TRAFFIC STUDY

For

Oakmont II
(TM 5421, ENV. No. 05-14-003; KIVA 05-0036728)

Prepared For: The County of San Diego

Submitted To:
Hsiung Cheng
1852 Hacienda Dr.
El Cajon, CA 92020

Prepared By:
Bill E. Darnell, P.E.
(RCE 22338)
Darnell & Associates, Inc.
1446 Front Street, Suite 300
San Diego, CA 92101

REGISTERED PROFESSIONAL ENGINEER
BILL E. DARNELL
No. 22338
Expires 9/30/09
CIVIL
STATE OF CALIFORNIA

Signature: Bill E Darnell
Date Signed: 7/11/08

Revised: July 11, 2008
Revised: March 24, 2007
Original: October 26, 2005

D&A Ref. No.: 050909

SDC DPLU RCVD 02-17-2011
TM5421RPL1

Darnell & ASSOCIATES, INC.

TRANSPORTATION PLANNING & TRAFFIC ENGINEERING

July 11, 2008

Hsiung Cheng
1852 Hacienda Dr.
El Cajon, CA 92020

D&A Ref. No.: 050909

Subject: Revised Traffic Impact Analysis for the Oakmont II Residential Subdivision (TM 5421) Located at Olde Highway 80 and Flinn Springs Road in the Lakeside Community of the County of San Diego.

Dear Mr. Cheng:

In response to the County's comments dated March 24, 2008 Darnell & Associates, Inc. (D&A) has revised our March 24, 2007 traffic impact analysis for Oakmont II (TM 5421). A copy of D&A's written responses to each of the County's comments is provided directly behind this letter and in Appendix G. This report has been prepared in strike-out/underline format for submittal to the County. A clean version of the report has also been prepared and will be made available upon request.

This report analyzes the traffic impacts associated with the proposed project on local roadways and intersections, including existing and existing plus project conditions. The report focuses on the project's access off Olde Highway 80 under existing plus project conditions. This report also addresses the County of San Diego Transportation Impact Fee (TIF) Program Update adopted by the County of San Diego Board of Supervisors in January 2008.

If you have any questions, please feel free to contact the office.

Sincerely,

DARNELL & ASSOCIATES, INC.

Vicki S. Haskell

Vicki S. Haskell, P.E.
Principal Transportation Engineer
RCE 63754

REGISTERED PROFESSIONAL ENGINEER
VICKI S. HASKELL
No. 63754
Exp. 9/30/08
CIVIL
STATE OF CALIFORNIA

Date Signed: 07-11-08

REGISTERED PROFESSIONAL ENGINEER
BILL E. DARNELL
No. 22338
Expires 9/30/09
CIVIL
STATE OF CALIFORNIA

Bill E Darnell

Bill E. Darnell, P.E.
Firm Principal
RCE 22338

Date Signed: 7/11/08

BED/vsh/st/cmt
050909 Oakmont II Rpt3 (July 08)-SU/07-08

1446 Front Street • Suite 300 • San Diego, CA 92101
Phone: 619-233-9373 • Fax: 619-233-4034
E-mail: office@darnell-assoc.com

43300 Business Park Drive • Suite A-204 • Temecula, CA 92590
Phone: 951-699-8209 • Fax: 951-699-8269
E-mail: office@darnell-assoc.com

Darnell & ASSOCIATES, INC.

TRANSPORTATION PLANNING & TRAFFIC ENGINEERING

MEMORANDUM

DATE: July 10, 2008

TO: Hsiung Cheng
CC: Tom Koerner, Crew Engineering and Surveying

FROM: Bill E. Darnell, P.E.
Vicki S. Haskell, P.E.

D&A Ref. No: 050909

RE: Oakmont II (TM 5421, Environmental No. 05-14-003; KIVA 05-0036728) – Responses to County of San Diego March 24, 2008 Second Iteration Review Comments on our March 24, 2007 Traffic Study

Darnell & Associates, Inc. (D&A) has reviewed the County of San Diego's March 24, 2008 Second Iteration Review Comments on our March 24, 2007 Traffic Study for the Oakmont II (TM 5421) project. The following summarizes our responses to each of the County's comments. These responses have been incorporated into our July 2008 iteration of the traffic study.

Comment 1: The traffic study is nearly one year ole (March 2007). Some of the existing traffic count data is based on counts collected in 2005 (Pg. 9). The traffic study and traffic count data should be updated in order to better assess existing project conditions and circumstances.

Response 1: New counts were collected along Olde Highway 80, Flinn Springs Road, Blossom Valley Road, and Oak Creek Road in June 2008 (when school was in session); however, as shown in Figure A, the June 2008 counts were either lower or showed no substantial increase when compared to the counts collected in 2005 and 2007.

The only segments that were found to have higher traffic volumes based on the June 2008 counts were the segment of Oak Creek Road between Flinn Springs Road and Oakmont Terrace (1,079 vs. 913) and the segment of Oakmont Terrace between Oak Creek Road and the east school entrance (2,015 vs. 1,556) . Evaluations of these segments found that even if the June 2008 counts were utilized; both segments would continue to operate well below the recommended 4,500 daily capacity under existing plus project conditions (i.e. under existing plus project conditions Oak Creek Road between Flinn Springs Road and Oakmont Terrace would carry 1,144 ADT and Oakmont Terrace between Oak Creek Road and the east school entrance would carry 2,154 ADT).

Thus, the June 2008 counts were not utilized in the analysis and no changes to the existing volumes were made. (See page 10 of the strike-out/underline version and page 8 of clean version of the report.)

1446 Front Street • Suite 300 • San Diego, CA 92101
Phone: 619-233-9373 • Fax: 619-233-4034
E-mail: office@darnell-assoc.com

43300 Business Park Drive • Suite A-204 • Temecula, CA 92590
Phone: 951-699-8209 • Fax: 951-699-8269
E-mail: office@darnell-assoc.com

Comment 2: The TIA should note (Pg. 15) that the County's "Guidelines for Determining Significance" were adopted September 26, 2006 and revised effective December 5, 2007.

Response 2: The traffic study was revised accordingly. (See page 17 of the strike-out/underline version and page 15 of the clean version of the report.)

Comment 3: The traffic study should update the discussion of the County's TIF program. The Board of Supervisors adopted the updated TIF program on January 30, 2008.

Response 3: The discussion on the TIF program has been updated to reference the TIF program update that was adopted on January 30, 2008. (See pages 30 and 35 of the strike-out/underline version and pages 22 and 27 of the clean version of the report.)

Comment 4: The project's cumulative impacts to the I-8/Lake Jennings Park Road interchange on-and off-ramps can be fully mitigated via the update TIF program. Consider Revision to Sections VI and V.

Response 4: The cumulative impact analysis of the traffic study has been deleted. Payment of the TIF will mitigate the projects cumulative impacts to the I-8/Lake Jennings Park Road interchange ramps. (See page 35 of the strike-out/underline version and page 27 of the clean version of the report).

Comment 5: The traffic study states (Pg. 30) that existing shrubs/bushes along Old Highway 80 be trimmed to improve the sight distance. A clear space easement should be obtained in order to ensure/maintain sight distance in the future.

Response 5: Discussions with the Civil Engineer found that adequate unobstructed sight distance can be provided at all project driveways. See the letter provided by Crew Engineering and Surveying attached to the end of this memo. (See page 31 of the strike-out/underline version and page 23 of the clean version of the report for the revised discussion on sight distance at the project access points.)

Comment 6: The traffic study states (Pg. 33) that sight distance along the Old Highway 80) driveways be reevaluated after the project site is graded and exact position of the driveways is determined. The traffic study should update the discussion of the project's sight distance assessment. The traffic study should clarify if any grading has occurred and/or if the project driveway location has been determined.

Response 6: The Civil Engineer, will certify the sight distance of the driveway once the project site has been graded. Until the developer actually grades the site and physically constructs the driveway, the sight distance at the driveway can not be certified. However, based on Crew Engineering and Surveying's visual examination of the site, it is their professional opinion that adequate unobstructed sight distance in both directions along Flinn Springs Road, Olde Highway 80, and Oak Creek Road from the private driveways, and private roads serving the project for the prevailing operating speeds of traffic on Flinn Springs Road, Olde Highway 80, and Oak Creek Road, per Section 6.1E of the County Public Road Standards can be achieved and that the sight distance of adjacent driveways and street openings will not be adversely affected by the proposed project. (See the letter provided by Crew Engineering and Surveying attached to the end of this memo.)

Comment 7: The project engineer should verify the adequacy of the corner sight distance at all of the project driveways (Flinn Springs Rd, Old Highway 80, & Oak Creek Rd).

Response 7: The Civil Engineer, will certify the sight distance at all of the project driveways off Flinn Springs Road, Old Highway 80, and Oakmont Terrace once the project site has been graded.

Attachments: Figure A – Existing Traffic Volumes
July 3, 3008 Letter from Crew Engineering and Surveying, Re: Sight Distance Statement

TRAFFIC STUDY

FOR

OAKMONT II
(TM 5421; ENV. NO. 05-14-003; KIVA 05-0036728)

IN THE
COUNTY OF SAN DIEGO

Submitted To:

HSIUNG CHENG
1852 Hacienda Dr.
El Cajon, CA 92020

Submitted By:

Darnell & Associates, Inc.
1446 Front Street, Suite 300
San Diego, CA 92101
619-233-9373

July 11, 2008
050909 Oakmont II Rpt3 (July 08)/07-08

TABLE OF CONTENTS

EXECUTIVE SUMMARY 1

SECTION I - INTRODUCTION 2

PROJECT DESCRIPTION 2
CONGESTION MANAGEMENT PROGRAM 2
SCENARIOS STUDIED 2
LEVEL OF SERVICE 2
ANALYSIS METHODOLOGY 5
REPORT ORGANIZATION 5

SECTION II - EXISTING CONDITIONS 6

EXISTING ROADWAY CHARACTERISTICS 6
ROADWAY SEGMENT DAILY TRAFFIC 8
KEY INTERSECTIONS 8
INTERSECTION TRAFFIC COUNTS 8
EXISTING LEVEL OF SERVICE CONDITIONS 10
Roadway Segments *10*
Intersections *10*

SECTION III - PROJECT RELATED CONDITIONS 12

TRIP GENERATION 12
TRIP DISTRIBUTION/TRIP ASSIGNMENT 12

SECTION IV – IMPACTS 15

PUBLIC FACILITIES ELEMENT IN COUNTY 15
LEVELS OF SIGNIFICANCE STANDARDS 15
Roadway Segments *16*
Signalized Intersections *16*
Unsignalized Intersections *17*
EXISTING PLUS PROJECT CONDITIONS 17
Roadway Segments *17*
Intersections *20*
CUMULATIVE CONDITIONS 20

SECTION V - PROJECT ACCESS, SIGHT DISTANCE, & ON-SITE CIRCULATION 23

PROJECT ACCESS 23
SIGHT DISTANCE 23
ON-SITE CIRCULATION 26

SECTION VI - PROJECT MITIGATION 27

ROADWAY SEGMENTS 27
INTERSECTIONS 27
COUNTY OF SAN DIEGO TRANSPORTATION IMPACT FEE (TIF) PROGRAM 27

SECTION VII - SUMMARY OF FINDINGS AND CONCLUSIONS 28

LIST OF FIGURES

Figure 1 - Vicinity Map 3
Figure 2 - Site Plan 4
Figure 3 - Existing Conditions 7
Figure 4 - Existing Traffic Volumes 9
Figure 5 - Trip Distribution 13
Figure 6 - Project Related Traffic Volumes 14
Figure 7 - Existing Plus Project Traffic Volumes 18
Figure 8 - Project Access Trip Distribution 24
Figure 9 - Project Access Traffic Volumes 25

LIST OF TABLES

Table 1 - Level of Service Ranges 5
Table 2 - Existing Roadway Segment Level of Service Summary 10
Table 3 - Existing Intersection Level of Service Summary 11
Table 4 - Trip Generation Rates and Calculations Summary 12
Table 5 - Measures of Significant Project Impacts 15
Table 6 - Existing Plus Project Roadway Segment Level of Service Summary 19
Table 7 - Existing Plus Project Intersection Level of Service Summary 21
Table 8 - Project Access Level of Service Summary 23
Table 9 - Transportation Impact Fee Calculation for Oakmont II 27

APPENDICES

APPENDIX A

- 24-Hour Segment Counts
- AM/PM Peak Hour Turn Counts
- SANDAG Trip Generation Rates
- County of San Diego Level of Service Thresholds
- Excerpts from the County's Private Road Standards
- Excerpts from the *Public Facilities Element*
- Excerpts from the County's *Guidelines for Determining Significance*

APPENDIX B

- TIF Ordinance
- TIF for Single Family Detached Residential Unit
- Freeway Interchanges/Ramps Included in County TIF Program
- Excerpts from the TIF Program Update

APPENDIX C

- Existing Conditions Analysis Synchro Worksheets

APPENDIX D

- Existing + Project Conditions Analysis Synchro Worksheets

APPENDIX E

- Project Access Analysis Synchro Worksheets

APPENDIX F

- Project Access Sight Distance

APPENDIX G

- Response to County Comments

EXECUTIVE SUMMARY

The developer proposes to construct a twenty (20) lot single-family estate residential subdivision located at Olde Highway 80 and Flinn Springs Road in the Lakeside community of the County of San Diego. As this report will show, the proposed project is estimated to generate 240 average daily trips, 19 AM peak hour trips, and 24 PM peak hour trips.

This report will also show that the proposed project does not have any significant direct roadway or intersection impacts.

To project applicant will pay fees pursuant to the County of San Diego' Transportation Impact Fee (TIF) Ordinance as discussed in Section VI to mitigate any potential cumulative impacts.

SECTION I - INTRODUCTION

PROJECT DESCRIPTION

The developer proposes to construct a twenty (20) lot single-family estate residential subdivision located at Olde Highway 80 and Flinn Springs Road in the Lakeside community of the County of San Diego. As currently designed, the proposed estate residential lots will be accessed from Olde Highway 80, Flinn Springs Road, and Oak Creek Road. A vicinity map showing the proposed project is provided on Figure 1. The preliminary site plan showing the location of 20 residential lots is illustrated in Figure 2.

CONGESTION MANAGEMENT PROGRAM

Based on the approval of Proposition 111 in 1990, regulations require the preparation, implementation and annual updating of a Congestion Management Program (CMP) in each of California's urbanized counties. The original CMP for the San Diego region was adopted in 1991 and has been updated periodically as an element of the Regional Transportation Plan (RTP). One required element of the CMP is a process to evaluate the transportation and traffic impacts of large projects on the regional transportation system. That process is undertaken by local agencies, project applicants and traffic consultants through a transportation impact report usually conducted as part of the CEQA project review process. Authority for local land use decisions including project approvals and any required mitigation remains the responsibility of local jurisdictions.

The criteria for which a project is subject to the regulations as set forth in the CMP are determined by the trip generation potential for the project. Currently, the threshold is 2,400 average daily trips (ADT) or 200 peak hour trips. The proposed project will generate 240 average daily trips, 19 AM peak hour trips, and 24 PM peak hour trips (see Section III), and is therefore, not subject to CMP guidelines for traffic impact studies.

SCENARIOS STUDIED

The traffic scenarios analyzed in this report are identified as follows:

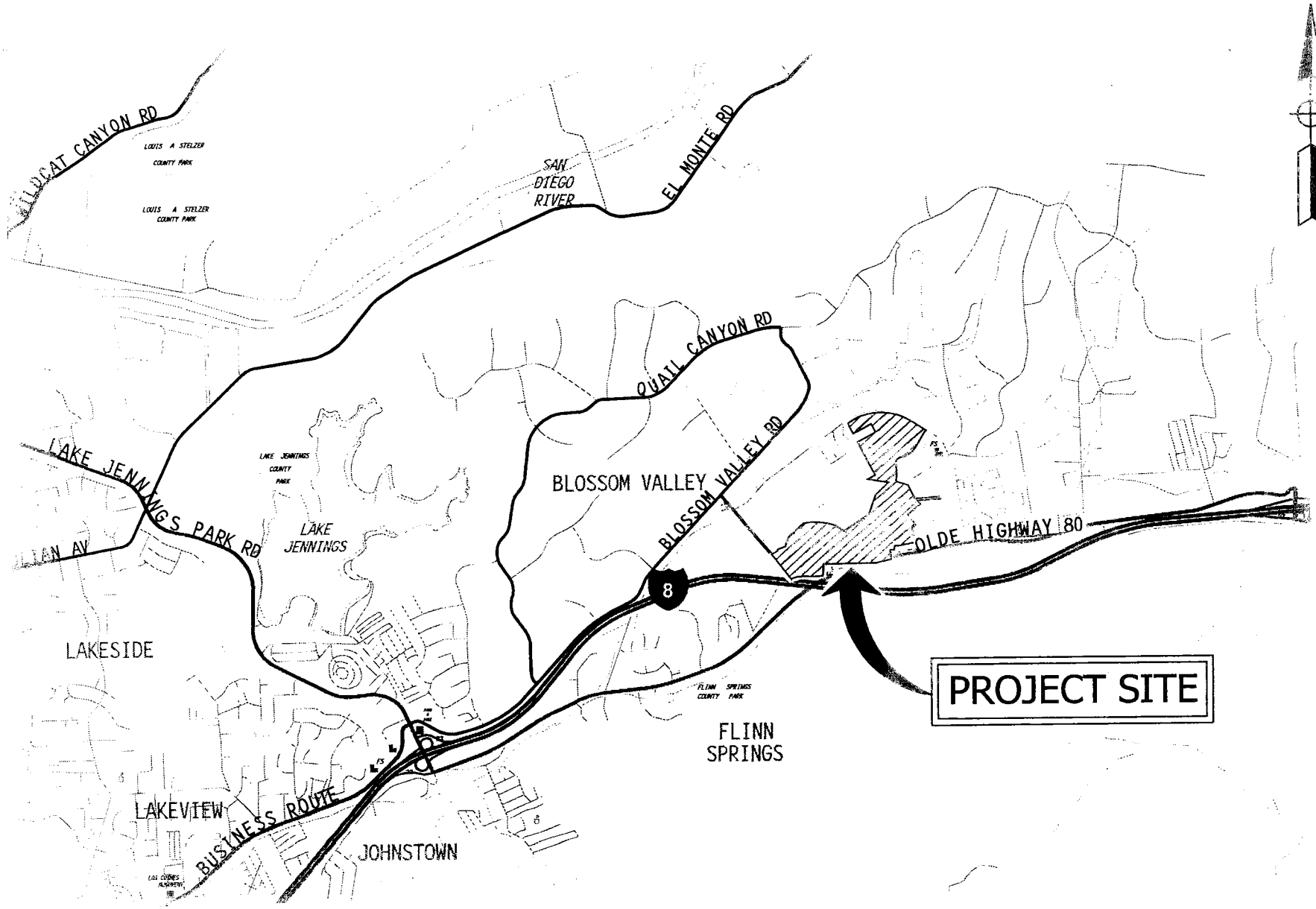
Existing Conditions refers to that condition which exists on the ground today, including existing traffic and existing lane configurations at intersections and roadway segments.

Existing Plus Project Conditions refers to that condition which includes the project traffic added onto existing volumes.

Cumulative Conditions addresses the potential cumulative impacts caused by traffic from future development.

LEVEL OF SERVICE

Level of Service (LOS) is a professional industry standard by which the operating conditions of a given roadway segment or intersection are measured. Level of Service is defined on a scale of A to F; where LOS A represents the best operating conditions and LOS F represents the worst operating conditions. LOS A facilities are characterized as having free flowing traffic conditions with no restrictions on maneuvering or operating speeds; traffic volumes are low and travel speeds are high. LOS F facilities are characterized as having forced flow with many stoppages and low operating speeds. Table 1 shows the average daily traffic volumes (ADT) and delay ranges that are equivalent to each level of service.

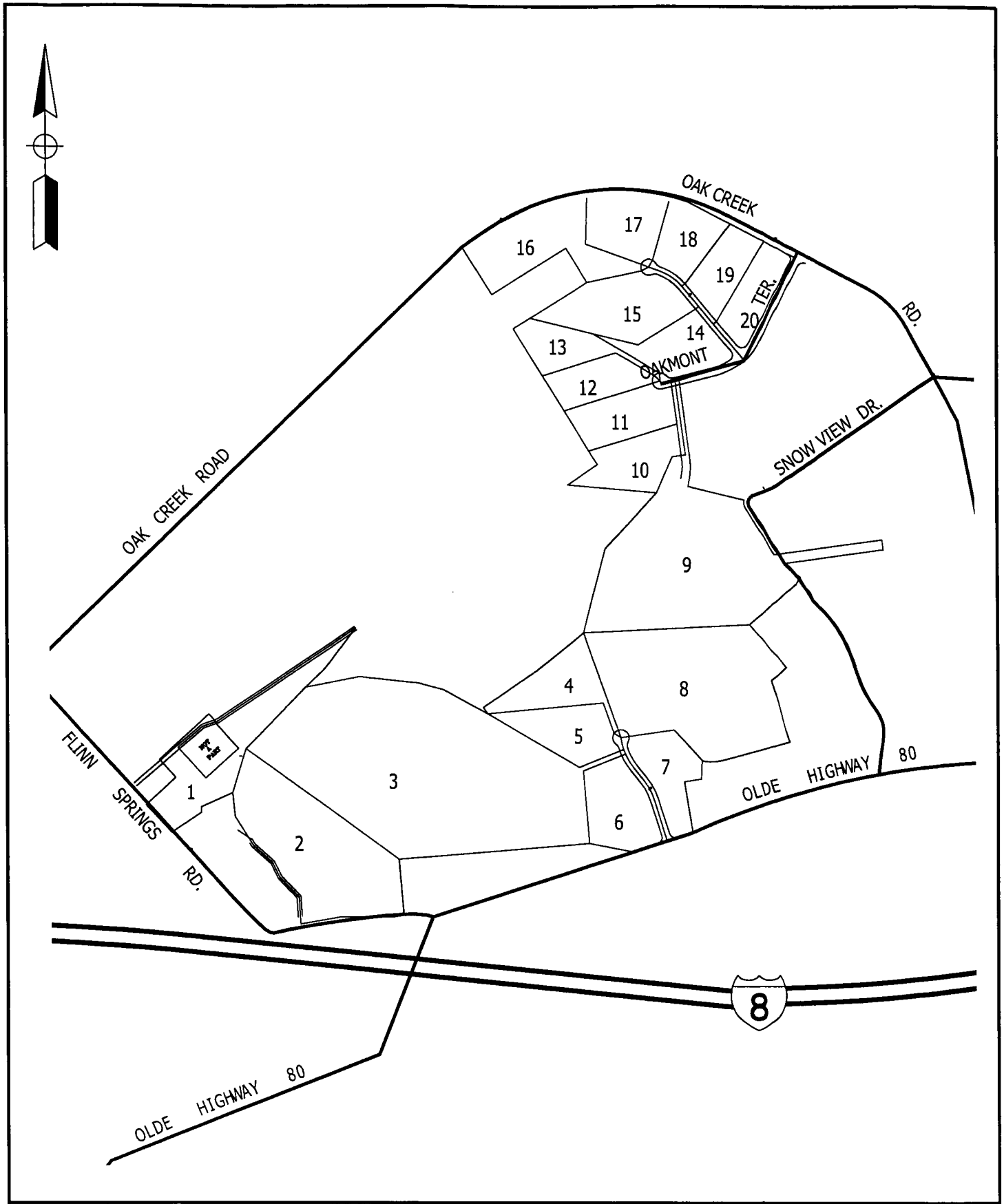


Darnell & ASSOCIATES, INC.

050909BB.dwg 10-26-05 KRV

FIGURE 1

VICINITY MAP



Darnell & ASSOCIATES, INC.

050909BB.dwg 10-26-05 KRV

FIGURE 2

SITE PLAN

Table 1 - Level of Service Ranges		
LOS	Intersections	Roadway Segments
	Unsignalized Delay (Seconds/Vehicle)[1]	Average Daily Traffic (ADT)[2]
A	Less than or Equal to 10.0	Less Than 1,900
B	10.1 to 15.0	1,900 to 4,100
C	15.1 to 25.0	4,100 to 7,100
D	25.1 to 35.0	7,100 to 10,900
E	35.1 to 50.0	10,900 to 16,200
F	Greater Than 50.1	Greater Than 16,200

[1] The delay ranges shown are based on the 2000 Highway Capacity Manual (HCM)
[2] The volume ranges are based on the County of San Diego Circulation Element of a Light Collector, the average daily volume ranges for the other roadway classifications has been provided in Appendix A.
LOS = Level of Service.

According to page XII-4-15 of the San Diego County General Plan *Public Facility Element* "A LOS 'C', which allows for stable traffic flow with room to maneuver, is a generally accepted level to strive for in new development. ... However, there are some cases where development cannot achieve a LOS "C" on off-site roadways. For instance, there are areas where the existing development pattern precludes the addition of lanes or other mitigation or when the community is opposed to certain improvements to maintain a LOS 'C'. ... In these cases a Level of Service 'D' is acceptable on off-site roadways." A copy of excerpts from the County's *Public Facility Element* can be found in Appendix A.

ANALYSIS METHODOLOGY

The roadway segment daily LOS was determined by comparing the traffic volumes under each traffic scenario to the capacity of the roadway according to its roadway cross-section and classification. For the purpose of this report, the daily traffic volumes of the roadway segments in the vicinity of the project were compared to the County of San Diego Level of Service classification thresholds. The daily (24 hour) traffic count sheets and a copy of the "Summary of County of San Diego Public Road Standards" are included in Appendix A.

The Synchro Software, version 6.0, was utilized to analyze the morning and afternoon peak hour conditions of the intersections in the project vicinity. It should be noted that Synchro, version 6.0, is based on the methodologies outlined in the 2000 Highway Capacity Manual (HCM). The unsignalized intersection methodology defines LOS based on the longest delay experienced by any single movement.

REPORT ORGANIZATION

Following this section, Section II evaluates the existing roadway characteristics and traffic conditions surrounding the project area. Section III examines the project trip generation and distribution assumptions. Section IV analyzes the traffic for existing plus project and cumulative conditions. Section V addresses project access and on-site circulation. Section VI provides recommended mitigation measures and Section VII summarizes the report's findings and conclusions.

SECTION II - EXISTING CONDITIONS

This section of the traffic study is intended to assess the existing conditions of the roadways and intersections within the vicinity of the project to determine travel flow and/or delay difficulties, if any, that exist prior to adding the traffic generated by the proposed project. The existing conditions analysis establishes a base condition which is used to assess the other scenarios discussed in this report.

Darnell & Associates, Inc. (D&A) conducted a field review of the area surrounding the project in October 2005. The existing roadway geometrics are illustrated in Figure 3.

EXISTING ROADWAY CHARACTERISTICS

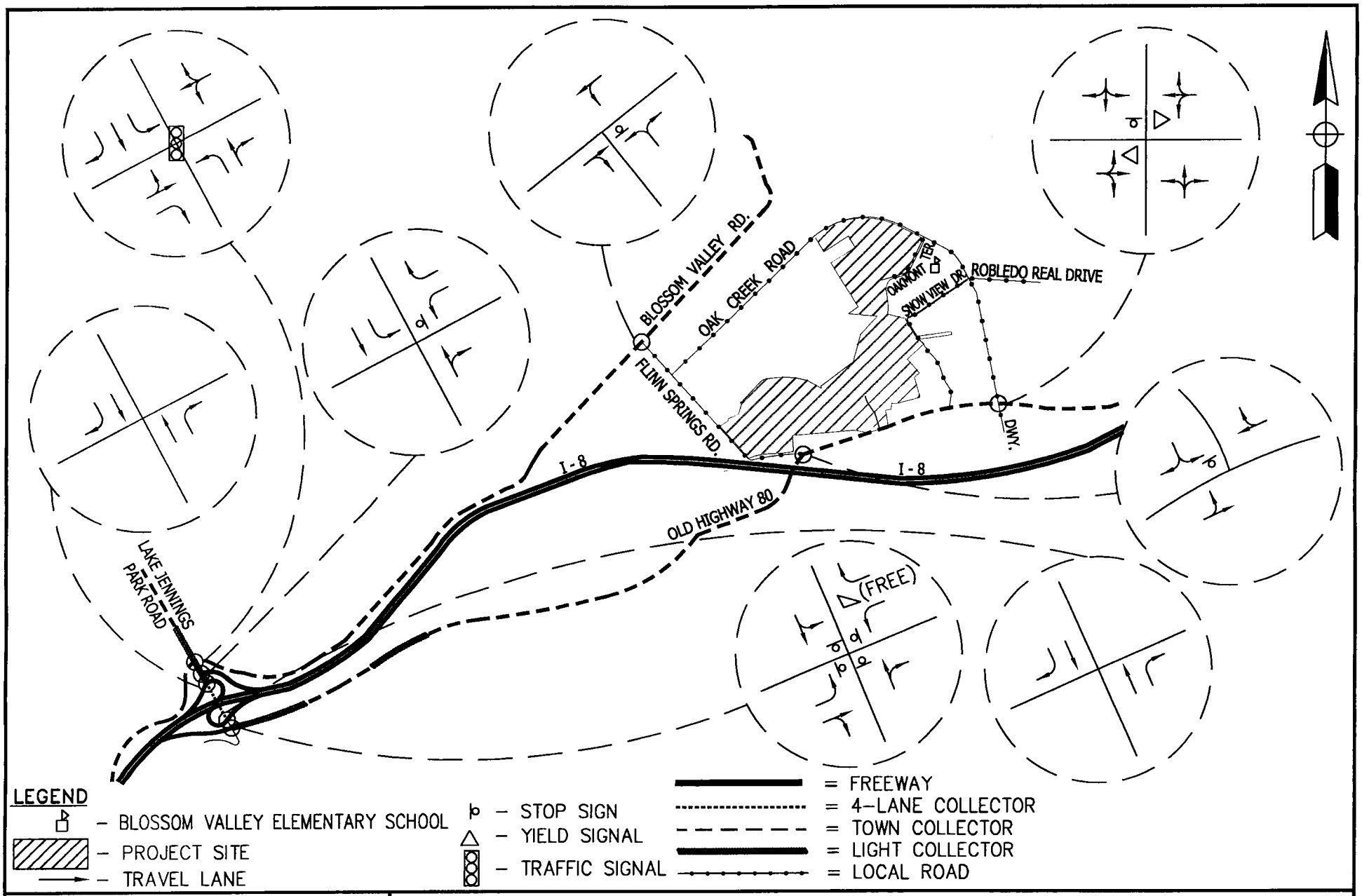
The key segments analyzed in the study area are identified below:

Olde Highway 80 is generally constructed as an east-west two-lane undivided circulation element roadway. The roadway segment of Olde Highway 80 between Marina Springs Road and Flinn Springs Road has approximately 34 feet of pavement with a painted yellow centerline and bike lanes on both sides of the roadway. The roadway segment of Olde Highway 80 between Flinn Springs Road and Oak Creek Road has approximately 42 feet of pavement with a painted yellow centerline and bike lanes on both sides of the roadway. The posted speed limit along Olde Highway 80 is 50 miles per hour (mph). The existing cross-section of Olde Highway 80 in the vicinity of the project is equivalent to that of a Light Collector Road, capacity of 10,900 ADT at LOS D. In the County of San Diego Circulation Element, Olde Highway 80 has the ultimate classification of a four (4)-lane Collector Road with bike lanes, capacity of 30,800 ADT at LOS D.

Blossom Valley Road is generally constructed an east-west two-lane undivided circulation element roadway. The roadway segment of Blossom Valley Road between Flinn Springs Road and Red Pony Lane has approximately 23 feet of travelway with a painted yellow centerline and a variable shoulder along both sides of the roadway. The posted speed limit along Blossom Valley Road is 45 miles per hour (mph). For analysis purposes, the capacity of Blossom Valley Road was assumed to be equivalent to that of a Light Collector, capacity of 10,900 ADT at LOS D. In the County of San Diego Circulation Element, Blossom Valley Road has the ultimate classification of a two (2)-lane Light Collector Road, capacity of 10,900 ADT at LOS D.

Flinn Springs Road is generally a north-south undivided non-circulation element roadway with one (1) travel lane in each direction. The roadway segment of Flinn Springs Road between Olde Highway 80 and Blossom Valley Road has approximately 24 feet of travelway with a painted yellow centerline and a variable shoulder along both sides of the roadway. For analysis purposes, the capacity of Flinn Springs Road was assumed to be equivalent to that of a Residential Street, with a recommended capacity of 4,500 ADT at LOS C.

Oak Creek Road is an undivided non-circulation element roadway with one (1) travel lane in each direction. The roadway segment of Oak Creek Road between Olde Highway 80 and Snow View Drive has approximately 24 feet of travelway with a painted yellow centerline and a variable shoulder along both sides of the roadway. The cross-section of Oak Creek Road from Olde Highway 80 to Flinn Springs Road has approximately 35 feet of travelway with a painted yellow centerline. The northbound lane is 15 feet wide and southbound lane is 20 feet wide with no shoulder on either side of the road along this stretch of Oak Creek Road. There is pedestrian sidewalk on both sides of Oak Creek Road just north and south of Oakmont Terrace. The posted speed limit along Oak Creek Road is 45 mph and there is cautionary speed limit of 25 mph near the Blossom Valley Elementary School. For analysis purposes, the capacity of Oak Creek Road was assumed to be equivalent to that of a Residential Street, with a recommended capacity of 4,500 ADT at LOS C.



Darnell & ASSOCIATES, INC.

050909DD.dwg 3-26-07 SN

FIGURE 3

EXISTING CONDITIONS

Oakmont Terrace is generally an east-west undivided non-circulation element roadway with one (1) travel lane. No median or painted centerline is provided. The roadway segment of Oakmont Terrace between Oak Creek Road and the east entrance of Blossom Valley Elementary School has approximately 15 feet of travelway with a variable shoulder along both sides of the roadway. For analysis purposes, the capacity of Oakmont Terrace was assumed to be equivalent to that of a Residential Street, with a recommended capacity of 4,500 ADT at LOS C.

ROADWAY SEGMENT DAILY TRAFFIC

Twenty-four (24) hour traffic counts were collected on Olde Highway 80, Flinn Springs Road, Blossom Valley Road, and Oak Creek Road on Tuesday, October 11, 2005. Twenty-four (24 hour daily traffic counts for Oak Creek Terrace were collected on March 13, 2007. Figure 4 presents the existing conditions traffic volumes used in this analysis. It should be noted that per County comments, new counts were collected along Olde Highway 80, Flinn Springs Road, Blossom Valley Road, and Oak Creek Road in June 2008 (when school was in session); however, the June 2008 counts were either lower or showed no substantial increase when compared to the counts collected in 2005 and 2007. Thus, the 2008 counts were not utilized. Copies of the 2005, 2007, and 2008 count sheets are included in Appendix A.

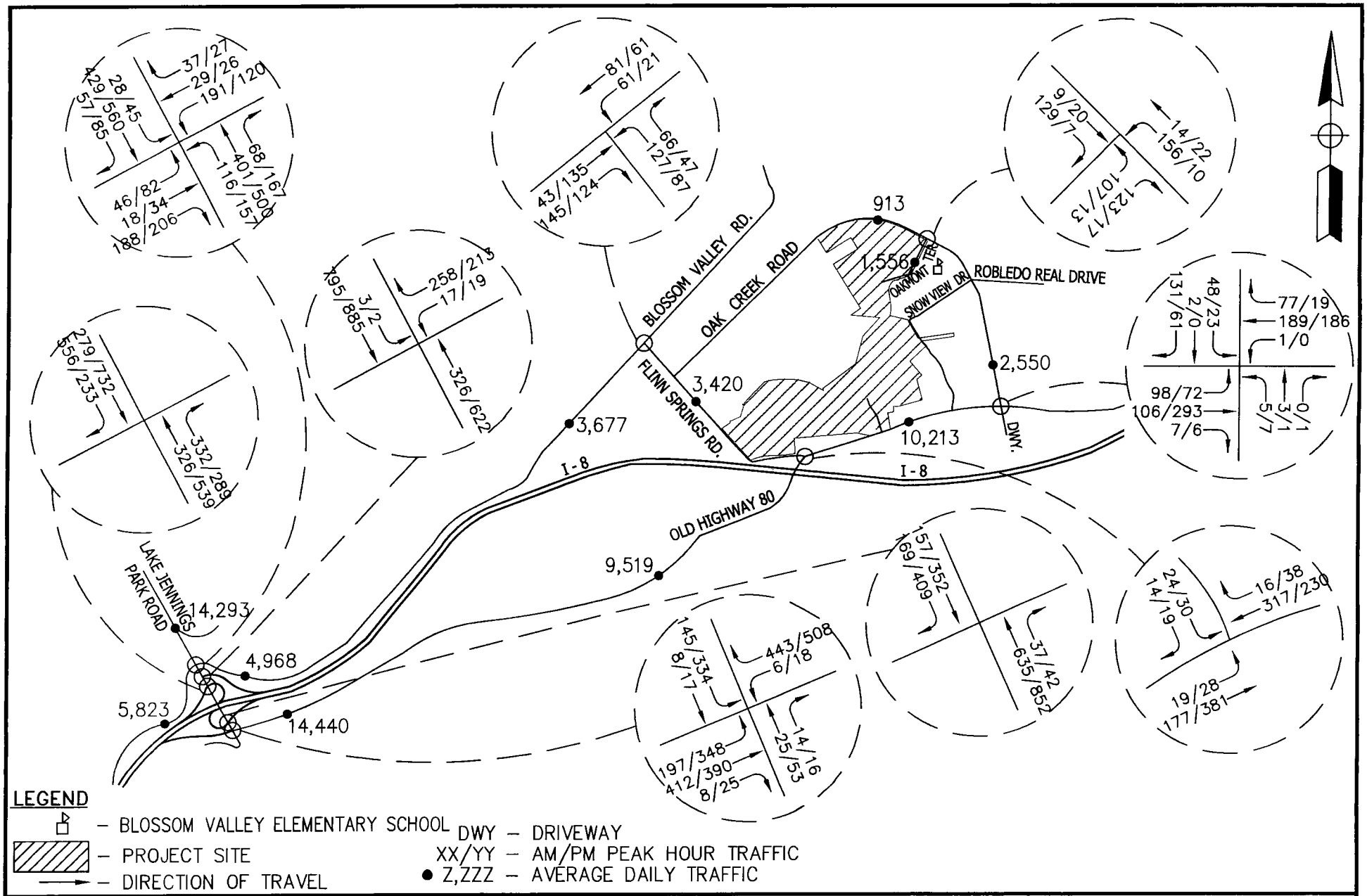
KEY INTERSECTIONS

Figure 3 provides intersection configurations and traffic control for the key intersections. The key intersections analyzed in the study area are identified below:

- Business Route 8/Lake Jennings Park Road (signalized);
- Lake Jennings Park Road/Interstate 8 westbound off-ramp (one-way stop-controlled);
- Lake Jennings Park Road/Interstate 8 westbound on-ramp (uncontrolled);
- Lake Jennings Park Road/Interstate 8 eastbound on-ramp (uncontrolled);
- Lake Jennings Park Road/Interstate 8 eastbound off-ramp (all-way stop-controlled);
- Flinn Springs Road/Blossom Valley Road (one-way stop-controlled);
- Olde Highway 80/Flinn Springs Road (one-way stop-controlled);
- Olde Highway 80/Oak Creek Road (east-west yield and southbound stop-controlled); and
- Oak Creek Road/Oakmont Terrace (one-way stop-controlled).

INTERSECTION TRAFFIC COUNTS

Morning and afternoon peak hour turn counts for the intersections were collected on typical weekdays in October 2005, April 2006, and March 2007. Per County comments, the key intersections along adjacent to the project site were recounted in June 2008 (when school was in session), however, the June 2008 counts were either lower or showed no substantial increase when compared to the counts collected in 2005 and 2007. Thus, the 2008 counts were not utilized. Figure 4 presents the existing conditions traffic volumes used in this analysis. Count summaries are included in Appendix A.



Darnell & ASSOCIATES, INC.

050909DD.dwg 3-21-07 SN

FIGURE 4

EXISTING TRAFFIC VOLUMES

EXISTING LEVEL OF SERVICE CONDITIONS

Roadway Segments

The existing daily roadway segment levels of service are summarized in Table 2. As can be seen in Table 2, all roadway segments analyzed currently operate at LOS D or better.

Table 2 - Existing Roadway Segment Level of Service Summary

Roadway Segment	Classification	Capacity	ADT	LOS
Olde Highway 80				
- Marina Springs Rd to Flinn Springs Rd	Light Collector	10,900	9,519	D
- Flinn Springs Rd. to Oak Creek Rd.	Light Collector	10,900	10,213	D
Blossom Valley Road				
- Red Pony Ln. to Flinn Springs Rd.	Light Collector	10,900	3,677	B
Flinn Springs Road				
- Blossom Valley Rd to Olde Highway 80	Residential Street	4,500[a]	3,420	<C
Oak Creek Road				
- Flinn Springs to Oakmont Terrace	Residential Street	4,500[a]	913	<C
- Oakmont Terrace to Olde Highway 80	Residential Street	4,500[a]	2,550	<C
Oakmont Terrace				
- Oak Creek to East School Entrance	Residential Street	4,500[a]	1,556	<C

(a) Levels of Service are not typically applied to non-circulation element roadways. The capacity shown here is the recommended capacity for LOS C. < C = Operates at better than LOS C.
Capacity is based on upper limit of LOS D per the County of San Diego Level of Service Thresholds
ADT = Average Daily Traffic; LOS = Level of Service.

Intersections

The existing conditions Levels of Service for the key intersections were calculated utilizing the lane geometrics shown in Figure 3. The results of the Synchro analysis are summarized in Table 3. A copy of the Synchro worksheets for existing conditions can be found in Appendix C.

As can be seen from Table 3, the westbound approach of the Lake Jennings Park Road/I-8 westbound off-ramp currently operates at LOS F during the PM peak hour. All other intersections analyzed currently operate at LOS D or better during both the AM and PM peak hours.

Table 3 - Existing Intersection Level of Service Summary					
Intersection	Critical Movement	AM Peak Hour		PM Peak Hour	
		Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
Business Route 8/Lake Jennings Park Road (sig)	Int.	21.5	C	20.7	C
I-8 WB Off Ramp/Lake Jennings Park Road (OWSC)	WB	33.1	D	**67.3**	**F**
	SB	8.0	A	8.8	C
I-8 WB On Ramp/Lake Jennings Park Road (uncontrolled)	NB	0.0	A	0.0	A
	SB	0.0	A	0.0	A
I-8 WB On Ramp/Lake Jennings Park Road (uncontrolled)	NB	0.0	A	0.0	A
	SB	0.0	A	0.0	A
I-8 EB Off Ramp/Lake Jennings Park Road (AWSC)	EB	13.2	B	20.2	C
	WB	8.6	A	9.9	A
	NB	8.7	A	10.2	B
	SB	10.4	B	17.7	A
	Int.	11.0	B	15.6	C
Flinn Springs Road/Blossom Valley Road (OWSC)	WB	3.6	A	2.2	A
	NB	13.4	B	11.9	B
Olde Highway 80/Flinn Springs Road (OWSC)	EB	0.9	A	0.8	A
	SB	12.5	B	14.5	B
Olde Highway 80/Oak Creek Road (E-W Yield & SB Stop)	EB	11.1	B	12.6	B
	WB	11.5	B	9.7	A
	NB	9.1	A	8.8	A
	SB	10.3	B	8.9	A
	Int.	11.0	B	11.2	B
Oak Creek Road/Oakmont Terrace (OWSC)	EB	13.2	B	8.7	A
	NB	7.3	A	2.3	A

(a) The northbound leg of the Olde Highway 80 / Oak Creek Road is a private driveway.
sec/veh = seconds of delay per vehicle; LOS = Level of Service; OWSC = One-Way Stop-Controlled; EB = eastbound; WB = westbound; NB = northbound; SB = southbound; E-W = East-West; Int. = intersection; sig = signalized; AWSC = all-way stop controlled

SECTION III - PROJECT RELATED CONDITIONS

TRIP GENERATION

Trip generation to/from the proposed development was calculated based on the trip generation rates published by the San Diego Association of Governments' (SANDAG) *(Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region*, April 2002. Table 4 summarizes the trip generation rates and calculations for the proposed project.

As shown in Table 4, the proposed project is estimated to generate 240 average daily trips, 19 AM peak hour trips, and 24 PM peak hour trips.

Table 4 - Trip Generation Rates and Calculations Summary

Trip Generation Rates

Land Use	Daily	AM Peak Hour			PM Peak Hour		
		Total - % of Daily	% In	% Out	Total - % of Daily	% In	% Out
Estate Residential	12 Trips/DU	8%	30%	70%	10%	70%	30%

Trip Generation

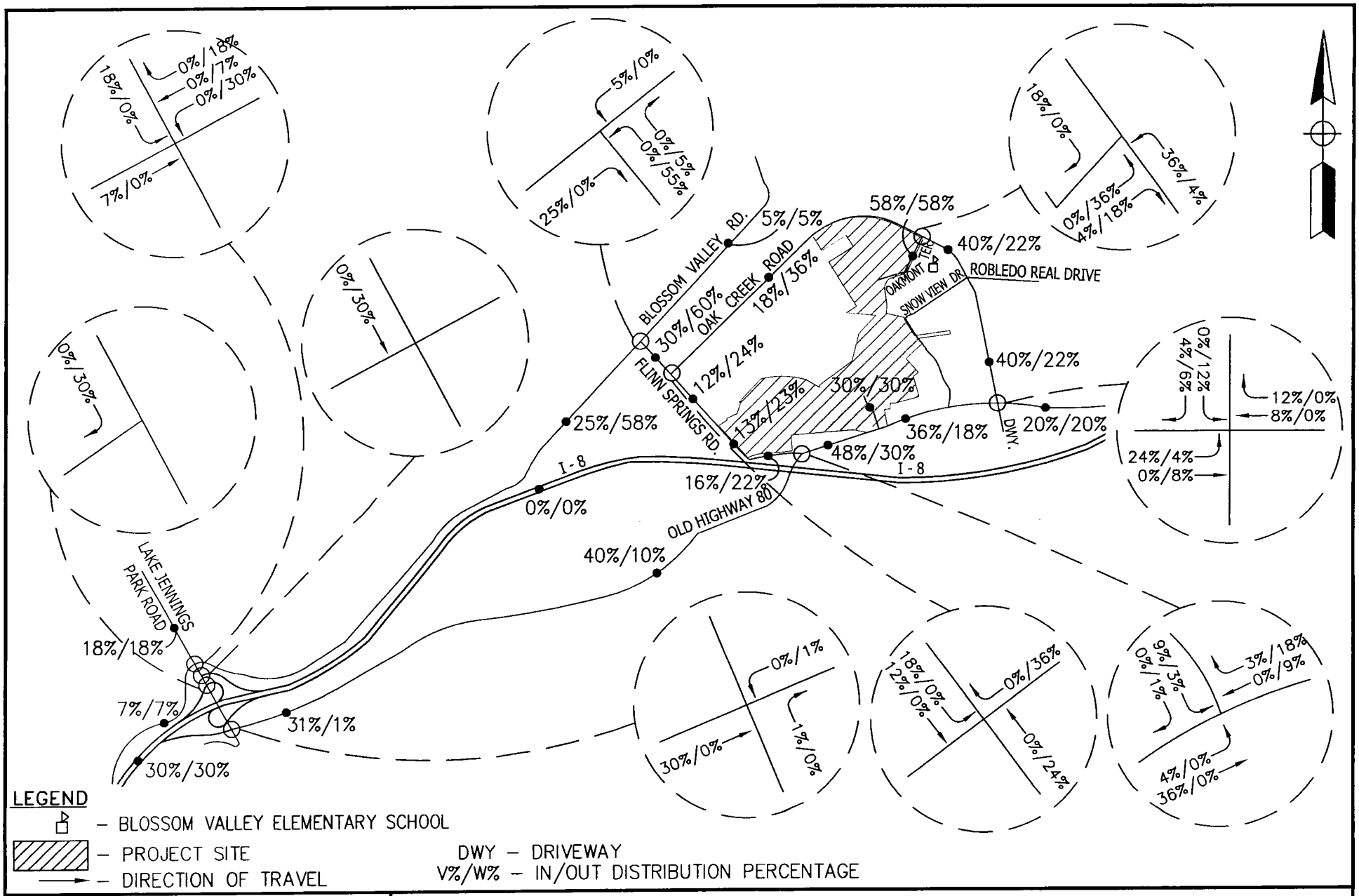
Land Use	Total No. of Units	Daily	AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out
Estate Residential	20 DUs	240	19	6	13	24	17	7

Trip Generation Rates are based on SANDAG's *(Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region*, April 2002

TRIP DISTRIBUTION/TRIP ASSIGNMENT

The general trip distribution to/from the project site was based on the SANDAG 2010 Select Zone forecast. The trip distribution for the proposed project was manually adjusted to account for the trips to the Blossom Valley Elementary School located off Oak Creek Road near Oakmont Terrace and Snow View Drive. It was assumed that 10 percent of the total daily trips generated by the proposed project would be attracted to the school site.

Figure 5 illustrates the trip distribution percentages on the existing roadway network and Figure 6 illustrates the project related traffic volumes. The impacts associated with the addition of project traffic are discussed in the following section, Section IV. Figure 8, located in Section V, illustrates the trip distribution and project traffic at the project access driveways.

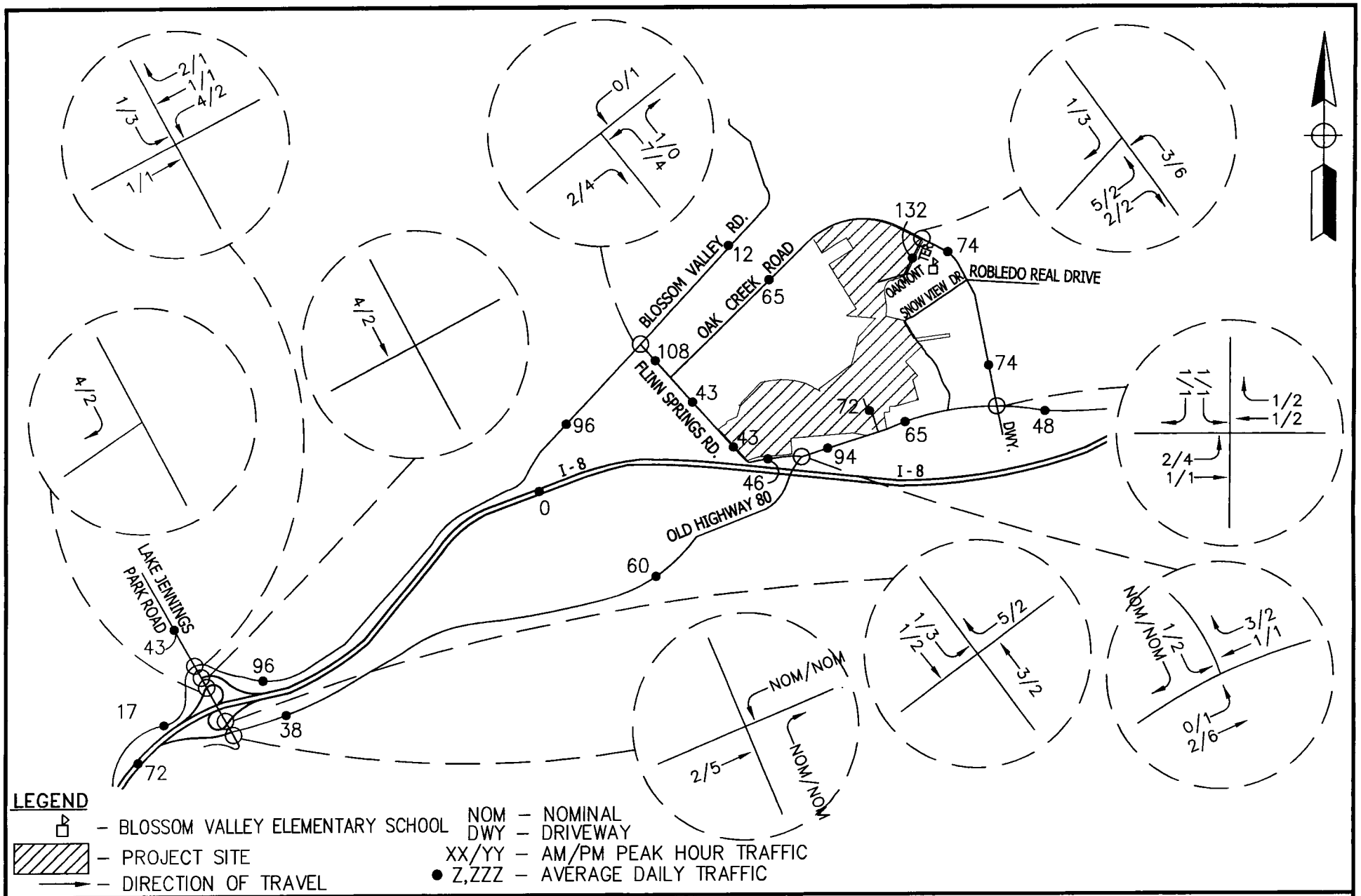


Darnell & ASSOCIATES, INC.

050909DD.dwg 3-16-07 SN

FIGURE 5

PROJECT TRIP DISTRIBUTION



Darnell & ASSOCIATES, INC.

050909EE.dwg 3-22-07 SN

FIGURE 6

PROJECT TRAFFIC VOLUMES

SECTION IV – IMPACTS

PUBLIC FACILITIES ELEMENT IN COUNTY

According to page XII-4-18 of the *Public Facility Element* for San Diego County, a discretionary project which has a significant impact on roadways will be required, as a condition of approval, to make "improvements or other measures necessary to mitigate traffic impacts to avoid reduction in the existing Level of Service below 'D' on off-site and on-site abutting Circulation Element roads. New development that would significantly impact congestion on roads at LOS 'E' or 'F', either currently or as a result of the project, will be denied unless improvements are scheduled to increase the LOS to 'D' or better or appropriate mitigation is provided. Appropriate mitigation would include a fair share contribution in the form of road improvements or a fair share contribution to an established program or project. If impacts cannot be mitigated, the project will be denied unless a specific statement of overriding findings is made pursuant to Section 15091(b) and 15093 of the State CEQA Guidelines."

The *Public Facility Element* for the County of San Diego also requires that all on-site Circulation Element roads operate at Level of Service C or better. If the Level of Service at an on-site Circulation Element road is reduced below LOS C, the proposed project must provide appropriate mitigation measures. A copy of excerpts from the County's *Public Facility Element* can be found in Appendix A.

LEVELS OF SIGNIFICANCE STANDARDS

Although the *Public Facility Element (PFE)* sets standards as to which level of service roadways and intersections must operate within the County (i.e. requires operation of LOS D or better), it does not establish a threshold to evaluate whether a project is significant if it adds traffic to a roadway facility that is currently operating at an unacceptable LOS E or F. Thus, the County's *Guidelines for Determining Significance* originally adopted September 26, 2006 and First Revision effective December 5, 2007 was developed to evaluate the significance of traffic impacts on roadways and intersections which are currently operating at LOS E or F. A summary of the County's Guidelines is provided in Table 5. Excerpts from the *County's Guidelines for Determining Significance* are provided in Appendix A.

Table 5 - Measures of Significant Project Impacts

LOS	Allowable Increase on Congested Roads and Intersections		
	Intersections		Road Segments
	Signalized	Unsignalized	2-Lane Road
LOS E	Delay of 2 seconds	20 peak hour trips on a critical movement	200 ADT
LOS F	Delay of 1 second, or 5 peak hour trips on a critical movement	5 peak hour trips on a critical movement	100 ADT

Notes:
– A critical movement is one that is experiencing excessive queues.
– By adding proposed project trips to all other trips from a list of projects, these same tables are used to determine if total cumulative impacts are significant. If cumulative impacts are found to be significant, each project that contributes any trips must mitigate a share of the cumulative impacts.
– The County may also determine impacts have occurred on roads even when a project's traffic or cumulative impacts do not trigger an unacceptable level of service, when such traffic uses a significant amount of remaining road capacity.

ADT = Average Daily Traffic; LOS = Level of Service, sec = Seconds of Delay per Vehicle

Roadway Segments

As shown in Table 5, per the County's Guidelines, "[t]raffic volume increases from public or private projects that result in one or more of the following criteria will have a significant traffic volume or level of service traffic impact on a road segment, unless specific facts show that there are other circumstances that mitigate or avoid such impacts:

- The additional or redistributed ADT generated by the proposed project will significantly increase congestion on a Circulation Element Road or State Highway currently operating at LOS E or LOS F, or will cause a Circulation Element Road or State Highway to operate at a LOS E or LOS F as a result of the proposed project as identified in Table [5], or

- The additional or redistributed ADT generated by the proposed project will cause a residential street to exceed its design capacity."

As discussed on pages 13 and 14 of the *County of San Diego Guidelines for Determining Significance, First Revision December 5, 2007*, an increase of the daily thresholds established for roadway segments operating at LOS E would result in only one additional car every 2.4 minutes per lane while the thresholds established for roadway segments operating at LOS F would result in only one additional car every 4.8 minutes. Therefore, the thresholds identified in Table 5, in most cases, would result in changes to traffic flow that would not be noticeable to the average driver and would thus not constitute a significant impact on the roadway.

Signalized Intersections

"Traffic volume increases from public or private projects that result in one or more of the following criteria will have a significant traffic volume or level of service traffic impact on a" signalized intersection:

- "The additional or redistributed ADT generated by the proposed project will significantly increase congestion on a signalized intersection currently operating at LOS E or LOS F, or will cause a signalized intersection to operate at a LOS E or LOS F as identified in Table [5]."

As discussed on pages 15 and 16 of the *County of San Diego Guidelines for Determining Significance, First Revision December 5, 2007*, an increase in delay of two seconds, the threshold established for signalized intersections operating at LOS E, "...is a small fraction of the typical cycle length for a signalized intersection that ranges between 60 and 120 seconds. The likelihood of increased queues forming due to the additional two seconds of delay is low." Thus, the increase in delay of two (2) seconds, on average, would result in changes to traffic flow that would not be noticeable to the average driver and would thus not constitute a significant impact. Since small changes and disruptions to the traffic flow at a signalized intersection can have a greater effect on the overall intersection operation when the intersection is operating at LOS F, versus LOS E, a more stringent guideline of one (1) second of delay was established for intersections operating at LOS F.

