

Appendix E
TRAFFIC IMPACT ANALYSIS



HENRY MAYO NEWHALL MEMORIAL HOSPITAL MASTER PLAN

Traffic Impact Analysis

MAY 2008



HENRY MAYO NEWHALL MEMORIAL HOSPITAL MASTER PLAN
TRAFFIC IMPACT ANALYSIS

Prepared by:

Austin-Foust Associates, Inc.
2223 Wellington Avenue, Suite 300
Santa Ana, California 92701-3161
(714) 667-0496

May 29, 2008

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1.0 INTRODUCTION

This report presents the results of a traffic study carried out to evaluate the Henry Mayo Newhall Memorial Hospital (HMNMH) Master Plan project located in the City of Santa Clarita. It provides the traffic and circulation material for the Environmental Impact Report (EIR) prepared for this project.

1.1 PROJECT DESCRIPTION

A detailed description of this project and the resulting California Environmental Quality Act (CEQA) requirements addressed here can be found in the Notice of Preparation and in the EIR itself. The Henry Mayo Newhall Memorial Hospital and G&L Realty have proposed a Master Plan to guide future development of the inpatient (hospital), outpatient medical office buildings and administrative medical facilities at the existing HMNMH medical campus.

Currently, the project site is developed with the existing HMNMH medical campus. The project proposes to increase the existing square footage of the hospital campus (30.39 acres) from 332,992 square feet to 660,355 square feet, a 327,363 square-foot increase. The 327,363 square-foot total for the proposed HMNMH Master Plan buildings is comprised of the following:

Inpatient Building A (IBA)	125,363 square feet
Medical Office Building 1 (MOB 1)	80,000 square feet
Medical Office Building 2 (MOB 2)	60,000 square feet
Medical Office Building 3 (MOB 3)	60,000 square feet
Central Plant	10,000 square feet
Foundation Building (to be demolished)	(8,000 square feet)

As shown above, the net build out of the medical campus totals results in 127,363 square feet of new hospital area and 200,000 square feet of new medical office area.

The project site is generally located north of the intersection of Orchard Village Drive and McBean Parkway, and is one mile east of the Interstate 5 (I-5) freeway in the City of Santa Clarita. The project area is within the existing HMNMH medical campus located at 23845 McBean Parkway and is generally surrounded by residential uses. Figure 1-1 illustrates the location of the site in relation to the surrounding roadway system.

1.2 STUDY AREA

The study area includes the roadways and intersections near to the project site and those locations where project-generated traffic could cause a significant impact. Figure 1-2 illustrates the intersections selected for study through consultations with the City's Transportation and Engineering Services staff. The selection criteria is generally based on the project generating 50 or more new peak hour trips in the peak direction at an intersection. Several intersections with fewer than 50 project peak hour/peak direction trips have also been included as determined on a case-by-case basis.

1.3 METHODOLOGY

The traffic analysis evaluates the proposed project for an Interim Year horizon (approximately 10 to 15 years in the future), and for a long-range cumulative (approximately year 2030) buildout time frame. The distribution of project traffic and the future year forecasts are derived using the Santa Clarita Valley Consolidated Traffic Model (SCVCTM). The SCVCTM was developed jointly by the City of Santa Clarita and the County of Los Angeles and is the primary tool used for forecasting traffic volumes for the Santa Clarita Valley.

The impact analysis is based on specific performance criteria which are outlined in the following section. Where appropriate, mitigation measures are identified for those scenarios in which significant impacts are determined based on the established impact thresholds.

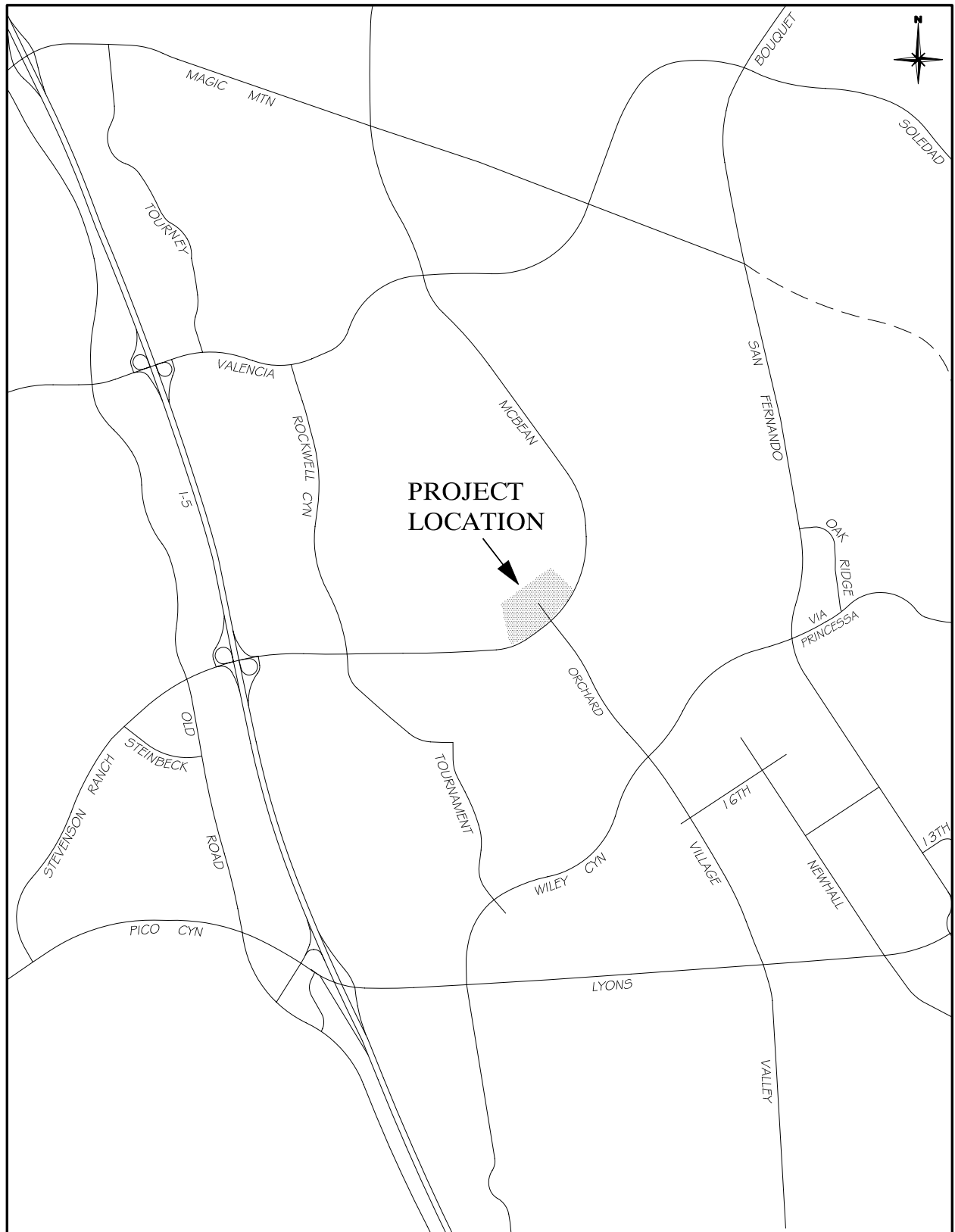
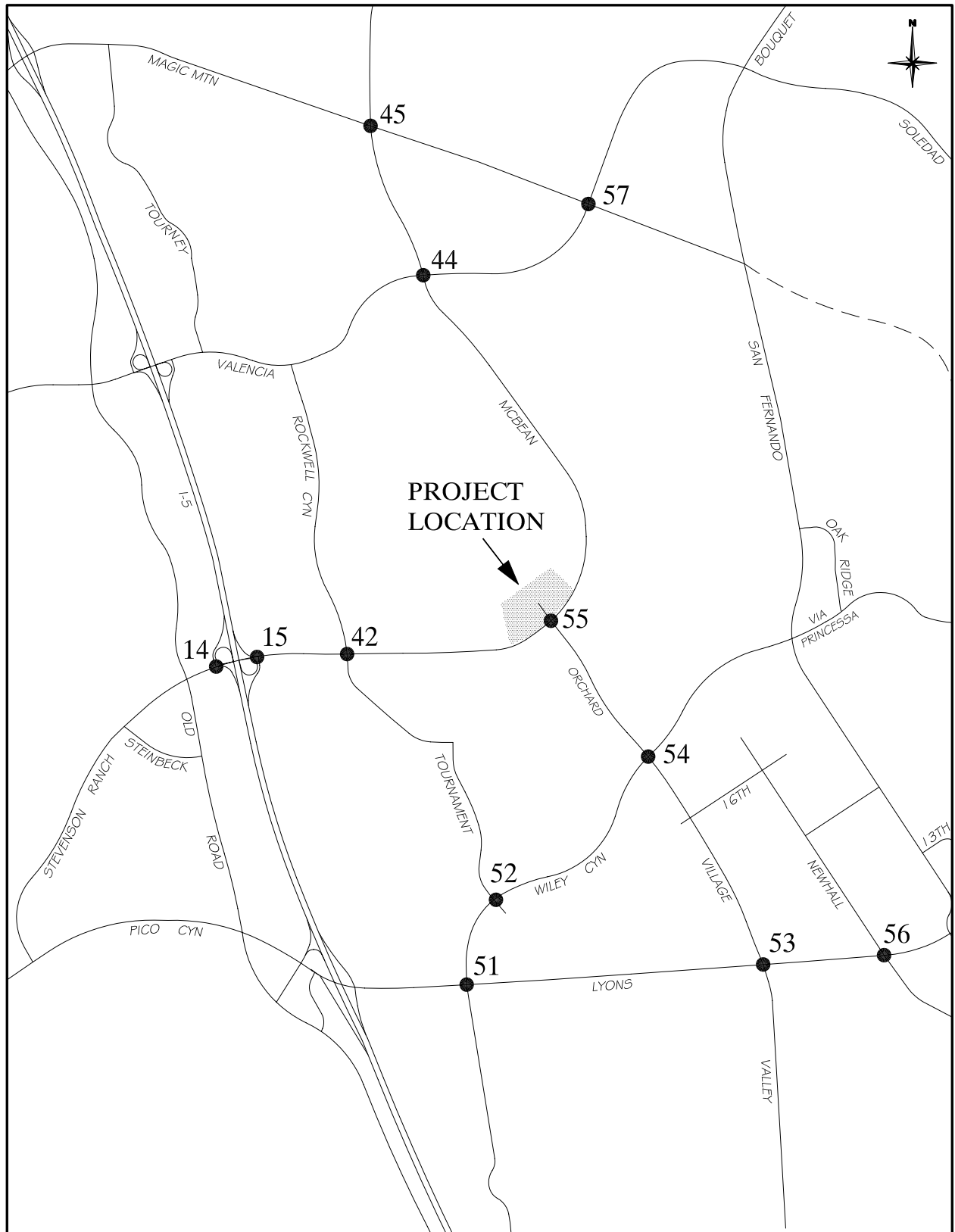


Figure 1-1
PROJECT SITE LOCATION



LEGEND

● # Santa Clarita Consolidated Traffic Model (SCVCTM) Location Number

Figure 1-2

STUDY AREA INTERSECTIONS

1.4 PERFORMANCE CRITERIA

For CEQA purposes, defined performance criteria are utilized to determine if a proposed project causes a significant impact. In most traffic studies, performance criteria are based on two primary measures. The first is “capacity”, which establishes the vehicle carrying ability of a roadway and the second is “volume.” The volume measure is either a traffic count (in the case of existing volumes) or a forecast for a future point in time. The ratio between the volume and the capacity gives a volume/capacity (V/C) ratio and based on that V/C ratio, a corresponding level of service (LOS) is defined. Traffic LOS is designated A through F with LOS A representing free flow conditions and LOS F representing severe traffic congestion. Traffic flow quality for each LOS is described in Table 1-1.

Both the V/C ratio and the LOS are used in determining impact significance. Certain LOS values are deemed unacceptable by the City and increases in the V/C ratio which cause or contribute to the LOS being unacceptable are defined as a significant impact (see following sections for details).

1.4.1 Arterial Roads

For the arterial system, a number of techniques are available to establish suitable V/C ratios and define the corresponding LOS. These definitions and procedures are established by individual local jurisdictions or by regional programs such as the Congestion Management Program (CMP).

The analysis of the arterial road system is based on peak hour intersection performance and on total average daily traffic (ADT). For intersections, the intersection capacity utilization (ICU) methodology is applied, providing a planning level basis for determining V/C and LOS. This methodology sums the V/C ratios for the critical movements of an intersection and is the preferred procedure for intersection analysis by the City of Santa Clarita. The ICU methodology is generally compatible with the intersection capacity analysis methodology outlined in the *HCM 2000*. For roadway ADT, LOS is determined using capacities identified in the City’s Circulation Element and traffic volumes from the SCVCTM.

Table 1-1

LEVEL OF SERVICE DESCRIPTIONS

LOS	Arterial Roads	Freeway Segments
A	Describes primarily free-flow operations at average travel speeds, usually about 90 percent of the free-flow speed for the given street class. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control delay at signalized intersections is minimal.	Describes free-flow operations. Free-flow speeds prevail. Vehicles are almost completely unimpeded in their ability to maneuver within the traffic stream. The effects of incidents or point breakdowns are easily absorbed at this level.
B	Describes reasonably unimpeded operations at average travel speeds, usually about 70 percent of the free-flow speed for the street class. The ability to maneuver within the traffic stream is only slightly restricted, and control delays at signalized intersections are not significant.	Represents reasonably free flow, and free-flow speeds are maintained. The ability to maneuver within the traffic stream is only slightly restricted, and the general level of physical and psychological comfort provided to drivers is still high. The effects of minor incidents and point breakdowns are still easily absorbed.
C	Describes stable operations; however, ability to maneuver and change lanes in midblock locations may be more restricted than at LOS B, and longer queues, adverse signal coordination, or both may contribute to lower average travel speeds of about 50 percent of the free-flow speed for the street class.	Provides for flow with speeds at or near the free-flow speed of the freeway. Freedom to maneuver within the traffic stream is noticeably restricted, and lane changes require more care and vigilance on the part of the driver. Minor incidents may still be absorbed, but the local deterioration in service will be substantial. Queues may be expected to form behind any significant blockage.
D	Borders on a range in which small increases in flow may cause substantial increases in delay and decreases in travel speed. LOS D may be due to adverse signal progression, inappropriate signal timing, high volumes, or a combination of these factors. Average travel speeds are about 40 percent of free-flow speed.	The level at which speeds begin to decline slightly with increasing flows and density begins to increase somewhat more quickly. Freedom to maneuver within the traffic stream is more noticeably limited, and the driver experiences reduced physical and psychological comfort levels. Even minor incidents can be expected to create queuing, because the traffic stream has little space to absorb disruptions.

(cont.)

Table 1-1 (cont.)

LEVEL OF SERVICE DESCRIPTIONS

LOS	Arterial Roads	Freeway Segments
E	<p>Characterized by significant delays and average travel speeds of 33 percent or less of the free-flow speed. Such operations are caused by a combination of adverse signal progression, high signal density, high volumes, extensive delays at critical intersections, and inappropriate signal timing.</p>	<p>At its highest density value, LOS E describes operation at capacity. Operations at this level are volatile, because there are virtually no usable gaps in the traffic stream. Vehicles are closely spaced, leaving little room to maneuver within the traffic stream at speeds that still exceed 49 miles per hour. Any disruption of the traffic stream, such as vehicles entering from a ramp or a vehicle changing lanes, can establish a disruption wave that propagates throughout the upstream traffic flow. At capacity, the traffic stream has no ability to dissipate even the most minor disruption, and any incident can be expected to produce a serious breakdown with extensive queuing. Maneuverability within the traffic stream is extremely limited, and the level of physical and psychological comfort afforded the driver is poor.</p>
F	<p>Characterized by urban street flow at extremely low speeds, typically one-third to one-fourth of the free-flow speed. Intersection congestion is likely at critical signalized locations, with high delays, high volumes, and extensive queuing.</p>	<p>Describes breakdowns in vehicular flow. Such conditions generally exist within queues forming behind breakdown points. LOS F operations within a queue are the result of a breakdown or bottleneck at a downstream point. LOS F is also used to describe conditions at the point of the breakdown or bottleneck and the queue discharge flow that occurs at speeds lower than the lowest speed for LOS E, as well as the operations within the queue that forms upstream. Whenever LOS F conditions exist, they have the potential to extend upstream for significant distances.</p>

Source: *Highway Capacity Manual 2000 (HCM 2000)*, Transportation Research Board, National Research Council.

The ICU calculation methodology and associated impact criteria for the study area arterial system are summarized in Table 1-2. For locations where arterial roadways intersect with freeway on- and off-ramps, the same ICU methodology is utilized. The performance criteria utilized for the evaluation of roadway segments for long-range cumulative (2030) buildout conditions is provided in Table 1-3.

1.4.2 Freeway Segments

For the freeway system, the peak hour is the accepted time period used for impact evaluation. The procedures for determining LOS are established by the State of California Department of Transportation (Caltrans) and by regional programs such as the CMP.

The Caltrans guidelines for the preparation of traffic impact studies (see Reference 4 in Section 1.6) define the transition between LOS C and LOS D as the target LOS to be maintained. Caltrans acknowledges that this may not always be feasible and allows for an alternative target LOS when appropriate. If an existing freeway is operating at less (worse) than the appropriate target LOS, the guidelines state that the existing measure of effectiveness (MOE) should be maintained.

The CMP guidelines for a transportation impact analysis (see Reference 8 in Section 1.6) require a simplified analysis of freeway impacts that consists of a demand-to-capacity calculation for the affected CMP monitoring locations. The CMP defines a significant impact occurring when the proposed project increases traffic demand by two percent of capacity ($V/C \geq .02$), causing or worsening LOS F.

Table 1-2

ARTERIAL INTERSECTION PERFORMANCE CRITERIA

V/C Calculation Methodology

Level of service to be based on peak hour intersection capacity utilization (ICU) values calculated using the following assumptions:

Saturation Flow Rates: 1,750 vehicles/hour/lane for all lanes

Clearance Interval: .10

(source: City of Santa Clarita Preliminary Traffic Impact Report Guidelines)

Performance Standard

LOS D or existing LOS, whichever is greater.

(source: City of Santa Clarita General Plan Circulation Element, Policy 1.8)

Impact Thresholds

An intersection is considered to be significantly impacted if:

1. The intersection is forecast to operate deficiently (i.e., worse than the performance standard), and
2. Compared to the ICU in the no-project alternative, the ICU in the with-project alternative increases the ICU by the following:

<u>With-Project ICU</u>	<u>Project Increment</u>
.81 - 90 (LOS D)	greater than or equal to .02
.91 or more (LOS E & F)	greater than or equal to .01

(source: City of Santa Clarita General Plan Circulation Element, Policy 1.8)

Abbreviations:

V/C – Volume/Capacity Ratio

LOS – Level of Service

ICU – Intersection Capacity Utilization

Table 1-3

ARTERIAL ROADWAY PERFORMANCE CRITERIA

V/C Calculation Methodology

Level of service to be based on mid-block V/C ratios calculated using the following capacity assumptions:

LOS	8-Lane Divided	6-Lane Divided	4-Lane Divided	4-Lane Undivided	2-Lane Undivided
A	48,000	36,000	24,000 (28,000)	16,000	5,000
B	54,000	40,400	27,000 (32,000)	18,000	7,500
C	60,000	45,000	30,000 (36,000)	20,000	10,000
D	66,000	49,500	33,000 (40,000)	22,000	12,500
E	72,000	54,000	36,000 (44,000)	24,000	15,000
F	This condition represents system breakdown and does not have a specific relationship to service volumes.				

Source: City of Santa Clarita Circulation Element

Notes: (XX,XXX) = Capacity with limited access on a 4-Lane Divided arterial.

Values shown for LOS E represent the maximum roadway capacity.

Performance Standard

LOS D

Abbreviations:

V/C – Volume/Capacity Ratio

LOS – Level of Service

1.5 DEFINITIONS

Certain terms used throughout this report are defined below to clarify their intended meaning:

ADT	Average Daily Traffic. Generally used to measure the total two-directional traffic volumes passing a given point on a roadway.
CMP	Congestion Management Program. A state mandated program administered by the Los Angeles County Metropolitan Transportation Authority (MTA) that provides a mechanism for coordinating land use and development decisions.
ICU	Intersection Capacity Utilization. A measure of the volume to capacity ratio for an intersection. Typically used to determine the peak hour level of service for a given set of intersection volumes.
LOS	Level of Service. A scale used to evaluate circulation system performance based on intersection ICU values or volume/capacity ratios of arterial segments.
Peak Hour	This refers to the hour during the AM peak period (typically 7 AM - 9 AM) or the PM peak period (typically 3 PM - 6 PM) in which the greatest number of vehicle trips are generated by a given land use or are traveling on a given roadway.
Tripend	A trip generation measure which represents the total trips entering and leaving a location.
V/C	Volume to Capacity Ratio. This is typically used to describe the percentage of capacity utilized by existing or projected traffic on a segment of an arterial or intersection.
VPH	Vehicles Per Hour. Used for roadway volumes (counts or forecasts) and trip generation estimates. Measures the number of vehicles in a one-hour period, typically the AM or PM peak hour.

1.6 REFERENCES

1. "Highway Capacity Manual 2000," Transportation Research Board, National Research Council, 2000.
2. "Trip Generation 7th Edition," Institute of Transportation Engineers, 2004.
3. "Caltrans Highway Design Manual," Caltrans, July 1995.
4. "Guide for the Preparation of Traffic Impact Studies," Caltrans, December 2002.
5. "Preliminary Traffic Impact Report Guidelines," City of Santa Clarita, August 1990.
6. "Santa Clarita Valley Consolidated Traffic Model Report," County of Los Angeles Department of Public Works, 1994.
7. "Draft Santa Clarita Valley Consolidated Traffic Model 2004 Update and Validation," City of Santa Clarita and County of Los Angeles Department of Public Works, March 2005.
8. "2004 Congestion Management Program for Los Angeles County," Los Angeles County Metropolitan Transportation Authority, July 2004.
9. "City of Santa Clarita General Plan Circulation Element," City of Santa Clarita, December 1997.
10. "North County Combined Highway Corridors Study Final Report," Los Angeles County Metropolitan Transportation Authority, June 2004.
11. "Draft Project Report I-5 HOV & Truck Lane Project from SR-14 to Parker Road in Los Angeles County," Caltrans, March 2008.

2.0 TRANSPORTATION SETTING

This chapter describes the transportation setting for the traffic analysis. Existing conditions are first discussed, public transportation is addressed and then a description is given of the future circulation systems used in this analysis.

2.1 EXISTING CONDITIONS

The following section describes existing traffic conditions in the study area. It includes a description of the study area roadway system, existing traffic volumes and corresponding levels of service as defined by the performance criteria outlined in the previous chapter.

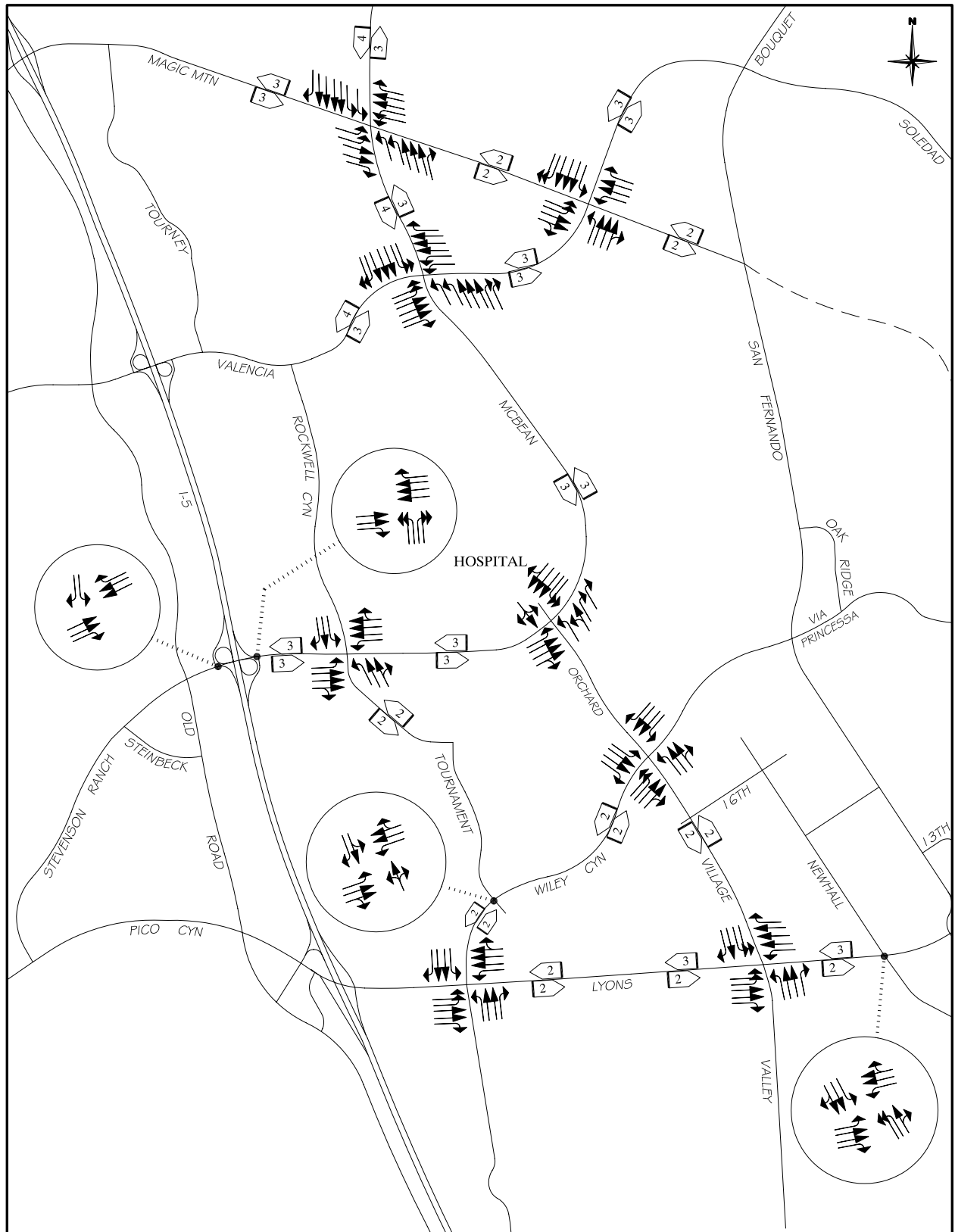
2.1.1 Existing Roadway System

The existing roadway network in the study area is illustrated in Figure 2-1 in the form of mid-block lanes and intersection lane configurations for the intersections being studied. Major arterial streets near the project site consist of McBean Parkway, Orchard Village Road and Rockwell Canyon Road/Tournament Road.

Interstate 5 (I-5) provides regional access for vehicles traveling to and from the project site. The I-5 Freeway is located west the project site and can be accessed from the project site via a full interchange at McBean Parkway.

2.1.2 Existing Traffic Volumes and Levels of Service

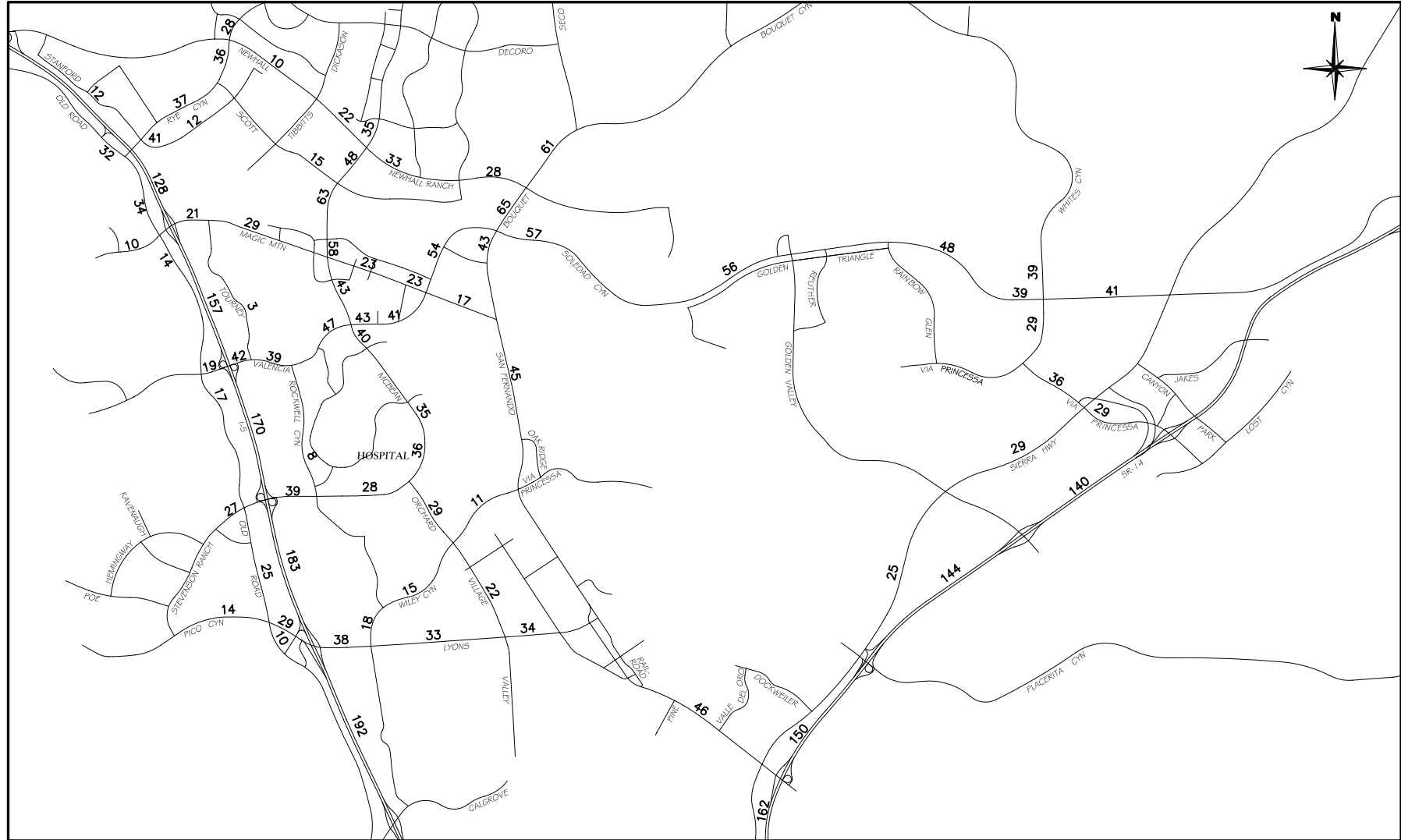
The existing conditions average daily traffic (ADT) volumes on the study area roadway system are illustrated in Figure 2-2. Illustrations of existing peak hour turning movement volumes for each study area intersection can be found in Figures 2-3 and 2-4 for the AM and PM peak hours, respectively. The counts were collected between May 2003 and January 2005 for the purpose of this study. For a comparison of these counts to conditions in 2007, see Appendix C.



LEGEND

2 Number of midblock lanes
 ← Intersection lane configuration

Figure 2-1
INTERSECTION LANE CONFIGURATIONS - EXISTING



Legend

XX 2004 ADT Volumes (In 000's)

Figure 2-2
AVERAGE DAILY TRAFFIC VOLUMES
- EXISTING CONDITIONS

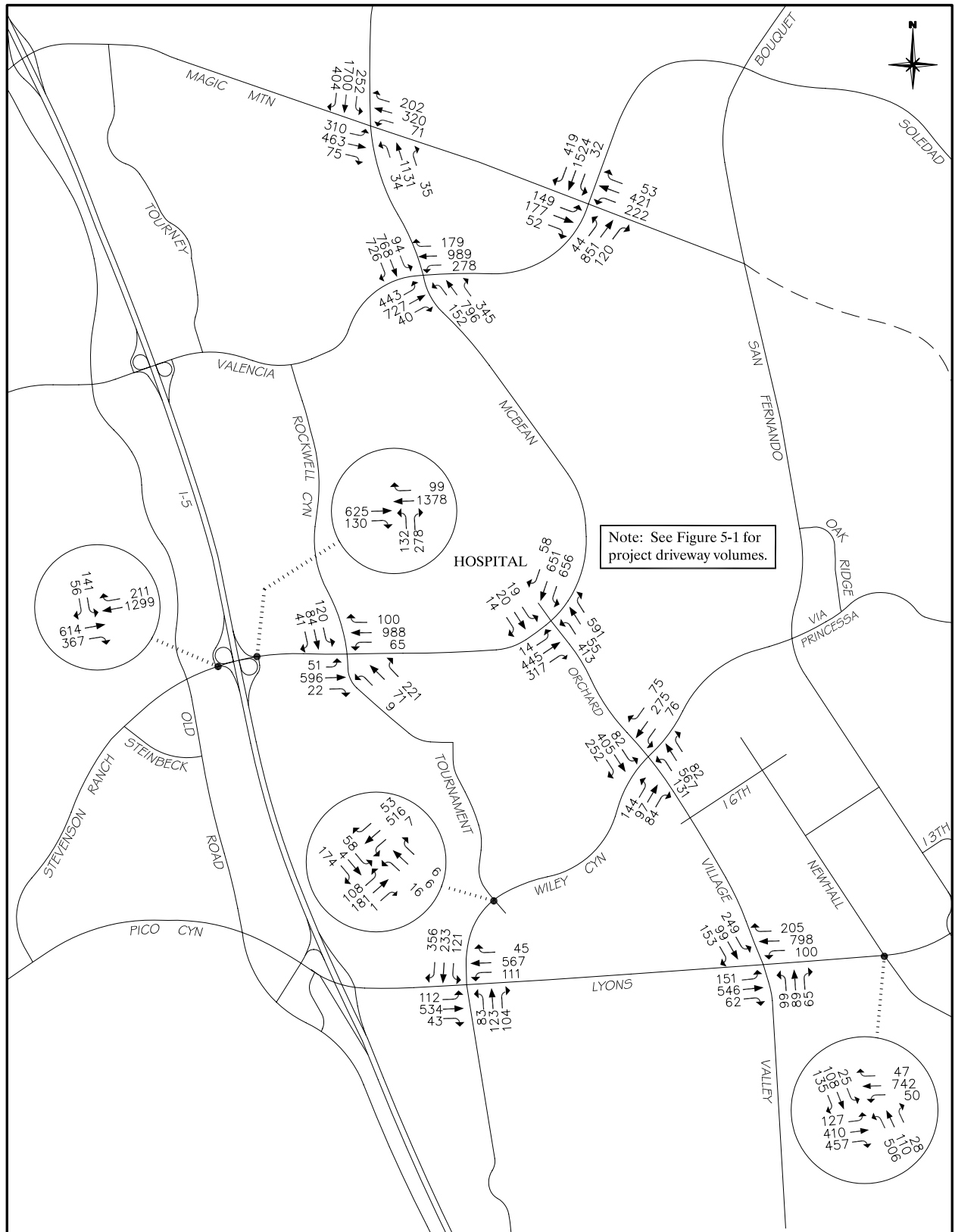


Figure 2-3
 AM PEAK HOUR INTERSECTION VOLUMES
 - EXISTING CONDITIONS

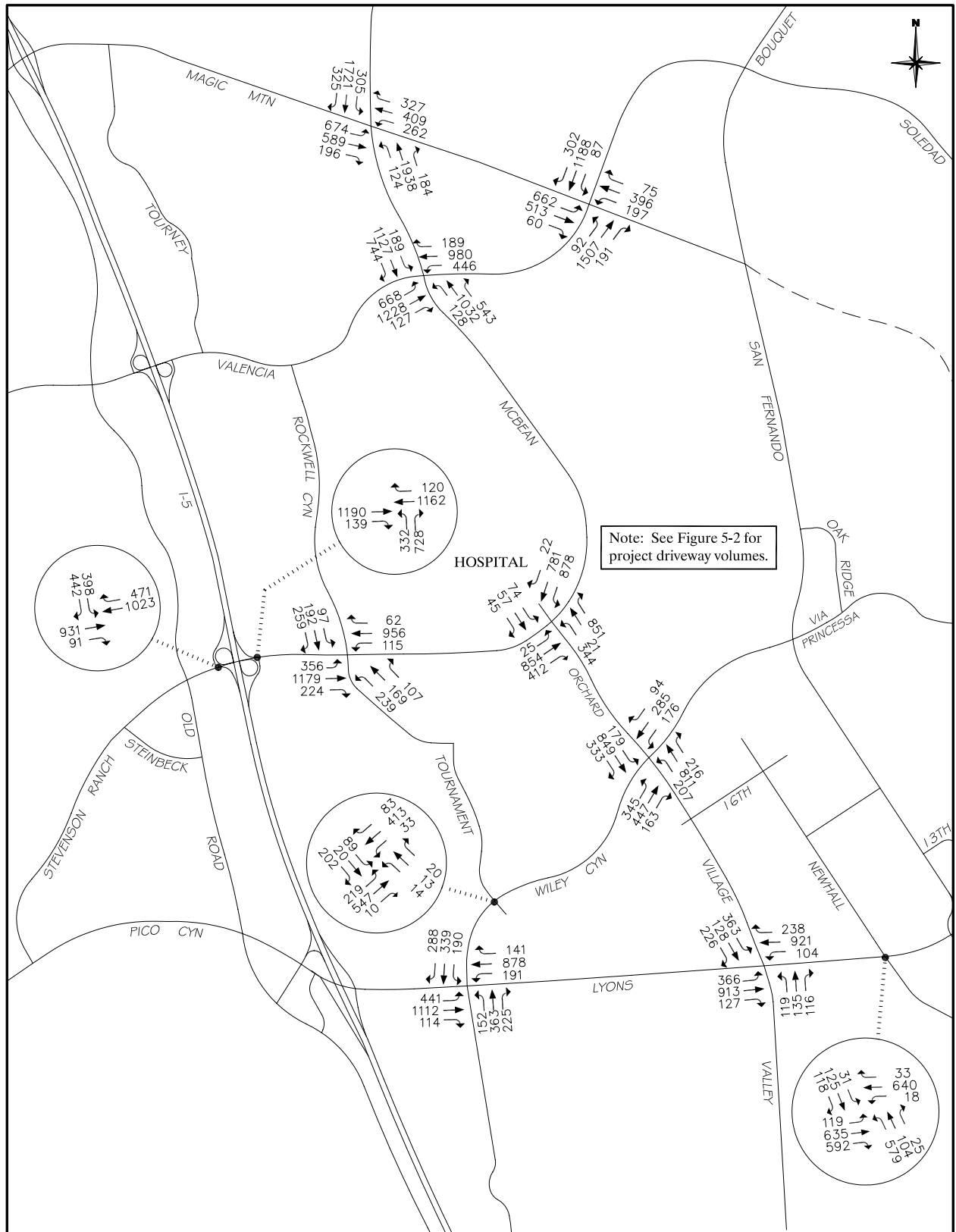


Figure 2-4
 PM PEAK HOUR INTERSECTION VOLUMES
 - EXISTING CONDITIONS

The data tabulated in Appendix C indicates that the average annual change in traffic volumes range from a decrease of 4 percent to an increase of 21 percent. The greatest increases occur in the Copper Hill/Rye Canyon Road area which is experiencing new development activity. Mature areas, such as the Orchard Village Road and Soledad Canyon Road areas show little to no increase in traffic volumes.

As discussed in the section on performance criteria in Chapter 1.0, level of service (LOS) is a concept developed to quantify the degree of comfort afforded to drivers as they travel on a given roadway. The degree of comfort includes such elements as travel time, number of stops, total amount of stopped delay, etc. As defined in the HCM 2000, six grades are used to denote the various LOS. The six are denoted A through F and a discussion on these was also given in Chapter 1.0.

The results of the ICU LOS analyses for the study area intersections are shown in Table 2-1 (ICU worksheets are provided in Appendix A). The table shows that each intersection currently meets the performance standard of the City.

2.1.3 Public Transportation

Santa Clarita Transit currently provides fixed-route transit immediately adjacent to the project site. Routes 5 and 6 pass through the intersection of Orchard Village Drive and McBean Parkway and provide service to the Stevenson Ranch Area, Hart High School, the Valencia Town Center and Canyon Country.

The nearest transit centers are the McBean Transfer Station (MTS), which is located on McBean Parkway approximately one mile north of the project site at the Valencia Town Center, and the Newhall Metrolink station located near Lyons Avenue.

2.2 INTERIM YEAR TRANSPORTATION SYSTEM

The Interim Year transportation system consists of roadway improvements and future infrastructure consistent with the cumulative projects included within the horizon year. Generally, this horizon year corresponds to a level of development approximately 10 to 15 years in the future. While this horizon does not coincide specifically with the buildout of the project, it represents the best timeframe for

Table 2-1

ICU SUMMARY – EXISTING CONDITIONS

Location	AM Peak Hour		PM Peak Hour		Count Date
	ICU	LOS	ICU	LOS	
Freeway On/Off Ramp Intersections					
14. I-5 SB Ramps & McBean	.55	A	.64	B	Jan. 2005
15. I-5 NB Ramps & McBean	.40	A	.65	B	Jan. 2005/Sept. 2003
Intersections					
42. Rockwell & McBean	.45	A	.74	C	Jan. 2005/Sept. 2003
44. McBean & Valencia	.61	B	.73	C	Jan. 2005/Sept. 2003
45. McBean & Magic Mtn	.57	A	.87	D	Jan. 2005/Sept. 2003
51. Wiley & Lyons	.49	A	.74	C	April 2004
52. Tournament & Wiley	.38	A	.45	A	April 2004
53. Orchard Village & Lyons	.49	A	.60	A	April 2004
54. Orchard Village & Wiley	.46	A	.76	C	Jan. 2005
55. Orchard Village & McBean	.57	A	.76	C	Jan. 2005/Sept. 2003
56. Newhall & Lyons	.60	A	.60	A	May 2003
57. Valencia & Magic Mtn	.62	B	.77	C	April 2004/Sept. 2003
<p>Level of service ranges: .00 - .60 A .61 - .70 B .71 - .80 C .81 - .90 D .91 - 1.00 E Above 1.00 F</p>					

planning purposes since it includes a comprehensive set of cumulative development projects that have been incorporated into the SCVCTM. With this, a conservative scenario is established for analyzing the impacts of the proposed project combined with projected and approved growth on a reasonably expanded circulation system.

Future roadways that affect the study area include the extension of Newhall Ranch Road east to Golden Valley Road/Soledad Canyon Road, the connection of Via Princessa between its current western terminus (near San Fernando Road) and its current eastern terminus (near Rainbow Glenn Drive), and the extension of Magic Mountain Parkway to Via Princessa (coinciding with the initial development of the Whitaker-Bermite Site).

2.3 LONG-RANGE CUMULATIVE ANALYSIS

The City's Circulation Element includes significant future roadway projects throughout the Valley that will affect traffic patterns of both existing and future trips. Future roadways such as the Via Princessa connection and Santa Clarita Parkway will have an effect on traffic volumes within the study area.

The I-5 freeway is part of a recent study prepared by the Los Angeles County Metropolitan Transportation Authority (Metro) and Caltrans (see Reference 10 in Section 1.6) in which it was recommended that the I-5 corridor between SR-14 and SR-126 West will ultimately double from the current four lanes in each direction to eight lanes in each direction. Two of the eight lanes would be for high occupancy vehicles (HOVs), two lanes for trucks, and four lanes for general use. A project is currently in the development stages that will add truck climbing lanes to the I-5 segment between SR-14 and Calgrove Boulevard as well as one HOV lane in each direction through the entire Santa Clarita Valley.

3.0 PROJECT DESCRIPTION

This chapter describes the project in terms of its transportation characteristics. Land use and trip generation for the project is summarized and the distribution of project trips on the study area roadway network is presented.

3.1 PROJECT OVERVIEW

The project site is generally located north of the intersection of Orchard Village Drive and McBean Parkway, and is one mile east of the Interstate 5 (I-5) freeway in the City of Santa Clarita. The project area is within the existing HMNMH medical campus located at 23845 McBean Parkway and is generally surrounded by residential uses. The location of the site in relation to the surrounding roadway system was illustrated in Chapter 1.0.

Currently, the project site is developed with the existing HMNMH medical campus as illustrated in Figure 3-1. The project proposes to increase the existing square footage of the hospital campus (30.39 acres) from 332,992 square feet to 660,355 square feet, a 327,363 square-foot increase. The 327,363 square-foot total for the proposed HMNMH Master Plan buildings is comprised of the following:

Inpatient Building A (IBA)	125,363 square feet
Medical Office Building 1 (MOB 1)	80,000 square feet
Medical Office Building 2 (MOB 2)	60,000 square feet
Medical Office Building 3 (MOB 3)	60,000 square feet
Central Plant	10,000 square feet
Foundation Building (to be demolished)	(8,000 square feet)

As shown above, the net build out of the medical campus totals results in 127,363 square feet of new hospital area and 200,000 square feet of new medical office area. Figure 3-2 illustrates the proposed site plan.

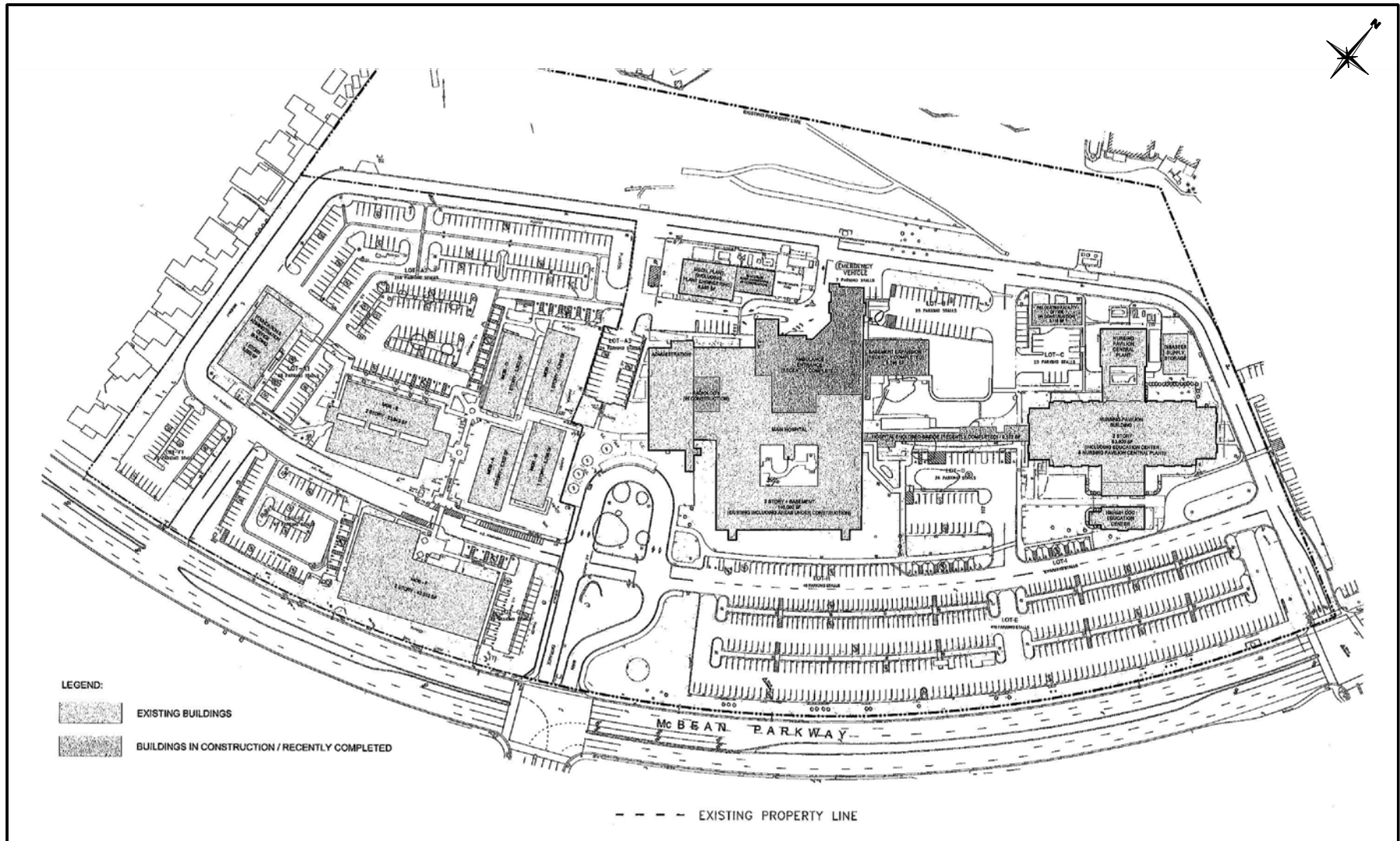
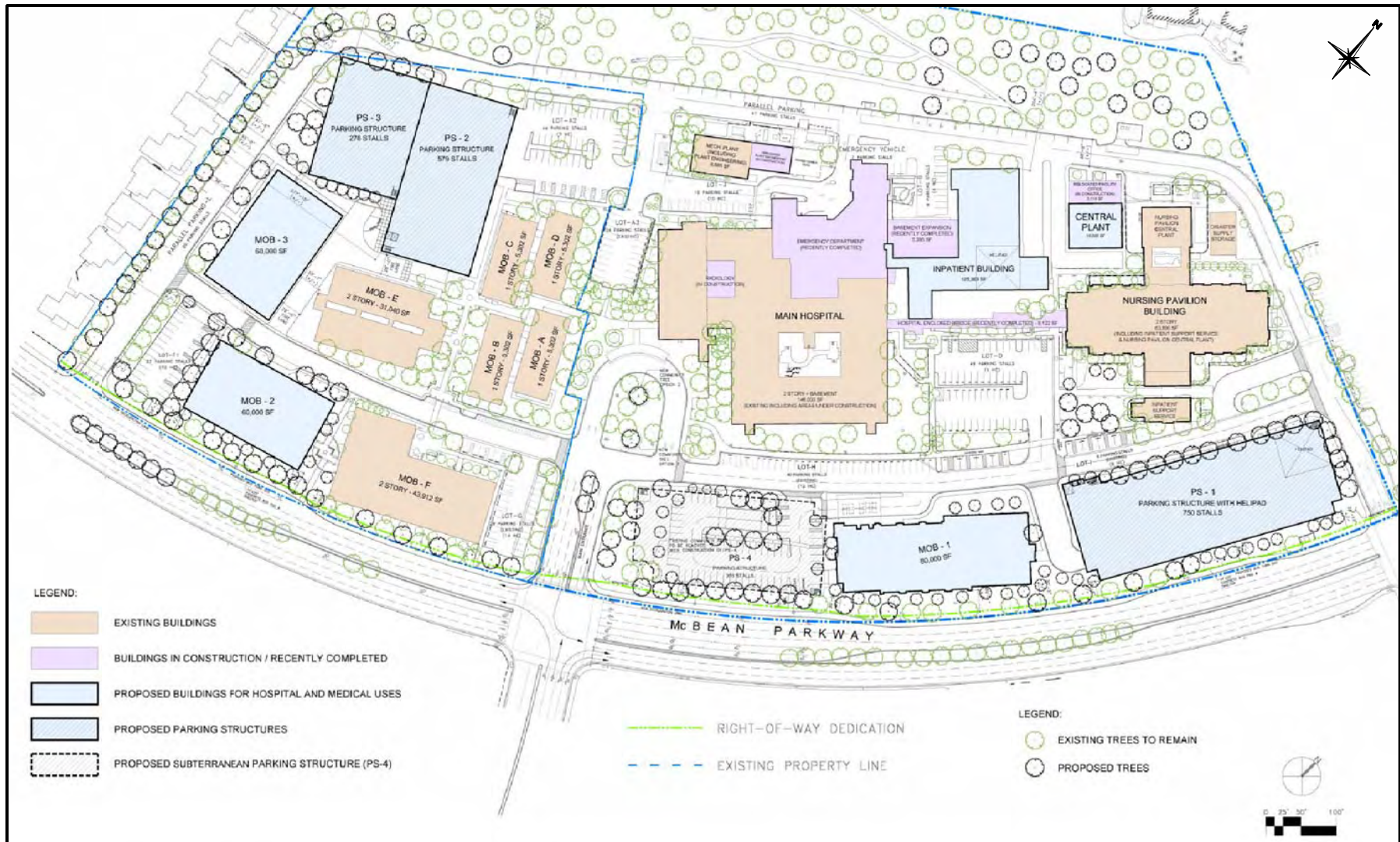


Figure 3-1
EXISTING CAMPUS MASTER PLAN



Access for the site is via five project driveways located on McBean Parkway. The main entrance for the project is provided at a four-way signalized intersection with Orchard Village Drive. Orchard Village Drive is a four-lane roadway in the vicinity of the project and terminates at the project entrance. A second four-way signalized intersection with McBean Parkway is located at Avenida Navarre, a two-lane local street serving the residential uses south of the project boundary. Three tee-intersections (project driveways) are located along McBean Parkway, one west of the Orchard Village Drive main entrance which provides full access and two east of the Avenida Navarre entrance which provide limited access.

3.2 PROJECT TRIP GENERATION

Land use and trip generation estimates for the proposed project are shown in Table 3-1. Trip generation is calculated using published data from the Institute of Transportation Engineers (ITE), Seventh Edition, “Trip Generation Manual” (see Reference 2 in Section 1.6). Trip generation estimates by building are shown in Table 3-2, which become relevant for Chapter 6.0 for the phasing of project mitigation measures.

The volume of trips calculated by the ITE trip rates represents the total number of trips for each unique use of the site (i.e., hospital and medical office), as if the uses were stand-alone facilities. Since these uses share a common site, one component of the total trip generation represents the trips between the hospital and the medical offices, which in some cases can be quite substantial. For example, actual field measurements of the existing HMNMH site showed that this on-site trip capture can represent as much as one-third of the total trip generation, as shown in Table 3-2. Since the project’s proposed Master Plan land use retains the mix of hospital and medical office facilities, future on-site trip capture is accounted for in the traffic forecasts using a factor of 20 percent, which is a more conservative estimate than the on-site trip capture that has been observed as occurring today. A conservative factor of 20 percent was determined as appropriate since it accounts for the on-site trip capture known to occur while still providing a margin of safety in regards to determining capacity needs for the site and City roadways.

Off-site estimates are used in this analysis to represent the project’s impacts on the analysis area circulation system. The off-site ADT volume of approximately 7,571 ADT represents 80 percent of the project total (with 20 percent remaining on-site as trips between the hospital and medical offices as discussed above). In the AM and PM peak hours, the off-site volumes of 519 (429 inbound) and 715 (554 outbound), respectively, are also 80 percent of the peak hour totals.

Table 3-1

PROJECT TRIP GENERATION SUMMARY – MASTER PLAN BUILDOUT

Land Use Type	Amount	AM Peak Hour			PM Peak Hour			ADT
		In	Out	Total	In	Out	Total	
Proposed Project (Net Increase)								
Medical Office	200.000 TSF	392	104	496	201	543	744	7,226
Hospital	127.363 TSF	102	50	153	50	101	150	2,238
On-Site Volume	--	(65)	(65)	(130)	(89)	(89)	(179)	(1,893)
Total (Off-site)	--	429	90	519	161	554	715	7,571
Trip Rates¹								
Medical Office	TSF	1.96	0.52	2.48	1.00	2.72	3.72	36.13
Hospital	TSF	0.80	0.40	1.20	0.39	0.79	1.18	17.57

¹TRIP RATE SOURCES:

Medical Office - ITE "Trip Generation", 7th Edition, Category 720 (Medical-Dental Office Building)
 Hospital - ITE "Trip Generation", 7th Edition, Category 810 (Hospital)

Table 3-2

PROJECT TRIP GENERATION SUMMARY – BY BUILDING

Land Use Type	Amount	AM Peak Hour			PM Peak Hour			ADT
		In	Out	Total	In	Out	Total	
MOB 1	80 TSF	157	42	198	80	218	298	2,890
On-Site Volume		-20	-20	-40	-30	-30	-60	-578
Total (MOB 1)	--	137	22	159	50	188	238	2,312
								30.5%
MOB 2	60 TSF	118	31	149	60	163	223	2,168
On-Site Volume			-15	-15	-30	-22	-22	-45
Total (MOB 1 & 2)	--	240	38	278	88	329	417	4,047
								53.4%
Inpatient Building (IB)	135.363	108	54	162	53	107	160	2,378
On-Site Volume			-16	-16	-32	-16	-16	-32
Total (MOB 1 & 2 & IB)	--	332	76	408	125	420	544	5,949
								78.6%
MOB 3	60 TSF	118	31	149	60	163	223	2,168
Hospital Demolition	-8 TSF	-6	-3	-10	-3	-6	-9	-141
On-Site Volume			-14	-14	-28	-21	-21	-43
Total (All Buildings)	--	429	90	519	160	555	715	7,571
								100.0%

¹TRIP RATE SOURCES:

Medical Office - ITE "Trip Generation", 7th Edition, Category 720 (Medical-Dental Office Building)

Hospital - ITE "Trip Generation", 7th Edition, Category 810 (Hospital)

Table 3-3

EXISTING TRAFFIC VOLUME SUMMARY (ON-SITE)

Type	Amount	AM Peak Hour			PM Peak Hour			ADT
		In	Out	Total	In	Out	Total	
EXISTING CAMPUS TRIP GENERATION AS STAND-ALONE FACILITIES								
Medical Office	97.08 TSF ¹	190	51	241	98	264	361	3,508
Medical Office ²	99.00 TSF	194	52	246	99	269	368	3,577
Hospital	232.11 TSF	187	92	279	90	184	274	4,078
Total	428.19 TSF	571	194	765	287	716	1,003	11,163
PROJECT DRIVEWAY VOLUMES FOR PROJECT SITE (EXISTING)								
Field Survey		428	119	547	225	452	677	7,900
Percent Difference		--	--	-28%	--	--	-33%	-29%
TRIP RATES³								
Medical Office	TSF	1.96	0.52	2.48	1.00	2.72	3.72	36.13
Hospital	TSF	0.80	0.40	1.20	0.39	0.79	1.18	17.57

Notes:

¹TSF = Thousand Square Feet

²Non-Master Plan component (two buildings located east of Avenida Navarre).

³Trip Rate Source:

Medical Office - ITE "Trip Generation", 7th Edition, Category 720 (Medical-Dental Office Building)

Hospital - ITE "Trip Generation", 7th Edition, Category 810 (Hospital)

3.3 PROJECT TRIP DISTRIBUTION

The geographic distribution of project-generated trips was determined using the SCVCTM. The Interim Year version of the SCVCTM provided the background conditions for a select zone run, with adjustments made to the modeled volumes to account for the specific trip generation characteristics of the ITE trip rates noted in the previous section. The model takes into account the specific type of land use proposed for the site and how that land use would interact with the other land uses in the City.

The volumes presented in this section represent the net volume of off-site trips and do not include the on-site trips discussed in Section 3.2. Figures 3-4 and 3-5 illustrate the project-generated trips for the AM and PM peak hours, respectively, for the study area intersections. Figure 3-6 illustrates the distribution percentages together with the project-generated average daily trips (ADT) for the project. Since the SCVCTM performs separate assignments for the AM peak hour, the PM peak hour and the off-peak period, the specific volumes for any individual time period will not precisely match the values noted in the distribution percentages.

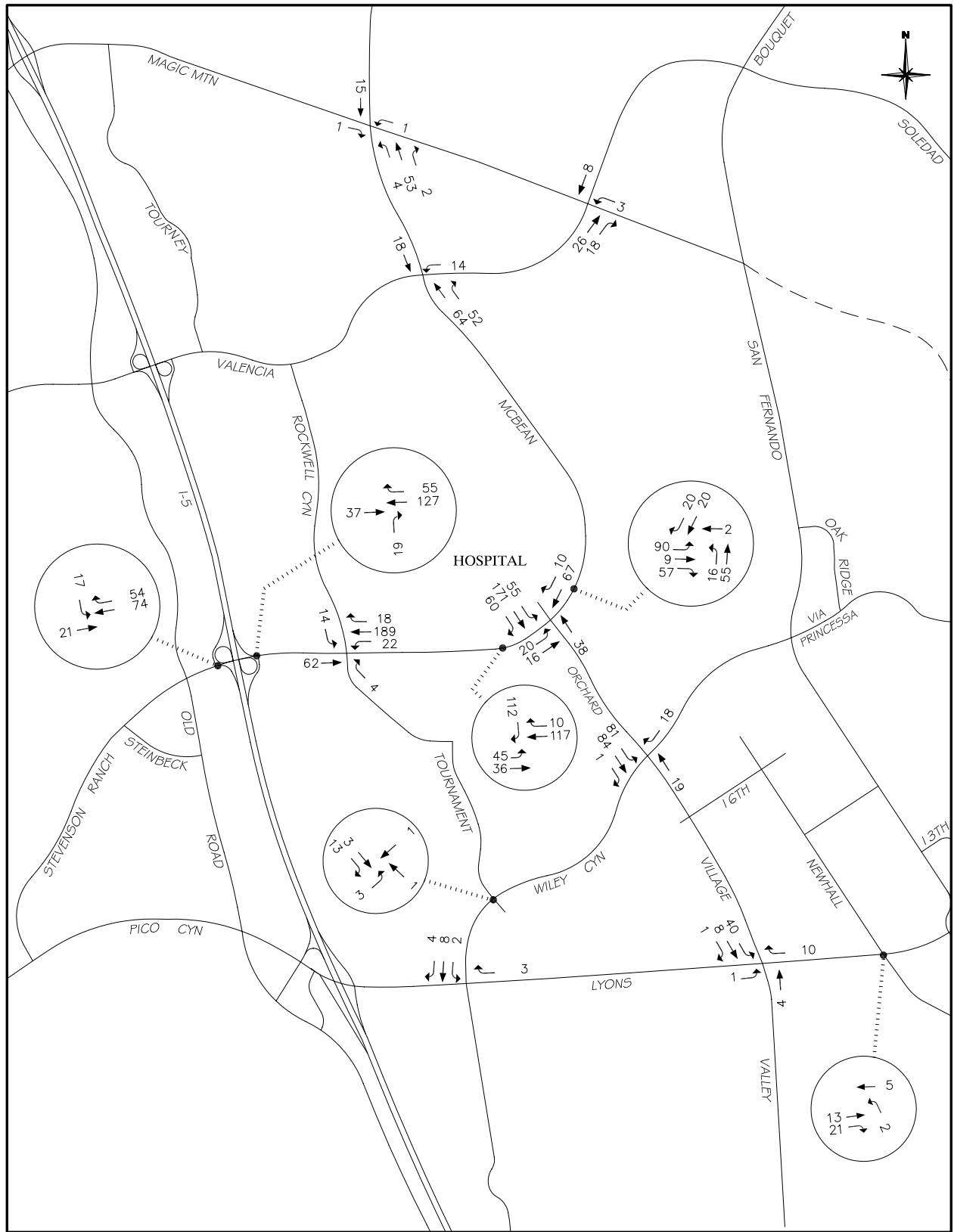
Approximately 49 percent of the trips generated by the project are assigned west of the project via McBean Parkway and approximately 25 percent of the trips are assigned to the east along McBean Parkway. South of the project, approximately 26 percent of the trips are assigned to Orchard Village Road. Approximately 23 percent of the trips are ultimately assigned to the I-5 freeway (11 percent north of McBean Parkway and 12 percent south of McBean Parkway) while the remainder of the trips utilize arterial roadways in the Santa Clarita Valley.

When using a traffic-forecasting model to produce future traffic projections with and without a proposed land use development project, separate “runs” of the traffic model are typically performed with and without the project. These separate runs assume that no changes occur to the surrounding land uses or to traffic generation within or beyond the study area, other than on the project site. Hence, while there is a net increase in trip generation locally due to the project, many trips within the study area are redirected to the project site and therefore are not necessarily “new” trips as far as the study area circulation system is concerned. In other words, the project traffic is not merely added to no-project traffic conditions by the model, but instead the project trips interact with surrounding land uses in a manner that changes the distribution patterns of non-project trips.



Legend
 - - - - - Planned Roadway

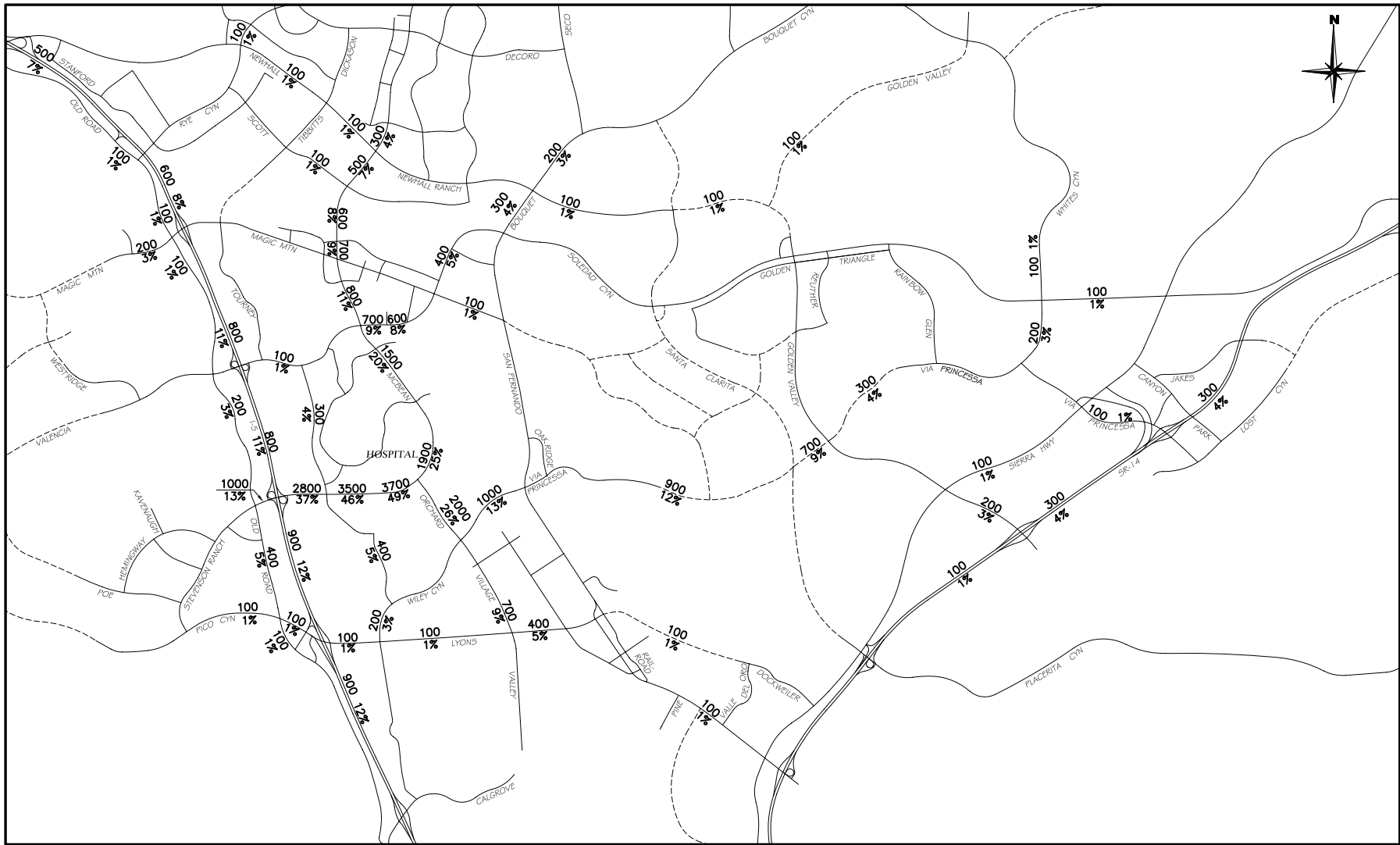
Figure 3-3
 AM PEAK HOUR INTERSECTION VOLUMES
 - PROPOSED PROJECT



Legend

- - - - - Planned Roadway

Figure 3-4
PM PEAK HOUR INTERSECTION VOLUMES
- PROPOSED PROJECT



Legend	
-----	Planned Roadway
XX	ADT Volume Master Plan Buildout%
XX%	Distribution Percentage

Figure 3-5
ADT VOLUMES - PROPOSED PROJECT

In order to reflect the interaction that would occur between existing development, the proposed project, and all other approved and unapproved future cumulative development that is forecast by the long-range cumulative (2030) buildout version of the SCVCTM, separate traffic model runs were prepared for the no-project and with-project settings as discussed above. These separate model runs result in the redistribution patterns that will occur due to the project and they are discussed in Chapter 4.0.

4.0 IMPACT ANALYSIS

This chapter addresses the traffic impacts of the proposed project. Traffic conditions with and without the proposed project are described in the following sections. Project impacts are identified using the criteria outlined in Chapter 1.0.

4.1 INTERIM YEAR ANALYSIS

The Interim Year traffic conditions are based on the SCVCTM forecasts described in Section 2.2. This setting forms the basis for identifying the potential peak hour traffic impacts of the proposed project at the study area intersections identified in Chapter 1.0. The following sections discuss Interim Year no-project and with-project conditions.

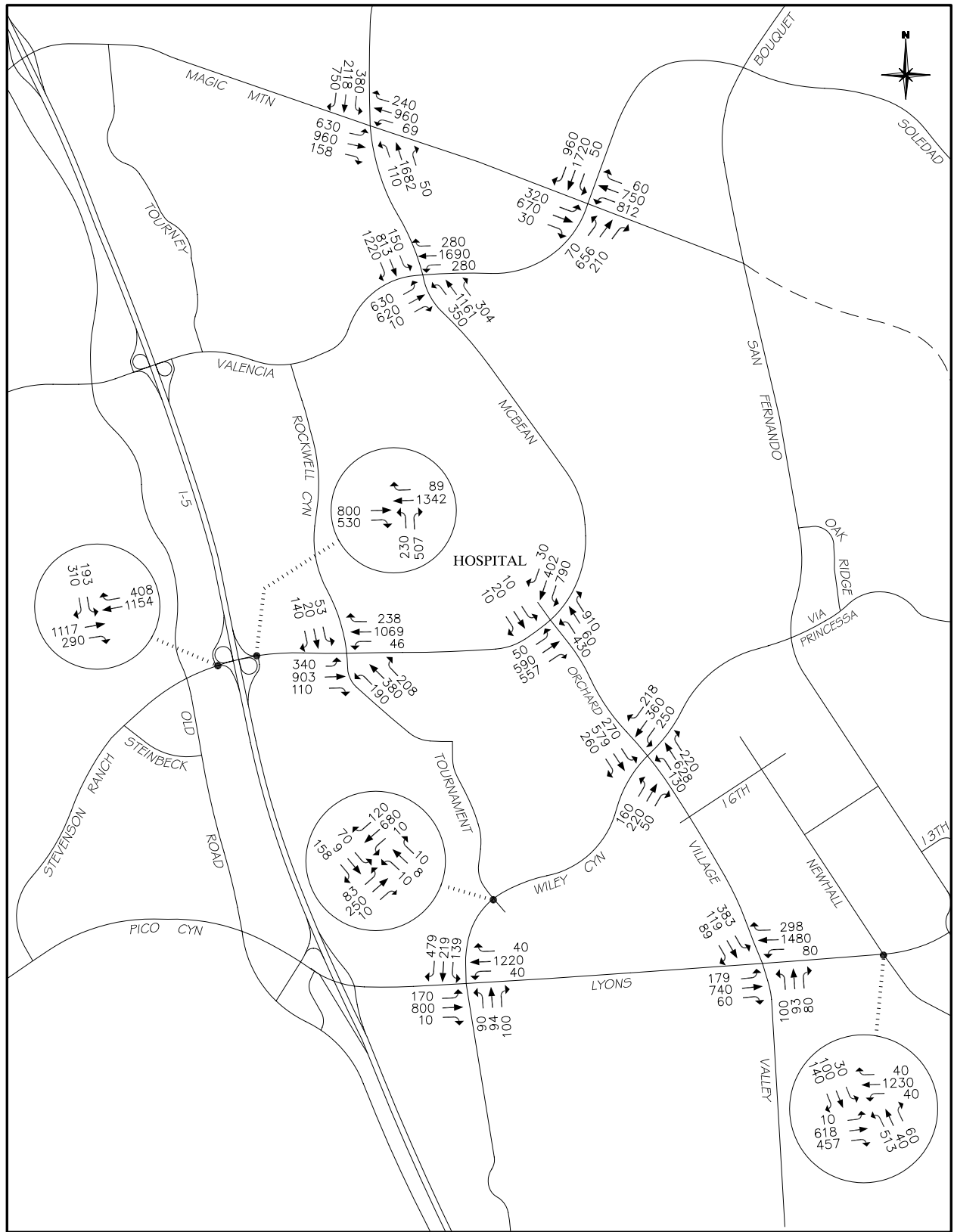
4.1.1 Interim Year No-Project Traffic Conditions

The Interim Year (no-project) peak hour turning movement volumes for the intersections in the study area are illustrated in Figures 4-1 and 4-2 for the AM and PM peak hours, respectively. These volumes include the existing land uses located on the project site. Interim Year ADT volumes for no-project conditions are illustrated in Figure 4-3.

4.1.2 Interim Year With-Project Traffic Conditions

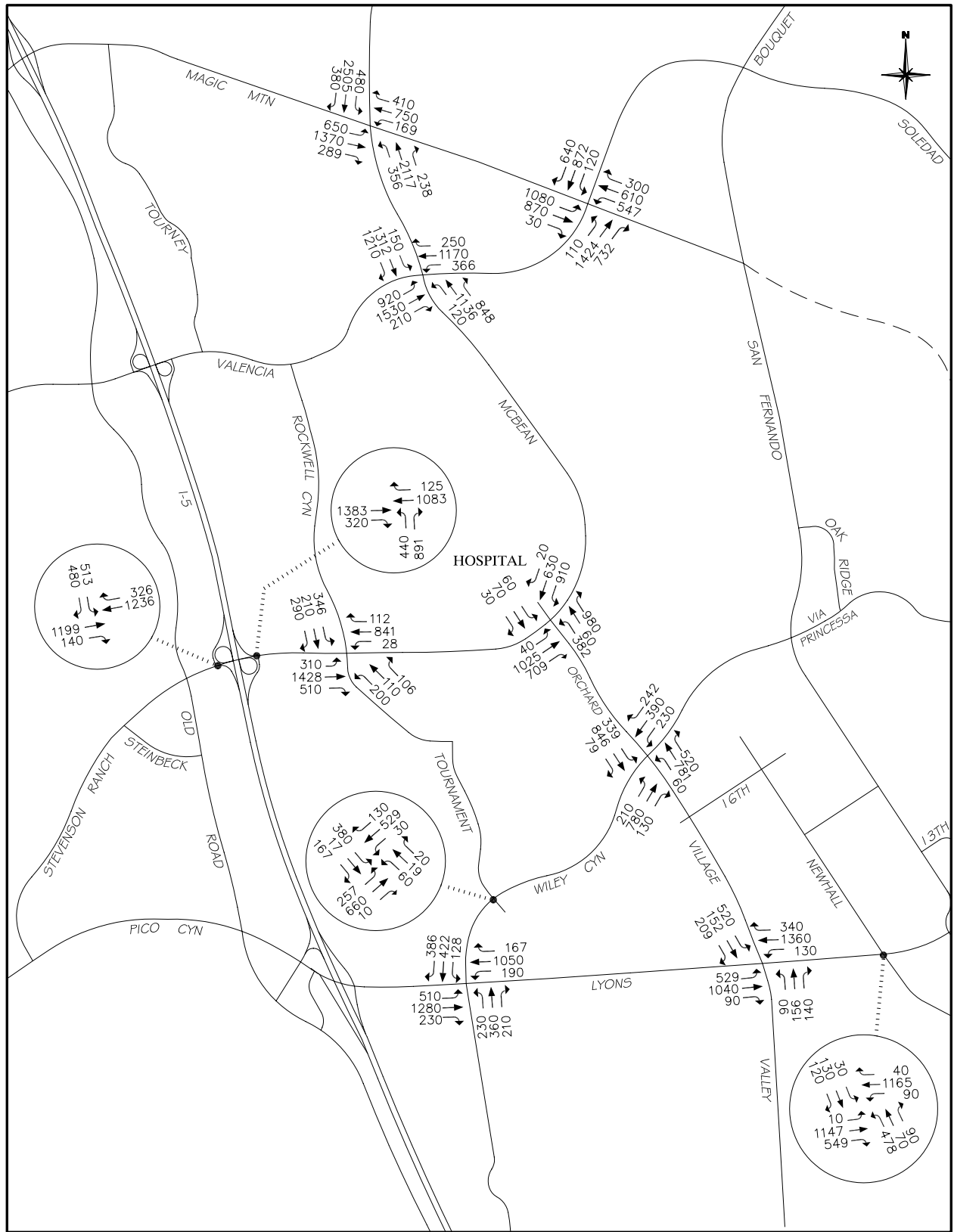
The project impacts have been determined based on comparing a “no-project” condition, which is based on the project sites current uses (see previous section), and a “with-project” condition that was derived by adding the proposed hospital and medical office expansion to the model.

As shown in Chapter 3, the project represents a net increase (when compared to existing) of 7,571 ADT and peak hour increases of approximately 519 AM trips (429 inbound) and 715 PM trips (554 outbound). Illustrations of Interim Year (with project) peak hour intersection volumes are provided in Figures 4-4 and 4-5 for the AM and PM peak hours, respectively. Interim Year ADT volumes for with-project conditions are illustrated in Figure 4-6.



