 1043 | 90   | 98   | 1065 | 104  |
| Arrive On Green              | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 | 0.04 | 0.32 | 0.32 | 0.06 | 0.33 | 0.33 |
| Sat Flow, veh/h              | 686  | 592  | 222  | 901  | 307  | 302  | 1781 | 3312 | 284  | 1781 | 3271 | 319  |
| Grp Volume(v), veh/h         | 81   | 0    | 0    | 450  | 0    | 0    | 55   | 374  | 384  | 76   | 434  | 443  |
| Grp Sat Flow(s),veh/h/ln     | 1500 | 0    | 0    | 1510 | 0    | 0    | 1781 | 1777 | 1819 | 1781 | 1777 | 1813 |
| Q Serve(g_s), s              | 0.0  | 0.0  | 0.0  | 10.5 | 0.0  | 0.0  | 1.3  | 8.0  | 8.0  | 1.8  | 9.5  | 9.5  |
| Cycle Q Clear(g_c), s        | 1.3  | 0.0  | 0.0  | 11.9 | 0.0  | 0.0  | 1.3  | 8.0  | 8.0  | 1.8  | 9.5  | 9.5  |
| Prop In Lane                 | 0.53 |      | 0.15 | 0.62 |      | 0.20 | 1.00 |      | 0.16 | 1.00 |      | 0.18 |
| Lane Grp Cap(c), veh/h       | 659  | 0    | 0    | 669  | 0    | 0    | 79   | 560  | 573  | 98   | 579  | 590  |
| V/C Ratio(X)                 | 0.12 | 0.00 | 0.00 | 0.67 | 0.00 | 0.00 | 0.69 | 0.67 | 0.67 | 0.77 | 0.75 | 0.75 |
| Avail Cap(c_a), veh/h        | 838  | 0    | 0    | 856  | 0    | 0    | 163  | 732  | 750  | 163  | 732  | 747  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 9.5  | 0.0  | 0.0  | 12.8 | 0.0  | 0.0  | 20.6 | 13.0 | 13.0 | 20.4 | 13.1 | 13.1 |
| Incr Delay (d2), s/veh       | 0.1  | 0.0  | 0.0  | 1.4  | 0.0  | 0.0  | 10.3 | 1.5  | 1.5  | 12.1 | 3.3  | 3.2  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.4  | 0.0  | 0.0  | 3.4  | 0.0  | 0.0  | 0.7  | 2.5  | 2.5  | 1.0  | 3.2  | 3.2  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 9.6  | 0.0  | 0.0  | 14.2 | 0.0  | 0.0  | 30.8 | 14.5 | 14.5 | 32.4 | 16.4 | 16.4 |
| LnGrp LOS                    | A    | A    | A    | B    | A    | A    | C    | B    | B    | C    | B    | B    |
| Approach Vol, veh/h          |      | 81   |      |      | 450  |      |      | 813  |      |      | 953  |      |
| Approach Delay, s/veh        |      | 9.6  |      |      | 14.2 |      |      | 15.6 |      |      | 17.7 |      |
| Approach LOS                 |      | A    |      |      | B    |      |      | B    |      |      | B    |      |
| Timer - Assigned Phs         | 1    | 2    |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 6.4  | 17.8 |      | 19.5 | 5.9  | 18.2 |      | 19.5 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0  | 18.0 |      | 21.0 | 4.0  | 18.0 |      | 21.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 3.8  | 10.0 |      | 3.3  | 3.3  | 11.5 |      | 13.9 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 2.7  |      | 0.3  | 0.0  | 2.7  |      | 1.7  |      |      |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 16.0 |
| HCM 6th LOS        | B    |



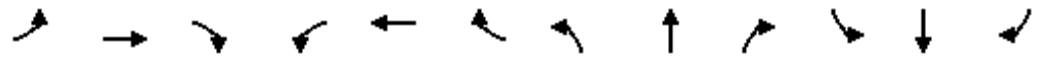
| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | NBR  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 96   | 413  | 496  | 682  | 387  | 651  | 363  | 307  | 766  |
| v/c Ratio               | 0.60 | 0.76 | 0.96 | 0.57 | 0.95 | 0.71 | 0.58 | 0.87 | 0.97 |
| Control Delay           | 72.0 | 33.5 | 75.7 | 22.5 | 82.2 | 49.8 | 14.2 | 74.8 | 73.0 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 72.0 | 33.5 | 75.7 | 22.5 | 82.2 | 49.8 | 14.2 | 74.8 | 73.0 |
| Queue Length 50th (ft)  | 78   | 77   | 407  | 140  | 320  | 267  | 50   | 245  | 327  |
| Queue Length 95th (ft)  | 122  | 101  | #659 | 204  | 300  | 231  | 30   | 304  | 346  |
| Internal Link Dist (ft) |      | 6047 |      | 1303 |      | 4417 |      |      | 4456 |
| Turn Bay Length (ft)    | 155  |      | 330  |      | 250  |      | 180  | 150  |      |
| Base Capacity (vph)     | 204  | 786  | 518  | 1359 | 409  | 915  | 623  | 382  | 793  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.47 | 0.53 | 0.96 | 0.50 | 0.95 | 0.71 | 0.58 | 0.80 | 0.97 |

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
23: Serrano Pkwy. & Silva Valley Pkwy.

Cumulative plus Project  
Timing Plan: AM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL   | NBT  | NBR  | SBL  | SBT   | SBR   |
|------------------------------|------|------|------|------|------|------|-------|------|------|------|-------|-------|
| Lane Configurations          | ↖    | ↗    |      | ↖    | ↗    |      | ↖     | ↗    | ↗    | ↖    | ↗     |       |
| Traffic Volume (veh/h)       | 76   | 130  | 196  | 441  | 239  | 368  | 244   | 410  | 229  | 233  | 463   | 119   |
| Future Volume (veh/h)        | 76   | 130  | 196  | 441  | 239  | 368  | 244   | 410  | 229  | 233  | 463   | 119   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0     | 0     |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00  |      | 1.00 | 1.00 |       | 1.00  |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00  |
| Work Zone On Approach        |      | No   |      |      | No   |      |       | No   |      |      | No    |       |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870  | 1870  |
| Adj Flow Rate, veh/h         | 96   | 165  | 248  | 496  | 269  | 413  | 387   | 651  | 0    | 307  | 609   | 157   |
| Peak Hour Factor             | 0.79 | 0.79 | 0.79 | 0.89 | 0.89 | 0.89 | 0.63  | 0.63 | 0.63 | 0.76 | 0.76  | 0.76  |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2     | 2    | 2    | 2    | 2     | 2     |
| Cap, veh/h                   | 118  | 301  | 268  | 485  | 666  | 594  | 383   | 852  |      | 330  | 589   | 152   |
| Arrive On Green              | 0.07 | 0.17 | 0.17 | 0.27 | 0.37 | 0.37 | 0.21  | 0.24 | 0.00 | 0.19 | 0.21  | 0.21  |
| Sat Flow, veh/h              | 1781 | 1777 | 1585 | 1781 | 1777 | 1585 | 1781  | 3554 | 1585 | 1781 | 2798  | 720   |
| Grp Volume(v), veh/h         | 96   | 165  | 248  | 496  | 269  | 413  | 387   | 651  | 0    | 307  | 386   | 380   |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1777 | 1585 | 1781 | 1777 | 1585 | 1781  | 1777 | 1585 | 1781 | 1777  | 1741  |
| Q Serve(g_s), s              | 7.4  | 11.9 | 21.5 | 38.0 | 15.6 | 30.8 | 30.0  | 23.8 | 0.0  | 23.7 | 29.4  | 29.4  |
| Cycle Q Clear(g_c), s        | 7.4  | 11.9 | 21.5 | 38.0 | 15.6 | 30.8 | 30.0  | 23.8 | 0.0  | 23.7 | 29.4  | 29.4  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00  |      | 1.00 | 1.00 |       | 0.41  |
| Lane Grp Cap(c), veh/h       | 118  | 301  | 268  | 485  | 666  | 594  | 383   | 852  |      | 330  | 374   | 367   |
| V/C Ratio(X)                 | 0.81 | 0.55 | 0.92 | 1.02 | 0.40 | 0.69 | 1.01  | 0.76 |      | 0.93 | 1.03  | 1.04  |
| Avail Cap(c_a), veh/h        | 191  | 305  | 272  | 485  | 666  | 594  | 383   | 852  |      | 357  | 374   | 367   |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00  |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 0.00 | 1.00 | 1.00  | 1.00  |
| Uniform Delay (d), s/veh     | 64.3 | 53.1 | 57.1 | 50.8 | 32.1 | 36.9 | 54.8  | 49.4 | 0.0  | 56.0 | 55.1  | 55.1  |
| Incr Delay (d2), s/veh       | 12.5 | 2.0  | 34.8 | 46.9 | 0.4  | 3.5  | 48.9  | 4.1  | 0.0  | 29.1 | 55.2  | 56.6  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0   | 0.0   |
| %ile BackOfQ(50%),veh/ln     | 3.7  | 5.4  | 11.0 | 22.7 | 6.6  | 12.1 | 18.3  | 10.8 | 0.0  | 13.1 | 18.6  | 18.3  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |       |      |      |      |       |       |
| LnGrp Delay(d),s/veh         | 76.8 | 55.1 | 91.9 | 97.7 | 32.5 | 40.4 | 103.7 | 53.5 | 0.0  | 85.1 | 110.3 | 111.7 |
| LnGrp LOS                    | E    | E    | F    | F    | C    | D    | F     | D    |      | F    | F     | F     |
| Approach Vol, veh/h          |      | 509  |      |      | 1178 |      |       | 1038 | A    |      | 1073  |       |
| Approach Delay, s/veh        |      | 77.1 |      |      | 62.7 |      |       | 72.2 |      |      | 103.6 |       |
| Approach LOS                 |      | E    |      |      | E    |      |       | E    |      |      | F     |       |
| Timer - Assigned Phs         | 1    | 2    | 3    | 4    | 5    | 6    | 7     | 8    |      |      |       |       |
| Phs Duration (G+Y+Rc), s     | 29.9 | 38.8 | 42.0 | 28.9 | 34.0 | 34.7 | 13.3  | 57.7 |      |      |       |       |
| Change Period (Y+Rc), s      | 4.0  | 5.3  | 4.0  | 5.3  | 4.0  | 5.3  | 4.0   | 5.3  |      |      |       |       |
| Max Green Setting (Gmax), s  | 28.0 | 31.4 | 38.0 | 24.0 | 30.0 | 29.4 | 15.0  | 47.0 |      |      |       |       |
| Max Q Clear Time (g_c+I1), s | 25.7 | 25.8 | 40.0 | 23.5 | 32.0 | 31.4 | 9.4   | 32.8 |      |      |       |       |
| Green Ext Time (p_c), s      | 0.2  | 1.9  | 0.0  | 0.1  | 0.0  | 0.0  | 0.1   | 3.5  |      |      |       |       |

Intersection Summary

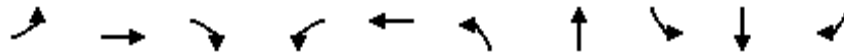
|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 78.8 |
| HCM 6th LOS        | E    |

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Generations at Green Valley  
24: Silva Valley Pkwy. & Harvard Way

Cumulative plus Project  
Timing Plan: AM



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 158  | 107  | 454  | 97   | 68   | 491  | 252  | 47   | 277  | 373  |
| v/c Ratio               | 0.56 | 0.35 | 0.71 | 0.52 | 0.26 | 0.81 | 0.27 | 0.29 | 0.45 | 0.64 |
| Control Delay           | 40.8 | 30.0 | 10.0 | 43.2 | 24.5 | 35.2 | 13.3 | 37.0 | 27.9 | 8.9  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 40.8 | 30.0 | 10.0 | 43.2 | 24.5 | 35.2 | 13.3 | 37.0 | 27.9 | 8.9  |
| Queue Length 50th (ft)  | 65   | 41   | 0    | 39   | 20   | 182  | 66   | 19   | 55   | 0    |
| Queue Length 95th (ft)  | 86   | 54   | 0    | #88  | 47   | #431 | 133  | 50   | 86   | 43   |
| Internal Link Dist (ft) |      | 2093 |      |      | 328  |      | 4456 |      | 402  |      |
| Turn Bay Length (ft)    | 60   |      |      |      |      | 200  |      | 150  |      | 250  |
| Base Capacity (vph)     | 284  | 500  | 757  | 195  | 466  | 643  | 1009 | 167  | 951  | 698  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.56 | 0.21 | 0.60 | 0.50 | 0.15 | 0.76 | 0.25 | 0.28 | 0.29 | 0.53 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Generations at Green Valley  
24: Silva Valley Pkwy. & Harvard Way

Cumulative plus Project  
Timing Plan: AM



| Movement                     | EBL  | EBT   | EBR   | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR   |
|------------------------------|------|-------|-------|------|------|------|------|------|------|------|------|-------|
| Lane Configurations          |      |       |       |      |      |      |      |      |      |      |      |       |
| Traffic Volume (veh/h)       | 90   | 61    | 259   | 76   | 41   | 12   | 442  | 217  | 10   | 38   | 224  | 302   |
| Future Volume (veh/h)        | 90   | 61    | 259   | 76   | 41   | 12   | 442  | 217  | 10   | 38   | 224  | 302   |
| Initial Q (Qb), veh          | 0    | 0     | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     |
| Ped-Bike Adj(A_pbT)          | 1.00 |       | 1.00  | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00  |
| Parking Bus, Adj             | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  |
| Work Zone On Approach        |      | No    |       |      | No   |      |      | No   |      |      | No   |       |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870  | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870  |
| Adj Flow Rate, veh/h         | 158  | 107   | 454   | 97   | 53   | 15   | 491  | 241  | 11   | 47   | 277  | 373   |
| Peak Hour Factor             | 0.57 | 0.57  | 0.57  | 0.78 | 0.78 | 0.78 | 0.90 | 0.90 | 0.90 | 0.81 | 0.81 | 0.81  |
| Percent Heavy Veh, %         | 2    | 2     | 2     | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2     |
| Cap, veh/h                   | 182  | 405   | 343   | 124  | 259  | 73   | 522  | 846  | 39   | 59   | 770  | 343   |
| Arrive On Green              | 0.10 | 0.22  | 0.22  | 0.07 | 0.18 | 0.18 | 0.29 | 0.48 | 0.48 | 0.03 | 0.22 | 0.22  |
| Sat Flow, veh/h              | 1781 | 1870  | 1585  | 1781 | 1402 | 397  | 1781 | 1775 | 81   | 1781 | 3554 | 1585  |
| Grp Volume(v), veh/h         | 158  | 107   | 454   | 97   | 0    | 68   | 491  | 0    | 252  | 47   | 277  | 373   |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1870  | 1585  | 1781 | 0    | 1799 | 1781 | 0    | 1856 | 1781 | 1777 | 1585  |
| Q Serve(g_s), s              | 6.9  | 3.7   | 17.0  | 4.2  | 0.0  | 2.5  | 21.1 | 0.0  | 6.5  | 2.1  | 5.2  | 17.0  |
| Cycle Q Clear(g_c), s        | 6.9  | 3.7   | 17.0  | 4.2  | 0.0  | 2.5  | 21.1 | 0.0  | 6.5  | 2.1  | 5.2  | 17.0  |
| Prop In Lane                 | 1.00 |       | 1.00  | 1.00 |      | 0.22 | 1.00 |      | 0.04 | 1.00 |      | 1.00  |
| Lane Grp Cap(c), veh/h       | 182  | 405   | 343   | 124  | 0    | 332  | 522  | 0    | 884  | 59   | 770  | 343   |
| V/C Ratio(X)                 | 0.87 | 0.26  | 1.32  | 0.78 | 0.00 | 0.21 | 0.94 | 0.00 | 0.28 | 0.79 | 0.36 | 1.09  |
| Avail Cap(c_a), veh/h        | 182  | 405   | 343   | 159  | 0    | 367  | 522  | 0    | 884  | 136  | 770  | 343   |
| HCM Platoon Ratio            | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  |
| Upstream Filter(I)           | 1.00 | 1.00  | 1.00  | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00  |
| Uniform Delay (d), s/veh     | 34.7 | 25.5  | 30.7  | 35.9 | 0.0  | 27.1 | 27.1 | 0.0  | 12.4 | 37.7 | 26.1 | 30.7  |
| Incr Delay (d2), s/veh       | 33.6 | 0.3   | 164.0 | 17.2 | 0.0  | 0.3  | 25.4 | 0.0  | 0.2  | 20.7 | 0.3  | 73.6  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   |
| %ile BackOfQ(50%),veh/ln     | 4.5  | 1.6   | 22.0  | 2.4  | 0.0  | 1.1  | 11.7 | 0.0  | 2.3  | 1.2  | 2.1  | 13.3  |
| Unsig. Movement Delay, s/veh |      |       |       |      |      |      |      |      |      |      |      |       |
| LnGrp Delay(d),s/veh         | 68.3 | 25.9  | 194.7 | 53.1 | 0.0  | 27.4 | 52.4 | 0.0  | 12.6 | 58.4 | 26.4 | 104.3 |
| LnGrp LOS                    | E    | C     | F     | D    | A    | C    | D    | A    | B    | E    | C    | F     |
| Approach Vol, veh/h          |      | 719   |       |      | 165  |      |      | 743  |      |      | 697  |       |
| Approach Delay, s/veh        |      | 141.8 |       |      | 42.5 |      |      | 38.9 |      |      | 70.3 |       |
| Approach LOS                 |      | F     |       |      | D    |      |      | D    |      |      | E    |       |
| Timer - Assigned Phs         | 1    | 2     | 3     | 4    | 5    | 6    | 7    | 8    |      |      |      |       |
| Phs Duration (G+Y+Rc), s     | 6.6  | 41.4  | 9.5   | 21.0 | 27.0 | 21.0 | 12.0 | 18.5 |      |      |      |       |
| Change Period (Y+Rc), s      | 4.0  | 4.0   | 4.0   | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  |      |      |      |       |
| Max Green Setting (Gmax), s  | 6.0  | 34.0  | 7.0   | 17.0 | 23.0 | 17.0 | 8.0  | 16.0 |      |      |      |       |
| Max Q Clear Time (g_c+I1), s | 4.1  | 8.5   | 6.2   | 19.0 | 23.1 | 19.0 | 8.9  | 4.5  |      |      |      |       |
| Green Ext Time (p_c), s      | 0.0  | 1.3   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.2  |      |      |      |       |
| <b>Intersection Summary</b>  |      |       |       |      |      |      |      |      |      |      |      |       |
| HCM 6th Ctrl Delay           |      |       | 80.4  |      |      |      |      |      |      |      |      |       |
| HCM 6th LOS                  |      |       | F     |      |      |      |      |      |      |      |      |       |

Intersection

Intersection Delay, s/veh44.7

Intersection LOS E

| Movement            | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations |      | ↕    |      |      | ↕    |      |      | ↕    |      |      | ↕    |      |
| Traffic Vol, veh/h  | 16   | 4    | 61   | 155  | 2    | 94   | 29   | 237  | 90   | 63   | 304  | 14   |
| Future Vol, veh/h   | 16   | 4    | 61   | 155  | 2    | 94   | 29   | 237  | 90   | 63   | 304  | 14   |
| Peak Hour Factor    | 0.70 | 0.70 | 0.70 | 0.74 | 0.74 | 0.74 | 0.70 | 0.70 | 0.70 | 0.80 | 0.80 | 0.80 |
| Heavy Vehicles, %   | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow           | 23   | 6    | 87   | 209  | 3    | 127  | 41   | 339  | 129  | 79   | 380  | 18   |
| Number of Lanes     | 0    | 1    | 0    | 0    | 1    | 0    | 0    | 1    | 0    | 0    | 1    | 0    |

| Approach                      | EB   | WB   | NB   | SB   |
|-------------------------------|------|------|------|------|
| Opposing Approach             | WB   | EB   | SB   | NB   |
| Opposing Lanes                | 1    | 1    | 1    | 1    |
| Conflicting Approach Left SB  |      | NB   | EB   | WB   |
| Conflicting Lanes Left        | 1    | 1    | 1    | 1    |
| Conflicting Approach Right NB |      | SB   | WB   | EB   |
| Conflicting Lanes Right       | 1    | 1    | 1    | 1    |
| HCM Control Delay             | 14.4 | 26.9 | 57.4 | 51.2 |
| HCM LOS                       | B    | D    | F    | F    |

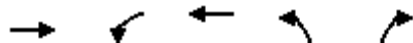
| Lane                   | NBLn1 | EBLn1 | WBLn1 | SBLn1 |
|------------------------|-------|-------|-------|-------|
| Vol Left, %            | 8%    | 20%   | 62%   | 17%   |
| Vol Thru, %            | 67%   | 5%    | 1%    | 80%   |
| Vol Right, %           | 25%   | 75%   | 37%   | 4%    |
| Sign Control           | Stop  | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 356   | 81    | 251   | 381   |
| LT Vol                 | 29    | 16    | 155   | 63    |
| Through Vol            | 237   | 4     | 2     | 304   |
| RT Vol                 | 90    | 61    | 94    | 14    |
| Lane Flow Rate         | 509   | 116   | 339   | 476   |
| Geometry Grp           | 1     | 1     | 1     | 1     |
| Degree of Util (X)     | 0.965 | 0.269 | 0.707 | 0.93  |
| Departure Headway (Hd) | 6.828 | 8.381 | 7.509 | 7.028 |
| Convergence, Y/N       | Yes   | Yes   | Yes   | Yes   |
| Cap                    | 529   | 432   | 478   | 514   |
| Service Time           | 4.917 | 6.381 | 5.603 | 5.119 |
| HCM Lane V/C Ratio     | 0.962 | 0.269 | 0.709 | 0.926 |
| HCM Control Delay      | 57.4  | 14.4  | 26.9  | 51.2  |
| HCM Lane LOS           | F     | B     | D     | F     |
| HCM 95th-tile Q        | 12.6  | 1.1   | 5.5   | 11.3  |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.1  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↔    |      |      | ↑    |      | ↗    |
| Traffic Vol, veh/h       | 411  | 10   | 0    | 752  | 0    | 10   |
| Future Vol, veh/h        | 411  | 10   | 0    | 752  | 0    | 10   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | 0    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 447  | 11   | 0    | 817  | 0    | 11   |

| Major/Minor          | Major1 | Major2 | Minor1 |   |       |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 0      | 0      | -      | - | 453   |
| Stage 1              | -      | -      | -      | - | -     |
| Stage 2              | -      | -      | -      | - | -     |
| Critical Hdwy        | -      | -      | -      | - | 6.22  |
| Critical Hdwy Stg 1  | -      | -      | -      | - | -     |
| Critical Hdwy Stg 2  | -      | -      | -      | - | -     |
| Follow-up Hdwy       | -      | -      | -      | - | 3.318 |
| Pot Cap-1 Maneuver   | -      | -      | 0      | - | 607   |
| Stage 1              | -      | -      | 0      | - | -     |
| Stage 2              | -      | -      | 0      | - | -     |
| Platoon blocked, %   | -      | -      | -      | - | -     |
| Mov Cap-1 Maneuver   | -      | -      | -      | - | 607   |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | -     |
| Stage 1              | -      | -      | -      | - | -     |
| Stage 2              | -      | -      | -      | - | -     |

| Approach             | EB | WB | NB |
|----------------------|----|----|----|
| HCM Control Delay, s | 0  | 0  | 11 |
| HCM LOS              |    |    | B  |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h)      | 607   | -   | -   | -   |
| HCM Lane V/C Ratio    | 0.018 | -   | -   | -   |
| HCM Control Delay (s) | 11    | -   | -   | -   |
| HCM Lane LOS          | B     | -   | -   | -   |
| HCM 95th %tile Q(veh) | 0.1   | -   | -   | -   |

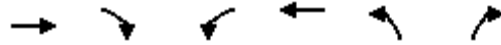


| Lane Group                  | EBT  | WBL  | WBT  | NBL  | NBR  |
|-----------------------------|------|------|------|------|------|
| Lane Group Flow (vph)       | 458  | 15   | 704  | 113  | 29   |
| v/c Ratio                   | 0.45 | 0.03 | 0.68 | 0.29 | 0.08 |
| Control Delay               | 6.4  | 4.0  | 10.1 | 15.5 | 7.1  |
| Queue Delay                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay                 | 6.4  | 4.0  | 10.1 | 15.5 | 7.1  |
| Queue Length 50th (ft)      | 41   | 1    | 78   | 19   | 0    |
| Queue Length 95th (ft)      | 97   | 6    | 184  | 55   | 14   |
| Internal Link Dist (ft)     | 1398 |      | 2852 | 640  |      |
| Turn Bay Length (ft)        |      | 215  |      | 250  |      |
| Base Capacity (vph)         | 1370 | 639  | 1381 | 1312 | 1181 |
| Starvation Cap Reductn      | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn       | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn         | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio           | 0.33 | 0.02 | 0.51 | 0.09 | 0.02 |
| <b>Intersection Summary</b> |      |      |      |      |      |



Generations at Green Valley  
27: Site Dwy. Full & Green Valley Rd.

Cumulative plus Project  
Timing Plan: AM



| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations          | ↩    |      | ↩    | ↩    | ↩    | ↩    |
| Traffic Volume (veh/h)       | 391  | 30   | 14   | 648  | 104  | 27   |
| Future Volume (veh/h)        | 391  | 30   | 14   | 648  | 104  | 27   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 425  | 33   | 15   | 704  | 113  | 29   |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 895  | 69   | 627  | 977  | 284  | 252  |
| Arrive On Green              | 0.52 | 0.52 | 0.52 | 0.52 | 0.16 | 0.16 |
| Sat Flow, veh/h              | 1713 | 133  | 934  | 1870 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 0    | 458  | 15   | 704  | 113  | 29   |
| Grp Sat Flow(s),veh/h/ln     | 0    | 1846 | 934  | 1870 | 1781 | 1585 |
| Q Serve(g_s), s              | 0.0  | 4.0  | 0.3  | 7.2  | 1.4  | 0.4  |
| Cycle Q Clear(g_c), s        | 0.0  | 4.0  | 4.2  | 7.2  | 1.4  | 0.4  |
| Prop In Lane                 |      | 0.07 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 0    | 964  | 627  | 977  | 284  | 252  |
| V/C Ratio(X)                 | 0.00 | 0.47 | 0.02 | 0.72 | 0.40 | 0.11 |
| Avail Cap(c_a), veh/h        | 0    | 1911 | 1106 | 1936 | 1844 | 1641 |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 0.0  | 3.8  | 5.2  | 4.6  | 9.5  | 9.0  |
| Incr Delay (d2), s/veh       | 0.0  | 0.4  | 0.0  | 1.0  | 0.9  | 0.2  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.0  | 0.1  | 0.0  | 0.3  | 0.5  | 0.1  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 0.0  | 4.2  | 5.2  | 5.6  | 10.4 | 9.2  |
| LnGrp LOS                    | A    | A    | A    | A    | B    | A    |
| Approach Vol, veh/h          | 458  |      |      | 719  | 142  |      |
| Approach Delay, s/veh        | 4.2  |      |      | 5.6  | 10.2 |      |
| Approach LOS                 | A    |      |      | A    | B    |      |
| Timer - Assigned Phs         |      | 2    |      |      | 6    | 8    |
| Phs Duration (G+Y+Rc), s     |      | 17.1 |      |      | 17.1 | 8.0  |
| Change Period (Y+Rc), s      |      | 4.0  |      |      | 4.0  | 4.0  |
| Max Green Setting (Gmax), s  |      | 26.0 |      |      | 26.0 | 26.0 |
| Max Q Clear Time (g_c+l1), s |      | 9.2  |      |      | 6.0  | 3.4  |
| Green Ext Time (p_c), s      |      | 3.9  |      |      | 2.3  | 0.4  |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 5.6  |      |      |      |
| HCM 6th LOS                  |      |      | A    |      |      |      |

Summary of All Intervals

| Run Number              | 1      | 10     | 2      | 3      | 4      | 5      | 6      |
|-------------------------|--------|--------|--------|--------|--------|--------|--------|
| Start Time              | 6:50   | 6:50   | 6:50   | 6:50   | 6:50   | 6:50   | 6:50   |
| End Time                | 8:00   | 8:00   | 8:00   | 8:00   | 8:00   | 8:00   | 8:00   |
| Total Time (min)        | 70     | 70     | 70     | 70     | 70     | 70     | 70     |
| Time Recorded (min)     | 60     | 60     | 60     | 60     | 60     | 60     | 60     |
| # of Intervals          | 5      | 5      | 5      | 5      | 5      | 5      | 5      |
| # of Recorded Intervals | 4      | 4      | 4      | 4      | 4      | 4      | 4      |
| Vehs Entered            | 12119  | 12017  | 12031  | 11814  | 11686  | 12107  | 12080  |
| Vehs Exited             | 11920  | 11869  | 11865  | 11619  | 11574  | 11936  | 11940  |
| Starting Vehs           | 337    | 320    | 331    | 328    | 377    | 305    | 340    |
| Ending Vehs             | 536    | 468    | 497    | 523    | 489    | 476    | 480    |
| Travel Distance (mi)    | 3710   | 3633   | 3662   | 3563   | 3582   | 3705   | 3675   |
| Travel Time (hr)        | 1176.5 | 1217.5 | 1132.6 | 1313.9 | 1262.6 | 1169.2 | 1225.3 |
| Total Delay (hr)        | 1065.8 | 1108.9 | 1023.5 | 1207.5 | 1155.9 | 1057.9 | 1115.3 |
| Total Stops             | 12925  | 12150  | 12048  | 12061  | 12451  | 12242  | 12106  |
| Fuel Used (gal)         | 408.9  | 415.0  | 395.7  | 434.5  | 423.4  | 406.5  | 417.4  |

Summary of All Intervals

| Run Number              | 7      | 8      | 9      | Avg    |
|-------------------------|--------|--------|--------|--------|
| Start Time              | 6:50   | 6:50   | 6:50   | 6:50   |
| End Time                | 8:00   | 8:00   | 8:00   | 8:00   |
| Total Time (min)        | 70     | 70     | 70     | 70     |
| Time Recorded (min)     | 60     | 60     | 60     | 60     |
| # of Intervals          | 5      | 5      | 5      | 5      |
| # of Recorded Intervals | 4      | 4      | 4      | 4      |
| Vehs Entered            | 12014  | 11886  | 11923  | 11970  |
| Vehs Exited             | 11837  | 11748  | 11796  | 11810  |
| Starting Vehs           | 315    | 342    | 344    | 327    |
| Ending Vehs             | 492    | 480    | 471    | 490    |
| Travel Distance (mi)    | 3661   | 3630   | 3606   | 3643   |
| Travel Time (hr)        | 1198.2 | 1202.4 | 1266.1 | 1216.4 |
| Total Delay (hr)        | 1088.7 | 1094.0 | 1158.4 | 1107.6 |
| Total Stops             | 12581  | 12148  | 12050  | 12276  |
| Fuel Used (gal)         | 411.0  | 410.2  | 424.1  | 414.7  |

Interval #0 Information Seeding

|                                     |      |
|-------------------------------------|------|
| Start Time                          | 6:50 |
| End Time                            | 7:00 |
| Total Time (min)                    | 10   |
| Volumes adjusted by Growth Factors. |      |
| No data recorded this interval.     |      |

**Interval #1 Information**

|                  |      |
|------------------|------|
| Start Time       | 7:00 |
| End Time         | 7:15 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 3192  | 3114  | 3210  | 3082  | 3047  | 3160  | 3115  |
| Vehs Exited          | 3148  | 3081  | 3180  | 3029  | 3069  | 3112  | 3109  |
| Starting Vehs        | 337   | 320   | 331   | 328   | 377   | 305   | 340   |
| Ending Vehs          | 381   | 353   | 361   | 381   | 355   | 353   | 346   |
| Travel Distance (mi) | 996   | 980   | 990   | 954   | 969   | 994   | 975   |
| Travel Time (hr)     | 152.0 | 144.2 | 152.5 | 158.7 | 151.8 | 153.0 | 149.6 |
| Total Delay (hr)     | 122.1 | 115.0 | 122.9 | 130.1 | 122.8 | 123.2 | 120.3 |
| Total Stops          | 3020  | 2941  | 2966  | 2876  | 2976  | 2938  | 2837  |
| Fuel Used (gal)      | 71.8  | 69.5  | 71.8  | 71.8  | 71.1  | 71.5  | 70.3  |

**Interval #1 Information**

|                  |      |
|------------------|------|
| Start Time       | 7:00 |
| End Time         | 7:15 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 3236  | 3148  | 3167  | 3150  |
| Vehs Exited          | 3163  | 3108  | 3150  | 3115  |
| Starting Vehs        | 315   | 342   | 344   | 327   |
| Ending Vehs          | 388   | 382   | 361   | 361   |
| Travel Distance (mi) | 1009  | 995   | 989   | 985   |
| Travel Time (hr)     | 150.4 | 149.6 | 163.9 | 152.6 |
| Total Delay (hr)     | 120.1 | 119.8 | 134.4 | 123.1 |
| Total Stops          | 3163  | 3072  | 3016  | 2982  |
| Fuel Used (gal)      | 71.7  | 71.2  | 74.5  | 71.5  |

**Interval #2 Information**

|                  |      |
|------------------|------|
| Start Time       | 7:15 |
| End Time         | 7:30 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 3001  | 3116  | 3077  | 3045  | 3019  | 3111  | 3117  |
| Vehs Exited          | 2955  | 2999  | 3020  | 2940  | 2925  | 3043  | 3018  |
| Starting Vehs        | 381   | 353   | 361   | 381   | 355   | 353   | 346   |
| Ending Vehs          | 427   | 470   | 418   | 486   | 449   | 421   | 445   |
| Travel Distance (mi) | 922   | 924   | 952   | 913   | 902   | 941   | 944   |
| Travel Time (hr)     | 237.2 | 226.8 | 226.9 | 254.2 | 241.4 | 239.1 | 228.9 |
| Total Delay (hr)     | 209.6 | 199.2 | 198.3 | 227.0 | 214.4 | 210.9 | 200.7 |
| Total Stops          | 3149  | 2916  | 3068  | 3091  | 3284  | 3291  | 2965  |
| Fuel Used (gal)      | 89.0  | 86.3  | 87.1  | 92.7  | 89.0  | 90.6  | 87.5  |

**Interval #2 Information**

|                  |      |
|------------------|------|
| Start Time       | 7:15 |
| End Time         | 7:30 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 3127  | 3021  | 3153  | 3078  |
| Vehs Exited          | 3032  | 2934  | 3047  | 2990  |
| Starting Vehs        | 388   | 382   | 361   | 361   |
| Ending Vehs          | 483   | 469   | 467   | 448   |
| Travel Distance (mi) | 937   | 901   | 937   | 927   |
| Travel Time (hr)     | 229.2 | 223.1 | 241.7 | 234.9 |
| Total Delay (hr)     | 201.1 | 195.9 | 213.7 | 207.1 |
| Total Stops          | 3258  | 2966  | 3071  | 3105  |
| Fuel Used (gal)      | 87.5  | 84.3  | 90.3  | 88.4  |

**Interval #3 Information**

|                  |      |
|------------------|------|
| Start Time       | 7:30 |
| End Time         | 7:45 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 3095  | 2949  | 2926  | 2852  | 2872  | 2944  | 2878  |
| Vehs Exited          | 3008  | 2914  | 2892  | 2892  | 2865  | 2937  | 2897  |
| Starting Vehs        | 427   | 470   | 418   | 486   | 449   | 421   | 445   |
| Ending Vehs          | 514   | 505   | 452   | 446   | 456   | 428   | 426   |
| Travel Distance (mi) | 943   | 893   | 889   | 866   | 866   | 911   | 867   |
| Travel Time (hr)     | 327.9 | 356.1 | 323.2 | 376.9 | 362.4 | 332.0 | 357.7 |
| Total Delay (hr)     | 299.9 | 329.3 | 297.0 | 351.0 | 336.7 | 304.5 | 331.9 |
| Total Stops          | 3540  | 3204  | 3072  | 2983  | 3059  | 3110  | 3057  |
| Fuel Used (gal)      | 110.7 | 115.2 | 107.6 | 118.9 | 115.7 | 110.3 | 114.4 |

**Interval #3 Information**

|                  |      |
|------------------|------|
| Start Time       | 7:30 |
| End Time         | 7:45 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 2705  | 2955  | 2773  | 2895  |
| Vehs Exited          | 2708  | 2964  | 2819  | 2891  |
| Starting Vehs        | 483   | 469   | 467   | 448   |
| Ending Vehs          | 480   | 460   | 421   | 458   |
| Travel Distance (mi) | 814   | 902   | 856   | 881   |
| Travel Time (hr)     | 344.4 | 342.4 | 360.4 | 348.3 |
| Total Delay (hr)     | 320.0 | 315.8 | 334.8 | 322.1 |
| Total Stops          | 2943  | 3206  | 3100  | 3132  |
| Fuel Used (gal)      | 109.5 | 112.4 | 114.3 | 112.9 |

**Interval #4 Information Recording**

|                  |      |
|------------------|------|
| Start Time       | 7:45 |
| End Time         | 8:00 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 2831  | 2838  | 2818  | 2835  | 2748  | 2892  | 2970  |
| Vehs Exited          | 2809  | 2875  | 2773  | 2758  | 2715  | 2844  | 2916  |
| Starting Vehs        | 514   | 505   | 452   | 446   | 456   | 428   | 426   |
| Ending Vehs          | 536   | 468   | 497   | 523   | 489   | 476   | 480   |
| Travel Distance (mi) | 849   | 836   | 832   | 830   | 846   | 859   | 888   |
| Travel Time (hr)     | 459.4 | 490.4 | 430.0 | 524.1 | 507.1 | 445.0 | 489.1 |
| Total Delay (hr)     | 434.2 | 465.3 | 405.3 | 499.4 | 482.0 | 419.3 | 462.5 |
| Total Stops          | 3216  | 3089  | 2942  | 3111  | 3132  | 2903  | 3247  |
| Fuel Used (gal)      | 137.3 | 144.0 | 129.2 | 151.1 | 147.7 | 134.2 | 145.3 |

**Interval #4 Information Recording**

|                  |      |
|------------------|------|
| Start Time       | 7:45 |
| End Time         | 8:00 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 2946  | 2762  | 2830  | 2846  |
| Vehs Exited          | 2934  | 2742  | 2780  | 2818  |
| Starting Vehs        | 480   | 460   | 421   | 458   |
| Ending Vehs          | 492   | 480   | 471   | 490   |
| Travel Distance (mi) | 901   | 833   | 825   | 850   |
| Travel Time (hr)     | 474.3 | 487.3 | 500.1 | 480.7 |
| Total Delay (hr)     | 447.4 | 462.5 | 475.6 | 455.4 |
| Total Stops          | 3217  | 2904  | 2863  | 3062  |
| Fuel Used (gal)      | 142.3 | 142.3 | 145.0 | 141.8 |

13: Francisco Dr & El Dorado Hills Blvd Performance by movement

| Movement           | EBL  | EBT  | EBR | WBL | WBT | WBR | NBL  | NBT  | NBR | SBL | SBT  | SBR |
|--------------------|------|------|-----|-----|-----|-----|------|------|-----|-----|------|-----|
| Denied Delay (hr)  | 0.0  | 0.0  | 0.5 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0 | 0.1 | 0.1  | 0.0 |
| Denied Del/Veh (s) | 1.5  | 1.2  | 3.5 | 0.1 | 0.1 | 0.1 | 0.0  | 0.0  | 0.0 | 3.4 | 0.6  | 0.4 |
| Total Delay (hr)   | 0.0  | 0.1  | 0.6 | 0.0 | 0.1 | 0.0 | 1.5  | 0.6  | 0.1 | 0.2 | 1.6  | 0.0 |
| Total Del/Veh (s)  | 10.0 | 11.9 | 4.2 | 6.9 | 8.6 | 3.8 | 12.5 | 11.5 | 4.4 | 8.2 | 16.4 | 7.9 |
| Stop Delay (hr)    | 0.0  | 0.1  | 0.0 | 0.0 | 0.1 | 0.0 | 1.0  | 0.2  | 0.0 | 0.1 | 0.7  | 0.0 |
| Stop Del/Veh (s)   | 5.1  | 4.7  | 0.0 | 4.8 | 5.1 | 3.3 | 8.4  | 3.5  | 2.7 | 3.3 | 6.6  | 5.2 |

13: Francisco Dr & El Dorado Hills Blvd Performance by movement

| Movement           | All  |
|--------------------|------|
| Denied Delay (hr)  | 0.6  |
| Denied Del/Veh (s) | 1.3  |
| Total Delay (hr)   | 4.9  |
| Total Del/Veh (s)  | 10.1 |
| Stop Delay (hr)    | 2.2  |
| Stop Del/Veh (s)   | 4.4  |

17: El Dorado Hills Blvd #2 & Saratoga Way/Park Drive Performance by movement

| Movement           | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL   | NBT   | NBR   | SBL   | SBT  | SBR  |
|--------------------|------|------|------|------|------|------|-------|-------|-------|-------|------|------|
| Denied Delay (hr)  | 0.0  | 0.0  | 0.4  | 0.0  | 0.0  | 0.0  | 12.3  | 18.8  | 1.9   | 0.3   | 1.9  | 0.8  |
| Denied Del/Veh (s) | 0.4  | 0.3  | 3.2  | 0.2  | 0.2  | 0.3  | 130.7 | 102.5 | 126.8 | 9.0   | 7.8  | 8.0  |
| Total Delay (hr)   | 2.5  | 1.8  | 2.9  | 0.5  | 1.9  | 1.0  | 38.1  | 2.0   | 0.1   | 2.9   | 14.4 | 7.5  |
| Total Del/Veh (s)  | 60.2 | 60.4 | 24.7 | 50.6 | 57.9 | 37.7 | 400.0 | 11.1  | 7.5   | 100.1 | 58.4 | 70.7 |
| Stop Delay (hr)    | 2.3  | 1.6  | 2.5  | 0.5  | 1.7  | 0.9  | 36.3  | 0.8   | 0.0   | 2.5   | 10.3 | 5.9  |
| Stop Del/Veh (s)   | 55.7 | 53.3 | 21.2 | 48.5 | 51.3 | 33.8 | 380.7 | 4.6   | 2.8   | 88.5  | 41.9 | 55.2 |

17: El Dorado Hills Blvd #2 & Saratoga Way/Park Drive Performance by movement

| Movement           | All  |
|--------------------|------|
| Denied Delay (hr)  | 36.4 |
| Denied Del/Veh (s) | 39.4 |
| Total Delay (hr)   | 75.7 |
| Total Del/Veh (s)  | 81.4 |
| Stop Delay (hr)    | 65.4 |
| Stop Del/Veh (s)   | 70.4 |

**18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way Performance by movement**

| Movement           | EBL   | EBT   | EBR   | WBL  | WBT  | WBR    | NBL  | NBT   | NBR  | SBL  | SBT  | SBR  |
|--------------------|-------|-------|-------|------|------|--------|------|-------|------|------|------|------|
| Denied Delay (hr)  | 24.7  | 4.8   | 44.2  | 1.8  | 0.6  | 0.5    | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  |
| Denied Del/Veh (s) | 409.4 | 441.5 | 425.8 | 50.6 | 39.1 | 36.4   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay (hr)   | 29.0  | 1.4   | 12.0  | 2.1  | 1.1  | 13.3   | 7.4  | 35.5  | 1.2  | 0.8  | 14.5 | 1.7  |
| Total Del/Veh (s)  | 821.3 | 213.5 | 204.4 | 64.8 | 80.0 | 1039.6 | 54.6 | 120.1 | 42.6 | 82.0 | 54.4 | 17.7 |
| Stop Delay (hr)    | 28.8  | 1.3   | 11.7  | 2.0  | 1.0  | 13.2   | 6.3  | 33.0  | 0.9  | 0.7  | 11.5 | 0.8  |
| Stop Del/Veh (s)   | 816.6 | 207.5 | 199.1 | 60.9 | 74.5 | 1036.9 | 46.7 | 111.8 | 33.2 | 74.2 | 43.1 | 8.7  |

**18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way Performance by movement**

| Movement           | All   |
|--------------------|-------|
| Denied Delay (hr)  | 76.5  |
| Denied Del/Veh (s) | 72.4  |
| Total Delay (hr)   | 119.9 |
| Total Del/Veh (s)  | 121.3 |
| Stop Delay (hr)    | 111.5 |
| Stop Del/Veh (s)   | 112.8 |

**19: Latrobe Road #2/El Dorado Hills Blvd #2 & US 50 EB Ramps Performance by movement**

| Movement           | EBR  | WBR | NBT   | NBR   | SBL  | SBT  | All  |
|--------------------|------|-----|-------|-------|------|------|------|
| Denied Delay (hr)  | 0.1  | 0.0 | 76.1  | 11.4  | 0.0  | 0.0  | 87.7 |
| Denied Del/Veh (s) | 0.7  | 0.4 | 184.5 | 197.0 | 0.0  | 0.0  | 77.5 |
| Total Delay (hr)   | 2.4  | 0.3 | 12.8  | 0.8   | 1.9  | 4.6  | 22.8 |
| Total Del/Veh (s)  | 10.8 | 2.4 | 37.5  | 17.6  | 31.8 | 16.8 | 21.6 |
| Stop Delay (hr)    | 1.3  | 0.1 | 10.8  | 0.7   | 1.4  | 2.1  | 16.4 |
| Stop Del/Veh (s)   | 6.1  | 1.2 | 31.6  | 13.8  | 23.0 | 7.7  | 15.5 |

**Total Zone Performance**

|                    |        |
|--------------------|--------|
| Denied Delay (hr)  | 201.2  |
| Denied Del/Veh (s) | 101.7  |
| Total Delay (hr)   | 223.4  |
| Total Del/Veh (s)  | 1494.6 |
| Stop Delay (hr)    | 195.5  |
| Stop Del/Veh (s)   | 1308.0 |



Intersection: 13: Francisco Dr & El Dorado Hills Blvd

| Movement              | EB  | WB  | NB  | NB  | SB  | SB  |
|-----------------------|-----|-----|-----|-----|-----|-----|
| Directions Served     | LT  | LTR | L   | TR  | L   | TR  |
| Maximum Queue (ft)    | 57  | 64  | 198 | 83  | 64  | 156 |
| Average Queue (ft)    | 26  | 34  | 94  | 45  | 33  | 75  |
| 95th Queue (ft)       | 50  | 55  | 166 | 70  | 52  | 124 |
| Link Distance (ft)    | 577 | 573 |     | 522 |     | 734 |
| Upstream Blk Time (%) |     |     |     |     |     |     |
| Queuing Penalty (veh) |     |     |     |     |     |     |
| Storage Bay Dist (ft) |     |     | 500 |     | 200 |     |
| Storage Blk Time (%)  |     |     |     |     |     | 0   |
| Queuing Penalty (veh) |     |     |     |     |     | 0   |

Intersection: 17: El Dorado Hills Blvd #2 & Saratoga Way/Park Drive

| Movement              | EB  | EB  | EB  | EB  | WB  | WB  | NB  | NB   | NB  | NB  | SB  | SB  |
|-----------------------|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|
| Directions Served     | L   | LT  | T   | R   | L   | TR  | L   | T    | T   | TR  | L   | T   |
| Maximum Queue (ft)    | 125 | 156 | 267 | 261 | 77  | 283 | 275 | 951  | 844 | 150 | 125 | 703 |
| Average Queue (ft)    | 51  | 87  | 76  | 145 | 25  | 149 | 274 | 932  | 77  | 34  | 89  | 458 |
| 95th Queue (ft)       | 96  | 133 | 189 | 254 | 63  | 255 | 276 | 1008 | 420 | 102 | 144 | 752 |
| Link Distance (ft)    |     | 930 | 930 |     | 489 | 489 |     | 935  | 935 | 935 |     | 686 |
| Upstream Blk Time (%) |     |     |     |     |     |     |     | 58   | 0   |     |     | 6   |
| Queuing Penalty (veh) |     |     |     |     |     |     |     | 256  | 0   |     |     | 0   |
| Storage Bay Dist (ft) | 150 |     |     | 240 |     |     | 250 |      |     |     | 100 |     |
| Storage Blk Time (%)  | 0   | 0   | 0   | 3   |     |     | 87  | 2    |     |     | 15  | 40  |
| Queuing Penalty (veh) | 0   | 0   | 0   | 2   |     |     | 240 | 9    |     |     | 64  | 40  |

Intersection: 17: El Dorado Hills Blvd #2 & Saratoga Way/Park Drive

| Movement              | SB  |
|-----------------------|-----|
| Directions Served     | TR  |
| Maximum Queue (ft)    | 711 |
| Average Queue (ft)    | 508 |
| 95th Queue (ft)       | 772 |
| Link Distance (ft)    | 686 |
| Upstream Blk Time (%) | 13  |
| Queuing Penalty (veh) | 0   |
| Storage Bay Dist (ft) |     |
| Storage Blk Time (%)  |     |
| Queuing Penalty (veh) |     |

Intersection: 18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way

| Movement              | EB   | EB   | EB  | WB  | WB  | WB  | NB  | NB  | NB  | NB  | NB  | SB  |
|-----------------------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Directions Served     | L    | LT   | R   | L   | LT  | TR  | L   | L   | T   | T   | TR  | L   |
| Maximum Queue (ft)    | 1035 | 1075 | 64  | 143 | 508 | 566 | 743 | 790 | 802 | 714 | 850 | 224 |
| Average Queue (ft)    | 626  | 626  | 3   | 46  | 136 | 322 | 355 | 581 | 655 | 579 | 512 | 64  |
| 95th Queue (ft)       | 1191 | 1392 | 58  | 107 | 385 | 659 | 752 | 962 | 998 | 940 | 958 | 186 |
| Link Distance (ft)    | 1059 | 1059 |     |     | 621 | 621 | 714 | 714 | 714 | 714 | 714 |     |
| Upstream Blk Time (%) | 19   | 48   |     |     | 5   | 13  | 1   | 26  | 43  | 8   | 6   |     |
| Queuing Penalty (veh) | 0    | 0    |     |     | 0   | 0   | 5   | 99  | 164 | 31  | 21  |     |
| Storage Bay Dist (ft) |      |      | 300 | 150 |     |     |     |     |     |     |     | 200 |
| Storage Blk Time (%)  |      | 0    | 0   | 0   | 2   |     |     |     |     |     |     | 0   |
| Queuing Penalty (veh) |      | 1    | 0   | 0   | 1   |     |     |     |     |     |     | 0   |