The five (5)-peak hour trip threshold, established for the critical movement of a signalized intersection operating at LOS F, when spread out over the peak hour, results in an increase of one (1) vehicle every 12 minutes or 720 seconds. This increase would not be noticeable to the average driver because one additional vehicle during a 12-minute interval on average would clear the traffic signal cycles well within the 12-minute period. Further, even if all five (5) additional peak hour vehicles arrived at the same time, these trips would also, on average, clear the traffic cycle and the existing queue lengths would be re-established. Thus, the increase of five (5) peak hour trips to a critical movement at a signalized intersection, on average, would result in changes to traffic flow that would not be noticeable to the average driver and would thus not constitute a significant impact.

Unsignalized Intersections

"Traffic volume increases from public or private projects that result in one or more of the following criteria will have a significant traffic volume or level of service traffic impact" at an unsignalized intersection:

- "The additional or redistributed ADT generated by the proposed project will add [more than 20] peak hour trips to a critical movement of an unsignalized intersection, and cause the unsignalized intersection to operate below LOS D, or

- The additional or redistributed ADT generated by the proposed project will add [more than 20] peak hour trips to a critical movement of an unsignalized intersection currently operating at LOS E, or

- The additional or redistributed ADT generated by the proposed project will add [more than 5] peak hour trips to a critical movement of an unsignalized intersection, and cause the unsignalized intersection to operate at LOS F, or

- The additional or redistributed ADT generated by the proposed project will add [more than 5] peak hour trips to a critical movement of an unsignalized intersection currently operating at LOS F, or

- Based upon an evaluation of existing accident rates, the signal priority list, intersection geometrics, proximity of adjacent driveways, sight distance or other factors, it is found that the generation rate less than those specified above, and would significantly impact the operations of the intersection."

As discussed on pages 17 and 18 of the *County of San Diego Guidelines for Determining Significance, First Revision December 5, 2007,* the addition of 20 peak hour trips to a critical movement, the threshold established for an unsignalized intersection operating at LOS E, would result in an increase of one (1) vehicle every 3.0 minutes or 180 seconds. "Assuming the wait time for a vehicle in the critical movement queue is less than 3.0 minutes, which is typical for LOS E conditions; this would not be noticeable to the average driver and would not be considered a significant impact." The five (5)-peak hour trip threshold established for an unsignalized intersection operating at LOS F, would result in an increase of one (1) vehicle every 12.0 minutes or 720 seconds. "This typically exceeds the average wait time in the queue and would not be noticeable to the average driver."

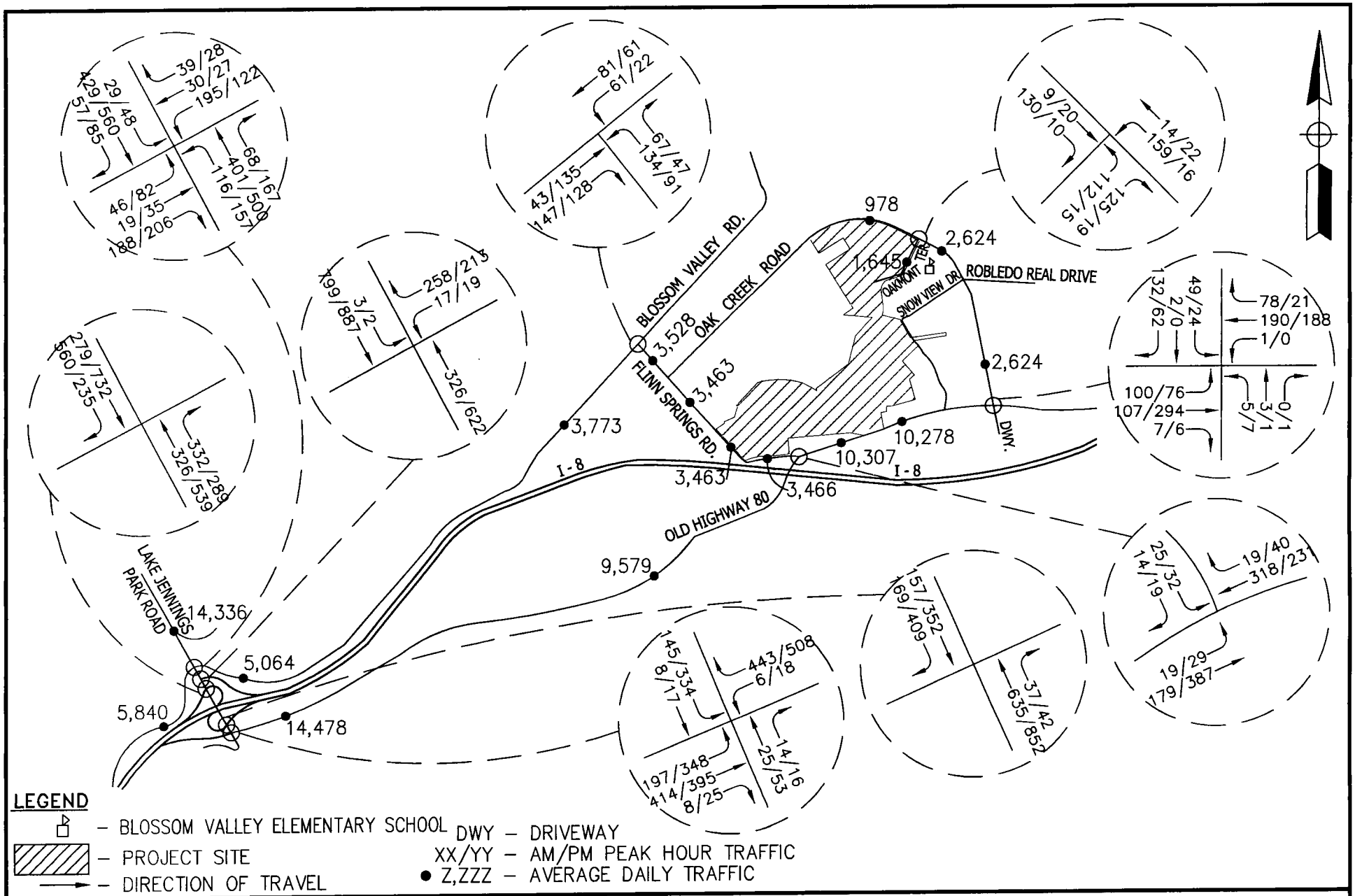
Consistent with the *Public Facility Element* the criteria described above was only applied to segments and intersections that operate at LOS E or LOS F.

EXISTING PLUS PROJECT CONDITIONS

The daily and peak hour turn volumes for existing plus project conditions are illustrated in Figure 7.

Roadway Segments

The roadway segments were analyzed with the traffic generated from the proposed project added to existing traffic volumes. The roadway segments daily levels of service are summarized in Table 6.



Darnell & ASSOCIATES, INC.

050909DD.dwg 3-21-07 SN

FIGURE 7

EXISTING PLUS PROJECT TRAFFIC VOLUMES

Table 6 - Existing Plus Project Roadway Segment Level of Service Summary

Roadway Segment	Classification	Capacity [a]	Existing		Two-Way Project Traffic	Existing + Project			
			ADT	LOS	ADT	ADT	LOS	Significant	Impact
Olde Highway 80									
- Marina Springs Rd to Flinn Springs Rd	Light Collector	10,900	9,519	D	72	9,579	D	N/A	None
- Flinn Springs Rd. to Oak Creek Rd.	Light Collector	10,900	10,213	D	48	10,261	D	N/A	None
Blossom Valley Road									
- Red Pony Ln. to Flinn Springs Rd.	Light Collector	10,900	3,677	B	96	3,773	B	N/A	None
Flinn Springs Road									
- Blossom Valley Rd to Olde Highway 80	Residential Street	4,500[b]	3,420	<C	108	3,528	<C	N/A	None
Oak Creek Road									
- Olde Highway 80 to Oakmont Terrace	Residential Street	4,500 [b]	2,550	<C	48	2,598	<C	N/A	None
- North of Oakmont Terrace	Residential Street	4,500 [b]	913	<C	65	978	<C	N/A	None
Oakmont Terrace									
-Oak Creek Road to East School Entrance	Residential Street	4,500 [b]	1,556	<C	139	1,695	<C	N/A	None

(a) Capacity is based on the upper limit of LOS D per the County of San Diego Level of Service Thresholds
(b) Levels of Service are not typically applied to non-circulation element roadways. The capacity shown here is the recommended capacity for LOS C. < C = Operates at better than LOS C.
Significance is based on the County of San Diego's *Guidelines for Determining Significance;*
< C = Operates at better than LOS C; N/A = Not Applicable because segment operates at LOS D or better;
ADT = Average Daily Traffic; LOS = Level of Service

As shown in Table 6, all key roadway segments analyzed continue to operate at an acceptable LOS D or better with the addition of the proposed project. Therefore the proposed project is not considered to have a direct impact on the key roadway segments analyzed.

Intersections

The intersections were analyzed with the traffic generated from the proposed project added to existing traffic volumes. The intersections' levels of service for existing plus project conditions are summarized in Table 7. A copy of the Synchro worksheets for existing plus project conditions can be found in Appendix D.

Under existing conditions, the westbound approach at the Lake Jennings Park Road/Interstate 8 westbound off ramp intersection operates at LOS D during the AM peak hour and LOS F during the PM peak hour. With the addition of project traffic to the intersection (2 southbound trips during the PM peak hour), the level of service on the westbound approach will continue to operate at LOS D during the AM peak hour and LOS F during the PM peak hour. Under the PFE criteria, a significant impact would result if the project would "significantly impact congestion" on this intersection which currently operates at LOS F. Since the addition of project traffic added to the critical movements at this intersection do not exceed the five (5) peak hour trips allowed per the County of San Diego's *Guidelines for Determining Significance* for a stop-controlled intersection operating at LOS F, it is concluded that the proposed project will not significantly impact congestion at this intersection. Thus, the proposed project is considered to not have a significant direct impact at the Lake Jennings Park Road/Interstate 8 westbound off ramp intersection.

As shown in Table 7, all other intersections analyzed continue to operate at LOS C or better during both the AM and PM peak hours on all critical movements with the addition of project traffic. Therefore the proposed project is not considered to have a direct impact on any of the key intersections analyzed.

CUMULATIVE CONDITIONS

The County of San Diego has developed an overall programmatic solution that addresses existing and projected future road deficiencies in the unincorporated portions of San Diego County. This program includes the adoption of a Transportation Impact Fee (TIF) program to fund improvements to roadways necessary to mitigate potential cumulative impacts caused by traffic from future development. This program is based on a summary of projections method contained in an adopted planning document, as referenced in the State CEQA Guidelines Section 15130 (b)(1)(B), which evaluates regional or area wide conditions contributing to cumulative transportation impacts. Based on SANDAG regional growth and land use forecasts, the SANDAG Regional Transportation Model was utilized to analyze projected build-out (year 2030) development conditions on the existing circulation element roadway network throughout the unincorporated area of the County. Based on the results of the traffic modeling, funding necessary to construct transportation facilities that will mitigate cumulative impacts from new development was identified. Existing roadway deficiencies will be corrected through improvement projects funded by other public funding sources, such as TransNet, gas tax, and grants.

Potential cumulative impacts to the region's freeways have been addressed in SANDAG's Regional Transportation Plan (RTP). This plan, which considers freeway buildout over the next 30 years, will use funds from TransNet, state, and federal funding to improve freeways to projected level of service objectives in the RTP.

Table 7 - Existing Plus Project Intersection Level of Service Summary

Intersection	Critical Move	Existing				Existing + Project											
		AM Peak		PM Peak		AM Peak						PM Peak					
		Delay	LOS	Delay	LOS	Delay	LOS	Δ Delay	Proj. Trips	Sig.	Impact	Delay	LOS	Δ Delay	Proj. Trips	Sig.	Impact
Business Route 8/Lake Jennings Park Road (sig)	Int.	21.5	C	20.7	C	21.8	C	0.3	9	N/A	None	20.9	C	0.2	8	N/A	None
I-8 WB Off Ramp/Lake Jennings Park Rd (OWSC)	WB SB	33.1 8.0	D A	**67.3** 8.8	**F** C	33.4 8.0	D A	0.3 0.0	0 4	N/A	None	**67.7** 8.8	**F** A	0.4 000	0 2	**No**	**None**
I-8 WB On Ramp/Lake Jennings Park Road (uncontrolled)	NB SB	0.0 0.0	A A	0.0 0.0	A A	0.0 0.0	A A	0.0 0.0	0 4	N/A	None	0.0 0.0	A A	0.0 0.0	0 2	N/A	None
I-8 WB On Ramp/Lake Jennings Park Road (uncontrolled)	NB SB	0.0 0.0	A A	0.0 0.0	A A	0.0 0.0	A A	0.0 0.0	0 4	N/A	None	0.0 0.0	A A	0.0 0.0	0 2	N/A	None
I-8 EB Off Ramp/Lake Jennings Park Rd (AWSC)	EB WB NB SB	13.2 8.6 8.7 10.4	B A A B	20.2 9.9 10.2 17.7	C A B A	14.8 8.6 8.7 10.4	B A A B	1.6 1.3 0.0 0.0	2 0 0 0	N/A	None	20.7 9.9 10.2 17.8	C A B C	0.5 0.0 0.0 0.1	0 2 2 3	N/A	None
	Int.	11.0	B	15.6	C	11.0	B	0.0	2			15.7	C	0.1	7		
Flinn Springs Road / Blossom Valley Road (OWSC)	WB NB	3.6 13.4	A B	2.2 11.9	A B	3.6 13.7	A B	0.0 0.3	1 5	N/A	None	2.2 12.0	A B	0.0 0.1	1 4	N/A	None
Olde Highway 80 / Flinn Springs Road (OWSC)	EB SB	0.9 12.5	A B	0.8 14.5	A B	0.9 12.6	A B	0.0 0.1	0 0	N/A	None	0.8 14.8	A B	0.1 0.3	2 2	N/A	None
Olde Highway 80 / Oak Creek Rd (E-W Yield/SB Stop)	EB WB NB[a] SB	11.1 11.5 9.1 10.3	B B A B	12.6 9.7 8.8 8.9	B A A A	11.2 11.6 9.1 10.4	B B A B	0.1 0.1 0.0 0.1	2 2 0 2	N/A	None	12.8 9.7 8.8 8.9	B A A A	0.2 0.0 0.0 0.0	4 2 0 1	N/A	None
	Int.	11.0	B	11.2	B	11.1	B	0.1	7			11.3	B	0.1	7		
Oak Creek Road/Oakmont Terrace (OWSC)	EB NB	13.2 7.3	B A	8.7 2.3	A A	14.1 7.3	B A	0.9 0.0	5 3	N/A	None	8.8 3.1	A A	0.1 0.8	2 6	N/A	None

(a) = The northbound leg of the Olde Highway 80 / Oak Creek Road is a private driveway.
Delay = seconds of delay per vehicle; LOS = Level of Service; Δ Delay = Increase (Decrease) in delay measured in seconds/vehicle;
Sig.? = County of San Diego's *Guidelines for Determining Significance*; N/A = Not Applicable because intersection operates at LOS D or better; OWSC = One-Way Stop-Controlled;
E-W = East-West; EB = eastbound; WB = westbound; NB = northbound; SB = southbound; Proj. Trips = see Figure 6 for project related traffic; Int = intersection; AWSC = all-way stop controlled

The proposed project generates 240 average daily trips. These trips will be distributed on circulation element roadways in the County that were analyzed by the TIF program. The potential growth represented by the proposed project was included in the growth projections upon which the TIF program is based. Therefore, payment of the TIF, which will be required at issuance of building permits, in combination with other components of the program described above, will mitigate potential cumulative traffic impacts to less than significant.

The original County of San Diego TIF program was adopted in April 2005 and put into effect on June 19, 2005. In January 2008, the County of San Diego released the proposed update to the TIF program. Copies of excerpts from the January 28, County of San Diego TIF Program Update are provided in Appendix B. It should be noted that the January 2008 TIF Program Update includes improvements for the Lake Jennings Park Road/I-8 Interchange, thus payment of the TIF will mitigate the project's potential cumulative impacts to the interchange.

SECTION V - PROJECT ACCESS, SIGHT DISTANCE, & ON-SITE CIRCULATION

PROJECT ACCESS

The project proposes to provide access to 20 single family estate residential lots off Olde Highway 80, Flinn Springs Road and Blossom Valley Road (see Figure 8). As illustrated in Figure 8, two (2) lots (Lots 1 and 2) take individual access off Flinn Springs Road. A group of six (6) residential lots is proposed to take access off Olde Highway 80. A group of twelve (12) residential lots take access off Oak Creek Road (near Oakmont Terrace) via a private road. The project driveways (labeled A - E) and the project trip distribution is illustrated in Figure 8. The project related traffic at each driveway is illustrated in Figure 9.

As shown in Table 8, the main project access driveways, A, B, and C operate at LOS B or better under existing plus project conditions.

Table 8 - Project Access Level of Service Summary

Intersection	Critical Movement	Existing + Project			
		AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
Project Access A / Flinn Springs Rd (OWSC)	WB	8.9	A	0.0	A
Project Access B / Flinn Springs Rd (OWSC)	SB	8.9	A	0.0	A
Project Access C / Olde Highway 80 (OWSC)	SB	11.3	B	12.2	B

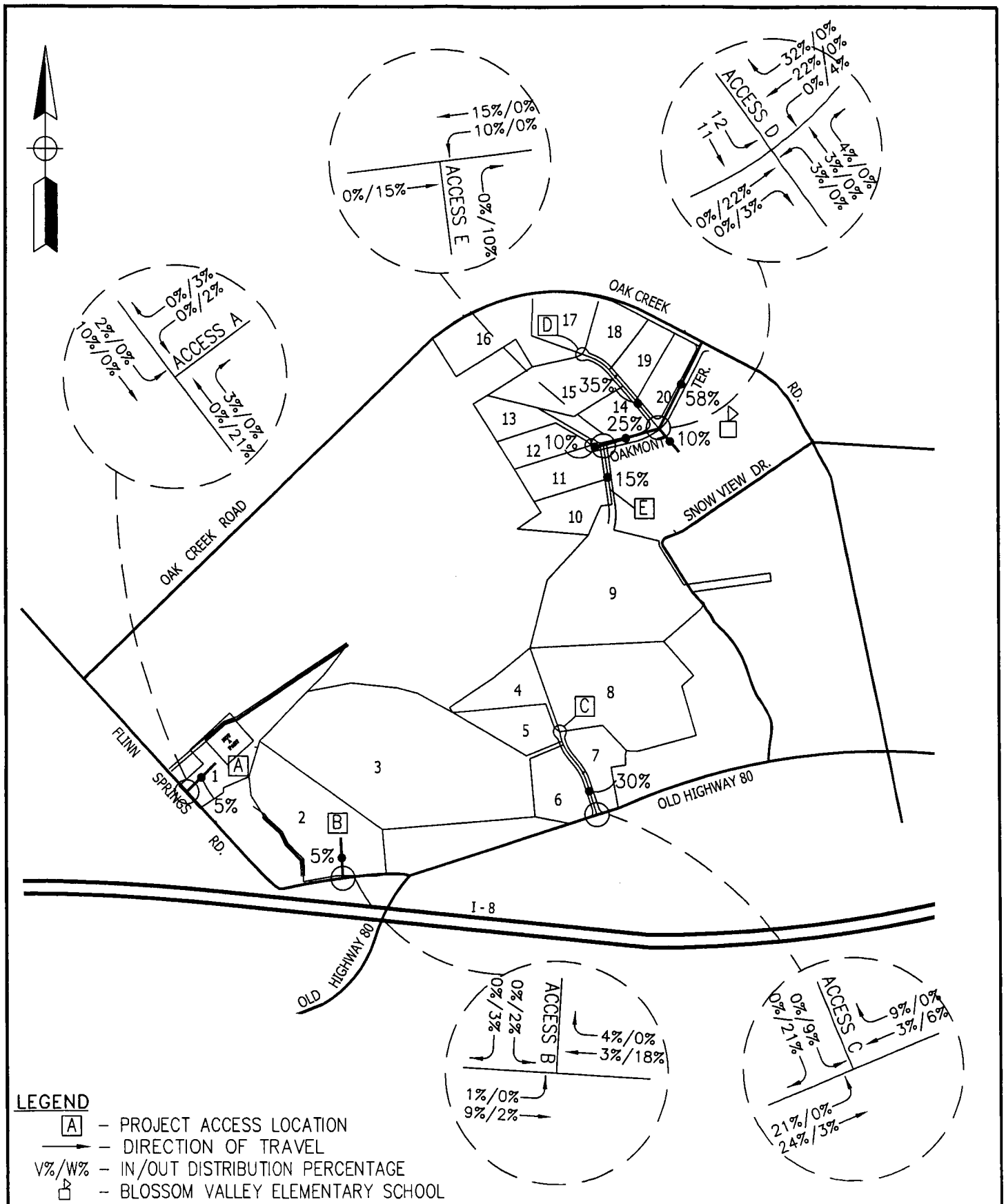
Delay is measured in seconds per vehicle; LOS= Level of Service; OWSC = One Way Stop Controlled; NB = Northbound Approach

Appendix E provides the Synchro worksheets for project access analysis.

SIGHT DISTANCE

Based on Crew Engineering and Surveying's visual examination of the site, it is their professional opinion that adequate unobstructed sight distance in both directions along Flinn Springs Road, Olde Highway 80, and Oak Creek Road from the private driveways, and private roads serving the project for the prevailing operating speeds of traffic on Flinn Springs Road, Olde Highway 80, and Oak Creek Road, per Section 6.1E of the County Public Road Standards can be achieved and that the sight distance of adjacent driveways and street openings will not be adversely affected by the proposed project. Please see Appendix F for a copy of the letter from Crew Engineering and Surveying summarizing their sight distance evaluation.

Once grading for the site has been completed, the project's Civil Engineer will certify the sight distance at each of the project driveways.

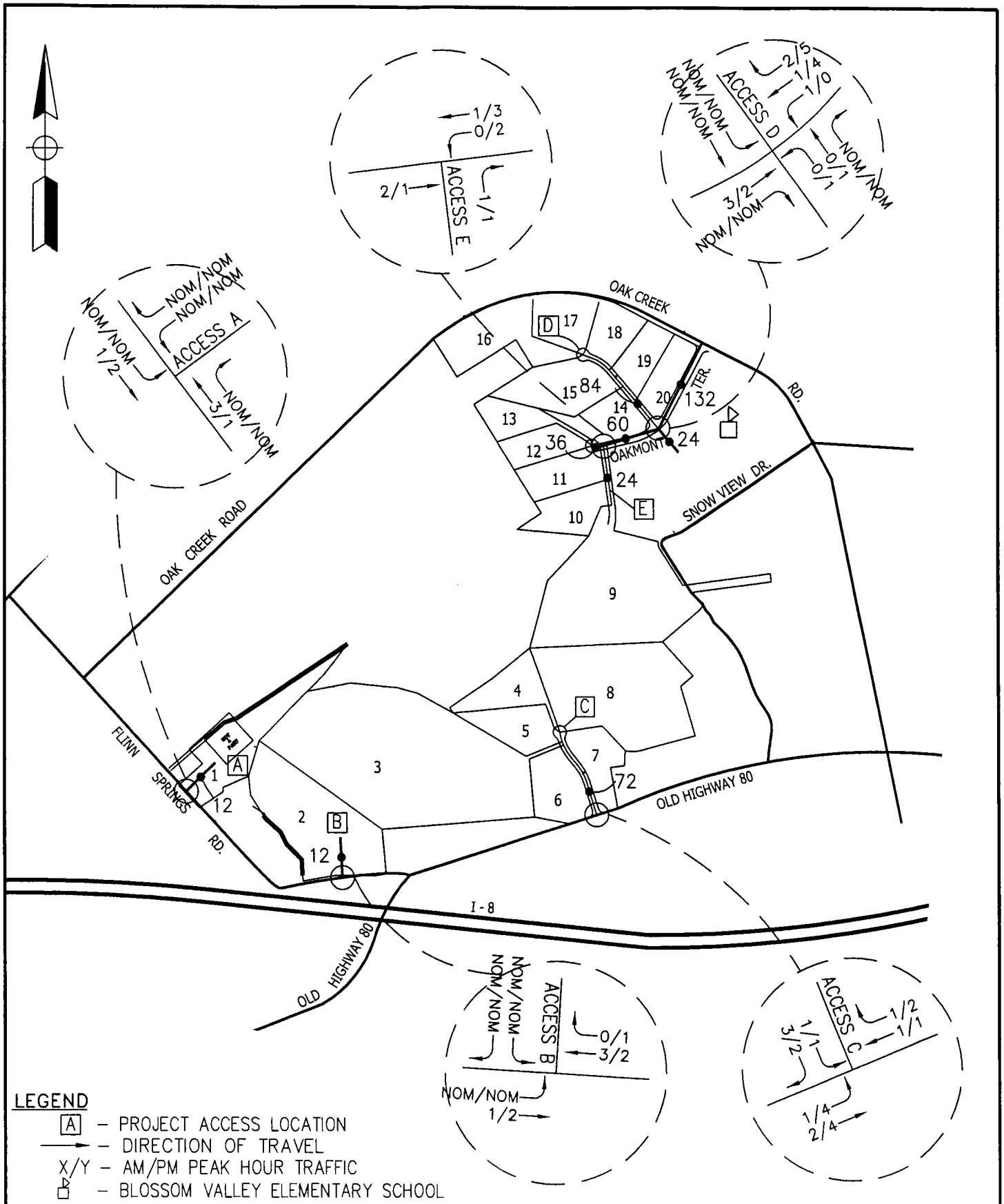


Darnell & ASSOCIATES, INC.

050909DD.dwg 3-16-07 SN

FIGURE 8

PROJECT ACCESS TRIP DISTRIBUTION PERCENTAGE



LEGEND

- A – PROJECT ACCESS LOCATION
- → – DIRECTION OF TRAVEL
- X/Y – AM/PM PEAK HOUR TRAFFIC
- – BLOSSOM VALLEY ELEMENTARY SCHOOL

Darnell & ASSOCIATES, INC.

050909DD.dwg 3-16-07 SN

FIGURE 9

PROJECT ACCESS – PROJECT TRAFFIC VOLUMES

ON-SITE CIRCULATION

As currently designed, the project site will have access off Flinn Springs Road, Olde Highway 80, and Oak Creek Road. Two of the residential lots (Lots 1 and 2) will take access via individual driveways off Flinn Springs Road. Six residential lots (Lots 3, 4, 5, 6, 7, and 8) will take access of Olde Highway 80 via a private driveway that ends in a cul-de-sac. Twelve residential lots take access off Oak Creek Road (near Oakmont Terrace) via a private road. This private road off Oak Creek Road provides access to two groups of lots, each clustered around a cul-de-sac, and to an individual lot (Lot 9) via a driveway. Therefore, eleven of the lots have been organized around two cul-de-sacs in a group of five lots (Lots 10,11,12,13 and 14) and six lots (Lots 15, 16,17,18,19 and 20). The remaining lot (Lot No. 9) has been provided an individual access via a driveway. Figures 8 and 9 illustrate the positions of the proposed project driveways.

The project access driveways D and E consist of 12 foot wide egress lane and 12 foot wide ingress lane on a graded width of 28 feet on a 40 foot wide private road easement. The preliminary plan proposes a width of 20 feet for the driveways to the three individual lots (Lot 1, Lot 2, and Lot 9). The radius of all the proposed cul-de-sacs is at least 40 feet and hence conforms to the San Diego County Private Road Standards.

SECTION VI - PROJECT MITIGATION

ROADWAY SEGMENTS

- The proposed project does not have any significant direct roadway segment impacts. Thus mitigation by the proposed project is not required.

- To mitigate the project's potential cumulative roadway segment impacts, the developer will pay the Transportation Impact Fee as shown in Table 9.

INTERSECTIONS

- The proposed project does not have any significant direct intersection impacts. Thus mitigation by the proposed project is not required.

- To mitigate the project's potential cumulative intersection impacts to County maintained facilities, the developer will pay the Transportation Impact Fee as shown in Table 9.

COUNTY OF SAN DIEGO TRANSPORTATION IMPACT FEE (TIF) PROGRAM

- The County Board of Supervisors adopted the County of San Diego Transportation Impact Fee (TIF) Program Update in January 2008. The Transportation Impact Fee will be assessed at the time of issuance of building permits. Table 9 illustrates the calculation of the Transportation Impact Fee for the proposed development that will be required to pay to mitigate its potential cumulative impacts. It should be noted that the actual fee is subject to change as the TIF Ordinance is updated annually and the fees are adjusted to reflect the engineering cost index.

Table 9 - Transportation Impact Fee Calculation for Oakmont II

TIF Area	Land use	No. of Units	Total Fee/Unit	Total Fee (a)
Lakeside	Residential	20	$7,476/unit	$149,520

(a) Total Fee includes Fees for Freeway tamps, local area fees, and regional fees
Note: Actual Fee is subject to change as the TIF Ordinance is updated annually and the fees are adjusted to reflect the engineering cost index.
Fees as of March 2008

SECTION VII - SUMMARY OF FINDINGS AND CONCLUSIONS

- The developer proposes to construct a twenty (20) lot single-family estate residential subdivision located at Olde Highway 80 and Flinn Springs Road in the Lakeside community of the County of San Diego.

- The proposed project is estimated to generate 240 average daily trips, 19 AM peak hour trips, and 24 PM peak hour trips.

- The proposed project does not have any significant direct roadway or intersection impacts.

- To project applicant will pay fees pursuant to the County of San Diego' Transportation Impact Fee (TIF) Ordinance as discussed in Section VI to mitigate any potential cumulative impacts.

- Based on Crew Engineering and Surveying's visual examination of the site, it is their professional opinion that adequate unobstructed sight distance in both directions along Flinn Springs Road, Olde Highway 80, and Oak Creek Road from the private driveways, and private roads serving the project for the prevailing operating speeds of traffic on Flinn Springs Road, Olde Highway 80, and Oak Creek Road, per Section 6.1E of the County Public Road Standards can be achieved and that the sight distance of adjacent driveways and street openings will not be adversely affected by the proposed project. The Civil Engineer will certify the sight distance at all project access points, once the project site has been graded.

APPENDIX A

- 24-Hour Segment Counts
- AM/PM Peak Hour Turn Counts
- SANDAG Trip Generation Rates
- County of San Diego Level of Service Thresholds
- Excerpts from the County's Private Road Standards
- Excerpts from the *Public Facilities Element*
- Excerpts from the County's *Guidelines for Determining Significance*

24-Hour Segment Counts (Used in Analysis)

Average Daily Traffic Volumes

Prepared by: Southland Car Counters

Volumes for: Tuesday, April 11, 2006 City: Lakeside Project #: 06-4084-001

Location: Lake Jennings Park Rd. btwn jennings Vista Dr and Blossom Valley

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	7		14					12:00	71		69				
00:15	13		21					12:15	108		83				
00:30	8		10					12:30	97		79				
00:45	5	33	10	55			88	12:45	95	371	86	317			688
01:00	7		5					13:00	97		82				
01:15	11		6					13:15	103		88				
01:30	8		8					13:30	110		95				
01:45	5	31	3	22			53	13:45	105	415	96	361			776
02:00	2		5					14:00	128		142				
02:15	3		7					14:15	114		154				
02:30	6		6					14:30	127		129				
02:45	5	16	3	21			37	14:45	143	512	144	569			1081
03:00	8		6					15:00	149		160				
03:15	9		2					15:15	134		172				
03:30	13		9					15:30	151		166				
03:45	10	40	5	22			62	15:45	164	598	153	651			1249
04:00	12		11					16:00	141		114				
04:15	17		9					16:15	161		174				
04:30	25		18					16:30	158		184				
04:45	32	86	22	60			146	16:45	133	593	147	619			1212
05:00	39		29					17:00	153		158				
05:15	53		58					17:15	153		153				
05:30	61		57					17:30	130		120				
05:45	89	242	88	232			474	17:45	144	580	154	585			1165
06:00	72		61					18:00	140		117				
06:15	51		74					18:15	121		96				
06:30	91		80					18:30	144		63				
06:45	100	314	116	331			645	18:45	106	511	74	350			861
07:00	115		101					19:00	96		72				
07:15	120		134					19:15	86		63				
07:30	124		127					19:30	79		70				
07:45	130	489	140	502			991	19:45	93	354	72	277			631
08:00	91		127					20:00	90		65				
08:15	99		119					20:15	64		54				
08:30	92		138					20:30	54		56				
08:45	110	392	129	513			905	20:45	57	265	48	223			488
09:00	104		116					21:00	39		61				
09:15	96		120					21:15	41		43				
09:30	87		91					21:30	42		52				
09:45	91	378	87	414			792	21:45	36	158	42	198			356
10:00	78		90					22:00	37		38				
10:15	82		78					22:15	22		30				
10:30	77		78					22:30	29		32				
10:45	74	311	67	313			624	22:45	19	107	28	128			235
11:00	86		64					23:00	19		12				
11:15	79		68					23:15	25		22				
11:30	80		70					23:30	18		12				
11:45	83	328	62	264			592	23:45	18	80	16	62			142
Total Vol.		2660		2749			**5409**			4544		4340			**8884**

Daily Totals

NB	SB	EB	WB	Combined
7204	7089			**14293**

	AM			PM		
Split %	49.2%	50.8%	**37.8%**	51.1%	48.9%	**62.2%**
Peak Hour	07:00	07:15	**07:15**	15:45	16:15	**16:15**
Volume	489	528	**993**	624	663	**1268**
P.H.F.	0.94	0.94	**0.92**	0.96	0.90	**0.93**

Average Daily Traffic Volumes

Prepared by: Southland Car Counters

Volumes for: Tuesday, April 11, 2006 City: Lakeside Project #: 06-4084-005

Location: Old Hwy 80 btwn Lake Jennings Park Rd and W Pecan Park

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			4		11			12:00			82		90		
00:15			7		8			12:15			80		111		
00:30			7		10			12:30			87		105		
00:45			8	26	7	36	62	12:45			96	345	90	396	741
01:00			11		9			13:00			77		91		
01:15			5		7			13:15			90		111		
01:30			6		7			13:30			80		120		
01:45			1	23	6	29	52	13:45			89	336	121	443	779
02:00			2		7			14:00			71		130		
02:15			2		2			14:15			80		115		
02:30			8		6			14:30			111		108		
02:45			3	15	3	18	33	14:45			105	367	127	480	847
03:00			3		6			15:00			97		118		
03:15			2		4			15:15			111		130		
03:30			6		2			15:30			120		140		
03:45			7	18	7	19	37	15:45			126	454	141	529	983
04:00			8		7			16:00			150		127		
04:15			10		8			16:15			128		138		
04:30			20		10			16:30			184		130		
04:45			56	94	8	33	127	16:45			171	633	144	539	1172
05:00			41		11			17:00			200		143		
05:15			52		20			17:15			184		124		
05:30			60		40			17:30			193		130		
05:45			86	239	62	133	372	17:45			181	758	140	537	1295
06:00			90		60			18:00			130		118		
06:15			100		71			18:15			111		80		
06:30			120		70			18:30			105		87		
06:45			113	423	80	281	704	18:45			115	461	79	364	825
07:00			140		100			19:00			101		91		
07:15			119		108			19:15			120		80		
07:30			130		124			19:30			90		79		
07:45			145	534	119	451	985	19:45			87	398	60	310	708
08:00			171		130			20:00			88		55		
08:15			156		122			20:15			70		40		
08:30			143		130			20:30			61		42		
08:45			129	599	119	501	1100	20:45			62	281	39	176	457
09:00			120		90			21:00			50		28		
09:15			101		80			21:15			46		30		
09:30			115		87			21:30			60		31		
09:45			115	451	96	353	804	21:45			52	208	40	129	337
10:00			112		86			22:00			61		42		
10:15			108		96			22:15			52		30		
10:30			126		90			22:30			52		21		
10:45			101	447	112	384	831	22:45			30	195	21	114	309
11:00			110		85			23:00			41		18		
11:15			80		79			23:15			20		20		
11:30			87		90			23:30			18		16		
11:45			91	368	98	352	720	23:45			12	91	15	69	160
Total Vol.				3237		2590	**5827**					4527		4086	**8613**

Daily Totals

NB	SB	EB	WB	Combined
		7764	6676	**14440**

	AM			PM		
Split %	55.6%	44.4%	**40.4%**	52.6%	47.4%	**59.6%**
Peak Hour	07:45	07:45	**07:45**	17:00	16:15	**17:00**
Volume	615	501	**1116**	758	555	**1295**
P.H.F.	0.90	0.96	**0.93**	0.95	0.96	**0.94**

Average Daily Traffic Volumes

Prepared by: Southland Car Counters

Volumes for: Tuesday, October 11, 2005 City: El Cajon Project #: 05-4256-004

Location: Old Hwy. 80 From Flinn Springs Rd. & Marina Springs

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			0		2			12:00			81		63		
00:15			4		5			12:15			89		64		
00:30			1		3			12:30			78		87		
00:45			4	9	4	14	23	12:45			81	329	76	290	619
01:00			3		5			13:00			89		91		
01:15			3		3			13:15			151		77		
01:30			3		4			13:30			180		64		
01:45			4	13	6	18	31	13:45			196	616	66	298	914
02:00			3		4			14:00			219		107		
02:15			1		2			14:15			231		106		
02:30			1		2			14:30			151		79		
02:45			3	8	4	12	20	14:45			221	822	128	420	1242
03:00			3		3			15:00			224		131		
03:15			1		2			15:15			184		49		
03:30			0		4			15:30			180		37		
03:45			3	7	4	13	20	15:45			146	734	40	257	991
04:00			1		4			16:00			189		47		
04:15			0		5			16:15			153		58		
04:30			1		16			16:30			92		77		
04:45			7	9	22	47	56	16:45			85	519	55	237	756
05:00			7		21			17:00			78		75		
05:15			12		39			17:15			85		68		
05:30			12		50			17:30			74		65		
05:45			23	54	41	151	205	17:45			81	318	70	278	596
06:00			16		46			18:00			61		58		
06:15			27		62			18:15			74		68		
06:30			23		67			18:30			65		61		
06:45			45	111	74	249	360	18:45			65	265	50	237	502
07:00			35		80			19:00			59		60		
07:15			39		86			19:15			53		45		
07:30			55		97			19:30			39		39		
07:45			42	171	81	344	515	19:45			32	183	40	184	367
08:00			42		105			20:00			20		26		
08:15			30		81			20:15			43		37		
08:30			35		86			20:30			23		25		
08:45			39	146	57	329	475	20:45			27	113	29	117	230
09:00			38		63			21:00			23		35		
09:15			32		57			21:15			20		32		
09:30			30		58			21:30			27		22		
09:45			39	139	61	239	378	21:45			23	93	24	113	206
10:00			39		61			22:00			16		22		
10:15			38		73			22:15			12		14		
10:30			38		52			22:30			11		11		
10:45			32	147	60	246	393	22:45			9	48	4	51	99
11:00			50		71			23:00			3		9		
11:15			39		54			23:15			9		8		
11:30			42		63			23:30			9		8		
11:45			62	193	76	264	457	23:45			9	30	9	34	64
Total Vol.				1007		1926	**2933**					4070		2516	**6586**

			Daily Totals		
	NB	SB	EB	WB	**Combined**
			5077	4442	**9519**
	AM		**PM**		
Split %	34.3%	65.7%	61.8%	38.2%	**69.2%**
Peak Hour	11:45	07:15	**11:45**	14:15	14:15	**14:15**
Volume	310	369	**600**	827	444	**1271**
P.H.F.	0.87	0.88	**0.91**	0.90	0.85	**0.90**

Average Daily Traffic Volumes

Prepared by: Southland Car Counters

Volumes for: Tuesday, October 11, 2005 City: El Cajon Project #: 05-4256-002

Location: Old Hwy. 80 From Old Creek Rd. & Flinn Springs Rd.

AM Period	NB	SB	EB	WB		PM Period	NB	SB	EB	WB	
00:00			2	3		12:00			97	60	
00:15			5	4		12:15			103	61	
00:30			4	0		12:30			95	77	
00:45			7 18	2 9	27	12:45			98 393	65 263	656
01:00			5	4		13:00			115	81	
01:15			2	3		13:15			186	64	
01:30			2	4		13:30			256	55	
01:45			9 18	3 14	32	13:45			271 828	59 259	1087
02:00			3	2		14:00			281	71	
02:15			3	1		14:15			286	56	
02:30			1	1		14:30			221	51	
02:45			4 11	4 8	19	14:45			294 1082	56 234	1316
03:00			3	1		15:00			276	79	
03:15			4	0		15:15			273	58	
03:30			0	4		15:30			264	71	
03:45			4 11	1 6	17	15:45			235 1048	61 269	1317
04:00			2	5		16:00			212	58	
04:15			1	6		16:15			175	96	
04:30			2	13		16:30			110	63	
04:45			7 12	16 40	52	16:45			94 591	50 267	858
05:00			14	16		17:00			85	47	
05:15			16	32		17:15			90	45	
05:30			14	36		17:30			92	54	
05:45			31 75	33 117	192	17:45			97 364	49 195	559
06:00			22	45		18:00			89	46	
06:15			33	50		18:15			94	48	
06:30			31	62		18:30			86	37	
06:45			59 145	54 211	356	18:45			83 352	34 165	517
07:00			57	66		19:00			70	27	
07:15			56	88		19:15			59	22	
07:30			71	83		19:30			49	20	
07:45			75 259	82 319	578	19:45			46 224	30 99	323
08:00			60	83		20:00			34	23	
08:15			40	73		20:15			54	22	
08:30			56	68		20:30			31	22	
08:45			50 206	46 270	476	20:45			40 159	18 85	244
09:00			51	47		21:00			26	23	
09:15			62	48		21:15			25	22	
09:30			47	49		21:30			34	11	
09:45			61 221	47 191	412	21:45			24 109	15 71	180
10:00			56	57		22:00			18	10	
10:15			47	58		22:15			14	6	
10:30			51	42		22:30			14	6	
10:45			43 197	52 209	406	22:45			12 58	1 23	81
11:00			64	59		23:00			8	7	
11:15			39	43		23:15			14	1	
11:30			53	60		23:30			8	7	
11:45			77 233	57 219	452	23:45			7 37	4 19	56
Total Vol.			1406	1613	**3019**				5245	1949	**7194**

Daily Totals

NB	SB	EB	WB	Combined
		6651	3562	**10213**

	AM			PM		
Split %	46.6%	53.4%	**29.6%**	72.9%	27.1%	**70.4%**
Peak Hour	11:45	07:15	**11:45**	14:45	12:30	**14:45**
Volume	372	336	**627**	1107	287	**1371**
P.H.F.	0.90	0.95	**0.91**	0.94	0.89	**0.97**

Average Daily Traffic Volumes

Prepared by: Southland Car Counters

Volumes for: Tuesday, April 11, 2006 City: Lakeside Project #: 06-4084-008

Location: Business Route btwn Pinkard Ln and Lake Jennings Park Rd

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			2		2			12:00			30		42		
00:15			2		1			12:15			35		47		
00:30			2		2			12:30			37		40		
00:45			3	9	4	9	18	12:45			26	128	62	191	319
01:00			6		5			13:00			34		49		
01:15			8		3			13:15			38		37		
01:30			5		4			13:30			33		42		
01:45			2	21	1	13	34	13:45			29	134	56	184	318
02:00			3		0			14:00			44		59		
02:15			2		0			14:15			29		44		
02:30			6		5			14:30			47		45		
02:45			0	11	5	10	21	14:45			33	153	47	195	348
03:00			2		3			15:00			36		52		
03:15			3		2			15:15			49		54		
03:30			1		5			15:30			53		51		
03:45			3	9	2	12	21	15:45			58	196	67	224	420
04:00			3		7			16:00			84		70		
04:15			3		2			16:15			65		62		
04:30			3		9			16:30			65		55		
04:45			4	13	10	28	41	16:45			79	293	61	248	541
05:00			5		15			17:00			88		73		
05:15			3		22			17:15			96		57		
05:30			11		21			17:30			68		61		
05:45			16	35	37	95	130	17:45			60	312	67	258	570
06:00			21		31			18:00			43		55		
06:15			27		39			18:15			35		56		
06:30			20		68			18:30			32		41		
06:45			28	96	59	197	293	18:45			29	139	41	193	332
07:00			34		60			19:00			26		25		
07:15			74		52			19:15			29		38		
07:30			56		55			19:30			27		28		
07:45			63	227	62	229	456	19:45			21	103	34	125	228
08:00			63		48			20:00			28		22		
08:15			43		51			20:15			23		17		
08:30			63		54			20:30			24		27		
08:45			74	243	34	187	430	20:45			18	93	19	85	178
09:00			56		45			21:00			16		30		
09:15			26		27			21:15			19		15		
09:30			30		34			21:30			15		14		
09:45			27	139	26	132	271	21:45			7	57	9	68	125
10:00			30		44			22:00			11		12		
10:15			17		33			22:15			14		9		
10:30			27		28			22:30			18		13		
10:45			34	108	43	148	256	22:45			13	56	11	45	101
11:00			36		35			23:00			11		7		
11:15			33		27			23:15			9		10		
11:30			47		45			23:30			7		5		
11:45			48	164	42	149	313	23:45			6	33	4	26	59
Total Vol.				1075		1209	**2284**					1697		1842	**3539**

			Daily Totals		
	NB	SB	EB	WB	**Combined**
			2772	3051	**5823**
			PM		
Split %			48.0%	52.0%	**60.8%**

	AM			**PM**		
Split %	47.1%	52.9%	**39.2%**	48.0%	52.0%	**60.8%**
Peak Hour	07:15	06:30	**07:15**	16:45	17:00	**16:45**
Volume	256	239	**473**	331	258	**583**
P.H.F.	0.86	0.88	**0.94**	0.86	0.88	**0.91**

Average Daily Traffic Volumes

Prepared by: Southland Car Counters

Volumes for: Tuesday, April 11, 2006 City: Lakeside Project #: 06-4084-009

Location: Blossom Valley Rd btwn Lake Jennings Park Rd and Vista Entrada

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			3		3			12:00			29		35		
00:15			4		6			12:15			41		51		
00:30			3		4			12:30			32		39		
00:45			1	11	2	15	26	12:45			36	138	43	168	306
01:00			3		3			13:00			32		39		
01:15			1		1			13:15			37		45		
01:30			0		0			13:30			33		40		
01:45			0	4	1	5	9	13:45			39	141	47	171	312
02:00			0		1			14:00			32		39		
02:15			0		1			14:15			39		48		
02:30			0		1			14:30			31		37		
02:45			1	1	2	5	6	14:45			44	146	47	171	317
03:00			1		1			15:00			41		38		
03:15			0		1			15:15			41		38		
03:30			1		2			15:30			44		40		
03:45			2	4	2	6	10	15:45			44	170	41	157	327
04:00			1		1			16:00			60		44		
04:15			1		1			16:15			59		43		
04:30			1		2			16:30			48		35		
04:45			5	8	7	11	19	16:45			58	225	43	165	390
05:00			7		10			17:00			56		41		
05:15			8		11			17:15			60		44		
05:30			13		18			17:30			54		40		
05:45			11	39	14	53	92	17:45			49	219	35	160	379
06:00			14		19			18:00			36		43		
06:15			23		32			18:15			38		46		
06:30			29		39			18:30			41		51		
06:45			34	100	45	135	235	18:45			34	149	42	182	331
07:00			28		55			19:00			29		35		
07:15			34		68			19:15			32		39		
07:30			30		58			19:30			20		25		
07:45			30	122	58	239	361	19:45			23	104	29	128	232
08:00			30		58			20:00			20		25		
08:15			30		58			20:15			15		19		
08:30			27		54			20:30			21		26		
08:45			31	118	63	233	351	20:45			20	76	24	94	170
09:00			34		54			21:00			19		23		
09:15			26		42			21:15			21		25		
09:30			25		40			21:30			14		17		
09:45			29	114	45	181	295	21:45			7	61	8	73	134
10:00			31		41			22:00			9		11		
10:15			28		37			22:15			9		12		
10:30			32		43			22:30			11		13		
10:45			30	121	41	162	283	22:45			7	36	9	45	81
11:00			32		44			23:00			9		10		
11:15			33		44			23:15			12		14		
11:30			18		23			23:30			5		7		
11:45			18	101	24	135	236	23:45			4	30	5	36	66
Total Vol.				743		1180	**1923**					1495		1550	**3045**

Daily Totals

	NB	SB	EB	WB	Combined
			2238	2730	**4968**
AM					
Split %			38.6%	61.4%	**38.7%**
Peak Hour			10:30	07:15	**07:15**
Volume			127	242	**366**
P.H.F.			0.96	0.89	**0.90**
PM					
Split %			49.1%	50.9%	**61.3%**
Peak Hour			16:45	18:00	**16:45**
Volume			228	182	**396**
P.H.F.			0.95	0.89	**0.95**

Average Daily Traffic Volumes

Prepared by: Southland Car Counters

Volumes for: Tuesday, October 11, 2005 City: El Cajon Project #: 05-4256-001

Location: Blossom Valley Rd. From Flinn Springs & Redpony

AM Period	NB	SB	EB		WB			PM Period	NB	SB	EB		WB		
00:00			1		1			12:00			26		23		
00:15			1		0			12:15			33		20		
00:30			0		0			12:30			27		22		
00:45			0	2	0	1	3	12:45			38	124	25	90	214
01:00			1		2			13:00			33		29		
01:15			2		3			13:15			25		20		
01:30			3		1			13:30			36		12		
01:45			0	6	5	11	17	13:45			34	128	28	89	217
02:00			3		3			14:00			66		37		
02:15			0		2			14:15			75		35		
02:30			2		0			14:30			75		29		
02:45			1	6	0	5	11	14:45			65	281	31	132	413
03:00			1		1			15:00			66		22		
03:15			0		0			15:15			65		23		
03:30			0		0			15:30			67		19		
03:45			3	4	1	2	6	15:45			60	258	26	90	348
04:00			5		2			16:00			40		16		
04:15			2		0			16:15			43		14		
04:30			3		1			16:30			30		23		
04:45			6	16	3	6	22	16:45			57	170	25	78	248
05:00			2		0			17:00			45		15		
05:15			7		2			17:15			38		20		
05:30			3		5			17:30			31		21		
05:45			8	20	11	18	38	17:45			31	145	23	79	224
06:00			3		6			18:00			43		25		
06:15			5		8			18:15			32		24		
06:30			9		11			18:30			28		23		
06:45			3	20	22	47	67	18:45			38	141	20	92	233
07:00			27		34			19:00			27		28		
07:15			39		40			19:15			20		18		
07:30			54		41			19:30			12		23		
07:45			50	170	47	162	332	19:45			10	69	18	87	156
08:00			47		49			20:00			9		12		
08:15			45		45			20:15			13		11		
08:30			30		43			20:30			15		8		
08:45			35	157	40	177	334	20:45			12	49	3	34	83
09:00			24		39			21:00			9		2		
09:15			26		31			21:15			2		5		
09:30			24		33			21:30			3		1		
09:45			25	99	32	135	234	21:45			8	22	2	10	32
10:00			33		28			22:00			10		5		
10:15			24		30			22:15			3		3		
10:30			24		33			22:30			1		8		
10:45			18	99	29	120	219	22:45			3	17	6	22	39
11:00			15		21			23:00			6		2		
11:15			21		19			23:15			0		4		
11:30			20		24			23:30			2		9		
11:45			20	76	18	82	158	23:45			3	11	3	18	29
Total Vol.				675		766	**1441**					1415		821	**2236**

			Daily Totals		
	NB	SB	EB	WB	Combined
			2090	1587	**3677**
			PM		
Split %			63.3%	36.7%	**60.8%**

	AM			PM		
Split %	46.8%	53.2%	**39.2%**	63.3%	36.7%	**60.8%**
Peak Hour	07:30	07:45	**07:30**	14:00	14:00	**14:00**
Volume	196	184	**378**	281	132	**413**
P.H.F.	0.91	0.94	**0.97**	0.94	0.89	**0.94**

Average Daily Traffic Volumes

Prepared by: Southland Car Counters

Volumes for: Tuesday, October 11, 2005 City: El Cajon Project #: 05-4256-003

Location: Flinn Springs Rd. From Blomssom Valley Rd. & Old Hwy 80

AM Period	NB		SB		EB	WB		PM Period	NB		SB		EB	WB	
00:00	4		0					12:00	17		11				
00:15	2		0					12:15	22		15				
00:30	2		1					12:30	19		20				
00:45	0	8	1	2			10	12:45	23	81	31	77			158
01:00	1		1					13:00	38		27				
01:15	4		1					13:15	33		41				
01:30	0		2					13:30	39		45				
01:45	2	7	0	4			11	13:45	58	168	52	165			333
02:00	2		1					14:00	133		53				
02:15	1		0					14:15	58		28				
02:30	0		1					14:30	26		38				
02:45	2	5	0	2			7	14:45	59	276	44	163			439
03:00	1		0					15:00	33		59				
03:15	0		0					15:15	30		37				
03:30	2		0					15:30	39		73				
03:45	0	3	0	0			3	15:45	56	158	85	254			412
04:00	1		0					16:00	37		88				
04:15	1		0					16:15	49		29				
04:30	1		0					16:30	28		27				
04:45	3	6	2	2			8	16:45	33	147	19	163			310
05:00	4		3					17:00	41		22				
05:15	6		0					17:15	34		22				
05:30	9		1					17:30	30		17				
05:45	3	22	3	7			29	17:45	17	122	14	75			197
06:00	7		8					18:00	18		11				
06:15	10		8					18:15	24		20				
06:30	27		4					18:30	20		14				
06:45	18	62	12	32			94	18:45	21	83	16	61			144
07:00	32		23					19:00	19		7				
07:15	38		24					19:15	18		4				
07:30	72		80					19:30	13		10				
07:45	128	270	55	182			452	19:45	9	59	8	29			88
08:00	75		15					20:00	8		3				
08:15	28		15					20:15	17		9				
08:30	22		9					20:30	11		5				
08:45	15	140	9	48			188	20:45	10	46	3	20			66
09:00	21		11					21:00	3		3				
09:15	15		16					21:15	6		4				
09:30	19		11					21:30	8		1				
09:45	22	77	15	53			130	21:45	4	21	0	8			29
10:00	36		14					22:00	4		2				
10:15	16		9					22:15	12		3				
10:30	23		11					22:30	2		3				
10:45	15	90	12	46			136	22:45	4	22	0	8			30
11:00	25		12					23:00	3		3				
11:15	19		7					23:15	2		2				
11:30	18		10					23:30	3		1				
11:45	24	86	13	42			128	23:45	0	8	4	10			18
Total Vol.		776		420			**1196**			1191		1033			**2224**

Daily Totals

NB	SB	EB	WB	Combined
1967	1453			**3420**

	AM			PM		
Split %	64.9%	35.1%	**35.0%**	53.6%	46.4%	**65.0%**
Peak Hour	07:15	07:00	**07:15**	13:30	15:15	**13:30**
Volume	313	182	**487**	288	283	**466**
P.H.F.	0.61	0.57	**0.67**	0.68	0.80	**0.63**

Average Daily Traffic Volumes

Prepared by: Southland Car Counters

Volumes for: Tuesday, March 13, 2007 City: El Cajon Project #: 07-4044-001

Location: Oak Creek Rd N/O Oakmont Terrace

AM Period	NB		SB		EB	WB	PM Period	NB		SB		EB	WB	
00:00	0		0				12:00	7		6				
00:15	0		0				12:15	11		9				
00:30	0		0				12:30	9		2				
00:45	1	1	0	0		1	12:45	4	31	3	20			51
01:00	0		1				13:00	3		6				
01:15	0		0				13:15	2		6				
01:30	0		0				13:30	3		15				
01:45	0	0	0	1		1	13:45	14	22	24	51			73
02:00	0		0				14:00	46		20				
02:15	0		0				14:15	10		8				
02:30	0		0				14:30	5		2				
02:45	0	0	0	0			14:45	5	66	15	45			111
03:00	0		0				15:00	22		8				
03:15	0		0				15:15	9		5				
03:30	0		0				15:30	8		3				
03:45	0	0	0	0			15:45	8	47	10	26			73
04:00	0		0				16:00	11		9				
04:15	0		0				16:15	10		8				
04:30	1		0				16:30	5		4				
04:45	0	1	0	0		1	16:45	6	32	7	28			60
05:00	0		0				17:00	12		3				
05:15	0		0				17:15	5		8				
05:30	1		0				17:30	5		4				
05:45	0	1	0	0		1	17:45	5	27	5	20			47
06:00	3		1				18:00	2		4				
06:15	2		1				18:15	3		1				
06:30	4		3				18:30	1		3				
06:45	5	14	1	6		20	18:45	5	11	1	9			20
07:00	2		8				19:00	8		3				
07:15	8		13				19:15	2		4				
07:30	40		61				19:30	1		3				
07:45	66	116	63	145		261	19:45	1	12	2	12			24
08:00	14		10				20:00	0		2				
08:15	2		12				20:15	1		1				
08:30	11		6				20:30	0		1				
08:45	8	35	2	30		65	20:45	0	1	2	6			7
09:00	3		0				21:00	1		0				
09:15	3		4				21:15	0		0				
09:30	4		3				21:30	1		0				
09:45	11	21	9	16		37	21:45	1	3	0	0			3
10:00	10		4				22:00	1		1				
10:15	4		2				22:15	1		1				
10:30	4		0				22:30	0		0				
10:45	2	20	0	6		26	22:45	0	2	0	2			4
11:00	4		1				23:00	0		0				
11:15	1		2				23:15	0		0				
11:30	5		4				23:30	0		0				
11:45	5	15	5	12		27	23:45	0	0	0	0			
Total Vol.		224		216		**440**			254		219			**473**

Daily Totals

	NB	SB	EB	WB	Combined
	478	435			**913**

	AM			PM		
Split %	50.9%	49.1%	**48.2%**	53.7%	46.3%	**51.8%**
Peak Hour	07:15	07:15	**07:15**	13:45	13:30	**13:30**
Volume	128	147	**275**	75	67	**140**
P.H.F.	0.48	0.58	**0.53**	0.43	0.70	**0.53**