Legend
 - - - - - Planned Roadway

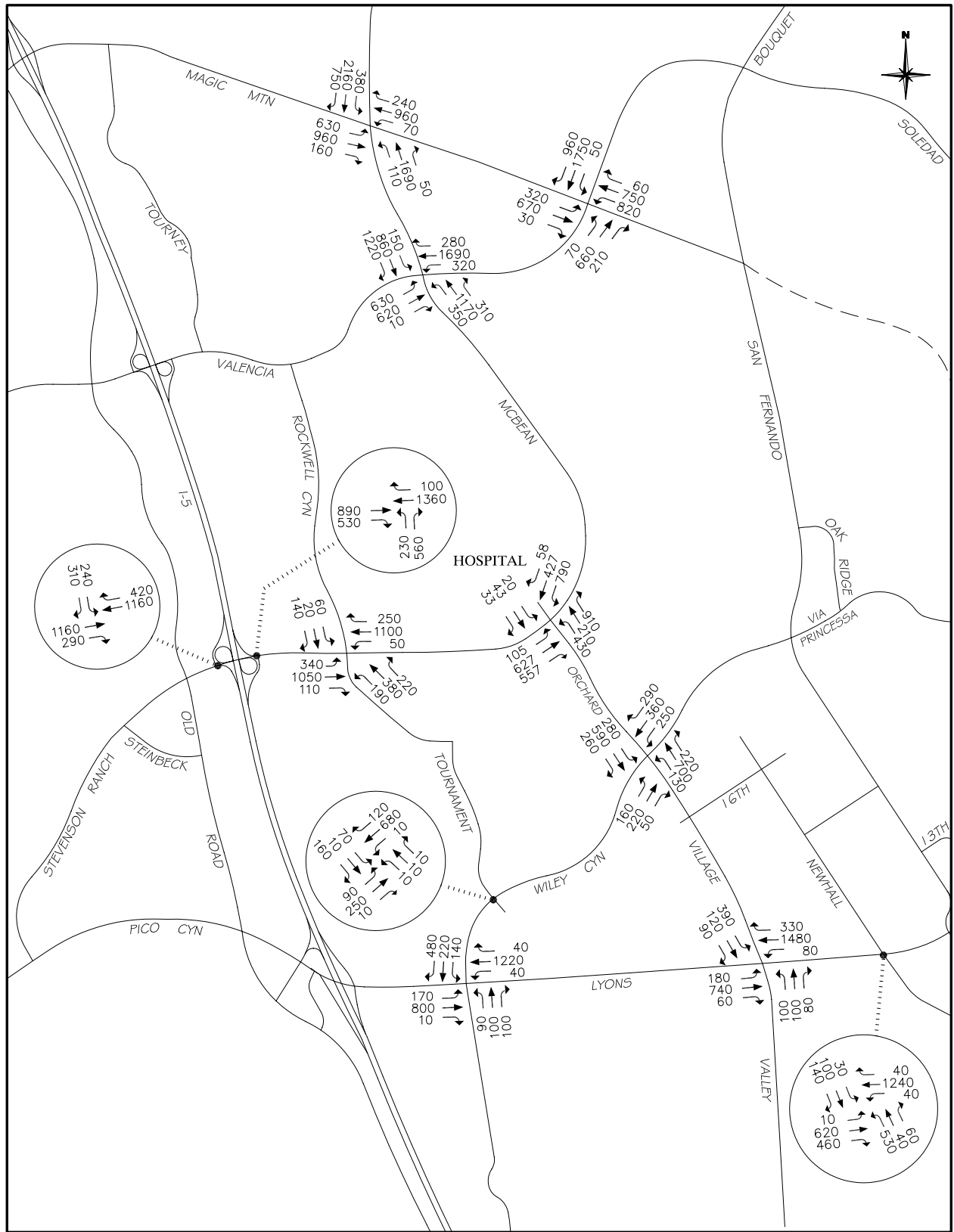
Figure 4-1
 AM PEAK HOUR INTERSECTION VOLUMES
 - INTERIM YEAR (NO-PROJECT)



Legend

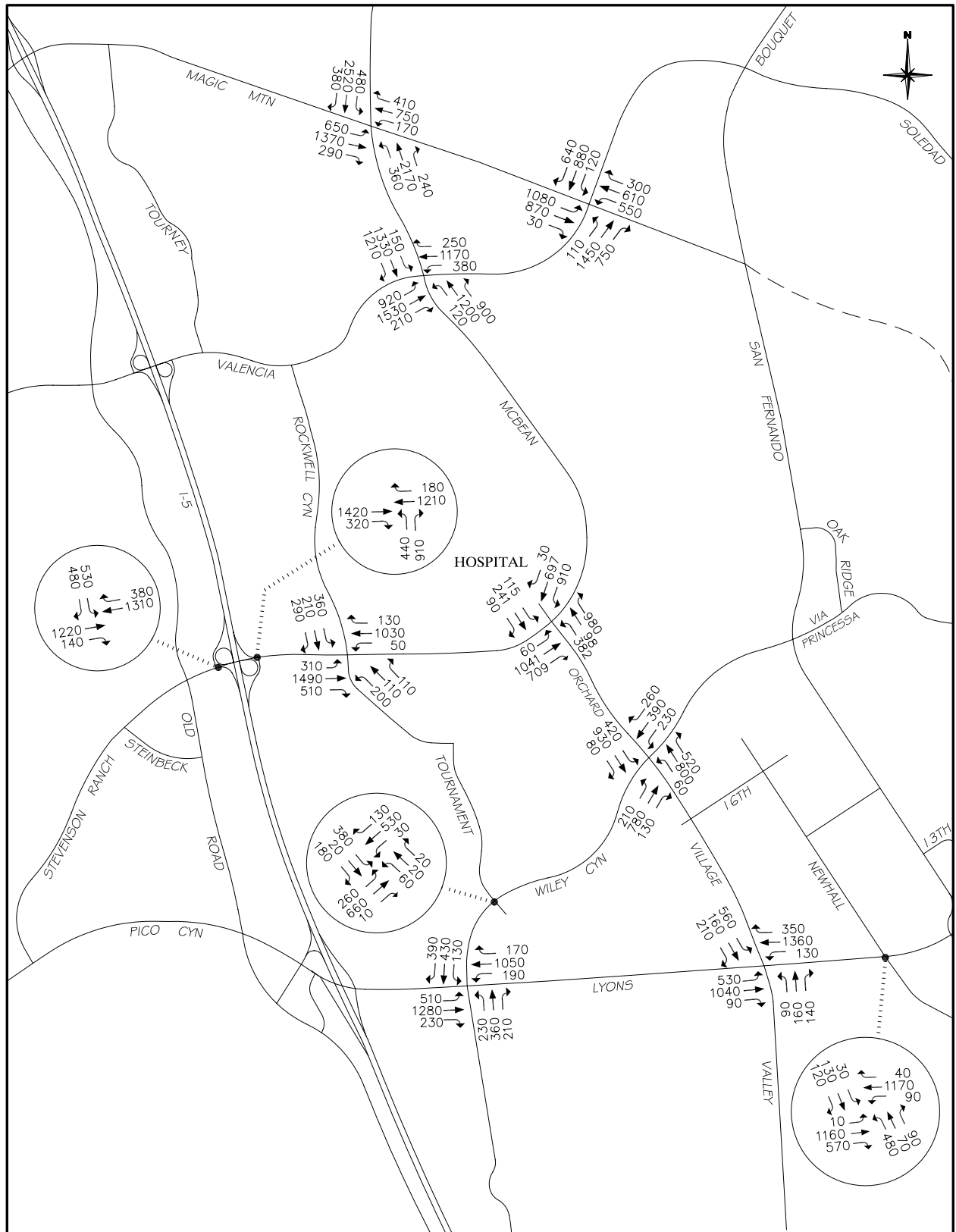
--- Planned Roadway

Figure 4-2
PM PEAK HOUR INTERSECTION VOLUMES
- INTERIM YEAR (NO-PROJECT)



Legend
 - - - - - Planned Roadway

Figure 4-4
 AM PEAK HOUR INTERSECTION VOLUMES
 - INTERIM YEAR WITH PROJECT



Legend
 - - - - - Planned Roadway

Figure 4-5
 PM PEAK HOUR INTERSECTION VOLUMES
 - INTERIM YEAR WITH PROJECT

Peak hour ICU values can be found in Table 4-1 which provides a comparison between Interim Year no-project and with-project conditions (see Appendix A for the corresponding ICU worksheets). Given the City's significant impact criteria, significant impacts of the proposed project have been identified for the following four locations for Interim Year conditions:

- McBean Parkway at Magic Mountain Parkway
- Orchard Village Road at Wiley Canyon Road
- Orchard Village Road at McBean Parkway
- Valencia Boulevard at Magic Mountain Parkway

Mitigation that addresses these impacts is presented in Chapter 6.0.

4.2 LONG-RANGE CUMULATIVE (2030) BUILDOUT ANALYSIS

The Long-Range Cumulative (2030) Buildout traffic conditions are based on the long-range setting described in Section 2.4. This setting includes the buildout of the City's General Plan, including the Circulation Element, and forms the basis for identifying the potential traffic impacts of the proposed project.

The following sections discuss the long-range no-project and with-project conditions.

4.2.1 Long-Range Cumulative No-Project Traffic Conditions

The ADT volumes for the long-range cumulative (no-project) conditions are illustrated in Figure 4-7. These volumes include the existing land uses located on the project site.

4.2.2 Long-Range Cumulative With-Project Traffic Conditions

As discussed in Chapter 3.0, the proposed project will generate approximately 7,571 vehicle trips per day. This is the forecast used to represent the project's off-site impacts on the analysis area circulation system. The ADT volumes for the long-range cumulative conditions with the proposed project are illustrated in Figure 4-8. (The project-generated volumes were given previously in Chapter 3.0).

Table 4-1

ICU AND LOS SUMMARY – INTERIM YEAR CONDITIONS (WITH AND WITHOUT PROJECT)

Intersection	Interim Year (No-Project)				Interim Year (With-Project)				Increase	
	AM		PM		AM		PM		AM	PM
Freeway On/Off Ramp Intersections										
14. I-5 SB Ramps & McBean	.61	B	.74	C	.61	B	.77	C	.00	.03
15. I-5 NB Ramps & McBean	.48	A	.75	C	.51	A	.77	C	.03	.02
Intersections										
42. Rockwell & McBean	.74	C	.75	C	.75	C	.78	C	.01	.03
44. McBean & Valencia	.87	D	.86	D	.87	D	.86	D	.00	.00
45. McBean & Magic Mtn	.98	E	1.08	F	.98	E	1.09	F	.00	.01*
51. Wiley & Lyons	.67	B	.83	D	.67	B	.83	D	.00	.00
52. Tournament & Wiley	.44	A	.72	C	.44	A	.72	C	.00	.00
53. Orchard Village & Lyons	.57	A	.70	B	.57	A	.72	C	.00	.02
54. Orchard Village & Wiley	.71	C	1.05	F	.74	C	1.11	F	.03	.06*
55. Orchard Village & McBean	.70	B	.87	D	.73	C	1.00	E	.03	.13*
56. Newhall & Lyons	.69	B	.69	B	.70	B	.69	B	.01	.00
57. Valencia & Magic Mtn	1.13	F	1.15	F	1.14	F	1.15	F	.01*	.00

¹Values in parenthesis represent conditions with eastbound McBean Parkway re-stripped to two through lanes and one dedicated right-turn lane (with right-turn overlap phasing).

*Significant Impact (See Table 1-2 for impact criteria).

Level of service ranges: .00 - .60 A
 .61 - .70 B
 .71 - .80 C
 .81 - .90 D
 .91 - 1.00 E
 Above 1.00 F

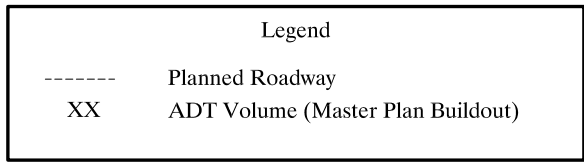
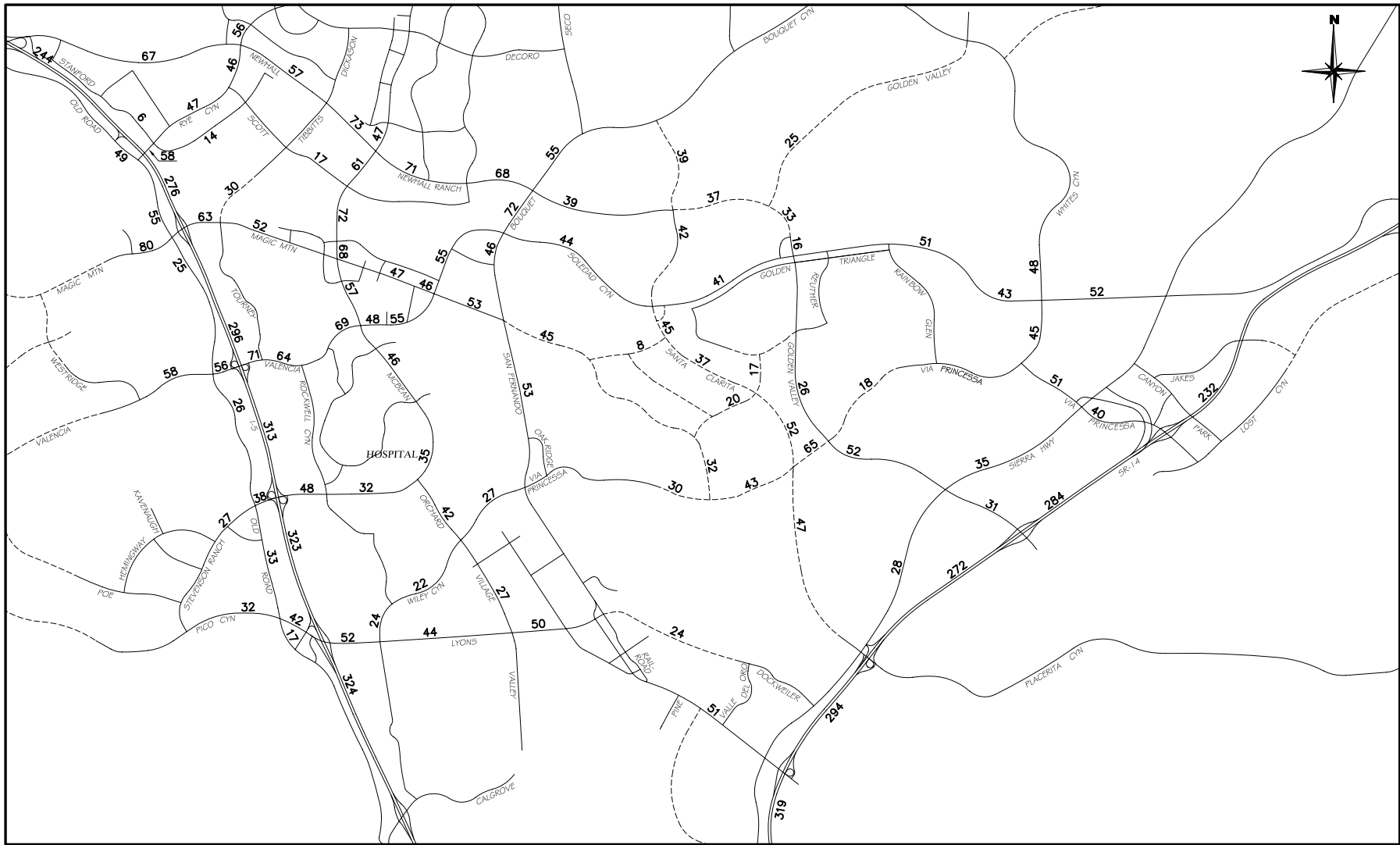
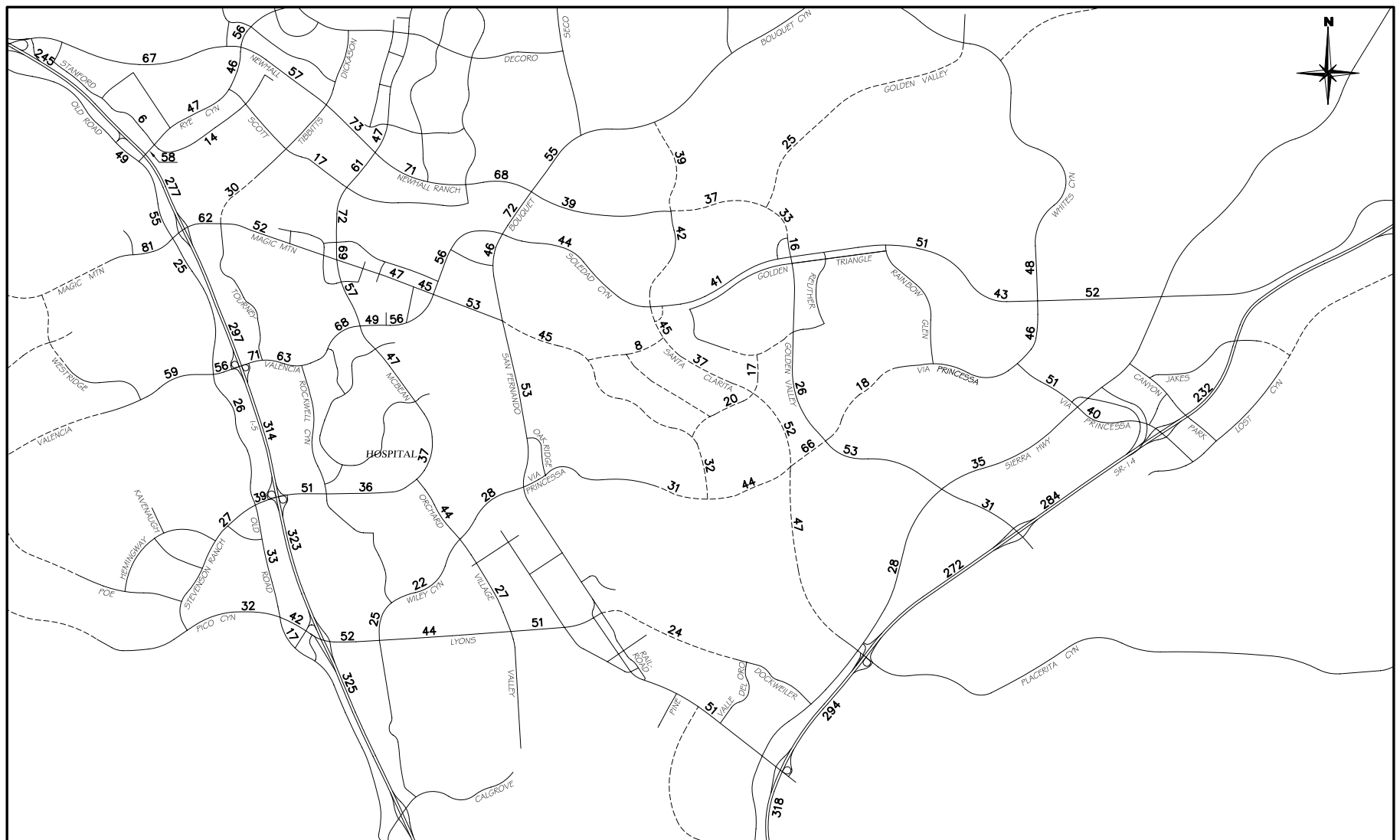


Figure 4-7
 ADT VOLUMES -
 LONG-RANGE CUMULATIVE (NO-PROJECT)



Legend	
-----	Planned Roadway
XX	ADT Volume (Master Plan Buildout)

Figure 4-8
 ADT VOLUMES
 - LONG-RANGE CUMULATIVE WITH PROJECT

As discussed in Chapter 3, a redistribution of non-project traffic occurs when project-generated traffic is added to the circulation system and interacts with the surrounding land uses. The result is a change of travel patterns for some trips that will be occurring with or without the project in place. That is, some existing trips are redistributed to the project site from other similar locations, as well as some non-project trips that will change travel routes due to the influence of the new project traffic. This results in a net change in traffic volume on the arterial roadway system that is less than the gross amount of new trips generated by the project. This net change, which is due to the addition of the hospital Master Plan Buildout (project-generated) trips, is illustrated in Figure 4-9 in the form of ADT.

Table 4-2 summarizes the total roadway ADT volumes for the long-range cumulative time frame, both with and without project-generated traffic. Also shown here are the number of traffic lanes, roadway capacities and levels of service for each roadway section based on buildout of the City's Circulation Element. As shown in the table, multiple roadway segments do not achieve the City's target level of service of D for the projected total daily traffic volumes.

Following is a list of roadways that show a measurable change due to the proposed project and result in the roadway exceeding the target level of service of D for long-range cumulative (2030) buildout conditions.

- McBean Parkway between I-5 NB Ramps and Rockwell Canyon Road
- Valencia Boulevard between McBean Parkway and Citrus Drive

Since the defining capacity limitation of an urban arterial roadway is the capacity of its intersections, major intersections within the roadway segments listed above have been evaluated in regards to peak hour performance. Peak hour intersection performance is also the criteria used by the City to define significant project impacts. This intersection evaluation is based on buildout of the arterial roadway network as outlined in the Circulation Element of the City's General Plan, and the purpose is to identify locations where the proposed project may result in significant impacts in a long-range setting. The results are summarized in Table 4-3, which shows that during the critical peak hour time periods, the following two locations are significantly impacted by the proposed project.

- McBean Parkway at Valencia Boulevard
- Orchard Village Road at McBean Parkway

Mitigation that addresses these impacts is presented in Chapter 6.0.

Table 4-2

**ADT LOS SUMMARY - LONG-RANGE CUMULATIVE (2030) BUILDOUT CONDITIONS
(WITH AND WITHOUT PROJECT)**

Location	ID #	Mid-block Lanes	Capacity (000's)	No-Project		With-Project		Change Due to Project	
				Volume (000's)	LOS	Volume (000's)	LOS	Volume (total)	V/C
Bouquet Cyn s/o Soledad	321	6	54,000	46,100	D	46,000	D	-100	0.00
Bouquet Cyn s/o Newhall Ranch	79	8	72,000	71,800	E	72,000	E	200	0.00
Bouquet Cyn w/o Seco	78	8	72,000	54,900	C	55,000	C	100	0.00
Copper Hill e/o Newhall Ranch	65	6	54,000	56,000	F	56,000	F	0	0.00
Golden Valley e/o Newhall Ranch	238	4	36,000	25,000	B	25,000	B	0	0.00
Golden Valley n/o Soledad	130	8	72,000	73,000	F	73,000	F	0	0.00
Golden Valley s/o Soledad	198	6	54,000	16,000	A	16,000	A	0	0.00
Golden Valley w/o SR-14	134	6	54,000	30,900	A	31,000	A	100	0.00
Lyons e/o I-5 NB Ramps	115	6	54,000	52,200	E	52,000	E	-200	0.00
Lyons e/o Wiley	116	6	54,000	44,100	D	44,000	D	-100	0.00
Lyons e/o Orchard Village	117	6	54,000	50,700	E	51,000	E	300	0.01
Lyons e/o San Fernando	122	6	54,000	23,900	A	24,000	A	100	0.00
Magic Mtn w/o Old Road	22	8	72,000	80,900	F	81,000	F	100	0.00
Magic Mtn e/o I-5	88	8	72,000	62,100	D	62,000	D	-100	0.00
Magic Mtn e/o Tourney	89	8	72,000	52,100	C	52,000	C	-100	0.00
Magic Mtn w/o Citrus	90	8	72,000	47,100	B	47,000	B	-100	0.00

(Cont.)

Table 4-2 (Cont.)
 ADT LOS SUMMARY - LONG-RANGE CUMULATIVE (2030) BUILDOUT CONDITIONS
 (WITH AND WITHOUT PROJECT)

Location	ID #	Mid-block Lanes	Capacity (000's)	No-Project		With-Project		Change Due to Project	
				Volume (000's)	LOS	Volume (000's)	LOS	Volume (total)	V/C
Magic Mtn w/o Valencia	320	8	72,000	45,100	B	45,000	B	-100	0.00
Magic Mtn w/o San Fernando	91	6	54,000	53,100	E	53,000	E	-100	0.00
Magic Mtn e/o San Fernando	92	6	54,000	45,100	D	45,000	D	-100	0.00
Magic Mtn n/o Via Princessa	197	6	54,000	32,000	A	32,000	A	0	0.00
McBean w/o Old Road	35	6	54,000	26,700	A	27,000	A	300	0.01
McBean w/o I-5	231	6	54,000	37,900	B	39,000	C	1,100	0.02
McBean w/o Rockwell	36	6	54,000	47,700	D	51,000	E	3,300	0.06
McBean e/o Rockwell	37	6	54,000	31,900	A	36,000	B	4,100	0.08
McBean n/o Orchard Village	119	6	54,000	35,400	B	37,000	B	1,600	0.03
McBean s/o Valencia	38	6	54,000	45,800	D	47,000	D	1,200	0.02
McBean s/o Town Center	39	8	72,000	56,500	C	57,000	C	500	0.01
McBean n/o Magic Mtn	40	8	72,000	68,600	E	69,000	E	400	0.01
McBean s/o Ave Scott	258	8	72,000	71,600	E	72,000	E	400	0.01
McBean s/o Newhall Ranch	41	8	72,000	60,600	D	61,000	D	400	0.01
McBean n/o Newhall Ranch	42	6	54,000	46,800	D	47,000	D	200	0.00
Newhall Ranch e/o I-5	50	8	72,000	64,000	D	64,000	D	0	0.00

(Cont.)

Table 4-2 (Cont.)
 ADT LOS SUMMARY - LONG-RANGE CUMULATIVE (2030) BUILDOUT CONDITIONS
 (WITH AND WITHOUT PROJECT)

Location	ID #	Mid-block Lanes	Capacity (000's)	No-Project		With-Project		Change Due to Project	
				Volume (000's)	LOS	Volume (000's)	LOS	Volume (total)	V/C
Newhall Ranch w/o Rye	51	8	72,000	67,000	E	67,000	E	0	0.00
Newhall Ranch e/o Rye	52	8	72,000	57,000	C	57,000	C	0	0.00
Newhall Ranch w/o Baywood	53	8	72,000	73,000	F	73,000	F	0	0.00
Newhall Ranch e/o McBean	54	8	72,000	71,000	E	71,000	E	0	0.00
Newhall Ranch w/o Bouquet	128	8	72,000	68,100	E	68,000	E	-100	0.00
Newhall Ranch e/o Bouquet	55	6	54,000	39,000	C	39,000	C	0	0.00
Newhall Ranch e/o Santa Clarita	129	6	54,000	37,000	B	37,000	B	0	0.00
Old Road n/o Rye Cyn	27	6	54,000	49,000	E	49,000	E	0	0.00
Old Road n/o Magic Mtn	28	6	54,000	55,000	F	55,000	F	0	0.00
Old Road s/o Magic Mtn	29	6	54,000	25,000	A	25,000	A	0	0.00
Old Road s/o Valencia	30	6	54,000	25,700	A	26,000	A	300	0.01
Old Road s/o McBean	31	6	54,000	32,800	B	33,000	B	200	0.00
Old Road s/o Pico	32	4	36,000	17,000	A	17,000	A	0	0.00
Orchard Village s/o McBean	112	6 (4) ¹	54,000 (36,000) ¹	42,100	C (F) ¹	44,000	D (F) ¹	1,900	0.04 (0.05) ¹
Orchard Village n/o Lyons	220	6	54,000	26,400	A	27,000	A	600	0.01
Pico w/o Old Road	34	6	54,000	32,000	A	32,000	A	0	0.00

(Cont.)

Table 4-2 (Cont.)
 ADT LOS SUMMARY - LONG-RANGE CUMULATIVE (2030) BUILDOUT CONDITIONS
 (WITH AND WITHOUT PROJECT)

Location	ID #	Mid-block Lanes	Capacity (000's)	No-Project		With-Project		Change Due to Project	
				Volume (000's)	LOS	Volume (000's)	LOS	Volume (total)	V/C
Pico Cyn w/o I-5	230	6	54,000	42,100	C	42,000	C	-100	0.00
Porta Bella (n) e/o Magic Mtn	131	4	36,000	8,000	A	8,000	A	0	0.00
Porta Bella (s) w/o Santa Clarita	239	4	36,000	20,000	A	20,000	A	0	0.00
Porta Bella (s) e/o Santa Clarita	132	4	36,000	17,000	A	17,000	A	0	0.00
Rye e/o Scott	64	6	54,000	46,100	D	46,000	D	-100	0.00
Rye w/o Scott	63	6	54,000	47,100	D	47,000	D	-100	0.00
Rye e/o Old Road	62	6	54,000	58,100	F	58,000	F	-100	0.00
San Fernando s/o Magic Mtn	81	6	54,000	53,100	E	53,000	E	-100	0.00
San Fernando n/o Valle Oro	111	6	54,000	51,000	E	51,000	E	0	0.00
Santa Clarita s/o Bouquet	142	6	54,000	39,000	C	39,000	C	0	0.00
Santa Clarita s/o Newhall Ranch	221	6	54,000	42,000	C	42,000	C	0	0.00
Santa Clarita s/o Soledad	222	6	54,000	45,100	D	45,000	D	-100	0.00
Santa Clarita s/o Porta Bella (n)	223	6	54,000	37,000	B	37,000	B	0	0.00
Santa Clarita n/o Via Princessa	224	6	54,000	52,000	E	52,000	E	0	0.00
Santa Clarita s/o Via Princessa	225	6	54,000	47,000	D	47,000	D	0	0.00
Scott w/o Channel	87	4	36,000	17,000	A	17,000	A	0	0.00

(Cont.)

Table 4-2 (Cont.)
 ADT LOS SUMMARY - LONG-RANGE CUMULATIVE (2030) BUILDOUT CONDITIONS
 (WITH AND WITHOUT PROJECT)

Location	ID #	Mid-block Lanes	Capacity (000's)	No-Project		With-Project		Change Due to Project	
				Volume (000's)	LOS	Volume (000's)	LOS	Volume (total)	V/C
Sierra Hwy s/o Via Princessa	161	6	54,000	34,900	B	35,000	B	100	0.00
Sierra Hwy s/o Golden Valley	160	6	54,000	28,000	A	28,000	A	0	0.00
Sierra Hwy s/o Santa Clarita	159	6	54,000	37,000	B	37,100	B	100	0.00
Sierra Hwy s/o San Fernando	164	6	54,000	41,000	C	41,000	C	0	0.00
Soledad e/o Bouquet Cyn	101	6	54,000	44,000	D	44,000	D	0	0.00
Soledad w/o Golden Valley	143	6	54,000	41,000	C	41,000	C	0	0.00
Soledad e/o Rainbow Glen	227	6	54,000	51,000	E	51,000	E	0	0.00
Soledad w/o Whites Cyn	144	6	54,000	43,000	C	43,000	C	0	0.00
Soledad e/o Whites Cyn	145	6	54,000	51,900	E	52,000	E	100	0.00
Stanford n/o Rye Cyn	170	4	24,000	6,000	A	6,000	A	0	0.00
Stanford e/o Rye Cyn	233	4	24,000	14,000	A	14,000	A	0	0.00
Tibbitts n/o Magic Mtn	141	6	54,000	30,100	A	30,000	A	-100	0.00
Valencia w/o Old Road	18	8	72,000	58,800	D	59,000	D	200	0.00
Valencia e/o Old Road	19	8	72,000	56,100	C	56,000	C	-100	0.00
Valencia e/o I-5 NB Ramps	96	8	72,000	71,200	E	71,000	E	-200	0.00
Valencia e/o Tourney	97	8	72,000	63,200	D	63,000	D	-200	0.00

(Cont.)

Table 4-2 (Cont.)
 ADT LOS SUMMARY - LONG-RANGE CUMULATIVE (2030) BUILDOUT CONDITIONS
 (WITH AND WITHOUT PROJECT)

Location	ID #	Mid-block Lanes	Capacity (000's)	No-Project		With-Project		Change Due to Project	
				Volume (000's)	LOS	Volume (000's)	LOS	Volume (total)	V/C
Valencia w/o McBean	98	8	72,000	68,200	E	68,000	E	-200	0.00
Valencia e/o McBean	319	6	54,000	48,500	D	49,000	E	500	0.01
Valencia w/o Citrus	99	6	54,000	55,600	F	56,000	F	400	0.01
Valencia w/o Cinema	100	6	54,000	55,700	F	56,000	F	300	0.01
Via Princessa w/o Magic Mtn	106	6	54,000	30,200	A	31,000	A	800	0.01
Via Princessa e/o Magic Mtn	107	6	54,000	43,400	C	44,000	D	600	0.01
Via Princessa e/o Santa Clarita	155	6	54,000	65,400	F	66,000	F	600	0.01
Via Princessa w/o Rainbow Glen	151	6	54,000	17,800	A	18,000	A	200	0.00
Via Princessa s/o Whites Cyn	153	6	54,000	51,000	E	51,000	E	0	0.00
Via Princessa s/o Sierra Hwy	154	6	54,000	40,000	C	40,000	C	0	0.00
Whites Cyn n/o Soledad	149	6	54,000	48,000	D	48,000	D	0	0.00
Whites Cyn s/o Soledad	150	6	54,000	45,900	D	46,000	D	100	0.00
Wiley e/o Orchard Village	105	6	54,000	27,100	A	28,000	A	900	0.02
Wiley e/o Tournament	104	6	54,000	22,100	A	22,000	A	-100	0.00
Wiley n/o Lyons	103	6	54,000	24,900	A	25,000	A	100	0.00
Wiley s/o Lyons	102	4	36,000	10,000	A	10,000	A	100	0.00

¹Based on the existing 4-Lane Orchard Village Road

Table 4-3

ICU AND LOS SUMMARY – LONG-RANGE CUMULATIVE (2030) BUILDOUT CONDITIONS
(WITH AND WITHOUT PROJECT)

Intersection	Long-Range Cumulative without Project				Long-Range Cumulative with Project				Change	
	AM		PM		AM		PM		AM	PM
15. I-5 NB Ramps & McBean	.58	A	.75	C	.61	B	.77	C	.03	.02
42. Rockwell & McBean	.82	D	.77	C	.82	D	.80	C	--	.03
44. McBean & Valencia	.80	C	.90	D	.79	C	.91	E	-.01	.01*
55. Orchard Village & McBean	.77	C	1.07	F	0.79	C	1.22	F	.02	.15*

*Significant Impact (see Table 1-2)

Level of service ranges: .00 - .60 A
 .61 - .70 B
 .71 - .80 C
 .81 - .90 D
 .91 - 1.00 E
 Above 1.00 F

5.0 SPECIAL ISSUES

This chapter includes additional analyses, such as a review of site circulation, a Congestion Management Program (CMP) analysis, a McBean Corridor operational analysis, and information regarding the proposed project's use of state highways.

5.1 SITE CIRCULATION

Chapter 3 presented an illustration of the proposed site plan. The plan indicates that access to the Master Plan portion of the site is provided by three project driveways located on McBean Parkway. The main entrance for the project is provided at a four-way signalized intersection with Orchard Village Drive. Orchard Village Drive is a two-lane roadway in the vicinity of the project and terminates at the project entrance. A second four-way signalized intersection with McBean Parkway is located at Avenida Navarre, a two-lane local street serving the residential uses south of the project boundary. Three tee-intersections (project driveways) are located along McBean Parkway, one west of the Orchard Village Drive main entrance (full access) and two east of the Avenida Navarre entrance (partial access). The two driveways east of Avenida Navarre access the non-master plan portion of the site.

5.1.1 Site Access – Existing Conditions

Illustrations of existing peak hour turning movement volumes for each project driveway can be found in Figures 5-1 and 5-2 for the AM and PM peak hours, respectively. The peak hour counts were collected in January 2005. The existing lane configurations are illustrated in Figure 5-3.

The results of the ICU LOS analyses for the full access project driveways are shown in Table 5-1 (ICU worksheets are provided in Appendix A). The table shows how each intersection currently meets the performance standard of the City. Future conditions at the access locations are discussed in the following section.

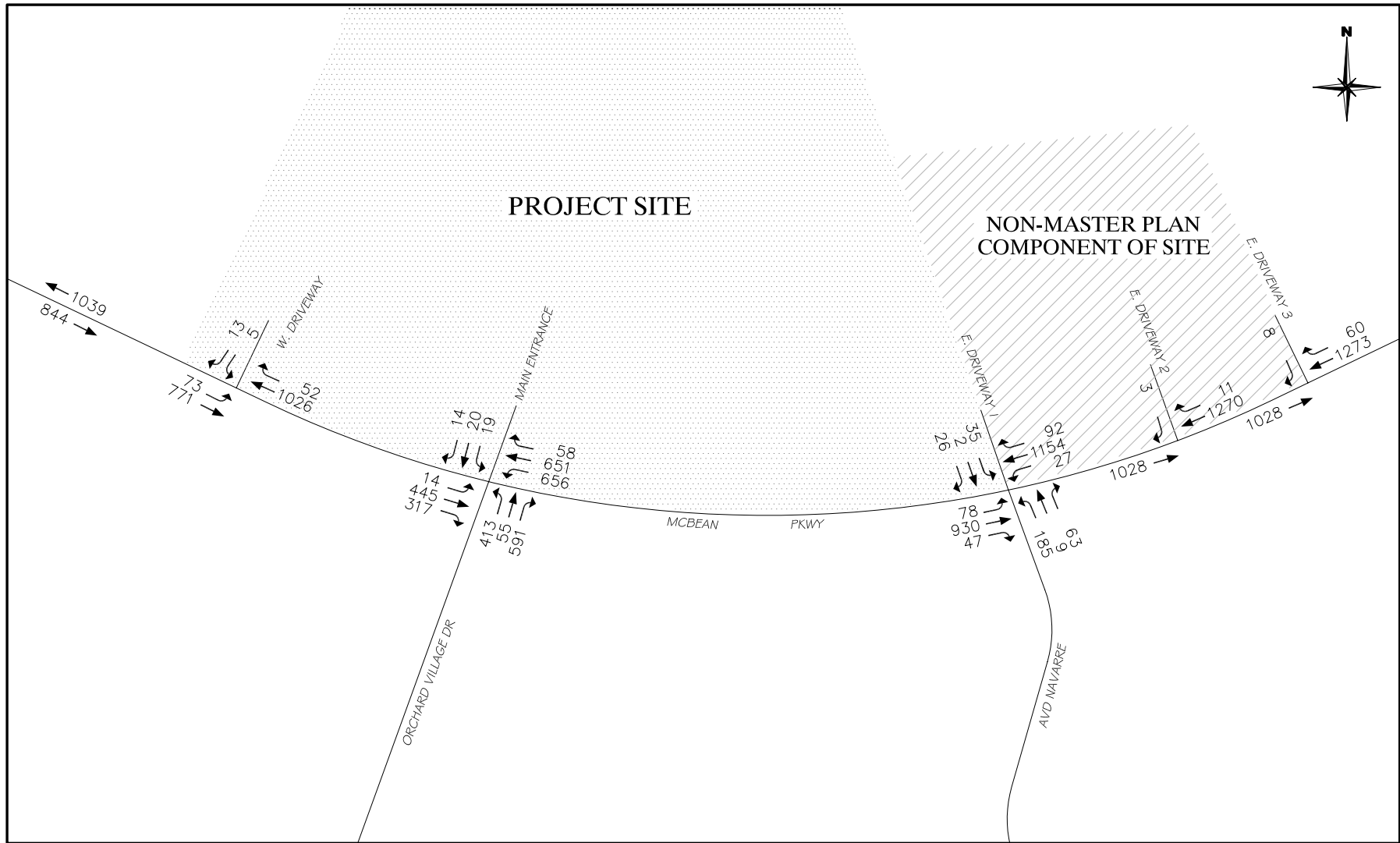


Figure 5-1
 AM PEAK HOUR INTERSECTION VOLUMES
 - EXISTING CONDITIONS AT PROJECT DRIVEWAYS

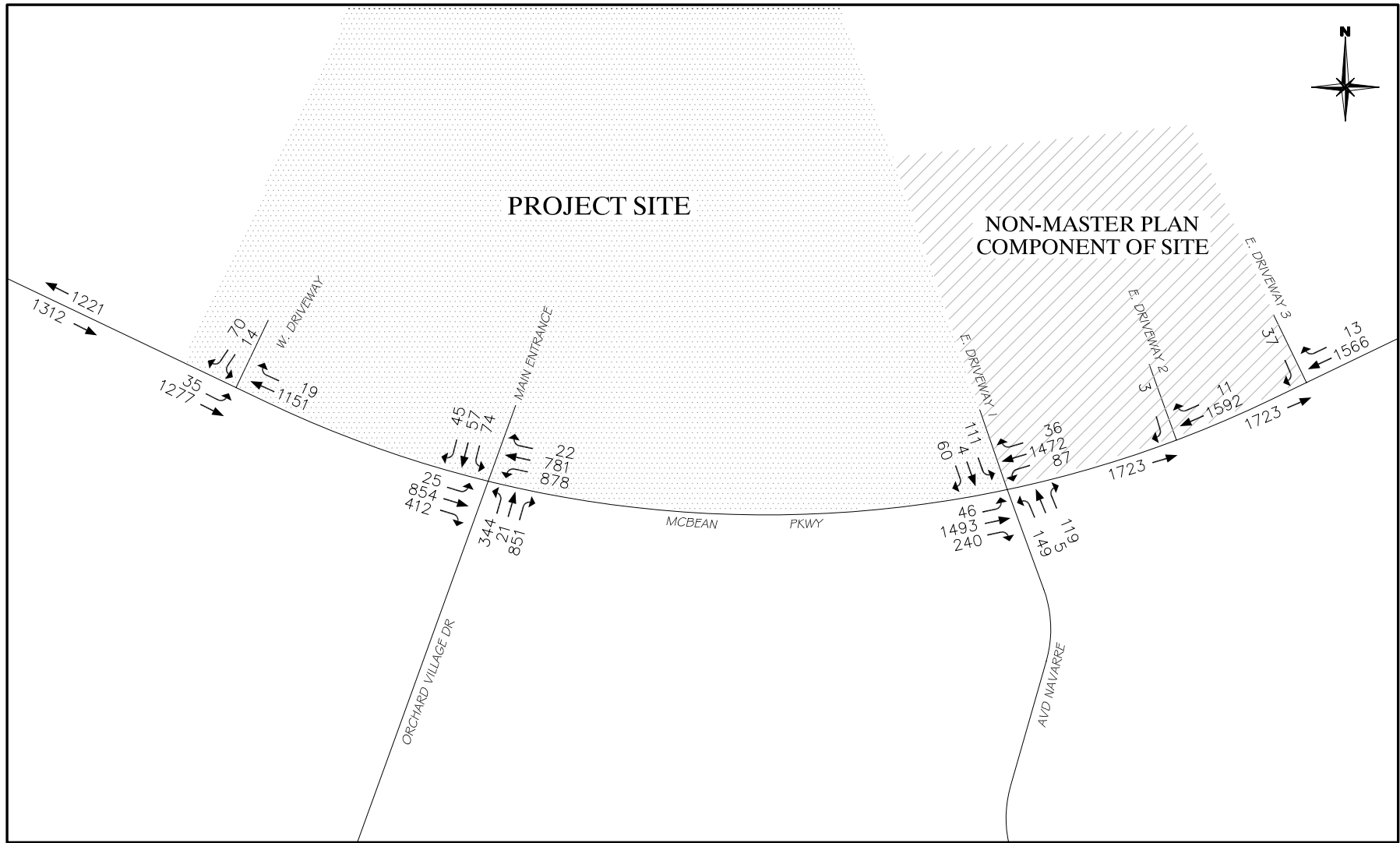


Figure 5-2
 PM PEAK HOUR INTERSECTION VOLUMES
 - EXISTING CONDITIONS AT PROJECT DRIVEWAYS

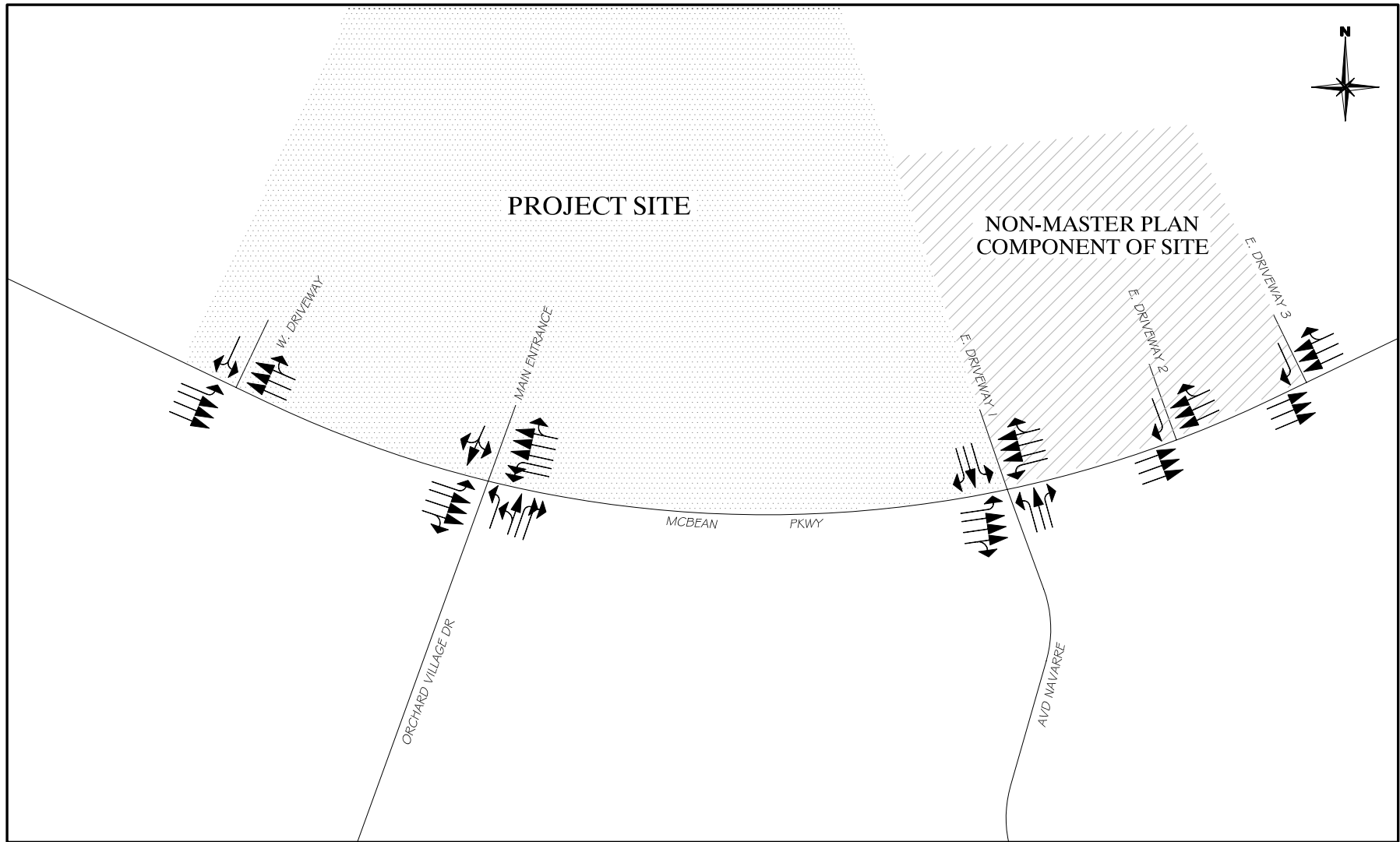


Figure 5-3
 INTERSECTION LANE CONFIGURATIONS
 - EXISTING PROJECT DRIVEWAYS

Table 5-1

ICU SUMMARY – PROJECT DRIVEWAYS

Location	AM Peak Hour		PM Peak Hour	
	ICU	LOS	ICU	LOS
Existing Conditions				
55. Orchard Village/Center Driveway & McBean	.57	A	.76	C
100. Avd. Navarre/East Driveway & McBean	.49	A	.57	A
Interim Year With Project				
55. Orchard Village/Center Driveway & McBean	.73 (.70)	C (B)	1.00 (.87)	E (D)
100. Avd. Navarre/East Driveway & McBean	.51	A	.69	B
Long-Range With Project				
55. Orchard Village/Center Driveway & McBean	.79 (.67)	C (B)	1.22 (.90)	F (D)

Values in parenthesis represent the ICU and LOS with mitigation.

See Figure 5-3 for driveway locations.

Level of service ranges: .00 - .60 A
 .61 - .70 B
 .71 - .80 C
 .81 - .90 D
 .91 – 1.00 E
 Above 1.00 F

5.1.2 Site Access – Future Conditions

Illustrations of future peak hour turning movement volumes for Interim Year conditions for each project driveway can be found in Figures 5-4 and 5-5 for the AM and PM peak hours, respectively.

The increase in traffic volume that is associated with the expansion of the hospital and medical office facilities will require improvements to each intersection that provides access to the hospital site. The recommended lane configurations for accommodating project traffic and the recommended lane configurations for the project site are illustrated in Figure 5-6. Following is a description of the recommended lane configurations for these scenarios.

Hospital Main Entrance/Orchard Village Road at McBean Parkway – This intersection represents one of two access locations controlled by a traffic signal. Improvements in the form of additional turn lanes and a longer left-turn lane storage pocket are recommended in order to accommodate the increase in traffic through this intersection.

As indicated in the previously referenced figures, a separate right-turn lane for vehicles turning into the site is recommended. The separate lane will allow vehicles turning into the site to slow to turning speed while out of the flow of the faster moving through traffic.

For vehicles exiting the site at this location, a total of three lanes were proposed to accommodate project traffic (one left-turn lane, one through lane and one shared through/right-turn lane). As shown in the impact analysis section (see Section 4.1) and in table above, this intersection is significantly impacted by the proposed project. Two mitigation measures have been identified (see Chapter 6.0 for discussion), the first of which consists of adding an additional (fourth) exit lane to the project driveway (one left-turn lane, two through lanes and one right-turn lane). The second mitigation measure consists of adding a separate eastbound right-turn lane on McBean Parkway (for right-turns from McBean Parkway to Orchard Village Road). Also, the existing left-turn storage pocket for turns from westbound McBean Parkway to southbound Orchard Village Road, which is of insufficient length to accommodate today's

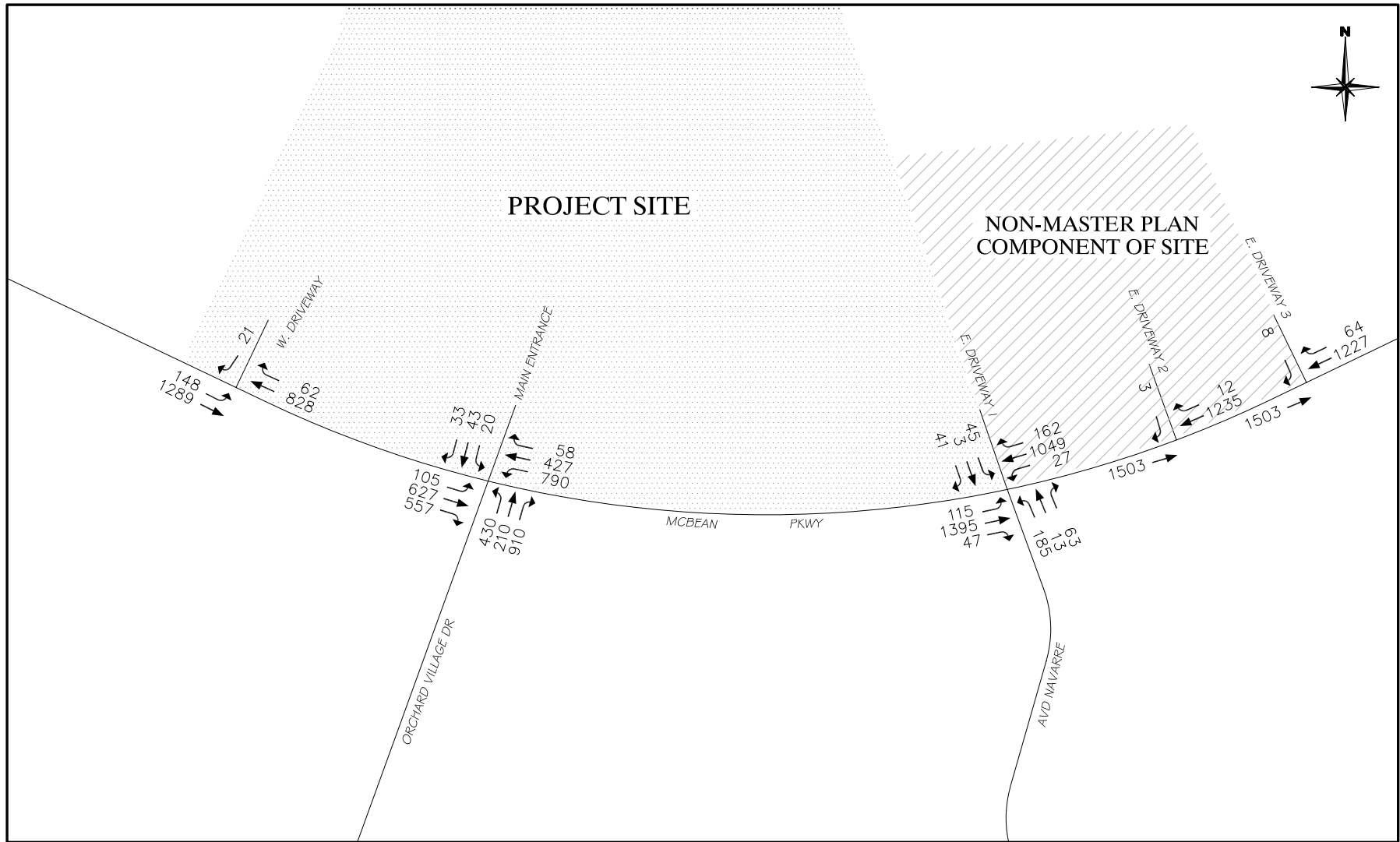


Figure 5-4
 AM PEAK HOUR INTERSECTION VOLUMES
 - INTERIM YEAR CONDITIONS AT PROJECT
 DRIVEWAYS

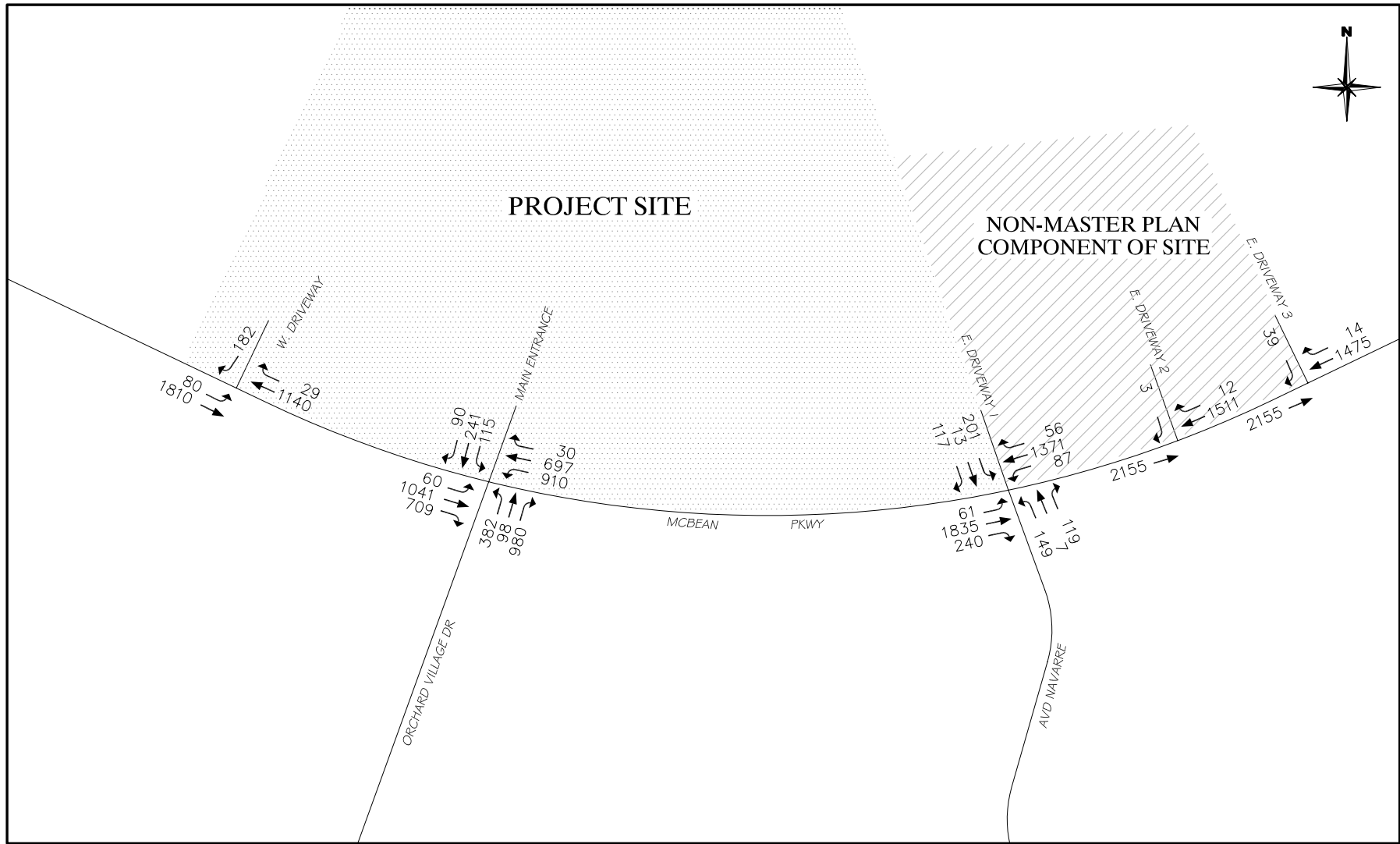
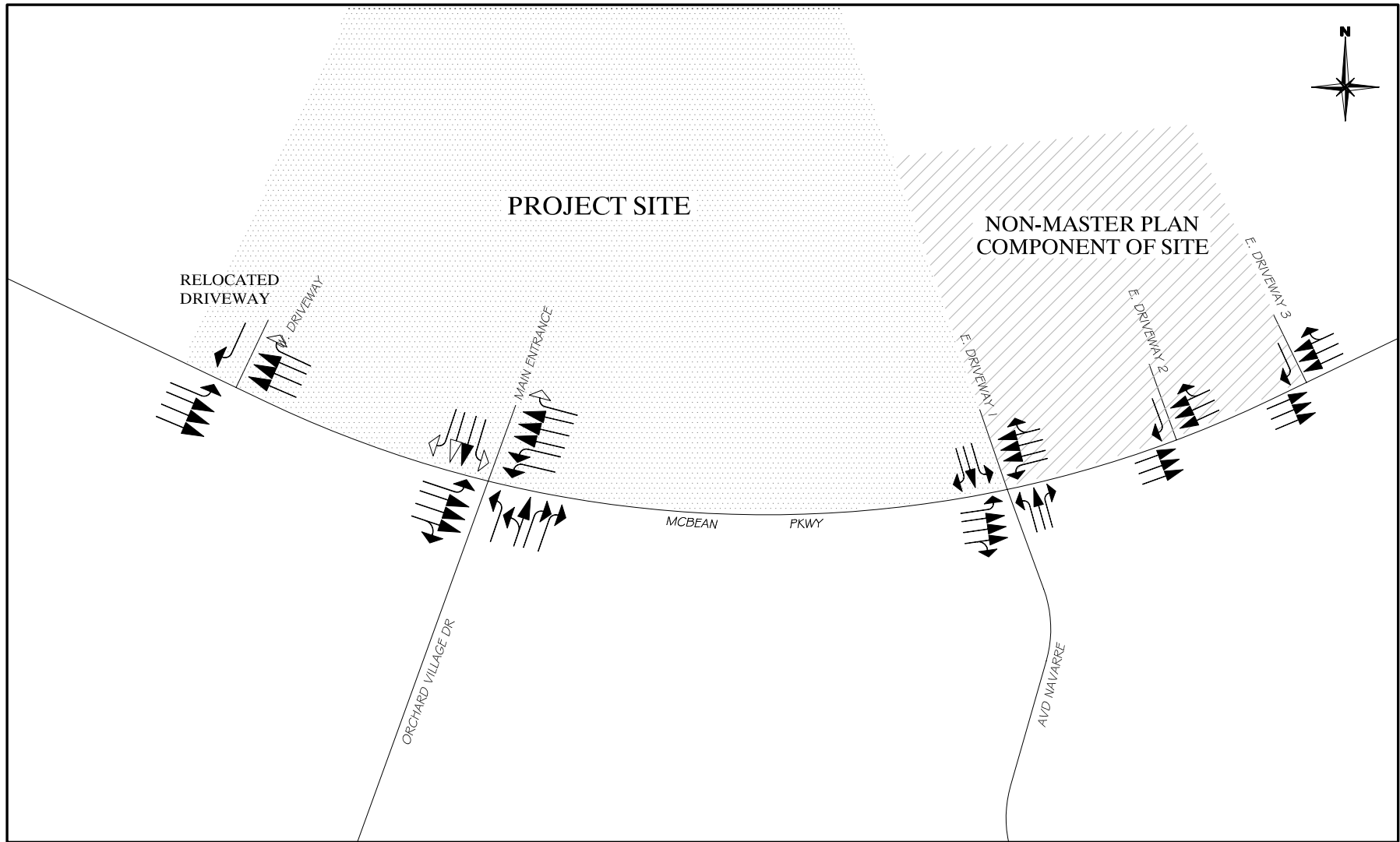


Figure 5-5
 PM PEAK HOUR INTERSECTION VOLUMES
 - INTERIM YEAR CONDITIONS AT PROJECT
 DRIVEWAYS



LEGEND



 Existing Lanes
 Future Lanes

Figure 5-6
**INTERSECTION LANE CONFIGURATIONS
 - PROJECT DRIVEWAYS**

traffic volumes, is recommended to be lengthened to accommodate that movement's forecast 50th percentile queue length. The recommended turn pocket lengths are as follows:

Eastbound (McBean) Right-Turn Pocket (new) – 300 feet

Westbound (McBean) Left-Turn Pocket – 410 feet

Westbound (McBean) Right-turn Pocket (new) – 300 feet

Hospital Entrance/Avenida Navarre at McBean Parkway – This intersection represents the second of two access locations controlled by a traffic signal. The current configuration of this location provides sufficient capacity for the projected increase in traffic volumes, however, separate left-turn phasing is recommended to accommodate the increase of left-turn movements out of the site.

West Hospital Entrance at McBean Parkway – This intersection is not controlled by a traffic signal and will be relocated to the westerly boundary of the site as part of the proposed project. The relocated intersection will be approximately 675 feet west of the signalized McBean Parkway/Orchard Village Road intersection, which will preclude a traffic signal from being installed at the west driveway. Since McBean Parkway is a six-lane major arterial, it is recommended that left-turns out of the unsignalized driveway be prohibited, and that a separate right-turn lane be provided for vehicles turning into the site.

5.2 CMP ANALYSIS

The Los Angeles County Congestion Management Program (CMP) (see Reference 9 in Section 1.6) requires that a proposed development address two major subject areas with respect to traffic impacts. These are the project's impacts on the CMP highway system and on the local and regional transit systems.

According to the CMP guidelines, the geographical area examined in a CMP traffic impact analysis (TIA) consists of the CMP monitoring locations that meet the following criteria:

1. CMP intersections where the proposed project will add 50 or more trips during the AM or PM weekday peak hours (of adjacent street traffic).
2. Mainline freeway-monitoring locations where the project will add 150 or more trips, in either direction, during either the AM or PM weekday peak hours.

Only the CMP intersection of Magic Mountain Parkway and Valencia Boulevard meets the above criteria for the proposed project. The impact analysis in Chapter 4.0 shows that this intersection is significantly impacted by the proposed project and mitigation for the impact is presented in Chapter 6.0.

Another component of the CMP transportation impact analysis is a review of transit impacts. This review includes evidence that transit operators received the Notice of Preparation (included in the project EIR), identification of existing transit services near the project (see Section 2.1.3), estimation of the number of project trips assigned to transit, information on facilities and/or programs that will encourage public transit use, and an analysis of project impacts on transit service.

The proposed project is forecast to generate a net 7,571 ADT. The conversion to person trips is accomplished by using the CMP guidelines (multiplying the ADT by an occupancy factor of 1.4) which results in a total of 10,599 average daily person trips. To estimate the number of transit trips the CMP specifies a factor of 3.5 percent which results in 318 transit trips to be generated by Phase 1 of the proposed project.

5.3 STATE HIGHWAYS

5.3.1 Project Volumes

The project is located approximately 1 mile east of the I-5 Freeway. In the vicinity of the project, I-5 is an eight-lane freeway under the jurisdiction of Caltrans and will provide regional transportation for patrons of the proposed project. Project traffic will primarily utilize the McBean Parkway interchange for access to the project.

Table 5-2 summarizes the volume of project traffic forecast to use I-5 in the vicinity of the project site, based on the project distribution presented in Chapter 3.

Table 5-2 PROJECT VOLUMES ON STATE HIGHWAYS				
Mainline	AM Peak Hour		PM Peak Hour	
	NB	SB	NB	SB
I-5 north of McBean Pkwy	11	47	55	17
I-5 south of McBean Pkwy	53	12	19	54
Ramps				
I-5 northbound off-ramp at McBean Pkwy	53	--	19	--
I-5 northbound on-ramp at McBean Pkwy	11	--	55	--
I-5 southbound off-ramp at McBean Pkwy	--	47	--	17
I-5 southbound on-ramp at McBean Pkwy	--	12	--	54

The affected segment of the freeway does not currently experience significant delay or unstable or forced flow conditions, and project traffic consists of only slightly more than 50 peak hour trips (e.g. 53 trips in the AM peak hour and 55 trips in the PM peak hour) on the segments nearest to the project site. The Caltrans “Guide for the Preparation of Traffic Impact Studies” (see Reference 4 in Chapter 1) indicates that a traffic impact study for the freeway mainline is not necessary when project volumes are less than 100 peak hour trips and freeway conditions are not exhibiting noticeable delay. This segment of the I-5 freeway is the subject of a recent traffic study which demonstrated that with the planned construction of truck climbing lanes and HOV lanes, the freeway will operate at acceptable levels of service for future cumulative conditions that include the project traffic (see Reference 11 in Section 1.6).

5.4 OPERATIONAL ANALYSIS

The impact analysis presented in the previous Chapter is based on determining level of service from the percent of intersection capacity that is being utilized by the forecast traffic volumes. That methodology is referenced by City’s traffic study guidelines and General Plan Circulation Element in regards to the determination of significant impacts. While that methodology is appropriate for quantifying the overall capacity utilization of an intersection, it does not address the more detailed aspects of intersection behavior such as delay and queue lengths for the individual movements or the effect of

upstream and downstream intersections. Therefore, while the methodology specified by the City's guidelines is used to determine project impacts, an operational analysis has been requested by City staff to provide information regarding the operational parameters anticipated to occur given the development of the project site.

The operational analysis procedures outlined in the 2000 Highway Capacity Manual (HCM) provides a methodology for calculating delay and queue for individual movements. To account for the effect of upstream and downstream conditions, a microscopic model which simulates the movement of individual vehicles through a network is required. For this analysis, forecast traffic volumes for Interim Year conditions with and without the proposed project have been evaluated using a micro-simulation model that incorporates delay and queue calculations based on the HCM procedures.

The detailed operational analysis was carried out for the McBean corridor between I-5 and Decoro Drive and for Orchard Village Road between McBean Parkway and Lyons Avenue. The following twenty-four (24) intersections represent each of the traffic signal controlled locations along these corridors:

- McBean Parkway and Decoro Drive
- McBean Parkway and Cottage Circle
- McBean Parkway and Fairview Drive
- McBean Parkway and Newhall Ranch Road
- McBean Parkway and Baywood Lane
- McBean Parkway and Avenue Scott
- McBean Parkway and Creekside Road
- McBean Parkway and Magic Mountain Parkway
- McBean Parkway and Town Center
- McBean Parkway and Mall Entrance
- McBean Parkway and Valencia Boulevard
- McBean Parkway and Del Monte Drive
- McBean Parkway and Arroyo Park Drive
- McBean Parkway and Granary Square
- McBean Parkway and Avd. Navarro/HMNMH Driveway
- McBean Parkway and Orchard Village Road/HMNMH Driveway

- McBean Parkway and Alegro Street
- McBean Parkway and Singing Hills Drive
- McBean Parkway and Rockwell Canyon Road
- Orchard Village and Mill Valley Road
- Orchard Village and Wiley Canyon Rd
- Orchard Village and Avenida Ronada
- Orchard Village and Dalbey Drive
- Orchard Village and Lyons Avenue

It is the operation of these signalized intersections that largely determine the quality of traffic movement through this corridor.

A delay and level of service summary by intersection is provided in Table 5-3 (see Appendix B for summary reports by intersection). For Interim Year conditions, the operations analysis shows that when project mitigation is implemented (see Chapter 6.0 for details of the mitigation measures) conditions are either LOS D or better, or if worse than LOS D, the mitigation improves operations in comparison to no-project conditions.

Table 5-3

OPERATIONAL ANALYSIS DELAY AND LOS SUMMARY

Location	Existing Conditions		Interim Year (Without Project)		Interim Year (With Project Phases 1 & 2)	
	Ave. Delay (s/veh)	LOS	Ave. Delay (s/veh)	LOS	Ave. Delay (s/veh)	LOS
AM Peak Hour						
McBean and Decoro	31.2	C	37.4	D	37.6	D
McBean and Cottage Circle	3.7	A	3.4	A	3.5	A
McBean and Fairview	7.0	A	7.3	A	7.5	A
McBean and Newhall Ranch	45.3	D	72.9	E	74.8 (53.8)	E (D)
McBean and Baywood	1.5	A	2.3	A	2.4	A
McBean and Ave. Scott	22.7	C	116.5	F	120.9 (53.6)	F (D)
McBean and Creekside	19.2	B	24.2	C	24.6	C
McBean and Magic Mountain	24.0	C	74.2	E	74.2 (55.8)	E (E)
McBean and Town Center	2.6	A	2.8	A	2.8	A
McBean and Mall Entrance	1.2	A	1.8	A	1.9	A
McBean and Valencia	46.5	D	87.9	F	89.4 (78.3)	F (E)
McBean and Del Monte	16.6	B	15.8	B	16.0	B
McBean and Arroyo Park	10.6	B	11.4	B	11.3	B
McBean and Granary Square	5.2	A	5.7	A	5.6	A
McBean and Avd. Navarro/Hospital Dwy	21.5	C	11.5	B	11.9	B
McBean and Orchard Village /Hospital Dwy	39.5	D	35.8	D	58.8 (54.3)	E (D)
McBean and Alegro	1.9	A	2.0	A	1.9	A
McBean and Singing Hills	10.6	B	9.9	A	9.7	A
McBean and Rockwell Canyon	79.6	E	33.9	C	33.1	C
McBean and I-5 Fwy NB Ramps	8.9	A	11.0	B	12.3	B
McBean and I-5 Fwy SB Ramps	7.7	A	13.9	B	14.0	B
Orchard Village & Mill Valley	15.7	B	14.5	B	14.4	B
Orchard Village & Wiley Canyon	28.0	C	29.4	C	37.0 (30.7)	D (C)
Orchard Village & Ave. Ronada	23.8	C	31.4	C	30.7	C
Orchard Village & Dalbey	13.6	B	20.7	C	20.5	C
Orchard Village & Lyons	26.9	C	29.7	C	30.0	C

(Cont.)

Table 5-3 (Cont.)

OPERATIONAL ANALYSIS DELAY AND LOS SUMMARY

PM Peak Hour						
McBean and Decoro	53.0	D	31.9	C	31.6	C
McBean and Cottage Circle	4.1	A	3.6	A	4.2	A
McBean and Fairview	8.5	A	6.7	A	9.4	A
McBean and Newhall Ranch	47.0	D	72.4	E	84.4 (70.4)	F (E)
McBean and Baywood	0.0	A	0.2	A	0.5	A
McBean and Ave. Scott	23.9	C	22.9	C	27.4	C
McBean and Creekside	184.5	F	252.8	F	298.4 (170.9)	F (F)
McBean and Magic Mountain	62.3	E	131.4	F	137.8 (94.7)	F (F)
McBean and Town Center	15.9	B	19.0	B	20.0	B
McBean and Mall Entrance	10.5	B	9.6	A	9.2	A
McBean and Valencia	66.3	E	86.2	F	86.2 (83.6)	F (F)
McBean and Del Monte	18.6	B	16.0	B	16.4	B
McBean and Arroyo Park	8.7	A	9.4	A	10.3	B
McBean and Granary Square	5.2	A	5.5	A	5.7	A
McBean and Avd. Navarro/Hospital Dwy	12.6	B	10.0	B	13.1	B
McBean and Orchard Village/Hospital Dwy	43.6	D	101.2	F	124.9 (54.8)	F (D)
McBean and Alegro	2.3	A	2.0	A	1.9	A
McBean and Singing Hills	8.4	A	10.3	B	10.4	B
McBean and Rockwell Canyon	37.7	D	39.9	D	43.1	D
McBean and I-5 Fwy NB Ramps	28.0	C	23.5	C	25.1	C
McBean and I-5 Fwy SB Ramps	11.1	B	24.1	C	22.7	C
Orchard Village & Mill Valley	7.6	A	8.4	A	8.6	A
Orchard Village & Wiley Canyon	35.8	D	141.4	F	159.5 (107.6)	F (F)
Orchard Village & Ave. Ronada	14.5	B	14.8	B	14.7	B
Orchard Village & Dalbey	3.5	A	3.5	A	3.4	A
Orchard Village & Lyons	37.7	D	46.4	D	51.8 (45.3)	D (D)

Values in parentheses represent conditions with the proposed project mitigation measures including signal timing adjustments.

6.0 MITIGATION

This chapter summarizes the mitigation measures identified in response to the significant impacts outlined in the previous chapters.

6.1 PROJECT MITIGATION

A mitigation phasing analysis has been conducted to determine both the type of mitigation measure that is needed as well as when the off-site intersection mitigation measures are required to be in place. In other words, the analysis identifies the specific mitigation measures that are needed as each of the proposed new buildings is constructed.

For the purpose of this analysis, the individual buildings were presumed to be constructed in the following order based on the anticipated occupancy dates provided by the project applicant: Medical Office Building (MOB) 1 (approximately 2010), Inpatient Building and/or MOB 2 (approximately 2013-2016), and MOB 3 (approximately 2019). The similarity between the amount of trips generated by MOB 2 and the Inpatient Building means that the Inpatient Building could be constructed before MOB 2, or vice versa, without significantly affecting the findings of this analysis.

An estimate of traffic conditions was prepared for each of the phases noted above. Buildout of the full project (approximately 2019) is evaluated based on forecasts from the Interim Year traffic model as discussed in Chapter 4.0. Background conditions for the preceding years (i.e., 2010 through 2016) were estimated by interpolating between existing conditions and the Interim Year conditions.

The impact analysis presented in Sections 4.1 and 4.2 determined that based on the City's impact criteria, a significant project impact occurs at the following intersections:

- McBean Parkway at Valencia Boulevard
- McBean Parkway at Magic Mountain Parkway
- Orchard Village Road at Wiley Canyon Road
- Orchard Village Road/Project Driveway at McBean Parkway
- Valencia Boulevard at Magic Mountain Parkway

Of these intersections, significant project impacts occur at four intersections with buildout of the proposed project and, in addition, two impacts were identified for long-range cumulative conditions (i.e., after the project is built-out), one of which is at the Orchard Village Road/McBean Parkway intersection and the other which is at the McBean Parkway/Valencia Boulevard intersection.

The project impacts can be mitigated by implementing the identified improvements in conjunction with the construction of the following buildings:

MOB 1 Mitigation (approximately 2010):

- **McBean Parkway at Magic Mountain Parkway (Intersection #45):** Add a third through lane for the westbound direction (re-striping) and add right-turn overlap phasing for the westbound right-turn movement (signal modification).
- **Orchard Village Road at Wiley Canyon Road (Intersection #54):** Add a separate northbound right-turn lane with right-turn overlap phasing (within existing right-of-way between Wiley Canyon road and the Santa Clara River South Fork Bridge).
- **Orchard Village Road at McBean Parkway (Intersection #55):** Widen the southbound approach (project driveway) to allow for a left-turn lane and a second through lane.

Inpatient Building/MOB 2 Mitigation (approximately 2013 - 2016):

- **McBean Parkway at Magic Mountain Parkway (Intersection #45):** Add a third through lane for the eastbound direction (re-striping).
- **Orchard Village Road at McBean Parkway (Intersection #55):** Add a separate westbound right-turn lane (for project access) and a separate southbound right-turn lane (project driveway).
- **Valencia Boulevard at Magic Mountain Parkway (Intersection #57):** MOB Add a second westbound left-turn lane by removing the existing right-turn lane (re-striping the westbound approach as a mirror image of the existing eastbound approach).

MOB 3 Mitigation (approximately 2019):

- **None**

As noted above, the project's traffic study identified two impacts for long-range cumulative conditions (approximately year 2030). These impacts are not anticipated to occur until after the buildout of the project itself (project buildout is approximately 2019). As such, the project is responsible for paying its fair-share of the cost of these two mitigation measures:

Mitigation of Long-Range Cumulative Impacts (After Project Buildout):

- **McBean Parkway at Valencia Boulevard (Intersection #44):** Add a fourth westbound through lane (requires the widening of Valencia Boulevard). The project's fair-share equals 4.3 percent of the cost of this improvement.
- **Orchard Village Road at McBean Parkway (Intersection #55):** Add a separate eastbound right-turn lane (requires the widening of McBean Parkway) & restripe hospital driveway to reconfigure the first through lane to a shared left-turn/through lane. The project's fair-share equals 30.5 percent of the cost of this improvement.

Table 6-1 summarizes the resulting ICU values with the above mitigation.

Table 6-1

ICU AND LOS SUMMARY WITH PROJECT MITIGATION

Intersection	Existing (2005) Counts		2010 No Project		2010 With MOB 1		2010 With Mitigation		2013 No Project		2013 With MOB 1&2 ¹		2013 With Mitigation			
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
14. I-5 SB Ramps & McBean	.55	.64	.55	.68	.56	.68	--	--	.57	.70	.57	.71	--	--		
15. I-5 NB Ramps & McBean	.40	.65	.41	.69	.43	.69	--	--	.44	.71	.46	.72	--	--		
42. Rockwell & McBean	.45	.74	.57	.72	.58	.73	--	--	.65	.72	.66	.74	--	--		
44. McBean & Valencia	.61	.73	.71	.79	.71	.79	--	--	.76	.83	.77	.83	--	--		
45. McBean & Magic Mtn	.57	.87	.73	.93	.73	.94	.68	.91	.81	.98	.75	.99	.75	.93		
51. Wiley & Lyons	.49	.74	.56	.76	.56	.76	--	--	.60	.78	.60	.78	--	--		
52. Tournament & Wiley	.38	.45	.41	.54	.41	.54	--	--	.41	.61	.42	.61	--	--		
53. Valley & Lyons	.44	.56	.47	.60	.47	.60	--	--	.50	.63	.51	.64	--	--		
54. Orchard Village & Wiley	.46	.76	.54	.88	.54	.90	.50	.80	.60	.95	.57	.86	--	--		
55. Orchard Village & McBean	.57	.76	.60	.79	.63	.84	.61	.78	.63	.82	.65	.82	--	--		
56. Newhall & Lyons	.60	.60	.64	.61	.64	.61	--	--	.65	.64	.65	.64	--	--		
57. Valencia & Magic Mtn	.62	.77	.81	.91	.82	.91	--	--	.96	1.02	.97	1.02	.78	1.02		
Intersection	2016 No Project		2016 With MOB 1&2 & Hospital ¹		2016 With Mitigation		2019 ² No Project		2019 ² With MOB 1,2&3 & Hospital ¹		Long Range Cumulative Without Project		Long Range Cumulative With MOB 1,2&3 & Hospital ¹		Long Range Cumulative With Mitigation	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
14. I-5 SB Ramps & McBean	.59	.72	.59	.75	--	--	.61	.74	.61	.77	--	--	--	--	--	--
15. I-5 NB Ramps & McBean	.46	.74	.49	.74	--	--	.48	.75	.51	.77	.58	.75	.61	.77	--	--

(Cont.)