Intersection: 18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way

| Movement              | SB  | SB  | SB  | SB  |
|-----------------------|-----|-----|-----|-----|
| Directions Served     | T   | T   | T   | R   |
| Maximum Queue (ft)    | 343 | 340 | 386 | 225 |
| Average Queue (ft)    | 241 | 230 | 240 | 171 |
| 95th Queue (ft)       | 319 | 306 | 334 | 292 |
| Link Distance (ft)    | 935 | 935 | 935 |     |
| Upstream Blk Time (%) |     |     |     |     |
| Queuing Penalty (veh) |     |     |     |     |
| Storage Bay Dist (ft) |     |     |     | 200 |
| Storage Blk Time (%)  | 24  |     | 18  | 1   |
| Queuing Penalty (veh) | 9   |     | 62  | 2   |

Intersection: 19: Latrobe Road #2/El Dorado Hills Blvd #2 & US 50 EB Ramps

| Movement              | EB   | EB  | WB  | NB  | NB  | NB  | NB  | SB  | SB  | SB  | SB  | SB  |
|-----------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Directions Served     | R    | R   | R   | T   | T   | T   | R   | L   | T   | T   | T   | T   |
| Maximum Queue (ft)    | 149  | 148 | 218 | 392 | 401 | 417 | 300 | 218 | 133 | 154 | 164 | 177 |
| Average Queue (ft)    | 68   | 69  | 20  | 160 | 245 | 277 | 176 | 82  | 49  | 78  | 95  | 94  |
| 95th Queue (ft)       | 116  | 118 | 136 | 378 | 483 | 505 | 397 | 177 | 112 | 139 | 158 | 163 |
| Link Distance (ft)    | 1212 |     | 968 | 718 | 718 | 718 |     |     | 714 | 714 | 714 | 714 |
| Upstream Blk Time (%) |      |     |     |     |     |     |     |     |     |     |     |     |
| Queuing Penalty (veh) |      |     |     |     |     |     |     |     |     |     |     |     |
| Storage Bay Dist (ft) |      | 450 |     |     |     |     | 275 | 575 |     |     |     |     |
| Storage Blk Time (%)  |      |     |     |     |     | 47  | 0   |     |     |     |     |     |
| Queuing Penalty (veh) |      |     |     |     |     | 98  | 1   |     |     |     |     |     |

Zone Summary

Zone wide Queuing Penalty: 1107

Generations at Green Valley  
 1: Sophia Pkwy/Access Rd & Green Valley Rd

Cumulative plus Project  
 Timing Plan: PM



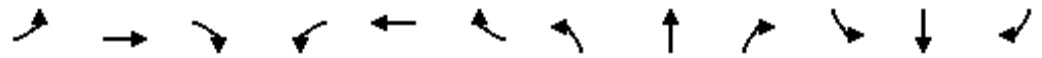
| Lane Group              | EBL  | EBT  | EBR  | WBL   | WBT  | NBL   | NBR  | SBT  |
|-------------------------|------|------|------|-------|------|-------|------|------|
| Lane Group Flow (vph)   | 1    | 1739 | 315  | 204   | 1215 | 263   | 153  | 2    |
| v/c Ratio               | 0.00 | 0.64 | 0.24 | 1.45  | 0.45 | 1.12  | 0.50 | 0.01 |
| Control Delay           | 3.0  | 7.8  | 0.8  | 256.4 | 5.6  | 140.3 | 35.9 | 35.5 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0   | 0.0  | 0.0  |
| Total Delay             | 3.0  | 7.8  | 0.8  | 256.4 | 5.6  | 140.3 | 35.9 | 35.5 |
| Queue Length 50th (ft)  | 0    | 274  | 0    | ~104  | 148  | ~235  | 71   | 1    |
| Queue Length 95th (ft)  | 1    | 331  | 19   | #262  | 181  | #404  | 141  | 9    |
| Internal Link Dist (ft) |      | 1813 |      |       | 7016 |       |      | 376  |
| Turn Bay Length (ft)    | 248  |      | 224  | 314   |      | 204   | 204  |      |
| Base Capacity (vph)     | 288  | 2713 | 1287 | 141   | 2713 | 235   | 307  | 290  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0     | 0    | 0     | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0     | 0    | 0     | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0     | 0    | 0     | 0    | 0    |
| Reduced v/c Ratio       | 0.00 | 0.64 | 0.24 | 1.45  | 0.45 | 1.12  | 0.50 | 0.01 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
1: Sophia Pkwy/Access Rd & Green Valley Rd

Cumulative plus Project  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL   | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|-------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |       |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 1    | 1600 | 290  | 188   | 1116 | 2    | 242  | 0    | 141  | 0    | 1    | 1    |
| Future Volume (veh/h)        | 1    | 1600 | 290  | 188   | 1116 | 2    | 242  | 0    | 141  | 0    | 1    | 1    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00  |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |       | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 1    | 1739 | 315  | 204   | 1213 | 2    | 263  | 0    | 153  | 0    | 1    | 1    |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92  | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2     | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 359  | 2724 | 1215 | 171   | 2791 | 5    | 294  | 312  | 264  | 0    | 143  | 143  |
| Arrive On Green              | 0.77 | 0.77 | 0.77 | 0.77  | 0.77 | 0.77 | 0.17 | 0.00 | 0.17 | 0.00 | 0.17 | 0.17 |
| Sat Flow, veh/h              | 460  | 3554 | 1585 | 204   | 3640 | 6    | 1415 | 1870 | 1585 | 0    | 858  | 858  |
| Grp Volume(v), veh/h         | 1    | 1739 | 315  | 204   | 592  | 623  | 263  | 0    | 153  | 0    | 0    | 2    |
| Grp Sat Flow(s),veh/h/ln     | 460  | 1777 | 1585 | 204   | 1777 | 1869 | 1415 | 1870 | 1585 | 0    | 0    | 1716 |
| Q Serve(g_s), s              | 0.1  | 26.8 | 6.9  | 65.2  | 14.0 | 14.0 | 19.9 | 0.0  | 10.7 | 0.0  | 0.0  | 0.1  |
| Cycle Q Clear(g_c), s        | 14.1 | 26.8 | 6.9  | 92.0  | 14.0 | 14.0 | 20.0 | 0.0  | 10.7 | 0.0  | 0.0  | 0.1  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00  |      | 0.00 | 1.00 |      | 1.00 | 0.00 |      | 0.50 |
| Lane Grp Cap(c), veh/h       | 359  | 2724 | 1215 | 171   | 1362 | 1433 | 294  | 312  | 264  | 0    | 0    | 286  |
| V/C Ratio(X)                 | 0.00 | 0.64 | 0.26 | 1.19  | 0.43 | 0.43 | 0.89 | 0.00 | 0.58 | 0.00 | 0.00 | 0.01 |
| Avail Cap(c_a), veh/h        | 359  | 2724 | 1215 | 171   | 1362 | 1433 | 294  | 312  | 264  | 0    | 0    | 286  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh     | 7.4  | 6.4  | 4.1  | 38.9  | 4.9  | 4.9  | 51.1 | 0.0  | 46.1 | 0.0  | 0.0  | 41.7 |
| Incr Delay (d2), s/veh       | 0.0  | 1.2  | 0.5  | 130.6 | 1.0  | 1.0  | 31.1 | 0.0  | 9.0  | 0.0  | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.0  | 7.2  | 1.7  | 11.2  | 3.9  | 4.1  | 10.3 | 0.0  | 4.7  | 0.0  | 0.0  | 0.1  |
| Unsig. Movement Delay, s/veh |      |      |      |       |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 7.4  | 7.6  | 4.6  | 169.4 | 5.9  | 5.9  | 82.2 | 0.0  | 55.1 | 0.0  | 0.0  | 41.8 |
| LnGrp LOS                    | A    | A    | A    | F     | A    | A    | F    | A    | E    | A    | A    | D    |
| Approach Vol, veh/h          |      | 2055 |      |       | 1419 |      |      | 416  |      |      |      | 2    |
| Approach Delay, s/veh        |      | 7.1  |      |       | 29.4 |      |      | 72.2 |      |      |      | 41.8 |
| Approach LOS                 |      | A    |      |       | C    |      |      | E    |      |      |      | D    |
| Timer - Assigned Phs         |      | 2    |      | 4     |      | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 24.0 |      | 96.0  |      | 24.0 |      | 96.0 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  |      | 4.0   |      | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 20.0 |      | 92.0  |      | 20.0 |      | 92.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 22.0 |      | 28.8  |      | 2.1  |      | 94.0 |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.0  |      | 24.0  |      | 0.0  |      | 0.0  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |       |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      | 22.2  |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      |      | C     |      |      |      |      |      |      |      |      |

Generations at Green Valley  
2: Green Valley Rd/Green Valley Road & Francisco Rd.

Cumulative plus Project  
Timing Plan: PM
































| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | SBL  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 357  | 921  | 291  | 149  | 723  | 114  | 295  | 395  | 192  | 278  | 392  |
| v/c Ratio               | 0.83 | 0.80 | 0.41 | 0.84 | 0.68 | 0.21 | 0.70 | 0.51 | 0.86 | 0.67 | 0.74 |
| Control Delay           | 54.1 | 31.8 | 4.8  | 76.4 | 29.2 | 5.9  | 46.0 | 29.0 | 72.9 | 37.3 | 21.6 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 54.1 | 31.8 | 4.8  | 76.4 | 29.2 | 5.9  | 46.0 | 29.0 | 72.9 | 37.3 | 21.6 |
| Queue Length 50th (ft)  | 95   | 220  | 0    | 78   | 167  | 0    | 77   | 92   | 101  | 134  | 78   |
| Queue Length 95th (ft)  | #189 | 327  | 54   | #202 | 253  | 37   | #127 | 124  | #224 | 198  | 156  |
| Internal Link Dist (ft) |      | 7016 |      |      | 1876 |      |      | 2744 |      | 705  |      |
| Turn Bay Length (ft)    | 290  |      | 210  | 200  |      | 450  | 200  |      | 183  |      |      |
| Base Capacity (vph)     | 432  | 1283 | 759  | 178  | 1193 | 610  | 432  | 1106 | 222  | 586  | 653  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.83 | 0.72 | 0.38 | 0.84 | 0.61 | 0.19 | 0.68 | 0.36 | 0.86 | 0.47 | 0.60 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Generations at Green Valley  
2: Green Valley Rd/Green Valley Road & Francisco Rd.

Cumulative plus Project  
Timing Plan: PM

|                              |    |    |  |  |    |  |    |    |  |  |    |  |
|------------------------------|---|---|---|---|---|---|--|---|---|---|---|---|
| Movement                     | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL  | NBT   | NBR   | SBL   | SBT   | SBR   |
| Lane Configurations          |   |   |  |  |   |  |   |   |   |  |   |  |
| Traffic Volume (veh/h)       | 343   | 884   | 279   | 134   | 651   | 103   | 248  | 299   | 33  | 163   | 236   | 333   |
| Future Volume (veh/h)        | 343   | 884   | 279   | 134   | 651   | 103   | 248  | 299   | 33  | 163   | 236   | 333   |
| Initial Q (Qb), veh          | 0   | 0   | 0   | 0   | 0   | 0   | 0  | 0   | 0   | 0   | 0   | 0   |
| Ped-Bike Adj(A_pbT)          | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00   |   | 1.00  | 1.00  |   | 1.00  |
| Parking Bus, Adj             | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| Work Zone On Approach        |   | No  |   |   | No  |   |  | No  |   |   | No  |   |
| Adj Sat Flow, veh/h/ln       | 1870  | 1870  | 1870  | 1870  | 1870  | 1870  | 1870   | 1870  | 1870  | 1870  | 1870  | 1870  |
| Adj Flow Rate, veh/h         | 357   | 921   | 291   | 149   | 723   | 114   | 295  | 356   | 39  | 192   | 278   | 392   |
| Peak Hour Factor             | 0.96  | 0.96  | 0.96  | 0.90  | 0.90  | 0.90  | 0.84   | 0.84  | 0.84  | 0.85  | 0.85  | 0.85  |
| Percent Heavy Veh, %         | 2   | 2   | 2   | 2   | 2   | 2   | 2  | 2   | 2   | 2   | 2   | 2   |
| Cap, veh/h                   | 411   | 1091  | 487   | 169   | 1007  | 449   | 374  | 849   | 92  | 212   | 511   | 433   |
| Arrive On Green              | 0.12  | 0.31  | 0.31  | 0.10  | 0.28  | 0.28  | 0.11   | 0.26  | 0.26  | 0.12  | 0.27  | 0.27  |
| Sat Flow, veh/h              | 3456  | 3554  | 1585  | 1781  | 3554  | 1585  | 3456   | 3232  | 352   | 1781  | 1870  | 1585  |
| Grp Volume(v), veh/h         | 357   | 921   | 291   | 149   | 723   | 114   | 295  | 195   | 200   | 192   | 278   | 392   |
| Grp Sat Flow(s),veh/h/ln     | 1728  | 1777  | 1585  | 1781  | 1777  | 1585  | 1728   | 1777  | 1807  | 1781  | 1870  | 1585  |
| Q Serve(g_s), s              | 8.5   | 20.4  | 13.1  | 7.0   | 15.4  | 4.7   | 7.0  | 7.6   | 7.7   | 9.0   | 10.7  | 20.1  |
| Cycle Q Clear(g_c), s        | 8.5   | 20.4  | 13.1  | 7.0   | 15.4  | 4.7   | 7.0  | 7.6   | 7.7   | 9.0   | 10.7  | 20.1  |
| Prop In Lane                 | 1.00  |   | 1.00  | 1.00  |   | 1.00  | 1.00   |   | 0.19  | 1.00  |   | 1.00  |
| Lane Grp Cap(c), veh/h       | 411   | 1091  | 487   | 169   | 1007  | 449   | 374  | 467   | 475   | 212   | 511   | 433   |
| V/C Ratio(X)                 | 0.87  | 0.84  | 0.60  | 0.88  | 0.72  | 0.25  | 0.79   | 0.42  | 0.42  | 0.91  | 0.54  | 0.90  |
| Avail Cap(c_a), veh/h        | 411   | 1216  | 542   | 169   | 1132  | 505   | 411  | 528   | 537   | 212   | 556   | 471   |
| HCM Platoon Ratio            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| Upstream Filter(l)           | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00   | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| Uniform Delay (d), s/veh     | 36.4  | 27.3  | 24.7  | 37.6  | 27.1  | 23.3  | 36.6   | 25.7  | 25.7  | 36.6  | 26.1  | 29.5  |
| Incr Delay (d2), s/veh       | 17.8  | 5.2   | 1.5   | 37.4  | 1.9   | 0.3   | 9.2  | 0.6   | 0.6   | 37.4  | 0.9   | 19.8  |
| Initial Q Delay(d3),s/veh    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0  | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| %ile BackOfQ(50%),veh/ln     | 4.4   | 8.5   | 4.8   | 4.6   | 6.2   | 1.7   | 3.3  | 3.1   | 3.2   | 5.9   | 4.6   | 9.5   |
| Unsig. Movement Delay, s/veh |   |   |   |   |   |   |  |   |   |   |   |   |
| LnGrp Delay(d),s/veh         | 54.3  | 32.4  | 26.2  | 75.0  | 29.1  | 23.6  | 45.8   | 26.3  | 26.3  | 74.1  | 27.0  | 49.4  |
| LnGrp LOS                    | D   | C   | C   | E   | C   | C   | D  | C   | C   | E   | C   | D   |
| Approach Vol, veh/h          |   | 1569  |   |   | 986   |   |  | 690   |   |   | 862   |   |
| Approach Delay, s/veh        |   | 36.2  |   |   | 35.4  |   |  | 34.6  |   |   | 47.7  |   |
| Approach LOS                 |   | D   |   |   | D   |   |  | C   |   |   | D   |   |
| Timer - Assigned Phs         | 1   | 2   | 3   | 4   | 5   | 6   | 7  | 8   |   |   |   |   |
| Phs Duration (G+Y+Rc), s     | 12.0  | 31.5  | 13.1  | 27.5  | 14.0  | 29.5  | 14.0   | 26.6  |   |   |   |   |
| Change Period (Y+Rc), s      | 4.0   | 5.7   | 4.0   | 4.5   | 4.0   | 5.7   | 4.0  | 4.5   |   |   |   |   |
| Max Green Setting (Gmax), s  | 8.0   | 28.8  | 10.0  | 25.0  | 10.0  | 26.8  | 10.0   | 25.0  |   |   |   |   |
| Max Q Clear Time (g_c+l1), s | 9.0   | 22.4  | 9.0   | 22.1  | 10.5  | 17.4  | 11.0   | 9.7   |   |   |   |   |
| Green Ext Time (p_c), s      | 0.0   | 3.4   | 0.1   | 0.9   | 0.0   | 3.3   | 0.0  | 1.8   |   |   |   |   |
| <b>Intersection Summary</b>  |   |   |   |   |   |   |  |   |   |   |   |   |
| HCM 6th Ctrl Delay           |   |   | 38.2  |   |   |   |  |   |   |   |   |   |
| HCM 6th LOS                  |   |   | D   |   |   |   |  |   |   |   |   |   |

Generations at Green Valley  
 3: El Dorado Hills Blvd./Salmon Falls Rd & Green Valley Road

Cumulative plus Project  
 Timing Plan: PM



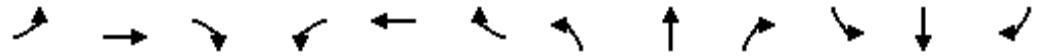
| Lane Group              | EBL   | EBT   | WBL   | WBT   | NBL  | NBT   | SBL  | SBT  | SBR  |
|-------------------------|-------|-------|-------|-------|------|-------|------|------|------|
| Lane Group Flow (vph)   | 111   | 1201  | 76    | 841   | 59   | 381   | 83   | 138  | 174  |
| v/c Ratio               | 0.85  | 1.20  | 1.15  | 0.91  | 0.19 | 1.21  | 0.40 | 0.62 | 0.51 |
| Control Delay           | 112.9 | 129.4 | 213.8 | 48.2  | 54.6 | 167.5 | 64.5 | 73.5 | 13.1 |
| Queue Delay             | 0.0   | 0.0   | 0.0   | 7.0   | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  |
| Total Delay             | 112.9 | 129.4 | 213.8 | 55.2  | 54.6 | 167.5 | 64.5 | 73.5 | 13.1 |
| Queue Length 50th (ft)  | 106   | ~1378 | ~84   | 710   | 48   | ~430  | 74   | 126  | 0    |
| Queue Length 95th (ft)  | #204  | #1541 | #198  | #1032 | 69   | #400  | 114  | 175  | 44   |
| Internal Link Dist (ft) |       | 1876  |       | 819   |      | 2981  |      | 502  |      |
| Turn Bay Length (ft)    | 85    |       | 105   |       | 165  |       |      |      | 100  |
| Base Capacity (vph)     | 132   | 1004  | 66    | 925   | 304  | 315   | 267  | 282  | 387  |
| Starvation Cap Reductn  | 0     | 0     | 0     | 64    | 0    | 0     | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0     | 0     | 0     | 0     | 0    | 0     | 0    | 0    | 0    |
| Storage Cap Reductn     | 0     | 0     | 0     | 0     | 0    | 0     | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.84  | 1.20  | 1.15  | 0.98  | 0.19 | 1.21  | 0.31 | 0.49 | 0.45 |

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
3: El Dorado Hills Blvd./Salmon Falls Rd & Green Valley Road

Cumulative plus Project  
Timing Plan: PM



| Movement                     | EBL   | EBT   | EBR   | WBL   | WBT  | WBR  | NBL  | NBT   | NBR   | SBL  | SBT  | SBR  |
|------------------------------|-------|-------|-------|-------|------|------|------|-------|-------|------|------|------|
| Lane Configurations          |       |       |       |       |      |      |      |       |       |      |      |      |
| Traffic Volume (veh/h)       | 93    | 998   | 11    | 68    | 657  | 92   | 39   | 176   | 75    | 66   | 110  | 139  |
| Future Volume (veh/h)        | 93    | 998   | 11    | 68    | 657  | 92   | 39   | 176   | 75    | 66   | 110  | 139  |
| Initial Q (Qb), veh          | 0     | 0     | 0     | 0     | 0    | 0    | 0    | 0     | 0     | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00  |       | 1.00  | 1.00  |      | 1.00 | 1.00 |       | 1.00  | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |       | No    |       |       | No   |      |      | No    |       |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870  | 1870  | 1870  | 1870  | 1870 | 1870 | 1870 | 1870  | 1870  | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 111   | 1188  | 13    | 76    | 738  | 103  | 59   | 267   | 114   | 82   | 138  | 174  |
| Peak Hour Factor             | 0.84  | 0.84  | 0.84  | 0.89  | 0.89 | 0.89 | 0.66 | 0.66  | 0.66  | 0.80 | 0.80 | 0.80 |
| Percent Heavy Veh, %         | 2     | 2     | 2     | 2     | 2    | 2    | 2    | 2     | 2     | 2    | 2    | 2    |
| Cap, veh/h                   | 132   | 988   | 11    | 67    | 800  | 112  | 303  | 212   | 90    | 228  | 239  | 203  |
| Arrive On Green              | 0.07  | 0.53  | 0.53  | 0.04  | 0.50 | 0.50 | 0.17 | 0.17  | 0.17  | 0.13 | 0.13 | 0.13 |
| Sat Flow, veh/h              | 1781  | 1847  | 20    | 1781  | 1606 | 224  | 1781 | 1244  | 531   | 1781 | 1870 | 1585 |
| Grp Volume(v), veh/h         | 111   | 0     | 1201  | 76    | 0    | 841  | 59   | 0     | 381   | 82   | 138  | 174  |
| Grp Sat Flow(s),veh/h/ln     | 1781  | 0     | 1867  | 1781  | 0    | 1830 | 1781 | 0     | 1775  | 1781 | 1870 | 1585 |
| Q Serve(g_s), s              | 9.0   | 0.0   | 78.5  | 5.5   | 0.0  | 62.6 | 4.2  | 0.0   | 25.0  | 6.2  | 10.2 | 15.8 |
| Cycle Q Clear(g_c), s        | 9.0   | 0.0   | 78.5  | 5.5   | 0.0  | 62.6 | 4.2  | 0.0   | 25.0  | 6.2  | 10.2 | 15.8 |
| Prop In Lane                 | 1.00  |       | 0.01  | 1.00  |      | 0.12 | 1.00 |       | 0.30  | 1.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 132   | 0     | 998   | 67    | 0    | 911  | 303  | 0     | 302   | 228  | 239  | 203  |
| V/C Ratio(X)                 | 0.84  | 0.00  | 1.20  | 1.14  | 0.00 | 0.92 | 0.19 | 0.00  | 1.26  | 0.36 | 0.58 | 0.86 |
| Avail Cap(c_a), veh/h        | 132   | 0     | 998   | 67    | 0    | 911  | 303  | 0     | 302   | 267  | 280  | 238  |
| HCM Platoon Ratio            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00  | 0.00  | 1.00  | 1.00  | 0.00 | 1.00 | 1.00 | 0.00  | 1.00  | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 67.1  | 0.0   | 34.1  | 70.6  | 0.0  | 34.2 | 52.2 | 0.0   | 60.9  | 58.5 | 60.3 | 62.7 |
| Incr Delay (d2), s/veh       | 34.9  | 0.0   | 101.0 | 152.8 | 0.0  | 15.1 | 0.5  | 0.0   | 141.1 | 1.6  | 3.7  | 25.5 |
| Initial Q Delay(d3),s/veh    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 5.3   | 0.0   | 60.6  | 5.3   | 0.0  | 29.8 | 1.9  | 0.0   | 22.9  | 2.9  | 5.0  | 7.7  |
| Unsig. Movement Delay, s/veh |       |       |       |       |      |      |      |       |       |      |      |      |
| LnGrp Delay(d),s/veh         | 102.0 | 0.0   | 135.1 | 223.4 | 0.0  | 49.3 | 52.8 | 0.0   | 201.9 | 60.1 | 64.0 | 88.2 |
| LnGrp LOS                    | F     | A     | F     | F     | A    | D    | D    | A     | F     | E    | E    | F    |
| Approach Vol, veh/h          |       | 1312  |       |       | 917  |      |      | 440   |       |      | 394  |      |
| Approach Delay, s/veh        |       | 132.3 |       |       | 63.7 |      |      | 181.9 |       |      | 73.9 |      |
| Approach LOS                 |       | F     |       |       | E    |      |      | F     |       |      | E    |      |
| Timer - Assigned Phs         | 1     | 2     |       | 4     | 5    | 6    |      | 8     |       |      |      |      |
| Phs Duration (G+Y+Rc), s     | 9.0   | 84.5  |       | 24.3  | 14.4 | 79.1 |      | 29.0  |       |      |      |      |
| Change Period (Y+Rc), s      | 3.5   | 6.0   |       | 5.5   | 3.5  | 6.0  |      | 4.0   |       |      |      |      |
| Max Green Setting (Gmax), s  | 5.5   | 78.5  |       | 22.0  | 10.9 | 73.1 |      | 25.0  |       |      |      |      |
| Max Q Clear Time (g_c+I1), s | 7.5   | 80.5  |       | 17.8  | 11.0 | 64.6 |      | 27.0  |       |      |      |      |
| Green Ext Time (p_c), s      | 0.0   | 0.0   |       | 1.0   | 0.0  | 5.3  |      | 0.0   |       |      |      |      |

Intersection Summary

|                    |       |
|--------------------|-------|
| HCM 6th Ctrl Delay | 111.4 |
| HCM 6th LOS        | F     |





| Lane Group              | EBL  | EBT  | EBR  | WBL   | WBT  | NBL  | NBT  | SBT  |
|-------------------------|------|------|------|-------|------|------|------|------|
| Lane Group Flow (vph)   | 4    | 883  | 322  | 67    | 569  | 420  | 140  | 15   |
| v/c Ratio               | 0.06 | 0.93 | 0.36 | 1.03  | 0.54 | 0.85 | 0.26 | 0.15 |
| Control Delay           | 55.0 | 42.5 | 9.3  | 172.6 | 18.2 | 54.4 | 11.2 | 47.0 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 55.0 | 42.5 | 9.3  | 172.6 | 18.2 | 54.4 | 11.2 | 47.0 |
| Queue Length 50th (ft)  | 3    | 498  | 53   | 45    | 198  | 259  | 15   | 8    |
| Queue Length 95th (ft)  | 15   | #918 | 134  | #151  | 430  | 313  | 40   | 26   |
| Internal Link Dist (ft) |      | 819  |      |       | 2255 |      | 4847 | 380  |
| Turn Bay Length (ft)    | 205  |      | 205  | 350   |      | 150  |      |      |
| Base Capacity (vph)     | 65   | 953  | 888  | 65    | 1063 | 497  | 540  | 371  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.06 | 0.93 | 0.36 | 1.03  | 0.54 | 0.85 | 0.26 | 0.04 |

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley

Cumulative plus Project

4: Silva Valley Pkwy./Allegheny Rd & Green Valley Road/Green Valley Rd.

Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL   | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|-------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |       |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 4    | 821  | 299  | 61    | 514  | 4    | 298  | 23   | 77   | 0    | 9    | 2    |
| Future Volume (veh/h)        | 4    | 821  | 299  | 61    | 514  | 4    | 298  | 23   | 77   | 0    | 9    | 2    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00  |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |       | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870  | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 4    | 883  | 322  | 67    | 565  | 4    | 420  | 32   | 108  | 0    | 12   | 3    |
| Peak Hour Factor             | 0.93 | 0.93 | 0.93 | 0.91  | 0.91 | 0.91 | 0.71 | 0.71 | 0.71 | 0.77 | 0.77 | 0.77 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2     | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 71   | 947  | 803  | 71    | 939  | 7    | 459  | 97   | 326  | 0    | 20   | 5    |
| Arrive On Green              | 0.04 | 0.51 | 0.51 | 0.04  | 0.51 | 0.51 | 0.26 | 0.26 | 0.26 | 0.00 | 0.01 | 0.01 |
| Sat Flow, veh/h              | 1781 | 1870 | 1585 | 1781  | 1855 | 13   | 1781 | 375  | 1267 | 0    | 1444 | 361  |
| Grp Volume(v), veh/h         | 4    | 883  | 322  | 67    | 0    | 569  | 420  | 0    | 140  | 0    | 0    | 15   |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1870 | 1585 | 1781  | 0    | 1868 | 1781 | 0    | 1642 | 0    | 0    | 1805 |
| Q Serve(g_s), s              | 0.2  | 44.3 | 12.6 | 3.8   | 0.0  | 21.7 | 23.0 | 0.0  | 6.9  | 0.0  | 0.0  | 0.8  |
| Cycle Q Clear(g_c), s        | 0.2  | 44.3 | 12.6 | 3.8   | 0.0  | 21.7 | 23.0 | 0.0  | 6.9  | 0.0  | 0.0  | 0.8  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00  |      | 0.01 | 1.00 |      | 0.77 | 0.00 |      | 0.20 |
| Lane Grp Cap(c), veh/h       | 71   | 947  | 803  | 71    | 0    | 946  | 459  | 0    | 423  | 0    | 0    | 25   |
| V/C Ratio(X)                 | 0.06 | 0.93 | 0.40 | 0.94  | 0.00 | 0.60 | 0.92 | 0.00 | 0.33 | 0.00 | 0.00 | 0.61 |
| Avail Cap(c_a), veh/h        | 71   | 1031 | 874  | 71    | 0    | 1030 | 540  | 0    | 498  | 0    | 0    | 396  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00  | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00  | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh     | 46.3 | 23.1 | 15.3 | 48.0  | 0.0  | 17.6 | 36.2 | 0.0  | 30.2 | 0.0  | 0.0  | 49.2 |
| Incr Delay (d2), s/veh       | 0.2  | 13.9 | 0.3  | 86.6  | 0.0  | 0.9  | 18.1 | 0.0  | 0.3  | 0.0  | 0.0  | 16.7 |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.1  | 20.3 | 4.1  | 3.3   | 0.0  | 8.4  | 11.7 | 0.0  | 2.7  | 0.0  | 0.0  | 0.5  |
| Unsig. Movement Delay, s/veh |      |      |      |       |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 46.6 | 37.0 | 15.6 | 134.6 | 0.0  | 18.4 | 54.3 | 0.0  | 30.6 | 0.0  | 0.0  | 65.9 |
| LnGrp LOS                    | D    | D    | B    | F     | A    | B    | D    | A    | C    | A    | A    | E    |
| Approach Vol, veh/h          |      | 1209 |      |       | 636  |      |      | 560  |      |      |      | 15   |
| Approach Delay, s/veh        |      | 31.4 |      |       | 30.7 |      |      | 48.3 |      |      |      | 65.9 |
| Approach LOS                 |      | C    |      |       | C    |      |      | D    |      |      |      | E    |
| Timer - Assigned Phs         | 1    | 2    |      | 4     | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 8.0  | 56.5 |      | 5.4   | 8.0  | 56.5 |      | 30.4 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 5.7  |      | 4.0   | 4.0  | 5.7  |      | 4.6  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0  | 55.3 |      | 22.0  | 4.0  | 55.3 |      | 30.4 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 2.2  | 23.7 |      | 2.8   | 5.8  | 46.3 |      | 25.0 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 3.5  |      | 0.0   | 0.0  | 4.5  |      | 0.8  |      |      |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 35.3 |
| HCM 6th LOS        | D    |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 2.2  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      |      |      |      |      |      |      |
| Traffic Vol, veh/h       | 862  | 26   | 12   | 547  | 26   | 15   |
| Future Vol, veh/h        | 862  | 26   | 12   | 547  | 26   | 15   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | 100  | -    | 0    | -    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 91   | 91   | 94   | 94   | 56   | 56   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 947  | 29   | 13   | 582  | 46   | 27   |

| Major/Minor          | Major1 | Major2 | Minor1 | Minor2 | Minor3 |
|----------------------|--------|--------|--------|--------|--------|
| Conflicting Flow All | 0      | 0      | 976    | 0      | 1570   |
| Stage 1              | -      | -      | -      | -      | 962    |
| Stage 2              | -      | -      | -      | -      | 608    |
| Critical Hdwy        | -      | -      | 4.12   | -      | 6.42   |
| Critical Hdwy Stg 1  | -      | -      | -      | -      | 5.42   |
| Critical Hdwy Stg 2  | -      | -      | -      | -      | 5.42   |
| Follow-up Hdwy       | -      | -      | 2.218  | -      | 3.518  |
| Pot Cap-1 Maneuver   | -      | -      | 707    | -      | 122    |
| Stage 1              | -      | -      | -      | -      | 371    |
| Stage 2              | -      | -      | -      | -      | 543    |
| Platoon blocked, %   | -      | -      | -      | -      | -      |
| Mov Cap-1 Maneuver   | -      | -      | 707    | -      | 120    |
| Mov Cap-2 Maneuver   | -      | -      | -      | -      | 120    |
| Stage 1              | -      | -      | -      | -      | 371    |
| Stage 2              | -      | -      | -      | -      | 533    |

| Approach             | EB | WB  | NB   |
|----------------------|----|-----|------|
| HCM Control Delay, s | 0  | 0.2 | 47.5 |
| HCM LOS              |    |     | E    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL   | WBT |
|-----------------------|-------|-----|-----|-------|-----|
| Capacity (veh/h)      | 155   | -   | -   | 707   | -   |
| HCM Lane V/C Ratio    | 0.472 | -   | -   | 0.018 | -   |
| HCM Control Delay (s) | 47.5  | -   | -   | 10.2  | -   |
| HCM Lane LOS          | E     | -   | -   | B     | -   |
| HCM 95th %tile Q(veh) | 2.2   | -   | -   | 0.1   | -   |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 1.6  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      |      |      |      |      |      |
| Traffic Vol, veh/h       | 91   | 786  | 530  | 23   | 11   | 73   |
| Future Vol, veh/h        | 91   | 786  | 530  | 23   | 11   | 73   |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | 100  | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 99   | 854  | 576  | 25   | 12   | 79   |

| Major/Minor          | Major1 | Major2 | Minor2 |   |             |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 601    | 0      | -      | 0 | 1641 589    |
| Stage 1              | -      | -      | -      | - | 589 -       |
| Stage 2              | -      | -      | -      | - | 1052 -      |
| Critical Hdwy        | 4.12   | -      | -      | - | 6.42 6.22   |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.42 -      |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.42 -      |
| Follow-up Hdwy       | 2.218  | -      | -      | - | 3.518 3.318 |
| Pot Cap-1 Maneuver   | 976    | -      | -      | - | 110 508     |
| Stage 1              | -      | -      | -      | - | 554 -       |
| Stage 2              | -      | -      | -      | - | 336 -       |
| Platoon blocked, %   |        | -      | -      | - |             |
| Mov Cap-1 Maneuver   | 976    | -      | -      | - | 99 508      |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 99 -        |
| Stage 1              | -      | -      | -      | - | 498 -       |
| Stage 2              | -      | -      | -      | - | 336 -       |

| Approach             | EB  | WB | SB |
|----------------------|-----|----|----|
| HCM Control Delay, s | 0.9 | 0  | 20 |
| HCM LOS              |     |    | C  |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 976   | -   | -   | -   | 330   |
| HCM Lane V/C Ratio    | 0.101 | -   | -   | -   | 0.277 |
| HCM Control Delay (s) | 9.1   | -   | -   | -   | 20    |
| HCM Lane LOS          | A     | -   | -   | -   | C     |
| HCM 95th %tile Q(veh) | 0.3   | -   | -   | -   | 1.1   |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.4  |      |      |      |      |      |
| Movement                 | EBL  | EBT  | WBT  | WBR  | SBL  | SBR  |
| Lane Configurations      |      | ↕    | ↕    |      | ↕    |      |
| Traffic Vol, veh/h       | 14   | 853  | 544  | 12   | 8    | 9    |
| Future Vol, veh/h        | 14   | 853  | 544  | 12   | 8    | 9    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | 0    | -    |
| Veh in Median Storage, # | -    | 0    | 0    | -    | 0    | -    |
| Grade, %                 | -    | 0    | 0    | -    | 0    | -    |
| Peak Hour Factor         | 93   | 93   | 86   | 86   | 91   | 91   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 15   | 917  | 633  | 14   | 9    | 10   |

| Major/Minor          | Major1 | Major2 | Minor2 |   |             |
|----------------------|--------|--------|--------|---|-------------|
| Conflicting Flow All | 647    | 0      | -      | 0 | 1587 640    |
| Stage 1              | -      | -      | -      | - | 640 -       |
| Stage 2              | -      | -      | -      | - | 947 -       |
| Critical Hdwy        | 4.12   | -      | -      | - | 6.42 6.22   |
| Critical Hdwy Stg 1  | -      | -      | -      | - | 5.42 -      |
| Critical Hdwy Stg 2  | -      | -      | -      | - | 5.42 -      |
| Follow-up Hdwy       | 2.218  | -      | -      | - | 3.518 3.318 |
| Pot Cap-1 Maneuver   | 939    | -      | -      | - | 119 475     |
| Stage 1              | -      | -      | -      | - | 525 -       |
| Stage 2              | -      | -      | -      | - | 377 -       |
| Platoon blocked, %   |        | -      | -      | - |             |
| Mov Cap-1 Maneuver   | 939    | -      | -      | - | 115 475     |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | 115 -       |
| Stage 1              | -      | -      | -      | - | 508 -       |
| Stage 2              | -      | -      | -      | - | 377 -       |

| Approach             | EB  | WB | SB   |
|----------------------|-----|----|------|
| HCM Control Delay, s | 0.1 | 0  | 25.8 |
| HCM LOS              |     |    | D    |

| Minor Lane/Major Mvmt | EBL   | EBT | WBT | WBR | SBLn1 |
|-----------------------|-------|-----|-----|-----|-------|
| Capacity (veh/h)      | 939   | -   | -   | -   | 192   |
| HCM Lane V/C Ratio    | 0.016 | -   | -   | -   | 0.097 |
| HCM Control Delay (s) | 8.9   | 0   | -   | -   | 25.8  |
| HCM Lane LOS          | A     | A   | -   | -   | D     |
| HCM 95th %tile Q(veh) | 0     | -   | -   | -   | 0.3   |

Generations at Green Valley  
8: Deer Valley Rd. & Green Valley Rd.

Cumulative plus Project  
Timing Plan: PM



| Lane Group                  | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBT  | SBT  |
|-----------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)       | 37   | 749  | 21   | 57   | 540  | 47   | 103  | 54   |
| v/c Ratio                   | 0.09 | 0.73 | 0.02 | 0.23 | 0.53 | 0.05 | 0.30 | 0.16 |
| Control Delay               | 4.3  | 10.8 | 1.9  | 6.6  | 7.0  | 1.7  | 10.6 | 9.1  |
| Queue Delay                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay                 | 4.3  | 10.8 | 1.9  | 6.6  | 7.0  | 1.7  | 10.6 | 9.1  |
| Queue Length 50th (ft)      | 2    | 76   | 0    | 4    | 46   | 0    | 7    | 3    |
| Queue Length 95th (ft)      | 11   | 196  | 5    | 18   | 109  | 7    | 26   | 17   |
| Internal Link Dist (ft)     |      | 2852 |      |      | 3999 |      | 988  | 946  |
| Turn Bay Length (ft)        | 415  |      | 415  | 415  |      | 415  |      |      |
| Base Capacity (vph)         | 584  | 1455 | 1241 | 356  | 1455 | 1246 | 732  | 743  |
| Starvation Cap Reductn      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio           | 0.06 | 0.51 | 0.02 | 0.16 | 0.37 | 0.04 | 0.14 | 0.07 |
| <b>Intersection Summary</b> |      |      |      |      |      |      |      |      |

Generations at Green Valley  
8: Deer Valley Rd. & Green Valley Rd.

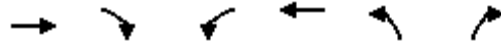
Cumulative plus Project  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 34   | 682  | 19   | 50   | 470  | 41   | 32   | 2    | 37   | 13   | 1    | 25   |
| Future Volume (veh/h)        | 34   | 682  | 19   | 50   | 470  | 41   | 32   | 2    | 37   | 13   | 1    | 25   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 37   | 749  | 21   | 57   | 540  | 47   | 46   | 3    | 54   | 18   | 1    | 35   |
| Peak Hour Factor             | 0.91 | 0.91 | 0.91 | 0.87 | 0.87 | 0.87 | 0.69 | 0.69 | 0.69 | 0.72 | 0.72 | 0.72 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 576  | 1033 | 876  | 446  | 1033 | 876  | 280  | 23   | 120  | 234  | 28   | 153  |
| Arrive On Green              | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 | 0.55 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 | 0.15 |
| Sat Flow, veh/h              | 829  | 1870 | 1585 | 699  | 1870 | 1585 | 575  | 155  | 805  | 370  | 188  | 1028 |
| Grp Volume(v), veh/h         | 37   | 749  | 21   | 57   | 540  | 47   | 103  | 0    | 0    | 54   | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 829  | 1870 | 1585 | 699  | 1870 | 1585 | 1536 | 0    | 0    | 1586 | 0    | 0    |
| Q Serve(g_s), s              | 0.8  | 8.0  | 0.2  | 1.8  | 4.9  | 0.4  | 0.8  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 5.7  | 8.0  | 0.2  | 9.8  | 4.9  | 0.4  | 1.6  | 0.0  | 0.0  | 0.8  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 0.45 |      | 0.52 | 0.33 |      | 0.65 |
| Lane Grp Cap(c), veh/h       | 576  | 1033 | 876  | 446  | 1033 | 876  | 423  | 0    | 0    | 416  | 0    | 0    |
| V/C Ratio(X)                 | 0.06 | 0.72 | 0.02 | 0.13 | 0.52 | 0.05 | 0.24 | 0.00 | 0.00 | 0.13 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 921  | 1813 | 1537 | 737  | 1813 | 1537 | 1089 | 0    | 0    | 1087 | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 5.6  | 4.5  | 2.7  | 8.1  | 3.8  | 2.8  | 10.3 | 0.0  | 0.0  | 10.0 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 0.0  | 1.0  | 0.0  | 0.1  | 0.4  | 0.0  | 0.3  | 0.0  | 0.0  | 0.1  | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.0  | 0.3  | 0.0  | 0.1  | 0.1  | 0.0  | 0.4  | 0.0  | 0.0  | 0.2  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 5.6  | 5.5  | 2.7  | 8.3  | 4.2  | 2.8  | 10.6 | 0.0  | 0.0  | 10.2 | 0.0  | 0.0  |
| LnGrp LOS                    | A    | A    | A    | A    | A    | A    | B    | A    | A    | B    | A    | A    |
| Approach Vol, veh/h          |      | 807  |      |      | 644  |      |      | 103  |      |      |      | 54   |
| Approach Delay, s/veh        |      | 5.4  |      |      | 4.4  |      |      | 10.6 |      |      |      | 10.2 |
| Approach LOS                 |      | A    |      |      | A    |      |      | B    |      |      |      | B    |
| Timer - Assigned Phs         |      | 2    |      | 4    |      | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 8.0  |      | 18.8 |      | 8.0  |      | 18.8 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  |      | 4.0  |      | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 16.0 |      | 26.0 |      | 16.0 |      | 26.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 3.6  |      | 10.0 |      | 2.8  |      | 11.8 |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.3  |      | 4.3  |      | 0.1  |      | 3.0  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      | 5.5  |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      |      | A    |      |      |      |      |      |      |      |      |

Generations at Green Valley  
 9: Silver Springs Pkwy & Green Valley Rd

Cumulative plus Project  
 Timing Plan: PM

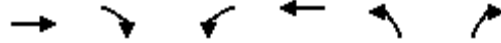


| Lane Group                  | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|-----------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph)       | 610  | 189  | 50   | 446  | 195  | 66   |
| v/c Ratio                   | 0.69 | 0.22 | 0.19 | 0.51 | 0.40 | 0.14 |
| Control Delay               | 12.0 | 2.0  | 7.6  | 8.7  | 13.7 | 4.6  |
| Queue Delay                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay                 | 12.0 | 2.0  | 7.6  | 8.7  | 13.7 | 4.6  |
| Queue Length 50th (ft)      | 71   | 0    | 4    | 46   | 28   | 0    |
| Queue Length 95th (ft)      | 181  | 20   | 20   | 117  | 74   | 18   |
| Internal Link Dist (ft)     | 3999 |      |      | 3318 | 1349 |      |
| Turn Bay Length (ft)        |      | 230  | 415  |      | 135  |      |
| Base Capacity (vph)         | 1223 | 1104 | 368  | 1223 | 885  | 825  |
| Starvation Cap Reductn      | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn       | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn         | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio           | 0.50 | 0.17 | 0.14 | 0.36 | 0.22 | 0.08 |
| <b>Intersection Summary</b> |      |      |      |      |      |      |

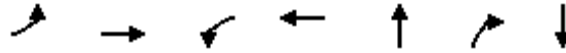


Generations at Green Valley  
 9: Silver Springs Pkwy & Green Valley Rd

Cumulative plus Project  
 Timing Plan: PM



| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations          | ↑    | ↗    | ↘    | ↑    | ↗    | ↘    |
| Traffic Volume (veh/h)       | 561  | 174  | 46   | 410  | 179  | 61   |
| Future Volume (veh/h)        | 561  | 174  | 46   | 410  | 179  | 61   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 610  | 189  | 50   | 446  | 195  | 66   |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 893  | 757  | 442  | 893  | 357  | 318  |
| Arrive On Green              | 0.48 | 0.48 | 0.48 | 0.48 | 0.20 | 0.20 |
| Sat Flow, veh/h              | 1870 | 1585 | 680  | 1870 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 610  | 189  | 50   | 446  | 195  | 66   |
| Grp Sat Flow(s),veh/h/ln     | 1870 | 1585 | 680  | 1870 | 1781 | 1585 |
| Q Serve(g_s), s              | 6.3  | 1.8  | 1.5  | 4.1  | 2.4  | 0.9  |
| Cycle Q Clear(g_c), s        | 6.3  | 1.8  | 7.8  | 4.1  | 2.4  | 0.9  |
| Prop In Lane                 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 893  | 757  | 442  | 893  | 357  | 318  |
| V/C Ratio(X)                 | 0.68 | 0.25 | 0.11 | 0.50 | 0.55 | 0.21 |
| Avail Cap(c_a), veh/h        | 1580 | 1339 | 692  | 1580 | 1146 | 1020 |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 5.0  | 3.9  | 8.1  | 4.5  | 8.9  | 8.3  |
| Incr Delay (d2), s/veh       | 0.9  | 0.2  | 0.1  | 0.4  | 1.3  | 0.3  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.2  | 0.0  | 0.1  | 0.1  | 0.5  | 0.1  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 6.0  | 4.0  | 8.2  | 4.9  | 10.2 | 8.6  |
| LnGrp LOS                    | A    | A    | A    | A    | B    | A    |
| Approach Vol, veh/h          | 799  |      |      | 496  | 261  |      |
| Approach Delay, s/veh        | 5.5  |      |      | 5.2  | 9.8  |      |
| Approach LOS                 | A    |      |      | A    | A    |      |
| Timer - Assigned Phs         |      | 2    |      | 4    |      | 8    |
| Phs Duration (G+Y+Rc), s     |      | 9.0  |      | 15.9 |      | 15.9 |
| Change Period (Y+Rc), s      |      | 4.0  |      | 4.0  |      | 4.0  |
| Max Green Setting (Gmax), s  |      | 16.0 |      | 21.0 |      | 21.0 |
| Max Q Clear Time (g_c+l1), s |      | 4.4  |      | 8.3  |      | 9.8  |
| Green Ext Time (p_c), s      |      | 0.5  |      | 3.3  |      | 2.1  |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 6.1  |      |      |      |
| HCM 6th LOS                  |      |      | A    |      |      |      |



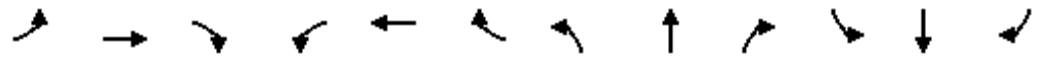
| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBT  | NBR  | SBT  |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 5    | 1048 | 168  | 514  | 56   | 294  | 24   |
| v/c Ratio               | 0.08 | 0.90 | 0.86 | 0.36 | 0.37 | 0.72 | 0.21 |
| Control Delay           | 58.0 | 30.7 | 86.9 | 6.6  | 55.0 | 16.6 | 33.7 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 58.0 | 30.7 | 86.9 | 6.6  | 55.0 | 16.6 | 33.7 |
| Queue Length 50th (ft)  | 4    | 621  | 121  | 103  | 39   | 0    | 6    |
| Queue Length 95th (ft)  | 12   | 471  | #210 | 206  | 57   | 0    | 14   |
| Internal Link Dist (ft) |      | 3318 |      | 1151 | 1084 |      | 521  |
| Turn Bay Length (ft)    | 285  |      | 435  |      |      | 150  |      |
| Base Capacity (vph)     | 65   | 1169 | 195  | 1432 | 276  | 495  | 260  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.08 | 0.90 | 0.86 | 0.36 | 0.20 | 0.59 | 0.09 |

**Intersection Summary**

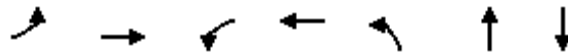
# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
10: Bass Lake Rd./Alexandrite Dr & Green Valley Rd.