Average Daily Traffic Volumes

Prepared by: Southland Car Counters

Volumes for: Tuesday, October 11, 2005 City: El Cajon Project #: 05-4256-005

Location: Oak Creek Rd. From Oak Mt. Terrace & Old Hwy 80

AM Period	NB		SB		EB	WB	PM Period	NB		SB		EB	WB	
00:00	1		2				12:00	12		20				
00:15	0		0				12:15	16		16				
00:30	0		0				12:30	30		19				
00:45	0	1	0	2		3	12:45	18	76	23	78			154
01:00	1		0				13:00	22		31				
01:15	0		0				13:15	19		30				
01:30	1		1				13:30	23		26				
01:45	0	2	2	3		5	13:45	20	84	27	114			198
02:00	0		0				14:00	10		38				
02:15	0		0				14:15	16		28				
02:30	0		0				14:30	11		24				
02:45	0	0	0	0			14:45	13	50	38	128			178
03:00	0		0				15:00	20		28				
03:15	2		0				15:15	16		26				
03:30	0		0				15:30	29		31				
03:45	1	3	0	0		3	15:45	33	98	51	136			234
04:00	2		0				16:00	19		30				
04:15	3		4				16:15	25		27				
04:30	8		2				16:30	25		21				
04:45	3	16	5	11		27	16:45	22	91	19	97			188
05:00	2		2				17:00	36		20				
05:15	8		10				17:15	24		24				
05:30	12		5				17:30	20		18				
05:45	6	28	10	27		55	17:45	17	97	12	74			171
06:00	13		11				18:00	4		27				
06:15	9		10				18:15	7		14				
06:30	15		19				18:30	1		15				
06:45	13	50	19	59		109	18:45	19	31	5	61			92
07:00	30		18				19:00	5		11				
07:15	25		22				19:15	17		4				
07:30	61		47				19:30	8		6				
07:45	60	176	55	142		318	19:45	10	40	4	25			65
08:00	20		46				20:00	6		4				
08:15	15		20				20:15	4		11				
08:30	22		19				20:30	1		16				
08:45	25	82	23	108		190	20:45	8	19	6	37			56
09:00	26		12				21:00	3		4				
09:15	21		18				21:15	4		2				
09:30	19		22				21:30	8		0				
09:45	11	77	17	69		146	21:45	2	17	2	8			25
10:00	13		28				22:00	0		3				
10:15	20		25				22:15	4		1				
10:30	23		14				22:30	3		1				
10:45	24	80	19	86		166	22:45	0	7	1	6			13
11:00	28		14				23:00	0		4				
11:15	23		14				23:15	0		0				
11:30	20		16				23:30	2		2				
11:45	15	86	14	58		144	23:45	0	2	2	8			10
Total Vol.		601		565		**1166**			612		772			**1384**

Daily Totals

NB	SB	EB	WB	Combined
1213	1337			**2550**

	AM			PM		
Split %	51.5%	48.5%	**45.7%**	44.2%	55.8%	**54.3%**
Peak Hour	07:00	07:15	**07:15**	16:15	15:30	**15:30**
Volume	176	170	**336**	108	139	**245**
P.H.F.	0.72	0.77	**0.73**	0.94	0.68	**0.73**

24-Hour Segment Counts (Counted June 2008)

MetroCount Traffic Executive
Event Counts

EventCount-922 -- English (ENU)

Datasets:

Site:	**[8047.01] OLD HWY 80 (MARINA SPRINGS LN-FLINN SPRINGS RD) EASTBOUND**
Input A:	2 - East bound. - Added to totals. (1)
Input B:	0 - Unused or unknown. - Excluded from totals. (0)
Survey Duration:	18:12 Monday, June 09, 2008 => 11:05 Wednesday, June 11, 2008
File:	C:\Users\Gus\True Count\Projects\8047 DA BLOSSOM\8047.01.E11Jun2008.EC0 (Regular)
Identifier:	S1339PHE MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Event Count
Data type:	Axle sensors - Separate (Count)

Profile:

Filter time:	**0:00 Tuesday, June 10, 2008 => 0:00 Wednesday, June 11, 2008**
Name:	TC Default Profile
Scheme:	Count events divided by two.
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Events = 4364 / 6215 (70.22%)

*** Tuesday, June 10, 2008=4364, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
24	**15**	**6**	**14**	**9**	**58**	**138**	**266**	**225**	**182**	**203**	**235**	**265**	**331**	**315**	**383**	**398**	**382**	**296**	**208**	**163**	**134**	**71**	**43**	
5	6	1	2	0	4	31	40	**56**	54	48	45	67	68	72	93	91	92	79	62	38	35	20	7	-
8	2	2	5	4	13	29	53	**66**	44	58	52	62	93	76	102	101	92	72	53	49	24	18	10	-
4	2	0	3	3	15	34	**102**	50	45	34	63	65	90	84	92	93	86	76	54	35	37	20	13	-
7	5	3	4	2	26	44	**71**	53	39	63	75	71	80	83	96	113	112	69	39	41	38	13	13	-

AM Peak 0730 - 0830 (295), AM PHF=0.72

MetroCount Traffic Executive
Event Counts

EventCount-923 -- English (ENU)

Datasets:

Site:	**[8047.01] OLD HWY 80 (MARINA SPRINGS LN-FLINN SPRINGS RD) WESTBOUND**
Input A:	4 - West bound. - Added to totals. (1)
Input B:	0 - Unused or unknown. - Excluded from totals. (0)
Survey Duration:	18:09 Monday, June 09, 2008 => 11:04 Wednesday, June 11, 2008
File:	C:\Users\Gus\True Count\Projects\8047 DA BLOSSOM\8047.01.W11Jun2008.EC0 (Base)
Identifier:	V289W1MS MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Event Count
Data type:	Axle sensors - Separate (Count)

Profile:

Filter time:	**0:00 Tuesday, June 10, 2008 => 0:00 Wednesday, June 11, 2008**
Name:	TC Default Profile
Scheme:	Count events divided by two.
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Events = 3931 / 5948 (66.09%)

*** Tuesday, June 10, 2008=3931, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
12	**9**	**7**	**18**	**23**	**138**	**297**	**325**	**326**	**230**	**241**	**230**	**231**	**208**	**281**	**288**	**245**	**222**	**187**	**161**	**105**	**72**	**49**	**26**	
4	1	1	2	2	17	71	70	**87**	61	58	60	55	47	96	60	74	58	48	41	27	12	17	6	-
1	4	2	10	8	28	77	63	**75**	58	51	59	61	43	78	61	53	57	48	43	24	21	20	7	-
4	2	3	5	5	49	75	**81**	75	60	64	56	69	53	51	91	60	50	43	34	29	18	6	10	-
3	2	1	1	8	44	74	**111**	89	51	68	55	46	65	56	76	58	57	48	43	25	21	6	3	-

AM Peak 0730 - 0830 (354), AM PHF=0.80

MetroCount Traffic Executive
Event Counts

EventCount-924 -- English (ENU)

Datasets:

Site:	**[8047.02] OLD HWY 80 (FLINN SPRINGS RD-OAK CREEK RD) EASTBOUND**
Input A:	2 - East bound. - Added to totals. (1)
Input B:	0 - Unused or unknown. - Excluded from totals. (0)
Survey Duration:	19:22 Monday, June 09, 2008 => 11:11 Wednesday, June 11, 2008
File:	C:\Users\Gus\True Count\Projects\8047 DA BLOSSOM\8047.02.E11Jun2008.EC0 (Regular)
Identifier:	T5450FAN MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Event Count
Data type:	Axle sensors - Separate (Count)

Profile:

Filter time:	**0:00 Tuesday, June 10, 2008 => 0:00 Wednesday, June 11, 2008**
Name:	TC Default Profile
Scheme:	Count events divided by two.
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Events = 3897 / 5230 (74.51%)

*** Tuesday, June 10, 2008=3897, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
23	**12**	**5**	**14**	**14**	**33**	**108**	**244**	**199**	**169**	**171**	**196**	**253**	**284**	**291**	**345**	**333**	**344**	**272**	**196**	**160**	**125**	**69**	**37**	
5	2	1	2	2	4	32	32	**40**	43	39	38	65	54	75	86	80	88	78	60	39	35	23	6	-
7	3	2	4	5	8	24	45	**56**	46	52	39	61	76	52	88	96	83	69	42	54	28	17	8	-
6	2	1	4	5	11	21	**104**	47	42	31	52	58	74	78	81	76	77	60	48	30	31	18	14	-
5	5	1	4	2	10	31	**63**	56	38	49	67	69	80	86	90	81	96	65	46	37	31	11	9	-

AM Peak 0730 - 0830 (263), AM PHF=0.63

MetroCount Traffic Executive
Event Counts

EventCount-925 -- English (ENU)

Datasets:

Site:	**[8047.02] OLD HWY 80 (FLINN SPRINGS RD-OAK CREEK RD) WESTBOUND**
Input A:	4 - West bound. - Added to totals. (1)
Input B:	0 - Unused or unknown. - Excluded from totals. (0)
Survey Duration:	19:20 Monday, June 09, 2008 => 11:10 Wednesday, June 11, 2008
File:	C:\Users\Gus\True Count\Projects\8047 DA BLOSSOM\8047.02.W11Jun2008.EC0 (Base)
Identifier:	V273S0NX MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Event Count
Data type:	Axle sensors - Separate (Count)

Profile:

Filter time:	**0:00 Tuesday, June 10, 2008 => 0:00 Wednesday, June 11, 2008**
Name:	TC Default Profile
Scheme:	Count events divided by two.
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Events = 3598 / 5077 (70.87%)

*** Tuesday, June 10, 2008=3597, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
11	**7**	**8**	**10**	**21**	**124**	**253**	**302**	**309**	**213**	**226**	**199**	**199**	**188**	**266**	**290**	**241**	**205**	**170**	**134**	**97**	**61**	**40**	**23**	
5	0	1	1	3	13	57	55	**76**	59	55	48	52	53	103	59	72	46	35	31	25	12	8	4	-
1	4	3	3	8	27	70	57	**70**	55	45	40	48	28	71	51	57	55	42	35	27	20	17	7	-
3	2	1	5	3	45	61	**83**	70	56	64	57	65	43	54	100	52	46	49	29	22	14	8	8	-
2	1	3	1	7	39	65	**107**	93	43	62	54	34	64	38	80	60	58	44	39	23	15	7	4	-

AM Peak 0730 - 0830 (336), AM PHF=0.79

MetroCount Traffic Executive
Event Counts

EventCount-926 -- English (ENU)

Datasets:

Site:	**[8047.03] BLOSSOM VALLEY RD (RED PONY LN-FLINN SPRINGS RD) EASTBOUND**
Input A:	2 - East bound. - Added to totals. (1)
Input B:	0 - Unused or unknown. - Excluded from totals. (0)
Survey Duration:	18:58 Monday, June 09, 2008 => 11:08 Wednesday, June 11, 2008
File:	C:\Users\Gus\True Count\Projects\8047 DA BLOSSOM\8047.03.E11Jun2008.EC0 (Regular)
Identifier:	T575QTP3 MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Event Count
Data type:	Axle sensors - Separate (Count)

Profile:

Filter time:	**0:00 Tuesday, June 10, 2008 => 0:00 Wednesday, June 11, 2008**
Name:	TC Default Profile
Scheme:	Count events divided by two.
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Events = 1596 / 2249 (70.96%)

*** Tuesday, June 10, 2008=1595, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
14	**1**	**4**	**4**	**2**	**5**	**28**	**138**	**86**	**67**	**68**	**65**	**75**	**129**	**87**	**119**	**150**	**162**	**140**	**77**	**68**	**55**	**37**	**14**	
4	0	0	0	0	0	5	10	**22**	10	14	10	16	22	30	18	32	32	39	25	17	10	14	3	-
4	1	1	2	0	1	5	**28**	17	22	15	14	22	37	16	35	42	51	37	22	20	18	5	5	-
0	0	1	1	1	2	8	**59**	24	20	24	18	18	37	24	23	42	41	33	14	20	14	10	3	-
6	0	2	1	1	2	10	**41**	23	15	15	23	19	33	17	43	34	38	31	16	11	13	8	3	-

AM Peak 0715 - 0815 (150), AM PHF=0.64

MetroCount Traffic Executive
Event Counts

EventCount-927 -- English (ENU)

Datasets:

Site:	**[8047.03] BLOSSOM VALLEY RD (RED PONY LN-FLINN SPRINGS RD) WESTBOUND**
Input A:	4 - West bound. - Added to totals. (1)
Input B:	0 - Unused or unknown. - Excluded from totals. (0)
Survey Duration:	19:02 Monday, June 09, 2008 => 11:09 Wednesday, June 11, 2008
File:	C:\Users\Gus\True Count\Projects\8047 DA BLOSSOM\8047.03.W11Jun2008.EC0 (Regular)
Identifier:	S1079HQH MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Event Count
Data type:	Axle sensors - Separate (Count)

Profile:

Filter time:	**0:00 Tuesday, June 10, 2008 => 0:00 Wednesday, June 11, 2008**
Name:	TC Default Profile
Scheme:	Count events divided by two.
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Events = 1677 / 2481 (67.59%)

*** Tuesday, June 10, 2008=1677, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
4	**4**	**3**	**3**	**16**	**55**	**86**	**186**	**162**	**108**	**114**	**73**	**90**	**85**	**136**	**105**	**104**	**102**	**80**	**59**	**46**	**29**	**19**	**8**	-
2	3	0	1	2	11	15	28	**46**	26	34	17	24	20	64	18	22	17	18	11	14	12	3	5	-
1	0	0	0	5	14	17	**37**	31	36	29	21	26	24	37	19	29	32	24	25	12	6	5	1	-
1	0	1	2	6	15	30	**56**	42	19	28	16	23	13	18	34	30	30	22	11	13	5	6	2	-
0	1	2	0	3	15	24	**65**	43	27	23	19	17	28	17	34	23	23	16	12	7	6	5	0	-

AM Peak 0715 - 0815 (204), AM PHF=0.78

MetroCount Traffic Executive
Event Counts

EventCount-960 -- English (ENU)

Datasets:

Site:	**[8047.04] FLINN SPRING RD (OLD HWY 80-BLOSSOM VALLEY RD) NORTHBOUND**
Input A:	1 - North bound. - Added to totals. (1)
Input B:	0 - Unused or unknown. - Excluded from totals. (0)
Survey Duration:	15:24 Wednesday, June 11, 2008 => 10:54 Friday, June 13, 2008
File:	C:\Users\Gus\True Count\Projects\8047 DA BLOSSOM\recount\8047B.04.N13Jun2008.EC0 (Base)
Identifier:	V289W1MS MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Event Count
Data type:	Axle sensors - Separate (Count)

Profile:

Filter time:	**0:00 Thursday, June 12, 2008 => 0:00 Friday, June 13, 2008**
Name:	TC Default Profile
Scheme:	Count events divided by two.
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Events = 478 / 854 (55.97%)

*** Thursday, June 12, 2008=478, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
0	**2**	**4**	**2**	**3**	**12**	**11**	**28**	**28**	**19**	**16**	**34**	**33**	**50**	**33**	**29**	**42**	**32**	**37**	**21**	**20**	**14**	**6**	**2**	
0	1	2	0	0	1	3	4	7	7	2	6	**11**	7	6	4	13	7	6	3	5	5	2	1	-
0	0	2	0	1	3	2	6	6	5	10	**10**	8	13	11	3	10	10	8	5	8	5	2	0	-
0	0	0	0	2	5	2	7	7	4	2	**9**	7	19	8	9	8	9	17	9	4	3	1	1	-
0	1	0	2	0	3	4	11	8	3	2	**9**	7	11	8	13	11	6	6	4	3	1	1	0	-

AM Peak 1115 - 1215 (39), AM PHF=0.89

MetroCount Traffic Executive
Event Counts

EventCount-959 -- English (ENU)

Datasets:

Site:	**[8047.04] FLINN SPRING RD (OLD HWY 80-BLOSSOM VALLEY RD) SOUTHBOUND**
Input A:	3 - South bound. - Added to totals. (1)
Input B:	0 - Unused or unknown. - Excluded from totals. (0)
Survey Duration:	15:23 Wednesday, June 11, 2008 => 10:56 Friday, June 13, 2008
File:	C:\Users\Gus\True Count\Projects\8047 DA BLOSSOM\recount\8047B.04.S13Jun2008.EC0 (Regular)
Identifier:	S1339PHE MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Event Count
Data type:	Axle sensors - Separate (Count)

Profile:

Filter time:	**0:00 Thursday, June 12, 2008 => 0:00 Friday, June 13, 2008**
Name:	TC Default Profile
Scheme:	Count events divided by two.
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Events = 396 / 699 (56.65%)

*** Thursday, June 12, 2008=395, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
1	**1**	**1**	**1**	**2**	**3**	**13**	**22**	**26**	**19**	**24**	**13**	**25**	**32**	**27**	**25**	**27**	**37**	**27**	**26**	**25**	**8**	**5**	**5**	
0	0	0	0	0	0	3	3	7	3	**9**	3	8	6	9	1	7	7	5	8	9	4	1	2	-
0	0	1	0	0	0	3	5	4	2	**8**	2	7	15	6	7	6	12	7	14	8	3	2	2	-
1	1	0	1	1	1	3	8	10	**6**	5	6	2	5	4	5	4	8	8	2	8	0	0	1	-
0	0	0	0	1	2	4	6	5	**8**	2	2	8	6	8	12	10	10	7	2	0	1	2	0	-

AM Peak 0930 - 1030 (31), AM PHF=0.86

MetroCount Traffic Executive
Event Counts

EventCount-932 -- English (ENU)

Datasets:

Site:	**[8047.06] OAK CREEK RD (NORTH OF OAKMONT TERRACE) NORTHBOUND**
Input A:	1 - North bound. - Added to totals. (1)
Input B:	0 - Unused or unknown. - Excluded from totals. (0)
Survey Duration:	20:40 Monday, June 09, 2008 => 11:17 Wednesday, June 11, 2008
File:	C:\Users\Gus\True Count\Projects\8047 DA BLOSSOM\8047.06.N11Jun2008.EC0 (Demo L)
Identifier:	W558TFAZ MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Event Count
Data type:	Axle sensors - Separate (Count)

Profile:

Filter time:	**0:00 Tuesday, June 10, 2008 => 0:00 Wednesday, June 11, 2008**
Name:	TC Default Profile
Scheme:	Count events divided by two.
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Events = 538 / 725 (74.21%)

*** Tuesday, June 10, 2008=538, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
0	2	0	0	0	4	13	94	49	24	22	19	31	27	90	43	26	29	17	12	24	6	4	2	
0	1	0	0	0	1	1	4	**29**	8	9	2	8	10	59	7	5	6	7	3	4	2	0	0	-
0	0	0	0	0	3	2	4	**7**	8	5	9	11	4	19	11	9	7	5	1	7	1	3	1	-
0	0	0	0	0	0	2	**26**	9	4	3	6	8	2	9	15	7	7	0	5	10	2	0	0	-
0	1	0	0	0	0	8	**60**	4	4	5	2	4	11	3	10	5	9	5	3	3	1	1	1	-

AM Peak 0730 - 0830 (122), AM PHF=0.51

MetroCount Traffic Executive
Event Counts

EventCount-933 -- English (ENU)

Datasets:

Site:	**[8047.06] OAK CREEK RD (NORTH OF OAKMONT TERRACE) SOUTHBOUND**
Input A:	3 - South bound. - Added to totals. (1)
Input B:	0 - Unused or unknown. - Excluded from totals. (0)
Survey Duration:	20:44 Monday, June 09, 2008 => 11:15 Wednesday, June 11, 2008
File:	C:\Users\Gus\True Count\Projects\8047 DA BLOSSOM\8047.06.S11Jun2008.EC0 (Demo L)
Identifier:	V239JE7M MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Event Count
Data type:	Axle sensors - Separate (Count)

Profile:

Filter time:	**0:00 Tuesday, June 10, 2008 => 0:00 Wednesday, June 11, 2008**
Name:	TC Default Profile
Scheme:	Count events divided by two.
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Events = 541 / 827 (65.42%)

* **Tuesday, June 10, 2008=541, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
2	0	0	1	0	0	6	147	41	19	17	29	18	74	54	22	23	21	38	10	11	5	2	1	-
1	0	0	0	0	0	1	4	**20**	7	4	9	4	3	45	7	5	3	12	3	3	3	0	0	-
0	0	0	1	0	0	3	**13**	7	2	3	6	3	25	3	7	9	8	11	3	6	0	0	1	-
0	0	0	0	0	0	0	**65**	6	6	6	12	4	23	5	4	5	6	8	3	1	2	0	0	-
1	0	0	0	0	0	2	**65**	8	4	4	2	7	23	1	4	4	4	7	1	1	0	2	0	-

AM Peak 0715 - 0815 (163), AM PHF=0.63

MetroCount Traffic Executive
Event Counts

EventCount-930 -- English (ENU)

Datasets:

Site:	**[8047.05] OAK CREEK RD (OLD HWY 80-OAKMONT TERRACE) NORTHBOUND**
Input A:	1 - North bound. - Added to totals. (1)
Input B:	0 - Unused or unknown. - Excluded from totals. (0)
Survey Duration:	19:43 Monday, June 09, 2008 => 11:12 Wednesday, June 11, 2008
File:	C:\Users\Gus\True Count\Projects\8047 DA BLOSSOM\8047.05.N11Jun2008.EC0 (Base)
Identifier:	V280CRV3 MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Event Count
Data type:	Axle sensors - Separate (Count)

Profile:

Filter time:	**0:00 Tuesday, June 10, 2008 => 0:00 Wednesday, June 11, 2008**
Name:	TC Default Profile
Scheme:	Count events divided by two.
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Events = 1114 / 1628 (68.43%)

*** Tuesday, June 10, 2008=1113, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
2	**1**	**2**	**2**	**2**	**3**	**22**	**191**	**49**	**35**	**48**	**54**	**67**	**114**	**79**	**89**	**72**	**82**	**59**	**42**	**38**	**29**	**19**	**12**	
1	0	1	1	0	0	2	**15**	13	13	14	6	20	12	37	16	25	15	19	9	12	15	4	2	-
1	1	0	1	0	0	3	**20**	16	4	11	14	17	29	16	23	21	23	15	11	12	7	9	4	-
0	0	0	0	1	1	2	**88**	13	8	11	12	16	40	13	26	12	20	10	13	4	3	3	2	-
0	0	1	0	1	2	15	**68**	7	10	12	22	14	33	13	24	14	24	15	9	10	4	3	4	-

AM Peak 0700 - 0800 (191), AM PHF=0.54

MetroCount Traffic Executive
Event Counts

EventCount-931 -- English (ENU)

Datasets:

Site:	**[8047.05] OAK CREEK RD (OLD HWY 80-OAKMONT TERRACE) SOUTHBOUND**
Input A:	3 - South bound. - Added to totals. (1)
Input B:	0 - Unused or unknown. - Excluded from totals. (0)
Survey Duration:	19:45 Monday, June 09, 2008 => 11:12 Wednesday, June 11, 2008
File:	C:\Users\Gus\True Count\Projects\8047 DA BLOSSOM\8047.05.S11Jun2008.EC0 (Regular)
Identifier:	R513P5FW MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Event Count
Data type:	Axle sensors - Separate (Count)

Profile:

Filter time:	**0:00 Tuesday, June 10, 2008 => 0:00 Wednesday, June 11, 2008**
Name:	TC Default Profile
Scheme:	Count events divided by two.
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Events = 1056 / 1486 (71.06%)

*** Tuesday, June 10, 2008=1056, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
2	**0**	**0**	**2**	**2**	**20**	**56**	**148**	**104**	**50**	**45**	**54**	**61**	**56**	**148**	**65**	**58**	**50**	**44**	**33**	**24**	**15**	**9**	**10**	-
1	0	0	0	0	3	9	11	**38**	8	10	12	11	10	88	21	20	14	10	8	6	5	1	4	-
1	0	0	0	1	4	11	12	**24**	15	10	6	19	7	34	14	12	13	15	9	10	5	4	4	-
0	0	0	2	1	9	21	**49**	24	13	14	21	18	13	16	10	10	14	11	10	7	1	2	2	-
0	0	0	0	0	4	15	**76**	18	14	11	15	13	26	10	20	16	9	8	6	1	4	2	0	-

AM Peak 0730 - 0830 (187), AM PHF=0.62

MetroCount Traffic Executive
Event Counts

EventCount-934 -- English (ENU)

Datasets:

Site:	**[8047.07] OAKMONT TERRACE (OAK CREEK RD-SCHOOL EAST ENTRANCE) NORTHBOUND**
Input A:	1 - North bound. - Added to totals. (1)
Input B:	0 - Unused or unknown. - Excluded from totals. (0)
Survey Duration:	20:16 Monday, June 09, 2008 => 11:14 Wednesday, June 11, 2008
File:	C:\Users\Gus\True Count\Projects\8047 DA BLOSSOM\8047.07.N11Jun2008.EC0 (Regular)
Identifier:	R5098KCT MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Event Count
Data type:	Axle sensors - Separate (Count)

Profile:

Filter time:	**0:00 Tuesday, June 10, 2008 => 0:00 Wednesday, June 11, 2008**
Name:	TC Default Profile
Scheme:	Count events divided by two.
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Events = 815 / 1235 (65.99%)

*** Tuesday, June 10, 2008=815, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
2	**0**	**0**	**0**	**0**	**0**	**14**	**205**	**89**	**31**	**20**	**32**	**39**	**51**	**177**	**45**	**28**	**30**	**7**	**5**	**34**	**0**	**5**	**1**	-
1	0	0	0	0	0	2	4	**54**	9	8	7	10	9	133	12	5	5	2	3	5	0	1	1	-
1	0	0	0	0	0	4	11	**18**	15	5	5	12	7	30	11	7	6	2	0	12	0	3	0	-
0	0	0	0	0	0	5	**70**	15	3	1	11	9	12	9	14	7	11	2	0	15	0	0	0	-
0	0	0	0	0	0	3	**120**	2	4	6	9	8	23	5	8	9	8	1	2	2	0	1	0	-

AM Peak 0730 - 0830 (262), AM PHF=0.55

MetroCount Traffic Executive
Event Counts

EventCount-935 -- English (ENU)

Datasets:

Site:	**[8047.07] OAKMONT TERRACE (OAK CREEK RD-SCHOOL EAST ENTRANCE) SOUTHBOUND**
Input A:	1 - South bound. - Added to totals. (1)
Input B:	3 - North bound. - Excluded from totals. (0)
Survey Duration:	20:19 Monday, June 09, 2008 => 11:14 Wednesday, June 11, 2008
File:	C:\Users\Gus\True Count\Projects\8047 DA BLOSSOM\8047.07.S11Jun2008.EC0 (Regular)
Identifier:	R8319BB9 MC56-L5 [MC55] (c)Microcom 19Oct04
Algorithm:	Event Count
Data type:	Axle sensors - Separate (Count)

Profile:

Filter time:	**0:00 Tuesday, June 10, 2008 => 0:00 Wednesday, June 11, 2008**
Name:	TC Default Profile
Scheme:	Count events divided by two.
Units:	Non metric (ft, mi, ft/s, mph, lb, ton)
In profile:	Events = 1200 / 2465 (48.68%)

*** Tuesday, June 10, 2008=1200, 15 minute drops**

0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	
1	**0**	**0**	**0**	**0**	**4**	**31**	**490**	**81**	**30**	**47**	**71**	**25**	**167**	**98**	**36**	**26**	**32**	**47**	**4**	**6**	**0**	**4**	**0**	
1	0	0	0	0	0	1	20	**35**	10	13	14	8	5	77	9	5	6	12	2	1	0	1	0	-
0	0	0	0	0	0	8	**34**	21	6	11	15	1	54	9	17	7	8	23	1	3	0	1	0	-
0	0	0	0	0	1	3	**204**	14	7	11	17	4	61	3	6	4	11	7	1	2	0	0	0	-
0	0	0	0	0	3	19	**232**	11	7	12	25	12	47	9	4	10	7	5	0	0	0	2	0	-

AM Peak 0715 - 0815 (505), AM PHF=0.54

AM/PM Peak Hour Turn Counts (Used in Analysis)

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Lake Jennings Park Rd DATE: 4/6/2006 LOCATION: City of Lakeside

E-W STREET: Blossom Valley Rd DAY: THURSDAY PROJECT# 06-4083-001

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	0	1	1	1	0.5	0.5	1	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	28	102	14	7	108	19	6	2	39	48	5	9	387
7:15 AM	31	93	18	2	89	17	15	3	48	47	11	8	382
7:30 AM	27	111	15	10	123	9	10	9	49	56	6	10	435
7:45 AM	30	95	21	9	109	12	15	4	52	40	7	10	404
8:00 AM	27	90	16	7	108	15	15	3	35	43	7	7	373
8:15 AM	32	67	27	6	85	8	7	3	46	40	5	10	336
8:30 AM	34	85	18	2	126	17	13	4	40	40	8	5	392
8:45 AM	31	72	21	7	99	26	16	10	37	44	9	4	376
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 240	NT 715	NR 150	SL 50	ST 847	SR 123	EL 97	ET 38	ER 346	WL 358	WT 58	WR 63	TOTAL 3085

AM Peak Hr Begins at: 700 AM

PEAK VOLUMES =	116	401	68	28	429	57	46	18	188	191	29	37	1608
PEAK HR. FACTOR:		0.956			0.905			0.887			0.892		0.924

CONTROL: Signalized

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Lake Jennings Park Rd DATE: 4/6/2006 LOCATION: City of Lakeside

E-W STREET: Blossom Valley Rd DAY: THURSDAY PROJECT# 06-4083-001

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	0	1	1	1	0.5	0.5	1	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	45	123	31	7	117	20	17	8	55	23	4	9	459
4:15 PM	43	112	23	14	146	9	18	10	55	24	10	10	474
4:30 PM	37	119	39	12	124	15	18	8	40	28	4	5	449
4:45 PM	40	118	48	9	144	15	20	11	68	23	5	5	506
5:00 PM	43	124	41	20	132	25	24	7	45	35	9	9	514
5:15 PM	38	130	38	13	141	18	20	8	44	31	5	5	491
5:30 PM	36	128	40	3	143	27	18	8	49	31	7	8	498
5:45 PM	29	108	31	4	119	19	18	9	35	21	6	7	406
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 311	NT 962	NR 291	SL 82	ST 1066	SR 148	EL 153	ET 69	ER 391	WL 216	WT 50	WR 58	TOTAL 3797

PM Peak Hr Begins at: 445 PM

PEAK VOLUMES =	157	500	167	45	560	85	82	34	206	120	26	27	2009
PEAK HR. FACTOR:		0.990			0.975			0.813			0.816		0.977

CONTROL: Signalized

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Lake Jennings Park Rd DATE: 4/6/2006 LOCATION: City of Lakeside

E-W STREET: I-8 WB Off-Ramp DAY: THURSDAY PROJECT# 06-4083-002

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	1	1	0	0	0	0	1	0	1	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM		72			197					2		69	340
7:15 AM		75			180					3		65	323
7:30 AM		86			221					6		70	383
7:45 AM		93			197					6		54	350
8:00 AM		82			185					1		54	322
8:15 AM		74			184					4		50	312
8:30 AM		75			195					4		63	337
8:45 AM		78			181					2		39	300
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 0	NT 635	NR 0	SL 0	ST 1540	SR 0	EL 0	ET 0	ER 0	WL 28	WT 0	WR 464	TOTAL 2667

AM Peak Hr Begins at: 700 AM

PEAK VOLUMES =	0	326	0	0	795	0	0	0	0	17	0	258	1396
PEAK HR. FACTOR:		0.876			0.899			0.000			0.905		0.911

CONTROL: 1-Way Stop W

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Lake Jennings Park Rd DATE: 4/6/2006 LOCATION: City of Lakeside

E-W STREET: I-8 WB Off-Ramp DAY: THURSDAY PROJECT# 06-4083-002

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	1	1	0	0	0	0	1	0	1	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM		148			234					6		59	447
4:15 PM		125			234					4		46	409
4:30 PM		142			188					4		44	378
4:45 PM		155			226					4		51	436
5:00 PM		159			222					6		46	433
5:15 PM		142			210					5		64	421
5:30 PM		166			227					4		52	449
5:45 PM		122			185					6		56	369
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 0	NT 1159	NR 0	SL 0	ST 1726	SR 0	EL 0	ET 0	ER 0	WL 39	WT 0	WR 418	TOTAL 3342

PM Peak Hr Begins at: 445 PM

PEAK VOLUMES =	0	622	0	0	885	0	0	0	0	19	0	213	1739
PEAK HR. FACTOR:		0.937			0.975			0.000			0.841		0.968

CONTROL: 1-Way Stop W

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Lake Jennings Park Rd DATE: 4/6/2006 LOCATION: City of Lakeside

E-W STREET: I-8 WB On-Ramp DAY: THURSDAY PROJECT# 06-4083-003

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	1	0	1	2	0	0	0	0	0	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM		73	89	0	56	151							369
7:15 AM		75	78	1	65	125							344
7:30 AM		83	96	2	77	154							412
7:45 AM		95	69	0	81	126							371
8:00 AM		84	58	1	73	112							328
8:15 AM		71	83	0	86	108							348
8:30 AM		78	104	0	81	114							377
8:45 AM		77	73	0	68	113							331
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 0	NT 636	NR 650	SL 4	ST 587	SR 1003	EL 0	ET 0	ER 0	WL 0	WT 0	WR 0	TOTAL 2880

AM Peak Hr Begins at: 700 AM

PEAK VOLUMES =	0	326	332	3	279	556	0	0	0	0	0	0	1496
PEAK HR. FACTOR:		0.919			0.899			0.000			0.000		0.908

CONTROL: No Control

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Lake Jennings Park Rd DATE: 4/6/2006 LOCATION: City of Lakeside

E-W STREET: I-8 WB On-Ramp DAY: THURSDAY PROJECT# 06-4083-003

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	1	0	1	2	0	0	0	0	0	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM		135	93	0	159	55							442
4:15 PM		125	90	0	188	66							469
4:30 PM		121	86	0	161	47							415
4:45 PM		137	74	0	195	51							457
5:00 PM		138	71	2	181	61							453
5:15 PM		124	78	0	172	58							432
5:30 PM		140	66	0	184	63							453
5:45 PM		121	61	0	163	42							387
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 0	NT 1041	NR 619	SL 2	ST 1403	SR 443	EL 0	ET 0	ER 0	WL 0	WT 0	WR 0	TOTAL 3508

PM Peak Hr Begins at: 445 PM

PEAK VOLUMES =	0	539	289	2	732	233	0	0	0	0	0	0	1795
PEAK HR. FACTOR:		0.981			0.979			0.000			0.000		0.982

CONTROL: No Control

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Lake Jennings Park Rd DATE: 4/6/2006 LOCATION: City of Lakeside

E-W STREET: I-8 EB On-Ramp DAY: THURSDAY PROJECT# 06-4083-005

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	1	0	1	1	0	0	0	0	0	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM		166	6		21	27							220
7:15 AM		164	6		31	41							242
7:30 AM		154	5		33	37							229
7:45 AM		168	8		35	38							249
8:00 AM		171	5		40	40							256
8:15 AM		160	11		42	40							253
8:30 AM		136	13		40	51							240
8:45 AM		163	1		32	49							245
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	0	1282	55	0	274	323	0	0	0	0	0	0	1934

AM Peak Hr Begins at: 745 AM

PEAK VOLUMES =	0	635	37	0	157	169	0	0	0	0	0	0	998
PEAK HR. FACTOR:		0.955			0.896			0.000			0.000		0.975

CONTROL: No Control

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Lake Jennings Park Rd DATE: 4/6/2006 LOCATION: City of Lakeside

E-W STREET: I-8 EB On-Ramp DAY: THURSDAY PROJECT# 06-4083-005

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	1	0	1	1	0	0	0	0	0	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM		215	9		70	80							374
4:15 PM		195	18		54	85							352
4:30 PM		195	9		71	106							381
4:45 PM		202	18		84	88							392
5:00 PM		223	13		78	93							407
5:15 PM		205	12		87	116							420
5:30 PM		216	7		97	104							424
5:45 PM		208	10		90	96							404
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 0	NT 1659	NR 96	SL 0	ST 631	SR 768	EL 0	ET 0	ER 0	WL 0	WT 0	WR 0	TOTAL 3154

PM Peak Hr Begins at: 500 PM

PEAK VOLUMES =	0	852	42	0	352	409	0	0	0	0	0	0	1655
PEAK HR. FACTOR:		0.947			0.937			0.000			0.000		0.976

CONTROL: No Control

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Lake Jennings Park Rd DATE: 4/6/2006 LOCATION: City of Lakeside

E-W STREET: I-8 EB Off-Ramp DAY: THURSDAY PROJECT# 06-4083-004

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	0	1	1	1	0.5	0.5	1	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM		12	2	21	0		39	100	3	1		129	307
7:15 AM		10	2	31	0		29	108	3	3		123	309
7:30 AM		8	3	29	1		34	95	2	3		128	303
7:45 AM		10	5	32	1		51	114	0	2		110	325
8:00 AM		6	4	36	3		54	107	3	1		107	321
8:15 AM		1	3	38	0		42	101	2	1		119	307
8:30 AM		8	2	39	4		50	90	3	2		107	305
8:45 AM		8	4	38	2		50	97	3	2		103	307
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	0	63	25	264	11	0	349	812	19	15	0	926	2484

AM Peak Hr Begins at: 745 AM

PEAK VOLUMES =	0	25	14	145	8	0	197	412	8	6	0	443	1258
PEAK HR. FACTOR:		0.650			0.890			0.935			0.935		0.968

CONTROL: Signalized

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Lake Jennings Park Rd DATE: 4/6/2006 LOCATION: City of Lakeside

E-W STREET: I-8 EB Off-Ramp DAY: THURSDAY PROJECT# 06-4083-004

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	0	1	1	1	0.5	0.5	1	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	0	12	4	55	1		65	88	7	3		134	369
4:15 PM	0	9	5	63	3		80	101	5	5		133	404
4:30 PM	0	7	3	77	3		69	87	4	9		124	383
4:45 PM	0	10	5	71	5		74	98	7	4		127	401
5:00 PM	0	18	6	81	1		95	103	6	4		129	443
5:15 PM	0	12	1	89	9		78	92	9	6		126	422
5:30 PM	1	11	3	88	1		86	98	6	5		121	420
5:45 PM	0	12	6	76	6		89	97	4	3		132	425
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 1	NT 91	NR 33	SL 600	ST 29	SR 0	EL 636	ET 764	ER 48	WL 39	WT 0	WR 1026	TOTAL 3267

PM Peak Hr Begins at: 500 PM

PEAK VOLUMES =	1	53	16	334	17	0	348	390	25	18	0	508	1710
PEAK HR. FACTOR:		0.729			0.895			0.935			0.974		0.965

CONTROL: Signalized

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Flinn Springs Rd. DATE: 10/11/2005 LOCATION: City of El Cajon

E-W STREET: Blossom Valley Rd. DAY: TUESDAY PROJECT# 05-4255-001

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	0	0	0	1	0	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	18		1					17	22	2	24		84
7:15 AM	36		6					12	64	16	26		160
7:30 AM	51		25					8	37	14	16		151
7:45 AM	23		20					13	26	18	21		121
8:00 AM	17		15					10	18	13	18		91
8:15 AM	26		22					15	23	10	16		112
8:30 AM	17		12					9	15	12	19		84
8:45 AM	14		8					13	22	16	15		88
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 202	NT 0	NR 109	SL 0	ST 0	SR 0	EL 0	ET 97	ER 227	WL 101	WT 155	WR 0	TOTAL 891

AM Peak Hr Begins at: 715 AM

PEAK VOLUMES =	127	0	66	0	0	0	0	43	145	61	81	0	523
PEAK HR. FACTOR:		0.635			0.000			0.618			0.845		0.817

CONTROL: 1WayStop(NB)

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Flinn Springs Rd. DATE: 10/11/2005 LOCATION: City of El Cajon

E-W STREET: Blossom Valley Rd. DAY: TUESDAY PROJECT# 05-4255-001

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	0	0	0	1	0	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	11		5					19	42	7	9		93
4:15 PM	9		2					29	54	6	8		108
4:30 PM	21		9					33	29	4	17		113
4:45 PM	26		11					46	37	6	15		141
5:00 PM	18		14					31	30	5	12		110
5:15 PM	22		13					25	28	6	17		111
5:30 PM	14		10					21	33	9	10		97
5:45 PM	11		15					16	20	6	15		83
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 132	NT 0	NR 79	SL 0	ST 0	SR 0	EL 0	ET 220	ER 273	WL 49	WT 103	WR 0	TOTAL 856

PM Peak Hr Begins at: 430 PM

PEAK VOLUMES =	87	0	47	0	0	0	0	135	124	21	61	0	475
PEAK HR. FACTOR:		0.905			0.000			0.780			0.891		0.842

CONTROL: 1WayStop(NB)

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Flinn Springs Rd. DATE: 10/12/2005 LOCATION: City of El Cajon

E-W STREET: Old Hwy 80 DAY: WEDNESDAY PROJECT# 05-4255-002

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	0	0	0	1	0	0	1	0	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM				7		4	3	27			49	3	93
7:15 AM				9		7	5	44			59	7	131
7:30 AM				6		4	6	37			79	5	137
7:45 AM				3		1	5	51			94	3	157
8:00 AM				6		2	3	45			85	1	142
8:15 AM				4		3	3	32			75	4	121
8:30 AM				7		6	4	44			69	5	135
8:45 AM				4		0	2	37			46	3	92
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 0	NT 0	NR 0	SL 46	ST 0	SR 27	EL 31	ET 317	ER 0	WL 0	WT 556	WR 31	TOTAL 1008

AM Peak Hr Begins at: 715 AM

PEAK VOLUMES =	0	0	0	24	0	14	19	177	0	0	317	16	567
PEAK HR. FACTOR:		0.000			0.594			0.875			0.858		0.903

CONTROL: 1WayStop(SB)

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Flinn Springs Rd. DATE: 10/12/2005 LOCATION: City of El Cajon

E-W STREET: Old Hwy 80 DAY: WEDNESDAY PROJECT# 05-4255-002

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	0	0	0	1	0	0	1	0	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM				10		12	9	77			44	4	156
4:15 PM				19		7	9	81			55	9	180
4:30 PM				13		4	5	93			60	7	182
4:45 PM				4		1	7	90			42	10	154
5:00 PM				7		6	5	111			69	12	210
5:15 PM				6		8	11	87			59	9	180
5:30 PM				10		7	13	84			56	7	177
5:45 PM				5		8	7	62			42	5	129
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 0	NT 0	NR 0	SL 74	ST 0	SR 53	EL 66	ET 685	ER 0	WL 0	WT 427	WR 63	TOTAL 1368

PM Peak Hr Begins at: 430 PM

PEAK VOLUMES =	0	0	0	30	0	19	28	381	0	0	230	38	726
PEAK HR. FACTOR:		0.000			0.721			0.881			0.827		0.864

CONTROL: 1WayStop(SB)

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Oak Creek Rd. DATE: 10/12/2005 LOCATION: City of El Cajon

E-W STREET: Old Hwy 80 DAY: WEDNESDAY PROJECT# 05-4255-003

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	3	1		4	0	15	16	27	3	0	28	9	106
7:15 AM	3	0		2	0	22	18	29	1	0	54	13	142
7:30 AM	1	0		14	1	40	36	24	2	0	52	39	209
7:45 AM	1	3		22	1	43	30	28	2	0	33	21	184
8:00 AM	0	0		10	0	26	14	25	2	1	50	4	132
8:15 AM	0	0		3	0	11	12	27	0	0	62	5	120
8:30 AM	3	0		7	0	15	16	21	0	0	51	11	124
8:45 AM	1	0		9	0	10	13	16	0	0	34	9	92
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	12	4	0	71	2	182	155	197	10	1	364	111	1109

AM Peak Hr Begins at: 715 AM

PEAK VOLUMES =	5	3	0	48	2	131	98	106	7	1	189	77	667
PEAK HR. FACTOR:		0.500			0.686			0.851			0.734		0.798

CONTROL: 1WayStop

Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Oak Creek Rd. DATE: 10/12/2005 LOCATION: City of El Cajon

E-W STREET: Old Hwy 80 DAY: WEDNESDAY PROJECT# 05-4255-003

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	2	1	0	5		19	15	90	1		55	5	193
4:15 PM	2	0	0	11		14	21	73	4		51	6	182
4:30 PM	2	0	1	1		19	17	71	0		43	6	160
4:45 PM	1	0	0	6		9	19	59	1		37	2	134
5:00 PM	1	0	0	5		15	22	66	1		49	12	171
5:15 PM	3	0	0	5		20	20	65	4		44	6	167
5:30 PM	1	0	1	6		10	18	72	1		38	3	150
5:45 PM	0	0	0	3		7	20	61	1		37	3	132
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 12	NT 1	NR 2	SL 42	ST 0	SR 113	EL 152	ET 557	ER 13	WL 0	WT 354	WR 43	TOTAL 1289

PM Peak Hr Begins at: 400 PM

PEAK VOLUMES =	7	1	1	23	0	61	72	293	6	0	186	19	669
PEAK HR. FACTOR:		0.750			0.840			0.875			0.854		0.867

CONTROL: 1WayStop

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Oak Creek Rd. DATE: 3/13/2007 LOCATION: City of El Cajon

E-W STREET: Oakmont Terrace DAY: TUESDAY PROJECT# 07-4043-001

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	0	0	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	7	2			3	6	0		1				19
7:15 AM	17	3			2	13	4		8				47
7:30 AM	64	3			3	50	33		37				190
7:45 AM	67	7			2	61	57		57				251
8:00 AM	8	1			2	5	13		21				50
8:15 AM	10	0			5	13	4		4				36
8:30 AM	3	5			2	4	10		15				39
8:45 AM	2	5			2	2	4		1				16
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 178	NT 26	NR 0	SL 0	ST 21	SR 154	EL 125	ET 0	ER 144	WL 0	WT 0	WR 0	TOTAL 648

AM Peak Hr Begins at: 715 AM

PEAK VOLUMES =	156	14	0	0	9	129	107	0	123	0	0	0	538
PEAK HR. FACTOR:		0.574			0.548			0.504			0.000		0.536

CONTROL: 1 Way Stop (EB)

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Oak Creek Rd. DATE: 3/13/2007 LOCATION: City of El Cajon

E-W STREET: Oakmont Terrace DAY: TUESDAY PROJECT# 07-4043-001

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	0	0	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	7	4			3	2	6		11				33
4:15 PM	1	6			5	0	1		0				13
4:30 PM	1	7			7	1	1		3				20
4:45 PM	1	5			5	4	5		3				23
5:00 PM	2	4			6	3	4		4				23
5:15 PM	5	2			5	0	4		3				19
5:30 PM	3	5			3	1	2		2				16
5:45 PM	1	3			2	0	1		1				8
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	21	36	0	0	36	11	24	0	27	0	0	0	155

PM Peak Hr Begins at: 400 PM

PEAK VOLUMES =	10	22	0	0	20	7	13	0	17	0	0	0	89
PEAK HR. FACTOR:		0.727			0.750			0.441			0.000		0.674

CONTROL: 1 Way Stop (EB)

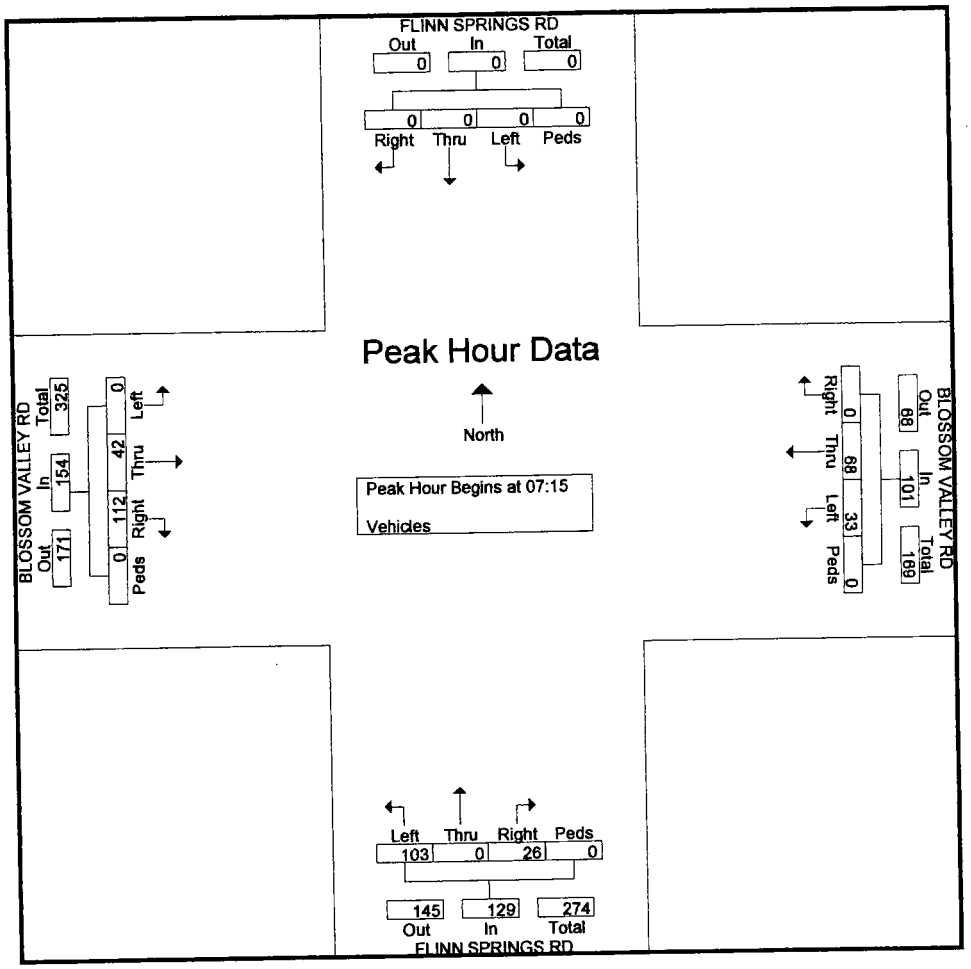
AM/PM Peak Hour Turn Counts (Counted June 2008)

True Count

3401 First Ave #123
San Diego, CA 92103

File Name : 8047.01.FLINN SPRINGS RD.BLOSSOM VALLEY RD
Site Code : 00000000
Start Date : 6/11/2008
Page No : 2

	FLINN SPRINGS RD Southbound					BLOSSOM VALLEY RD Westbound					FLINN SPRINGS RD Northbound					BLOSSOM VALLEY RD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 11:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15																					
07:15	0	0	0	0	0	4	15	0	0	19	16	0	2	0	18	0	8	10	0	18	55
07:30	0	0	0	0	0	**18**	**23**	0	0	**41**	21	0	6	0	27	0	9	**48**	0	**57**	125
07:45	0	0	0	0	0	**7**	15	0	0	22	**41**	0	**14**	0	**55**	0	**14**	35	0	49	**126**
08:00	0	0	0	0	0	4	15	0	0	19	25	0	4	0	29	0	11	19	0	30	78
Total Volume	0	0	0	0	0	33	68	0	0	101	103	0	26	0	129	0	42	112	0	154	384
% App. Total	0	0	0	0		32.7	67.3	0	0		79.8	0	20.2	0		0	27.3	72.7	0		
PHF	.000	.000	.000	.000	.000	.458	.739	.000	.000	.616	.628	.000	.464	.000	.586	.000	.750	.583	.000	.675	.762

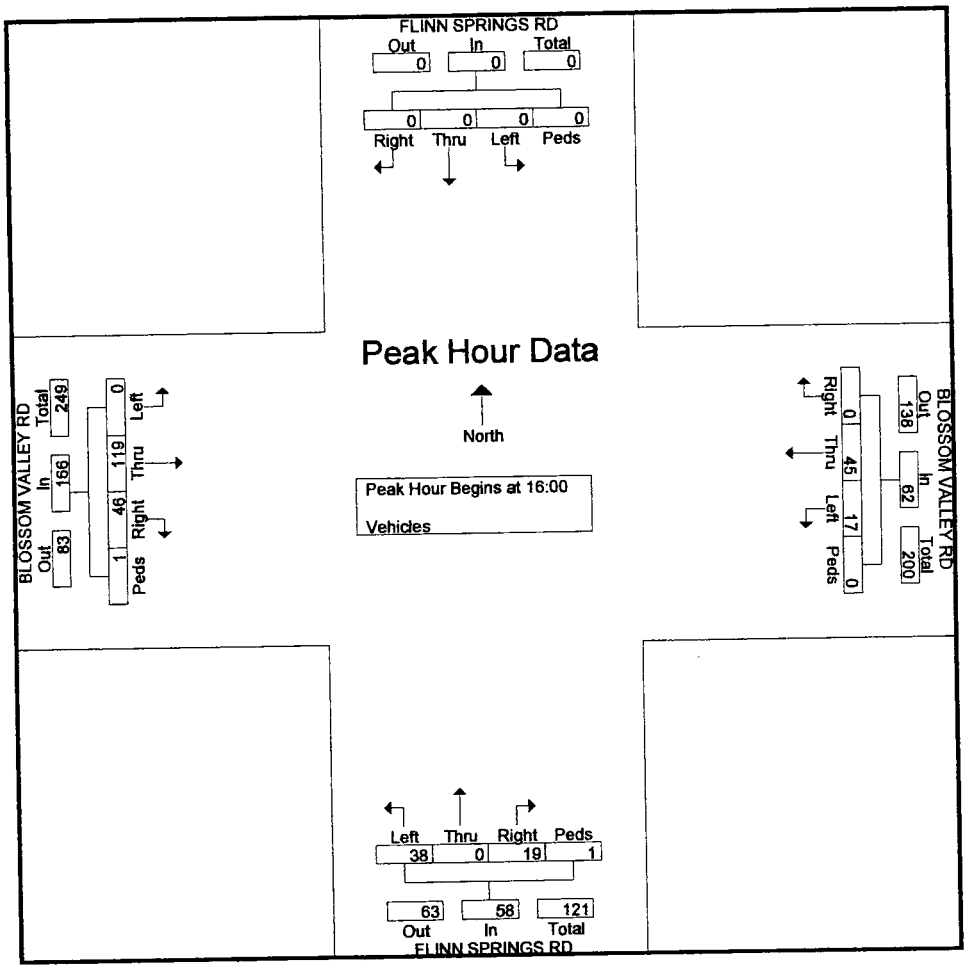


True Count

3401 First Ave #123
San Diego, CA 92103

File Name : 8047.01.FLINN SPRINGS RD.BLOSSOM VALLEY RD
Site Code : 00000000
Start Date : 6/11/2008
Page No : 3

	FLINN SPRINGS RD Southbound					BLOSSOM VALLEY RD Westbound					FLINN SPRINGS RD Northbound					BLOSSOM VALLEY RD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:00																					
16:00	0	0	0	0	0	3	**14**	0	0	17	7	0	5	**1**	13	0	22	**17**	0	39	69
16:15	0	0	0	0	0	4	7	0	0	11	**13**	0	2	0	15	0	**37**	13	0	**50**	76
16:30	0	0	0	0	0	**5**	14	0	0	**19**	9	0	5	0	14	0	35	12	0	47	**80**
16:45	0	0	0	0	0	5	10	0	0	15	9	0	7	0	**16**	0	25	4	**1**	30	61
Total Volume	0	0	0	0	0	17	45	0	0	62	38	0	19	1	58	0	119	46	1	166	286
% App. Total	0	0	0	0		27.4	72.6	0	0		65.5	0	32.8	1.7		0	71.7	27.7	0.6		
PHF	.000	.000	.000	.000	.000	.850	.804	.000	.000	.816	.731	.000	.679	.250	.906	.000	.804	.676	.250	.830	.894

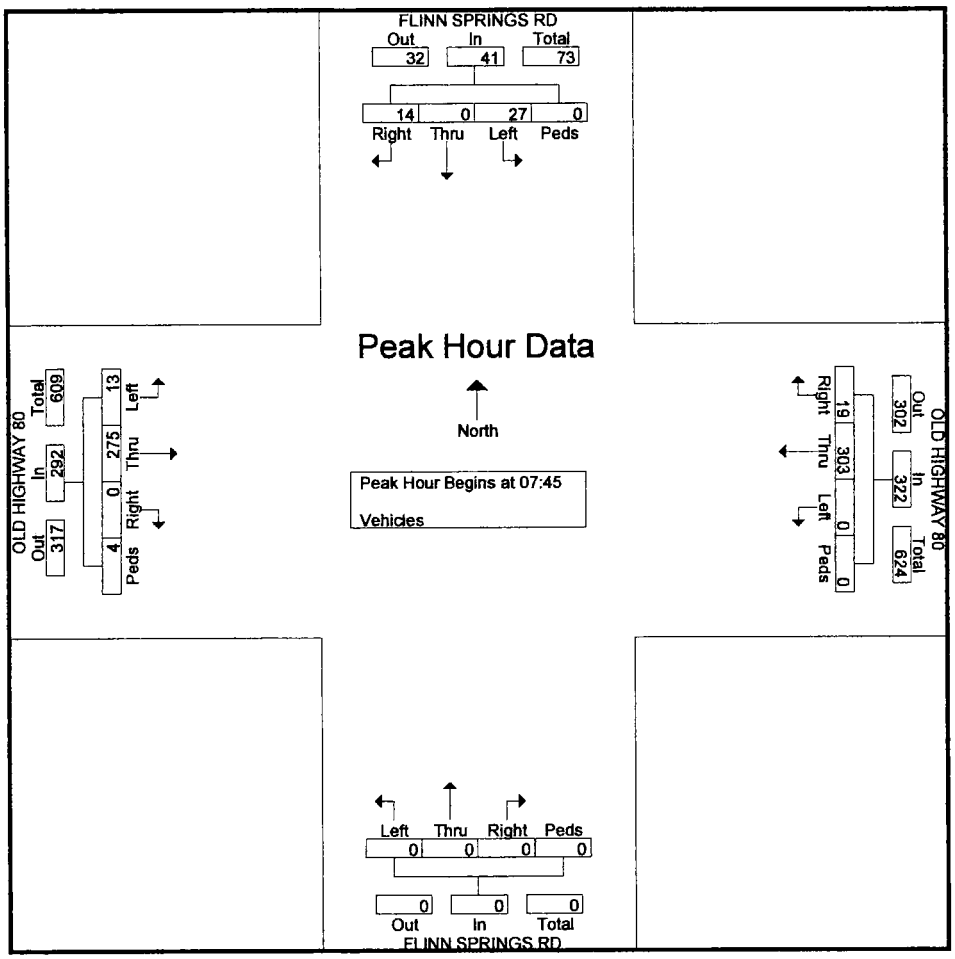


True Count

3401 First Ave #123
San Diego, CA 92103

File Name : 8047.02.FLINN SPRINGS RD.OLD HIGHWAY 80
Site Code : 00000000
Start Date : 6/11/2008
Page No : 2