Table 6-1 (continued)

ICU AND LOS SUMMARY WITH PROJECT MITIGATION

Intersection	2016 No Project		2016 With MOB 1&2 & Hospital ¹		2016 With Mitigation		2019 ² No Project		2019 ² With MOB 1,2&3 & Hospital ¹		Long Range Cumulative Without Project		Long Range Cumulative With MOB 1,2&3 & Hospital ¹		Long Range Cumulative With Mitigation	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
42. Rockwell & McBean	.70	.71	.72	.74	--	--	.74	.75	.75	.78	.82	.77	.82	.80	--	--
44. McBean & Valencia	.82	.84	.82	.85	--	--	.87	.86	.87	.86	.80	.90	.79	.91	.73	.85
45. McBean & Magic Mtn	.92	1.04	.84	.96	--	--	.98	1.08	.89	.98	--	--	--	--	--	--
51. Wiley & Lyons	.64	.81	.64	.81	--	--	.67	.83	.67	.83	--	--	--	--	--	--
52. Tournament & Wiley	.43	.66	.43	.66	--	--	.44	.72	.44	.72	--	--	--	--	--	--
53. Valley & Lyons	.54	.67	.55	.68	--	--	.57	.70	.57	.72	--	--	--	--	--	--
54. Orchard Village & Wiley	.67	1.02	.63	.93	--	--	.71	1.05	.68	.96	--	--	--	--	--	--
55. Orchard Village & McBean	.68	.84	.68	.86	.67	.84	.70	.87	.70	.87	.77	1.07	.77	1.10	.67	.90
56. Newhall & Lyons	.67	.67	.67	.67	--	--	.69	.69	.70	.69	--	--	--	--	--	--
57. Valencia & Magic Mtn	1.06	1.10	.86	1.10	--	--	1.13	1.15	.90	1.15	--	--	--	--	--	--

Significant Impacts shown in **Bold**.

¹ Includes mitigation identified in previous phase(s).

²Buildout of the full project (approximately 2019) is evaluated based on forecasts from the Interim Year model as discussed in Chapter 4.0.

Level of service ranges: .00 - .60 A
 .61 - .70 B
 .71 - .80 C
 .81 - .90 D
 .91 - 1.00 E
 Above 1.00 F

Table 6-2 summarizes the fair-share percentage of the mitigation for Long-Range Cumulative Impacts (after project buildout). The project has a 4.3% share of the long-range impact at the McBean Parkway/Valencia Boulevard intersection, and a 30.5% share of the long-range impact at the Orchard Village Road/McBean Parkway intersection.

Table 6-2 SHARE SUMMARY							
Intersection	Existing Peak Hour Volumes		Long Range Cumulative With Project Peak Hour Volumes		Project Only Peak Hour Volumes		Share
	AM	PM	AM	PM	AM	PM	
44. McBean & Valencia	5,537	7,401	6,830	9,350	40	100	4.3%
55. Orchard Village & McBean	3,253	4,364	4,140	5,840	310	410	30.5%

6.2 BRIDGE AND THOROUGHFARE DISTRICT

The project will contribute to the established Valencia Bridge and Thoroughfare District in accordance with City policy.

APPENDIX A

INTERSECTION CAPACITY UTILIZATION WORKSHEETS

Peak hour intersection volume/capacity ratios are calculated by means of intersection capacity utilization (ICU) values. ICU calculations were performed for the intersections shown in Figure A-1.

The procedure is based on the critical movement methodology, and shows the amount of capacity utilized by each critical move. A "de-facto" right-turn lane is used in the ICU calculation for cases where a curb lane is wide enough to separately serve both through and right-turn traffic (typically with a width of 19 feet from curb to outside of through-lane with parking prohibited during peak periods). Such lanes are treated the same as striped right-turn lanes during the ICU calculations, but they are denoted on the ICU calculation worksheets using the letter "d" in place of a numerical entry for right-turn lanes.

The methodology also incorporates a check for right-turn capacity utilization. Both right-turn-on-green (RTOG) and right-turn-on-red (RTOR) capacity availability are calculated and checked against the total right-turn capacity need. If insufficient capacity is available, then an adjustment is made to the total capacity utilization value. The following example shows how this adjustment is made.

Example of Right-turn Capacity Utilization For Northbound Right

1. Right-Turn-On-Green (RTOG)

If NBT is critical move, then:
RTOG = V/C (NBT)
Otherwise,
RTOG = V/C (NBL) + V/C (SBT) - V/C (SBL)

2. Right-Turn-On-Red (RTOR)

If WBL is critical move, then:
RTOR = V/C (WBL)
Otherwise,
RTOR = V/C (EBL) + V/C (WBT) - V/C (EBT)

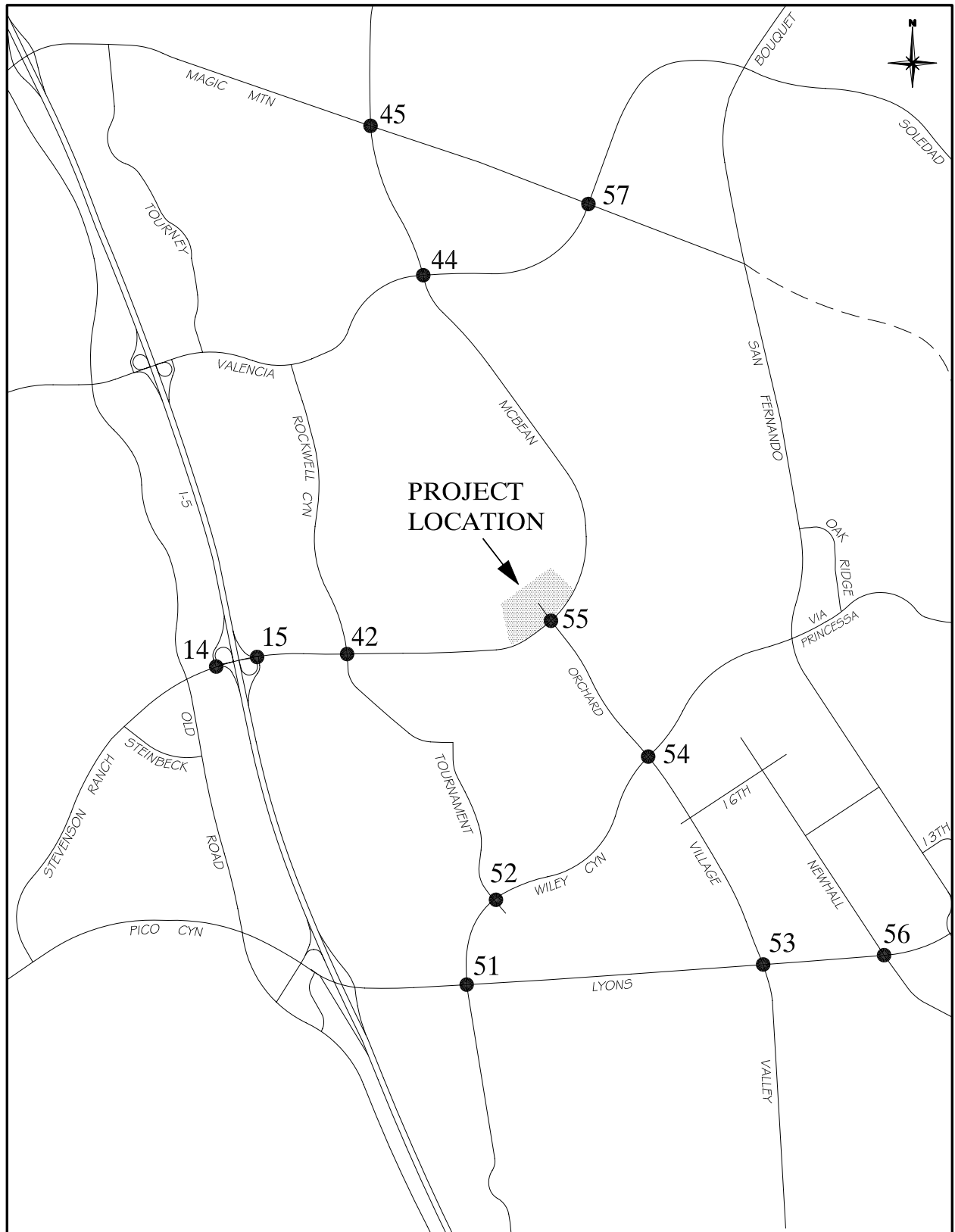


Figure A-1
INTERSECTION STUDY LOCATIONS

3. Right-Turn Overlap Adjustment

If the northbound right is assumed to overlap with the adjacent westbound left, adjustments to the RTOG and RTOR values are made as follows:

$$\text{RTOG} = \text{RTOG} + \text{V/C (WBL)}$$

$$\text{RTOR} = \text{RTOR} - \text{V/C (WBL)}$$

4. Total Right-Turn Capacity (RTC) Availability For NBR

$$\text{RTC} = \text{RTOG} + \text{factor} \times \text{RTOR}$$

Where factor = RTOR saturation flow factor (typically 75%)

5. Right-turn Adjustment for ICU Calculation

Right-turn adjustment is then as follows: $\text{Additional ICU} = \text{V/C (NBR)} - \text{RTC}$

A zero or negative value indicates that adequate capacity is available and no adjustment is necessary. A positive value indicates that the available RTOR and RTOG capacity does not adequately accommodate the right-turn V/C, therefore the right-turn is essentially considered to be a critical movement. In such cases, the right-turn adjustment is noted on the ICU worksheet and it is included in the total capacity utilization value. When it is determined that a right-turn adjustment is required for more than one right-turn movement, the word "multi" is printed on the worksheet instead of an actual right-turn movement reference, and the right-turn adjustments are cumulatively added to the total capacity utilization value. In such cases, further operational evaluation is typically carried out to determine if under actual operational conditions, the critical right-turns would operate simultaneously, and therefore a right-turn adjustment credit should be applied.

Shared Lane V/C Methodology

For intersection approaches where shared usage of a lane is permitted by more than one turn movement (e.g., left/through, through/right, left/through/right), the individual turn volumes are evaluated to determine whether dedication of the shared lane is warranted to any one given turn movement. The following example demonstrates how this evaluation is carried out:

Example of Shared Lane Utilization for Shared Left/Through Lane

1. Average Lane Volume (ALV)

$$ALV = \frac{\text{Left-Turn Volume} + \text{Through Volume}}{\text{Total Left} + \text{Through Approach Lanes (including shared lane)}}$$

2. ALV for Each Approach

$$ALV (\text{Left}) = \frac{\text{Left-Turn Volume}}{\text{Left Approach Lanes (including shared lane)}}$$

$$ALV (\text{Through}) = \frac{\text{Through Volume}}{\text{Through Approach Lanes (including shared lane)}}$$

3. Lane Dedication is Warranted

If ALV (Left) is greater than ALV then full dedication of the shared lane to the left-turn approach is warranted. Left-turn and through V/C ratios for this case are calculated as follows:

$$V/C (\text{Left}) = \frac{\text{Left-Turn Volume}}{\text{Left Approach Capacity (including shared lane)}}$$

$$V/C (\text{Through}) = \frac{\text{Through Volume}}{\text{Through Approach Capacity (excluding shared lane)}}$$

Similarly, if ALV (Through) is greater than ALV then full dedication to the through approach is warranted, and left-turn and through V/C ratios are calculated as follows:

$$V/C (\text{Left}) = \frac{\text{Left-Turn Volume}}{\text{Left Approach Capacity (excluding shared lane)}}$$

$$V/C (\text{Through}) = \frac{\text{Through Volume}}{\text{Through Approach Capacity (including shared lane)}}$$

4. Lane Dedication is not Warranted

If ALV (Left) and ALV (Through) are both less than ALV, the left/through lane is assumed to be truly shared and each left, left/through or through approach lane carries an evenly distributed volume of traffic equal to ALV. A combined left/through V/C ratio is calculated as follows:

$$V/C \text{ (Left/Through)} = \frac{\text{Left-Turn Volume} + \text{Through Volume}}{\text{Total Left} + \text{Through Approach Capacity (including shared lane)}}$$

This V/C (Left/Through) ratio is assigned as the V/C (Through) ratio for the critical movement analysis and ICU summary listing.

If split phasing has not been designated for this approach, the relative proportion of V/C (Through) that is attributed to the left-turn volume is estimated as follows:

If approach has more than one left-turn (including shared lane), then:

$$V/C \text{ (Left)} = V/C \text{ (Through)}$$

If approach has only one left-turn lane (shared lane), then:

$$V/C \text{ (Left)} = \frac{\text{Left-Turn Volume}}{\text{Single Approach Lane Capacity}}$$

If this left-turn movement is determined to be a critical movement, the V/C (Left) value is posted in brackets on the ICU summary printout.

These same steps are carried out for shared through/right lanes. If full dedication of a shared through/right lane to the right-turn movement is warranted, the right-turn V/C value calculated in step three is checked against the RTOR and RTOG capacity availability if the option to include right-turns in the V/C ratio calculations is selected. If the V/C value that is determined using the shared lane methodology described here is reduced due to RTOR and RTOG capacity availability, the V/C value for the through/right lanes is posted in brackets.

When an approach contains more than one shared lane (e.g., left/through and through/right), steps one and two listed above are carried out for the three turn movements combined. Step four is carried out if dedication is not warranted for either of the shared lanes. If dedication of one of the shared lanes is warranted to one movement or another, step three is carried out for the two movements involved, and then steps one through four are repeated for the two movements involved in the other shared lane.

14. I-5 SB Ramps & McBean

Existing (2005) Counts						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1750	141	.08*	398	.23*
SBT	0	0	0		0	
SBR	1	1750	56	.03	442	.25
EBL	0	0	0		0	
EBT	2	3500	614	.18	931	.27
EBR	1	1750	367	.21	91	.05
WBL	0	0	0		0	
WBT	2	3500	1299	.37*	1023	.29*
WBR	1	1750	211	.12	471	.27
Right Turn Adjustment					SBR	.02*
Clearance Interval				.10*		.10*
Note: Assumes Right-Turn Overlap for WBR						

TOTAL CAPACITY UTILIZATION .55 .64

2010 No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1750	161	.09*	442	.25*
SBT	0	0	0		0	
SBR	1	1750	154	.09	457	.26
EBL	0	0	0		0	
EBT	2	3500	808	.23	1034	.30
EBR	1	1750	337	.19	110	.06
WBL	0	0	0		0	
WBT	2	3500	1243	.36*	1105	.32*
WBR	1	1750	287	.16	415	.24
Right Turn Adjustment					SBR	.01*
Clearance Interval				.10*		.10*
Note: Assumes Right-Turn Overlap for WBR						

TOTAL CAPACITY UTILIZATION .55 .68

2010 With MOB 1						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1750	175	.10*	447	.26*
SBT	0	0	0		0	
SBR	1	1750	154	.09	457	.26
EBL	0	0	0		0	
EBT	2	3500	821	.23	1040	.30
EBR	1	1750	337	.19	110	.06
WBL	0	0	0		0	
WBT	2	3500	1245	.36*	1128	.32*
WBR	1	1750	291	.17	431	.25
Clearance Interval				.10*		.10*
Note: Assumes Right-Turn Overlap for WBR						

TOTAL CAPACITY UTILIZATION .56 .68

2013 No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1750	173	.10*	469	.27*
SBT	0	0	0		0	
SBR	1	1750	212	.12	465	.27
EBL	0	0	0		0	
EBT	2	3500	923	.26	1096	.31
EBR	1	1750	320	.18	121	.07
WBL	0	0	0		0	
WBT	2	3500	1210	.35*	1154	.33*
WBR	1	1750	332	.19	382	.22
Right Turn Adjustment					SBR	.02*
Clearance Interval				.10*		.10*
Note: Assumes Right-Turn Overlap for WBR						

TOTAL CAPACITY UTILIZATION .57 .70

14. I-5 SB Ramps & McBean

2013 With MOB 1+2						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1750	198	.11*	478	.27*
SBT	0	0	0		0	
SBR	1	1750	212	.12	465	.27
EBL	0	0	0		0	
EBT	2	3500	946	.27	1107	.32
EBR	1	1750	320	.18	121	.07
WBL	0	0	0		0	
WBT	2	3500	1213	.35*	1194	.34*
WBR	1	1750	338	.19	411	.23
Right Turn Adjustment			SBR	.01*		
Clearance Interval				.10*		.10*
Note: Assumes Right-Turn Overlap for WBR						

TOTAL CAPACITY UTILIZATION .57 .71

2016 No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1750	185	.11*	495	.28*
SBT	0	0	0		0	
SBR	1	1750	271	.15	474	.27
EBL	0	0	0		0	
EBT	2	3500	1040	.30	1158	.33
EBR	1	1750	302	.17	132	.08
WBL	0	0	0		0	
WBT	2	3500	1176	.34*	1203	.34*
WBR	1	1750	378	.22	348	.20
Right Turn Adjustment			SBR	.04*		
Clearance Interval				.10*		.10*
Note: Assumes Right-Turn Overlap for WBR						

TOTAL CAPACITY UTILIZATION .59 .72

2016 With MOB 1+2+Hospital						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1750	222	.13*	508	.29*
SBT	0	0	0		0	
SBR	1	1750	271	.15	474	.27
EBL	0	0	0		0	
EBT	2	3500	1074	.31	1175	.34
EBR	1	1750	302	.17	132	.08
WBL	0	0	0		0	
WBT	2	3500	1181	.34*	1261	.36*
WBR	1	1750	387	.22	390	.22
Right Turn Adjustment			SBR	.02*		
Clearance Interval				.10*		.10*
Note: Assumes Right-Turn Overlap for WBR						

TOTAL CAPACITY UTILIZATION .59 .75

Interim Year No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1750	193	.11*	513	.29*
SBT	0	0	0		0	
SBR	1	1750	310	.18	480	.27
EBL	0	0	0		0	
EBT	2	3500	1117	.32	1199	.34
EBR	1	1750	290	.17	140	.08
WBL	0	0	0		0	
WBT	2	3500	1154	.33*	1236	.35*
WBR	1	1750	408	.23	326	.19
Right Turn Adjustment			SBR	.07*		
Clearance Interval				.10*		.10*

TOTAL CAPACITY UTILIZATION .61 .74

14. I-5 SB Ramps & McBean

Interim Year With MOB 1+2+3+Hospital						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1750	240	.14*	530	.30*
SBT	0	0	0		0	
SBR	1	1750	310	.18	480	.27
EBL	0	0	0		0	
EBT	2	3500	1160	.33	1220	.35
EBR	1	1750	290	.17	140	.08
WBL	0	0	0		0	
WBT	2	3500	1160	.33*	1310	.37*
WBR	1	1750	420	.24	380	.22
Right Turn Adjustment			SBR	.04*		
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.61		.77

15. I-5 NB Ramps & McBean

Existing (2005) Counts						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	132	.04*	332	.09*
NBT	0	0	0		0	
NBR	2	3500	278	.08	728	.21
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3500	625	.18	1190	.34*
EBR	1	1750	130	.07	139	.08
WBL	0	0	0		0	
WBT	3	5250	1378	.26*	1162	.22
WBR	1	1750	99	.06	120	.07
Right Turn Adjustment Clearance Interval					NBR	.12* .10*
TOTAL CAPACITY UTILIZATION			.40		.65	

2010 No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	170	.05*	374	.11*
NBT	0	0	0		0	
NBR	2	3500	366	.10	791	.23
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3500	692	.20	1264	.36*
EBR	1	1750	284	.16	209	.12
WBL	0	0	0		0	
WBT	3	5250	1364	.26*	1132	.22
WBR	1	1750	95	.05	122	.07
Right Turn Adjustment Clearance Interval					NBR	.12* .10*
TOTAL CAPACITY UTILIZATION			.41		.69	

2010 With MOB 1						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	170	.05*	374	.11*
NBT	0	0	0		0	
NBR	2	3500	382	.11	797	.23
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3500	719	.21	1275	.36*
EBR	1	1750	284	.16	209	.12
WBL	0	0	0		0	
WBT	3	5250	1369	.26*	1171	.22
WBR	1	1750	98	.06	139	.08
Right Turn Adjustment Clearance Interval					NBR	.02* .10*
TOTAL CAPACITY UTILIZATION			.43		.69	

2013 No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	192	.05*	398	.11*
NBT	0	0	0		0	
NBR	2	3500	419	.12	828	.24
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3500	733	.21	1309	.37*
EBR	1	1750	376	.21	250	.14
WBL	0	0	0		0	
WBT	3	5250	1356	.26*	1113	.21
WBR	1	1750	93	.05	123	.07
Right Turn Adjustment Clearance Interval					NBR	.03* .10*
TOTAL CAPACITY UTILIZATION			.44		.71	

15. I-5 NB Ramps & McBean

2013 With MOB 1+2						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3500	192	.05*	398	.11*
NBT	0	0	0		0	
NBR	2	3500	447	.13	838	.24
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3500	781	.22	1329	.38*
EBR	1	1750	376	.21	250	.14
WBL	0	0	0		0	
WBT	3	5250	1366	.26*	1181	.22
WBR	1	1750	99	.06	152	.09
Right Turn Adjustment Clearance Interval			NBR	.05*	NBR	.13*
				.10*		.10*

TOTAL CAPACITY UTILIZATION .46 .72

2016 No Project						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3500	215	.06*	423	.12*
NBT	0	0	0		0	
NBR	2	3500	472	.13	866	.25
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3500	773	.22	1353	.39*
EBR	1	1750	468	.27	292	.17
WBL	0	0	0		0	
WBT	3	5250	1348	.26*	1095	.21
WBR	1	1750	91	.05	124	.07
Right Turn Adjustment Clearance Interval			NBR	.04*	NBR	.13*
				.10*		.10*

TOTAL CAPACITY UTILIZATION .46 .74

2016 With MOB 1+2+Hospital						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3500	215	.06*	423	.12*
NBT	0	0	0		0	
NBR	2	3500	514	.15	881	.25
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3500	844	.24	1382	.39*
EBR	1	1750	468	.27	292	.17
WBL	0	0	0		0	
WBT	3	5250	1362	.26*	1195	.23
WBR	1	1750	100	.06	167	.10
Right Turn Adjustment Clearance Interval			NBR	.07*	NBR	.13*
				.10*		.10*

TOTAL CAPACITY UTILIZATION .49 .74

Interim Year No Project						
	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3500	230	.07*	440	.13*
NBT	0	0	0		0	
NBR	2	3500	507	.14	891	.25
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3500	800	.23	1383	.40*
EBR	1	1750	530	.30	320	.18
WBL	0	0	0		0	
WBT	3	5250	1342	.26*	1083	.21
WBR	1	1750	89	.05	125	.07
Right Turn Adjustment Clearance Interval			NBR	.05*	NBR	.12*
				.10*		.10*

TOTAL CAPACITY UTILIZATION .48 .75

15. I-5 NB Ramps & McBean

Interim Year With MOB 1+2+3+Hospital						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	230	.07*	440	.13*
NBT	0	0	0		0	
NBR	2	3500	560	.16	910	.26
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3500	890	.25	1420	.41*
EBR	1	1750	530	.30	320	.18
WBL	0	0	0		0	
WBT	3	5250	1360	.26*	1210	.23
WBR	1	1750	100	.06	180	.10
Right Turn Adjustment			NBR	.08*	NBR	.13*
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.51		.77

Long Range Cumulative Without Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	290	.08*	610	.17*
NBT	0	0	0		0	
NBR	2	3500	660	.19	770	.22
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3500	1000	.29*	1510	.43*
EBR	1	1750	220	.13	250	.14
WBL	0	0	0		0	
WBT	3	5250	980	.19	1410	.27
WBR	1	1750	140	.08	210	.12
Right Turn Adjustment			NBR	.11*	NBR	.05*
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.58		.75

Long Range Cumulative With MOB 1+2+3+Hospital						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	280	.08*	610	.17*
NBT	0	0	0		0	
NBR	2	3500	700	.20	790	.23
SBL	0	0	0		0	
SBT	0	0	0		0	
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	2	3500	1070	.31*	1540	.44*
EBR	1	1750	220	.13	250	.14
WBL	0	0	0		0	
WBT	3	5250	1010	.19	1550	.30
WBR	1	1750	140	.08	240	.14
Right Turn Adjustment			NBR	.12*	NBR	.06*
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.61		.77

42. Rockwell & McBean

Existing (2005) Counts						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	9	.01	239	.14*
NBT	2	3500	71	.04*	169	.08
NBR	0	0	221	.13	107	
SBL	1	1750	120	.07*	97	.06
SBT	1	1750	84	.05	192	.11*
SBR	1	1750	41	.02	259	.15
EBL	1	1750	51	.03*	356	.20*
EBT	3	5250	596	.12	1179	.27
EBR	0	0	22		224	
WBL	1	1750	65	.04	115	.07
WBT	3	5250	988	.21*	956	.19*
WBR	0	0	100		62	
Clearance Interval				.10*	.10*	
TOTAL CAPACITY UTILIZATION				.45	.74	

2010 No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	79	.05	224	.13*
NBT	2	3500	190	.11*	146	.07
NBR	0	0	216	.12	107	
SBL	1	1750	94	.05*	193	.11
SBT	1	1750	59	.03	199	.11*
SBR	1	1750	79	.05	271	.15
EBL	1	1750	162	.09*	338	.19*
EBT	3	5250	714	.15	1275	.31
EBR	0	0	56		334	
WBL	1	1750	58	.03	82	.05
WBT	3	5250	1019	.22*	912	.19*
WBR	0	0	153		81	
Clearance Interval				.10*	.10*	
TOTAL CAPACITY UTILIZATION				.57	.72	

2010 With MOB 1						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	79	.05	224	.13*
NBT	2	3500	190	.11*	146	.07
NBR	0	0	220	.13	108	
SBL	1	1750	96	.05*	197	.11
SBT	1	1750	59	.03	199	.11*
SBR	1	1750	79	.05	271	.15
EBL	1	1750	162	.09*	338	.19*
EBT	3	5250	759	.16	1294	.31
EBR	0	0	56		334	
WBL	1	1750	59	.03	89	.05
WBT	3	5250	1028	.23*	970	.20*
WBR	0	0	157		86	
Clearance Interval				.10*	.10*	
TOTAL CAPACITY UTILIZATION				.58	.73	

2013 No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	120	.07	215	.12*
NBT	2	3500	261	.14*	133	.07
NBR	0	0	213		106	
SBL	1	1750	79	.05*	250	.14
SBT	1	1750	45	.03	203	.12*
SBR	1	1750	102	.06	278	.16
EBL	1	1750	229	.13*	328	.19*
EBT	3	5250	785	.16	1332	.33
EBR	0	0	76		400	
WBL	1	1750	53	.03	61	.03
WBT	3	5250	1038	.23*	885	.19*
WBR	0	0	185		93	
Clearance Interval				.10*	.10*	
TOTAL CAPACITY UTILIZATION				.65	.72	

42. Rockwell & McBean

2013 With MOB 1+2						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	120	.07	215	.12*
NBT	2	3500	261	.14*	133	.07
NBR	0	0	219		108	
SBL	1	1750	83	.05*	257	.15
SBT	1	1750	45	.03	203	.12*
SBR	1	1750	102	.06	278	.16
EBL	1	1750	229	.13*	328	.19*
EBT	3	5250	863	.18	1365	.34
EBR	0	0	76		400	
WBL	1	1750	55	.03	73	.04
WBT	3	5250	1055	.24*	986	.21*
WBR	0	0	191		103	
Clearance Interval				.10*	.10*	
TOTAL CAPACITY UTILIZATION				.66	.74	

2016 No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	162	.09	206	.12
NBT	2	3500	332	.15*	119	.06*
NBR	0	0	210		106	
SBL	1	1750	63	.04*	308	.18*
SBT	1	1750	30	.02	207	.12
SBR	1	1750	125	.07	285	.16
EBL	1	1750	295	.17*	317	.18
EBT	3	5250	856	.18	1390	.35*
EBR	0	0	96		466	
WBL	1	1750	49	.03	41	.02*
WBT	3	5250	1057	.24*	859	.18
WBR	0	0	217		104	
Clearance Interval				.10*	.10*	
TOTAL CAPACITY UTILIZATION				.70	.71	

2016 With MOB 1+2+Hospital						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	162	.09	206	.12
NBT	2	3500	332	.16*	119	.07*
NBR	0	0	219		109	
SBL	1	1750	69	.04*	319	.18*
SBT	1	1750	30	.02	207	.12
SBR	1	1750	125	.07	285	.16
EBL	1	1750	295	.17*	317	.18
EBT	3	5250	972	.20	1439	.36*
EBR	0	0	96		466	
WBL	1	1750	52	.03	58	.03*
WBT	3	5250	1081	.25*	1008	.21
WBR	0	0	226		118	
Clearance Interval				.10*	.10*	
TOTAL CAPACITY UTILIZATION				.72	.74	

Interim Year No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	190	.11	200	.11
NBT	2	3500	380	.17*	110	.06*
NBR	0	0	208		106	
SBL	1	1750	53	.03*	346	.20*
SBT	1	1750	20	.01	210	.12
SBR	1	1750	140	.08	290	.17
EBL	1	1750	340	.19*	310	.18
EBT	3	5250	903	.19	1428	.37*
EBR	0	0	110		510	
WBL	1	1750	46	.03	28	.02*
WBT	3	5250	1069	.25*	841	.18
WBR	0	0	238		112	
Clearance Interval				.10*	.10*	
TOTAL CAPACITY UTILIZATION				.74	.75	

42. Rockwell & McBean

Interim Year With MOB 1+2+3+Hospital						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	190	.11	200	.11
NBT	2	3500	380	.17*	110	.06*
NBR	0	0	220		110	
SBL	1	1750	60	.03*	360	.21*
SBT	1	1750	20	.01	210	.12
SBR	1	1750	140	.08	290	.17
EBL	1	1750	340	.19*	310	.18
EBT	3	5250	1050	.22	1490	.38*
EBR	0	0	110		510	
WBL	1	1750	50	.03	50	.03*
WBT	3	5250	1100	.26*	1030	.22
WBR	0	0	250		130	
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.75		.78

Long Range Cumulative Without Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	270	.15*	230	.13*
NBT	2	3500	130	.04	70	.02
NBR	0	0	10		10	
SBL	1	1750	60	.03	370	.21
SBT	1	1750	30	.02*	230	.13*
SBR	1	1750	100	.06	570	.33
EBL	1	1750	600	.34*	310	.18*
EBT	3	5250	1020	.22	1520	.36
EBR	0	0	130		390	
WBL	1	1750	10	.01	20	.01
WBT	3	5250	870	.21*	940	.21*
WBR	0	0	250		170	
Right Turn Adjustment					SBR	.02*
Clearance Interval				.10*		.10*
Note: Assumes Right-Turn Overlap for SBR						
TOTAL CAPACITY UTILIZATION				.82		.77

Long Range Cumulative With MOB 1+2+3+Hospital						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	270	.15*	230	.13*
NBT	2	3500	120	.04	70	.03
NBR	0	0	20		20	
SBL	1	1750	70	.04	380	.22
SBT	1	1750	20	.01*	230	.13*
SBR	1	1750	100	.06	560	.32
EBL	1	1750	600	.34*	310	.18*
EBT	3	5250	1170	.25	1570	.37
EBR	0	0	130		390	
WBL	1	1750	10	.01	40	.02
WBT	3	5250	920	.22*	1150	.25*
WBR	0	0	260		180	
Right Turn Adjustment					SBR	.01*
Clearance Interval				.10*		.10*
Note: Assumes Right-Turn Overlap for SBR						
TOTAL CAPACITY UTILIZATION				.82		.80

44. McBean & Valencia

Existing (2005) Counts						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	152	.04*	128	.04
NBT	3	5250	796	.15	1032	.20*
NBR	2	3500	345	.10	543	.16
SBL	2	3500	94	.03	189	.05*
SBT	3	5250	768	.15*	1127	.21
SBR	2	3500	726	.21	744	.21
EBL	2	3500	443	.13*	668	.19*
EBT	3	5250	727	.14	1228	.23
EBR	1	1750	40	.02	127	.07
WBL	2	3500	278	.08	446	.13
WBT	3	5250	989	.19*	980	.19*
WBR	1	1750	179	.10	189	.11
Clearance Interval				.10*	.10*	
Note: Assumes Right-Turn Overlap for SBR						

TOTAL CAPACITY UTILIZATION .61 .73

2010 No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	228	.07*	125	.04*
NBT	3	5250	937	.18	1072	.20
NBR	2	3500	329	.09	660	.19
SBL	2	3500	116	.03	174	.05
SBT	3	5250	785	.15*	1198	.23*
SBR	2	3500	916	.26	923	.26
EBL	2	3500	515	.15*	765	.22*
EBT	3	5250	686	.13	1344	.26
EBR	1	1750	28	.02	159	.09
WBL	2	3500	279	.08	415	.12
WBT	3	5250	1259	.24*	1053	.20*
WBR	1	1750	218	.12	212	.12
Clearance Interval				.10*	.10*	
Note: Assumes Right-Turn Overlap for SBR						

TOTAL CAPACITY UTILIZATION .71 .79

2010 With MOB 1						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	228	.07*	125	.04*
NBT	3	5250	940	.18	1092	.21
NBR	2	3500	331	.09	676	.19
SBL	2	3500	116	.03	174	.05
SBT	3	5250	799	.15*	1203	.23*
SBR	2	3500	916	.26	923	.26
EBL	2	3500	515	.15*	765	.22*
EBT	3	5250	686	.13	1344	.26
EBR	1	1750	28	.02	159	.09
WBL	2	3500	291	.08	419	.12
WBT	3	5250	1259	.24*	1053	.20*
WBR	1	1750	218	.12	212	.12
Clearance Interval				.10*	.10*	
Note: Assumes Right-Turn Overlap for SBR						

TOTAL CAPACITY UTILIZATION .71 .79

2013 No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	274	.08*	123	.04*
NBT	3	5250	1020	.19	1096	.21
NBR	2	3500	320	.09	731	.21
SBL	2	3500	128	.04	165	.05
SBT	3	5250	796	.15*	1241	.24*
SBR	2	3500	1030	.29	1031	.29
EBL	2	3500	558	.16*	823	.24*
EBT	3	5250	661	.13	1414	.27
EBR	1	1750	22	.01	178	.10
WBL	2	3500	279	.08	397	.11
WBT	3	5250	1420	.27*	1097	.21*
WBR	1	1750	241	.14	227	.13
Clearance Interval				.10*	.10*	
Note: Assumes Right-Turn Overlap for SBR						

TOTAL CAPACITY UTILIZATION .76 .83

44. McBean & Valencia

2013 With MOB 1+2						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	274	.08	123	.04*
NBT	3	5250	1025	.20*	1130	.22
NBR	2	3500	323	.09	759	.22
SBL	2	3500	128	.04*	165	.05
SBT	3	5250	821	.16	1251	.24*
SBR	2	3500	1030	.29	1031	.29
EBL	2	3500	558	.16*	823	.24*
EBT	3	5250	661	.13	1414	.27
EBR	1	1750	22	.01	178	.10
WBL	2	3500	300	.09	404	.12
WBT	3	5250	1420	.27*	1097	.21*
WBR	1	1750	241	.14	227	.13
Clearance Interval				.10*	.10*	
Note: Assumes Right-Turn Overlap for SBR						

TOTAL CAPACITY UTILIZATION .77 .83

2016 No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	320	.09	121	.03*
NBT	3	5250	1105	.21*	1120	.21
NBR	2	3500	310	.09	801	.23
SBL	2	3500	141	.04*	156	.04
SBT	3	5250	806	.15	1284	.24*
SBR	2	3500	1144	.33	1138	.33
EBL	2	3500	601	.17*	881	.25*
EBT	3	5250	636	.12	1483	.28
EBR	1	1750	15	.01	197	.11
WBL	2	3500	280	.08	378	.11
WBT	3	5250	1582	.30*	1141	.22*
WBR	1	1750	264	.15	241	.14
Clearance Interval				.10*	.10*	
Note: Assumes Right-Turn Overlap for SBR						

TOTAL CAPACITY UTILIZATION .82 .84

2016 With MOB 1+2+Hospital						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	320	.09*	121	.03*
NBT	3	5250	1112	.21	1170	.22
NBR	2	3500	315	.09	842	.24
SBL	2	3500	141	.04	156	.04
SBT	3	5250	843	.16*	1298	.25*
SBR	2	3500	1144	.33	1138	.33
EBL	2	3500	601	.17*	881	.25*
EBT	3	5250	636	.12	1483	.28
EBR	1	1750	15	.01	197	.11
WBL	2	3500	311	.09	389	.11
WBT	3	5250	1582	.30*	1141	.22*
WBR	1	1750	264	.15	241	.14
Clearance Interval				.10*	.10*	
Note: Assumes Right-Turn Overlap for SBR						

TOTAL CAPACITY UTILIZATION .82 .85

Interim Year No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	350	.10	120	.03*
NBT	3	5250	1161	.22*	1136	.22
NBR	2	3500	304	.09	848	.24
SBL	2	3500	150	.04*	150	.04
SBT	3	5250	813	.15	1312	.25*
SBR	2	3500	1220	.35	1210	.35
EBL	2	3500	630	.18*	920	.26*
EBT	3	5250	620	.12	1530	.29
EBR	1	1750	10	.01	210	.12
WBL	2	3500	280	.08	366	.10
WBT	3	5250	1690	.32*	1170	.22*
WBR	1	1750	280	.16	250	.14
Right Turn Adjustment				SBR	.01*	
Clearance Interval				.10*	.10*	
Note: Assumes Right-Turn Overlap for SBR						

TOTAL CAPACITY UTILIZATION .87 .86

44. McBean & Valencia

Interim Year With MOB 1+2+3+Hospital						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	350	.10*	120	.03*
NBT	3	5250	1170	.22	1200	.23
NBR	2	3500	310	.09	900	.26
SBL	2	3500	150	.04	150	.04
SBT	3	5250	860	.16*	1330	.25*
SBR	2	3500	1220	.35	1210	.35
EBL	2	3500	630	.18*	920	.26*
EBT	3	5250	620	.12	1530	.29
EBR	1	1750	10	.01	210	.12
WBL	2	3500	320	.09	380	.11
WBT	3	5250	1690	.32*	1170	.22*
WBR	1	1750	280	.16	250	.14
Right Turn Adjustment			SBR	.01*		
Clearance Interval				.10*		.10*
Note: Assumes Right-Turn Overlap for SBR						

TOTAL CAPACITY UTILIZATION .87 .86

Long Range Cumulative Without Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	380	.11*	210	.06
NBT	3	5250	750	.14	1170	.22*
NBR	2	3500	260	.07	580	.17
SBL	2	3500	70	.02	240	.07*
SBT	3	5250	720	.14*	1170	.22
SBR	2	3500	1000	.29	1040	.30
EBL	2	3500	710	.20*	990	.28*
EBT	3	5250	1000	.19	1580	.30
EBR	1	1750	30	.02	390	.22
WBL	2	3500	360	.10	450	.13
WBT	3	5250	1290	.25*	1190	.23*
WBR	1	1750	220	.13	240	.14
Clearance Interval				.10*		.10*
Note: Assumes Right-Turn Overlap for SBR						

TOTAL CAPACITY UTILIZATION .80 .90

Long Range Cumulative With MOB 1+2+3+Hospital						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	380	.11*	210	.06
NBT	3	5250	760	.14	1230	.23*
NBR	2	3500	260	.07	620	.18
SBL	2	3500	70	.02	240	.07*
SBT	3	5250	740	.14*	1170	.22
SBR	2	3500	1000	.29	1040	.30
EBL	2	3500	710	.20*	990	.28*
EBT	3	5250	1000	.19	1580	.30
EBR	1	1750	30	.02	390	.22
WBL	2	3500	380	.11	450	.13
WBT	3	5250	1280	.24*	1190	.23*
WBR	1	1750	220	.13	240	.14
Clearance Interval				.10*		.10*
Note: Assumes Right-Turn Overlap for SBR						

TOTAL CAPACITY UTILIZATION .79 .91

Long Range Cumulative With Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	380	.11*	210	.06
NBT	3	5250	760	.14	1230	.23*
NBR	2	3500	260	.07	620	.18
SBL	2	3500	70	.02	240	.07*
SBT	3	5250	740	.14*	1170	.22
SBR	2	3500	1000	.29	1040	.30
EBL	2	3500	710	.20*	990	.28*
EBT	3	5250	1000	.19	1580	.30
EBR	1	1750	30	.02	390	.22
WBL	2	3500	380	.11	450	.13
WBT	4	7000	1280	.18*	1190	.17*
WBR	1	1750	220	.13	240	.14
Clearance Interval				.10*		.10*
Note: Assumes Right-Turn Overlap for SBR						

TOTAL CAPACITY UTILIZATION .73 .85

45. McBean & Magic Mtn

Existing (2005) Counts						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	34	.01	124	.04
NBT	3	5250	1131	.22*	1938	.37*
NBR	1	1750	35	.02	184	.11
SBL	2	3500	252	.07*	305	.09*
SBT	4	7000	1700	.24	1721	.25
SBR	1	1750	404	.23	325	.19
EBL	2	3500	310	.09*	674	.19*
EBT	2	3500	463	.13	589	.17
EBR	1	1750	75	.04	196	.11
WBL	2	3500	71	.02	262	.07
WBT	2	3500	320	.09*	409	.12*
WBR	1	1750	202	.12	327	.19
Clearance Interval				.10*	.10*	
TOTAL CAPACITY UTILIZATION				.57	.87	

2010 No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	63	.02	213	.06
NBT	3	5250	1343	.26*	2007	.38*
NBR	1	1750	41	.02	205	.12
SBL	2	3500	301	.09*	372	.11*
SBT	4	7000	1861	.27	2023	.29
SBR	1	1750	537	.31	346	.20
EBL	2	3500	433	.12*	665	.19*
EBT	2	3500	654	.19	890	.25
EBR	1	1750	107	.06	232	.13
WBL	2	3500	70	.02	226	.06
WBT	2	3500	566	.16*	540	.15*
WBR	1	1750	217	.12	359	.21
Clearance Interval				.10*	.10*	
TOTAL CAPACITY UTILIZATION				.73	.93	

2010 With MOB 1						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	63	.02	214	.06
NBT	3	5250	1345	.26*	2023	.39*
NBR	1	1750	41	.02	206	.12
SBL	2	3500	301	.09*	372	.11*
SBT	4	7000	1874	.27	2028	.29
SBR	1	1750	537	.31	346	.20
EBL	2	3500	433	.12*	665	.19*
EBT	2	3500	654	.19	890	.25
EBR	1	1750	108	.06	232	.13
WBL	2	3500	70	.02	226	.06
WBT	2	3500	566	.16*	540	.15*
WBR	1	1750	217	.12	359	.21
Clearance Interval				.10*	.10*	
TOTAL CAPACITY UTILIZATION				.73	.94	

2010 With MOB 1 & Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	63	.02	214	.06
NBT	3	5250	1345	.26*	2023	.39*
NBR	1	1750	41	.02	206	.12
SBL	2	3500	301	.09*	372	.11*
SBT	4	7000	1874	.27	2028	.29
SBR	1	1750	537	.31	346	.20
EBL	2	3500	433	.12*	665	.19
EBT	2	3500	654	.19	890	.25*
EBR	1	1750	108	.06	232	.13
WBL	2	3500	70	.02	226	.06*
WBT	3	5250	566	.11*	540	.10
WBR	1	1750	217	.12	359	.21
Clearance Interval				.10*	.10*	
Note: Assumes Right-Turn Overlap for WBR						
TOTAL CAPACITY UTILIZATION				.68	.91	

45. McBean & Magic Mtn

2013 No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	81	.02	267	.08
NBT	3	5250	1470	.28*	2048	.39*
NBR	1	1750	44	.03	217	.12
SBL	2	3500	331	.09*	413	.12*
SBT	4	7000	1957	.28	2203	.31
SBR	1	1750	617	.35	359	.21
EBL	2	3500	507	.14*	659	.19*
EBT	2	3500	769	.22	1069	.31
EBR	1	1750	126	.07	253	.14
WBL	2	3500	70	.02	205	.06
WBT	2	3500	714	.20*	619	.18*
WBR	1	1750	225	.13	378	.22
Clearance Interval				.10*	.10*	
TOTAL CAPACITY UTILIZATION				.81	.98	

2013 With MOB 1+2						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	81	.02	269	.08
NBT	3	5250	1474	.28*	2076	.40*
NBR	1	1750	44	.03	218	.12
SBL	2	3500	331	.09*	413	.12*
SBT	4	7000	1979	.28	2211	.32
SBR	1	1750	617	.35	359	.21
EBL	2	3500	507	.14*	659	.19
EBT	2	3500	769	.22	1069	.31*
EBR	1	1750	127	.07	254	.15
WBL	2	3500	71	.02	206	.06*
WBT	3	5250	714	.14*	619	.12
WBR	1	1750	225	.13	378	.22
Clearance Interval				.10*	.10*	
Note: Assumes Right-Turn Overlap for WBR						
TOTAL CAPACITY UTILIZATION				.75	.99	

2013 With MOB 1+2 & Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	81	.02	269	.08
NBT	3	5250	1474	.28*	2076	.40*
NBR	1	1750	44	.03	218	.12
SBL	2	3500	331	.09*	413	.12*
SBT	4	7000	1979	.28	2211	.32
SBR	1	1750	617	.35	359	.21
EBL	2	3500	507	.14*	659	.19*
EBT	3	5250	769	.15	1069	.20
EBR	1	1750	127	.07	254	.15
WBL	2	3500	71	.02	206	.06
WBT	3	5250	714	.14*	619	.12*
WBR	1	1750	225	.13	378	.22
Clearance Interval				.10*	.10*	
Note: Assumes Right-Turn Overlap for WBR						
TOTAL CAPACITY UTILIZATION				.75	.93	

2016 No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	98	.03	320	.09
NBT	3	5250	1597	.30*	2089	.40*
NBR	1	1750	48	.03	230	.13
SBL	2	3500	360	.10*	453	.13*
SBT	4	7000	2054	.29	2384	.34
SBR	1	1750	697	.40	372	.21
EBL	2	3500	581	.17*	654	.19
EBT	2	3500	883	.25	1250	.36*
EBR	1	1750	145	.08	275	.16
WBL	2	3500	69	.02	183	.05*
WBT	2	3500	861	.25*	697	.20
WBR	1	1750	234	.13	397	.23
Clearance Interval				.10*	.10*	
TOTAL CAPACITY UTILIZATION				.92	1.04	

45. McBean & Magic Mtn

2016 With MOB 1+2+Hospital						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	98	.03	323	.09
NBT	3	5250	1603	.31*	2131	.41*
NBR	1	1750	48	.03	232	.13
SBL	2	3500	360	.10*	453	.13*
SBT	4	7000	2087	.30	2396	.34
SBR	1	1750	697	.40	372	.21
EBL	2	3500	581	.17*	654	.19*
EBT	3	5250	883	.17	1250	.24
EBR	1	1750	147	.08	276	.16
WBL	2	3500	70	.02	184	.05
WBT	3	5250	861	.16*	697	.13*
WBR	1	1750	234	.13	397	.23
Clearance Interval				.10*	.10*	
Note: Assumes Right-Turn Overlap for WBR						

TOTAL CAPACITY UTILIZATION .84 .96

Interim Year No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	110	.03	356	.10
NBT	3	5250	1682	.32*	2117	.40*
NBR	1	1750	50	.03	238	.14
SBL	2	3500	380	.11*	480	.14*
SBT	4	7000	2118	.30	2505	.36
SBR	1	1750	750	.43	380	.22
EBL	2	3500	630	.18*	650	.19
EBT	2	3500	960	.27	1370	.39*
EBR	1	1750	158	.09	289	.17
WBL	2	3500	69	.02	169	.05*
WBT	2	3500	960	.27*	750	.21
WBR	1	1750	240	.14	410	.23
Clearance Interval				.10*	.10*	

TOTAL CAPACITY UTILIZATION .98 1.08

Interim Year With Project Without Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	110	.03	360	.10
NBT	3	5250	1690	.32*	2170	.41*
NBR	1	1750	50	.03	240	.14
SBL	2	3500	380	.11*	480	.14*
SBT	4	7000	2160	.31	2520	.36
SBR	1	1750	750	.43	380	.22
EBL	2	3500	630	.18*	650	.19
EBT	2	3500	960	.27	1370	.39*
EBR	1	1750	160	.09	290	.17
WBL	2	3500	70	.02	170	.05*
WBT	2	3500	960	.27*	750	.21
WBR	1	1750	240	.14	410	.23
Clearance Interval				.10*	.10*	

TOTAL CAPACITY UTILIZATION .98 1.09

Interim Year With MOB 1+2+3+Hospital						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	110	.03	360	.10
NBT	3	5250	1690	.32*	2170	.41*
NBR	1	1750	50	.03	240	.14
SBL	2	3500	380	.11*	480	.14*
SBT	4	7000	2160	.31	2520	.36
SBR	1	1750	750	.43	380	.22
EBL	2	3500	630	.18*	650	.19*
EBT	3	5250	960	.18	1370	.26
EBR	1	1750	160	.09	290	.17
WBL	2	3500	70	.02	170	.05
WBT	3	5250	960	.18*	750	.14*
WBR	1	1750	240	.14	410	.23
Clearance Interval				.10*	.10*	
Note: Assumes Right-Turn Overlap for WBR						

TOTAL CAPACITY UTILIZATION .89 .98

51. Wiley & Lyons

Existing (2005) Counts						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	83	.05*	152	.09
NBT	2	3500	123	.04	363	.10*
NBR	1	1750	104	.06	225	.13
SBL	1	1750	121	.07	190	.11*
SBT	2	3500	233	.07*	339	.10
SBR	1	1750	356	.20	288	.16
EBL	2	3500	112	.03	441	.13
EBT	2	3500	534	.15*	1112	.32*
EBR	1	1750	43	.02	114	.07
WBL	1	1750	111	.06*	191	.11*
WBT	3	5250	567	.12	878	.19
WBR	0	0	45		141	
Right Turn Adjustment			SBR	.06*		
Clearance Interval				.10*		.10*

TOTAL CAPACITY UTILIZATION .49 .74

2010 No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	86	.05*	182	.10*
NBT	2	3500	112	.03	362	.10
NBR	1	1750	102	.06	219	.13
SBL	1	1750	128	.07	166	.09
SBT	2	3500	228	.07*	371	.11*
SBR	1	1750	403	.23	326	.19
EBL	2	3500	134	.04	468	.13
EBT	2	3500	636	.18*	1177	.34*
EBR	1	1750	30	.02	159	.09
WBL	1	1750	84	.05*	191	.11*
WBT	3	5250	818	.16	944	.21
WBR	0	0	43		151	
Right Turn Adjustment			SBR	.11*		
Clearance Interval				.10*		.10*

TOTAL CAPACITY UTILIZATION .56 .76

2010 With MOB 1						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	86	.05*	182	.10*
NBT	2	3500	114	.03	362	.10
NBR	1	1750	102	.06	219	.13
SBL	1	1750	128	.07	167	.10
SBT	2	3500	228	.07*	373	.11*
SBR	1	1750	403	.23	327	.19
EBL	2	3500	134	.04	468	.13
EBT	2	3500	636	.18*	1177	.34*
EBR	1	1750	30	.02	159	.09
WBL	1	1750	84	.05*	191	.11*
WBT	3	5250	818	.16	944	.21
WBR	0	0	43		152	
Right Turn Adjustment			SBR	.11*		
Clearance Interval				.10*		.10*

TOTAL CAPACITY UTILIZATION .56 .76

2013 No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	87	.05*	200	.11*
NBT	2	3500	105	.03	361	.10
NBR	1	1750	102	.06	216	.12
SBL	1	1750	132	.08	152	.09
SBT	2	3500	224	.06*	390	.11*
SBR	1	1750	432	.25	348	.20
EBL	2	3500	148	.04	483	.14
EBT	2	3500	698	.20*	1215	.35*
EBR	1	1750	23	.01	185	.11
WBL	1	1750	67	.04*	190	.11*
WBT	3	5250	969	.19	984	.22
WBR	0	0	42		157	
Right Turn Adjustment			SBR	.15*		
Clearance Interval				.10*		.10*

TOTAL CAPACITY UTILIZATION .60 .78

51. Wiley & Lyons

2013 With MOB 1+2						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	87	.05*	200	.11*
NBT	2	3500	108	.03	361	.10
NBR	1	1750	102	.06	216	.12
SBL	1	1750	133	.08	153	.09
SBT	2	3500	225	.06*	394	.11*
SBR	1	1750	433	.25	350	.20
EBL	2	3500	148	.04	483	.14
EBT	2	3500	698	.20*	1215	.35*
EBR	1	1750	23	.01	185	.11
WBL	1	1750	67	.04*	190	.11*
WBT	3	5250	969	.19	984	.22
WBR	0	0	42		159	
Right Turn Adjustment			SBR	.15*		
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.60		.78

2016 No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	89	.05*	218	.12*
NBT	2	3500	98	.03	360	.10
NBR	1	1750	101	.06	212	.12
SBL	1	1750	136	.08	138	.08
SBT	2	3500	221	.06*	409	.12*
SBR	1	1750	460	.26	371	.21
EBL	2	3500	161	.05*	499	.14
EBT	2	3500	759	.22	1254	.36*
EBR	1	1750	15	.01	212	.12
WBL	1	1750	51	.03	190	.11*
WBT	3	5250	1119	.22*	1024	.23
WBR	0	0	41		163	
Right Turn Adjustment			SBR	.16*		
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.64		.81

2016 With MOB 1+2+Hospital						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	89	.05*	218	.12*
NBT	2	3500	103	.03	360	.10
NBR	1	1750	101	.06	212	.12
SBL	1	1750	137	.08	140	.08
SBT	2	3500	222	.06*	415	.12*
SBR	1	1750	461	.26	374	.21
EBL	2	3500	161	.05*	499	.14
EBT	2	3500	759	.22	1254	.36*
EBR	1	1750	15	.01	212	.12
WBL	1	1750	51	.03	190	.11*
WBT	3	5250	1119	.22*	1024	.23
WBR	0	0	41		165	
Right Turn Adjustment			SBR	.16*		
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.64		.81

Interim Year No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	90	.05*	230	.13*
NBT	2	3500	94	.03	360	.10
NBR	1	1750	100	.06	210	.12
SBL	1	1750	139	.08	128	.07
SBT	2	3500	219	.06*	422	.12*
SBR	1	1750	479	.27	386	.22
EBL	2	3500	170	.05*	510	.15
EBT	2	3500	800	.23	1280	.37*
EBR	1	1750	10	.01	230	.13
WBL	1	1750	40	.02	190	.11*
WBT	3	5250	1220	.24*	1050	.23
WBR	0	0	40		167	
Right Turn Adjustment			SBR	.17*		
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.67		.83

51. Wiley & Lyons

Interim Year With MOB 1+2+3+Hospital						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	90	.05*	230	.13*
NBT	2	3500	100	.03	360	.10
NBR	1	1750	100	.06	210	.12
SBL	1	1750	140	.08	130	.07
SBT	2	3500	220	.06*	430	.12*
SBR	1	1750	480	.27	390	.22
EBL	2	3500	170	.05*	510	.15
EBT	2	3500	800	.23	1280	.37*
EBR	1	1750	10	.01	230	.13
WBL	1	1750	40	.02	190	.11*
WBT	3	5250	1220	.24*	1050	.23
WBR	0	0	40		170	
Right Turn Adjustment			SBR	.17*		
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.67		.83

52. Tournament & Wiley

Existing (2005) Counts						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	16	{.01}*	14	
NBT	1	1750	6	.02	13	.03*
NBR	0	0	6		20	
SBL	0	0	58		89	{.05}*
SBT	1	1750	4	.04*	20	.06
SBR	1	1750	174	.10	202	.12
EBL	1	1750	108	.06*	219	.13*
EBT	2	3500	181	.05	547	.16
EBR	0	0	1		10	
WBL	1	1750	7	.00	33	.02
WBT	2	3500	516	.16*	413	.14*
WBR	0	0	53		83	
Right Turn Adjustment			SBR	.01*		
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.38		.45

2010 No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	14		32	
NBT	1	1750	7	.02*	15	.04*
NBR	0	0	8		20	
SBL	0	0	63	{.04}*	201	{.11}*
SBT	1	1750	6	.04	19	.13
SBR	1	1750	168	.10	189	.11
EBL	1	1750	98	.06*	234	.13*
EBT	2	3500	208	.06	591	.17
EBR	0	0	4		10	
WBL	1	1750	8	.00	32	.02
WBT	2	3500	579	.19*	458	.16*
WBR	0	0	79		101	
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.41		.54

2010 With MOB 1						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	14		32	
NBT	1	1750	8	.02*	15	.04*
NBR	0	0	8		20	
SBL	0	0	63	{.04}*	201	{.11}*
SBT	1	1750	6	.04	20	.13
SBR	1	1750	169	.10	193	.11
EBL	1	1750	100	.06*	235	.13*
EBT	2	3500	208	.06	591	.17
EBR	0	0	4		10	
WBL	1	1750	8	.00	32	.02
WBT	2	3500	579	.19*	458	.16*
WBR	0	0	79		101	
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.41		.54

2013 No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	12		42	
NBT	1	1750	7	.02*	17	.05*
NBR	0	0	8		20	
SBL	0	0	65	{.04}*	268	{.15}*
SBT	1	1750	7	.04	18	.16
SBR	1	1750	164	.09	180	.10
EBL	1	1750	93	.05*	242	.14*
EBT	2	3500	223	.07	616	.18
EBR	0	0	7		10	
WBL	1	1750	9	.01	31	.02
WBT	2	3500	617	.20*	484	.17*
WBR	0	0	94		112	
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.41		.61

52. Tournament & Wiley

2013 With MOB 1+2						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	12		42	
NBT	1	1750	8	.02*	18	.05*
NBR	0	0	8		20	
SBL	0	0	65	{.04}*	268	{.15}*
SBT	1	1750	8	.04	20	.16
SBR	1	1750	165	.09	187	.11
EBL	1	1750	97	.06*	244	.14*
EBT	2	3500	223	.07	616	.18
EBR	0	0	7		10	
WBL	1	1750	9	.01	31	.02
WBT	2	3500	617	.20*	485	.17*
WBR	0	0	94		112	
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.42		.61

2016 No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	11		53	
NBT	1	1750	8	.02*	18	.05*
NBR	0	0	9		20	
SBL	0	0	68	{.04}*	335	{.19}*
SBT	1	1750	8	.04	17	.20
SBR	1	1750	160	.09	172	.10
EBL	1	1750	87	.05*	251	.14*
EBT	2	3500	239	.07	643	.19
EBR	0	0	9		10	
WBL	1	1750	10	.01	30	.02
WBT	2	3500	655	.22*	511	.18*
WBR	0	0	110		123	
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.43		.66

2016 With MOB 1+2+Hospital						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	11		53	
NBT	1	1750	10	.02*	19	.05*
NBR	0	0	9		20	
SBL	0	0	68	{.04}*	335	{.19}*
SBT	1	1750	9	.04	19	.20
SBR	1	1750	162	.09	182	.10
EBL	1	1750	93	.05*	253	.14*
EBT	2	3500	239	.07	643	.19
EBR	0	0	9		10	
WBL	1	1750	10	.01	30	.02
WBT	2	3500	655	.22*	512	.18*
WBR	0	0	110		123	
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.43		.66

Interim Year No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	10	{.01}*	60	
NBT	1	1750	8	.02	19	.06*
NBR	0	0	10		20	
SBL	0	0	70		380	{.22}*
SBT	1	1750	9	.05*	17	.23
SBR	1	1750	158	.09	167	.10
EBL	1	1750	83	.05*	257	.15*
EBT	2	3500	250	.07	660	.19
EBR	0	0	10		10	
WBL	1	1750	10	.01	30	.02
WBT	2	3500	680	.23*	529	.19*
WBR	0	0	120		130	
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.44		.72

52. Tournament & Wiley

Interim Year With MOB 1+2+3+Hospital						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	0	0	10	{.01}*	60	
NBT	1	1750	10	.02	20	.06*
NBR	0	0	10		20	
SBL	0	0	70		380	{.22}*
SBT	1	1750	10	.05*	20	.23
SBR	1	1750	160	.09	180	.10
EBL	1	1750	90	.05*	260	.15*
EBT	2	3500	250	.07	660	.19
EBR	0	0	10		10	
WBL	1	1750	10	.01	30	.02
WBT	2	3500	680	.23*	530	.19*
WBR	0	0	120		130	
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.44		.72

53. Valley & Lyons

Existing (2005) Counts						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	99	.06*	119	.07*
NBT	2	3500	89	.03	135	.04
NBR	1	1750	65	.04	116	.07
SBL	2	3500	249	.07	363	.10
SBT	1	1750	99	.06*	128	.07*
SBR	1	1750	153	.09	226	.13
EBL	2	3500	151	.04	366	.10
EBT	2	3500	546	.16*	913	.26*
EBR	1	1750	62	.04	127	.07
WBL	1	1750	100	.06*	104	.06*
WBT	3	5250	798	.15	921	.18
WBR	1	1750	205	.12	238	.14
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION			.44		.56	

2010 No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	99	.06	108	.06
NBT	2	3500	91	.03*	143	.04*
NBR	1	1750	71	.04	125	.07
SBL	2	3500	301	.09*	423	.12*
SBT	1	1750	107	.06	137	.08
SBR	1	1750	128	.07	219	.13
EBL	2	3500	162	.05*	429	.12
EBT	2	3500	621	.18	962	.27*
EBR	1	1750	61	.03	113	.06
WBL	1	1750	92	.05	114	.07*
WBT	3	5250	1061	.20*	1090	.21
WBR	1	1750	241	.14	277	.16
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION			.47		.60	

2010 With MOB 1						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	99	.06	108	.06
NBT	2	3500	93	.03*	144	.04*
NBR	1	1750	71	.04	125	.07
SBL	2	3500	303	.09*	435	.12*
SBT	1	1750	107	.06	139	.08
SBR	1	1750	128	.07	219	.13
EBL	2	3500	162	.05*	429	.12
EBT	2	3500	621	.18	962	.27*
EBR	1	1750	61	.03	113	.06
WBL	1	1750	92	.05	114	.07*
WBT	3	5250	1061	.20*	1090	.21
WBR	1	1750	251	.14	280	.16
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION			.47		.60	

2013 No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	100	.06	101	.06
NBT	2	3500	91	.03*	148	.04*
NBR	1	1750	74	.04	131	.07
SBL	2	3500	331	.09*	460	.13*
SBT	1	1750	111	.06	143	.08
SBR	1	1750	114	.07	216	.12
EBL	2	3500	168	.05*	466	.13*
EBT	2	3500	665	.19	991	.28
EBR	1	1750	61	.03	104	.06
WBL	1	1750	88	.05	120	.07
WBT	3	5250	1217	.23*	1191	.23*
WBR	1	1750	262	.15	301	.17
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION			.50		.63	

53. Valley & Lyons

2013 With MOB 1+2						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	100	.06	101	.06
NBT	2	3500	95	.03*	150	.04*
NBR	1	1750	74	.04	131	.07
SBL	2	3500	335	.10*	481	.14*
SBT	1	1750	112	.06	147	.08
SBR	1	1750	115	.07	217	.12
EBL	2	3500	169	.05*	467	.13*
EBT	2	3500	665	.19	991	.28
EBR	1	1750	61	.03	104	.06
WBL	1	1750	88	.05	120	.07
WBT	3	5250	1217	.23*	1191	.23*
WBR	1	1750	279	.16	306	.17
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.51		.64

2016 No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	100	.06	94	.05
NBT	2	3500	92	.03*	153	.04*
NBR	1	1750	78	.04	136	.08
SBL	2	3500	362	.10*	496	.14*
SBT	1	1750	116	.07	148	.08
SBR	1	1750	99	.06	212	.12
EBL	2	3500	175	.05*	504	.14*
EBT	2	3500	710	.20	1020	.29
EBR	1	1750	60	.03	96	.05
WBL	1	1750	83	.05	126	.07
WBT	3	5250	1375	.26*	1292	.25*
WBR	1	1750	284	.16	324	.19
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.54		.67

2016 With MOB 1+2+Hospital						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	100	.06	94	.05
NBT	2	3500	98	.03*	156	.04*
NBR	1	1750	78	.04	136	.08
SBL	2	3500	368	.11*	527	.15*
SBT	1	1750	117	.07	154	.09
SBR	1	1750	100	.06	213	.12
EBL	2	3500	176	.05*	505	.14*
EBT	2	3500	710	.20	1020	.29
EBR	1	1750	60	.03	96	.05
WBL	1	1750	83	.05	126	.07
WBT	3	5250	1375	.26*	1292	.25*
WBR	1	1750	309	.18	332	.19
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.55		.68

Interim Year No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	100	.06	90	.05
NBT	2	3500	93	.03*	156	.04*
NBR	1	1750	80	.05	140	.08
SBL	2	3500	383	.11*	520	.15*
SBT	1	1750	119	.07	152	.09
SBR	1	1750	89	.05	209	.12
EBL	2	3500	179	.05*	529	.15*
EBT	2	3500	740	.21	1040	.30
EBR	1	1750	60	.03	90	.05
WBL	1	1750	80	.05	130	.07
WBT	3	5250	1480	.28*	1360	.26*
WBR	1	1750	298	.17	340	.19
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.57		.70

53. Valley & Lyons

Interim Year With MOB 1+2+3+Hospital						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	100	.06	90	.05
NBT	2	3500	100	.03*	160	.05*
NBR	1	1750	80	.05	140	.08
SBL	2	3500	390	.11*	560	.16*
SBT	1	1750	120	.07	160	.09
SBR	1	1750	90	.05	210	.12
EBL	2	3500	180	.05*	530	.15*
EBT	2	3500	740	.21	1040	.30
EBR	1	1750	60	.03	90	.05
WBL	1	1750	80	.05	130	.07
WBT	3	5250	1480	.28*	1360	.26*
WBR	1	1750	330	.19	350	.20
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.57		.72

54. Orchard Village & Wiley

Existing (2005) Counts						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	131	.07	207	.12
NBT	2	3500	567	.19*	811	.29*
NBR	0	0	82		216	
SBL	1	1750	82	.05*	179	.10*
SBT	2	3500	405	.12	849	.24
SBR	1	1750	252	.14	333	.19
EBL	2	3500	144	.04*	345	.10
EBT	2	3500	97	.05	447	.17*
EBR	0	0	84		163	
WBL	1	1750	76	.04	176	.10*
WBT	2	3500	275	.08*	285	.08
WBR	1	1750	75	.04	94	.05
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.46		.76

2010 No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	131	.07	150	.09
NBT	2	3500	590	.21*	799	.32*
NBR	0	0	135		333	
SBL	1	1750	154	.09*	241	.14*
SBT	2	3500	472	.13	848	.24
SBR	1	1750	255	.15	235	.13
EBL	2	3500	150	.04	293	.08
EBT	2	3500	144	.06*	575	.21*
EBR	0	0	71		150	
WBL	1	1750	143	.08*	197	.11*
WBT	2	3500	308	.09	325	.09
WBR	1	1750	130	.07	151	.09
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.54		.88

2010 With MOB 1						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	131	.07	150	.09
NBT	2	3500	612	.21*	805	.33*
NBR	0	0	135		333	
SBL	1	1750	157	.09*	266	.15*
SBT	2	3500	475	.14	874	.25
SBR	1	1750	255	.15	235	.13
EBL	2	3500	150	.04	293	.08
EBT	2	3500	144	.06*	575	.21*
EBR	0	0	71		150	
WBL	1	1750	143	.08*	197	.11*
WBT	2	3500	308	.09	325	.09
WBR	1	1750	152	.09	156	.09
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.54		.90

2010 With MOB 1 & Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	131	.07	150	.09
NBT	2	3500	612	.17*	805	.23*
NBR	1	1750	135	.08	333	.19
SBL	1	1750	157	.09*	266	.15*
SBT	2	3500	475	.14	874	.25
SBR	1	1750	255	.15	235	.13
EBL	2	3500	150	.04	293	.08
EBT	2	3500	144	.06*	575	.21*
EBR	0	0	71		150	
WBL	1	1750	143	.08*	197	.11*
WBT	2	3500	308	.09	325	.09
WBR	1	1750	152	.09	156	.09
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.50		.80

Note: Assumes Right-Turn Overlap for NBR

54. Orchard Village & Wiley

2013 No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	130	.07	117	.07
NBT	2	3500	605	.22*	793	.34*
NBR	0	0	167		403	
SBL	1	1750	198	.11*	277	.16*
SBT	2	3500	512	.15	847	.24
SBR	1	1750	257	.15	177	.10
EBL	2	3500	154	.04	262	.07
EBT	2	3500	173	.07*	652	.23*
EBR	0	0	63		143	
WBL	1	1750	183	.10*	209	.12*
WBT	2	3500	327	.09	350	.10
WBR	1	1750	163	.09	185	.11
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.60		.95

2013 With MOB 1+2						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	130	.07	117	.07
NBT	2	3500	643	.18*	803	.23*
NBR	1	1750	167	.10	403	.23
SBL	1	1750	203	.12*	320	.18*
SBT	2	3500	518	.15	892	.25
SBR	1	1750	257	.15	178	.10
EBL	2	3500	154	.04	262	.07
EBT	2	3500	173	.07*	652	.23*
EBR	0	0	63		143	
WBL	1	1750	183	.10*	209	.12*
WBT	2	3500	327	.09	350	.10
WBR	1	1750	201	.11	195	.11
Clearance Interval				.10*		.10*
Note: Assumes Right-Turn Overlap for NBR						
TOTAL CAPACITY UTILIZATION				.57		.86

2016 No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	130	.07	83	.05
NBT	2	3500	619	.23*	786	.36*
NBR	0	0	199		473	
SBL	1	1750	241	.14*	314	.18*
SBT	2	3500	552	.16	846	.24
SBR	1	1750	259	.15	118	.07
EBL	2	3500	158	.05	231	.07
EBT	2	3500	201	.07*	729	.25*
EBR	0	0	55		135	
WBL	1	1750	223	.13*	222	.13*
WBT	2	3500	347	.10	374	.11
WBR	1	1750	196	.11	219	.13
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.67		1.02

2016 With MOB 1+2+Hospital						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	130	.07	83	.05
NBT	2	3500	676	.19*	801	.23*
NBR	1	1750	199	.11	473	.27
SBL	1	1750	249	.14*	378	.22*
SBT	2	3500	561	.16	912	.26
SBR	1	1750	259	.15	119	.07
EBL	2	3500	158	.05	231	.07
EBT	2	3500	201	.07*	729	.25*
EBR	0	0	55		135	
WBL	1	1750	223	.13*	222	.13*
WBT	2	3500	347	.10	374	.11
WBR	1	1750	253	.14	233	.13
Clearance Interval				.10*		.10*
Note: Assumes Right-Turn Overlap for NBR						
TOTAL CAPACITY UTILIZATION				.63		.93

54. Orchard Village & Wiley

Interim Year No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	130	.07	60	.03
NBT	2	3500	628	.24*	781	.37*
NBR	0	0	220		520	
SBL	1	1750	270	.15*	339	.19*
SBT	2	3500	579	.17	846	.24
SBR	1	1750	260	.15	79	.05
EBL	2	3500	160	.05	210	.06
EBT	2	3500	220	.08*	780	.26*
EBR	0	0	50		130	
WBL	1	1750	250	.14*	230	.13*
WBT	2	3500	360	.10	390	.11
WBR	1	1750	218	.12	242	.14
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.71		1.05

Interim Year With Project Without Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	130	.07	60	.03
NBT	2	3500	700	.26*	800	.38*
NBR	0	0	220		520	
SBL	1	1750	280	.16*	420	.24*
SBT	2	3500	590	.17	930	.27
SBR	1	1750	260	.15	80	.05
EBL	2	3500	160	.05	210	.06
EBT	2	3500	220	.08*	780	.26*
EBR	0	0	50		130	
WBL	1	1750	250	.14*	230	.13*
WBT	2	3500	360	.10	390	.11
WBR	1	1750	290	.17	260	.15
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.74		1.11

Interim Year With MOB 1+2+3+Hospital						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	130	.07	60	.03
NBT	2	3500	700	.20*	800	.23*
NBR	1	1750	220	.13	520	.30
SBL	1	1750	280	.16*	420	.24*
SBT	2	3500	590	.17	930	.27
SBR	1	1750	260	.15	80	.05
EBL	2	3500	160	.05	210	.06
EBT	2	3500	220	.08*	780	.26*
EBR	0	0	50		130	
WBL	1	1750	250	.14*	230	.13*
WBT	2	3500	360	.10	390	.11
WBR	1	1750	290	.17	260	.15
Clearance Interval				.10*		.10*
Note: Assumes Right-Turn Overlap for NBR						
TOTAL CAPACITY UTILIZATION				.68		.96

55. Orchard Village & McBean

Existing (2005) Counts						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1.5		413		344	
NBT	0.5	3500	55	.13*	21	.10*
NBR	2	3500	591	.17	851	.24
SBL	0	0	19		74	
SBT	1	1750	20	.02*	57	.07*
SBR	d	1750	14	.01	45	.03
EBL	1	1750	14	.01	25	.01
EBT	3	5250	445	.13*	854	.24*
EBR	0	0	317	.18	412	
WBL	2	3500	656	.19*	878	.25*
WBT	3	5250	651	.14	781	.15
WBR	0	0	58		22	
Clearance Interval				.10*	.10*	
Note: Assumes N/S Split Phasing						
Note: Assumes Right-Turn Overlap for NBR						

TOTAL CAPACITY UTILIZATION .57 .76

2010 No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1.5		420		359	
NBT	0.5	3500	57	.14*	36	.11*
NBR	2	3500	714	.20	901	.26
SBL	0	0	16		69	
SBT	1	1750	20	.02*	62	.07*
SBR	d	1750	12	.01	39	.02
EBL	1	1750	28	.02	31	.02
EBT	3	5250	501	.14*	920	.26*
EBR	0	0	409	.23	526	.30
WBL	2	3500	708	.20*	890	.25*
WBT	3	5250	555	.11	723	.14
WBR	0	0	47		21	
Clearance Interval				.10*	.10*	
Note: Assumes N/S Split Phasing						
Note: Assumes Right-Turn Overlap for NBR						

TOTAL CAPACITY UTILIZATION .60 .79

2010 With MOB 1						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1.5		420		359	
NBT	0.5	3500	103	.15*	48	.12*
NBR	2	3500	714	.20	901	.26
SBL	0	0	19		86	
SBT	1	1750	27	.03*	114	.11*
SBR	d	1750	19	.01	57	.03
EBL	1	1750	45	.03	37	.02
EBT	3	5250	512	.15*	925	.26*
EBR	0	0	409	.23	526	.30
WBL	2	3500	708	.20*	890	.25*
WBT	3	5250	563	.12	743	.15
WBR	0	0	56		24	
Clearance Interval				.10*	.10*	
Note: Assumes N/S Split Phasing						
Note: Assumes Right-Turn Overlap for NBR						

TOTAL CAPACITY UTILIZATION .63 .84

2010 With MOB 1 & Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1.5		420		359	
NBT	0.5	3500	103	.15*	48	.12*
NBR	2	3500	714	.20	901	.26
SBL	1	1750	19	.01	86	.05
SBT	2	3500	27	.01*	114	.05*
SBR	0	0	19		57	
EBL	1	1750	45	.03	37	.02
EBT	3	5250	512	.15*	925	.26*
EBR	0	0	409	.23	526	.30
WBL	2	3500	708	.20*	890	.25*
WBT	3	5250	563	.12	743	.15
WBR	0	0	56		24	
Clearance Interval				.10*	.10*	
Note: Assumes N/S Split Phasing						
Note: Assumes Right-Turn Overlap for NBR						

TOTAL CAPACITY UTILIZATION .61 .78

55. Orchard Village & McBean

2013 No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1.5		423		367	
NBT	0.5	3500	58	.14*	45	.12*
NBR	2	3500	787	.22	930	.27
SBL	0	0	13		65	
SBT	1	1750	20	.02*	65	.07*
SBR	d	1750	12	.01	36	.02
EBL	1	1750	36	.02	34	.02
EBT	3	5250	534	.15*	959	.27*
EBR	0	0	465	.27	595	.34
WBL	2	3500	738	.21*	898	.26*
WBT	3	5250	498	.10	688	.14
WBR	0	0	41		21	
Right Turn Adjustment			EBR	.01*		
Clearance Interval				.10*		.10*
Note: Assumes N/S Split Phasing						
Note: Assumes Right-Turn Overlap for NBR						

TOTAL CAPACITY UTILIZATION .63 .82

2013 With MOB 1+2						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1.5		423		367	
NBT	0.5	3500	138	.16*	65	.12*
NBR	2	3500	787	.22	930	.27
SBL	1	1750	18	.01	94	.05
SBT	2	3500	32	.02*	156	.06*
SBR	0	0	24		68	
EBL	1	1750	65	.04	45	.03
EBT	3	5250	554	.16*	968	.28*
EBR	0	0	465	.27	595	.34
WBL	2	3500	738	.21*	898	.26*
WBT	3	5250	511	.11	724	.14
WBR	0	0	56		26	
Clearance Interval				.10*		.10*
Note: Assumes N/S Split Phasing						
Note: Assumes Right-Turn Overlap for NBR						

TOTAL CAPACITY UTILIZATION .65 .82

2016 No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1.5		427		376	
NBT	0.5	3500	59	.14*	54	.12*
NBR	2	3500	861	.25	960	.27
SBL	0	0	11		62	
SBT	1	1750	20	.02*	68	.07*
SBR	d	1750	11	.01	32	.02
EBL	1	1750	44	.03	38	.02
EBT	3	5250	568	.16*	999	.29*
EBR	0	0	520	.30	663	.38
WBL	2	3500	769	.22*	905	.26*
WBT	3	5250	440	.09	653	.13
WBR	0	0	34		20	
Right Turn Adjustment			EBR	.04*		
Clearance Interval				.10*		.10*
Note: Assumes N/S Split Phasing						
Note: Assumes Right-Turn Overlap for NBR						

TOTAL CAPACITY UTILIZATION .68 .84

2016 With MOB 1+2+Hospital						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1.5		427		376	
NBT	0.5	3500	177	.17*	84	.13*
NBR	2	3500	861	.25	960	.27
SBL	1	1750	19	.01	105	.06
SBT	2	3500	38	.02*	202	.08*
SBR	0	0	29		79	
EBL	1	1750	87	.05	54	.03
EBT	3	5250	597	.17*	1012	.29*
EBR	0	0	520	.30	663	.38
WBL	2	3500	769	.22*	905	.26*
WBT	3	5250	460	.10	706	.14
WBR	0	0	56		28	
Clearance Interval				.10*		.10*
Note: Assumes N/S Split Phasing						
Note: Assumes Right-Turn Overlap for NBR						