Cumulative plus Project  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT   | NBR   | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|-------|-------|------|------|------|
| Lane Configurations          | ↖    | ↗    |      | ↖    | ↗    |      |      | ↖     | ↗     |      | ↕    |      |
| Traffic Volume (veh/h)       | 3    | 585  | 54   | 128  | 390  | 1    | 36   | 0     | 188   | 3    | 1    | 8    |
| Future Volume (veh/h)        | 3    | 585  | 54   | 128  | 390  | 1    | 36   | 0     | 188   | 3    | 1    | 8    |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0     | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |       | 1.00  | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No    |       |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870  | 1870  | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 5    | 959  | 89   | 168  | 513  | 1    | 56   | 0     | 294   | 6    | 2    | 16   |
| Peak Hour Factor             | 0.61 | 0.61 | 0.61 | 0.76 | 0.76 | 0.76 | 0.64 | 0.64  | 0.64  | 0.50 | 0.50 | 0.50 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2     | 2     | 2    | 2    | 2    |
| Cap, veh/h                   | 9    | 990  | 92   | 187  | 1282 | 2    | 265  | 0     | 236   | 8    | 3    | 21   |
| Arrive On Green              | 0.01 | 0.59 | 0.59 | 0.11 | 0.69 | 0.69 | 0.15 | 0.00  | 0.15  | 0.02 | 0.02 | 0.02 |
| Sat Flow, veh/h              | 1781 | 1686 | 156  | 1781 | 1866 | 4    | 1781 | 0     | 1585  | 413  | 138  | 1101 |
| Grp Volume(v), veh/h         | 5    | 0    | 1048 | 168  | 0    | 514  | 56   | 0     | 294   | 24   | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1842 | 1781 | 0    | 1870 | 1781 | 0     | 1585  | 1652 | 0    | 0    |
| Q Serve(g_s), s              | 0.3  | 0.0  | 62.2 | 10.6 | 0.0  | 13.5 | 3.2  | 0.0   | 17.0  | 1.7  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 0.3  | 0.0  | 62.2 | 10.6 | 0.0  | 13.5 | 3.2  | 0.0   | 17.0  | 1.7  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 0.08 | 1.00 |      | 0.00 | 1.00 |       | 1.00  | 0.25 |      | 0.67 |
| Lane Grp Cap(c), veh/h       | 9    | 0    | 1082 | 187  | 0    | 1285 | 265  | 0     | 236   | 31   | 0    | 0    |
| V/C Ratio(X)                 | 0.55 | 0.00 | 0.97 | 0.90 | 0.00 | 0.40 | 0.21 | 0.00  | 1.25  | 0.78 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 62   | 0    | 1113 | 187  | 0    | 1285 | 265  | 0     | 236   | 231  | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00  | 1.00  | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00  | 1.00  | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 56.7 | 0.0  | 22.6 | 50.5 | 0.0  | 7.7  | 42.7 | 0.0   | 48.6  | 55.8 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 42.4 | 0.0  | 19.6 | 38.5 | 0.0  | 0.2  | 0.4  | 0.0   | 141.0 | 33.2 | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0   | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.2  | 0.0  | 28.0 | 6.5  | 0.0  | 4.3  | 1.4  | 0.0   | 15.6  | 1.0  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |       |       |      |      |      |
| LnGrp Delay(d),s/veh         | 99.1 | 0.0  | 42.1 | 89.0 | 0.0  | 7.9  | 43.1 | 0.0   | 189.6 | 89.0 | 0.0  | 0.0  |
| LnGrp LOS                    | F    | A    | D    | F    | A    | A    | D    | A     | F     | F    | A    | A    |
| Approach Vol, veh/h          |      | 1053 |      |      | 682  |      |      | 350   |       |      |      | 24   |
| Approach Delay, s/veh        |      | 42.4 |      |      | 27.9 |      |      | 166.1 |       |      |      | 89.0 |
| Approach LOS                 |      | D    |      |      | C    |      |      | F     |       |      |      | F    |
| Timer - Assigned Phs         |      | 2    | 3    | 4    |      | 6    | 7    | 8     |       |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 21.0 | 16.0 | 71.1 |      | 6.1  | 4.6  | 82.5  |       |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0   |       |      |      |      |
| Max Green Setting (Gmax), s  |      | 17.0 | 12.0 | 69.0 |      | 16.0 | 4.0  | 77.0  |       |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 19.0 | 12.6 | 64.2 |      | 3.7  | 2.3  | 15.5  |       |      |      |      |
| Green Ext Time (p_c), s      |      | 0.0  | 0.0  | 2.9  |      | 0.0  | 0.0  | 3.0   |       |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |       |       |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 58.8 |      |      |      |      |       |       |      |      |      |
| HCM 6th LOS                  |      |      | E    |      |      |      |      |       |       |      |      |      |



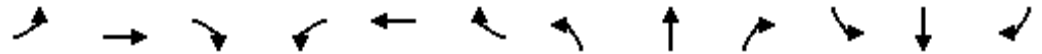
| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBT  |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 29   | 1065 | 53   | 540  | 167  | 102  | 37   |
| v/c Ratio               | 0.26 | 0.93 | 0.69 | 0.45 | 0.67 | 0.34 | 0.26 |
| Control Delay           | 51.4 | 33.6 | 89.8 | 13.0 | 53.2 | 15.6 | 35.7 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 51.4 | 33.6 | 89.8 | 13.0 | 53.2 | 15.6 | 35.7 |
| Queue Length 50th (ft)  | 18   | -638 | 34   | 196  | 101  | 10   | 14   |
| Queue Length 95th (ft)  | 36   | 526  | #84  | 248  | 150  | 44   | 39   |
| Internal Link Dist (ft) |      | 1151 |      | 2235 |      | 1080 | 510  |
| Turn Bay Length (ft)    | 100  |      | 125  |      | 125  |      |      |
| Base Capacity (vph)     | 116  | 1148 | 77   | 1189 | 309  | 354  | 315  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.25 | 0.93 | 0.69 | 0.45 | 0.54 | 0.29 | 0.12 |

**Intersection Summary**

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
11: Cambridge Rd./Peridot Dr & Green Valley Rd.

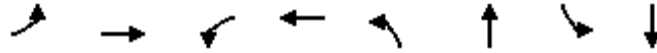
Cumulative plus Project  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 20   | 556  | 168  | 41   | 403  | 13   | 132  | 14   | 66   | 10   | 8    | 11   |
| Future Volume (veh/h)        | 20   | 556  | 168  | 41   | 403  | 13   | 132  | 14   | 66   | 10   | 8    | 11   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 29   | 818  | 247  | 53   | 523  | 17   | 167  | 18   | 84   | 13   | 10   | 14   |
| Peak Hour Factor             | 0.68 | 0.68 | 0.68 | 0.77 | 0.77 | 0.77 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 | 0.79 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 42   | 865  | 261  | 67   | 1155 | 38   | 215  | 35   | 162  | 17   | 13   | 18   |
| Arrive On Green              | 0.02 | 0.63 | 0.63 | 0.04 | 0.64 | 0.64 | 0.12 | 0.12 | 0.12 | 0.03 | 0.03 | 0.03 |
| Sat Flow, veh/h              | 1781 | 1379 | 416  | 1781 | 1801 | 59   | 1781 | 287  | 1341 | 605  | 466  | 652  |
| Grp Volume(v), veh/h         | 29   | 0    | 1065 | 53   | 0    | 540  | 167  | 0    | 102  | 37   | 0    | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1795 | 1781 | 0    | 1860 | 1781 | 0    | 1629 | 1723 | 0    | 0    |
| Q Serve(g_s), s              | 1.4  | 0.0  | 46.4 | 2.5  | 0.0  | 12.5 | 7.8  | 0.0  | 5.0  | 1.8  | 0.0  | 0.0  |
| Cycle Q Clear(g_c), s        | 1.4  | 0.0  | 46.4 | 2.5  | 0.0  | 12.5 | 7.8  | 0.0  | 5.0  | 1.8  | 0.0  | 0.0  |
| Prop In Lane                 | 1.00 |      | 0.23 | 1.00 |      | 0.03 | 1.00 |      | 0.82 | 0.35 |      | 0.38 |
| Lane Grp Cap(c), veh/h       | 42   | 0    | 1126 | 67   | 0    | 1193 | 215  | 0    | 196  | 47   | 0    | 0    |
| V/C Ratio(X)                 | 0.70 | 0.00 | 0.95 | 0.79 | 0.00 | 0.45 | 0.78 | 0.00 | 0.52 | 0.78 | 0.00 | 0.00 |
| Avail Cap(c_a), veh/h        | 125  | 0    | 1220 | 83   | 0    | 1220 | 334  | 0    | 305  | 323  | 0    | 0    |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 |
| Uniform Delay (d), s/veh     | 41.4 | 0.0  | 14.6 | 40.7 | 0.0  | 7.7  | 36.4 | 0.0  | 35.2 | 41.3 | 0.0  | 0.0  |
| Incr Delay (d2), s/veh       | 19.1 | 0.0  | 14.2 | 31.5 | 0.0  | 0.3  | 6.0  | 0.0  | 2.1  | 24.1 | 0.0  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.8  | 0.0  | 17.1 | 1.6  | 0.0  | 3.5  | 3.6  | 0.0  | 2.0  | 1.1  | 0.0  | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 60.5 | 0.0  | 28.8 | 72.3 | 0.0  | 8.0  | 42.5 | 0.0  | 37.4 | 65.3 | 0.0  | 0.0  |
| LnGrp LOS                    | E    | A    | C    | E    | A    | A    | D    | A    | D    | E    | A    | A    |
| Approach Vol, veh/h          |      | 1094 |      |      | 593  |      |      | 269  |      |      |      | 37   |
| Approach Delay, s/veh        |      | 29.6 |      |      | 13.7 |      |      | 40.5 |      |      |      | 65.3 |
| Approach LOS                 |      | C    |      |      | B    |      |      | D    |      |      |      | E    |
| Timer - Assigned Phs         |      | 2    | 3    | 4    |      | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |      | 14.3 | 7.2  | 57.5 |      | 6.3  | 6.0  | 58.8 |      |      |      |      |
| Change Period (Y+Rc), s      |      | 4.0  | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 16.0 | 4.0  | 58.0 |      | 16.0 | 6.0  | 56.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |      | 9.8  | 4.5  | 48.4 |      | 3.8  | 3.4  | 14.5 |      |      |      |      |
| Green Ext Time (p_c), s      |      | 0.5  | 0.0  | 5.1  |      | 0.1  | 0.0  | 3.2  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 27.0 |      |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      | C    |      |      |      |      |      |      |      |      |      |

Generations at Green Valley  
 12: Cameron Park Dr. & Green Valley Rd.

Cumulative plus Project  
 Timing Plan: PM



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 69   | 684  | 120  | 283  | 316  | 280  | 29   | 118  |
| v/c Ratio               | 0.40 | 0.92 | 0.78 | 0.36 | 0.86 | 0.48 | 0.26 | 0.50 |
| Control Delay           | 43.3 | 42.5 | 72.2 | 20.1 | 56.8 | 18.9 | 44.8 | 37.1 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 43.3 | 42.5 | 72.2 | 20.1 | 56.8 | 18.9 | 44.8 | 37.1 |
| Queue Length 50th (ft)  | 34   | 316  | 63   | 104  | 161  | 70   | 15   | 51   |
| Queue Length 95th (ft)  | 59   | 338  | #148 | 170  | #316 | 154  | 31   | 70   |
| Internal Link Dist (ft) |      | 2235 |      | 1414 |      | 1563 |      | 921  |
| Turn Bay Length (ft)    | 270  |      | 150  |      | 125  |      | 55   |      |
| Base Capacity (vph)     | 198  | 745  | 154  | 795  | 375  | 678  | 110  | 393  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.35 | 0.92 | 0.78 | 0.36 | 0.84 | 0.41 | 0.26 | 0.30 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
12: Cameron Park Dr. & Green Valley Rd.

Cumulative plus Project  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 48   | 264  | 215  | 101  | 223  | 15   | 278  | 100  | 146  | 19   | 60   | 18   |
| Future Volume (veh/h)        | 48   | 264  | 215  | 101  | 223  | 15   | 278  | 100  | 146  | 19   | 60   | 18   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 69   | 377  | 307  | 120  | 265  | 18   | 316  | 114  | 166  | 29   | 91   | 27   |
| Peak Hour Factor             | 0.70 | 0.70 | 0.70 | 0.84 | 0.84 | 0.84 | 0.88 | 0.88 | 0.88 | 0.66 | 0.66 | 0.66 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 89   | 396  | 323  | 151  | 780  | 53   | 356  | 186  | 271  | 43   | 130  | 39   |
| Arrive On Green              | 0.05 | 0.42 | 0.42 | 0.08 | 0.45 | 0.45 | 0.20 | 0.27 | 0.27 | 0.02 | 0.09 | 0.09 |
| Sat Flow, veh/h              | 1781 | 954  | 777  | 1781 | 1732 | 118  | 1781 | 688  | 1002 | 1781 | 1385 | 411  |
| Grp Volume(v), veh/h         | 69   | 0    | 684  | 120  | 0    | 283  | 316  | 0    | 280  | 29   | 0    | 118  |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 0    | 1731 | 1781 | 0    | 1849 | 1781 | 0    | 1690 | 1781 | 0    | 1796 |
| Q Serve(g_s), s              | 3.0  | 0.0  | 29.7 | 5.1  | 0.0  | 7.7  | 13.4 | 0.0  | 11.3 | 1.3  | 0.0  | 5.0  |
| Cycle Q Clear(g_c), s        | 3.0  | 0.0  | 29.7 | 5.1  | 0.0  | 7.7  | 13.4 | 0.0  | 11.3 | 1.3  | 0.0  | 5.0  |
| Prop In Lane                 | 1.00 |      | 0.45 | 1.00 |      | 0.06 | 1.00 |      | 0.59 | 1.00 |      | 0.23 |
| Lane Grp Cap(c), veh/h       | 89   | 0    | 719  | 151  | 0    | 833  | 356  | 0    | 456  | 43   | 0    | 169  |
| V/C Ratio(X)                 | 0.78 | 0.00 | 0.95 | 0.79 | 0.00 | 0.34 | 0.89 | 0.00 | 0.61 | 0.68 | 0.00 | 0.70 |
| Avail Cap(c_a), veh/h        | 206  | 0    | 735  | 160  | 0    | 833  | 390  | 0    | 631  | 115  | 0    | 393  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh     | 36.5 | 0.0  | 22.0 | 34.9 | 0.0  | 13.9 | 30.2 | 0.0  | 24.8 | 37.6 | 0.0  | 34.2 |
| Incr Delay (d2), s/veh       | 13.3 | 0.0  | 21.9 | 22.3 | 0.0  | 0.2  | 19.9 | 0.0  | 1.3  | 17.3 | 0.0  | 5.2  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 1.5  | 0.0  | 14.1 | 3.0  | 0.0  | 2.8  | 7.2  | 0.0  | 4.3  | 0.7  | 0.0  | 2.3  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 49.8 | 0.0  | 43.9 | 57.1 | 0.0  | 14.1 | 50.2 | 0.0  | 26.2 | 54.9 | 0.0  | 39.3 |
| LnGrp LOS                    | D    | A    | D    | E    | A    | B    | D    | A    | C    | D    | A    | D    |
| Approach Vol, veh/h          |      | 753  |      |      | 403  |      |      | 596  |      |      |      | 147  |
| Approach Delay, s/veh        |      | 44.5 |      |      | 26.9 |      |      | 38.9 |      |      |      | 42.4 |
| Approach LOS                 |      | D    |      |      | C    |      |      | D    |      |      |      | D    |
| Timer - Assigned Phs         | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 5.9  | 25.0 | 10.6 | 36.3 | 19.6 | 11.3 | 7.9  | 39.0 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 5.0  | 29.0 | 7.0  | 33.0 | 17.0 | 17.0 | 9.0  | 31.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 3.3  | 13.3 | 7.1  | 31.7 | 15.4 | 7.0  | 5.0  | 9.7  |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 1.3  | 0.0  | 0.6  | 0.2  | 0.3  | 0.0  | 1.4  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      | 38.8 |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      |      | D    |      |      |      |      |      |      |      |      |

Intersection

Intersection Delay, s/veh84.2

Intersection LOS F

| Movement            | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations |      | ↔    | ↔    |      | ↔    |      | ↔    | ↔    |      | ↔    | ↔    |      |
| Traffic Vol, veh/h  | 3    | 39   | 524  | 12   | 24   | 12   | 458  | 304  | 16   | 7    | 211  | 0    |
| Future Vol, veh/h   | 3    | 39   | 524  | 12   | 24   | 12   | 458  | 304  | 16   | 7    | 211  | 0    |
| Peak Hour Factor    | 0.86 | 0.86 | 0.86 | 0.52 | 0.52 | 0.52 | 0.92 | 0.92 | 0.92 | 0.75 | 0.75 | 0.75 |
| Heavy Vehicles, %   | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow           | 3    | 45   | 609  | 23   | 46   | 23   | 498  | 330  | 17   | 9    | 281  | 0    |
| Number of Lanes     | 0    | 1    | 1    | 0    | 1    | 0    | 1    | 1    | 0    | 1    | 1    | 0    |

| Approach                      | EB    | WB | NB   | SB   |
|-------------------------------|-------|----|------|------|
| Opposing Approach             | WB    | EB | SB   | NB   |
| Opposing Lanes                | 1     | 2  | 2    | 2    |
| Conflicting Approach Left SB  |       | NB | EB   | WB   |
| Conflicting Lanes Left        | 2     | 2  | 2    | 1    |
| Conflicting Approach Right NB |       | SB | WB   | EB   |
| Conflicting Lanes Right       | 2     | 2  | 1    | 2    |
| HCM Control Delay             | 126.8 | 16 | 78.5 | 26.2 |
| HCM LOS                       | F     | C  | F    | D    |

| Lane                   | NBLn1 | NBLn2 | EBLn1 | EBLn2 | WBLn1 | SBLn1 | SBLn2 |
|------------------------|-------|-------|-------|-------|-------|-------|-------|
| Vol Left, %            | 100%  | 0%    | 7%    | 0%    | 25%   | 100%  | 0%    |
| Vol Thru, %            | 0%    | 95%   | 93%   | 0%    | 50%   | 0%    | 100%  |
| Vol Right, %           | 0%    | 5%    | 0%    | 100%  | 25%   | 0%    | 0%    |
| Sign Control           | Stop  | Stop  | Stop  | Stop  | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 458   | 320   | 42    | 524   | 48    | 7     | 211   |
| LT Vol                 | 458   | 0     | 3     | 0     | 12    | 7     | 0     |
| Through Vol            | 0     | 304   | 39    | 0     | 24    | 0     | 211   |
| RT Vol                 | 0     | 16    | 0     | 524   | 12    | 0     | 0     |
| Lane Flow Rate         | 498   | 348   | 49    | 609   | 92    | 9     | 281   |
| Geometry Grp           | 7     | 7     | 7     | 7     | 6     | 7     | 7     |
| Degree of Util (X)     | 1.125 | 0.734 | 0.107 | 1.209 | 0.236 | 0.023 | 0.648 |
| Departure Headway (Hd) | 8.789 | 8.233 | 8.137 | 7.38  | 9.943 | 9.485 | 8.962 |
| Convergence, Y/N       | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   | Yes   |
| Cap                    | 418   | 442   | 443   | 500   | 364   | 380   | 405   |
| Service Time           | 6.489 | 5.933 | 5.837 | 5.08  | 7.943 | 7.185 | 6.662 |
| HCM Lane V/C Ratio     | 1.191 | 0.787 | 0.111 | 1.218 | 0.253 | 0.024 | 0.694 |
| HCM Control Delay      | 112   | 30.5  | 11.8  | 136   | 16    | 12.4  | 26.7  |
| HCM Lane LOS           | F     | D     | B     | F     | C     | B     | D     |
| HCM 95th-tile Q        | 16.7  | 5.9   | 0.4   | 22.6  | 0.9   | 0.1   | 4.4   |
















| Lane Group              | WBL  | WBR  | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|
| Lane Group Flow (vph)   | 308  | 288  | 1123 | 227  | 597  |
| v/c Ratio               | 0.70 | 0.48 | 0.76 | 0.59 | 0.28 |
| Control Delay           | 29.1 | 6.3  | 16.4 | 32.5 | 5.8  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 29.1 | 6.3  | 16.4 | 32.5 | 5.8  |
| Queue Length 50th (ft)  | 97   | 3    | 147  | 40   | 45   |
| Queue Length 95th (ft)  | 129  | 24   | 190  | #82  | 70   |
| Internal Link Dist (ft) | 2093 |      | 5028 |      | 7812 |
| Turn Bay Length (ft)    |      |      |      | 190  |      |
| Base Capacity (vph)     | 532  | 669  | 1718 | 387  | 2396 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.58 | 0.43 | 0.65 | 0.59 | 0.25 |

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
14: El Dorado Hills Blvd. & Harvard Way

Cumulative plus Project  
Timing Plan: PM

|                              |  |  |  |  |  |  |
|------------------------------|---|---|---|---|---|---|
| Movement                     | WBL   | WBR   | NBT   | NBR   | SBL   | SBT   |
| Lane Configurations          |  |  |  |   |  |  |
| Traffic Volume (veh/h)       | 222   | 207   | 682   | 250   | 207   | 543   |
| Future Volume (veh/h)        | 222   | 207   | 682   | 250   | 207   | 543   |
| Initial Q (Qb), veh          | 0   | 0   | 0   | 0   | 0   | 0   |
| Ped-Bike Adj(A_pbT)          | 1.00  | 1.00  |   | 1.00  | 1.00  |   |
| Parking Bus, Adj             | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| Work Zone On Approach        | No  |   | No  |   |   | No  |
| Adj Sat Flow, veh/h/ln       | 1870  | 1870  | 1870  | 1870  | 1870  | 1870  |
| Adj Flow Rate, veh/h         | 308   | 288   | 822   | 301   | 227   | 597   |
| Peak Hour Factor             | 0.72  | 0.72  | 0.83  | 0.83  | 0.91  | 0.91  |
| Percent Heavy Veh, %         | 2   | 2   | 2   | 2   | 2   | 2   |
| Cap, veh/h                   | 417   | 371   | 1065  | 390   | 349   | 2137  |
| Arrive On Green              | 0.23  | 0.23  | 0.42  | 0.42  | 0.10  | 0.60  |
| Sat Flow, veh/h              | 1781  | 1585  | 2641  | 932   | 3456  | 3647  |
| Grp Volume(v), veh/h         | 308   | 288   | 573   | 550   | 227   | 597   |
| Grp Sat Flow(s),veh/h/ln     | 1781  | 1585  | 1777  | 1703  | 1728  | 1777  |
| Q Serve(g_s), s              | 7.8   | 8.3   | 13.4  | 13.5  | 3.1   | 3.9   |
| Cycle Q Clear(g_c), s        | 7.8   | 8.3   | 13.4  | 13.5  | 3.1   | 3.9   |
| Prop In Lane                 | 1.00  | 1.00  |   | 0.55  | 1.00  |   |
| Lane Grp Cap(c), veh/h       | 417   | 371   | 743   | 712   | 349   | 2137  |
| V/C Ratio(X)                 | 0.74  | 0.78  | 0.77  | 0.77  | 0.65  | 0.28  |
| Avail Cap(c_a), veh/h        | 587   | 522   | 951   | 912   | 427   | 2635  |
| HCM Platoon Ratio            | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| Upstream Filter(l)           | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  | 1.00  |
| Uniform Delay (d), s/veh     | 17.2  | 17.4  | 12.1  | 12.1  | 21.0  | 4.6   |
| Incr Delay (d2), s/veh       | 3.0   | 4.8   | 3.0   | 3.2   | 2.5   | 0.1   |
| Initial Q Delay(d3),s/veh    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| %ile BackOfQ(50%),veh/ln     | 3.0   | 3.0   | 4.0   | 3.9   | 1.1   | 0.6   |
| Unsig. Movement Delay, s/veh |   |   |   |   |   |   |
| LnGrp Delay(d),s/veh         | 20.3  | 22.2  | 15.1  | 15.3  | 23.5  | 4.7   |
| LnGrp LOS                    | C   | C   | B   | B   | C   | A   |
| Approach Vol, veh/h          | 596   |   | 1123  |   |   | 824   |
| Approach Delay, s/veh        | 21.2  |   | 15.2  |   |   | 9.9   |
| Approach LOS                 | C   |   | B   |   |   | A   |
| Timer - Assigned Phs         | 1   | 2   |   |   | 6   | 8   |
| Phs Duration (G+Y+Rc), s     | 8.9   | 24.3  |   |   | 33.2  | 15.4  |
| Change Period (Y+Rc), s      | 4.0   | 4.0   |   |   | 4.0   | 4.0   |
| Max Green Setting (Gmax), s  | 6.0   | 26.0  |   |   | 36.0  | 16.0  |
| Max Q Clear Time (g_c+I1), s | 5.1   | 15.5  |   |   | 5.9   | 10.3  |
| Green Ext Time (p_c), s      | 0.1   | 4.8   |   |   | 3.8   | 1.1   |
| <b>Intersection Summary</b>  |   |   |   |   |   |   |
| HCM 6th Ctrl Delay           |   |   | 14.9  |   |   |   |
| HCM 6th LOS                  |   |   | B   |   |   |   |



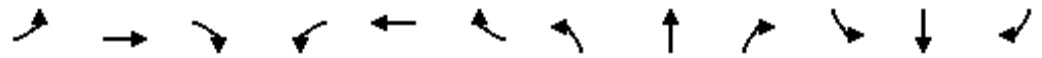
| Lane Group              | EBT  | EBR  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 270  | 126  | 46   | 168  | 994  | 13   | 943  |
| v/c Ratio               | 0.79 | 0.24 | 0.12 | 0.64 | 0.49 | 0.11 | 0.63 |
| Control Delay           | 39.1 | 3.2  | 14.4 | 37.2 | 9.3  | 28.4 | 16.5 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 39.1 | 3.2  | 14.4 | 37.2 | 9.3  | 28.4 | 16.5 |
| Queue Length 50th (ft)  | 87   | 0    | 10   | 58   | 95   | 5    | 143  |
| Queue Length 95th (ft)  | #191 | 21   | 30   | #130 | 191  | 19   | 206  |
| Internal Link Dist (ft) | 1459 |      | 233  |      | 3231 |      | 5028 |
| Turn Bay Length (ft)    |      |      |      | 278  |      | 90   |      |
| Base Capacity (vph)     | 387  | 583  | 427  | 276  | 2025 | 123  | 1494 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.70 | 0.22 | 0.11 | 0.61 | 0.49 | 0.11 | 0.63 |

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
15: El Dorado Hills Blvd. & Wilson Blvd

Cumulative plus Project  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      | ↖    | ↗    |      | ↔    |      | ↖    | ↕    |      | ↖    | ↕    |      |
| Traffic Volume (veh/h)       | 236  | 12   | 116  | 24   | 9    | 9    | 155  | 881  | 33   | 12   | 728  | 140  |
| Future Volume (veh/h)        | 236  | 12   | 116  | 24   | 9    | 9    | 155  | 881  | 33   | 12   | 728  | 140  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 257  | 13   | 126  | 26   | 10   | 10   | 168  | 958  | 36   | 13   | 791  | 152  |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 428  | 15   | 430  | 136  | 52   | 24   | 213  | 1748 | 66   | 23   | 1172 | 225  |
| Arrive On Green              | 0.27 | 0.27 | 0.27 | 0.27 | 0.27 | 0.27 | 0.12 | 0.50 | 0.50 | 0.01 | 0.39 | 0.39 |
| Sat Flow, veh/h              | 1114 | 56   | 1585 | 128  | 192  | 89   | 1781 | 3492 | 131  | 1781 | 2973 | 571  |
| Grp Volume(v), veh/h         | 270  | 0    | 126  | 46   | 0    | 0    | 168  | 487  | 507  | 13   | 473  | 470  |
| Grp Sat Flow(s),veh/h/ln     | 1170 | 0    | 1585 | 410  | 0    | 0    | 1781 | 1777 | 1847 | 1781 | 1777 | 1768 |
| Q Serve(g_s), s              | 0.0  | 0.0  | 3.5  | 0.4  | 0.0  | 0.0  | 5.1  | 10.5 | 10.5 | 0.4  | 12.3 | 12.3 |
| Cycle Q Clear(g_c), s        | 12.7 | 0.0  | 3.5  | 13.1 | 0.0  | 0.0  | 5.1  | 10.5 | 10.5 | 0.4  | 12.3 | 12.3 |
| Prop In Lane                 | 0.95 |      | 1.00 | 0.57 |      | 0.22 | 1.00 |      | 0.07 | 1.00 |      | 0.32 |
| Lane Grp Cap(c), veh/h       | 444  | 0    | 430  | 212  | 0    | 0    | 213  | 889  | 924  | 23   | 700  | 697  |
| V/C Ratio(X)                 | 0.61 | 0.00 | 0.29 | 0.22 | 0.00 | 0.00 | 0.79 | 0.55 | 0.55 | 0.56 | 0.67 | 0.67 |
| Avail Cap(c_a), veh/h        | 490  | 0    | 483  | 259  | 0    | 0    | 287  | 889  | 924  | 128  | 700  | 697  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 19.4 | 0.0  | 16.1 | 16.4 | 0.0  | 0.0  | 23.9 | 9.6  | 9.6  | 27.4 | 14.0 | 14.0 |
| Incr Delay (d2), s/veh       | 1.8  | 0.0  | 0.4  | 0.5  | 0.0  | 0.0  | 10.1 | 2.4  | 2.3  | 19.2 | 5.2  | 5.2  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 3.0  | 0.0  | 1.2  | 0.4  | 0.0  | 0.0  | 2.5  | 3.4  | 3.5  | 0.3  | 4.6  | 4.6  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 21.3 | 0.0  | 16.5 | 16.9 | 0.0  | 0.0  | 34.0 | 12.0 | 11.9 | 46.6 | 19.1 | 19.1 |
| LnGrp LOS                    | C    | A    | B    | B    | A    | A    | C    | B    | B    | D    | B    | B    |
| Approach Vol, veh/h          |      | 396  |      |      | 46   |      |      | 1162 |      |      |      | 956  |
| Approach Delay, s/veh        |      | 19.8 |      |      | 16.9 |      |      | 15.2 |      |      |      | 19.5 |
| Approach LOS                 |      | B    |      |      | B    |      |      | B    |      |      |      | B    |
| Timer - Assigned Phs         | 1    | 2    |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 4.7  | 31.9 |      | 19.1 | 10.7 | 26.0 |      | 19.1 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0  | 27.0 |      | 17.0 | 9.0  | 22.0 |      | 17.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 2.4  | 12.5 |      | 14.7 | 7.1  | 14.3 |      | 15.1 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 5.1  |      | 0.4  | 0.1  | 3.2  |      | 0.0  |      |      |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 17.5 |
| HCM 6th LOS        | B    |



| Lane Group              | EBL  | EBT  | WBL  | WBT  | NBL  | NBT  | NBR  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 29   | 63   | 144  | 141  | 102  | 1179 | 455  | 43   | 949  |
| v/c Ratio               | 0.07 | 0.15 | 0.77 | 0.72 | 0.74 | 0.83 | 0.29 | 0.64 | 0.77 |
| Control Delay           | 24.2 | 9.5  | 62.4 | 52.7 | 68.0 | 28.0 | 0.5  | 79.8 | 28.5 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 24.2 | 9.5  | 62.4 | 52.7 | 68.0 | 28.0 | 0.5  | 79.8 | 28.5 |
| Queue Length 50th (ft)  | 11   | 3    | 74   | 65   | 50   | 280  | 0    | 22   | 223  |
| Queue Length 95th (ft)  | 25   | 21   | #140 | #124 | #103 | 317  | 0    | #72  | 288  |
| Internal Link Dist (ft) |      | 321  |      | 6047 |      | 1160 |      |      | 3231 |
| Turn Bay Length (ft)    | 70   |      | 410  |      | 260  |      |      | 100  |      |
| Base Capacity (vph)     | 428  | 433  | 188  | 197  | 157  | 1423 | 1583 | 67   | 1233 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.07 | 0.15 | 0.77 | 0.72 | 0.65 | 0.83 | 0.29 | 0.64 | 0.77 |

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
16: El Dorado Hills Blvd. & Lassen Ln/Serrano Pkwy.

Cumulative plus Project  
Timing Plan: PM



| Movement               | EBL   | EBT  | EBR  | WBL   | WBT  | WBR  | NBL   | NBT   | NBR   | SBL   | SBT  | SBR  |
|------------------------|-------|------|------|-------|------|------|-------|-------|-------|-------|------|------|
| Lane Configurations    |       |      |      |       |      |      |       |       |       |       |      |      |
| Traffic Volume (vph)   | 21    | 5    | 41   | 193   | 9    | 24   | 84    | 967   | 373   | 38    | 799  | 36   |
| Future Volume (vph)    | 21    | 5    | 41   | 193   | 9    | 24   | 84    | 967   | 373   | 38    | 799  | 36   |
| Ideal Flow (vphpl)     | 1900  | 1900 | 1900 | 1900  | 1900 | 1900 | 1900  | 1900  | 1900  | 1900  | 1900 | 1900 |
| Total Lost time (s)    | 5.2   | 5.2  |      | 5.2   | 5.2  |      | 3.0   | 5.2   | 4.0   | 3.0   | 5.2  |      |
| Lane Util. Factor      | 1.00  | 1.00 |      | 0.95  | 0.95 |      | 1.00  | 0.95  | 1.00  | 1.00  | 0.95 |      |
| Frt                    | 1.00  | 0.87 |      | 1.00  | 0.97 |      | 1.00  | 1.00  | 0.85  | 1.00  | 0.99 |      |
| Flt Protected          | 0.95  | 1.00 |      | 0.95  | 0.97 |      | 0.95  | 1.00  | 1.00  | 0.95  | 1.00 |      |
| Satd. Flow (prot)      | 1770  | 1614 |      | 1681  | 1654 |      | 1770  | 3539  | 1583  | 1770  | 3516 |      |
| Flt Permitted          | 0.95  | 1.00 |      | 0.95  | 0.97 |      | 0.95  | 1.00  | 1.00  | 0.95  | 1.00 |      |
| Satd. Flow (perm)      | 1770  | 1614 |      | 1681  | 1654 |      | 1770  | 3539  | 1583  | 1770  | 3516 |      |
| Peak-hour factor, PHF  | 0.73  | 0.73 | 0.73 | 0.79  | 0.79 | 0.79 | 0.82  | 0.82  | 0.82  | 0.88  | 0.88 | 0.88 |
| Adj. Flow (vph)        | 29    | 7    | 56   | 244   | 11   | 30   | 102   | 1179  | 455   | 43    | 908  | 41   |
| RTOR Reduction (vph)   | 0     | 43   | 0    | 0     | 12   | 0    | 0     | 0     | 0     | 0     | 4    | 0    |
| Lane Group Flow (vph)  | 29    | 20   | 0    | 144   | 129  | 0    | 102   | 1179  | 455   | 43    | 945  | 0    |
| Turn Type              | Split | NA   |      | Split | NA   |      | Prot  | NA    | Free  | Prot  | NA   |      |
| Protected Phases       | 4     | 4    |      | 8     | 8    |      | 5     | 2     |       | 1     | 6    |      |
| Permitted Phases       |       |      |      |       |      |      |       |       | Free  |       |      |      |
| Actuated Green, G (s)  | 19.0  | 19.0 |      | 8.8   | 8.8  |      | 5.3   | 31.6  | 79.8  | 1.8   | 28.1 |      |
| Effective Green, g (s) | 19.0  | 19.0 |      | 8.8   | 8.8  |      | 5.3   | 31.6  | 79.8  | 1.8   | 28.1 |      |
| Actuated g/C Ratio     | 0.24  | 0.24 |      | 0.11  | 0.11 |      | 0.07  | 0.40  | 1.00  | 0.02  | 0.35 |      |
| Clearance Time (s)     | 5.2   | 5.2  |      | 5.2   | 5.2  |      | 3.0   | 5.2   |       | 3.0   | 5.2  |      |
| Vehicle Extension (s)  | 0.2   | 0.2  |      | 0.2   | 0.2  |      | 0.2   | 0.2   |       | 0.2   | 0.2  |      |
| Lane Grp Cap (vph)     | 421   | 384  |      | 185   | 182  |      | 117   | 1401  | 1583  | 39    | 1238 |      |
| v/s Ratio Prot         | 0.02  | 0.01 |      | c0.09 | 0.08 |      | c0.06 | c0.33 |       | 0.02  | 0.27 |      |
| v/s Ratio Perm         |       |      |      |       |      |      |       |       | c0.29 |       |      |      |
| v/c Ratio              | 0.07  | 0.05 |      | 0.78  | 0.71 |      | 0.87  | 0.84  | 0.29  | 1.10  | 0.76 |      |
| Uniform Delay, d1      | 23.5  | 23.5 |      | 34.6  | 34.3 |      | 36.9  | 21.8  | 0.0   | 39.0  | 22.9 |      |
| Progression Factor     | 1.00  | 1.00 |      | 1.00  | 1.00 |      | 1.00  | 1.00  | 1.00  | 1.00  | 1.00 |      |
| Incremental Delay, d2  | 0.3   | 0.3  |      | 26.9  | 20.6 |      | 45.0  | 6.3   | 0.5   | 176.2 | 4.5  |      |
| Delay (s)              | 23.9  | 23.7 |      | 61.5  | 54.8 |      | 81.9  | 28.1  | 0.5   | 215.2 | 27.4 |      |
| Level of Service       | C     | C    |      | E     | D    |      | F     | C     | A     | F     | C    |      |
| Approach Delay (s)     |       | 23.8 |      |       | 58.2 |      |       | 24.0  |       |       | 35.5 |      |
| Approach LOS           |       | C    |      |       | E    |      |       | C     |       |       | D    |      |

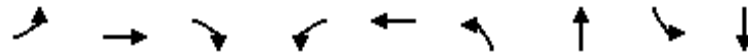
Intersection Summary

|                                   |       |                           |      |
|-----------------------------------|-------|---------------------------|------|
| HCM 2000 Control Delay            | 30.8  | HCM 2000 Level of Service | C    |
| HCM 2000 Volume to Capacity ratio | 0.72  |                           |      |
| Actuated Cycle Length (s)         | 79.8  | Sum of lost time (s)      | 18.6 |
| Intersection Capacity Utilization | 55.0% | ICU Level of Service      | B    |
| Analysis Period (min)             | 15    |                           |      |

c Critical Lane Group

Generations at Green Valley  
 17: El Dorado Hills Blvd. & Saratoga Wy. (North)/Park Dr

Cumulative plus Project  
 Timing Plan: PM



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL    | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|--------|------|------|------|
| Lane Group Flow (vph)   | 284  | 446  | 652  | 77   | 316  | 504    | 1148 | 151  | 1071 |
| v/c Ratio               | 0.71 | 0.55 | 0.92 | 0.26 | 0.89 | 7.88   | 0.78 | 0.59 | 0.77 |
| Control Delay           | 51.1 | 40.8 | 35.9 | 39.2 | 57.1 | 3133.1 | 39.8 | 54.1 | 32.1 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0    | 0.0  | 0.0  | 0.0  |
| Total Delay             | 51.1 | 40.8 | 35.9 | 39.2 | 57.1 | 3133.1 | 39.8 | 54.1 | 32.1 |
| Queue Length 50th (ft)  | 202  | 151  | 184  | 48   | 162  | ~695   | 269  | 101  | 329  |
| Queue Length 95th (ft)  | #428 | #248 | #473 | 71   | 194  | #901   | 324  | 157  | 371  |
| Internal Link Dist (ft) |      | 1745 |      |      | 332  |        | 961  |      | 1160 |
| Turn Bay Length (ft)    | 145  |      | 145  | 125  |      | 165    |      | 70   |      |
| Base Capacity (vph)     | 399  | 814  | 706  | 482  | 520  | 64     | 1470 | 257  | 1393 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0      | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0      | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0      | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.71 | 0.55 | 0.92 | 0.16 | 0.61 | 7.88   | 0.78 | 0.59 | 0.77 |

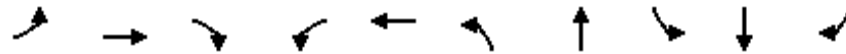
Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

---

HCM 6th Edition methodology expects strict NEMA phasing.





| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT   | SBR  |
|-------------------------|------|------|------|------|------|------|------|------|-------|------|
| Lane Group Flow (vph)   | 157  | 67   | 141  | 182  | 183  | 963  | 1420 | 49   | 1294  | 306  |
| v/c Ratio               | 0.74 | 0.30 | 0.09 | 0.70 | 0.33 | 0.87 | 0.52 | 0.40 | 0.92  | 0.48 |
| Control Delay           | 71.8 | 51.2 | 0.1  | 62.8 | 21.3 | 47.8 | 18.9 | 63.1 | 54.0  | 10.0 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 47.7  | 2.0  |
| Total Delay             | 71.8 | 51.2 | 0.1  | 62.8 | 21.3 | 47.8 | 18.9 | 63.1 | 101.7 | 12.0 |
| Queue Length 50th (ft)  | 117  | 47   | 0    | 136  | 29   | 350  | 260  | 36   | ~394  | 21   |
| Queue Length 95th (ft)  | #202 | 93   | 0    | 181  | 51   | #441 | 317  | 76   | #502  | 90   |
| Internal Link Dist (ft) |      | 287  |      |      | 264  |      | 780  |      | 105   |      |
| Turn Bay Length (ft)    |      |      |      | 410  |      | 260  |      | 195  |       |      |
| Base Capacity (vph)     | 236  | 248  | 1583 | 390  | 795  | 1119 | 2740 | 124  | 1413  | 635  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 609   | 197  |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    |
| Reduced v/c Ratio       | 0.67 | 0.27 | 0.09 | 0.47 | 0.23 | 0.86 | 0.52 | 0.40 | 1.61  | 0.70 |

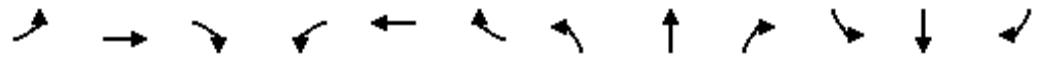
**Intersection Summary**

- ~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Generations at Green Valley

Cumulative plus Project

18: Latrobe Rd./El Dorado Hills Blvd. & US-50 WB On&Off-Ramp/Saratoga Way (South) Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 144  | 62   | 130  | 149  | 67   | 83   | 857  | 1052 | 212  | 42   | 1113 | 263  |
| Future Volume (veh/h)        | 144  | 62   | 130  | 149  | 67   | 83   | 857  | 1052 | 212  | 42   | 1113 | 263  |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 157  | 67   | 0    | 182  | 82   | 101  | 963  | 1182 | 238  | 49   | 1294 | 0    |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.82 | 0.82 | 0.82 | 0.89 | 0.89 | 0.89 | 0.86 | 0.86 | 0.86 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 188  | 197  |      | 225  | 224  | 200  | 1019 | 2564 | 516  | 59   | 1737 |      |
| Arrive On Green              | 0.11 | 0.11 | 0.00 | 0.13 | 0.13 | 0.13 | 0.29 | 0.60 | 0.60 | 0.03 | 0.34 | 0.00 |
| Sat Flow, veh/h              | 1781 | 1870 | 1585 | 1781 | 1777 | 1585 | 3456 | 4262 | 858  | 1781 | 5106 | 1585 |
| Grp Volume(v), veh/h         | 157  | 67   | 0    | 182  | 82   | 101  | 963  | 944  | 476  | 49   | 1294 | 0    |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1870 | 1585 | 1781 | 1777 | 1585 | 1728 | 1702 | 1716 | 1781 | 1702 | 1585 |
| Q Serve(g_s), s              | 10.4 | 4.0  | 0.0  | 11.9 | 5.1  | 7.1  | 32.7 | 18.3 | 18.3 | 3.3  | 26.9 | 0.0  |
| Cycle Q Clear(g_c), s        | 10.4 | 4.0  | 0.0  | 11.9 | 5.1  | 7.1  | 32.7 | 18.3 | 18.3 | 3.3  | 26.9 | 0.0  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 0.50 | 1.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 188  | 197  |      | 225  | 224  | 200  | 1019 | 2048 | 1032 | 59   | 1737 |      |
| V/C Ratio(X)                 | 0.84 | 0.34 |      | 0.81 | 0.37 | 0.50 | 0.95 | 0.46 | 0.46 | 0.83 | 0.74 |      |
| Avail Cap(c_a), veh/h        | 238  | 249  |      | 393  | 392  | 350  | 1037 | 2048 | 1032 | 59   | 1737 |      |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 0.75 | 0.75 | 0.75 | 0.49 | 0.49 | 0.00 |
| Uniform Delay (d), s/veh     | 52.7 | 49.8 | 0.0  | 51.0 | 48.0 | 48.9 | 41.4 | 13.2 | 13.2 | 57.7 | 35.0 | 0.0  |
| Incr Delay (d2), s/veh       | 18.4 | 1.0  | 0.0  | 6.8  | 1.0  | 2.0  | 13.2 | 0.6  | 1.1  | 35.2 | 1.5  | 0.0  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 5.6  | 1.9  | 0.0  | 5.8  | 2.3  | 3.0  | 15.2 | 6.5  | 6.7  | 2.0  | 10.9 | 0.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 71.1 | 50.8 | 0.0  | 57.8 | 49.0 | 50.9 | 54.6 | 13.7 | 14.3 | 92.8 | 36.4 | 0.0  |
| LnGrp LOS                    | E    | D    |      | E    | D    | D    | D    | B    | B    | F    | D    |      |
| Approach Vol, veh/h          |      | 224  | A    |      | 365  |      |      | 2383 |      |      | 1343 | A    |
| Approach Delay, s/veh        |      | 65.0 |      |      | 53.9 |      |      | 30.4 |      |      | 38.5 |      |
| Approach LOS                 |      | E    |      |      | D    |      |      | C    |      |      | D    |      |
| Timer - Assigned Phs         | 1    | 2    |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 8.0  | 76.2 |      | 16.6 | 39.4 | 44.8 |      | 19.2 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0  | 56.2 |      | 16.0 | 36.0 | 25.5 |      | 26.5 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 5.3  | 20.3 |      | 12.4 | 34.7 | 28.9 |      | 13.9 |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 7.7  |      | 0.3  | 0.7  | 0.0  |      | 1.2  |      |      |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 36.7 |
| HCM 6th LOS        | D    |

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.



| Lane Group              | EBT    | EBR  | WBR  | NBT  | NBR  | SBL   | SBT  |
|-------------------------|--------|------|------|------|------|-------|------|
| Lane Group Flow (vph)   | 2      | 912  | 565  | 2086 | 456  | 285   | 1260 |
| v/c Ratio               | no cap | 0.83 | 0.35 | 0.69 | 0.44 | 1.18  | 0.26 |
| Control Delay           |        | 42.6 | 0.6  | 24.2 | 9.5  | 169.2 | 6.4  |
| Queue Delay             |        | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  |
| Total Delay             | Error  | 42.6 | 0.6  | 24.2 | 9.5  | 169.2 | 6.4  |
| Queue Length 50th (ft)  | 0      | 393  | 0    | 513  | 103  | ~339  | 101  |
| Queue Length 95th (ft)  | 0      | 385  | 0    | 653  | 210  | #461  | 130  |
| Internal Link Dist (ft) | 378    |      |      | 468  |      |       | 780  |
| Turn Bay Length (ft)    |        |      |      |      | 180  | 350   |      |
| Base Capacity (vph)     | 1      | 1265 | 1611 | 3010 | 1037 | 242   | 4839 |
| Starvation Cap Reductn  | 0      | 0    | 0    | 0    | 0    | 0     | 0    |
| Spillback Cap Reductn   | 0      | 0    | 0    | 0    | 0    | 0     | 0    |
| Storage Cap Reductn     | 0      | 0    | 0    | 0    | 0    | 0     | 0    |
| Reduced v/c Ratio       | 2.00   | 0.72 | 0.35 | 0.69 | 0.44 | 1.18  | 0.26 |

**Intersection Summary**

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

---

HCM 6th Edition methodology does not support custom phasing.



| Lane Group                  | EBL  | EBR  | NBT  | NBR  | SBT  | SBR  |
|-----------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph)       | 357  | 90   | 439  | 1083 | 832  | 140  |
| v/c Ratio                   | 0.69 | 0.29 | 0.16 | 0.74 | 0.31 | 0.11 |
| Control Delay               | 46.9 | 10.5 | 3.3  | 3.7  | 4.0  | 0.8  |
| Queue Delay                 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay                 | 46.9 | 10.5 | 3.3  | 3.7  | 4.0  | 0.8  |
| Queue Length 50th (ft)      | 109  | 0    | 32   | 0    | 68   | 0    |
| Queue Length 95th (ft)      | 157  | 43   | 48   | 28   | 97   | 13   |
| Internal Link Dist (ft)     |      |      | 516  |      | 832  |      |
| Turn Bay Length (ft)        |      | 195  |      |      |      | 500  |
| Base Capacity (vph)         | 595  | 348  | 2716 | 1467 | 2716 | 1247 |
| Starvation Cap Reductn      | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn       | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn         | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio           | 0.60 | 0.26 | 0.16 | 0.74 | 0.31 | 0.11 |
| <b>Intersection Summary</b> |      |      |      |      |      |      |

Generations at Green Valley  
20: White Rock Rd/Silva Valley Pkwy & US-50 EB On&Off-Ramp