	FLINN SPRINGS RD Southbound					OLD HIGHWAY 80 Westbound					FLINN SPRINGS RD Northbound					OLD HIGHWAY 80 Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 11:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45																					
07:45	5	0	2	0	7	0	**99**	**10**	0	**109**	0	0	0	0	0	**4**	**78**	0	0	**82**	**198**
08:00	6	0	**7**	0	13	0	64	4	0	68	0	0	0	0	0	2	54	0	1	57	138
08:15	5	0	2	0	7	0	54	1	0	55	0	0	0	0	0	4	65	0	**3**	72	134
08:30	**11**	0	3	0	**14**	0	86	4	0	90	0	0	0	0	0	3	78	0	0	81	185
Total Volume	27	0	14	0	41	0	303	19	0	322	0	0	0	0	0	13	275	0	4	292	655
% App. Total	65.9	0	34.1	0		0	94.1	5.9	0		0	0	0	0		4.5	94.2	0	1.4		
PHF	.614	.000	.500	.000	.732	.000	.765	.475	.000	.739	.000	.000	.000	.000	.000	.813	.881	.000	.333	.890	.827

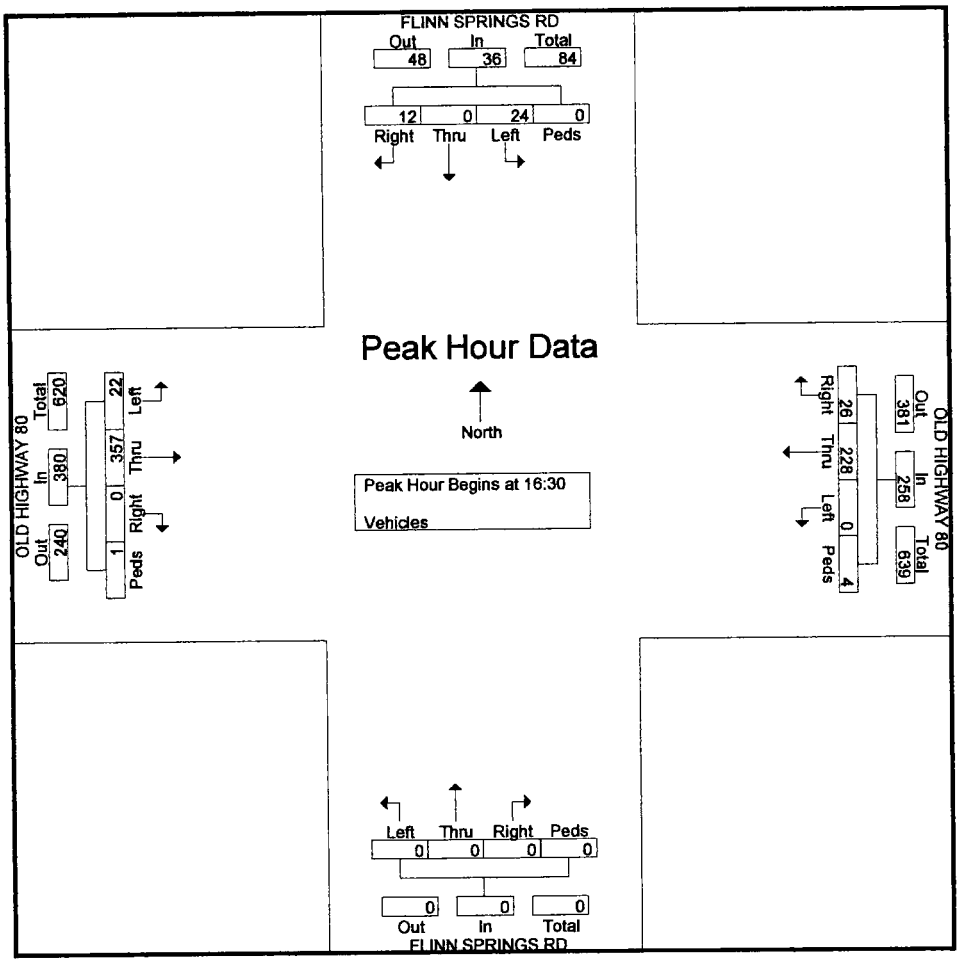


True Count

3401 First Ave #123
San Diego, CA 92103

File Name : 8047.02.FLINN SPRINGS RD.OLD HIGHWAY 80
Site Code : 00000000
Start Date : 6/11/2008
Page No : 3

	FLINN SPRINGS RD Southbound					OLD HIGHWAY 80 Westbound					FLINN SPRINGS RD Northbound					OLD HIGHWAY 80 Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:30																					
16:30	4	0	**5**	0	9	0	49	7	0	56	0	0	0	0	0	3	89	0	0	92	157
16:45	6	0	3	0	9	0	49	**9**	1	59	0	0	0	0	0	**7**	83	0	1	91	159
17:00	**7**	0	3	0	**10**	0	**74**	1	**3**	**78**	0	0	0	0	0	7	**94**	0	0	**101**	**189**
17:15	7	0	1	0	8	0	56	9	0	65	0	0	0	0	0	5	91	0	0	96	169
Total Volume	24	0	12	0	36	0	228	26	4	258	0	0	0	0	0	22	357	0	1	380	674
% App. Total	66.7	0	33.3	0		0	88.4	10.1	1.6		0	0	0	0		5.8	93.9	0	0.3		
PHF	.857	.000	.600	.000	.900	.000	.770	.722	.333	.827	.000	.000	.000	.000	.000	.786	.949	.000	.250	.941	.892

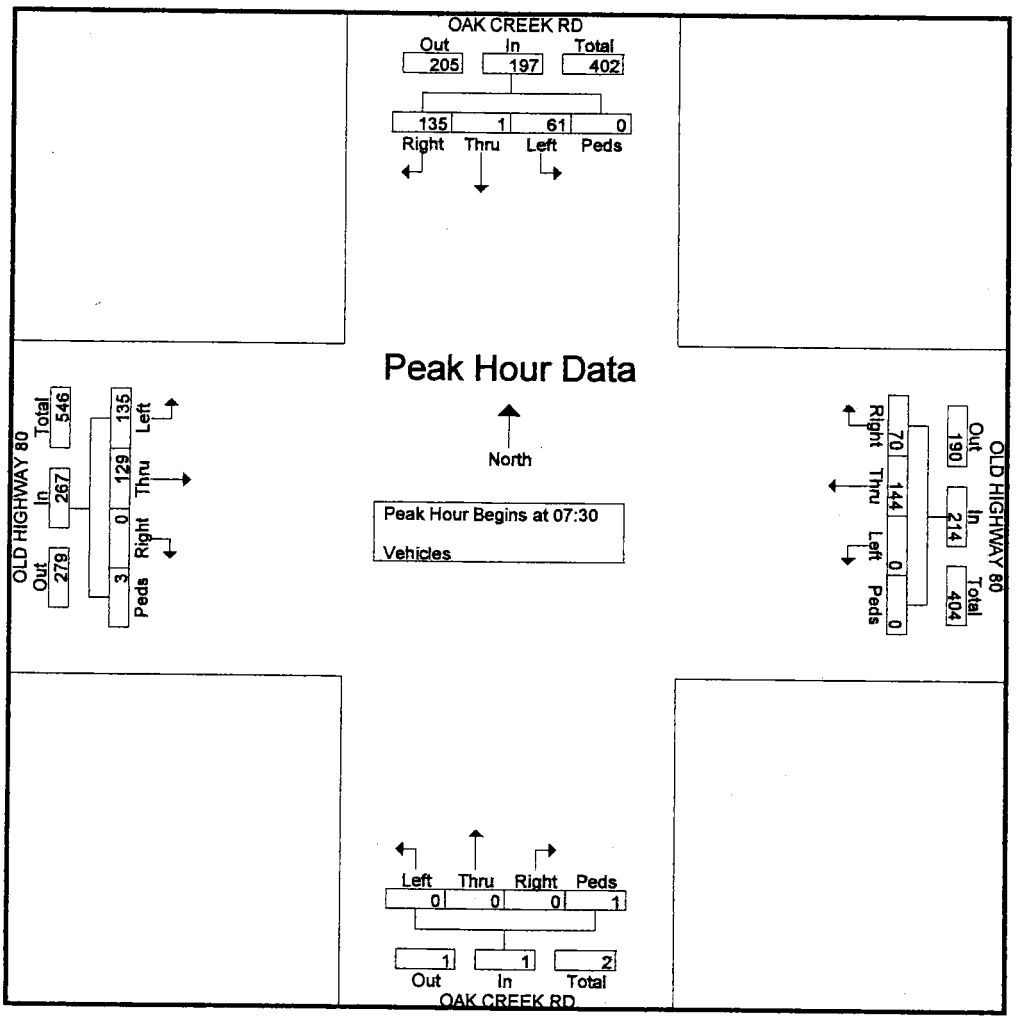


True Count

3401 First Ave #123
San Diego, CA 92103

File Name : 8047.03.OAK CREEK RD.OLD HIGHWAY
Site Code : 00000000
Start Date : 6/11/2008
Page No : 2

	OAK CREEK RD Southbound					OLD HIGHWAY 80 Westbound					OAK CREEK RD Northbound					OLD HIGHWAY 80 Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 11:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30																					
07:30	**22**	0	25	0	47	0	42	**35**	0	77	0	0	0	0	0	**49**	28	0	0	77	201
07:45	20	0	**53**	0	**73**	0	**45**	21	0	66	0	0	0	0	0	46	26	0	0	72	**211**
08:00	12	**1**	34	0	47	0	29	5	0	34	0	0	0	0	0	16	33	0	0	49	130
08:15	7	0	23	0	30	0	28	9	0	37	0	0	0	**1**	**1**	24	**42**	0	**3**	69	137
Total Volume	61	1	135	0	197	0	144	70	0	214	0	0	0	1	1	135	129	0	3	267	679
% App. Total	31	0.5	68.5	0		0	67.3	32.7	0		0	0	0	100		50.6	48.3	0	1.1		
PHF	.693	.250	.637	.000	.675	.000	.800	.500	.000	.695	.000	.000	.000	.250	.250	.689	.768	.000	.250	.867	.805

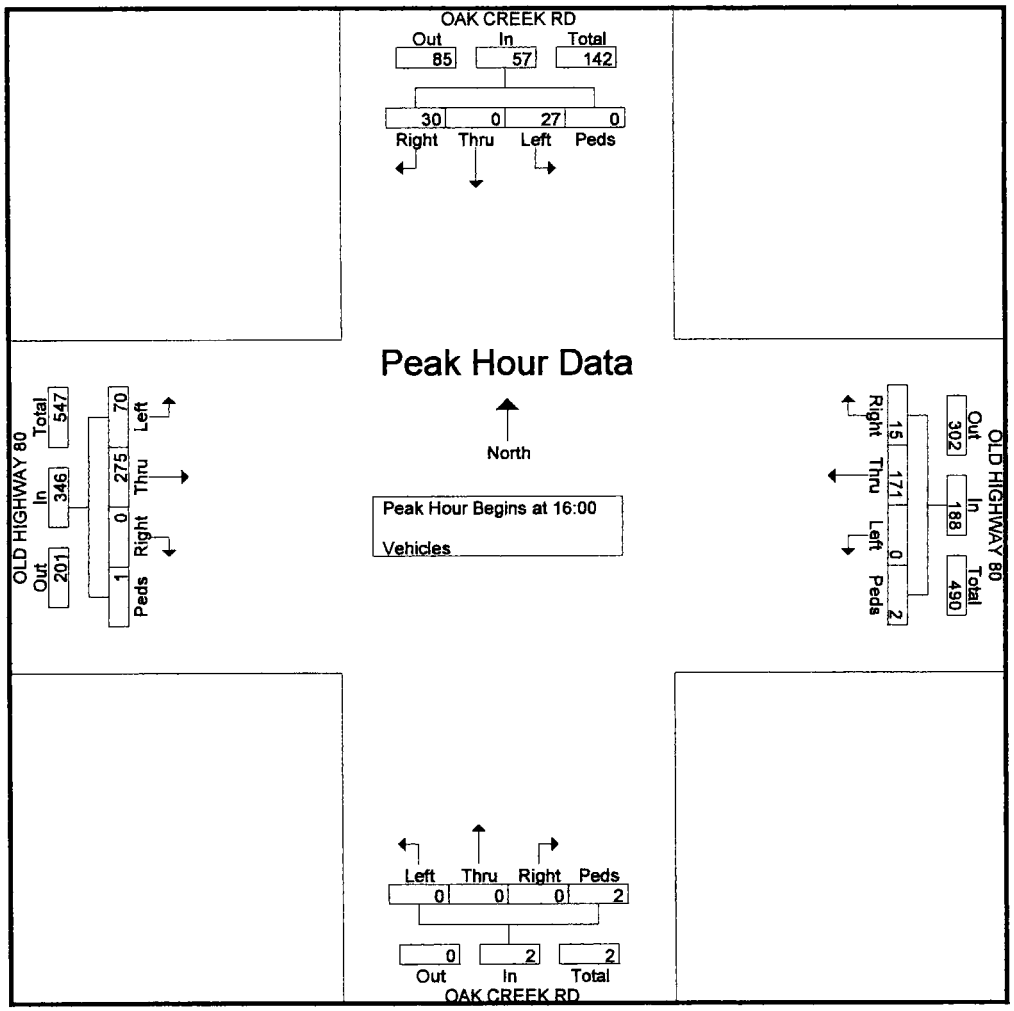


True Count

3401 First Ave #123
San Diego, CA 92103

File Name : 8047.03.OAK CREEK RD.OLD HIGHWAY 8
Site Code : 00000000
Start Date : 6/11/2008
Page No : 3

	OAK CREEK RD Southbound					OLD HIGHWAY 80 Westbound					OAK CREEK RD Northbound					OLD HIGHWAY 80 Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:00																					
16:00	**10**	0	7	0	**17**	0	**49**	4	**1**	**54**	0	0	0	0	0	18	**82**	0	0	**100**	**171**
16:15	8	0	8	0	16	0	38	**5**	0	43	0	0	0	**2**	**2**	17	60	0	**1**	78	139
16:30	7	0	5	0	12	0	44	4	0	48	0	0	0	0	0	16	61	0	0	77	137
16:45	2	0	**10**	0	12	0	40	2	1	43	0	0	0	0	0	**19**	72	0	0	91	146
Total Volume	27	0	30	0	57	0	171	15	2	188	0	0	0	2	2	70	275	0	1	346	593
% App. Total	47.4	0	52.6	0		0	91	8	1.1		0	0	0	100		20.2	79.5	0	0.3		
PHF	.675	.000	.750	.000	.838	.000	.872	.750	.500	.870	.000	.000	.000	.250	.250	.921	.838	.000	.250	.865	.867

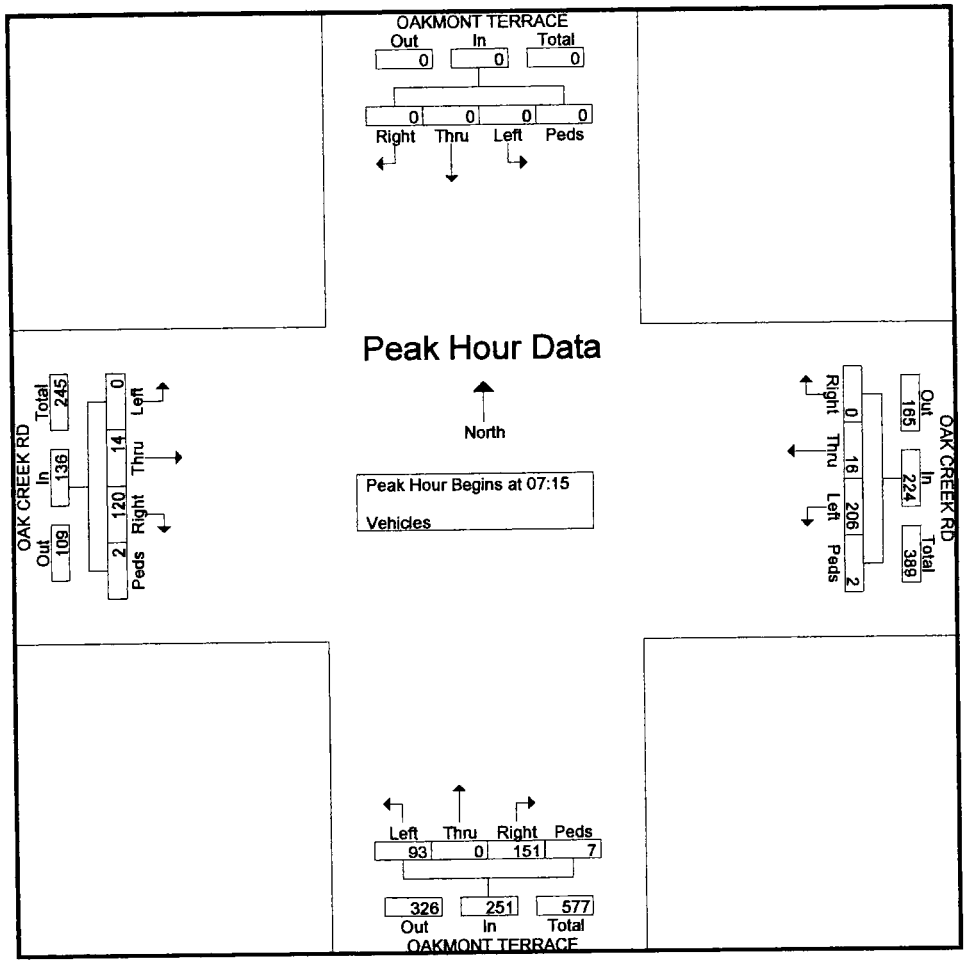


True Count

3401 First Ave #123
San Diego, CA 92103

File Name : 8047.04.OAKMONT TERRACE.OAK CREEK RD
Site Code : 00000000
Start Date : 6/11/2008
Page No : 2

	OAKMONT TERRACE Southbound					OAK CREEK RD Westbound					OAKMONT TERRACE Northbound					OAK CREEK RD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 11:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15																					
07:15	0	0	0	0	0	25	2	0	0	27	4	0	12	1	17	0	3	12	2	17	61
07:30	0	0	0	0	0	**83**	**6**	0	0	**89**	25	0	43	0	68	0	**5**	45	0	**50**	207
07:45	0	0	0	0	0	76	5	0	**1**	82	**44**	0	**69**	**6**	**119**	0	2	**46**	0	48	**249**
08:00	0	0	0	0	0	22	3	0	1	26	20	0	27	0	47	0	4	17	0	21	94
Total Volume	0	0	0	0	0	206	16	0	2	224	93	0	151	7	251	0	14	120	2	136	611
% App. Total	0	0	0	0		92	7.1	0	0.9		37.1	0	60.2	2.8		0	10.3	88.2	1.5		
PHF	.000	.000	.000	.000	.000	.620	.667	.000	.500	.629	.528	.000	.547	.292	.527	.000	.700	.652	.250	.680	.613

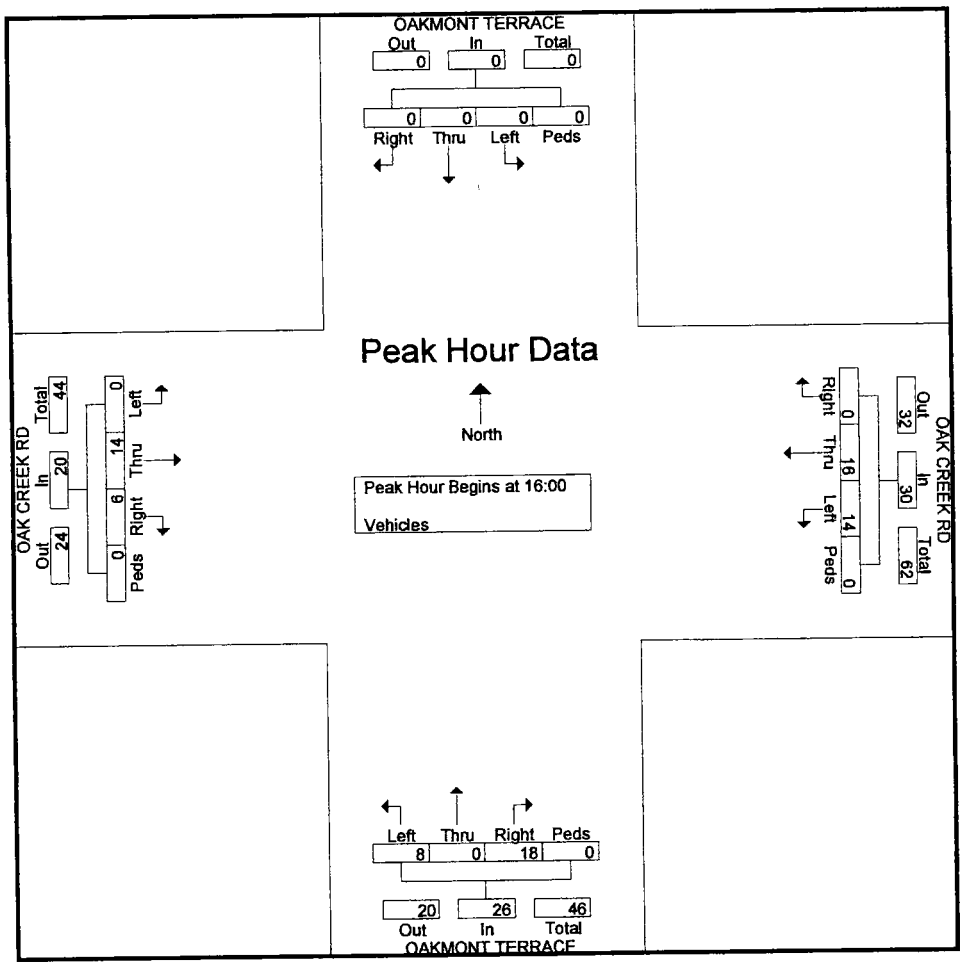


True Count

3401 First Ave #123
San Diego, CA 92103

File Name : 8047.04.OAKMONT TERRACE.OAK CREEK RD
Site Code : 00000000
Start Date : 6/11/2008
Page No : 3

	OAKMONT TERRACE Southbound					OAK CREEK RD Westbound					OAKMONT TERRACE Northbound					OAK CREEK RD Eastbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:00																					
16:00	0	0	0	0	0	3	3	0	0	6	**3**	0	7	0	**10**	0	**5**	3	0	**8**	**24**
16:15	0	0	0	0	0	**6**	4	0	0	**10**	1	0	6	0	7	0	1	1	0	2	19
16:30	0	0	0	0	0	1	**6**	0	0	7	2	0	2	0	4	0	5	0	0	5	16
16:45	0	0	0	0	0	4	3	0	0	7	2	0	3	0	5	0	3	2	0	5	17
Total Volume	0	0	0	0	0	14	16	0	0	30	8	0	18	0	26	0	14	6	0	20	76
% App. Total	0	0	0	0		46.7	53.3	0	0		30.8	0	69.2	0		0	70	30	0		
PHF	.000	.000	.000	.000	.000	.583	.667	.000	.000	.750	.667	.000	.643	.000	.650	.000	.700	.500	.000	.625	.792



SANDAG Trip Generation Rates

(NOT SO)

BRIEF GUIDE OF VEHICULAR TRAFFIC GENERATION RATES FOR THE SAN DIEGO REGION

APRIL 2002

SANDAG
401 B Street, Suite 800
San Diego, California 92101
(619) 699-1900 • Fax (619) 699-1950

NOTE: This listing only represents a *guide* of average, or estimated, traffic generation "driveway" rates and some very general trip data for land uses (emphasis on acreage and building square footage) in the San Diego region. These rates (both local and national) are subject to change as future documentation becomes available, or as regional sources are updated. For more specific information regarding traffic data and trip rates, please refer to the San Diego Traffic Generators manual. ***Always check with local jurisdictions for their preferred or applicable rates.***

LAND USE	TRIP CATEGORIES [PRIMARY:DIVERTED:PASS-BY][a]	ESTIMATED WEEKDAY VEHICLE TRIP GENERATION RATE (DRIVEWAY)	HIGHEST PEAK HOUR % (plus IN:OUT ratio) Between 6:00-9:30 A.M.		Between 3:00-6:30 P.M.		TRIP LENGTH (Miles)[b]
AGRICULTURE (Open Space)	[80:18:2]	2/acre**					10.8
AIRPORT	[78:20:2]						12.5
Commercial		60/acre, 100/flight, 70/1000 sq. ft.* **	5%	(6:4)	8%	(5:5)	
General Aviation		6/acre, 2/flight, 6/based aircraft* **	9%	(7:3)	15%	(5:5)	
Heliports		100/acre**					
AUTOMOBILE[5]							
Car Wash							
Automatic		900/site, 600/acre**	4%	(5:5)	9%	(5:5)	
Self-serve		100/wash stall**	4%	(5:5)	8%	(5:5)	
Gasoline	[21:51:28]						2.8
with/Food Mart		160/vehicle fueling space**	7%	(5:5)	8%	(5:5)	
with/Food Mart & Car Wash		155/vehicle fueling space**	8%	(5:5)	9%	(5:5)	
Older Service Station Design		150/vehicle fueling space, 900/station**	7%	(5:5)	9%	(5:5)	
Sales (Dealer & Repair)		50/1000 sq. ft., 300/acre, 60/service stall* **	5%	(7:3)	8%	(4:6)	
Auto Repair Center		20/1000 sq. ft., 400/acre, 20/service stall*	8%	(7:3)	11%	(4:6)	
Auto Parts Sales		60/1000 sq. ft. **	4%		10%		
Quick Lube		40/service stall**	7%	(6:4)	10%	(5:5)	
Tire Store		25/1000 sq. ft., 30/service stall**	7%	(6:4)	11%	(5:5)	
CEMETERY		5/acre*					
CHURCH (or Synagogue)	[64:25:11]	9/1000 sq. ft., 30/acre** (quadruple rates for Sunday, or days of assembly)	5%	(6:4)	8%	(5:5)	5.1
COMMERCIAL/RETAIL[5]							
Super Regional Shopping Center (More than 80 acres, more than 800,000 sq. ft., w/usually 3+ major stores)		35/1000 sq. ft.,[c] 400/acre*	4%	(7:3)	10%	(5:5)	
Regional Shopping Center (40-80acres, 400,000-800,000 sq. ft., w/usually 2+ major stores)	[54:35:11]	50/1000 sq. ft.,[c] 500/acre*	4%	(7:3)	9%	(5:5)	5.2
Community Shopping Center (15-40 acres, 125,000-400,000 sq. ft., w/usually 1 major store, detached restaurant(s), grocery and drugstore)	[47:31:22]	80/1000 sq. ft., 700/acre* **	4%	(6:4)	10%	(5:5)	3.6
Neighborhood Shopping Center (Less than 15 acres, less than 125,000 sq. ft., w/usually grocery & drugstore, cleaners, beauty & barber shop, & fast food services)		120/1000 sq. ft., 1200/acre* **	4%	(6:4)	10%	(5:5)	
Commercial Shops	[45:40:15]						4.3
Specialty Retail/Strip Commercial		40/1000 sq. ft., 400/acre*	3%	(6:4)	9%	(5:5)	
Electronics Superstore		50/1000 sq. ft**			10%	(5:5)	
Factory Outlet		40/1000 sq. ft.**	3%	(7:3)	9%	(5:5)	
Supermarket		150/1000 sq. ft., 2000/acre* **	4%	(7:3)	10%	(5:5)	
Drugstore		90/1000 sq. ft.**	4%	(6:4)	10%	(5:5)	
Convenience Market (15-16 hours)		500/1000 sq. ft.**	8%	(5:5)	8%	(5:5)	
Convenience Market (24 hours)		700/1000 sq. ft.**	9%	(5:5)	7%	(5:5)	
Convenience Market (w/gasoline pumps)		850/1000 sq. ft., 550/vehicle fueling space**	6%	(5:5)	7%	(5:5)	
Discount Club		60/1000 sq. ft., 600/acre* **	1%	(7:3)	9%	(5:5)	
Discount Store		60/1000 sq. ft., 600/acre**	3%	(6:4)	8%	(5:5)	
Furniture Store		6/1000 sq. ft., 100/acre**	4%	(7:3)	9%	(5:5)	
Lumber Store		30/1000 sq. ft., 150/acre**	7%	(6:4)	9%	(5:5)	
Home Improvement Superstore		40/1000 sq. ft.**	5%	(6:4)	8%	(5:5)	
Hardware/Paint Store		60/1000 sq. ft., 600/acre**	2%	(6:4)	9%	(5:5)	
Garden Nursery		40/1000 sq. ft., 90/acre**	3%	(6:4)	10%	(5:5)	
Mixed Use: Commercial (w/supermarket)/Residential		110/1000 sq. ft., 2000/acre* (commercial only) 5/dwelling unit, 200/acre* (residential only)	3% 9%	(6:4) (3:7)	9% 13%	(5:5) (6:4)	
EDUCATION							
University (4 years)	[91:9:0]	2.4/student, 100 acre*	10%	(8:2)	9%	(3:7)	8.9
Junior College (2 years)	[92:7:1]	1.2/student, 24/1000 sq. ft., 120/acre* **	12%	(8:2)	9%	(6:4)	9.0
High School	[75:19:6]	1.3/student, 15/1000 sq. ft., 60/acre* **	20%	(7:3)	10%	(4:6)	4.8
Middle/Junior High	[63:25:12]	1.4/student, 12/1000 sq. ft. 50/acre**	30%	(6:4)	9%	(4:6)	5.0
Elementary	[57:25:10]	1.6/student, 14/1000 sq. ft., 90/acre* **	32%	(6:4)	9%	(4:6)	3.4
Day Care	[28:58:14]	5/child, 80/1000 sq. ft.**	17%	(5:5)	18%	(5:5)	3.7
FINANCIAL[5]	[35:42:23]						3.4
Bank (Walk-In only)		150/1000 sq. ft., 1000/acre* **	4%	(7:3)	8%	(4:6)	
with Drive-Through		200/1000 sq. ft., 1500/acre*	5%	(6:4)	10%	(5:5)	
Drive-Through only		250 (125 one-way)/lane*	3%	(5:5)	13%	(5:5)	
Savings & Loan		60/1000 sq. ft., 600/acre**	2%		9%		
Drive-Through only		100 (50 one-way)/lane**	4%		15%		
HOSPITAL	[73:25:2]						8.3
General		20/bed, 25/1000 sq. ft., 250/acre*	8%	(7:3)	10%	(4:6)	
Convalescent/Nursing		3/bed**	7%	(6:4)	7%	(4:6)	
INDUSTRIAL							
Industrial/Business Park (commercial included)	[79:19:2]	16/1000 sq. ft., 200/acre* **	12%	(8:2)	12%	(2:8)	9.0
Industrial Park (no commercial)		8/1000 sq. ft., 90/acre**	11%	(9:1)	12%	(2:8)	
Industrial Plant (multiple shifts)	[92:5:3]	10/1000 sq. ft., 120/acre*	14%	(8:2)	15%	(3:7)	11.7
Manufacturing/Assembly		4/1000 sq. ft., 50/acre**	19%	(9:1)	20%	(2:8)	
Warehousing		5/1000 sq. ft., 60/acre**	13%	(7:3)	15%	(4:6)	
Storage		2/1000 sq. ft., 0.2/vault, 30/acre*	6%	(5:5)	9%	(5:5)	
Science Research & Development		8/1000 sq. ft., 80/acre*	16%	(9:1)	14%	(1:9)	
Landfill & Recycling Center		6/acre	11%	(5:5)	10%	(4:6)	

(OVER)

MEMBER AGENCIES: Cities of Carlsbad, Chula Vista, Coronado, Del Mar, El Cajon, Encinitas, Escondido, Imperial Beach, La Mesa, Lemon Grove, National City, Oceanside, Poway, San Diego, San Marcos, Santee, Solana Beach, Vista and County of San Diego.
ADVISORY/LIAISON MEMBERS: California Department of Transportation, County Water Authority, U.S. Department of Defense, S.D. Unified Port District and Tijuana/Baja California.

LAND USE	TRIP CATEGORIES [PRIMARY:DIVERTED:PASS-BY][7]	ESTIMATED WEEKDAY VEHICLE TRIP GENERATION RATE (DRIVEWAY)	HIGHEST PEAK HOUR % (plus IN:OUT ratio) Between 6:00-9:30 A.M.		Between 3:00-6:30 P.M.		TRIP LENGTH (Miles)[1]
LIBRARY	[44:44:12]	50/1000 sq. ft., 400/acre**	2%	(7:3)	10%	(5:5)	3.9
LODGING	[58:38:4]						7.6
Hotel (w/convention facilities/restaurant)		10/occupied room, 300/acre	8%	(6:4)	8%	(6:4)	
Motel		9/occupied room, 200/acre*	8%	(4:6)	9%	(6:4)	
Resort Hotel		8/occupied room, 100/acre*	5%	(6:4)	7%	(4:6)	
Business Hotel		7/occupied room**	8%	(4:6)	9%	(6:4)	
MILITARY	[82:16:2]	2.5/military & civilian personnel*	9%	(9:1)	10%	(2:8)	11.2
OFFICE							
Standard Commercial Office (less than 100,000 sq. ft.)	[77:19:4]	20/1000 sq. ft.,[D] 300/acre*	14%	(9:1)	13%	(2:8)	8.8
Large (High-Rise) Commercial Office (more than 100,000 sq. ft., 6 + stories)	[82:15:3]	17/1000 sq. ft.,[D] 600/acre*	13%	(9:1)	14%	(2:8)	10.0
Office Park (400,000 + sq. ft.)		12/1000 sq.ft., 200/acre* **	13%	(9:1)	13%	(2:8)	
Single Tenant Office		14/1000 sq. ft., 180/acre*	15%	(9:1)	15%	(2:8)	8.8
Corporate Headquarters		7/1000 sq. ft., 110/acre*	17%	(9:1)	16%	(1:9)	
Government (Civic Center)	[50:34:16]	30/1000 sq. ft.**	9%	(9:1)	12%	(3:7)	6.0
Post Office							
Central/Walk-In Only		90/1000 sq. ft.**	5%		7%		
Community (not including mail drop lane)		200/1000 sq. ft., 1300/acre*	6%	(6:4)	9%	(5:5)	
Community (w/mail drop lane)		300/1000 sq. ft., 2000/acre*	7%	(5:5)	10%	(5:5)	
Mail Drop Lane only		1500 (750 one-way)/lane*	7%	(5:5)	12%	(5:5)	
Department of Motor Vehicles		180/1000 sq. ft., 900/acre**	6%	(6:4)	10%	(4:6)	
Medical-Dental	[60:30:10]	50/1000 sq. ft., 500/acre*	6%	(8:2)	11%	(3:7)	6.4
PARKS	[66:28:6]		4%		8%		5.4
City (developed w/meeting rooms and sports facilities)		50/acre*	13%	(5:5)	9%	(5:5)	
Regional (developed)		20/acre*					
Neighborhood/County (undeveloped)		5/acre (add for specific sport uses), 6/picnic site* **					
State (average 1000 acres)		1/acre, 10/picnic site**					
Amusement (Theme)		80/acre, 130/acre (summer only)**			8%	(6:4)	
San Diego Zoo		115/acre*					
Sea World		80/acre*					
RECREATION							
Beach, Ocean or Bay	[52:39:9]	600/1000 ft. shoreline, 60/acre*					6.3
Beach, Lake (fresh water)		50/1000 ft. shoreline, 5/acre*					
Bowling Center		30/1000 sq. ft., 300/acre, 30/lane **	7%	(7:3)	11%	(4:6)	
Campground		4/campsite**	4%		8%		
Golf Course		7/acre, 40/hole, 700/course* **	7%	(8:2)	9%	(3:7)	
Driving Range only		70/acre, 14/tee box*	3%	(7:3)	9%	(5:5)	
Marinas		4/berth, 20/acre* **	3%	(3:7)	7%	(6:4)	
Multi-purpose (miniature golf, video arcade, batting cage, etc.)		90/acre	2%		6%		
Racquetball/Health Club		30/1000 sq. ft., 300/acre, 40/court*	4%	(6:4)	9%	(6:4)	
Tennis Courts		16/acre, 30/court**	5%		11%	(5:5)	
Sports Facilities							
Outdoor Stadium		50/acre, 0.2/seat*					
Indoor Arena		30/acre, 0.1/seat*					
Racetrack		40/acre, 0.6 seat*					
Theaters (multiplex w/matinee)	[66:17:17]	80/1000 sq. ft., 1.8/seat, 360/screen*	1/3%		8%	(6:4)	6.1
RESIDENTIAL	[86:11:3]						7.9
Estate, Urban or Rural (average 1-2 DU/acre)		12/dwelling unit *R	8%	(3:7)	10%	(7:3)	
Single Family Detached (average 3-6 DU/acre)		10/dwelling unit *R	8%	(3:7)	10%	(7:3)	
Condominium (or any multi-family 6-20 DU/acre)		8/dwelling unit *R	8%	(2:8)	10%	(7:3)	
Apartment (or any multi-family units more than 20 DU/acre)		6/dwelling unit *R	8%	(2:8)	9%	(7:3)	
Military Housing (off-base, multi-family)							
(less than 6 DU/acre)		8/dwelling unit	7%	(3:7)	9%	(6:4)	
(6-20 DU/acre)		6/dwelling unit	7%	(3:7)	9%	(6:4)	
Mobile Home							
Family		5/dwelling unit, 40/acre*	8%	(3:7)	11%	(6:4)	
Adults Only		3/dwelling unit, 20/acre*	9%	(3:7)	10%	(6:4)	
Retirement Community		4/dwelling unit**	5%	(4:6)	7%	(6:4)	
Congregate Care Facility		2.5/dwelling unit**	4%	(6:4)	8%	(5:5)	
RESTAURANT[S]	[51:37:12]						4.7
Quality		100/1000 sq. ft., 3/seat, 500/acre* **	1%	(6:4)	8%	(7:3)	
Sit-down, high turnover		160/1000 sq. ft., 6/seat, 1000/acre* **	8%	(5:5)	8%	(6:4)	
Fast Food (w/drive-through)		650/1000 sq. ft., 20/seat, 3000/acre* **	7%	(5:5)	7%	(5:5)	
Fast Food (without drive-through)		700/1000 sq. ft.**	5%	(6:4)	7%	(5:5)	
Delicatessen (7am-4pm)		150/1000 sq. ft., 11/seat*	9%	(6:4)	3%	(3:7)	
TRANSPORTATION							
Bus Depot		25/1000 sq. ft.**					
Truck Terminal		10/1000 sq. ft., 7/bay, 80/acre**	9%	(4:6)	6%	(5:5)	
Waterport/Marine Terminal		170/berth, 12/acre**					
Transit Station (Light Rail w/parking)		300/acre, 2[1/2]/parking space (4/occupied)**	14%	(7:3)	15%	(3:7)	
Park & Ride Lots		400/acre (600/paved acre), 5/parking space (8/occupied)* **	14%	(7:3)	15%	(3:7)	

* Primary source: *San Diego Traffic Generators*.

* Other sources: *ITE Trip Generation Report [6th Edition]*, Trip Generation Rates (other agencies and publications), various SANDAG & CALTRANS studies, reports and estimates.

[7] Trip category percentage ratios are daily from local household surveys, often cannot be applied to very specific land uses, and do not include non-resident drivers (draft SANDAG *Analysis of Trip Diversion*, revised November, 1990):
PRIMARY - one trip directly between origin and primary destination.
DIVERTED - linked trip (having one or more stops along the way to a primary destination) whose distance compared to direct distance ≥ 1 mile.
PASS-BY - undiverted or diverted < 1 mile.

[1] Trip lengths are average weighted for all trips to and from general land use site. (All trips system-wide average length = 6.9 miles)

[C] Fitted curve equation: $Ln(T) = 0.502\ Ln(x) + 6.945$

[D] Fitted curve equation: $Ln(T) = 0.756\ Ln(x) + 3.950$

T = total trips, x = 1,000 sq. ft.

[R] Fitted curve equation: $t = -2.169\ Ln(d) + 12.85$ t = trips/DU, d = density (DU/acre), DU = dwelling unit

[S] Suggested PASS-BY [undiverted or diverted < 1 mile] percentages for trip rate reductions only during P.M. peak period (based on combination of local data/review and Other sources**):

COMMERCIAL/RETAIL	
Regional Shopping Center	20%
Community " "	30%
Neighborhood " "	40%
Specialty Retail/Strip Commercial (other)	10%
Supermarket	40%
Convenience Market	50%
Discount Club/Store	30%
FINANCIAL	
Bank	25%
AUTOMOBILE	
Gasoline Station	50%
RESTAURANT	
Quality	10%
Sit-down high turnover	20%
Fast Food	40%

[T] Trip Reductions - In order to help promote regional "smart growth" policies, and acknowledge San Diego's expanding mass transit system, consider vehicle trip rate reductions (with proper documentation and necessary adjustments for peak periods). The following are some examples:

[1] A 5% daily trip reduction for land uses with transit access or near transit stations accessible within 1/4 mile.

[2] Up to 10% daily trip reduction for mixed-use developments where residential and commercial retail are combined (demonstrate mode split of walking trips to replace vehicular trips).

County of San Diego Level of Service Thresholds

TABLE 1

AVERAGE DAILY VEHICLE TRIPS

CIRCULATION ELEMENT ROADS		LEVEL OF SERVICE				
CLASS	**X-SECTION**	**A**	**B**	C	D	E
Expressway	126/146	<36,000	<54,000	<70,000	<86,000	<108,000
Prime Arterial	102/122	<22,200	<37,000	<44,600	<50,000	<57,000
Major Road	78/98	<14,800	<24,700	<29,600	<33,400	<37,000
Collector	64/84	<13,700	<22,800	<27,400	<30,800	<34,200
Town Collector	54/74	<3,000	<6,000	<9,500	<13,500	<19,000
Light Collector	40/60	<1,900	<4,100	<7,100	<10,900	<16,200
Rural Collector	40/84	<1,900	<4,100	<7,100	<10,900	<16,200
Rural Light Collector	40/60	<1,900	<4,100	<7,100	<10,900	<16,200
Recreational Parkway	40/100	<1,900	<4,100	<7,100	<10,900	<16,200
Rural Mountain	40/100	<1,900	<4,100	<7,100	<10,900	<16,200

NON – CIRCULATION ELEMENT ROADS		LEVEL OF SERVICE				
CLASS	**X-SECTION**	A	B	C	D	E
Residential Collector	40/60	*	*	<4,500	*	*
Residential Road	36/56	*	*	<1,500	*	*
Residential Cul-de-sac or Loop Road	32/52	*	*	< 200	*	*

*Levels of service are not applied to residential streets since their primary purpose is to serve abutting lots, not carry through traffic. Levels of service normally apply to roads carrying through traffic between major trip generators and attractors.

Excerpts from the County's Private Road Standards

SAN DIEGO COUNTY
STANDARDS FOR PRIVATE ROADS

COUNTY OF SAN DIEGO
DEPARTMENT OF PUBLIC WORKS

ARTICLE III

IMPROVEMENT & DESIGN STANDARDS

Section 3.1 DESIGN STANDARDS

Roads shall be designed and improved in conformance with the following:

A) Where offers of dedication are to be accepted, the roads shall be designed and constructed in conformance with "COUNTY STANDARDS" corresponding to the road classification required.

B) Where offers of dedication are not to be accepted, the roads shall be designed and constructed in conformance with the following minimum standards:

NUMBER OF VEHICLE TRIPS PER DAY (ADT)

	750 or Less	751-2500
Graded Width	32ft.[1]	32ft.[1]
Improvement Width	24ft.[1]	24ft.[1]
Horizontal Radius	200ft.	300ft.
Vertical Design Speed	25 MPH	30 MPH
Maximum Grade	15%	15%
Minimum Length-Vertical Curve	40'	40'
Maximum Angle of Departure	7%[2]	7%[2]
Minimum Vertical Clearance	14.5"	14.5"

1 Based upon input from the local fire protection district, community planning and/or sponsor groups and the general public, the Director of Public Works may require that on-street parking be provided on roads serving areas with a minimum lot size of less than one (1) acre. Whenever on-street vehicle parking is required, on-street parking shall be provided by increasing the graded and improved width by six feet (6') for each side of the road in which on-street parking is to be provided in accordance with Sections 81.402 of Chapter 4, and 81.703 of Chapter 7, of the County Subdivision Ordinance. In order to accommodate on-street parking, the Director of Public Works may also, on a case by case basis, authorize the use of parking bays or mountable curbs (berms) in lieu of additional road widening. Where parking bays are provided, they shall be located to best accommodate the parking demand. Landscaping and/or curbing may be provided between parking bays provided that they will not obstruct required sight distance and/or restrict ingress and/or egress to and from the parking bays. In order to designate no-parking areas, striping and/or appropriate signage may be required.

2 The angle of departure is the smallest angle made between the road surface and a line drawn from the front point of the ground contact of the front tire for a pumper fire apparatus (as per Standard NFPA 1901) to any projection of the apparatus in front of the front axle. The angle of approach affects the road clearance of the vehicle when going over short steep grades such as found in a driveway entrance or crossing a high crowned road at right angles. Too low an angle of approach will result in scraping the apparatus body.

C) Where no dedications, offers of dedication, or irrevocable offers of dedication are required, the roads shall be designed and constructed to the following minimum standards:

NUMBER OF VEHICLE TRIPS PER DAY (ADT)

	100 or Less	101-750	751-2500
Graded Width	28ft.[2,3]	28 ft.[2,3]	28ft.[2,3]
Improvement Width	24ft.[1,2]	24ft.[1,2]	24ft.[1,2]
Horizontal Radius	100ft.[1]	150ft.[1]	200ft.[1]
Vertical Design Speed	20 MPH[1]	25 MPH[1]	30 MPH[1]
Maximum Grade	20%	20%	20%
Minimum Length-Vertical Curve	40'	40'	40'
Maximum Angle of Departure	7%[1]	7%[4]	7%[4]
Minimum Vertical Clearance	14.5"	14.5"	14.5"

D) Where it is determined that the number of trips per day on a particular road will exceed 2500 the Director of Public Works may require that the road be dedicated and improved in conformance with the "COUNTY OF SAN DIEGO PUBLIC ROAD STANDARDS".

1 May be reduced upon approval of the Director of Public Works. In such cases, the vertical design speed and the horizontal radius of curvature shall be a minimum of 15 MPH and a 60-foot horizontal radius, respectively.

2 Based upon input from the local fire protection district, community planning and/or sponsor groups and the general public, the Director of Public Works may require that on-street parking be provided on roads serving areas with a minimum lot size of less than one (1) acre. Whenever on-street vehicle parking is required, on-street parking shall be provided by increasing the graded and improved width by six feet (6') for each side of the road in which on-street parking is to be provided in accordance with Sections 81.402 of Chapter 4, and 81.703 of Chapter 7, of the County Subdivision Ordinance. In order to accommodate on-street parking, the Director of Public Works may also, on a case by case basis, authorize the use of parking bays or mountable curbs (berms) in lieu of additional road widening. Where parking bays are provided, they shall be located to best accommodate the parking demand. Landscaping and/or curbing may be provided between parking bays provided that they will not obstruct required sight distance and/or restrict ingress and/or egress to and from the parking bays. In order to designate no-parking areas, striping and/or appropriate signage may be required.

3 The graded width for on-site and off-site roads may be reduced, at the discretion of the Director of Public Works. However, the graded width shall not be less than the required improvement width as required by these standards.

4 The angle of departure is the smallest angle made between the road surface and a line drawn from the front point of the ground contact of the front tire for a pumper fire apparatus (as per Standard NFPA 1901) to any projection of the apparatus in front of the front axle. The angle of approach affects the road clearance of the vehicle when going over short steep grades such as found in a driveway entrance or crossing a high crowned road at right angles. Too low an angle of approach will result in scraping the apparatus body.

E) Where offers of dedication or irrevocable offers of dedication have been granted, the road shall be constructed on the centerline of such dedication.

F) All private roads shall be surfaced with asphaltic concrete over an aggregate base, except for private roads serving properties which are designated #18, #20, #23 or #24 on the County General Plan or serving an agricultural subdivision. The above private roads, which are not required to be surfaced with asphaltic concrete, shall be surfaced with a minimum of 6 inches of disintegrated granite.

Section 3.2 GENERAL REQUIREMENTS

A) Grading beyond the minimum graded width may be required to provide for adequate sight distance (See Section 3.2.H).

B) Where disintegrated granite (D.G.) surfacing is allowed, AC/AB in conformance with Section 3.11 of these standards shall be required where the road grades are 8.0% or greater, or under 1.0%.

C) The structural section shall be designed in conformance with Section 3.11 of these Standards.

D) RIGHT-OF-WAY RETURNS

1) The radii for right-of-way returns at the intersection of a private road with a public road or future public roads shall be a minimum 20 feet.

2) Where the angle of intersection of easement right-of-way lines is other than 90 degrees, or where a sight distance problem may be anticipated, an increased right-of-way line radius may be required.

E) STREET KNUCKLE ALLOWED

1) In any road dedicated, offered for dedication, or irrevocably offered for dedication, street knuckles may be used in accordance with County of San Diego Public Road Standards and San Diego County Design Standard Number DS-15.

2) Where no dedication, offer of dedication, or irrevocable offer of dedication is required, street knuckles may be used on a case by case basis.

F) MAXIMUM GRADE ALLOWED

Where no dedication, offer of dedication or irrevocable offer of dedication is required, the maximum gradient should not exceed 20.0%. Grades above 15% may also require mitigation from the local fire protection district, which will be enforced by the local fire authority. Based upon existing road conditions, topography, placement of existing utilities, environmental constraints and/or other pertinent factors the Director of Public Works may authorize a steeper grade (for a specified length), provided the maximum grade does not exceed 25%. Prior to any authorization, however, the Director shall obtain input from the local fire protection district.

G) SIGHT DISTANCE

1) Intersections of private roads with existing public roads (including those roads in which dedications and/or irrevocable offers of dedication have been offered)

a) Sight distance requirements at all intersections of private roads with public roads, shall conform to the intersectional sight distance criteria as provided below:

DISTANCE AT INTERSECTIONS	STANDARD CORNER SIGHT
Design Speed, MPH	Minimum Corner Intersection Sight Distance in Feet*
20	200
30	300
40	400
50	500
60	600

* Corner sight distance measured from a point on the minor road at least 10 feet from the edge of the major road pavement and measured from a height of eye of 3.5 feet on the minor road to a height of object of 4.25 feet on the major road. San Diego County Design Standards DS-20A and DS 20B shall also apply. The design speed used to determine the minimum sight distance requirement shall be the greater of the current prevailing speed (if known) and the minimum design speed of the respective road classification shown in Table 2 of the County of San Diego Public Road Standards

b) The line of sight shall be entirely within the dedications, or irrevocable offers of dedications provided, or, if there are no offers of dedication required, within the private easements provided.

2) Intersections of private roads with private roads

a) Engineer shall use appropriate engineering judgement to determine the appropriate corner sight distance. As a minimum, corner sight distance shall be provided in accordance with the stopping sight distance as determined by the American Association of State highway Officials (AASHTO) in the publication "A Policy on Geometric Design of Highways and Streets" dated 1984.

3) Modifications

The above sight distance standards will be applicable to the vast majority of cases, but they are not inflexible rules to which there is no modification. Occasionally, the Board of Supervisors or Director of Public Works may make modifications where the application of the standards is impractical or results in unreasonable hardship, such as to account for existing intersections which have been designed and constructed according to previous standards. Procedures for processing a modification request are provided in Section 1.4.

H) ROAD INTERSECTIONS

1) Intersections of private roads with a public non-Circulation Element road shall be offset at least 200 feet from the nearest adjacent road (measured centerline to centerline).

2) Intersections of private roads with roads shown on the Circulation Element of the San Diego County General Plan shall be offset at least 300 feet from the nearest adjacent road measured (centerline to centerline).

3) The angle between centerlines of an intersecting private road with a public road shall be as nearly a right angle as possible, but in no case less than 70 degrees or greater than 110 degrees. Where the angle between the centerlines is between 70 and 80 degrees or between 100 and 110 degrees, there shall be required on the acute angle corner of the intersection a taper to accommodate right-hand turning movements. Said taper shall be set back 5 feet at the exiting point of the curb return and extend 40 feet in such a manner as to safely allow completion of the right-hand turning movement.

I) ROAD NAME SIGNS

All private roads within major subdivisions and private roads serving four or more parcels shall be named. The developer shall install one road name sign at each intersection as a part of the improvements. Installation shall be in accordance with San Diego County Design Standard Number DS-13.

J) LIGHTING REQUIREMENTS

All development projects shall be required to transfer to Zone A of the San Diego County Street Lighting District, irrespective of roadway lighting requirements.

Section 3.3 CUL-DE-SACS/TURNAROUNDS

Cul-de-sacs or approved turnarounds shall be required at the end of all private roads except where the road will ultimately serve no more than 2 residences and the length of the private road is 150 feet or less.

A) Where dedications, offers of dedications, or irrevocable offers of dedications are required, the cul de sacs shall be designed and improved to "COUNTY STANDARDS" for the road classification involved.

B) Where dedications, offers of dedication or irrevocable offers of dedication are not required, the cul de sacs shall be designed and improved as follows:

1. Minimum Graded Radius - 38 feet.
2. Minimum Surfaced Radius - 36 feet.
3. Minimum Return Radii - 30 feet.
4. Minimum Centerline Grade - 1 percent.
5. Maximum Centerline Grade - 10 percent.
6. Maximum Cross Slope - 5 percent

C) Hammerhead and/or other types of turnarounds shall be designed and improved to the satisfaction of the Director of Public Works. Prior to approving a turnaround design, the Director shall obtain input from the local fire protection district.

Section 3.4 BRIDGES

A) Whenever a bridge is provided as part of a private road, it shall be designed in accordance with the American Association of State Highways Officials (AASHTO) design standards for a HS15-44 loading and per Department of Planning and land Use Policy MP-21 (Bridges on Private Property). Inspection and maintenance of the bridge, as necessary, shall be the responsibility of the owner(s) and shall be included within the provisions of a private road maintenance agreement. The local fire protection district may also require that vehicle load limits be posted at the entrances to the bridge.

Section 3.5 SPEED CONTROL DESIGN FEATURES

A) Speed control design features such as speed bumps, speed humps, speed control dips, etc. may interfere with the response of emergency vehicles and other emergency apparatus and shall be discouraged. Speed control design features shall not be approved and/or installed on private roads unless authorized by the Director of Public Works and/or County of San Diego Board of Supervisors. Prior to approving any design or authorizing the installation for a speed control design feature, input shall be obtained from the local fire protection district, which may prohibit the installation of such design features within certain areas.

Excerpts from the *Public Facilities Element*

Part XII
Public Facility Element

San Diego County General Plan

Adopted
March 13, 1991
GPA 90-FE
Amended
June 10, 1992
GPA92-FE1

Section 1 - Introduction....XII-1-1
Section 2 - Coordination Among Facility Planning, Financing Programs and Land Use Planning....XII-2-1
Section 3 - Parks and Recreation....XII-3-1
Section 4 - Transportation....XII-4-1
Section 5 - Flood Control....XII-5-1
Section 6 - Solid Waste....XII-6-1
Section 7 - Law Enforcement....XII-7-1
Section 8 - Animal Control....XII-8-1
Section 9 - Libraries....XII-9-1
Section 10 - Schools....XII-10-1
Section 11 - Fire Protection and Emergency Services....XII-11-1
Section 12 - Wastewater....XII-12-1
Section 13 - Water Provision Systems....XII-13-1
Section 14 - Child Care....XII-14-1
Section 15 - Courts and Jails....XII-15-1
Section 16 - Social Services....XII-16-1
Section 17 - Health....XII-17-1
Section 18 - Senior Services....XII-18-1
Section 19 - County Administration....XII-19-1
Section 20 - Facilities Located in City Spheres....XII-20-1

This Element was partially funded through the Community Development Block Grant program

GOAL

A SAFE, CONVENIENT, AND ECONOMICAL INTEGRATED TRANSPORTATION SYSTEM INCLUDING A WIDE RANGE OF TRANSPORTATION MODES.

OBJECTIVE 1:

A Level of Service "C" or better on County Circulation Element roads.

Policy 1.1: New development shall provide needed roadway expansion and improvements on-site to meet the demand created by the development, and to maintain a Level of Service "C" on Circulation Element Roads during peak traffic hours. New development shall provide off-site improvements designed to contribute to the overall achievement of a Level of Service "D" on Circulation Element Roads.

Implementation Measure 1.1.1: Review all development proposals to determine both their short-term and long-term impacts on the roadway system. The area of impact will be determined based on the size, type and location of the project; the traffic generated by the project; and the existing circulation and development pattern in the area. [DPW, DPLU]

Implementation Measure 1.1.2: Require, as a condition of approval of discretionary projects, improvements or other measures necessary to mitigate traffic impacts to avoid reduction in the existing Level of Service below "C" on on-site Circulation Element roads. [DPLU, DPW]

Implementation Measure 1.1.3: Require, as a condition of approval of discretionary projects which have a significant impact on roadways, improvements or other measures necessary to mitigate traffic impacts to avoid reduction in the existing Level of Service below "D" on off-site and on-site abutting Circulation Element roads. New development that would significantly impact congestion on roads at LOS "E" or "F", either currently or as a result of the project, will be denied unless improvements are scheduled to increase the LOS to "D" or better or appropriate mitigation is provided . Appropriate mitigation would include a fair share contribution in the form of road improvements or a fair share contribution to an established program or project. If impacts cannot be mitigated, the project will be denied unless a specific statement of overriding findings is made pursuant to Section 15091(b) and 15093 of the State CEQA Guidelines. [DPLU, DPW]

Implementation Measure 1.1.4: Whenever possible on development proposals, require that access to parcels adjacent to roads shown on the Circulation Element be limited to side streets in order to maintain through traffic flow. [DPW, DPLU]

ISSUES

1. Increases in the amount of automobile use have resulted in increased congestion on the region's roadways.

   Discussion: The dramatic rise in automobile use has far surpassed the ability of the County and other jurisdictions to upgrade and maintain the highway and road system. As the number of vehicles on the roadways has increased, the expansion of existing roadways and the construction of new roadways has not kept pace. Between 1978 and 1988, automobile registrations increased by 64% while increases in local street and road mileage only rose by 16%. As a result, certain roadways are functioning at a Level of Service "E" or "F" on a routine basis.

   A LOS "C", which allows for stable traffic flow with room to maneuver, is a generally accepted level to strive for in new development. At this level, traffic generally flows smoothly, although freedom to maneuver within the roadway is somewhat restricted and lane changes require additional care.