TOTAL CAPACITY UTILIZATION .68 .86

55. Orchard Village & McBean

2016 With MOB 1+2+Hospital & Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1.5		427		376	
NBT	0.5	3500	177	.17*	84	.13*
NBR	2	3500	861	.25	960	.27
SBL	1	1750	19	.01	105	.06
SBT	2	3500	38	.01*	202	.06*
SBR	1	1750	29	.02	79	.05
EBL	1	1750	87	.05	54	.03
EBT	3	5250	597	.17*	1012	.29*
EBR	0	0	520	.30	663	.38
WBL	2	3500	769	.22*	905	.26*
WBT	3	5250	460	.09	706	.13
WBR	1	1750	56	.03	28	.02
Clearance Interval				.10*	.10*	
Note: Assumes N/S Split Phasing						
Note: Assumes Right-Turn Overlap for NBR						

TOTAL CAPACITY UTILIZATION .67 .84

Interim Year No Project							
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR		
			VOL	V/C	VOL	V/C	
NBL	1.5		430		382		
NBT	0.5	3500	60	.14*	60	.13*	
NBR	2	3500	910	.26	980	.28	
SBL	0	0	10		60		
SBT	1	1750	20	.02*	70	.07*	
SBR	d	1750	10	.01	30	.02	
EBL	1	1750	50	.03	40	.02	
EBT	3	5250	590	.17*	1025	.29*	
EBR	0	0	557	.32	709	.41	
WBL	2	3500	790	.23*	910	.26*	
WBT	3	5250	402	.08	630	.12	
WBR	0	0	30		20		
Right Turn Adjustment				EBR	.04*	EBR	.02*
Clearance Interval				.10*		.10*	
Note: Assumes N/S Split Phasing							
Note: Assumes Right-Turn Overlap for NBR							

TOTAL CAPACITY UTILIZATION .70 .87

Interim Year With Project Without Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1.5		430		382	
NBT	0.5	3500	210	.18*	98	.14*
NBR	2	3500	910	.26	980	.28
SBL	0	0	20		115	
SBT	1	1750	43	.04*	241	.20*
SBR	d	1750	33	.02	90	.05
EBL	1	1750	105	.06	60	.03
EBT	3	5250	627	.18*	1041	.30*
EBR	0	0	557	.32	709	.41
WBL	2	3500	790	.23*	910	.26*
WBT	3	5250	427	.09	697	.14
WBR	0	0	58		30	
Clearance Interval				.10*	.10*	
Note: Assumes N/S Split Phasing						
Note: Assumes Right-Turn Overlap for NBR						

TOTAL CAPACITY UTILIZATION .73 1.00

Interim Year With MOB 1+2+3+Hospital						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1.5		430		382	
NBT	0.5	3500	210	.18*	98	.14*
NBR	2	3500	910	.26	980	.28
SBL	1	1750	20	.01	115	.07
SBT	2	3500	43	.01*	241	.07*
SBR	1	1750	33	.02	90	.05
EBL	1	1750	105	.06	60	.03
EBT	3	5250	627	.18*	1041	.30*
EBR	0	0	557	.32	709	.41
WBL	2	3500	790	.23*	910	.26*
WBT	3	5250	427	.08	697	.13
WBR	1	1750	58	.03	30	.02
Clearance Interval				.10*	.10*	
Note: Assumes N/S Split Phasing						
Note: Assumes Right-Turn Overlap for NBR						

TOTAL CAPACITY UTILIZATION .70 .87

55. Orchard Village & McBean

Long Range Cumulative Without Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1.5		720		790	
NBT	0.5	3500	60	.22*	60	.24*
NBR	2	3500	690	.20	960	.27
SBL	0	0	10		60	
SBT	1	1750	20	.02*	70	.07*
SBR	d	1750	10	.01	30	.02
EBL	1	1750	50	.03	40	.02
EBT	3	5250	340	.10*	770	.22*
EBR	0	0	670	.38	980	.56
WBL	2	3500	720	.21*	970	.28*
WBT	3	5250	510	.10	680	.13
WBR	0	0	30		20	
Right Turn Adjustment			EBR	.12*	EBR	.16*
Clearance Interval				.10*		.10*
Note: Assumes N/S Split Phasing						
Note: Assumes Right-Turn Overlap for NBR						

TOTAL CAPACITY UTILIZATION .77 1.07

Long Range Cumulative With MOB 1+2+3+Hospital						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1.5		720		790	
NBT	0.5	3500	210	.27*	100	.25*
NBR	2	3500	680	.19	950	.27
SBL	1	1750	30	.02*	180	.10*
SBT	2	3500	40	.01	210	.06
SBR	1	1750	30	.02	90	.05
EBL	1	1750	110	.06	60	.03
EBT	3	5250	340	.10*	770	.22*
EBR	0	0	670	.38	980	.56
WBL	2	3500	710	.20*	970	.28*
WBT	3	5250	530	.11	710	.14
WBR	0	0	70		30	
Right Turn Adjustment			EBR	.08*	EBR	.15*
Clearance Interval				.10*		.10*
Note: Assumes N/S Split Phasing						
Note: Assumes Right-Turn Overlap for NBR						

TOTAL CAPACITY UTILIZATION .77 1.10

Long Range Cumulative With Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1.5		720		790	
NBT	0.5	3500	210	.27*	100	.25*
NBR	2	3500	680	.19	950	.27
SBL	1.5		30		180	
SBT	1.5	5250	40	.01*	210	.07*
SBR	1	1750	30	.02	90	.05
EBL	1	1750	110	.06	60	.03
EBT	2.5	7000	340	{.09}*	770	{.20}*
EBR	1.5		670		980	
WBL	2	3500	710	.20*	970	.28*
WBT	3	5250	530	.10	710	.14
WBR	1	1750	70	.04	30	.02
Clearance Interval				.10*		.10*
Note: Assumes N/S Split Phasing						
Note: Assumes Right-Turn Overlap for NBR						

TOTAL CAPACITY UTILIZATION .67 .90

56. Newhall & Lyons

Existing (2005) Counts						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	506	.14*	579	.17*
NBT	1	1750	110	.08	104	.07
NBR	0	0	28		25	
SBL	1	1750	25	.01	31	.02
SBT	2	3500	108	.06*	125	.07*
SBR	0	0	135	.08	118	
EBL	1	1750	127	.07*	119	.07*
EBT	2	3500	410	.12	635	.18
EBR	1	1750	457	.26	592	.34
WBL	1	1750	50	.03	18	.01
WBT	2	3500	742	.23*	640	.19*
WBR	0	0	47		33	
Clearance Interval				.10*	.10*	
TOTAL CAPACITY UTILIZATION				.60	.60	

2010 No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	509	.15*	540	.15*
NBT	1	1750	83	.07	91	.08
NBR	0	0	40		50	
SBL	1	1750	27	.02	31	.02
SBT	2	3500	105	.06*	127	.07*
SBR	0	0	137	.08	119	
EBL	1	1750	82	.05*	77	.04*
EBT	2	3500	490	.14	832	.24
EBR	1	1750	457	.26	575	.33
WBL	1	1750	46	.03	46	.03
WBT	2	3500	930	.28*	842	.25*
WBR	0	0	44		36	
Clearance Interval				.10*	.10*	
TOTAL CAPACITY UTILIZATION				.64	.61	

2010 With MOB 1						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	514	.15*	541	.15*
NBT	1	1750	83	.07	91	.08
NBR	0	0	40		50	
SBL	1	1750	27	.02	31	.02
SBT	2	3500	105	.06*	127	.07*
SBR	0	0	137	.08	119	
EBL	1	1750	82	.05*	77	.04*
EBT	2	3500	491	.14	836	.24
EBR	1	1750	458	.26	581	.33
WBL	1	1750	46	.03	46	.03
WBT	2	3500	933	.28*	844	.25*
WBR	0	0	44		36	
Clearance Interval				.10*	.10*	
TOTAL CAPACITY UTILIZATION				.64	.61	

2013 No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	510	.15*	517	.15*
NBT	1	1750	67	.07	83	.08
NBR	0	0	48		65	
SBL	1	1750	28	.02	30	.02
SBT	2	3500	103	.06*	128	.07*
SBR	0	0	138	.08	119	
EBL	1	1750	55	.03*	52	.03*
EBT	2	3500	538	.15	950	.27
EBR	1	1750	457	.26	566	.32
WBL	1	1750	44	.03	62	.04
WBT	2	3500	1042	.31*	963	.29*
WBR	0	0	43		37	
Clearance Interval				.10*	.10*	
TOTAL CAPACITY UTILIZATION				.65	.64	

56. Newhall & Lyons

2013 With MOB 1+2						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	519	.15*	518	.15*
NBT	1	1750	67	.07	83	.08
NBR	0	0	48		65	
SBL	1	1750	28	.02	30	.02
SBT	2	3500	103	.06*	128	.07*
SBR	0	0	138	.08	119	
EBL	1	1750	55	.03*	52	.03*
EBT	2	3500	539	.15	957	.27
EBR	1	1750	459	.26	577	.33
WBL	1	1750	44	.03	62	.04
WBT	2	3500	1047	.31*	966	.29*
WBR	0	0	43		37	
Clearance Interval				.10*	.10*	
TOTAL CAPACITY UTILIZATION				.65	.64	

2016 No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	512	.15*	494	.14*
NBT	1	1750	51	.06	75	.09
NBR	0	0	48		65	
SBL	1	1750	29	.02	30	.02
SBT	2	3500	101	.06*	129	.07*
SBR	0	0	139	.08	120	
EBL	1	1750	28	.02*	27	.02
EBT	2	3500	586	.17	1068	.31*
EBR	1	1750	457	.26	556	.32
WBL	1	1750	42	.02	79	.05*
WBT	2	3500	1155	.34*	1084	.32
WBR	0	0	41		39	
Clearance Interval				.10*	.10*	
TOTAL CAPACITY UTILIZATION				.67	.67	

2016 With MOB 1+2+Hospital						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	525	.15*	496	.14*
NBT	1	1750	51	.06	75	.09
NBR	0	0	55		80	
SBL	1	1750	29	.02	30	.02
SBT	2	3500	101	.06*	129	.07*
SBR	0	0	139	.08	120	
EBL	1	1750	28	.02*	27	.02
EBT	2	3500	588	.17	1078	.31*
EBR	1	1750	459	.26	573	.33
WBL	1	1750	42	.02	79	.05*
WBT	2	3500	1163	.34*	1088	.32
WBR	0	0	41		39	
Clearance Interval				.10*	.10*	
TOTAL CAPACITY UTILIZATION				.67	.67	

Interim Year No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	513	.15*	478	.14*
NBT	1	1750	40	.06	70	.09
NBR	0	0	60		90	
SBL	1	1750	30	.02	30	.02
SBT	2	3500	100	.06*	130	.07*
SBR	0	0	140	.08	120	
EBL	1	1750	10	.01*	10	.01
EBT	2	3500	618	.18	1147	.33*
EBR	1	1750	457	.26	549	.31
WBL	1	1750	40	.02	90	.05*
WBT	2	3500	1230	.36*	1165	.34
WBR	0	0	40		40	
Right Turn Adjustment				SBR	.01*	
Clearance Interval					.10*	
TOTAL CAPACITY UTILIZATION				.69	.69	

56. Newhall & Lyons

Interim Year With MOB 1+2+3+Hospital						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	530	.15*	480	.14*
NBT	1	1750	40	.06	70	.09
NBR	0	0	60		90	
SBL	1	1750	30	.02	30	.02
SBT	2	3500	100	.06*	130	.07*
SBR	0	0	140	.08	120	
EBL	1	1750	10	.01*	10	.01
EBT	2	3500	620	.18	1160	.33*
EBR	1	1750	460	.26	570	.33
WBL	1	1750	40	.02	90	.05*
WBT	2	3500	1240	.37*	1170	.35
WBR	0	0	40		40	
Right Turn Adjustment			SBR	.01*		
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.70		.69

57. Valencia & Magic Mtn

Existing (2005) Counts						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	44	.03*	92	.05
NBT	3	5250	851	.18	1507	.32*
NBR	0	0	120		191	
SBL	1	1750	32	.02	87	.05*
SBT	3	5250	1524	.29*	1188	.23
SBR	2	3500	419	.12	302	.09
EBL	2	3500	149	.04	662	.19*
EBT	2	3500	177	.07*	513	.16
EBR	0	0	52		60	
WBL	1	1750	222	.13*	197	.11
WBT	2	3500	421	.12	396	.11*
WBR	1	1750	53	.03	75	.04
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.62		.77

2010 No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	54	.03*	99	.06
NBT	3	5250	776	.18	1475	.36*
NBR	0	0	155		399	
SBL	1	1750	39	.02	100	.06*
SBT	3	5250	1599	.30*	1066	.20
SBR	2	3500	627	.18	432	.12
EBL	2	3500	215	.06	823	.24
EBT	2	3500	367	.12*	650	.20*
EBR	0	0	44		48	
WBL	1	1750	449	.26*	332	.19*
WBT	2	3500	548	.16	478	.14
WBR	1	1750	56	.03	162	.09
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.81		.91

2010 With MOB 1						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	54	.03*	99	.06
NBT	3	5250	777	.18	1483	.36*
NBR	0	0	155		404	
SBL	1	1750	39	.02	100	.06*
SBT	3	5250	1608	.31*	1068	.20
SBR	2	3500	627	.18	432	.12
EBL	2	3500	215	.06	823	.24
EBT	2	3500	367	.12*	650	.20*
EBR	0	0	44		48	
WBL	1	1750	451	.26*	333	.19*
WBT	2	3500	548	.16	478	.14
WBR	1	1750	56	.03	162	.09
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.82		.91

2013 No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	60	.03*	103	.06
NBT	3	5250	731	.17	1456	.38*
NBR	0	0	175		524	
SBL	1	1750	43	.02	107	.06*
SBT	3	5250	1645	.31*	994	.19
SBR	2	3500	752	.21	510	.15
EBL	2	3500	254	.07	919	.26
EBT	2	3500	480	.15*	733	.22*
EBR	0	0	38		42	
WBL	1	1750	643	.37*	447	.26*
WBT	2	3500	656	.19	549	.16
WBR	1	1750	58	.03	236	.13
Clearance Interval				.10*		.10*
TOTAL CAPACITY UTILIZATION				.96		1.02

57. Valencia & Magic Mtn

2013 With MOB 1+2						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	60	.03*	103	.06
NBT	3	5250	733	.17	1470	.38*
NBR	0	0	175		534	
SBL	1	1750	43	.02	107	.06*
SBT	3	5250	1661	.32*	998	.19
SBR	2	3500	752	.21	510	.15
EBL	2	3500	254	.07	919	.26
EBT	2	3500	480	.15*	733	.22*
EBR	0	0	38		42	
WBL	1	1750	647	.37*	449	.26*
WBT	2	3500	656	.19	549	.16
WBR	1	1750	58	.03	236	.13
Clearance Interval				.10*	.10*	
TOTAL CAPACITY UTILIZATION				.97	1.02	

2013 With MOB 1+2 & Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	60	.03*	103	.06
NBT	3	5250	733	.17	1470	.38*
NBR	0	0	175		534	
SBL	1	1750	43	.02	107	.06*
SBT	3	5250	1661	.32*	998	.19
SBR	2	3500	752	.21	510	.15
EBL	2	3500	254	.07	919	.26*
EBT	2	3500	480	.15*	733	.22
EBR	0	0	38		42	
WBL	2	3500	647	.18*	449	.13
WBT	2	3500	656	.20	549	.22*
WBR	0	0	58		236	
Clearance Interval				.10*	.10*	
TOTAL CAPACITY UTILIZATION				.78	1.02	

2016 No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	66	.04*	107	.06
NBT	3	5250	686	.17	1437	.40*
NBR	0	0	196		649	
SBL	1	1750	47	.03	115	.07*
SBT	3	5250	1690	.32*	921	.18
SBR	2	3500	877	.25	588	.17
EBL	2	3500	294	.08	1016	.29
EBT	2	3500	594	.18*	815	.24*
EBR	0	0	33		35	
WBL	1	1750	731	.42*	499	.29*
WBT	2	3500	705	.20	581	.17
WBR	1	1750	59	.03	269	.15
Clearance Interval				.10*	.10*	
TOTAL CAPACITY UTILIZATION				1.06	1.10	

2016 With MOB 1+2+Hospital						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	66	.04*	107	.06
NBT	3	5250	689	.17	1457	.40*
NBR	0	0	196		663	
SBL	1	1750	47	.03	115	.07*
SBT	3	5250	1714	.33*	927	.18
SBR	2	3500	877	.25	588	.17
EBL	2	3500	294	.08	1016	.29*
EBT	2	3500	594	.18*	815	.24
EBR	0	0	33		35	
WBL	2	3500	737	.21*	501	.14
WBT	2	3500	705	.22	581	.24*
WBR	0	0	59		269	
Clearance Interval				.10*	.10*	
TOTAL CAPACITY UTILIZATION				.86	1.10	

57. Valencia & Magic Mtn

Interim Year No Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	70	.04*	110	.06
NBT	3	5250	656	.16	1424	.41*
NBR	0	0	210		732	.42
SBL	1	1750	50	.03	120	.07*
SBT	3	5250	1720	.33*	872	.17
SBR	2	3500	960	.27	640	.18
EBL	2	3500	320	.09	1080	.31
EBT	2	3500	670	.20*	870	.26*
EBR	0	0	30		30	
WBL	1	1750	812	.46*	547	.31*
WBT	2	3500	750	.21	610	.17
WBR	1	1750	60	.03	300	.17
Clearance Interval				.10*	.10*	

TOTAL CAPACITY UTILIZATION 1.13 1.15

Interim Year With Project Without Mitigation						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	70	.04*	110	.06
NBT	3	5250	660	.17	1450	.41*
NBR	0	0	210		750	.43
SBL	1	1750	50	.03	120	.07*
SBT	3	5250	1750	.33*	880	.17
SBR	2	3500	960	.27	640	.18
EBL	2	3500	320	.09	1080	.31
EBT	2	3500	670	.20*	870	.26*
EBR	0	0	30		30	
WBL	1	1750	820	.47*	550	.31*
WBT	2	3500	750	.21	610	.17
WBR	1	1750	60	.03	300	.17
Clearance Interval				.10*	.10*	

TOTAL CAPACITY UTILIZATION 1.14 1.15

Interim Year With MOB 1+2+3+Hospital						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	70	.04*	110	.06
NBT	3	5250	660	.17	1450	.41*
NBR	0	0	210		750	.43
SBL	1	1750	50	.03	120	.07*
SBT	3	5250	1750	.33*	880	.17
SBR	2	3500	960	.27	640	.18
EBL	2	3500	320	.09	1080	.31*
EBT	2	3500	670	.20*	870	.26
EBR	0	0	30		30	
WBL	2	3500	820	.23*	550	.16
WBT	2	3500	750	.23	610	.26*
WBR	0	0	60		300	
Clearance Interval				.10*	.10*	

TOTAL CAPACITY UTILIZATION .90 1.15

100. Avd Navarre & McBean

Existing Count						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	185	.11*	149	.09*
NBT	1	1750	9	.01	5	.00
NBR	1	1750	63	.04	119	.07
SBL	1	1750	35	.02	111	.06
SBT	1	1750	2	.00*	4	.00*
SBR	1	1750	26	.01	60	.03
EBL	1	1750	78	.04*	46	.03
EET	3	5250	930	.19	1493	.33*
EBR	0	0	47		240	
WBL	1	1750	27	.02	87	.05*
WBT	3	5250	1154	.24*	1472	.29
WBR	0	0	92		36	
Clearance Interval					.10*	.10*
TOTAL CAPACITY UTILIZATION					.49	.57

IY With Project						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	185	.11*	149	.09
NBT	1	1750	13	.01	7	.00*
NBR	1	1750	63	.04	119	.07
SBL	1	1750	45	.03	201	.11*
SBT	1	1750	3	.00*	13	.01
SBR	1	1750	41	.02	117	.07
EBL	1	1750	115	.07*	61	.03
EBT	3	5250	1395	.27	1835	.40*
EBR	0	0	47		240	
WBL	1	1750	27	.02	87	.05*
WBT	3	5250	1049	.23*	1371	.27
WBR	0	0	162		56	
Right Turn Adjustment					NBR	.03*
Clearance Interval					.10*	.10*
TOTAL CAPACITY UTILIZATION					.51	.69

APPENDIX B

OPERATIONAL ANALYSIS WORKSHEETS

McBean Coordination Timing Existing Conditions
 2: Baywood Lane & McBean Pkwy

8:00 am
 9/6/2007

Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	20	20	25	1143	2104	20
Turn Type		Perm	Prot			Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Detector Phases	4	4	5	2	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	21.0	21.0	21.0
Total Split (s)	37.0	37.0	20.0	83.0	63.0	63.0
Total Split (%)	30.8%	30.8%	16.7%	69.2%	52.5%	52.5%
Yellow Time (s)	3.5	3.5	3.5	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	0.5	1.0	1.0	1.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	7.4	7.4	7.3	110.3	103.0	103.0
Actuated g/C Ratio	0.06	0.06	0.06	0.92	0.86	0.86
v/c Ratio	0.20	0.19	0.25	0.21	0.42	0.02
Control Delay	57.4	23.4	68.4	0.1	0.6	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.4	23.4	68.4	0.1	0.6	0.0
LOS	E	C	E	A	A	A
Approach Delay	40.4			1.6	0.6	
Approach LOS	D			A	A	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 85 (71%), Referenced to phase 2:NET and 6:SWT, Start of Yellow
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.42
 Intersection Signal Delay: 1.5
 Intersection Capacity Utilization 40.5%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 2: Baywood Lane & McBean Pkwy



McBean Coordination Timing Existing Conditions
 4: Valencia Blvd & McBean Pkwy

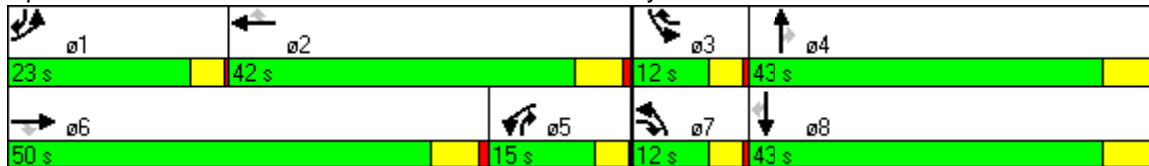
8:00 am
 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	435	775	67	313	1121	38	194	988	197	21	773	1095
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov
Protected Phases	1	6	7	5	2	3	7	4	5	3	8	1
Permitted Phases			6			2			4			8
Detector Phases	1	6	7	5	2	3	7	4	5	3	8	1
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	12.0	43.0	12.0	12.0	42.0	12.0	12.0	42.0	12.0	12.0	42.0	12.0
Total Split (s)	23.0	50.0	12.0	15.0	42.0	12.0	12.0	43.0	15.0	12.0	43.0	23.0
Total Split (%)	19.2%	41.7%	10.0%	12.5%	35.0%	10.0%	10.0%	35.8%	12.5%	10.0%	35.8%	19.2%
Yellow Time (s)	3.5	5.0	3.5	3.5	5.0	3.5	3.5	5.0	3.5	3.5	5.0	3.5
All-Red Time (s)	0.5	1.0	0.5	0.5	1.0	0.5	0.5	1.0	0.5	0.5	1.0	0.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	C-Max	None	None	None	None	None	None	None
Act Effct Green (s)	25.3	53.9	61.9	11.0	39.6	49.9	8.0	34.6	46.4	6.4	31.1	60.4
Actuated g/C Ratio	0.21	0.45	0.52	0.09	0.33	0.42	0.07	0.29	0.39	0.05	0.26	0.50
v/c Ratio	0.67	0.38	0.09	1.12	0.75	0.06	0.95	0.76	0.18	0.13	0.66	0.84
Control Delay	49.9	23.5	6.7	136.7	39.8	16.1	100.6	54.3	10.1	36.8	32.7	45.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.9	23.5	6.7	136.7	39.8	16.1	100.6	54.3	10.1	36.8	32.7	45.7
LOS	D	C	A	F	D	B	F	D	B	D	C	D
Approach Delay		31.6			59.8			54.5			40.3	
Approach LOS		C			E			D			D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 4 (3%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.12
 Intersection Signal Delay: 46.5
 Intersection Capacity Utilization 75.5%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service D

Splits and Phases: 4: Valencia Blvd & McBean Pkwy



McBean Coordination Timing Existing Conditions
 14: Magic Mountain Pkwy & McBean Pkwy

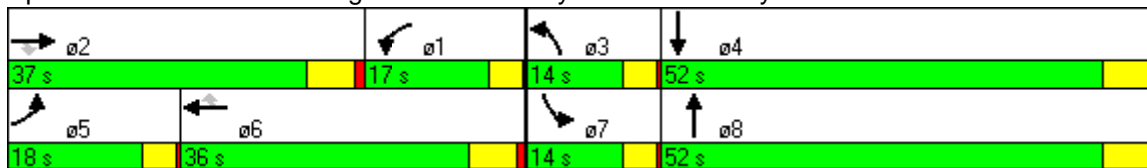
8:00 am
 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	347	332	30	88	288	208	49	1086	68	220	1883	267
Turn Type	Prot		Perm	Prot		Perm	Prot		Free	Prot		Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			Free			Free
Detector Phases	5	2	2	1	6	6	3	8		7	4	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	12.0	28.0	28.0	12.0	28.0	28.0	12.0	28.0		12.0	28.0	
Total Split (s)	18.0	37.0	37.0	17.0	36.0	36.0	14.0	52.0	0.0	14.0	52.0	0.0
Total Split (%)	15.0%	30.8%	30.8%	14.2%	30.0%	30.0%	11.7%	43.3%	0.0%	11.7%	43.3%	0.0%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0		3.5	5.0	
All-Red Time (s)	0.5	1.0	1.0	0.5	1.0	1.0	0.5	1.0		0.5	1.0	
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	Max	Max	None	Max	Max	None	C-Max		None	C-Max	
Act Effct Green (s)	14.0	33.0	33.0	13.0	32.0	32.0	7.2	48.0	120.0	10.0	52.7	120.0
Actuated g/C Ratio	0.12	0.28	0.28	0.11	0.27	0.27	0.06	0.40	1.00	0.08	0.44	1.00
v/c Ratio	0.94	0.37	0.06	0.26	0.33	0.39	0.26	0.60	0.04	0.86	0.75	0.16
Control Delay	85.0	36.5	10.9	51.1	36.6	12.1	84.5	12.5	0.0	93.2	10.1	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	85.0	36.5	10.9	51.1	36.6	12.1	84.5	12.5	0.0	93.2	10.1	0.2
LOS	F	D	B	D	D	B	F	B	A	F	B	A
Approach Delay		59.1			30.1			14.7			16.7	
Approach LOS		E			C			B			B	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 9 (8%), Referenced to phase 4:SBT and 8:NBT, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.94
 Intersection Signal Delay: 24.0
 Intersection Capacity Utilization 61.8%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service B

Splits and Phases: 14: Magic Mountain Pkwy & McBean Pkwy



McBean Coordination Timing Existing Conditions
 41: Orchard Village Rd & McBean Pkwy

8:00 am
 9/6/2007

Lane Group								
Lane Group	SET	NWL	NWT	NWR	NEL	NET	SWL	SWT
Lane Configurations								
Volume (vph)	26	433	68	578	27	686	742	640
Turn Type		Split		pm+ov	Prot		Prot	
Protected Phases	3	4	4	5	1	6	5	2
Permitted Phases				4				
Detector Phases	3	4	4	5	1	6	5	2
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	28.0	15.0	15.0	20.0	12.0	28.0	20.0	23.0
Total Split (s)	15.0	22.0	22.0	47.0	12.0	36.0	47.0	71.0
Total Split (%)	12.5%	18.3%	18.3%	39.2%	10.0%	30.0%	39.2%	59.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	5.0	3.5	5.0
All-Red Time (s)	1.0	1.0	1.0	0.5	0.5	1.0	0.5	1.0
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes		Yes			Yes
Recall Mode	None	None	None	Min	None	C-Max	Min	C-Max
Act Effct Green (s)	7.3	18.0	18.0	65.0	7.6	37.7	43.0	77.1
Actuated g/C Ratio	0.06	0.15	0.15	0.54	0.06	0.31	0.36	0.64
v/c Ratio	0.25	1.09	1.13	0.37	0.28	0.96dr	0.70	0.24
Control Delay	41.5	132.3	141.7	3.5	51.7	35.6	35.9	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.5	132.3	141.7	3.5	51.7	35.6	35.9	7.8
LOS	D	F	F	A	D	D	D	A
Approach Delay	41.5		65.7			36.0		22.6
Approach LOS	D		E			D		C

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 47 (39%), Referenced to phase 2:SWT and 6:NET, Start of Yellow
 Natural Cycle: 125
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.13
 Intersection Signal Delay: 39.5
 Intersection Capacity Utilization 76.5%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service D
 dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 41: Orchard Village Rd & McBean Pkwy



McBean Coordination Timing Existing Conditions
 94: Decoro Dr. & McBean Pkwy

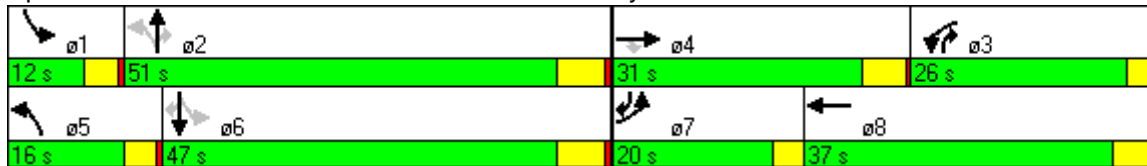
8:00 am
 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Volume (vph)	50	85	105	500	582	180	145	167	104	690	562
Turn Type	Prot		Perm	Prot		pm+pt		pm+ov	pm+pt		pm+ov
Protected Phases	7	4		3	8	5	2	3	1	6	7
Permitted Phases			4			2		2	6		6
Detector Phases	7	4	4	3	8	5	2	3	1	6	7
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	12.0	31.0	31.0	12.0	31.0	12.0	29.0	12.0	12.0	31.0	12.0
Total Split (s)	20.0	31.0	31.0	26.0	37.0	16.0	51.0	26.0	12.0	47.0	20.0
Total Split (%)	16.7%	25.8%	25.8%	21.7%	30.8%	13.3%	42.5%	21.7%	10.0%	39.2%	16.7%
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	3.5	5.0	3.5	3.5	5.0	3.5
All-Red Time (s)	0.0	0.5	0.5	0.0	0.5	0.5	1.0	0.0	0.5	1.0	0.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes			Yes			Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	None	C-Max	None
Act Effct Green (s)	9.1	9.6	9.6	30.1	30.6	66.8	55.9	86.0	61.9	53.4	66.5
Actuated g/C Ratio	0.08	0.08	0.08	0.25	0.26	0.56	0.47	0.72	0.52	0.44	0.55
v/c Ratio	0.22	0.35	0.49	0.68	0.83	0.56	0.07	0.15	0.18	0.34	0.66
Control Delay	52.8	55.5	16.9	44.5	51.1	27.1	15.8	0.4	14.7	23.8	20.3
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	52.8	55.5	16.9	44.5	51.1	27.1	15.8	0.4	14.7	23.8	20.3
LOS	D	E	B	D	D	C	B	A	B	C	C
Approach Delay		38.0			48.2		14.7			21.6	
Approach LOS		D			D		B			C	

Intersection Summary











Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 9 (8%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.83
 Intersection Signal Delay: 31.2
 Intersection Capacity Utilization 72.8%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service C

Splits and Phases: 94: Decoro Dr. & McBean Pkwy



McBean Coordination Timing Existing Conditions
 95: Cottage Circle & McBean Pkwy

8:00 am
 9/6/2007

					
Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Volume (vph)	39	131	21	564	1280
Turn Type	Perm pm+pt				
Protected Phases	4		5	2	6
Permitted Phases		4	2		
Detector Phases	4	4	5	2	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	32.0	32.0	12.0	20.0	25.0
Total Split (s)	32.0	32.0	12.0	88.0	76.0
Total Split (%)	26.7%	26.7%	10.0%	73.3%	63.3%
Yellow Time (s)	3.5	3.5	3.5	5.0	5.0
All-Red Time (s)	1.0	1.0	0.0	1.0	1.0
Lead/Lag	Lead			Lag	
Lead-Lag Optimize?					
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	8.2	8.2	103.8	103.8	98.4
Actuated g/C Ratio	0.07	0.07	0.86	0.86	0.82
v/c Ratio	0.19	0.59	0.08	0.14	0.34
Control Delay	53.6	18.9	1.9	0.3	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	53.6	18.9	1.9	0.3	2.3
LOS	D	B	A	A	A
Approach Delay	26.8			0.3	2.3
Approach LOS	C			A	A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 34 (28%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.59
 Intersection Signal Delay: 3.7
 Intersection Capacity Utilization 39.8%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 95: Cottage Circle & McBean Pkwy



McBean Coordination Timing Existing Conditions
 96: Fairview Dr. & McBean Pkwy

8:00 am
 9/6/2007

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Volume (vph)	1	1	78	1	29	4	555	21	1380	10
Turn Type	Perm		Perm		Perm	Perm		Perm		Perm
Protected Phases		4		8			2		6	
Permitted Phases	4		8		8	2		6		6
Detector Phases	4	4	8	8	8	2	2	6	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	32.5	32.5	32.5	29.0	29.0	28.0	28.0	28.0
Total Split (s)	25.0	25.0	25.0	25.0	25.0	95.0	95.0	95.0	95.0	95.0
Total Split (%)	20.8%	20.8%	20.8%	20.8%	20.8%	79.2%	79.2%	79.2%	79.2%	79.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	13.0	13.0	13.2	13.2	13.2	101.8	101.8	101.8	101.8	101.8
Actuated g/C Ratio	0.11	0.11	0.11	0.11	0.11	0.85	0.85	0.85	0.85	0.85
v/c Ratio	0.01	0.01	0.59	0.00	0.16	0.02	0.16	0.04	0.35	0.01
Control Delay	44.0	37.5	65.8	44.0	16.4	5.0	4.2	5.6	4.7	4.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.0	37.5	65.8	44.0	16.4	5.0	4.2	5.6	4.7	4.4
LOS	D	D	E	D	B	A	A	A	A	A
Approach Delay		39.7		52.2			4.2		4.7	
Approach LOS		D		D			A		A	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 93 (78%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.59
 Intersection Signal Delay: 7.0
 Intersection Capacity Utilization 44.3%
 Analysis Period (min) 15

Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 96: Fairview Dr. & McBean Pkwy



McBean Coordination Timing Existing Conditions
 97: Newhall Ranch Rd & McBean Pkwy

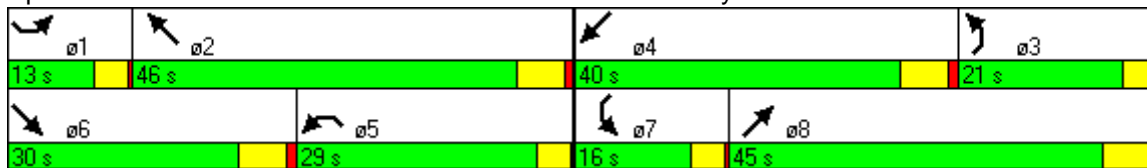
8:00 am
 9/6/2007

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	184	510	346	808	1353	63	498	377	288	105	970	384
Turn Type	Prot		Free	Prot		Free	Prot		Free	Prot		Free
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases			Free			Free			Free			Free
Detector Phases	1	6		5	2		3	8		7	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	12.0	34.0		12.0	33.0		12.0	38.0		12.0	38.0	
Total Split (s)	13.0	30.0	0.0	29.0	46.0	0.0	21.0	45.0	0.0	16.0	40.0	0.0
Total Split (%)	10.8%	25.0%	0.0%	24.2%	38.3%	0.0%	17.5%	37.5%	0.0%	13.3%	33.3%	0.0%
Yellow Time (s)	3.5	5.0		3.5	5.0		3.5	5.0		3.5	5.0	
All-Red Time (s)	0.5	1.0		0.5	1.0		0.5	1.0		0.5	1.0	
Lead/Lag	Lead	Lead		Lag	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	Min	Min		None	Min		None	C-Max		Min	C-Max	
Act Effct Green (s)	9.0	19.9	120.0	31.1	42.0	120.0	17.0	43.7	120.0	9.3	36.0	120.0
Actuated g/C Ratio	0.08	0.17	1.00	0.26	0.35	1.00	0.14	0.36	1.00	0.08	0.30	1.00
v/c Ratio	0.80	0.64	0.24	1.06	0.83	0.04	1.15	0.23	0.11	0.44	0.57	0.26
Control Delay	78.3	49.9	0.4	90.2	40.5	0.0	127.3	14.8	0.1	53.1	24.9	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	78.3	49.9	0.4	90.2	40.5	0.0	127.3	14.8	0.1	53.1	24.9	0.4
LOS	E	D	A	F	D	A	F	B	A	D	C	A
Approach Delay		38.5			57.4			59.3			20.5	
Approach LOS		D			E			E			C	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 59 (49%), Referenced to phase 4:SWT and 8:NET, Start of Yellow
 Natural Cycle: 140
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.15
 Intersection Signal Delay: 45.3
 Intersection Capacity Utilization 74.5%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service D

Splits and Phases: 97: Newhall Ranch Rd & McBean Pkwy



McBean Coordination Timing Existing Conditions
 98: Ave Scott & McBean Pkwy

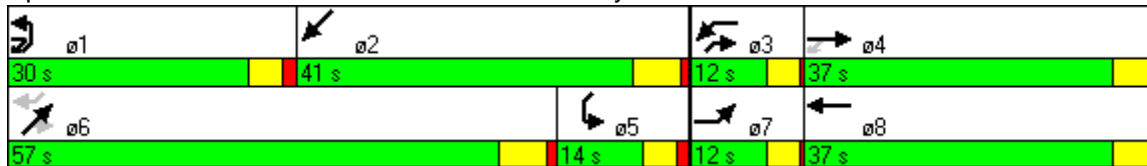
8:00 am
 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations											
Volume (vph)	70	21	506	128	63	749	1081	84	13	1786	325
Turn Type	Prot		pm+ov	Prot		Prot		pm+ov	Prot		custom
Protected Phases	7	4	1	3	8	1	6	3	5	2	
Permitted Phases			4					6			6
Detector Phases	7	4	1	3	8	1	6	3	5	2	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	12.0	37.0	15.0	12.0	35.0	15.0	35.0	12.0	12.0	36.0	35.0
Total Split (s)	12.0	37.0	30.0	12.0	37.0	30.0	57.0	12.0	14.0	41.0	57.0
Total Split (%)	10.0%	30.8%	25.0%	10.0%	30.8%	25.0%	47.5%	10.0%	11.7%	34.2%	47.5%
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	5.0	3.5	3.5	5.0	5.0
All-Red Time (s)	0.5	0.5	1.5	0.5	0.5	1.5	1.0	0.5	1.5	1.0	1.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	Min	None	None	Min	C-Max	None	None	C-Max	C-Max
Act Effct Green (s)	7.4	8.1	58.0	12.6	8.7	52.5	88.3	105.7	8.1	37.4	88.3
Actuated g/C Ratio	0.06	0.07	0.48	0.10	0.07	0.44	0.74	0.88	0.07	0.31	0.74
v/c Ratio	0.37	0.18	0.40	0.41	0.31	0.56	0.26	0.06	0.12	0.97	0.25
Control Delay	59.2	55.4	19.8	55.0	44.4	14.9	2.2	0.1	35.0	39.0	0.4
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	59.2	55.4	19.8	55.0	44.4	14.9	2.2	0.1	35.0	39.0	0.4
LOS	E	E	B	D	D	B	A	A	C	D	A
Approach Delay		25.7			50.9		7.1			33.1	
Approach LOS		C			D		A			C	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 70 (58%), Referenced to phase 2:SWT and 6:NET, Start of Yellow
 Natural Cycle: 120
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.97
 Intersection Signal Delay: 22.7
 Intersection Capacity Utilization 67.6%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service C

Splits and Phases: 98: Ave Scott & McBean Pkwy



McBean Coordination Timing Existing Conditions
 99: Creekside Road & McBean Pkwy

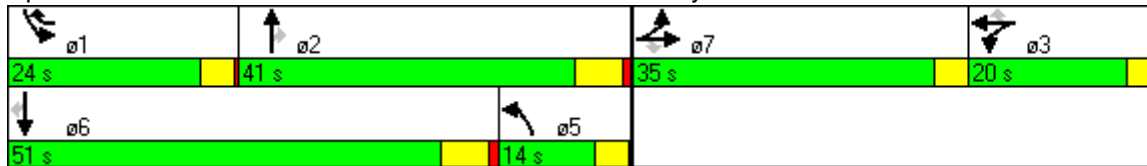
8:00 am
 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	166	39	83	125	75	302	77	1446	118	190	2162	68
Turn Type	custom		Perm	custom		pm+ov	Prot		Perm	Prot		Perm
Protected Phases	7	7		3	3	1	5	2		1	6	
Permitted Phases	7		7	3		3			2			6
Detector Phases	7	7	7	3	3	1	5	2	2	1	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	35.0	35.0	35.0	12.0	12.0	12.0	12.0	27.0	27.0	12.0	27.0	27.0
Total Split (s)	35.0	35.0	35.0	20.0	20.0	24.0	14.0	41.0	41.0	24.0	51.0	51.0
Total Split (%)	29.2%	29.2%	29.2%	16.7%	16.7%	20.0%	11.7%	34.2%	34.2%	20.0%	42.5%	42.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	5.0	5.0	3.5	5.0	5.0
All-Red Time (s)	0.0	0.0	0.0	0.0	0.0	0.5	0.5	1.0	1.0	0.5	1.0	1.0
Lead/Lag							Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	12.2	12.2	12.2	12.4	12.4	37.6	9.4	58.2	58.2	21.3	72.3	72.3
Actuated g/C Ratio	0.10	0.10	0.10	0.10	0.10	0.31	0.08	0.48	0.48	0.18	0.60	0.60
v/c Ratio	0.64	0.66	0.36	0.61	0.62	0.48	0.61	0.64	0.15	0.68	0.63	0.08
Control Delay	67.6	69.0	13.6	65.8	65.9	10.6	59.5	20.9	8.1	67.5	6.0	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.6	69.0	13.6	65.8	65.9	10.6	59.5	20.9	8.1	67.5	6.0	1.5
LOS	E	E	B	E	E	B	E	C	A	E	A	A
Approach Delay		52.5				32.6		21.8			10.7	
Approach LOS		D				C		C			B	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 4 (3%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.68
 Intersection Signal Delay: 19.2
 Intersection Capacity Utilization 62.3%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service B

Splits and Phases: 99: Creekside Road & McBean Pkwy



McBean Coordination Timing Existing Conditions
 100: Town Center & McBean Pkwy

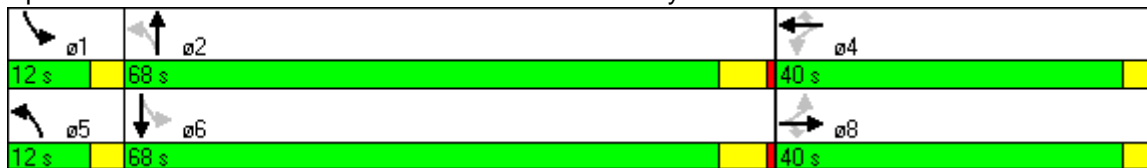
8:00 am
 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	24	7	49	8	12	12	79	1167	81	1856
Turn Type	Perm		Perm	Perm		Perm	pm+pt		pm+pt	
Protected Phases		8			4		5	2	1	6
Permitted Phases	8		8	4		4	2		6	
Detector Phases	8	8	8	4	4	4	5	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	39.0	39.0	39.0	40.0	40.0	40.0	12.0	28.0	12.0	27.0
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	12.0	68.0	12.0	68.0
Total Split (%)	33.3%	33.3%	33.3%	33.3%	33.3%	33.3%	10.0%	56.7%	10.0%	56.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	5.0	3.5	5.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.0	1.0	0.0	1.0
Lead/Lag							Lead	Lag	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		7.8	7.8		7.8	7.8	103.3	96.6	100.9	95.4
Actuated g/C Ratio		0.06	0.06		0.06	0.06	0.86	0.80	0.84	0.80
v/c Ratio		0.33	0.33		0.19	0.10	0.48	0.35	0.33	0.43
Control Delay		61.7	19.3		56.2	24.8	40.6	0.3	9.8	0.2
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		61.7	19.3		56.2	24.8	40.6	0.3	9.8	0.2
LOS		E	B		E	C	D	A	A	A
Approach Delay		35.9			44.5			2.7		0.6
Approach LOS		D			D			A		A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 28 (23%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.48
 Intersection Signal Delay: 2.6
 Intersection Capacity Utilization 50.7%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 100: Town Center & McBean Pkwy



McBean Coordination Timing Existing Conditions
 101: Mall Entrance & McBean Pkwy

8:00 am
 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Volume (vph)	8	1	13	2	2	9	41	1350	70	17	1874
Turn Type	Perm		Perm	Perm		Perm	pm+pt		Perm	pm+pt	
Protected Phases		8			4		5	2		1	6
Permitted Phases	8		8	4		4	2		2	6	
Detector Phases	8	8	8	4	4	4	5	2	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	37.0	37.0	37.0	36.0	36.0	36.0	12.0	27.0	27.0	12.0	27.0
Total Split (s)	28.0	28.0	28.0	28.0	28.0	28.0	12.0	80.0	80.0	12.0	80.0
Total Split (%)	23.3%	23.3%	23.3%	23.3%	23.3%	23.3%	10.0%	66.7%	66.7%	10.0%	66.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	5.0	5.0	3.5	5.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.0	1.0	1.0	0.0	1.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?											
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	6.4	6.4	6.4	6.3	6.3	6.3	109.9	110.1	110.1	108.2	104.9
Actuated g/C Ratio	0.05	0.05	0.05	0.05	0.05	0.05	0.92	0.92	0.92	0.90	0.87
v/c Ratio	0.13	0.01	0.14	0.03	0.02	0.11	0.28	0.31	0.05	0.06	0.37
Control Delay	57.6	53.0	27.0	54.0	53.5	28.8	18.2	0.2	0.1	0.9	0.8
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	57.6	53.0	27.0	54.0	53.5	28.8	18.2	0.2	0.1	0.9	0.8
LOS	E	D	C	D	D	C	B	A	A	A	A
Approach Delay		39.6			35.9			0.7			0.8
Approach LOS		D			D			A			A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 26 (22%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.37
 Intersection Signal Delay: 1.2
 Intersection Capacity Utilization 47.4%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 101: Mall Entrance & McBean Pkwy



McBean Coordination Timing Existing Conditions
 102: Del Monte Dr. & McBean Pkwy

8:00 am
 9/6/2007

Lane Group	WBL2	WBL	WBR	SEL	SET	NWL	NWT	NEL	NER
Lane Configurations									
Volume (vph)	81	39	193	80	1048	26	1128	58	10
Turn Type	Perm		Perm	Prot		Prot		Perm	
Protected Phases		4		1	6	5	2		4
Permitted Phases	4		4				2	4	4
Detector Phases	4	4	4	1	6	5	2	4	4
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	28.0	28.0	28.0	12.0	24.0	12.0	24.0	28.0	28.0
Total Split (s)	28.0	28.0	28.0	25.0	78.0	14.0	67.0	28.0	28.0
Total Split (%)	23.3%	23.3%	23.3%	20.8%	65.0%	11.7%	55.8%	23.3%	23.3%
Yellow Time (s)	4.0	4.0	4.0	3.5	5.0	3.5	5.0	4.0	4.0
All-Red Time (s)	0.0	0.0	0.0	0.0	1.0	0.0	1.0	0.0	0.0
Lead/Lag				Lead	Lag	Lead	Lag		
Lead-Lag Optimize?				Yes	Yes	Yes	Yes		
Recall Mode	None	None	None	None	C-Max	Min	C-Max	None	None
Act Effct Green (s)	13.0	13.0	13.0	10.6	88.0	7.0	86.5	13.0	13.0
Actuated g/C Ratio	0.11	0.11	0.11	0.09	0.73	0.06	0.72	0.11	0.11
v/c Ratio	0.60	0.22	0.57	0.60	0.31	0.29	0.35	0.43	0.13
Control Delay	67.0	49.4	12.5	69.2	14.5	60.9	7.9	57.4	20.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.0	49.4	12.5	69.2	14.5	60.9	7.9	57.4	20.2
LOS	E	D	B	E	B	E	A	E	C
Approach Delay		31.1			18.3		9.0	41.7	
Approach LOS		C			B		A	D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 23 (19%), Referenced to phase 2:NWT and 6:SET, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.60
 Intersection Signal Delay: 16.6
 Intersection Capacity Utilization 48.7%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 102: Del Monte Dr. & McBean Pkwy



McBean Coordination Timing Existing Conditions
 103: Arroyo Park Dr. & McBean Pkwy

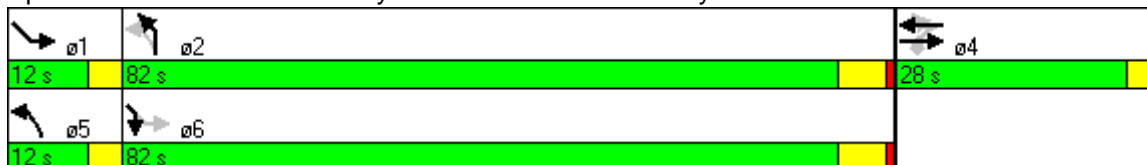
8:00 am
 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL2	NBL	SEL	SER
Lane Configurations										
Volume (vph)	58	51	32	81	15	193	26	961	80	1056
Turn Type	Perm		Perm	Perm		Perm	pm+pt		pm+pt	
Protected Phases		4			4		5	2	1	6
Permitted Phases	4		4	4		4	2		6	
Detector Phases	4	4	4	4	4	4	5	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	28.0	28.0	28.0	28.0	28.0	28.0	12.0	25.0	12.0	25.0
Total Split (s)	28.0	28.0	28.0	28.0	28.0	28.0	12.0	82.0	12.0	82.0
Total Split (%)	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	9.8%	67.2%	9.8%	67.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	5.0	3.5	5.0
All-Red Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	1.0
Lead/Lag							Lead	Lag	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	None	None	None	C-Max	Min	C-Max
Act Effct Green (s)	12.8	12.8	12.8	12.8	12.8	12.8	96.4	90.9	99.5	95.4
Actuated g/C Ratio	0.10	0.10	0.10	0.10	0.10	0.10	0.79	0.75	0.82	0.78
v/c Ratio	0.46	0.28	0.17	0.62	0.09	0.58	0.11	0.30	0.23	0.42
Control Delay	60.7	52.0	16.3	70.1	47.5	12.8	3.4	5.7	3.8	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.7	52.0	16.3	70.1	47.5	12.8	3.4	5.7	3.8	5.8
LOS	E	D	B	E	D	B	A	A	A	A
Approach Delay		47.4			30.6			5.6	5.7	
Approach LOS		D			C			A	A	

Intersection Summary

Cycle Length: 122
 Actuated Cycle Length: 122
 Offset: 23 (19%), Referenced to phase 2:NBL and 6:SEL, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.62
 Intersection Signal Delay: 10.6
 Intersection Capacity Utilization 45.1%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 103: Arroyo Park Dr. & McBean Pkwy



McBean Coordination Timing Existing Conditions
 104: Granary Square & McBean Pkwy

8:00 am
 9/6/2007

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Volume (vph)	2	4	50	3	35	21	1142	50	1059
Turn Type	Perm		Perm		Perm	pm+pt		pm+pt	
Protected Phases		4		8		5	2	1	6
Permitted Phases	4		8		8	2		6	
Detector Phases	4	4	8	8	8	5	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	12.0	23.0	12.0	24.0
Total Split (s)	20.0	20.0	20.0	20.0	20.0	12.0	88.0	12.0	88.0
Total Split (%)	16.7%	16.7%	16.7%	16.7%	16.7%	10.0%	73.3%	10.0%	73.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	5.0	3.5	6.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.0	1.0	0.0	1.0
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		10.5		10.6	10.6	99.7	96.3	101.4	98.6
Actuated g/C Ratio		0.09		0.09	0.09	0.83	0.80	0.84	0.82
v/c Ratio		0.13		0.51	0.22	0.06	0.32	0.15	0.29
Control Delay		26.8		66.7	17.7	2.1	3.1	2.9	3.9
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		26.8		66.7	17.7	2.1	3.1	2.9	3.9
LOS		C		E	B	A	A	A	A
Approach Delay		26.8		47.1			3.1		3.8
Approach LOS		C		D			A		A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 84 (70%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.51
 Intersection Signal Delay: 5.2
 Intersection Capacity Utilization 45.4%
 Analysis Period (min) 15

Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 104: Granary Square & McBean Pkwy

12 s	88 s	20 s
12 s	88 s	20 s

McBean Coordination Timing Existing Conditions
 105: Avenida Navarre & McBean Pkwy

8:00 am
 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	31	4	39	362	17	81	66	1071	32	1011
Turn Type	Perm		Perm	Perm		Perm	pm+pt		pm+pt	
Protected Phases		4			4		5	2	1	6
Permitted Phases	4		4	4		4	2		6	
Detector Phases	4	4	4	4	4	4	5	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	26.0	26.0	12.0	22.0	12.0	21.0
Total Split (s)	36.0	36.0	36.0	36.0	36.0	36.0	12.0	72.0	12.0	72.0
Total Split (%)	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	10.0%	60.0%	10.0%	60.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.5	5.0	3.5	5.0
All-Red Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	1.0
Lead/Lag							Lead	Lag	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	32.0	32.0	32.0	32.0	32.0	32.0	77.8	74.1	76.5	72.0
Actuated g/C Ratio	0.27	0.27	0.27	0.27	0.27	0.27	0.65	0.62	0.64	0.60
v/c Ratio	0.10	0.01	0.10	1.09	0.04	0.19	0.26	0.44	0.14	0.39
Control Delay	34.3	32.5	10.5	114.2	33.0	8.0	5.3	5.6	6.9	10.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.3	32.5	10.5	114.2	33.0	8.0	5.3	5.6	6.9	10.6
LOS	C	C	B	F	C	A	A	A	A	B
Approach Delay		21.7			92.5			5.6		10.5
Approach LOS		C			F			A		B

Intersection Summary


















Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 83 (69%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.09
 Intersection Signal Delay: 21.5
 Intersection Capacity Utilization 63.8%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service B

Splits and Phases: 105: Avenida Navarre & McBean Pkwy



McBean Coordination Timing Existing Conditions
 106: McBean Pkwy & Alegro Dr.

8:00 am
 9/6/2007

					
Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations		  	   	 	 
Volume (vph)	7	1227	1070	49	51
Turn Type	Perm				Perm
Protected Phases		6	2	4	
Permitted Phases	6				4
Detector Phases	6	6	2	4	4
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	21.0	28.5	28.5
Total Split (s)	91.0	91.0	91.0	29.0	29.0
Total Split (%)	75.8%	75.8%	75.8%	24.2%	24.2%
Yellow Time (s)	5.0	5.0	5.0	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	106.2	106.2	106.2	8.8	8.8
Actuated g/C Ratio	0.88	0.88	0.88	0.07	0.07
v/c Ratio	0.02	0.31	0.26	0.23	0.33
Control Delay	0.4	0.5	0.5	54.2	18.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	0.4	0.5	0.5	54.2	18.9
LOS	A	A	A	D	B
Approach Delay		0.5	0.5	36.2	
Approach LOS		A	A	D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 26 (22%), Referenced to phase 2:WBT and 6:EBTL, Start of Yellow
 Natural Cycle: 50
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.33
 Intersection Signal Delay: 1.9
 Intersection Capacity Utilization 33.7%
 Analysis Period (min) 15

Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 106: McBean Pkwy & Alegro Dr.



McBean Coordination Timing Existing Conditions
 107: McBean Pkwy & Singing Hills Dr.

8:00 am
 9/6/2007

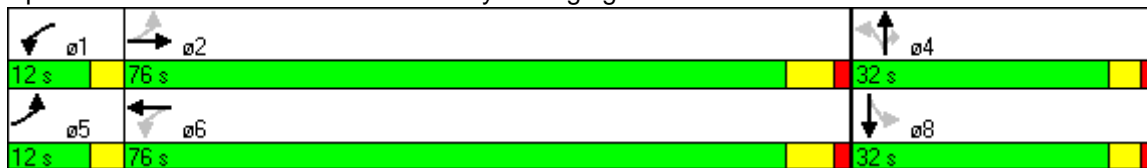
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Volume (vph)	20	1119	95	1025	87	22	50	58	24
Turn Type	pm+pt		pm+pt		Perm		Perm	Perm	
Protected Phases	5	2	1	6		4			8
Permitted Phases	2		6		4		4	8	
Detector Phases	5	2	1	6	4	4	4	8	8
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	12.0	24.0	11.5	20.0	31.5	31.5	31.5	31.5	31.5
Total Split (s)	12.0	76.0	12.0	76.0	32.0	32.0	32.0	32.0	32.0
Total Split (%)	10.0%	63.3%	10.0%	63.3%	26.7%	26.7%	26.7%	26.7%	26.7%
Yellow Time (s)	3.5	5.0	3.5	5.0	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead	Lag	Lead	Lag					
Lead-Lag Optimize?									
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None
Act Effct Green (s)	90.6	85.4	95.7	92.4	15.7	15.7	15.7	15.7	15.7
Actuated g/C Ratio	0.76	0.71	0.80	0.77	0.13	0.13	0.13	0.13	0.13
v/c Ratio	0.07	0.36	0.31	0.30	0.60	0.10	0.21	0.36	0.28
Control Delay	2.1	6.5	8.5	7.3	63.5	44.1	13.1	51.6	20.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.1	6.5	8.5	7.3	63.5	44.1	13.1	51.6	20.6
LOS	A	A	A	A	E	D	B	D	C
Approach Delay		6.4		7.4		45.1			34.3
Approach LOS		A		A		D			C

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 20 (17%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.60
 Intersection Signal Delay: 10.6
 Intersection Capacity Utilization 48.9%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 107: McBean Pkwy & Singing Hills Dr.



McBean Coordination Timing Existing Conditions
 108: McBean Pkwy & Rockwell Canyon Rd

8:00 am
 9/6/2007

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Volume (vph)	410	614	176	909	160	186	474	131	57
Turn Type	pm+pt		pm+pt		pm+pt		pm+pt		Perm
Protected Phases	1	6	5	2	7	4	3	8	
Permitted Phases	6		2		4		8		8
Detector Phases	1	6	5	2	7	4	3	8	8
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	12.0	26.0	12.0	26.0	12.0	29.0	12.0	29.0	29.0
Total Split (s)	31.0	64.0	16.0	49.0	15.0	20.0	20.0	25.0	25.0
Total Split (%)	25.8%	53.3%	13.3%	40.8%	12.5%	16.7%	16.7%	20.8%	20.8%
Yellow Time (s)	3.5	5.0	3.5	5.0	3.5	4.0	3.5	4.0	4.0
All-Red Time (s)	0.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?									
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None
Act Effct Green (s)	78.4	65.7	58.4	49.7	24.3	13.6	33.6	18.9	18.9
Actuated g/C Ratio	0.65	0.55	0.49	0.41	0.20	0.11	0.28	0.16	0.16
v/c Ratio	0.95	0.29	0.50	0.51	0.62	0.69	1.73	0.50	0.21
Control Delay	64.1	10.9	19.2	27.7	46.3	52.6	368.0	52.4	12.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.1	10.9	19.2	27.7	46.3	52.6	368.0	52.4	12.2
LOS	E	B	B	C	D	D	F	D	B
Approach Delay		30.3		26.5		50.2		275.0	
Approach LOS		C		C		D		F	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 18 (15%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.73
 Intersection Signal Delay: 79.5
 Intersection Capacity Utilization 89.1%
 Analysis Period (min) 15
 Intersection LOS: E
 ICU Level of Service E

Splits and Phases: 108: McBean Pkwy & Rockwell Canyon Rd



McBean Coordination Timing Existing Conditions
 109: McBean Pkwy & 5 Fwy NB On/Off Ramp

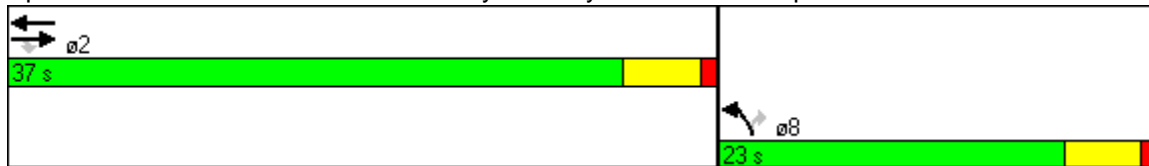
8:00 am
 9/6/2007

	→	↘	←	↙	↗
Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑↑↑	↘↘	↗↗
Volume (vph)	721	50	1126	82	403
Turn Type		Perm			Perm
Protected Phases	2		2	8	
Permitted Phases		2			8
Detector Phases	2	2	2	8	8
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	36.0	36.0	36.0	20.0	20.0
Total Split (s)	37.0	37.0	37.0	23.0	23.0
Total Split (%)	61.7%	61.7%	61.7%	38.3%	38.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Max	C-Max	C-Max	Min	Min
Act Effct Green (s)	41.8	41.8	41.8	10.2	10.2
Actuated g/C Ratio	0.70	0.70	0.70	0.17	0.17
v/c Ratio	0.32	0.05	0.35	0.15	0.61
Control Delay	9.3	3.7	7.3	20.3	11.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	9.3	3.7	7.3	20.3	11.2
LOS	A	A	A	C	B
Approach Delay	8.9		7.3	12.7	
Approach LOS	A		A	B	

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 42 (70%), Referenced to phase 2:EBWB, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.61
 Intersection Signal Delay: 8.9
 Intersection Capacity Utilization 40.7%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 109: McBean Pkwy & 5 Fwy NB On/Off Ramp



McBean Coordination Timing Existing Conditions
 110: McBean Pkwy & 5 Fwy SB On/Off Ramp

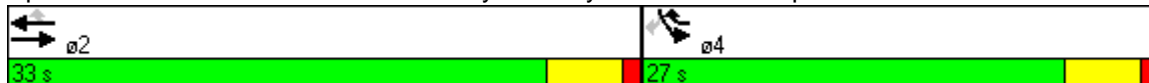
8:00 am
 9/6/2007

	→	←	↖	↘	↙
Lane Group	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↑↑↑	↑↑	↖	↘↘	↖
Volume (vph)	938	663	497	144	114
Turn Type			pm+ov		Perm
Protected Phases	2	2	4	4	
Permitted Phases			2		4
Detector Phases	2	2	4	4	4
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	27.0	27.0	20.0	20.0	20.0
Total Split (s)	33.0	33.0	27.0	27.0	27.0
Total Split (%)	55.0%	55.0%	45.0%	45.0%	45.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Max	C-Max	Min	Min	Min
Act Effct Green (s)	37.4	37.4	60.0	14.6	14.6
Actuated g/C Ratio	0.62	0.62	1.00	0.24	0.24
v/c Ratio	0.31	0.33	0.31	0.18	0.25
Control Delay	5.3	12.7	2.0	19.6	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	5.3	12.7	2.0	19.6	6.6
LOS	A	B	A	B	A
Approach Delay	5.3	8.2		13.9	
Approach LOS	A	A		B	

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 9 (15%), Referenced to phase 2:EBWB, Start of Yellow
 Natural Cycle: 50
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.33
 Intersection Signal Delay: 7.7
 Intersection Capacity Utilization 34.1%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 110: McBean Pkwy & 5 Fwy SB On/Off Ramp



McBean Coordination Timing Existing Conditions
 111: McBean Pkwy & The Old Road

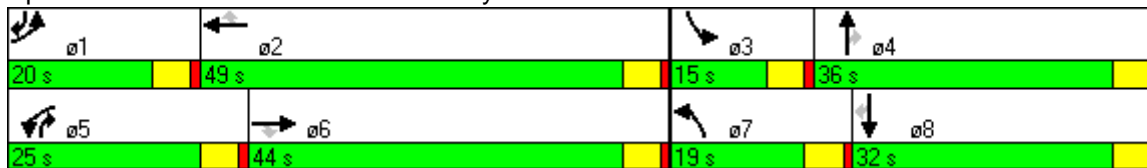
8:00 am
 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	172	768	252	382	337	58	72	199	110	60	297	112
Turn Type	Prot		Perm	Prot		Perm	Prot		pm+ov	Prot		pm+ov
Protected Phases	1	6		5	2		7	4	5	3	8	1
Permitted Phases			6			2			4			8
Detector Phases	1	6	6	5	2	2	7	4	5	3	8	1
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	14.0	31.0	31.0	14.0	32.0	32.0	14.0	35.0	14.0	14.0	31.0	14.0
Total Split (s)	20.0	44.0	44.0	25.0	49.0	49.0	19.0	36.0	25.0	15.0	32.0	20.0
Total Split (%)	16.7%	36.7%	36.7%	20.8%	40.8%	40.8%	15.8%	30.0%	20.8%	12.5%	26.7%	16.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes			Yes			Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	19.3	57.0	57.0	21.2	58.9	58.9	11.4	18.2	43.4	9.7	16.7	40.0
Actuated g/C Ratio	0.16	0.48	0.48	0.18	0.49	0.49	0.10	0.15	0.36	0.08	0.14	0.33
v/c Ratio	0.66	0.36	0.28	0.71	0.21	0.08	0.46	0.28	0.17	0.45	0.66	0.18
Control Delay	57.9	22.8	3.9	63.7	8.7	1.9	59.8	45.0	4.1	62.4	55.3	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.9	22.8	3.9	63.7	8.7	1.9	59.8	45.0	4.1	62.4	55.3	4.7
LOS	E	C	A	E	A	A	E	D	A	E	E	A
Approach Delay		23.9			35.2			35.9			44.1	
Approach LOS		C			D			D			D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 72 (60%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
 Natural Cycle: 95
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.71
 Intersection Signal Delay: 32.0
 Intersection Capacity Utilization 51.3%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service A

Splits and Phases: 111: McBean Pkwy & The Old Road



Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	20	19	24	1533	3106	20
Turn Type		Perm	Prot			Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Detector Phases	4	4	5	2	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	21.0	21.0	21.0
Total Split (s)	37.0	37.0	20.0	83.0	63.0	63.0
Total Split (%)	30.8%	30.8%	16.7%	69.2%	52.5%	52.5%
Yellow Time (s)	3.5	3.5	3.5	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	0.5	1.0	1.0	1.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	7.4	7.4	7.2	110.3	103.0	103.0
Actuated g/C Ratio	0.06	0.06	0.06	0.92	0.86	0.86
v/c Ratio	0.20	0.18	0.24	0.28	0.61	0.02
Control Delay	57.4	23.7	67.0	0.2	2.2	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.1	0.0
Total Delay	57.4	23.7	67.0	0.2	2.3	0.0
LOS	E	C	E	A	A	A
Approach Delay	40.9			1.2	2.3	
Approach LOS	D			A	A	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 85 (71%), Referenced to phase 2:NET and 6:SWT, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.61
 Intersection Signal Delay: 2.3
 Intersection Capacity Utilization 55.0%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service B

Splits and Phases: 2: Baywood Lane & McBean Pkwy



McBean Coordination Timing Interim Year No Project
 4: Valencia Blvd & McBean Pkwy

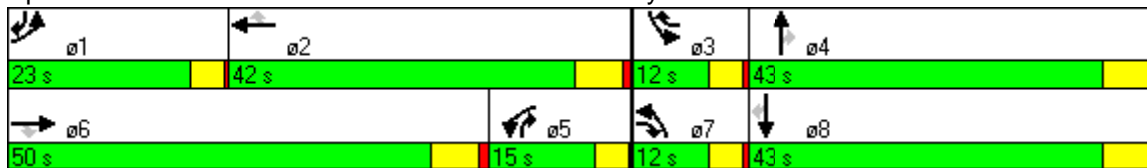
8:00 am
 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	630	620	10	280	1690	280	350	1161	304	150	813	1220
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov
Protected Phases	1	6	7	5	2	3	7	4	5	3	8	1
Permitted Phases			6			2			4			8
Detector Phases	1	6	7	5	2	3	7	4	5	3	8	1
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	12.0	43.0	12.0	12.0	42.0	12.0	12.0	42.0	12.0	12.0	42.0	12.0
Total Split (s)	23.0	50.0	12.0	15.0	42.0	12.0	12.0	43.0	15.0	12.0	43.0	23.0
Total Split (%)	19.2%	41.7%	10.0%	12.5%	35.0%	10.0%	10.0%	35.8%	12.5%	10.0%	35.8%	19.2%
Yellow Time (s)	3.5	5.0	3.5	3.5	5.0	3.5	3.5	5.0	3.5	3.5	5.0	3.5
All-Red Time (s)	0.5	1.0	0.5	0.5	1.0	0.5	0.5	1.0	0.5	0.5	1.0	0.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	C-Max	None	None	None	None	None	None	None
Act Effct Green (s)	19.9	46.9	54.9	11.0	38.0	50.0	8.0	38.1	49.1	8.0	38.1	62.0
Actuated g/C Ratio	0.17	0.39	0.46	0.09	0.32	0.42	0.07	0.32	0.41	0.07	0.32	0.52
v/c Ratio	1.25	0.35	0.02	1.00	1.18	0.44	1.72	0.81	0.27	0.74	0.57	0.92
Control Delay	167.2	26.6	5.4	106.3	125.1	27.3	371.9	55.7	15.8	59.2	28.5	47.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	167.2	26.6	5.4	106.3	125.1	27.3	371.9	55.7	15.8	59.2	28.5	47.0
LOS	F	C	A	F	F	C	F	E	B	E	C	D
Approach Delay		96.7			110.6			110.0			40.9	
Approach LOS		F			F			F			D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 4 (3%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.72
 Intersection Signal Delay: 87.9
 Intersection Capacity Utilization 95.3%
 Analysis Period (min) 15
 Intersection LOS: F
 ICU Level of Service F

Splits and Phases: 4: Valencia Blvd & McBean Pkwy



McBean Coordination Timing Interim Year No Project
 14: Magic Mountain Pkwy & McBean Pkwy

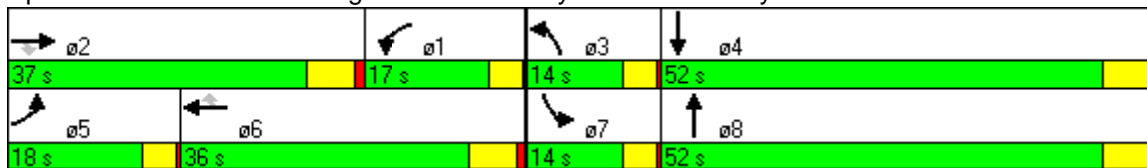
8:00 am
 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	630	960	158	69	960	240	110	1682	50	380	2118	750
Turn Type	Prot		Perm	Prot		Perm	Prot		Free	Prot		Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			Free			Free
Detector Phases	5	2	2	1	6	6	3	8		7	4	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	12.0	28.0	28.0	12.0	28.0	28.0	12.0	28.0		12.0	28.0	
Total Split (s)	18.0	37.0	37.0	17.0	36.0	36.0	14.0	52.0	0.0	14.0	52.0	0.0
Total Split (%)	15.0%	30.8%	30.8%	14.2%	30.0%	30.0%	11.7%	43.3%	0.0%	11.7%	43.3%	0.0%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0		3.5	5.0	
All-Red Time (s)	0.5	1.0	1.0	0.5	1.0	1.0	0.5	1.0		0.5	1.0	
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	Max	Max	None	Max	Max	None	C-Max		None	C-Max	
Act Effct Green (s)	14.0	36.4	36.4	11.6	32.0	32.0	9.0	48.0	120.0	10.0	49.0	120.0
Actuated g/C Ratio	0.12	0.30	0.30	0.10	0.27	0.27	0.08	0.40	1.00	0.08	0.41	1.00
v/c Ratio	1.71	0.97	0.27	0.23	1.10	0.46	0.48	0.93	0.03	1.49	0.91	0.45
Control Delay	361.9	63.9	13.3	50.9	103.6	17.3	79.6	30.5	0.0	274.6	17.7	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	361.9	63.9	13.3	50.9	103.6	17.3	79.6	30.5	0.0	274.6	17.7	0.9
LOS	F	E	B	D	F	B	E	C	A	F	B	A
Approach Delay		166.7			84.4			32.6			43.9	
Approach LOS		F			F			C			D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 9 (8%), Referenced to phase 4:SBT and 8:NBT, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.71
 Intersection Signal Delay: 74.2
 Intersection Capacity Utilization 101.2%
 Analysis Period (min) 15
 Intersection LOS: E
 ICU Level of Service G

Splits and Phases: 14: Magic Mountain Pkwy & McBean Pkwy



Lane Group								
Lane Group	SET	NWL	NWT	NWR	NEL	NET	SWL	SWT
Lane Configurations								
Volume (vph)	20	430	60	910	50	590	790	402
Turn Type		Split		pm+ov	Prot		Prot	
Protected Phases	3	4	4	5	1	6	5	2
Permitted Phases				4				
Detector Phases	3	4	4	5	1	6	5	2
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	28.0	15.0	15.0	20.0	12.0	28.0	20.0	23.0
Total Split (s)	15.0	22.0	22.0	47.0	12.0	36.0	47.0	71.0
Total Split (%)	12.5%	18.3%	18.3%	39.2%	10.0%	30.0%	39.2%	59.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	5.0	3.5	5.0
All-Red Time (s)	1.0	1.0	1.0	0.5	0.5	1.0	0.5	1.0
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes		Yes			Yes
Recall Mode	None	None	None	Min	None	C-Max	Min	C-Max
Act Effct Green (s)	7.1	18.0	18.0	65.0	8.8	37.9	43.0	74.0
Actuated g/C Ratio	0.06	0.15	0.15	0.54	0.07	0.32	0.36	0.62
v/c Ratio	0.20	1.06	1.10	0.58	0.45	0.98dr	0.75	0.16
Control Delay	44.8	125.3	133.4	9.2	58.9	25.9	36.6	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.8	125.3	133.4	9.2	58.9	25.9	36.6	7.1
LOS	D	F	F	A	E	C	D	A
Approach Delay	44.9		51.3			27.3		26.1
Approach LOS	D		D			C		C

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 47 (39%), Referenced to phase 2:SWT and 6:NET, Start of Yellow
 Natural Cycle: 125
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.10
 Intersection Signal Delay: 35.8
 Intersection Capacity Utilization 76.6%
 Analysis Period (min) 15
 dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 41: Orchard Village Rd & McBean Pkwy

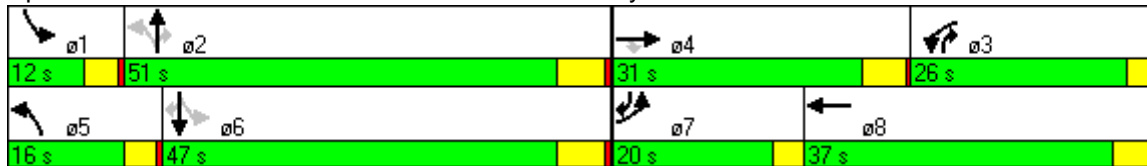


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Volume (vph)	60	100	129	692	680	200	439	139	180	1364	250
Turn Type	Prot		Perm	Prot		pm+pt		pm+ov	pm+pt		pm+ov
Protected Phases	7	4		3	8	5	2	3	1	6	7
Permitted Phases			4			2		2	6		6
Detector Phases	7	4	4	3	8	5	2	3	1	6	7
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	12.0	31.0	31.0	12.0	31.0	12.0	29.0	12.0	12.0	31.0	12.0
Total Split (s)	20.0	31.0	31.0	26.0	37.0	16.0	51.0	26.0	12.0	47.0	20.0
Total Split (%)	16.7%	25.8%	25.8%	21.7%	30.8%	13.3%	42.5%	21.7%	10.0%	39.2%	16.7%
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	3.5	5.0	3.5	3.5	5.0	3.5
All-Red Time (s)	0.0	0.5	0.5	0.0	0.5	0.5	1.0	0.0	0.5	1.0	0.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes			Yes			Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	None	C-Max	None
Act Effct Green (s)	7.2	10.3	10.3	38.7	41.8	59.0	47.0	85.7	51.0	43.0	54.2
Actuated g/C Ratio	0.06	0.09	0.09	0.32	0.35	0.49	0.39	0.71	0.42	0.36	0.45
v/c Ratio	0.34	0.39	0.56	0.73	0.68	0.97	0.25	0.13	0.49	0.84	0.37
Control Delay	58.3	55.3	19.6	41.3	37.2	108.1	14.7	0.7	23.8	40.8	18.5
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	58.3	55.3	19.6	41.3	37.2	108.1	14.7	0.7	23.8	40.8	18.5
LOS	E	E	B	D	D	F	B	A	C	D	B
Approach Delay		40.0			39.2		36.2			36.0	
Approach LOS		D			D		D			D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 9 (8%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
 Natural Cycle: 120
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.97
 Intersection Signal Delay: 37.4
 Intersection Capacity Utilization 73.8%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service D

Splits and Phases: 94: Decoro Dr. & McBean Pkwy



	↖	↗	↙	↑	↓
Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations	↖↖	↗	↙	↑↑↑	↑↑↑
Volume (vph)	39	130	20	837	2329
Turn Type	Perm pm+pt				
Protected Phases	4		5	2	6
Permitted Phases		4	2		
Detector Phases	4	4	5	2	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	32.0	32.0	12.0	20.0	25.0
Total Split (s)	32.0	32.0	12.0	88.0	76.0
Total Split (%)	26.7%	26.7%	10.0%	73.3%	63.3%
Yellow Time (s)	3.5	3.5	3.5	5.0	5.0
All-Red Time (s)	1.0	1.0	0.0	1.0	1.0
Lead/Lag			Lead		Lag
Lead-Lag Optimize?					
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	8.7	8.7	103.3	103.3	97.8
Actuated g/C Ratio	0.07	0.07	0.86	0.86	0.82
v/c Ratio	0.17	0.62	0.15	0.22	0.62
Control Delay	52.4	25.0	8.8	0.3	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	52.4	25.0	8.8	0.3	2.5
LOS	D	C	A	A	A
Approach Delay	31.2			0.5	2.5
Approach LOS	C			A	A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 34 (28%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.62
 Intersection Signal Delay: 3.4
 Intersection Capacity Utilization 60.0%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service B

Splits and Phases: 95: Cottage Circle & McBean Pkwy



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Volume (vph)	1	1	77	1	29	4	924	21	2587	10
Turn Type	Perm		Perm		Perm	Perm		Perm		Perm
Protected Phases		4		8			2		6	
Permitted Phases	4		8		8	2		6		6
Detector Phases	4	4	8	8	8	2	2	6	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	32.5	32.5	32.5	29.0	29.0	28.0	28.0	28.0
Total Split (s)	25.0	25.0	25.0	25.0	25.0	95.0	95.0	95.0	95.0	95.0
Total Split (%)	20.8%	20.8%	20.8%	20.8%	20.8%	79.2%	79.2%	79.2%	79.2%	79.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	12.9	12.9	13.1	13.1	13.1	101.9	101.9	101.9	101.9	101.9
Actuated g/C Ratio	0.11	0.11	0.11	0.11	0.11	0.85	0.85	0.85	0.85	0.85
v/c Ratio	0.01	0.01	0.58	0.00	0.16	0.06	0.25	0.06	0.65	0.01
Control Delay	44.0	37.5	65.8	44.0	16.4	3.5	1.6	4.8	7.6	3.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.0	37.5	65.8	44.0	16.4	3.5	1.6	4.8	7.6	3.1
LOS	D	D	E	D	B	A	A	A	A	A
Approach Delay		39.7		52.1			1.6		7.5	
Approach LOS		D		D			A		A	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 93 (78%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.65
 Intersection Signal Delay: 7.3
 Intersection Capacity Utilization 67.6%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service C