Cumulative plus Project  
Timing Plan: PM



| Movement   | EBL  | EBT  | EBR  | WBL  | WBT | WBR | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|--|------|------|------|------|-----|-----|------|------|------|------|------|------|
| Lane Configurations  | ↖↗   |      | ↖    |      |     |     |      | ↖↗   | ↖    |      | ↖↗   | ↖    |
| Traffic Volume (veh/h)   | 328  | 0    | 83   | 0    | 0   | 0   | 0    | 404  | 996  | 0    | 765  | 129  |
| Future Volume (veh/h)  | 328  | 0    | 83   | 0    | 0   | 0   | 0    | 404  | 996  | 0    | 765  | 129  |
| Initial Q (Qb), veh  | 0    | 0    | 0    |      |     |     | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)  | 1.00 |      | 1.00 |      |     |     | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj   | 1.00 | 1.00 | 1.00 |      |     |     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach  |      | No   |      |      |     |     |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln   | 1870 | 0    | 1870 |      |     |     | 0    | 1870 | 1870 | 0    | 1870 | 1870 |
| Adj Flow Rate, veh/h   | 357  | 0    | 90   |      |     |     | 0    | 439  | 0    | 0    | 832  | 140  |
| Peak Hour Factor   | 0.92 | 0.92 | 0.92 |      |     |     | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %   | 2    | 0    | 2    |      |     |     | 0    | 2    | 2    | 0    | 2    | 2    |
| Cap, veh/h   | 449  | 0    | 206  |      |     |     | 0    | 2794 |      | 0    | 2794 | 1246 |
| Arrive On Green  | 0.13 | 0.00 | 0.13 |      |     |     | 0.00 | 0.79 | 0.00 | 0.00 | 0.79 | 0.79 |
| Sat Flow, veh/h  | 3456 | 0    | 1585 |      |     |     | 0    | 3647 | 1585 | 0    | 3647 | 1585 |
| Grp Volume(v), veh/h   | 357  | 0    | 90   |      |     |     | 0    | 439  | 0    | 0    | 832  | 140  |
| Grp Sat Flow(s),veh/h/ln   | 1728 | 0    | 1585 |      |     |     | 0    | 1777 | 1585 | 0    | 1777 | 1585 |
| Q Serve(g_s), s  | 9.6  | 0.0  | 5.0  |      |     |     | 0.0  | 2.9  | 0.0  | 0.0  | 6.2  | 2.0  |
| Cycle Q Clear(g_c), s  | 9.6  | 0.0  | 5.0  |      |     |     | 0.0  | 2.9  | 0.0  | 0.0  | 6.2  | 2.0  |
| Prop In Lane   | 1.00 |      | 1.00 |      |     |     | 0.00 |      | 1.00 | 0.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h   | 449  | 0    | 206  |      |     |     | 0    | 2794 |      | 0    | 2794 | 1246 |
| V/C Ratio(X)   | 0.80 | 0.00 | 0.44 |      |     |     | 0.00 | 0.16 |      | 0.00 | 0.30 | 0.11 |
| Avail Cap(c_a), veh/h  | 616  | 0    | 283  |      |     |     | 0    | 2794 |      | 0    | 2794 | 1246 |
| HCM Platoon Ratio  | 1.00 | 1.00 | 1.00 |      |     |     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)   | 1.00 | 0.00 | 1.00 |      |     |     | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh   | 40.3 | 0.0  | 38.3 |      |     |     | 0.0  | 2.5  | 0.0  | 0.0  | 2.8  | 2.4  |
| Incr Delay (d2), s/veh   | 5.1  | 0.0  | 1.5  |      |     |     | 0.0  | 0.1  | 0.0  | 0.0  | 0.3  | 0.2  |
| Initial Q Delay(d3),s/veh  | 0.0  | 0.0  | 0.0  |      |     |     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln   | 4.3  | 0.0  | 2.0  |      |     |     | 0.0  | 0.6  | 0.0  | 0.0  | 1.2  | 0.4  |
| Unsig. Movement Delay, s/veh   |      |      |      |      |     |     |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh   | 45.3 | 0.0  | 39.7 |      |     |     | 0.0  | 2.6  | 0.0  | 0.0  | 3.1  | 2.6  |
| LnGrp LOS  | D    | A    | D    |      |     |     | A    | A    |      | A    | A    | A    |
| Approach Vol, veh/h  |      | 447  |      |      |     |     |      | 439  | A    |      | 972  |      |
| Approach Delay, s/veh  |      | 44.2 |      |      |     |     |      | 2.6  |      |      | 3.0  |      |
| Approach LOS   |      | D    |      |      |     |     |      | A    |      |      | A    |      |
| Timer - Assigned Phs   |      | 2    |      | 4    |     |     |      | 6    |      |      |      |      |
| Phs Duration (G+Y+Rc), s   |      | 79.0 |      | 16.4 |     |     |      | 79.0 |      |      |      |      |
| Change Period (Y+Rc), s  |      | 4.0  |      | 4.0  |     |     |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |      | 75.0 |      | 17.0 |     |     |      | 47.0 |      |      |      |      |
| Max Q Clear Time (g_c+l1), s   |      | 4.9  |      | 11.6 |     |     |      | 8.2  |      |      |      |      |
| Green Ext Time (p_c), s  |      | 2.9  |      | 0.8  |     |     |      | 6.7  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |     |     |      |      |      |      |      |      |
| HCM 6th Ctrl Delay   |      |      | 12.8 |      |     |     |      |      |      |      |      |      |
| HCM 6th LOS  |      |      | B    |      |     |     |      |      |      |      |      |      |
| <b>Notes</b>   |      |      |      |      |     |     |      |      |      |      |      |      |
| Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay. |      |      |      |      |     |     |      |      |      |      |      |      |



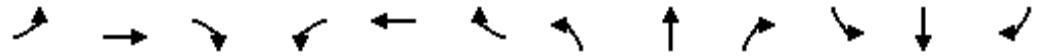
| Lane Group              | WBL  | WBR  | NBT  | NBR  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 537  | 209  | 718  | 79   | 418  | 274  |
| v/c Ratio               | 0.93 | 0.32 | 0.34 | 0.08 | 0.20 | 0.26 |
| Control Delay           | 56.5 | 4.4  | 11.1 | 2.4  | 9.9  | 1.9  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.6  |
| Total Delay             | 56.5 | 4.4  | 11.1 | 2.4  | 9.9  | 2.4  |
| Queue Length 50th (ft)  | 321  | 0    | 118  | 0    | 62   | 0    |
| Queue Length 95th (ft)  | #518 | 45   | 154  | 19   | 87   | 32   |
| Internal Link Dist (ft) |      |      | 832  |      | 250  |      |
| Turn Bay Length (ft)    |      |      |      |      |      |      |
| Base Capacity (vph)     | 613  | 689  | 2093 | 969  | 2093 | 1048 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 447  |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.88 | 0.30 | 0.34 | 0.08 | 0.20 | 0.46 |

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
 21: Silva Valley Pkwy & US-50 WB On-Ramp/US-50 WB Off-Ramp

Cumulative plus Project  
 Timing Plan: PM



| Movement                     | EBL | EBT  | EBR | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|-----|------|-----|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |     |      |     | ↖    | ↗    | ↖    |      | ↕    | ↖    |      | ↕    | ↖    |
| Traffic Volume (veh/h)       | 0   | 0    | 0   | 494  | 0    | 192  | 0    | 661  | 73   | 0    | 385  | 252  |
| Future Volume (veh/h)        | 0   | 0    | 0   | 494  | 0    | 192  | 0    | 661  | 73   | 0    | 385  | 252  |
| Initial Q (Qb), veh          |     |      |     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |     |      |     | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             |     |      |     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |     |      |     | No   |      |      | No   |      |      | No   |      |      |
| Adj Sat Flow, veh/h/ln       |     |      |     | 1870 | 1870 | 1870 | 0    | 1870 | 1870 | 0    | 1870 | 1870 |
| Adj Flow Rate, veh/h         |     |      |     | 537  | 0    | 209  | 0    | 718  | 0    | 0    | 418  | 274  |
| Peak Hour Factor             |     |      |     | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         |     |      |     | 2    | 2    | 2    | 0    | 2    | 2    | 0    | 2    | 2    |
| Cap, veh/h                   |     |      |     | 576  | 604  | 512  | 0    | 2114 |      | 0    | 2114 | 943  |
| Arrive On Green              |     |      |     | 0.32 | 0.00 | 0.32 | 0.00 | 0.59 | 0.00 | 0.00 | 0.59 | 0.59 |
| Sat Flow, veh/h              |     |      |     | 1781 | 1870 | 1585 | 0    | 3647 | 1585 | 0    | 3647 | 1585 |
| Grp Volume(v), veh/h         |     |      |     | 537  | 0    | 209  | 0    | 718  | 0    | 0    | 418  | 274  |
| Grp Sat Flow(s),veh/h/ln     |     |      |     | 1781 | 1870 | 1585 | 0    | 1777 | 1585 | 0    | 1777 | 1585 |
| Q Serve(g_s), s              |     |      |     | 28.5 | 0.0  | 10.0 | 0.0  | 10.0 | 0.0  | 0.0  | 5.3  | 8.3  |
| Cycle Q Clear(g_c), s        |     |      |     | 28.5 | 0.0  | 10.0 | 0.0  | 10.0 | 0.0  | 0.0  | 5.3  | 8.3  |
| Prop In Lane                 |     |      |     | 1.00 |      | 1.00 | 0.00 |      | 1.00 | 0.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       |     |      |     | 576  | 604  | 512  | 0    | 2114 |      | 0    | 2114 | 943  |
| V/C Ratio(X)                 |     |      |     | 0.93 | 0.00 | 0.41 | 0.00 | 0.34 |      | 0.00 | 0.20 | 0.29 |
| Avail Cap(c_a), veh/h        |     |      |     | 621  | 652  | 553  | 0    | 2114 |      | 0    | 2114 | 943  |
| HCM Platoon Ratio            |     |      |     | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           |     |      |     | 1.00 | 0.00 | 1.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     |     |      |     | 32.0 | 0.0  | 25.7 | 0.0  | 10.0 | 0.0  | 0.0  | 9.1  | 9.7  |
| Incr Delay (d2), s/veh       |     |      |     | 20.4 | 0.0  | 0.5  | 0.0  | 0.4  | 0.0  | 0.0  | 0.2  | 0.8  |
| Initial Q Delay(d3),s/veh    |     |      |     | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     |     |      |     | 15.1 | 0.0  | 3.8  | 0.0  | 3.5  | 0.0  | 0.0  | 1.8  | 2.7  |
| Unsig. Movement Delay, s/veh |     |      |     |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         |     |      |     | 52.4 | 0.0  | 26.3 | 0.0  | 10.5 | 0.0  | 0.0  | 9.3  | 10.5 |
| LnGrp LOS                    |     |      |     | D    | A    | C    | A    | B    |      | A    | A    | B    |
| Approach Vol, veh/h          |     |      |     |      | 746  |      |      | 718  | A    |      | 692  |      |
| Approach Delay, s/veh        |     |      |     |      | 45.1 |      |      | 10.5 |      |      | 9.7  |      |
| Approach LOS                 |     |      |     |      | D    |      |      | B    |      |      | A    |      |
| Timer - Assigned Phs         |     | 2    |     |      |      | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     |     | 62.0 |     |      |      | 62.0 |      | 35.5 |      |      |      |      |
| Change Period (Y+Rc), s      |     | 4.0  |     |      |      | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  |     | 58.0 |     |      |      | 33.0 |      | 34.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s |     | 12.0 |     |      |      | 10.3 |      | 30.5 |      |      |      |      |
| Green Ext Time (p_c), s      |     | 5.1  |     |      |      | 3.4  |      | 1.0  |      |      |      |      |

Intersection Summary

|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 22.2 |
| HCM 6th LOS        | C    |

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.





| Lane Group              | EBT  | WBT  | NBL  | NBT  | SBL  | SBT  |
|-------------------------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 193  | 311  | 67   | 992  | 91   | 500  |
| v/c Ratio               | 0.43 | 0.74 | 0.34 | 0.72 | 0.57 | 0.34 |
| Control Delay           | 15.8 | 26.1 | 26.0 | 16.7 | 40.8 | 11.4 |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 15.8 | 26.1 | 26.0 | 16.7 | 40.8 | 11.4 |
| Queue Length 50th (ft)  | 39   | 67   | 19   | 126  | 27   | 54   |
| Queue Length 95th (ft)  | 83   | #168 | 49   | #194 | #84  | 88   |
| Internal Link Dist (ft) | 278  | 432  |      | 250  |      | 4417 |
| Turn Bay Length (ft)    |      |      | 200  |      | 200  |      |
| Base Capacity (vph)     | 537  | 503  | 200  | 1433 | 159  | 1482 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.36 | 0.62 | 0.34 | 0.69 | 0.57 | 0.34 |

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Generations at Green Valley  
22: Silva Valley Pkwy & Tong Rd

Cumulative plus Project  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      | ↕    |      |      | ↕    |      | ↗    | ↕    |      | ↗    | ↕    |      |
| Traffic Volume (veh/h)       | 74   | 78   | 26   | 171  | 36   | 79   | 62   | 808  | 105  | 84   | 424  | 36   |
| Future Volume (veh/h)        | 74   | 78   | 26   | 171  | 36   | 79   | 62   | 808  | 105  | 84   | 424  | 36   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 80   | 85   | 28   | 186  | 39   | 86   | 67   | 878  | 114  | 91   | 461  | 39   |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 263  | 243  | 64   | 368  | 67   | 110  | 94   | 1177 | 153  | 115  | 1272 | 107  |
| Arrive On Green              | 0.26 | 0.26 | 0.26 | 0.26 | 0.26 | 0.26 | 0.05 | 0.37 | 0.37 | 0.06 | 0.38 | 0.38 |
| Sat Flow, veh/h              | 518  | 948  | 249  | 860  | 261  | 428  | 1781 | 3163 | 411  | 1781 | 3317 | 280  |
| Grp Volume(v), veh/h         | 193  | 0    | 0    | 311  | 0    | 0    | 67   | 493  | 499  | 91   | 246  | 254  |
| Grp Sat Flow(s),veh/h/ln     | 1714 | 0    | 0    | 1549 | 0    | 0    | 1781 | 1777 | 1796 | 1781 | 1777 | 1820 |
| Q Serve(g_s), s              | 0.0  | 0.0  | 0.0  | 3.5  | 0.0  | 0.0  | 1.4  | 9.4  | 9.4  | 2.0  | 3.9  | 3.9  |
| Cycle Q Clear(g_c), s        | 3.5  | 0.0  | 0.0  | 7.0  | 0.0  | 0.0  | 1.4  | 9.4  | 9.4  | 2.0  | 3.9  | 3.9  |
| Prop In Lane                 | 0.41 |      | 0.15 | 0.60 |      | 0.28 | 1.00 |      | 0.23 | 1.00 |      | 0.15 |
| Lane Grp Cap(c), veh/h       | 569  | 0    | 0    | 544  | 0    | 0    | 94   | 661  | 668  | 115  | 681  | 698  |
| V/C Ratio(X)                 | 0.34 | 0.00 | 0.00 | 0.57 | 0.00 | 0.00 | 0.71 | 0.75 | 0.75 | 0.79 | 0.36 | 0.36 |
| Avail Cap(c_a), veh/h        | 805  | 0    | 0    | 761  | 0    | 0    | 228  | 820  | 829  | 183  | 774  | 793  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 12.1 | 0.0  | 0.0  | 13.2 | 0.0  | 0.0  | 18.2 | 10.6 | 10.6 | 18.0 | 8.6  | 8.6  |
| Incr Delay (d2), s/veh       | 0.3  | 0.0  | 0.0  | 0.9  | 0.0  | 0.0  | 9.4  | 2.9  | 2.9  | 11.7 | 0.3  | 0.3  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 1.2  | 0.0  | 0.0  | 2.1  | 0.0  | 0.0  | 0.7  | 2.7  | 2.8  | 1.0  | 1.0  | 1.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 12.4 | 0.0  | 0.0  | 14.1 | 0.0  | 0.0  | 27.6 | 13.6 | 13.5 | 29.7 | 8.9  | 8.9  |
| LnGrp LOS                    | B    | A    | A    | B    | A    | A    | C    | B    | B    | C    | A    | A    |
| Approach Vol, veh/h          |      | 193  |      |      | 311  |      |      | 1059 |      |      |      | 591  |
| Approach Delay, s/veh        |      | 12.4 |      |      | 14.1 |      |      | 14.5 |      |      |      | 12.1 |
| Approach LOS                 |      | B    |      |      | B    |      |      | B    |      |      |      | B    |
| Timer - Assigned Phs         | 1    | 2    |      | 4    | 5    | 6    |      | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 6.5  | 18.5 |      | 14.0 | 6.1  | 19.0 |      | 14.0 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  |      | 4.0  | 4.0  | 4.0  |      | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0  | 18.0 |      | 16.0 | 5.0  | 17.0 |      | 16.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 4.0  | 11.4 |      | 5.5  | 3.4  | 5.9  |      | 9.0  |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 3.1  |      | 0.7  | 0.0  | 2.0  |      | 1.1  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      |      | 13.6 |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      |      | B    |      |      |      |      |      |      |      |      |



| Lane Group              | EBL  | EBT  | WBL   | WBT  | NBL  | NBT  | NBR  | SBL   | SBT  |
|-------------------------|------|------|-------|------|------|------|------|-------|------|
| Lane Group Flow (vph)   | 77   | 324  | 345   | 365  | 108  | 675  | 483  | 242   | 449  |
| v/c Ratio               | 0.41 | 0.55 | 1.19  | 0.37 | 0.74 | 0.65 | 0.63 | 1.12  | 0.38 |
| Control Delay           | 39.3 | 30.8 | 146.9 | 11.6 | 67.9 | 26.0 | 7.6  | 130.5 | 19.2 |
| Queue Delay             | 0.0  | 0.0  | 0.0   | 0.0  | 0.0  | 0.0  | 0.0  | 0.0   | 0.0  |
| Total Delay             | 39.3 | 30.8 | 146.9 | 11.6 | 67.9 | 26.0 | 7.6  | 130.5 | 19.2 |
| Queue Length 50th (ft)  | 33   | 67   | ~195  | 28   | 49   | 138  | 16   | ~130  | 77   |
| Queue Length 95th (ft)  | 69   | 96   | #387  | 66   | #80  | 131  | 8    | #233  | 100  |
| Internal Link Dist (ft) |      | 6047 |       | 1303 |      | 4417 |      |       | 4456 |
| Turn Bay Length (ft)    | 155  |      | 330   |      | 250  |      | 180  | 150   |      |
| Base Capacity (vph)     | 217  | 1149 | 290   | 1326 | 145  | 1276 | 847  | 217   | 1409 |
| Starvation Cap Reductn  | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0     | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0     | 0    |
| Storage Cap Reductn     | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0     | 0    |
| Reduced v/c Ratio       | 0.35 | 0.28 | 1.19  | 0.28 | 0.74 | 0.53 | 0.57 | 1.12  | 0.32 |

**Intersection Summary**

- ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
23: Serrano Pkwy. & Silva Valley Pkwy.

Cumulative plus Project  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          | ↖    | ↗    |      | ↖    | ↗    |      | ↖    | ↗    | ↗    | ↖    | ↗    |      |
| Traffic Volume (veh/h)       | 61   | 218  | 38   | 307  | 127  | 198  | 68   | 425  | 304  | 184  | 310  | 31   |
| Future Volume (veh/h)        | 61   | 218  | 38   | 307  | 127  | 198  | 68   | 425  | 304  | 184  | 310  | 31   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 77   | 276  | 48   | 345  | 143  | 222  | 108  | 675  | 0    | 242  | 408  | 41   |
| Peak Hour Factor             | 0.79 | 0.79 | 0.79 | 0.89 | 0.89 | 0.89 | 0.63 | 0.63 | 0.63 | 0.76 | 0.76 | 0.76 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 99   | 455  | 78   | 321  | 488  | 435  | 138  | 908  |      | 241  | 1021 | 102  |
| Arrive On Green              | 0.06 | 0.15 | 0.15 | 0.18 | 0.27 | 0.27 | 0.08 | 0.26 | 0.00 | 0.14 | 0.31 | 0.31 |
| Sat Flow, veh/h              | 1781 | 3033 | 521  | 1781 | 1777 | 1585 | 1781 | 3554 | 1585 | 1781 | 3262 | 326  |
| Grp Volume(v), veh/h         | 77   | 160  | 164  | 345  | 143  | 222  | 108  | 675  | 0    | 242  | 221  | 228  |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1777 | 1777 | 1781 | 1777 | 1585 | 1781 | 1777 | 1585 | 1781 | 1777 | 1812 |
| Q Serve(g_s), s              | 2.8  | 5.6  | 5.8  | 12.0 | 4.2  | 7.9  | 4.0  | 11.6 | 0.0  | 9.0  | 6.5  | 6.6  |
| Cycle Q Clear(g_c), s        | 2.8  | 5.6  | 5.8  | 12.0 | 4.2  | 7.9  | 4.0  | 11.6 | 0.0  | 9.0  | 6.5  | 6.6  |
| Prop In Lane                 | 1.00 |      | 0.29 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 0.18 |
| Lane Grp Cap(c), veh/h       | 99   | 267  | 267  | 321  | 488  | 435  | 138  | 908  |      | 241  | 556  | 567  |
| V/C Ratio(X)                 | 0.78 | 0.60 | 0.61 | 1.08 | 0.29 | 0.51 | 0.78 | 0.74 |      | 1.01 | 0.40 | 0.40 |
| Avail Cap(c_a), veh/h        | 241  | 640  | 640  | 321  | 720  | 642  | 160  | 1408 |      | 241  | 784  | 800  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(I)           | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 31.0 | 26.4 | 26.5 | 27.3 | 19.1 | 20.4 | 30.2 | 22.8 | 0.0  | 28.8 | 18.0 | 18.0 |
| Incr Delay (d2), s/veh       | 12.1 | 2.2  | 2.3  | 71.7 | 0.3  | 0.9  | 19.2 | 1.2  | 0.0  | 59.4 | 0.5  | 0.5  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 1.5  | 2.3  | 2.4  | 10.9 | 1.6  | 2.7  | 2.3  | 4.4  | 0.0  | 7.4  | 2.4  | 2.5  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 43.1 | 28.6 | 28.8 | 99.0 | 19.4 | 21.3 | 49.4 | 24.0 | 0.0  | 88.3 | 18.4 | 18.4 |
| LnGrp LOS                    | D    | C    | C    | F    | B    | C    | D    | C    |      | F    | B    | B    |
| Approach Vol, veh/h          |      | 401  |      |      | 710  |      |      | 783  | A    |      | 691  |      |
| Approach Delay, s/veh        |      | 31.5 |      |      | 58.7 |      |      | 27.5 |      |      | 42.9 |      |
| Approach LOS                 |      | C    |      |      | E    |      |      | C    |      |      | D    |      |
| Timer - Assigned Phs         | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 13.0 | 22.3 | 16.0 | 15.3 | 9.2  | 26.2 | 7.7  | 23.6 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 5.3  | 4.0  | 5.3  | 4.0  | 5.3  | 4.0  | 5.3  |      |      |      |      |
| Max Green Setting (Gmax), s  | 9.0  | 26.4 | 12.0 | 24.0 | 6.0  | 29.4 | 9.0  | 27.0 |      |      |      |      |
| Max Q Clear Time (g_c+l1), s | 11.0 | 13.6 | 14.0 | 7.8  | 6.0  | 8.6  | 4.8  | 9.9  |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 3.4  | 0.0  | 1.5  | 0.0  | 2.3  | 0.0  | 1.8  |      |      |      |      |

Intersection Summary

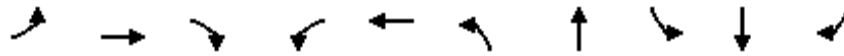
|                    |      |
|--------------------|------|
| HCM 6th Ctrl Delay | 40.8 |
| HCM 6th LOS        | D    |

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Generations at Green Valley  
24: Silva Valley Pkwy. & Harvard Way

Cumulative plus Project  
Timing Plan: PM



| Lane Group              | EBL  | EBT  | EBR  | WBL  | WBT  | NBL  | NBT  | SBL  | SBT  | SBR  |
|-------------------------|------|------|------|------|------|------|------|------|------|------|
| Lane Group Flow (vph)   | 158  | 28   | 426  | 38   | 38   | 329  | 391  | 9    | 283  | 88   |
| v/c Ratio               | 0.67 | 0.08 | 0.67 | 0.24 | 0.13 | 0.64 | 0.37 | 0.06 | 0.39 | 0.18 |
| Control Delay           | 43.6 | 19.1 | 8.4  | 30.1 | 14.8 | 25.9 | 10.0 | 27.6 | 20.0 | 0.8  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 43.6 | 19.1 | 8.4  | 30.1 | 14.8 | 25.9 | 10.0 | 27.6 | 20.0 | 0.8  |
| Queue Length 50th (ft)  | 37   | 6    | 0    | 9    | 4    | 60   | 28   | 2    | 30   | 0    |
| Queue Length 95th (ft)  | #87  | 17   | 0    | 37   | 23   | #264 | 200  | 15   | 75   | 0    |
| Internal Link Dist (ft) |      | 2093 |      |      | 328  |      | 4456 |      | 402  |      |
| Turn Bay Length (ft)    | 60   |      |      |      |      | 200  |      | 150  |      | 250  |
| Base Capacity (vph)     | 237  | 743  | 887  | 156  | 623  | 588  | 1162 | 156  | 1333 | 723  |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.67 | 0.04 | 0.48 | 0.24 | 0.06 | 0.56 | 0.34 | 0.06 | 0.21 | 0.12 |

Intersection Summary

# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Generations at Green Valley  
24: Silva Valley Pkwy. & Harvard Way

Cumulative plus Project  
Timing Plan: PM



| Movement                     | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 90   | 16   | 243  | 30   | 15   | 15   | 296  | 333  | 19   | 7    | 229  | 71   |
| Future Volume (veh/h)        | 90   | 16   | 243  | 30   | 15   | 15   | 296  | 333  | 19   | 7    | 229  | 71   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 | 1.00 |      | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        |      | No   |      |      | No   |      |      | No   |      |      | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 158  | 28   | 426  | 38   | 19   | 19   | 329  | 370  | 21   | 9    | 283  | 88   |
| Peak Hour Factor             | 0.57 | 0.57 | 0.57 | 0.78 | 0.78 | 0.78 | 0.90 | 0.90 | 0.90 | 0.81 | 0.81 | 0.81 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 200  | 567  | 481  | 58   | 192  | 192  | 392  | 613  | 35   | 17   | 495  | 221  |
| Arrive On Green              | 0.11 | 0.30 | 0.30 | 0.03 | 0.22 | 0.22 | 0.22 | 0.35 | 0.35 | 0.01 | 0.14 | 0.14 |
| Sat Flow, veh/h              | 1781 | 1870 | 1585 | 1781 | 858  | 858  | 1781 | 1753 | 99   | 1781 | 3554 | 1585 |
| Grp Volume(v), veh/h         | 158  | 28   | 426  | 38   | 0    | 38   | 329  | 0    | 391  | 9    | 283  | 88   |
| Grp Sat Flow(s),veh/h/ln     | 1781 | 1870 | 1585 | 1781 | 0    | 1716 | 1781 | 0    | 1852 | 1781 | 1777 | 1585 |
| Q Serve(g_s), s              | 4.5  | 0.6  | 13.4 | 1.1  | 0.0  | 0.9  | 9.3  | 0.0  | 9.1  | 0.3  | 3.9  | 2.7  |
| Cycle Q Clear(g_c), s        | 4.5  | 0.6  | 13.4 | 1.1  | 0.0  | 0.9  | 9.3  | 0.0  | 9.1  | 0.3  | 3.9  | 2.7  |
| Prop In Lane                 | 1.00 |      | 1.00 | 1.00 |      | 0.50 | 1.00 |      | 0.05 | 1.00 |      | 1.00 |
| Lane Grp Cap(c), veh/h       | 200  | 567  | 481  | 58   | 0    | 384  | 392  | 0    | 648  | 17   | 495  | 221  |
| V/C Ratio(X)                 | 0.79 | 0.05 | 0.89 | 0.66 | 0.00 | 0.10 | 0.84 | 0.00 | 0.60 | 0.54 | 0.57 | 0.40 |
| Avail Cap(c_a), veh/h        | 204  | 642  | 544  | 136  | 0    | 523  | 509  | 0    | 989  | 136  | 1152 | 514  |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 1.00 | 1.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 22.7 | 12.9 | 17.4 | 25.1 | 0.0  | 16.2 | 19.6 | 0.0  | 14.1 | 25.9 | 21.1 | 20.6 |
| Incr Delay (d2), s/veh       | 18.5 | 0.0  | 14.9 | 12.0 | 0.0  | 0.1  | 9.5  | 0.0  | 0.9  | 24.4 | 1.0  | 1.2  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 2.7  | 0.2  | 6.3  | 0.6  | 0.0  | 0.3  | 4.2  | 0.0  | 3.1  | 0.2  | 1.5  | 1.0  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 41.2 | 13.0 | 32.3 | 37.1 | 0.0  | 16.3 | 29.1 | 0.0  | 15.0 | 50.2 | 22.2 | 21.7 |
| LnGrp LOS                    | D    | B    | C    | D    | A    | B    | C    | A    | B    | D    | C    | C    |
| Approach Vol, veh/h          |      | 612  |      |      | 76   |      |      | 720  |      |      | 380  |      |
| Approach Delay, s/veh        |      | 33.7 |      |      | 26.7 |      |      | 21.4 |      |      | 22.7 |      |
| Approach LOS                 |      | C    |      |      | C    |      |      | C    |      |      | C    |      |
| Timer - Assigned Phs         | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |      |      |      |      |
| Phs Duration (G+Y+Rc), s     | 4.5  | 22.3 | 5.7  | 19.9 | 15.5 | 11.3 | 9.9  | 15.7 |      |      |      |      |
| Change Period (Y+Rc), s      | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  | 4.0  |      |      |      |      |
| Max Green Setting (Gmax), s  | 4.0  | 28.0 | 4.0  | 18.0 | 15.0 | 17.0 | 6.0  | 16.0 |      |      |      |      |
| Max Q Clear Time (g_c+I1), s | 2.3  | 11.1 | 3.1  | 15.4 | 11.3 | 5.9  | 6.5  | 2.9  |      |      |      |      |
| Green Ext Time (p_c), s      | 0.0  | 1.9  | 0.0  | 0.5  | 0.4  | 1.4  | 0.0  | 0.1  |      |      |      |      |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 26.1 |      |      |      |      |      |      |      |      |      |
| HCM 6th LOS                  |      |      | C    |      |      |      |      |      |      |      |      |      |

|                               |  |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|
| Intersection                  |  |  |  |  |  |  |  |  |  |  |  |  |
| Intersection Delay, s/veh16.5 |  |  |  |  |  |  |  |  |  |  |  |  |
| Intersection LOS C            |  |  |  |  |  |  |  |  |  |  |  |  |

| Movement            | EBL  | EBT  | EBR  | WBL  | WBT  | WBR  | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Lane Configurations |      | ↕    |      |      | ↕    |      |      | ↕    |      |      | ↕    |      |
| Traffic Vol, veh/h  | 20   | 1    | 44   | 74   | 0    | 80   | 52   | 287  | 64   | 95   | 207  | 30   |
| Future Vol, veh/h   | 20   | 1    | 44   | 74   | 0    | 80   | 52   | 287  | 64   | 95   | 207  | 30   |
| Peak Hour Factor    | 0.79 | 0.79 | 0.79 | 0.88 | 0.88 | 0.88 | 0.86 | 0.86 | 0.86 | 0.83 | 0.83 | 0.83 |
| Heavy Vehicles, %   | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow           | 25   | 1    | 56   | 84   | 0    | 91   | 60   | 334  | 74   | 114  | 249  | 36   |
| Number of Lanes     | 0    | 1    | 0    | 0    | 1    | 0    | 0    | 1    | 0    | 0    | 1    | 0    |

| Approach                      | EB   | WB   | NB   | SB   |
|-------------------------------|------|------|------|------|
| Opposing Approach             | WB   | EB   | SB   | NB   |
| Opposing Lanes                | 1    | 1    | 1    | 1    |
| Conflicting Approach Left SB  |      | NB   | EB   | WB   |
| Conflicting Lanes Left        | 1    | 1    | 1    | 1    |
| Conflicting Approach Right NB |      | SB   | WB   | EB   |
| Conflicting Lanes Right       | 1    | 1    | 1    | 1    |
| HCM Control Delay             | 10.4 | 11.8 | 19.3 | 16.6 |
| HCM LOS                       | B    | B    | C    | C    |

| Lane                   | NBLn1 | EBLn1 | WBLn1 | SBLn1 |
|------------------------|-------|-------|-------|-------|
| Vol Left, %            | 13%   | 31%   | 48%   | 29%   |
| Vol Thru, %            | 71%   | 2%    | 0%    | 62%   |
| Vol Right, %           | 16%   | 68%   | 52%   | 9%    |
| Sign Control           | Stop  | Stop  | Stop  | Stop  |
| Traffic Vol by Lane    | 403   | 65    | 154   | 332   |
| LT Vol                 | 52    | 20    | 74    | 95    |
| Through Vol            | 287   | 1     | 0     | 207   |
| RT Vol                 | 64    | 44    | 80    | 30    |
| Lane Flow Rate         | 469   | 82    | 175   | 400   |
| Geometry Grp           | 1     | 1     | 1     | 1     |
| Degree of Util (X)     | 0.688 | 0.143 | 0.298 | 0.605 |
| Departure Headway (Hd) | 5.285 | 6.267 | 6.137 | 5.444 |
| Convergence, Y/N       | Yes   | Yes   | Yes   | Yes   |
| Cap                    | 679   | 567   | 581   | 660   |
| Service Time           | 3.344 | 4.363 | 4.218 | 3.506 |
| HCM Lane V/C Ratio     | 0.691 | 0.145 | 0.301 | 0.606 |
| HCM Control Delay      | 19.3  | 10.4  | 11.8  | 16.6  |
| HCM Lane LOS           | C     | B     | B     | C     |
| HCM 95th-tile Q        | 5.5   | 0.5   | 1.2   | 4.1   |

| Intersection             |      |      |      |      |      |      |
|--------------------------|------|------|------|------|------|------|
| Int Delay, s/veh         | 0.1  |      |      |      |      |      |
| Movement                 | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
| Lane Configurations      | ↔    |      |      | ↑    |      | ↗    |
| Traffic Vol, veh/h       | 808  | 32   | 0    | 557  | 0    | 7    |
| Future Vol, veh/h        | 808  | 32   | 0    | 557  | 0    | 7    |
| Conflicting Peds, #/hr   | 0    | 0    | 0    | 0    | 0    | 0    |
| Sign Control             | Free | Free | Free | Free | Stop | Stop |
| RT Channelized           | -    | None | -    | None | -    | None |
| Storage Length           | -    | -    | -    | -    | -    | 0    |
| Veh in Median Storage, # | 0    | -    | -    | 0    | 0    | -    |
| Grade, %                 | 0    | -    | -    | 0    | 0    | -    |
| Peak Hour Factor         | 92   | 92   | 92   | 92   | 92   | 92   |
| Heavy Vehicles, %        | 2    | 2    | 2    | 2    | 2    | 2    |
| Mvmt Flow                | 878  | 35   | 0    | 605  | 0    | 8    |

| Major/Minor          | Major1 | Major2 | Minor1 |   |       |
|----------------------|--------|--------|--------|---|-------|
| Conflicting Flow All | 0      | 0      | -      | - | 896   |
| Stage 1              | -      | -      | -      | - | -     |
| Stage 2              | -      | -      | -      | - | -     |
| Critical Hdwy        | -      | -      | -      | - | 6.22  |
| Critical Hdwy Stg 1  | -      | -      | -      | - | -     |
| Critical Hdwy Stg 2  | -      | -      | -      | - | -     |
| Follow-up Hdwy       | -      | -      | -      | - | 3.318 |
| Pot Cap-1 Maneuver   | -      | -      | 0      | - | 339   |
| Stage 1              | -      | -      | 0      | - | -     |
| Stage 2              | -      | -      | 0      | - | -     |
| Platoon blocked, %   | -      | -      | -      | - | -     |
| Mov Cap-1 Maneuver   | -      | -      | -      | - | 339   |
| Mov Cap-2 Maneuver   | -      | -      | -      | - | -     |
| Stage 1              | -      | -      | -      | - | -     |
| Stage 2              | -      | -      | -      | - | -     |

| Approach             | EB | WB | NB   |
|----------------------|----|----|------|
| HCM Control Delay, s | 0  | 0  | 15.9 |
| HCM LOS              |    |    | C    |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBT |
|-----------------------|-------|-----|-----|-----|
| Capacity (veh/h)      | 339   | -   | -   | -   |
| HCM Lane V/C Ratio    | 0.022 | -   | -   | -   |
| HCM Control Delay (s) | 15.9  | -   | -   | -   |
| HCM Lane LOS          | C     | -   | -   | -   |
| HCM 95th %tile Q(veh) | 0.1   | -   | -   | -   |





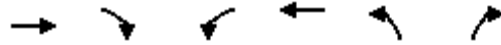
| Lane Group              | EBT  | WBL  | WBT  | NBL  | NBR  |
|-------------------------|------|------|------|------|------|
| Lane Group Flow (vph)   | 886  | 48   | 522  | 84   | 22   |
| v/c Ratio               | 0.77 | 0.21 | 0.45 | 0.27 | 0.07 |
| Control Delay           | 12.5 | 6.5  | 5.8  | 16.9 | 8.0  |
| Queue Delay             | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| Total Delay             | 12.5 | 6.5  | 5.8  | 16.9 | 8.0  |
| Queue Length 50th (ft)  | 108  | 4    | 47   | 17   | 0    |
| Queue Length 95th (ft)  | #357 | 18   | 107  | 44   | 12   |
| Internal Link Dist (ft) | 1398 |      | 2852 | 640  |      |
| Turn Bay Length (ft)    |      | 215  |      | 250  |      |
| Base Capacity (vph)     | 1158 | 229  | 1172 | 1114 | 1004 |
| Starvation Cap Reductn  | 0    | 0    | 0    | 0    | 0    |
| Spillback Cap Reductn   | 0    | 0    | 0    | 0    | 0    |
| Storage Cap Reductn     | 0    | 0    | 0    | 0    | 0    |
| Reduced v/c Ratio       | 0.77 | 0.21 | 0.45 | 0.08 | 0.02 |

**Intersection Summary**

# 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Generations at Green Valley  
27: Site Dwy. Full & Green Valley Rd.

Cumulative plus Project  
Timing Plan: PM



| Movement                     | EBT  | EBR  | WBL  | WBT  | NBL  | NBR  |
|------------------------------|------|------|------|------|------|------|
| Lane Configurations          |      |      |      |      |      |      |
| Traffic Volume (veh/h)       | 721  | 94   | 44   | 480  | 77   | 20   |
| Future Volume (veh/h)        | 721  | 94   | 44   | 480  | 77   | 20   |
| Initial Q (Qb), veh          | 0    | 0    | 0    | 0    | 0    | 0    |
| Ped-Bike Adj(A_pbT)          |      | 1.00 | 1.00 |      | 1.00 | 1.00 |
| Parking Bus, Adj             | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Work Zone On Approach        | No   |      |      | No   | No   |      |
| Adj Sat Flow, veh/h/ln       | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h         | 784  | 102  | 48   | 522  | 84   | 22   |
| Peak Hour Factor             | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Percent Heavy Veh, %         | 2    | 2    | 2    | 2    | 2    | 2    |
| Cap, veh/h                   | 971  | 126  | 381  | 1120 | 238  | 212  |
| Arrive On Green              | 0.60 | 0.60 | 0.60 | 0.60 | 0.13 | 0.13 |
| Sat Flow, veh/h              | 1621 | 211  | 627  | 1870 | 1781 | 1585 |
| Grp Volume(v), veh/h         | 0    | 886  | 48   | 522  | 84   | 22   |
| Grp Sat Flow(s),veh/h/ln     | 0    | 1832 | 627  | 1870 | 1781 | 1585 |
| Q Serve(g_s), s              | 0.0  | 11.2 | 1.9  | 4.6  | 1.3  | 0.4  |
| Cycle Q Clear(g_c), s        | 0.0  | 11.2 | 13.2 | 4.6  | 1.3  | 0.4  |
| Prop In Lane                 |      | 0.12 | 1.00 |      | 1.00 | 1.00 |
| Lane Grp Cap(c), veh/h       | 0    | 1097 | 381  | 1120 | 238  | 212  |
| V/C Ratio(X)                 | 0.00 | 0.81 | 0.13 | 0.47 | 0.35 | 0.10 |
| Avail Cap(c_a), veh/h        | 0    | 1592 | 550  | 1625 | 1548 | 1378 |
| HCM Platoon Ratio            | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Upstream Filter(l)           | 0.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Uniform Delay (d), s/veh     | 0.0  | 4.7  | 9.8  | 3.3  | 11.8 | 11.4 |
| Incr Delay (d2), s/veh       | 0.0  | 2.0  | 0.1  | 0.3  | 0.9  | 0.2  |
| Initial Q Delay(d3),s/veh    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  |
| %ile BackOfQ(50%),veh/ln     | 0.0  | 0.6  | 0.1  | 0.1  | 0.5  | 0.1  |
| Unsig. Movement Delay, s/veh |      |      |      |      |      |      |
| LnGrp Delay(d),s/veh         | 0.0  | 6.7  | 9.9  | 3.6  | 12.7 | 11.6 |
| LnGrp LOS                    | A    | A    | A    | A    | B    | B    |
| Approach Vol, veh/h          | 886  |      |      | 570  | 106  |      |
| Approach Delay, s/veh        | 6.7  |      |      | 4.2  | 12.4 |      |
| Approach LOS                 | A    |      |      | A    | B    |      |
| Timer - Assigned Phs         |      | 2    |      |      | 6    | 8    |
| Phs Duration (G+Y+Rc), s     |      | 21.9 |      |      | 21.9 | 8.0  |
| Change Period (Y+Rc), s      |      | 4.0  |      |      | 4.0  | 4.0  |
| Max Green Setting (Gmax), s  |      | 26.0 |      |      | 26.0 | 26.0 |
| Max Q Clear Time (g_c+I1), s |      | 15.2 |      |      | 13.2 | 3.3  |
| Green Ext Time (p_c), s      |      | 2.4  |      |      | 4.7  | 0.3  |
| <b>Intersection Summary</b>  |      |      |      |      |      |      |
| HCM 6th Ctrl Delay           |      |      | 6.2  |      |      |      |
| HCM 6th LOS                  |      |      | A    |      |      |      |

Summary of All Intervals

| Run Number              | 1      | 10     | 2      | 3      | 4      | 5      | 6      |
|-------------------------|--------|--------|--------|--------|--------|--------|--------|
| Start Time              | 4:50   | 4:50   | 4:50   | 4:50   | 4:50   | 4:50   | 4:50   |
| End Time                | 6:00   | 6:00   | 6:00   | 6:00   | 6:00   | 6:00   | 6:00   |
| Total Time (min)        | 70     | 70     | 70     | 70     | 70     | 70     | 70     |
| Time Recorded (min)     | 60     | 60     | 60     | 60     | 60     | 60     | 60     |
| # of Intervals          | 5      | 5      | 5      | 5      | 5      | 5      | 5      |
| # of Recorded Intervals | 4      | 4      | 4      | 4      | 4      | 4      | 4      |
| Vehs Entered            | 13611  | 14153  | 14048  | 13741  | 13766  | 13840  | 13831  |
| Vehs Exited             | 13481  | 14000  | 13894  | 13595  | 13673  | 13683  | 13659  |
| Starting Vehs           | 524    | 424    | 431    | 449    | 450    | 499    | 452    |
| Ending Vehs             | 654    | 577    | 585    | 595    | 543    | 656    | 624    |
| Travel Distance (mi)    | 3820   | 4064   | 4005   | 3920   | 3929   | 3919   | 3945   |
| Travel Time (hr)        | 2422.2 | 2322.3 | 2292.3 | 2356.0 | 2371.5 | 2277.1 | 2289.3 |
| Total Delay (hr)        | 2307.0 | 2199.5 | 2171.3 | 2237.9 | 2252.8 | 2158.6 | 2170.5 |
| Total Stops             | 13219  | 13118  | 13000  | 13004  | 12295  | 13198  | 13500  |
| Fuel Used (gal)         | 694.7  | 679.9  | 671.0  | 683.3  | 685.2  | 664.4  | 669.0  |

Summary of All Intervals

| Run Number              | 7      | 8      | 9      | Avg    |
|-------------------------|--------|--------|--------|--------|
| Start Time              | 4:50   | 4:50   | 4:50   | 4:50   |
| End Time                | 6:00   | 6:00   | 6:00   | 6:00   |
| Total Time (min)        | 70     | 70     | 70     | 70     |
| Time Recorded (min)     | 60     | 60     | 60     | 60     |
| # of Intervals          | 5      | 5      | 5      | 5      |
| # of Recorded Intervals | 4      | 4      | 4      | 4      |
| Vehs Entered            | 13794  | 13858  | 13973  | 13859  |
| Vehs Exited             | 13618  | 13662  | 13857  | 13710  |
| Starting Vehs           | 453    | 441    | 494    | 457    |
| Ending Vehs             | 629    | 637    | 610    | 611    |
| Travel Distance (mi)    | 3896   | 3967   | 4009   | 3947   |
| Travel Time (hr)        | 2314.6 | 2275.5 | 2186.6 | 2310.7 |
| Total Delay (hr)        | 2196.8 | 2155.3 | 2065.9 | 2191.6 |
| Total Stops             | 13446  | 13501  | 13147  | 13138  |
| Fuel Used (gal)         | 673.0  | 666.5  | 648.1  | 673.5  |

Interval #0 Information Seeding

|                                     |      |
|-------------------------------------|------|
| Start Time                          | 4:50 |
| End Time                            | 5:00 |
| Total Time (min)                    | 10   |
| Volumes adjusted by Growth Factors. |      |
| No data recorded this interval.     |      |

**Interval #1 Information**

|                  |      |
|------------------|------|
| Start Time       | 5:00 |
| End Time         | 5:15 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 3629  | 3535  | 3565  | 3516  | 3448  | 3519  | 3515  |
| Vehs Exited          | 3588  | 3486  | 3515  | 3449  | 3413  | 3523  | 3468  |
| Starting Vehs        | 524   | 424   | 431   | 449   | 450   | 499   | 452   |
| Ending Vehs          | 565   | 473   | 481   | 516   | 485   | 495   | 499   |
| Travel Distance (mi) | 1037  | 1014  | 1028  | 996   | 970   | 1011  | 1021  |
| Travel Time (hr)     | 273.2 | 271.3 | 274.4 | 287.8 | 281.6 | 259.7 | 277.4 |
| Total Delay (hr)     | 241.7 | 240.5 | 243.2 | 257.8 | 252.3 | 229.0 | 246.5 |
| Total Stops          | 3370  | 3251  | 3376  | 3221  | 3041  | 3279  | 3298  |
| Fuel Used (gal)      | 100.7 | 99.2  | 100.3 | 102.8 | 100.2 | 96.5  | 101.1 |

**Interval #1 Information**

|                  |      |
|------------------|------|
| Start Time       | 5:00 |
| End Time         | 5:15 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 3522  | 3539  | 3578  | 3533  |
| Vehs Exited          | 3440  | 3462  | 3557  | 3491  |
| Starting Vehs        | 453   | 441   | 494   | 457   |
| Ending Vehs          | 535   | 518   | 515   | 510   |
| Travel Distance (mi) | 1013  | 1000  | 1048  | 1014  |
| Travel Time (hr)     | 259.3 | 275.9 | 261.2 | 272.2 |
| Total Delay (hr)     | 228.6 | 245.5 | 229.5 | 241.5 |
| Total Stops          | 3198  | 3372  | 3353  | 3274  |
| Fuel Used (gal)      | 96.7  | 100.1 | 98.6  | 99.6  |

**Interval #2 Information**

|                  |      |
|------------------|------|
| Start Time       | 5:15 |
| End Time         | 5:30 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 3391  | 3527  | 3576  | 3480  | 3533  | 3498  | 3537  |
| Vehs Exited          | 3377  | 3455  | 3503  | 3467  | 3535  | 3506  | 3480  |
| Starting Vehs        | 565   | 473   | 481   | 516   | 485   | 495   | 499   |
| Ending Vehs          | 579   | 545   | 554   | 529   | 483   | 487   | 556   |
| Travel Distance (mi) | 965   | 1004  | 1014  | 1016  | 1022  | 1003  | 1014  |
| Travel Time (hr)     | 467.9 | 478.3 | 471.3 | 489.6 | 484.3 | 452.9 | 470.1 |
| Total Delay (hr)     | 438.8 | 448.0 | 441.0 | 459.2 | 453.4 | 422.6 | 439.6 |
| Total Stops          | 3086  | 3235  | 3383  | 3285  | 3090  | 3150  | 3334  |
| Fuel Used (gal)      | 142.7 | 146.1 | 145.4 | 149.5 | 148.1 | 140.3 | 144.6 |

**Interval #2 Information**

|                  |      |
|------------------|------|
| Start Time       | 5:15 |
| End Time         | 5:30 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 3488  | 3573  | 3620  | 3522  |
| Vehs Exited          | 3484  | 3548  | 3575  | 3492  |
| Starting Vehs        | 535   | 518   | 515   | 510   |
| Ending Vehs          | 539   | 543   | 560   | 536   |
| Travel Distance (mi) | 995   | 1051  | 1045  | 1013  |
| Travel Time (hr)     | 466.7 | 456.6 | 443.6 | 468.1 |
| Total Delay (hr)     | 436.9 | 424.9 | 412.3 | 437.7 |
| Total Stops          | 3223  | 3546  | 3393  | 3271  |
| Fuel Used (gal)      | 143.7 | 142.8 | 139.8 | 144.3 |

**Interval #3 Information**

|                  |      |
|------------------|------|
| Start Time       | 5:30 |
| End Time         | 5:45 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 3423  | 3563  | 3461  | 3516  | 3399  | 3474  | 3510  |
| Vehs Exited          | 3335  | 3537  | 3448  | 3453  | 3364  | 3339  | 3503  |
| Starting Vehs        | 579   | 545   | 554   | 529   | 483   | 487   | 556   |
| Ending Vehs          | 667   | 571   | 567   | 592   | 518   | 622   | 563   |
| Travel Distance (mi) | 941   | 1033  | 987   | 1005  | 975   | 975   | 1009  |
| Travel Time (hr)     | 709.3 | 690.2 | 675.6 | 680.1 | 691.8 | 665.6 | 662.3 |
| Total Delay (hr)     | 681.1 | 659.1 | 645.6 | 649.8 | 662.4 | 636.0 | 632.1 |
| Total Stops          | 3239  | 3308  | 3187  | 3297  | 2924  | 3238  | 3420  |
| Fuel Used (gal)      | 196.6 | 195.9 | 190.5 | 192.1 | 193.5 | 187.5 | 188.6 |

**Interval #3 Information**

|                  |      |
|------------------|------|
| Start Time       | 5:30 |
| End Time         | 5:45 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 3509  | 3488  | 3406  | 3476  |
| Vehs Exited          | 3391  | 3474  | 3394  | 3424  |
| Starting Vehs        | 539   | 543   | 560   | 536   |
| Ending Vehs          | 657   | 557   | 572   | 587   |
| Travel Distance (mi) | 967   | 1003  | 971   | 986   |
| Travel Time (hr)     | 681.7 | 653.3 | 622.4 | 673.2 |
| Total Delay (hr)     | 652.4 | 622.9 | 593.0 | 643.4 |
| Total Stops          | 3472  | 3172  | 3132  | 3242  |
| Fuel Used (gal)      | 191.4 | 186.2 | 178.1 | 190.0 |

**Interval #4 Information Recording**

|                  |      |
|------------------|------|
| Start Time       | 5:45 |
| End Time         | 6:00 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 1     | 10    | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Vehs Entered         | 3168  | 3528  | 3446  | 3229  | 3386  | 3349  | 3269  |
| Vehs Exited          | 3181  | 3522  | 3428  | 3226  | 3361  | 3315  | 3208  |
| Starting Vehs        | 667   | 571   | 567   | 592   | 518   | 622   | 563   |
| Ending Vehs          | 654   | 577   | 585   | 595   | 543   | 656   | 624   |
| Travel Distance (mi) | 877   | 1013  | 976   | 903   | 962   | 930   | 902   |
| Travel Time (hr)     | 971.8 | 882.5 | 871.0 | 898.5 | 913.8 | 898.9 | 879.5 |
| Total Delay (hr)     | 945.3 | 851.9 | 841.5 | 871.2 | 884.7 | 871.0 | 852.3 |
| Total Stops          | 3524  | 3324  | 3054  | 3201  | 3240  | 3531  | 3448  |
| Fuel Used (gal)      | 254.7 | 238.7 | 234.7 | 238.9 | 243.3 | 240.0 | 234.7 |

**Interval #4 Information Recording**

|                  |      |
|------------------|------|
| Start Time       | 5:45 |
| End Time         | 6:00 |
| Total Time (min) | 15   |

Volumes adjusted by Growth Factors.