   However, there are some cases where development cannot achieve a LOS "C" on off-site roadways. For instance, there are areas where the existing development pattern precludes the addition of lanes or other mitigation or when the community is opposed to certain improvements to maintain a LOS "C". Additionally, there are existing roadways in the County that are currently operating below a LOS "C". Such cases are currently exceptions and generally occur when there is insufficient right-of-way to expand or modify a roadway or when the existing development in the area has generated more traffic than anticipated. In these cases a Level of Service "D" is acceptable on off-site roadways. At this level, small increases in flow cause substantial deterioration in service. Freedom to maneuver is limited and minor incidents can cause substantial interruption in the traffic flow.

   When the roadway system reaches a LOS "E" or "F", or new development would push it to LOS "E" or "F", new development should not be approved unless the project can mitigate the LOS "E" or contribute a fair share to a program to mitigate the project's impacts, unless a statement of overriding findings can be made.

   In order to control the amount of traffic on the roadways, and subsequently the amount of congestion, it is necessary to apply the LOS measurement to all roads that are impacted by a proposed project. The effect of a project on the road system varies from project to project. Due to the size and type of project, the type and capacity of roads serving the project, the amount of traffic generated by the development and the existing development pattern, the impact will vary from one project to another. To apply a LOS standard to only major or larger capacity roads or to within a specified geographic distance of a project could result in an inadequate review of the impacts of a project and create the potential for increased congestion. Therefore, project impacts should be assessed on a case-by-case basis.

Excerpts from the County's *Guidelines for Determining Significance*

COUNTY OF SAN DIEGO

GUIDELINES FOR DETERMINING SIGNIFICANCE

TRANSPORTATION AND TRAFFIC

LAND USE AND ENVIRONMENT GROUP

Department of Planning and Land Use
Department of Public Works

First Revision
December 5, 2007

APPROVAL

I hereby certify that these **Guidelines for Determining Significance and Report Format and Content Requirements for Transportation and Traffic** are a part of the County of San Diego, Land Use and Environment Group's Guidelines for Determining Significance and Technical Report Format and Content Requirements and were considered by the Director of Planning and Land Use, in coordination with the Director of Public Works on the 5th day of December, 2007.

ERIC GIBSON
Interim Director of Planning and Land Use

JOHN SNYDER
Director of Public Works

I hereby certify that these **Guidelines for Determining Significance and Report Format and Content Requirements for Transportation and Traffic** are a part of the County of San Diego, Land Use and Environment Group's Guidelines for Determining Significance and Technical Report Format and Content Requirements and have hereby been approved by the Deputy Chief Administrative Officer (DCAO) of the Land Use and Environment Group on the 5th day of December, 2007. The Director of Planning and Land Use is authorized to approve revisions to these Guidelines for Determining Significance and Report Format and Content Requirements for Transportation and Traffic, except any revisions to Section 4.0 of the Guidelines for Determining Significance for Transportation and Traffic must be approved by the Deputy CAO.

Approved, December 5, 2007

Text
First Revision
December 5, 2007

Approved
September 26, 2006

CHANDRA WALLAR
Deputy CAO

INTRODUCTION

This document provides guidance for evaluating adverse environmental effects that a proposed project may have on transportation and traffic. Specifically, this document addresses the following questions listed in the California Environmental Quality Act (CEQA) Guidelines, Appendix G, XV, Transportation/Traffic[1]:

Would the project:

a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?

b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways? Or individually or cumulatively worsen a road already failing to meet the level of service?[2]

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

f) Result in inadequate parking capacity?

g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

Traffic and transportation related impacts are major concerns for the San Diego Region. As population in the San Diego Region grows, traffic, as measured by average daily trips (ADT), also grows. Land development within the San Diego region contributes to growth in population and growth in traffic. The rate of land development, population and traffic growth has often outpaced the provision of needed transportation infrastructure to adequately accommodate the increased growth. As a result, traffic congestion is a common occurrence on many freeways, highways and arterials in the San Diego region.

---

[1] The State CEQA Guidelines, Appendix G, XV Transportation/Traffic list two other transportation/traffic related questions (c and e), which are not addressed in this document. Question c states, "Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in locations that results in substantial safety risks?" Question c is concerned with airport traffic safety and is addressed under the County's Guidelines for Determining Significance for Airport Hazards. Questions e states, "Would the project result in inadequate emergency access? Question e is addressed under the County's Guidelines for Determining Significance for Fire Protection Planning, which addresses the needs of emergency service providers (fire and sheriff, etc.), including emergency access requirements.

[2] The second part of this question has been added and is not included in Appendix G of the State CEQA Guidelines.

1.0 GENERAL PRINCIPLES AND EXISTING CONDITIONS

The population of the San Diego Region is projected to increase from approximately 2.9 million people today to about 3.9 million in the year 2030. As a result, the number of forecasted Vehicle Miles Traveled (VMT) in the San Diego Region is projected to increase 50 percent from current levels. Road improvements will be needed to accommodate the anticipated growth in traffic; otherwise, traffic congestion will increase significantly.

1.1 Level of Service

As a means of measuring and evaluating traffic congestion, the concept of "level of service" was created. Level of service (LOS) is a quality of service measure that describes operational conditions on a transportation facility, such as a roadway or intersection. Levels of service are established based upon the driver's perspective. This service measure is a general overall measurement of several conditions such as speed and travel time, freedom to maneuver, traffic interruption, and comfort and convenience. Safety is an important concern but, typically, is not included in the measures that establish service levels.

Six LOS categories are defined for each type of transportation facility. Letters designate each level, from A to F, with LOS A representing the best operating conditions and LOS F the worst. Each LOS represents a range of operating conditions and the driver's perception of those conditions. Methods for identifying levels of service vary based upon the type of transportation facility. Criteria for identifying levels of service on County of San Diego arterials are provided in the County of San Diego Public Road Standards. Methods of identifying levels of service for freeways, highways and intersections are provided in the Highway Capacity Manual (HCM). A detailed discussion of level of service and an excerpted table from the Public Road Standards is provided in Attachment A. Also, definitions of some key traffic terms are included in Attachment B.

Levels of service are used primarily to assess how substantial increases in vehicular traffic may affect traffic congestion on specific transportation facilities, such as freeways, arterials, and intersections. Procedures have also been established to adjust the evaluation to account for trucks, buses, grade and pedestrian volumes. Substantial traffic volume increase may also result in other traffic related impacts. Where applicable, evaluations should be made to assess the potential for traffic related impacts for the following items:

- Regional transportation facilities; including freeways, state highways and ramps
- Local circulation and road network
- Adequacy of existing roadway or intersection design features
- Access (both primary and secondary, as required)
- Alternative transportation modes; including pedestrians, bicyclists and transit

1.2 Traffic Impact Studies

In order to evaluate potential traffic impacts that may result from a specific project, traffic impact studies are often prepared. Traffic impact studies include estimates of the amount of traffic generated by the project, distributions of project traffic or redistributions of traffic caused by the project, assessments of potential traffic impacts, and when applicable, the identification of mitigation measures to alleviate project-related traffic impacts.

The agency responsible for final approval of a project's traffic study is the agency that has discretionary approval of the project. For most projects located in the unincorporated area of San Diego, the agency approving the traffic study would be the County of San Diego. However, coordination with other affected agencies is often necessary in the preparation of traffic impact studies. SANDAG is the agency responsible for the oversight of regional transportation planning. The California Department of Transportation (Caltrans) is the State agency responsible for planning, constructing and maintaining the State highway network. In addition to the County of San Diego, eighteen other municipalities within the San Diego Region are responsible for planning, constructing and maintaining local transportation networks within their respective areas of jurisdiction.

For more information on traffic impact studies refer to the County's Transportation and Traffic Report Format and Content Requirements.

1.3 Regional Transportation Plan

On March 28, 2003 the San Diego Association of Governments (SANDAG) Board adopted the 2030 Regional Transportation Plan (RTP). This plan establishes goals and policies for addressing the needs of the regional transportation network in the San Diego region. A needs assessment prepared in 1998, identified that 13 percent (77 of 600 directional-miles) of the San Diego Region's freeway system operated at LOS F, an unacceptable level of service. Although not documented in the report, many of the region's local arterials and highways are also operating at unacceptable levels of service.

The 2030 RTP also estimated that $42 billion dollars would be required to provide needed highway transit and local road projects. If implemented, these projects alone will not fully relieve existing and anticipated future congestion. As the region's population, employment and VMT increase, congestion will also increase unless additional transportation improvements are made. SANDAG is in the process of updating the RTP to address recent funding resources, such as the passage of TRANSNET, and to reflect more recent population and traffic projections. In this effort SANDAG has estimated that there are 29 deficient (LOS F) freeway segments with a total mileage of 117 miles. Additional road and highway improvements may be assumed in the updated plan.

1.4 Parking

Parking requirements in the County are usually addressed on the local level through standards set forth in the County of San Diego Zoning Ordinance, Parking Regulations, Sections 6750-6799 and the County of San Diego Off-Street Parking Design Manual (June 1985), which implements Section 6793(c) of the County Zoning Ordinance.

The purpose of the parking regulations is to provide functionally adequate, safe, convenient and aesthetically pleasing off-street parking and loading facilities for motor vehicles and bicycles. With the exception of certain urbanized areas in the unincorporated portion of San Diego County, the majority of proposed, discretionary land uses have more than sufficient area to feasibly satisfy County parking requirements.

When designing a parking area, the size, location, landscaping and fencing of vehicle and bicycle parking spaces must be considered. Minimum size, location, landscaping and fencing standards are included in the Zoning Ordinance and Off-Street Parking Design Manual. The most frequently applicable parking standards considered during project design are summarized below.

1.4.1 Size of Parking Spaces

The dimension of parking spaces varies depending on angle of parking (0°, 30°, 45°, 60°, or 90°), striping of spaces (single or double), and whether the parking is intended for compact, regular, or handicapped vehicles. Regular parking spaces that are not for parallel parking shall measure 8'-6" x 18'. Handicapped parking spaces that are not for parallel parking shall measure 14'x19'. Different striping plans may further reduce the width of regular and handicapped spaces, as identified in the Off-Street Parking Design Manual.

Most uses, particularly office and retail, also require motorcycle and bicycle spaces, typically at a ratio of 1.5 bicycle spaces for each 10 parking spaces. Where bicycle spaces are required there shall not be less than three spaces provided.

1.4.2 Location of Parking Spaces

Some zones require parking to observe certain setbacks. These standards are outlined in the Zoning Ordinance, Section 6787 and Off-Street Parking Design Manual, Location of Parking on Typical Lots. Generally the location of parking is designed to ensure a safe environment for drivers and passengers exiting a parked vehicle; to provide relatively convenient access to the driver's and passenger's destination; and to minimize indirect impacts to adjoining properties, including noise, visual and lighting impacts.

2.0 EXISTING REGULATIONS AND STANDARDS

The following list details the most significant regulations that address traffic impacts in California and the County of San Diego.

2.1 State Regulations and Standards

California Environmental Quality Act (CEQA)[3]
[http://ceres.ca.gov/topic/env_law/ceqa/guidelines/]
Under the California Environmental Quality Act (CEQA) lead agencies are required to consider traffic impacts when assessing the environmental impacts of proposed projects. CEQA requires discretionary projects to evaluate the effect projects may have on traffic circulation and other transportation related impacts.

2.2 Local Regulations and Standards

Public Facilities Element (Part XII) of the San Diego County General Plan
[http://ceres.ca.gov/planning/counties/San_Diego/plans.html]
The County of San Diego General Plan Public Facilities Element establishes policies and implementation measures regarding the assessment and mitigation of traffic impacts of new development. One of the goals of the Public Facilities Element (PFE) is to provide "A safe, convenient, and economical integrated transportation system including a wide range of transportation modes (PFE, page XII-4-18)." The PFE also identifies an objective in the Transportation Section to provide a "Level of Service C or better on County Circulation Element roads. (PFE, page XII-4-18)." The PFE, however, establishes LOS D as an off-site mitigation limit for discretionary projects. When an existing Level of Service is already D, "a LOS of D may be allowed (PFE, page XII-4-18)." According to the PFE, projects that significantly increase congestion on roads operating at LOS E or LOS F must provide mitigation. According to the PFE, this mitigation can consist of a fair share contribution to an established program or project to mitigate the project's impacts. If impacts cannot be mitigated, the project will be denied unless a specific statement of overriding findings is made pursuant to Sections 15091 and 15093 of the State CEQA Guidelines to approve the project as proposed.

San Diego County Transportation Impact Fee (TIF) Program/Ordinance
The County of San Diego Board of Supervisors adopted a Transportation Impact Fee Ordinance (April 2005) for the unincorporated area of San Diego County. The ordinance enables the County to implement Transportation Impact Fee programs. The TIF program requires payment of fees that constitute a proposed project's fair share contribution towards the construction costs of the planned transportation facilities that are affected by the proposed development. The TIF fees are collected as a condition of approval of a subdivision or prior to issuance of a development permit, including and most typically a building permit.

[3] Public Resources Code 21000-21178; California Code of Regulations, Guidelines for Implementation of CEQA, Appendix G, Title 14, Chapter 3, §15000-15387.

San Diego County Public Road Standards [http://www.sdcounty.ca.gov/dpw/land/rtelocs.htm]
These standards provide minimum design and construction requirements for public roads. Levels of service are established for Circulation Element roads. Levels of service are not applied with the non-Circulation Element residential roads. Target design capacities, however, have been identified for these roads.

San Diego County Private Road Standards [http://www.sdcounty.ca.gov/dpw/land/rtelocs.htm]
These standards provide minimum design and construction requirements for private roads. Levels of service are not established for private roads. Minimum design and construction requirements, however, are established based upon the projected average daily traffic (ADT) volume on the road.

SANDAG Standards - Congestion Management Program[4]
[http://www.sandag.org/uploads/publicationid/publicationid_736_1278.pdf]
State Proposition 111, passed by voters in 1990, established a requirement that urbanized areas prepare and regularly update a Congestion Management Program (CMP), which is a part of SANDAG's Regional Transportation Plan (RTP). The purpose of the CMP is to monitor the performance of the region's transportation system, develop programs to address near-term and long-term congestion, and better integrate transportation and land use planning. SANDAG, as the designated Congestion Management Agency for San Diego region, must develop, adopt and update the CMP in response to six specific legislative requirements further described in the report. SANDAG, local jurisdictions, and transportation operators (i.e., Caltrans, Metropolitan Transit Development Board (MTDB), North San Diego County Transit District (NCTD), etc.) are responsible for implementing and monitoring the CMP.

The CMP has five major components. One such component is a Land Use Analysis Program. Under this program, the CMP requires a review of large projects that generate 2,400 or more average daily trips or 200 or more peak hour trips. This review must assess impacts to state highways and regionally significant arterials. An excerpted list of these roadways from the CMP is included below. For further information refer to the CMP, Map 4-1 and Exhibit 4-1, pp. 27-28. A copy of the CMP can be obtained from SANDAG or online.

List of CMP System Roadways

CMP Freeways
Interstate 5: Orange County Line to U.S./Mexico Border
Interstate 8: Nimitz Boulevard to Imperial County Line
Interstate 15: Riverside County Line to I-5
Interstate 805: I-5 (North) to I-5 (South)
State Route 52: I-5 to SR 25
State Route 54: I-5 to Briarwood Road
State Route 56: I-5 to Carmel Valley Road and I-15 to Black Mountain Road
State Route 67: Mapleview Street to I-8

[4] Congestion Management Program Update, January 2003, San Diego Regional Planning Agency

State Route 78: I-5 to North Broadway
State Route 94: I-5 to Avocado Boulevard
State Route 125: SR 54 to SR 94
State Route 163: I-15 to I-5
State Route 905: Oro Vista Road to Otay Mesa Road

CMP Highways
State Route 54: I-8 to SR 94
State Route 67: SR 78 to Mapleview Valley
State Route 75: I-5 (North) to I-5 (South)
State Route 76: Coast Highway to SR 79
State Route 78: North Broadway to Imperial County Line
State Route 79: Riverside County Line to I-8
State Route 94: Avocado Boulevard to Old Highway 80
State Route 282: Alameda Boulevard to Orange Avenue

CMP Arterials
(1) Balboa Avenue: I-5 to I-15[5]
(2) Centre City Parkway: I-15 (North) to I-15 (South)
(3) Fletcher Parkway/Broadway/E. Main Street/Greenfield Drive: I-8 (West) to I-8 (East)
(4) La Jolla Village Drive/Miramar Road: I-5 to I-15
(5) Manchester Avenue/El Camino Real: I-5 to SR 76/Mission Avenue
(6) Nimitz Blvd./North Harbor Dr./Grape & Hawthorne Streets/Pacific Highway/Harbor Drive: I-8 to I-5
(7) Olivenhain Road/Rancho Santa Fe Road: El Camino Real to SR 78
(8) Otay Mesa Road-Interim SR 905: SR 905 (West) to SR 905 (East)2
(9) Palomar Airport Road/San Marcos Boulevard: I-5 to SR 78
(10) Sea World Drive/Friars Road/Mission Gorge Road/Woodside Avenue: I-5 to SR 67
(11) Scripps Poway Parkway: I-15 to SR 67
(12) SR 54 & Sweetwater Road-Interim SR 125: I-805 to Broadway[6]

County of San Diego Zoning Ordinance, Parking Regulations, Sections 6750- 6799
[http://www.co.san-diego.ca.us/dplu/docs/z6000.pdf]
The County's Zoning Ordinance sets the standards for parking including requirements for new uses and structures; existing uses and structures; conversion, alterations, or expansion of an existing use or structure; computation of vehicle and bicycle space requirements; location of parking to building sites; parking space dimensions; design of bicycle storage; design standards for off-street parking; loading spaces; variances from parking regulations; and parking of commercial vehicles in residential, agricultural and certain special purpose zones.

[5] This CMP Arterial was formerly designated as CMP State Highway 274.
[6] These CMP Arterials are designated as interim facilities on the CMP network and will be replaced by a state highway following their construction.

County of San Diego Off-Street Parking Design Manual
[http://www.co.san-diego.ca.us/cnty/cntydepts/landuse/planning/zoning/ospdman.pdf]
The County of San Diego Off-Street Parking Design Manual implements Section 6793(c) of the County Zoning Ordinance. This section of the Ordinance relates to the design, dimensions, construction, landscaping, and surfacing of parking and bicycle spaces, and driveways.

2.3 Regional and Local Traffic Impact Analysis Guidelines

San Diego Traffic Engineers' Council (SANTEC) and the Institute of Traffic Engineers (ITE)
The San Diego Traffic Engineers' Council (SANTEC) and the local chapter of the Institute of Traffic Engineers (ITE) have endorsed for use the "Guidelines of Traffic Impact Studies (TIS) in the San Diego Region." These guidelines were prepared by a traffic subcommittee formed by SANDAG. The purpose of the subcommittee was to develop a model set of guidelines for the analysis of traffic impacts for adoption and use by the various jurisdictions in the San Diego region. The goal was to foster more consistency in the assessment of traffic impacts in the San Diego region. These guidelines establish a LOS target of LOS D. Impacts would be identified for those projects that significantly increase the volume and or delay at intersections and road segments operating below LOS D (i.e. at LOS E of LOS F) either prior to or as a result of the proposed project. These guidelines have been incorporated into an appendix of the Regional Congestion Management Program (CMP) that is formally adopted by SANDAG for use by local jurisdictions. These guidelines are often used as a guideline by many local traffic-engineering consultants in the preparation of traffic impact studies in the San Diego Region. These guidelines, however, do not provide specific direction regarding the assessment of cumulative traffic impacts, unsignalized intersections or consistency with recent changes in the CEQA guidelines that removed consideration of de minimus findings/effects.

California Department of Transportation (Caltrans)
The California Department of Transportation (Caltrans) has prepared a "Guide for the Preparation of Traffic Impact Studies." Objectives for the preparation of this guide include providing consistency and uniformity in the identification of traffic impacts generated by local land use proposals. In terms of level of service, Caltrans endeavors to maintain a goal of LOS C on State highway facilities. However, Caltrans acknowledges that this may not always be feasible. In these circumstances, Caltrans often accepts lower LOS on facilities that are currently operating below the LOS C objective.

City of San Diego
The City of San Diego has prepared a "Traffic Impact Study Manual." The purpose is to provide guidelines to consultants on how to prepare traffic impact studies in the City of San Diego and to ensure consistency on the preparation of these studies. Impacts are identified if the proposed project will increase the traffic volume on a road segment above an identified allowable increase. The better the initial level of service on the road segment, the higher the allowable volume increase.

3.0 TYPICAL ADVERSE EFFECTS

3.1 Traffic Congestion

Typical traffic related impacts are most often associated with traffic congestion on local roads and the regional circulation network. As the San Diego region grows, the number of vehicle trips that are generated by residents also grows. Historically, vehicle trips have been increasing at a faster rate than that of the population growth. It is forecasted that more than 16 million vehicle trips would be made in this region each weekday by the year 2030. The automobile is expected to remain the primary method of travel in the region, but new and widened freeways, increased trolley and bus service, better rail service, and additional highway improvements would alleviate some of the traffic congestion. SANDAG's 2030 RTP details some of the regional improvements that are projected to occur within a twenty-year time frame, but even with these improvements individual projects will continue to contribute to traffic congestion.

Traffic congestion usually affects level of service on roadway segments and at intersections and ramps, which in turn results in decreases in traffic flow on roadways and longer queues at intersections and ramps. These delays add time to drivers' daily commutes and can be noticeable impacts of traffic congestion.

3.2 Connectivity

The County's road network is connected by a variety of roadways, which allow drivers to travel throughout the County. However, at times there are physical limitations, such as steep topography, which partially constrain connectivity on existing roadways and preclude the construction on new roadway connections. In order to address connectivity issues alternative road networks to access potential connections may be required.

3.3 Hazards Due to an Existing Transportation Design Feature

Increased traffic generated or redistributed by a proposed project may cause a significant traffic operational impact to an existing transportation design feature and result in potential hazards. These hazards can occur due to a design features or physical configuration of existing or proposed access roads and can adversely affect the safe transport of vehicles along a roadway. The physical conditions of the project site and surrounding area, such as curves, slopes, walls, landscaping or other barriers, may also result in vehicle conflicts with other vehicles or stationary objects.

3.4 Hazards to Pedestrians or Bicyclists

Increased traffic generated or redistributed by a proposed project may cause a significant traffic operational impact to pedestrians or bicyclists and result in potential hazards. These hazards can occur for a variety of reasons including:

- A design feature or physical configurations on a road segment or at an intersection that may adversely affect the visibility of pedestrians or bicyclists to drivers entering and exiting the site, and the visibility of cars to pedestrians and bicyclists;
- High amount of pedestrian activity at the project access points.
- Precluding or substantially hindering the provision of a planned bike lane or pedestrian facility on a roadway adjacent to the project site.
- The physical conditions of the project site and surrounding area, such as curves, slopes, walls, landscaping or other barriers may result in vehicle/pedestrian, vehicle/bicycle conflicts.
- The project may result in a substantial increase in pedestrian or bicycle activity without the presence of adequate facilities.

3.5 Parking Capacity

Typical adverse effects on parking occur when an adequate number of spaces are not incorporated in a project design. The regulations are intended to require adequate off-street parking and loading, thereby reducing traffic congestion, allowing more efficient utilization of on-street parking, promoting more efficient loading operations, and reducing the use of public streets for loading purposes. Additionally, the regulations are intended to minimize the secondary effects of vehicles. These may include vehicular noise or visual impacts from headlights and unscreened parked vehicles. Unscreened parked vehicles are a particular concern when parking adjoins or is adjacent to residential areas or affect systems that are sensitive to noise and lighting.

4.0 GUIDELINES FOR DETERMINING SIGNIFICANCE

The following significance guidelines should guide the evaluation of whether a significant impact to transportation and traffic will occur as a result of project implementation. A project will generally be considered to have a significant effect if it proposes any of the following, absent specific evidence to the contrary. Conversely, if a project does not propose any of the following, it will generally not be considered to have a significant effect on transportation and traffic, absent specific evidence of such an effect.

This section provides guidance for evaluating adverse environmental effects a project may have on traffic. The guidelines for determining significance are organized into eight categories: road segments, intersections, ramps, congestion management plan, hazards due to an existing transportation design feature, hazards to pedestrians or bicyclists, parking capacity, and alternative transportation. A discussion of how to evaluate project and cumulative level impacts is also included in the Transportation and Traffic Report Format and Content Requirement.

4.1 Road Segments

Pursuant to the County's General Plan Public Facilities Element (PFE), new development must provide improvements or other measures to mitigate traffic impacts to avoid:

(a) Reduction in Level of Service (LOS) below "C" for on-site Circulation Element roads;

(b) Reduction in LOS below "D" for off-site and on-site abutting Circulation Element roads; and

(c) "Significantly impacting congestion" on roads that operate at LOS "E" or "F". If impacts cannot be mitigated, the project cannot be approved unless a statement of overriding findings is made pursuant to the State CEQA Guidelines. The PFE, however, does not include specific guidelines for determining the amount of additional traffic that would "significantly impact congestion" on such roads.

The County has created the following guidelines to evaluate likely traffic impacts of a proposed project for road segments and intersections serving that project site, for purposes of determining whether the development would "significantly impact congestion" on the referenced LOS E and F roads. The guidelines are summarized in Table 1. The levels in Table 1 are based upon average operating conditions on County roadways. It should be noted that these levels only establish general guidelines, and that the specific project location must be taken into account in conducting an analysis of traffic impact from new development.

On-site Circulation Element Roads

PFE, Transportation, Policy 1.1 states that "new development shall provide needed roadway expansion and improvements on-site to meet demand created by the development, and to maintain a Level of Service C on Circulation Element Roads during peak traffic hours". Pursuant to this policy, a significant traffic impact would result if:

- ***The additional or redistributed ADT generated by the proposed land development project will cause on-site Circulation Element Roads to operate below LOS C during peak traffic hours except within the Otay Ranch project as defined in the Otay Subregional Plan Text, Volume 2. PFE, Implementation Measure 1.1.2.***

Off-site Circulation Element Roads

PFE, Transportation, Policy 1.1 also states that "new development shall provide needed roadway expansion and improvements off-site to meet demand created by the development, and to maintain a Level of Service D on Circulation Element Roads." "New development that would significantly impact congestion on roads operating at LOS E or F, either currently or as a result of the project, will be denied unless improvements are scheduled to improve the LOS to D or better or appropriate mitigation is provided." The PFE, however, does not specify what would significantly impact congestion or establish criteria for evaluating when increased traffic volumes would significantly impact congestion. The following significance guidelines provided are the County's preferred method for evaluating whether or not increased traffic volumes generated or redistributed from a proposed project will "significantly impact congestion" on County roads, operating at LOS E or F, either currently or as a result of the project.

Traffic volume increases from public or private projects that result in one or more of the following criteria will have a significant traffic volume or level of service traffic impact on a road segment, unless specific facts show that there are other circumstances that mitigate or avoid such impacts:

- ***The additional or redistributed ADT generated by the proposed project will significantly increase congestion on a Circulation Element Road or State Highway currently operating at LOS E or LOS F, or will cause a Circulation Element Road or State Highway to operate at a LOS E or LOS F as a result of the proposed project as identified in Table 1, or***

- ***The additional or redistributed ADT generated by the proposed project will cause a residential street to exceed its design capacity.***

Table 1
Measures of Significant Project Impacts to Congestion on Road Segments: Allowable Increases on Congested Road Segments

Level of service	Two-lane road	Four-lane road	Six-lane road
LOS E	200 ADT	400 ADT	600 ADT
LOS F	100 ADT	200 ADT	300 ADT

Notes:
1. **By adding proposed project trips to all other trips from a list of projects, this same table must be used to determine if total cumulative impacts are significant. If cumulative impacts are found to be significant, each project that contributes any trips must mitigate a share of the cumulative impacts.**
2. **The County may also determine impacts have occurred on roads even when a project's traffic or cumulative impacts do not trigger an unacceptable level of service, when such traffic uses a significant amount of remaining road capacity.**

The first significance criterion listed in Table 1 addresses roadways presently operating at LOS E. Based on these criteria, an impact from new development on an LOS E road would be reached when the increase in average daily trips (ADT) on a two-lane road exceeds 200 ADT. Using SANDAG's "Brief Guide for Vehicular Traffic Generation Rates for the San Diego Region" for most discretionary projects this would generate less than 25 peak hour trips. On average, during peak hour conditions, this would be only one additional car every 2.4 minutes. Therefore, the addition of 200 ADT, in most cases, would result in changes to traffic flow that would not be noticeable to the average driver and therefore would not constitute a significant impact on the roadway. Significance criteria were also established for four-lane and six-lane roads operating at LOS E and are based upon the above 24 hour ADT significance criterion established for two-lane roads. The two-lane road criterion was doubled to determine impacts to four-lane roads and tripled to determine impacts to six-lane roads. This was considered to be conservative since the 24 hour per lane road capacity for a 4-lane road is more than double that of a two-lane road and the per lane capacity of a six-lane road is more than triple that of the two-lane road. For LOS E roads, the additional significance criteria are 400 ADT for a four-lane road and 600 ADT for a six-lane road. Similar to criterion for two-lane roads, the 400 ADT for a 4-lane road and 600 ADT for a 6-lane road criteria would generate less than 25 per lane peak hour trips for most discretionary projects. On average, during peak hour conditions, this would be only one additional car per lane every 2.4 minutes. The addition of 200 ADT per lane (400 ADT for a 4 lane road or 600 ADT for a 6 lane road) , in most cases, would result in changes to traffic flow that would not be noticeable to the average driver and therefore would not constitute a significant impact on the roadway. Road capacities based upon level of service for County roads (two-lane, four-lane and six-lane) are provided in Attachment A.

The second significance criteria listed in Table 1 addresses roadways presently operating at LOS F. Under LOS F congested conditions, small changes and disruptions to the traffic flow on County Circulation Element Roads can have a greater effect on traffic operations when compared to other LOS conditions. In order to better account for

potential effects of increased traffic on LOS F roads more stringent significance criteria was established when compared to that for LOS E. Based on this guidance, an impact from new development on an LOS F road would be reached when the increase in average daily trips (ADT) on a two-lane road exceeds 100. Again, using SANDAG's "Brief Guide for Vehicular Traffic Generation Rates for the San Diego Region" for most discretionary projects this would generate less than 12.5 peak hour trips. On average, during peak hour conditions, this would be only one additional car every 4.8 minutes. The addition of 100 ADT, in most cases, would not be noticeable to the average driver and therefore would not constitute a significant impact on the roadway. The same approach used to determine significance criteria for four-lane and six-lane roads operating at LOS E was used to determine appropriate significance criteria for four-lane and six-lane roads operating at LOS F. Based on this approach, the significance criteria for a four-lane road (200 ADT) and for a six-lane road (300 ADT) would generate less than 12.5 per lane peak hour trips for most discretionary projects. On average, during peak hour conditions, this would be only one additional car per lane every 4.8 minutes. The addition of 100 per lane ADT (200 ADT for a 4-lane road and 300 ADT for a 6-lane road) would, in most cases, not be noticeable to the average driver and therefore would not constitute a significant impact on the roadway. In summary, under extremely congested LOS F conditions, small changes and disruptions to the traffic flow can significantly affect traffic operations and additional project traffic can increase the likelihood or frequency of these events. Therefore, the LOS F ADT significance criteria was set at 100 ADT (50% of the LOS E criterion) to provide a higher level of assurance that the traffic allowed under the criterion would not significantly impact traffic operation on the road segment.

Non-Circulation Element Residential Streets

Levels of service are not applied to residential streets since their primary purpose is to serve abutting lots and not to carry through traffic, however, for projects that will substantially increase traffic volumes on residential streets, a comparison of the traffic volumes on the residential streets with the recommended design capacity must be provided. Recommended design capacities for residential non-Circulation Element streets are provided in the San Diego County Public and Private Road Standards. Traffic volume that exceeds the design capacity on residential streets may impact residences and should be analyzed on a case-by-case basis.

4.2 Intersections

This section provides guidance for evaluating adverse environmental effects a project may have on signalized and unsignalized intersections.

4.2.1 Signalized

Traffic volume increases from public or private projects that result in one or more of the following criteria will have a significant traffic volume or level of service traffic impact on a road segment:

- ***The additional or redistributed ADT generated by the proposed project will significantly increase congestion on a signalized intersection currently operating at LOS E or LOS F, or will cause a signalized intersection to operate at a LOS E or LOS F as identified in Table 2.***

Table 2
Measures of Significant Project Impacts to Congestion on Intersections: Allowable Increases on Congested Intersections

Level of Service	Signalized	Unsignalized
LOS E	Delay of 2 seconds	20 peak hour trips on a critical movement
LOS F	Delay of 1 second, or 5 peak hour trips on a critical movement	5 peak hour trips on a critical movement

Notes:
1. **A critical movement is one that is experiencing excessive queues.**
2. **By adding proposed project trips to all other trips from a list of projects, these same tables are used to determine if total cumulative impacts are significant. If cumulative impacts are found to be significant, each project that contributes any trips must mitigate a share of the cumulative impacts.**
3. **The County may also determine impacts have occurred on roads even when a project's traffic or cumulative impacts do not trigger an unacceptable level of service, when such traffic uses a significant amount of remaining road capacity.**

The significance criterion for signalized intersections identified in Table 2 allows an increase in the overall delay at an intersection operating at LOS E of two seconds. This is consistent with the capacity limit contained in the SANDAG's CMP and guidelines established by the City of San Diego. A delay of two seconds is a small fraction of the typical cycle length for a signalized intersection that ranges between 60 and 120 seconds. The likelihood of increased queues forming due to the additional two seconds of delay is low. Therefore, an increased wait time of two seconds, on average, would result in changes to traffic flow that would not be noticeable to the average driver. Therefore the significance guideline for intersections operating at LOS E is 2 seconds.

The primary significance criterion for signalized intersections operating at LOS F conditions was based upon increased delay at the intersection. Under LOS F congested conditions, small changes and disruptions to the traffic flow to signalized intersections can have a greater effect on overall intersection operations when compared to other LOS conditions. In order to better account for potential effects of increased traffic at signalized intersections operating at LOS F, a more stringent

guideline was established when compared to signalized intersection operating at LOS E. A significance guideline of an increased delay of 1 second was established for signalized intersections operating at LOS F. An increase in the overall delay at an intersection of one second, on average, would result in changes to traffic flow that would not be noticeable to the average driver. Therefore the significance guideline for intersections operating at LOS F is 1 second.

Signalized intersections operating at LOS F also have the potential for substantial queuing at specific turning movements that may detrimentally effect overall intersection and/or road segment operations. Thus, an increase of peak hour trips to a critical move was also established as a secondary significance criterion for signalized intersections. A critical movement would be a movement or a lane at an intersection that is experiencing queuing or substantial delay and is affecting the overall operation of the intersection. The increase in peak hour trips to a critical move is a measurement of how many cars can be added to an existing queue. The addition of five trips (peak hour) per critical movement will normally be considered a significant impact. This significance criterion was selected because the five additional trips spread out over the peak hour would not significantly increase the length of an existing queue and would not be noticeable to the average driver (one trip every 12 minutes or 720 seconds). For LOS E intersections, the 5 peak hour trips to a critical movement would not be noticeable to the average driver since the one additional trip during the 12 minute interval on average would clear the traffic signal cycles well within the 12 minute period. It should also be noted that if the 5 additional peak hour trips arrived at the same time these trips would also clear the traffic cycle and existing queue lengths would be re-established.

4.2.2 Unsignalized

The operating parameters and conditions for unsignalized intersections differ dramatically from those of signalized intersections. Very small volume increases on one leg or turn and/or through movement of an unsignalized intersection can substantially affect the calculated delay for the entire intersection. Significance criteria for unsignalized intersections are based upon a minimum number of trips added to a critical movement at an unsignalized intersection.

Traffic volume increases from public or private projects that result in one or more of the following criteria will have a significant traffic volume or level of service traffic impact on a road segment:

- ***The additional or redistributed ADT generated by the proposed project will add 20 or more peak hour trips to a critical movement of an unsignalized intersection, and cause an unsignalized intersection to operate below LOS D, or***

- ***The additional or redistributed ADT generated by the proposed project will add 20 or more peak hour trips to a critical movement of an unsignalized intersection currently operating at LOS E, or***

- ***The additional or redistributed ADT generated by the proposed project will add 5 or more peak hour trips to a critical movement of an unsignalized intersection, and cause the unsignalized intersection to operate at LOS F, or***

- ***The additional or redistributed ADT generated by the proposed project will add 5 or more peak hour trips to a critical movement of an unsignalized intersection currently operating at LOS F, or***

- ***Based upon an evaluation of existing accident rates, the signal priority list, intersection geometrics, proximity of adjacent driveways, sight distance or other factors, it is found that the generation rate is less than those specified above, and would significantly impact the operations of the intersection.***

The significance guidelines for unsignalized intersections identify a minimum number of trips added to a critical movement at an unsignalized intersection. Since the operations of unsignalized intersections under congested conditions are heavily influenced by traffic volume increases on critical moves, the significance guidelines for unsignalized intersections were based upon the number of trips added to a critical movement. This guideline directly relates to the number of vehicles that can be added to an existing queue that forms at the intersection. A significance criteria of twenty trips (peak hour) per critical movement was used for LOS E conditions. Although delays drivers experience under LOS E condition may be noticeable, they are not yet considered unacceptable. The twenty trips spread out over the peak hour would not likely cause the intersection delay or existing queue lengths to become unacceptable. The twenty trips (peak hour) would not be noticeable to the average driver. A significance guideline of five trips (peak hour) per critical movement was used for LOS F conditions. The five trips spread out over the peak hour would not significantly increase the length of an existing queue and would not be noticeable to the average driver.

The operations of unsignalized intersections under congested conditions are heavily influenced by traffic volume increases on critical moves. Therefore, the significance guidelines for unsignalized intersections are based upon the number of peak hour trips added to a critical movement at that intersection. This guideline examines the number of vehicles that may be added to an existing queue that forms at the intersection by the additional traffic generated by a project. In LOS E situations, the delays that drivers experience are noticeable, but are not considered excessive. A peak hour increase of twenty trips to the critical movement of an unsignalized intersection would be, on average, one additional car every 3.0 minutes or 180 seconds. Assuming the average wait time for a vehicle in the critical movement queue is less than 3.0 minutes, which is typical for LOS E condition, this would not be noticeable to the average driver and would not be considered a significant impact.

For LOS F conditions, a significance level of five trips (peak hour) per critical movement was used. The five trips spread out over the peak hour would not significantly increase

the length of an existing queue and would not be noticeable to the average driver. Five trips spread out over an hour would be one car every 12 minutes. This typically exceeds the average wait time in the queue and would not be noticeable to the average driver.

4.3 Two-Lane Highways

This section provides level of service impact guidelines for State highways and County arterials operating as two-lane highways.

Several designated County Circulation Element Roads are State highways under the jurisdiction of Caltrans. These highways include State Route 67, State Route 76, State Route 78, State Route 79 and State Route 94 and within the unincorporated area of the County most of these routes operate as two-lane highways. Caltrans has prepared a "Guide for the Preparation of Traffic Impact Studies" that should also be referenced when evaluating traffic impacts to the above Circulation Element Roads that are under the jurisdiction of Caltrans. Also, Caltrans District 11 local office should be consulted early to adequately scope the traffic study and ensure potential local district issues in the traffic impact study are addressed. While the "Guide for the Preparation of Traffic Impact Studies" provides guidance for scoping a traffic study to assess impacts on Caltrans facilities, it does not provide specific guidelines for determining when a significant traffic impact occurs; hence, the development of the following significance guidelines for two-lane highways.

In addition to the State Routes identified above, several County Circulation Element Roads, although designated as arterials, operate as two-lane highways. These include roadways that have passing opportunities for 40% or more along the length of the roadway and/or have few/limited access points and intersections along the length of the roadway. Examples would include sections of Old Highway 80, Old Highway 395 and Del Dios Highway. The Highway Capacity Manual (HCM) includes analysis criteria for assessment of LOS for two-lane highways. Section 2.2 of the County of San Diego's "Transportation and Traffic Report Format and Content Requirements" states that "The Director of Public Works may, based upon a review of the operational characteristics of the roadway, designate that a HCM analysis be used to determine the LOS for a two-lane County arterial in lieu of the LOS table provided in the County of San Diego Public Road Standards." Level of service tables for two-lane highways have also been established by the County of Riverside and the County of Sacramento.

4.3.1 Signalized Intersection Spacing Over One Mile

This section provides LOS impact significance levels for State highways and County arterials operating as two-lane highways with signalized intersection spacing over one mile. County arterials were addressed in section 4.1 and Table 1, however, those that operate as two-lane highways would have higher project contribution amounts and different LOS E and LOS F levels and are treated in this section.

only one additional car every 2.4 minutes. The addition of 225 ADT would, in most cases, not be noticeable to the average driver on a two-lane highway which has higher speeds and reduced side friction compared to a typical arterial. The additional 225 ADT, therefore, would not constitute a significant impact on a two-lane highway operating at LOS F. The addition of more than 225 ADT would be a significant impact; however, the addition of more than 225 ADT would generally result in a significant impact.

4.3.2 Signalized Intersection Spacing Under One Mile

This section provides level of service impact guidelines for State highways and County arterials operating as two-lane highways with signalized intersection spacing under one mile. Level of Service for purposes of this significance guideline is based upon the overall intersection operations – similar to Urban Street analysis in Chapter 15 Highway Capacity Manual. For determining impact significance at the signalized intersection, Table 4 "Measures of Significant Project Impacts to Congestion on Intersections Allowable Increases on Congested Intersections" may be used as summarized below:

Table 4
Measures of Significant Project Impacts to Congestion:
Allowable Increases on Two-lane Highways
with Signalized Intersection Spacing Under One Mile

Level of Service	Signalized
LOS E	Delay of 2 seconds
LOS F	Delay of 1 second, or 5 peak hour trips on a critical movement

Note:
A critical movement is one that is experiencing excessive queues.

Note:
By adding proposed project trips to all other trips from a list of projects, these same tables are used to determine if total cumulative impacts are significant. If cumulative impacts are found to be significant, each project that contributes any trips must mitigate a share of the cumulative impacts.

Note:
The County may also determine impacts have occurred on roads even when a project's traffic or cumulative impacts do not trigger an unacceptable level of service, when such traffic uses a significant amount of remaining road capacity.

The second impact significance guideline (Table 4) concerns two-lane highways with signalized intersection spacing less than 1 mile. Two-lane highways with intersection spacing less than 1 mile operate similar to urban streets as identified in the HCM. Per the HCM, level Urban Streets have lower speeds with levels of service most characterized by the operation of the intersections along the highway/street. For two-lane highways with intersection spacing less than 1 mile, the level of service will be determined to be that of the intersections along the highway. Impacts for the highway will be determined by evaluating the intersection impact criteria identified in Table 4 of

the County of San Diego's "Transportation and Traffic Guidelines for Determining Significance."

Impacts related to operational features on two-lane highways will be evaluated on a case-by-case basis based upon traffic flow patterns, geometrics, available sight distance, accident histories, and other factors. Coordination with County and/or County staff is recommended regarding any additional operational analysis that may be necessary.

4.4 Ramps

Additional or redistributed ADT generated by the proposed project may significantly increase congestion at a freeway ramp. Caltrans' "Guide for the Preparation of Traffic Impact Studies" states that an operational analysis based upon Caltrans' Highway Design Manual should be used in the evaluation of ramps and that Caltrans' Ramp Metering Guidelines should be used in the preparation of the operational analysis. However, specific criteria for the determination of an impact at a ramp are not provided in the above documents.

The CMP includes guidelines for the determination of traffic impacts at a ramp. These guidelines are summarized in Table 5. Table 5 may be used as a guide in determining significant increases in congestion on ramps and for addressing congestion management plan impacts. Other factors that may be considered include ramp metering, location (rural vs. urban), ramp design, and the proximity of adjacent intersections. Coordination with Caltrans and the local jurisdiction should be conducted to determine appropriate impact criteria for the specific ramps being assessed.

4.5 Congestion Management Plan

Projects that generate over 2,400 ADT or 200 peak hour trips, must comply with the traffic study requirements of SANDAG's Congestion Management Plan. Trip distributions for these projects must also use the current regional computer traffic model. Projects that must prepare a CMP analysis should also follow the CMP traffic impact analysis guidelines. These guidelines are summarized in Table 5 on the next page.

Table 5
Measure of Significant Project Traffic Impacts for
Circulation Element Roads, Signalized Intersections, and Ramps

Level of Service With Project	Allowable Change Due to Project Impact						
	Freeways		Roadway Segments*		Intersections**	Ramps***	Ramps with >15 min. delay
	V/C	Speed (mph)	V/C	Speed (mph)	Delay (sec.)	Delay (min.)	Delay (min.)
E & F	0.01	1	0.02	1	2	-	2

* For County arterials, which are not identified in SANDAG's Regional Transportation Plan and Congestion Management Plan as regionally significant arterials, significance may be measured based upon an increase in average daily trips. The allowable change in ADT due to project impacts in this instance would be identified in Table 1.

** Signalized intersections.

*** See the Transportation and Traffic Report Format and Content Requirements for guidance on ramp metering analysis.

KEY
V/C = Volume to Capacity ratio
Speed = Speed measured in miles per hour
Delay = Average stopped delay per vehicle measured in seconds, or minutes
LOS = Level of Service
ADT = Average Daily Trips

4.6 Hazards Due to an Existing Transportation Design Feature

Many roadways and intersections in the County were designed and constructed prior to the adoption of current road design standards. The design of the roadways and intersections, while adequate for existing traffic volumes, may pose an increased risk if traffic volumes substantially increase along the road segment or at the intersection as a result of the proposed project. Increased traffic generated or redistributed by a proposed project may cause a significant traffic operational impact to an existing transportation design feature. Therefore, it is necessary to evaluate potential hazards to an existing transportation design feature.

The determination of significant hazards to an existing transportation design feature shall be on a case-by-case basis, considering the following factors:

- Design features/physical configurations of access roads may adversely affect the safe transport of vehicles along the roadway.
- The percentage or magnitude of increased traffic on the road due to the proposed project may affect the safety of the roadway.

- The physical conditions of the project site and surrounding area, such as curves, slopes, walls, landscaping or other barriers, may result in vehicle conflicts with other vehicles or stationary objects.

- The project does not conform to the requirements of the private or public road standards, as applicable.

4.7 Hazards to Pedestrians or Bicyclists

Many roadways and intersections in the County do not have pedestrian or bicycle facilities. The roadways and intersections, while adequate for current conditions, may pose an increased risk if traffic volumes, pedestrian volumes, or bicycle volumes substantially increase along the road segment or at the intersection, as a result of the proposed project. Increased traffic generated or redistributed by a proposed project may cause a significant traffic operational impact to pedestrians or bicyclists. Therefore, it is necessary to evaluate potential hazards to pedestrians or bicyclists.

The determination of significant hazards to pedestrians or bicyclists shall be on a case-by-case basis, considering the following factors:

- Design features/physical configurations on a road segment or at an intersection that may adversely affect the visibility of pedestrians or bicyclists to drivers entering and exiting the site, and the visibility of cars to pedestrians and bicyclists.

- The amount of pedestrian activity at the project access points may adversely affect pedestrian safety.

- The project may result in the preclusion or substantial hindrance of the provision of a planned bike lane or pedestrian facility on a roadway adjacent to the project site.

- The percentage or magnitude of increased traffic on the road due to the proposed project may adversely affect pedestrian and bicycle safety.

- The physical conditions of the project site and surrounding area, such as curves, slopes, walls, landscaping or other barriers may result in vehicle/pedestrian, vehicle/bicycle conflicts.

- The project does not conform to the requirements of the private or public road standards, as applicable.

- The project may result in a substantial increase in pedestrian or bicycle activity without the presence of adequate facilities.

APPENDIX B

- TIF Ordinance
- TIF for Single Family Detached Residential Unit
- Freeway Interchanges/Ramps Included in County TIF Program
- Excerpts from the TIF Program Update

TIF Ordinance

AN ORDINANCE TO AMEND THE SAN DIEGO COUNTY CODE RELATED TO THE TRANSPORTATION IMPACT FEE

The Board of Supervisors of the County of San Diego ordains as follows:

Section 1. The Board of Supervisors finds and determines that it is necessary to amend Sections 77.204, 77.207, and 77.208, 77.209, 77.210, 77.211, 77.213, 77.214, 77.215 and 77.217; to add Sections 77.208.1 and 77.208.2 and 77.210.1; and to repeal Section 77.212 of the San Diego County Code pertaining to the Transportation Impact Fee. The amendments made by this ordinance are intended to adjust language in the Transportation Impact Fee Ordinance.

NOTE: Ordinance Sections 77.201, 77.202, 77.203, 77.205, 77.206, 77.212.5, 77.216, 77.218, and 77.219 were unchanged in the 2008 TIF Update

SEC. 77.201. TITLE

This Division shall be known as the Transportation Impact Fee (TIF) Ordinance and may be cited as such.

SEC. 77.202. PURPOSE

The purpose of this Division is to make provision for assessing and collecting fees as a condition of approval of a subdivision map or prior to issuance of a development permit, including a building permit, to defray the actual or estimated costs of constructing planned transportation facilities necessary to accommodate increased traffic generated by future development consistent with §§ 66000 et seq. of the California Government Code (Mitigation Fee Act). Application of this fee will include, but is not limited to, development for residential, commercial and industrial land uses.

The fees collected pursuant to this Division are to fund identified transportation facilities, or portions thereof, that will provide increased road capacity necessitated by the cumulative impacts of future development. The transportation facilities for which these fees are collected are identified as "TIF Facilities" in the adopted TIF Reports. Further studies, including environmental review, may show superior alternative facilities that also provide the needed increased capacity. Once such studies are completed, fees collected under this Division may be used to fund those superior alternative facilities.

Development projects required to provide transportation improvements that are not part of an identified TIF Facility, will be required to construct those improvements, in addition to payment of the TIF.

SEC. 77.203. FINDINGS

The Board of Supervisors, consistent with Cal. Gov't Code §§66000 et seq. of the Mitigation Fee Act, finds that:

(1) The further development of property within the County, as detailed on the Transportation Impact Fee (TIF) Area Maps, will require the construction of additional transportation facilities.

(2) The fees established herein are based upon estimated costs of identified transportation facilities, or portions thereof, the costs of which have been apportioned to each TIF Area based on relative vehicular volumes attributable to future development.

(3) There is a reasonable relationship between construction of identified transportation facilities, or portions thereof, and the additional vehicular trips attributable to future development.

(4) There is a reasonable relationship between the need for identified transportation facilities, or portions thereof, and the future development.

(5) There is a reasonable relationship between the amount of the fee and the cost of transportation facilities, or portions thereof, attributable to future development.

(6) The imposition of Transportation Impact Fees on all new development associated with the generation of new traffic within the TIF Areas is necessary in order to protect the public health, safety and welfare and in order to assure effective implementation of the County's General Plan.

Section 2. Section and 77.204 of the San Diego County Code of Regulatory Ordinances is hereby amended to read as follows:

SEC. 77.204. DEFINITIONS

Whenever the following words are used in this Division, they shall have the meaning ascribed to them in this section.

(a) AGRICULTURE means farming, crop production, or raising of poultry or livestock. Agricultural uses in this ordinance do not include residential facilities.

(b) APPLICANT means developer or person seeking a development permit.

(c) BUILDING PERMIT means a permit required by and issued pursuant to the Uniform Building Code.(d) CONSTRUCTION means design, performance of estimates, environmental assessments and studies, determination of fees, acquisition of right-of-way, administration of construction contracts and actual construction.

(e) COUNTY means the County of San Diego, State of California.

(f) COUNTY HEARING BODY means the County of San Diego, Board of Supervisors, Planning Commission, or any other official, board, or commission designated by the County for decision-making on discretionary actions.

(g) DEVELOPER means the owner or developer of a development seeking a development permit.

(h) DEVELOPMENT PERMIT means any discretionary permit, entitlement, approval for a development project, or any ministerial permit, including building permit, associated with the generation of traffic issued under any ordinance of the County.

(i) DEVELOPMENT PROJECT or DEVELOPMENT means any activity described in Cal. Gov't Code §66000 of the Mitigation Fee Act.

(j) DPW DIRECTOR means the County Director of the Department of Public Works, or his or her designee.

(k) FEE means the fee as set forth in Section 77.208 of this Division.

(l) FREEWAY RAMP means the interchange freeway ramps identified in the "County of San Diego Transportation Impact Fee Report Update" date January 2008.

(m) FURNITURE STORE means a commercial facility for the sale of moveable articles such as tables, chairs, sofas, desks, or cabinets required for use or ornament in a residence, office, or the like.

(n) GENERAL COMMERCIAL includes but is not limited to shopping centers, strip development and commercial clusters, retail sales facilities including grocery stores and department stores, convenience stores, auto sales and repair facilities, hardware and lumber stores, gardening and nursery stores, eating and drinking establishments including fast food restaurants, and any other retail uses other than furniture stores that are not specifically included in other TIF category definitions.

(o) GENERAL INDUSTRIAL means facilities for manufacturing, processing, assembling, distribution services, laboratories for research and development, construction equipment sales and repair, and any industrial use other than warehouse and storage that are not specifically included in other TIF category definitions.

(p) WAREHOUSING AND STORAGE means all types of warehouses or facilities with the primary purpose being to provide storage space.

(q) NON-RESIDENTIAL means development that does not include residential uses.

(r) OFFICE means facilities for administrative or professional services and includes but is not limited to hospitals, medical clinics, insurance sales, banks, savings and loans, and real estate services.

(s) RESIDENTIAL means development composed of single-family dwellings, multi-family attached homes, condominiums and apartments, lodging including hotel rooms and time-share units, mobile homes, facilities for housing agricultural workers, retirement communities, and congregate care facilities for persons unable to care for themselves.

(t) SCHOOLS mean institutions for instruction in a particular skill or field.

(u) TIF means Transportation Impact Fee.

(v) SELECT INDUSTRIAL means industrial uses such as quarries, mining operations, concrete & asphalt plants, borrow pit operations, or landfills that have minimal buildings but generate traffic.

(w) TIF AREA means the area lying within the boundaries designated on the TIF Area Map.

(x) TIF AREA MAP means a map showing the boundaries of each TIF Area. The TIF Area Map may be changed or periodically updated by action of the Board of Supervisors. The TIF Area Map is included as Figure 1 of the TIF Reports.

(y) TIF FACILITIES means the transportation facilities, or portions thereof, including intersections and traffic signals, identified in the TIF Reports, or future County approved alternatives that substantially fulfill the transportation needs identified and represented by a listed facility.

(z) TIF REGION means the area lying within the boundaries designated on the TIF Region Map.

(aa) TIF REGION MAP means a map showing the boundaries of each TIF Region. The TIF Region Map may be changed or periodically updated by action of the Board of Supervisors. The TIF Region Map is included as Figure 2 of the TIF Reports.

(ab) TIF REPORTS means the "Fallbrook and Ramona Transportation Impact Fee Report" and the "County of San Diego Transportation Impact Fee Report" both dated January 2005 and adopted by the Board of Supervisors on April 13, 2005. Additionally, TIF REPORTS include the "County of San Diego Transportation Impact Fee TIF Program Update" dated January 2008. These reports shall be changed or periodically updated by action of the Board of Supervisors pursuant to Section 77.213 of this Division. The current adopted reports are on file with the Clerk of the Board.

(ac) WINERY means an establishment for producing wine and may include wine tasting rooms.

SEC. 77.205. TIF AREAS ESTABLISHED

TIF Areas for the County are hereby established. Said TIF Areas are depicted upon the TIF Area Map and any amendments thereto.

SEC. 77.206. PLANNED TRANSPORTATION FACILITIES

The Board of Supervisors hereby finds that future development projects will require the construction of identified transportation facilities, or portions thereof, or alternatives thereto described in the TIF Reports. Said transportation facilities, or portions thereof, shall hereinafter be referred to as "TIF Facilities." The Board of Supervisors further finds that future development projects within each said TIF Area will be benefited by construction of the TIF Facilities proposed. The listed facilities and their alternatives represent future needs and are not proposed projects. To become a Proposed Improvement Project requires a complete study of alternative routes, environmental review, and approval by the Board of Supervisors as part of the DPW detail-work program.

Section 3. Section 77.207 and 77.208 of the San Diego County Code of Regulatory Ordinances are hereby amended to read as follows:

SEC. 77.207. ESTIMATED COSTS

The Board of Supervisors also finds that the total estimated costs effective through September 2004 and updated annually each January starting in January 2006, for all TIF Facilities within each said TIF Area are as set forth in the TIF Reports.

SEC. 77.208. FEE ESTABLISHED

Pursuant to Cal. Gov't Code §§ 66000 et seq. of the Mitigation Fee Act, the fee set forth in said TIF Reports and Alternative Fee Schedules adopted by action of the Board of Supervisors shall be paid by development within the TIF Areas established herein. Instructions for estimating a project's TIF can be found on a link at: http://www.sdcounty.ca.gov/dpw/land/tif.html.

Section 4. Section 77.208.1 and 77.208.2 of the San Diego County Code of Regulatory Ordinances is hereby added to read as follows:

SEC. 77.208.1. RESIDENTIAL TIF FEES

The following are the Residential TIF Fees:

TIF AREA	COST PER SINGLE FAMILY DETACHED (SFD) RESIDENTIAL UNIT			
	Freeway Ramp	Local	Regional	Total per Unit
Alpine	$150	$1,812	$3,294	$5,256
Bonsall	$41	$6,312	$5,942	$12,295
Central Mountain	$3	$0	$2,195	$2,198
County Islands	$150	$0	$3,294	$3,444
Crest-Dehesa	$150	$1,008	$3,294	$4,452
Desert	$3	$312	$2,196	$2,511
Fallbrook	$41	$6,084	$5,942	$12,067
Jamul-Dulzura	$150	$2,184	$3,294	$5,628
Julian	$3	$0	$2,195	$2,198
Lakeside (includes Pepper Dr- Bostonia)	$150	$4,032	$3,294	$7,476
Mountain Empire	$3	$0	$2,195	$2,198
North County Metro	$41	$1,716	$5,942	$7,699
North Mountain	$3	$0	$2,195	$2,198
Otay	$150	$660	$3,294	$4,104
Pala-Pauma	$41	$1,176	$5,942	$7,159
Pendleton-De Luz	$41	$8	$5,942	$5,991
Rainbow	$41	$4,464	$5,942	$10,447
Ramona	$3	$5,940	$2,196	$8,139
San Dieguito	$41	$3,240	$5,942	$9,223
Spring Valley	$150	$660	$3,294	$4,104
Sweetwater	$150	$1,308	$3,294	$4,752
Valle De Oro	$150	$4,608	$3,294	$8,052
Valley Center	$41	$2,568	$5,942	$8,551

To determine the TIF for other residential land uses other than single-family detached (SFD) residential units, the following formula shall be used:

(1) Multi-family attached home, condominium, apartment, lodging including hotel rooms and time-share units, and accessory apartment (granny flat): 67% of SFD fee per unit

(2) Mobile home, agricultural labor residential (non-primary residence), and retirement community: 33% of SFD fee per unit

(3) Congregate Care Facility for persons unable to care for themselves: 20% of SFD fee per unit

Mixed-use development incorporating non-residential and residential uses shall have the non-residential TIF computed as shown in Section 77.208.2, and the total TIF amount shall be the non-residential TIF amount plus the applicable unit costs for any residential units. Adjustment of fees may be made pursuant to Section 77.213 of this Division.