Splits and Phases: 96: Fairview Dr. & McBean Pkwy

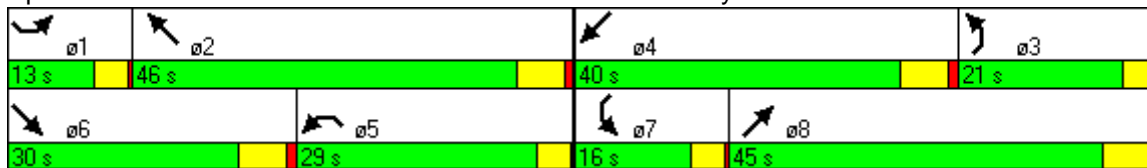


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	80	520	376	837	1670	100	309	909	160	450	1951	420
Turn Type	Prot		Free	Prot		Free	Prot		Free	Prot		Free
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases			Free			Free			Free			Free
Detector Phases	1	6		5	2		3	8		7	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	12.0	34.0		12.0	33.0		12.0	38.0		12.0	38.0	
Total Split (s)	13.0	30.0	0.0	29.0	46.0	0.0	21.0	45.0	0.0	16.0	40.0	0.0
Total Split (%)	10.8%	25.0%	0.0%	24.2%	38.3%	0.0%	17.5%	37.5%	0.0%	13.3%	33.3%	0.0%
Yellow Time (s)	3.5	5.0		3.5	5.0		3.5	5.0		3.5	5.0	
All-Red Time (s)	0.5	1.0		0.5	1.0		0.5	1.0		0.5	1.0	
Lead/Lag	Lead	Lead		Lag	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	Min	Min		None	Min		None	C-Max		Min	C-Max	
Act Effct Green (s)	8.0	20.1	120.0	30.9	43.0	120.0	17.0	41.0	120.0	12.0	36.0	120.0
Actuated g/C Ratio	0.07	0.17	1.00	0.26	0.36	1.00	0.14	0.34	1.00	0.10	0.30	1.00
v/c Ratio	0.39	0.64	0.26	1.10	1.00	0.07	0.71	0.59	0.06	1.47	1.14	0.29
Control Delay	58.6	49.8	0.4	105.2	59.2	0.1	41.6	17.5	0.0	268.0	102.5	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.6	49.8	0.4	105.2	59.2	0.1	41.6	17.5	0.0	268.0	102.5	0.4
LOS	E	D	A	F	E	A	D	B	A	F	F	A
Approach Delay		31.5			71.7			20.9			113.6	
Approach LOS		C			E			C			F	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 59 (49%), Referenced to phase 4:SWT and 8:NET, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.47
 Intersection Signal Delay: 72.9
 Intersection Capacity Utilization 86.0%
 Analysis Period (min) 15
 Intersection LOS: E
 ICU Level of Service E

Splits and Phases: 97: Newhall Ranch Rd & McBean Pkwy

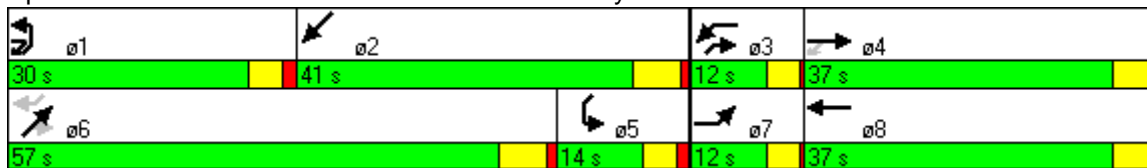


Lane Group	EBL	EBT	EBR	WBL	WBT	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations											
Volume (vph)	70	21	502	127	63	747	1642	83	13	2748	325
Turn Type	Prot		pm+ov	Prot		Prot		pm+ov	Prot		custom
Protected Phases	7	4	1	3	8	1	6	3	5	2	
Permitted Phases			4					6			6
Detector Phases	7	4	1	3	8	1	6	3	5	2	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	12.0	37.0	15.0	12.0	35.0	15.0	35.0	12.0	12.0	36.0	35.0
Total Split (s)	12.0	37.0	30.0	12.0	37.0	30.0	57.0	12.0	14.0	41.0	57.0
Total Split (%)	10.0%	30.8%	25.0%	10.0%	30.8%	25.0%	47.5%	10.0%	11.7%	34.2%	47.5%
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	5.0	3.5	3.5	5.0	5.0
All-Red Time (s)	0.5	0.5	1.5	0.5	0.5	1.5	1.0	0.5	1.5	1.0	1.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	Min	None	None	Min	C-Max	None	None	C-Max	C-Max
Act Effct Green (s)	7.4	8.1	58.4	12.6	8.7	52.9	88.3	105.7	8.1	37.0	88.3
Actuated g/C Ratio	0.06	0.07	0.49	0.10	0.07	0.44	0.74	0.88	0.07	0.31	0.74
v/c Ratio	0.37	0.18	0.40	0.41	0.32	0.56	0.39	0.06	0.12	1.51	0.26
Control Delay	59.2	55.4	19.6	54.9	44.4	12.1	1.8	0.0	36.6	255.2	4.2
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	59.2	55.4	19.6	54.9	44.4	12.1	1.8	0.0	36.6	255.2	4.2
LOS	E	E	B	D	D	B	A	A	D	F	A
Approach Delay		25.5			50.9		4.8			227.8	
Approach LOS		C			D		A			F	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 70 (58%), Referenced to phase 2:SWT and 6:NET, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.51
 Intersection Signal Delay: 116.5
 Intersection Capacity Utilization 81.4%
 Analysis Period (min) 15
 Intersection LOS: F
 ICU Level of Service D

Splits and Phases: 98: Ave Scott & McBean Pkwy

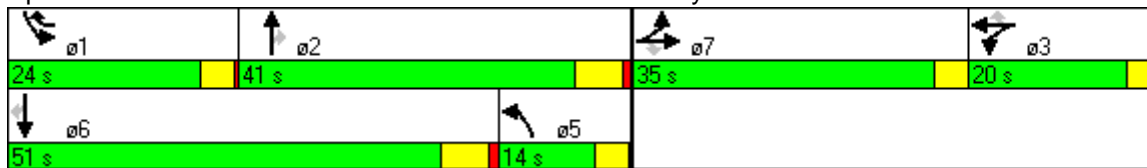


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	166	39	82	124	75	302	76	2186	117	190	3081	68
Turn Type	custom		Perm	custom		pm+ov	Prot		Perm	Prot		Perm
Protected Phases	7	7		3	3	1	5	2		1	6	
Permitted Phases	7		7	3		3			2			6
Detector Phases	7	7	7	3	3	1	5	2	2	1	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	35.0	35.0	35.0	12.0	12.0	12.0	12.0	27.0	27.0	12.0	27.0	27.0
Total Split (s)	35.0	35.0	35.0	20.0	20.0	24.0	14.0	41.0	41.0	24.0	51.0	51.0
Total Split (%)	29.2%	29.2%	29.2%	16.7%	16.7%	20.0%	11.7%	34.2%	34.2%	20.0%	42.5%	42.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	5.0	5.0	3.5	5.0	5.0
All-Red Time (s)	0.0	0.0	0.0	0.0	0.0	0.5	0.5	1.0	1.0	0.5	1.0	1.0
Lead/Lag							Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	12.2	12.2	12.2	12.3	12.3	37.6	9.3	58.3	58.3	21.3	72.4	72.4
Actuated g/C Ratio	0.10	0.10	0.10	0.10	0.10	0.31	0.08	0.49	0.49	0.18	0.60	0.60
v/c Ratio	0.64	0.66	0.35	0.62	0.62	0.48	0.60	0.96	0.16	0.68	0.90	0.08
Control Delay	67.6	69.0	13.6	66.2	66.0	10.7	46.0	26.1	11.7	63.4	17.0	1.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.6	69.0	13.6	66.2	66.0	10.7	46.0	26.1	11.7	63.4	17.0	1.0
LOS	E	E	B	E	E	B	D	C	B	E	B	A
Approach Delay		52.7			32.7			26.0			19.3	
Approach LOS		D			C			C			B	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 4 (3%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
 Natural Cycle: 130
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.96
 Intersection Signal Delay: 24.2
 Intersection Capacity Utilization 76.6%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service D

Splits and Phases: 99: Creekside Road & McBean Pkwy



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	24	7	49	8	12	12	79	1796	81	2184
Turn Type	Perm		Perm	Perm		Perm	pm+pt		pm+pt	
Protected Phases		8			4		5	2	1	6
Permitted Phases	8		8	4		4	2		6	
Detector Phases	8	8	8	4	4	4	5	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	39.0	39.0	39.0	40.0	40.0	40.0	12.0	28.0	12.0	27.0
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	12.0	68.0	12.0	68.0
Total Split (%)	33.3%	33.3%	33.3%	33.3%	33.3%	33.3%	10.0%	56.7%	10.0%	56.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	5.0	3.5	5.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.0	1.0	0.0	1.0
Lead/Lag							Lead	Lag	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		7.8	7.8		7.8	7.8	101.1	94.5	103.9	98.1
Actuated g/C Ratio		0.06	0.06		0.06	0.06	0.84	0.79	0.87	0.82
v/c Ratio		0.33	0.33		0.19	0.10	0.49	0.53	0.44	0.48
Control Delay		61.7	19.3		56.2	24.8	32.3	1.0	27.2	0.7
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		61.7	19.3		56.2	24.8	32.3	1.0	27.2	0.7
LOS		E	B		E	C	C	A	C	A
Approach Delay		35.9			44.5			2.2		1.6
Approach LOS		D			D			A		A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 28 (23%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.53
 Intersection Signal Delay: 2.8
 Intersection Capacity Utilization 60.2%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service B

Splits and Phases: 100: Town Center & McBean Pkwy



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Volume (vph)	8	1	13	2	2	9	41	1969	70	17	2185
Turn Type	Perm		Perm	Perm		Perm	pm+pt		Perm	pm+pt	
Protected Phases		8			4		5	2		1	6
Permitted Phases	8		8	4		4	2		2	6	
Detector Phases	8	8	8	4	4	4	5	2	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	37.0	37.0	37.0	36.0	36.0	36.0	12.0	27.0	27.0	12.0	27.0
Total Split (s)	28.0	28.0	28.0	28.0	28.0	28.0	12.0	80.0	80.0	12.0	80.0
Total Split (%)	23.3%	23.3%	23.3%	23.3%	23.3%	23.3%	10.0%	66.7%	66.7%	10.0%	66.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	5.0	5.0	3.5	5.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.0	1.0	1.0	0.0	1.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?											
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	6.4	6.4	6.4	6.3	6.3	6.3	109.9	110.1	110.1	108.2	104.8
Actuated g/C Ratio	0.05	0.05	0.05	0.05	0.05	0.05	0.92	0.92	0.92	0.90	0.87
v/c Ratio	0.13	0.01	0.14	0.03	0.02	0.11	0.29	0.46	0.05	0.12	0.43
Control Delay	57.6	53.0	27.0	54.0	53.5	28.8	13.8	0.4	0.0	3.9	2.2
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	57.6	53.0	27.0	54.0	53.5	28.8	13.8	0.4	0.0	3.9	2.2
LOS	E	D	C	D	D	C	B	A	A	A	A
Approach Delay		39.6			35.9			0.7			2.3
Approach LOS		D			D			A			A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 26 (22%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.46
 Intersection Signal Delay: 1.8
 Intersection Capacity Utilization 54.7%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 101: Mall Entrance & McBean Pkwy

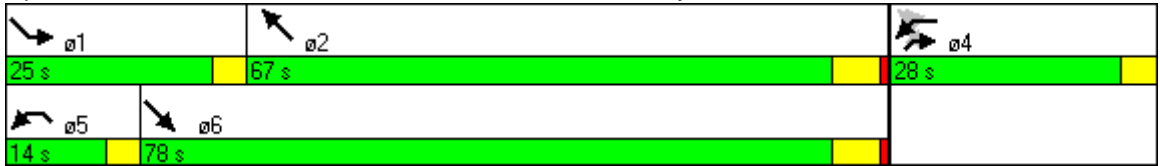


Lane Group	WBL2	WBL	WBR	SEL	SET	NWL	NWT	NEL	NER
Lane Configurations									
Volume (vph)	81	39	193	80	998	26	1563	58	10
Turn Type	Perm		Perm	Prot		Prot		Perm	
Protected Phases		4		1	6	5	2		4
Permitted Phases	4		4				2	4	4
Detector Phases	4	4	4	1	6	5	2	4	4
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	28.0	28.0	28.0	12.0	24.0	12.0	24.0	28.0	28.0
Total Split (s)	28.0	28.0	28.0	25.0	78.0	14.0	67.0	28.0	28.0
Total Split (%)	23.3%	23.3%	23.3%	20.8%	65.0%	11.7%	55.8%	23.3%	23.3%
Yellow Time (s)	4.0	4.0	4.0	3.5	5.0	3.5	5.0	4.0	4.0
All-Red Time (s)	0.0	0.0	0.0	0.0	1.0	0.0	1.0	0.0	0.0
Lead/Lag				Lead	Lag	Lead	Lag		
Lead-Lag Optimize?				Yes	Yes	Yes	Yes		
Recall Mode	None	None	None	None	C-Max	Min	C-Max	None	None
Act Effct Green (s)	13.0	13.0	13.0	10.6	88.0	7.0	86.4	13.0	13.0
Actuated g/C Ratio	0.11	0.11	0.11	0.09	0.73	0.06	0.72	0.11	0.11
v/c Ratio	0.60	0.22	0.57	0.60	0.30	0.29	0.48	0.43	0.13
Control Delay	67.0	49.4	12.5	73.0	13.3	60.9	9.2	57.4	20.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.0	49.4	12.5	73.0	13.3	60.9	9.2	57.4	20.2
LOS	E	D	B	E	B	E	A	E	C
Approach Delay		31.1			17.7		10.0	41.7	
Approach LOS		C			B		B	D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 23 (19%), Referenced to phase 2:NWT and 6:SET, Start of Yellow
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.60
 Intersection Signal Delay: 15.8
 Intersection Capacity Utilization 57.1%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service B

Splits and Phases: 102: Del Monte Dr. & McBean Pkwy

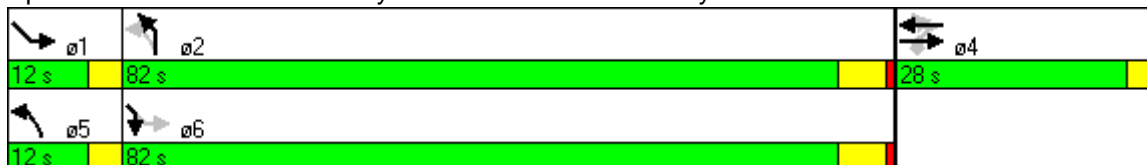


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL2	NBL	SEL	SER
Lane Configurations										
Volume (vph)	58	51	32	81	15	193	26	1395	80	1007
Turn Type	Perm		Perm	Perm		Perm	pm+pt		pm+pt	
Protected Phases		4			4		5	2	1	6
Permitted Phases	4		4	4		4	2		6	
Detector Phases	4	4	4	4	4	4	5	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	28.0	28.0	28.0	28.0	28.0	28.0	12.0	25.0	12.0	25.0
Total Split (s)	28.0	28.0	28.0	28.0	28.0	28.0	12.0	82.0	12.0	82.0
Total Split (%)	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	9.8%	67.2%	9.8%	67.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	5.0	3.5	5.0
All-Red Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	1.0
Lead/Lag							Lead	Lag	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	None	None	None	C-Max	Min	C-Max
Act Effct Green (s)	12.8	12.8	12.8	12.8	12.8	12.8	96.4	90.9	99.5	95.4
Actuated g/C Ratio	0.10	0.10	0.10	0.10	0.10	0.10	0.79	0.75	0.82	0.78
v/c Ratio	0.46	0.28	0.17	0.62	0.09	0.67	0.10	0.43	0.35	0.40
Control Delay	60.7	52.0	16.3	70.1	47.5	27.2	3.3	6.7	6.2	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.7	52.0	16.3	70.1	47.5	27.2	3.3	6.7	6.2	5.6
LOS	E	D	B	E	D	C	A	A	A	A
Approach Delay		47.4			40.2			6.6	5.7	
Approach LOS		D			D			A	A	

Intersection Summary

Cycle Length: 122
 Actuated Cycle Length: 122
 Offset: 23 (19%), Referenced to phase 2:NBL and 6:SEL, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.67
 Intersection Signal Delay: 11.4
 Intersection Capacity Utilization 53.3%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 103: Arroyo Park Dr. & McBean Pkwy



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Volume (vph)	2	4	50	3	35	21	1442	50	1062
Turn Type	Perm		Perm		Perm	pm+pt		pm+pt	
Protected Phases		4		8		5	2	1	6
Permitted Phases	4		8		8	2		6	
Detector Phases	4	4	8	8	8	5	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	12.0	23.0	12.0	24.0
Total Split (s)	20.0	20.0	20.0	20.0	20.0	12.0	88.0	12.0	88.0
Total Split (%)	16.7%	16.7%	16.7%	16.7%	16.7%	10.0%	73.3%	10.0%	73.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	5.0	3.5	6.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.0	1.0	0.0	1.0
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		10.5		10.6	10.6	99.8	96.3	101.3	98.5
Actuated g/C Ratio		0.09		0.09	0.09	0.83	0.80	0.84	0.82
v/c Ratio		0.13		0.51	0.22	0.06	0.40	0.21	0.29
Control Delay		26.8		66.7	17.7	2.3	4.3	3.8	3.9
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		26.8		66.7	17.7	2.3	4.3	3.8	3.9
LOS		C		E	B	A	A	A	A
Approach Delay		26.8		47.1			4.3		3.9
Approach LOS		C		D			A		A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 84 (70%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.51
 Intersection Signal Delay: 5.7
 Intersection Capacity Utilization 51.2%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 104: Granary Square & McBean Pkwy

12 s	88 s	20 s
12 s	88 s	20 s


















Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	35	2	26	185	9	63	78	1385	27	1011
Turn Type	Perm		Perm	Perm		Perm	pm+pt		pm+pt	
Protected Phases		4			4		5	2	1	6
Permitted Phases	4		4	4		4	2		6	
Detector Phases	4	4	4	4	4	4	5	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	26.0	26.0	12.0	22.0	12.0	21.0
Total Split (s)	36.0	36.0	36.0	36.0	36.0	36.0	12.0	72.0	12.0	72.0
Total Split (%)	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	10.0%	60.0%	10.0%	60.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.5	5.0	3.5	5.0
All-Red Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	1.0
Lead/Lag							Lead	Lag	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	22.4	22.4	22.4	22.4	22.4	22.4	88.0	83.8	85.6	81.2
Actuated g/C Ratio	0.19	0.19	0.19	0.19	0.19	0.19	0.73	0.70	0.71	0.68
v/c Ratio	0.16	0.01	0.09	0.79	0.03	0.21	0.27	0.46	0.14	0.35
Control Delay	39.2	34.5	12.6	67.4	35.7	9.8	6.3	7.2	6.1	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.2	34.5	12.6	67.4	35.7	9.8	6.3	7.2	6.1	7.1
LOS	D	C	B	E	D	A	A	A	A	A
Approach Delay		28.1			52.2			7.1		7.1
Approach LOS		C			D			A		A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 83 (69%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.79
 Intersection Signal Delay: 11.5
 Intersection Capacity Utilization 58.1%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service B

Splits and Phases: 105: Avenida Navarre & McBean Pkwy



					
Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations		  	   	 	 
Volume (vph)	7	1218	949	49	51
Turn Type	Perm				Perm
Protected Phases		6	2	4	
Permitted Phases	6				4
Detector Phases	6	6	2	4	4
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	21.0	28.5	28.5
Total Split (s)	91.0	91.0	91.0	29.0	29.0
Total Split (%)	75.8%	75.8%	75.8%	24.2%	24.2%
Yellow Time (s)	5.0	5.0	5.0	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	106.2	106.2	106.2	8.8	8.8
Actuated g/C Ratio	0.88	0.88	0.88	0.07	0.07
v/c Ratio	0.02	0.30	0.23	0.23	0.33
Control Delay	0.4	0.5	0.3	54.2	18.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	0.4	0.5	0.3	54.2	18.9
LOS	A	A	A	D	B
Approach Delay		0.5	0.3	36.2	
Approach LOS		A	A	D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 26 (22%), Referenced to phase 2:WBT and 6:EBTL, Start of Yellow
 Natural Cycle: 50
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.33
 Intersection Signal Delay: 2.0
 Intersection Capacity Utilization 33.5%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 106: McBean Pkwy & Alegro Dr.



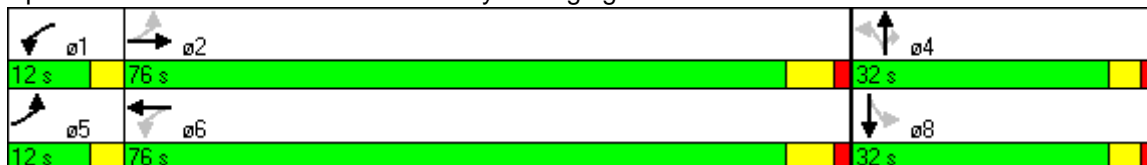
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Volume (vph)	20	1118	95	1050	87	22	50	58	24
Turn Type	pm+pt		pm+pt		Perm		Perm	Perm	
Protected Phases	5	2	1	6		4			8
Permitted Phases	2		6		4		4	8	
Detector Phases	5	2	1	6	4	4	4	8	8
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	12.0	24.0	11.5	20.0	31.5	31.5	31.5	31.5	31.5
Total Split (s)	12.0	76.0	12.0	76.0	32.0	32.0	32.0	32.0	32.0
Total Split (%)	10.0%	63.3%	10.0%	63.3%	26.7%	26.7%	26.7%	26.7%	26.7%
Yellow Time (s)	3.5	5.0	3.5	5.0	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead	Lag	Lead	Lag					
Lead-Lag Optimize?									
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None
Act Effct Green (s)	90.6	85.2	95.7	92.3	15.7	15.7	15.7	15.7	15.7
Actuated g/C Ratio	0.76	0.71	0.80	0.77	0.13	0.13	0.13	0.13	0.13
v/c Ratio	0.07	0.36	0.31	0.31	0.60	0.10	0.21	0.36	0.28
Control Delay	2.4	4.1	8.5	8.0	63.5	44.1	13.1	51.6	20.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.4	4.1	8.5	8.0	63.5	44.1	13.1	51.6	20.6
LOS	A	A	A	A	E	D	B	D	C
Approach Delay		4.1		8.1		45.1			34.3
Approach LOS		A		A		D			C

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 20 (17%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.60
 Intersection Signal Delay: 9.9
 Intersection Capacity Utilization 48.9%
 Analysis Period (min) 15

Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 107: McBean Pkwy & Singing Hills Dr.

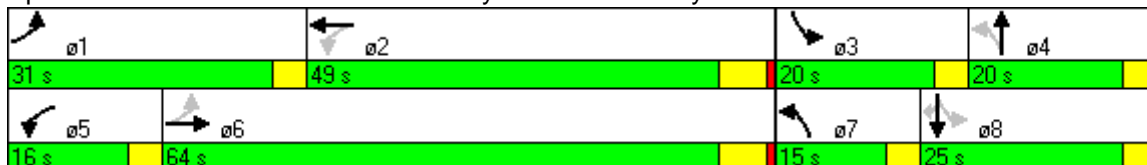


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Volume (vph)	340	903	46	1069	190	380	53	20	140
Turn Type	pm+pt		pm+pt		pm+pt		pm+pt		Perm
Protected Phases	1	6	5	2	7	4	3	8	
Permitted Phases	6		2		4		8		8
Detector Phases	1	6	5	2	7	4	3	8	8
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	12.0	26.0	12.0	26.0	12.0	29.0	12.0	29.0	29.0
Total Split (s)	31.0	64.0	16.0	49.0	15.0	20.0	20.0	25.0	25.0
Total Split (%)	25.8%	53.3%	13.3%	40.8%	12.5%	16.7%	16.7%	20.8%	20.8%
Yellow Time (s)	3.5	5.0	3.5	5.0	3.5	4.0	3.5	4.0	4.0
All-Red Time (s)	0.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?									
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None
Act Effct Green (s)	76.0	67.8	54.8	48.8	34.6	25.8	29.1	21.1	21.1
Actuated g/C Ratio	0.63	0.56	0.46	0.41	0.29	0.22	0.24	0.18	0.18
v/c Ratio	0.94	0.40	0.19	0.70	0.51	0.85	0.34	0.07	0.39
Control Delay	74.2	13.0	13.3	33.3	39.6	52.9	36.3	42.2	9.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	74.2	13.0	13.3	33.3	39.6	52.9	36.3	42.2	9.8
LOS	E	B	B	C	D	D	D	D	A
Approach Delay		28.4		32.6		49.6		19.5	
Approach LOS		C		C		D		B	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 18 (15%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.94
 Intersection Signal Delay: 33.9
 Intersection Capacity Utilization 78.6%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service D

Splits and Phases: 108: McBean Pkwy & Rockwell Canyon Rd



	→	↘	←	↙	↗
Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑↑↑	↘↘	↗↗
Volume (vph)	800	530	1431	230	507
Turn Type		Perm			Perm
Protected Phases	2		2	8	
Permitted Phases		2			8
Detector Phases	2	2	2	8	8
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	36.0	36.0	36.0	20.0	20.0
Total Split (s)	37.0	37.0	37.0	23.0	23.0
Total Split (%)	61.7%	61.7%	61.7%	38.3%	38.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Max	C-Max	C-Max	Min	Min
Act Effct Green (s)	38.0	38.0	38.0	14.0	14.0
Actuated g/C Ratio	0.63	0.63	0.63	0.23	0.23
v/c Ratio	0.39	0.47	0.48	0.31	0.66
Control Delay	9.9	8.0	10.0	19.0	14.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	9.9	8.0	10.0	19.0	14.9
LOS	A	A	A	B	B
Approach Delay	9.2		10.0	16.2	
Approach LOS	A		A	B	

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 42 (70%), Referenced to phase 2:EBWB, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.66
 Intersection Signal Delay: 11.0
 Intersection Capacity Utilization 46.5%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 109: McBean Pkwy & 5 Fwy NB On/Off Ramp

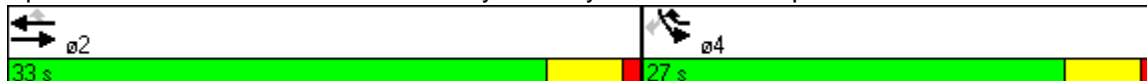


	→	←	↖	↘	↙
Lane Group	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↑↑↑	↑↑	↑	↖↘	↖
Volume (vph)	1407	1154	408	193	310
Turn Type			pm+ov		Perm
Protected Phases	2	2	4	4	
Permitted Phases			2		4
Detector Phases	2	2	4	4	4
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	27.0	27.0	20.0	20.0	20.0
Total Split (s)	33.0	33.0	27.0	27.0	27.0
Total Split (%)	55.0%	55.0%	45.0%	45.0%	45.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Max	C-Max	Min	Min	Min
Act Effct Green (s)	32.6	32.6	60.0	19.4	19.4
Actuated g/C Ratio	0.54	0.54	1.00	0.32	0.32
v/c Ratio	0.54	0.65	0.25	0.18	0.61
Control Delay	11.1	20.6	0.3	13.9	19.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	11.1	20.6	0.3	13.9	19.7
LOS	B	C	A	B	B
Approach Delay	11.1	15.3		17.5	
Approach LOS	B	B		B	

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 9 (15%), Referenced to phase 2:EBWB, Start of Yellow
 Natural Cycle: 50
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.65
 Intersection Signal Delay: 13.9
 Intersection Capacity Utilization 57.8%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service B

Splits and Phases: 110: McBean Pkwy & 5 Fwy SB On/Off Ramp



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	160	1007	120	260	984	220	80	330	280	120	240	30
Turn Type	Prot		Perm	Prot		Perm	Prot		pm+ov	Prot		pm+ov
Protected Phases	1	6		5	2		7	4	5	3	8	1
Permitted Phases			6			2			4		8	
Detector Phases	1	6	6	5	2	2	7	4	5	3	8	1
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	14.0	31.0	31.0	14.0	32.0	32.0	14.0	35.0	14.0	14.0	31.0	14.0
Total Split (s)	20.0	44.0	44.0	25.0	49.0	49.0	19.0	36.0	25.0	15.0	32.0	20.0
Total Split (%)	16.7%	36.7%	36.7%	20.8%	40.8%	40.8%	15.8%	30.0%	20.8%	12.5%	26.7%	16.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes			Yes			Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	18.8	59.1	59.1	17.7	58.0	58.0	11.8	16.2	38.0	11.0	17.7	40.6
Actuated g/C Ratio	0.16	0.49	0.49	0.15	0.48	0.48	0.10	0.14	0.32	0.09	0.15	0.34
v/c Ratio	0.63	0.45	0.14	0.58	0.63	0.27	0.50	0.52	0.52	0.80	0.50	0.05
Control Delay	56.6	21.9	6.7	48.2	21.1	4.4	60.8	50.4	30.5	87.2	51.4	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.6	21.9	6.7	48.2	21.2	4.4	60.8	50.4	30.5	87.2	51.4	7.9
LOS	E	C	A	D	C	A	E	D	C	F	D	A
Approach Delay		24.8			23.5			43.5			59.0	
Approach LOS		C			C			D			E	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 72 (60%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
 Natural Cycle: 95
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.80
 Intersection Signal Delay: 31.2
 Intersection Capacity Utilization 62.4%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service B

Splits and Phases: 111: McBean Pkwy & The Old Road



McBean Coordination Timing Interim Year
 2: Baywood Lane & McBean Pkwy

8:00 am
 9/6/2007

Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	20	20	25	1536	3141	20
Turn Type		Perm	Prot			Perm
Protected Phases	4		5	2	6	
Permitted Phases		4				6
Detector Phases	4	4	5	2	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	21.0	21.0	21.0
Total Split (s)	37.0	37.0	20.0	83.0	63.0	63.0
Total Split (%)	30.8%	30.8%	16.7%	69.2%	52.5%	52.5%
Yellow Time (s)	3.5	3.5	3.5	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	0.5	1.0	1.0	1.0
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	C-Max	C-Max	C-Max
Act Effct Green (s)	7.4	7.4	7.3	110.3	103.0	103.0
Actuated g/C Ratio	0.06	0.06	0.06	0.92	0.86	0.86
v/c Ratio	0.20	0.19	0.25	0.28	0.62	0.02
Control Delay	57.4	23.4	67.2	0.2	2.4	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.1	0.0
Total Delay	57.4	23.4	67.2	0.2	2.5	0.0
LOS	E	C	E	A	A	A
Approach Delay	40.4			1.2	2.5	
Approach LOS	D			A	A	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 85 (71%), Referenced to phase 2:NET and 6:SWT, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.62
 Intersection Signal Delay: 2.4
 Intersection Capacity Utilization 55.5%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service B

Splits and Phases: 2: Baywood Lane & McBean Pkwy



McBean Coordination Timing Interim Year
 4: Valencia Blvd & McBean Pkwy

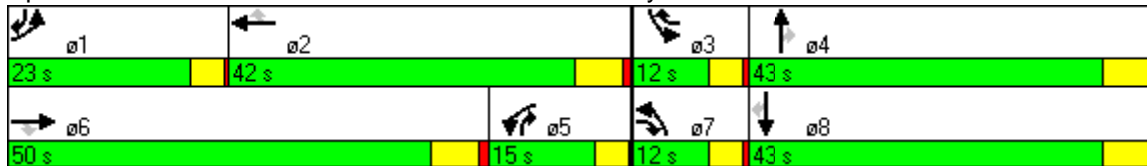
8:00 am
 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	630	620	10	320	1690	280	350	1170	310	150	860	1220
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov
Protected Phases	1	6	7	5	2	3	7	4	5	3	8	1
Permitted Phases			6			2			4			8
Detector Phases	1	6	7	5	2	3	7	4	5	3	8	1
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	12.0	43.0	12.0	12.0	42.0	12.0	12.0	42.0	12.0	12.0	42.0	12.0
Total Split (s)	23.0	50.0	12.0	15.0	42.0	12.0	12.0	43.0	15.0	12.0	43.0	23.0
Total Split (%)	19.2%	41.7%	10.0%	12.5%	35.0%	10.0%	10.0%	35.8%	12.5%	10.0%	35.8%	19.2%
Yellow Time (s)	3.5	5.0	3.5	3.5	5.0	3.5	3.5	5.0	3.5	3.5	5.0	3.5
All-Red Time (s)	0.5	1.0	0.5	0.5	1.0	0.5	0.5	1.0	0.5	0.5	1.0	0.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	C-Max	None	None	None	None	None	None	None
Act Effct Green (s)	19.8	46.8	54.8	11.0	38.0	50.0	8.0	38.2	49.2	8.0	38.2	62.0
Actuated g/C Ratio	0.16	0.39	0.46	0.09	0.32	0.42	0.07	0.32	0.41	0.07	0.32	0.52
v/c Ratio	1.25	0.35	0.02	1.14	1.18	0.44	1.72	0.81	0.27	0.74	0.60	0.92
Control Delay	169.8	26.6	5.4	144.9	125.1	27.3	371.9	56.2	16.2	59.6	29.2	46.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	169.8	26.6	5.4	144.9	125.1	27.3	371.9	56.2	16.2	59.6	29.2	46.5
LOS	F	C	A	F	F	C	F	E	B	E	C	D
Approach Delay		98.0			115.9			109.7			40.7	
Approach LOS		F			F			F			D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 4 (3%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.72
 Intersection Signal Delay: 89.4
 Intersection Capacity Utilization 95.3%
 Analysis Period (min) 15
 Intersection LOS: F
 ICU Level of Service F

Splits and Phases: 4: Valencia Blvd & McBean Pkwy



McBean Coordination Timing Interim Year with Mitigation & Timing Adj.
 4: Valencia Blvd & McBean Pkwy

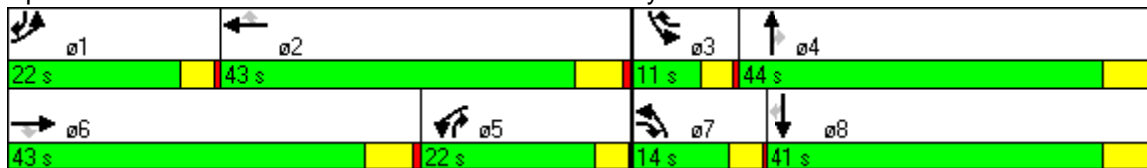
8:00 am
 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	630	620	10	320	1690	280	350	1170	310	150	860	1220
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov
Protected Phases	1	6	7	5	2	3	7	4	5	3	8	1
Permitted Phases			6			2			4			8
Detector Phases	1	6	7	5	2	3	7	4	5	3	8	1
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	12.0	43.0	12.0	12.0	42.0	12.0	12.0	42.0	12.0	12.0	42.0	12.0
Total Split (s)	22.0	43.0	14.0	22.0	43.0	11.0	14.0	44.0	22.0	11.0	41.0	22.0
Total Split (%)	18.3%	35.8%	11.7%	18.3%	35.8%	9.2%	11.7%	36.7%	18.3%	9.2%	34.2%	18.3%
Yellow Time (s)	3.5	5.0	3.5	3.5	5.0	3.5	3.5	5.0	3.5	3.5	5.0	3.5
All-Red Time (s)	0.5	1.0	0.5	0.5	1.0	0.5	0.5	1.0	0.5	0.5	1.0	0.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	C-Max	None	None	None	None	None	None	None
Act Effct Green (s)	20.9	41.9	51.9	18.0	39.0	50.0	10.0	37.1	55.1	7.0	34.1	59.0
Actuated g/C Ratio	0.17	0.35	0.43	0.15	0.32	0.42	0.08	0.31	0.46	0.06	0.28	0.49
v/c Ratio	1.18	0.39	0.02	0.70	1.15	0.44	1.37	0.84	0.25	0.84	0.67	0.97
Control Delay	142.2	30.7	5.6	56.8	112.5	27.3	224.5	60.8	17.8	67.3	36.6	61.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	142.2	30.7	5.6	56.8	112.5	27.3	224.5	60.8	17.8	67.3	36.6	61.0
LOS	F	C	A	E	F	C	F	E	B	E	D	E
Approach Delay		86.3			94.3			84.8			52.0	
Approach LOS		F			F			F			D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 4 (3%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.37
 Intersection Signal Delay: 78.3
 Intersection Capacity Utilization 95.3%
 Analysis Period (min) 15
 Intersection LOS: E
 ICU Level of Service F

Splits and Phases: 4: Valencia Blvd & McBean Pkwy



McBean Coordination Timing Interim Year
 14: Magic Mountain Pkwy & McBean Pkwy

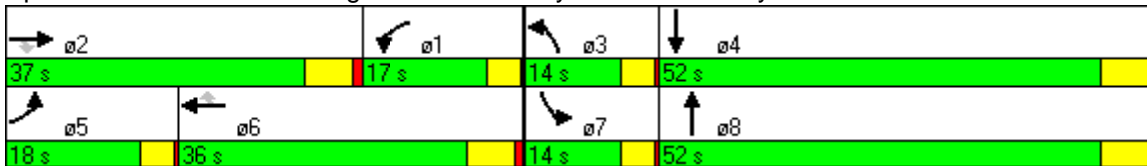
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 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	630	960	160	70	960	240	110	1690	50	380	2160	750
Turn Type	Prot		Perm	Prot		Perm	Prot		Free	Prot		Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			Free			Free
Detector Phases	5	2	2	1	6	6	3	8		7	4	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	12.0	28.0	28.0	12.0	28.0	28.0	12.0	28.0		12.0	28.0	
Total Split (s)	18.0	37.0	37.0	17.0	36.0	36.0	14.0	52.0	0.0	14.0	52.0	0.0
Total Split (%)	15.0%	30.8%	30.8%	14.2%	30.0%	30.0%	11.7%	43.3%	0.0%	11.7%	43.3%	0.0%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0		3.5	5.0	
All-Red Time (s)	0.5	1.0	1.0	0.5	1.0	1.0	0.5	1.0		0.5	1.0	
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	Max	Max	None	Max	Max	None	C-Max		None	C-Max	
Act Effct Green (s)	14.0	36.4	36.4	11.6	32.0	32.0	9.0	48.0	120.0	10.0	49.0	120.0
Actuated g/C Ratio	0.12	0.30	0.30	0.10	0.27	0.27	0.08	0.40	1.00	0.08	0.41	1.00
v/c Ratio	1.71	0.97	0.28	0.23	1.10	0.46	0.48	0.93	0.03	1.49	0.93	0.45
Control Delay	361.9	63.9	13.4	51.0	103.6	17.3	79.6	30.8	0.0	274.2	18.8	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	361.9	63.9	13.4	51.0	103.6	17.3	79.6	30.8	0.0	274.2	18.8	0.9
LOS	F	E	B	D	F	B	E	C	A	F	B	A
Approach Delay		166.6			84.4			32.9			44.2	
Approach LOS		F			F			C			D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 9 (8%), Referenced to phase 4:SBT and 8:NBT, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.71
 Intersection Signal Delay: 74.2
 Intersection Capacity Utilization 101.3%
 Analysis Period (min) 15
 Intersection LOS: E
 ICU Level of Service G

Splits and Phases: 14: Magic Mountain Pkwy & McBean Pkwy



McBean Coordination Timing Interim Year with Mitigation & Timing Adj.
 14: Magic Mountain Pkwy & McBean Pkwy

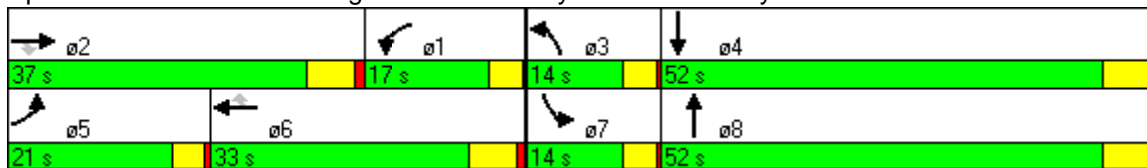
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 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	630	960	160	70	960	240	110	1690	50	380	2160	750
Turn Type	Prot		Perm	Prot		Perm	Prot		Free	Prot		Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			Free			Free
Detector Phases	5	2	2	1	6	6	3	8		7	4	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	12.0	28.0	28.0	12.0	28.0	28.0	12.0	28.0		12.0	28.0	
Total Split (s)	21.0	37.0	37.0	17.0	33.0	33.0	14.0	52.0	0.0	14.0	52.0	0.0
Total Split (%)	17.5%	30.8%	30.8%	14.2%	27.5%	27.5%	11.7%	43.3%	0.0%	11.7%	43.3%	0.0%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0		3.5	5.0	
All-Red Time (s)	0.5	1.0	1.0	0.5	1.0	1.0	0.5	1.0		0.5	1.0	
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	Max	Max	None	Max	Max	None	C-Max		None	C-Max	
Act Effct Green (s)	17.0	36.4	36.4	11.6	29.0	29.0	9.0	48.0	120.0	10.0	49.0	120.0
Actuated g/C Ratio	0.14	0.30	0.30	0.10	0.24	0.24	0.08	0.40	1.00	0.08	0.41	1.00
v/c Ratio	1.41	0.68	0.26	0.23	0.85	0.50	0.48	0.93	0.03	1.49	0.93	0.45
Control Delay	234.5	40.3	6.4	51.0	51.1	19.8	77.6	35.7	0.0	276.0	16.6	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	234.5	40.3	6.4	51.0	51.1	19.8	77.6	35.7	0.0	276.0	16.6	0.9
LOS	F	D	A	D	D	B	E	D	A	F	B	A
Approach Delay		107.1			45.2			37.3			43.0	
Approach LOS		F			D			D			D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 9 (8%), Referenced to phase 4:SBT and 8:NBT, Start of Yellow
 Natural Cycle: 120
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.49
 Intersection Signal Delay: 55.8
 Intersection Capacity Utilization 93.3%
 Analysis Period (min) 15
 Intersection LOS: E
 ICU Level of Service F

Splits and Phases: 14: Magic Mountain Pkwy & McBean Pkwy



Lane Group	SET	NWL	NWT	NWR	NEL	NET	SWL	SWT
Lane Configurations								
Volume (vph)	43	430	210	910	105	627	790	427
Turn Type		Split		pm+ov	Prot		Prot	
Protected Phases	3	4	4	5	1	6	5	2
Permitted Phases				4				
Detector Phases	3	4	4	5	1	6	5	2
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	28.0	15.0	15.0	20.0	12.0	28.0	20.0	23.0
Total Split (s)	15.0	22.0	22.0	47.0	12.0	36.0	47.0	71.0
Total Split (%)	12.5%	18.3%	18.3%	39.2%	10.0%	30.0%	39.2%	59.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	5.0	3.5	5.0
All-Red Time (s)	1.0	1.0	1.0	0.5	0.5	1.0	0.5	1.0
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes		Yes			Yes
Recall Mode	None	None	None	Min	None	C-Max	Min	C-Max
Act Effct Green (s)	8.3	18.0	18.0	65.0	10.7	34.7	43.0	67.0
Actuated g/C Ratio	0.07	0.15	0.15	0.54	0.09	0.29	0.36	0.56
v/c Ratio	0.39	1.39	1.42	0.59	0.78	1.06dr	0.75	0.20
Control Delay	38.9	236.9	247.5	10.9	81.2	31.7	35.8	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.9	236.9	247.5	10.9	81.2	31.7	35.8	8.7
LOS	D	F	F	B	F	C	D	A
Approach Delay	38.9		106.5			35.8		25.5
Approach LOS	D		F			D		C

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 47 (39%), Referenced to phase 2:SWT and 6:NET, Start of Yellow
 Natural Cycle: 145
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.42
 Intersection Signal Delay: 58.8
 Intersection Capacity Utilization 81.2%
 Analysis Period (min) 15
 dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 41: Orchard Village Rd & McBean Pkwy



Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	SWL	SWT	SWR
Lane Configurations											
Volume (vph)	20	43	33	430	210	910	105	627	790	427	58
Turn Type	Split		NA	Split		pm+ov	Prot		Prot		Perm
Protected Phases	3	3		4	4	5	1	6	5	2	
Permitted Phases						4					2
Detector Phases	3	3		4	4	5	1	6	5	2	2
Minimum Initial (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	28.0	28.0		15.0	15.0	20.0	12.0	28.0	20.0	23.0	23.0
Total Split (s)	15.0	15.0	0.0	23.0	23.0	48.0	12.0	34.0	48.0	70.0	70.0
Total Split (%)	12.5%	12.5%	0.0%	19.2%	19.2%	40.0%	10.0%	28.3%	40.0%	58.3%	58.3%
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	5.0	3.5	5.0	5.0
All-Red Time (s)	1.0	1.0		1.0	1.0	0.5	0.5	1.0	0.5	1.0	1.0
Lead/Lag	Lag	Lag		Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes			Yes	Yes
Recall Mode	None	None		None	None	Min	None	C-Max	Min	C-Max	C-Max
Act Effct Green (s)	7.6	7.6	0.0	19.0	19.0	67.0	11.8	35.4	44.0	67.6	67.6
Actuated g/C Ratio	0.06	0.06	0.00	0.16	0.16	0.56	0.10	0.30	0.37	0.56	0.56
v/c Ratio	0.20	0.20	1.00	1.31	1.34	0.58	0.70	1.05dr	0.73	0.17	0.07
Control Delay	56.8	54.8	169.0	207.4	215.7	9.8	68.2	30.8	34.7	9.2	1.0
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	56.8	54.8	169.0	207.4	215.7	9.8	68.2	30.8	34.7	9.2	1.0
LOS	E	D	F	F	F	A	E	C	C	A	A
Approach Delay		94.4			93.2			33.8		24.6	
Approach LOS		F			F			C		C	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 47 (39%), Referenced to phase 2:SWT and 6:NET, Start of Yellow
 Natural Cycle: 145
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.34
 Intersection Signal Delay: 54.3
 Intersection Capacity Utilization 81.2%
 Analysis Period (min) 15
 dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 41: Orchard Village Rd & McBean Pkwy

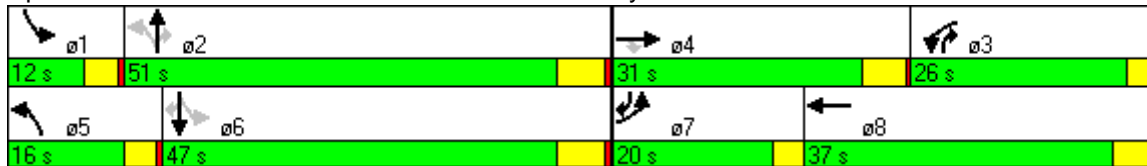


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Volume (vph)	60	100	130	700	680	200	440	140	180	1380	250
Turn Type	Prot		Perm	Prot		pm+pt		pm+ov	pm+pt		pm+ov
Protected Phases	7	4		3	8	5	2	3	1	6	7
Permitted Phases			4			2		2	6		6
Detector Phases	7	4	4	3	8	5	2	3	1	6	7
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	12.0	31.0	31.0	12.0	31.0	12.0	29.0	12.0	12.0	31.0	12.0
Total Split (s)	20.0	31.0	31.0	26.0	37.0	16.0	51.0	26.0	12.0	47.0	20.0
Total Split (%)	16.7%	25.8%	25.8%	21.7%	30.8%	13.3%	42.5%	21.7%	10.0%	39.2%	16.7%
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	3.5	5.0	3.5	3.5	5.0	3.5
All-Red Time (s)	0.0	0.5	0.5	0.0	0.5	0.5	1.0	0.0	0.5	1.0	0.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes			Yes			Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	None	C-Max	None
Act Effct Green (s)	7.2	10.3	10.3	38.7	41.8	59.0	47.0	85.7	51.0	43.0	54.2
Actuated g/C Ratio	0.06	0.09	0.09	0.32	0.35	0.49	0.39	0.71	0.42	0.36	0.45
v/c Ratio	0.34	0.39	0.56	0.74	0.68	0.97	0.25	0.13	0.49	0.85	0.37
Control Delay	58.3	55.2	19.8	41.7	37.2	108.1	14.7	0.7	23.8	41.3	18.5
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	58.3	55.2	19.8	41.7	37.2	108.1	14.7	0.7	23.8	41.3	18.5
LOS	E	E	B	D	D	F	B	A	C	D	B
Approach Delay		40.0			39.4		36.1			36.4	
Approach LOS		D			D		D			D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 9 (8%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
 Natural Cycle: 120
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.97
 Intersection Signal Delay: 37.6
 Intersection Capacity Utilization 74.4%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service D

Splits and Phases: 94: Decoro Dr. & McBean Pkwy



	↖	↗	↙	↑	↓
Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations	↖↖	↗	↙	↑↑↑	↑↑↑
Volume (vph)	39	131	21	838	2354
Turn Type	Perm pm+pt				
Protected Phases	4		5	2	6
Permitted Phases		4	2		
Detector Phases	4	4	5	2	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	32.0	32.0	12.0	20.0	25.0
Total Split (s)	32.0	32.0	12.0	88.0	76.0
Total Split (%)	26.7%	26.7%	10.0%	73.3%	63.3%
Yellow Time (s)	3.5	3.5	3.5	5.0	5.0
All-Red Time (s)	1.0	1.0	0.0	1.0	1.0
Lead/Lag			Lead		Lag
Lead-Lag Optimize?					
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	8.8	8.8	103.2	103.2	97.8
Actuated g/C Ratio	0.07	0.07	0.86	0.86	0.82
v/c Ratio	0.17	0.62	0.15	0.22	0.62
Control Delay	52.2	25.2	9.7	0.3	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	52.2	25.2	9.7	0.3	2.5
LOS	D	C	A	A	A
Approach Delay	31.4			0.5	2.5
Approach LOS	C			A	A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 34 (28%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.62
 Intersection Signal Delay: 3.5
 Intersection Capacity Utilization 60.6%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service B

Splits and Phases: 95: Cottage Circle & McBean Pkwy



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Volume (vph)	1	1	78	1	29	4	925	21	2613	10
Turn Type	Perm		Perm		Perm	Perm		Perm		Perm
Protected Phases		4		8			2		6	
Permitted Phases	4		8		8	2		6		6
Detector Phases	4	4	8	8	8	2	2	6	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	32.5	32.5	32.5	29.0	29.0	28.0	28.0	28.0
Total Split (s)	25.0	25.0	25.0	25.0	25.0	95.0	95.0	95.0	95.0	95.0
Total Split (%)	20.8%	20.8%	20.8%	20.8%	20.8%	79.2%	79.2%	79.2%	79.2%	79.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	13.0	13.0	13.2	13.2	13.2	101.8	101.8	101.8	101.8	101.8
Actuated g/C Ratio	0.11	0.11	0.11	0.11	0.11	0.85	0.85	0.85	0.85	0.85
v/c Ratio	0.01	0.01	0.59	0.00	0.16	0.06	0.25	0.06	0.66	0.01
Control Delay	44.0	37.5	65.8	44.0	16.4	3.5	1.6	4.9	7.9	3.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.0	37.5	65.8	44.0	16.4	3.5	1.6	4.9	7.9	3.1
LOS	D	D	E	D	B	A	A	A	A	A
Approach Delay		39.7		52.2			1.6		7.8	
Approach LOS		D		D			A		A	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 93 (78%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.66
 Intersection Signal Delay: 7.5
 Intersection Capacity Utilization 68.1%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service C

Splits and Phases: 96: Fairview Dr. & McBean Pkwy



McBean Coordination Timing Interim Year
 97: Newhall Ranch Rd & McBean Pkwy

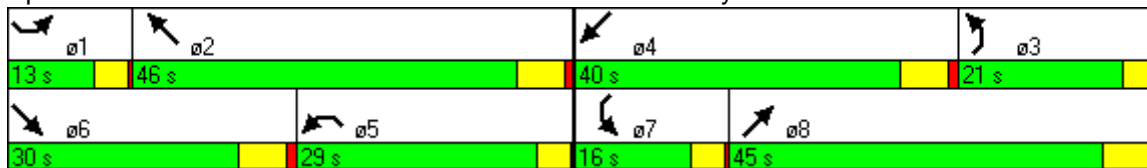
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 9/6/2007

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	↖↖	↑↑↑	↗	↖↖	↑↑↑	↗	↖↖	↑↑↑	↗↗	↖↖	↑↑↑	↗
Volume (vph)	80	520	380	840	1670	100	310	910	160	450	1980	420
Turn Type	Prot		Free	Prot		Free	Prot		Free	Prot		Free
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases			Free			Free			Free			Free
Detector Phases	1	6		5	2		3	8		7	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	12.0	34.0		12.0	33.0		12.0	38.0		12.0	38.0	
Total Split (s)	13.0	30.0	0.0	29.0	46.0	0.0	21.0	45.0	0.0	16.0	40.0	0.0
Total Split (%)	10.8%	25.0%	0.0%	24.2%	38.3%	0.0%	17.5%	37.5%	0.0%	13.3%	33.3%	0.0%
Yellow Time (s)	3.5	5.0		3.5	5.0		3.5	5.0		3.5	5.0	
All-Red Time (s)	0.5	1.0		0.5	1.0		0.5	1.0		0.5	1.0	
Lead/Lag	Lead	Lead		Lag	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	Min	Min		None	Min		None	C-Max		Min	C-Max	
Act Effct Green (s)	8.0	20.1	120.0	30.9	43.0	120.0	17.0	41.0	120.0	12.0	36.0	120.0
Actuated g/C Ratio	0.07	0.17	1.00	0.26	0.36	1.00	0.14	0.34	1.00	0.10	0.30	1.00
v/c Ratio	0.39	0.64	0.26	1.11	1.00	0.07	0.72	0.59	0.06	1.47	1.16	0.29
Control Delay	58.6	49.8	0.4	106.4	59.2	0.1	41.6	17.5	0.0	267.9	109.5	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.6	49.8	0.4	106.4	59.2	0.1	41.6	17.5	0.0	267.9	109.5	0.4
LOS	E	D	A	F	E	A	D	B	A	F	F	A
Approach Delay		31.4			72.1			20.9			118.4	
Approach LOS		C			E			C			F	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 59 (49%), Referenced to phase 4:SWT and 8:NET, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.47
 Intersection Signal Delay: 74.8
 Intersection Capacity Utilization 86.5%
 Analysis Period (min) 15
 Intersection LOS: E
 ICU Level of Service E

Splits and Phases: 97: Newhall Ranch Rd & McBean Pkwy



McBean Coordination Timing Interim Year with Mitigation & Timing Adj.
 97: Newhall Ranch Rd & McBean Pkwy

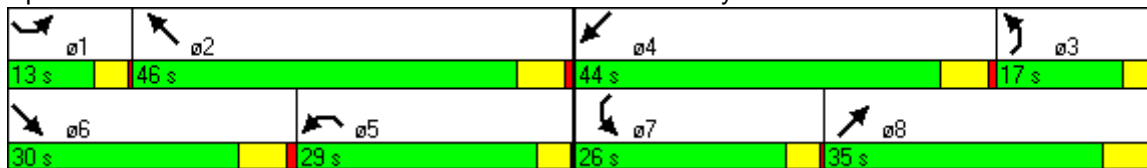
8:00 am
 9/6/2007

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖↗	↖↗	↑↑↑	↖
Volume (vph)	80	520	380	840	1670	100	310	910	160	450	1980	420
Turn Type	Prot		Free	Prot		Free	Prot		Free	Prot		Free
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases			Free			Free			Free			Free
Detector Phases	1	6		5	2		3	8		7	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	12.0	34.0		12.0	33.0		12.0	38.0		12.0	38.0	
Total Split (s)	13.0	30.0	0.0	29.0	46.0	0.0	17.0	35.0	0.0	26.0	44.0	0.0
Total Split (%)	10.8%	25.0%	0.0%	24.2%	38.3%	0.0%	14.2%	29.2%	0.0%	21.7%	36.7%	0.0%
Yellow Time (s)	3.5	5.0		3.5	5.0		3.5	5.0		3.5	5.0	
All-Red Time (s)	0.5	1.0		0.5	1.0		0.5	1.0		0.5	1.0	
Lead/Lag	Lead	Lead		Lag	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	Min	Min		None	Min		None	C-Max		Min	C-Max	
Act Effct Green (s)	8.0	20.1	120.0	30.9	43.0	120.0	13.0	32.3	120.0	20.7	40.0	120.0
Actuated g/C Ratio	0.07	0.17	1.00	0.26	0.36	1.00	0.11	0.27	1.00	0.17	0.33	1.00
v/c Ratio	0.39	0.64	0.26	1.11	1.00	0.07	0.94	0.75	0.06	0.85	1.04	0.29
Control Delay	58.6	49.8	0.4	106.4	59.2	0.1	71.2	27.7	0.0	66.6	62.7	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.6	49.8	0.4	106.4	59.2	0.1	71.2	27.7	0.0	66.6	62.7	0.4
LOS	E	D	A	F	E	A	E	C	A	E	E	A
Approach Delay		31.4			72.1			34.3			54.1	
Approach LOS		C			E			C			D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 59 (49%), Referenced to phase 4:SWT and 8:NET, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.11
 Intersection Signal Delay: 53.8
 Intersection Capacity Utilization 86.5%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service E

Splits and Phases: 97: Newhall Ranch Rd & McBean Pkwy

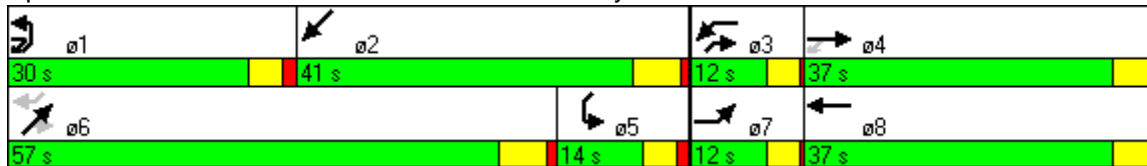


Lane Group	EBL	EBT	EBR	WBL	WBT	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations											
Volume (vph)	70	21	506	128	63	749	1650	84	13	2784	325
Turn Type	Prot		pm+ov	Prot		Prot		pm+ov	Prot		custom
Protected Phases	7	4	1	3	8	1	6	3	5	2	
Permitted Phases			4					6			6
Detector Phases	7	4	1	3	8	1	6	3	5	2	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	12.0	37.0	15.0	12.0	35.0	15.0	35.0	12.0	12.0	36.0	35.0
Total Split (s)	12.0	37.0	30.0	12.0	37.0	30.0	57.0	12.0	14.0	41.0	57.0
Total Split (%)	10.0%	30.8%	25.0%	10.0%	30.8%	25.0%	47.5%	10.0%	11.7%	34.2%	47.5%
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	5.0	3.5	3.5	5.0	5.0
All-Red Time (s)	0.5	0.5	1.5	0.5	0.5	1.5	1.0	0.5	1.5	1.0	1.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	Min	None	None	Min	C-Max	None	None	C-Max	C-Max
Act Effct Green (s)	7.4	8.1	58.4	12.6	8.7	52.9	88.3	105.7	8.1	37.0	88.3
Actuated g/C Ratio	0.06	0.07	0.49	0.10	0.07	0.44	0.74	0.88	0.07	0.31	0.74
v/c Ratio	0.37	0.18	0.40	0.41	0.31	0.56	0.39	0.06	0.12	1.53	0.26
Control Delay	59.2	55.4	19.6	55.0	44.4	12.1	1.8	0.0	37.5	264.1	4.4
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	59.2	55.4	19.6	55.0	44.4	12.1	1.8	0.0	37.5	264.1	4.4
LOS	E	E	B	D	D	B	A	A	D	F	A
Approach Delay		25.5			50.9		4.8			236.2	
Approach LOS		C			D		A			F	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 70 (58%), Referenced to phase 2:SWT and 6:NET, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.53
 Intersection Signal Delay: 120.9
 Intersection Capacity Utilization 82.0%
 Analysis Period (min) 15
 Intersection LOS: F
 ICU Level of Service E

Splits and Phases: 98: Ave Scott & McBean Pkwy



McBean Coordination Timing Interim Year with Mitigation & Timing Adj.
 98: Ave Scott & McBean Pkwy

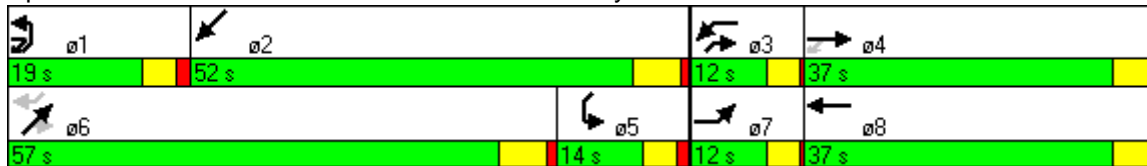
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 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations											
Volume (vph)	70	21	506	128	63	749	1650	84	13	2784	325
Turn Type	Prot		pm+ov	Prot		Prot		pm+ov	Prot		custom
Protected Phases	7	4	1	3	8	1	6	3	5	2	
Permitted Phases			4					6			6
Detector Phases	7	4	1	3	8	1	6	3	5	2	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	12.0	37.0	15.0	12.0	35.0	15.0	35.0	12.0	12.0	36.0	35.0
Total Split (s)	12.0	37.0	19.0	12.0	37.0	19.0	57.0	12.0	14.0	52.0	57.0
Total Split (%)	10.0%	30.8%	15.8%	10.0%	30.8%	15.8%	47.5%	10.0%	11.7%	43.3%	47.5%
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	5.0	3.5	3.5	5.0	5.0
All-Red Time (s)	0.5	0.5	1.5	0.5	0.5	1.5	1.0	0.5	1.5	1.0	1.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	Min	None	None	Min	C-Max	None	None	C-Max	C-Max
Act Effct Green (s)	7.4	8.1	47.4	12.6	8.7	41.9	88.3	105.7	8.1	48.0	88.3
Actuated g/C Ratio	0.06	0.07	0.40	0.10	0.07	0.35	0.74	0.88	0.07	0.40	0.74
v/c Ratio	0.37	0.18	0.49	0.41	0.31	0.70	0.39	0.06	0.12	1.18	0.26
Control Delay	59.2	55.4	28.0	55.0	44.4	28.6	1.8	0.0	34.5	103.3	3.5
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	59.2	55.4	28.0	55.0	44.4	28.6	1.8	0.0	34.5	103.3	3.5
LOS	E	E	C	D	D	C	A	A	C	F	A
Approach Delay		32.6			50.9		9.8			92.6	
Approach LOS		C			D		A			F	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 70 (58%), Referenced to phase 2:SWT and 6:NET, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.18
 Intersection Signal Delay: 53.6
 Intersection Capacity Utilization 82.0%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service E

Splits and Phases: 98: Ave Scott & McBean Pkwy



McBean Coordination Timing Interim Year
 99: Creekside Road & McBean Pkwy

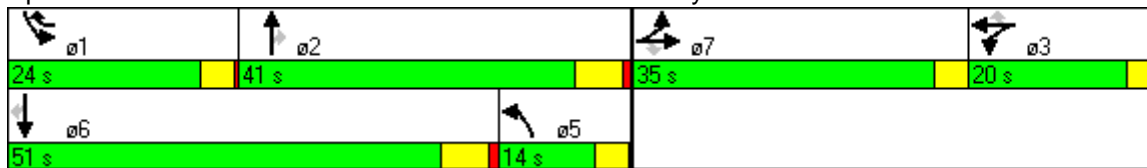
8:00 am
 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	166	39	83	125	75	302	77	2190	118	190	3121	68
Turn Type	custom		Perm	custom		pm+ov	Prot		Perm	Prot		Perm
Protected Phases	7	7		3	3	1	5	2		1	6	
Permitted Phases	7		7	3		3			2			6
Detector Phases	7	7	7	3	3	1	5	2	2	1	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	35.0	35.0	35.0	12.0	12.0	12.0	12.0	27.0	27.0	12.0	27.0	27.0
Total Split (s)	35.0	35.0	35.0	20.0	20.0	24.0	14.0	41.0	41.0	24.0	51.0	51.0
Total Split (%)	29.2%	29.2%	29.2%	16.7%	16.7%	20.0%	11.7%	34.2%	34.2%	20.0%	42.5%	42.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	5.0	5.0	3.5	5.0	5.0
All-Red Time (s)	0.0	0.0	0.0	0.0	0.0	0.5	0.5	1.0	1.0	0.5	1.0	1.0
Lead/Lag						Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	12.2	12.2	12.2	12.4	12.4	37.7	9.4	58.2	58.2	21.3	72.3	72.3
Actuated g/C Ratio	0.10	0.10	0.10	0.10	0.10	0.31	0.08	0.48	0.48	0.18	0.60	0.60
v/c Ratio	0.64	0.66	0.36	0.61	0.62	0.48	0.61	0.97	0.16	0.68	0.91	0.08
Control Delay	67.6	69.0	13.6	65.8	65.9	10.6	46.1	26.2	11.7	63.5	17.7	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.6	69.0	13.6	65.8	65.9	10.6	46.1	26.2	11.7	63.5	17.7	1.1
LOS	E	E	B	E	E	B	D	C	B	E	B	A
Approach Delay		52.5				32.7		26.1			19.9	
Approach LOS		D				C		C			B	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 4 (3%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
 Natural Cycle: 140
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.97
 Intersection Signal Delay: 24.6
 Intersection Capacity Utilization 76.6%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service D

Splits and Phases: 99: Creekside Road & McBean Pkwy



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	24	7	49	8	12	12	79	1804	81	2229
Turn Type	Perm		Perm	Perm		Perm	pm+pt		pm+pt	
Protected Phases		8			4		5	2	1	6
Permitted Phases	8		8	4		4	2		6	
Detector Phases	8	8	8	4	4	4	5	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	39.0	39.0	39.0	40.0	40.0	40.0	12.0	28.0	12.0	27.0
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	12.0	68.0	12.0	68.0
Total Split (%)	33.3%	33.3%	33.3%	33.3%	33.3%	33.3%	10.0%	56.7%	10.0%	56.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	5.0	3.5	5.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.0	1.0	0.0	1.0
Lead/Lag							Lead	Lag	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		7.8	7.8		7.8	7.8	101.1	94.5	103.9	98.1
Actuated g/C Ratio		0.06	0.06		0.06	0.06	0.84	0.79	0.87	0.82
v/c Ratio		0.33	0.33		0.19	0.10	0.49	0.53	0.44	0.49
Control Delay		61.7	19.3		56.2	24.8	32.2	1.0	27.0	0.8
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		61.7	19.3		56.2	24.8	32.2	1.0	27.0	0.8
LOS		E	B		E	C	C	A	C	A
Approach Delay		35.9			44.5			2.2		1.7
Approach LOS		D			D			A		A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 28 (23%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.53
 Intersection Signal Delay: 2.8
 Intersection Capacity Utilization 60.4%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service B

Splits and Phases: 100: Town Center & McBean Pkwy



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Volume (vph)	8	1	13	2	2	9	41	1978	70	17	2231
Turn Type	Perm		Perm	Perm		Perm	pm+pt		Perm	pm+pt	
Protected Phases		8			4		5	2		1	6
Permitted Phases	8		8	4		4	2		2	6	
Detector Phases	8	8	8	4	4	4	5	2	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	37.0	37.0	37.0	36.0	36.0	36.0	12.0	27.0	27.0	12.0	27.0
Total Split (s)	28.0	28.0	28.0	28.0	28.0	28.0	12.0	80.0	80.0	12.0	80.0
Total Split (%)	23.3%	23.3%	23.3%	23.3%	23.3%	23.3%	10.0%	66.7%	66.7%	10.0%	66.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	5.0	5.0	3.5	5.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.0	1.0	1.0	0.0	1.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?											
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	6.4	6.4	6.4	6.3	6.3	6.3	109.9	110.1	110.1	108.2	104.8
Actuated g/C Ratio	0.05	0.05	0.05	0.05	0.05	0.05	0.92	0.92	0.92	0.90	0.87
v/c Ratio	0.13	0.01	0.14	0.03	0.02	0.11	0.29	0.46	0.05	0.12	0.44
Control Delay	57.6	53.0	27.0	54.0	53.5	28.8	13.6	0.4	0.0	3.7	2.4
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	57.6	53.0	27.0	54.0	53.5	28.8	13.6	0.4	0.0	3.7	2.4
LOS	E	D	C	D	D	C	B	A	A	A	A
Approach Delay		39.6			35.9			0.7			2.4
Approach LOS		D			D			A			A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 26 (22%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.46
 Intersection Signal Delay: 1.9
 Intersection Capacity Utilization 54.9%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 101: Mall Entrance & McBean Pkwy



Lane Group	WBL2	WBL	WBR	SEL	SET	NWL	NWT	NEL	NER
Lane Configurations									
Volume (vph)	81	39	193	80	1092	26	1579	58	10
Turn Type	Perm		Perm	Prot		Prot		Perm	
Protected Phases		4		1	6	5	2		4
Permitted Phases	4		4				2	4	4
Detector Phases	4	4	4	1	6	5	2	4	4
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	28.0	28.0	28.0	12.0	24.0	12.0	24.0	28.0	28.0
Total Split (s)	28.0	28.0	28.0	25.0	78.0	14.0	67.0	28.0	28.0
Total Split (%)	23.3%	23.3%	23.3%	20.8%	65.0%	11.7%	55.8%	23.3%	23.3%
Yellow Time (s)	4.0	4.0	4.0	3.5	5.0	3.5	5.0	4.0	4.0
All-Red Time (s)	0.0	0.0	0.0	0.0	1.0	0.0	1.0	0.0	0.0
Lead/Lag				Lead	Lag	Lead	Lag		
Lead-Lag Optimize?				Yes	Yes	Yes	Yes		
Recall Mode	None	None	None	None	C-Max	Min	C-Max	None	None
Act Effct Green (s)	13.0	13.0	13.0	10.0	88.0	7.0	87.0	13.0	13.0
Actuated g/C Ratio	0.11	0.11	0.11	0.08	0.73	0.06	0.72	0.11	0.11
v/c Ratio	0.60	0.22	0.57	0.63	0.33	0.29	0.48	0.43	0.13
Control Delay	67.0	49.4	12.5	76.2	14.4	60.9	8.9	57.4	20.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.0	49.4	12.5	76.2	14.4	60.9	8.9	57.4	20.2
LOS	E	D	B	E	B	E	A	E	C
Approach Delay		31.1			18.5		9.8	41.7	
Approach LOS		C			B		A	D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 23 (19%), Referenced to phase 2:NWT and 6:SET, Start of Yellow
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.63
 Intersection Signal Delay: 16.0
 Intersection Capacity Utilization 57.4%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service B

Splits and Phases: 102: Del Monte Dr. & McBean Pkwy



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL2	NBL	SEL	SER
Lane Configurations										
Volume (vph)	58	51	32	81	15	193	26	1412	80	1107
Turn Type	Perm		Perm	Perm		Perm	pm+pt		pm+pt	
Protected Phases		4			4		5	2	1	6
Permitted Phases	4		4	4		4	2		6	
Detector Phases	4	4	4	4	4	4	5	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	28.0	28.0	28.0	28.0	28.0	28.0	12.0	25.0	12.0	25.0
Total Split (s)	28.0	28.0	28.0	28.0	28.0	28.0	12.0	82.0	12.0	82.0
Total Split (%)	23.0%	23.0%	23.0%	23.0%	23.0%	23.0%	9.8%	67.2%	9.8%	67.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	5.0	3.5	5.0
All-Red Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	1.0
Lead/Lag							Lead	Lag	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	None	None	None	C-Max	Min	C-Max
Act Effct Green (s)	12.8	12.8	12.8	12.8	12.8	12.8	96.4	90.9	99.5	95.4
Actuated g/C Ratio	0.10	0.10	0.10	0.10	0.10	0.10	0.79	0.75	0.82	0.78
v/c Ratio	0.46	0.28	0.17	0.62	0.09	0.68	0.11	0.43	0.35	0.44
Control Delay	60.7	52.0	16.3	70.1	47.5	27.5	3.5	6.7	6.4	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.7	52.0	16.3	70.1	47.5	27.5	3.5	6.7	6.4	6.0
LOS	E	D	B	E	D	C	A	A	A	A
Approach Delay		47.4			40.4			6.6	6.0	
Approach LOS		D			D			A	A	

Intersection Summary

Cycle Length: 122
 Actuated Cycle Length: 122
 Offset: 23 (19%), Referenced to phase 2:NBL and 6:SEL, Start of Yellow
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.68
 Intersection Signal Delay: 11.3
 Intersection Capacity Utilization 53.7%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 103: Arroyo Park Dr. & McBean Pkwy



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Volume (vph)	2	4	50	3	35	21	1459	50	1167
Turn Type	Perm		Perm		Perm	pm+pt		pm+pt	
Protected Phases		4		8		5	2	1	6
Permitted Phases	4		8		8	2		6	
Detector Phases	4	4	8	8	8	5	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	12.0	23.0	12.0	24.0
Total Split (s)	20.0	20.0	20.0	20.0	20.0	12.0	88.0	12.0	88.0
Total Split (%)	16.7%	16.7%	16.7%	16.7%	16.7%	10.0%	73.3%	10.0%	73.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	5.0	3.5	6.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.0	1.0	0.0	1.0
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		10.5		10.6	10.6	99.8	96.3	101.3	98.5
Actuated g/C Ratio		0.09		0.09	0.09	0.83	0.80	0.84	0.82
v/c Ratio		0.13		0.51	0.22	0.07	0.41	0.21	0.32
Control Delay		26.8		66.7	17.7	2.3	4.3	3.9	4.1
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		26.8		66.7	17.7	2.3	4.3	3.9	4.1
LOS		C		E	B	A	A	A	A
Approach Delay		26.8		47.1			4.2		4.0
Approach LOS		C		D			A		A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 84 (70%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.51
 Intersection Signal Delay: 5.6
 Intersection Capacity Utilization 51.6%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 104: Granary Square & McBean Pkwy

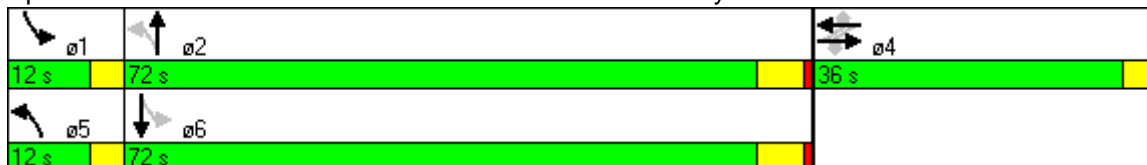
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














Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	45	3	41	185	13	63	115	1395	27	1049
Turn Type	Perm		Perm	Perm		Perm	pm+pt		pm+pt	
Protected Phases		4			4		5	2	1	6
Permitted Phases	4		4	4		4	2		6	
Detector Phases	4	4	4	4	4	4	5	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	26.0	26.0	12.0	22.0	12.0	21.0
Total Split (s)	36.0	36.0	36.0	36.0	36.0	36.0	12.0	72.0	12.0	72.0
Total Split (%)	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	10.0%	60.0%	10.0%	60.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.5	5.0	3.5	5.0
All-Red Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	1.0
Lead/Lag							Lead	Lag	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	22.4	22.4	22.4	22.4	22.4	22.4	88.3	83.8	84.3	78.9
Actuated g/C Ratio	0.19	0.19	0.19	0.19	0.19	0.19	0.74	0.70	0.70	0.66
v/c Ratio	0.20	0.01	0.14	0.79	0.04	0.21	0.44	0.46	0.14	0.40
Control Delay	40.3	35.0	11.0	67.3	36.2	9.8	9.1	7.6	6.1	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.3	35.0	11.0	67.3	36.2	9.8	9.1	7.6	6.1	7.7
LOS	D	C	B	E	D	A	A	A	A	A
Approach Delay		26.5			51.9			7.7		7.7
Approach LOS		C			D			A		A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 83 (69%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.79
 Intersection Signal Delay: 11.9
 Intersection Capacity Utilization 58.2%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service B

Splits and Phases: 105: Avenida Navarre & McBean Pkwy



					
Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations		  	   	 	
Volume (vph)	7	1387	995	49	51
Turn Type	Perm				Perm
Protected Phases		6	2	4	
Permitted Phases	6				4
Detector Phases	6	6	2	4	4
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	21.0	28.5	28.5
Total Split (s)	91.0	91.0	91.0	29.0	29.0
Total Split (%)	75.8%	75.8%	75.8%	24.2%	24.2%
Yellow Time (s)	5.0	5.0	5.0	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	106.2	106.2	106.2	8.8	8.8
Actuated g/C Ratio	0.88	0.88	0.88	0.07	0.07
v/c Ratio	0.02	0.35	0.25	0.23	0.33
Control Delay	0.4	0.5	0.3	54.2	18.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	0.4	0.5	0.3	54.2	18.9
LOS	A	A	A	D	B
Approach Delay		0.5	0.3	36.2	
Approach LOS		A	A	D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 26 (22%), Referenced to phase 2:WBT and 6:EBTL, Start of Yellow
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.35
 Intersection Signal Delay: 1.9
 Intersection Capacity Utilization 36.8%
 Analysis Period (min) 15

Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 106: McBean Pkwy & Alegro Dr.