| Run Number           | 7     | 8     | 9     | Avg   |
|----------------------|-------|-------|-------|-------|
| Vehs Entered         | 3275  | 3258  | 3369  | 3326  |
| Vehs Exited          | 3303  | 3178  | 3331  | 3306  |
| Starting Vehs        | 657   | 557   | 572   | 587   |
| Ending Vehs          | 629   | 637   | 610   | 611   |
| Travel Distance (mi) | 921   | 914   | 944   | 934   |
| Travel Time (hr)     | 907.0 | 889.6 | 859.4 | 897.2 |
| Total Delay (hr)     | 878.9 | 862.1 | 831.1 | 869.0 |
| Total Stops          | 3553  | 3411  | 3269  | 3353  |
| Fuel Used (gal)      | 241.2 | 237.4 | 231.6 | 239.5 |

13: Francisco Dr & El Dorado Hills Blvd Performance by movement

| Movement           | EBL  | EBT  | EBR | WBL | WBT | WBR | NBL | NBT  | NBR | SBL | SBT  | All |
|--------------------|------|------|-----|-----|-----|-----|-----|------|-----|-----|------|-----|
| Denied Delay (hr)  | 0.0  | 0.0  | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0  | 0.0 | 0.0 | 0.0  | 0.5 |
| Denied Del/Veh (s) | 1.8  | 1.3  | 3.5 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0  | 0.0 | 4.0 | 0.2  | 1.2 |
| Total Delay (hr)   | 0.0  | 0.1  | 0.6 | 0.0 | 0.1 | 0.0 | 1.2 | 0.9  | 0.0 | 0.0 | 0.8  | 3.7 |
| Total Del/Veh (s)  | 13.0 | 11.2 | 4.2 | 6.3 | 7.7 | 3.6 | 9.1 | 10.3 | 4.4 | 5.9 | 12.6 | 8.1 |
| Stop Delay (hr)    | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 0.3  | 0.0 | 0.0 | 0.2  | 1.4 |
| Stop Del/Veh (s)   | 6.9  | 4.1  | 0.0 | 4.3 | 4.3 | 3.1 | 6.0 | 3.2  | 2.9 | 2.8 | 4.0  | 3.2 |

17: El Dorado Hills Blvd #2 & Saratoga Way/Park Drive Performance by movement

| Movement           | EBL   | EBT   | EBR   | WBL   | WBT   | WBR   | NBL   | NBT   | NBR   | SBL   | SBT   | SBR   |
|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Denied Delay (hr)  | 99.9  | 272.5 | 99.2  | 31.3  | 211.1 | 38.4  | 21.4  | 59.3  | 14.8  | 112.5 | 183.8 | 124.6 |
| Denied Del/Veh (s) | 996.6 | 998.0 | 986.5 | 893.1 | 892.1 | 879.8 | 326.1 | 245.2 | 267.4 | 961.8 | 952.1 | 958.8 |
| Total Delay (hr)   | 17.7  | 47.4  | 12.1  | 1.1   | 16.0  | 2.6   | 38.7  | 10.4  | 2.1   | 24.7  | 12.5  | 5.4   |
| Total Del/Veh (s)  | 322.2 | 326.7 | 227.6 | 60.8  | 117.4 | 109.6 | 645.7 | 49.5  | 44.3  | 390.4 | 125.8 | 80.7  |
| Stop Delay (hr)    | 16.6  | 44.1  | 11.1  | 1.1   | 14.0  | 2.3   | 38.5  | 8.1   | 1.7   | 24.4  | 10.8  | 4.5   |
| Stop Del/Veh (s)   | 302.6 | 303.9 | 209.7 | 57.5  | 103.0 | 97.8  | 642.5 | 38.5  | 36.5  | 384.6 | 108.7 | 67.6  |

17: El Dorado Hills Blvd #2 & Saratoga Way/Park Drive Performance by movement

| Movement           | All    |
|--------------------|--------|
| Denied Delay (hr)  | 1268.8 |
| Denied Del/Veh (s) | 797.0  |
| Total Delay (hr)   | 190.8  |
| Total Del/Veh (s)  | 194.7  |
| Stop Delay (hr)    | 177.3  |
| Stop Del/Veh (s)   | 181.0  |

18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way Performance by movement

| Movement           | EBL   | EBT  | EBR  | WBL   | WBT   | WBR    | NBL  | NBT  | NBR  | SBL  | SBT  | SBR  |
|--------------------|-------|------|------|-------|-------|--------|------|------|------|------|------|------|
| Denied Delay (hr)  | 1.5   | 0.6  | 1.3  | 13.6  | 7.3   | 7.7    | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.1  |
| Denied Del/Veh (s) | 37.4  | 35.0 | 35.2 | 333.9 | 376.4 | 328.8  | 0.0  | 0.0  | 0.0  | 1.0  | 0.1  | 1.2  |
| Total Delay (hr)   | 14.9  | 1.5  | 1.2  | 1.8   | 1.1   | 17.0   | 10.8 | 18.5 | 1.0  | 0.6  | 7.7  | 1.1  |
| Total Del/Veh (s)  | 397.1 | 88.3 | 36.2 | 69.2  | 96.0  | 1111.6 | 46.6 | 52.4 | 17.1 | 83.8 | 40.2 | 23.4 |
| Stop Delay (hr)    | 14.7  | 1.4  | 1.1  | 1.7   | 1.1   | 16.9   | 8.4  | 16.0 | 0.5  | 0.6  | 6.5  | 0.9  |
| Stop Del/Veh (s)   | 392.6 | 82.6 | 32.7 | 65.0  | 90.5  | 1108.3 | 36.3 | 45.1 | 9.6  | 79.6 | 33.7 | 20.0 |

18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way Performance by movement

| Movement           | All  |
|--------------------|------|
| Denied Delay (hr)  | 32.0 |
| Denied Del/Veh (s) | 30.5 |
| Total Delay (hr)   | 77.3 |
| Total Del/Veh (s)  | 75.1 |
| Stop Delay (hr)    | 69.8 |
| Stop Del/Veh (s)   | 67.9 |



19: Latrobe Road #2/EI Dorado Hills Blvd #2 & US 50 EB Ramps Performance by movement

| Movement           | EBR | WBR | NBT  | NBR  | SBL  | SBT  | All  |
|--------------------|-----|-----|------|------|------|------|------|
| Denied Delay (hr)  | 0.1 | 0.0 | 8.4  | 1.9  | 0.0  | 0.0  | 10.5 |
| Denied Del/Veh (s) | 0.6 | 0.4 | 15.7 | 16.2 | 0.0  | 0.0  | 8.4  |
| Total Delay (hr)   | 2.1 | 0.2 | 5.9  | 0.7  | 2.3  | 2.7  | 14.0 |
| Total Del/Veh (s)  | 9.9 | 1.9 | 11.4 | 6.4  | 57.9 | 12.7 | 11.4 |
| Stop Delay (hr)    | 1.1 | 0.1 | 3.5  | 0.4  | 2.1  | 1.2  | 8.4  |
| Stop Del/Veh (s)   | 5.3 | 0.7 | 6.8  | 3.1  | 52.0 | 5.7  | 6.8  |

Total Zone Performance

|                    |        |
|--------------------|--------|
| Denied Delay (hr)  | 1311.9 |
| Denied Del/Veh (s) | 476.7  |
| Total Delay (hr)   | 285.7  |
| Total Del/Veh (s)  | 1382.4 |
| Stop Delay (hr)    | 257.0  |
| Stop Del/Veh (s)   | 1243.3 |

Intersection: 13: Francisco Dr & El Dorado Hills Blvd

| Movement              | EB  | WB  | NB  | NB  | SB  | SB  |
|-----------------------|-----|-----|-----|-----|-----|-----|
| Directions Served     | LT  | LTR | L   | TR  | L   | TR  |
| Maximum Queue (ft)    | 55  | 54  | 196 | 122 | 31  | 95  |
| Average Queue (ft)    | 23  | 25  | 89  | 55  | 5   | 49  |
| 95th Queue (ft)       | 49  | 50  | 156 | 95  | 23  | 79  |
| Link Distance (ft)    | 577 | 573 |     | 275 |     | 734 |
| Upstream Blk Time (%) |     |     | 0   | 0   |     |     |
| Queuing Penalty (veh) |     |     | 0   | 0   |     |     |
| Storage Bay Dist (ft) |     |     | 500 |     | 200 |     |
| Storage Blk Time (%)  |     |     | 0   | 0   |     |     |
| Queuing Penalty (veh) |     |     | 0   | 0   |     |     |

Intersection: 17: El Dorado Hills Blvd #2 & Saratoga Way/Park Drive

| Movement              | EB  | EB  | EB  | EB  | WB  | WB  | NB  | NB   | NB  | NB  | SB  | SB  |
|-----------------------|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|
| Directions Served     | L   | LT  | T   | R   | L   | TR  | L   | T    | T   | TR  | L   | T   |
| Maximum Queue (ft)    | 175 | 979 | 983 | 265 | 515 | 534 | 275 | 951  | 929 | 380 | 125 | 733 |
| Average Queue (ft)    | 149 | 949 | 949 | 237 | 417 | 507 | 274 | 900  | 242 | 185 | 124 | 705 |
| 95th Queue (ft)       | 220 | 964 | 965 | 347 | 704 | 521 | 278 | 1083 | 650 | 313 | 127 | 721 |
| Link Distance (ft)    |     | 930 | 930 |     | 489 | 489 |     | 935  | 935 | 935 |     | 686 |
| Upstream Blk Time (%) |     | 76  | 82  |     | 30  | 84  |     | 59   | 0   | 0   |     | 89  |
| Queuing Penalty (veh) |     | 0   | 0   |     | 0   | 0   |     | 253  | 0   | 0   |     | 0   |
| Storage Bay Dist (ft) | 150 |     |     | 240 |     |     | 250 |      |     |     |     | 100 |
| Storage Blk Time (%)  | 9   | 81  | 78  | 0   |     |     | 96  | 2    |     |     |     | 85  |
| Queuing Penalty (veh) | 61  | 142 | 274 | 2   |     |     | 304 | 5    |     |     |     | 286 |

Intersection: 17: El Dorado Hills Blvd #2 & Saratoga Way/Park Drive

| Movement              | SB  |
|-----------------------|-----|
| Directions Served     | TR  |
| Maximum Queue (ft)    | 723 |
| Average Queue (ft)    | 674 |
| 95th Queue (ft)       | 809 |
| Link Distance (ft)    | 686 |
| Upstream Blk Time (%) | 20  |
| Queuing Penalty (veh) | 0   |
| Storage Bay Dist (ft) |     |
| Storage Blk Time (%)  |     |
| Queuing Penalty (veh) |     |

Intersection: 18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way

| Movement              | EB   | EB   | EB  | WB  | WB  | WB  | NB  | NB  | NB  | NB  | NB  | SB  |
|-----------------------|------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Directions Served     | L    | LT   | R   | L   | LT  | TR  | L   | L   | T   | T   | TR  | L   |
| Maximum Queue (ft)    | 568  | 466  | 32  | 170 | 468 | 628 | 696 | 721 | 720 | 657 | 698 | 103 |
| Average Queue (ft)    | 289  | 192  | 1   | 42  | 193 | 401 | 360 | 398 | 359 | 289 | 257 | 27  |
| 95th Queue (ft)       | 621  | 597  | 33  | 117 | 560 | 779 | 652 | 719 | 770 | 692 | 622 | 70  |
| Link Distance (ft)    | 1059 | 1059 |     |     | 621 | 621 | 714 | 714 | 714 | 714 | 714 |     |
| Upstream Blk Time (%) |      | 6    |     |     | 14  | 34  | 1   | 8   | 10  | 2   | 2   |     |
| Queuing Penalty (veh) |      | 0    |     |     | 0   | 0   | 6   | 40  | 46  | 12  | 9   |     |
| Storage Bay Dist (ft) |      |      | 300 | 150 |     |     |     |     |     |     |     | 200 |
| Storage Blk Time (%)  |      | 0    |     | 0   | 2   |     |     |     |     |     |     | 0   |
| Queuing Penalty (veh) |      | 0    |     | 0   | 2   |     |     |     |     |     |     | 0   |

Intersection: 18: El Dorado Hills Blvd #2 & US-50 WB Ramps/Saratoga Way

| Movement              | SB  | SB  | SB  | SB  |
|-----------------------|-----|-----|-----|-----|
| Directions Served     | T   | T   | T   | R   |
| Maximum Queue (ft)    | 237 | 218 | 189 | 174 |
| Average Queue (ft)    | 141 | 125 | 105 | 78  |
| 95th Queue (ft)       | 208 | 192 | 165 | 149 |
| Link Distance (ft)    | 935 | 935 | 935 |     |
| Upstream Blk Time (%) |     |     |     |     |
| Queuing Penalty (veh) |     |     |     |     |
| Storage Bay Dist (ft) |     |     |     | 200 |
| Storage Blk Time (%)  | 1   |     | 0   | 0   |
| Queuing Penalty (veh) | 1   |     | 1   | 1   |

Intersection: 19: Latrobe Road #2/El Dorado Hills Blvd #2 & US 50 EB Ramps

| Movement              | EB   | EB  | WB  | NB  | NB  | NB  | NB  | SB  | SB  | SB  | SB  | SB  |
|-----------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Directions Served     | R    | R   | R   | T   | T   | T   | R   | L   | T   | T   | T   | T   |
| Maximum Queue (ft)    | 111  | 114 | 141 | 297 | 356 | 389 | 279 | 196 | 106 | 121 | 135 | 155 |
| Average Queue (ft)    | 57   | 59  | 11  | 97  | 123 | 165 | 95  | 100 | 33  | 55  | 67  | 66  |
| 95th Queue (ft)       | 90   | 94  | 106 | 236 | 304 | 349 | 251 | 184 | 85  | 112 | 130 | 135 |
| Link Distance (ft)    | 1212 |     | 968 | 718 | 718 | 718 |     |     | 714 | 714 | 714 | 714 |
| Upstream Blk Time (%) |      |     |     |     |     |     |     |     |     |     |     |     |
| Queuing Penalty (veh) |      |     |     |     |     |     |     |     |     |     |     |     |
| Storage Bay Dist (ft) |      | 450 |     |     |     |     | 275 | 575 |     |     |     |     |
| Storage Blk Time (%)  |      |     |     |     |     | 9   | 0   |     |     |     |     |     |
| Queuing Penalty (veh) |      |     |     |     |     | 39  | 1   |     |     |     |     |     |

Zone Summary

Zone wide Queuing Penalty: 1514

# HCS7 Two-Lane Highway Report

## Project Information

|                     |   |                      |                         |
|---------------------|---|----------------------|-------------------------|
| Analyst             | Kimley-Horn   | Date                 | 11/29/2021              |
| Agency              |   | Analysis Year        | 2041 plus Project       |
| Jurisdiction        | El Dorado County  | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Francisco Dr to El Dorado Hills Blvd EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2059 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 1.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 685  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.80 | Total Trucks, %                  | 1.70 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.40 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 56.7    |
| Speed Slope Coefficient           | 3.59431  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.38808 | PF Power Coefficient             | 0.73983 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 8.3     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2059       | -          | -                 | 53.8                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 53.8 | Percent Followers, %               | 65.0 |
| Segment Travel Time, minutes | 0.43 | Followers Density, followers/mi/ln | 8.3  |
| Vehicle LOS                  | C    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |   |                      |                         |
|---------------------|---|----------------------|-------------------------|
| Analyst             | Kimley-Horn   | Date                 | 11/29/2021              |
| Agency              |   | Analysis Year        | 2041 plus Project       |
| Jurisdiction        | El Dorado County  | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Francisco Dr to El Dorado Hills Blvd EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2059 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 1.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 1105 | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.97 | Total Trucks, %                  | 1.70 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.65 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 56.7    |
| Speed Slope Coefficient           | 3.59431  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.38808 | PF Power Coefficient             | 0.73983 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 16.1    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2059       | -          | -                 | 53.1                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 53.1 | Percent Followers, %               | 77.6 |
| Segment Travel Time, minutes | 0.44 | Followers Density, followers/mi/ln | 16.1 |
| Vehicle LOS                  | E    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |   |                      |                         |
|---------------------|---|----------------------|-------------------------|
| Analyst             | Kimley-Horn   | Date                 | 11/29/2021              |
| Agency              |   | Analysis Year        | 2041 plus Project       |
| Jurisdiction        | El Dorado County  | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Francisco Dr to El Dorado Hills Blvd WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2059 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 1.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 1084 | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.88 | Total Trucks, %                  | 0.70 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.64 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 56.7    |
| Speed Slope Coefficient           | 3.59612  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.38793 | PF Power Coefficient             | 0.73977 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 15.7    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2059       | -          | -                 | 53.2                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 53.2 | Percent Followers, %               | 77.1 |
| Segment Travel Time, minutes | 0.44 | Followers Density, followers/mi/ln | 15.7 |
| Vehicle LOS                  | E    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |   |                      |                         |
|---------------------|---|----------------------|-------------------------|
| Analyst             | Kimley-Horn   | Date                 | 11/29/2021              |
| Agency              |   | Analysis Year        | 2041 plus Project       |
| Jurisdiction        | El Dorado County  | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Francisco Dr to El Dorado Hills Blvd WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2059 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 1.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 878  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.94 | Total Trucks, %                  | 0.70 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.52 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 56.7    |
| Speed Slope Coefficient           | 3.59612  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.38793 | PF Power Coefficient             | 0.73977 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 11.8    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2059       | -          | -                 | 53.5                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 53.5 | Percent Followers, %               | 71.7 |
| Segment Travel Time, minutes | 0.44 | Followers Density, followers/mi/ln | 11.8 |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2041 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - El Dorado Hills Blvd to Silva Valley Pkwy EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 1900 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 0.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 755  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.83 | Total Trucks, %                  | 0.90 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.44 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 57.0    |
| Speed Slope Coefficient           | 3.60677  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.39272 | PF Power Coefficient             | 0.73846 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 9.5     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 1900       | -          | -                 | 53.9                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 53.9 | Percent Followers, %               | 67.8 |
| Segment Travel Time, minutes | 0.40 | Followers Density, followers/mi/ln | 9.5  |
| Vehicle LOS                  | C    |                                    |      |



# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2041 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - El Dorado Hills Blvd to Silva Valley Pkwy EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 1900 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 0.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 1216 | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.93 | Total Trucks, %                  | 0.90 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.72 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 57.0    |
| Speed Slope Coefficient           | 3.60677  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.39272 | PF Power Coefficient             | 0.73846 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 18.3    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 1900       | -          | -                 | 53.2                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 53.2 | Percent Followers, %               | 80.0 |
| Segment Travel Time, minutes | 0.41 | Followers Density, followers/mi/ln | 18.3 |
| Vehicle LOS                  | E    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2041 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - El Dorado Hills Blvd to Silva Valley Pkwy WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 1900 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 0.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 1053 | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.92 | Total Trucks, %                  | 0.90 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.62 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 57.0    |
| Speed Slope Coefficient           | 3.60677  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.39272 | PF Power Coefficient             | 0.73846 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 15.1    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 1900       | -          | -                 | 53.4                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 53.4 | Percent Followers, %               | 76.5 |
| Segment Travel Time, minutes | 0.40 | Followers Density, followers/mi/ln | 15.1 |
| Vehicle LOS                  | E    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2041 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - El Dorado Hills Blvd to Silva Valley Pkwy WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 1900 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 50                  | Access Point Density, pts/mi | 0.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 890  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.92 | Total Trucks, %                  | 0.90 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.52 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 57.0    |
| Speed Slope Coefficient           | 3.60677  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.39272 | PF Power Coefficient             | 0.73846 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 11.9    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 1900       | -          | -                 | 53.7                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 53.7 | Percent Followers, %               | 72.1 |
| Segment Travel Time, minutes | 0.40 | Followers Density, followers/mi/ln | 11.9 |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2041 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Silva Valley Pkwy to Malcolm Dixon Rd EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 8765 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 538  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.82 | Total Trucks, %                  | 1.00 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.32 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.95929  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.27608 | PF Power Coefficient             | 0.75149 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 5.0     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 8765       | -          | -                 | 59.4                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.4 | Percent Followers, %               | 55.1 |
| Segment Travel Time, minutes | 1.68 | Followers Density, followers/mi/ln | 5.0  |
| Vehicle LOS                  | C    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2041 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Silva Valley Pkwy to Malcolm Dixon Rd EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 8765 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 869  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.92 | Total Trucks, %                  | 1.00 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.51 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.95929  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.27608 | PF Power Coefficient             | 0.75149 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 10.1    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 8765       | -          | -                 | 58.6                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 58.6 | Percent Followers, %               | 68.3 |
| Segment Travel Time, minutes | 1.70 | Followers Density, followers/mi/ln | 10.1 |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2041 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Silva Valley Pkwy to Malcolm Dixon Rd WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 8765 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 911  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.83 | Total Trucks, %                  | 1.20 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.54 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.95892  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.27611 | PF Power Coefficient             | 0.75150 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 10.8    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 8765       | -          | -                 | 58.5                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 58.5 | Percent Followers, %               | 69.6 |
| Segment Travel Time, minutes | 1.70 | Followers Density, followers/mi/ln | 10.8 |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2041 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Silva Valley Pkwy to Malcolm Dixon Rd WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 8765 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 615  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.90 | Total Trucks, %                  | 1.20 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.36 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.95892  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.27611 | PF Power Coefficient             | 0.75150 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 6.1     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 8765       | -          | -                 | 59.2                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.2 | Percent Followers, %               | 58.8 |
| Segment Travel Time, minutes | 1.68 | Followers Density, followers/mi/ln | 6.1  |
| Vehicle LOS                  | C    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2041 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Malcolm Dixon Rd to Project EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2304 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 468  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.90 | Total Trucks, %                  | 0.30 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.28 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.89594  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.33086 | PF Power Coefficient             | 0.75550 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 4.1     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2304       | -          | -                 | 59.6                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.6 | Percent Followers, %               | 52.7 |
| Segment Travel Time, minutes | 0.44 | Followers Density, followers/mi/ln | 4.1  |
| Vehicle LOS                  | C    |                                    |      |



# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2041 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Malcolm Dixon Rd to Project EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2304 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 931  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.93 | Total Trucks, %                  | 0.30 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.55 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.89594  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.33086 | PF Power Coefficient             | 0.75550 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 11.4    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2304       | -          | -                 | 58.6                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 58.6 | Percent Followers, %               | 71.7 |
| Segment Travel Time, minutes | 0.45 | Followers Density, followers/mi/ln | 11.4 |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2041 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Malcolm Dixon Rd to Project WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2304 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 805  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.94 | Total Trucks, %                  | 0.00 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.47 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.89648  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.33081 | PF Power Coefficient             | 0.75548 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 9.3     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2304       | -          | -                 | 58.8                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 58.8 | Percent Followers, %               | 67.7 |
| Segment Travel Time, minutes | 0.45 | Followers Density, followers/mi/ln | 9.3  |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2041 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Malcolm Dixon Rd to Project WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 2304 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 650  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.86 | Total Trucks, %                  | 0.00 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.38 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.89648  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.33081 | PF Power Coefficient             | 0.75548 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 6.8     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 2304       | -          | -                 | 59.2                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.2 | Percent Followers, %               | 61.8 |
| Segment Travel Time, minutes | 0.44 | Followers Density, followers/mi/ln | 6.8  |
| Vehicle LOS                  | C    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2041 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Project to Deer Valley Rd EB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 3152 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 465  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.90 | Total Trucks, %                  | 0.30 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.27 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.90747  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.30740 | PF Power Coefficient             | 0.76221 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 4.0     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 3152       | -          | -                 | 59.6                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.6 | Percent Followers, %               | 51.8 |
| Segment Travel Time, minutes | 0.60 | Followers Density, followers/mi/ln | 4.0  |
| Vehicle LOS                  | C    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2041 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Project to Deer Valley Rd EB | Unit                 | United States Customary |

## Segment 1

## Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 3152 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

## Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 926  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.84 | Total Trucks, %                  | 0.30 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.54 |

## Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.90747  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.30740 | PF Power Coefficient             | 0.76221 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 11.2    |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

## Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 3152       | -          | -                 | 58.6                |

## Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 58.6 | Percent Followers, %               | 70.9 |
| Segment Travel Time, minutes | 0.61 | Followers Density, followers/mi/ln | 11.2 |
| Vehicle LOS                  | D    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2041 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | AM Peak-Hour            |
| Project Description | Generations at Green Valley - Project to Deer Valley Rd WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 3152 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 701  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.95 | Total Trucks, %                  | 0.00 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.41 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.90802  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.30735 | PF Power Coefficient             | 0.76219 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 7.5     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 3152       | -          | -                 | 59.0                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.0 | Percent Followers, %               | 63.1 |
| Segment Travel Time, minutes | 0.61 | Followers Density, followers/mi/ln | 7.5  |
| Vehicle LOS                  | C    |                                    |      |

# HCS7 Two-Lane Highway Report

## Project Information

|                     |  |                      |                         |
|---------------------|--|----------------------|-------------------------|
| Analyst             | Kimley-Horn  | Date                 | 11/29/2021              |
| Agency              |  | Analysis Year        | 2041 plus Project       |
| Jurisdiction        | El Dorado County   | Time Period Analyzed | PM Peak-Hour            |
| Project Description | Generations at Green Valley - Project to Deer Valley Rd WB | Unit                 | United States Customary |

## Segment 1

### Vehicle Inputs

|                   |                     |                              |      |
|-------------------|---------------------|------------------------------|------|
| Segment Type      | Passing Constrained | Length, ft                   | 3152 |
| Lane Width, ft    | 12                  | Shoulder Width, ft           | 6    |
| Speed Limit, mi/h | 55                  | Access Point Density, pts/mi | 2.0  |

### Demand and Capacity

|                                     |      |                                  |      |
|-------------------------------------|------|----------------------------------|------|
| Directional Demand Flow Rate, veh/h | 578  | Opposing Demand Flow Rate, veh/h | -    |
| Peak Hour Factor                    | 0.88 | Total Trucks, %                  | 0.00 |
| Segment Capacity, veh/h             | 1700 | Demand/Capacity (D/C)            | 0.34 |

### Intermediate Results

|                                   |          |                                  |         |
|-----------------------------------|----------|----------------------------------|---------|
| Segment Vertical Class            | 1        | Free-Flow Speed, mi/h            | 62.2    |
| Speed Slope Coefficient           | 3.90802  | Speed Power Coefficient          | 0.41674 |
| PF Slope Coefficient              | -1.30735 | PF Power Coefficient             | 0.76219 |
| In Passing Lane Effective Length? | No       | Total Segment Density, veh/mi/ln | 5.6     |
| %Improved % Followers             | 0.0      | % Improved Avg Speed             | 0.0     |

### Subsegment Data

| # | Segment Type | Length, ft | Radius, ft | Superelevation, % | Average Speed, mi/h |
|---|--------------|------------|------------|-------------------|---------------------|
| 1 | Tangent      | 3152       | -          | -                 | 59.3                |

### Vehicle Results

|                              |      |                                    |      |
|------------------------------|------|------------------------------------|------|
| Average Speed, mi/h          | 59.3 | Percent Followers, %               | 57.7 |
| Segment Travel Time, minutes | 0.60 | Followers Density, followers/mi/ln | 5.6  |
| Vehicle LOS                  | C    |                                    |      |

| Segment Inputs             |   |                        |                               | Near Term (2041) PP Conditions |                    |                             |               |             |                 |         |                             |               |             |                 |     |         |         |   |
|----------------------------|---|------------------------|-------------------------------|--------------------------------|--------------------|-----------------------------|---------------|-------------|-----------------|---------|-----------------------------|---------------|-------------|-----------------|-----|---------|---------|---|
|                            |   |                        |                               | Flow Inputs                    |                    | AM LOS Performance Measures |               |             |                 |         | PM LOS Performance Measures |               |             |                 |     |         |         |   |
|                            | Length<br>(ft)  | Number of Lanes<br>(N) | Interchange Density<br>(I/mi) | PM                             |                    | V <sub>p</sub><br>(pc/h/ln) | FFS<br>(mi/h) | S<br>(mi/h) | D<br>(pc/mi/ln) | LOS     | V <sub>p</sub><br>(pc/h/ln) | FFS<br>(mi/h) | S<br>(mi/h) | D<br>(pc/mi/ln) | LOS |         |         |   |
|                            |   |                        |                               | AM Peak<br>(veh/h)             | PM Peak<br>(veh/h) |                             |               |             |                 |         |                             |               |             |                 |     |         |         |   |
| EB                         | West of Latrobe Rd SB Off Ramp                                      | 6690                   | 3                             | 0.33                           | 4,744              | 4,637                       | 1735.93       | 74.12       | 75              | 69.0046 | 25.1567                     | C             | 1696.86     | 74.12           | 75  | 69.6243 | 24.4    | C |
|                            | Latrobe Rd NB Off Ramp to Latrobe Rd On Ramp                        | 1990                   | 3                             | 0.50                           | 3,540              | 3,426                       | 1295.33       | 73.6        | 75              | 74.0345 | 17.4964                     | B             | 1253.704    | 73.6            | 75  | 74.2875 | 16.8764 | B |
|                            | Silva Valley Pkwy SB/NB Off Ramp to Silva Valley Pkwy NB/SB On Ramp | 2375                   | 3                             | 0.50                           | 3,408              | 3,673                       | 1247.03       | 73.6        | 75              | 74.3245 | 16.7782                     | B             | 1344.092    | 73.6            | 75  | 73.6893 | 18.24   | C |
|                            | East of El Dorado Hills Blvd/Latrobe Rd                             | 2000                   | 3                             | 0.50                           | 3,971              | 4,084                       | 1453.16       | 73.6        | 75              | 72.7268 | 19.981                      | C             | 1494.507    | 73.6            | 75  | 72.293  | 20.6729 | C |
|                            | East of Silva Valley Pkwy NB/SB On Ramp                             | 3400                   | 3                             | 0.50                           | 4,181              | 4,798                       | 1529.9        | 73.6        | 75              | 71.8916 | 21.2807                     | C             | 1755.777    | 73.6            | 75  | 68.6768 | 25.5658 | C |
| WB                         | Silva Valley Pkwy NB/SB Off Ramp to Silva Valley Pkwy SB/NB On Ramp | 2350                   | 3                             | 0.50                           | 2,442              | 2,610                       | 893.725       | 73.6        | 75              | 74.875  | 11.9362                     | B             | 955.2696    | 73.6            | 75  | 74.9779 | 12.7    | B |
|                            | El Dorado Hills Blvd Off Ramp to El Dorado Hills Blvd On Ramp       | 3565                   | 3                             | 0.50                           | 2,384              | 2,599                       | 872.501       | 73.6        | 75              | 74.82   | 11.6613                     | B             | 951.2442    | 73.6            | 75  | 74.9737 | 12.6877 | B |
|                            | West of El Dorado Hills Blvd On Ramp                                | 5890                   | 2                             | 0.33                           | 3,348              | 3,786                       | 1837.9        | 74.12       | 75              | 67.228  | 27.3384                     | D             | 2078.426    | 74.12           | 75  | 62.1256 | 33.4553 | D |
|                            | East of El Dorado Hills Blvd/Latrobe Road                           | 2000                   | 2                             | 0.50                           | 3,012              | 2,935                       | 1653.47       | 74.13       | 75              | 70.2729 | 23.5293                     | C             | 1611.301    | 74.13           | 75  | 70.8633 | 22.7382 | C |
|                            | East of Silva Valley Pkwy NB/SB On Ramp                             | 5500                   | 2                             | 0.50                           | 3,192              | 3,296                       | 1752.13       | 73.6        | 75              | 68.7377 | 25.4901                     | C             | 1809.217    | 73.6            | 75  | 67.751  | 26.7039 | D |
| Universal Inputs:          |   |                        |                               |                                |                    |                             |               |             |                 |         |                             |               |             |                 |     |         |         |   |
| PHF 0.92                   |   |                        |                               |                                |                    |                             |               |             |                 |         |                             |               |             |                 |     |         |         |   |
| (P <sub>r</sub> ) 2%       |   |                        |                               |                                |                    |                             |               |             |                 |         |                             |               |             |                 |     |         |         |   |
| f <sub>HV</sub> 0.99009901 |   |                        |                               |                                |                    |                             |               |             |                 |         |                             |               |             |                 |     |         |         |   |



| Segment Inputs                                |                 |                      | Near Term (2041) PP Conditions |                     |                 |                             |                |                |                   |          |                |                |        |        |        |                       |                     |                 |                             |                |                |                   |          |                |                |         |        |        |        |        |        |      |        |        |   |
|---|-----------------|----------------------|--------------------------------|---------------------|-----------------|-----------------------------|----------------|----------------|-------------------|----------|----------------|----------------|--------|--------|--------|-----------------------|---------------------|-----------------|-----------------------------|----------------|----------------|-------------------|----------|----------------|----------------|---------|--------|--------|--------|--------|--------|------|--------|--------|---|
|   |                 |                      | AM Flow Inputs                 |                     |                 | AM LOS Performance Measures |                |                |                   |          |                |                |        |        |        | PM Flow Inputs        |                     |                 | PM LOS Performance Measures |                |                |                   |          |                |                |         |        |        |        |        |        |      |        |        |   |
| Length of Acceleration Lane (L <sub>a</sub> ) | Number of Lanes | Number of Ramp Lanes | Downstream Volume (D)          | Upstream Volume (F) | Ramp Volume (R) | v <sub>0</sub>              | v <sub>1</sub> | v <sub>2</sub> | w/S <sub>FR</sub> | Capacity | v <sub>1</sub> | v <sub>2</sub> | v/c    | D      | LOS    | Downstream Volume (D) | Upstream Volume (F) | Ramp Volume (R) | v <sub>0</sub>              | v <sub>1</sub> | v <sub>2</sub> | w/S <sub>FR</sub> | Capacity | v <sub>1</sub> | v <sub>2</sub> | v/c     | D      | LOS    |        |        |        |      |        |        |   |
|   |                 |                      | (ft)                           | (ft)                | (ft)            | (veh/h)                     | (veh/h)        | (veh/h)        | (pc/h)            | (pc/h)   | (pc/h)         | (veh/h)        | (pc/h) | (pc/h) | (pc/h) | (pc/h)                | (pc/h)              | (veh/h)         | (veh/h)                     | (veh/h)        | (pc/h)         | (pc/h)            | (pc/h)   | (pc/h)         | (pc/h)         | (veh/h) | (pc/h) | (pc/h) | (pc/h) | (pc/h) | (pc/h) |      |        |        |   |
|   | 3               | 1                    | 110                            | 3970.723048         | 3539.72305      | 431                         | 4359           | 3886           | 473               | 111      | 0.5806         | 2256.1         | 7200   | 815    | 1692   | 2256                  | 0.6054              | 25.856          | C                           | 4083.964182    | 3425.964182    | 658               | 4483     | 3761           | 722            | 107     | 0.5806 | 2183.6 | 7200   | 789    | 1638   | 2184 | 0.6227 | 27.12  | C |
|   | 3               | 1                    | 110                            | 3600.723048         | 3407.72305      | 193                         | 3953           | 3741           | 212               | 107      | 0.5806         | 2172           | 7200   | 785    | 1629   | 2172                  | 0.549               | 23.282          | C                           | 3801.964182    | 3672.964182    | 129               | 4174     | 4032           | 142            | 115     | 0.5806 | 2341.1 | 7200   | 846    | 1756   | 2341 | 0.5797 | 24.085 | C |
|   | 3               | 1                    | 550                            | 4180.723048         | 3600.72305      | 580                         | 4590           | 3953           | 637               | 113      | 0.5929         | 2343.7         | 7200   | 805    | 1758   | 2344                  | 0.6375              | 24.981          | C                           | 4797.964182    | 3802           | 996               | 5267     | 4174           | 1093           | 119     | 0.5929 | 2474.7 | 7200   | 850    | 1856   | 2475 | 0.7316 | 29.355 | D |
|   | 3               | 1                    | 795                            | 3348.259463         | 2384            | 964                         | 3676           | 2618           | 1058              | 75       | 0.5998         | 1569.9         | 7200   | 524    | 1177   | 1570                  | 0.5105              | 20.503          | C                           | 3786.439708    | 2599           | 1187              | 4157     | 2854           | 1303           | 82      | 0.5998 | 1711.6 | 7200   | 571    | 1284   | 1712 | 0.5773 | 23.405 | C |
|   | 3               | 1                    | 800                            | 3012.259463         | 2586.25946      | 426                         | 3307           | 2839           | 468               | 81       | 0.5999         | 1703.3         | 7200   | 568    | 1277   | 1703                  | 0.4593              | 17.177          | B                           | 2935.439708    | 2683           | 252               | 3223     | 2946           | 277            | 84      | 0.5999 | 1767.3 | 7200   | 589    | 1325   | 1767 | 0.4476 | 16.274 | B |
|   | 3               | 1                    | 110                            | 2586.259463         | 2442.25946      | 144                         | 2839           | 2681           | 158               | 77       | 0.5806         | 1556.6         | 7200   | 562    | 1167   | 1557                  | 0.3943              | 18.087          | B                           | 2683.439708    | 2610.439708    | 73                | 2946     | 2866           | 80             | 82      | 0.5806 | 1663.8 | 7200   | 601    | 1248   | 1664 | 0.4092 | 18.351 | B |

length 1500 (ft)  
 S<sub>u</sub> 70 (mi/h)  
 S<sub>f</sub> 35 (mi/h)  
 PPF 0.62  
 PFD 2%  
 I<sub>0</sub> 0.99099991

| Near Term (2041) PP Conditions |                 |                      |   |      |                   |                 |             |                             |                |                |          |                |                  |      |      |      |                       |                     |                 |                |                             |                |          |                |                  |        |        |      |         |         |         |         |         |         |
|--------------------------------|-----------------|----------------------|---|------|-------------------|-----------------|-------------|-----------------------------|----------------|----------------|----------|----------------|------------------|------|------|------|-----------------------|---------------------|-----------------|----------------|-----------------------------|----------------|----------|----------------|------------------|--------|--------|------|---------|---------|---------|---------|---------|---------|
| Segment Inputs                 |                 |                      |   |      | AM Flow Inputs    |                 |             | AM LOS Performance Measures |                |                |          |                |                  |      |      |      |                       | PM Flow Inputs      |                 |                | PM LOS Performance Measures |                |          |                |                  |        |        |      |         |         |         |         |         |         |
|                                | Number of Lanes | Number of Ramp Lanes | Length of Deceleration Lane (L <sub>d</sub> ) |      | Downstream Volume | Upstream Volume | Ramp Volume | V <sub>0</sub>              | V <sub>1</sub> | V <sub>2</sub> | Capacity | V <sub>3</sub> | V <sub>12a</sub> | v/c  | D    | LOS  | Downstream Volume (D) | Upstream Volume (F) | Ramp Volume (R) | V <sub>0</sub> | V <sub>1</sub>              | V <sub>2</sub> | Capacity | V <sub>3</sub> | V <sub>12a</sub> | v/c    | D      | LOS  |         |         |         |         |         |         |
|                                |                 |                      | (ft)  | (ft) |                   |                 |             |                             |                |                |          |                |                  |      |      |      |                       |                     |                 |                |                             |                |          |                |                  |        |        |      | (veh/h) | (veh/h) | (veh/h) | (veh/h) | (veh/h) | (veh/h) |
| AM                             | 3               | 1                    | 674   | 140  | 3944.723048       | 4744            | 799         | 444.62                      | 5208           | 877.2          | 0.436    | 2765.3         | 7200             | 1221 | 2074 | 2765 | 0.7233                | 26.774              | C               | 3876           | 4637                        | 759            | 496.217  | 5091           | 833.3            | 0.436  | 2689.4 | 7200 | 1201    | 2017    | 2689    | 0.707   | 26.121  | C       |
|                                | 3               | 1                    | -   | 140  | 3539.723048       | 3945            | 405         | -                           | 4331           | 444.6          | 0.6313   | 2897.8         | 7200             | 1433 | 2173 | 2898 | 0.6015                | 27.913              | C               | 3426           | 3878                        | 452            | -        | 4257           | 496.2            | 0.6307 | 2868.5 | 7200 | 1389    | 2151    | 2869    | 0.5913  | 27.661  | C       |
|                                | 3               | 1                    | -   | 150  | 3407.723048       | 3971            | 563         | -                           | 4359           | 618.1          | 0.6226   | 2947.2         | 7200             | 706  | 2210 | 2947 | 0.6054                | 28.248              | D               | 3673           | 4084                        | 411            | -        | 4483           | 451.2            | 0.6272 | 2980.1 | 7200 | 1503    | 2235    | 2980    | 0.6227  | 28.531  | D       |
| PM                             | 3               | 1                    | -   | 190  | 2384.259463       | 3012            | 628         | -                           | 3307           | 689.4          | 0.6456   | 2379.3         | 7200             | 928  | 1784 | 2379 | 0.4593                | 23.004              | C               | 2599           | 2935                        | 336            | -        | 3223           | 368.9            | 0.6625 | 2259.4 | 7200 | 963     | 1695    | 2259    | 0.4476  | 21.973  | C       |
|                                | 3               | 1                    | -   | 150  | 2442.259463       | 3192            | 750         | -                           | 3505           | 823.4          | 0.6345   | 2524.6         | 7200             | 980  | 1893 | 2525 | 0.4867                | 24.614              | C               | 2610           | 3296                        | 686            | -        | 3619           | 753.1            | 0.6349 | 2572.6 | 7200 | 1046    | 1929    | 2573    | 0.5026  | 25.026  | C       |

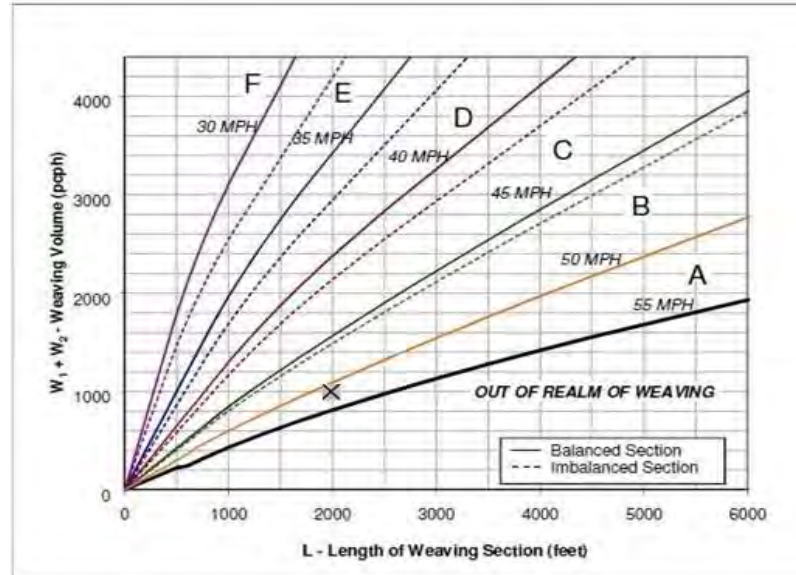
General inputs:  
 Leng 1500 (ft)  
 S<sub>0</sub> 70 (mi/h)  
 S<sub>1a</sub> 35 (mi/h)  
 PHF 0.92  
 P<sub>1</sub> 2%  
 P<sub>2</sub> 0.8000990

### EB US-50, East of Latrobe Rd On Ramp, Cumulative (2041) plus Project Conditons (AM)

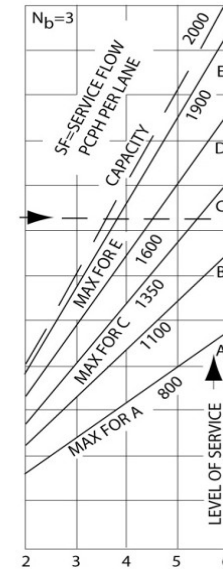
|                                    |    |      |
|------------------------------------|----|------|
| Number of Entering Mainline Lanes  | Nb | 3    |
| Number of Lanes in Weaving Section | N  | 4    |
| Length of Weaving Section (feet)   | L  | 2000 |

| Total Weaving Section (V) |       | On ramp to Mainline (W1) |     | Mainline to Off ramp (W2) |     |
|---------------------------|-------|--------------------------|-----|---------------------------|-----|
| Volume (vph)              | 3,971 | Volume (vph)             | 431 | Volume (vph)              | 563 |
| Truck Percentage          | 4%    | Truck Percentage         | 2%  | Truck Percentage          | 2%  |
| PCE for Trucks            | 1.5   | PCE for Trucks           | 1.5 | PCE for Trucks            | 1.5 |
| Volume (pcph)             | 4,050 | Volume (pcph)            | 435 | Volume (pcph)             | 569 |

|   |       |
|---|-------|
| W1 + W2                                   | 1,004 |
| In between                                |       |
| Speed 1                                   | 50    |
| Speed 2                                   | 55    |
| Interpolated Weaving Speed (Sw, mph)      | 55.0  |
| Weaving Intensity Factor (k)              | 1.00  |
| Service Volume ((SV, pcph)                |       |
| $SV = (1/N) * [V + (k-1) * \min(W1, W2)]$ | 1,013 |
| Level of Service (LOS)                    | B     |



Nb=NUMBER OF BASIC LANES ON APPROACH  
SEE CHART FOR DEFINITION OF OTHER TERMS

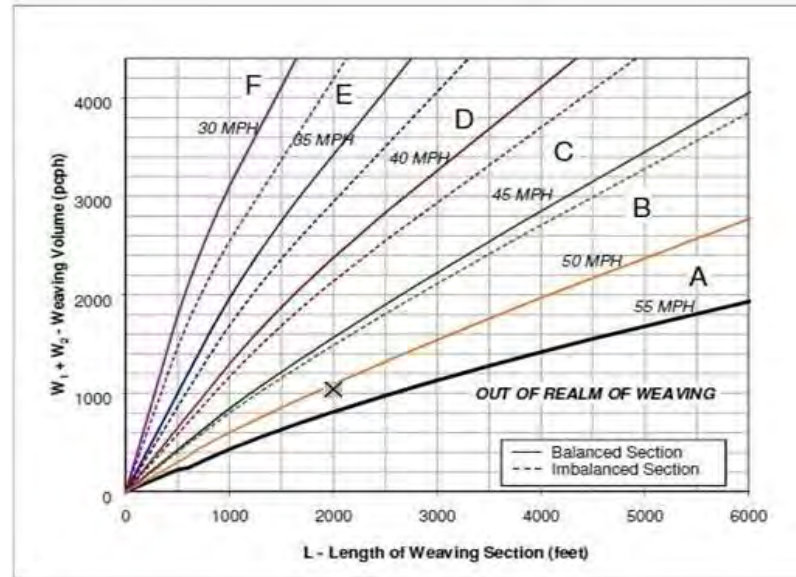


### EB US-50, East of Latrobe Rd On Ramp, Cumulative (2041) plus Project Conditons (PM)

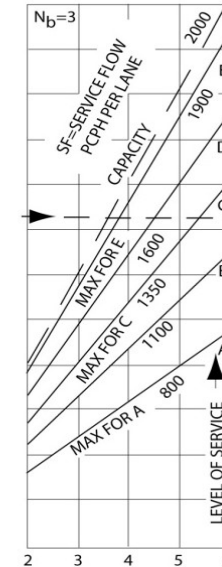
|                                    |                |      |
|------------------------------------|----------------|------|
| Number of Entering Mainline Lanes  | N <sub>b</sub> | 3    |
| Number of Lanes in Weaving Section | N              | 4    |
| Length of Weaving Section (feet)   | L              | 2000 |

| Total Weaving Section (V) |       | On ramp to Mainline (W1) |     | Mainline to Off ramp (W2) |     |
|---------------------------|-------|--------------------------|-----|---------------------------|-----|
| Volume (vph)              | 4,084 | Volume (vph)             | 658 | Volume (vph)              | 411 |
| Truck Percentage          | 4%    | Truck Percentage         | 2%  | Truck Percentage          | 2%  |
| PCE for Trucks            | 1.5   | PCE for Trucks           | 1.5 | PCE for Trucks            | 1.5 |
| Volume (pcph)             | 4,166 | Volume (pcph)            | 665 | Volume (pcph)             | 415 |

|   |       |
|---|-------|
| W1 + W2   | 1,080 |
| In between  |       |
| Speed 1   | 40    |
| Speed 2   | 45    |
| Interpolated Weaving Speed (S <sub>w</sub> , mph) | 45.0  |
| Weaving Intensity Factor (k)                      | 1.60  |
| Service Volume ((S <sub>V</sub> , pcph)           |       |
| $SV = (1/N) * [V + (k-1) * \min(W1, W2)]$         | 1,104 |
| Level of Service (LOS)                            | C     |



N<sub>b</sub>=NUMBER OF BASIC LANES ON APPROACH  
SEE CHART FOR DEFINITION OF OTHER TERMS

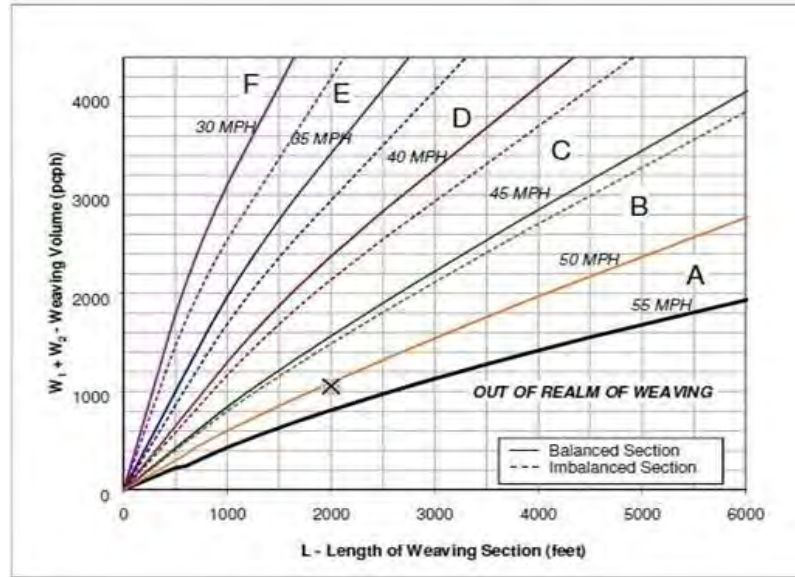


### WB US-50, East of El Dorado Hills Blvd Off Ramp, Cumulative (2041) plus Project Conditons (AM)

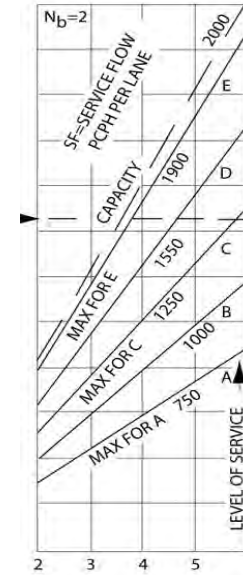
|                                    |    |      |
|------------------------------------|----|------|
| Number of Entering Mainline Lanes  | Nb | 2    |
| Number of Lanes in Weaving Section | N  | 3    |
| Length of Weaving Section (feet)   | L  | 2000 |

| Total Weaving Section (V) |       | On ramp to Mainline (W1) |     | Mainline to Off ramp (W2) |     |
|---------------------------|-------|--------------------------|-----|---------------------------|-----|
| Volume (vph)              | 3,012 | Volume (vph)             | 426 | Volume (vph)              | 628 |
| Truck Percentage          | 2%    | Truck Percentage         | 2%  | Truck Percentage          | 2%  |
| PCE for Trucks            | 1.5   | PCE for Trucks           | 1.5 | PCE for Trucks            | 1.5 |
| Volume (pcph)             | 3,042 | Volume (pcph)            | 430 | Volume (pcph)             | 634 |

|   |       |
|---|-------|
| W1 + W2                                   | 1,065 |
| In between                                |       |
| Speed 1                                   | 45    |
| Speed 2                                   | 50    |
| Interpolated Weaving Speed (Sw, mph)      | 50.0  |
| Weaving Intensity Factor (k)              | 1.40  |
| Service Volume ((SV, pcph)                |       |
| $SV = (1/N) * [V + (k-1) * \min(W1, W2)]$ | 1,071 |
| Level of Service (LOS)                    | C     |



Nb=NUMBER OF BASIC LANES ON APPROACH  
SEE CHART FOR DEFINITION OF OTHER TERMS



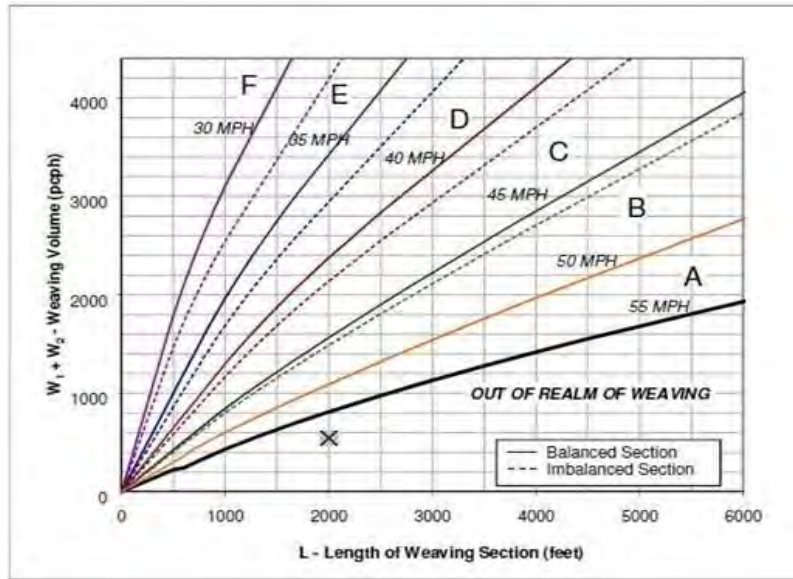
### WB US-50, East of El Dorado Hills Blvd Off Ramp, Cumulative (2041) plus Project Conditons (PM)

|                                    |                |      |
|------------------------------------|----------------|------|
| Number of Entering Mainline Lanes  | N <sub>b</sub> | 2    |
| Number of Lanes in Weaving Section | N              | 3    |
| Length of Weaving Section (feet)   | L              | 2000 |

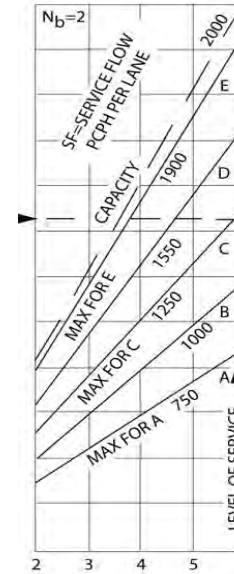
| Total Weaving Section (V) |       | On ramp to Mainline (W1) |     | Mainline to Off ramp (W2) |     |
|---------------------------|-------|--------------------------|-----|---------------------------|-----|
| Volume (vph)              | 2,935 | Volume (vph)             | 252 | Volume (vph)              | 336 |
| Truck Percentage          | 2%    | Truck Percentage         | 2%  | Truck Percentage          | 2%  |
| PCE for Trucks            | 1.5   | PCE for Trucks           | 1.5 | PCE for Trucks            | 1.5 |
| Volume (pcph)             | 2,964 | Volume (pcph)            | 255 | Volume (pcph)             | 339 |

|   |      |
|---|------|
| W1 + W2   | 594  |
| In between  |      |
| Speed 1   | 50   |
| Speed 2   | 55   |
| Interpolated Weaving Speed (S <sub>w</sub> , mph) | 54.8 |
| Weaving Intensity Factor (k)                      | 1.00 |
| Service Volume ((SV, pcph)                        |      |
| $SV = (1/N) * [V + (k-1) * \min(W1, W2)]$         | 988  |
| Level of Service (LOS)                            |      |

**OUT OF REALM**



N<sub>b</sub>=NUMBER OF BASIC LANES ON APPROACH  
SEE CHART FOR DEFINITION OF OTHER TERMS



## Appendix H

*Peak-Hour Signal Warrant Worksheets*

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Existing Conditions AM

Intersection: Green Valley Drive AND Loch Way

Comments:

PART A or PART B SATISFIED NO

PART A

(All parts 1, 2, and 3 below must be satisfied)

SATISFIED NO

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;  
AND
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;  
AND
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.