Credits and reductions for residential development:

After calculation of a development's total residential TIF, applicants can subtract amounts including but not limited to the following credits and reductions:

Direct Impact Mitigation:

For residential developments, applicants may receive credit up to their total TIF obligation for direct impact mitigation improvements to a TIF facility. For direct impact improvement costs greater than the total TIF obligation, a reimbursement agreement for cash or credit will be allowed prior to construction of the improvements pursuant to Section 77.210, Section 77.210.5, and Section 77.211. Allowable costs for TIF facility improvements include Design, Civil Engineering, Soils Engineering, Landscape Architecture, Surveying, Bonds, Construction Management and Inspection, Permits, Off-Site Environmental Mitigation and associated costs for monitoring, Acquisition of Off-Site Right-of-Way, Utility Engineering/ Coordination, Environmental Consulting, and other project costs as allowed by the DPW Director in addition to construction costs. On-Site Right-of-Way and On-Site Environmental Mitigation are not eligible for TIF credit. Direct impact mitigation eligible for TIF credit shall include improvements which result in capacity improvements to a TIF facility including but not limited to new road construction, widening of an existing road, construction or improvement of intersections, through lanes and turn lanes, and construction or modification of signalization at intersections.

Alternative TIF Facilities:

For residential developments, applicants that can demonstrate in a traffic study approved by the County that their direct improvements constructed on a non-TIF facility will reduce trips and increase capacity of TIF facilities may receive credit toward their

project's TIF obligation. An example of an alternative TIF facility could be a non-TIF road that runs parallel to a TIF facility. If improvements on the parallel non-TIF road can be shown to remove trips from or otherwise enhance operation of the parallel TIF facility, then the non-TIF improvements may be eligible for TIF credit. These improvements on alternative TIF facilities that increase capacity of TIF facilities may be considered for credit in the same way as Direct Impact Mitigation on TIF facilities.

Previously Mitigated Residential Project:

Residential development projects which have mitigated cumulative impacts prior to implementation of the TIF may receive credit toward the TIF. Project applicants requesting adjustment of the adopted fee must have completed a cumulative traffic study and already fully mitigated cumulative impacts. Applicants claiming exemption from the fee must demonstrate to the County that all cumulative impacts were clearly identified, through a cumulative traffic study, and fully mitigated through physical improvements or contribution to future road network improvements in an amount equal to the fee. Projects that analyzed cumulative impacts through a cumulative traffic study and mitigated for cumulative impacts may submit previous traffic studies to the County for consideration of a TIF credit. Amount of credit granted will be proportional to past mitigation compared to mitigation required by TIF. If the project has changed from the time of original approval so that the proposed use is now more impactive to traffic, applicants must pay a portion of the TIF equal to the cumulative impact increase. If the project mitigated to the full extent of the TIF required mitigation, then full credit up to the project's TIF obligation will be granted.

For approved projects with identified cumulative mitigation measures that have not yet been implemented, the County may, at its option and, upon further environmental review if necessary, require either completion of the originally identified mitigation or payment of the TIF.

Opt out:

In lieu of paying the TIF, a developer may choose to prepare cumulative traffic studies in accordance with the new CEQA guidelines then in effect, which no longer recognize de minimus findings, and construct appropriate mitigation. The cumulative traffic analysis must be approved by the DPW Director of or his designee prior to construction of such mitigation.

SEC. 77.208.2. NON-RESIDENTIAL TIF FEES

The following are Non-Residential General Commercial TIF Fees:

General Commercial TIF fee = Cost per 1,000 Square Foot multiplied by the Facility Floor Square Footage divided by 1,000

TIF AREA	COST PER 1,000 SQUARE FOOT FOR GENERAL COMMERCIAL			
	Freeway Ramp	Local	Regional	Total
Alpine	$467	$5,426	$3,342	$9,235
Bonsall	$108	$18,901	$2,946	$21,955
Central Mountain	$9	$0	$5,066	$5,075
County Islands	$467	$0	$5,534	$6,001
Crest-Dehesa	$467	$3,018	$4,312	$7,797
Desert	$9	$934	$5,067	$6,010
Fallbrook	$108	$18,217	$3,234	$21,559
Jamul-Dulzura	$467	$6,539	$2,874	$9,880
Julian	$9	$0	$5,066	$5,075
Lakeside (includes Pepper Dr- Bostonia)	$467	$12,073	$647	$13,187
Mountain Empire	$9	$0	$5,066	$5,075
North County Metro	$108	$5,138	$8,516	$13,762
North Mountain	$9	$0	$5,066	$5,075
Otay	$467	$1,976	$4,743	$7,186
Pala-Pauma	$108	$3,521	$9,163	$12,792
Pendleton-De Luz	$108	$36	$10,564	$10,708
Rainbow	$108	$13,367	$5,174	$18,649
Ramona	$9	$16,026	$0	$16,035
San Dieguito	$108	$9,702	$6,647	$16,457
Spring Valley	$467	$1,976	$4,743	$7,186
Sweetwater	$467	$3,916	$3,916	$8,299
Valle De Oro	$467	$13,762	$0	$14,229
Valley Center	$108	$7,689	$7,474	$15,271

To determine the TIF for other non-residential commercial and industrial land uses other than general commercial, the following formula shall be used:

(1) Furniture Stores: 14% of general commercial fee

(2) General Industrial: 37% of general commercial fee

(3) Storage, Warehousing, Wineries, Non-residential Agricultural: 14% of general commercial fee

(4) Offices: 56% of general commercial fee

(5) Schools and Government/Institutional: 32% of general commercial fee

The non-residential TIF fee shall be computed based on the applicable TIF rate for the primary use of a building or the primary use of each individual storefront for mixed use buildings. Ancillary or support spaces such as management offices in a retail store, storage space in an office building, or offices in an industrial facility will not be separated for computing the TIF. Mixed use buildings with distinct and separate storefronts for multiple businesses will have their TIF computed based on the applicable TIF rate of each distinct and separate storefront. For example, a strip mall with retail stores and office uses such as a bank and a medical office would be charged the general commercial rate for the retail stores and the offices TIF rate for the bank and medical office. Mixed-use development incorporating non-residential and residential uses shall have the residential TIF computed as shown in Section 77.208.1, and the total TIF amount shall be the non-residential TIF amount plus the applicable unit costs for any residential units. Adjustment of fees may be made pursuant to Section 77.213 of this Division.

Credits and reductions for non-residential development.

Direct Improvement Credits for non-residential developments have already been included in the County's overall program for non-residential TIF rates, so direct improvement costs shall not be used as a TIF credit or reduction for non-residential development.

Previously Mitigated Non-Residential Project:

Non-residential development projects which have mitigated cumulative impacts prior to implementation of the TIF may receive credit toward the TIF. Project applicants requesting adjustment of the adopted fee must have completed a cumulative traffic study and already fully mitigated cumulative impacts. Applicants claiming exemption from the fee must demonstrate to the County that all cumulative impacts were clearly identified, through a cumulative traffic study, and fully mitigated through physical improvements or contribution to future road network improvements in an amount equal to the fee. Projects that analyzed cumulative impacts through a cumulative traffic study and mitigated for cumulative impacts may submit previous traffic studies to the County for consideration of

a TIF credit. Amount of credit granted will be proportional to past mitigation compared to mitigation required by TIF. If the project has changed from the time of original approval so that the proposed use is now more impactive to traffic, applicants must pay a portion of the TIF equal to the cumulative impact increase. If the project mitigated to the full extent of the TIF required mitigation, then full credit up to the project's TIF obligation will be granted.

For approved projects with identified cumulative mitigation measures that have not yet been implemented, the County may, at its option and, upon further environmental review if necessary, require either completion of the originally identified mitigation or payment of the TIF.

Select Industrial:

Some select industrial uses generate traffic but do not construct facilities of a size that will generate a TIF payment to adequately mitigate for the project's traffic impacts. These select industrial uses include but are not limited to: quarry operations, mining operations, borrow pit operations, landfill operations, and concrete and asphalt production facilities including batch plants. For these industrial uses, they shall perform a traffic study to determine the traffic impacts of their project. The traffic study shall specifically convert heavy vehicle trips to Passenger Vehicle Equivalent trips. These industrial projects' TIF payment shall be calculated using the applicable total cost-per-trip from the table below multiplied by the expected number of average daily trips (ADT) their project will generate. Credits and reductions shall be as shown for non-residential developments in Section 77.208.2. Costs in the table below will be updated annually as shown in Section 77.213 Adjustment of Fees.

TIF Payment = Cost/trip X Number of Average Daily Trips

TIF AREA	COST PER TRIP FOR SELECT INDUSTRIAL USES			
	Freeway Ramp	Local	Regional	Total
Alpine	$12	$151	$94	$257
Bonsall	$3	$526	$81	$610
Central Mountain	$0	$0	$140	$140
County Islands	$12	$0	$155	$167
Crest-Dehesa	$12	$84	$121	$217
Desert	$0	$26	$140	$166

Jamul-Dulzura	$12	$182	$81	$275
Julian	$0	$0	$140	$140
Lakeside (includes Pepper Dr- Bostonia)	$12	$336	$19	$367
Mountain Empire	$0	$0	$140	$140
North County Metro	$3	$143	$236	$382
North Mountain	$0	$0	$140	$140
Otay	$12	$55	$133	$200
Pala-Pauma	$3	$98	$254	$355
Pendleton-De Luz	$3	$1	$294	$298
Rainbow	$3	$372	$143	$518
Ramona	$0	$445	$0	$445
San Dieguito	$3	$270	$184	$457
Spring Valley	$12	$55	$133	$200
Sweetwater	$12	$109	$111	$232
Valle De Oro	$12	$383	$0	$395

Projects in Process in Early 2008

For non-residential projects processing building permits through the County and that have direct impact traffic mitigation on a TIF Facility, the County will allow these projects time to adjust to the TIF ordinance changes. For non-residential projects with direct impact improvements on a TIF Facility and for which fees for an unexpired building plan check were paid on or before February 29, 2008 regardless of whether they obtain their building permit prior to the effective date of this ordinance update, these projects may:

(1) Calculate their TIF payment and credit for direct impact mitigation against their TIF payment based on the TIF ordinance in effect on January 1, 2008, or;
(2) Calculate their TIF payment based on the 2008 TIF Ordinance Amendment.

Opt out:

In lieu of paying the TIF, a developer or group of developers may choose to prepare cumulative traffic studies in accordance with the new CEQA guidelines in effect, which no longer recognize de minimus findings, and construct appropriate mitigation. The cumulative traffic analysis must be approved by the DPW Director or his designee prior to construction of such mitigation. Developers may use finance district funding to satisfy cumulative impact requirements, including TIF requirements.

Section 5. Section 77.209 and 77.210 of the San Diego County Code of Regulatory Ordinances are hereby amended to read as follows:

SEC. 77.209. PAYMENT OF FEES

The fees required pursuant to this Division are intended to mitigate cumulative traffic impacts and shall be paid to the County as a condition of approval of a development permit, including a building permit. For development projects that require both discretionary and building permits, the fees shall be paid no later than time of building permit issuance. If the fee is paid prior to the time of building permit issuance and the amount of the fee increases, then the additional fee amount must be paid before the building permit is issued. If the fee is paid prior to time of building permit issuance and the amount of the fee is reduced, then at the time the building permit is issued, a TIF refund will be provided to the applicant. Once a building permit is issued, the amount of the fee is set and will not be adjusted by subsequent increases or decreases to the TIF rates. In the case of discretionary permits that will not involve a building permit but which will generate additional traffic, payment of the fee shall be recommended as a condition of permitting to the decision-making body that would approve such permit.

SEC. 77.210. DEVELOPER CONSTRUCTION OF TRANSPORTATION FACILITIES

For direct impact mitigation improvement costs on a TIF facility for residential projects, a developer is entitled to compensation and may request a credit for its TIF obligation and a reimbursement for allowable costs greater than the project's TIF obligation. Whenever a developer of a residential or non-residential development project would be required by application of County ordinance or policy, as a condition of approval of a development permit to construct or finance the construction of a portion of a TIF Facility in addition to their direct impact mitigation, the County may impose an additional requirement that the developer install the improvements with supplemental size, length or capacity in order to ensure efficient and timely construction of the transportation facilities network. Similarly, when residential or non-residential development project impacts create an accelerated need for transportation improvements in addition to the project's direct improvements, the County may require accelerated construction of TIF Facilities to assure project conformance with California Environmental Quality Act (CEQA). If such a requirement for supplemental or accelerated facilities is imposed, the developer will be entitled to compensation for eligible construction costs that exceed the total TIF fee required for the developer's project. The developer may request cash reimbursement, or a

credit against current or future TIF fees, for work to be done or paid for by the developer, and said request shall be submitted in writing to the DPW Director prior to construction of the improvements. The County will enter into either a cash reimbursement agreement as shown in Section 77.210.5 or a credit reimbursement agreement as shown in Section 77.211 with the developer prior to construction of the improvements.

(a) The reimbursement request shall contain a description of the project with a detailed cost estimate that itemizes those allowable costs of the construction attributable to construction of TIF Facilities and excludes any work attributable to non-TIF facilities. Estimated cost of the facility will be based on the County's current-year Department of Public Works Unit Price List. The estimate is preliminary and the amount of reimbursement or credit against fees is subject to final determination by County's designee. Additional information shall be provided to the County by the developer upon request of the County.

(b) The developer is also required to:

i. Prepare plans and specifications for approval by the County;

ii. Secure and dedicate any right-of-way required for the transportation facility project;

iii. Secure all required permits and environmental clearances necessary for the transportation facility project;

iv. Provide performance bonds for 100 percent of the value of the transportation facility project;

v. Pay all fees and costs for construction of the transportation facility project.

(c) The County will not be responsible for any of the up-front costs of constructing the transportation facility project. The developer shall advance all necessary funds to construct the transportation facility project. Allowable reimbursable costs include cost of Design, Civil Engineering, Soils Engineering, Landscape Architecture, Surveying, Bonds, Construction Management and Inspection, Permits, Off-Site Environmental Mitigation and associated costs for monitoring, Acquisition of Off-Site Right-of-Way, Utility Engineering/ Coordination, Environmental Consulting, and other project costs as allowed by the DPW Director in addition to construction costs. On-Site Right-of-Way and On-Site Environmental Mitigation will not be reimbursed.

(d) The developer shall make all reasonable efforts to secure at least three qualified and responsible bids for work to be done and shall award the construction contract to the lowest qualified bidder. In the event three or more qualified and responsible bids cannot be obtained, then the developer may still award the construction contract if the DPW Director determines the lowest qualified bid is reasonable. Should the construction

contract be awarded to a qualified bidder who did not submit the lowest bid for the transportation facility project portion of the contract, the developer will only receive Transportation Impact Fee reimbursement or credit based on the lowest responsible bid for the transportation facility portion of the contract. The developer is allowed to combine the supplemental work with other work being completed for the project in order to obtain the most competitive bids, but costs of the TIF improvement must be segregated within such bids.

(e) All bids must be reviewed by the County prior to contract award. If the lowest bid received exceeds the total estimated cost of the facility, the County may require the developer to obtain a revised bid or, if necessary, submit a redesign of the facility to bring the cost into the estimated range. If the total actual cost of construction is less than the total estimated cost of the facility, then the developer shall be reimbursed for his actual allowable costs.

(f) When all TIF facility improvement work has been completed to the satisfaction of the County, the developer shall submit verification of payments made for the construction of the transportation facility project to the County. The County's designee shall make the final determination relative to expenditures that may be eligible for credit or cash reimbursement.

(g) If the amount of the applicable credit is less than the deferred fee obligation and the TIF Fee is otherwise due and payable, then the developer shall have 30 days to pay the deferred fee. If the deferred fees are not paid within the 30-day period, the County may make a demand against the security and apply the proceeds to the fee obligation.

(h) Prevailing Wage is Applicable. Current applicable prevailing wage is required to be paid for all construction work under either a Cash Reimbursement Agreement or a Credit Reimbursement Agreement, and bid documents for construction of the Improvements shall include a requirement that such prevailing wages be paid.

Section 6. Section 77.210.1 of the San Diego County Code of Regulatory Ordinances is hereby added to read as follows:

SEC.77.210.1 DEVELOPER REIMBURSEMENT AGREEMENT CASH PAYMENTS

For Developer Reimbursement Agreements for cash reimbursement as described in Sec 77.210, the maximum term of any reimbursement agreement shall be twenty- five (25) years or until reimbursements or credits have been issued in full, whichever occurs first. After twenty-five years, the agreement will expire regardless of whether or not necessary TIF revenues have been collected to reimburse all costs. Cash reimbursements for Developer Reimbursement Agreements will be made from available TIF funds as follows:

(a) Payments shall be made quarterly within 21 days after the end of each calendar quarter from available freeway ramp, local or regional TIF revenue in the applicable TIF Account.

(b) Definitions for Cash Reimbursement Payments.

i. Available TIF Revenue means TIF Fees paid into the applicable local or regional TIF Account during a calendar quarter plus any accumulated TIF Revenue remaining from prior to the quarter.

ii. Developers TIF Reimbursement means payment from the applicable local or regional TIF Account due and payable to Developers pursuant to Reimbursement Agreements for which Reimbursement Amounts have been determined prior to or during the calendar quarter.

iii. County TIF Reimbursement means TIF-eligible project costs during a calendar quarter for TIF Facility projects being accomplished by the County.

iv. Quarterly TIF Payments means Developer TIF Reimbursements and County TIF Reimbursements that become due for a calendar quarter (January 1 to March 31, etc).

(c) Proportionality of Cash Reimbursements to Developers and to the County.

i. If eligible Developers or County TIF Reimbursements are both less than 50% of the Available TIF Revenue, then Developers and County shall each be fully reimbursed.

ii. If both Developers and County have eligible TIF reimbursements that exceed 50% of a quarter's Available TIF Revenue, then 50% of the revenue shall be allocated to Developers and 50% to County.

iii. If either Developers or County have eligible TIF Reimbursements that are less than 50% of the Available TIF Revenue and the other has eligible TIF Reimbursements that exceed 50% of the Quarter's Available TIF Revenue, then the one having less than 50% shall receive full reimbursement and the other shall receive up to the amount due from all remaining Available TIF Revenue regardless of whether it exceeds 50%.

(d) Proportionality of Quarterly Reimbursements of available TIF Revenue among multiple Developers

i. For determining payments, 50% of TIF Revenue available for reimbursements to Developers shall be allocated based on the Initial Amount Owed to each Developer and 50% shall be allocated based on Initial Ratio of Actual Cost of Improvements to TIF Obligation.

ii. Initial Amount Owed. Allocation to each Developer for whom payment are due each quarter shall be abased on the ratio for the Developer's initial Reimbursement Amount to the total of all Developers' initial Reimbursement Amounts for whom payments are due for the quarter. As an example, if there are three developers eligible for TIF Reimbursements from a TIF Account for a particular quarter, and the initial Reimbursement Amounts for Developers A, B, and C are $5,000,000, $15,000,000, and $30,000,000 respectively, then 50% of available TIF revenue to be allocated to Developers shall be proportioned as follows:

Developer A receives $5 million/$50 million = 10%

Developer B receives $15 million/$50 million = 30%

Developer C receives $30 million/$50 million = 60%

iii. Initial Ratio of Actual Cost to Improvements to TIF Obligation . Allocation to each Developer for whom payments are due each quarter shall be based on the ratio of the Developer's Actual Cost of Improvements to that Developer's TIF Obligation. For example, if there are three developers eligible for TIF Reimbursements from a TIF Account for a particular quarter, and the initial ratio of Actual Cost of Improvements to TIF Obligation are as follows:

Developer A	Initial Actual Cost of Improvements = $5 million
	TIF Obligation = $2.5 million
	Ratio = $5 million/$2.5 million = 2
Developer B	Initial Actual Cost of Improvements = $55 million
	TIF Obligation = $1 million
	Ratio = $15 million/$1 million = 15
Developer C	Initial Actual Cost of Improvements = $30 million
	TIF Obligation = $10 million
	Ratio = $30 million/$10 million = 3

Then the remaining 50% of available TIF revenue to be allocated to developers shall be proportioned as follows:

Developer A = 2 / (2 + 15 + 3) =10%

Developer B = 15 / (2 + 15 + 3) = 75%

Developer C = 3 / (2 + 15 + 3) = 15%

(e) Adjustments to Unpaid Reimbursement Balance. Upon each anniversary of the date that the first reimbursement payment became due under a Reimbursement Agreement, the unpaid balance shall be adjusted to reflect the lesser of an annual interest rate of 2% or increases, if any, in the Los Angeles Construction cost Index (CCI), referenced in Section 77.213, but annual interest shall be no less than 1%. The balance adjustment shall commence on the date the Reimbursement Amount became due and end on the date on which the final Incremental Reimbursement Payment is received by the Developer. All reimbursement payments will be provided to the Developer at the address provided in the Reimbursement Agreement, and the address may be changed in writing by the Developer.

(f) Prevailing Wage is Applicable. Current applicable prevailing wage is required to be paid for all construction work under the Agreement, and bid documents for construction of the Improvements shall include a requirement that such prevailing wages be paid.

Section 7. Section 77.211 of the San Diego County Code of Regulatory Ordinances is hereby amended to read as follows:

SEC. 77.211. DEVELOPER TIF CONSTRUCTION CREDITS

When a transportation facility, or portion thereof, as described in the TIF Reports, or when an alternative TIF Facility as described in Section 77.208.1 is constructed by the developer through a written agreement with the County as described in Section 77.210, the County shall grant either cash reimbursements as shown in Section 77.210.5 or construction credits. Construction credits will be limited to the total actual allowable costs. When a developer chooses to receive construction credits, the developer must request credit reimbursement from the County to initiate this process, and the terms of construction credit issuance will be described in a written credit reimbursement agreement between the developer and the County. The County will incrementally apply credit which the developer has accrued against the developer's TIF obligations in lieu of collecting the required Transportation Impact Fees as each building permit is issued based upon the fee schedule in effect at the time of the building permit issuance. Construction credits are transferable, at the holder's sole and absolute discretion, but may only be applied within the same TIF Region in which the facilities were constructed. TIF Facility credit will not be given for non-TIF facilities, unless such facilities are approved by County as an alternative to a listed TIF facility.

Section 8. Section 77.212 of the San Diego County Code of Regulatory Ordinances is hereby repealed:

SEC 77.212.5. REIMBURSEMENT OR PAYMENT OF FEES THROUGH FORMATION OF ASSESSMENT DISTRICT.

In addition to any other reimbursement provision of this division, applicants shall have the option of seeking an assessment district under the Statewide Community Infrastructure Program (SCIP) or any similar assessment district program to finance (A) any fees required pursuant to this Division or (B) the construction of any TIF Facilities or portions thereof as required by the County. Through the SCIP, fees are funded by tax-exempt bonds and an applicant can be either reimbursed for fees paid to the County pursuant to this Division or the fees can be paid directly with bond proceeds.

Section 9. Section 77.213, 77.714, and 77.215 of the San Diego County Code of Regulatory Ordinances are hereby amended to read as follows:

SEC. 77.213. ADJUSTMENT OF FEES

The fees established by Section 77.208.1 and Section 77.208.2 hereof have been established based in part on estimated costs to construct TIF Facilities as of September 2004 and updated annually starting in January 2006. The amount of the fee shall be adjusted annually on January 1st of each year. Said adjustment shall be based on the following criteria:

(a) The one-year change (from September to September) in the Los Angeles Construction Cost Index as determined by *Engineering News Record* published by McGraw Hill Publishing Company, or any successor thereof, or an increase of 2.0%, whichever is more. The Board of Supervisors shall review the fee annually as required by Government Code Section 66006 and the adjustments shall not exceed the percentage increase set forth in the Los Angeles Construction Cost Index or an increase of 2.0%, whichever is more. Adjustments to the fees based upon the Construction Cost Index shall be automatic and shall not require further action of the Board of Supervisors.

(b) Changes in the type, size, location or cost of the transportation facilities (if any) to be financed by the fee, changes in land use designations in the County's general plan, and upon other sound engineering, financing and planning information. Adjustments to the fees resulting from the above reviews may be made by resolution amending the fee schedules contained in the TIF Reports and subject to the notice and public meeting requirements of Government Code Section 66016.

The Board of Supervisors may reduce the fee by up to 50% for a specific project if it determines there are public financial benefits that warrant such a reduction, and funding to replace the excused fee amounts is committed as part of such action. The Board of Supervisors may create a zone of "reduced impact fees" to encourage growth within that area by supplementing public funds to replace fees in the same amount that would have been collected as such growth occurred.

SEC. 77.214. USE OF FEES

Fees collected hereunder in satisfaction of the local portion of the total TIF rate, as set forth in Section 77.208.1 and Section 77.208.2 of this Division, shall be segregated into a TIF Facilities fund with an interest-bearing account established for each TIF Area, and the funds therein and interest accruing thereto shall be expended solely for the construction or reimbursement for construction of TIF Facilities within the TIF Area from which the fees comprising the fund were collected. Fees collected hereunder in satisfaction of the regional portion of the total TIF rate, as set forth in Section 77.208.1 and Section 77.208.2 of this Division, shall be segregated into a TIF Facilities fund with an account established for each TIF Region, and the funds therein and interest accruing thereto shall be expended solely for the construction or reimbursement for construction of TIF Facilities within the TIF Region from which the fees comprising the fund were collected. These fees may also be used to reimburse the County for TIF Facilities constructed by the County with funds from other sources. Fees collected hereunder in satisfaction of the freeway/interchange ramps portion of the total TIF rate, as set forth in Section 77.208.1 and Section 77.208.2 of this Division, shall be segregated into a TIF Facilities fund with an account established for each TIF Freeway/Interchange Ramp Region, and the funds therein and interest accruing thereto shall be expended solely for the construction or reimbursement for construction of TIF Interchange Ramp Facilities within the TIF Region from which the fees comprising the fund were collected.

TIF Facilities and funds shall be identified in a Department of Public Works Detailed Work Program, which includes capital improvements and other transportation related expenditures. The TIF facilities within the Detailed Work Program (DWP-TIF) will be presented for Board approval as part of the annual budget approval process. TIF Facilities funds within the DWP-TIF will not be co-mingled with other project funds to ensure that revenues and expenditures are solely and exclusively used for TIF Facility construction. However, these funds may be augmented by other sources, if available, in order to complete TIF Facility projects.

Expenditure for interim improvements that provide incremental progress and measurable benefits, such as increased capacity or traffic flow, will be allowed. These interim improvements will be consistent with the long-term objectives of full TIF facility construction as determined by the DPW Director. When recommended by the DPW Director, interim improvements will be identified in the DWP- TIF and expenditures from the TIF Facilities funds will be authorized commensurate with DWP-TIF approval. In selecting which specific road improvements shall be recommended, priority shall be given to those roads that serve projects that have paid impact fees.

SEC. 77.215. APPLICABILITY

This Division shall apply to all development permits, including building permits, associated with the generation of traffic through new construction or expansion of an existing facility that add square footage space to a facility, as determined by the County.

However, examples of building permits to which this Division shall not apply, include but are not limited to:

(a) Alterations, improvements, or additions to an existing single family dwelling, or rebuilding of a destroyed single family dwelling that does not change its classification of occupancy.

(b) Apartment to condominium conversions.

(c) Interim or Temporary Use Permits of three years or less complying with requirements of Section 77.217.

(d) Permitted Home businesses such as child day care in a residential unit and other business uses allowed within a residence.

(e) Tenant Improvements to existing non-residential facilities including changes of occupancy or changes in use for an existing facility.

(f) Minor expansions to existing non-residential facilities. Minor expansions for purposes of this ordinance refer to expansions that increase the total floor space of a facility by no more than 1,000 square feet. Expansions of greater than 1,000 square feet would require payment of TIF for all additional floor space beyond the initial 1,000 square foot expansion. For example, an existing facility that expands from 10,000 square feet to 20,000 square feet would have a TIF obligation based on 9,000 square feet. To prohibit incremental expansions to avoid payment of the TIF, any prior expansions over the preceding five years will be considered part of the current expansion.

(g) Rebuilding of a destroyed non-residential facility that does not increase floor space greater than 1,000 square feet. Expansions of greater than 1,000 square feet would require payment of TIF for all additional floor space beyond the initial 1,000 square foot expansion.

(h) Uncovered outdoor areas for tables or seating for a café or restaurant that do not require a building permit.

(i) Accessory buildings such as non-commercial garages, barns, sea containers, workshops at residences, and non-residential agricultural buildings (agricultural labor dwellings are not exempt).

(j) Signs, water tanks, propane tanks, other liquid tanks, fuel pumps including gasoline station pumps, wells, or similar structures.

The Director of Public Works is authorized to prepare and maintain a list of all permits types to which the fee will apply.

This Division shall not exempt any new development except as required by state or federal law. In cases where a development is specifically exempt by law from this Division, but said development has transportation impacts required to be mitigated by CEQA, the County can accept TIF payment for mitigation purposes.

The requirement of this chapter shall not apply to projects for which fees for an unexpired building plan check were paid on or before March 29, 2005 regardless of whether they obtain their building permit prior to the effective date of this ordinance.

SEC. 77.216. APPEAL

Notwithstanding any other provision of this Division, the applicant as defined in this Division shall, as a part of the development permit process, have the right to present evidence to the DPW Director to demonstrate that the fee calculation and/or amount of fee established by the Board of Supervisors is incorrect or inequitable as applied in such case. The applicant shall have the burden of demonstrating any inaccuracy or inequity by serving on the DPW Director engineering studies and cost estimates necessary to support the applicant's contentions.

If the applicant is processing an application for which the TIF fee is a condition of approval, the studies and cost estimates must be served on the DPW Director no later than thirty (30) days prior to approval of the project. The DPW Director shall then make a recommendation regarding fee adjustment to the County hearing body. Upon review of the DPW Director's recommendation, the hearing body shall have the authority to change the amount of fee when it finds the amount so established is incorrect or inequitable in the specific case. The decision of the County's hearing body shall be final, and any additional appeals shall be in accordance with the County subdivision ordinance or zoning ordinance, whichever applies to the application being processed.

If the applicant is seeking a ministerial permit, the appeal, required engineering studies and cost estimates can be served on the DPW Director anytime prior to development permit issuance. The DPW Director shall review the requested fee adjustment and shall have the authority to change the amount of fee when it finds the amount so established is incorrect or inequitable in the specific case. The decision of the DPW Director shall be final.

Section 10. Section 77.217 of the San Diego County Code of Regulatory Ordinances is hereby amended to read as follows:

SEC. 77.217. WAIVER

A development which is designed and intended as a temporary use (3 years or less) and which is conducted in facilities which are, by their nature, short- term interim facilities such as a portable or modular building (including mobile homes, trailers, etc.) may apply to the DPW Director for a TIF fee waiver. The DPW Director shall have the authority to grant such waivers.

SEC. 77.218. REFUND OF FEES

If a building permit or development permit expires, is cancelled, or is voided and if any fees paid pursuant to this Division have not been expended and no construction has taken place pursuant to such building permit or development permit, the DPW Director shall, upon written request, refund the fee and any interest earned on the fee, less any administrative costs, to the record property owner or his or her legally court appointed representative.

SEC. 77.219. EXPIRATION

This Division shall be of no further force when the County determines that the amount of fees which have been collected reaches an amount equal to the cost of the transportation facilities or reimbursements.

Section 11. Effective Date. This Ordinance shall take effect and be in force sixty (60) days after the date of its passage, and before the expiration of fifteen (15) days after its passage, a summary shall be published once with the names of the members voting for and against the same in S.D. Commerce, a newspaper of general circulation published in the County of San Diego.

(UNCODIFIED. Approved by the Board of Supervisors on April 13, 2005). Peppertree Park Specific Plan (SP 87-007). The Board of Supervisors hereby finds that the peppertree Park Specific Plan development in the Fallbrook Community Planning Area as approved by the Board of Supervisors fully analyzed its cumulative traffic impacts and has fully mitigated those impacts through construction of portions of Peppertree Lane, South Mission Road, and other traffic-related roadway and intersection improvements included in that development's conditions of approval. Accordingly, the Peppertree Park Specific Plan development, including any changes or amendments to that development which do not increase the number of vehicular trips from that identified in the documents supporting that development's approval by the Board of Supervisors, is exempt from payment of any fee or fees imposed by adoption of this Transportation Impact Fees ordinance. Alpine Village Center (S99-047). The Board of Supervisors hereby finds that the Alpine Village Center Site Plan development in the Alpine Community Planning Areas as approved by the Board of Supervisors fully analyzed its cumulative traffic impacts and has fully mitigated those impacts through improvements to portions of Alpine Boulevard, South Grade Road, Marshall way, financial contributions to construction of ramp improvements on Interstate 8 at Tavern Road, and other traffic-related roadway and intersection improvements included in that development's conditions of approval. Accordingly, the Alpine Village Center Site Plan development is exempt from payment of any fee or fees imposed by adoption of this Transportation Impact Fee ordinance.

TIF for Single Family Detached Residential Unit

TIF AREA	COST PER SINGLE FAMILY DETACHED (SFD) RESIDENTIAL UNIT			
	Freeway Ramp	Local	Regional	Total per Unit
Alpine	$150	$1,812	$3,294	$5,256
Bonsall	$41	$6,312	$5,942	$12,295
Central Mountain	$3	$0	$2,195	$2,198
County Islands	$150	$0	$3,294	$3,444
Crest-Dehesa	$150	$1,008	$3,294	$4,452
Desert	$3	$312	$2,196	$2,511
Fallbrook	$41	$6,084	$5,942	$12,067
Jamul-Dulzura	$150	$2,184	$3,294	$5,628
Julian	$3	$0	$2,195	$2,198
Lakeside (includes Pepper Dr- Bostonia)	$150	$4,032	$3,294	$7,476
Mountain Empire	$3	$0	$2,195	$2,198
North County Metro	$41	$1,716	$5,942	$7,699
North Mountain	$3	$0	$2,195	$2,198
Otay	$150	$660	$3,294	$4,104
Pala-Pauma	$41	$1,176	$5,942	$7,159
Pendleton-De Luz	$41	$8	$5,942	$5,991
Rainbow	$41	$4,464	$5,942	$10,447
Ramona	$3	$5,940	$2,196	$8,139
San Dieguito	$41	$3,240	$5,942	$9,223
Spring Valley	$150	$660	$3,294	$4,104
Sweetwater	$150	$1,308	$3,294	$4,752
Valle De Oro	$150	$4,608	$3,294	$8,052
Valley Center	$41	$2,568	$5,942	$8,551

Freeway Interchanges/Ramps Included in County TIF Program

Freeway Interchanges/Ramps and At-Grade Highway Intersections Included in County TIF Program

As part of the 2008 TIF Update, the County identified specific interchanges and ramps to be included in the TIF Program. These facilities were not previously included in the TIF Program.

Intersection	Region
I-8 EB/Lake Jennings Park Rd	South
I-8 WB/Lake Jenning Park Rd	South
I-8 EB/Dunbar Ln	South
I-8 WB/Dunbar Ln	South
I-8 EB/Tavern Rd	South
I-8 WB/Tavern Rd	South
I-8 EB/W. Willows Rd	South
I-8 WB/W. Willows Rd	South
I-8 EB/Greenfield Dr	South
I-8 WB/Greenfield Dr	South
I-15 NB/E. Mission Rd	North
I-15 SB/E. Mission Rd	North
I-15 NB/Gopher Canyon Rd	North
I-15 SB/Gopher Canyon Rd	North
I-15 NB/Deer Springs Rd	North
I-15 SB/Deer Springs Rd	North
SR-67 NB/Bradley Ave	South
SR-67 SB/Bradley Ave	South
SR-67 NB/Winter Gardens Blvd	South
SR—67 SB Winter Gardens Blvd	South
SR-67 NB/Riverford Rd	South
SR-67 SB/Riverford Rd	South
SR-67 NB/Mapleview St	South
SR-67 SB/Mapleview St	South
SR-67/Archie Moore Rd (Ramona)	East
SR-67/Montecito Rd (Ramona)	East
SR-67/SR-78 (Ramona)	East
SR-94 EB/Sweetwater Springs Blvd	South
SR-94 WB/Sweetwater Springs Blvd	South

Source: Table 3 in the Transportation Impact Fee Program Update Report (January 2008)

Excerpts from the TIF Program Update

COUNTY OF SAN DIEGO

TRANSPORTATION IMPACT FEE

TIF PROGRAM UPDATE

JANUARY 2008

Executive Summary 1

Introduction 3

TIF Analysis 7

List of Tables

Table 1 – Trip Generation Rates 7

Table 2 – Forecast Trips Attributable to Future Development 8

Table 3 – Interchanges and Costs 9

Table 4 – Cost of Facilities Attributable to Future Development 11

Table 5 – Local Facility Costs & TIF Rates 12

Table 6 – Regional Facility Costs & TIF Rates (SRs/Prime Arterials/Major Roads) 13

Table 7 – Interchange/Ramp Costs & TIF Rates – Regional 14

Table 8 – TIF Program Financial Requirements 19

Table 9 – Cost of Facilities Attributable to Future Development – Residential 19

Table 10 – Cost of Facilities Attributable to Future Development – Non Residential 20

Table 11 – Proposed Total TIF Rates Per SFD 22

Table 12 – Proposed Total General Commercial TIF Rate per 1,000 sf 23

List of Figures

Figure 1 – County SD TIF Report Map

Figure 2 – TIF Regions Map

Appendices

Appendix A – Base Year Deficiencies of State and County

Appendix B – Buildout Deficiencies

Appendix C – TIF Improvement Facilities

Appendix D – LOS Maps

Appendix E – Conversion of Non-Residential Rates to Cost Per Square Foot

EXECUTIVE SUMMARY

BACKGROUND

Working with stakeholder groups, the County of San Diego (County) identified the need to develop a County transportation impact fee (TIF) program to mitigate the cumulative traffic impacts of development throughout the unincorporated areas of the County. The TIF program, approved by the Board of Supervisors in 2005 pursuant to the provisions of Government Code §§ 66000 et seq. (Mitigation Fee Act or the "Act"), funds the improvement and/or construction of identified transportation facilities and allocates the associated costs equitably among future developing properties. The TIF program does not collect funding to address existing roadway deficiencies.

The 2008 TIF Update utilizes the same core methodology and land use assumptions as the 2005 TIF program as outlined in prior reports titled "County of San Diego Transportation Impact Fee Report" dated January 2005, "Fallbrook and Ramona Transportation Impact Fee Report" dated January 2005 and the addendums to the reports dated March 2005 and September 2005 (collectively referred to as "Prior Reports").

PURPOSE

The purpose of this report is to document recommendations for updating the 2005 TIF program pursuant to the provisions of the Act. The current update focused on the following:

- Evaluating the non-residential rates
- Evaluating potential cost savings and/or other revenue sources
- Adding freeway interchanges/ramps and at-grade highway intersections to the TIF program
- Identifying program changes to facilitate easier administration
- Providing additional detail regarding TIF roadway segment limits

The overall objectives of the update included 1) preserving the integrity of the TIF program, and 2) maintaining CEQA compliance regarding cumulative impacts.

RECOMMENDED TIF RATES

The TIF program differentiates between "local" transportation facilities (collectors and minor streets) that benefit primarily the community in which they are located, and "regional" facilities (state routes, prime arterials, major roads, and other regionally significant roadways) that benefit both the community and surrounding area – in this case identified as the North, South or East regions. A different TIF rate is applied to each community based upon growth and related transportation needs. The rates are comprised of a local component and a regional component. The interchange/ramp and highway intersection improvements are identified as "regional" facilities within each of the three regions.

Based on recommended program adjustments, cost reductions and additional revenues, $826 million of revenue will need to be generated by the TIF program. The recommended update and resulting changes result in residential rates increasing by no more than three and one-half percent (3.5%) measured by cost per single family dwelling unit with the non-residential rates (measured by cost per trip) decreasing by 40% or more.

The update resulted in the following facility costs and recommended TIF rates:

- Local facilities totaling $370 million were identified, including streets of collector classification and below. This resulted in local TIF rates varying by community plan area (CPA) from $0 to $5,940 per single family dwelling unit.

- Regional facilities totaling $645 million were identified, including state routes, prime arterials, and major roads. This resulted in regional TIF rates per single family home of $5,942 for the North region, $3,294 for the South region, and $2,195 for the East region.

- Regional freeway interchange/ramp facilities costing a total of $303 million of which $105 million are related to growth were identified. Ten percent, typical of a local match, (or $10.5 million) in costs were identified to be included in the TIF program. This resulted in an additional component to the regional TIF rate of $41 for the North region, $150 for the South region, and $3 for the East region per single family home.

- Combining the local and regional components, total TIF rates vary from $2,199 to $12,295 per single family home.

As stated in the 2005 Report, further studies, including required environmental review, may result in the identification of different project alternatives with different costs. An update to the TIF program will likely be needed upon completion of the General Plan Update currently in progress. In addition, the TIF rates are indexed to adjust annually each January to keep up with future changes in the costs of construction.

INTRODUCTION

OVERVIEW

The County of San Diego (County) identified the need for additional transportation improvements to address the projected cumulative traffic impacts of future development within the unincorporated area (see **Figure 1**). In 2005, the Board of Supervisors approved a transportation impact fee (TIF) program. The purpose of the TIF program is to fund construction of identified transportation facilities, and allocate the costs equitably among future developing properties.

TRANSPORTATION IMPACT FEES

An impact fee is a commonly used and well-accepted means of mitigating the impacts to public facilities and infrastructure created by future growth. As part of the TIF program process, the transportation infrastructure needs were characterized as either existing deficiencies, direct impacts of future development, or indirect (cumulative) impacts of future development. Existing roadway deficiencies are the responsibility of existing developed land uses and government agencies and can not be financed with impact fees. The proposed TIF program is not intended to mitigate direct impacts which will continue to be the responsibility of individual development projects. The TIF program therefore is designed to address the cumulative impacts associated with new growth.

The rationale supporting development of the County TIF program is future development in the unincorporated area being required by law to mitigate cumulative traffic impacts on the County's road network. Without a TIF, future development would cause a continued decrease in roadway level-of-service with overall network capacity falling behind the needs of future growth. A TIF program is a suitable mechanism for identifying needed transportation facilities to mitigate these cumulative traffic impacts and allocating the associated costs in an equitable manner.

This report is an update to the Prior Reports. The County TIF program assesses the fee on all new development that results in new/added traffic. The primary purpose of the TIF is twofold: (1) to fund the construction of identified facilities needed to reduce, or mitigate, projected cumulative traffic impacts resulting from future development within the County; and (2) to allocate the costs of these facilities proportionally among future developing properties based upon traffic contribution.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

The California Environmental Quality Act (CEQA) requires state and local agencies to identify the significant environmental impacts of their actions and to avoid or mitigate those impacts. To that end, local agencies generally require that a project's potential direct and cumulative impacts and corresponding mitigation measures, be identified as part of the required environmental review process.

CUMULATIVE IMPACTS

Cumulative impacts are those impacts caused collectively by all development within the community. Cumulative impacts can result from individually minor, but collectively significant projects taking place over a period of time (CEQA Guidelines §15355). The CEQA Guidelines recognize that mitigation for cumulative impacts may involve the adoption of ordinances or regulations (CEQA Guidelines §15130).

Recognizing that an individual development project is not wholly responsible for cumulative traffic impacts, each development project is required to contribute to mitigation in proportion to the project's estimated traffic generation. This report proposes the continued use of the TIF to fund improvements to identified transportation facilities in response to the total projected cumulative traffic impacts associated with future development within the County. Transportation facilities and other infrastructure necessary to either address existing deficiencies or mitigate the direct impacts of a given development project are not within the scope of the TIF.

ENVIRONMENTAL STUDIES & REVIEW

The facilities identified in this report are intended to provide increased road capacity to mitigate the cumulative traffic impacts of future development. No facilities will actually be constructed until all necessary environmental reviews have been conducted. Further studies, including environmental review, may show superior alternative projects that also satisfy the increased capacity need.

EXEMPTION FROM CEQA REQUIREMENTS

The fees collected through the TIF will be used for capital projects for transportation infrastructure projects necessary to maintain service within the unincorporated County. The County has determined that the act of adopting the proposed County TIF program and establishing the proposed TIF rates is statutorily exempt from the requirements of CEQA under §15273(a)(4) of the CEQA Guidelines.

STATUTORY FRAMEWORK

Development and implementation of impact fees must conform to the statutory requirements of California Government Code §§66000 et seq. (commonly referred to as the "Mitigation Fee Act"). Prior to establishing, increasing or imposing an impact fee, the Mitigation Fee Act requires the local agency to make the following findings:

- Identify the purpose of the fee (§66001(a) (1)).
- Identify the use for the fee and the facilities to be built (§66001(a) (2)).
- Determine a reasonable relationship between the fee's use and the type of development project on which the fee is imposed (§66001(a) (3)).
- Determine a reasonable relationship between the need for the public facility and the type of development project (§66001(a) (4)).
- Determine a reasonable relationship between the amount of the fee and the cost of the facility attributable to development (§66001(b)).

For purposes of the County TIF program, a statement of requisite findings is presented in the "Program Implementation" section of this report.

FEE DEVELOPMENT PROCESS

The remainder of this report summarizes the basis for the TIF program and the recommended changes resulting in updated fee rates:

- Development Forecast
- Facilities and Costs
- Fee Methodology
- Funding Requirements
- Proposed Fee Schedule
- Program Implementation

TIF ANALYSIS

This report documents recommendation for updating to the 2005 TIF program. Unless otherwise outlined in the report, growth and facility needs are the same as identified in the Prior Reports. This section reiterates the trip growth forecast and required roadway facilities to suitably address cumulative traffic impacts. The 2008 TIF Update report also describes the changes to the program including:

- Identified program cost reductions due to changing roadway standards.
- Costed Direct Project mitigations by non-residential projects.
- Identified additional revenue available to the County to offset the costs to non-residential projects.
- Clarified TIF roadway segment limits.
- Revised TIF rate tables.

GROWTH FORECAST

Analysis of land use changes between 2004 and build-out, as outlined in the Prior Reports, provided the basis for determining both the amount of expected future development and the types of transportation improvements needed to address cumulative traffic impacts consistent with the SANDAG Transportation Model. For fee calculation purposes, uniform trip generation rates per land use category were applied to the various land uses to estimate growth related trips and equitably allocate the fee between the various land uses. Based on typical trip generation rates, shown in **Table 1**, and the identified forecast growth, both identified in the Prior Reports, the trips attributable to future development are shown in **Table 2**.

TABLE 1
TRIP GENERATION RATES

LAND USE	Trip Rate (1)
Single Family Residential	12 trips/unit
Multi-Family Residential	5 – 8 trips/unit
Commercial/Services	360 trips/acre
Industrial	150 trips/acre
Office	300 trips/acre
Parks	5 trips/acre
Roads & Freeways	0 trips/acre
Schools	50 trips/acre

(1) Based on adopted County TIF program.

TABLE 2
FORECAST TRIPS ATTRIBUTABLE TO FUTURE DEVELOPMENT

Community Planning Area	Forecast Trips by TIF Region (1)		
	North	South	East
Alpine		76,176	
Bonsall	33,852		
Central Mountain			7,992
County Islands		4,884	
Crest-Dehesa		6,468	
Desert			322,860
Fallbrook (2)(3)	166,140		
Jamul-Dulzura		74,676	
Julian			11,220
Lakeside		153,492	
Mountain Empire			112,092
North County Metro	184,992		
North Mountain			18,480
Otay		232,752	
Pala-Pauma	48,504		
Pendleton-De Luz	5,100		
Rainbow	27,912		
Ramona(2)			138,144
San Dieguito	117120		
Spring Valley		50,892	
Sweetwater		15,072	
Valle De Oro		21,348	
Valley Center	130,344		
TOTAL FUTURE TRIPS	**713,964**	**635,760**	**610,788**

(1) Forecast trips based on build-out projections per the 2005 TIF program.

(2) Fallbrook local rate based on 160,992 trips for 2004 to 2030 and Ramona local rate based on 118,824 trips for 2004 to 2030.

(3) An additional 5,076 trips is reflected for North Region (Fallbrook) based on the September 2005 Addendum (423 EDUs x 12 trips/EDU).

Trip generation rates are commonly used to apportion the benefits associated with transportation infrastructure improvements. Note that the Prior Reports made reference to Equivalent Dwelling Units (1 equivalent dwelling unit equaling 12 trips), but for simplicity this report references trips instead.

FACILITIES AND COSTS

The SANDAG Regional Transportation Model was utilized to analyze base year (Year 2000) and projected build-out development conditions on the roadway network throughout the unincorporated area of the County. The TIF modeling assumptions for the road network and projected land uses are summarized in the Prior Reports.

A list of County TIF program facilities (deficient Base Year road segments) is contained in **Appendix A**. The facilities identified in this report are intended to address future deficiencies in road capacity caused by the cumulative traffic impacts of future development. Further studies, including required environmental reviews, may result in the identification of other alternatives for dealing with cumulative traffic impacts. The County TIF program may be periodically reviewed and/or amended to permit funding the construction of these alternatives. The Appendix identifies the roadway segments and provides additional detail as to TIF roadway segment limits.

FREEWAY INTERCHANGES/RAMPS & AT-GRADE HIGHWAY INTERSECTIONS

As part of this update, the County identified specific Freeway ramp interchanges and at-grade highway intersections to be funded in part by the TIF program. These facilities were not included in the Prior Reports. Based on currently available traffic data, a number of freeway ramp interchanges and at-grade highway intersections were identified as necessary to accommodate growth. **Table 3** identifies the facility location, the percent of total 2030 traffic related to growth, and the resulting amount to be funded via the TIF program. Addition of these improvements will enable projects to meet its obligations regarding cumulative impacts via the TIF program. It should be noted that the overall cost is estimated on a per Region basis, recognizing that some of the costs will likely exceed the estimate while others may be lower than shown in the table.

Only 10% of future growth's costs for freeway interchanges/ramps are recommended to be included in the program. This percentage is representative of the typical local match required when competing for funds for these State highway improvements. Addition of these improvements will enable projects to meet their obligations regarding cumulative impacts via the TIF program. It should be noted that the overall cost is estimated on a per Region basis, recognizing that some of the costs will likely exceed the estimate while others may be lower than shown in the table.

TABLE 3
INTERCHANGES AND COSTS

Location	County Growth (%)	Proportional Cost	Region
I-8 EB/Lake Jennings Park Rd	45%	$516,000	South
I-8 WB/Lake Jenning Park Rd	49%	561,000	South
I-8 EB/Dunbar Ln	54%	618,000	South
I-8 WB/Dunbar Ln	57%	654,000	South
I-8 EB/Tavern Rd	40%	459,000	South
I-8 WB/Tavern Rd	58%	667,000	South
I-8 EB/W. Willows Rd	60%	686,000	South

Location	County Growth (%)	Proportional Cost	Region
I-8 WB/W. Willows Rd	65%	751,000	South
I-8 EB/Greenfield Dr. (El Cajon)	1%	7,000	South
I-8 WB/Greenfield Dr. (El Cajon)	3%	29,000	South
I-15 NB/E. Mission Rd	36%	418,000	North
I-15 SB/E. Mission Rd	36%	411,000	North
I-15 NB/Gopher Canyon Rd	39%	451,000	North
I-15 SB/Gopher Canyon Rd	6%	65,000	North
I-15 NB/Deer Springs Rd	54%	627,000	North
I-15 SB/Deer Springs Rd	41%	470,000	North
SR-67 NB/Bradley Ave	11%	130,000	South
SR-67 SB/Bradley Ave	14%	164,000	South
SR-67 NB/Winter Gardens Blvd	12%	135,000	South
SR—67 SB Winter Gardens Blvd	25%	291,000	South
SR-67 NB/Riverford Rd	31%	352,000	South
SR-67 SB/Riverford Rd	43%	499,000	South
SR-67 NB/Mapleview St	33%	378,000	South
SR-67 SB/Mapleview St	34%	396,000	South
SR-67/Archie Moore Rd (Ramona) (2)	31%	40,000	East
SR-67/Montecito Rd (Ramona) (2)	39%	51,000	East
SR-67/SR-78 (Ramona) (2)	38%	49,000	East
SR-94 EB/Sweetwater Springs Blvd	26%	299,000	South
SR-94 WB/Sweetwater Springs Blvd	29%	335,000	South
TOTAL COST OF GROWTH		**$10,509,000**	

(1) Cost based on $11,500,000 per interchange intersection except as outlined in note (2) below.

(2) Costs for SR-67 at Archie Moore, Montecito, SR 78 in Ramona based on $130,000 perat-grade highway intersection.

(3) South Region totals $7,927,000, North Region total $2,442,000 and the East Region totals $140,000.

REGIONAL AND LOCAL COSTS

Table 4 outlines the planning level costs associated with the TIF program based on the cost assumptions outlined in the Prior Reports and then increased by ENR-CCI. These planning-level costs were based in part on estimates made in SANDAG's Regional Transportation Plan and include all planning, design, right-of-way, environmental, construction and program administration (2%) costs. Based on available information, these planning level costs are sufficient to include intersections along the facilities and at the endpoints of the TIF facilities, including signalization.

TABLE 4
COST OF FACILITIES ATTRIBUTABLE TO FUTURE DEVELOPMENT

Community Planning Area	Estimated Cost (in millions)				
	Regional (1)			Local	TOTAL
	State Route	Prime Arterial	Major Road(2)	Collector & Below	
Alpine		$0.63	$1.13	$11.50	$13.26
Bonsall	77.61		30.67	17.81	126.10
Central Mountain	0.89				0.89
County Islands					0
Crest-Dehesa			24.82	.54	25.36
Desert				8.31	8.31
Fallbrook	27.82		67.91	81.69	177.42
Jamul-Dulzura	90.10			13.56	103.66
Julian					
Lakeside		.87	1.78	51.51	54.16
Mountain Empire	24.62				24.62
North County Metro	35.64	18.96		26.54	81.14
North Mountain	22.74				22.74
Otay		56.64		12.79	69.43
Pala-Pauma	20.97			4.76	25.73
Pendleton-De Luz		5.95		0	5.95
Rainbow				10.38	10.38
Ramona (3)	30.79		33.65	58.80	123.23
San Dieguito		7.28	.28	31.64	39.20
Spring Valley		.01		2.81	2.82
Sweetwater				1.64	1.64
Valle De Oro	.03			8.20	8.24
Valley Center		29.52	1.07	27.95	58.55
Misc. North Region	32.83				32.83
TOTAL COSTS	**$364.04**	**$119.86**	**$161.32**	**$370.44**	**$1015.65**

(1) Refer to Prior Reports regarding Regional facility costs reduction of 7% to account for future traffic volumes not attributable to development within the unincorporated area.

(2) Major and other regionally significant roadways.

The table reflects a reduction to the costs for the East region based upon review of the SANDAG Transportation Model output and roadway needs resulting in a reduction of the estimated cost of Regional lane-miles to $0.89 million for the Central Mountain CPA.

Of the costs identified in the table, it is estimated that approximately $75.0 million is associated with the direct impacts of non-residential properties within the County. As part of the 2008 TIF update, it is recommended that the $75.0 million be credited to the non-residential properties in lieu of those projects requesting reimbursements for direct impact improvements on TIF roadways. This credit is reflected in the non-residential Regional rates.

Based on the continuing efforts to update the County's General Plan, including the Circulation Element, cost savings related to anticipated roadway design standards that eliminate parking on certain roadways have also been quantified. Note that such a change would not affect the capacity of the roadway. The savings is estimated to be $5.05 million in the Regional costs and is reflected in the rates.

FEE METHODOLOGY

The TIF program apportions the costs of the proposed transportation improvements equitably to future development projects based on typical trip generation rates. The program recognizes certain "local" transportation facilities (collectors and minor streets) benefit primarily the community in which they are located, while "regional" facilities (state routes, prime arterials, major roads and interchanges/ramps) benefit both the community and surrounding areas. Therefore, a portion of the total TIF fee was calculated based on the cost of local facilities and apportioned to development only within the boundary of each community (**Figure 1**), while the remainder of the fee was calculated based on the need for regional facilities and apportioned to development within three TIF Regions covering the unincorporated areas of the County. Those three regions are shown in **Figure 2** and are labeled North, South and East.

LOCAL FACILITIES

Each community's TIF rate includes a Local TIF Rate and a Regional TIF Rate. The purpose of the Local TIF Rate is to apportion eligible costs of local TIF facilities (i.e., collectors and other minor roads) to future growth within the community. Total estimated local facility costs, projected local growth within the community, and calculated Local TIF Rates are summarized in **Table 5**.

TABLE 5
LOCAL FACILITY COSTS & TIF RATES

Community Plan Area	Local Cost (1) ($ millions)	Local Growth (trips)	Local TIF Rate (per trip)(2)(3)
Alpine	$11.50	76,176	$151
Bonsall	17.81	33,852	526
Central Mountain	0	7,992	0
County Islands	0	4,884	0
Crest-Dehesa	0.54	6,468	84
Desert	8.31	322,860	26
Fallbrook	81.69	160,992	507
Jamul-Dulzura	13.56	74,676	182
Julian	0	11,220	0
Lakeside (including Pepper Dr-Bostonia)	51.51	153,492	336

Community Plan Area	Local Cost (1) ($ millions)	Local Growth (trips)	Local TIF Rate (per trip)(2)(3)
Mountain Empire	0	112,092	0
North County Metro	26.54	184,992	143
North Mountain	0	18,480	0
Otay	12.79	232,752	55
Pala-Pauma	4.76	48,504	98
Pendleton-De Luz (4)	0	5,100	1
Rainbow	10.38	27,912	372
Ramona	58.80	118,824	495
San Dieguito	31.64	117,120	270
Spring Valley	2.81	50,892	55
Sweetwater	1.64	15,072	109
Valle De Oro	8.20	21,348	384
Valley Center	27.95	130,344	214

(1) Local facility costs eligible for TIF funding.
(2) TIF rates may vary from calculated table values due to rounding and display of significant digits.
(3) Cost reductions are not reflected.
(4) Pendleton-De Luz local cost equals 427 x $7 per the 2005 TIF report.