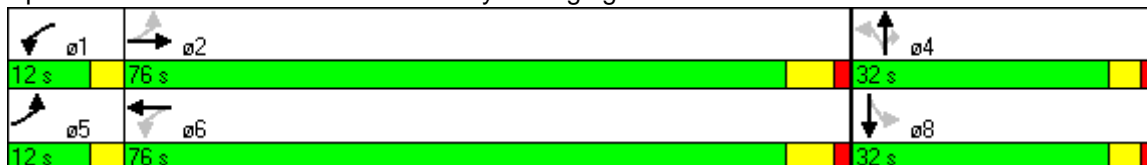
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Volume (vph)	20	1286	95	1096	87	22	50	58	24
Turn Type	pm+pt		pm+pt		Perm		Perm	Perm	
Protected Phases	5	2	1	6		4			8
Permitted Phases	2		6		4		4	8	
Detector Phases	5	2	1	6	4	4	4	8	8
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	12.0	24.0	11.5	20.0	31.5	31.5	31.5	31.5	31.5
Total Split (s)	12.0	76.0	12.0	76.0	32.0	32.0	32.0	32.0	32.0
Total Split (%)	10.0%	63.3%	10.0%	63.3%	26.7%	26.7%	26.7%	26.7%	26.7%
Yellow Time (s)	3.5	5.0	3.5	5.0	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead	Lag	Lead	Lag					
Lead-Lag Optimize?									
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None
Act Effct Green (s)	90.4	85.0	95.9	92.4	15.7	15.7	15.7	15.7	15.7
Actuated g/C Ratio	0.75	0.71	0.80	0.77	0.13	0.13	0.13	0.13	0.13
v/c Ratio	0.07	0.41	0.36	0.32	0.60	0.10	0.21	0.36	0.28
Control Delay	2.4	4.4	10.2	8.1	63.5	44.1	13.1	51.6	20.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.4	4.4	10.2	8.1	63.5	44.1	13.1	51.6	20.6
LOS	A	A	B	A	E	D	B	D	C
Approach Delay		4.4		8.3		45.1			34.3
Approach LOS		A		A		D			C

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 20 (17%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.60
 Intersection Signal Delay: 9.7
 Intersection Capacity Utilization 52.1%
 Analysis Period (min) 15

Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 107: McBean Pkwy & Singing Hills Dr.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Volume (vph)	340	1050	50	1100	190	380	60	20	140
Turn Type	pm+pt		pm+pt		pm+pt		pm+pt		Perm
Protected Phases	1	6	5	2	7	4	3	8	
Permitted Phases	6		2		4		8		8
Detector Phases	1	6	5	2	7	4	3	8	8
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	12.0	26.0	12.0	26.0	12.0	29.0	12.0	29.0	29.0
Total Split (s)	31.0	64.0	16.0	49.0	15.0	20.0	20.0	25.0	25.0
Total Split (%)	25.8%	53.3%	13.3%	40.8%	12.5%	16.7%	16.7%	20.8%	20.8%
Yellow Time (s)	3.5	5.0	3.5	5.0	3.5	4.0	3.5	4.0	4.0
All-Red Time (s)	0.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?									
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None
Act Effct Green (s)	76.0	67.8	54.4	48.4	34.2	25.4	29.5	21.1	21.1
Actuated g/C Ratio	0.63	0.56	0.45	0.40	0.28	0.21	0.25	0.18	0.18
v/c Ratio	0.92	0.46	0.23	0.73	0.51	0.87	0.37	0.07	0.39
Control Delay	70.6	13.1	14.6	33.2	39.8	54.4	37.0	42.2	9.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.6	13.1	14.6	33.2	39.8	54.4	37.0	42.2	9.8
LOS	E	B	B	C	D	D	D	D	A
Approach Delay		26.1		32.5		50.9		20.1	
Approach LOS		C		C		D		C	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 18 (15%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.92
 Intersection Signal Delay: 33.1
 Intersection Capacity Utilization 79.9%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service D

Splits and Phases: 108: McBean Pkwy & Rockwell Canyon Rd



McBean Coordination Timing Interim Year
 109: McBean Pkwy & 5 Fwy NB On/Off Ramp

8:00 am
 9/6/2007

	→	↘	←	↙	↗
Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑↑↑	↘↘	↘↘
Volume (vph)	890	530	1460	230	560
Turn Type		Perm			Perm
Protected Phases	2		2	8	
Permitted Phases		2			8
Detector Phases	2	2	2	8	8
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	36.0	36.0	36.0	20.0	20.0
Total Split (s)	37.0	37.0	37.0	23.0	23.0
Total Split (%)	61.7%	61.7%	61.7%	38.3%	38.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Max	C-Max	C-Max	Min	Min
Act Effct Green (s)	36.2	36.2	36.2	15.8	15.8
Actuated g/C Ratio	0.60	0.60	0.60	0.26	0.26
v/c Ratio	0.45	0.49	0.52	0.28	0.70
Control Delay	11.5	8.0	11.4	17.5	17.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	11.5	8.0	11.4	17.5	17.7
LOS	B	A	B	B	B
Approach Delay	10.2		11.4	17.6	
Approach LOS	B		B	B	

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 42 (70%), Referenced to phase 2:EBWB, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.70
 Intersection Signal Delay: 12.3
 Intersection Capacity Utilization 50.9%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 109: McBean Pkwy & 5 Fwy NB On/Off Ramp

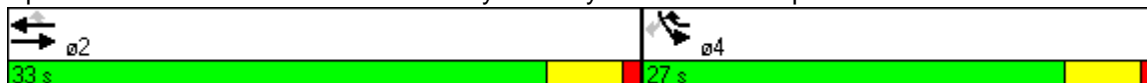


	→	←	↖	↘	↙
Lane Group	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↑↑↑	↑↑	↖	↘↘	↖
Volume (vph)	1450	1160	420	240	310
Turn Type			pm+ov		Perm
Protected Phases	2	2	4	4	
Permitted Phases			2		4
Detector Phases	2	2	4	4	4
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	27.0	27.0	20.0	20.0	20.0
Total Split (s)	33.0	33.0	27.0	27.0	27.0
Total Split (%)	55.0%	55.0%	45.0%	45.0%	45.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Max	C-Max	Min	Min	Min
Act Effct Green (s)	32.0	32.0	60.0	20.0	20.0
Actuated g/C Ratio	0.53	0.53	1.00	0.33	0.33
v/c Ratio	0.56	0.67	0.26	0.22	0.59
Control Delay	11.9	20.2	0.3	14.0	19.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	11.9	20.2	0.3	14.0	19.0
LOS	B	C	A	B	B
Approach Delay	11.9	14.9		16.8	
Approach LOS	B	B		B	

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 9 (15%), Referenced to phase 2:EBWB, Start of Yellow
 Natural Cycle: 50
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.67
 Intersection Signal Delay: 14.0
 Intersection Capacity Utilization 57.9%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service B

Splits and Phases: 110: McBean Pkwy & 5 Fwy SB On/Off Ramp



McBean Coordination Timing Interim Year
 111: McBean Pkwy & The Old Road

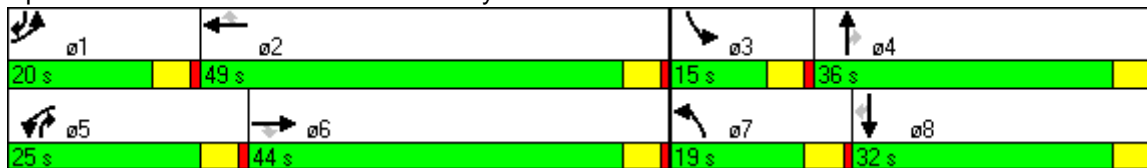
8:00 am
 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	160	1050	120	260	990	220	80	330	280	120	240	30
Turn Type	Prot		Perm	Prot		Perm	Prot		pm+ov	Prot		pm+ov
Protected Phases	1	6		5	2		7	4	5	3	8	1
Permitted Phases			6			2			4		8	
Detector Phases	1	6	6	5	2	2	7	4	5	3	8	1
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	14.0	31.0	31.0	14.0	32.0	32.0	14.0	35.0	14.0	14.0	31.0	14.0
Total Split (s)	20.0	44.0	44.0	25.0	49.0	49.0	19.0	36.0	25.0	15.0	32.0	20.0
Total Split (%)	16.7%	36.7%	36.7%	20.8%	40.8%	40.8%	15.8%	30.0%	20.8%	12.5%	26.7%	16.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes			Yes			Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	18.8	59.3	59.3	17.5	58.0	58.0	11.8	16.2	37.7	11.0	17.7	40.6
Actuated g/C Ratio	0.16	0.49	0.49	0.15	0.48	0.48	0.10	0.14	0.31	0.09	0.15	0.34
v/c Ratio	0.63	0.47	0.14	0.58	0.63	0.27	0.50	0.52	0.53	0.80	0.50	0.05
Control Delay	56.6	22.1	7.0	47.5	21.4	4.5	60.8	50.4	31.0	87.2	51.4	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.6	22.1	7.0	47.5	21.6	4.5	60.8	50.4	31.0	87.2	51.4	7.9
LOS	E	C	A	D	C	A	E	D	C	F	D	A
Approach Delay		24.9			23.6			43.8			59.0	
Approach LOS		C			C			D			E	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 72 (60%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
 Natural Cycle: 95
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.80
 Intersection Signal Delay: 31.2
 Intersection Capacity Utilization 62.6%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service B

Splits and Phases: 111: McBean Pkwy & The Old Road



Orchard Village Timing Existing Conditions
 159: Lyons Avenue & Orchard Village Road

8:00 am
 9/6/2007

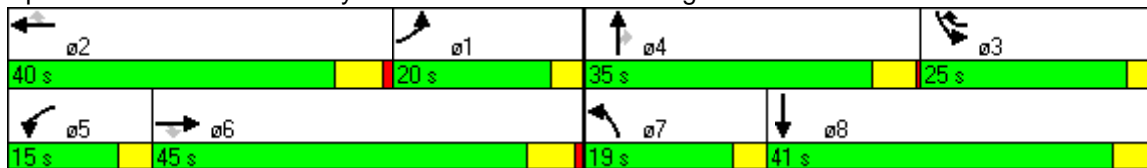
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Volume (vph)	289	791	59	129	1039	342	99	148	83	250	58
Turn Type	Prot		Perm	Prot		pm+ov	Prot		Perm	Prot	
Protected Phases	1	6		5	2	3	7	4		3	8
Permitted Phases			6			2			4		
Detector Phases	1	6	6	5	2	3	7	4	4	3	8
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	33.0	33.0	8.0	34.0	8.0	8.0	35.0	35.0	8.0	33.0
Total Split (s)	20.0	45.0	45.0	15.0	40.0	25.0	19.0	35.0	35.0	25.0	41.0
Total Split (%)	16.7%	37.5%	37.5%	12.5%	33.3%	20.8%	15.8%	29.2%	29.2%	20.8%	34.2%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	3.5	3.5	4.5	4.5	3.5	4.5
All-Red Time (s)	0.0	1.0	1.0	0.0	1.0	0.0	0.0	0.5	0.5	0.0	0.5
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None	None	None
Act Effct Green (s)	16.0	60.0	60.0	17.5	61.4	80.5	12.0	11.5	11.5	15.0	14.6
Actuated g/C Ratio	0.13	0.50	0.50	0.15	0.51	0.67	0.10	0.10	0.10	0.12	0.12
v/c Ratio	0.74	0.52	0.08	0.58	0.39	0.29	0.65	0.49	0.42	0.63	0.61
Control Delay	61.1	23.6	7.1	57.1	19.2	1.8	70.0	56.2	16.3	47.3	9.3
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	61.1	23.6	7.1	57.1	19.2	1.8	70.0	56.2	16.3	47.3	9.3
LOS	E	C	A	E	B	A	E	E	B	D	A
Approach Delay		32.3			18.5			50.4			24.7
Approach LOS		C			B			D			C

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 117 (98%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
 Natural Cycle: 85
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.74
 Intersection Signal Delay: 26.9
 Intersection Capacity Utilization 59.5%
 Analysis Period (min) 15

Intersection LOS: C
 ICU Level of Service B

Splits and Phases: 159: Lyons Avenue & Orchard Village Road



Orchard Village Timing Existing Conditions
 176: Dalbey Drive & Orchard Village Road

8:00 am
 9/6/2007

	↙	↖	↑	↗	↘	↓
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙	↖	↑↑	↗	↘	↑↑
Volume (vph)	336	157	650	129	206	1087
Turn Type		Perm		Perm	pm+pt	
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phases	4	4	2	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	28.5	28.5	24.0	24.0	8.0	22.0
Total Split (s)	40.0	40.0	55.0	55.0	25.0	80.0
Total Split (%)	33.3%	33.3%	45.8%	45.8%	20.8%	66.7%
Yellow Time (s)	3.5	3.5	5.0	5.0	3.5	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	0.0	1.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?						
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	30.4	30.4	69.4	69.4	81.6	81.6
Actuated g/C Ratio	0.25	0.25	0.58	0.58	0.68	0.68
v/c Ratio	0.87	0.36	0.35	0.16	0.58	0.43
Control Delay	63.5	6.9	5.9	0.4	13.0	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.5	6.9	5.9	0.4	13.0	5.0
LOS	E	A	A	A	B	A
Approach Delay	45.5		5.0			6.3
Approach LOS	D		A			A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 77 (64%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.87
 Intersection Signal Delay: 13.4
 Intersection Capacity Utilization 59.3%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service B

Splits and Phases: 176: Dalbey Drive & Orchard Village Road



Orchard Village Timing Existing Conditions
 177: Avenida Ronada & Orchard Village Road

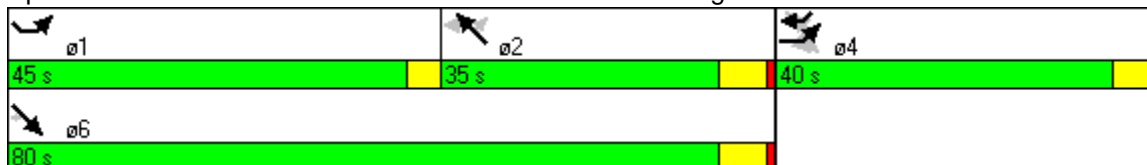
8:00 am
 9/6/2007

Lane Group	EBL2	EBL	EBR	SEL	SET	SER	NWL	NWT	NWR	SWL	SWR	SWR2
Lane Configurations												
Volume (vph)	148	72	105	465	1010	164	28	715	64	178	46	450
Turn Type	Perm		Perm	Prot		Perm	Perm		Perm	Perm		Perm
Protected Phases		4		1	6			2				4
Permitted Phases	4	4	4		6	6	2		2	4	4	4
Detector Phases	4	4	4	1	6	6	2	2	2	4	4	4
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	28.0	28.0	28.0	16.0	24.0	24.0	25.0	25.0	25.0	28.0	28.0	28.0
Total Split (s)	40.0	40.0	40.0	45.0	80.0	80.0	35.0	35.0	35.0	40.0	40.0	40.0
Total Split (%)	33.3%	33.3%	33.3%	37.5%	66.7%	66.7%	29.2%	29.2%	29.2%	33.3%	33.3%	33.3%
Yellow Time (s)	4.0	4.0	4.0	3.5	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag				Lead			Lag	Lag	Lag			
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max	None	None	None
Act Effct Green (s)		33.5	33.5	38.3	78.5	78.5	36.2	36.2	36.2	33.5	33.5	33.5
Actuated g/C Ratio		0.28	0.28	0.32	0.65	0.65	0.30	0.30	0.30	0.28	0.28	0.28
v/c Ratio		0.64	0.28	0.96	0.47	0.19	0.23	0.73	0.15	0.91	0.11	0.58
Control Delay		46.2	10.4	40.9	5.5	0.5	33.6	35.0	12.6	83.4	31.4	5.9
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		46.2	10.4	40.9	5.5	0.5	33.6	35.0	12.6	83.4	31.4	5.9
LOS		D	B	D	A	A	C	D	B	F	C	A
Approach Delay		34.7			15.0			33.2		28.1		
Approach LOS		C			B			C		C		

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 65 (54%), Referenced to phase 2:NWTL and 6:SET, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.96
 Intersection Signal Delay: 23.7
 Intersection Capacity Utilization 87.0%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service E

Splits and Phases: 177: Avenida Ronada & Orchard Village Road



Orchard Village Timing Existing Conditions
 178: Orchard Village Road & Wiley Canyon Road

8:00 am
 9/6/2007

Lane Group	SEL	SET	SER	NWL	NWT	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations											
Volume (vph)	70	1225	297	271	890	154	141	279	135	325	85
Turn Type	pm+pt		pm+ov	pm+pt		Prot		Perm	Prot		Perm
Protected Phases	1	6	7	5	2	7	4		3	8	
Permitted Phases	6		6	2				4			8
Detector Phases	1	6	7	5	2	7	4	4	3	8	8
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	30.0	8.0	8.0	30.0	8.0	30.0	30.0	8.0	30.0	30.0
Total Split (s)	15.0	47.0	18.0	25.0	57.0	18.0	30.0	30.0	18.0	30.0	30.0
Total Split (%)	12.5%	39.2%	15.0%	20.8%	47.5%	15.0%	25.0%	25.0%	15.0%	25.0%	25.0%
Yellow Time (s)	3.5	5.0	3.5	3.5	5.0	3.5	4.5	4.5	3.5	4.5	4.5
All-Red Time (s)	0.0	1.0	0.0	0.0	1.0	0.0	0.5	0.5	0.0	0.5	0.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?			Yes			Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	C-Max	None	None	None	None	None	None
Act Effct Green (s)	59.0	52.6	63.5	76.6	68.1	10.9	16.7	16.7	14.7	20.5	20.5
Actuated g/C Ratio	0.49	0.44	0.53	0.64	0.57	0.09	0.14	0.14	0.12	0.17	0.17
v/c Ratio	0.39	0.86	0.37	0.86	0.58	0.58	0.59	0.64	0.72	0.58	0.28
Control Delay	12.9	24.8	3.5	34.7	23.0	60.0	56.8	11.2	70.9	49.1	10.0
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	12.9	24.8	3.5	34.7	23.0	60.0	56.8	11.2	70.9	49.1	10.0
LOS	B	C	A	C	C	E	E	B	E	D	B
Approach Delay		20.3			25.5		35.5			48.4	
Approach LOS		C			C		D			D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 18 (15%), Referenced to phase 2:NWTL and 6:SETL, Start of Yellow
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.86
 Intersection Signal Delay: 28.0
 Intersection Capacity Utilization 80.2%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service D

Splits and Phases: 178: Orchard Village Road & Wiley Canyon Road



Orchard Village Timing Existing Conditions
 179: Mill Valley Road & Orchard Village Road

8:00 am
 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Volume (vph)	119	60	150	100	68	98	1009	36	1342
Turn Type	Perm		Perm	Perm		Perm		Perm	
Protected Phases		4			4		2		6
Permitted Phases	4		4	4	4	2		6	
Detector Phases	4	4	4	4	4	2	2	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	29.0	29.0	29.0	29.0	29.0	24.0	24.0	24.0	24.0
Total Split (s)	29.0	29.0	29.0	29.0	29.0	91.0	91.0	91.0	91.0
Total Split (%)	24.2%	24.2%	24.2%	24.2%	24.2%	75.8%	75.8%	75.8%	75.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	19.7	19.7	19.7	19.7	19.7	92.3	92.3	92.3	92.3
Actuated g/C Ratio	0.16	0.16	0.16	0.16	0.16	0.77	0.77	0.77	0.77
v/c Ratio	0.75	0.21	0.58	0.54	0.40	0.70	0.41	0.13	0.59
Control Delay	73.1	42.9	32.5	54.8	37.8	37.5	4.3	6.2	10.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.1	42.9	32.5	54.8	37.8	37.5	4.3	6.2	10.5
LOS	E	D	C	D	D	D	A	A	B
Approach Delay		49.1			45.8		7.2		10.4
Approach LOS		D			D		A		B

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 38 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.75
 Intersection Signal Delay: 15.7
 Intersection Capacity Utilization 71.3%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service C

Splits and Phases: 179: Mill Valley Road & Orchard Village Road



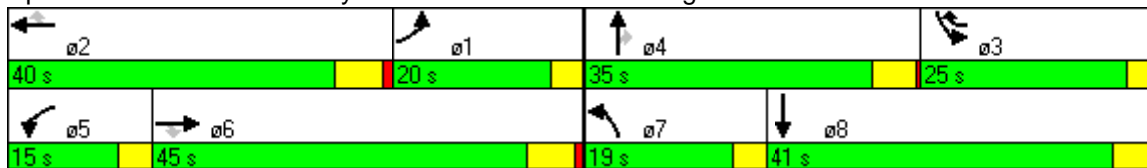
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Volume (vph)	179	740	60	80	1480	298	100	93	80	383	119
Turn Type	Prot		Perm	Prot		pm+ov	Prot		Perm	Prot	
Protected Phases	1	6		5	2	3	7	4		3	8
Permitted Phases			6			2			4		
Detector Phases	1	6	6	5	2	3	7	4	4	3	8
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	33.0	33.0	8.0	34.0	8.0	8.0	35.0	35.0	8.0	33.0
Total Split (s)	20.0	45.0	45.0	15.0	40.0	25.0	19.0	35.0	35.0	25.0	41.0
Total Split (%)	16.7%	37.5%	37.5%	12.5%	33.3%	20.8%	15.8%	29.2%	29.2%	20.8%	34.2%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	3.5	3.5	4.5	4.5	3.5	4.5
All-Red Time (s)	0.0	1.0	1.0	0.0	1.0	0.0	0.0	0.5	0.5	0.0	0.5
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None	None	None
Act Effct Green (s)	16.0	65.9	65.9	11.2	59.0	82.4	12.0	9.6	9.6	19.3	16.9
Actuated g/C Ratio	0.13	0.55	0.55	0.09	0.49	0.69	0.10	0.08	0.08	0.16	0.14
v/c Ratio	0.46	0.44	0.07	0.56	0.84	0.26	0.66	0.37	0.46	0.75	0.42
Control Delay	51.8	19.3	5.5	65.4	32.4	4.2	70.2	55.7	18.6	36.2	19.1
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	51.8	19.3	5.5	65.4	32.4	4.2	70.2	55.7	18.6	36.2	19.1
LOS	D	B	A	E	C	A	E	E	B	D	B
Approach Delay		24.4			29.3			50.2			30.2
Approach LOS		C			C			D			C

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 117 (98%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
 Natural Cycle: 115
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.84
 Intersection Signal Delay: 29.7
 Intersection Capacity Utilization 73.6%
 Analysis Period (min) 15

Intersection LOS: C
 ICU Level of Service D

Splits and Phases: 159: Lyons Avenue & Orchard Village Road

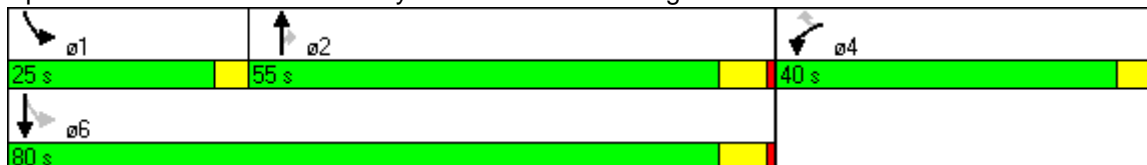


	↙	↖	↑	↗	↘	↓
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙	↖	↑↑	↗	↘	↑↑
Volume (vph)	336	157	399	129	206	279
Turn Type		Perm		Perm	pm+pt	
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phases	4	4	2	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	28.5	28.5	24.0	24.0	8.0	22.0
Total Split (s)	40.0	40.0	55.0	55.0	25.0	80.0
Total Split (%)	33.3%	33.3%	45.8%	45.8%	20.8%	66.7%
Yellow Time (s)	3.5	3.5	5.0	5.0	3.5	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	0.0	1.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?						
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	30.4	30.4	62.7	62.7	81.6	81.6
Actuated g/C Ratio	0.25	0.25	0.52	0.52	0.68	0.68
v/c Ratio	0.87	0.36	0.23	0.18	0.38	0.11
Control Delay	63.5	6.9	9.0	0.5	12.5	9.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.5	6.9	9.0	0.5	12.5	9.1
LOS	E	A	A	A	B	A
Approach Delay	45.5		6.9			10.5
Approach LOS	D		A			B

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 77 (64%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.87
 Intersection Signal Delay: 20.7
 Intersection Capacity Utilization 52.4%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service A

Splits and Phases: 176: Dalbey Drive & Orchard Village Road

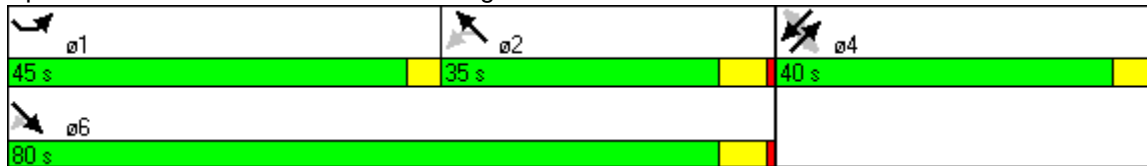


Lane Group	SEL	SET	SER	NWL	NWT	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations											
Volume (vph)	465	226	164	28	422	148	72	105	178	46	450
Turn Type	Prot		Perm	Perm		Perm		Perm	Perm		Perm
Protected Phases	1	6			2		4			4	
Permitted Phases		6	6	2		4	4	4	4	4	4
Detector Phases	1	6	6	2	2	4	4	4	4	4	4
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	16.0	24.0	24.0	25.0	25.0	28.0	28.0	28.0	28.0	28.0	28.0
Total Split (s)	45.0	80.0	80.0	35.0	35.0	40.0	40.0	40.0	40.0	40.0	40.0
Total Split (%)	37.5%	66.7%	66.7%	29.2%	29.2%	33.3%	33.3%	33.3%	33.3%	33.3%	33.3%
Yellow Time (s)	3.5	5.0	5.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead			Lag	Lag						
Lead-Lag Optimize?											
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	38.5	77.9	77.9	35.5	35.5		34.1	34.1	34.1	34.1	34.1
Actuated g/C Ratio	0.32	0.65	0.65	0.30	0.30		0.28	0.28	0.28	0.28	0.28
v/c Ratio	0.95	0.11	0.19	0.11	0.51		0.66	0.27	0.92	0.09	0.58
Control Delay	52.9	10.7	4.6	29.9	30.7		47.4	8.1	87.4	30.9	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0
Total Delay	52.9	10.7	4.6	29.9	30.7		47.4	8.1	87.4	30.9	5.8
LOS	D	B	A	C	C		D	A	F	C	A
Approach Delay		32.5			30.6		34.7			29.0	
Approach LOS		C			C		C			C	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 65 (54%), Referenced to phase 2:NWTL and 6:SET, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.95
 Intersection Signal Delay: 31.4
 Intersection Capacity Utilization 72.9%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service C

Splits and Phases: 177: Orchard Village Road & Avenida Ronada



Orchard Village Timing Interim Year No Project
 178: Orchard Village Road & Wiley Canyon Road

8:00 am
 9/6/2007

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	270	579	260	130	628	220	160	220	50	250	360	218
Turn Type	pm+pt		pm+ov	pm+pt		Perm	Prot		Perm	Prot		Perm
Protected Phases	1	6	7	5	2		7	4		3	8	
Permitted Phases	6		6	2		2			4			8
Detector Phases	1	6	7	5	2	2	7	4	4	3	8	8
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	30.0	8.0	8.0	30.0	30.0	8.0	30.0	30.0	8.0	30.0	30.0
Total Split (s)	15.0	47.0	18.0	25.0	57.0	57.0	18.0	30.0	30.0	18.0	30.0	30.0
Total Split (%)	12.5%	39.2%	15.0%	20.8%	47.5%	47.5%	15.0%	25.0%	25.0%	15.0%	25.0%	25.0%
Yellow Time (s)	3.5	5.0	3.5	3.5	5.0	5.0	3.5	4.5	4.5	3.5	4.5	4.5
All-Red Time (s)	0.0	1.0	0.0	0.0	1.0	1.0	0.0	0.5	0.5	0.0	0.5	0.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?			Yes				Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	63.5	53.0	64.0	64.5	53.5	53.5	11.1	20.7	20.7	19.3	28.9	28.9
Actuated g/C Ratio	0.53	0.44	0.53	0.54	0.45	0.45	0.09	0.17	0.17	0.16	0.24	0.24
v/c Ratio	0.69	0.40	0.30	0.40	0.43	0.30	0.59	0.74	0.17	1.02	0.46	0.44
Control Delay	17.3	8.9	1.1	14.0	26.1	8.8	60.3	61.0	11.6	111.8	41.4	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.3	8.9	1.1	14.0	26.1	8.8	60.3	61.0	11.6	111.8	41.4	7.6
LOS	B	A	A	B	C	A	E	E	B	F	D	A
Approach Delay		9.1			20.6			55.0			53.8	
Approach LOS		A			C			D			D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 18 (15%), Referenced to phase 2:NWTL and 6:SETL, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.02
 Intersection Signal Delay: 29.4
 Intersection Capacity Utilization 75.9%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service D

Splits and Phases: 178: Orchard Village Road & Wiley Canyon Road

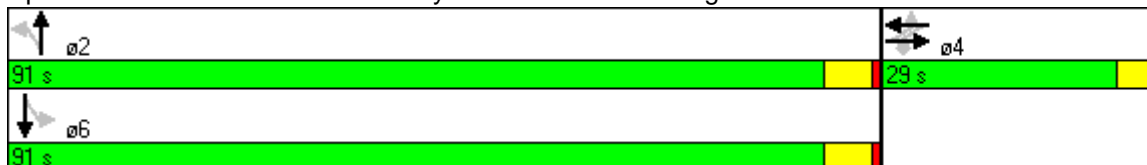
ø1	ø2	ø4	ø3
15 s	57 s	30 s	18 s
ø5	ø6	ø7	ø8
25 s	47 s	18 s	30 s

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Volume (vph)	119	60	150	100	68	98	1062	36	1036
Turn Type	Perm		Perm	Perm		Perm		Perm	
Protected Phases		4			4		2		6
Permitted Phases	4		4	4	4	2		6	
Detector Phases	4	4	4	4	4	2	2	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	29.0	29.0	29.0	29.0	29.0	24.0	24.0	24.0	24.0
Total Split (s)	29.0	29.0	29.0	29.0	29.0	91.0	91.0	91.0	91.0
Total Split (%)	24.2%	24.2%	24.2%	24.2%	24.2%	75.8%	75.8%	75.8%	75.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	19.7	19.7	19.7	19.7	19.7	92.3	92.3	92.3	92.3
Actuated g/C Ratio	0.16	0.16	0.16	0.16	0.16	0.77	0.77	0.77	0.77
v/c Ratio	0.75	0.21	0.49	0.54	0.40	0.43	0.43	0.14	0.47
Control Delay	73.1	42.9	15.1	54.8	37.8	12.8	6.0	7.6	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.1	42.9	15.1	54.8	37.8	12.8	6.0	7.6	9.6
LOS	E	D	B	D	D	B	A	A	A
Approach Delay		41.1			45.8		6.6		9.5
Approach LOS		D			D		A		A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 38 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.75
 Intersection Signal Delay: 14.5
 Intersection Capacity Utilization 62.9%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service B

Splits and Phases: 179: Mill Valley Road & Orchard Village Road



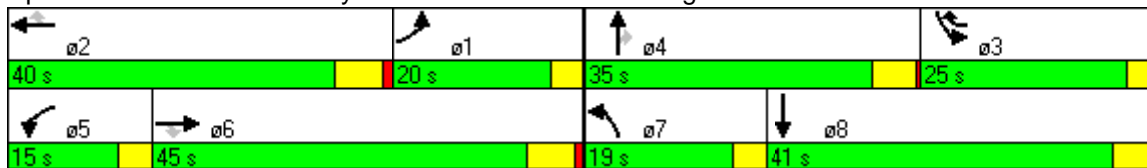
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Volume (vph)	180	740	60	80	1480	330	100	100	80	390	120
Turn Type	Prot		Perm	Prot		pm+ov	Prot		Perm	Prot	
Protected Phases	1	6		5	2	3	7	4		3	8
Permitted Phases			6			2			4		
Detector Phases	1	6	6	5	2	3	7	4	4	3	8
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	33.0	33.0	8.0	34.0	8.0	8.0	35.0	35.0	8.0	33.0
Total Split (s)	20.0	45.0	45.0	15.0	40.0	25.0	19.0	35.0	35.0	25.0	41.0
Total Split (%)	16.7%	37.5%	37.5%	12.5%	33.3%	20.8%	15.8%	29.2%	29.2%	20.8%	34.2%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	3.5	3.5	4.5	4.5	3.5	4.5
All-Red Time (s)	0.0	1.0	1.0	0.0	1.0	0.0	0.0	0.5	0.5	0.0	0.5
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None	None	None
Act Effct Green (s)	16.0	65.2	65.2	11.2	58.3	82.1	12.0	9.9	9.9	19.8	17.7
Actuated g/C Ratio	0.13	0.54	0.54	0.09	0.49	0.68	0.10	0.08	0.08	0.16	0.15
v/c Ratio	0.46	0.45	0.08	0.56	0.85	0.29	0.66	0.39	0.45	0.75	0.41
Control Delay	51.9	19.9	5.7	65.4	33.5	4.4	70.2	55.9	18.2	35.9	18.6
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	51.9	19.9	5.7	65.4	33.5	4.4	70.2	55.9	18.2	35.9	18.6
LOS	D	B	A	E	C	A	E	E	B	D	B
Approach Delay		24.9			29.7			50.3			29.9
Approach LOS		C			C			D			C

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 117 (98%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
 Natural Cycle: 115
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.85
 Intersection Signal Delay: 30.0
 Intersection Capacity Utilization 73.8%
 Analysis Period (min) 15

Intersection LOS: C
 ICU Level of Service D

Splits and Phases: 159: Lyons Avenue & Orchard Village Road



	↙	↖	↑	↗	↘	↓
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↙	↖	↑↑	↗	↘	↑↑
Volume (vph)	336	157	449	129	206	288
Turn Type		Perm		Perm	pm+pt	
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phases	4	4	2	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	28.5	28.5	24.0	24.0	8.0	22.0
Total Split (s)	40.0	40.0	55.0	55.0	25.0	80.0
Total Split (%)	33.3%	33.3%	45.8%	45.8%	20.8%	66.7%
Yellow Time (s)	3.5	3.5	5.0	5.0	3.5	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	0.0	1.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?						
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	30.4	30.4	62.8	62.8	81.6	81.6
Actuated g/C Ratio	0.25	0.25	0.52	0.52	0.68	0.68
v/c Ratio	0.87	0.36	0.26	0.18	0.40	0.11
Control Delay	63.5	6.9	9.8	0.6	12.5	8.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.5	6.9	9.8	0.6	12.5	8.9
LOS	E	A	A	A	B	A
Approach Delay	45.5		7.7			10.4
Approach LOS	D		A			B

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 77 (64%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.87
 Intersection Signal Delay: 20.5
 Intersection Capacity Utilization 53.7%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service A

Splits and Phases: 176: Dalbey Drive & Orchard Village Road



Orchard Village Timing Interim Year
 177: Orchard Village Road & Avenida Ronada

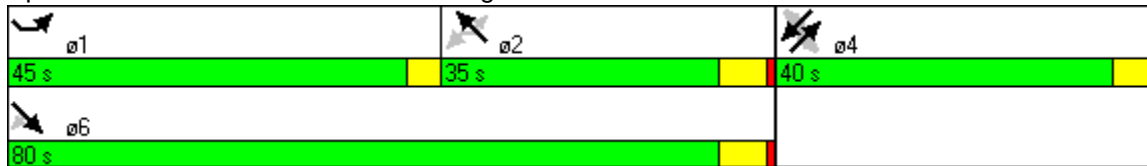
8:00 am
 9/6/2007

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	465	236	164	28	483	64	148	72	105	178	46	450
Turn Type	Prot		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases	1	6			2			4			4	
Permitted Phases		6	6	2		2	4	4	4	4	4	4
Detector Phases	1	6	6	2	2	2	4	4	4	4	4	4
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	16.0	24.0	24.0	25.0	25.0	25.0	28.0	28.0	28.0	28.0	28.0	28.0
Total Split (s)	45.0	80.0	80.0	35.0	35.0	35.0	40.0	40.0	40.0	40.0	40.0	40.0
Total Split (%)	37.5%	66.7%	66.7%	29.2%	29.2%	29.2%	33.3%	33.3%	33.3%	33.3%	33.3%	33.3%
Yellow Time (s)	3.5	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?												
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	38.5	77.9	77.9	35.5	35.5	35.5		34.1	34.1	34.1	34.1	34.1
Actuated g/C Ratio	0.32	0.65	0.65	0.30	0.30	0.30		0.28	0.28	0.28	0.28	0.28
v/c Ratio	0.95	0.11	0.19	0.11	0.50	0.15		0.66	0.27	0.92	0.09	0.58
Control Delay	52.5	10.5	4.4	29.7	31.3	8.4		47.4	8.1	87.4	30.9	5.8
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	52.5	10.5	4.4	29.7	31.3	8.4		47.4	8.1	87.4	30.9	5.8
LOS	D	B	A	C	C	A		D	A	F	C	A
Approach Delay		31.9			28.6			34.7			29.0	
Approach LOS		C			C			C			C	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 65 (54%), Referenced to phase 2:NWTL and 6:SET, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.95
 Intersection Signal Delay: 30.7
 Intersection Capacity Utilization 72.9%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service C

Splits and Phases: 177: Orchard Village Road & Avenida Ronada



Lane Group	SEL	SET	SER	NWL	NWT	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations											
Volume (vph)	280	590	260	130	700	160	220	50	250	360	290
Turn Type	pm+pt		pm+ov	pm+pt		Prot		Perm	Prot		Perm
Protected Phases	1	6	7	5	2	7	4		3	8	
Permitted Phases	6		6	2				4			8
Detector Phases	1	6	7	5	2	7	4	4	3	8	8
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	30.0	8.0	8.0	30.0	8.0	30.0	30.0	8.0	30.0	30.0
Total Split (s)	15.0	47.0	18.0	25.0	57.0	18.0	30.0	30.0	18.0	30.0	30.0
Total Split (%)	12.5%	39.2%	15.0%	20.8%	47.5%	15.0%	25.0%	25.0%	15.0%	25.0%	25.0%
Yellow Time (s)	3.5	5.0	3.5	3.5	5.0	3.5	4.5	4.5	3.5	4.5	4.5
All-Red Time (s)	0.0	1.0	0.0	0.0	1.0	0.0	0.5	0.5	0.0	0.5	0.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?			Yes			Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	C-Max	None	None	None	None	None	None
Act Effct Green (s)	63.7	52.7	63.7	64.3	53.0	11.1	20.7	20.7	19.3	28.9	28.9
Actuated g/C Ratio	0.53	0.44	0.53	0.54	0.44	0.09	0.17	0.17	0.16	0.24	0.24
v/c Ratio	1.01	0.41	0.30	0.40	0.66	0.59	0.74	0.17	1.02	0.46	0.55
Control Delay	83.6	8.3	1.1	14.5	32.2	60.3	61.0	11.6	111.8	41.4	11.7
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	83.6	8.3	1.1	14.5	32.2	60.3	61.0	11.6	111.8	41.4	11.7
LOS	F	A	A	B	C	E	E	B	F	D	B
Approach Delay		25.3			30.0		55.0			51.4	
Approach LOS		C			C		D			D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 18 (15%), Referenced to phase 2:NWTL and 6:SETL, Start of Yellow
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.02
 Intersection Signal Delay: 37.0
 Intersection Capacity Utilization 82.9%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service E

Splits and Phases: 178: Orchard Village Road & Wiley Canyon Road



Orchard Village Timing Interim Year with Mitigation
 178: Orchard Village Road & Wiley Canyon Road

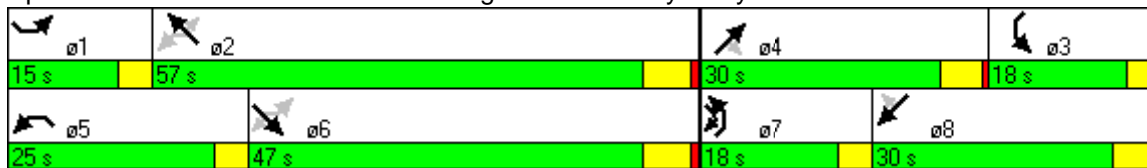
8:00 am
 9/6/2007

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	280	590	260	130	700	220	160	220	50	250	360	290
Turn Type	pm+pt		pm+ov	pm+pt		Perm	Prot		Perm	Prot		Perm
Protected Phases	1	6	7	5	2		7	4		3	8	
Permitted Phases	6		6	2		2			4			8
Detector Phases	1	6	7	5	2	2	7	4	4	3	8	8
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	30.0	8.0	8.0	30.0	30.0	8.0	30.0	30.0	8.0	30.0	30.0
Total Split (s)	15.0	47.0	18.0	25.0	57.0	57.0	18.0	30.0	30.0	18.0	30.0	30.0
Total Split (%)	12.5%	39.2%	15.0%	20.8%	47.5%	47.5%	15.0%	25.0%	25.0%	15.0%	25.0%	25.0%
Yellow Time (s)	3.5	5.0	3.5	3.5	5.0	5.0	3.5	4.5	4.5	3.5	4.5	4.5
All-Red Time (s)	0.0	1.0	0.0	0.0	1.0	1.0	0.0	0.5	0.5	0.0	0.5	0.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?			Yes				Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	63.6	52.7	63.7	64.4	53.1	53.1	11.1	20.7	20.7	19.3	28.9	28.9
Actuated g/C Ratio	0.53	0.44	0.53	0.54	0.44	0.44	0.09	0.17	0.17	0.16	0.24	0.24
v/c Ratio	0.77	0.41	0.30	0.40	0.49	0.30	0.59	0.74	0.17	1.02	0.46	0.55
Control Delay	26.3	10.0	1.0	14.5	28.6	10.0	60.3	61.0	11.6	111.8	41.4	11.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.3	10.0	1.0	14.5	28.6	10.0	60.3	61.0	11.6	111.8	41.4	11.7
LOS	C	A	A	B	C	A	E	E	B	F	D	B
Approach Delay		12.0			23.0			55.0			51.4	
Approach LOS		B			C			D			D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 18 (15%), Referenced to phase 2:NWTL and 6:SETL, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.02
 Intersection Signal Delay: 30.7
 Intersection Capacity Utilization 76.4%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service D

Splits and Phases: 178: Orchard Village Road & Wiley Canyon Road



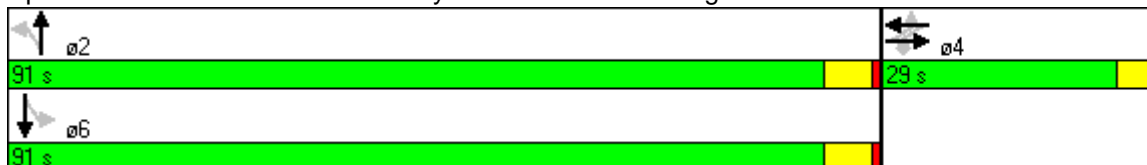
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Volume (vph)	119	60	150	100	68	98	1209	36	1058
Turn Type	Perm		Perm	Perm		Perm		Perm	
Protected Phases		4			4		2		6
Permitted Phases	4		4	4	4	2		6	
Detector Phases	4	4	4	4	4	2	2	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	29.0	29.0	29.0	29.0	29.0	24.0	24.0	24.0	24.0
Total Split (s)	29.0	29.0	29.0	29.0	29.0	91.0	91.0	91.0	91.0
Total Split (%)	24.2%	24.2%	24.2%	24.2%	24.2%	75.8%	75.8%	75.8%	75.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	19.7	19.7	19.7	19.7	19.7	92.3	92.3	92.3	92.3
Actuated g/C Ratio	0.16	0.16	0.16	0.16	0.16	0.77	0.77	0.77	0.77
v/c Ratio	0.75	0.21	0.49	0.54	0.40	0.45	0.49	0.18	0.48
Control Delay	73.1	42.9	16.3	54.8	37.8	11.5	6.1	8.5	10.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.1	42.9	16.3	54.8	37.8	11.5	6.1	8.5	10.3
LOS	E	D	B	D	D	B	A	A	B
Approach Delay		41.7			45.8		6.5		10.2
Approach LOS		D			D		A		B

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 38 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.75
 Intersection Signal Delay: 14.4
 Intersection Capacity Utilization 63.5%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service B

Splits and Phases: 179: Mill Valley Road & Orchard Village Road



Lane Group	NET	SWT	ø4	ø5
Lane Configurations	↑↑↑	↑↑↑		
Volume (vph)	3095	1400		
Turn Type				
Protected Phases	2	6	4	5
Permitted Phases				
Detector Phases	2	6		
Minimum Initial (s)	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	20.0	20.0
Total Split (s)	83.0	58.0	37.0	25.0
Total Split (%)	69.2%	48.3%	31%	21%
Yellow Time (s)	5.0	5.0	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	0.5
Lead/Lag		Lag		Lead
Lead-Lag Optimize?		Yes		Yes
Recall Mode	C-Max	C-Max	None	None
Act Effct Green (s)	120.0	120.0		
Actuated g/C Ratio	1.00	1.00		
v/c Ratio	0.52	0.24		
Control Delay	0.2	0.1		
Queue Delay	0.0	0.0		
Total Delay	0.2	0.1		
LOS	A	A		
Approach Delay	0.2	0.1		
Approach LOS	A	A		

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 29 (24%), Referenced to phase 2:NET and 6:SWT, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.52
 Intersection Signal Delay: 0.2
 Intersection Capacity Utilization 48.2%
 Analysis Period (min) 15

Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 2: Baywood Lane & McBean Pkwy



McBean Coordination Timing Existing Conditions
 4: Valencia Blvd & McBean Pkwy

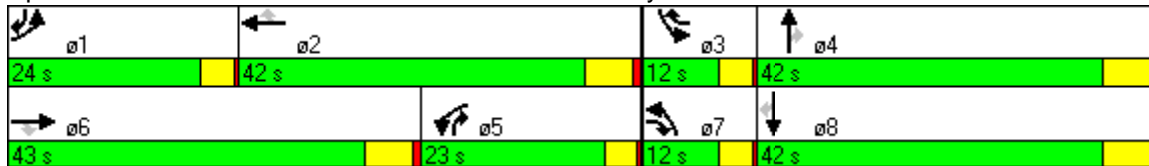
5:00 pm
 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	713	977	130	559	994	76	141	1093	535	115	1133	798
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov
Protected Phases	1	6	7	5	2	3	7	4	5	3	8	1
Permitted Phases			6			2			4			8
Detector Phases	1	6	7	5	2	3	7	4	5	3	8	1
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	12.0	43.0	12.0	12.0	42.0	12.0	12.0	42.0	12.0	12.0	42.0	12.0
Total Split (s)	24.0	43.0	12.0	23.0	42.0	12.0	12.0	42.0	23.0	12.0	42.0	24.0
Total Split (%)	20.0%	35.8%	10.0%	19.2%	35.0%	10.0%	10.0%	35.0%	19.2%	10.0%	35.0%	20.0%
Yellow Time (s)	3.5	5.0	3.5	3.5	5.0	3.5	3.5	5.0	3.5	3.5	5.0	3.5
All-Red Time (s)	0.5	1.0	0.5	0.5	1.0	0.5	0.5	1.0	0.5	0.5	1.0	0.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	C-Max	Max	Max	C-Max	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	20.0	39.0	47.0	19.0	38.0	50.0	8.0	38.0	57.0	8.0	38.0	62.0
Actuated g/C Ratio	0.17	0.32	0.39	0.16	0.32	0.42	0.07	0.32	0.48	0.07	0.32	0.52
v/c Ratio	1.40	0.66	0.23	1.16	0.69	0.12	0.69	0.76	0.43	0.57	0.79	0.60
Control Delay	229.1	37.3	13.6	134.8	38.7	21.1	59.2	59.7	23.8	46.6	43.9	28.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	229.1	37.3	13.6	134.8	38.7	21.1	59.2	59.7	23.8	46.6	43.9	28.9
LOS	F	D	B	F	D	C	E	E	C	D	D	C
Approach Delay		110.8			70.9			48.8			38.2	
Approach LOS		F			E			D			D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 71 (59%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
 Natural Cycle: 130
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.40
 Intersection Signal Delay: 66.3
 Intersection Capacity Utilization 78.8%
 Analysis Period (min) 15
 Intersection LOS: E
 ICU Level of Service D

Splits and Phases: 4: Valencia Blvd & McBean Pkwy



McBean Coordination Timing Existing Conditions
 14: Magic Mountain Pkwy & McBean Pkwy

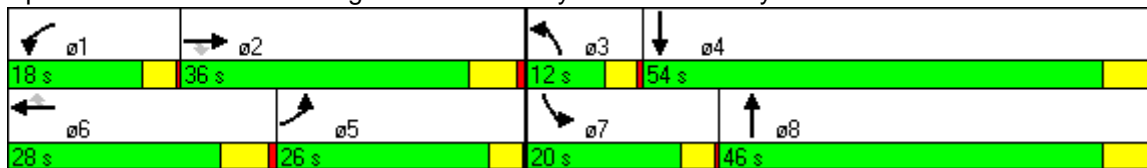
5:00 pm
 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	861	478	108	231	435	304	117	1563	155	351	1615	360
Turn Type	Prot		Perm	Prot		Perm	Prot		Free	Prot		Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			Free			Free
Detector Phases	5	2	2	1	6	6	3	8		7	4	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	12.0	28.0	28.0	12.0	28.0	28.0	12.0	28.0		12.0	28.0	
Total Split (s)	26.0	36.0	36.0	18.0	28.0	28.0	12.0	46.0	0.0	20.0	54.0	0.0
Total Split (%)	21.7%	30.0%	30.0%	15.0%	23.3%	23.3%	10.0%	38.3%	0.0%	16.7%	45.0%	0.0%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0		3.5	5.0	
All-Red Time (s)	0.5	1.0	1.0	0.5	1.0	1.0	0.5	1.0		0.5	1.0	
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	Max	Max	Max	Max	Max	Max	Max	C-Max		Max	C-Max	
Act Effct Green (s)	22.0	32.0	32.0	14.0	24.0	24.0	8.0	42.0	120.0	16.0	50.0	120.0
Actuated g/C Ratio	0.18	0.27	0.27	0.12	0.20	0.20	0.07	0.35	1.00	0.13	0.42	1.00
v/c Ratio	1.49	0.55	0.21	0.63	0.67	0.68	0.57	0.99	0.09	0.86	0.68	0.22
Control Delay	263.4	40.5	7.0	58.1	49.6	27.3	81.2	49.9	0.1	80.0	2.5	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	263.4	40.5	7.0	58.1	49.6	27.3	81.2	49.9	0.1	80.0	2.5	0.0
LOS	F	D	A	E	D	C	F	D	A	F	A	A
Approach Delay		170.6			44.7			47.7			13.8	
Approach LOS		F			D			D			B	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 78 (65%), Referenced to phase 4:SBT and 8:NBT, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.49
 Intersection Signal Delay: 62.3
 Intersection Capacity Utilization 90.1%
 Analysis Period (min) 15
 Intersection LOS: E
 ICU Level of Service E

Splits and Phases: 14: Magic Mountain Pkwy & McBean Pkwy



Lane Group	SET	NWL	NWT	NWR	NEL	NET	SWL	SWT
Lane Configurations								
Volume (vph)	61	290	42	1008	29	788	738	911
Turn Type		Split		pm+ov	Prot		Prot	
Protected Phases	3	4	4	5	1	6	5	2
Permitted Phases				4				
Detector Phases	3	4	4	5	1	6	5	2
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	28.0	15.0	15.0	20.0	12.0	28.0	20.0	23.0
Total Split (s)	15.0	18.0	18.0	51.0	12.0	36.0	51.0	75.0
Total Split (%)	12.5%	15.0%	15.0%	42.5%	10.0%	30.0%	42.5%	62.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	5.0	3.5	5.0
All-Red Time (s)	1.0	1.0	1.0	0.5	0.5	1.0	0.5	1.0
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	Max	None	C-Max	Max	C-Max
Act Effct Green (s)	10.3	14.0	14.0	65.0	7.2	32.7	47.0	76.5
Actuated g/C Ratio	0.09	0.12	0.12	0.54	0.06	0.27	0.39	0.64
v/c Ratio	0.63	1.00	1.04	0.76	0.34	1.19dr	0.69	0.34
Control Delay	51.8	120.0	125.1	21.3	68.9	76.2	26.3	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.8	120.0	125.1	21.3	68.9	76.2	26.3	4.7
LOS	D	F	F	C	E	E	C	A
Approach Delay	51.8		46.4			76.1		14.6
Approach LOS	D		D			E		B

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 100 (83%), Referenced to phase 2:SWT and 6:NET, Start of Yellow
 Natural Cycle: 125
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.09
 Intersection Signal Delay: 43.6
 Intersection Capacity Utilization 81.8%
 Analysis Period (min) 15
 dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 41: Orchard Village Rd & McBean Pkwy



McBean Coordination Timing Existing Conditions
 94: Decoro Dr. & McBean Pkwy

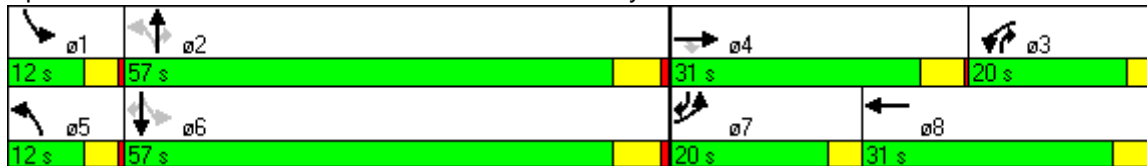
5:00 pm
 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Volume (vph)	389	812	106	240	151	101	1959	354	112	486	115
Turn Type	Prot		Perm	Prot		pm+pt		pm+ov	pm+pt		pm+ov
Protected Phases	7	4		3	8	5	2	3	1	6	7
Permitted Phases			4			2		2	6		6
Detector Phases	7	4	4	3	8	5	2	3	1	6	7
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	12.0	31.0	31.0	12.0	31.0	12.0	29.0	12.0	12.0	31.0	12.0
Total Split (s)	20.0	31.0	31.0	20.0	31.0	12.0	57.0	20.0	12.0	57.0	20.0
Total Split (%)	16.7%	25.8%	25.8%	16.7%	25.8%	10.0%	47.5%	16.7%	10.0%	47.5%	16.7%
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	3.5	5.0	3.5	3.5	5.0	3.5
All-Red Time (s)	0.0	0.5	0.5	0.0	0.5	0.5	1.0	0.0	0.5	1.0	0.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	None	C-Max	None
Act Effct Green (s)	16.0	27.0	27.0	14.0	25.0	62.2	54.6	68.6	63.8	55.4	75.4
Actuated g/C Ratio	0.13	0.22	0.22	0.12	0.21	0.52	0.46	0.57	0.53	0.46	0.63
v/c Ratio	0.99	1.19	0.29	0.70	0.37	0.26	0.95	0.41	0.69	0.23	0.12
Control Delay	93.4	138.9	24.9	61.1	25.5	13.2	35.4	7.2	41.9	20.2	1.9
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	93.4	138.9	24.9	61.1	25.5	13.2	35.4	7.2	41.9	20.2	1.9
LOS	F	F	C	E	C	B	D	A	D	C	A
Approach Delay		116.2			43.0		30.3			20.7	
Approach LOS		F			D		C			C	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 82 (68%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.19
 Intersection Signal Delay: 53.0
 Intersection Capacity Utilization 86.7%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service E

Splits and Phases: 94: Decoro Dr. & McBean Pkwy



McBean Coordination Timing Existing Conditions
 95: Cottage Circle & McBean Pkwy

5:00 pm
 9/6/2007

Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations					
Volume (vph)	35	75	50	2377	805
Turn Type	Perm pm+pt				
Protected Phases	4		5	2	6
Permitted Phases		4	2		
Detector Phases	4	4	5	2	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	32.0	32.0	12.0	20.0	25.0
Total Split (s)	32.0	32.0	12.0	88.0	76.0
Total Split (%)	26.7%	26.7%	10.0%	73.3%	63.3%
Yellow Time (s)	3.5	3.5	3.5	5.0	5.0
All-Red Time (s)	1.0	1.0	0.0	1.0	1.0
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	7.7	7.7	106.3	107.1	99.0
Actuated g/C Ratio	0.06	0.06	0.89	0.89	0.82
v/c Ratio	0.19	0.48	0.12	0.59	0.22
Control Delay	54.5	19.6	2.4	3.7	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	54.5	19.6	2.4	3.7	1.8
LOS	D	B	A	A	A
Approach Delay	30.8			3.6	1.8
Approach LOS	C			A	A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 99 (83%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.59
 Intersection Signal Delay: 4.1
 Intersection Capacity Utilization 55.9%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service B

Splits and Phases: 95: Cottage Circle & McBean Pkwy



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Volume (vph)	50	5	32	5	9	50	2370	12	852	20
Turn Type	Perm		Perm		Perm	Perm		Perm		Perm
Protected Phases		4		8			2		6	
Permitted Phases	4		8		8	2		6		6
Detector Phases	4	4	8	8	8	2	2	6	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	32.5	32.5	32.5	29.0	29.0	28.0	28.0	28.0
Total Split (s)	20.0	20.0	20.0	20.0	20.0	100.0	100.0	100.0	100.0	100.0
Total Split (%)	16.7%	16.7%	16.7%	16.7%	16.7%	83.3%	83.3%	83.3%	83.3%	83.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	10.9	10.9	10.9	10.9	10.9	101.1	101.1	101.1	101.1	101.1
Actuated g/C Ratio	0.09	0.09	0.09	0.09	0.09	0.84	0.84	0.84	0.84	0.84
v/c Ratio	0.47	0.42	0.37	0.04	0.07	0.13	0.65	0.21	0.22	0.02
Control Delay	63.6	17.2	60.8	47.7	24.1	3.9	8.4	15.2	2.2	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.6	17.2	60.8	47.7	24.1	3.9	8.4	15.2	2.2	1.4
LOS	E	B	E	D	C	A	A	B	A	A
Approach Delay		34.3		52.3			8.3		2.4	
Approach LOS		C		D			A		A	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 38 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.65
 Intersection Signal Delay: 8.5
 Intersection Capacity Utilization 66.5%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service C

Splits and Phases: 96: Fairview Dr. & McBean Pkwy



McBean Coordination Timing Existing Conditions
 97: Newhall Ranch Rd & McBean Pkwy

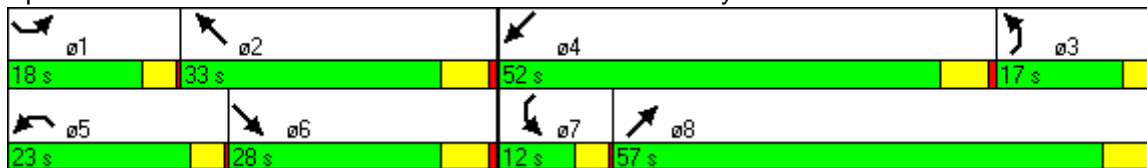
5:00 pm
 9/6/2007

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	371	834	240	335	238	74	196	2144	727	71	808	88
Turn Type	Prot		Free	Prot		Free	Prot		Free	Prot		Free
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases			Free			Free			Free			Free
Detector Phases	1	6		5	2		3	8		7	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	12.0	34.0		12.0	33.0		12.0	38.0		12.0	38.0	
Total Split (s)	18.0	28.0	0.0	23.0	33.0	0.0	17.0	57.0	0.0	12.0	52.0	0.0
Total Split (%)	15.0%	23.3%	0.0%	19.2%	27.5%	0.0%	14.2%	47.5%	0.0%	10.0%	43.3%	0.0%
Yellow Time (s)	3.5	5.0		3.5	5.0		3.5	5.0		3.5	5.0	
All-Red Time (s)	0.5	1.0		0.5	1.0		0.5	1.0		0.5	1.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	Min	Min		None	Min		Max	C-Max		Min	C-Max	
Act Effct Green (s)	14.0	24.6	120.0	17.6	28.2	120.0	13.0	54.3	120.0	7.5	48.8	120.0
Actuated g/C Ratio	0.12	0.20	1.00	0.15	0.24	1.00	0.11	0.45	1.00	0.06	0.41	1.00
v/c Ratio	1.07	0.87	0.17	0.80	0.22	0.05	0.61	1.05	0.29	0.38	0.35	0.06
Control Delay	116.3	55.8	0.2	62.8	37.4	0.1	58.9	65.4	0.3	60.7	15.1	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	116.3	55.8	0.2	62.8	37.4	0.1	58.9	65.4	0.3	60.7	15.1	0.1
LOS	F	E	A	E	D	A	E	E	A	E	B	A
Approach Delay		62.1			46.3			49.2			17.1	
Approach LOS		E			D			D			B	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 15 (13%), Referenced to phase 4:SWT and 8:NET, Start of Yellow
 Natural Cycle: 130
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.07
 Intersection Signal Delay: 47.0
 Intersection Capacity Utilization 84.5%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service E

Splits and Phases: 97: Newhall Ranch Rd & McBean Pkwy



McBean Coordination Timing Existing Conditions
 98: Ave Scott & McBean Pkwy

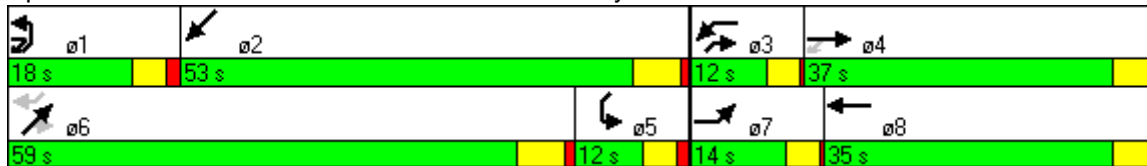
5:00 pm
 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations											
Volume (vph)	244	42	1058	48	8	265	2824	85	15	1350	34
Turn Type	Prot		pm+ov	Prot		Prot		pm+ov	Prot		custom
Protected Phases	7	4	1	3	8	1	6	3	5	2	
Permitted Phases			4					6			6
Detector Phases	7	4	1	3	8	1	6	3	5	2	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	12.0	37.0	15.0	12.0	35.0	15.0	35.0	12.0	12.0	36.0	35.0
Total Split (s)	14.0	37.0	18.0	12.0	35.0	18.0	59.0	12.0	12.0	53.0	59.0
Total Split (%)	11.7%	30.8%	15.0%	10.0%	29.2%	15.0%	49.2%	10.0%	10.0%	44.2%	49.2%
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	5.0	3.5	3.5	5.0	5.0
All-Red Time (s)	0.5	0.5	1.5	0.5	0.5	1.5	1.0	0.5	1.5	1.0	1.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	Min	None	None	Min	C-Max	None	Max	C-Max	C-Max
Act Effct Green (s)	10.0	9.1	50.3	8.7	7.6	41.6	82.6	92.9	8.0	49.0	82.6
Actuated g/C Ratio	0.08	0.08	0.42	0.07	0.06	0.35	0.69	0.77	0.07	0.41	0.69
v/c Ratio	0.99	0.33	0.95	0.23	0.13	0.26	0.72	0.08	0.15	0.56	0.03
Control Delay	105.7	58.1	47.4	55.7	27.8	40.5	3.5	0.0	56.3	28.3	2.5
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	105.7	58.1	47.4	55.7	27.8	40.5	3.5	0.0	56.3	28.3	2.5
LOS	F	E	D	E	C	D	A	A	E	C	A
Approach Delay		58.3			45.8		6.6			27.9	
Approach LOS		E			D		A			C	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 11 (9%), Referenced to phase 2:SWT and 6:NET, Start of Yellow
 Natural Cycle: 130
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.99
 Intersection Signal Delay: 23.9
 Intersection Capacity Utilization 71.0%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service C

Splits and Phases: 98: Ave Scott & McBean Pkwy



McBean Coordination Timing Existing Conditions
 99: Creekside Road & McBean Pkwy

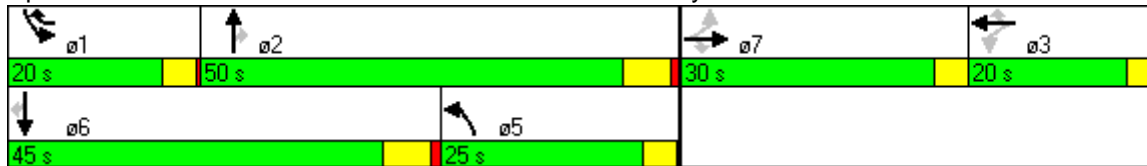
5:00 pm
 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	199	100	114	218	150	538	131	2448	149	330	1994	165
Turn Type	Perm		Perm	Perm		pm+ov	Prot		Perm	Prot		Perm
Protected Phases		7			3	1	5	2		1	6	
Permitted Phases	7		7	3		3			2			6
Detector Phases	7	7	7	3	3	1	5	2	2	1	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	35.0	35.0	35.0	15.0	15.0	12.0	12.0	27.0	27.0	12.0	27.0	27.0
Total Split (s)	30.0	30.0	30.0	20.0	20.0	20.0	25.0	50.0	50.0	20.0	45.0	45.0
Total Split (%)	25.0%	25.0%	25.0%	16.7%	16.7%	16.7%	20.8%	41.7%	41.7%	16.7%	37.5%	37.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	5.0	5.0	3.5	5.0	5.0
All-Red Time (s)	0.0	0.0	0.0	0.0	0.0	0.5	0.5	1.0	1.0	0.5	1.0	1.0
Lead/Lag						Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	26.0	26.0	26.0	16.0	16.0	36.0	21.0	46.0	46.0	16.0	41.0	41.0
Actuated g/C Ratio	0.22	0.22	0.22	0.13	0.13	0.30	0.18	0.38	0.38	0.13	0.34	0.34
v/c Ratio	1.83	4.93	0.30	1.12	1.25	0.99	0.46	1.37	0.24	1.57	1.02	0.30
Control Delay	460.9	1830.9	21.4	157.3	189.9	67.8	31.6	188.7	8.5	301.9	61.2	11.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	460.9	1830.9	21.4	157.3	189.9	67.8	31.6	188.7	8.5	301.9	61.2	11.3
LOS	F	F	C	F	F	E	C	F	A	F	E	B
Approach Delay		1001.6			112.0			171.3			89.8	
Approach LOS		F			F			F			F	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 64 (53%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 4.93
 Intersection Signal Delay: 184.5
 Intersection Capacity Utilization 98.8%
 Analysis Period (min) 15
 Intersection LOS: F
 ICU Level of Service F

Splits and Phases: 99: Creekside Road & McBean Pkwy



McBean Coordination Timing Existing Conditions
 100: Town Center & McBean Pkwy

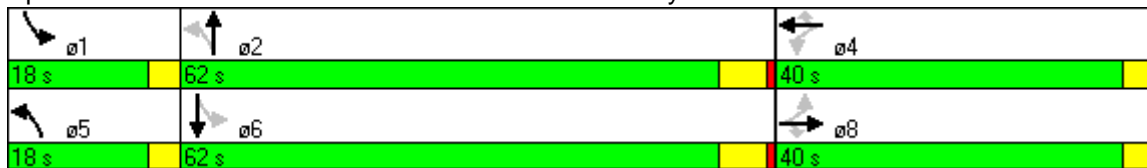
5:00 pm
 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	156	28	128	111	44	144	143	1535	153	1714
Turn Type	Perm		Perm	Perm		Perm	pm+pt		pm+pt	
Protected Phases		8			4		5	2	1	6
Permitted Phases	8		8	4		4	2		6	
Detector Phases	8	8	8	4	4	4	5	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	39.0	39.0	39.0	40.0	40.0	40.0	12.0	28.0	12.0	27.0
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	18.0	62.0	18.0	62.0
Total Split (%)	33.3%	33.3%	33.3%	33.3%	33.3%	33.3%	15.0%	51.7%	15.0%	51.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	5.0	3.5	5.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.0	1.0	0.0	1.0
Lead/Lag							Lead	Lag	Lead	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		26.6	26.6		26.6	26.6	80.0	69.0	82.8	70.4
Actuated g/C Ratio		0.22	0.22		0.22	0.22	0.67	0.58	0.69	0.59
v/c Ratio		0.86	0.29		0.73	0.33	0.70	0.61	0.67	0.54
Control Delay		75.5	8.9		60.0	12.0	59.2	4.0	49.0	11.2
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		75.5	8.9		60.0	12.0	59.2	4.0	49.0	11.2
LOS		E	A		E	B	E	A	D	B
Approach Delay		48.2			36.9			8.5		14.2
Approach LOS		D			D			A		B

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 79 (66%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.86
 Intersection Signal Delay: 15.9
 Intersection Capacity Utilization 66.8%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service C

Splits and Phases: 100: Town Center & McBean Pkwy



McBean Coordination Timing Existing Conditions
 101: Mall Entrance & McBean Pkwy

5:00 pm
 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Volume (vph)	26	1	16	198	8	80	105	1659	118	59	1832
Turn Type	Perm		Perm	Perm		Perm	pm+pt		Perm	pm+pt	
Protected Phases		8			4		5	2		1	6
Permitted Phases	8		8	4		4	2		2	6	
Detector Phases	8	8	8	4	4	4	5	2	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	37.0	37.0	37.0	36.0	36.0	36.0	12.0	27.0	27.0	12.0	27.0
Total Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	15.0	85.0	85.0	15.0	85.0
Total Split (%)	16.7%	16.7%	16.7%	16.7%	16.7%	16.7%	12.5%	70.8%	70.8%	12.5%	70.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	5.0	5.0	3.5	5.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.0	1.0	1.0	0.0	1.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	16.0	16.0	16.0	16.0	16.0	16.0	94.7	88.0	88.0	90.1	84.3
Actuated g/C Ratio	0.13	0.13	0.13	0.13	0.13	0.13	0.79	0.73	0.73	0.75	0.70
v/c Ratio	0.16	0.00	0.07	1.14	0.04	0.30	0.62	0.48	0.10	0.33	0.46
Control Delay	48.7	45.0	19.9	156.2	45.9	12.4	40.2	0.4	0.1	10.1	2.4
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	48.7	45.0	19.9	156.2	45.9	12.4	40.2	0.4	0.1	10.1	2.4
LOS	D	D	B	F	D	B	D	A	A	B	A
Approach Delay		38.0			112.8			2.6			2.6
Approach LOS		D			F			A			A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 92 (77%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.14
 Intersection Signal Delay: 10.5
 Intersection Capacity Utilization 63.0%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service B

Splits and Phases: 101: Mall Entrance & McBean Pkwy



Lane Group	EBL	EBT	WBL	WBT	WBR	SEL	SET	NWL	NWT
Lane Configurations									
Volume (vph)	83	24	89	18	162	212	1528	75	1489
Turn Type	Perm		Perm		Perm	Prot		Prot	
Protected Phases		4		4		1	6	5	2
Permitted Phases	4	4	4		4				2
Detector Phases	4	4	4	4	4	1	6	5	2
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	28.0	28.0	28.0	28.0	28.0	18.0	24.0	12.0	24.0
Total Split (s)	28.0	28.0	28.0	28.0	28.0	18.0	77.0	15.0	74.0
Total Split (%)	23.3%	23.3%	23.3%	23.3%	23.3%	15.0%	64.2%	12.5%	61.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.5	5.0	3.5	5.0
All-Red Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	1.0
Lead/Lag						Lead	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	Min	C-Max
Act Effct Green (s)	15.5	15.5	15.5	15.5	15.5	22.5	81.5	11.0	70.0
Actuated g/C Ratio	0.13	0.13	0.13	0.13	0.13	0.19	0.68	0.09	0.58
v/c Ratio	0.58	0.15	0.65	0.09	0.51	0.85	0.50	0.62	0.62
Control Delay	60.7	22.4	65.8	43.7	10.7	65.7	7.4	69.0	15.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.7	22.4	65.8	43.7	10.7	65.7	7.4	69.0	15.0
LOS	E	C	E	D	B	E	A	E	B
Approach Delay		45.2		31.0			15.1		17.7
Approach LOS		D		C			B		B

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 75 (63%), Referenced to phase 2:NWT and 6:SET, Start of Yellow
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.85
 Intersection Signal Delay: 18.6
 Intersection Capacity Utilization 68.3%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service C

Splits and Phases: 102: Del Monte Dr. & McBean Pkwy



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	58	51	32	81	15	150	120	1546	120	1520
Turn Type	Perm		Perm	Perm		Perm	pm+pt		pm+pt	
Protected Phases		4			4		5	2	1	6
Permitted Phases	4		4	4		4	2		6	
Detector Phases	4	4	4	4	4	4	5	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	26.0	26.0	12.0	25.0	12.0	25.0
Total Split (s)	18.0	18.0	18.0	18.0	18.0	18.0	15.0	87.0	15.0	87.0
Total Split (%)	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	12.5%	72.5%	12.5%	72.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	5.0	3.5	5.0
All-Red Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	1.0
Lead/Lag							Lead	Lag	Lead	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	Min	C-Max
Act Effct Green (s)	11.5	11.5	11.5	11.5	11.5	11.5	95.0	88.4	98.0	89.9
Actuated g/C Ratio	0.10	0.10	0.10	0.10	0.10	0.10	0.79	0.74	0.82	0.75
v/c Ratio	0.51	0.31	0.19	0.68	0.10	0.53	0.56	0.47	0.54	0.44
Control Delay	65.0	54.1	17.7	77.9	49.2	14.0	19.9	5.1	27.4	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.0	54.1	17.7	77.9	49.2	14.0	19.9	5.1	27.4	1.7
LOS	E	D	B	E	D	B	B	A	C	A
Approach Delay		50.3			37.2			6.1		3.6
Approach LOS		D			D			A		A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 83 (69%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.68
 Intersection Signal Delay: 8.7
 Intersection Capacity Utilization 59.0%
 Analysis Period (min) 15

Intersection LOS: A
 ICU Level of Service B

Splits and Phases: 103: Arroyo Park Dr. & McBean Pkwy



McBean Coordination Timing Existing Conditions
 104: Granary Square & McBean Pkwy

5:00 pm
 9/6/2007

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Volume (vph)	2	4	50	3	35	21	1687	50	1574
Turn Type	Perm		Perm		Perm	pm+pt		pm+pt	
Protected Phases		4		8		5	2	1	6
Permitted Phases	4		8		8	2		6	
Detector Phases	4	4	8	8	8	5	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	28.0	28.0	28.0	28.0	28.0	12.0	23.0	12.0	24.0
Total Split (s)	28.0	28.0	28.0	28.0	28.0	12.0	77.0	15.0	80.0
Total Split (%)	23.3%	23.3%	23.3%	23.3%	23.3%	10.0%	64.2%	12.5%	66.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	5.0	3.5	6.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.0	1.0	0.0	1.0
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		10.2		10.3	10.3	100.0	96.6	101.7	98.8
Actuated g/C Ratio		0.08		0.09	0.09	0.83	0.80	0.85	0.82
v/c Ratio		0.14		0.51	0.22	0.11	0.49	0.32	0.43
Control Delay		27.2		67.0	18.0	2.4	5.0	19.2	2.5
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		27.2		67.0	18.0	2.4	5.0	19.2	2.5
LOS		C		E	B	A	A	B	A
Approach Delay		27.2		47.4			5.0		3.0
Approach LOS		C		D			A		A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 19 (16%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.51
 Intersection Signal Delay: 5.2
 Intersection Capacity Utilization 57.7%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service B

Splits and Phases: 104: Granary Square & McBean Pkwy



McBean Coordination Timing Existing Conditions
 105: Avenida Navarre & McBean Pkwy

5:00 pm
 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	129	10	58	196	5	115	22	1545	41	1476
Turn Type	Perm		Perm	Perm		Perm	pm+pt		pm+pt	
Protected Phases		4			4		5	2	1	6
Permitted Phases	4		4	4		4	2		6	
Detector Phases	4	4	4	4	4	4	5	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	26.0	26.0	12.0	22.0	12.0	21.0
Total Split (s)	26.0	26.0	26.0	26.0	26.0	26.0	15.0	79.0	15.0	79.0
Total Split (%)	21.7%	21.7%	21.7%	21.7%	21.7%	21.7%	12.5%	65.8%	12.5%	65.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.5	5.0	3.5	5.0
All-Red Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	1.0
Lead/Lag							Lead	Lag	Lead	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	21.7	21.7	21.7	21.7	21.7	21.7	86.6	82.2	88.4	84.5
Actuated g/C Ratio	0.18	0.18	0.18	0.18	0.18	0.18	0.72	0.68	0.74	0.70
v/c Ratio	0.64	0.04	0.21	0.94	0.02	0.36	0.14	0.63	0.32	0.49
Control Delay	58.9	40.8	11.5	93.7	40.5	9.8	4.5	7.2	25.8	4.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.9	40.8	11.5	93.7	40.5	9.8	4.5	7.2	25.8	4.0
LOS	E	D	B	F	D	A	A	A	C	A
Approach Delay		44.0			62.3			7.1		4.6
Approach LOS		D			E			A		A

Intersection Summary











Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 32 (27%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.94
 Intersection Signal Delay: 12.6
 Intersection Capacity Utilization 63.7%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service B

Splits and Phases: 105: Avenida Navarre & McBean Pkwy



McBean Coordination Timing Existing Conditions
 106: McBean Pkwy & Alegro Dr.

5:00 pm
 9/6/2007

					
Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations					
Volume (vph)	50	1334	1257	49	51
Turn Type	Perm				Perm
Protected Phases		6	2	4	
Permitted Phases	6				4
Detector Phases	6	6	2	4	4
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	21.0	28.5	28.5
Total Split (s)	91.0	91.0	91.0	29.0	29.0
Total Split (%)	75.8%	75.8%	75.8%	24.2%	24.2%
Yellow Time (s)	5.0	5.0	5.0	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	106.2	106.2	106.2	8.8	8.8
Actuated g/C Ratio	0.88	0.88	0.88	0.07	0.07
v/c Ratio	0.21	0.33	0.31	0.23	0.33
Control Delay	2.3	0.6	1.4	54.2	18.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	2.3	0.6	1.4	54.2	18.9
LOS	A	A	A	D	B
Approach Delay		0.7	1.4	36.2	
Approach LOS		A	A	D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 90 (75%), Referenced to phase 2:WBT and 6:EBTL, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.33
 Intersection Signal Delay: 2.3
 Intersection Capacity Utilization 41.4%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 106: McBean Pkwy & Alegro Dr.



McBean Coordination Timing Existing Conditions
 107: McBean Pkwy & Singing Hills Dr.

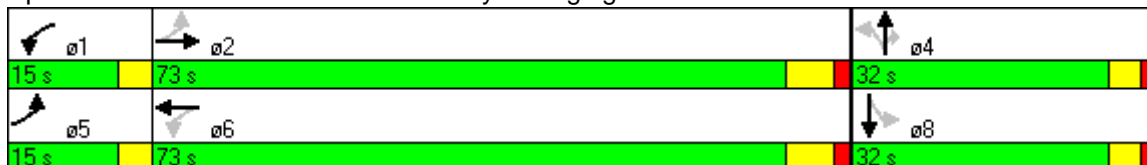
5:00 pm
 9/6/2007

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Volume (vph)	100	1236	95	1192	87	22	50	58	24
Turn Type	pm+pt		pm+pt		Perm		Perm	Perm	
Protected Phases	5	2	1	6		4			8
Permitted Phases	2		6		4		4	8	
Detector Phases	5	2	1	6	4	4	4	8	8
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	12.0	24.0	11.0	20.0	31.5	31.5	31.5	31.5	31.5
Total Split (s)	15.0	73.0	15.0	73.0	32.0	32.0	32.0	32.0	32.0
Total Split (%)	12.5%	60.8%	12.5%	60.8%	26.7%	26.7%	26.7%	26.7%	26.7%
Yellow Time (s)	3.5	5.0	3.5	5.0	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead	Lag	Lead	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None
Act Effct Green (s)	92.5	86.2	92.0	86.0	15.7	15.7	15.7	15.7	15.7
Actuated g/C Ratio	0.77	0.72	0.77	0.72	0.13	0.13	0.13	0.13	0.13
v/c Ratio	0.38	0.42	0.42	0.38	0.60	0.10	0.21	0.36	0.28
Control Delay	9.1	5.4	12.2	3.9	63.5	44.1	13.1	51.6	20.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.1	5.4	12.2	3.9	63.5	44.1	13.1	51.6	20.6
LOS	A	A	B	A	E	D	B	D	C
Approach Delay		5.6		4.5		45.1			34.3
Approach LOS		A		A		D			C

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 80 (67%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.60
 Intersection Signal Delay: 8.4
 Intersection Capacity Utilization 53.2%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 107: McBean Pkwy & Singing Hills Dr.