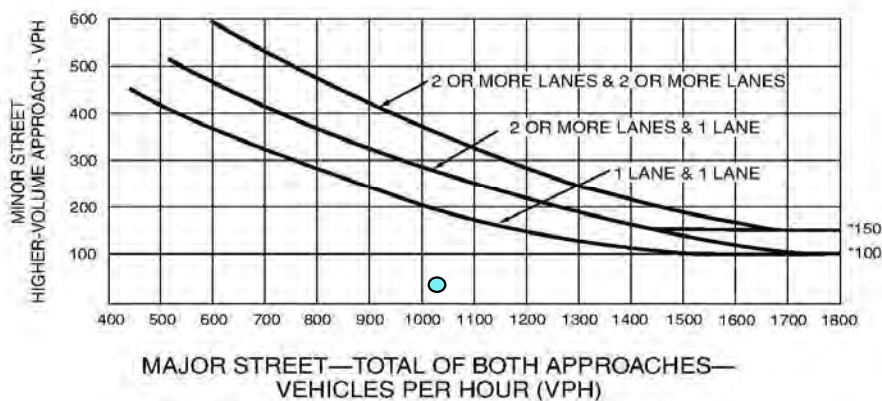
PART B

SATISFIED No

| APPROACH LANES                  | 2 or More |      |
|---------------------------------|-----------|------|
|                                 | One       | More |
| Both Approaches - Major Street  | 1037      |      |
| Highest Approach - Minor Street | 30        |      |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.



Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Existing Conditions PM

Intersection: Green Valley Drive AND Loch Way

Comments:

PART A or PART B SATISFIED NO

PART A

(All parts 1, 2, and 3 below must be satisfied)

SATISFIED NO

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;  
AND
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;  
AND
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.

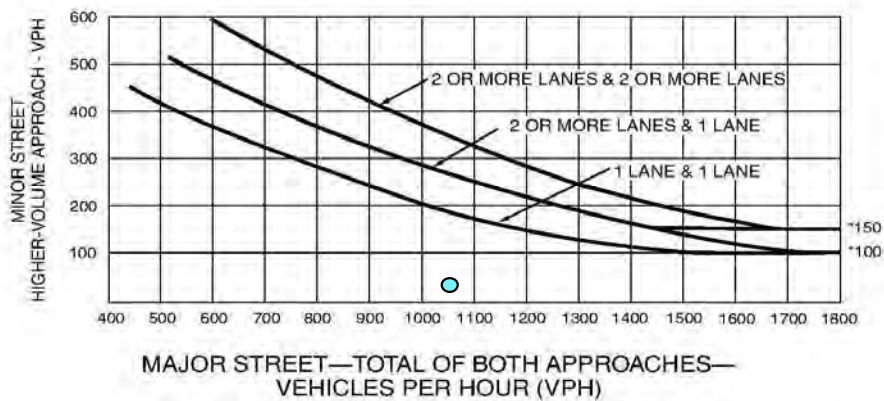
PART B

SATISFIED No

| APPROACH LANES                  | One  | 2 or More |
|---------------------------------|------|-----------|
| Both Approaches - Major Street  | 1080 |           |
| Highest Approach - Minor Street | 35   |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet  
 Warrant 3: Peak Hour  
 Source: MUTCD 2012 California Supplement

Scenario: Existing Conditions AM  
 Intersection: Green Valley Drive AND Wilson Estates Connector  
 Comments:

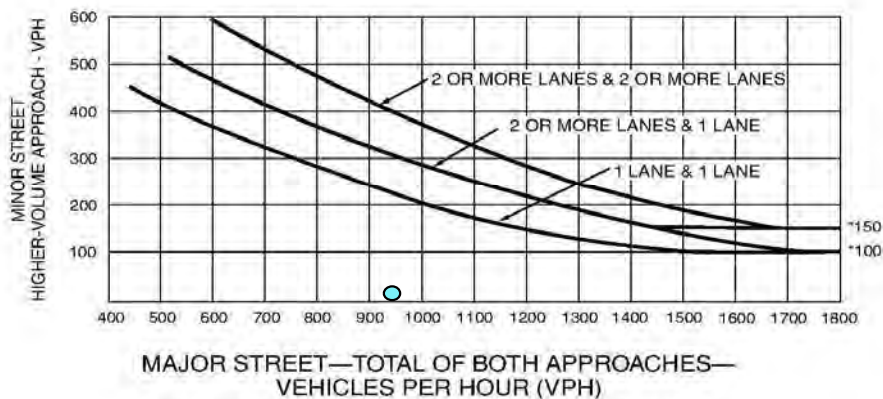
|   | PART A or PART B  | SATISFIED | NO  |
|---|---|-----------|-----|
| <b>PART A</b>                                   |   |           |     |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | NO  |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No  |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | No  |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes |

|  | PART B | SATISFIED | No |
|--|--------|-----------|----|
|--|--------|-----------|----|

| APPROACH LANES                   | One                            |  | 2 or More |     |
|----------------------------------|--------------------------------|--|-----------|-----|
|                                  | Both Approaches - Major Street |  |           | 934 |
| Highest Approache - Minor Street | 7                              |  |           |     |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Existing Conditions PM

Intersection: Green Valley Drive AND Wilson Estates Connector

Comments:

PART A or PART B SATISFIED NO

PART A

(All parts 1, 2, and 3 below must be satisfied)

SATISFIED NO

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;  
AND
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;  
AND
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.

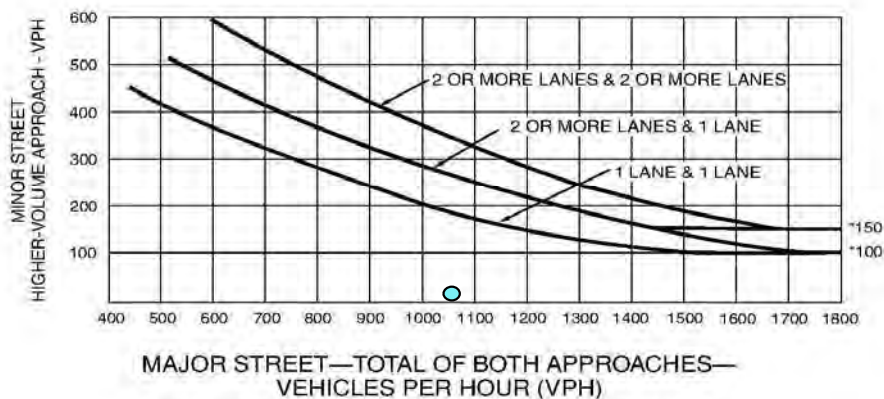
PART B

SATISFIED No

| APPROACH LANES                   | One | 2 or More |
|----------------------------------|-----|-----------|
| Both Approaches - Major Street   |     | 1069      |
| Highest Approache - Minor Street | 5   |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet  
 Warrant 3: Peak Hour  
 Source: MUTCD 2012 California Supplement

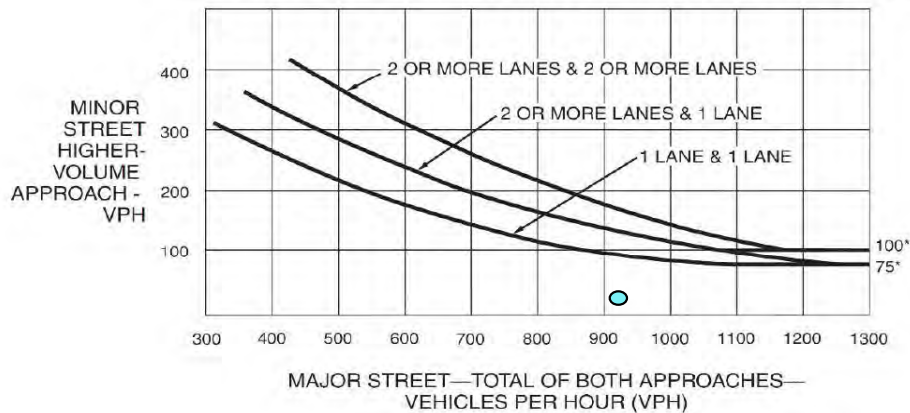
Scenario: Existing Conditions AM  
 Intersection: Green Valley Drive AND Malcolm Dixon Road  
 Comments:

|   | PART A or PART B  | SATISFIED | NO  |
|---|---|-----------|-----|
| <b>PART A</b>                                   |   |           |     |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | NO  |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No  |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | No  |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes |

| PART B                          |     | SATISFIED | No |
|---------------------------------|-----|-----------|----|
| APPROACH LANES                  | One | 2 or More |    |
| Both Approaches - Major Street  | 906 |           |    |
| Highest Approach - Minor Street | 25  |           |    |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**  
 (COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



\*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Existing Conditions PM

Intersection: Green Valley Drive AND Malcolm Dixon Road

Comments:

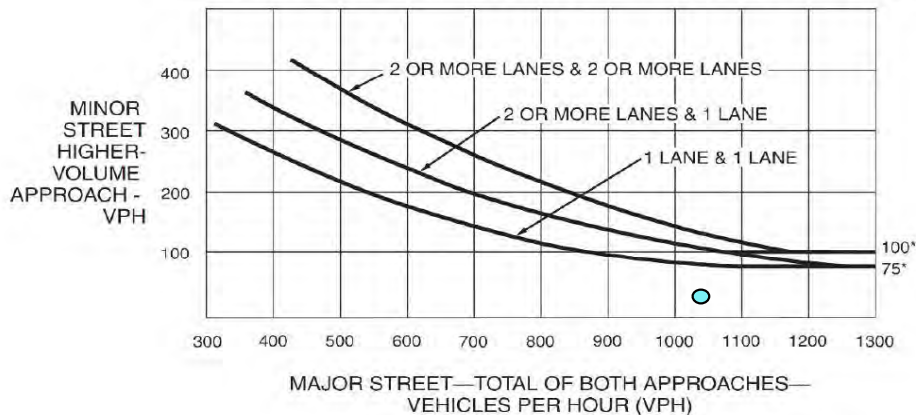
|   | PART A or PART B  | SATISFIED | NO  |
|---|---|-----------|-----|
| <b>PART A</b>                                   |   |           |     |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | NO  |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No  |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | No  |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes |

|  | PART B | SATISFIED | No |
|--|--------|-----------|----|
|--|--------|-----------|----|

| APPROACH LANES                   | One  | 2 or More |
|----------------------------------|------|-----------|
| Both Approaches - Major Street   | 1046 |           |
| Highest Approache - Minor Street | 17   |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**  
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



\*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Existing Conditions AM

Intersection: Green Valley Drive AND Deer Valley Road

Comments:

PART A or PART B SATISFIED NO

PART A

(All parts 1, 2, and 3 below must be satisfied)

SATISFIED NO

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;  
AND
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;  
AND
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.

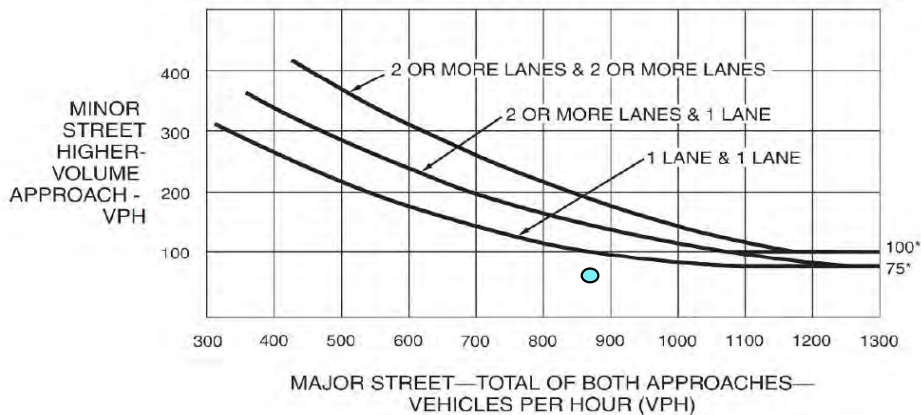
PART B

SATISFIED No

| APPROACH LANES                   | 2 or More |      |
|----------------------------------|-----------|------|
|                                  | One       | More |
| Both Approaches - Major Street   |           | 869  |
| Highest Approache - Minor Street | 65        |      |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**  
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



\*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Existing Conditions PM

Intersection: Green Valley Drive AND Deer Valley Road

Comments:

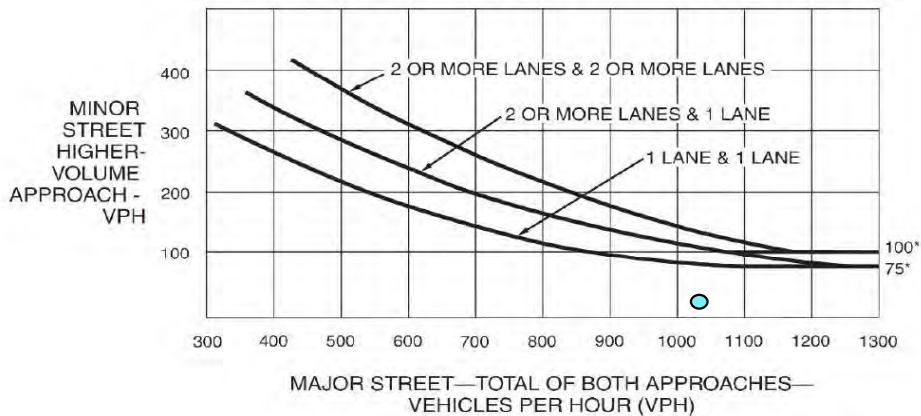
|   | PART A or PART B  | SATISFIED | NO  |
|---|---|-----------|-----|
| <b>PART A</b>                                   |   |           |     |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | NO  |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No  |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | No  |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes |

|  | PART B | SATISFIED | No |
|--|--------|-----------|----|
|--|--------|-----------|----|

| APPROACH LANES                   | One | 2 or More |
|----------------------------------|-----|-----------|
| Both Approaches - Major Street   |     | 1028      |
| Highest Approache - Minor Street | 29  |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**  
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



\*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet  
 Warrant 3: Peak Hour  
 Source: MUTCD 2012 California Supplement

Scenario: Existing Conditions AM  
 Intersection: El Dorado Hills Boulevard AND Francisco Drive  
 Comments:

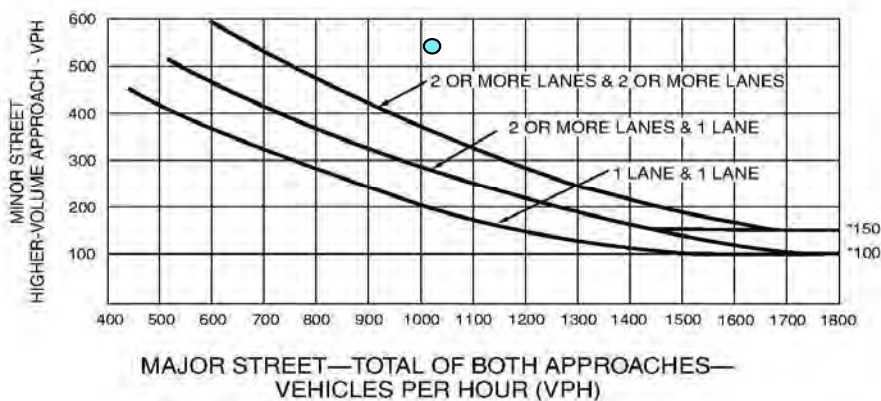
|   | PART A or PART B  | SATISFIED | YES       |
|---|---|-----------|-----------|
| <b>PART A</b>                                   |   |           |           |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | <b>NO</b> |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No        |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | Yes       |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes       |

| PART B | SATISFIED | Yes |
|--------|-----------|-----|
|--------|-----------|-----|

| APPROACH LANES                  | One | 2 or More |
|---------------------------------|-----|-----------|
| Both Approaches - Major Street  |     | 1061      |
| Highest Approach - Minor Street |     | 532       |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.



Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Existing Conditions PM

Intersection: El Dorado Hills Boulevard AND Francisco Drive

Comments:

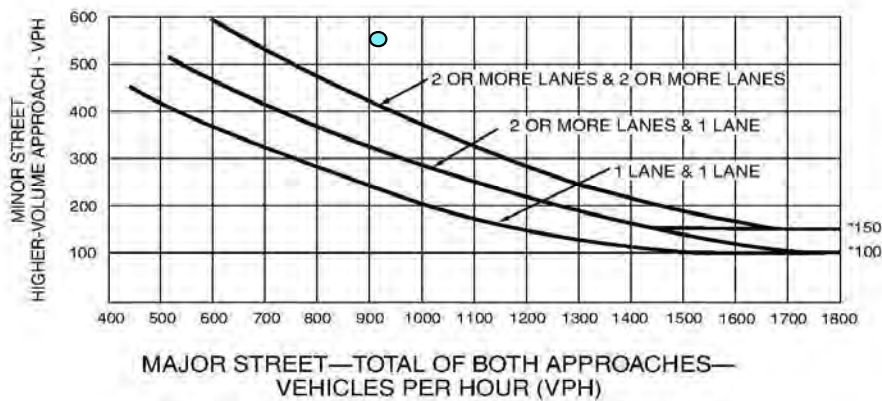
|   | PART A or PART B  | SATISFIED | YES       |
|---|---|-----------|-----------|
| <b>PART A</b>                                   |   |           |           |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | <b>NO</b> |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No        |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | Yes       |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes       |

|               |           |            |
|---------------|-----------|------------|
| <b>PART B</b> | SATISFIED | <b>Yes</b> |
|---------------|-----------|------------|

| APPROACH LANES                   | One | 2 or More |
|----------------------------------|-----|-----------|
| Both Approaches - Major Street   |     | 905       |
| Highest Approache - Minor Street |     | 566       |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet  
 Warrant 3: Peak Hour  
 Source: MUTCD 2012 California Supplement

Scenario: Existing Conditions AM  
 Intersection: Silva Valley Parkway AND Tong Road  
 Comments:

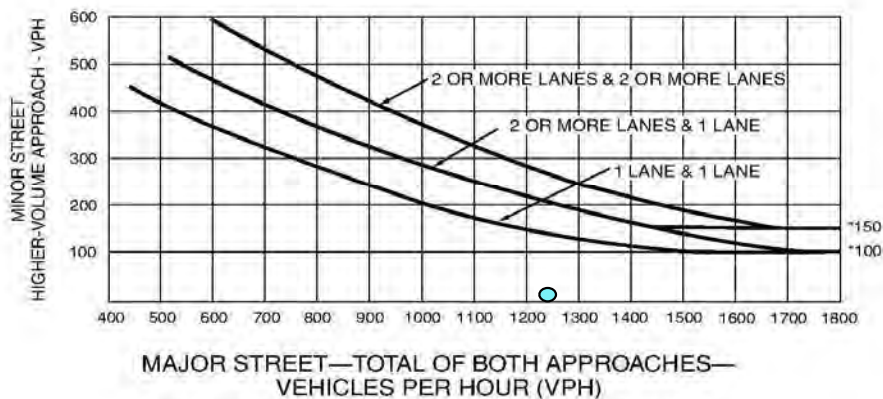
|   | PART A or PART B  | SATISFIED | NO  |
|---|---|-----------|-----|
| <b>PART A</b>                                   |   |           |     |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | NO  |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No  |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | No  |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes |

| PART B | SATISFIED | No |
|--------|-----------|----|
|--------|-----------|----|

| APPROACH LANES                   | 2 or More |      |
|----------------------------------|-----------|------|
|                                  | One       | More |
| Both Approaches - Major Street   |           | 1240 |
| Highest Approache - Minor Street | 1         |      |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Existing Conditions PM

Intersection: Silva Valley Parkway AND Tong Road

Comments:

PART A or PART B SATISFIED NO

PART A

(All parts 1, 2, and 3 below must be satisfied)

SATISFIED NO

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;  
AND
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;  
AND
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.

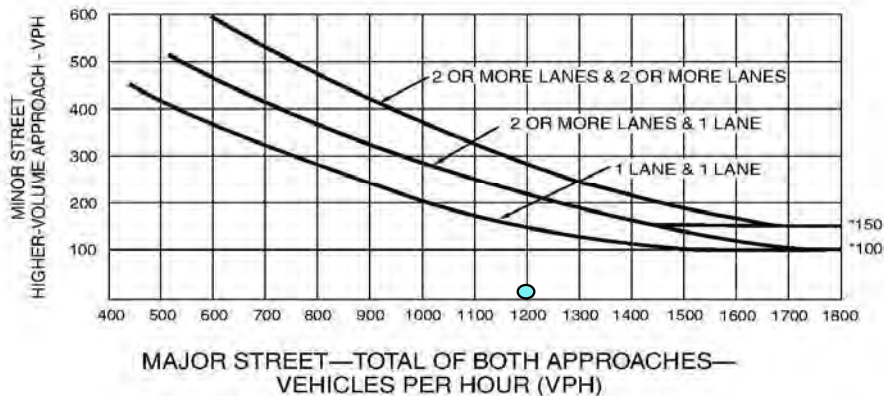
PART B

SATISFIED No

| APPROACH LANES                   | 2 or More |      |
|----------------------------------|-----------|------|
|                                  | One       | More |
| Both Approaches - Major Street   |           | 1196 |
| Highest Approache - Minor Street | 3         |      |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Existing Conditions AM

Intersection: Silva Valley Parkway AND Appian Way

Comments:

PART A or PART B SATISFIED NO

PART A

(All parts 1, 2, and 3 below must be satisfied)

SATISFIED NO

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;  
AND
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;  
AND
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.

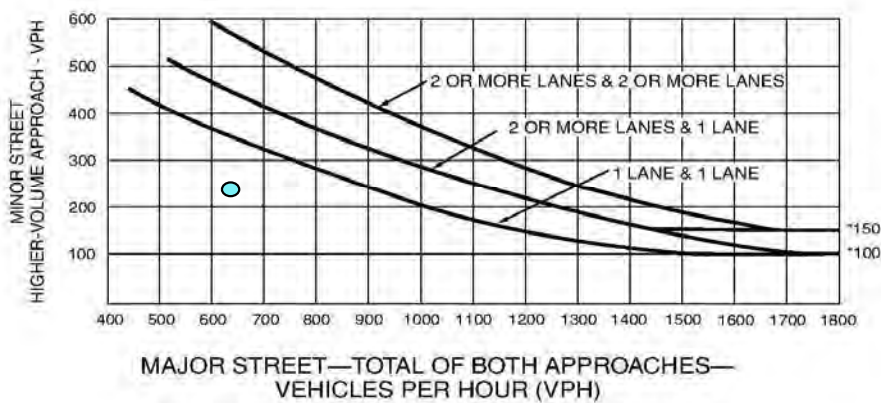
PART B

SATISFIED No

| APPROACH LANES                  | One | 2 or More |
|---------------------------------|-----|-----------|
| Both Approaches - Major Street  | 644 |           |
| Highest Approach - Minor Street | 240 |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Existing Conditions PM

Intersection: Silva Valley Parkway AND Appian Way

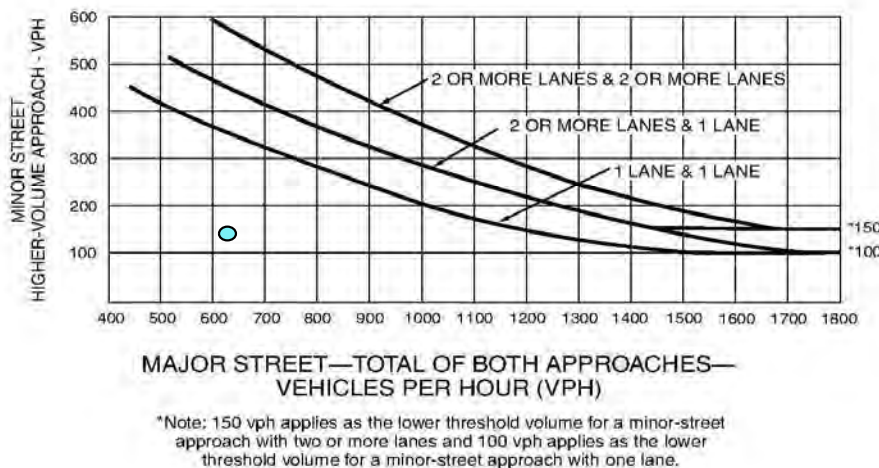
Comments:

|   | PART A or PART B  | SATISFIED | NO  |
|---|---|-----------|-----|
| <b>PART A</b>                                   |   |           |     |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | NO  |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No  |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | Yes |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes |

| <b>PART B</b>                    |     | SATISFIED | No |
|----------------------------------|-----|-----------|----|
| APPROACH LANES                   | One | 2 or More |    |
| Both Approaches - Major Street   | 609 |           |    |
| Highest Approache - Minor Street | 140 |           |    |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Existing Conditions PP AM

Intersection: Green Valley Drive AND Loch Way

Comments:

PART A or PART B SATISFIED NO

PART A

(All parts 1, 2, and 3 below must be satisfied)

SATISFIED NO

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach; AND
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.

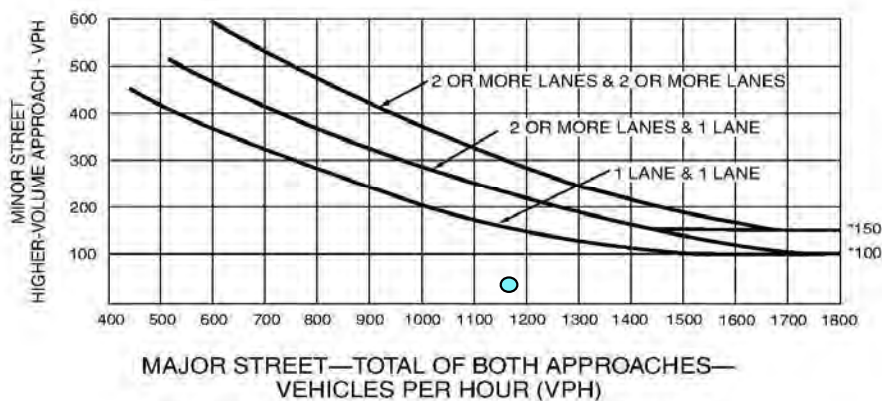
PART B

SATISFIED No

| APPROACH LANES                  | 2 or More |      |
|---------------------------------|-----------|------|
|                                 | One       | More |
| Both Approaches - Major Street  | 1181      |      |
| Highest Approach - Minor Street | 31        |      |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Existing Conditions PP PM

Intersection: Green Valley Drive AND Loch Way

Comments:

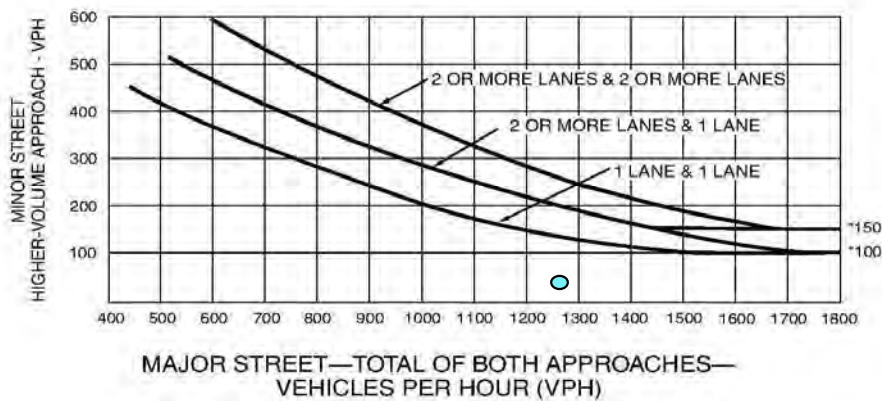
|   | PART A or PART B  | SATISFIED | NO  |
|---|---|-----------|-----|
| <b>PART A</b>                                   |   |           |     |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | NO  |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No  |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | No  |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes |

| PART B | SATISFIED | No |
|--------|-----------|----|
|--------|-----------|----|

| APPROACH LANES                   | One  | 2 or More |
|----------------------------------|------|-----------|
| Both Approaches - Major Street   | 1279 |           |
| Highest Approache - Minor Street | 38   |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Existing Conditions PP AM

Intersection: Green Valley Drive AND Wilson Estates Connector

Comments:

PART A or PART B SATISFIED NO

PART A

(All parts 1, 2, and 3 below must be satisfied)

SATISFIED NO

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;  
AND
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;  
AND
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.

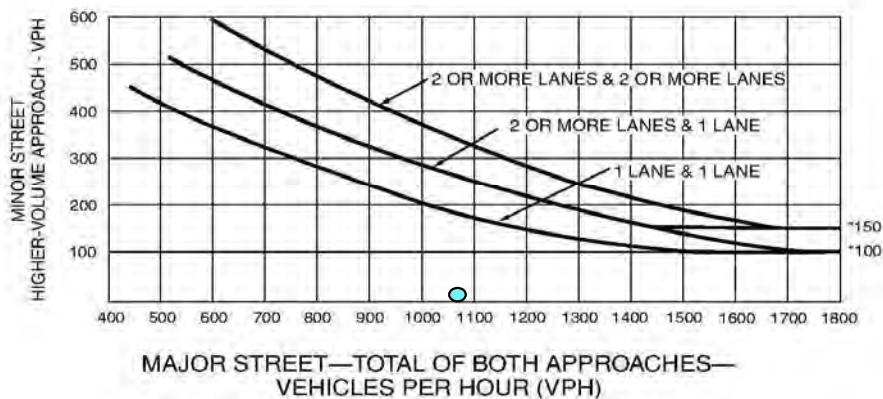
PART B

SATISFIED No

| APPROACH LANES                   | One |   | 2 or More |      |
|----------------------------------|-----|---|-----------|------|
|                                  |     |   |           |      |
| Both Approaches - Major Street   |     |   |           | 1078 |
| Highest Approache - Minor Street |     | 7 |           |      |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.



Traffic Signal Warrants Worksheet  
 Warrant 3: Peak Hour  
 Source: MUTCD 2012 California Supplement

Scenario: Existing Conditions PP PM  
 Intersection: Green Valley Drive AND Wilson Estates Connector  
 Comments:

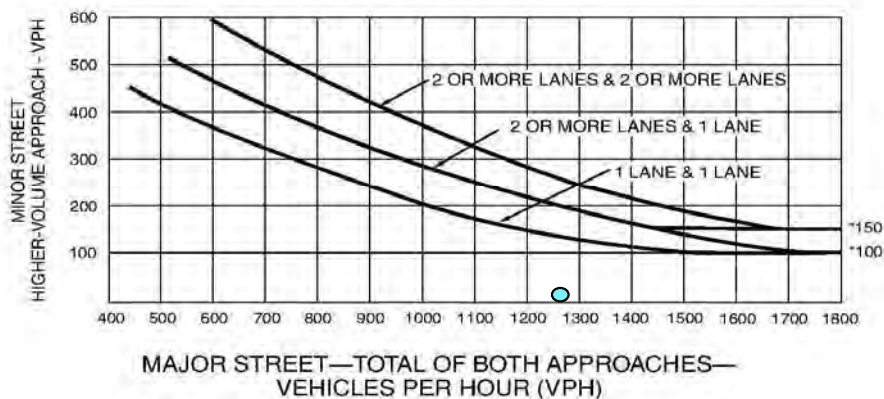
|   | PART A or PART B  | SATISFIED | NO  |
|---|---|-----------|-----|
| <b>PART A</b>                                   |   |           |     |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | NO  |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No  |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | No  |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes |

|               |           |    |
|---------------|-----------|----|
| <b>PART B</b> | SATISFIED | No |
|---------------|-----------|----|

| APPROACH LANES                   | One | 2 or More |
|----------------------------------|-----|-----------|
| Both Approaches - Major Street   |     | 1272      |
| Highest Approache - Minor Street | 5   |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Existing Conditions PP AM

Intersection: Green Valley Drive AND Malcolm Dixon Road

Comments:

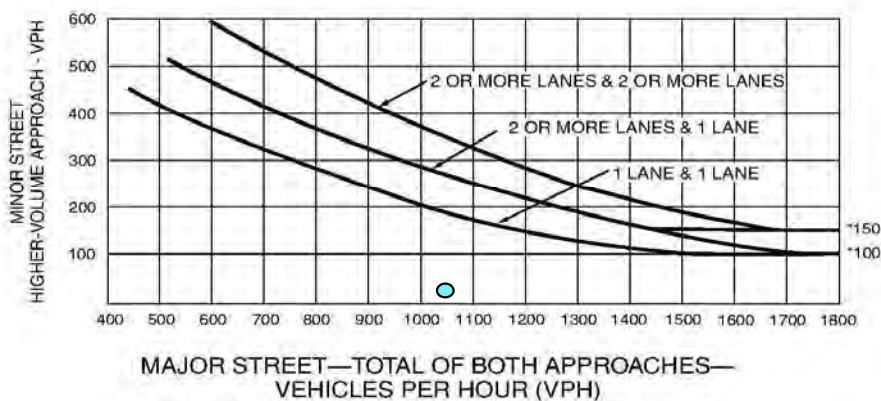
|   | PART A or PART B  | SATISFIED | NO  |
|---|---|-----------|-----|
| <b>PART A</b>                                   |   |           |     |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | NO  |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No  |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | No  |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes |

| PART B | SATISFIED | No |
|--------|-----------|----|
|--------|-----------|----|

| APPROACH LANES                  | One  | 2 or More |
|---------------------------------|------|-----------|
| Both Approaches - Major Street  | 1050 |           |
| Highest Approach - Minor Street | 25   |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Existing Conditions PP PM

Intersection: Green Valley Drive AND Malcolm Dixon Road

Comments:

|   | PART A or PART B  | SATISFIED | NO  |
|---|---|-----------|-----|
| <b>PART A</b>                                   |   |           |     |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | NO  |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No  |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | No  |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes |

| <b>PART B</b>                    |      | SATISFIED | No |
|----------------------------------|------|-----------|----|
| APPROACH LANES                   | One  | 2 or More |    |
| Both Approaches - Major Street   | 1249 |           |    |
| Highest Approache - Minor Street | 17   |           |    |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Existing Conditions PP AM

Intersection: Green Valley Drive AND Deer Valley Road

Comments:

|                                |           |    |
|--------------------------------|-----------|----|
| <u>PART A</u> or <u>PART B</u> | SATISFIED | NO |
|--------------------------------|-----------|----|

PART A

(All parts 1, 2, and 3 below must be satisfied)

SATISFIED      NO

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;  
AND
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;  
AND
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.

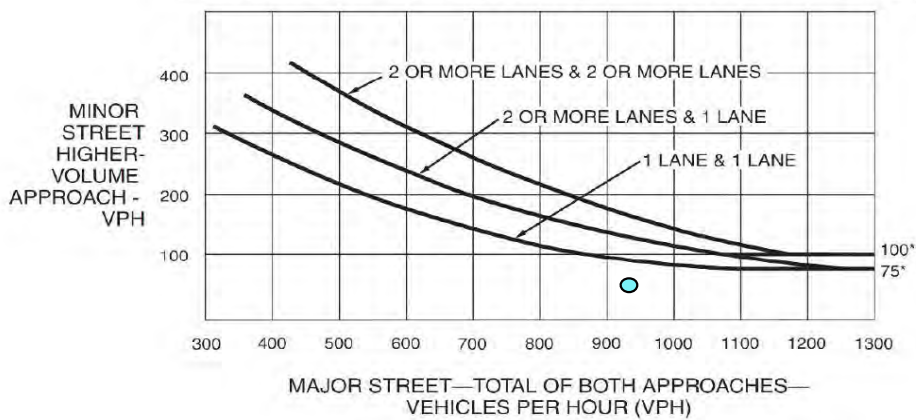
PART B

SATISFIED      No

| APPROACH LANES                   | One | 2 or More |
|----------------------------------|-----|-----------|
| Both Approaches - Major Street   | 917 | 917       |
| Highest Approache - Minor Street | 65  |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**  
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



\*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Existing Conditions PP PM

Intersection: Green Valley Drive AND Deer Valley Road

Comments:

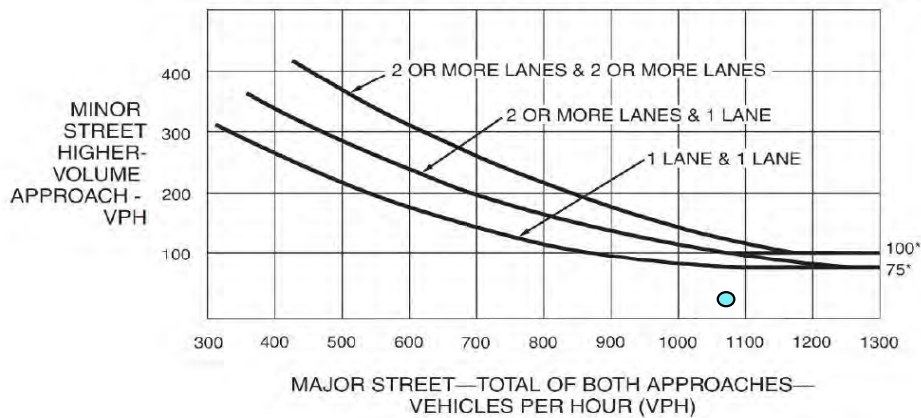
|   | PART A or PART B  | SATISFIED | NO  |
|---|---|-----------|-----|
| <b>PART A</b>                                   |   |           |     |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | NO  |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No  |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | No  |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes |

| PART B | SATISFIED | No |
|--------|-----------|----|
|--------|-----------|----|

| APPROACH LANES                   | One | 2 or More |
|----------------------------------|-----|-----------|
| Both Approaches - Major Street   |     | 1091      |
| Highest Approache - Minor Street | 36  |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**  
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



\*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Existing Conditions PP AM

Intersection: El Dorado Hills Boulevard AND Francisco Drive

Comments:

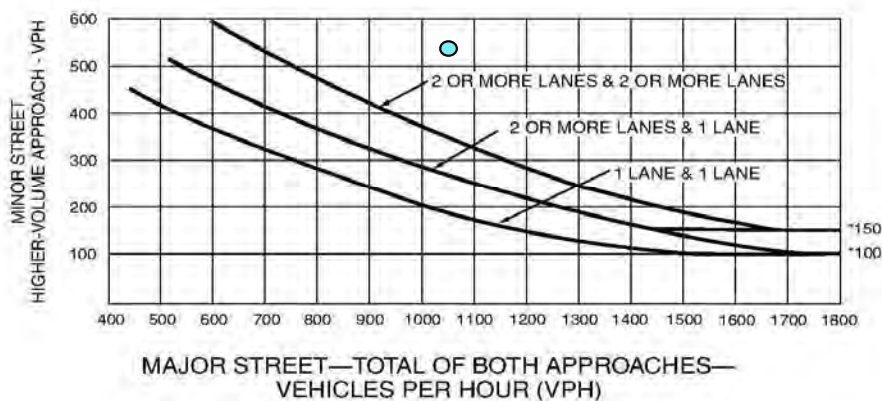
|   | PART A or PART B  | SATISFIED | YES       |
|---|---|-----------|-----------|
| <b>PART A</b>                                   |   |           |           |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | <b>NO</b> |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No        |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | Yes       |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes       |

|               |           |            |
|---------------|-----------|------------|
| <b>PART B</b> | SATISFIED | <b>Yes</b> |
|---------------|-----------|------------|

| APPROACH LANES                  | One | 2 or More |
|---------------------------------|-----|-----------|
| Both Approaches - Major Street  |     | 1084      |
| Highest Approach - Minor Street |     | 532       |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Existing Conditions PP PM

Intersection: El Dorado Hills Boulevard AND Francisco Drive

Comments:

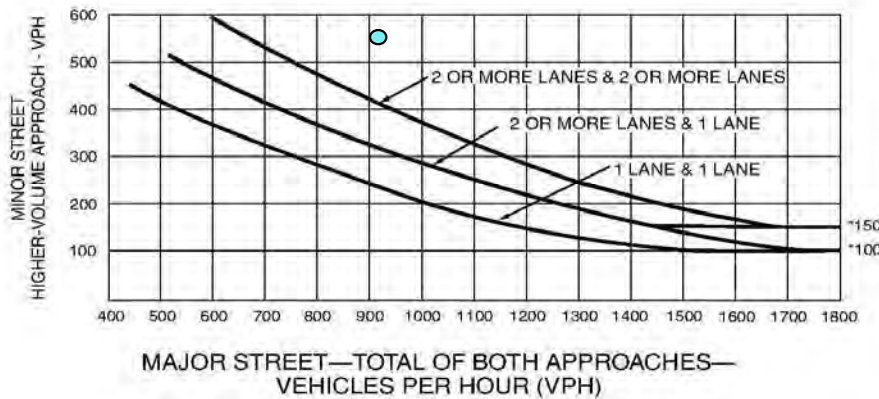
|   | PART A or PART B  | SATISFIED | YES       |
|---|---|-----------|-----------|
| <b>PART A</b>                                   |   |           |           |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | <b>NO</b> |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No        |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | Yes       |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes       |

|               |           |            |
|---------------|-----------|------------|
| <b>PART B</b> | SATISFIED | <b>Yes</b> |
|---------------|-----------|------------|

| APPROACH LANES                   | One | 2 or More |
|----------------------------------|-----|-----------|
| Both Approaches - Major Street   |     | 937       |
| Highest Approache - Minor Street |     | 566       |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Existing Conditions PP AM

Intersection: Silva Valley Parkway AND Tong Road

Comments:

PART A or PART B SATISFIED NO

PART A

(All parts 1, 2, and 3 below must be satisfied)

SATISFIED NO

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;  
AND
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;  
AND
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.

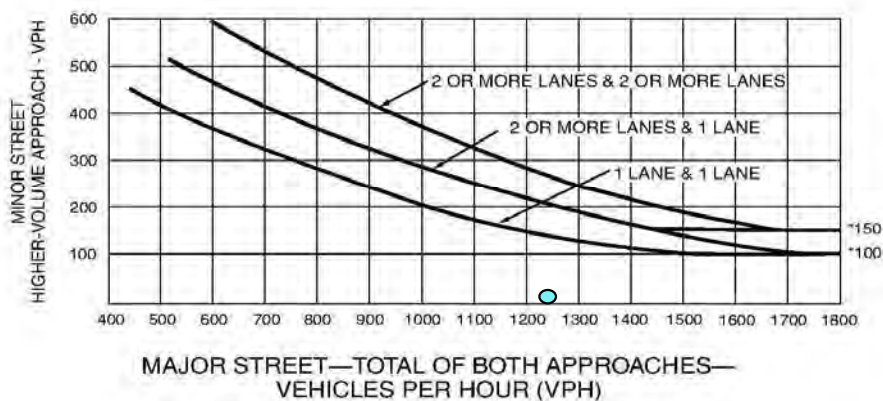
PART B

SATISFIED No

| APPROACH LANES                   | 2 or More |      |
|----------------------------------|-----------|------|
|                                  | One       | More |
| Both Approaches - Major Street   |           | 1268 |
| Highest Approache - Minor Street | 1         |      |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.



Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Existing Conditions PP PM

Intersection: Silva Valley Parkway AND Tong Road

Comments:

PART A or PART B SATISFIED NO

PART A

(All parts 1, 2, and 3 below must be satisfied)

SATISFIED NO

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;  
AND
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;  
AND
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.

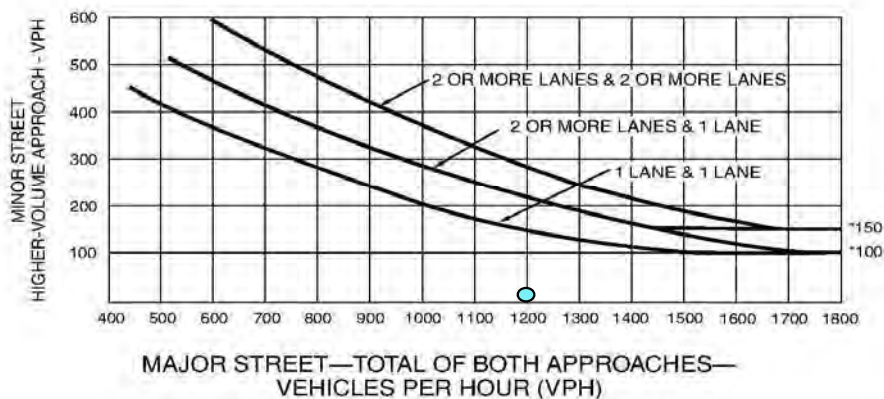
PART B

SATISFIED No

| APPROACH LANES                   | One | 2 or More |
|----------------------------------|-----|-----------|
| Both Approaches - Major Street   |     | 1235      |
| Highest Approache - Minor Street | 3   |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Existing Conditions PP AM

Intersection: Silva Valley Parkway AND Appian Way

Comments:

PART A or PART B SATISFIED NO

PART A

(All parts 1, 2, and 3 below must be satisfied)

SATISFIED NO

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;  
AND
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;  
AND
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.