REGIONAL FACILITIES

The purpose of the Regional TIF Rate is to apportion eligible costs of regional TIF facilities (i.e., freeway interchanges/ramps, state routes, prime arterials, major roads, and other regionally significant roadways) to future growth within the applicable region. Total estimated regional facility costs, projected regional growth, and calculated Regional TIF Rates are summarized in **Tables 6 and 7**. Table 6 displays the portion of the Regional TIF rate apportioned to state routes, primes, and majors and Table 7 displays the portion of the Regional TIF rate apportioned to Freeway interchanges/ramps.

TABLE 6
REGIONAL FACILITY COSTS & TIF RATES (SRS/PRIME ARTERIALS/MAJOR ROADS)

TIF Region (1)	Regional Cost (2) ($ millions)	Regional Growth (trips)	Regional TIF Rate ($/trip) (3)
North	$356.27	713,964	$499
South	$176.14	635,760	$277
East	$112.40	610,788	$184

*(1) Refer to **Figure 2** for location of TIF Regions.*
(2) Portion of Regional facility costs related to SRs/prime arterials and major roads identified for TIF funding.
(3) Cost reduction for lane-miles in East region is reflected. Other cost reductions are not reflected.

TABLE 7
INTERCHANGE/RAMP COSTS & TIF RATES - REGIONAL

TIF Region (1)	Regional Cost (2)	Regional Growth (trips)	Regional TIF Rate ($/trip)
North	$2,442,000	713,964	$ 3.42
South	$7,927,000	635,760	$12.47
East	$ 140,000	610,788	$ 0.23

*(1) Refer to **Figure 2** for location of TIF Regions.*

(2) Interchange/ramp facility costs identified for TIF funding – Includes 10% Local Match.

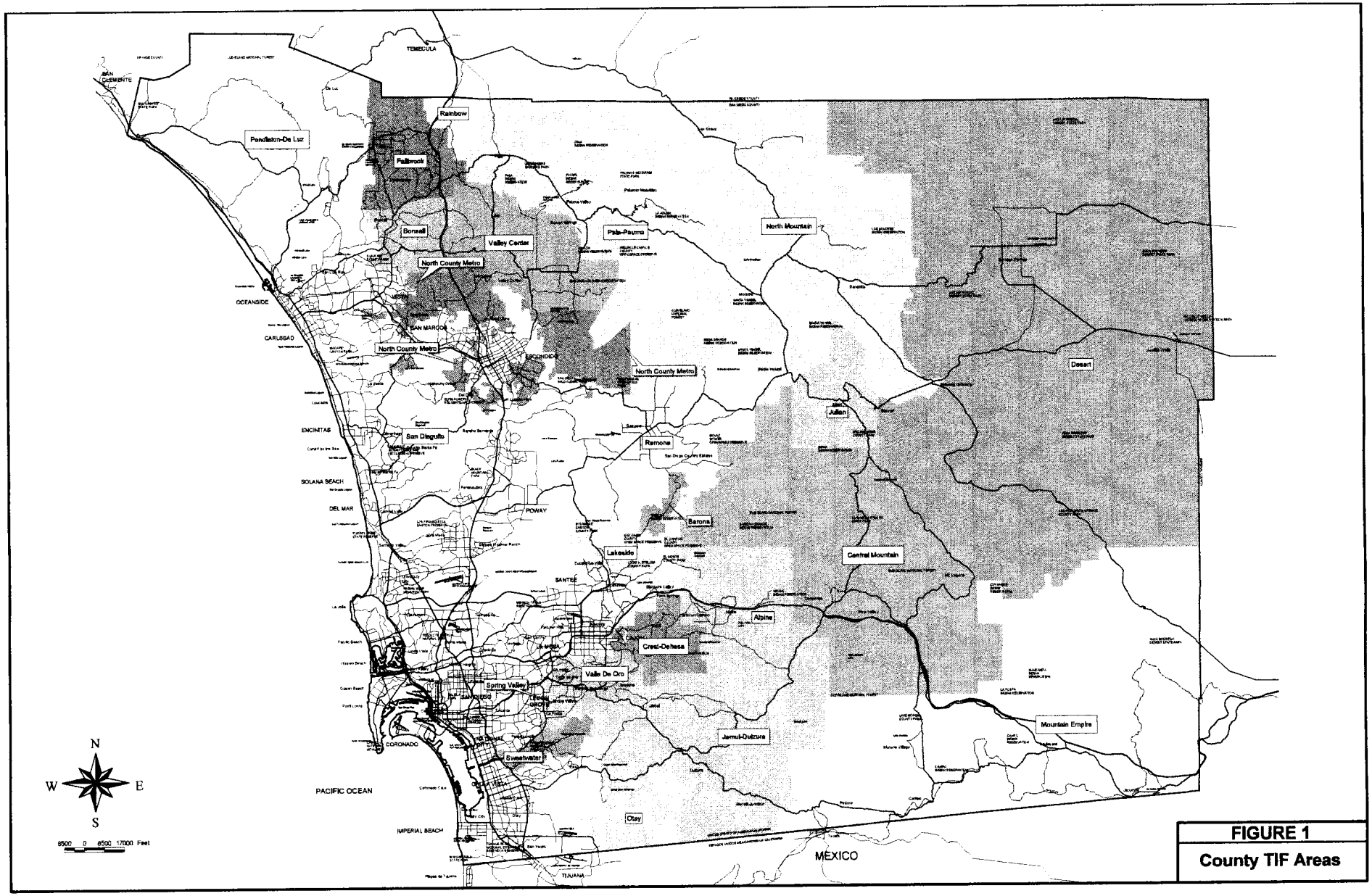


FIGURE 1
County TIF Areas

SOURCE: SANDAG and County of San Diego

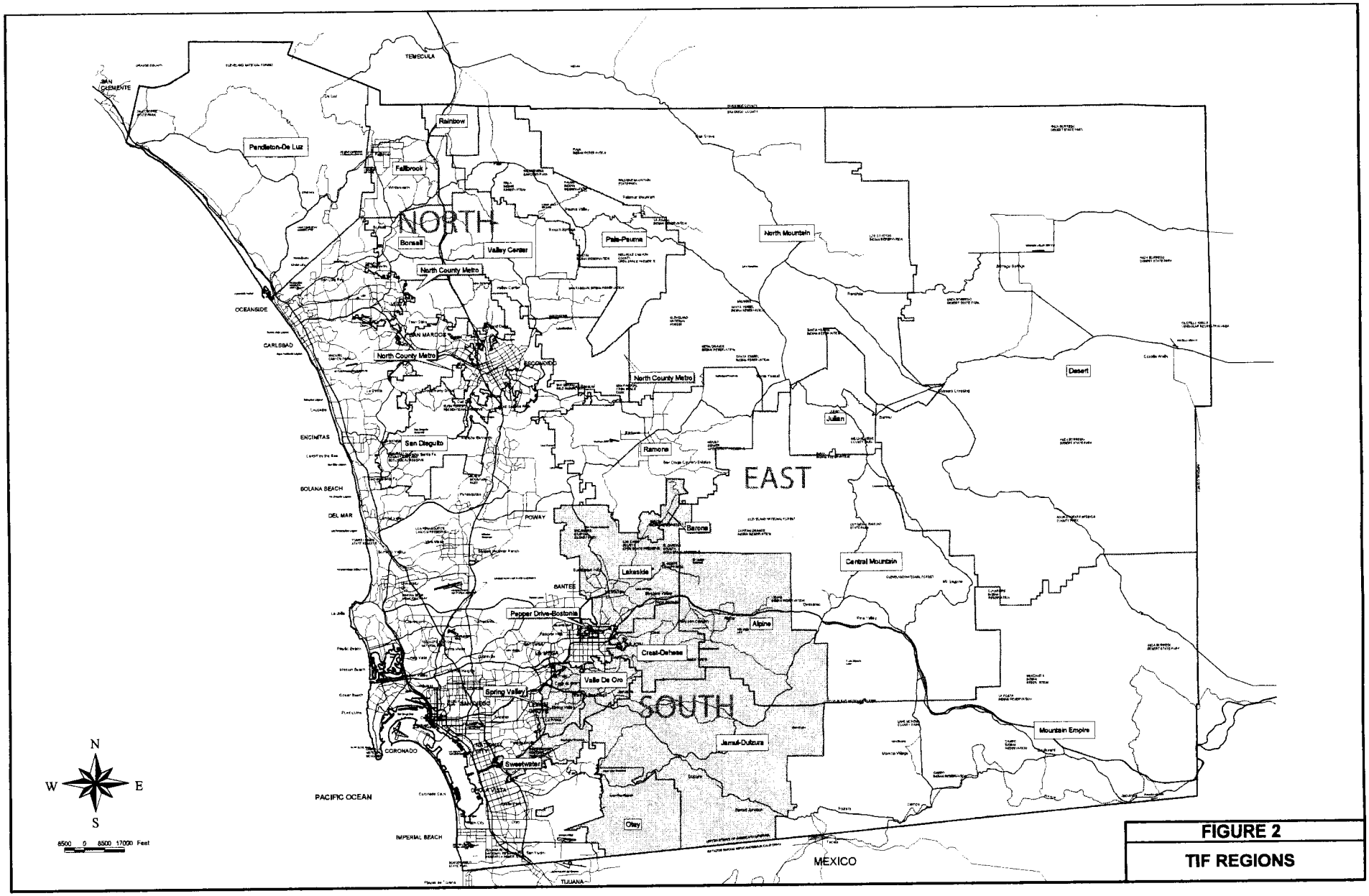


FIGURE 2

TIF REGIONS

SOURCE: SANDAG and County of San Diego

FUNDING REQUIREMENTS

In the typical County CIP road improvement project that is constructed for the purpose of addressing existing capacity deficiencies, excess capacity results due to the impracticality of constructing only partial lanes. It is estimated that the value of this capacity for future development averages $5.5 million annually. This value functions as a revenue to be included in the TIF program and as a policy decision, will be allocated to offset non-residential fee rates.

The overall financial requirements of the updated TIF program are identified in **Table 8.**

TABLE 8
TIF PROGRAM FINANCIAL REQUIREMENTS

Program Description	Cost (in millions)	Applicable Project Type
2008 Program	$1,053	Residential & Non-residential in each Region
Adjusted East Region lane-miles	-38.0	Residential & Non-residential in East Region
Freeway Included interchanges/ramps (10% local match)	10.5	Non-residential in each Region
Excluded non-residential direct impact costs	-74.5	Non-residential in each Region
Included cost savings for modified GP2020 roadway design standards	-5.05	Residential & Non-residential in each Region
Apply available CIP revenues	-121	Non-residential in each Region
TOTAL	**$826**	**TIF Funding Requirements**

Based on allocating the costs for local and regional facilities and reflecting the recommended program reductions, the cost per single family home and the cost per non-residential trip are identified in **Table 9** and **Table 10**, respectively.

TABLE 9
COST OF FACILITIES ATTRIBUTABLE TO FUTURE DEVELOPMENT - RESIDENTIAL

Community Planning Area By Region	Cost Per Single Family Home				Total
	Local	Regional	Interchange	Program Reduction(1)	
South Region					
Alpine	$1,812	$3,322	$150	(27)	$5,257
County Islands	0	3,322	150	(27)	3,445
Crest-Dehesa	1,008	3,322	150	(27)	4,453
Jamul-Dulzura	2,184	3,322	150	(27)	5,629
Lakeside	4,032	3,322	150	(27)	7,477
Otay	660	3,322	150	(27)	4,105
Spring Valley	660	3,322	150	(27)	4,105
Sweetwater	1,308	3,322	150	(27)	4,753

Community Planning Area By Region	Cost Per Single Family Home				Total
	Local	Regional	Interchange	Program Reduction(1)	
Valle de Oro	4,608	3,322	150	(27)	8,053
North Region					
Bonsall	6,312	5,990	41	(48)	12,295
Fallbrook	6,084	5,990	41	(48)	12,067
North County Metro	1,716	5,990	41	(48)	7,699
Pala-Pauma	1,176	5,990	41	(48)	7,159
Pendleton-De Luz	8	5,990	41	(48)	5,991
Rainbow	4,464	5,990	41	(48)	10,447
San Dieguito	3,240	5,990	41	(48)	9,223
Valley Center	2,568	5,990	41	(48)	8,551
East Region					
Central Mountain	0	2,214	3	(18)	2,199
Desert	312	2,214	3	(18)	2,511
Julian	0	2,214	3	(18)	2,199
Mountain Empire	0	2,214	3	(18)	2,199
North Mountain	0	2,214	3	(18)	2,199
Ramona	5,940	2,214	3	(18)	8,139

(1) Reflects program reductions for anticipated changes in roadway design standards..

TABLE 10
COST OF FACILITIES ATTRIBUTABLE TO FUTURE DEVELOPMENT – NON RESIDENTIAL

Community Planning Area By Region	Cost Per Trip				Total
	Local	Regional	Interchange	Program Reduction	
South Region					
Alpine	151	277	12	(184)	256
County Islands	0	277	12	(122)	167
Crest-Dehesa	84	277	12	(157)	216
Jamul-Dulzura	182	277	12	(196)	275
Lakeside	336	277	12	(259)	366
Otay	55	277	12	(145)	199
Spring Valley	55	277	12	(145)	199
Sweetwater	109	277	12	(167)	231
Valle de Oro	384	277	12	(278)	395

Community Planning Area By Region	Cost Per Trip				Total
	Local	Regional	Interchange	Program Reduction	
North Region					
Bonsall	526	499	3	(418)	610
Fallbrook	507	499	3	(410)	599
North County Metro	143	499	3	(263)	382
Pala-Pauma	98	499	3	(245)	355
Pendleton-De Luz	.66	499	3	(205)	298
Rainbow	372	499	3	(356)	518
San Dieguito	270	499	3	(314)	458
Valley Center	214	499	3	(291)	425
East Region					
Central Mountain	0	184	.23	(43)	141
Desert	26	184	.23	(44)	166
Julian	0	184	.23	(43)	141
Mountain Empire	0	184	.23	(43)	141
North Mountain	0	184	.23	(43)	141
Ramona	495	184	.23	(234)	445

(1) Reflects program reductions for anticipated changes in roadway design standards, cost reductions for Direct Impacts and County CIIP revenues of $121 million.

As already mentioned, the TIF program differentiates between local and regional facilities. The following facility costs and residential TIF rates were determined:

- Local facilities costing a total of $370 million were identified, including streets of collector classification and below. This resulted in local TIF rates varying by community from $0 to $5,940 per single family home (see Table 11).
- Regional facilities costing a total of $645 million were identified, including state routes, prime arterials, and major roads. This resulted in a component of the regional residential TIF rates of $5,942 for the North region, $3,294 for the South region, and $2,195 for the East region (see Table 11) per single family home.
- Regional facilities costing a total of $10.5 million were identified, including interchange intersections and ramps. This resulted in a component of the regional residential TIF rates of $41 for the North region, $150 for the South region, and $3 for the East region (see Table 11) per single family home
- Combining the local and regional components, total residential TIF rates vary from $2,198 to $12,295 in Bonsall (see Table 8).

PROPOSED FEE SCHEDULE

The TIF applicable to a given project will be based on estimated vehicular trip generation rates generally pursuant to Table 1. For residential projects, the fee is based on number and type of dwelling units. For non-residential projects, the fee is reflected as a cost per square foot. The current TIF program bases the project's TIF obligation on an average cost per trip multiplied by the number of trips. This update proposes to modify that approach by assigning a single trip generation rate per land use category (with several exceptions) and converting that to a cost per square foot basis for non-residential projects. There are two advantages to making this change. First, the approach more closely reflects the trip generation assumption in the 2005 TIF program and the SANDAG Transportation Model, and secondly, it should significantly simplify fee calculations for project applicants.

Table 11 summarizes the proposed total TIF rates for each community within the County based on the local and regional TIF rates identified in Tables 5, 6 and 7. The rates reflect the aforementioned program reductions and county funding.

TABLE 11
PROPOSED TOTAL TIF RATES PER SINGLE FAMILY DWELLING (SFD)

Community Plan Area	Local TIF Rate	Regional TIF Rate	Regional Interchange /Ramp TIF Rate	Total TIF Rate (1)
Alpine	$1,812	$3,294	$150	$5,256
Bonsall	6,312	5,942	41	12,295
Central Mountain	0	2,195	3	2,198
County Islands	0	3,294	150	3,444
Crest-Dehesa	1,008	3,294	150	4,452
Desert	312	2,196	3	2,511
Fallbrook	6,084	5,942	41	12,067
Jamul-Dulzura	2,184	3,294	150	5,628
Julian	0	2,195	3	2,198
Lakeside	4,032	3,294	150	7,476
Mountain Empire	0	2,195	3	2,198
North County Metro	1,716	5,942	41	7,699
North Mountain	0	2,195	3	2,198
Otay	660	3,294	150	4,104
Pala-Pauma	1,176	5,,942	41	7,159
Pendleton-De Luz	8	5,942	41	5,991
Rainbow	4,464	5,942	41	10,447
Ramona	5,940	2,196	3	8,139
San Dieguito	3,240	5,942	41	9,223
Spring Valley	660	3,294	150	4,104

Community Plan Area	Local TIF Rate	Regional TIF Rate	Regional Interchange /Ramp TIF Rate	Total TIF Rate (1)
Sweetwater	1,308	3,294	150	4,752
Valle De Oro	4,608	3,294	150	8,052
Valley Center	2,568	5,942	41	8,551

(1) The rate for a multi-family home is 67% of the single-family rate, senior housing is 33% of the single-family rate and congregate care is 20% of the single-family rate based on relative trip generation rates.

The General Commercial rates are summarized in **Table 12** for each community within the County based on the local and regional TIF rates identified in Tables 5, 6 and 7. The rates reflect the aforementioned program reductions and County funding.

TABLE 12
PROPOSED TOTAL GENERAL COMMERCIAL TIF RATE PER 1,000 SF

Community Plan Area	Local TIF Rate	Regional TIF Rate	Regional Interchange /Ramp TIF Rate	Total TIF Rate (1)
Alpine	5,426	3,342	467	9,235
Bonsall	18,901	2,946	108	21,955
Central Mountain	0	5,066	9	5,075
County Islands	0	5,534	467	6,001
Crest-Dehesa	3,018	4,312	467	7,797
Desert	934	5,067	9	6,010
Fallbrook	18,217	3,234	108	21,559
Jamul-Dulzura	6,539	2,874	467	9,880
Julian	0	5,066	9	5,075
Lakeside	12,073	647	467	13,187
Mountain Empire	0	5,066	9	5,075
North County Metro	5,138	8,516	108	13,762
North Mountain	0	5,066	9	5,075
Otay	1,976	4,743	467	7,186
Pala-Pauma	3,521	9,163	108	12,792
Pendleton-De Luz	36	10,564	108	10,708
Rainbow	13,367	5,174	108	18,649
Ramona	16,026	0	9	16,035
San Dieguito	9,702	6,647	108	16,457
Spring Valley	1,976	4,743	467	7,186
Sweetwater	3,916	3,916	467	8,299

Community Plan Area	Local TIF Rate	Regional TIF Rate	Regional Interchange /Ramp TIF Rate	Total TIF Rate (1)
Valle De Oro	13,762	0	467	14,229
Valley Center	7,689	7,474	108	15,271

(1) The rate for Furniture is .143 multiplied by General Commercial Rate, General Industrial is .369 multiplied by General Commercial Rate, Warehouse/Storage is .137 multiplied by the General Commercial Rate, Office is .564 multiplied by the General Commercial Rate, and School is .319 multiplied by the General Commercial Rate.

The TIF is assessed on all new development associated with the generation of traffic. For purposes of assigning the fee, the following land use category explanations are provided:

Furniture Store means a commercial facility for the sale of moveable articles such as tables, chairs, sofas, desks, or cabinets required for use or ornament in a residence, office, or the like.

General Commercial includes but is not limited to shopping centers, strip development and commercial clusters, retail sales facilities including grocery stores and department stores, convenience stores, auto sales and repair facilities, hardware and lumber stores, gardening and nursery stores, eating and drinking establishments, and any other retail uses other than furniture stores that are not specifically included in other TIF category definitions.

General Industrial means facilities for manufacturing, processing, assembling, distribution services, and for construction equipment sales and repair and any industrial use other than warehouse and storage that are not specifically included in other Transportation Impact Fee categories.

Office means facilities for administrative or professional services and includes but is not limited to hospitals, medical clinics, insurance sales, banks, savings and loans, and real estate services.

Schools mean institutions for instruction in a particular skill or field.

Warehousing and Storage means all types of warehouses or facilities with the primary purpose being to provide storage space.

Winery means an establishment for producing wine and may include wine tasting rooms.

OTHER FUNDING SOURCES

The TIF is intended to fund identified transportation facilities, or portions thereof, needed to mitigate the cumulative traffic impacts of future development. Other revenue sources will be required to fund existing network deficiencies or portions of capacity not attributable to new growth. Sources of additional revenue may include funding of ramp and interchange improvements by the state. With the passage and extension of TransNet, additional Gas Tax revenues will be freed up from maintenance activities that can be applied to the County's CIP program.

The TIF funds will be used for the specific improvements identified in this report to accommodate future growth, and non-TIF funds will be used to address existing deficiencies. Gas Tax and TranNet revenues will be the most reliable source of non-TIF funds. However, having TIF funds available can help the County leverage other funding sources, including state and federal grants. Grant programs often require a high level of difficult-to-find matching funds. Having a TIF

program demonstrates a committed plan of action for road network improvements and TIF revenue can provide a ready source of matching funds. Both of these factors can provide a competitive edge when vying for grants.

PROGRAM IMPLEMENTATION

STATEMENT OF FINDINGS

The following information is provided to assist the County with satisfaction of the requisite statutory findings contained in §66001 of the Mitigation Fee Act:

Purpose of the Fee. The purpose of the TIF is to fund program implementation and construction of identified transportation facilities in response to the anticipated cumulative traffic impacts associated with future development within the unincorporated area.

Use of the Fee. The TIF will be used to fund program implementation and construction of certain local transportation facilities within each community in the County. The TIF will also be used to fund program implementation and construction of certain regional facilities within the applicable TIF region.

Reasonable Use (Benefit). Future development will have a significant, not easily mitigated, cumulative traffic impact on each community's local and regional road network. The TIF will be used to fund additional transportation infrastructure to accommodate future development and facilitate better traffic circulation within the individual communities in the County, and the applicable region, and thus mitigate this cumulative impact.

Reasonable Need (Burden). Future development will have a significant, and not easily mitigated, cumulative traffic impact on each community's road network. The TIF will be used to fund additional transportation infrastructure alleviating some of the impacts associated with future development within the unincorporated area.

Reasonable Apportionment. The TIF facilities, or portions thereof, were identified based on an analysis of existing and future deficiencies and roadway requirements. The costs of TIF facilities will be apportioned to future development based on relative vehicular trip generation rates assigned to land use category and converted to a rate per dwelling unit or rate per square foot as identified in this report.

GENERAL PLAN UPDATE

It should be noted that the County is currently in the process of performing a General Plan update. The County has reviewed the TIF facilities identified in this report and concluded that they do not conflict with current GP update efforts. Upon adoption of the updated General Plan (or any other significant modification to the existing General Plan), it is recommended that the development forecast, traffic modeling, and funding requirements to address future roadway demands for the TIF program be reviewed and updated accordingly.

CAPITAL IMPROVEMENT PROGRAM

The following facility information is provided to assist the County with satisfaction of the Capital Improvement Program (CIP) requirements set forth in §66002 of the Mitigation Fee Act:

Approximate location. The approximate location of each identified transportation facility is conceptually depicted and described in the Prior Reports and are incorporated herein by reference. The **Appendix** provides additional detail regarding the limits of the TIF roadway segments.

Size. The size and/or characteristics of each identified transportation facility are provided in the Prior Reports and are incorporated herein by reference.

Time of Availability. The identified transportation facilities will be constructed based on availability of funding, and when necessary to address the cumulative traffic impacts of future development in the County.

Estimated Cost. Additional detail for the estimated cost of the identified transportation facilities (in September 2004 dollars) is provided in the Prior Reports.

INTER-AGENCY COORDINATION

Collection of TIF funds and construction of identified TIF facilities may involve varying degrees of inter-agency coordination. For example, Caltrans has jurisdiction over state routes, portions of which may be improved as part of the County TIF program. The financial aspects and timing of construction activities for such projects will certainly require considerable attention and coordination.

The TransNet sales tax extension (Proposition A), approved by voters in 2004, requires local jurisdictions to collect a fee for each new residential dwelling unit to fund the Regional Arterial System (as defined in SANDAG's most recent and adopted Regional Transportation Plan). Since State Routes and other facilities in the Regional Transportation Plan are included in the improvements for which the County TIF is collected, the County has determined that the obligation to collect the SANDAG fee is already met. In other words, there will be no additional fees collected beyond the County TIF amount in order to satisfy the TransNet requirement.

APPENDIX A – BASE YEAR DEFICIENCIES OF STATE AND COUNTY

Appendix A
Base Year Deficiencies
State Facilities

CPA	Name	FROM	TO	Lanes	Additional Lane Miles Required
Bonsall	MISSION	OLIVE HILL	CPA BOUNDARY	2	6.77
Bonsall	PALA	.045 EAST OF MISSION / PALA	.61 EAST OF MISSION / PALA	2	0.56
Fallbrook	PALA	OLD 395	I15 - NB RAMP	2	0.30
Jamul-Dulzura	CAMPO	CPA BOUNDARY / COUGAR CANYON ROAD	STONEY OAK ROAD	2	4.39
Jamul-Dulzura	SR-94	STONEY OAK ROAD	HONEY SPRING	2	0.83
Lakeside	SR-67	.46 MILES SOUTH OF SCRIPPS POWAY PARKWAY	VIGILANTE ROAD	2	7.35
Lakeside	SR-67	SCRIPPS POWAY PARKWAY	.46 MILES SOUTH OF SCRIPPS POWAY PARKWAY	3	0.46
Ramona	MAIN	10 TH	8TH	4	0.22
Ramona	SR-67	MUSSEY GRADE ROAD	MONTECITO	2	5.40
Ramona	JULIAN	CPA BOUNDARY	ARCHIE MOORE ROAD	2	0.89
Spring Valley	SR-54 EB	SOUTH BAY PARKWAY (BEGINNING OF RAMP)	SR-54 EB (END OF RAMP)	4	0.31
Sweetwater	SOUTH BAY PARKWAY	END OF SR-54 / BEGINNING OF SOUTH BAY PARKWAY	SOUTH BAY PARKWAY (BEGINNING OF RAMP)	2	1.70
Valle De Oro	CAMPO	JAMACHA ROAD	CPA BOUNDARY	2	2.75
Valle De Oro	CAMPO	END OF SR-94 / BEGINNING OF CAMPO	VIA MERCADO	4	0.06

Appendix A
Base Year Deficiencies
County Facilities

CPA	Name	From Cross Street	To Cross Street	Existing Classification	Required Classification	Additional Lane Miles Required
Alpine	ALPINE	TAVERN	BOULDERS	Light Collector	Town Collector	0.17
Alpine	ALPINE	WEST VICTORIA	ELTINGE / MARSHALL	Light Collector	Collector	0.11
Alpine	ALPINE	ELTINGE / MARSHALL	WHEELER ST.	Light Collector	Collector	0.56
Alpine	ALPINE	WHEELER ST.	BAY MDOWS/MARINO	Light Collector	Town Collector	0.11
Alpine	ALPINE	BAY MDOWS/MARINO	.04 AFTER ROCK	Light Collector	Town Collector	0.31
Alpine	TAVERN	RAMP I-8 WB	RAMP I-8 EB	Light Collector	Collector	0.33
Alpine	WILLOWS	WILLOWS	RAMP I-8 EB	Light Collector	Collector	0.22
Alpine	WILLOWS	WILLOWSIDE	VIEJAS GRADE	Light Collector	Collector	0.44
Alpine	WILLOWS	HILLCREST	WILLOWSIDE	Light Collector	Town Collector	0.12
Alpine	WILLOWS	VIA LA MANCHA	HILLCREST	Light Collector	Town Collector	0.45
Barona	WILDCAT CANYON	BARONA CASINO	PATA RANCH	Light Collector	Collector	5.75
Bonsall	EAST VISTA	OSBORNE	CPA BOUNDARY	Light Collector	Collector	0.28
Bonsall	EAST VISTA	OLD RIVER	EVERGREEN	Town Collector	Collector	0.50
Bonsall	EAST VISTA	EVERGREEN	HUTCHISON	Town Collector	Collector	0.67
Bonsall	EAST VISTA	HUTCHISON	ORMSBY/GOPHER CA	Town Collector	Collector	0.59
Bonsall	EAST VISTA	ORMSBY/GOPHER CA	OSBORNE	Town Collector	Collector	1.32
Bonsall	MISSION	CPA BOUNDARY	PALA	Light Collector	Collector	0.50
Bonsall	CAMINO DEL REY	WEST LILAC	OLD RIVER	Light Collector	Town Collector	0.06
Bonsall	SANTA FE	BIRDFARM	OSBORNE	Light Collector	Collector	0.51
County Islands	POMERADO	WILLOW CREEK	RAMP I-15 NB	Light Collector	Major	0.13
Crest-Dehesa	DEHESA	HARBISON CANYON	SYCUAN	Light Collector	Town Collector	0.73
Crest-Dehesa	DEHESA	CALLE ENCANTO	VISTA GRANDE	Light Collector	Town Collector	0.32
Crest-Dehesa	DEHESA	WILLOW GLEN	SINGING HILLS GC	Light Collector	Town Collector	0.42
Crest-Dehesa	GREENFIELD	CANDLE	SYCAMORE	Light Collector	Collector	0.15
Crest-Dehesa	GREENFIELD	SYCAMORE	LA CRESTA	Light Collector	Collector	0.30
Crest-Dehesa	SYCUAN ROAD	DEHESA	CASINO WAY	Light Collector	Town Collector	0.35
Fallbrook	AVIATION	WISCONSIN	MISSION	Light Collector	Town Collector	0.09
Fallbrook	FALLBROOK	MAIN	OLD STAGE	Light Collector	Town Collector	0.12
Fallbrook	FALLBROOK	OLD STAGE	MANDARIN	Light Collector	Collector	0.25
Fallbrook	FALLBROOK	MANDARIN	GOLDEN	Light Collector	Town Collector	0.27
Fallbrook	MAIN	MISSION	IVY	Light Collector	Town Collector	0.09
Fallbrook	MAIN	IVY	ALVARADO	Light Collector	Collector	0.18
Fallbrook	MAIN	ALVARADO	FIG	Light Collector	Town Collector	0.06
Fallbrook	MAIN	FIG	COLLEGE	Light Collector	Collector	0.28

Appendix A
Base Year Deficiencies
County Facilities

CPA	Name	From Cross Street	To Cross Street	Existing Classification	Required Classification	Additional Lane Miles Required
Fallbrook	MAIN	COLLEGE	ASH	Light Collector	Collector	0.18
Fallbrook	MAIN	ASH	FALLBROOK	Light Collector	Collector	0.16
Fallbrook	MAIN	FALLBROOK	AVIATION	Light Collector	Collector	0.38
Fallbrook	MAIN	AVIATION	AMMUNITION	Light Collector	Collector	0.38
Fallbrook	MAIN	AMMUNITION	CLEMMENS	Light Collector	Collector	0.25
Fallbrook	MISSION	EL PAISANO	WILLOW GLEN	Light Collector	Collector	0.69
Fallbrook	MISSION	EL PAISANO	HAMILTON	Light Collector	Collector	1.13
Fallbrook	MISSION	WILLOW GLEN	LIVE OAK PARK	Light Collector	Collector	1.77
Fallbrook	MISSION	LIVE OAK PARK	OLD 395	Light Collector	Collector	1.42
Fallbrook	MISSION	OLD 395	RAMP I-15 SB	Light Collector	Collector	0.11
Fallbrook	MISSION	RAMP I-15 SB	RAMP I-15 NB	Light Collector	Town Collector	0.15
Fallbrook	MISSION	HAMILTON	DAVIS	Light Collector	Town Collector	0.70
Fallbrook	MISSION	DAVIS	STAGE COACH	Light Collector	Town Collector	0.18
Fallbrook	MISSION	STAGE COACH	GUM TREE	Light Collector	Town Collector	0.13
Fallbrook	MISSION	INDUSTRIAL	SANTA MARGARITA	Light Collector	Collector	0.36
Fallbrook	MISSION	GUM TREE	INDUSTRIAL	Light Collector	Collector	0.91
Fallbrook	MISSION	SANTA MARGARITA	BRANDON	Light Collector	Collector	0.51
Fallbrook	MISSION	BRANDON	IOWA	Light Collector	Collector	0.56
Fallbrook	MISSION	STAGE COACH	OLIVE HILL	Light Collector	Collector	0.17
Fallbrook	MISSION	OLIVE HILL	WINTER HAVEN	Light Collector	Collector	0.29
Fallbrook	MISSION	WINTER HAVEN	OVERLAND	Light Collector	Collector	0.59
Fallbrook	MISSION	OVERLAND	BIG OAK RANCH	Light Collector	Collector	0.52
Fallbrook	MISSION	BIG OAK RANCH	GREEN CANYON	Light Collector	Collector	0.89
Fallbrook	MISSION	GREEN CANYON	VIA ENCINOS	Light Collector	Collector	0.62
Fallbrook	MISSION	VIA ENCINOS	HELLERS BEND	Light Collector	Collector	0.71
Fallbrook	MISSION	HELLERS BEND	VIA MONSERATE	Light Collector	Collector	1.48
Fallbrook	MISSION	VIA MONSERATE	BAJA MISSION	Light Collector	Collector	0.22
Fallbrook	MISSION	BAJA MISSION	LA CANADA	Light Collector	Collector	0.63
Fallbrook	MISSION	LA CANADA	CPA BOUNDARY	Light Collector	Collector	1.60
Fallbrook	MISSION	ORANGE	MAIN	Town Collector	Collector	0.09
Fallbrook	MISSION	IOWA	ORANGE	Town Collector	Collector	0.10
Fallbrook	OLD STAGE	PALOMINO	MISSION	Light Collector	Town Collector	0.13
Fallbrook	RECHE	STAGE COACH	RECHE WAY	Light Collector	Town Collector	0.20
Fallbrook	RECHE	RECHE WAY	FALLBROOK	Light Collector	Town Collector	0.31

Appendix A
Base Year Deficiencies
County Facilities

CPA	Name	From Cross Street	To Cross Street	Existing Classification	Required Classification	Additional Lane Miles Required
Fallbrook	RECHE	FALLBROOK	LOS AMIGOS	Light Collector	Town Collector	0.08
Fallbrook	STAGE COACH	FALLBROOK	MARITA	Light Collector	Collector	0.51
Fallbrook	STAGE COACH	MARITA	RECHE	Light Collector	Collector	0.50
Lakeside	CHANNEL	LAKESIDE	MAPLEVIEW	Light Collector	Town Collector	0.13
Lakeside	I-8 BUSINESS / MAIN	.31 MILES SOUTH OF KAY JAY / MOBILE HOME PARK ENTRANCE	LOS COCHES	Light Collector	Town Collector	0.41
Lakeside	I-8 BUSINESS / MAIN	.45 MILES SOUTH OF LOS COCHES	LAVALA	Light Collector	Town Collector	0.50
Lakeside	LAKE JENNINGS PA	EL MONTE	PINKARD	Light Collector	Town Collector	1.37
Lakeside	LAKE JENNINGS PA	PINKARD	HARRITT	Light Collector	Town Collector	0.10
Lakeside	LAKE JENNINGS PA	HARRITT	HWY 8/BLOSSOM VA	Light Collector	Collector	0.23
Lakeside	LAKE JENNINGS PA	HWY 8/BLOSSOM VA	RAMP I-8 WB	Light Collector	Collector	0.10
Lakeside	LAKE JENNINGS PA	RAMP I-8 WB	RAMP I-8 WB	Light Collector	Town Collector	0.03
Lakeside	LAKE JENNINGS PA	RAMP I-8 WB	I8-EB OFF RAMP	Light Collector	Collector	0.14
Lakeside	LOS COCHES	BOWER	LAKEVIEW	Town Collector	Collector	0.40
Lakeside	LOS COCHES	LAKEVIEW	I-8 BUSINESS / MAIN	Town Collector	Collector	0.58
Lakeside	MAPLEVIEW	SR-67	MAINE	Light Collector	Collector	0.07
Lakeside	MAPLEVIEW	SR-67 SB	SR-67 NB	Light Collector	Town Collector	0.02
Lakeside	OLDE 80	SIERRA ALTA	PECAN PARK	Light Collector	Town Collector	0.03
Lakeside	RIVERFORD	WOODSIDE(N)	RAMP SR-67 SB	Light Collector	Town Collector	0.04
Lakeside	WILDCAT CANYON	PATA RANCH	WILLOW	Light Collector	Collector	5.56
Lakeside	WOODSIDE	RIVERVIEW	857 FT WEST OF WINTER GARDEN	Light Collector	Town Collector	0.18
Lakeside	WOODSIDE	MARILLA	RIVERVIEW	Light Collector	Town Collector	0.21
Lakeside	WOODSIDE	RAMP SR-67 NB - ON RAMP	MARILLA	Light Collector	Collector	0.59
Lakeside	WOODSIDE	RIVERFORD	RAMP SR-67 NB - ON RAMP	Light Collector	Collector	0.12
Lakeside	WOODSIDE	RAMP SR-67 NB - OFF RAMP	RIVERFORD	Light Collector	Town Collector	0.06
North County Metro	BEAR VALLEY	BIRCH	IDAHO	Light Collector	Collector	0.31
North County Metro	BEAR VALLEY	IDAHO	LANDAVO / CAIN	Light Collector	Collector	0.22

Appendix A
Base Year Deficiencies
County Facilities

CPA	Name	From Cross Street	To Cross Street	Existing Classification	Required Classification	Additional Lane Miles Required
North County Metro	BEAR VALLEY	LANDAVO / CAIN	SUBURBAN HILLS	Light Collector	Collector	0.28
North County Metro	BEAR VALLEY	ELDORADO	ENCINO	Light Collector	Collector	1.15
North County Metro	BEAR VALLEY	SAN PASQUAL VALL	ELDORADO	Town Collector	Collector	0.42
North County Metro	BUENA CREEK	MONTE VISTA	SUGARBUSH	Light Collector	Town Collector	0.61
North County Metro	BUENA CREEK	HARTWRIGHT	HIDDEN OAK	Light Collector	Town Collector	0.70
North County Metro	BUENA CREEK	SYCAMORE	HARTWRIGHT	Light Collector	Town Collector	0.03
North County Metro	BUENA CREEK	SOUTH SANTA FE	SYCAMORE	Light Collector	Town Collector	0.02
North County Metro	DEER SPRINGS	MESA ROCK	MOUNTAIN MEADOW	Light Collector	Collector	0.11
North County Metro	DEER SPRINGS	SARVER	MESA ROCK	Light Collector	Collector	2.89
North County Metro	DEER SPRINGS	MARILYN	SARVER	Light Collector	Collector	0.74
North County Metro	DEL DIOS	VIA RANCHO PKWY	DATE	Light Collector	Collector	0.20
North County Metro	DEL DIOS	DATE	ELM	Light Collector	Collector	0.74
North County Metro	OLIVE	GRAPEVINE	GRANADA	Light Collector	Collector	0.39
North County Metro	RANCHO SANTA FE	LAKE SAN MARCOS	CAMINO DEL ARROYO	Major	Prime Arterial	0.83
North County Metro	ROBELINI	SOUTH SANTA FE	EL VALLE OPULENT	Light Collector	Collector	0.15
North County Metro	ROBELINI	EL VALLE OPULENT	SYCAMORE	Light Collector	Collector	0.32
North County Metro	SAN PASQUAL	ZERMATT	VIA RANCHO	Light Collector	Collector	0.99
North County Metro	SOUTH SANTA FE	MONTGOMERY	YORK	Light Collector	Collector	1.00
North County Metro	SOUTH SANTA FE	YORK	WOODLAND	Light Collector	Collector	0.12
North County Metro	SOUTH SANTA FE	WOODLAND	TIBER	Light Collector	Prime Arterial	0.37
North County Metro	SOUTH SANTA FE	TIBER	ROBELINI	Light Collector	Major	0.37
North County Metro	SOUTH SANTA FE	ROBELINI	SYCAMORE	Light Collector	Collector	0.16
North County Metro	SOUTH SANTA FE	SYCAMORE	ABELIA	Light Collector	Collector	0.14
North County Metro	SOUTH SANTA FE	ABELIA	PALMYRA	Light Collector	Collector	0.22
North County Metro	SOUTH SANTA FE	PALMYRA	AZALEA	Light Collector	Collector	0.40
North County Metro	SOUTH SANTA FE	AZALEA	POINSETTIA	Light Collector	Collector	0.28
North County Metro	SOUTH SANTA FE	POINSETTIA	SMILAX	Light Collector	Collector	0.61
North County Metro	SOUTH SANTA FE	SMILAX	BOSSTICK	Light Collector	Collector	0.38
North County Metro	SYCAMORE	SHADOW RIDGE	WATSON / HIBISCUS	Major	Prime Arterial	0.29
North County Metro	VALLEY CENTER	ESCONDIDO CPA BOUNDARY	VALLEY CENTER CPA BOUNDARY	Light Collector	Collector	0.38
North County Metro	VIA RANCHO	VALLEY	LAKE	Light Collector	Town Collector	0.06
North County Metro	VIA RANCHO	LAKE	HIGHLANDS WEST	Light Collector	Town Collector	0.20
North County Metro	VIA RANCHO	FELICITA	MONTESANO	Light Collector	Collector	0.26

Appendix A
Base Year Deficiencies
County Facilities

CPA	Name	From Cross Street	To Cross Street	Existing Classification	Required Classification	Additional Lane Miles Required
North County Metro	VIA RANCHO	VIA LOMA VISTA	FELICITA	Light Collector	Town Collector	0.74
North County Metro	VIA RANCHO	HIGHLANDS WEST	EUCALYPTUS	Light Collector	Town Collector	0.50
North County Metro	SAN PASQUAL ROAD	VIENTO VALLE	SAN PASQUAL VALLEY	Light Collector	Town Collector	1.08
Pendleton-De Luz	HARBOR	SAN DIEGO / I5 RAMP	SAN LUIS REY	Light Collector	Town Collector	0.05
Pendleton-De Luz	HARBOR	SAN LUIS REY	SANTA FE	Light Collector	Town Collector	0.12
Pendleton-De Luz	SAN DIEGO / HARBOR	I5 - NB OFF TO HARBOR WEST	I5 - NB OFF TO HARBOR EAST	Light Collector	Collector	0.07
Pendleton-De Luz	SAN DIEGO / HARBOR	RAMP I-5 NB	COAST	Light Collector	Collector	0.33
Pendleton-De Luz	SAN DIEGO / HARBOR	VANDEGRIFT	I5 - NB OFF TO HARBOR WEST	Major	Prime Arterial	0.18
Pepper Drive-Bosto	BRADLEY	MAGNOLIA	RAMP SR-67 SB	Light Collector	Collector	0.12
Pepper Drive-Bosto	BRADLEY	RAMP SR-67 SB	RAMP SR-67 NB	Light Collector	Collector	0.16
Pepper Drive-Bosto	BRADLEY	RAMP SR-67 NB	GRAVES	Light Collector	Collector	0.11
Pepper Drive-Bosto	BRADLEY	GRAVES	STONE EDGE CIR	Light Collector	Town Collector	0.11
Pepper Drive-Bosto	BRADLEY	STONE EDGE CIR	150 FT AFTER STONE EDGE EAST	Light Collector	Town Collector	0.09
Pepper Drive-Bosto	GRAVES	GRAVES CT	BRADLEY	Light Collector	Town Collector	0.29
Pepper Drive-Bosto	GREENFIELD	BRADLEY ACCESS / GREENFIELD ACCESS	BALLANTYNE	Light Collector	Town Collector	0.07
Pepper Drive-Bosto	GREENFIELD	DIAMOND	01ST	Light Collector	Town Collector	0.13
Pepper Drive-Bosto	MAGNOLIA	AIRPORT	DENNY	Light Collector	Collector	0.24
Pepper Drive-Bosto	MAGNOLIA	DENNY	BRADLEY	Light Collector	Collector	0.20
Pepper Drive-Bosto	MAGNOLIA	BRADLEY	CYPRESS	Light Collector	Town Collector	0.15
Pepper Drive-Bosto	MAGNOLIA	CYPRESS	VERNON	Light Collector	Town Collector	0.31
Pepper Drive-Bosto	PEPPER	VULCAN	ROXANNE	Light Collector	Town Collector	0.07
Pepper Drive-Bosto	PEPPER	ROXANNE	MARLINDA	Light Collector	Town Collector	0.20
Ramona	SAN VICENTE	WARNOCK	KEYES	Light Collector	Collector	0.67
Ramona	SAN VICENTE	KEYES	DYE	Light Collector	Town Collector	0.07
Ramona	SAN VICENTE	DYE	BUNNIE KING	Light Collector	Town Collector	0.29
Ramona	SAN VICENTE	BUNNIE KING	CHUCKWAGON	Light Collector	Town Collector	1.29
Ramona	SAN VICENTE	CHUCKWAGON	WILDCAT CANYON	Light Collector	Town Collector	0.21
Ramona	SAN VICENTE	WILDCAT CANYON	VICENTE MEADOW	Light Collector	Collector	0.64
San Dieguito	DEL DIOS	ELM	MT ISRAEL	Light Collector	Collector	2.59
San Dieguito	DEL DIOS	MT ISRAEL	RANCHO	Light Collector	Collector	0.11

Appendix A
Base Year Deficiencies
County Facilities

CPA	Name	From Cross Street	To Cross Street	Existing Classification	Required Classification	Additional Lane Miles Required
San Dieguito	DEL DIOS	RANCHO	CALLE AMBIENTE	Light Collector	Collector	7.48
San Dieguito	DEL DIOS	CALLE AMBIENTE	VIA CUATRO CAMIN	Light Collector	Collector	1.32
San Dieguito	DEL DIOS	LUNA DE MIEL	EL CAMINO DEL NORTE	Light Collector	Collector	1.34
San Dieguito	LA BAJADA	EL MIRLO	LA NORIA	Light Collector	Town Collector	0.29
San Dieguito	PASEO DELICIAS	EL CAMINO DEL NO	EL MONTEVIDEO	Light Collector	Collector	1.13
San Dieguito	PASEO DELICIAS	EL MONTEVIDEO	LAVALLE PLATEADA	Light Collector	Collector	1.09
San Dieguito	PASEO DELICIAS	LAVALLE PLATEADA	LA FREMONTIA	Light Collector	Collector	0.18
San Dieguito	PASEO DELICIAS	LA FREMONTIA	VIA DE LA VALLE	Light Collector	Collector	0.10
San Dieguito	PASEO DELICIAS	VIA DE LA VALLE	LA GRANADA	Light Collector	Town Collector	0.29
San Dieguito	VIA DE LA VALLE	PASEO DELICIAS	LAS COLINAS	Light Collector	Town Collector	0.02
San Dieguito	VIA DE LA VALLE	LAS COLINAS	VIA DE SANTA FE	Light Collector	Town Collector	0.56
San Dieguito	VIA DE LA VALLE	VIA DE SANTA FE	VIA DE SANTA FE	Light Collector	Collector	0.06
San Dieguito	VIA DE LA VALLE	CALZADA DEL BOSQ	LAS PALOMAS	Light Collector	Town Collector	0.87
San Dieguito	VIA DE LA VALLE	LAS PALOMAS	CANCHA DE GOLF	Light Collector	Town Collector	0.16
San Dieguito	VIA DE LA VALLE	CANCHA DE GOLF	LAS PLANIDERAS	Light Collector	Collector	1.22
San Dieguito	VIA DE LA VALLE	LAS PLANIDERAS	CPA BOUNDARY	Light Collector	Collector	0.32
San Dieguito	VIA DE LA VALLE	ARROYO ROSITA	790 FT SOUTH OF CAMINITO PORTA DELGADA	Light Collector	Collector	0.36
Spring Valley	BANCROFT	CPA BOUNDARY	RAMP SR-94 EB	Light Collector	Collector	0.05
Spring Valley	BANCROFT	RAMP SR-94 EB	HELIX	Light Collector	Collector	0.08
Spring Valley	BANCROFT	HELIX	KOONCE	Light Collector	Collector	0.33
Spring Valley	BANCROFT	KOONCE	KENWOOD	Light Collector	Collector	0.37
Spring Valley	BANCROFT	KENWOOD	SWITZER	Light Collector	Collector	0.19
Spring Valley	BANCROFT	SWITZER	OLIVE	Light Collector	Collector	0.12
Spring Valley	BANCROFT	OLIVE	LAMAR	Light Collector	Collector	0.50
Spring Valley	BANCROFT	LAMAR	TROY	Light Collector	Collector	0.35
Spring Valley	CAMPO	RAMP SR-125 NB	KENWOOD	Light Collector	Collector	0.16
Spring Valley	CAMPO	KENWOOD	SR-94 WB	Light Collector	Collector	0.27
Spring Valley	JAMACHA BOULEVAR	SWEETWATER SPRIN	POINTE PARKWAY	Light Collector	Collector	0.98
Spring Valley	JAMACHA BOULEVAR	WHITE STONE	SPRING GLEN	Light Collector	Collector	0.64
Spring Valley	JAMACHA BOULEVAR	JAMACHA ROAD	WHITE STONE	Light Collector	Collector	0.59
Spring Valley	KENWOOD	RAMP SR-94 EB	RAMP SR-94 WB	Light Collector	Collector	0.19
Spring Valley	SWEETWATER	BLOSSOM	HARNESS	Major	Prime Arterial	0.54

Appendix A
Base Year Deficiencies
County Facilities

CPA	Name	From Cross Street	To Cross Street	Existing Classification	Required Classification	Additional Lane Miles Required
Spring Valley	SWEETWATER	HARNESS	SPRING VISTA	Major	Prime Arterial	0.51
Spring Valley	SWEETWATER	SPRING VISTA	JAMACHA ROAD	Major	Prime Arterial	0.38
Spring Valley	SWEETWATER SPRIN	DEL RIO	DON PICO	Major	Prime Arterial	0.12
Spring Valley	SWEETWATER SPRIN	DON PICO	CRISTOBAL	Major	Prime Arterial	0.16
Spring Valley	WORTHINGTON	PARADISE VALLEY	VERDE RIDGE	Light Collector	Town Collector	0.11
Spring Valley	WORTHINGTON	VERDE RIDGE	SWEETWATER / SOUTHBAY PKWY	Light Collector	Town Collector	0.33
Sweetwater	BONITA	SWEETWATER	SAN MIGUEL	Light Collector	Collector	0.24
Sweetwater	BONITA	SAN MIGUEL	FRISBIE	Light Collector	Collector	1.15
Sweetwater	BONITA	CORDELE / VILLA BONITA	ANDORRA	Major	Prime Arterial	0.79
Sweetwater	BONITA	ANDORRA	PLZA BONITA/LYNNWOOD	Major	Prime Arterial	0.83
Sweetwater	BRIARWOOD	SOUTH BAY PARKWA	RAMP SR-54 EB	Light Collector	Collector	0.03
Sweetwater	BRIARWOOD	RAMP SR-54 EB	ROBINWOOD	Light Collector	Town Collector	0.05
Sweetwater	CENTRAL	AUDUBON	CORRAL CANYON	Light Collector	Town Collector	0.24
Sweetwater	CENTRAL	HAZELHURST	AUDUBON	Light Collector	Town Collector	0.08
Sweetwater	CENTRAL	FRISBIE	HAZELHURST	Light Collector	Town Collector	0.13
Sweetwater	SWEETWATER	WORTHINGTON / SB PARKWAY	QUARRY	Light Collector	Collector	0.66
Sweetwater	SWEETWATER	QUARRY	DEGEN	Light Collector	Collector	1.04
Sweetwater	SWEETWATER	DEGEN	BONITA	Light Collector	Collector	0.32
Sweetwater	SWEETWATER	BRIARWOOD	BONITA WOODS	Light Collector	Town Collector	0.40
Sweetwater	WILLOW	SWEETWATER	BONITA	Light Collector	Collector	0.45
Valle De Oro	BANCROFT	CAMPO	RAMP SR-94 WB	Light Collector	Collector	0.09
Valle De Oro	BANCROFT	RAMP SR-94 WB	CPA BOUNDARY	Light Collector	Collector	0.07
Valle De Oro	CALLE VERDE	538 FT EAST OF AVOCADO	VIA MERCADO	Light Collector	Town Collector	0.13
Valle De Oro	CAMPO	SR-94 WB	MERRITT BLVD	Light Collector	Collector	0.10
Valle De Oro	CAMPO	MERRITT BLVD	BANCROFT	Light Collector	Collector	0.41
Valle De Oro	CAMPO	BANCROFT	HELIX	Light Collector	Collector	0.38
Valle De Oro	CAMPO	HELIX	ROGERS	Light Collector	Town Collector	0.23
Valle De Oro	CAMPO	ROGERS	KENWOOD	Light Collector	Town Collector	0.14
Valle De Oro	CHASE	GROVE	BERNITA	Light Collector	Collector	0.22

Appendix A
Base Year Deficiencies
County Facilities

CPA	Name	From Cross Street	To Cross Street	Existing Classification	Required Classification	Additional Lane Miles Required
Valle De Oro	CHASE	BERNITA	MONUMENT HILL	Light Collector	Collector	1.19
Valle De Oro	CHASE	MONUMENT HILL	FUERTE	Light Collector	Collector	0.14
Valle De Oro	CHASE	FUERTE	BRAYTON	Light Collector	Collector	0.16
Valle De Oro	CHASE	BRAYTON	SR 54	Light Collector	Collector	0.14
Valle De Oro	CHASE	SR 54	JAMACHA ROAD	Light Collector	Collector	0.23
Valle De Oro	FUERTE	GROSSMONT	SIERRA VISTA	Light Collector	Collector	0.40
Valle De Oro	FUERTE	SIERRA VISTA	SUMMIT	Light Collector	Collector	0.62
Valle De Oro	FUERTE	SUMMIT	PANDORA	Light Collector	Collector	0.63
Valle De Oro	FUERTE	PANDORA	LEMON	Light Collector	Collector	0.21
Valle De Oro	FUERTE	LEMON	HELIX	Light Collector	Collector	0.72
Valle De Oro	FUERTE	HELIX	GRANDVIEW	Light Collector	Collector	0.82
Valle De Oro	FUERTE	GRANDVIEW	CRESTLAND	Light Collector	Town Collector	0.20
Valle De Oro	FUERTE	CRESTLAND	ALZEDA	Light Collector	Town Collector	0.13
Valle De Oro	FUERTE	ALZEDA	CALAVO	Light Collector	Town Collector	0.13
Valle De Oro	FUERTE	CALAVO	AVOCADO	Light Collector	Town Collector	0.23
Valle De Oro	HILLSDALE	JAMACHA ROAD	LA VALHALLA	Light Collector	Town Collector	0.29
Valle De Oro	KENWOOD	RAMP SR-94 WB	CAMPO	Light Collector	Collector	0.20
Valle De Oro	NORTH BARCELONA	CAMPO	DOLORES	Light Collector	Town Collector	0.06
Valle De Oro	VIA MERCADO	CALLE VERDE	CAMPO	Light Collector	Collector	0.31
Valley Center	CHAMPAGNE	GOPHER CANYON	OLD CASTLE	Light Collector	Collector	0.32
Valley Center	OLD 395	CIRCLE R	GOPHER CANYON	Light Collector	Town Collector	0.15
Valley Center	VALLEY CENTER	COLE GRADE	MILLER	Light Collector	Collector	1.04
Valley Center	VALLEY CENTER	MILLER	CHAPARREL	Light Collector	Collector	0.94
Valley Center	VALLEY CENTER	CHAPARREL	LILAC	Light Collector	Collector	0.59
Valley Center	VALLEY CENTER	LILAC	CALLE DE VISTA	Light Collector	Collector	0.55
Valley Center	VALLEY CENTER	CALLE DE VISTA	SUNDAY	Light Collector	Collector	0.32
Valley Center	VALLEY CENTER	SUNDAY	MIRAR DE VALLE	Light Collector	Collector	0.94
Valley Center	VALLEY CENTER	MIRAR DE VALLE	WOODS VALLEY	Light Collector	Collector	0.56
Valley Center	VALLEY CENTER	WOODS VALLEY	BANBURY	Light Collector	Collector	0.29
Valley Center	VALLEY CENTER	BANBURY	CPA BOUNDARY	Light Collector	Collector	5.02

Appendix A
Base Year Deficiencies
County Facilities

CPA	Name	From Cross Street	To Cross Street	Existing Classification	Required Classification	Additional Lane Miles Required