McBean Coordination Timing Existing Conditions
 108: McBean Pkwy & Rockwell Canyon Rd

5:00 pm
 9/6/2007

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Volume (vph)	440	1228	93	1114	189	215	91	221	486
Turn Type	pm+pt		pm+pt		pm+pt		pm+pt		Perm
Protected Phases	1	6	5	2	7	4	3	8	
Permitted Phases	6		2		4		8		8
Detector Phases	1	6	5	2	7	4	3	8	8
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	12.0	26.0	12.0	26.0	12.0	29.0	12.0	29.0	29.0
Total Split (s)	34.0	65.0	12.0	43.0	14.0	31.0	12.0	29.0	29.0
Total Split (%)	28.3%	54.2%	10.0%	35.8%	11.7%	25.8%	10.0%	24.2%	24.2%
Yellow Time (s)	3.5	5.0	3.5	5.0	3.5	4.0	3.5	4.0	4.0
All-Red Time (s)	0.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None
Act Effct Green (s)	76.0	64.8	46.2	39.0	34.2	24.2	29.8	22.0	22.0
Actuated g/C Ratio	0.63	0.54	0.38	0.32	0.28	0.20	0.25	0.18	0.18
v/c Ratio	0.99	0.62	0.61	0.81	0.96	0.55	0.47	0.80	0.92
Control Delay	63.9	20.4	36.7	36.6	86.0	37.3	38.0	64.8	34.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.9	20.4	36.7	36.6	86.0	37.3	38.0	64.8	34.2
LOS	E	C	D	D	F	D	D	E	C
Approach Delay		31.1		36.6		55.2		43.1	
Approach LOS		C		D		E		D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 69 (58%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.99
 Intersection Signal Delay: 37.7
 Intersection Capacity Utilization 88.5%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service E

Splits and Phases: 108: McBean Pkwy & Rockwell Canyon Rd



McBean Coordination Timing Existing Conditions
 109: McBean Pkwy & 5 Fwy NB On/Off Ramp

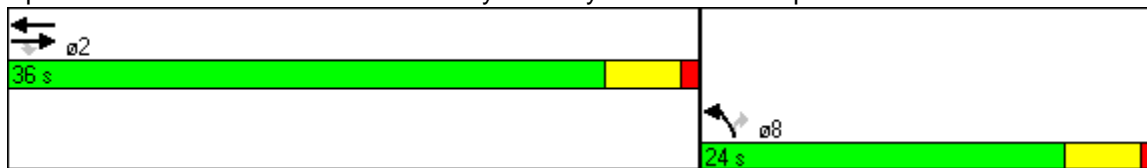
5:00 pm
 9/6/2007

	→	↘	←	↙	↗
Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑↑↑	↑↑	↑↑
Volume (vph)	951	175	1857	175	1020
Turn Type		Perm			Perm
Protected Phases	2		2	8	
Permitted Phases		2			8
Detector Phases	2	2	2	8	8
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	36.0	36.0	36.0	20.0	20.0
Total Split (s)	36.0	36.0	36.0	24.0	24.0
Total Split (%)	60.0%	60.0%	60.0%	40.0%	40.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Max	C-Max	C-Max	Min	Min
Act Effct Green (s)	32.0	32.0	32.0	20.0	20.0
Actuated g/C Ratio	0.53	0.53	0.53	0.33	0.33
v/c Ratio	0.55	0.20	0.74	0.17	1.08
Control Delay	11.2	4.2	15.3	14.6	73.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	11.2	4.2	15.3	14.6	73.1
LOS	B	A	B	B	E
Approach Delay	10.1		15.3	64.5	
Approach LOS	B		B	E	

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 35 (58%), Referenced to phase 2:EBWB, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.08
 Intersection Signal Delay: 28.0
 Intersection Capacity Utilization 68.6%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service C

Splits and Phases: 109: McBean Pkwy & 5 Fwy NB On/Off Ramp



McBean Coordination Timing Existing Conditions
 110: McBean Pkwy & 5 Fwy SB On/Off Ramp

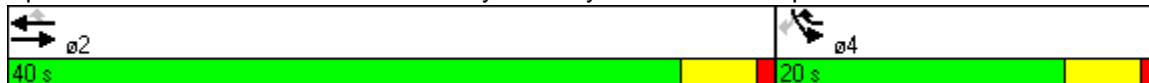
5:00 pm
 9/6/2007

	→	←	↖	↘	↙
Lane Group	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↑↑↑	↑↑	↖	↘↘	↖
Volume (vph)	1203	1261	521	128	156
Turn Type			pm+ov		Perm
Protected Phases	2	2	4	4	
Permitted Phases			2		4
Detector Phases	2	2	4	4	4
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	27.0	27.0	20.0	20.0	20.0
Total Split (s)	40.0	40.0	20.0	20.0	20.0
Total Split (%)	66.7%	66.7%	33.3%	33.3%	33.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Max	C-Max	Min	Min	Min
Act Effct Green (s)	37.1	37.1	60.0	14.9	14.9
Actuated g/C Ratio	0.62	0.62	1.00	0.25	0.25
v/c Ratio	0.40	0.63	0.32	0.16	0.38
Control Delay	6.3	18.8	0.4	17.6	15.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	6.3	18.8	0.4	17.6	15.5
LOS	A	B	A	B	B
Approach Delay	6.3	13.4		16.5	
Approach LOS	A	B		B	

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 14 (23%), Referenced to phase 2:EBWB, Start of Yellow
 Natural Cycle: 50
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.63
 Intersection Signal Delay: 11.1
 Intersection Capacity Utilization 51.2%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 110: McBean Pkwy & 5 Fwy SB On/Off Ramp



McBean Coordination Timing Existing Conditions
 111: McBean Pkwy & The Old Road

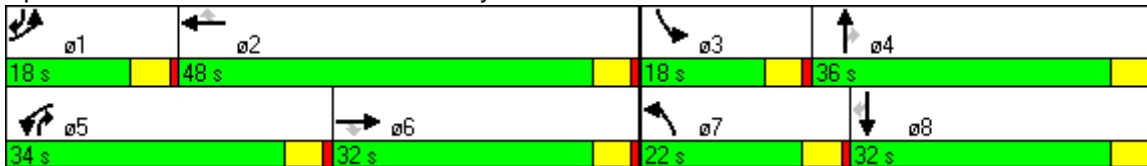
5:00 pm
 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	105	512	90	592	700	125	153	321	624	67	366	263
Turn Type	Prot		Perm	Prot		Perm	Prot		pm+ov	Prot		pm+ov
Protected Phases	1	6		5	2		7	4	5	3	8	1
Permitted Phases			6			2			4			8
Detector Phases	1	6	6	5	2	2	7	4	5	3	8	1
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	14.0	31.0	31.0	14.0	32.0	32.0	14.0	35.0	14.0	14.0	31.0	14.0
Total Split (s)	18.0	32.0	32.0	34.0	48.0	48.0	22.0	36.0	34.0	18.0	32.0	18.0
Total Split (%)	15.0%	26.7%	26.7%	28.3%	40.0%	40.0%	18.3%	30.0%	28.3%	15.0%	26.7%	15.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes			Yes			Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	13.8	38.7	38.7	30.2	55.1	55.1	15.9	26.3	60.6	11.0	19.2	37.0
Actuated g/C Ratio	0.12	0.32	0.32	0.25	0.46	0.46	0.13	0.22	0.50	0.09	0.16	0.31
v/c Ratio	0.56	0.35	0.16	0.77	0.47	0.17	0.71	0.31	0.70	0.45	0.70	0.45
Control Delay	60.2	33.7	7.7	46.9	29.7	9.0	66.2	40.2	19.7	59.9	54.5	20.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.2	33.7	7.7	46.9	29.7	9.0	66.2	40.2	19.7	59.9	54.5	20.3
LOS	E	C	A	D	C	A	E	D	B	E	D	C
Approach Delay		34.3			35.0			32.2			42.1	
Approach LOS		C			D			C			D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 1 (1%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
 Natural Cycle: 95
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.77
 Intersection Signal Delay: 35.4
 Intersection Capacity Utilization 62.2%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service B

Splits and Phases: 111: McBean Pkwy & The Old Road



Lane Group	NET	SWT	ø4	ø5
Lane Configurations	↑↑↑	↑↑↑		
Volume (vph)	3441	2012		
Turn Type				
Protected Phases	2	6	4	5
Permitted Phases				
Detector Phases	2	6		
Minimum Initial (s)	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	20.0	20.0
Total Split (s)	83.0	58.0	37.0	25.0
Total Split (%)	69.2%	48.3%	31%	21%
Yellow Time (s)	5.0	5.0	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	0.5
Lead/Lag		Lag		Lead
Lead-Lag Optimize?		Yes		Yes
Recall Mode	C-Max	C-Max	None	None
Act Effct Green (s)	120.0	120.0		
Actuated g/C Ratio	1.00	1.00		
v/c Ratio	0.58	0.34		
Control Delay	0.2	0.2		
Queue Delay	0.0	0.0		
Total Delay	0.2	0.2		
LOS	A	A		
Approach Delay	0.2	0.2		
Approach LOS	A	A		

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 29 (24%), Referenced to phase 2:NET and 6:SWT, Start of Yellow
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.58
 Intersection Signal Delay: 0.2
 Intersection Capacity Utilization 53.2%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 2: Baywood Lane & McBean Pkwy



McBean Coordination Timing Interim Year No Project
 4: Valencia Blvd & McBean Pkwy

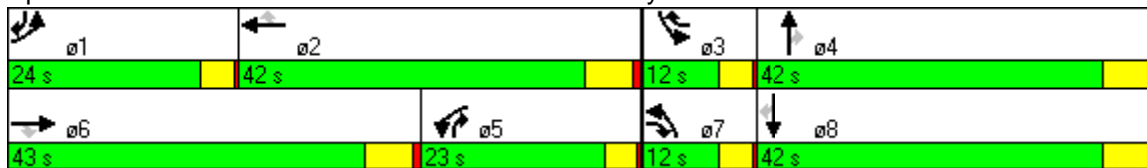
5:00 pm
 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	920	1530	210	366	1170	250	120	1136	848	150	1312	1210
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov
Protected Phases	1	6	7	5	2	3	7	4	5	3	8	1
Permitted Phases			6			2			4			8
Detector Phases	1	6	7	5	2	3	7	4	5	3	8	1
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	12.0	43.0	12.0	12.0	42.0	12.0	12.0	42.0	12.0	12.0	42.0	12.0
Total Split (s)	24.0	43.0	12.0	23.0	42.0	12.0	12.0	42.0	23.0	12.0	42.0	24.0
Total Split (%)	20.0%	35.8%	10.0%	19.2%	35.0%	10.0%	10.0%	35.0%	19.2%	10.0%	35.0%	20.0%
Yellow Time (s)	3.5	5.0	3.5	3.5	5.0	3.5	3.5	5.0	3.5	3.5	5.0	3.5
All-Red Time (s)	0.5	1.0	0.5	0.5	1.0	0.5	0.5	1.0	0.5	0.5	1.0	0.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	C-Max	Max	Max	C-Max	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	20.0	39.0	47.0	19.0	38.0	50.0	8.0	38.0	57.0	8.0	38.0	62.0
Actuated g/C Ratio	0.17	0.32	0.39	0.16	0.32	0.42	0.07	0.32	0.48	0.07	0.32	0.52
v/c Ratio	1.81	1.04	0.36	0.76	0.82	0.40	0.59	0.79	0.69	0.74	0.92	0.90
Control Delay	401.0	73.6	14.8	58.5	43.0	26.4	48.9	59.1	36.0	52.6	53.4	42.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	401.0	73.6	14.8	58.5	43.0	26.4	48.9	59.1	36.0	52.6	53.4	42.1
LOS	F	E	B	E	D	C	D	E	D	D	D	D
Approach Delay		182.2			43.8			49.2			48.2	
Approach LOS		F			D			D			D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 71 (59%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.81
 Intersection Signal Delay: 86.2
 Intersection Capacity Utilization 91.0%
 Analysis Period (min) 15
 Intersection LOS: F
 ICU Level of Service E

Splits and Phases: 4: Valencia Blvd & McBean Pkwy



McBean Coordination Timing Interim Year No Project
 14: Magic Mountain Pkwy & McBean Pkwy

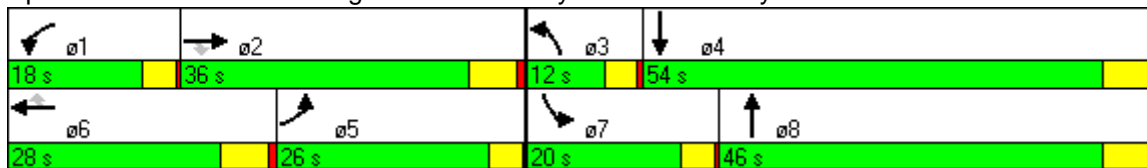
5:00 pm
 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	650	1370	289	169	750	410	356	2117	238	480	2055	380
Turn Type	Prot		Perm	Prot		Perm	Prot		Free	Prot		Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			Free			Free
Detector Phases	5	2	2	1	6	6	3	8		7	4	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	12.0	28.0	28.0	12.0	28.0	28.0	12.0	28.0		12.0	28.0	
Total Split (s)	26.0	36.0	36.0	18.0	28.0	28.0	12.0	46.0	0.0	20.0	54.0	0.0
Total Split (%)	21.7%	30.0%	30.0%	15.0%	23.3%	23.3%	10.0%	38.3%	0.0%	16.7%	45.0%	0.0%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0		3.5	5.0	
All-Red Time (s)	0.5	1.0	1.0	0.5	1.0	1.0	0.5	1.0		0.5	1.0	
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	Max	Max	Max	Max	Max	Max	Max	C-Max		Max	C-Max	
Act Effct Green (s)	22.0	32.0	32.0	14.0	24.0	24.0	8.0	42.0	120.0	16.0	50.0	120.0
Actuated g/C Ratio	0.18	0.27	0.27	0.12	0.20	0.20	0.07	0.35	1.00	0.13	0.42	1.00
v/c Ratio	1.12	1.58	0.54	0.46	1.15	0.92	1.75	1.34	0.14	1.18	0.87	0.23
Control Delay	119.8	296.5	23.2	53.6	126.8	53.6	386.6	182.5	0.1	148.1	2.7	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	119.8	296.5	23.2	53.6	126.8	53.6	386.6	182.5	0.1	148.1	2.7	0.0
LOS	F	F	C	D	F	D	F	F	A	F	A	A
Approach Delay		212.5			94.9			193.3			26.3	
Approach LOS		F			F			F			C	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 78 (65%), Referenced to phase 4:SBT and 8:NBT, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.75
 Intersection Signal Delay: 131.4
 Intersection Capacity Utilization 110.6%
 Analysis Period (min) 15
 Intersection LOS: F
 ICU Level of Service H

Splits and Phases: 14: Magic Mountain Pkwy & McBean Pkwy



Lane Group								
Lane Group	SET	NWL	NWT	NWR	NEL	NET	SWL	SWT
Lane Configurations								
Volume (vph)	70	382	60	980	40	1025	910	630
Turn Type		Split		pm+ov	Prot		Prot	
Protected Phases	3	4	4	5	1	6	5	2
Permitted Phases				4				
Detector Phases	3	4	4	5	1	6	5	2
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	28.0	15.0	15.0	20.0	12.0	28.0	20.0	23.0
Total Split (s)	15.0	18.0	18.0	51.0	12.0	36.0	51.0	75.0
Total Split (%)	12.5%	15.0%	15.0%	42.5%	10.0%	30.0%	42.5%	62.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	5.0	3.5	5.0
All-Red Time (s)	1.0	1.0	1.0	0.5	0.5	1.0	0.5	1.0
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	Max	None	C-Max	Max	C-Max
Act Effct Green (s)	10.2	14.0	14.0	65.0	7.3	32.8	47.0	74.4
Actuated g/C Ratio	0.08	0.12	0.12	0.54	0.06	0.27	0.39	0.62
v/c Ratio	0.56	1.23	1.28	0.68	0.43	1.48dr	0.79	0.24
Control Delay	54.2	186.0	202.0	17.9	65.0	202.5	31.3	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.2	186.0	202.0	17.9	65.0	202.5	31.3	4.9
LOS	D	F	F	B	E	F	C	A
Approach Delay	54.2		72.7			199.4		20.3
Approach LOS	D		E			F		C

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 100 (83%), Referenced to phase 2:SWT and 6:NET, Start of Yellow
 Natural Cycle: 145
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.38
 Intersection Signal Delay: 101.2
 Intersection Capacity Utilization 90.5%
 Analysis Period (min) 15
 Intersection LOS: F
 ICU Level of Service E
 dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 41: Orchard Village Rd & McBean Pkwy

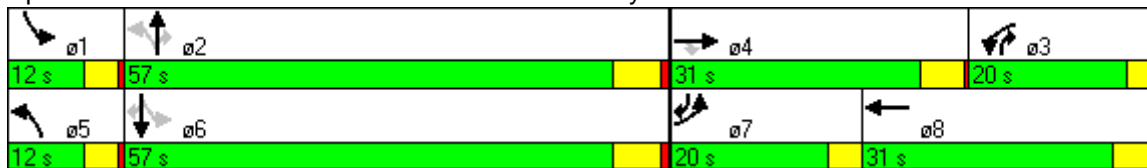


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Volume (vph)	350	450	100	260	180	60	1501	800	119	757	39
Turn Type	Prot		Perm	Prot		pm+pt		pm+ov	pm+pt		pm+ov
Protected Phases	7	4		3	8	5	2	3	1	6	7
Permitted Phases			4			2		2	6		6
Detector Phases	7	4	4	3	8	5	2	3	1	6	7
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	12.0	31.0	31.0	12.0	31.0	12.0	29.0	12.0	12.0	31.0	12.0
Total Split (s)	20.0	31.0	31.0	20.0	31.0	12.0	57.0	20.0	12.0	57.0	20.0
Total Split (%)	16.7%	25.8%	25.8%	16.7%	25.8%	10.0%	47.5%	16.7%	10.0%	47.5%	16.7%
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	3.5	5.0	3.5	3.5	5.0	3.5
All-Red Time (s)	0.0	0.5	0.5	0.0	0.5	0.5	1.0	0.0	0.5	1.0	0.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	None	C-Max	None
Act Effct Green (s)	15.8	23.2	23.2	19.8	27.2	59.8	53.0	72.8	62.6	56.2	76.0
Actuated g/C Ratio	0.13	0.19	0.19	0.16	0.23	0.50	0.44	0.61	0.52	0.47	0.63
v/c Ratio	0.90	0.76	0.29	0.54	0.45	0.22	0.75	0.87	0.76	0.36	0.04
Control Delay	76.5	53.9	15.0	51.2	27.7	13.4	25.6	19.7	50.4	21.5	2.9
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	76.5	53.9	15.0	51.2	27.7	13.4	25.6	19.7	50.4	21.5	2.9
LOS	E	D	B	D	C	B	C	B	D	C	A
Approach Delay		58.3			38.0		23.3			24.4	
Approach LOS		E			D		C			C	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 82 (68%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.90
 Intersection Signal Delay: 31.9
 Intersection Capacity Utilization 78.6%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service D

Splits and Phases: 94: Decoro Dr. & McBean Pkwy



	↖	↗	↙	↑	↓
Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations	↖↗	↖	↙	↑↑↑	↑↑↑↖
Volume (vph)	35	75	50	2364	1096
Turn Type	Perm pm+pt				
Protected Phases	4		5	2	6
Permitted Phases		4	2		
Detector Phases	4	4	5	2	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	32.0	32.0	12.0	20.0	25.0
Total Split (s)	32.0	32.0	12.0	88.0	76.0
Total Split (%)	26.7%	26.7%	10.0%	73.3%	63.3%
Yellow Time (s)	3.5	3.5	3.5	5.0	5.0
All-Red Time (s)	1.0	1.0	0.0	1.0	1.0
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	7.6	7.6	106.4	107.2	99.2
Actuated g/C Ratio	0.06	0.06	0.89	0.89	0.83
v/c Ratio	0.18	0.46	0.16	0.59	0.29
Control Delay	54.4	19.9	2.7	3.4	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	54.4	19.9	2.7	3.4	1.6
LOS	D	B	A	A	A
Approach Delay	30.8			3.4	1.6
Approach LOS	C			A	A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 99 (83%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.59
 Intersection Signal Delay: 3.6
 Intersection Capacity Utilization 55.7%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service B

Splits and Phases: 95: Cottage Circle & McBean Pkwy



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Volume (vph)	50	5	32	5	9	50	2393	10	1146	17
Turn Type	Perm		Perm		Perm	Perm		Perm		Perm
Protected Phases		4		8			2		6	
Permitted Phases	4		8		8	2		6		6
Detector Phases	4	4	8	8	8	2	2	6	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	32.5	32.5	32.5	29.0	29.0	28.0	28.0	28.0
Total Split (s)	20.0	20.0	20.0	20.0	20.0	100.0	100.0	100.0	100.0	100.0
Total Split (%)	16.7%	16.7%	16.7%	16.7%	16.7%	83.3%	83.3%	83.3%	83.3%	83.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	10.7	10.7	10.7	10.7	10.7	101.3	101.3	101.3	101.3	101.3
Actuated g/C Ratio	0.09	0.09	0.09	0.09	0.09	0.84	0.84	0.84	0.84	0.84
v/c Ratio	0.46	0.41	0.36	0.03	0.07	0.18	0.66	0.18	0.29	0.01
Control Delay	63.6	17.2	60.3	47.6	24.3	4.3	6.4	10.6	2.4	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.6	17.2	60.3	47.6	24.3	4.3	6.4	10.6	2.4	1.1
LOS	E	B	E	D	C	A	A	B	A	A
Approach Delay		34.4		51.9			6.4		2.4	
Approach LOS		C		D			A		A	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 38 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.66
 Intersection Signal Delay: 6.7
 Intersection Capacity Utilization 66.8%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service C

Splits and Phases: 96: Fairview Dr. & McBean Pkwy

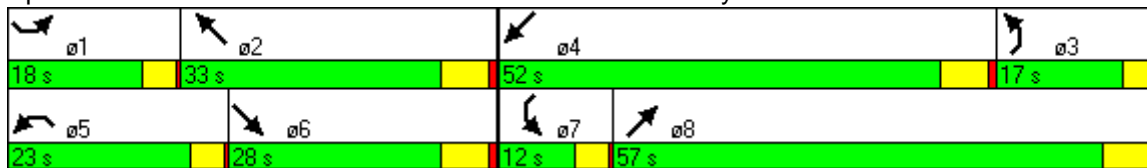


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	500	1360	590	430	1010	330	394	1825	1184	200	990	70
Turn Type	Prot		Free	Prot		Free	Prot		Free	Prot		Free
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases			Free			Free			Free			Free
Detector Phases	1	6		5	2		3	8		7	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	12.0	34.0		12.0	33.0		12.0	38.0		12.0	38.0	
Total Split (s)	18.0	28.0	0.0	23.0	33.0	0.0	17.0	57.0	0.0	12.0	52.0	0.0
Total Split (%)	15.0%	23.3%	0.0%	19.2%	27.5%	0.0%	14.2%	47.5%	0.0%	10.0%	43.3%	0.0%
Yellow Time (s)	3.5	5.0		3.5	5.0		3.5	5.0		3.5	5.0	
All-Red Time (s)	0.5	1.0		0.5	1.0		0.5	1.0		0.5	1.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	Min	Min		None	Min		Max	C-Max		Min	C-Max	
Act Effct Green (s)	14.0	24.1	120.0	18.9	29.0	120.0	13.0	53.0	120.0	8.0	48.0	120.0
Actuated g/C Ratio	0.12	0.20	1.00	0.16	0.24	1.00	0.11	0.44	1.00	0.07	0.40	1.00
v/c Ratio	1.40	1.40	0.40	0.92	0.89	0.22	1.19	0.91	0.46	0.98	0.43	0.05
Control Delay	235.5	223.7	0.8	75.1	54.4	0.3	140.3	22.0	0.5	117.7	14.3	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	235.5	223.7	0.8	75.1	54.4	0.3	140.3	22.0	0.5	117.7	14.3	0.1
LOS	F	F	A	E	D	A	F	C	A	F	B	A
Approach Delay		172.4			49.4			28.2			29.9	
Approach LOS		F			D			C			C	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 15 (13%), Referenced to phase 4:SWT and 8:NET, Start of Yellow
 Natural Cycle: 120
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.40
 Intersection Signal Delay: 72.4
 Intersection Capacity Utilization 92.8%
 Analysis Period (min) 15
 Intersection LOS: E
 ICU Level of Service F

Splits and Phases: 97: Newhall Ranch Rd & McBean Pkwy

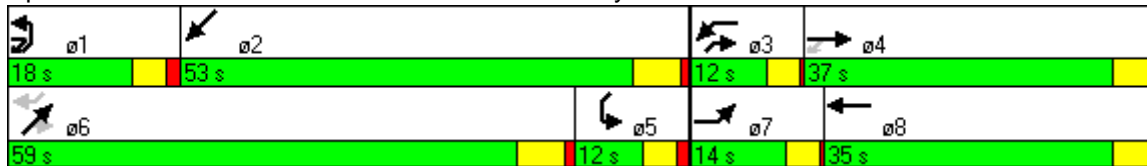


Lane Group	EBL	EBT	EBR	WBL	WBT	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations											
Volume (vph)	244	42	1058	48	8	258	3216	84	14	1966	34
Turn Type	Prot		pm+ov	Prot		Prot		pm+ov	Prot		custom
Protected Phases	7	4	1	3	8	1	6	3	5	2	
Permitted Phases			4					6			6
Detector Phases	7	4	1	3	8	1	6	3	5	2	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	12.0	37.0	15.0	12.0	35.0	15.0	35.0	12.0	12.0	36.0	35.0
Total Split (s)	14.0	37.0	18.0	12.0	35.0	18.0	59.0	12.0	12.0	53.0	59.0
Total Split (%)	11.7%	30.8%	15.0%	10.0%	29.2%	15.0%	49.2%	10.0%	10.0%	44.2%	49.2%
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	5.0	3.5	3.5	5.0	5.0
All-Red Time (s)	0.5	0.5	1.5	0.5	0.5	1.5	1.0	0.5	1.5	1.0	1.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	Min	None	None	Min	C-Max	None	Max	C-Max	C-Max
Act Effct Green (s)	10.0	9.1	50.3	8.7	7.5	41.7	82.7	92.9	8.0	49.0	82.7
Actuated g/C Ratio	0.08	0.08	0.42	0.07	0.06	0.35	0.69	0.77	0.07	0.41	0.69
v/c Ratio	0.96	0.33	0.93	0.23	0.13	0.24	0.82	0.07	0.14	0.82	0.03
Control Delay	99.1	58.0	43.6	55.6	27.9	41.1	8.0	0.0	44.1	23.9	2.4
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	99.1	58.0	43.6	55.6	27.9	41.1	8.0	0.0	44.1	23.9	2.4
LOS	F	E	D	E	C	D	A	A	D	C	A
Approach Delay		54.1			45.5		10.2			23.7	
Approach LOS		D			D		B			C	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 11 (9%), Referenced to phase 2:SWT and 6:NET, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.96
 Intersection Signal Delay: 22.9
 Intersection Capacity Utilization 78.8%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service D

Splits and Phases: 98: Ave Scott & McBean Pkwy



McBean Coordination Timing Interim Year No Project
 99: Creekside Road & McBean Pkwy

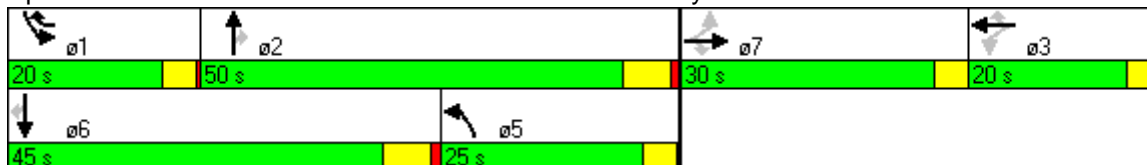
5:00 pm
 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	199	100	114	218	150	538	131	2859	149	330	2580	165
Turn Type	Perm		Perm	Perm		pm+ov	Prot		Perm	Prot		Perm
Protected Phases		7			3	1	5	2		1	6	
Permitted Phases	7		7	3		3			2			6
Detector Phases	7	7	7	3	3	1	5	2	2	1	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	35.0	35.0	35.0	15.0	15.0	12.0	12.0	27.0	27.0	12.0	27.0	27.0
Total Split (s)	30.0	30.0	30.0	20.0	20.0	20.0	25.0	50.0	50.0	20.0	45.0	45.0
Total Split (%)	25.0%	25.0%	25.0%	16.7%	16.7%	16.7%	20.8%	41.7%	41.7%	16.7%	37.5%	37.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	5.0	5.0	3.5	5.0	5.0
All-Red Time (s)	0.0	0.0	0.0	0.0	0.0	0.5	0.5	1.0	1.0	0.5	1.0	1.0
Lead/Lag						Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	26.0	26.0	26.0	16.0	16.0	36.0	21.0	46.0	46.0	16.0	41.0	41.0
Actuated g/C Ratio	0.22	0.22	0.22	0.13	0.13	0.30	0.18	0.38	0.38	0.13	0.34	0.34
v/c Ratio	1.83	4.93	0.30	1.12	1.25	0.99	0.46	1.59	0.25	1.57	1.33	0.31
Control Delay	460.9	1830.9	21.4	157.3	189.9	67.8	27.1	288.9	6.3	298.5	177.6	9.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	460.9	1830.9	21.4	157.3	189.9	67.8	27.1	288.9	6.3	298.5	177.6	9.0
LOS	F	F	C	F	F	E	C	F	A	F	F	A
Approach Delay		1001.6			112.0			264.6			181.6	
Approach LOS		F			F			F			F	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 64 (53%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 4.93
 Intersection Signal Delay: 252.8
 Intersection Capacity Utilization 106.7%
 Analysis Period (min) 15
 Intersection LOS: F
 ICU Level of Service G

Splits and Phases: 99: Creekside Road & McBean Pkwy



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	156	28	128	111	44	144	143	2260	153	2295
Turn Type	Perm		Perm	Perm		Perm	pm+pt		pm+pt	
Protected Phases		8			4		5	2	1	6
Permitted Phases	8		8	4		4	2		6	
Detector Phases	8	8	8	4	4	4	5	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	39.0	39.0	39.0	40.0	40.0	40.0	12.0	28.0	12.0	27.0
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	18.0	62.0	18.0	62.0
Total Split (%)	33.3%	33.3%	33.3%	33.3%	33.3%	33.3%	15.0%	51.7%	15.0%	51.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	5.0	3.5	5.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.0	1.0	0.0	1.0
Lead/Lag							Lead	Lag	Lead	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		26.6	26.6		26.6	26.6	80.2	69.2	82.6	70.4
Actuated g/C Ratio		0.22	0.22		0.22	0.22	0.67	0.58	0.69	0.59
v/c Ratio		0.86	0.29		0.73	0.33	0.70	0.87	0.67	0.72
Control Delay		75.5	8.9		60.0	12.0	51.8	15.5	44.4	12.8
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		75.5	8.9		60.0	12.0	51.8	15.5	44.4	12.8
LOS		E	A		E	B	D	B	D	B
Approach Delay		48.2			36.9			17.6		14.7
Approach LOS		D			D			B		B

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 79 (66%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.87
 Intersection Signal Delay: 19.0
 Intersection Capacity Utilization 80.9%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service D

Splits and Phases: 100: Town Center & McBean Pkwy



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Volume (vph)	26	1	16	198	8	80	105	2233	118	59	2435
Turn Type	Perm		Perm	Perm		Perm	pm+pt		Perm	pm+pt	
Protected Phases		8			4		5	2		1	6
Permitted Phases	8		8	4		4	2		2	6	
Detector Phases	8	8	8	4	4	4	5	2	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	37.0	37.0	37.0	36.0	36.0	36.0	12.0	27.0	27.0	12.0	27.0
Total Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	15.0	85.0	85.0	15.0	85.0
Total Split (%)	16.7%	16.7%	16.7%	16.7%	16.7%	16.7%	12.5%	70.8%	70.8%	12.5%	70.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	5.0	5.0	3.5	5.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.0	1.0	1.0	0.0	1.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	16.0	16.0	16.0	16.0	16.0	16.0	94.4	86.9	86.9	90.4	83.5
Actuated g/C Ratio	0.13	0.13	0.13	0.13	0.13	0.13	0.79	0.72	0.72	0.75	0.70
v/c Ratio	0.16	0.00	0.07	1.14	0.04	0.30	0.64	0.66	0.10	0.40	0.61
Control Delay	48.7	45.0	19.9	156.2	45.9	12.4	40.8	2.6	0.1	25.9	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay	48.7	45.0	19.9	156.2	45.9	12.4	40.8	2.7	0.1	25.9	2.2
LOS	D	D	B	F	D	B	D	A	A	C	A
Approach Delay		38.0			112.8			4.2			2.8
Approach LOS		D			F			A			A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 92 (77%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.14
 Intersection Signal Delay: 9.6
 Intersection Capacity Utilization 74.1%
 Analysis Period (min) 15

Intersection LOS: A
 ICU Level of Service D

Splits and Phases: 101: Mall Entrance & McBean Pkwy



Lane Group	EBL	EBT	WBL	WBT	WBR	SEL	SET	NWL	NWT
Lane Configurations									
Volume (vph)	83	24	89	18	162	212	1568	75	1826
Turn Type	Perm		Perm		Perm	Prot		Prot	
Protected Phases		4		4		1	6	5	2
Permitted Phases	4	4	4		4				2
Detector Phases	4	4	4	4	4	1	6	5	2
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	28.0	28.0	28.0	28.0	28.0	18.0	24.0	12.0	24.0
Total Split (s)	28.0	28.0	28.0	28.0	28.0	18.0	77.0	15.0	74.0
Total Split (%)	23.3%	23.3%	23.3%	23.3%	23.3%	15.0%	64.2%	12.5%	61.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.5	5.0	3.5	5.0
All-Red Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	1.0
Lead/Lag						Lead	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	Min	C-Max
Act Effct Green (s)	13.8	13.8	13.8	13.8	13.8	24.2	83.2	11.0	70.0
Actuated g/C Ratio	0.12	0.12	0.12	0.12	0.12	0.20	0.69	0.09	0.58
v/c Ratio	0.56	0.15	0.63	0.09	0.50	0.69	0.50	0.54	0.73
Control Delay	62.7	23.8	67.8	45.7	11.7	62.9	4.1	60.1	14.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.7	23.8	67.8	45.7	11.7	62.9	4.1	60.1	14.7
LOS	E	C	E	D	B	E	A	E	B
Approach Delay		47.0		32.6			10.9		16.3
Approach LOS		D		C			B		B

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 75 (63%), Referenced to phase 2:NWT and 6:SET, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.73
 Intersection Signal Delay: 16.0
 Intersection Capacity Utilization 72.0%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service C

Splits and Phases: 102: Del Monte Dr. & McBean Pkwy



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	58	51	32	81	15	150	120	1811	120	1482
Turn Type	Perm		Perm	Perm		Perm	pm+pt		pm+pt	
Protected Phases		4			4		5	2	1	6
Permitted Phases	4		4	4		4	2		6	
Detector Phases	4	4	4	4	4	4	5	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	26.0	26.0	12.0	25.0	12.0	25.0
Total Split (s)	18.0	18.0	18.0	18.0	18.0	18.0	15.0	87.0	15.0	87.0
Total Split (%)	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	12.5%	72.5%	12.5%	72.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	5.0	3.5	5.0
All-Red Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	1.0
Lead/Lag							Lead	Lag	Lead	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	Min	C-Max
Act Effct Green (s)	11.5	11.5	11.5	11.5	11.5	11.5	94.1	87.7	98.8	90.1
Actuated g/C Ratio	0.10	0.10	0.10	0.10	0.10	0.10	0.78	0.73	0.82	0.75
v/c Ratio	0.51	0.31	0.19	0.68	0.10	0.54	0.55	0.55	0.62	0.43
Control Delay	65.0	54.1	17.7	77.9	49.2	15.7	19.0	6.3	37.7	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.0	54.1	17.7	77.9	49.2	15.7	19.0	6.3	37.7	1.9
LOS	E	D	B	E	D	B	B	A	D	A
Approach Delay		50.3			38.2			7.0		4.5
Approach LOS		D			D			A		A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 83 (69%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.68
 Intersection Signal Delay: 9.4
 Intersection Capacity Utilization 64.1%
 Analysis Period (min) 15

Intersection LOS: A
 ICU Level of Service C

Splits and Phases: 103: Arroyo Park Dr. & McBean Pkwy



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Volume (vph)	2	4	50	3	35	21	1920	50	1473
Turn Type	Perm		Perm		Perm	pm+pt		pm+pt	
Protected Phases		4		8		5	2	1	6
Permitted Phases	4		8		8	2		6	
Detector Phases	4	4	8	8	8	5	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	28.0	28.0	28.0	28.0	28.0	12.0	23.0	12.0	24.0
Total Split (s)	28.0	28.0	28.0	28.0	28.0	12.0	77.0	15.0	80.0
Total Split (%)	23.3%	23.3%	23.3%	23.3%	23.3%	10.0%	64.2%	12.5%	66.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	5.0	3.5	6.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.0	1.0	0.0	1.0
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		10.2		10.3	10.3	100.0	96.5	102.6	100.6
Actuated g/C Ratio		0.08		0.09	0.09	0.83	0.80	0.86	0.84
v/c Ratio		0.14		0.51	0.22	0.10	0.56	0.34	0.39
Control Delay		27.2		67.0	18.0	2.7	5.8	23.2	1.8
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		27.2		67.0	18.0	2.7	5.8	23.2	1.8
LOS		C		E	B	A	A	C	A
Approach Delay		27.2		47.4			5.8		2.5
Approach LOS		C		D			A		A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 19 (16%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.56
 Intersection Signal Delay: 5.5
 Intersection Capacity Utilization 57.8%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service B

Splits and Phases: 104: Granary Square & McBean Pkwy



















Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	111	4	60	149	5	119	46	1779	87	1351
Turn Type	Perm		Perm	Perm		Perm	pm+pt		pm+pt	
Protected Phases		4			4		5	2	1	6
Permitted Phases	4		4	4		4	2		6	
Detector Phases	4	4	4	4	4	4	5	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	26.0	26.0	12.0	22.0	12.0	21.0
Total Split (s)	26.0	26.0	26.0	26.0	26.0	26.0	15.0	79.0	15.0	79.0
Total Split (%)	21.7%	21.7%	21.7%	21.7%	21.7%	21.7%	12.5%	65.8%	12.5%	65.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.5	5.0	3.5	5.0
All-Red Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	1.0
Lead/Lag							Lead	Lag	Lead	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	18.1	18.1	18.1	18.1	18.1	18.1	87.5	82.0	92.8	86.2
Actuated g/C Ratio	0.15	0.15	0.15	0.15	0.15	0.15	0.73	0.68	0.77	0.72
v/c Ratio	0.61	0.02	0.23	0.79	0.02	0.39	0.21	0.66	0.53	0.41
Control Delay	60.3	40.8	12.2	74.6	40.8	10.8	2.8	5.7	45.3	3.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.3	40.8	12.2	74.6	40.8	10.8	2.8	5.7	45.3	3.0
LOS	E	D	B	E	D	B	A	A	D	A
Approach Delay		43.4			46.2			5.6		5.5
Approach LOS		D			D			A		A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 32 (27%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.79
 Intersection Signal Delay: 10.0
 Intersection Capacity Utilization 69.5%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service C

Splits and Phases: 105: Avenida Navarre & McBean Pkwy



					
Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations		  	   	 	
Volume (vph)	50	1738	1019	49	51
Turn Type	Perm				Perm
Protected Phases		6	2	4	
Permitted Phases	6				4
Detector Phases	6	6	2	4	4
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	21.0	28.5	28.5
Total Split (s)	91.0	91.0	91.0	29.0	29.0
Total Split (%)	75.8%	75.8%	75.8%	24.2%	24.2%
Yellow Time (s)	5.0	5.0	5.0	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	106.2	106.2	106.2	8.8	8.8
Actuated g/C Ratio	0.88	0.88	0.88	0.07	0.07
v/c Ratio	0.16	0.43	0.25	0.23	0.33
Control Delay	1.5	0.8	0.7	54.2	18.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	1.5	0.8	0.7	54.2	18.9
LOS	A	A	A	D	B
Approach Delay		0.8	0.7	36.2	
Approach LOS		A	A	D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 90 (75%), Referenced to phase 2:WBT and 6:EBTL, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.43
 Intersection Signal Delay: 2.0
 Intersection Capacity Utilization 43.6%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 106: McBean Pkwy & Alegro Dr.



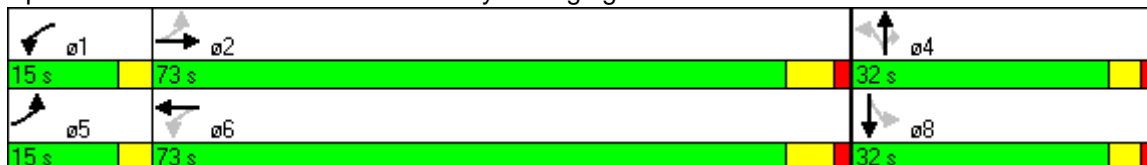
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Volume (vph)	100	1672	95	899	87	22	50	58	24
Turn Type	pm+pt		pm+pt		Perm		Perm	Perm	
Protected Phases	5	2	1	6		4			8
Permitted Phases	2		6		4		4	8	
Detector Phases	5	2	1	6	4	4	4	8	8
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	12.0	24.0	11.0	20.0	31.5	31.5	31.5	31.5	31.5
Total Split (s)	15.0	73.0	15.0	73.0	32.0	32.0	32.0	32.0	32.0
Total Split (%)	12.5%	60.8%	12.5%	60.8%	26.7%	26.7%	26.7%	26.7%	26.7%
Yellow Time (s)	3.5	5.0	3.5	5.0	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead	Lag	Lead	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None
Act Effct Green (s)	90.0	83.8	94.3	86.0	15.7	15.7	15.7	15.7	15.7
Actuated g/C Ratio	0.75	0.70	0.79	0.72	0.13	0.13	0.13	0.13	0.13
v/c Ratio	0.28	0.57	0.53	0.28	0.60	0.10	0.21	0.36	0.28
Control Delay	3.7	7.1	34.1	5.2	63.5	44.1	13.1	51.6	20.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.7	7.1	34.1	5.2	63.5	44.1	13.1	51.6	20.6
LOS	A	A	C	A	E	D	B	D	C
Approach Delay		6.9		7.9		45.1			34.3
Approach LOS		A		A		D			C

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 80 (67%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.60
 Intersection Signal Delay: 10.3
 Intersection Capacity Utilization 61.6%
 Analysis Period (min) 15

Intersection LOS: B
 ICU Level of Service B

Splits and Phases: 107: McBean Pkwy & Singing Hills Dr.



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Volume (vph)	310	1428	28	841	200	110	346	210	290
Turn Type	pm+pt		pm+pt		pm+pt		pm+pt		Perm
Protected Phases	1	6	5	2	7	4	3	8	
Permitted Phases	6		2		4		8		8
Detector Phases	1	6	5	2	7	4	3	8	8
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	12.0	26.0	12.0	26.0	12.0	29.0	12.0	29.0	29.0
Total Split (s)	34.0	65.0	12.0	43.0	14.0	31.0	12.0	29.0	29.0
Total Split (%)	28.3%	54.2%	10.0%	35.8%	11.7%	25.8%	10.0%	24.2%	24.2%
Yellow Time (s)	3.5	5.0	3.5	5.0	3.5	4.0	3.5	4.0	4.0
All-Red Time (s)	0.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None
Act Effct Green (s)	78.2	72.2	60.2	54.5	31.8	21.8	27.8	19.8	19.8
Actuated g/C Ratio	0.65	0.60	0.50	0.45	0.26	0.18	0.23	0.16	0.16
v/c Ratio	0.85	0.73	0.18	0.45	0.88	0.35	1.35	0.77	0.61
Control Delay	33.4	19.3	11.5	22.0	70.6	22.0	215.8	64.6	10.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.4	19.3	11.5	22.0	70.6	22.0	215.8	64.6	10.0
LOS	C	B	B	C	E	C	F	E	A
Approach Delay		21.2		21.7		45.3		107.7	
Approach LOS		C		C		D		F	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 69 (58%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.35
 Intersection Signal Delay: 39.9
 Intersection Capacity Utilization 81.3%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service D

Splits and Phases: 108: McBean Pkwy & Rockwell Canyon Rd

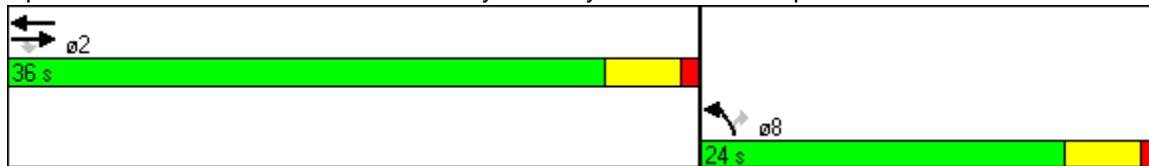


	→	↘	←	↙	↗
Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑↑↑	↘↘	↗↗
Volume (vph)	1383	320	1208	440	891
Turn Type		Perm			Perm
Protected Phases	2		2	8	
Permitted Phases		2			8
Detector Phases	2	2	2	8	8
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	36.0	36.0	36.0	20.0	20.0
Total Split (s)	36.0	36.0	36.0	24.0	24.0
Total Split (%)	60.0%	60.0%	60.0%	40.0%	40.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Max	C-Max	C-Max	Min	Min
Act Effct Green (s)	32.0	32.0	32.0	20.0	20.0
Actuated g/C Ratio	0.53	0.53	0.53	0.33	0.33
v/c Ratio	0.80	0.37	0.48	0.42	1.01
Control Delay	18.3	5.9	13.9	16.9	54.2
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	18.3	5.9	13.9	16.9	54.2
LOS	B	A	B	B	D
Approach Delay	16.0		13.9	41.8	
Approach LOS	B		B	D	

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 35 (58%), Referenced to phase 2:EBWB, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.01
 Intersection Signal Delay: 23.5
 Intersection Capacity Utilization 76.1%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service D

Splits and Phases: 109: McBean Pkwy & 5 Fwy NB On/Off Ramp

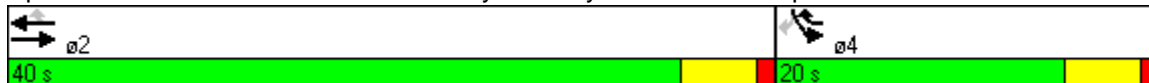


	→	←	↖	↘	↙
Lane Group	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↑↑↑	↑↑	↖	↘↘	↖
Volume (vph)	826	1236	326	513	480
Turn Type			pm+ov		Perm
Protected Phases	2	2	4	4	
Permitted Phases			2		4
Detector Phases	2	2	4	4	4
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	27.0	27.0	20.0	20.0	20.0
Total Split (s)	40.0	40.0	20.0	20.0	20.0
Total Split (%)	66.7%	66.7%	33.3%	33.3%	33.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Max	C-Max	Min	Min	Min
Act Effct Green (s)	36.0	36.0	60.0	16.0	16.0
Actuated g/C Ratio	0.60	0.60	1.00	0.27	0.27
v/c Ratio	0.28	0.63	0.20	0.59	1.10
Control Delay	5.5	16.6	0.2	22.2	93.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	5.5	16.6	0.2	22.2	93.8
LOS	A	B	A	C	F
Approach Delay	5.5	13.2		56.8	
Approach LOS	A	B		E	

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 14 (23%), Referenced to phase 2:EBWB, Start of Yellow
 Natural Cycle: 50
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.10
 Intersection Signal Delay: 24.1
 Intersection Capacity Utilization 70.6%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service C

Splits and Phases: 110: McBean Pkwy & 5 Fwy SB On/Off Ramp

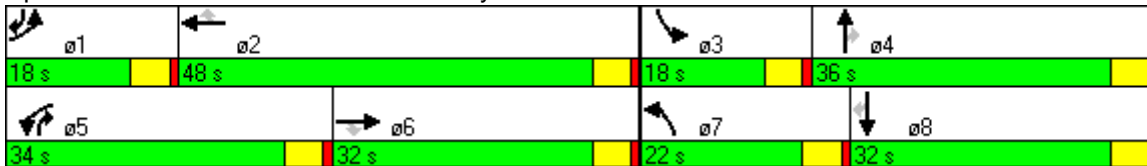


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	210	500	110	680	886	150	150	700	650	210	630	220
Turn Type	Prot		Perm	Prot		Perm	Prot		pm+ov	Prot		pm+ov
Protected Phases	1	6		5	2		7	4	5	3	8	1
Permitted Phases			6			2			4			8
Detector Phases	1	6	6	5	2	2	7	4	5	3	8	1
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	14.0	31.0	31.0	14.0	32.0	32.0	14.0	35.0	14.0	14.0	31.0	14.0
Total Split (s)	18.0	32.0	32.0	34.0	48.0	48.0	22.0	36.0	34.0	18.0	32.0	18.0
Total Split (%)	15.0%	26.7%	26.7%	28.3%	40.0%	40.0%	18.3%	30.0%	28.3%	15.0%	26.7%	15.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes			Yes			Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	17.1	31.0	31.0	30.1	44.0	44.0	15.8	28.9	63.0	14.0	27.1	48.2
Actuated g/C Ratio	0.14	0.26	0.26	0.25	0.37	0.37	0.13	0.24	0.52	0.12	0.23	0.40
v/c Ratio	0.90	0.43	0.22	0.89	0.74	0.24	0.70	0.62	0.75	1.10	0.86	0.31
Control Delay	88.4	39.2	7.6	58.5	37.3	8.4	65.8	42.7	25.7	141.3	56.0	16.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	88.4	39.2	7.6	58.5	37.3	8.4	65.8	42.7	25.7	141.3	56.0	16.5
LOS	F	D	A	E	D	A	E	D	C	F	E	B
Approach Delay		47.5			43.2			37.6			64.7	
Approach LOS		D			D			D			E	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 1 (1%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
 Natural Cycle: 105
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.10
 Intersection Signal Delay: 46.7
 Intersection Capacity Utilization 75.2%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service D

Splits and Phases: 111: McBean Pkwy & The Old Road



Lane Group	NET	SWT	ø4	ø5
Lane Configurations	↑↑↑	↑↑↑		
Volume (vph)	3795	2354		
Turn Type				
Protected Phases	2	6	4	5
Permitted Phases				
Detector Phases	2	6		
Minimum Initial (s)	4.0	4.0	4.0	4.0
Minimum Split (s)	21.0	21.0	20.0	20.0
Total Split (s)	83.0	58.0	37.0	25.0
Total Split (%)	69.2%	48.3%	31%	21%
Yellow Time (s)	5.0	5.0	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	0.5
Lead/Lag		Lag		Lead
Lead-Lag Optimize?		Yes		Yes
Recall Mode	C-Max	C-Max	None	None
Act Effct Green (s)	120.0	120.0		
Actuated g/C Ratio	1.00	1.00		
v/c Ratio	0.64	0.40		
Control Delay	0.6	0.4		
Queue Delay	0.0	0.0		
Total Delay	0.6	0.4		
LOS	A	A		
Approach Delay	0.6	0.4		
Approach LOS	A	A		

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 29 (24%), Referenced to phase 2:NET and 6:SWT, Start of Yellow
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.64
 Intersection Signal Delay: 0.5
 Intersection Capacity Utilization 58.3%
 Analysis Period (min) 15

Intersection LOS: A
 ICU Level of Service B

Splits and Phases: 2: Baywood Lane & McBean Pkwy



McBean Coordination Timing Interim Year
4: Valencia Blvd & McBean Pkwy

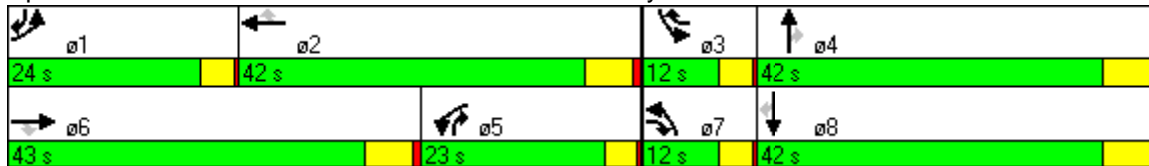
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9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	920	1530	210	380	1170	250	120	1200	900	150	1330	1210
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov
Protected Phases	1	6	7	5	2	3	7	4	5	3	8	1
Permitted Phases			6			2			4			8
Detector Phases	1	6	7	5	2	3	7	4	5	3	8	1
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	12.0	43.0	12.0	12.0	42.0	12.0	12.0	42.0	12.0	12.0	42.0	12.0
Total Split (s)	24.0	43.0	12.0	23.0	42.0	12.0	12.0	42.0	23.0	12.0	42.0	24.0
Total Split (%)	20.0%	35.8%	10.0%	19.2%	35.0%	10.0%	10.0%	35.0%	19.2%	10.0%	35.0%	20.0%
Yellow Time (s)	3.5	5.0	3.5	3.5	5.0	3.5	3.5	5.0	3.5	3.5	5.0	3.5
All-Red Time (s)	0.5	1.0	0.5	0.5	1.0	0.5	0.5	1.0	0.5	0.5	1.0	0.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	C-Max	Max	Max	C-Max	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	20.0	39.0	47.0	19.0	38.0	50.0	8.0	38.0	57.0	8.0	38.0	62.0
Actuated g/C Ratio	0.17	0.32	0.39	0.16	0.32	0.42	0.07	0.32	0.48	0.07	0.32	0.52
v/c Ratio	1.81	1.04	0.36	0.79	0.82	0.40	0.59	0.84	0.73	0.74	0.93	0.90
Control Delay	401.0	73.6	14.9	60.2	43.0	26.5	46.6	59.7	37.0	51.1	54.9	43.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	401.0	73.6	14.9	60.2	43.0	26.5	46.6	59.7	37.0	51.1	54.9	43.3
LOS	F	E	B	E	D	C	D	E	D	D	D	D
Approach Delay		182.2			44.3			49.8			49.4	
Approach LOS		F			D			D			D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 71 (59%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.81
 Intersection Signal Delay: 86.2
 Intersection Capacity Utilization 91.3%
 Analysis Period (min) 15
 Intersection LOS: F
 ICU Level of Service F

Splits and Phases: 4: Valencia Blvd & McBean Pkwy



McBean Coordination Timing Interim Year with Mitigation & Timing Adj.
 4: Valencia Blvd & McBean Pkwy

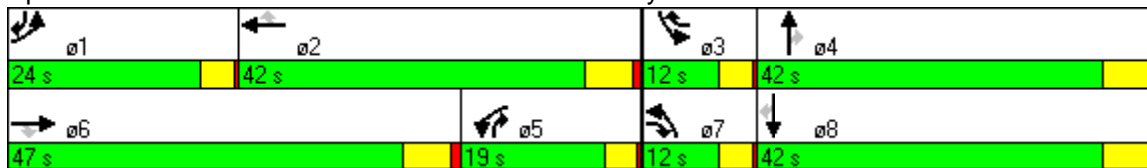
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 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	920	1530	210	380	1170	250	120	1200	900	150	1330	1210
Turn Type	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov	Prot		pm+ov
Protected Phases	1	6	7	5	2	3	7	4	5	3	8	1
Permitted Phases			6			2			4			8
Detector Phases	1	6	7	5	2	3	7	4	5	3	8	1
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	12.0	43.0	12.0	12.0	42.0	12.0	12.0	42.0	12.0	12.0	42.0	12.0
Total Split (s)	24.0	47.0	12.0	19.0	42.0	12.0	12.0	42.0	19.0	12.0	42.0	24.0
Total Split (%)	20.0%	39.2%	10.0%	15.8%	35.0%	10.0%	10.0%	35.0%	15.8%	10.0%	35.0%	20.0%
Yellow Time (s)	3.5	5.0	3.5	3.5	5.0	3.5	3.5	5.0	3.5	3.5	5.0	3.5
All-Red Time (s)	0.5	1.0	0.5	0.5	1.0	0.5	0.5	1.0	0.5	0.5	1.0	0.5
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	Max	C-Max	Max	Max	C-Max	Max	Max	Max	Max	Max	Max	Max
Act Effct Green (s)	20.0	43.0	51.0	15.0	38.0	50.0	8.0	38.0	53.0	8.0	38.0	62.0
Actuated g/C Ratio	0.17	0.36	0.42	0.12	0.32	0.42	0.07	0.32	0.44	0.07	0.32	0.52
v/c Ratio	1.81	0.94	0.34	1.00	0.82	0.40	0.59	0.84	0.79	0.74	0.93	0.90
Control Delay	401.0	49.4	14.2	95.7	43.0	26.5	43.4	56.0	39.8	54.2	54.9	44.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	401.0	49.4	14.2	95.7	43.0	26.5	43.4	56.0	39.8	54.2	54.9	44.2
LOS	F	D	B	F	D	C	D	E	D	D	D	D
Approach Delay		168.2			51.8			48.7			50.0	
Approach LOS		F			D			D			D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 71 (59%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.81
 Intersection Signal Delay: 83.6
 Intersection Capacity Utilization 91.3%
 Analysis Period (min) 15
 Intersection LOS: F
 ICU Level of Service F

Splits and Phases: 4: Valencia Blvd & McBean Pkwy



McBean Coordination Timing Interim Year
 14: Magic Mountain Pkwy & McBean Pkwy

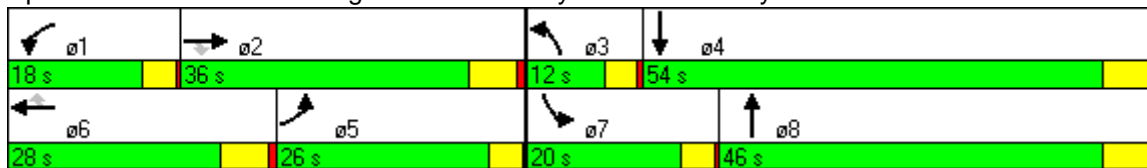
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 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	650	1370	290	170	750	410	360	2170	240	480	2520	380
Turn Type	Prot		Perm	Prot		Perm	Prot		Free	Prot		Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			Free			Free
Detector Phases	5	2	2	1	6	6	3	8		7	4	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	12.0	28.0	28.0	12.0	28.0	28.0	12.0	28.0		12.0	28.0	
Total Split (s)	26.0	36.0	36.0	18.0	28.0	28.0	12.0	46.0	0.0	20.0	54.0	0.0
Total Split (%)	21.7%	30.0%	30.0%	15.0%	23.3%	23.3%	10.0%	38.3%	0.0%	16.7%	45.0%	0.0%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0		3.5	5.0	
All-Red Time (s)	0.5	1.0	1.0	0.5	1.0	1.0	0.5	1.0		0.5	1.0	
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	Max	Max	Max	Max	Max	Max	Max	C-Max		Max	C-Max	
Act Effct Green (s)	22.0	32.0	32.0	14.0	24.0	24.0	8.0	42.0	120.0	16.0	50.0	120.0
Actuated g/C Ratio	0.18	0.27	0.27	0.12	0.20	0.20	0.07	0.35	1.00	0.13	0.42	1.00
v/c Ratio	1.12	1.58	0.54	0.46	1.15	0.92	1.77	1.37	0.15	1.18	1.06	0.23
Control Delay	119.8	296.5	23.1	53.6	126.8	53.6	393.7	196.8	0.1	148.6	36.7	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	119.8	296.5	23.1	53.6	126.8	53.6	393.7	196.8	0.1	148.6	36.7	0.0
LOS	F	F	C	D	F	D	F	F	A	F	D	A
Approach Delay		212.5			94.9			205.3			48.4	
Approach LOS		F			F			F			D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 78 (65%), Referenced to phase 4:SBT and 8:NBT, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.77
 Intersection Signal Delay: 137.8
 Intersection Capacity Utilization 111.7%
 Analysis Period (min) 15
 Intersection LOS: F
 ICU Level of Service H

Splits and Phases: 14: Magic Mountain Pkwy & McBean Pkwy



McBean Coordination Timing Interim Year with Mitigation & Timing Adj.
 14: Magic Mountain Pkwy & McBean Pkwy

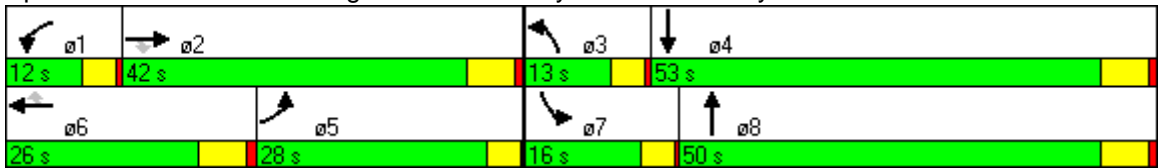
5:00 pm
 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	650	1370	290	170	750	410	360	2170	240	480	2520	380
Turn Type	Prot		Perm	Prot		Perm	Prot		Free	Prot		Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			Free			Free
Detector Phases	5	2	2	1	6	6	3	8		7	4	
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	12.0	28.0	28.0	12.0	28.0	28.0	12.0	28.0		12.0	28.0	
Total Split (s)	28.0	42.0	42.0	12.0	26.0	26.0	13.0	50.0	0.0	16.0	53.0	0.0
Total Split (%)	23.3%	35.0%	35.0%	10.0%	21.7%	21.7%	10.8%	41.7%	0.0%	13.3%	44.2%	0.0%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	5.0		3.5	5.0	
All-Red Time (s)	0.5	1.0	1.0	0.5	1.0	1.0	0.5	1.0		0.5	1.0	
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	Max	Max	Max	Max	Max	Max	Max	C-Max		Max	C-Max	
Act Effct Green (s)	24.0	38.0	38.0	8.0	22.0	22.0	9.0	46.0	120.0	12.0	49.0	120.0
Actuated g/C Ratio	0.20	0.32	0.32	0.07	0.18	0.18	0.08	0.38	1.00	0.10	0.41	1.00
v/c Ratio	1.03	0.92	0.46	0.81	0.87	1.07	1.57	1.25	0.15	1.57	1.08	0.23
Control Delay	89.1	50.4	17.6	81.1	59.1	96.1	310.3	142.3	0.1	302.4	52.3	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.1	50.4	17.6	81.1	59.1	96.1	310.3	142.3	0.1	302.4	52.3	0.0
LOS	F	D	B	F	E	F	F	F	A	F	D	A
Approach Delay		57.2			73.4			151.8			82.0	
Approach LOS		E			E			F			F	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 78 (65%), Referenced to phase 4:SBT and 8:NBT, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.57
 Intersection Signal Delay: 94.7
 Intersection Capacity Utilization 102.0%
 Analysis Period (min) 15
 Intersection LOS: F
 ICU Level of Service G

Splits and Phases: 14: Magic Mountain Pkwy & McBean Pkwy



Lane Group	SET	NWL	NWT	NWR	NEL	NET	SWL	SWT
Lane Configurations								
Volume (vph)	241	382	98	980	60	1041	910	697
Turn Type		Split		pm+ov	Prot		Prot	
Protected Phases	3	4	4	5	1	6	5	2
Permitted Phases				4				
Detector Phases	3	4	4	5	1	6	5	2
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	28.0	15.0	15.0	20.0	12.0	28.0	20.0	23.0
Total Split (s)	15.0	18.0	18.0	51.0	12.0	36.0	51.0	75.0
Total Split (%)	12.5%	15.0%	15.0%	42.5%	10.0%	30.0%	42.5%	62.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	5.0	3.5	5.0
All-Red Time (s)	1.0	1.0	1.0	0.5	0.5	1.0	0.5	1.0
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	Max	None	C-Max	Max	C-Max
Act Effct Green (s)	11.0	14.0	14.0	65.0	7.6	32.0	47.0	73.4
Actuated g/C Ratio	0.09	0.12	0.12	0.54	0.06	0.27	0.39	0.61
v/c Ratio	1.43	1.34	1.38	0.71	0.62	1.51dr	0.79	0.27
Control Delay	245.9	225.5	240.8	21.6	77.4	222.5	30.1	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	245.9	225.5	240.8	21.6	77.4	222.5	30.1	5.3
LOS	F	F	F	C	E	F	C	A
Approach Delay	245.9		91.3			217.7		19.1
Approach LOS	F		F			F		B

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 100 (83%), Referenced to phase 2:SWT and 6:NET, Start of Yellow
 Natural Cycle: 145
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.43
 Intersection Signal Delay: 124.9
 Intersection Capacity Utilization 101.3%
 Analysis Period (min) 15
 Intersection LOS: F
 ICU Level of Service G
 dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 41: Orchard Village Rd & McBean Pkwy



McBean Coordination Timing Interim Year with Mitigation & Timing Adj.
 41: Orchard Village Rd & McBean Pkwy

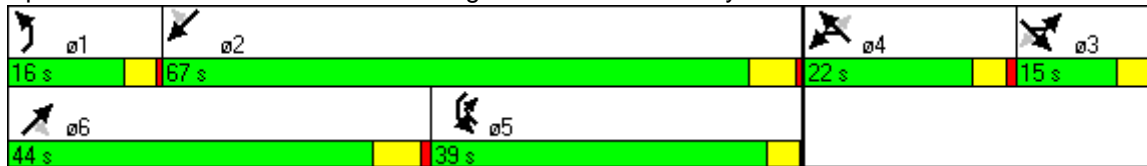
5:00 pm
 9/6/2007

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	115	241	90	382	98	980	60	1041	709	910	697	30
Turn Type	Split		Perm	Split		pm+ov	Prot		Perm	Prot		Perm
Protected Phases	3	3		4	4	5	1	6		5	2	
Permitted Phases			3			4			6			2
Detector Phases	3	3	3	4	4	5	1	6	6	5	2	2
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	28.0	28.0	28.0	15.0	15.0	20.0	12.0	28.0	28.0	20.0	23.0	23.0
Total Split (s)	15.0	15.0	15.0	22.0	22.0	39.0	16.0	44.0	44.0	39.0	67.0	67.0
Total Split (%)	12.5%	12.5%	12.5%	18.3%	18.3%	32.5%	13.3%	36.7%	36.7%	32.5%	55.8%	55.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	5.0	5.0	3.5	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	0.5	0.5	1.0	1.0	0.5	1.0	1.0
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Max	None	C-Max	C-Max	Max	C-Max	C-Max
Act Effct Green (s)	11.0	11.0	11.0	18.0	18.0	57.0	9.6	40.0	40.0	35.0	67.4	67.4
Actuated g/C Ratio	0.09	0.09	0.09	0.15	0.15	0.48	0.08	0.33	0.33	0.29	0.56	0.56
v/c Ratio	0.77	0.78	0.42	1.04	1.07	0.80	0.49	0.99	1.04	1.06	0.28	0.04
Control Delay	83.2	70.2	15.7	119.9	125.3	30.1	66.1	53.6	58.2	75.3	6.7	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	83.2	70.2	15.7	119.9	125.3	30.1	66.1	53.6	58.2	75.3	6.7	0.6
LOS	F	E	B	F	F	C	E	D	E	E	A	A
Approach Delay		62.5			60.6			55.8			44.7	
Approach LOS		E			E			E			D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 100 (83%), Referenced to phase 2:SWT and 6:NET, Start of Yellow
 Natural Cycle: 145
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.07
 Intersection Signal Delay: 54.3
 Intersection Capacity Utilization 87.9%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service E

Splits and Phases: 41: Orchard Village Rd & McBean Pkwy

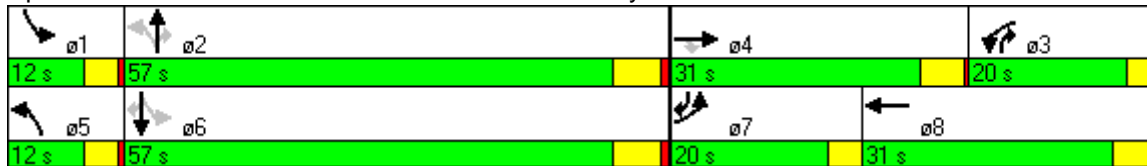


Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Volume (vph)	350	450	100	260	180	60	1520	810	120	760	40
Turn Type	Prot		Perm	Prot		pm+pt		pm+ov	pm+pt		pm+ov
Protected Phases	7	4		3	8	5	2	3	1	6	7
Permitted Phases			4			2		2	6		6
Detector Phases	7	4	4	3	8	5	2	3	1	6	7
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	12.0	31.0	31.0	12.0	31.0	12.0	29.0	12.0	12.0	31.0	12.0
Total Split (s)	20.0	31.0	31.0	20.0	31.0	12.0	57.0	20.0	12.0	57.0	20.0
Total Split (%)	16.7%	25.8%	25.8%	16.7%	25.8%	10.0%	47.5%	16.7%	10.0%	47.5%	16.7%
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	3.5	5.0	3.5	3.5	5.0	3.5
All-Red Time (s)	0.0	0.5	0.5	0.0	0.5	0.5	1.0	0.0	0.5	1.0	0.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	None	C-Max	None
Act Effct Green (s)	15.8	23.2	23.2	19.8	27.2	59.7	53.0	72.8	62.6	56.2	76.0
Actuated g/C Ratio	0.13	0.19	0.19	0.16	0.23	0.50	0.44	0.61	0.52	0.47	0.63
v/c Ratio	0.90	0.76	0.29	0.54	0.45	0.22	0.76	0.88	0.77	0.36	0.04
Control Delay	76.5	53.9	15.0	51.2	27.7	12.2	24.9	19.3	51.0	21.4	2.8
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	76.5	53.9	15.0	51.2	27.7	12.2	24.9	19.3	51.0	21.4	2.8
LOS	E	D	B	D	C	B	C	B	D	C	A
Approach Delay		58.3			38.0		22.7			24.5	
Approach LOS		E			D		C			C	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 82 (68%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.90
 Intersection Signal Delay: 31.6
 Intersection Capacity Utilization 79.2%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service D

Splits and Phases: 94: Decoro Dr. & McBean Pkwy



	↖	↘	↙	↑	↓
Lane Group	EBL	EBR	NBL	NBT	SBT
Lane Configurations	↖↗	↖	↗	↑↑↑	↑↑↑↖
Volume (vph)	35	75	50	2531	1198
Turn Type	Perm pm+pt				
Protected Phases	4		5	2	6
Permitted Phases		4	2		
Detector Phases	4	4	5	2	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	32.0	32.0	12.0	20.0	25.0
Total Split (s)	32.0	32.0	12.0	88.0	76.0
Total Split (%)	26.7%	26.7%	10.0%	73.3%	63.3%
Yellow Time (s)	3.5	3.5	3.5	5.0	5.0
All-Red Time (s)	1.0	1.0	0.0	1.0	1.0
Lead/Lag			Lead		Lag
Lead-Lag Optimize?			Yes		Yes
Recall Mode	None	None	None	C-Max	C-Max
Act Effct Green (s)	7.6	7.6	106.4	107.2	99.2
Actuated g/C Ratio	0.06	0.06	0.89	0.89	0.83
v/c Ratio	0.18	0.46	0.18	0.63	0.32
Control Delay	54.4	19.9	2.7	4.3	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	54.4	19.9	2.7	4.3	1.7
LOS	D	B	A	A	A
Approach Delay	30.8			4.3	1.7
Approach LOS	C			A	A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 99 (83%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.63
 Intersection Signal Delay: 4.2
 Intersection Capacity Utilization 58.9%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service B

Splits and Phases: 95: Cottage Circle & McBean Pkwy



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations										
Volume (vph)	50	5	32	5	9	50	2698	12	1344	20
Turn Type	Perm		Perm		Perm	Perm		Perm		Perm
Protected Phases		4		8			2		6	
Permitted Phases	4		8		8	2		6		6
Detector Phases	4	4	8	8	8	2	2	6	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	32.5	32.5	32.5	29.0	29.0	28.0	28.0	28.0
Total Split (s)	20.0	20.0	20.0	20.0	20.0	100.0	100.0	100.0	100.0	100.0
Total Split (%)	16.7%	16.7%	16.7%	16.7%	16.7%	83.3%	83.3%	83.3%	83.3%	83.3%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag										
Lead-Lag Optimize?										
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	10.7	10.7	10.7	10.7	10.7	101.3	101.3	101.3	101.3	101.3
Actuated g/C Ratio	0.09	0.09	0.09	0.09	0.09	0.84	0.84	0.84	0.84	0.84
v/c Ratio	0.46	0.41	0.36	0.03	0.07	0.23	0.73	0.21	0.34	0.02
Control Delay	63.6	17.2	60.3	47.6	31.3	4.7	10.8	12.4	2.8	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.6	17.2	60.3	47.6	31.3	4.7	10.8	12.4	2.8	1.2
LOS	E	B	E	D	C	A	B	B	A	A
Approach Delay		34.4		53.3			10.7		2.8	
Approach LOS		C		D			B		A	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 38 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.73
 Intersection Signal Delay: 9.4
 Intersection Capacity Utilization 72.7%
 Analysis Period (min) 15

Intersection LOS: A
 ICU Level of Service C

Splits and Phases: 96: Fairview Dr. & McBean Pkwy



McBean Coordination Timing Interim Year
 97: Newhall Ranch Rd & McBean Pkwy

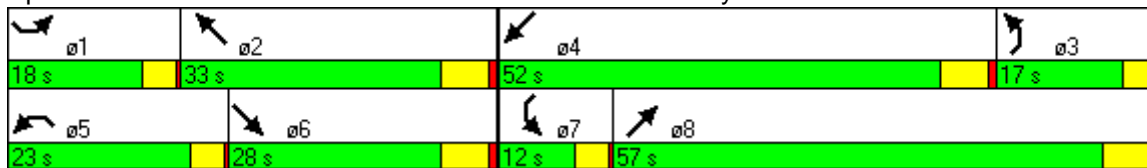
5:00 pm
 9/6/2007

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	500	1360	590	430	1010	330	400	2270	1190	200	1290	70
Turn Type	Prot		Free	Prot		Free	Prot		Free	Prot		Free
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases			Free			Free			Free			Free
Detector Phases	1	6		5	2		3	8		7	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	12.0	34.0		12.0	33.0		12.0	38.0		12.0	38.0	
Total Split (s)	18.0	28.0	0.0	23.0	33.0	0.0	17.0	57.0	0.0	12.0	52.0	0.0
Total Split (%)	15.0%	23.3%	0.0%	19.2%	27.5%	0.0%	14.2%	47.5%	0.0%	10.0%	43.3%	0.0%
Yellow Time (s)	3.5	5.0		3.5	5.0		3.5	5.0		3.5	5.0	
All-Red Time (s)	0.5	1.0		0.5	1.0		0.5	1.0		0.5	1.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	Min	Min		None	Min		Max	C-Max		Min	C-Max	
Act Effct Green (s)	14.0	24.1	120.0	18.9	29.0	120.0	13.0	53.0	120.0	8.0	48.0	120.0
Actuated g/C Ratio	0.12	0.20	1.00	0.16	0.24	1.00	0.11	0.44	1.00	0.07	0.40	1.00
v/c Ratio	1.40	1.40	0.40	0.92	0.89	0.22	1.21	1.14	0.46	0.98	0.57	0.05
Control Delay	235.5	223.7	0.8	75.1	54.4	0.3	148.4	87.6	0.4	115.6	17.2	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	235.5	223.7	0.8	75.1	54.4	0.3	148.4	87.6	0.4	115.6	17.2	0.1
LOS	F	F	A	E	D	A	F	F	A	F	B	A
Approach Delay		172.4			49.4			67.1			29.1	
Approach LOS		F			D			E			C	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 15 (13%), Referenced to phase 4:SWT and 8:NET, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.40
 Intersection Signal Delay: 84.4
 Intersection Capacity Utilization 101.4%
 Analysis Period (min) 15
 Intersection LOS: F
 ICU Level of Service G

Splits and Phases: 97: Newhall Ranch Rd & McBean Pkwy



McBean Coordination Timing Interim Year with Mitigation & Timing Adj.
 97: Newhall Ranch Rd & McBean Pkwy

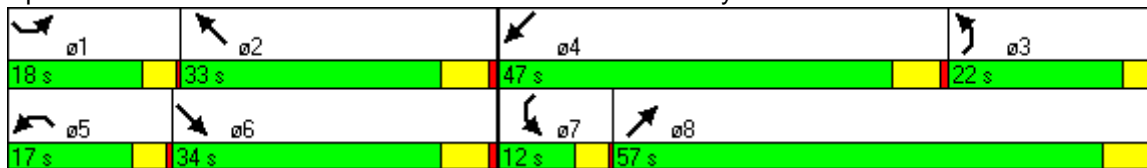
5:00 pm
 9/6/2007

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖	↖↗	↑↑↑	↖↗	↖↗	↑↑↑	↖
Volume (vph)	500	1360	590	430	1010	330	400	2270	1190	200	1290	70
Turn Type	Prot		Free	Prot		Free	Prot		Free	Prot		Free
Protected Phases	1	6		5	2		3	8		7	4	
Permitted Phases			Free			Free			Free			Free
Detector Phases	1	6		5	2		3	8		7	4	
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	12.0	34.0		12.0	33.0		12.0	38.0		12.0	38.0	
Total Split (s)	18.0	34.0	0.0	17.0	33.0	0.0	22.0	57.0	0.0	12.0	47.0	0.0
Total Split (%)	15.0%	28.3%	0.0%	14.2%	27.5%	0.0%	18.3%	47.5%	0.0%	10.0%	39.2%	0.0%
Yellow Time (s)	3.5	5.0		3.5	5.0		3.5	5.0		3.5	5.0	
All-Red Time (s)	0.5	1.0		0.5	1.0		0.5	1.0		0.5	1.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lag	Lag		Lead	Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	Min	Min		None	Min		Max	C-Max		Min	C-Max	
Act Effct Green (s)	14.0	30.0	120.0	13.0	29.0	120.0	18.0	53.0	120.0	8.0	43.0	120.0
Actuated g/C Ratio	0.12	0.25	1.00	0.11	0.24	1.00	0.15	0.44	1.00	0.07	0.36	1.00
v/c Ratio	1.40	1.12	0.40	1.35	0.89	0.22	0.87	1.14	0.46	0.98	0.63	0.05
Control Delay	235.5	108.1	0.8	214.7	54.4	0.3	49.7	85.8	0.4	116.8	21.1	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	235.5	108.1	0.8	214.7	54.4	0.3	49.7	85.8	0.4	116.8	21.1	0.1
LOS	F	F	A	F	D	A	D	F	A	F	C	A
Approach Delay		108.2			83.2			55.8			32.4	
Approach LOS		F			F			E			C	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 15 (13%), Referenced to phase 4:SWT and 8:NET, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.40
 Intersection Signal Delay: 70.4
 Intersection Capacity Utilization 101.4%
 Analysis Period (min) 15
 Intersection LOS: E
 ICU Level of Service G