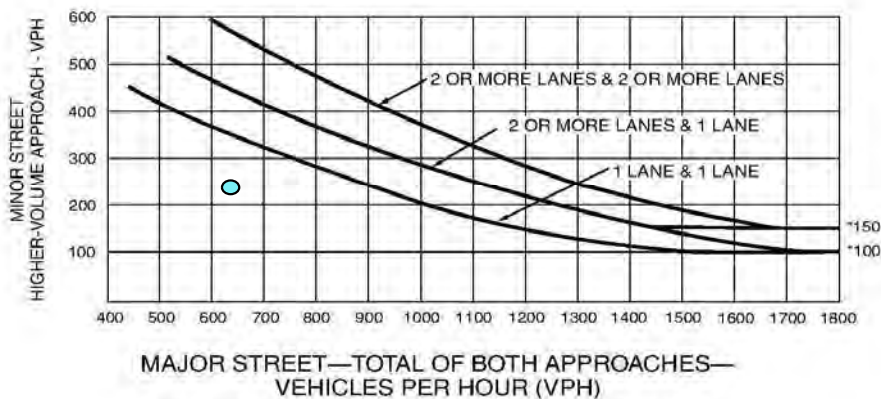
PART B

SATISFIED No

| APPROACH LANES                  | One | 2 or More |
|---------------------------------|-----|-----------|
| Both Approaches - Major Street  | 682 |           |
| Highest Approach - Minor Street | 241 |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Existing Conditions PP PM

Intersection: Silva Valley Parkway AND Appian Way

Comments:

PART A or PART B SATISFIED NO

PART A

(All parts 1, 2, and 3 below must be satisfied)

SATISFIED NO

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;  
AND
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;  
AND
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.

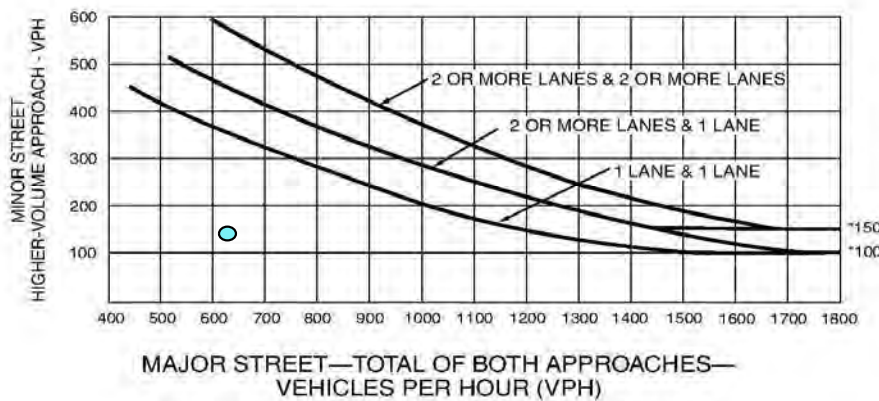
PART B

SATISFIED No

| APPROACH LANES                   | One | 2 or More |
|----------------------------------|-----|-----------|
| Both Approaches - Major Street   | 661 |           |
| Highest Approache - Minor Street | 143 |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Near-Term Conditions AM

Intersection: Green Valley Drive AND Loch Way

Comments:

PART A or PART B SATISFIED NO

PART A

(All parts 1, 2, and 3 below must be satisfied)

SATISFIED NO

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;  
AND
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;  
AND
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.

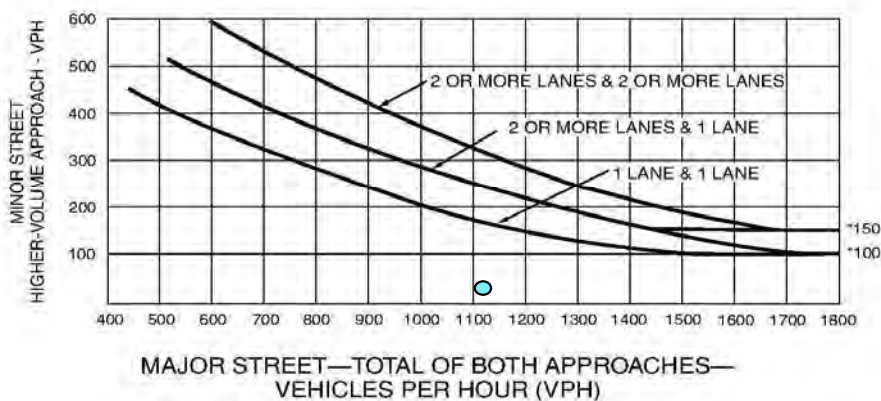
PART B

SATISFIED No

| APPROACH LANES                  | One  | 2 or More |
|---------------------------------|------|-----------|
| Both Approaches - Major Street  | 1102 |           |
| Highest Approach - Minor Street | 31   |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

**Figure 4C-3. Warrant 3, Peak Hour**



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Near-Term Conditions PM

Intersection: Green Valley Drive AND Loch Way

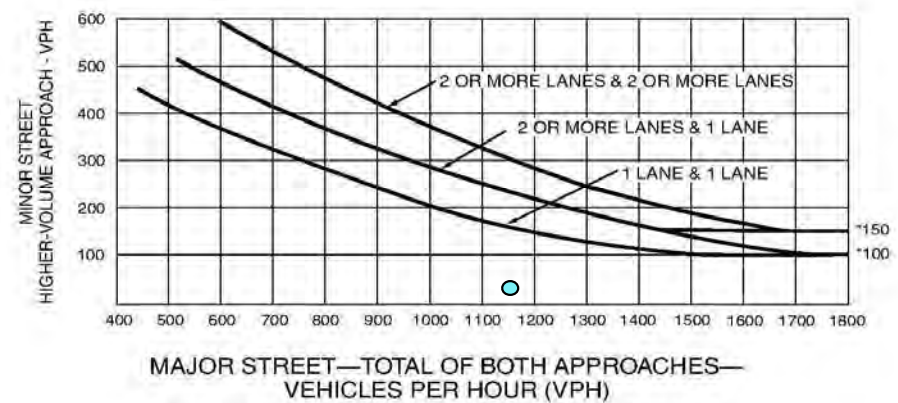
Comments:

|   | PART A or PART B  | SATISFIED | NO  |
|---|---|-----------|-----|
| <b>PART A</b>                                   |   |           |     |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | NO  |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No  |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | No  |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes |

| <b>PART B</b>                    |      | SATISFIED | No |
|----------------------------------|------|-----------|----|
| APPROACH LANES                   | One  | 2 or More |    |
| Both Approaches - Major Street   | 1164 |           |    |
| Highest Approache - Minor Street | 37   |           |    |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet  
 Warrant 3: Peak Hour  
 Source: MUTCD 2012 California Supplement

Scenario: Near-Term Conditions AM  
 Intersection: Green Valley Drive AND Wilson Estates Connector  
 Comments:

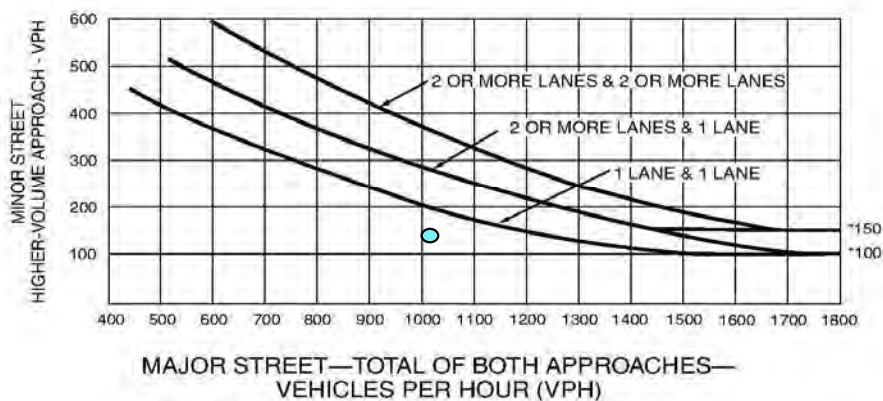
|   | PART A or PART B  | SATISFIED | NO  |
|---|---|-----------|-----|
| <b>PART A</b>                                   |   |           |     |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | NO  |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No  |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | Yes |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes |

| PART B | SATISFIED | No |
|--------|-----------|----|
|--------|-----------|----|

| APPROACH LANES                   | One | 2 or More |
|----------------------------------|-----|-----------|
| Both Approaches - Major Street   |     | 1004      |
| Highest Approache - Minor Street | 137 |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Near-Term Conditions PM

Intersection: Green Valley Drive AND Wilson Estates Connector

Comments:

PART A or PART B SATISFIED NO

PART A

(All parts 1, 2, and 3 below must be satisfied)

SATISFIED NO

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;  
AND
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;  
AND
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.

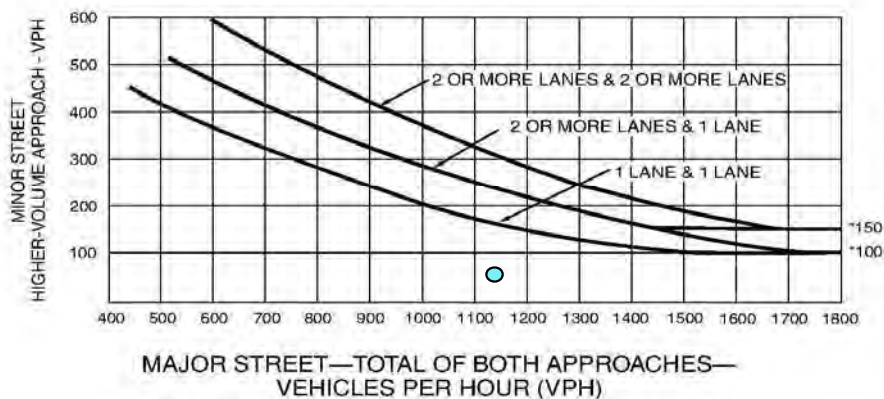
PART B

SATISFIED No

| APPROACH LANES                   | 2 or More |      |
|----------------------------------|-----------|------|
|                                  | One       | More |
| Both Approaches - Major Street   |           | 1144 |
| Highest Approache - Minor Street | 84        |      |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet  
 Warrant 3: Peak Hour  
 Source: MUTCD 2012 California Supplement

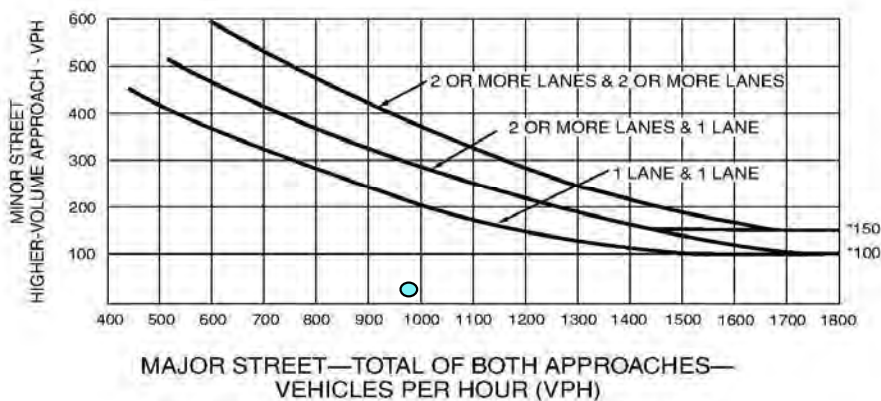
Scenario: Near-Term Conditions AM  
 Intersection: Green Valley Drive AND Malcolm Dixon Road  
 Comments:

|   | PART A or PART B  | SATISFIED | NO  |
|---|---|-----------|-----|
| <b>PART A</b>                                   |   |           |     |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | NO  |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No  |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | No  |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes |

| <b>PART B</b>                   |     | SATISFIED | No |
|---------------------------------|-----|-----------|----|
| APPROACH LANES                  | One | 2 or More |    |
| Both Approaches - Major Street  | 970 |           |    |
| Highest Approach - Minor Street | 28  |           |    |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.



Traffic Signal Warrants Worksheet  
 Warrant 3: Peak Hour  
 Source: MUTCD 2012 California Supplement

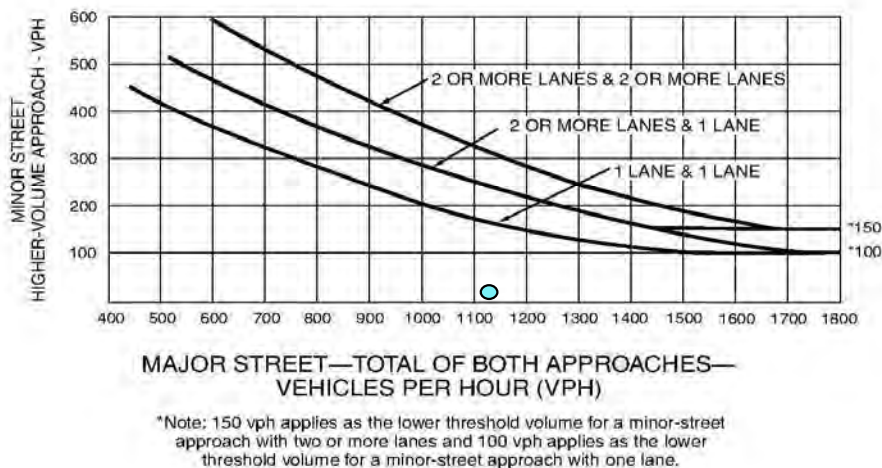
Scenario: Near-Term Conditions PM  
 Intersection: Green Valley Drive AND Malcolm Dixon Road  
 Comments:

|   | PART A or PART B  | SATISFIED | NO  |
|---|---|-----------|-----|
| <b>PART A</b>                                   |   |           |     |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | NO  |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No  |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | No  |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes |

|                                  | PART B |           | SATISFIED | No |
|----------------------------------|--------|-----------|-----------|----|
| APPROACH LANES                   | One    | 2 or More |           |    |
| Both Approaches - Major Street   | 1134   |           |           |    |
| Highest Approache - Minor Street | 17     |           |           |    |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Near-Term Conditions AM

Intersection: Green Valley Drive AND Deer Valley Road

Comments:

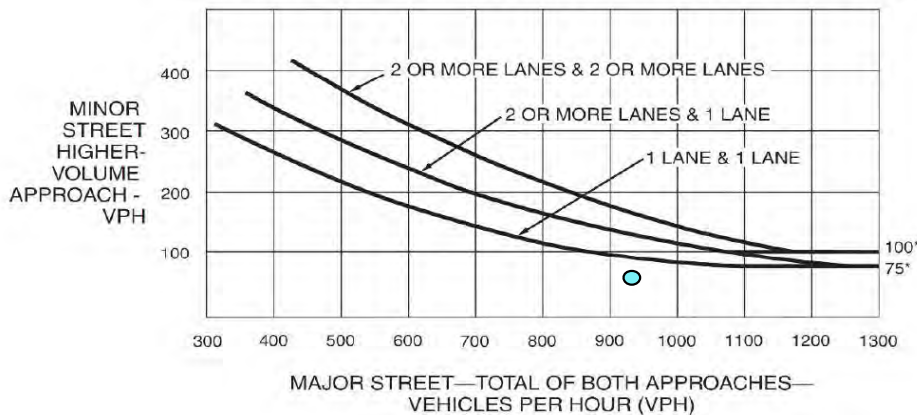
|   | PART A or PART B  | SATISFIED | NO  |
|---|---|-----------|-----|
| <b>PART A</b>                                   |   |           |     |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | NO  |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No  |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | No  |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes |

|  | PART B | SATISFIED | No |
|--|--------|-----------|----|
|--|--------|-----------|----|

| APPROACH LANES                   | 2 or More |      |
|----------------------------------|-----------|------|
|                                  | One       | More |
| Both Approaches - Major Street   |           | 943  |
| Highest Approache - Minor Street | 77        |      |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**  
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



\*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Near-Term Conditions PM

Intersection: Green Valley Drive AND Deer Valley Road

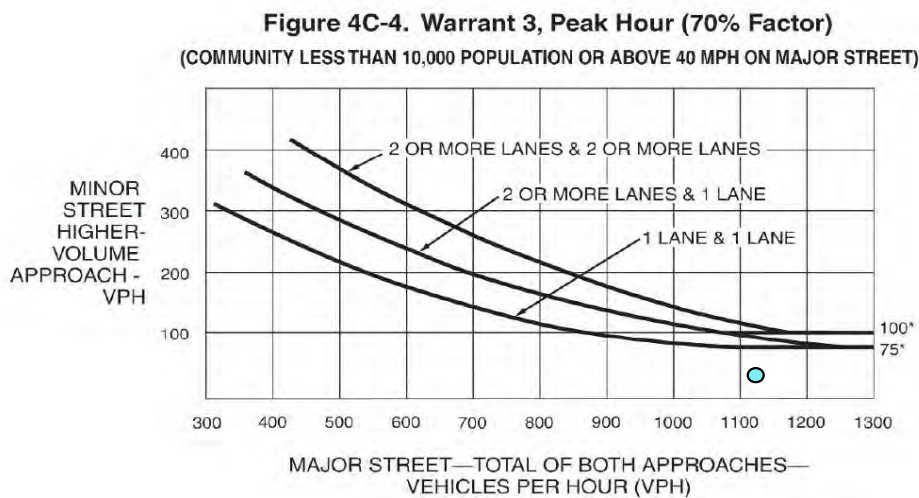
Comments:

|  | PART A or PART B | SATISFIED | NO  |
|--|------------------|-----------|-----|
| <b>PART A</b>  |                  |           |     |
| (All parts 1, 2, and 3 below must be satisfied)  |                  | SATISFIED | NO  |
| 1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |                  |           | No  |
| 2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |                  |           | No  |
| 3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |                  |           | Yes |

| PART B | SATISFIED | No |
|--------|-----------|----|
|--------|-----------|----|

| APPROACH LANES                   | One | 2 or More |
|----------------------------------|-----|-----------|
| Both Approaches - Major Street   |     | 1132      |
| Highest Approache - Minor Street | 45  |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.



\*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Near Term Conditions AM

Intersection: El Dorado Hills Boulevard AND Francisco Drive

Comments:

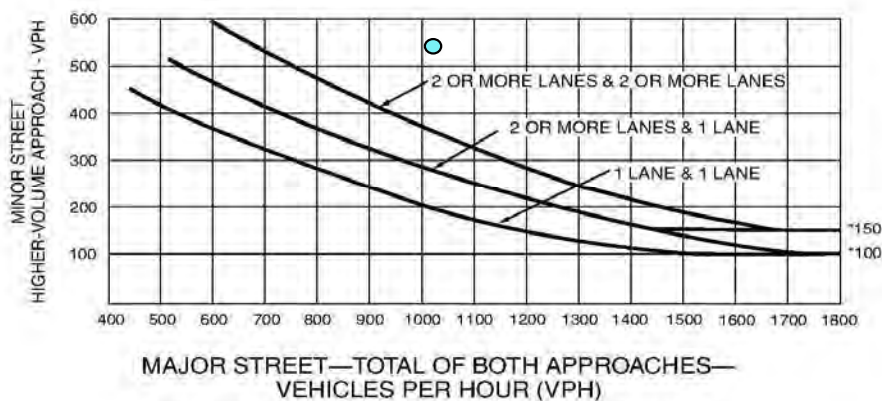
|  | PART A or PART B | SATISFIED | YES       |
|--|------------------|-----------|-----------|
| <b>PART A</b>  |                  |           |           |
| (All parts 1, 2, and 3 below must be satisfied)  |                  | SATISFIED | <b>NO</b> |
| 1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |                  |           | No        |
| 2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |                  |           | Yes       |
| 3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |                  |           | Yes       |

|               |           |            |
|---------------|-----------|------------|
| <b>PART B</b> | SATISFIED | <b>Yes</b> |
|---------------|-----------|------------|

| APPROACH LANES                  | One | 2 or More |
|---------------------------------|-----|-----------|
| Both Approaches - Major Street  |     | 1079      |
| Highest Approach - Minor Street |     | 532       |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Near Term Conditions PM

Intersection: El Dorado Hills Boulevard AND Francisco Drive

Comments:

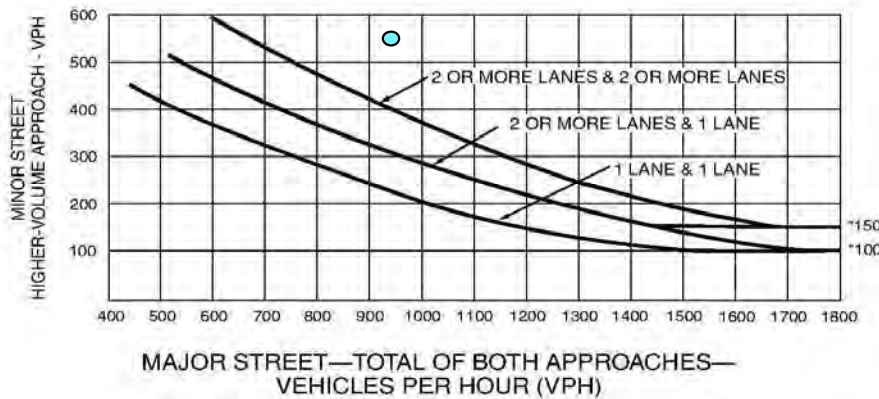
|   | PART A or PART B  | SATISFIED | YES       |
|---|---|-----------|-----------|
| <b>PART A</b>                                   |   |           |           |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | <b>NO</b> |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No        |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | Yes       |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes       |

|               |           |            |
|---------------|-----------|------------|
| <b>PART B</b> | SATISFIED | <b>Yes</b> |
|---------------|-----------|------------|

| APPROACH LANES                   | One | 2 or More |
|----------------------------------|-----|-----------|
| Both Approaches - Major Street   |     | 935       |
| Highest Approache - Minor Street |     | 566       |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Near Term Conditions AM

Intersection: Silva Valley Parkway AND Tong Road

Comments:

PART A or PART B SATISFIED NO

PART A

(All parts 1, 2, and 3 below must be satisfied)

SATISFIED NO

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;  
AND
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;  
AND
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.

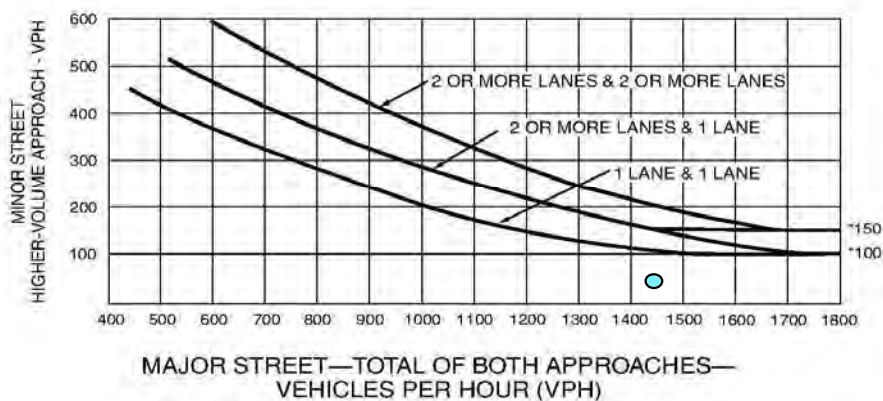
PART B

SATISFIED No

| APPROACH LANES                   | 2 or More |      |
|----------------------------------|-----------|------|
|                                  | One       | More |
| Both Approaches - Major Street   |           | 1455 |
| Highest Approache - Minor Street | 42        |      |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Near Term Conditions PM

Intersection: Silva Valley Parkway AND Tong Road

Comments:

PART A or PART B SATISFIED NO

PART A

(All parts 1, 2, and 3 below must be satisfied)

SATISFIED NO

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;  
AND
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;  
AND
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.

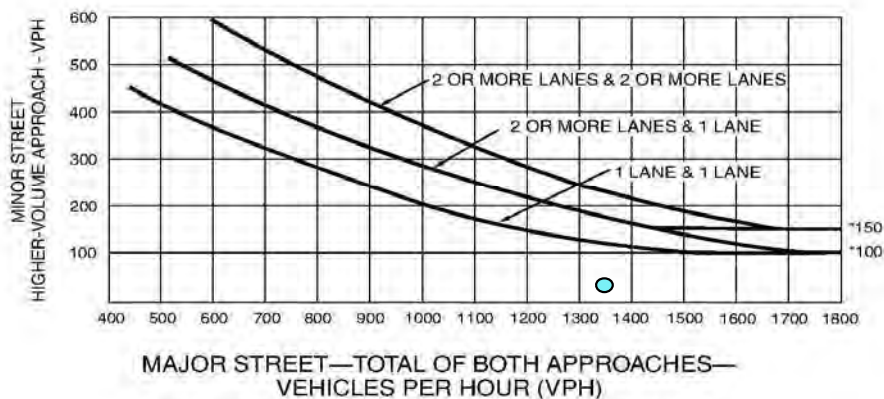
PART B

SATISFIED No

| APPROACH LANES                   | One | 2 or More |
|----------------------------------|-----|-----------|
| Both Approaches - Major Street   |     | 1338      |
| Highest Approache - Minor Street | 41  |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Near Term Conditions AM

Intersection: Silva Valley Parkway AND Appian Way

Comments:

PART A or PART B SATISFIED NO

PART A

(All parts 1, 2, and 3 below must be satisfied)

SATISFIED NO

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;  
AND
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;  
AND
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.

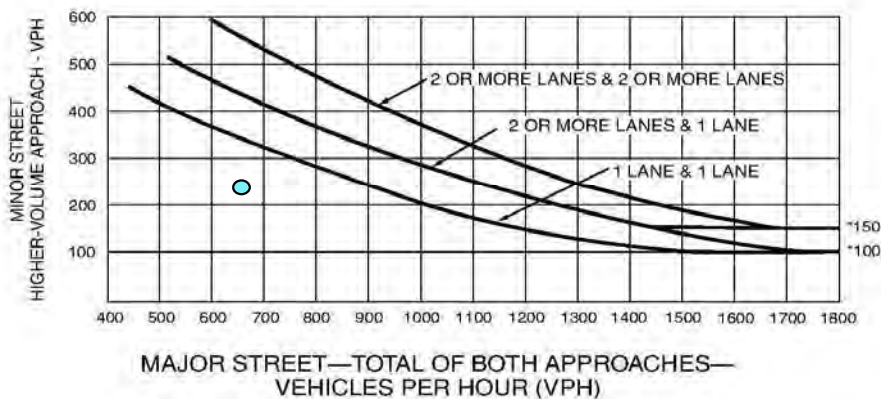
PART B

SATISFIED No

| APPROACH LANES                  | One | 2 or More |
|---------------------------------|-----|-----------|
| Both Approaches - Major Street  | 673 |           |
| Highest Approach - Minor Street | 245 |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.



Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Near Term Conditions PM

Intersection: Silva Valley Parkway AND Appian Way

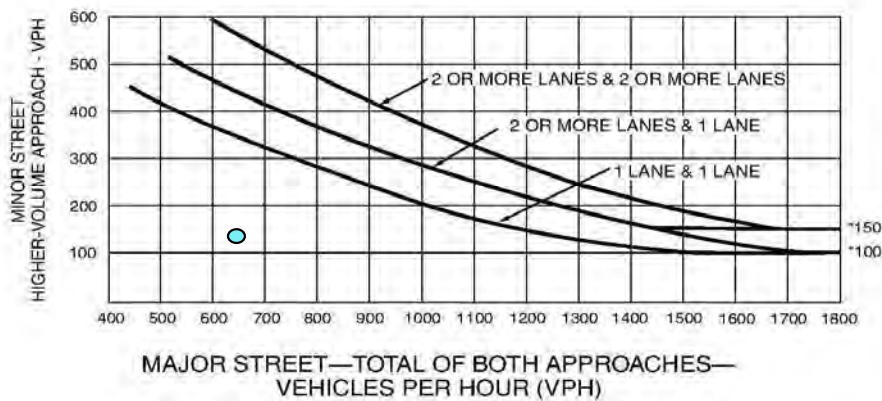
Comments:

|   | PART A or PART B  | SATISFIED | NO  |
|---|---|-----------|-----|
| <b>PART A</b>                                   |   |           |     |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | NO  |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No  |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | Yes |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes |

| <b>PART B</b>                    |     | SATISFIED | No |
|----------------------------------|-----|-----------|----|
| APPROACH LANES                   | One | 2 or More |    |
| Both Approaches - Major Street   | 647 |           |    |
| Highest Approache - Minor Street | 146 |           |    |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Near Term Plus Project AM

Intersection: Green Valley Drive AND Loch Way

Comments:

PART A or PART B SATISFIED NO

PART A

(All parts 1, 2, and 3 below must be satisfied)

SATISFIED NO

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;  
AND
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;  
AND
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.

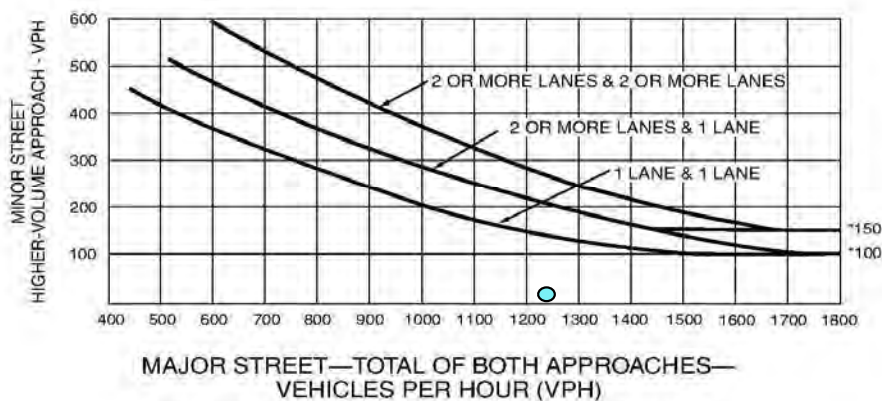
PART B

SATISFIED No

| APPROACH LANES                  | One  | 2 or More |
|---------------------------------|------|-----------|
| Both Approaches - Major Street  | 1246 |           |
| Highest Approach - Minor Street | 32   |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Near Term Plus Project PM

Intersection: Green Valley Drive AND Loch Way

Comments:

PART A or PART B SATISFIED NO

PART A

(All parts 1, 2, and 3 below must be satisfied)

SATISFIED NO

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;  
AND
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;  
AND
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.

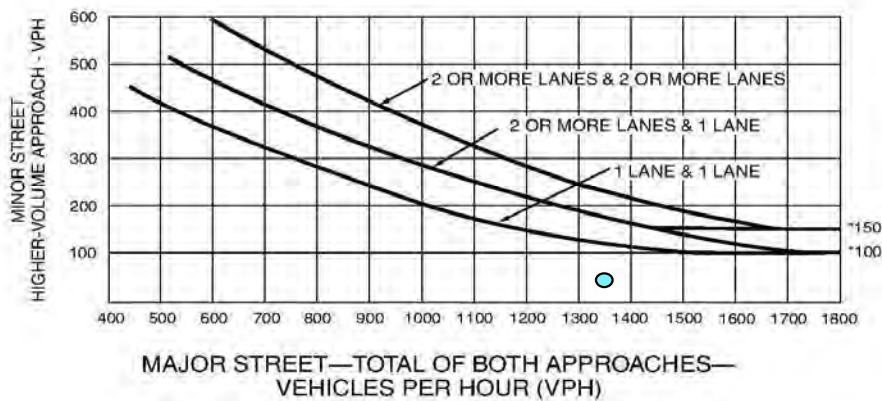
PART B

SATISFIED No

| APPROACH LANES                   | One  | 2 or More |
|----------------------------------|------|-----------|
| Both Approaches - Major Street   | 1363 |           |
| Highest Approache - Minor Street | 40   |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet  
 Warrant 3: Peak Hour  
 Source: MUTCD 2012 California Supplement

Scenario: Near Term Plus Project AM  
 Intersection: Green Valley Drive AND Wilson Estates Connector  
 Comments:

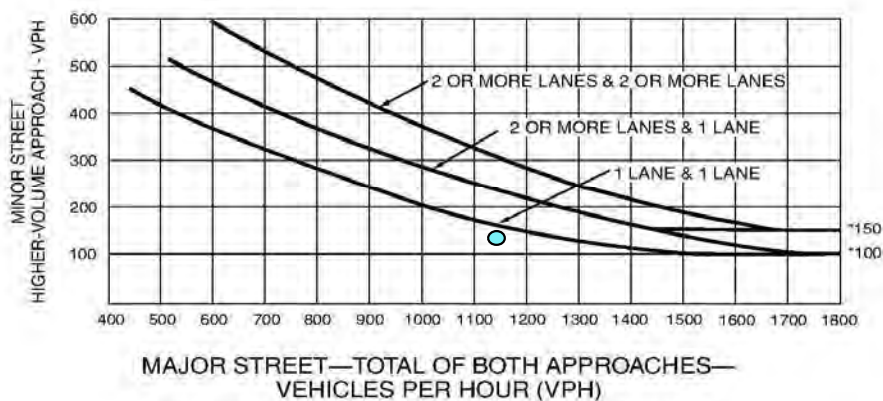
|   | PART A or PART B  | SATISFIED | NO  |
|---|---|-----------|-----|
| <b>PART A</b>                                   |   |           |     |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | NO  |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No  |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | Yes |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes |

| PART B | SATISFIED | No |
|--------|-----------|----|
|--------|-----------|----|

| APPROACH LANES                   | 2 or More |      |
|----------------------------------|-----------|------|
|                                  | One       | More |
| Both Approaches - Major Street   |           | 1148 |
| Highest Approache - Minor Street | 137       |      |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Near Term Plus Project PM

Intersection: Green Valley Drive AND Wilson Estates Connector

Comments:

PART A or PART B SATISFIED NO

PART A

(All parts 1, 2, and 3 below must be satisfied)

SATISFIED NO

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;  
AND
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;  
AND
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.

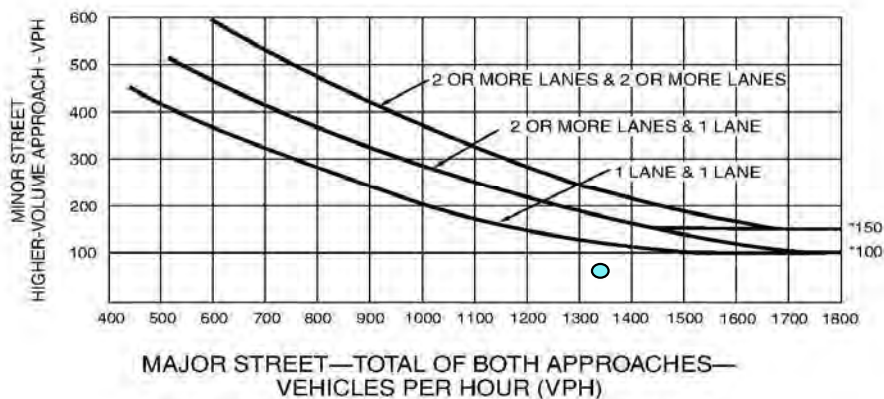
PART B

SATISFIED No

| APPROACH LANES                   | One | 2 or More |
|----------------------------------|-----|-----------|
| Both Approaches - Major Street   |     | 1346      |
| Highest Approache - Minor Street | 84  |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Near Term Plus Project AM

Intersection: Green Valley Drive AND Malcolm Dixon Road

Comments:

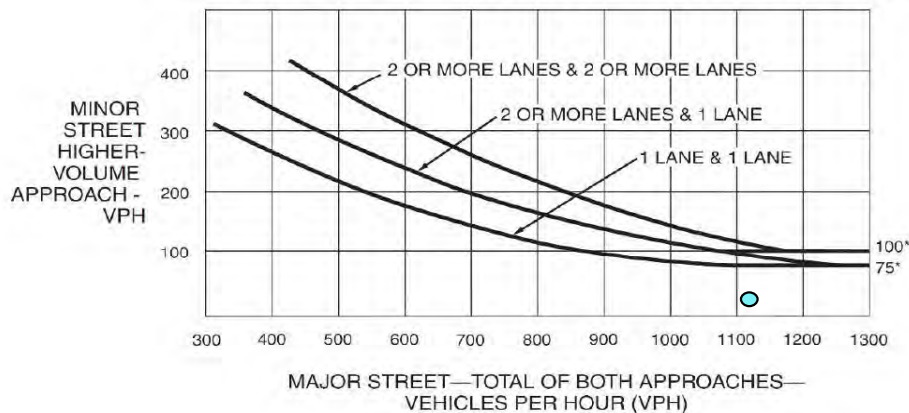
|   | PART A or PART B  | SATISFIED | NO  |
|---|---|-----------|-----|
| <b>PART A</b>                                   |   |           |     |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | NO  |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No  |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | No  |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes |

| PART B | SATISFIED | No |
|--------|-----------|----|
|--------|-----------|----|

| APPROACH LANES                  | One  | 2 or More |
|---------------------------------|------|-----------|
| Both Approaches - Major Street  | 1114 |           |
| Highest Approach - Minor Street | 28   |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**  
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



\*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Near Term Plus Project PM

Intersection: Green Valley Drive AND Malcolm Dixon Road

Comments:

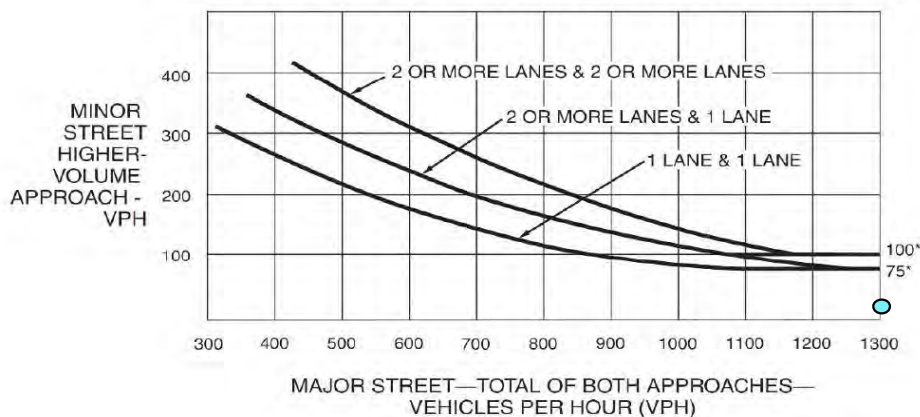
|   | <u>PART A</u> or <u>PART B</u>  | SATISFIED | NO  |
|---|---|-----------|-----|
| <b>PART A</b>                                   |   |           |     |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | NO  |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No  |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | No  |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes |

|               |           |    |
|---------------|-----------|----|
| <b>PART B</b> | SATISFIED | No |
|---------------|-----------|----|

| APPROACH LANES                  | One  | 2 or More |
|---------------------------------|------|-----------|
| Both Approaches - Major Street  | 1337 |           |
| Highest Approach - Minor Street | 17   |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**  
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



\*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Near Term Plus Project AM

Intersection: Green Valley Drive AND Deer Valley Road

Comments:

PART A or PART B SATISFIED NO

PART A

(All parts 1, 2, and 3 below must be satisfied)

SATISFIED NO

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach; AND
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.

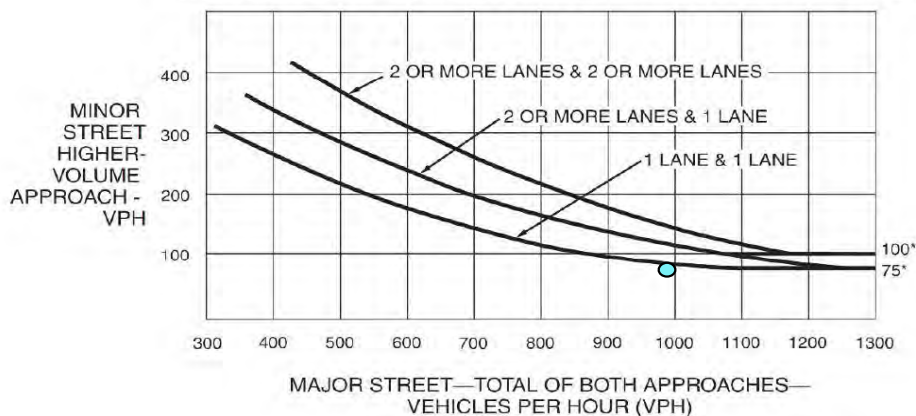
PART B

SATISFIED No

| APPROACH LANES                  | One | 2 or More |
|---------------------------------|-----|-----------|
| Both Approaches - Major Street  |     | 991       |
| Highest Approach - Minor Street | 77  |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**  
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



\*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.



Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Near Term Plus Project PM

Intersection: Green Valley Drive AND Deer Valley Road

Comments:

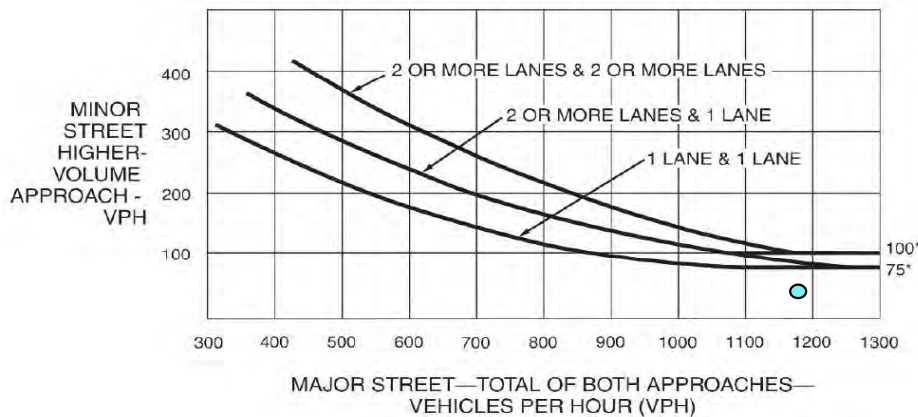
|   | PART A or PART B  | SATISFIED | NO  |
|---|---|-----------|-----|
| <b>PART A</b>                                   |   |           |     |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | NO  |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No  |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | No  |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes |

|               |           |    |
|---------------|-----------|----|
| <b>PART B</b> | SATISFIED | No |
|---------------|-----------|----|

| APPROACH LANES                  | One | 2 or More |
|---------------------------------|-----|-----------|
| Both Approaches - Major Street  |     | 1195      |
| Highest Approach - Minor Street | 54  |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**  
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



\*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Near Term Plus Project AM

Intersection: El Dorado Hills Boulevard AND Francisco Drive

Comments:

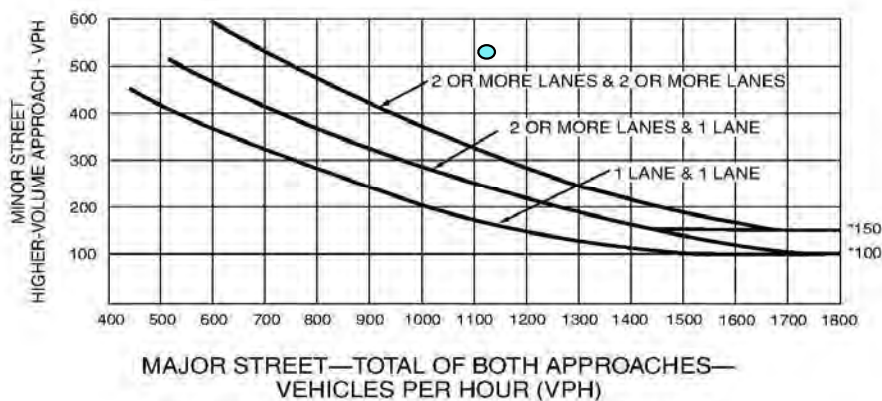
|   | PART A or PART B  | SATISFIED | YES       |
|---|---|-----------|-----------|
| <b>PART A</b>                                   |   |           |           |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | <b>NO</b> |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No        |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | Yes       |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes       |

| PART B | SATISFIED | Yes |
|--------|-----------|-----|
|--------|-----------|-----|

| APPROACH LANES                  | One | 2 or More |
|---------------------------------|-----|-----------|
| Both Approaches - Major Street  |     | 1102      |
| Highest Approach - Minor Street |     | 532       |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Near Term Plus Project PM

Intersection: El Dorado Hills Boulevard AND Francisco Drive

Comments:

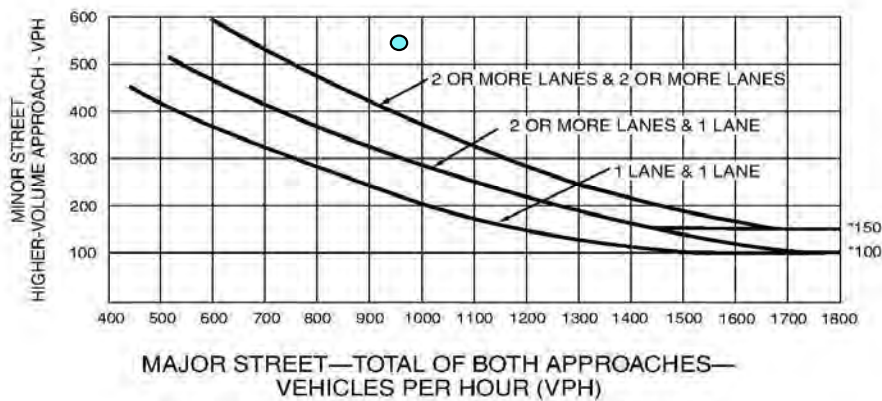
|   | PART A or PART B  | SATISFIED | YES       |
|---|---|-----------|-----------|
| <b>PART A</b>                                   |   |           |           |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | <b>NO</b> |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No        |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | Yes       |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes       |

|               |           |            |
|---------------|-----------|------------|
| <b>PART B</b> | SATISFIED | <b>Yes</b> |
|---------------|-----------|------------|

| APPROACH LANES                   | One | 2 or More |
|----------------------------------|-----|-----------|
| Both Approaches - Major Street   |     | 967       |
| Highest Approache - Minor Street |     | 566       |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet  
 Warrant 3: Peak Hour  
 Source: MUTCD 2012 California Supplement

Scenario: Near Term Plus Project AM  
 Intersection: Silva Valley Parkway AND Tong Road  
 Comments:

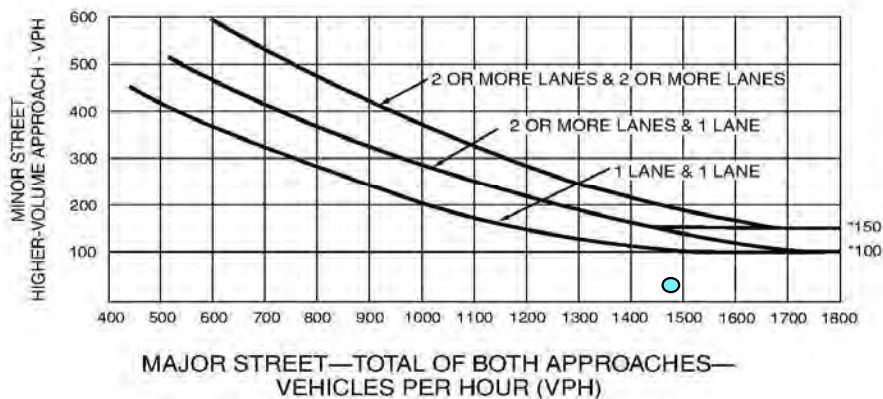
|   | PART A or PART B  | SATISFIED | NO  |
|---|---|-----------|-----|
| <b>PART A</b>                                   |   |           |     |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | NO  |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No  |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | No  |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes |

|  | PART B | SATISFIED | No |
|--|--------|-----------|----|
|--|--------|-----------|----|

| APPROACH LANES                   | 2 or More |      |
|----------------------------------|-----------|------|
|                                  | One       | More |
| Both Approaches - Major Street   |           | 1483 |
| Highest Approache - Minor Street | 42        |      |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Near Term Plus Project PM

Intersection: Silva Valley Parkway AND Tong Road

Comments:

PART A or PART B SATISFIED NO

PART A

(All parts 1, 2, and 3 below must be satisfied)

SATISFIED NO

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;  
AND
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;  
AND
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.

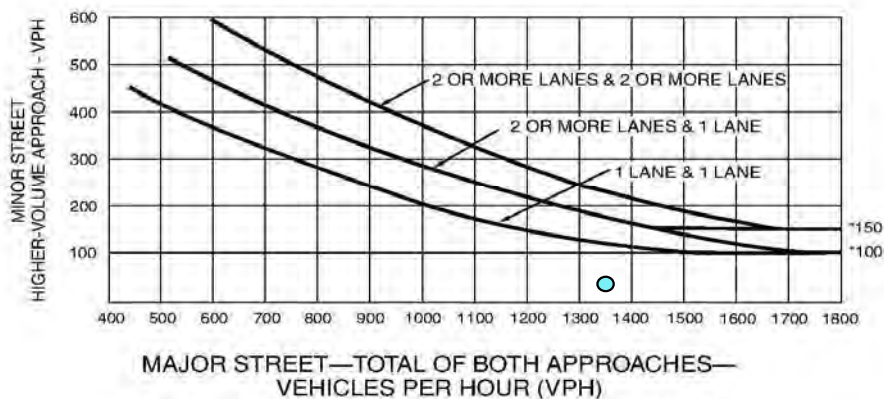
PART B

SATISFIED No

| APPROACH LANES                   | 2 or More |      |
|----------------------------------|-----------|------|
|                                  | One       | More |
| Both Approaches - Major Street   |           | 1377 |
| Highest Approache - Minor Street | 41        |      |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Near Term Plus Project AM

Intersection: Silva Valley Parkway AND Appian Way

Comments:

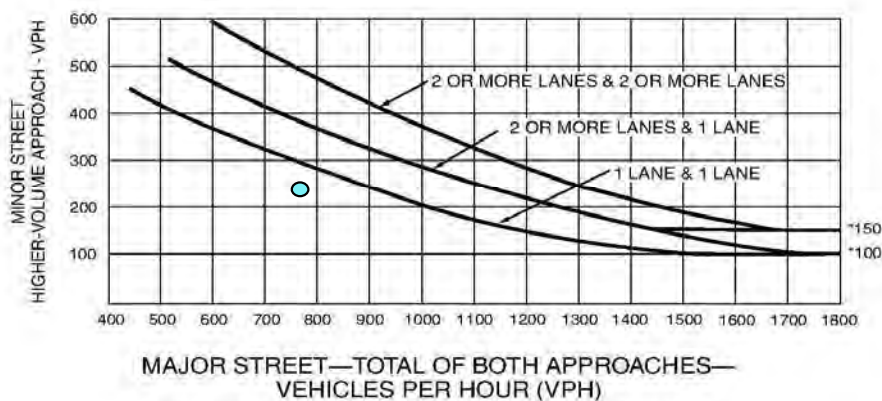
|   | PART A or PART B  | SATISFIED | NO  |
|---|---|-----------|-----|
| <b>PART A</b>                                   |   |           |     |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | NO  |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No  |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | Yes |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes |

|  | PART B | SATISFIED | No |
|--|--------|-----------|----|
|--|--------|-----------|----|

| APPROACH LANES                  | One | 2 or More |
|---------------------------------|-----|-----------|
| Both Approaches - Major Street  | 711 |           |
| Highest Approach - Minor Street | 246 |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Near Term Plus Project PM

Intersection: Silva Valley Parkway AND Appian Way

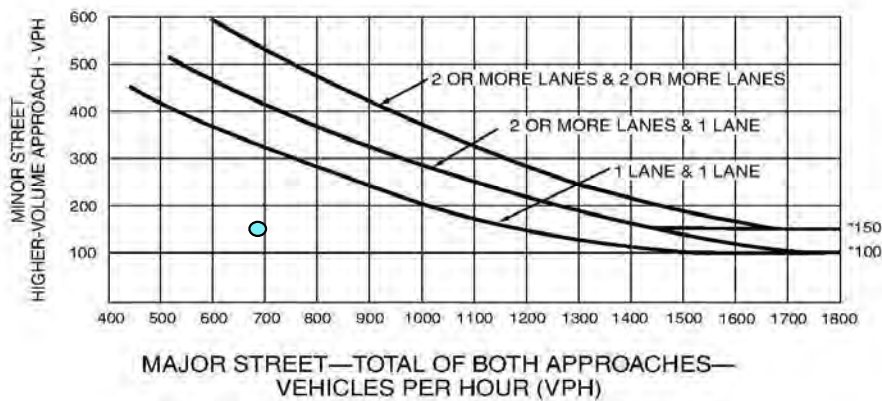
Comments:

|   | PART A or PART B  | SATISFIED | NO  |
|---|---|-----------|-----|
| <b>PART A</b>                                   |   |           |     |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | NO  |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No  |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | Yes |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes |

| <b>PART B</b>                    |     | SATISFIED | No |
|----------------------------------|-----|-----------|----|
| APPROACH LANES                   | One | 2 or More |    |
| Both Approaches - Major Street   | 699 |           |    |
| Highest Approache - Minor Street | 149 |           |    |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Cumulative AM

Intersection: Green Valley Drive AND Loch Way

Comments:

PART A or PART B SATISFIED NO

PART A

(All parts 1, 2, and 3 below must be satisfied)

SATISFIED NO

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;  
AND
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;  
AND
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.

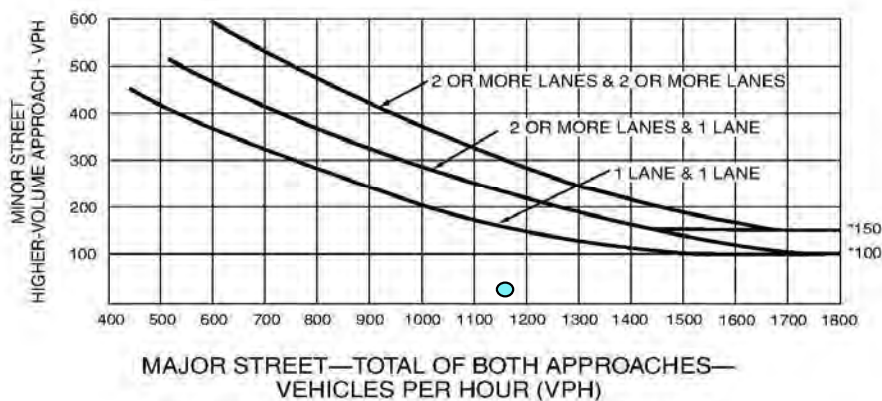
PART B

SATISFIED No

| APPROACH LANES                  | One  | 2 or More |
|---------------------------------|------|-----------|
| Both Approaches - Major Street  | 1164 |           |
| Highest Approach - Minor Street | 31   |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.



Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Cumulative PM

Intersection: Green Valley Drive AND Loch Way

Comments:

PART A or PART B SATISFIED NO

PART A

(All parts 1, 2, and 3 below must be satisfied)

SATISFIED NO

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach; AND
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes; AND
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.

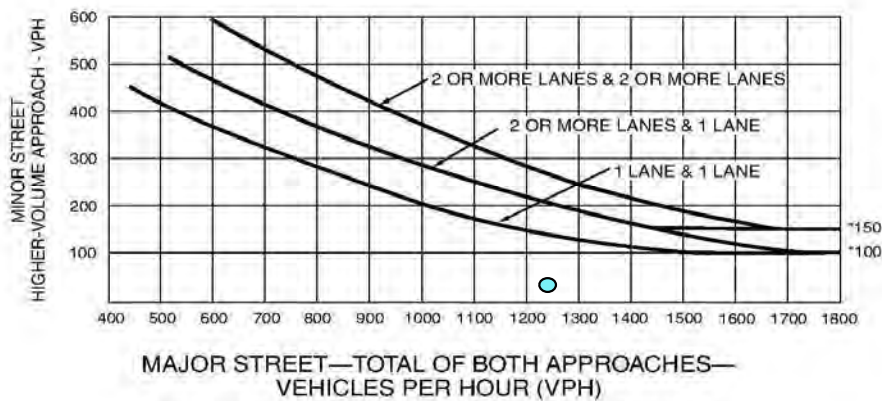
PART B

SATISFIED No

| APPROACH LANES                   | One  | 2 or More |
|----------------------------------|------|-----------|
| Both Approaches - Major Street   | 1248 |           |
| Highest Approache - Minor Street | 38   |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

**Figure 4C-3. Warrant 3, Peak Hour**



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet  
 Warrant 3: Peak Hour  
 Source: MUTCD 2012 California Supplement

Scenario: Cumulative AM  
 Intersection: Green Valley Drive AND Wilson Estates Connector  
 Comments:

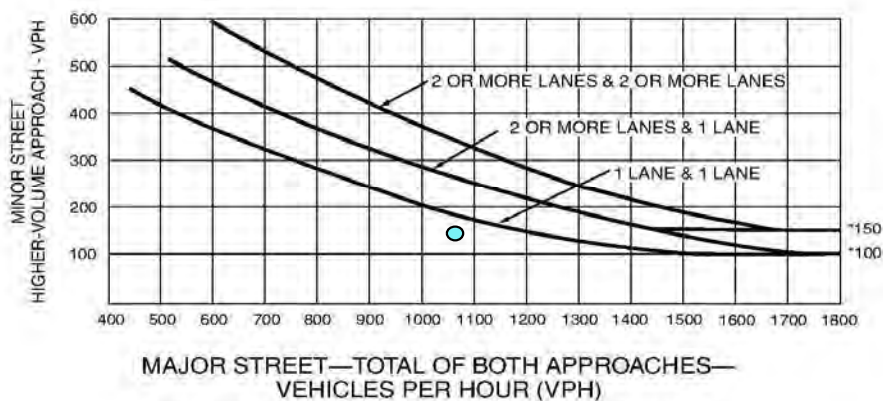
|   | PART A or PART B  | SATISFIED | NO  |
|---|---|-----------|-----|
| <b>PART A</b>                                   |   |           |     |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | NO  |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No  |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | Yes |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes |

| PART B | SATISFIED | No |
|--------|-----------|----|
|--------|-----------|----|

| APPROACH LANES                   | One                            |  | 2 or More |      |
|----------------------------------|--------------------------------|--|-----------|------|
|                                  | Both Approaches - Major Street |  |           | 1066 |
| Highest Approache - Minor Street | 137                            |  |           |      |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet  
 Warrant 3: Peak Hour  
 Source: MUTCD 2012 California Supplement

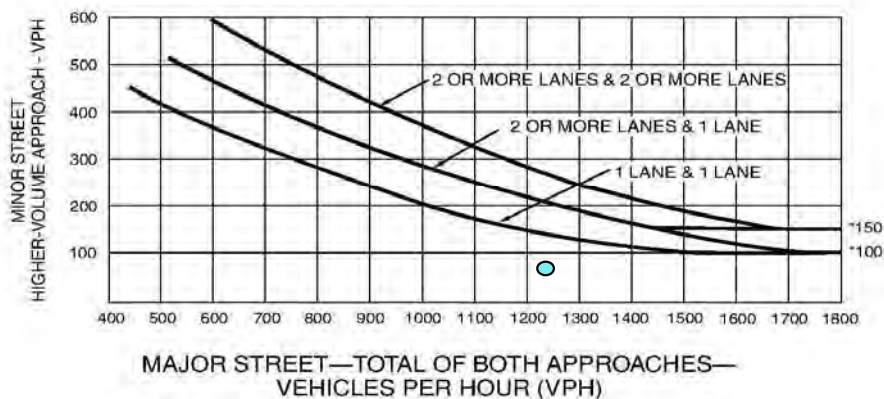
Scenario: Cumulative PM  
 Intersection: Green Valley Drive AND Wilson Estates Connector  
 Comments:

|   | PART A or PART B  | SATISFIED | NO  |
|---|---|-----------|-----|
| <b>PART A</b>                                   |   |           |     |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | NO  |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No  |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | No  |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes |

| <b>PART B</b>                    |     | SATISFIED | No |
|----------------------------------|-----|-----------|----|
| APPROACH LANES                   | One | 2 or More |    |
| Both Approaches - Major Street   |     | 1228      |    |
| Highest Approache - Minor Street | 84  |           |    |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet  
 Warrant 3: Peak Hour  
 Source: MUTCD 2012 California Supplement

Scenario: Cumulative AM  
 Intersection: Green Valley Drive AND Malcolm Dixon Road  
 Comments:

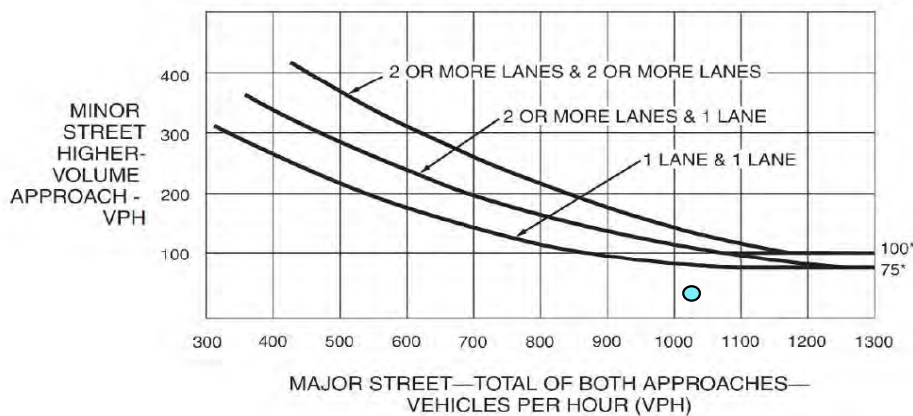
|   | PART A or PART B  | SATISFIED | NO  |
|---|---|-----------|-----|
| <b>PART A</b>                                   |   |           |     |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | NO  |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No  |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | No  |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes |

|  | PART B | SATISFIED | No |
|--|--------|-----------|----|
|--|--------|-----------|----|

| APPROACH LANES                  | One  | 2 or More |
|---------------------------------|------|-----------|
| Both Approaches - Major Street  | 1031 |           |
| Highest Approach - Minor Street | 30   |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**  
 (COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



\*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet  
 Warrant 3: Peak Hour  
 Source: MUTCD 2012 California Supplement

Scenario: Cumulative PM  
 Intersection: Green Valley Drive AND Malcolm Dixon Road  
 Comments:

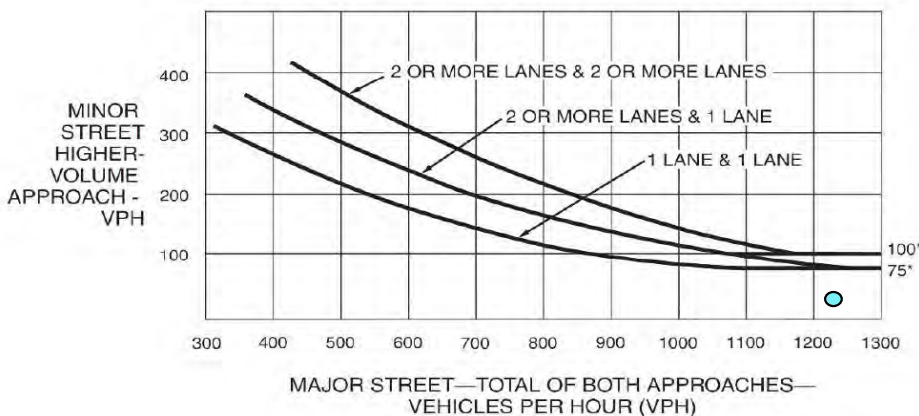
|   | PART A or PART B  | SATISFIED | NO  |
|---|---|-----------|-----|
| <b>PART A</b>                                   |   |           |     |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | NO  |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No  |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | No  |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes |

|  | PART B | SATISFIED | No |
|--|--------|-----------|----|
|--|--------|-----------|----|

| APPROACH LANES                   | One  | 2 or More |
|----------------------------------|------|-----------|
| Both Approaches - Major Street   | 1220 |           |
| Highest Approache - Minor Street | 17   |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**  
 (COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



\*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet  
 Warrant 3: Peak Hour  
 Source: MUTCD 2012 California Supplement

Scenario: Cumulative AM  
 Intersection: Green Valley Drive AND Deer Valley Road  
 Comments:

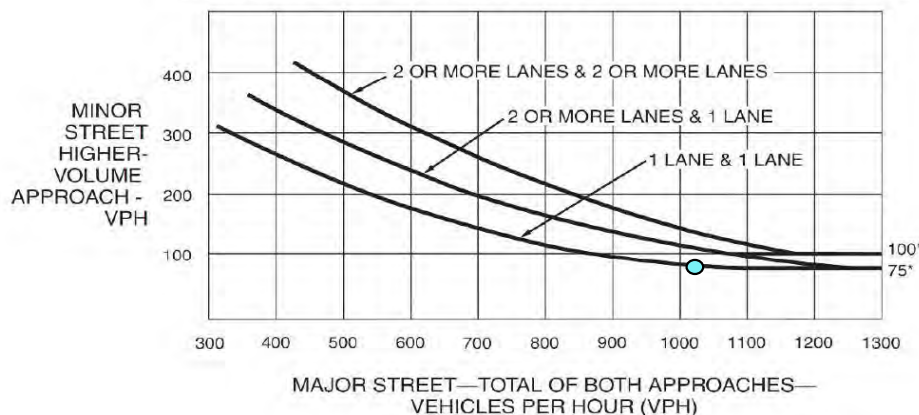
|   | PART A or PART B  | SATISFIED | NO  |
|---|---|-----------|-----|
| <b>PART A</b>                                   |   |           |     |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | NO  |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No  |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | No  |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes |

| PART B | SATISFIED | No |
|--------|-----------|----|
|--------|-----------|----|

| APPROACH LANES                   | 2 or More |      |
|----------------------------------|-----------|------|
|                                  | One       | More |
| Both Approaches - Major Street   |           | 1013 |
| Highest Approache - Minor Street | 88        |      |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**  
 (COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



\*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet  
 Warrant 3: Peak Hour  
 Source: MUTCD 2012 California Supplement

Scenario: Cumulative PM  
 Intersection: Green Valley Drive AND Deer Valley Road  
 Comments:

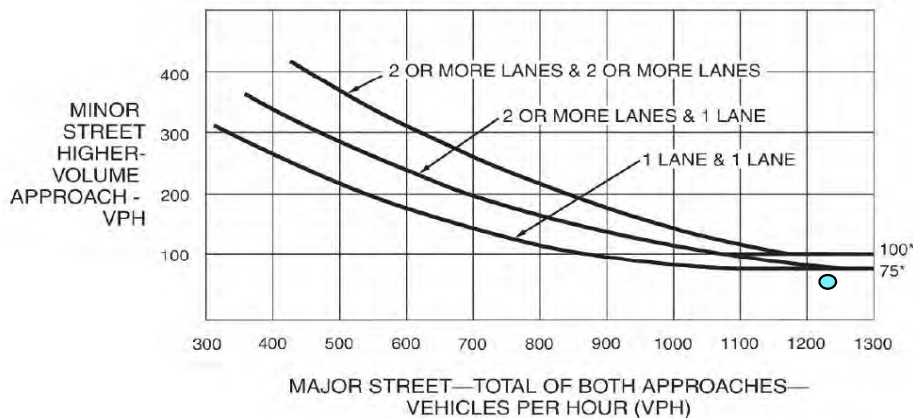
|   | PART A or PART B  | SATISFIED | NO  |
|---|---|-----------|-----|
| <b>PART A</b>                                   |   |           |     |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | NO  |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No  |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | No  |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes |

|  | PART B | SATISFIED | No |
|--|--------|-----------|----|
|--|--------|-----------|----|

| APPROACH LANES                   | One | 2 or More |
|----------------------------------|-----|-----------|
| Both Approaches - Major Street   |     | 1233      |
| Highest Approache - Minor Street | 62  |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**  
 (COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



\*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet  
 Warrant 3: Peak Hour  
 Source: MUTCD 2012 California Supplement

Scenario: Cumulative AM  
 Intersection: El Dorado Hills Boulevard AND Francisco Drive  
 Comments:

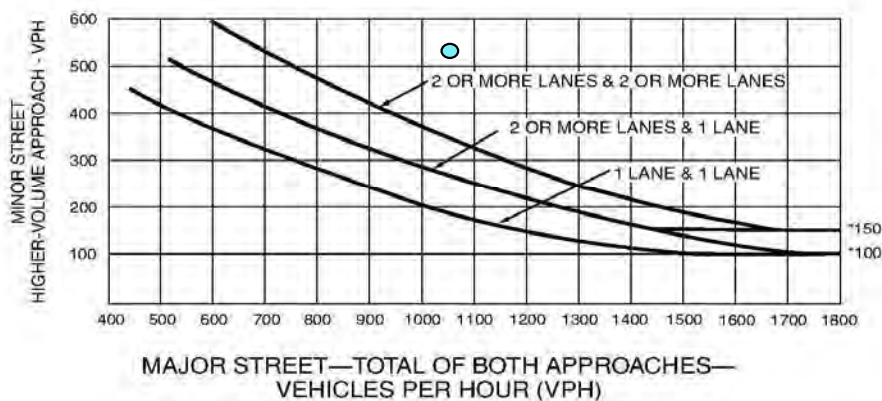
|  | PART A or PART B | SATISFIED | YES       |
|--|------------------|-----------|-----------|
| <b>PART A</b><br>(All parts 1, 2, and 3 below must be satisfied)   |                  | SATISFIED | <b>NO</b> |
| 1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |                  |           | No        |
| 2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |                  |           | Yes       |
| 3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |                  |           | Yes       |

|               |           |            |
|---------------|-----------|------------|
| <b>PART B</b> | SATISFIED | <b>Yes</b> |
|---------------|-----------|------------|

| APPROACH LANES                  | One | 2 or More |
|---------------------------------|-----|-----------|
| Both Approaches - Major Street  |     | 1079      |
| Highest Approach - Minor Street |     | 532       |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.



Traffic Signal Warrants Worksheet  
 Warrant 3: Peak Hour  
 Source: MUTCD 2012 California Supplement

Scenario: Cumulative PM  
 Intersection: El Dorado Hills Boulevard AND Francisco Drive  
 Comments:

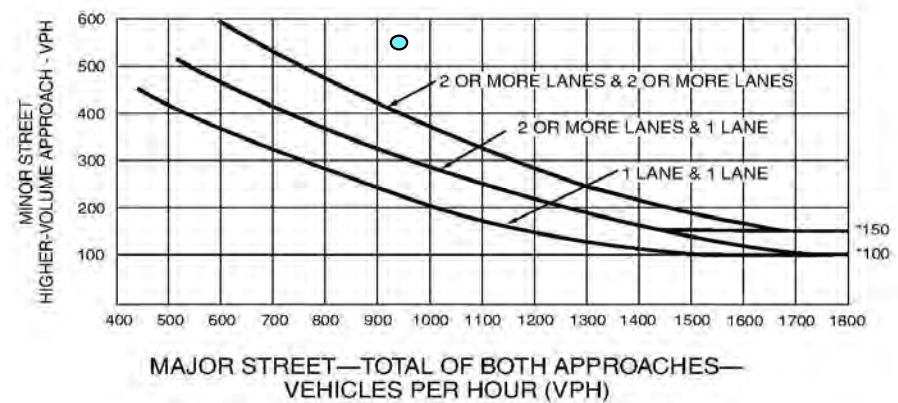
|   | PART A or PART B  | SATISFIED | YES       |
|---|---|-----------|-----------|
| <b>PART A</b>                                   |   |           |           |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | <b>NO</b> |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No        |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | Yes       |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes       |

|               |           |            |
|---------------|-----------|------------|
| <b>PART B</b> | SATISFIED | <b>Yes</b> |
|---------------|-----------|------------|

| APPROACH LANES                   | One | 2 or More |
|----------------------------------|-----|-----------|
| Both Approaches - Major Street   |     | 935       |
| Highest Approache - Minor Street |     | 566       |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Existing Conditions AM

Intersection: Silva Valley Parkway AND Tong Road

Comments:

PART A or PART B SATISFIED NO

PART A

(All parts 1, 2, and 3 below must be satisfied)

SATISFIED NO

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;  
AND
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;  
AND
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.

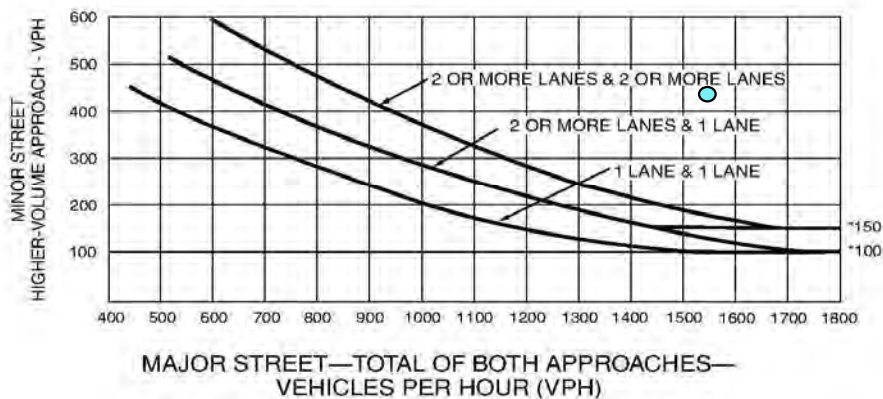
PART B

SATISFIED No

| APPROACH LANES                   | 2 or More |      |
|----------------------------------|-----------|------|
|                                  | One       | More |
| Both Approaches - Major Street   |           | 1597 |
| Highest Approache - Minor Street | 414       |      |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Existing Conditions PM

Intersection: Silva Valley Parkway AND Tong Road

Comments:

PART A or PART B SATISFIED NO

PART A

(All parts 1, 2, and 3 below must be satisfied)

SATISFIED NO

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;  
AND
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;  
AND
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.

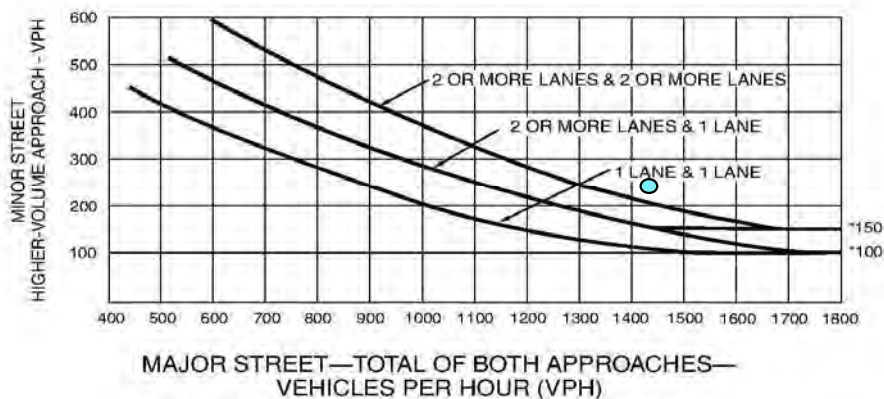
PART B

SATISFIED No

| APPROACH LANES                   | One | 2 or More |
|----------------------------------|-----|-----------|
| Both Approaches - Major Street   |     | 1480      |
| Highest Approache - Minor Street | 286 |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Cumulative AM

Intersection: Silva Valley Parkway AND Appian Way

Comments:

PART A or PART B SATISFIED NO

PART A

(All parts 1, 2, and 3 below must be satisfied)

SATISFIED NO

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;  
AND
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;  
AND
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.

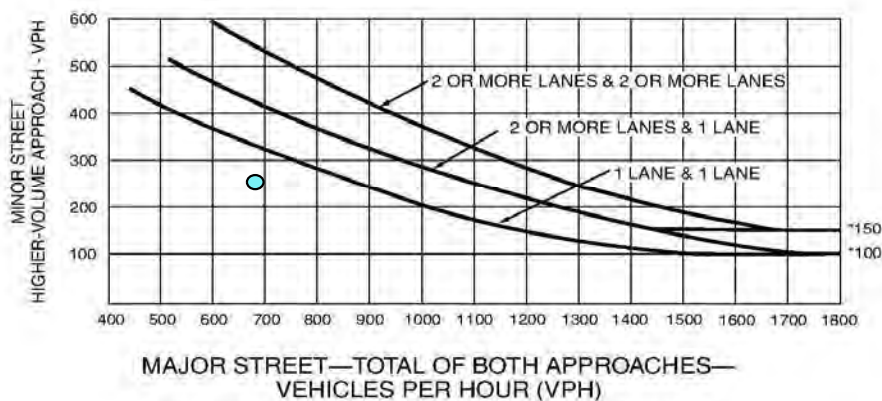
PART B

SATISFIED No

| APPROACH LANES                  | One | 2 or More |
|---------------------------------|-----|-----------|
| Both Approaches - Major Street  | 699 |           |
| Highest Approach - Minor Street | 250 |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Cumulative PM

Intersection: Silva Valley Parkway AND Appian Way

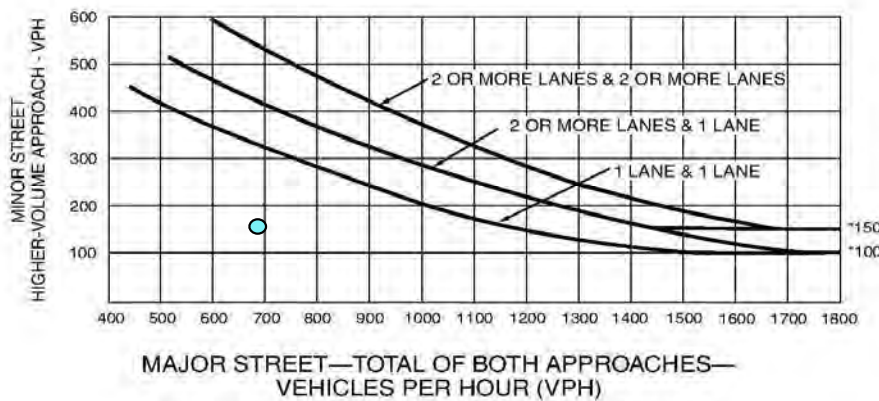
Comments:

|   | PART A or PART B  | SATISFIED | NO  |
|---|---|-----------|-----|
| <b>PART A</b>                                   |   |           |     |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | NO  |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No  |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | Yes |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes |

| <b>PART B</b>                    |     | SATISFIED | No |
|----------------------------------|-----|-----------|----|
| APPROACH LANES                   | One | 2 or More |    |
| Both Approaches - Major Street   | 683 |           |    |
| Highest Approache - Minor Street | 151 |           |    |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet  
 Warrant 3: Peak Hour  
 Source: MUTCD 2012 California Supplement

Scenario: Cumulative Plus Project AM  
 Intersection: Green Valley Drive AND Wilson Estates Connector  
 Comments:

PART A or PART B    SATISFIED    NO

---

PART A

(All parts 1, 2, and 3 below must be satisfied)

SATISFIED    NO

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;  
AND
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;  
AND
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.

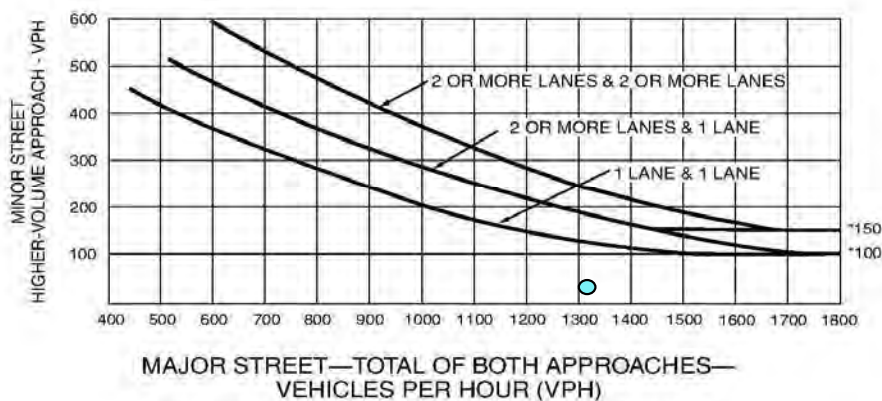
PART B

SATISFIED    No

| APPROACH LANES                  | One  | 2 or More |
|---------------------------------|------|-----------|
| Both Approaches - Major Street  | 1308 |           |
| Highest Approach - Minor Street | 32   |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

**Figure 4C-3. Warrant 3, Peak Hour**



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Cumulative Plus Project PM

Intersection: Green Valley Drive AND Wilson Estates Connector

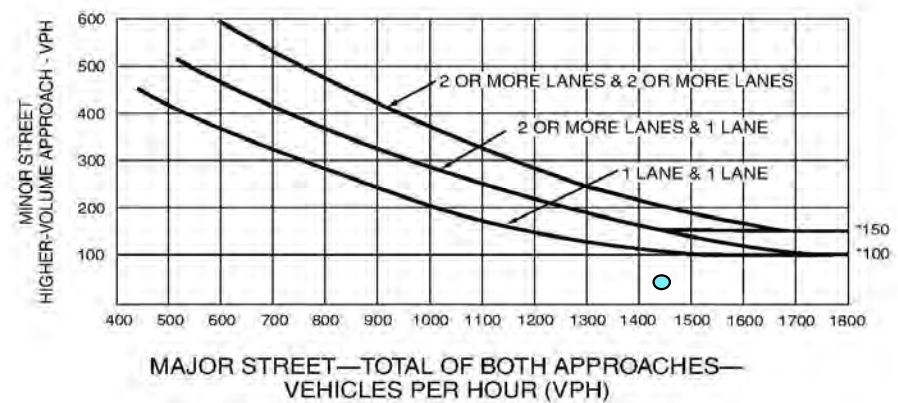
Comments:

|   | PART A or PART B  | SATISFIED | NO  |
|---|---|-----------|-----|
| <b>PART A</b>                                   |   |           |     |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | NO  |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No  |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | No  |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes |

| <b>PART B</b>                    |      | SATISFIED | No |
|----------------------------------|------|-----------|----|
| APPROACH LANES                   | One  | 2 or More |    |
| Both Approaches - Major Street   | 1447 |           |    |
| Highest Approache - Minor Street | 41   |           |    |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet  
 Warrant 3: Peak Hour  
 Source: MUTCD 2012 California Supplement

Scenario: Cumulative Plus Project AM  
 Intersection: Green Valley Drive AND Wilson Estates Connector  
 Comments:

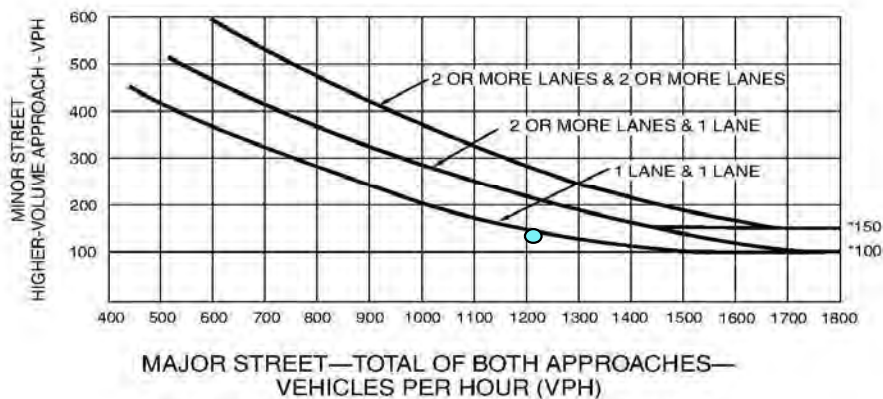
|   | PART A or PART B  | SATISFIED | NO  |
|---|---|-----------|-----|
| <b>PART A</b>                                   |   |           |     |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | NO  |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No  |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | Yes |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes |

**PART B** SATISFIED No

| APPROACH LANES                   | One | 2 or More |
|----------------------------------|-----|-----------|
| Both Approaches - Major Street   |     | 1210      |
| Highest Approache - Minor Street | 137 |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.



Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Cumulative Plus Project PM

Intersection: Green Valley Drive AND Wilson Estates Connector

Comments:

PART A or PART B SATISFIED NO

**PART A**

(All parts 1, 2, and 3 below must be satisfied)

SATISFIED NO

1. The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;  
AND
2. The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;  
AND
3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.

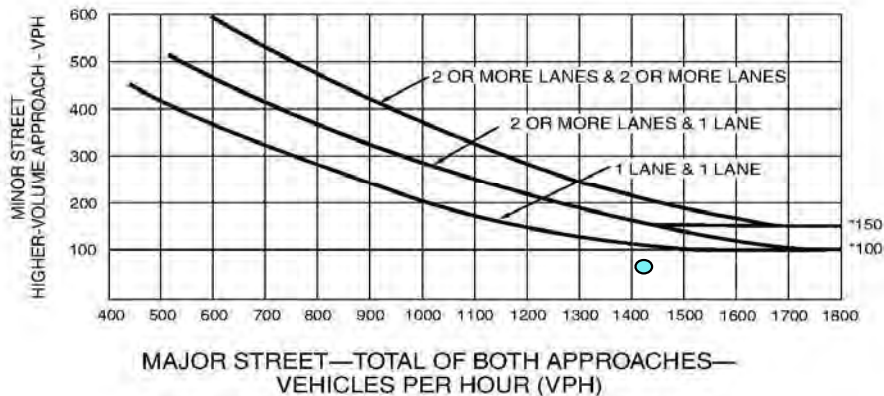
**PART B**

SATISFIED No

| APPROACH LANES                   | One | 2 or More |
|----------------------------------|-----|-----------|
| Both Approaches - Major Street   |     | 1430      |
| Highest Approache - Minor Street | 84  |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Cumulative Plus Project AM

Intersection: Green Valley Drive AND Malcolm Dixon Road

Comments:

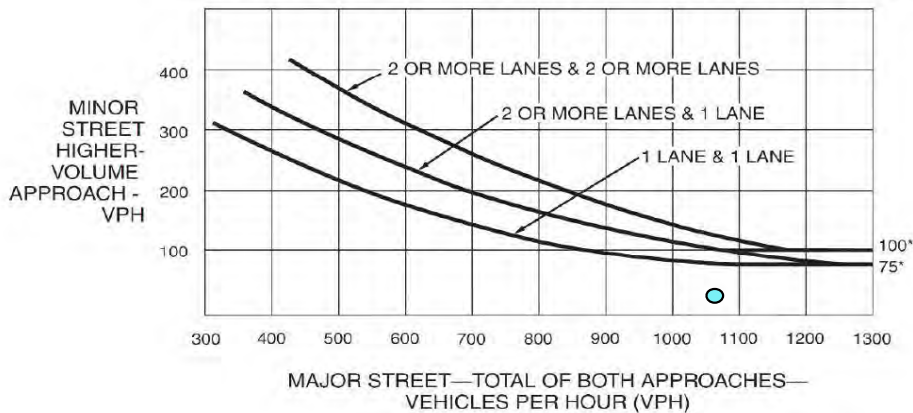
|   | PART A or PART B  | SATISFIED | NO  |
|---|---|-----------|-----|
| <b>PART A</b>                                   |   |           |     |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | NO  |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No  |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | No  |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes |

| PART B | SATISFIED | No |
|--------|-----------|----|
|--------|-----------|----|

| APPROACH LANES                  | One  | 2 or More |
|---------------------------------|------|-----------|
| Both Approaches - Major Street  | 1175 |           |
| Highest Approach - Minor Street | 30   |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**  
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



\*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Cumulative Plus Project PM

Intersection: Green Valley Drive AND Malcolm Dixon Road

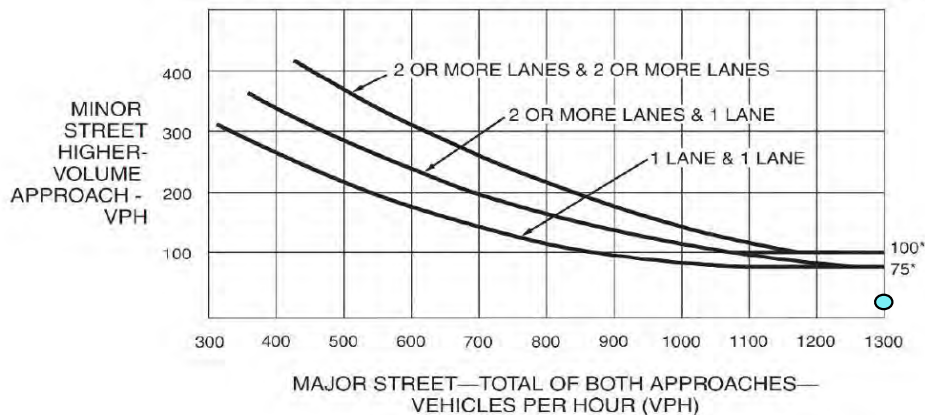
Comments:

|   | PART A or PART B  | SATISFIED | NO  |
|---|---|-----------|-----|
| <b>PART A</b>                                   |   |           |     |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | NO  |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No  |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | No  |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes |

| <b>PART B</b>                   |      | SATISFIED | No |
|---------------------------------|------|-----------|----|
| APPROACH LANES                  | One  | 2 or More |    |
| Both Approaches - Major Street  | 1423 |           |    |
| Highest Approach - Minor Street | 17   |           |    |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**  
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



\*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Cumulative Plus Project AM

Intersection: Green Valley Drive AND Deer Valley Road

Comments:

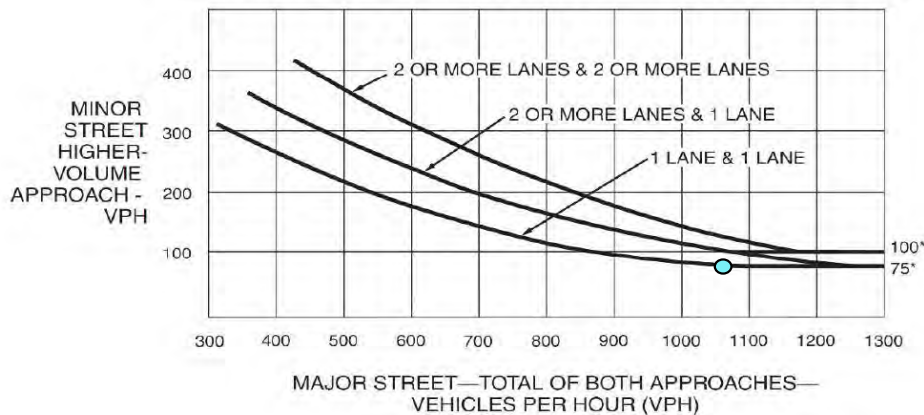
|   | PART A or PART B  | SATISFIED | YES       |
|---|---|-----------|-----------|
| <b>PART A</b>                                   |   |           |           |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | <b>NO</b> |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No        |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | No        |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes       |

|               |           |            |
|---------------|-----------|------------|
| <b>PART B</b> | SATISFIED | <b>Yes</b> |
|---------------|-----------|------------|

| APPROACH LANES                  | One | 2 or More |
|---------------------------------|-----|-----------|
| Both Approaches - Major Street  |     | 1061      |
| Highest Approach - Minor Street | 88  |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**  
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



\*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Cumulative Plus Project PM

Intersection: Green Valley Drive AND Deer Valley Road

Comments:

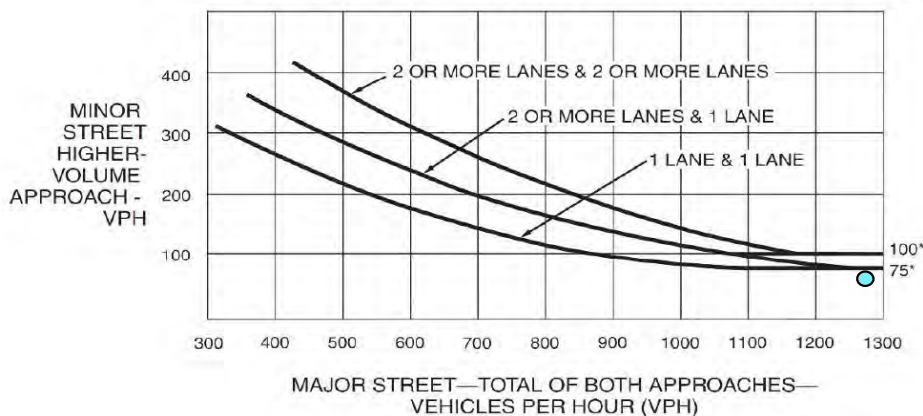
|   | PART A or PART B  | SATISFIED | NO  |
|---|---|-----------|-----|
| <b>PART A</b>                                   |   |           |     |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | NO  |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No  |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | No  |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes |

|  | PART B | SATISFIED | No |
|--|--------|-----------|----|
|--|--------|-----------|----|

| APPROACH LANES                  | One | 2 or More |
|---------------------------------|-----|-----------|
| Both Approaches - Major Street  |     | 1296      |
| Highest Approach - Minor Street | 71  |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

**Figure 4C-4. Warrant 3, Peak Hour (70% Factor)**  
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 40 MPH ON MAJOR STREET)



\*Note: 100 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet  
 Warrant 3: Peak Hour  
 Source: MUTCD 2012 California Supplement

Scenario: Cumulative Plus Project AM  
 Intersection: El Dorado Hills Boulevard AND Francisco Drive  
 Comments:

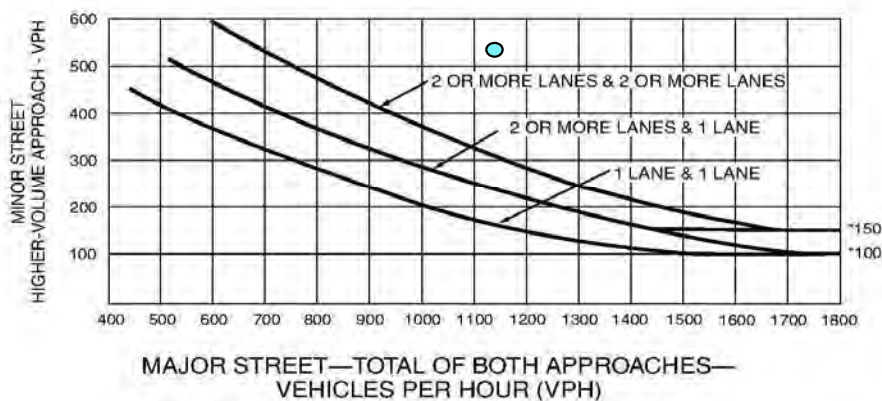
|   | PART A or PART B  | SATISFIED | YES       |
|---|---|-----------|-----------|
| <b>PART A</b>                                   |   |           |           |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | <b>NO</b> |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No        |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | Yes       |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes       |

|               |           |            |
|---------------|-----------|------------|
| <b>PART B</b> | SATISFIED | <b>Yes</b> |
|---------------|-----------|------------|

| APPROACH LANES                  | One | 2 or More |
|---------------------------------|-----|-----------|
| Both Approaches - Major Street  |     | 1119      |
| Highest Approach - Minor Street |     | 532       |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Cumulative Plus Project PM

Intersection: El Dorado Hills Boulevard AND Francisco Drive

Comments:

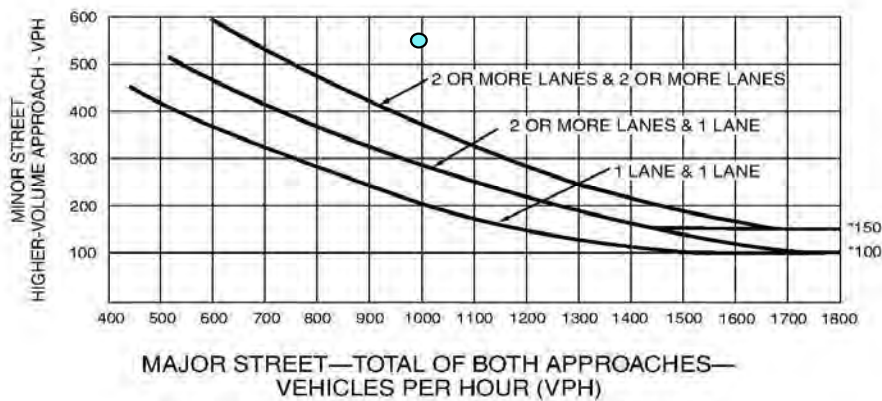
|   | PART A or PART B  | SATISFIED | YES       |
|---|---|-----------|-----------|
| <b>PART A</b>                                   |   |           |           |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | <b>NO</b> |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No        |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | Yes       |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes       |

|               |           |            |
|---------------|-----------|------------|
| <b>PART B</b> | SATISFIED | <b>Yes</b> |
|---------------|-----------|------------|

| APPROACH LANES                   | One | 2 or More |
|----------------------------------|-----|-----------|
| Both Approaches - Major Street   |     | 996       |
| Highest Approache - Minor Street |     | 566       |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Cumulative Plus Project AM

Intersection: Silva Valley Parkway AND Tong Road

Comments:

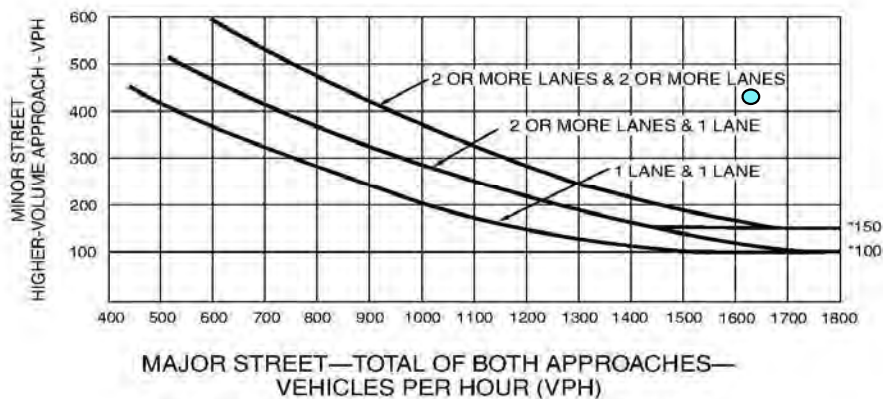
|   | PART A or PART B  | SATISFIED | YES       |
|---|---|-----------|-----------|
| <b>PART A</b>                                   |   |           |           |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | <b>NO</b> |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No        |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | Yes       |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes       |

|               |           |            |
|---------------|-----------|------------|
| <b>PART B</b> | SATISFIED | <b>Yes</b> |
|---------------|-----------|------------|

| APPROACH LANES                   | One | 2 or More |
|----------------------------------|-----|-----------|
| Both Approaches - Major Street   |     | 1625      |
| Highest Approache - Minor Street | 414 |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.



Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Cumulative Plus Project PM

Intersection: Silva Valley Parkway AND Tong Road

Comments:

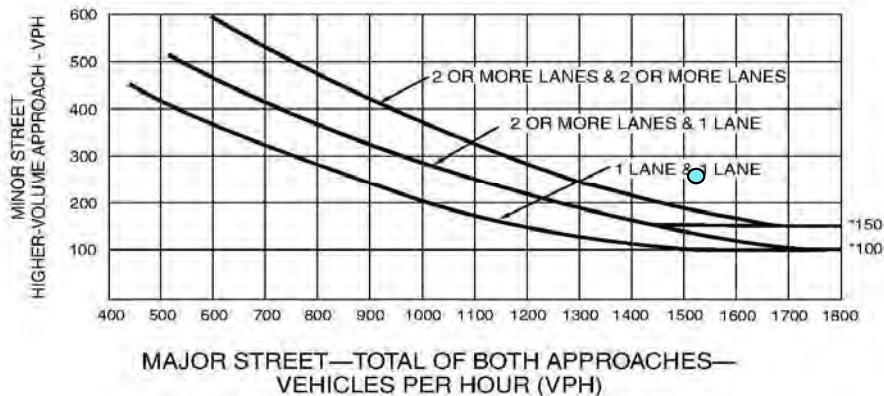
|   | PART A or PART B  | SATISFIED | YES       |
|---|---|-----------|-----------|
| <b>PART A</b>                                   |   |           |           |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | <b>NO</b> |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No        |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | Yes       |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes       |

|               |           |            |
|---------------|-----------|------------|
| <b>PART B</b> | SATISFIED | <b>Yes</b> |
|---------------|-----------|------------|

| APPROACH LANES                   | One | 2 or More |
|----------------------------------|-----|-----------|
| Both Approaches - Major Street   |     | 1519      |
| Highest Approache - Minor Street | 286 |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour



\*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal Warrants Worksheet

Warrant 3: Peak Hour

Source: MUTCD 2012 California Supplement

Scenario: Cumulative Plus Project AM

Intersection: Silva Valley Parkway AND Appian Way

Comments:

|   | PART A or PART B  | SATISFIED | NO  |
|---|---|-----------|-----|
| <b>PART A</b>                                   |   |           |     |
| (All parts 1, 2, and 3 below must be satisfied) |   | SATISFIED | NO  |
| 1.  | The total delay experienced for traffic on one minor street approach controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle hours for a two-lane approach;<br><u>AND</u> |           | No  |
| 2.  | The volume on the same minor street approach equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes;<br><u>AND</u>  |           | Yes |
| 3.  | The total entering volume serviced during the hour equals or exceeds 800 vph for intersection with four or more approaches or 650 vph for intersection with less than four approaches.                                    |           | Yes |

|  | PART B | SATISFIED | No |
|--|--------|-----------|----|
|--|--------|-----------|----|

| APPROACH LANES                  | One | 2 or More |
|---------------------------------|-----|-----------|
| Both Approaches - Major Street  | 737 |           |
| Highest Approach - Minor Street | 251 |           |

The plotted points for vehicles per hour on major streets (both approaches) and the corresponding per hour higher volume minor street approach (one direction only) for one hour (any consecutive 15 minute period) fall above applicable curves in MUTCD Figure 4C-3.

Figure 4C-3. Warrant 3, Peak Hour