Splits and Phases: 97: Newhall Ranch Rd & McBean Pkwy

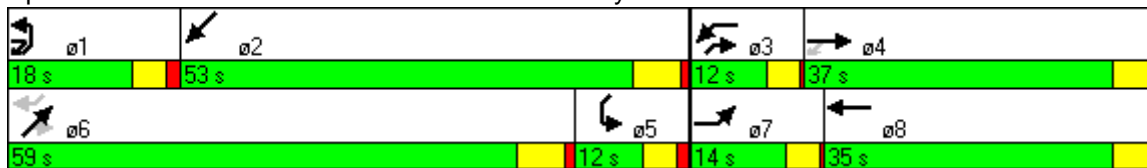


Lane Group	EBL	EBT	EBR	WBL	WBT	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations											
Volume (vph)	244	42	1058	48	8	265	3467	85	15	2349	34
Turn Type	Prot		pm+ov	Prot		Prot		pm+ov	Prot		custom
Protected Phases	7	4	1	3	8	1	6	3	5	2	
Permitted Phases			4					6			6
Detector Phases	7	4	1	3	8	1	6	3	5	2	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	12.0	37.0	15.0	12.0	35.0	15.0	35.0	12.0	12.0	36.0	35.0
Total Split (s)	14.0	37.0	18.0	12.0	35.0	18.0	59.0	12.0	12.0	53.0	59.0
Total Split (%)	11.7%	30.8%	15.0%	10.0%	29.2%	15.0%	49.2%	10.0%	10.0%	44.2%	49.2%
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	5.0	3.5	3.5	5.0	5.0
All-Red Time (s)	0.5	0.5	1.5	0.5	0.5	1.5	1.0	0.5	1.5	1.0	1.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	Min	None	None	Min	C-Max	None	Max	C-Max	C-Max
Act Effct Green (s)	10.0	9.1	50.3	8.7	7.5	41.7	82.7	92.9	8.0	49.0	82.7
Actuated g/C Ratio	0.08	0.08	0.42	0.07	0.06	0.35	0.69	0.77	0.07	0.41	0.69
v/c Ratio	0.96	0.33	0.93	0.23	0.13	0.25	0.88	0.07	0.15	0.98	0.03
Control Delay	99.1	58.0	43.7	55.6	27.9	41.2	11.7	0.0	41.9	34.2	6.1
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	99.1	58.0	43.7	55.6	27.9	41.2	11.7	0.0	41.9	34.2	6.1
LOS	F	E	D	E	C	D	B	A	D	C	A
Approach Delay		54.2			45.5		13.5			33.9	
Approach LOS		D			D		B			C	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 11 (9%), Referenced to phase 2:SWT and 6:NET, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.98
 Intersection Signal Delay: 27.4
 Intersection Capacity Utilization 84.4%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service E

Splits and Phases: 98: Ave Scott & McBean Pkwy



McBean Coordination Timing Interim Year
 99: Creekside Road & McBean Pkwy

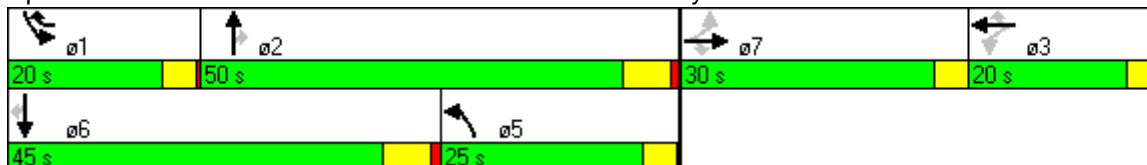
5:00 pm
 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	199	100	114	218	150	538	131	3015	149	330	3004	165
Turn Type	Perm		Perm	Perm		pm+ov	Prot		Perm	Prot		Perm
Protected Phases		7			3	1	5	2		1	6	
Permitted Phases	7		7	3		3			2			6
Detector Phases	7	7	7	3	3	1	5	2	2	1	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	35.0	35.0	35.0	15.0	15.0	12.0	12.0	27.0	27.0	12.0	27.0	27.0
Total Split (s)	30.0	30.0	30.0	20.0	20.0	20.0	25.0	50.0	50.0	20.0	45.0	45.0
Total Split (%)	25.0%	25.0%	25.0%	16.7%	16.7%	16.7%	20.8%	41.7%	41.7%	16.7%	37.5%	37.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	5.0	5.0	3.5	5.0	5.0
All-Red Time (s)	0.0	0.0	0.0	0.0	0.0	0.5	0.5	1.0	1.0	0.5	1.0	1.0
Lead/Lag						Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	26.0	26.0	26.0	16.0	16.0	36.0	21.0	46.0	46.0	16.0	41.0	41.0
Actuated g/C Ratio	0.22	0.22	0.22	0.13	0.13	0.30	0.18	0.38	0.38	0.13	0.34	0.34
v/c Ratio	1.83	4.93	0.30	1.12	1.25	0.99	0.46	1.68	0.25	1.57	1.54	0.31
Control Delay	460.9	1830.9	21.4	157.3	189.9	67.8	27.1	327.6	6.5	297.3	271.0	8.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	460.9	1830.9	21.4	157.3	189.9	67.8	27.1	327.6	6.5	297.3	271.0	8.3
LOS	F	F	C	F	F	E	C	F	A	F	F	A
Approach Delay		1001.6			112.0			301.2			261.1	
Approach LOS		F			F			F			F	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 64 (53%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
 Natural Cycle: 140
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 4.93
 Intersection Signal Delay: 298.4
 Intersection Capacity Utilization 109.7%
 Analysis Period (min) 15
 Intersection LOS: F
 ICU Level of Service H

Splits and Phases: 99: Creekside Road & McBean Pkwy



McBean Coordination Timing Interim Year with Mitigation & Timing Adj.
 99: Creekside Road & McBean Pkwy

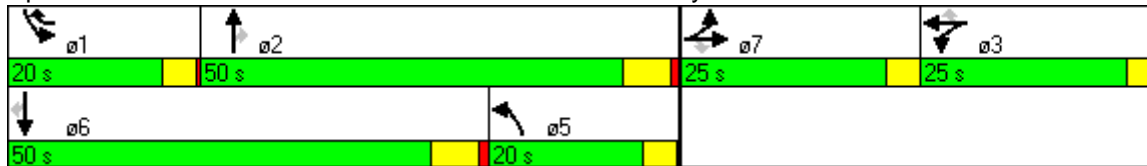
5:00 pm
 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	199	100	114	218	150	538	131	3015	149	330	3004	165
Turn Type	Split		Perm	Split		pm+ov	Prot		Perm	Prot		Perm
Protected Phases	7	7		3	3	1	5	2		1	6	
Permitted Phases			7			3			2			6
Detector Phases	7	7	7	3	3	1	5	2	2	1	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	35.0	35.0	35.0	15.0	15.0	12.0	12.0	27.0	27.0	12.0	27.0	27.0
Total Split (s)	25.0	25.0	25.0	25.0	25.0	20.0	20.0	50.0	50.0	20.0	50.0	50.0
Total Split (%)	20.8%	20.8%	20.8%	20.8%	20.8%	16.7%	16.7%	41.7%	41.7%	16.7%	41.7%	41.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	5.0	5.0	3.5	5.0	5.0
All-Red Time (s)	0.0	0.0	0.0	0.0	0.0	0.5	0.5	1.0	1.0	0.5	1.0	1.0
Lead/Lag						Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?						Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	15.7	15.7	15.7	17.6	17.6	46.3	16.0	46.0	46.0	24.7	54.7	54.7
Actuated g/C Ratio	0.13	0.13	0.13	0.15	0.15	0.39	0.13	0.38	0.38	0.21	0.46	0.46
v/c Ratio	0.72	0.73	0.42	0.79	0.80	0.84	0.60	1.68	0.25	1.02	1.16	0.24
Control Delay	67.5	68.2	22.6	71.4	71.4	41.7	37.7	329.7	10.0	80.1	95.4	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.5	68.2	22.6	71.4	71.4	41.7	37.7	329.7	10.0	80.1	95.4	5.3
LOS	E	E	C	E	E	D	D	F	B	F	F	A
Approach Delay		55.3				53.8		303.7			89.7	
Approach LOS		E				D		F			F	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 64 (53%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
 Natural Cycle: 150
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.68
 Intersection Signal Delay: 170.9
 Intersection Capacity Utilization 109.7%
 Analysis Period (min) 15
 Intersection LOS: F
 ICU Level of Service H

Splits and Phases: 99: Creekside Road & McBean Pkwy



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	156	28	128	111	44	144	143	2321	153	2613
Turn Type	Perm		Perm	Perm		Perm	pm+pt		pm+pt	
Protected Phases		8			4		5	2	1	6
Permitted Phases	8		8	4		4	2		6	
Detector Phases	8	8	8	4	4	4	5	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	39.0	39.0	39.0	40.0	40.0	40.0	12.0	28.0	12.0	27.0
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	18.0	62.0	18.0	62.0
Total Split (%)	33.3%	33.3%	33.3%	33.3%	33.3%	33.3%	15.0%	51.7%	15.0%	51.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	5.0	3.5	5.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.0	1.0	0.0	1.0
Lead/Lag							Lead	Lag	Lead	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		26.6	26.6		26.6	26.6	80.1	69.1	82.7	70.4
Actuated g/C Ratio		0.22	0.22		0.22	0.22	0.67	0.58	0.69	0.59
v/c Ratio		0.86	0.29		0.73	0.33	0.70	0.90	0.67	0.81
Control Delay		75.5	8.9		60.0	12.0	51.7	16.5	40.8	15.1
Queue Delay		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		75.5	8.9		60.0	12.0	51.7	16.5	40.8	15.1
LOS		E	A		E	B	D	B	D	B
Approach Delay		48.2			36.9			18.4		16.5
Approach LOS		D			D			B		B

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 79 (66%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.90
 Intersection Signal Delay: 20.0
 Intersection Capacity Utilization 82.0%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service E

Splits and Phases: 100: Town Center & McBean Pkwy



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Volume (vph)	26	1	16	198	8	80	105	2296	118	59	2604
Turn Type	Perm		Perm	Perm		Perm	pm+pt		Perm	pm+pt	
Protected Phases		8			4		5	2		1	6
Permitted Phases	8		8	4		4	2		2	6	
Detector Phases	8	8	8	4	4	4	5	2	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	37.0	37.0	37.0	36.0	36.0	36.0	12.0	27.0	27.0	12.0	27.0
Total Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	15.0	85.0	85.0	15.0	85.0
Total Split (%)	16.7%	16.7%	16.7%	16.7%	16.7%	16.7%	12.5%	70.8%	70.8%	12.5%	70.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	5.0	5.0	3.5	5.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.0	1.0	1.0	0.0	1.0
Lead/Lag							Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	16.0	16.0	16.0	16.0	16.0	16.0	94.5	87.0	87.0	90.3	83.5
Actuated g/C Ratio	0.13	0.13	0.13	0.13	0.13	0.13	0.79	0.72	0.72	0.75	0.70
v/c Ratio	0.16	0.00	0.07	1.14	0.04	0.30	0.64	0.68	0.10	0.41	0.65
Control Delay	48.7	45.0	19.9	156.2	45.9	12.4	41.0	2.6	0.1	25.5	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay	48.7	45.0	19.9	156.2	45.9	12.4	41.0	2.7	0.1	25.5	2.0
LOS	D	D	B	F	D	B	D	A	A	C	A
Approach Delay		38.0			112.8			4.1			2.5
Approach LOS		D			F			A			A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 92 (77%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.14
 Intersection Signal Delay: 9.2
 Intersection Capacity Utilization 75.3%
 Analysis Period (min) 15

Intersection LOS: A
 ICU Level of Service D

Splits and Phases: 101: Mall Entrance & McBean Pkwy



Lane Group	EBL	EBT	WBL	WBT	WBR	SEL	SET	NWL	NWT
Lane Configurations									
Volume (vph)	83	24	89	18	162	212	1601	75	1950
Turn Type	Perm		Perm		Perm	Prot		Prot	
Protected Phases		4		4		1	6	5	2
Permitted Phases	4	4	4		4				2
Detector Phases	4	4	4	4	4	1	6	5	2
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	28.0	28.0	28.0	28.0	28.0	18.0	24.0	12.0	24.0
Total Split (s)	28.0	28.0	28.0	28.0	28.0	18.0	77.0	15.0	74.0
Total Split (%)	23.3%	23.3%	23.3%	23.3%	23.3%	15.0%	64.2%	12.5%	61.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.5	5.0	3.5	5.0
All-Red Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	1.0
Lead/Lag						Lead	Lead	Lag	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	Min	C-Max
Act Effct Green (s)	13.8	13.8	13.8	13.8	13.8	24.2	83.2	11.0	70.0
Actuated g/C Ratio	0.12	0.12	0.12	0.12	0.12	0.20	0.69	0.09	0.58
v/c Ratio	0.56	0.15	0.63	0.09	0.50	0.69	0.51	0.54	0.78
Control Delay	62.7	23.8	67.8	45.7	11.7	62.6	4.2	58.4	15.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.7	23.8	67.8	45.7	11.7	62.6	4.2	58.4	15.7
LOS	E	C	E	D	B	E	A	E	B
Approach Delay		47.0		32.6			10.8		17.2
Approach LOS		D		C			B		B

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 75 (63%), Referenced to phase 2:NWT and 6:SET, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.78
 Intersection Signal Delay: 16.4
 Intersection Capacity Utilization 74.4%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service D

Splits and Phases: 102: Del Monte Dr. & McBean Pkwy

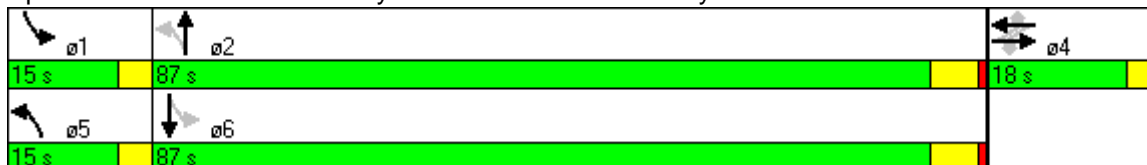


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	58	51	32	81	15	150	120	1943	120	1516
Turn Type	Perm		Perm	Perm		Perm	pm+pt		pm+pt	
Protected Phases		4			4		5	2	1	6
Permitted Phases	4		4	4		4	2		6	
Detector Phases	4	4	4	4	4	4	5	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	26.0	26.0	12.0	25.0	12.0	25.0
Total Split (s)	18.0	18.0	18.0	18.0	18.0	18.0	15.0	87.0	15.0	87.0
Total Split (%)	15.0%	15.0%	15.0%	15.0%	15.0%	15.0%	12.5%	72.5%	12.5%	72.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	5.0	3.5	5.0
All-Red Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	1.0
Lead/Lag							Lead	Lag	Lead	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	Min	C-Max
Act Effct Green (s)	11.5	11.5	11.5	11.5	11.5	11.5	94.0	87.4	99.0	89.9
Actuated g/C Ratio	0.10	0.10	0.10	0.10	0.10	0.10	0.78	0.73	0.82	0.75
v/c Ratio	0.51	0.31	0.19	0.68	0.10	0.55	0.57	0.59	0.66	0.44
Control Delay	65.0	54.1	17.7	77.9	49.2	17.2	19.6	7.7	43.8	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	65.0	54.1	17.7	77.9	49.2	17.2	19.6	7.7	43.8	1.9
LOS	E	D	B	E	D	B	B	A	D	A
Approach Delay		50.3			39.1			8.4		5.0
Approach LOS		D			D			A		A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 83 (69%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.68
 Intersection Signal Delay: 10.3
 Intersection Capacity Utilization 66.6%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service C

Splits and Phases: 103: Arroyo Park Dr. & McBean Pkwy



McBean Coordination Timing Interim Year
 104: Granary Square & McBean Pkwy

5:00 pm
 9/6/2007

Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations									
Volume (vph)	2	4	50	3	35	21	2059	50	1509
Turn Type	Perm		Perm		Perm	pm+pt		pm+pt	
Protected Phases		4		8		5	2	1	6
Permitted Phases	4		8		8	2		6	
Detector Phases	4	4	8	8	8	5	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	28.0	28.0	28.0	28.0	28.0	12.0	23.0	12.0	24.0
Total Split (s)	28.0	28.0	28.0	28.0	28.0	12.0	77.0	15.0	80.0
Total Split (%)	23.3%	23.3%	23.3%	23.3%	23.3%	10.0%	64.2%	12.5%	66.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	5.0	3.5	6.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.0	1.0	0.0	1.0
Lead/Lag						Lead	Lag	Lead	Lag
Lead-Lag Optimize?						Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)		10.2		10.3	10.3	100.0	96.5	101.8	98.8
Actuated g/C Ratio		0.08		0.09	0.09	0.83	0.80	0.85	0.82
v/c Ratio		0.14		0.51	0.22	0.10	0.60	0.34	0.41
Control Delay		27.2		67.0	18.0	2.8	5.9	23.6	2.2
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		27.2		67.0	18.0	2.8	5.9	23.6	2.2
LOS		C		E	B	A	A	C	A
Approach Delay		27.2		47.4			5.8		2.9
Approach LOS		C		D			A		A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 19 (16%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.60
 Intersection Signal Delay: 5.7
 Intersection Capacity Utilization 58.7%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service B

Splits and Phases: 104: Granary Square & McBean Pkwy



















Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	201	13	117	149	7	119	61	1835	87	1371
Turn Type	Perm		Perm	Perm		Perm	pm+pt		pm+pt	
Protected Phases		4			4		5	2	1	6
Permitted Phases	4		4	4		4	2		6	
Detector Phases	4	4	4	4	4	4	5	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	26.0	26.0	26.0	26.0	26.0	26.0	12.0	22.0	12.0	21.0
Total Split (s)	26.0	26.0	26.0	26.0	26.0	26.0	15.0	79.0	15.0	79.0
Total Split (%)	21.7%	21.7%	21.7%	21.7%	21.7%	21.7%	12.5%	65.8%	12.5%	65.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.5	5.0	3.5	5.0
All-Red Time (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	1.0
Lead/Lag							Lead	Lag	Lead	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	C-Max
Act Effct Green (s)	21.4	21.4	21.4	21.4	21.4	21.4	84.4	78.6	89.4	82.6
Actuated g/C Ratio	0.18	0.18	0.18	0.18	0.18	0.18	0.70	0.66	0.74	0.69
v/c Ratio	0.93	0.05	0.35	0.68	0.02	0.35	0.30	0.71	0.54	0.45
Control Delay	92.9	41.0	9.9	60.8	40.6	10.0	3.4	7.2	48.1	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	92.9	41.0	9.9	60.8	40.6	10.0	3.4	7.2	48.1	3.9
LOS	F	D	A	E	D	A	A	A	D	A
Approach Delay		61.5			38.3			7.1		6.4
Approach LOS		E			D			A		A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 32 (27%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.93
 Intersection Signal Delay: 13.1
 Intersection Capacity Utilization 73.4%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service D

Splits and Phases: 105: Avenida Navarre & McBean Pkwy



					
Lane Group	EBL	EBT	WBT	SBL	SBR
Lane Configurations		  	   	 	
Volume (vph)	50	1828	1247	49	51
Turn Type	Perm				Perm
Protected Phases		6	2	4	
Permitted Phases	6				4
Detector Phases	6	6	2	4	4
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	21.0	28.5	28.5
Total Split (s)	91.0	91.0	91.0	29.0	29.0
Total Split (%)	75.8%	75.8%	75.8%	24.2%	24.2%
Yellow Time (s)	5.0	5.0	5.0	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	106.2	106.2	106.2	8.8	8.8
Actuated g/C Ratio	0.88	0.88	0.88	0.07	0.07
v/c Ratio	0.21	0.46	0.31	0.23	0.33
Control Delay	2.3	0.8	0.8	54.2	18.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	2.3	0.8	0.8	54.2	18.9
LOS	A	A	A	D	B
Approach Delay		0.9	0.8	36.2	
Approach LOS		A	A	D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 90 (75%), Referenced to phase 2:WBT and 6:EBTL, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.46
 Intersection Signal Delay: 1.9
 Intersection Capacity Utilization 45.3%
 Analysis Period (min) 15

Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 106: McBean Pkwy & Alegro Dr.

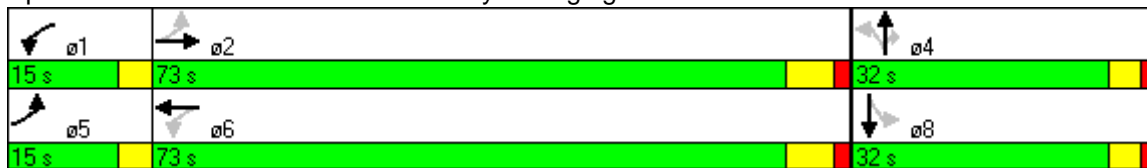


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations									
Volume (vph)	100	1757	95	1127	87	22	50	58	24
Turn Type	pm+pt		pm+pt		Perm		Perm	Perm	
Protected Phases	5	2	1	6		4			8
Permitted Phases	2		6		4		4	8	
Detector Phases	5	2	1	6	4	4	4	8	8
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	12.0	24.0	11.0	20.0	31.5	31.5	31.5	31.5	31.5
Total Split (s)	15.0	73.0	15.0	73.0	32.0	32.0	32.0	32.0	32.0
Total Split (%)	12.5%	60.8%	12.5%	60.8%	26.7%	26.7%	26.7%	26.7%	26.7%
Yellow Time (s)	3.5	5.0	3.5	5.0	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.0	2.0	0.0	2.0	2.0	2.0	2.0	2.0	2.0
Lead/Lag	Lead	Lag	Lead	Lag					
Lead-Lag Optimize?	Yes	Yes	Yes	Yes					
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None
Act Effct Green (s)	90.1	83.8	94.3	86.0	15.7	15.7	15.7	15.7	15.7
Actuated g/C Ratio	0.75	0.70	0.79	0.72	0.13	0.13	0.13	0.13	0.13
v/c Ratio	0.36	0.60	0.53	0.36	0.60	0.10	0.21	0.36	0.28
Control Delay	4.5	7.5	32.9	6.2	63.5	44.1	13.1	51.6	20.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.5	7.5	32.9	6.2	63.5	44.1	13.1	51.6	20.6
LOS	A	A	C	A	E	D	B	D	C
Approach Delay		7.3		8.2		45.1			34.3
Approach LOS		A		A		D			C

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 80 (67%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.60
 Intersection Signal Delay: 10.4
 Intersection Capacity Utilization 63.3%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service B

Splits and Phases: 107: McBean Pkwy & Singing Hills Dr.

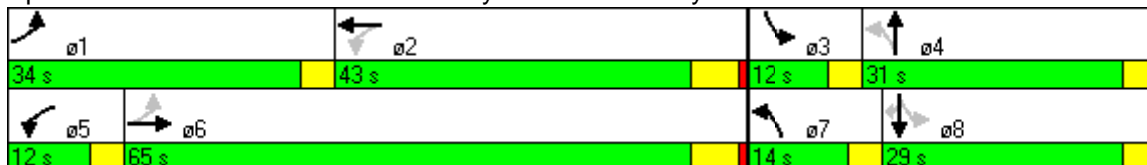


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Volume (vph)	310	1490	50	1030	200	110	360	210	290
Turn Type	pm+pt		pm+pt		pm+pt		pm+pt		Perm
Protected Phases	1	6	5	2	7	4	3	8	
Permitted Phases	6		2		4		8		8
Detector Phases	1	6	5	2	7	4	3	8	8
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	12.0	26.0	12.0	26.0	12.0	29.0	12.0	29.0	29.0
Total Split (s)	34.0	65.0	12.0	43.0	14.0	31.0	12.0	29.0	29.0
Total Split (%)	28.3%	54.2%	10.0%	35.8%	11.7%	25.8%	10.0%	24.2%	24.2%
Yellow Time (s)	3.5	5.0	3.5	5.0	3.5	4.0	3.5	4.0	4.0
All-Red Time (s)	0.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None
Act Effct Green (s)	78.2	69.8	59.2	52.9	31.8	21.8	27.8	19.8	19.8
Actuated g/C Ratio	0.65	0.58	0.49	0.44	0.26	0.18	0.23	0.16	0.16
v/c Ratio	0.88	0.78	0.32	0.57	0.88	0.36	1.42	0.77	0.61
Control Delay	41.5	21.9	17.4	23.4	70.6	21.6	241.3	64.6	10.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.5	21.9	17.4	23.4	70.6	21.6	241.3	64.6	10.0
LOS	D	C	B	C	E	C	F	E	A
Approach Delay		24.5		23.2		44.9		120.1	
Approach LOS		C		C		D		F	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 69 (58%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.42
 Intersection Signal Delay: 43.1
 Intersection Capacity Utilization 83.4%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service E

Splits and Phases: 108: McBean Pkwy & Rockwell Canyon Rd



McBean Coordination Timing Interim Year
 109: McBean Pkwy & 5 Fwy NB On/Off Ramp

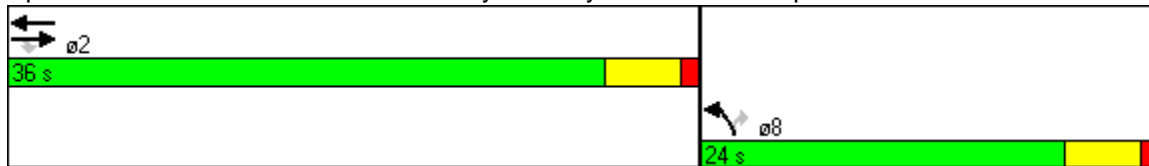
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 9/6/2007

	→	↘	←	↙	↗
Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑↑↑	↘↘	↗↗
Volume (vph)	1420	320	1390	440	910
Turn Type		Perm			Perm
Protected Phases	2		2	8	
Permitted Phases		2			8
Detector Phases	2	2	2	8	8
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	36.0	36.0	36.0	20.0	20.0
Total Split (s)	36.0	36.0	36.0	24.0	24.0
Total Split (%)	60.0%	60.0%	60.0%	40.0%	40.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Max	C-Max	C-Max	Min	Min
Act Effct Green (s)	32.0	32.0	32.0	20.0	20.0
Actuated g/C Ratio	0.53	0.53	0.53	0.33	0.33
v/c Ratio	0.82	0.37	0.56	0.42	1.04
Control Delay	19.0	5.7	14.5	16.9	61.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	19.0	5.7	14.5	16.9	61.3
LOS	B	A	B	B	E
Approach Delay	16.5		14.5	46.9	
Approach LOS	B		B	D	

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 35 (58%), Referenced to phase 2:EBWB, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.04
 Intersection Signal Delay: 25.1
 Intersection Capacity Utilization 77.8%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service D

Splits and Phases: 109: McBean Pkwy & 5 Fwy NB On/Off Ramp



	→	←	↖	↘	↙
Lane Group	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↑↑↑	↑↑	↖	↘↘	↖
Volume (vph)	1360	1310	380	530	480
Turn Type			pm+ov		Perm
Protected Phases	2	2	4	4	
Permitted Phases			2		4
Detector Phases	2	2	4	4	4
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	27.0	27.0	20.0	20.0	20.0
Total Split (s)	40.0	40.0	20.0	20.0	20.0
Total Split (%)	66.7%	66.7%	33.3%	33.3%	33.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Max	C-Max	Min	Min	Min
Act Effct Green (s)	36.0	36.0	60.0	16.0	16.0
Actuated g/C Ratio	0.60	0.60	1.00	0.27	0.27
v/c Ratio	0.47	0.67	0.24	0.61	1.11
Control Delay	6.5	17.9	0.3	22.5	100.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	6.5	17.9	0.3	22.5	100.1
LOS	A	B	A	C	F
Approach Delay	6.5	13.9		59.4	
Approach LOS	A	B		E	

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 14 (23%), Referenced to phase 2:EBWB, Start of Yellow
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.11
 Intersection Signal Delay: 22.7
 Intersection Capacity Utilization 72.6%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service C

Splits and Phases: 110: McBean Pkwy & 5 Fwy SB On/Off Ramp



McBean Coordination Timing Interim Year
 111: McBean Pkwy & The Old Road

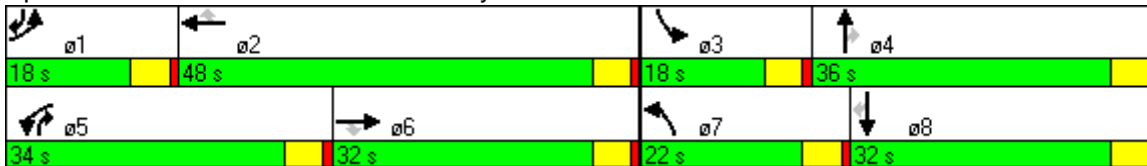
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 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	210	500	110	680	960	150	150	700	650	210	630	220
Turn Type	Prot		Perm	Prot		Perm	Prot		pm+ov	Prot		pm+ov
Protected Phases	1	6		5	2		7	4	5	3	8	1
Permitted Phases			6			2			4		8	
Detector Phases	1	6	6	5	2	2	7	4	5	3	8	1
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	14.0	31.0	31.0	14.0	32.0	32.0	14.0	35.0	14.0	14.0	31.0	14.0
Total Split (s)	18.0	32.0	32.0	34.0	48.0	48.0	22.0	36.0	34.0	18.0	32.0	18.0
Total Split (%)	15.0%	26.7%	26.7%	28.3%	40.0%	40.0%	18.3%	30.0%	28.3%	15.0%	26.7%	15.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes			Yes			Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	17.1	31.0	31.0	30.1	44.0	44.0	15.8	28.9	63.0	14.0	27.1	48.2
Actuated g/C Ratio	0.14	0.26	0.26	0.25	0.37	0.37	0.13	0.24	0.52	0.12	0.23	0.40
v/c Ratio	0.90	0.43	0.22	0.89	0.80	0.24	0.70	0.62	0.75	1.10	0.86	0.31
Control Delay	88.4	39.2	7.6	58.4	40.1	9.5	65.8	42.7	25.7	141.3	56.0	17.2
Queue Delay	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	88.4	39.2	7.6	58.4	40.2	9.5	65.8	42.7	25.7	141.3	56.0	17.2
LOS	F	D	A	E	D	A	E	D	C	F	E	B
Approach Delay		47.5			44.6			37.6			64.8	
Approach LOS		D			D			D			E	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 1 (1%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
 Natural Cycle: 105
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.10
 Intersection Signal Delay: 47.2
 Intersection Capacity Utilization 77.2%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service D

Splits and Phases: 111: McBean Pkwy & The Old Road



Orchard Village Timing Existing Conditions
 159: Lyons Avenue & Orchard Village Road

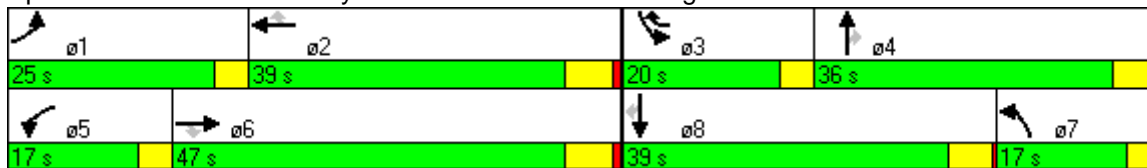
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 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	383	980	133	164	857	422	145	173	110	415	205	342
Turn Type	Prot		Perm	Prot		pm+ov	Prot		Perm	Prot		Perm
Protected Phases	1	6		5	2	3	7	4		3	8	
Permitted Phases			6			2			4			8
Detector Phases	1	6	6	5	2	3	7	4	4	3	8	8
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	33.0	33.0	8.0	34.0	8.0	8.0	36.0	36.0	8.0	33.0	33.0
Total Split (s)	25.0	47.0	47.0	17.0	39.0	20.0	17.0	36.0	36.0	20.0	39.0	39.0
Total Split (%)	20.8%	39.2%	39.2%	14.2%	32.5%	16.7%	14.2%	30.0%	30.0%	16.7%	32.5%	32.5%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	3.5	3.5	4.5	4.5	3.5	4.5	4.5
All-Red Time (s)	0.0	1.0	1.0	0.0	1.0	0.0	0.0	0.5	0.5	0.0	0.5	0.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None	None	None	None
Act Effct Green (s)	19.2	48.6	48.6	18.1	47.6	67.6	17.8	21.3	21.3	16.0	19.5	19.5
Actuated g/C Ratio	0.16	0.40	0.40	0.15	0.40	0.56	0.15	0.18	0.18	0.13	0.16	0.16
v/c Ratio	0.81	0.80	0.21	0.71	0.42	0.42	0.65	0.31	0.35	0.98	0.76	0.69
Control Delay	61.8	38.2	9.5	65.5	28.9	8.1	60.3	42.3	9.1	72.9	45.2	15.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.8	38.2	9.5	65.5	28.9	8.1	60.3	42.3	9.1	72.9	45.2	15.4
LOS	E	D	A	E	C	A	E	D	A	E	D	B
Approach Delay		41.7			27.0			39.9			46.5	
Approach LOS		D			C			D			D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 104 (87%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.98
 Intersection Signal Delay: 37.7
 Intersection Capacity Utilization 68.3%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service C

Splits and Phases: 159: Lyons Avenue & Orchard Village Road



Orchard Village Timing Existing Conditions
 176: Dalbey Drive & Orchard Village Road

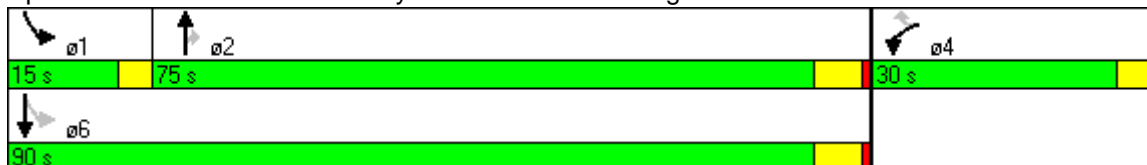
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 9/6/2007

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	39	48	924	54	60	923
Turn Type		Perm		Perm	pm+pt	
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phases	4	4	2	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	28.5	28.5	24.0	24.0	8.0	22.0
Total Split (s)	30.0	30.0	75.0	75.0	15.0	90.0
Total Split (%)	25.0%	25.0%	62.5%	62.5%	12.5%	75.0%
Yellow Time (s)	3.5	3.5	5.0	5.0	3.5	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	0.0	1.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?						
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	11.3	11.3	96.0	96.0	102.7	103.5
Actuated g/C Ratio	0.09	0.09	0.80	0.80	0.86	0.86
v/c Ratio	0.27	0.30	0.35	0.05	0.18	0.29
Control Delay	51.7	16.1	3.7	1.4	1.8	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.7	16.1	3.7	1.4	1.8	0.9
LOS	D	B	A	A	A	A
Approach Delay	32.0		3.5			1.0
Approach LOS	C		A			A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 20 (17%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.35
 Intersection Signal Delay: 3.5
 Intersection Capacity Utilization 57.9%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service B

Splits and Phases: 176: Dalbey Drive & Orchard Village Road



Orchard Village Timing Existing Conditions
 177: Orchard Village Road & Avenida Ronada

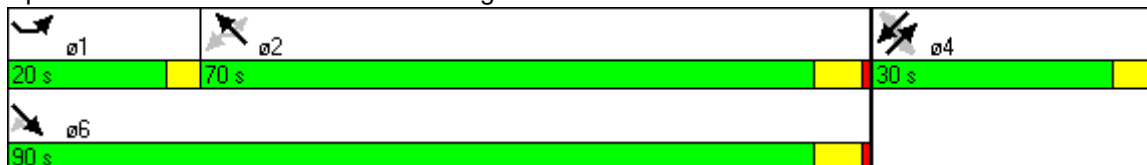
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 9/6/2007

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	221	926	101	23	888	61	116	22	22	35	38	223
Turn Type	Prot		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases	1	6			2			4			4	
Permitted Phases		6	6	2		2	4	4	4	4	4	4
Detector Phases	1	6	6	2	2	2	4	4	4	4	4	4
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	16.0	24.0	24.0	25.0	25.0	25.0	28.0	28.0	28.0	28.0	28.0	28.0
Total Split (s)	20.0	90.0	90.0	70.0	70.0	70.0	30.0	30.0	30.0	30.0	30.0	30.0
Total Split (%)	16.7%	75.0%	75.0%	58.3%	58.3%	58.3%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%
Yellow Time (s)	3.5	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?												
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	21.6	91.7	91.7	66.2	66.2	66.2		20.3	20.3	20.3	20.3	20.3
Actuated g/C Ratio	0.18	0.76	0.76	0.55	0.55	0.55		0.17	0.17	0.17	0.17	0.17
v/c Ratio	0.81	0.37	0.11	0.09	0.49	0.08		0.74	0.11	0.26	0.13	0.49
Control Delay	63.4	3.6	0.5	7.2	7.4	1.3		67.3	15.0	45.6	40.8	8.4
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	63.4	3.6	0.5	7.2	7.4	1.3		67.3	15.0	45.6	40.8	8.4
LOS	E	A	A	A	A	A		E	B	D	D	A
Approach Delay		14.0			7.0			60.1			17.0	
Approach LOS		B			A			E			B	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 6 (5%), Referenced to phase 2:NWTL and 6:SET, Start of Yellow
 Natural Cycle: 70
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay: 14.5
 Intersection Capacity Utilization 65.4%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service C

Splits and Phases: 177: Orchard Village Road & Avenida Ronada



Orchard Village Timing Existing Conditions
 178: Orchard Village Road & Wiley Canyon Road

5:00 pm
 9/6/2007

Lane Group	SEL	SET	SER	NWL	NWT	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations											
Volume (vph)	87	918	272	139	850	350	280	210	120	196	87
Turn Type	pm+pt		pm+ov	pm+pt		Prot		Perm	Prot		Perm
Protected Phases	1	6	7	5	2	7	4		3	8	
Permitted Phases	6		6	2				4			8
Detector Phases	1	6	7	5	2	7	4	4	3	8	8
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	30.0	8.0	8.0	30.0	8.0	30.0	30.0	8.0	30.0	30.0
Total Split (s)	15.0	56.0	19.0	15.0	56.0	19.0	34.0	34.0	15.0	30.0	30.0
Total Split (%)	12.5%	46.7%	15.8%	12.5%	46.7%	15.8%	28.3%	28.3%	12.5%	25.0%	25.0%
Yellow Time (s)	3.5	5.0	3.5	3.5	5.0	3.5	4.5	4.5	3.5	4.5	4.5
All-Red Time (s)	0.0	1.0	0.0	0.0	1.0	0.0	0.5	0.5	0.0	0.5	0.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?			Yes			Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	C-Max	None	None	None	None	None	None
Act Effct Green (s)	63.5	56.3	71.3	69.4	59.5	15.0	24.6	24.6	12.7	22.3	22.3
Actuated g/C Ratio	0.53	0.47	0.59	0.58	0.50	0.12	0.20	0.20	0.11	0.19	0.19
v/c Ratio	0.55	0.60	0.29	0.55	0.69	0.95	0.80	0.47	0.74	0.32	0.27
Control Delay	38.1	8.9	1.3	31.5	46.6	86.0	60.6	9.2	77.3	42.7	9.6
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	38.1	8.9	1.3	31.5	46.6	86.0	60.6	9.2	77.3	42.7	9.6
LOS	D	A	A	C	D	F	E	A	E	D	A
Approach Delay		9.3			44.9		58.3			45.8	
Approach LOS		A			D		E			D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 75 (63%), Referenced to phase 2:NWTL and 6:SETL, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.95
 Intersection Signal Delay: 35.8
 Intersection Capacity Utilization 72.1%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service C

Splits and Phases: 178: Orchard Village Road & Wiley Canyon Road



Orchard Village Timing Existing Conditions
 179: Mill Valley Road & Orchard Village Road

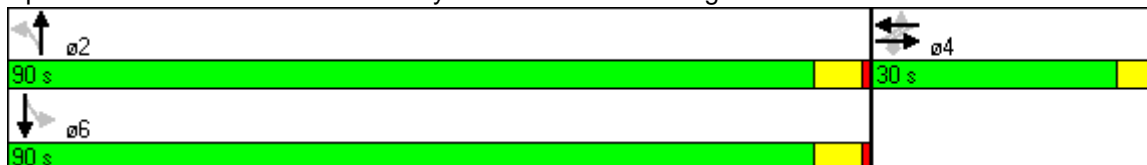
5:00 pm
 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Volume (vph)	51	7	48	31	6	87	1144	93	1198
Turn Type	Perm		Perm	Perm		Perm		Perm	
Protected Phases		4			4		2		6
Permitted Phases	4		4	4	4	2		6	
Detector Phases	4	4	4	4	4	2	2	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	29.0	29.0	29.0	29.0	29.0	24.0	24.0	24.0	24.0
Total Split (s)	30.0	30.0	30.0	30.0	30.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%	25.0%	25.0%	25.0%	75.0%	75.0%	75.0%	75.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	12.6	12.6	12.6	12.6	12.6	102.2	102.2	102.2	102.2
Actuated g/C Ratio	0.10	0.10	0.10	0.10	0.10	0.85	0.85	0.85	0.85
v/c Ratio	0.42	0.04	0.28	0.25	0.28	0.41	0.44	0.40	0.45
Control Delay	57.4	43.7	15.4	50.6	17.1	9.3	4.8	11.5	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.4	43.7	15.4	50.6	17.1	9.3	4.8	11.5	5.8
LOS	E	D	B	D	B	A	A	B	A
Approach Delay		37.4			29.3		5.1		6.1
Approach LOS		D			C		A		A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 93 (78%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.45
 Intersection Signal Delay: 7.6
 Intersection Capacity Utilization 61.9%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service B

Splits and Phases: 179: Mill Valley Road & Orchard Village Road



Orchard Village Timing Interim Year No Project
 159: Lyons Avenue & Orchard Village Road

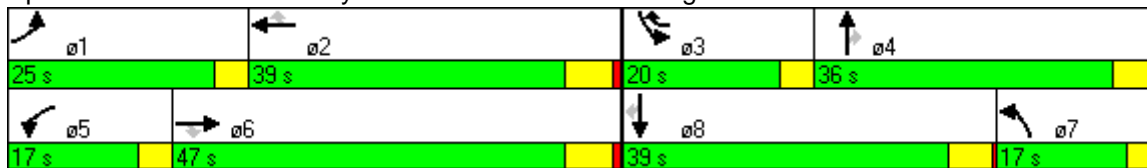
5:00 pm
 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	529	1040	90	130	1360	340	90	156	140	520	152	209
Turn Type	Prot		Perm	Prot		pm+ov	Prot		Perm	Prot		Perm
Protected Phases	1	6		5	2	3	7	4		3	8	
Permitted Phases			6			2			4			8
Detector Phases	1	6	6	5	2	3	7	4	4	3	8	8
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	33.0	33.0	8.0	34.0	8.0	8.0	36.0	36.0	8.0	33.0	33.0
Total Split (s)	25.0	47.0	47.0	17.0	39.0	20.0	17.0	36.0	36.0	20.0	39.0	39.0
Total Split (%)	20.8%	39.2%	39.2%	14.2%	32.5%	16.7%	14.2%	30.0%	30.0%	16.7%	32.5%	32.5%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	3.5	3.5	4.5	4.5	3.5	4.5	4.5
All-Red Time (s)	0.0	1.0	1.0	0.0	1.0	0.0	0.0	0.5	0.5	0.0	0.5	0.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None	None	None	None
Act Effct Green (s)	30.9	58.0	58.0	16.1	43.2	63.2	14.3	13.9	13.9	16.0	15.7	15.7
Actuated g/C Ratio	0.26	0.48	0.48	0.13	0.36	0.53	0.12	0.12	0.12	0.13	0.13	0.13
v/c Ratio	0.70	0.71	0.13	0.64	0.73	0.36	0.50	0.43	0.52	1.23	0.70	0.57
Control Delay	45.5	29.4	9.1	61.5	37.0	6.7	58.6	51.5	13.4	153.7	45.0	13.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.5	29.4	9.1	61.5	37.0	6.7	58.6	51.5	13.4	153.7	45.0	13.2
LOS	D	C	A	E	D	A	E	D	B	F	D	B
Approach Delay		33.4			33.1			39.3			101.6	
Approach LOS		C			C			D			F	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 104 (87%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
 Natural Cycle: 120
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.23
 Intersection Signal Delay: 46.4
 Intersection Capacity Utilization 73.8%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service D

Splits and Phases: 159: Lyons Avenue & Orchard Village Road

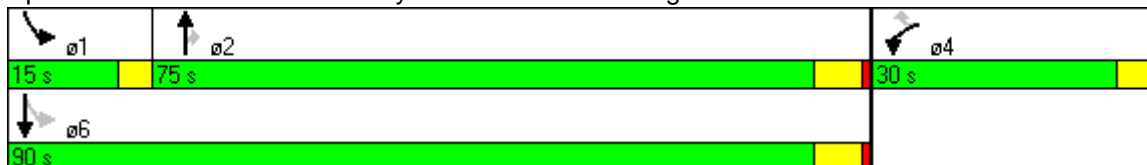


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	39	48	1000	54	60	855
Turn Type		Perm		Perm	pm+pt	
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phases	4	4	2	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	28.5	28.5	24.0	24.0	8.0	22.0
Total Split (s)	30.0	30.0	75.0	75.0	15.0	90.0
Total Split (%)	25.0%	25.0%	62.5%	62.5%	12.5%	75.0%
Yellow Time (s)	3.5	3.5	5.0	5.0	3.5	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	0.0	1.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?						
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	11.3	11.3	96.1	96.1	102.7	103.5
Actuated g/C Ratio	0.09	0.09	0.80	0.80	0.86	0.86
v/c Ratio	0.27	0.30	0.38	0.05	0.20	0.27
Control Delay	51.7	16.1	3.8	1.2	2.2	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.7	16.1	3.8	1.2	2.2	0.7
LOS	D	B	A	A	A	A
Approach Delay	32.0		3.7			0.8
Approach LOS	C		A			A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 20 (17%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.38
 Intersection Signal Delay: 3.6
 Intersection Capacity Utilization 60.0%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service B

Splits and Phases: 176: Dalbey Drive & Orchard Village Road

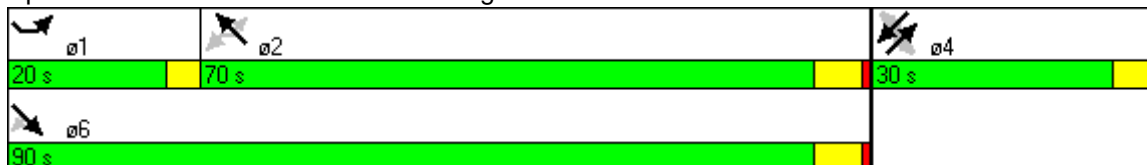


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	221	871	101	23	993	61	116	22	22	35	38	223
Turn Type	Prot		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases	1	6			2			4			4	
Permitted Phases		6	6	2		2	4	4	4	4	4	4
Detector Phases	1	6	6	2	2	2	4	4	4	4	4	4
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	16.0	24.0	24.0	25.0	25.0	25.0	28.0	28.0	28.0	28.0	28.0	28.0
Total Split (s)	20.0	90.0	90.0	70.0	70.0	70.0	30.0	30.0	30.0	30.0	30.0	30.0
Total Split (%)	16.7%	75.0%	75.0%	58.3%	58.3%	58.3%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%
Yellow Time (s)	3.5	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?												
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	21.6	91.7	91.7	66.2	66.2	66.2		20.3	20.3	20.3	20.3	20.3
Actuated g/C Ratio	0.18	0.76	0.76	0.55	0.55	0.55		0.17	0.17	0.17	0.17	0.17
v/c Ratio	0.81	0.35	0.11	0.09	0.55	0.08		0.74	0.11	0.26	0.13	0.49
Control Delay	55.7	7.2	1.9	5.7	6.4	0.7		67.3	15.0	45.6	40.8	8.4
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	55.7	7.2	1.9	5.7	6.4	0.7		67.3	15.0	45.6	40.8	8.4
LOS	E	A	A	A	A	A		E	B	D	D	A
Approach Delay		15.8			6.0			60.1			17.0	
Approach LOS		B			A			E			B	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 6 (5%), Referenced to phase 2:NWTL and 6:SET, Start of Yellow
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay: 14.6
 Intersection Capacity Utilization 68.3%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service C

Splits and Phases: 177: Orchard Village Road & Avenida Ronada



Lane Group	SEL	SET	SER	NWL	NWT	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations											
Volume (vph)	339	846	79	60	781	210	780	130	230	390	242
Turn Type	pm+pt		pm+ov	pm+pt		Prot		Perm	Prot		Perm
Protected Phases	1	6	7	5	2	7	4		3	8	
Permitted Phases	6		6	2				4			8
Detector Phases	1	6	7	5	2	7	4	4	3	8	8
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	30.0	8.0	8.0	30.0	8.0	30.0	30.0	8.0	30.0	30.0
Total Split (s)	15.0	56.0	19.0	15.0	56.0	19.0	34.0	34.0	15.0	30.0	30.0
Total Split (%)	12.5%	46.7%	15.8%	12.5%	46.7%	15.8%	28.3%	28.3%	12.5%	25.0%	25.0%
Yellow Time (s)	3.5	5.0	3.5	3.5	5.0	3.5	4.5	4.5	3.5	4.5	4.5
All-Red Time (s)	0.0	1.0	0.0	0.0	1.0	0.0	0.5	0.5	0.0	0.5	0.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?			Yes			Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	C-Max	None	None	None	None	None	None
Act Effct Green (s)	65.3	56.5	69.2	60.4	52.0	12.7	30.0	30.0	11.0	28.3	28.3
Actuated g/C Ratio	0.54	0.47	0.58	0.50	0.43	0.11	0.25	0.25	0.09	0.24	0.24
v/c Ratio	1.74	0.55	0.09	0.25	0.93	0.67	1.82	0.33	1.66	0.51	0.49
Control Delay	377.1	9.1	0.5	25.3	61.9	61.5	405.7	26.5	356.8	42.9	10.8
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	377.1	9.1	0.5	25.3	61.9	61.5	405.7	26.5	356.8	42.9	10.8
LOS	F	A	A	C	E	E	F	C	F	D	B
Approach Delay		107.1			60.3		297.3			117.6	
Approach LOS		F			E		F			F	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 75 (63%), Referenced to phase 2:NWTL and 6:SETL, Start of Yellow
 Natural Cycle: 130
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.82
 Intersection Signal Delay: 141.5
 Intersection Capacity Utilization 124.3%
 Analysis Period (min) 15
 Intersection LOS: F
 ICU Level of Service H

Splits and Phases: 178: Orchard Village Road & Wiley Canyon Road

ø1	ø2	ø4	ø3
15 s	56 s	34 s	15 s
ø5	ø6	ø7	ø8
15 s	56 s	19 s	30 s

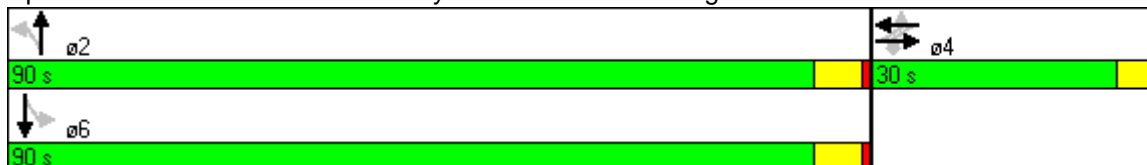
Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Volume (vph)	51	7	48	31	6	87	1206	93	1364
Turn Type	Perm		Perm	Perm		Perm		Perm	
Protected Phases		4			4		2		6
Permitted Phases	4		4	4	4	2		6	
Detector Phases	4	4	4	4	4	2	2	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	29.0	29.0	29.0	29.0	29.0	24.0	24.0	24.0	24.0
Total Split (s)	30.0	30.0	30.0	30.0	30.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%	25.0%	25.0%	25.0%	75.0%	75.0%	75.0%	75.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	12.6	12.6	12.6	12.6	12.6	102.2	102.2	102.2	102.2
Actuated g/C Ratio	0.10	0.10	0.10	0.10	0.10	0.85	0.85	0.85	0.85
v/c Ratio	0.42	0.04	0.28	0.25	0.28	0.53	0.46	0.44	0.51
Control Delay	57.4	43.7	15.4	50.6	17.1	15.1	4.2	13.0	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.4	43.7	15.4	50.6	17.1	15.1	4.2	13.0	8.1
LOS	E	D	B	D	B	B	A	B	A
Approach Delay		37.4			29.3		4.9		8.4
Approach LOS		D			C		A		A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 93 (78%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.53
 Intersection Signal Delay: 8.4
 Intersection Capacity Utilization 66.4%
 Analysis Period (min) 15

Intersection LOS: A
 ICU Level of Service C

Splits and Phases: 179: Mill Valley Road & Orchard Village Road



Orchard Village Timing Interim Year
 159: Lyons Avenue & Orchard Village Road

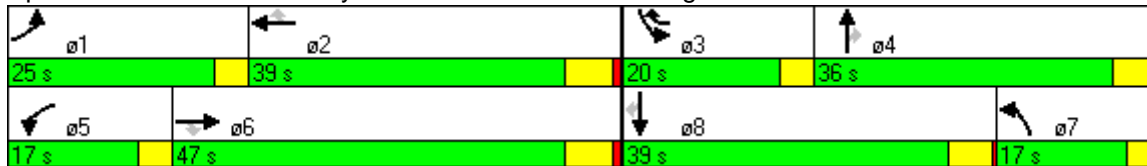
5:00 pm
 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	530	1040	90	130	1360	350	90	160	140	560	160	210
Turn Type	Prot		Perm	Prot		pm+ov	Prot		Perm	Prot		Perm
Protected Phases	1	6		5	2	3	7	4		3	8	
Permitted Phases			6			2			4			8
Detector Phases	1	6	6	5	2	3	7	4	4	3	8	8
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	33.0	33.0	8.0	34.0	8.0	8.0	36.0	36.0	8.0	33.0	33.0
Total Split (s)	25.0	47.0	47.0	17.0	39.0	20.0	17.0	36.0	36.0	20.0	39.0	39.0
Total Split (%)	20.8%	39.2%	39.2%	14.2%	32.5%	16.7%	14.2%	30.0%	30.0%	16.7%	32.5%	32.5%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	3.5	3.5	4.5	4.5	3.5	4.5	4.5
All-Red Time (s)	0.0	1.0	1.0	0.0	1.0	0.0	0.0	0.5	0.5	0.0	0.5	0.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None	None	None	None
Act Effct Green (s)	30.8	57.7	57.7	16.0	42.9	62.9	14.1	14.3	14.3	16.0	16.2	16.2
Actuated g/C Ratio	0.26	0.48	0.48	0.13	0.36	0.52	0.12	0.12	0.12	0.13	0.14	0.14
v/c Ratio	0.70	0.71	0.13	0.64	0.74	0.37	0.51	0.43	0.51	1.33	0.71	0.56
Control Delay	45.7	29.7	9.2	61.8	37.4	6.8	59.1	51.0	13.0	192.2	44.3	12.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.7	29.7	9.2	61.8	37.4	6.8	59.1	51.0	13.0	192.2	44.3	12.2
LOS	D	C	A	E	D	A	E	D	B	F	D	B
Approach Delay		33.7			33.3			39.3			126.2	
Approach LOS		C			C			D			F	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 104 (87%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
 Natural Cycle: 130
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.33
 Intersection Signal Delay: 51.8
 Intersection Capacity Utilization 75.1%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service D

Splits and Phases: 159: Lyons Avenue & Orchard Village Road



Orchard Village Timing Interim Year with Mitigation & Splits Adj.
 159: Lyons Avenue & Orchard Village Road

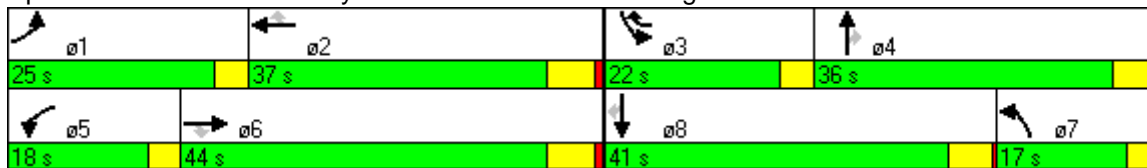
5:00 pm
 9/6/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	530	1040	90	130	1360	350	90	160	140	560	160	210
Turn Type	Prot		Perm	Prot		pm+ov	Prot		Perm	Prot		Perm
Protected Phases	1	6		5	2	3	7	4		3	8	
Permitted Phases			6			2			4			8
Detector Phases	1	6	6	5	2	3	7	4	4	3	8	8
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	33.0	33.0	8.0	34.0	8.0	8.0	36.0	36.0	8.0	33.0	33.0
Total Split (s)	25.0	44.0	44.0	18.0	37.0	22.0	17.0	36.0	36.0	22.0	41.0	41.0
Total Split (%)	20.8%	36.7%	36.7%	15.0%	30.8%	18.3%	14.2%	30.0%	30.0%	18.3%	34.2%	34.2%
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	3.5	3.5	4.5	4.5	3.5	4.5	4.5
All-Red Time (s)	0.0	1.0	1.0	0.0	1.0	0.0	0.0	0.5	0.5	0.0	0.5	0.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	None	None	None	None	None	None	None
Act Effct Green (s)	31.3	56.9	56.9	15.7	41.3	63.3	15.4	13.4	13.4	18.0	16.0	16.0
Actuated g/C Ratio	0.26	0.47	0.47	0.13	0.34	0.53	0.13	0.11	0.11	0.15	0.13	0.13
v/c Ratio	0.69	0.72	0.13	0.65	0.77	0.36	0.46	0.46	0.53	1.18	0.72	0.57
Control Delay	44.8	30.2	9.7	63.1	39.1	6.7	56.3	52.8	14.0	130.9	44.2	11.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.8	30.2	9.7	63.1	39.1	6.7	56.3	52.8	14.0	130.9	44.2	11.5
LOS	D	C	A	E	D	A	E	D	B	F	D	B
Approach Delay		33.8			34.6			39.7			89.1	
Approach LOS		C			C			D			F	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 104 (87%), Referenced to phase 2:WBT and 6:EBT, Start of Yellow
 Natural Cycle: 130
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.18
 Intersection Signal Delay: 45.3
 Intersection Capacity Utilization 75.1%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service D

Splits and Phases: 159: Lyons Avenue & Orchard Village Road

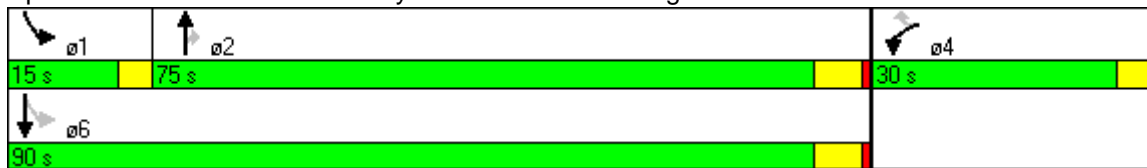


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	39	48	1016	54	60	915
Turn Type		Perm		Perm	pm+pt	
Protected Phases	4		2		1	6
Permitted Phases		4		2	6	
Detector Phases	4	4	2	2	1	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	28.5	28.5	24.0	24.0	8.0	22.0
Total Split (s)	30.0	30.0	75.0	75.0	15.0	90.0
Total Split (%)	25.0%	25.0%	62.5%	62.5%	12.5%	75.0%
Yellow Time (s)	3.5	3.5	5.0	5.0	3.5	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	0.0	1.0
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?						
Recall Mode	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	11.3	11.3	96.1	96.1	102.7	103.5
Actuated g/C Ratio	0.09	0.09	0.80	0.80	0.86	0.86
v/c Ratio	0.27	0.30	0.39	0.05	0.20	0.29
Control Delay	51.7	16.1	3.8	1.2	2.1	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.7	16.1	3.8	1.2	2.1	0.6
LOS	D	B	A	A	A	A
Approach Delay	32.0		3.7			0.7
Approach LOS	C		A			A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 20 (17%), Referenced to phase 2:NBT and 6:SBTL, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.39
 Intersection Signal Delay: 3.5
 Intersection Capacity Utilization 60.5%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service B

Splits and Phases: 176: Dalbey Drive & Orchard Village Road

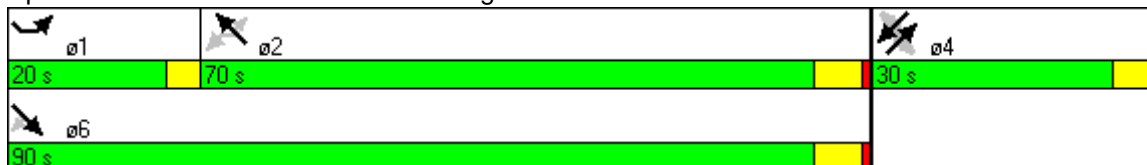


Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	221	943	101	23	1010	61	116	22	22	35	38	223
Turn Type	Prot		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases	1	6			2			4			4	
Permitted Phases		6	6	2		2	4	4	4	4	4	4
Detector Phases	1	6	6	2	2	2	4	4	4	4	4	4
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	16.0	24.0	24.0	25.0	25.0	25.0	28.0	28.0	28.0	28.0	28.0	28.0
Total Split (s)	20.0	90.0	90.0	70.0	70.0	70.0	30.0	30.0	30.0	30.0	30.0	30.0
Total Split (%)	16.7%	75.0%	75.0%	58.3%	58.3%	58.3%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%
Yellow Time (s)	3.5	5.0	5.0	5.0	5.0	5.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?												
Recall Mode	None	C-Max	C-Max	C-Max	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	21.6	91.7	91.7	66.2	66.2	66.2		20.3	20.3	20.3	20.3	20.3
Actuated g/C Ratio	0.18	0.76	0.76	0.55	0.55	0.55		0.17	0.17	0.17	0.17	0.17
v/c Ratio	0.81	0.38	0.11	0.10	0.56	0.08		0.74	0.11	0.26	0.13	0.49
Control Delay	56.5	7.1	1.6	5.8	6.5	0.7		67.3	15.0	45.6	40.8	8.4
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	56.5	7.1	1.6	5.8	6.5	0.7		67.3	15.0	45.6	40.8	8.4
LOS	E	A	A	A	A	A		E	B	D	D	A
Approach Delay		15.3			6.2			60.1			17.0	
Approach LOS		B			A			E			B	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 6 (5%), Referenced to phase 2:NWTL and 6:SET, Start of Yellow
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay: 14.5
 Intersection Capacity Utilization 68.8%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service C

Splits and Phases: 177: Orchard Village Road & Avenida Ronada



Orchard Village Timing Interim Year
 178: Orchard Village Road & Wiley Canyon Road

5:00 pm
 9/6/2007

Lane Group	SEL	SET	SER	NWL	NWT	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations											
Volume (vph)	420	930	80	60	800	210	780	130	230	390	260
Turn Type	pm+pt		pm+ov	pm+pt		Prot		Perm	Prot		Perm
Protected Phases	1	6	7	5	2	7	4		3	8	
Permitted Phases	6		6	2				4			8
Detector Phases	1	6	7	5	2	7	4	4	3	8	8
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	30.0	8.0	8.0	30.0	8.0	30.0	30.0	8.0	30.0	30.0
Total Split (s)	15.0	56.0	19.0	15.0	56.0	19.0	34.0	34.0	15.0	30.0	30.0
Total Split (%)	12.5%	46.7%	15.8%	12.5%	46.7%	15.8%	28.3%	28.3%	12.5%	25.0%	25.0%
Yellow Time (s)	3.5	5.0	3.5	3.5	5.0	3.5	4.5	4.5	3.5	4.5	4.5
All-Red Time (s)	0.0	1.0	0.0	0.0	1.0	0.0	0.5	0.5	0.0	0.5	0.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?			Yes			Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	C-Max	None	None	None	None	None	None
Act Effct Green (s)	65.3	56.5	69.2	60.4	52.0	12.7	30.0	30.0	11.0	28.3	28.3
Actuated g/C Ratio	0.54	0.47	0.58	0.50	0.43	0.11	0.25	0.25	0.09	0.24	0.24
v/c Ratio	2.16	0.61	0.10	0.28	0.95	0.67	1.82	0.33	1.66	0.51	0.53
Control Delay	556.1	13.3	1.0	25.7	64.2	61.5	405.7	26.5	356.8	42.9	13.3
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	556.1	13.3	1.0	25.7	64.2	61.5	405.7	26.5	356.8	42.9	13.3
LOS	F	B	A	C	E	E	F	C	F	D	B
Approach Delay		172.1			62.5		297.3			116.1	
Approach LOS		F			E		F			F	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 75 (63%), Referenced to phase 2:NWTL and 6:SETL, Start of Yellow
 Natural Cycle: 130
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 2.16
 Intersection Signal Delay: 159.6
 Intersection Capacity Utilization 129.3%
 Analysis Period (min) 15
 Intersection LOS: F
 ICU Level of Service H

Splits and Phases: 178: Orchard Village Road & Wiley Canyon Road

ø1	ø2	ø4	ø3
15 s	56 s	34 s	15 s
ø5	ø6	ø7	ø8
15 s	56 s	19 s	30 s

Orchard Village Timing Interim Year with Mitigation & Splits Adj.
 178: Orchard Village Road & Wiley Canyon Road

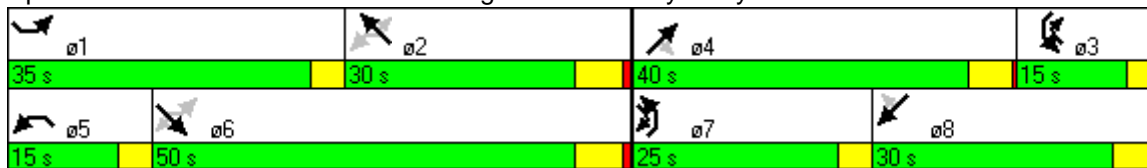
5:00 pm
 9/6/2007

Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	420	930	80	60	800	520	210	780	130	230	390	260
Turn Type	pm+pt		pm+ov	pm+pt		pm+ov	Prot		Perm	Prot		Perm
Protected Phases	1	6	7	5	2	3	7	4		3	8	
Permitted Phases	6		6	2		2			4			8
Detector Phases	1	6	7	5	2	3	7	4	4	3	8	8
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	30.0	8.0	8.0	30.0	8.0	8.0	30.0	30.0	8.0	30.0	30.0
Total Split (s)	35.0	50.0	25.0	15.0	30.0	15.0	25.0	40.0	40.0	15.0	30.0	30.0
Total Split (%)	29.2%	41.7%	20.8%	12.5%	25.0%	12.5%	20.8%	33.3%	33.3%	12.5%	25.0%	25.0%
Yellow Time (s)	3.5	5.0	3.5	3.5	5.0	3.5	3.5	4.5	4.5	3.5	4.5	4.5
All-Red Time (s)	0.0	1.0	0.0	0.0	1.0	0.0	0.0	0.5	0.5	0.0	0.5	0.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?			Yes			Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	None	None	C-Max	None	None	None	None	None	None	None
Act Effct Green (s)	61.0	50.4	63.1	35.9	27.4	38.4	12.7	36.0	36.0	11.0	34.3	34.3
Actuated g/C Ratio	0.51	0.42	0.53	0.30	0.23	0.32	0.11	0.30	0.30	0.09	0.29	0.29
v/c Ratio	0.98	0.68	0.10	0.32	1.08	1.06	0.67	1.52	0.28	1.66	0.42	0.45
Control Delay	63.5	19.7	1.7	33.8	115.0	98.2	61.2	273.5	21.9	356.8	37.0	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.5	19.7	1.7	33.8	115.0	98.2	61.2	273.5	21.9	356.8	37.0	6.5
LOS	E	B	A	C	F	F	E	F	C	F	D	A
Approach Delay		31.6			105.1			204.6			111.5	
Approach LOS		C			F			F			F	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 75 (63%), Referenced to phase 2:NWTL and 6:SETL, Start of Yellow
 Natural Cycle: 130
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.66
 Intersection Signal Delay: 107.6
 Intersection Capacity Utilization 112.5%
 Analysis Period (min) 15
 Intersection LOS: F
 ICU Level of Service H

Splits and Phases: 178: Orchard Village Road & Wiley Canyon Road



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Volume (vph)	51	7	48	31	6	87	1244	93	1533
Turn Type	Perm		Perm	Perm		Perm		Perm	
Protected Phases		4			4		2		6
Permitted Phases	4		4	4	4	2		6	
Detector Phases	4	4	4	4	4	2	2	6	6
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	29.0	29.0	29.0	29.0	29.0	24.0	24.0	24.0	24.0
Total Split (s)	30.0	30.0	30.0	30.0	30.0	90.0	90.0	90.0	90.0
Total Split (%)	25.0%	25.0%	25.0%	25.0%	25.0%	75.0%	75.0%	75.0%	75.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	5.0	5.0	5.0	5.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lead/Lag									
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	12.6	12.6	12.6	12.6	12.6	102.2	102.2	102.2	102.2
Actuated g/C Ratio	0.10	0.10	0.10	0.10	0.10	0.85	0.85	0.85	0.85
v/c Ratio	0.42	0.04	0.28	0.25	0.28	0.72	0.47	0.47	0.58
Control Delay	57.4	43.7	18.3	50.6	17.1	33.6	4.2	11.4	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.4	43.7	18.3	50.6	17.1	33.6	4.2	11.4	7.5
LOS	E	D	B	D	B	C	A	B	A
Approach Delay		38.8			29.3		6.0		7.7
Approach LOS		D			C		A		A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 93 (78%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.72
 Intersection Signal Delay: 8.6
 Intersection Capacity Utilization 71.1%
 Analysis Period (min) 15

Intersection LOS: A
 ICU Level of Service C

Splits and Phases: 179: Mill Valley Road & Orchard Village Road



APPENDIX C

TRAFFIC COUNT COMPARISON

As noted in Section 2.1.2, Existing Traffic Volumes and Levels of Service, traffic counts were collected for the purpose of this study between May 2003 and January 2005. A subsequent comparison has been made to traffic counts collected between 2005 and 2007 to determine what changes to volumes and levels of service, if any, have occurred since the initial collection of traffic counts.

Table C-1 provides a comparison between the 2004 ADT counts illustrated in the traffic study and more recent ADT counts at locations where data for 2004 through 2007 is available. The table shows that at these locations, the average annual change in traffic volumes range from a decrease of 4 percent to an increase of 21 percent. The greatest increases occur in the Copper Hill/Rye Canyon Road area which is experiencing new development activity. Mature areas, such as the Orchard Village Road and Soledad Canyon Road areas exhibit little to no increase in traffic volumes.

Table C-2 provides a comparison between 2004/2005 peak hour intersection levels of service and 2006/2007 peak hour intersection levels of service for locations where recent data is available. The table shows that level of service during the AM peak hour remains in the range of LOS A & B, and during the PM peak hour level of service remains in the range of C & D. In the PM peak hour, two locations (McBean Parkway at Magic Mountain Parkway and Wiley Canyon Road at Lyons Avenue) show an improvement in level of service, and one location (Valencia Boulevard at Magic Mountain Parkway) shows a worsening of level of service from LOS C to LOS D.

Table C-1

ADT COMPARISON – 2004, 2005 AND 2007 COUNTS

Location	2004	2005	2007	Average Annual Increase
Copper Hill n/o Newhall Ranch	28	34		21%
Lyons e/o Orchard Village	34		47	13%
Rye Canyon s/o Scott	37	41		11%
Whites Canyon s/o Soledad Canyon	29	32		10%
Newhall Ranch e/o Rye Canyon	10	11		10%
Orchard Village s/o McBean Parkway	29		30	1%
Soledad Canyon e/o Bouquet Canyon	57	57		0%
Whites Canyon n/o Soledad Canyon	39	39		0%
Wiley Canyon e/o Orchard Village	11		11	0%
Orchard Village n/o Lyons	22		21	-2%
Newhall Ranch e/o McBean Parkway	33	32		-3%
Soledad Canyon e/o Rainbow Glen	48	46		-4%

Sources:

City of Santa Clarita Traffic Flow Map, November 2007

Draft Henry Mayo Newhall Memorial Hospital Master Plan Traffic Study, July 2006

Table C-2

ICU AND LOS SUMMARY – 2004, 2005, 2006 AND 2007 COUNTS

Intersection	2004/2005 Counts				2006/2007 Counts			
	AM		PM		AM		PM	
44. McBean & Valencia	.61	B	.73	C	.67	B	.72	C
45. McBean & Magic Mtn	.57	A	.87	D	.60	A	.79	C
51. Wiley & Lyons	.49	A	.74	C	.64	B	.69	B
57. Valencia & Magic Mtn	.62	B	.77	C	.52	A	.82	D
Level of service ranges: .00 - .60 A .61 - .70 B .71 - .80 C .81 - .90 D .91 - 1.00 E Above 1.00 F								

44. McBean & Valencia

2005 Count						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	152	.04*	128	.04
NBT	3	5250	796	.15	1032	.20*
NBR	2	3500	345	.10	543	.16
SBL	2	3500	94	.03	189	.05*
SBT	3	5250	768	.15*	1127	.21
SBR	2	3500	726	.21	744	.21
EBL	2	3500	443	.13*	668	.19*
EBT	3	5250	727	.14	1228	.23
EBR	1	1750	40	.02	127	.07
WBL	2	3500	278	.08	446	.13
WBT	3	5250	989	.19*	980	.19*
WBR	1	1750	179	.10	189	.11
Clearance Interval				.10*	.10*	
Note: Assumes Right-Turn Overlap for SBR						

TOTAL CAPACITY UTILIZATION .61 .73

2007 Count						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	216	.06*	178	.05*
NBT	3	5250	862	.16	1116	.21
NBR	2	3500	247	.07	518	.15
SBL	2	3500	110	.03	173	.05
SBT	3	5250	763	.15*	1131	.22*
SBR	2	3500	809	.23	728	.21
EBL	2	3500	522	.15*	558	.16
EBT	3	5250	759	.14	1231	.23*
EBR	1	1750	114	.07	166	.09
WBL	2	3500	343	.10	430	.12*
WBT	3	5250	1101	.21*	909	.17
WBR	1	1750	49	.03	155	.09
Clearance Interval				.10*	.10*	
Note: Assumes Right-Turn Overlap for SBR						

TOTAL CAPACITY UTILIZATION .67 .72

45. McBean & Magic Mtn

2005 Count						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	34	.01	124	.04
NBT	3	5250	1131	.22*	1938	.37*
NBR	1	1750	35	.02	184	.11
SBL	2	3500	252	.07*	305	.09*
SBT	4	7000	1700	.24	1721	.25
SBR	1	1750	404	.23	325	.19
EBL	2	3500	310	.09*	674	.19*
EBT	2	3500	463	.13	589	.17
EBR	1	1750	75	.04	196	.11
WBL	2	3500	71	.02	262	.07
WBT	2	3500	320	.09*	409	.12*
WBR	1	1750	202	.12	327	.19
Clearance Interval				.10*	.10*	

TOTAL CAPACITY UTILIZATION .57 .87

2007 Count						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	2	3500	54	.02*	127	.04
NBT	3	5250	1018	.19	1290	.25*
NBR	f		69		102	
SBL	2	3500	183	.05	366	.10*
SBT	4	7000	1665	.24*	1724	.25
SBR	f		396		283	
EBL	2	3500	322	.09*	539	.15*
EBT	2	3500	421	.12	765	.22
EBR	1	1750	41	.02	165	.09
WBL	2	3500	71	.02	262	.07
WBT	2	3500	536	.15*	574	.16*
WBR	1	1750	151	.09	481	.27
Right Turn Adjustment					WBR	.03*
Clearance Interval				.10*	.10*	

TOTAL CAPACITY UTILIZATION .60 .79

51. Wiley Cyn & Lyons

2004 Count						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	83	.05*	152	.09
NBT	2	3500	123	.04	363	.10*
NBR	1	1750	104	.06	225	.13
SBL	1	1750	121	.07	190	.11*
SBT	2	3500	233	.07*	339	.10
SBR	1	1750	356	.20	288	.16
EBL	2	3500	112	.03	441	.13
EBT	2	3500	534	.15*	1112	.32*
EBR	1	1750	43	.02	114	.07
WBL	1	1750	111	.06*	191	.11*
WBT	3	5250	567	.12	878	.19
WBR	0	0	45		141	
Right Turn Adjustment			SBR	.06*		
Clearance Interval				.10*		.10*

TOTAL CAPACITY UTILIZATION .49 .74

2007 Count						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	178	.10*	176	.10
NBT	2	3500	171	.05	359	.10*
NBR	1	1750	154	.09	217	.12
SBL	1	1750	126	.07	146	.08*
SBT	2	3500	471	.13*	236	.07
SBR	1	1750	361	.21	263	.15
EBL	2	3500	124	.04	345	.10
EBT	2	3500	658	.19*	1079	.31*
EBR	1	1750	116	.07	104	.06
WBL	1	1750	218	.12*	179	.10*
WBT	3	5250	821	.18	855	.19
WBR	0	0	120		124	
Clearance Interval				.10*		.10*

TOTAL CAPACITY UTILIZATION .64 .69

57. Valencia & Magic Mtn

2004 Count						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	44	.03*	92	.05
NBT	3	5250	851	.18	1507	.32*
NBR	0	0	120		191	
SBL	1	1750	32	.02	87	.05*
SBT	3	5250	1524	.29*	1188	.23
SBR	2	3500	419	.12	302	.09
EBL	2	3500	149	.04	662	.19*
EBT	2	3500	177	.07*	513	.16
EBR	0	0	52		60	
WBL	1	1750	222	.13*	197	.11
WBT	2	3500	421	.12	396	.11*
WBR	1	1750	53	.03	75	.04
Clearance Interval				.10*		.10*

TOTAL CAPACITY UTILIZATION .62 .77

2006 Count						
	LANES	CAPACITY	AM PK HOUR		PM PK HOUR	
			VOL	V/C	VOL	V/C
NBL	1	1750	43	.02*	103	.06
NBT	3	5250	709	.15	1592	.36*
NBR	0	0	92		321	
SBL	1	1750	28	.02	100	.06*
SBT	3	5250	1294	.25*	1064	.20
SBR	2	3500	516	.15	408	.12
EBL	2	3500	227	.06*	676	.19*
EBT	2	3500	186	.07	484	.14
EBR	0	0	45		22	
WBL	1	1750	127	.07	228	.13
WBT	2	3500	326	.09*	386	.11*
WBR	1	1750	33	.02	83	.05
Clearance Interval				.10*		.10*

TOTAL CAPACITY UTILIZATION .52 .82