APPENDIX B – BUILDOUT DEFICIENCIES

Appendix B
Buildout Deficiencies
County Facilities

CPA	Name	From Cross Street	To Cross Street	Existing Classification	Required Classification	Additional Lane Miles Required
Alpine	ALPINE	DUNBAR	RAMP I8 EB	Light Collector	Town Collector	0.07
Alpine	ALPINE	TAVERN	WEST VICTORIA	Light Collector	Collector	1.40
Alpine	ALPINE	WEST VICTORIA	Eltinge / MARSHALL	Light Collector	Collector	0.11
Alpine	ALPINE	Eltinge / MARSHALL	BAY MDOWS/MARINO	Light Collector	Collector	0.78
Alpine	ALPINE	BAY MDOWS/MARINO	SO GRADE/E VICTO	Light Collector	Collector	0.91
Alpine	SOUTH GRADE	ELTINGE	OLIVE VIEW	Light Collector	Town Collector	0.08
Alpine	TAVERN	MONTEREY PL	VICTORIA PARK	Light Collector	Collector	1.20
Alpine	TAVERN	VICTORIA PARK	RAMP I-8 WB	Light Collector	Major	0.07
Alpine	TAVERN	RAMP I-8 HOV EB	ALPINE	Major	Prime Arterial	0.20
Alpine	TAVERN	ARNOLD	TAVERN CT	Light Collector	Collector	0.29
Alpine	VICTORIA PARK	TAVERN	GENTIAN	Light Collector	Town Collector	0.40
Alpine	WILLOWS	RAMP I-8 EB	ALPINE	Light Collector	Town Collector	0.02
Alpine	WILLOWS	WILLOWS	RAMP I-8 EB	Light Collector	Collector	0.22
Alpine	WILLOWS	WILLOWS	WILLOWSIDE	Light Collector	Collector	1.15
Alpine	WILLOWS	WILLOWSIDE	VIEJAS GRADE	Light Collector	Collector	0.44
Barona	WILDCAT CANYON	PAINTED ROCK / SAN VINCENTE OAK	FEATHERSTONE CANYON	Light Collector	Town Collector	2.09
Barona	WILDCAT CANYON	FEATHERSTONE CANYON	BARONA ROAD	Light Collector	Town Collector	1.87
Barona	WILDCAT CANYON	BARONA ROAD	PATA RANCH	Light Collector	Collector	5.75
Bonsall	CHAMPAGNE	LAWRENCE WELK	OLD CASTLE	Light Collector	Collector	1.80
Bonsall	EAST VISTA	MISSION	OLD RIVER	Town Collector	Collector	0.13
Bonsall	EAST VISTA	OLD RIVER	EVERGREEN	Town Collector	Collector	0.50
Bonsall	EAST VISTA	EVERGREEN	HUTCHISON	Town Collector	Collector	0.67
Bonsall	EAST VISTA	HUTCHISON	ORMSBY/GOPHER CA	Town Collector	Collector	0.59
Bonsall	EAST VISTA	ORMSBY/GOPHER CA	STRAWBERRY HILL	Town Collector	Collector	0.43
Bonsall	EAST VISTA	STRAWBERRY HILL	OSBORNE	Light Collector	Collector	0.89
Bonsall	GOPHER CANYON	ORMSBY	VISTA VALLEY	Light Collector	Collector	1.98
Bonsall	GOPHER CANYON	VISTA VALLEY	TWIN OAKS VALLEY	Light Collector	Collector	1.57
Bonsall	GOPHER CANYON	TWIN OAKS VALLEY	AVOHILL	Light Collector	Collector	1.65
Bonsall	GOPHER CANYON	AVOHILL	RAMP I-15 SB	Light Collector	Collector	1.63
Bonsall	GOPHER CANYON	RAMP I-15 SB	RAMP I-15 NB	Light Collector	Collector	0.19
Bonsall	GOPHER CANYON	RAMP I-15 NB	OLD 395	Light Collector	Collector	0.14
Bonsall	MISSION	PALA	CPA BOUNDARY	Light Collector	Collector	0.35

Appendix B
Buildout Deficiencies
County Facilities

CPA	Name	From Cross Street	To Cross Street	Existing Classification	Required Classification	Additional Lane Miles Required
Bonsall	NORTH RIVER	KARI LANE	VIA PUERTA DEL S	Light Collector	Collector	0.10
Bonsall	NORTH RIVER	VIA PUERTA DEL S	MISSION	Light Collector	Collector	0.85
Bonsall	OLD 395	WEST LILAC	RAMP I-15 SB	Light Collector	Town Collector	0.85
Bonsall	OLD RIVER	CAMINO DEL REY	GOLF CLUB	Light Collector	Town Collector	0.33
Bonsall	OLD RIVER	GOLF CLUB	DENTRO	Light Collector	Town Collector	0.44
Bonsall	OLD RIVER	DENTRO	GOPHER CANYON	Light Collector	Town Collector	1.04
Bonsall	OLD RIVER	GOPHER CANYON	new OLD RIVER	Light Collector	Town Collector	0.53
Bonsall	OLIVEHILL / CAMINO DEL REY	MISSION	OLD RIVER	Light Collector	Town Collector	0.25
Bonsall	VIA PUERTA DEL S	OLIVE HILL	VALLE DEL SOL	Light Collector	Town Collector	0.60
Bonsall	VIA PUERTA DEL S	VALLE DEL SOL	NORTH RIVER	Light Collector	Town Collector	1.52
Bonsall	CAMINO DEL REY	OLD RIVER	WEST LILAC	Light Collector	Collector	0.59
County Islands	POMERADO	WILLOW CREEK	RAMP I-15 NB	Light Collector	Major	0.13
Crest-Dehesa	DEHESA	CALLE ENCANTO	VISTA GRANDE	Light Collector	Collector	0.64
Crest-Dehesa	DEHESA	VISTA GRANDE	SINGING TRAILS	Light Collector	Collector	0.89
Crest-Dehesa	DEHESA	SINGING TRAILS	WILLOW GLEN	Light Collector	Town Collector	0.81
Crest-Dehesa	DEHESA	WILLOW GLEN	HARBISON CANYON	Light Collector	Collector	6.44
Crest-Dehesa	DEHESA	HARBISON CANYON	VISTA DE LA MONTANA	Light Collector	Collector	0.50
Crest-Dehesa	DEHESA	VISTA DE LA MONTANA	SYCUAN	Light Collector	Collector	0.97
Crest-Dehesa	GREENFIELD	SYCAMORE	LA CRESTA	Light Collector	Collector	0.30
Crest-Dehesa	SYCUAN ROAD	DEHESA	SYCUAN CASINO	Light Collector	Collector	0.70
Desert	BORREGO SPRINGS	CHRISTMAS S	STIRRUP	Light Collector	Collector	0.42
Desert	CHRISTMAS N	BORREGO SPRINGS	PALM CANYON	Light Collector	Collector	0.13
Desert	CHRISTMAS S	CHRISTMAS N	BORREGO SPRINGS	Light Collector	Collector	0.14
Desert	PALM CANYON	SUN AND SHADOWS	OCOTILLO	Light Collector	Town Collector	0.22
Desert	PALM CANYON	OCOTILLO	CHRISTMAS N	Light Collector	Collector	0.95
Desert	PALM CANYON	CHRISTMAS N	STIRRUP	Light Collector	Collector	0.49
Desert	PALM CANYON	STIRRUP	DI GIORGIO	Light Collector	Town Collector	0.23
Desert	PALM CANYON	DI GIORGIO	FAIRWAY	Light Collector	Town Collector	0.48
Fallbrook	AVIATION	WISCONSIN	MISSION	Light Collector	Town Collector	0.09
Fallbrook	FALLBROOK	MAIN	OLD STAGE	Light Collector	Collector	0.25
Fallbrook	FALLBROOK	OLD STAGE	MANDARIN	Light Collector	Collector	0.25
Fallbrook	FALLBROOK	MANDARIN	GOLDEN	Light Collector	Collector	0.54
Fallbrook	FALLBROOK	GOLDEN	MC DONALD	Light Collector	Town Collector	0.35

Appendix B
Buildout Deficiencies
County Facilities

CPA	Name	From Cross Street	To Cross Street	Existing Classification	Required Classification	Additional Lane Miles Required
Fallbrook	FALLBROOK	MC DONALD	DEBBY	Light Collector	Town Collector	0.28
Fallbrook	FALLBROOK	DEBBY	STAGE COACH	Light Collector	Town Collector	0.22
Fallbrook	MAIN	MISSION	IVY	Light Collector	Town Collector	0.09
Fallbrook	MAIN	IVY	ALVARADO	Light Collector	Collector	0.18
Fallbrook	MAIN	ALVARADO	FIG	Light Collector	Town Collector	0.06
Fallbrook	MAIN	FIG	COLLEGE	Light Collector	Collector	0.28
Fallbrook	MAIN	COLLEGE	ASH	Light Collector	Collector	0.18
Fallbrook	MAIN	ASH	FALLBROOK	Light Collector	Collector	0.16
Fallbrook	MAIN	FALLBROOK	AVIATION	Light Collector	Collector	0.38
Fallbrook	MAIN	AVIATION	AMMUNITION	Light Collector	Collector	0.38
Fallbrook	MAIN	AMMUNITION	CLEMMENS	Light Collector	Collector	0.25
Fallbrook	MISSION	RAMP I-15 NB	OLD 395	Light Collector	Collector	0.10
Fallbrook	MISSION	RAMP I-15 SB	RAMP I-15 NB	Light Collector	Collector	0.31
Fallbrook	MISSION	OLD 395	RAMP I-15 SB	Light Collector	Prime Arterial	0.22
Fallbrook	MISSION	LIVE OAK PARK	OLD 395	Light Collector	Collector	1.42
Fallbrook	MISSION	WILLOW GLEN	LIVE OAK PARK	Light Collector	Collector	1.77
Fallbrook	MISSION	EL PAISANO	WILLOW GLEN	Light Collector	Collector	0.69
Fallbrook	MISSION	HAMILTON	EL PAISANO	Light Collector	Collector	1.13
Fallbrook	MISSION	HAMILTON	DAVIS	Light Collector	Collector	1.39
Fallbrook	MISSION	DAVIS	STAGE COACH	Light Collector	Collector	0.35
Fallbrook	MISSION	STAGE COACH	GUM TREE	Light Collector	Collector	0.26
Fallbrook	MISSION	GUM TREE	INDUSTRIAL	Light Collector	Collector	0.91
Fallbrook	MISSION	INDUSTRIAL	SANTA MARGARITA	Light Collector	Collector	0.36
Fallbrook	MISSION	SANTA MARGARITA	BRANDON	Light Collector	Collector	0.51
Fallbrook	MISSION	BRANDON	IOWA	Light Collector	Collector	0.56
Fallbrook	MISSION	IOWA	ORANGE	Town Collector	Collector	0.10
Fallbrook	MISSION	ORANGE	MAIN	Town Collector	Collector	0.09
Fallbrook	MISSION	OLD STAGE	PEPPER TREE	Major	Prime Arterial	0.16
Fallbrook	MISSION	STAGE COACH	OLIVE HILL	Light Collector	Collector	0.17
Fallbrook	MISSION	WINTER HAVEN	OVERLAND	Light Collector	Collector	0.59
Fallbrook	MISSION	OVERLAND	BIG OAK RANCH	Light Collector	Collector	0.52
Fallbrook	MISSION	BIG OAK RANCH	GREEN CANYON	Light Collector	Collector	0.89
Fallbrook	MISSION	GREEN CANYON	VIA ENCINOS	Light Collector	Collector	0.62

Appendix B
Buildout Deficiencies
County Facilities

CPA	Name	From Cross Street	To Cross Street	Existing Classification	Required Classification	Additional Lane Miles Required
Fallbrook	MISSION	VIA ENCINOS	HELLERS BEND	Light Collector	Collector	0.71
Fallbrook	MISSION	HELLERS BEND	VIA MONSERATE	Light Collector	Collector	1.48
Fallbrook	MISSION	VIA MONSERATE	BAJA MISSION	Light Collector	Collector	0.22
Fallbrook	MISSION	BAJA MISSION	LA CANADA	Light Collector	Collector	0.63
Fallbrook	MISSION	LA CANADA	CPA BOUNDARY	Light Collector	Collector	1.60
Fallbrook	OLD 395	MISSION	MISSION	Light Collector	Collector	0.64
Fallbrook	OLD 395	RECHE	CANONITA	Light Collector	Town Collector	0.72
Fallbrook	OLD 395	CANONITA	TECALOTE	Light Collector	Town Collector	0.57
Fallbrook	OLD 395	TECALOTE	PALA MESA	Light Collector	Collector	2.17
Fallbrook	OLD 395	PALA MESA	VIA BELMONTE	Light Collector	Collector	1.03
Fallbrook	OLD 395	VIA BELMONTE	PALA	Light Collector	Collector	0.83
Fallbrook	OLD 395	PALA	DULIN	Light Collector	Town Collector	0.54
Fallbrook	OLD 395	DULIN	WEST LILAC	Light Collector	Collector	3.15
Fallbrook	OLIVE HILL	MISSION	ELM TREE	Light Collector	Collector	0.92
Fallbrook	OLIVE HILL	ELM TREE	LA TARA	Light Collector	Collector	0.73
Fallbrook	OLIVE HILL	LA TARA	WHITE HORSE	Light Collector	Collector	1.10
Fallbrook	OLIVE HILL	WHITE HORSE	LADERA VISTA	Light Collector	Collector	1.00
Fallbrook	OLIVE HILL	LADERA VISTA	BURMA	Light Collector	Collector	0.47
Fallbrook	OLIVE HILL	BURMA	RANCHO BONITO	Light Collector	Town Collector	0.31
Fallbrook	OLIVE HILL	RANCHO BONITO	RANCHO CAM	Light Collector	Town Collector	0.36
Fallbrook	OLIVE HILL	RANCHO CAM	GATEVIEW	Light Collector	Collector	1.68
Fallbrook	OLIVE HILL	GATEVIEW	VIA PUERTA DEL S	Light Collector	Collector	1.41
Fallbrook	PANKEY	END OF ROADWAY	PALA	Light Collector	8L Prime	0.92
Fallbrook	PANKEY	PALA	SHEARER	Light Collector	Collector	0.17
Fallbrook	PEPPER TREE	MISSION	WOODLARK	Light Collector	Collector	0.23
Fallbrook	RECHE	STAGE COACH	RECHE WY	Light Collector	Collector	0.40
Fallbrook	RECHE	RECHE WY	FALLBROOK	Light Collector	Collector	0.62
Fallbrook	RECHE	FALLBROOK	LOS AMIGOS	Light Collector	Collector	0.16
Fallbrook	RECHE	LOS AMIGOS	GREEN CANYON	Light Collector	Collector	0.34
Fallbrook	RECHE	GREEN CANYON	LIVE OAK PARK	Light Collector	Town Collector	0.40
Fallbrook	RECHE	LIVE OAK PARK	GIRD	Light Collector	Town Collector	0.51
Fallbrook	RECHE	GIRD	SCOOTER	Light Collector	Town Collector	0.67
Fallbrook	RECHE	SCOOTER	CALLE TECOLOTIAN	Light Collector	Town Collector	0.58

Appendix B
Buildout Deficiencies
County Facilities

CPA	Name	From Cross Street	To Cross Street	Existing Classification	Required Classification	Additional Lane Miles Required
Fallbrook	RECHE	CALLE TECOLOTIAN	RANGER	Light Collector	Town Collector	0.53
Fallbrook	RECHE	RANGER	OLD 395	Light Collector	Town Collector	0.39
Fallbrook	STAGE COACH	FALLBROOK	MARITA	Light Collector	Collector	0.51
Fallbrook	STAGE COACH	MARITA	RECHE	Light Collector	Collector	0.50
Fallbrook	STAGE COACH	RECHE	RANCHWOOD	Light Collector	Town Collector	0.38
Fallbrook	STAGE COACH	RANCHWOOD	JOY	Light Collector	Collector	0.25
Fallbrook	STAGE COACH	JOY	BROOKE	Light Collector	Collector	0.72
Fallbrook	STAGE COACH	BROOKE	KNOLLWOOD	Light Collector	Town Collector	0.61
Fallbrook	STAGE COACH	KNOLLWOOD	MORRO	Town Collector	Collector	0.48
Fallbrook	STAGE COACH	MORRO	MISSION	Town Collector	Collector	0.48
Jamul-Dulzura	JAMUL	TUK A WILE	YUCCA	Light Collector	Town Collector	1.04
Jamul-Dulzura	JAMUL	YUCCA	LYONS VALLEY	Light Collector	Town Collector	0.08
Jamul-Dulzura	JEFFERSON	OLIVE VISTA	SR-94	Light Collector	Town Collector	0.18
Jamul-Dulzura	LYONS VALLEY	JEFFERSON	RESERVOIR	Light Collector	Collector	0.39
Jamul-Dulzura	LYONS VALLEY	RESERVOIR	JAMUL	Light Collector	Collector	0.36
Jamul-Dulzura	LYONS VALLEY	JAMUL	RIO GRANDE	Light Collector	Collector	0.85
Jamul-Dulzura	LYONS VALLEY	RIO GRANDE	PLEASANT VIEW	Light Collector	Collector	0.70
Jamul-Dulzura	PROCTOR VALLEY	MELODY	CALLE BUENO GANA	Light Collector	Town Collector	0.11
Jamul-Dulzura	PROCTOR VALLEY	CALLE BUENO GANA	SCHLEE CANYON	Light Collector	Town Collector	0.41
Jamul-Dulzura	PROCTOR VALLEY	SCHLEE CANYON	MAXFIELD	Light Collector	Collector	0.52
Jamul-Dulzura	PROCTOR VALLEY	MAXFIELD	JEFFERSON	Light Collector	Collector	0.38
Lakeside	ASHWOOD	WILLOW	MAPLEVIEW	Light Collector	Collector	2.23
Lakeside	EL NOPAL	FUTURE N/S MASS	MARJEAN	Light Collector	Town Collector	0.33
Lakeside	EL NOPAL	MARJEAN	RIVERFORD	Light Collector	Collector	0.22
Lakeside	I-8 BUSINESS / MAIN	JACKSON HILL	LAVALA	Light Collector	Collector	1.01
Lakeside	I-8 BUSINESS / MAIN	LOS COCHES/CM CA	JACKSON HILL	Light Collector	Collector	0.91
Lakeside	I-8 BUSINESS / MAIN	.31 MILES SOUTH OF KAY JAY / MOBILE HOME PARK	LOS COCHES/CM CA	Light Collector	Collector	0.81
Lakeside	I-8 BUSINESS / MAIN	PINKARD	LAKEVIEW / EL DORADO	Light Collector	Town Collector	0.23
Lakeside	JULIAN	CACTUS	LOS COCHES/MAINE	Light Collector	Town Collector	0.18
Lakeside	JULIAN	PINO	LAKEVIEW	Light Collector	Town Collector	0.16

Appendix B
Buildout Deficiencies
County Facilities

CPA	Name	From Cross Street	To Cross Street	Existing Classification	Required Classification	Additional Lane Miles Required
Lakeside	LAKE JENNINGS PA	EL MONTE	BASS	Light Collector	Collector	1.00
Lakeside	LAKE JENNINGS PA	BASS	PINKARD	Light Collector	Collector	1.74
Lakeside	LAKE JENNINGS PA	PINKARD	HARRITT	Light Collector	Collector	0.20
Lakeside	LAKE JENNINGS PA	HARRITT	HWY 8/BLOSSOM VA	Light Collector	Collector	0.23
Lakeside	LAKE JENNINGS PA	HWY 8/BLOSSOM VA	RAMP I-8 WB	Light Collector	Collector	0.10
Lakeside	LAKE JENNINGS PA	RAMP I-8 WB	RAMP I-8 WB	Light Collector	Collector	0.06
Lakeside	LAKE JENNINGS PA	RAMP I-8 WB	OLDE 80	Light Collector	Collector	0.14
Lakeside	LAKESIDE	RIVERSIDE	CHANNEL	Town Collector	Collector	0.42
Lakeside	LOS COCHES	JULIAN	DEL SOL	Town Collector	Collector	0.94
Lakeside	LOS COCHES	DEL SOL	LOS COCHES CT	Town Collector	Collector	1.01
Lakeside	LOS COCHES	LOS COCHES CT	BOWER	Town Collector	Collector	0.76
Lakeside	LOS COCHES	BOWER	LAKEVIEW	Town Collector	Collector	0.40
Lakeside	LOS COCHES	LAKEVIEW	I-8 BUSINESS / MAIN	Town Collector	Collector	0.58
Lakeside	MAPLEVIEW	CHANNEL	SR-67	Light Collector	Collector	0.42
Lakeside	MAPLEVIEW	SR-67	MAINE	Light Collector	Prime Arterial	0.17
Lakeside	MAPLEVIEW	MAINE	VINE	Town Collector	Prime Arterial	0.11
Lakeside	OLDE 80	RIDGE HILL	PECAN PARK	Light Collector	Collector	0.07
Lakeside	OLDE 80	PECAN PARK / SIERRA ALTA	PECAN PARK	Light Collector	Collector	0.61
Lakeside	OLDE 80	PECAN PARK	BOND	Light Collector	Collector	0.30
Lakeside	PEPPER	02ND/WINTER GARD	PEERLESS	Light Collector	Town Collector	0.25
Lakeside	RIVERFORD	EL NOPAL	RIVERSIDE/MAST	Light Collector	Collector	0.16
Lakeside	RIVERFORD	RIVERSIDE/MAST	WOODSIDE(N)	Town Collector	Major	0.63
Lakeside	RIVERFORD	WOODSIDE(N)	RAMP SR-67 SB	Light Collector	Collector	0.08
Lakeside	RIVERFORD	RAMP SR-67 SB	WOODSIDE SOUTH	Light Collector	Collector	0.18
Lakeside	RIVERSIDE	RIVERFORD	PALM ROW	Town Collector	Collector	0.56
Lakeside	RIVERSIDE	PALM ROW	VISTA CAMINO	Town Collector	Collector	0.42
Lakeside	RIVERSIDE	VISTA CAMINO	NEW BEDFORD	Town Collector	Collector	0.21
Lakeside	LAKE JENNING PARK	RAMP I-8 EB	OLDE 80	Light Collector	Collector	0.07
Lakeside	LAKE JENNING PARK	LAKE JENNINGS PARK	RAMP I-8 EB	Light Collector	Collector	0.06
Lakeside	VALLE VISTA	VISTA CAMINO	PAGOSA	Light Collector	Town Collector	0.38
Lakeside	VALLE VISTA	PAGOSA	RIVERSIDE	Light Collector	Town Collector	0.41
Lakeside	WILDCAT CANYON	PATA RANCH	WILLOW	Light Collector	Collector	5.56

Appendix B
Buildout Deficiencies
County Facilities

CPA	Name	From Cross Street	To Cross Street	Existing Classification	Required Classification	Additional Lane Miles Required
Lakeside	WILLOW	SR-67	MORENO	Light Collector	Town Collector	0.25
Lakeside	WILLOW	MORENO	FILLBROOK	Light Collector	Town Collector	0.29
Lakeside	WILLOW	FILLBROOK	WILDCAT CANYON	Light Collector	Town Collector	0.36
Lakeside	WOODSIDE	NB OFF RAMP	RIVERFORD	Light Collector	Collector	0.13
Lakeside	WOODSIDE	RIVERFORD	RAMP SR-67 NB	Light Collector	Collector	0.12
Lakeside	WOODSIDE	RAMP SR-67 NB	MARILLA	Light Collector	Collector	0.59
Lakeside	WOODSIDE	MARILLA	RIVERVIEW	Light Collector	Collector	0.42
Lakeside	WOODSIDE	RIVERVIEW	WINTER GARDENS	Light Collector	Town Collector	0.35
North County Metro	17TH	LENDEE	SAN PASQUAL VALL	Light Collector	Collector	0.44
North County Metro	BEAR VALLEY	BIRCH	IDAHO	Light Collector	Collector	0.31
North County Metro	BEAR VALLEY	IDAHO	LANDAVO / CAIN	Light Collector	Collector	0.22
North County Metro	BEAR VALLEY	LANDAVO	SUBURBAN HILLS	Light Collector	Collector	0.28
North County Metro	BUENA CREEK / SOUTH SANTA FE	SOUTH SANTA FE	SYCAMORE / ROBELINI	Light Collector	Collector	0.04
North County Metro	BUENA CREEK	SYCAMORE	HARTWRIGHT / BUENA CREEK	Light Collector	Collector	0.06
North County Metro	BUENA CREEK	HARTWRIGHT / BUENA CREEK	HIDDEN OAK	Light Collector	Collector	1.40
North County Metro	BUENA CREEK	HIDDEN OAK	LONE OAK	Light Collector	Collector	0.33
North County Metro	BUENA CREEK	LONE OAK	MONTE VISTA	Light Collector	Collector	0.50
North County Metro	BUENA CREEK	MONTE VISTA	SUGARBUSH	Light Collector	Collector	1.21
North County Metro	BUENA CREEK	SUGARBUSH	HOLLYBERRY	Light Collector	Collector	0.17
North County Metro	BUENA CREEK	HOLLYBERRY	FREDAS HILL	Light Collector	Town Collector	0.28
North County Metro	BUENA CREEK	FREDAS HILL	BLUE BIRD CANYON	Light Collector	Town Collector	0.50
North County Metro	BUENA CREEK	BLUE BIRD CANYON	TAMARA	Light Collector	Town Collector	0.43
North County Metro	CAMINO DEL ARROYO	CAMINO LINDA DRIVE	RANCHO SANTA FE	Light Collector	Town Collector	0.06
North County Metro	CHAMPAGNE	WELK VIEW	LAWRENCE WELK	Light Collector	Collector	0.74
North County Metro	CHAMPAGNE	LAWRENCE	MOUNTAIN MEADOW	Light Collector	Collector	3.62
North County Metro	DEER SPRINGS	MULBERRY / SYCAMORE DRIVE	MARILYN	Light Collector	Collector	0.33
North County Metro	DEER SPRINGS	MARILYN	SARVER	Light Collector	Collector	0.74
North County Metro	DEER SPRINGS	SARVER	MESA ROCK	Light Collector	Prime Arterial	5.79
North County Metro	DEER SPRINGS	MESA ROCK	MOUNTAIN MEADOW	Light Collector	Prime Arterial	0.21

Appendix B
Buildout Deficiencies
County Facilities

CPA	Name	From Cross Street	To Cross Street	Existing Classification	Required Classification	Additional Lane Miles Required
North County Metro	DEL DIOS	COUNTRY CLUB	ELM	Light Collector	Collector	0.74
North County Metro	HARMONY GROVE	WILGEN	CPA BOUNDARY	Light Collector	Town Collector	1.66
North County Metro	HARMONY GROVE	COUNTRY CLUB	WILGEN	Light Collector	Town Collector	0.39
North County Metro	HOLLYBERRY	BUENA CREEK	SALEM	Light Collector	Collector	0.48
North County Metro	N CENTRE CITY	MOUNTAIN MEADOW	JESMOND DENE	Light Collector	Town Collector	0.58
North County Metro	N CENTRE CITY	JESMOND DENE	MESA ROCK	Light Collector	Collector	2.51
North County Metro	N CENTRE CITY	MESA ROCK	IVY DELL	Light Collector	Collector	0.71
North County Metro	N CENTRE CITY	IVY DELL	CENTRE CITY	Light Collector	Collector	0.42
North County Metro	ROCK SPRING	.005 WEST OF BENNETT / ROCK SPRING INTERSECTION	BENNETT	Light Collector	Collector	0.01
North County Metro	ROCK SPRING	MONTIEL	SEVEN OAKES	Light Collector	Town Collector	0.05
North County Metro	SALEM	HOLLYBERRY	EMMA	Light Collector	Collector	1.00
North County Metro	SAN PASQUAL	ZERMATT	VIA RANCHO	Light Collector	Collector	0.99
North County Metro	SOUTH SANTA FE	WOODLAND	ROBELINI	Major	Prime Arterial	0.56
North County Metro	SYCAMORE	ROBELINI	BUENA CREEK	Major	Prime Arterial	0.50
North County Metro	SYCAMORE	RAMP SR-78 WB	RAMP SR-78 EB	Prime Arterial	Prime	0.09
North County Metro	SYCAMORE	SHADOW RIDGE	HIBISCUS	Major	Prime Arterial	0.29
North County Metro	VALLEY CENTER	ESCONDIDO CPA BOUNDARY	VALLEY CENTER CPA BOUNDARY	Major	Prime Arterial	0.09
North County Metro	VIA RANCHO	VALLEY	LAKE	Light Collector	Town Collector	0.06
North County Metro	VIA RANCHO	LAKE	HIGHLANDS WEST	Light Collector	Town Collector	0.20
North County Metro	VIA RANCHO	HIGHLANDS WEST	EUCALYPTUS	Light Collector	Town Collector	0.50
North County Metro	VIA RANCHO	VISTA DE LA CRESTA	VIA LOMA VISTA	Light Collector	Town Collector	0.57
North County Metro	VIA RANCHO	VIA LOMA VISTA	FELICITA	Light Collector	Collector	1.49
North County Metro	VIA RANCHO	FELICITA	MONTESANO	Light Collector	Collector	0.26
North County Metro	SAN PASQUAL ROAD	VIENTO VALLE	VIA SOL	Light Collector	Collector	2.15
Otay	AIRWAY	FARADAY	ENRICO FERMI	Light Collector	Collector	0.48
Otay	ALTA	DONOVAN STATE PRISON	CALZADA DE LA FUENTE	Light Collector	Collector	0.95
Otay	ALTA	PASEO DE LA FUENTE	CALZADA DE LA FUENTE	Light Collector	Prime Arterial	0.93
Otay	ALTA	OTAY MESA	PASEO DE LA FUENTE	Light Collector	Prime Arterial	0.83

Appendix B
Buildout Deficiencies
County Facilities

CPA	Name	From Cross Street	To Cross Street	Existing Classification	Required Classification	Additional Lane Miles Required
Otay	ENRICO FERMI	OTAY MESA	RAMP SR-11 WB	Major	Prime Arterial	0.40
Otay	ENRICO FERMI	RAMP SR-11 WB	RAMP SR-11 EB	Major	Prime Arterial	0.18
Otay	ENRICO FERMI	RAMP SR-11 EB	AIRWAY	Major	Prime Arterial	0.65
Otay	ENRICO FERMI	AIRWAY	SIEMPRE VIVA	Light Collector	Prime Arterial	0.90
Otay	HARVEST	LONESTAR	OTAY MESA	Light Collector	Prime Arterial	2.93
Otay	LONESTAR	PIPER RANCH	HARVEST	Light Collector	Prime Arterial	2.31
Otay	OTAY LAKES	WUESTE	LOWER OTAY LAKE	Light Collector	Prime Arterial	1.21
Otay	OTAY LAKES	LOWER OTAY LAKE	CAMPO RD	Light Collector	Town Collector	3.29
Otay	OTAY MESA	PASEO DE LAS AMERICA	FARADAY	Major	Prime Arterial	1.58
Otay	OTAY MESA	FARADAY	ENRICO FERMI	Major	Prime Arterial	0.92
Otay	OTAY MESA	ENRICO FERMI	ALTA	Major	Prime Arterial	5.14
Pala-Pauma	VALLEY CENTER	PALA/SR-76	GOLSH	Town Collector	Collector	1.76
Pendleton-De Luz	BASILONE	RAMP I-5 SB	RAMP I-5 NB	Light Collector	Collector	0.19
Pendleton-De Luz	COAST	SAN DIEGO / I5 RAMP	MONTEREY	Light Collector	Collector	0.13
Pendleton-De Luz	SAN DIEGO / I5 RAMP	VANDEGRIFT	RAMP	Major	Prime Arterial	0.36
Pendleton-De Luz	I5 / HARBOR DRIVE	NB OFF RAMP	SB ON RAMP	Light Collector	Prime Arterial	0.78
Pendleton-De Luz	VANDEGRIFT	WIRE MTN/MAIN GA	RAMP I-5 NB	Major	8L Prime	0.93
Pepper Drive-Bosto	BRADLEY	GRAVES	STONE EDGE CIRC	Light Collector	Collector	0.40
Pepper Drive-Bosto	BRADLEY	STONE EDGE	SAM HILL	Light Collector	Collector	0.23
Pepper Drive-Bosto	BRADLEY	SAM HILL	BERRY DALE	Light Collector	Collector	0.21
Pepper Drive-Bosto	BRADLEY	SUMMER PLACE	01ST	Light Collector	Town Collector	0.12
Pepper Drive-Bosto	GRAVES	PEPPER	GRAVES CT	Light Collector	Town Collector	0.14
Pepper Drive-Bosto	GRAVES	GRAVES CT	BRADLEY	Light Collector	Town Collector	0.29
Pepper Drive-Bosto	GREENFIELD	VERNON	GRAVES	Light Collector	Collector	0.86
Pepper Drive-Bosto	GREENFIELD	DENVER	DIAMOND	Light Collector	Collector	0.27
Pepper Drive-Bosto	GREENFIELD	DIAMOND	01ST	Light Collector	Collector	0.27
Pepper Drive-Bosto	GREENFIELD	01ST	ORO	Light Collector	Town Collector	0.26
Pepper Drive-Bosto	GREENFIELD	ORO	02ND	Light Collector	Town Collector	0.21
Pepper Drive-Bosto	MAGNOLIA	AIRPORT	DENNY	Light Collector	Collector	0.53
Pepper Drive-Bosto	MAGNOLIA	DENNY	BRADLEY	Light Collector	Collector	0.20
Pepper Drive-Bosto	MAGNOLIA	BRADLEY	CYPRESS	Light Collector	Collector	0.31
Pepper Drive-Bosto	MAGNOLIA	CYPRESS	VERNON	Light Collector	Collector	0.63

Appendix B
Buildout Deficiencies
County Facilities

CPA	Name	From Cross Street	To Cross Street	Existing Classification	Required Classification	Additional Lane Miles Required
Pepper Drive-Bosto	PEERLESS	LILY	GREENFIELD	Light Collector	Town Collector	0.13
Pepper Drive-Bosto	PEPPER	TETON	VULCAN	Light Collector	Town Collector	0.05
Pepper Drive-Bosto	PEPPER	VULCAN	ROXANNE	Light Collector	Town Collector	0.07
Pepper Drive-Bosto	PEPPER	ROXANNE	GARYWOOD/MARLINDA	Light Collector	Town Collector	0.20
Pepper Drive-Bosto	PEPPER	GARYWOOD/MARLINDA	BATES	Light Collector	Town Collector	0.14
Pepper Drive-Bosto	PEPPER	BATES	MOLLISON	Light Collector	Collector	0.30
Pepper Drive-Bosto	PEPPER	MOLLISON	PEPPER VILLA	Light Collector	Town Collector	0.07
Pepper Drive-Bosto	PEPPER	PEPPER VILLA	01ST	Light Collector	Town Collector	0.25
Pepper Drive-Bosto	PEPPER	SOMER LANE	02ND/WINTER GARD	Light Collector	Town Collector	0.24
Rainbow	OLD 395	MISSION	RAINBOW GLEN	Light Collector	Collector	2.35
Rainbow	OLD 395	05TH	RAINBOW GLEN	Light Collector	Collector	1.14
Rainbow	OLD 395	02ND	05TH	Light Collector	Town Collector	0.29
Rainbow	RAINBOW VALLEY W	RAMP	OLD 395	Light Collector	Town Collector	0.04
Ramona	MONTECITO	DAVIS	RAMONA	Light Collector	Town Collector	0.39
Ramona	OLIVE	MAPLE	PINE	Light Collector	Collector	0.50
Ramona	OLIVE	PINE	ELM	Light Collector	Town Collector	0.29
Ramona	RAMONA	RAYMOND	MAIN	Light Collector	Town Collector	0.14
Ramona	RAMONA	ROWLEY	HANSON LANE	Light Collector	Town Collector	0.07
Ramona	SAN VICENTE	H STREET	BARGER	Town Collector	Collector	0.94
Ramona	SAN VICENTE	HANSON	JAY BIRD	Town Collector	Collector	0.51
Ramona	SAN VICENTE	JAY BIRD	CREELMAN	Town Collector	Collector	0.49
Ramona	SAN VICENTE	WARNOCK	KEYES	Light Collector	Collector	0.67
Ramona	SAN VICENTE	KEYES	DYE	Light Collector	Collector	0.14
Ramona	SAN VICENTE	DYE	BUNNIE KING	Light Collector	Collector	0.58
Ramona	SAN VICENTE	BUNNIE KING	CHUCKWAGON	Light Collector	Collector	2.57
Ramona	SAN VICENTE	CHUCKWAGON	WILDCAT CANYON	Light Collector	Collector	0.41
Ramona	SAN VICENTE	WILDCAT CANYON	VICENTE MEADOW	Light Collector	Collector	0.64
Ramona	WILDCAT CANYON	SAN VICENTE	LITTLE KLONDIKE	Light Collector	Collector	0.75
Ramona	WILDCAT CANYON	LITTLE KLONDIKE	SAN VINCENTE OAK	Light Collector	Town Collector	2.19
San Dieguito	CAMINO DEL NORTE	DOVE CANYON	RAMP	Light Collector	Prime Arterial	1.24
San Dieguito	CAMINO DEL NORTE	4S RANCH PARKWAY	DOVE CANYON	Light Collector	Collector	0.51
San Dieguito	DEL DIOS	ELM	MT ISRAEL	Light Collector	Collector	2.60
San Dieguito	DEL DIOS	MT ISRAEL	RANCHO	Light Collector	Collector	0.11

Appendix B
Buildout Deficiencies
County Facilities

CPA	Name	From Cross Street	To Cross Street	Existing Classification	Required Classification	Additional Lane Miles Required
San Dieguito	DEL DIOS	RANCHO	LAKE DR	Light Collector	Collector	1.15
San Dieguito	DEL DIOS	LAKE	RANCHO DEL RIO	Light Collector	Collector	6.32
San Dieguito	DEL DIOS	RANCHO DEL RIO	LUNA DE MIEL	Light Collector	Collector	0.92
San Dieguito	DEL DIOS	LUNA DE MIEL	EL CAMINO DEL NORTE	Light Collector	Collector	1.34
San Dieguito	EL APAJO	VIA DE SANTA FE	SAN DIEGUITO	Light Collector	Town Collector	0.57
San Dieguito	ELFIN FOREST	ELFIN OAKS	HARMONY GROVE	Light Collector	Collector	2.74
San Dieguito	HARMONY GROVE	CRESTWIND/WILGEN	QUESTHAVEN	Light Collector	Town Collector	1.16
San Dieguito	LA BAJADA	CPA BOUNDARY	EL MIRLO	Light Collector	Collector	0.33
San Dieguito	LA BAJADA	EL MIRLO	LA NORIA	Light Collector	Collector	0.57
San Dieguito	PASEO DELICIAS	VIA DE LA VALLE	LA GRANADA	Light Collector	Town Collector	0.29
San Dieguito	PASEO DELICIAS	LA FREMONTIA	VIA DE LA VALLE	Light Collector	Major	0.10
San Dieguito	PASEO DELICIAS	LAVALLE PLATEADA	LA FREMONTIA	Light Collector	Collector	0.18
San Dieguito	PASEO DELICIAS	EL MONTEVIDEO	LAVALLE PLATEADA	Light Collector	Collector	1.09
San Dieguito	PASEO DELICIAS	EL CAMINO DEL NO	EL MONTEVIDEO	Light Collector	Collector	1.13
San Dieguito	RANCHO BERNARDO	CAM SAN BERNARDO	ALVA / CPA BOUNDARY	Major	Prime Arterial	0.57
San Dieguito	SAN DIEGUITO	WINLAND HILLS	CAM SANTA FE	Light Collector	Town Collector	0.74
San Dieguito	SAN DIEGUITO	RANCHO DIEGUENO	WINDLAND HILLS	Light Collector	Collector	0.66
San Dieguito	SAN DIEGUITO	CALLE DEL NIDO	RANCHO DIEGUENO	Light Collector	Town Collector	0.53
San Dieguito	SAN DIEGUITO	EL APAJO	CALLE DEL NIDO	Light Collector	Town Collector	0.08
San Dieguito	SAN DIEGUITO	VIA DOS VALLES	EL APAJO	Light Collector	Collector	1.48
San Dieguito	SAN DIEGUITO	SAN DIEGO CL / CPA BOUNDARY	VIA DOS VALLES	Light Collector	Collector	1.70
San Dieguito	SAN ELIJO RD	FALL VIEW	HIDDEN CANYON	Major	Prime Arterial	0.50
San Dieguito	VIA DE LA VALLE	PASEO DELICIAS	LAS COLINAS	Light Collector	Collector	0.05
San Dieguito	VIA DE LA VALLE	LAS COLINAS	VIA DE SANTA FE	Light Collector	Collector	1.12
San Dieguito	VIA DE LA VALLE	VIA DE SANTA FE	VIA DE SANTA FE	Light Collector	Collector	0.06
San Dieguito	VIA DE LA VALLE	VIA DE SANTA FE	LA GRACIA	Light Collector	Collector	0.79
San Dieguito	VIA DE LA VALLE	LA GRACIA	CALZADA DEL BOSQ	Light Collector	Town Collector	0.49
San Dieguito	VIA DE LA VALLE	CALZADA DEL BOSQ	LAS PALOMAS	Light Collector	Town Collector	0.87
San Dieguito	VIA DE LA VALLE	LAS PALOMAS	CANCHA DE GOLF	Light Collector	Town Collector	0.16
San Dieguito	VIA DE LA VALLE	CANCHA DE GOLF	LAS PLANIDERAS	Light Collector	Collector	1.22
San Dieguito	VIA DE LA VALLE	ARROYO ROSITA	CAMINO REAL	Light Collector	Collector	0.62
San Dieguito	VIA DE SANTA FE	VIA DE LA VALLE	CALZADA DEL BOSQ	Light Collector	Town Collector	0.65

Appendix B
Buildout Deficiencies
County Facilities

CPA	Name	From Cross Street	To Cross Street	Existing Classification	Required Classification	Additional Lane Miles Required
San Dieguito	VIA DE SANTA FE	CALZADA DEL BOSQ	EL APAJO	Light Collector	Collector	0.83
Spring Valley	APPLE	GRAND AVE	RAMONA	Light Collector	Town Collector	0.15
Spring Valley	APPLE	RAMONA	MAYA	Light Collector	Town Collector	0.26
Spring Valley	BANCROFT	CPA BOUNDARY	RAMP SR-94 EB	Light Collector	Collector	0.05
Spring Valley	BANCROFT	RAMP SR-94 EB	HELIX	Light Collector	Collector	0.08
Spring Valley	BANCROFT	HELIX	KOONCE	Light Collector	Collector	0.33
Spring Valley	BANCROFT	KOONCE	KENWOOD	Light Collector	Collector	0.37
Spring Valley	BANCROFT	KENWOOD	SWITZER	Light Collector	Collector	0.19
Spring Valley	BANCROFT	SWITZER	OLIVE	Light Collector	Collector	0.12
Spring Valley	BANCROFT	OLIVE	LAMAR	Light Collector	Collector	0.50
Spring Valley	BANCROFT	LAMAR	TROY	Light Collector	Collector	0.35
Spring Valley	CAMPO	RAMP	KENWOOD	Light Collector	Collector	0.16
Spring Valley	CAMPO	KENWOOD	TERRACE	Light Collector	Collector	0.27
Spring Valley	JAMACHA BOULEVAR	WHITESTONE	JAMACHA ROAD	Light Collector	Collector	0.59
Spring Valley	JAMACHA BOULEVAR	SPRING GLEN	WHITESTONE	Light Collector	Collector	0.64
Spring Valley	JAMACHA BOULEVAR	SPRING GLEN	POINTE PARKWAY	Light Collector	Collector	0.18
Spring Valley	JAMACHA BOULEVAR	JAMACHA	SPRING GLEN	Light Collector	Collector	0.27
Spring Valley	JAMACHA BOULEVAR	SWEETWATER SPRIN	POINTE PARKWAY	Light Collector	Collector	0.52
Spring Valley	JAMACHA ROAD	RAMP SR-125 HOV	RAMP SR-125 NB	Major	Prime Arterial	0.18
Spring Valley	JAMACHA ROAD	RAMP SR-125 NB	SWEETWATER	Major	Prime Arterial	0.15
Spring Valley	KENWOOD	DALE	RAMP SR-94 EB	Light Collector	Town Collector	0.03
Spring Valley	KENWOOD	RAMP SR-94 EB	RAMP SR-94 WB	Light Collector	Collector	0.19
Spring Valley	PARADISE VALLEY	ELKELTON	RAMP SR-125 SB	Major	Prime Arterial	0.15
Spring Valley	PARADISE VALLEY	RAMP SR-125 SB	RAMP SR-125 NB	Major	Prime Arterial	0.29
Spring Valley	PARADISE VALLEY	RAMP SR-125 NB	SWEETWATER-NEW	Major	Prime Arterial	0.07
Spring Valley	SWEETWATER SPRIN	DEL RIO	DON PICO	Major	Prime Arterial	0.12
Spring Valley	SWEETWATER SPRIN	DON PICO	CRISTOBAL	Major	Prime Arterial	0.16
Spring Valley	TROY	SWEET WATER	CENTRAL	Light Collector	Collector	0.49
Spring Valley	TROY	CENTRAL	BANCROFT	Light Collector	Collector	0.43
Spring Valley	WORTHINGTON	PARADISE VALLEY	VERDE RIDGE	Light Collector	Town Collector	0.11
Sweetwater	BONITA	SWEETWATER	SAN MIGUEL	Light Collector	Collector	0.52
Sweetwater	BONITA	SAN MIGUEL	FRISBIE	Light Collector	Collector	0.86
Sweetwater	BONITA	FRISBIE	CENTRAL	Light Collector	Collector	0.28

Appendix B
Buildout Deficiencies
County Facilities

CPA	Name	From Cross Street	To Cross Street	Existing Classification	Required Classification	Additional Lane Miles Required
Sweetwater	BONITA	RANDY	PLZA BONITA/LYNN	Major	Prime Arterial	0.82
Sweetwater	BRIARWOOD	SOUTH BAY PARKWAY / FREEWAY	RAMP SR-54 EB	Light Collector	Collector	0.03
Sweetwater	BRIARWOOD	RAMP SR-54 EB	ROBINWOOD	Light Collector	Collector	0.10
Sweetwater	SWEETWATER	VALLEY	WILLOW	Light Collector	Town Collector	0.32
Sweetwater	SWEETWATER	BRIARWOOD	BONITA WOODS	Light Collector	Collector	0.81
Sweetwater	SWEETWATER	DEGEN	BONITA	Light Collector	Collector	0.32
Sweetwater	SWEETWATER	QUARRY	DEGEN	Light Collector	Collector	1.04
Sweetwater	SWEETWATER	SOUTHBAY PARKWAY / FREEWAY	QUARRY	Light Collector	Collector	0.66
Sweetwater	WILLOW	SWEETWATER	BONITA	Light Collector	Collector	0.45
Valle De Oro	BANCROFT	CAMPO	RAMP SR-94 WB	Light Collector	Town Collector	0.04
Valle De Oro	BANCROFT	RAMP SR-94 WB	CPA BOUNDARY	Light Collector	Collector	0.07
Valle De Oro	CAMPO	KENWOOD	TERRACE	Light Collector	Collector	0.10
Valle De Oro	CAMPO	TERRACE	BANCROFT	Light Collector	Collector	0.41
Valle De Oro	CAMPO	BANCROFT	HELIX	Light Collector	Collector	0.38
Valle De Oro	CAMPO	HELIX	ROGERS	Light Collector	Town Collector	0.38
Valle De Oro	CAMPO	ROGERS	KENWOOD	Light Collector	Town Collector	0.27
Valle De Oro	CHASE	GROVE	BERNITA	Light Collector	Collector	0.22
Valle De Oro	CHASE	BERNITA	CHASE LANE	Light Collector	Collector	0.50
Valle De Oro	CHASE	CHASE LANE	MONUMENT HILL	Light Collector	Collector	0.70
Valle De Oro	CHASE	MONUMENT HILL	FUERTE	Light Collector	Collector	0.14
Valle De Oro	CHASE	FUERTE	BRAYTON	Light Collector	Collector	0.16
Valle De Oro	CHASE	BRAYTON	JAMACHA ROAD	Light Collector	Collector	0.37
Valle De Oro	FUERTE	GROSSMONT SUMMIT	GROSSMONT	Light Collector	Town Collector	0.02
Valle De Oro	FUERTE	GROSSMONT	SIERRA VISTA	Light Collector	Town Collector	0.20
Valle De Oro	FUERTE	SIERRA VISTA	SUMMIT	Light Collector	Town Collector	0.31
Valle De Oro	FUERTE	SUMMIT	PANDORA	Light Collector	Town Collector	0.31
Valle De Oro	FUERTE	PANDORA	LEMON	Light Collector	Town Collector	0.10
Valle De Oro	FUERTE	LEMON	HELIX	Light Collector	Collector	0.72
Valle De Oro	FUERTE	HELIX	GRANDVIEW	Light Collector	Collector	0.82
Valle De Oro	HILLSDALE	CHASE	WIND RIVER	Light Collector	Town Collector	0.16
Valle De Oro	JAMUL	STEELE CANYON	IVANHOE RANCH	Light Collector	Collector	0.35

Appendix B
Buildout Deficiencies
County Facilities

CPA	Name	From Cross Street	To Cross Street	Existing Classification	Required Classification	Additional Lane Miles Required
Valle De Oro	JAMUL	IVANHOE RANCH	COTTONWOOD SPRIN	Light Collector	Collector	0.95
Valle De Oro	JAMUL	COTTONWOOD SPRIN	TUK A WILE	Light Collector	Town Collector	1.34
Valle De Oro	KENWOOD	RAMP SR-94 WB	CAMPO	Light Collector	Collector	0.20
Valle De Oro	NORTH BARCELONA	CAMPO	DOLORES	Light Collector	Town Collector	0.06
Valle De Oro	STEELE CANYON	WILLOW GLEN	JAMUL	Light Collector	Collector	1.00
Valle De Oro	STEELE CANYON	JAMUL	OLD CALIFORNIA	Light Collector	Town Collector	0.19
Valle De Oro	VIA MERCADO	CALLE VERDE	CAMPO	Light Collector	Collector	0.31
Valle De Oro	WILLOW GLEN	HILLSDALE	.31 MILES BEFORE STEELE CANYON	Light Collector	Town Collector	0.81
Valley Center	CHAMPAGNE	OLD 395	OLD CASTLE	Light Collector	Collector	0.32
Valley Center	CHAMPAGNE	OLD CASTLE	CPA BOUNDARY	Light Collector	Collector	1.93
Valley Center	COLE GRADE	VIA VALENCIA	FRUITVALE	Town Collector	Collector	1.36
Valley Center	COLE GRADE	FRUITVALE	1003 ft NORTH OF VALLEY CENTER	Town Collector	Collector	0.96
Valley Center	COLE GRADE	1003 ft NORTH OF VALLEY CENTER	VALLEY CENTER	Town Collector	Major	0.38
Valley Center	LILAC	WEST LILAC	LILAC HILL	Light Collector	Town Collector	0.26
Valley Center	LILAC	LILAC HILL	OLD CASTLE	Light Collector	Town Collector	1.27
Valley Center	LILAC	OLD CASTLE	ROBLE VERDE	Light Collector	Collector	1.27
Valley Center	LILAC	ROBLE VERDE	ANTHONY	Light Collector	Collector	2.02
Valley Center	LILAC	ANTHONY	BETSWORTH	Light Collector	Collector	2.80
Valley Center	LILAC	BETSWORTH	VALLEY CENTER	Light Collector	Collector	0.58
Valley Center	MOUNTAIN MEADOW	AERIE	FRACE	Light Collector	Town Collector	0.26
Valley Center	OLD 395	CAM DEL REY	CIRCLE R	Light Collector	Collector	1.65
Valley Center	OLD 395	CIRCLE R	GOPHER CANYON	Light Collector	Collector	0.30
Valley Center	OLD CASTLE	CHAMPAGNE	PRIVATE ROAD e/o QUEEN ANN	Light Collector	Collector	3.44
Valley Center	OLD CASTLE	PRIVATE ROAD e/o QUEEN ANN	AIRFLIGHT	Light Collector	Town Collector	2.21
Valley Center	VALLEY CENTER	VESPER	COLE GRADE	Light Collector	Collector	0.43
Valley Center	VALLEY CENTER	COLE GRADE	MILLER	Major	Prime Arterial	1.04
Valley Center	VALLEY CENTER	MILLER	CHAPARREL	Major	Prime Arterial	0.94
Valley Center	VALLEY CENTER	CHAPARREL	LILAC	Major	Prime Arterial	0.59

Appendix B
Buildout Deficiencies
County Facilities

CPA	Name	From Cross Street	To Cross Street	Existing Classification	Required Classification	Additional Lane Miles Required
Valley Center	VALLEY CENTER	SUNDAY	CHARLAN	Major	Prime Arterial	0.94
Valley Center	VALLEY CENTER	CHARLAN	WOODS VALLEY	Major	Prime Arterial	0.56
Valley Center	VALLEY CENTER	WOODS VALLEY	BANBURY	Major	Prime Arterial	0.29
Valley Center	VALLEY CENTER	BANBURY	CPA BOUNDARY	Major	Prime Arterial	3.00

Appendix B
Buildout Deficiencies
State Facilities

CPA	Name	From	To	Lanes	Additional Lane Miles Required
Bonsall	MISSION	CPA BOUNDARY	.045 MILES WEST OF MISSION / PALA	2	13.66
Bonsall	MISSION	.045 WEST OF	.045 EAST OF MISSION / PALA	4	0.36
Bonsall	PALA	.045 EAST OF MISSION /	CPA BOUNDARY	2	2.55
Central Mountain	SR-78	RAMONA CPA - WEST OF	RAMONA CPA - EAST OF CENTRAL	2	0.42
Fallbrook	PALA	CPA BOUNDARY	COUSER CANYON ROAD	2	12.44
Jamul-Dulzura	CAMPO	CPA BOUNDARY / COUGAR	STONEY OAK ROAD	2	15.13
Jamul-Dulzura	SR-94	STONEY OAK ROAD	HONEY SPRING	2	0.83
Lakeside	SR-67	.2 miles South of SCRIPPS	.8 Miles South of FOSTER TRUCK TRAIL	2	2.23
Lakeside	SR-67	SCRIPPS POWAY PARKWAY	.2 Miles South of SCRIPPS POWAY	2	0.23
Lakeside	SR-67	CPA BOUNDARY	SCRIPPS POWAY PARKWAY	2	1.26
Lakeside	SR-67	VINE STREET ENTRANCE	MAPLEVIEW	3	0.92
Lakeside	SR-67	MAPLE VIEW	START OF SR. 67	4	0.07
Mountain Empire	TECATE	SR-94	HUMPHRIES ROAD	2	2.93
North County Metro	SAN PASQUAL VALLEY	BEAR VALLEY	.12 AFTER OLD SAN PASQUAL ROAD	2	2.24
North County Metro	SR-78	SYCAMORE (SEGMENT ON	SMILAX / CPA BOUNDARY	2	1.52
North Mountain	JULIAN / SR - 67	CPA BOUNDARY	SR-79	2	7.92
Pala-Pauma	SR-76	RED GATE ROAD (West Side)	CALLE EL POTRERO	2	2.50
Ramona	JULIAN / SR - 67	CPA BOUNDARY	MUSSEY GRADE	2	8.90
Ramona	JULIAN / SR - 67	OLD JULIAN	RAMONA CPA - WEST OF CENTRAL	2	3.43
Ramona	JULIAN / SR - 67 / MAIN	MUSSEY GRADE ROAD	MONTECITO	2	5.40
Ramona	JULIAN / SR - 67 / MAIN	10 TH	8TH	4	0.72
Ramona	SR-78	CPA BOUNDARY	HAVER FORD	2	3.85
Valle De Oro	CAMPO	JAMACHA ROAD	COUGAR CANYON ROAD	2	2.75

APPENDIX C – TIF IMPROVEMENT FACILITIES

Appendix C
TIF Improvement Facilities

CPA	Name	From Cross Street	To Cross Street	Existing Classification	Required Classification	Additional Lane Miles Required
Alpine	ALPINE	DUNBAR	RAMP I8 EB	Light Collector	Town Collector	0.07
Alpine	ALPINE	TAVERN	WEST VICTORIA	Light Collector	Collector	1.40
Alpine	ALPINE	WEST VICTORIA	Eltinge / MARSHALL	Light Collector	Collector	0.11
Alpine	ALPINE	Eltinge / MARSHALL	BAY MDOWS/MARINO	Light Collector	Collector	0.78
Alpine	ALPINE	BAY MDOWS/MARINO	SO GRADE/E VICTO	Light Collector	Collector	0.91
Alpine	SOUTH GRADE	Eltinge	OLIVE VIEW	Light Collector	Town Collector	0.08
Alpine	TAVERN	MONTEREY PL	VICTORIA PARK	Light Collector	Collector	1.20
Alpine	TAVERN	VICTORIA PARK	RAMP I-8 WB	Light Collector	Major	0.07
Alpine	TAVERN	RAMP I-8 EB	ALPINE	Major	Prime Arterial	0.20
Alpine	TAVERN	ARNOLD	TAVERN CT	Light Collector	Collector	0.29
Alpine	VICTORIA PARK	TAVERN	GENTIAN	Light Collector	Town Collector	0.40
Alpine	WILLOWS	RAMP I-8 EB	ALPINE	Light Collector	Town Collector	0.02
Barona	WILDCAT CANYON	PAINTED ROCK / SAN VINCENTE OAK	FEATHERSTONE CANYON	Light Collector	Town Collector	2.09
Barona	WILDCAT CANYON	FEATHERSTONE CANYON	BARONA ROAD	Light Collector	Town Collector	1.87
Barona	WILDCAT CANYON	BARONA ROAD	PATA RANCH	Light Collector	Collector	5.75
Bonsall	CHAMPAGNE	LAWRENCE WELK	OLD CASTLE	Light Collector	Collector	1.80
Bonsall	EAST VISTA	MISSION	OLD RIVER	Town Collector	Collector	0.13
Bonsall	GOPHER CANYON	ORMSBY	VISTA VALLEY	Light Collector	Collector	1.98
Bonsall	GOPHER CANYON	VISTA VALLEY	TWIN OAKS VALLEY	Light Collector	Collector	1.57
Bonsall	GOPHER CANYON	TWIN OAKS VALLEY	AVOHILL	Light Collector	Collector	1.65
Bonsall	GOPHER CANYON	AVOHILL	RAMP I-15 SB	Light Collector	Collector	1.63
Bonsall	GOPHER CANYON	RAMP I-15 SB	RAMP I-15 NB	Light Collector	Collector	0.19
Bonsall	GOPHER CANYON	RAMP I-15 NB	OLD 395	Light Collector	Collector	0.14
Bonsall	NORTH RIVER	KARI LANE	VIA PUERTA DEL S	Light Collector	Collector	0.10
Bonsall	NORTH RIVER	VIA PUERTA DEL S	MISSION	Light Collector	Collector	0.85
Bonsall	OLD 395	WEST LILAC	RAMP I-15 SB	Light Collector	Town Collector	0.85
Bonsall	OLD RIVER	CAMINO DEL REY	GOLF CLUB	Light Collector	Town Collector	0.33
Bonsall	OLD RIVER	GOLF CLUB	DENTRO	Light Collector	Town Collector	0.44
Bonsall	OLD RIVER	DENTRO	GOPHER CANYON	Light Collector	Town Collector	1.04
Bonsall	OLD RIVER	GOPHER CANYON	new OLD RIVER	Light Collector	Town Collector	0.53
Bonsall	OLIVEHILL / CAMINO DEL REY	MISSION	WEST LILAC / CAMINO DEL REY	Light Collector	Town Collector	0.25

CPA	Name	From Cross Street	To Cross Street	Existing Classification	Required Classification	Additional Lane Miles Required
Bonsall	VIA PUERTA DEL S	OLIVE HILL	VALLE DEL SOL	Light Collector	Town Collector	0.60
Bonsall	VIA PUERTA DEL S	VALLE DEL SOL	NORTH RIVER	Light Collector	Town Collector	1.52
Bonsall	WEST LILAC / CAMINO DEL REY	OLD RIVER	CAMINO DEL REY	Light Collector	Collector	0.59
Crest-Dehesa	DEHESA	CALLE ENCANTO	VISTA GRANDE	Light Collector	Collector	0.64
Crest-Dehesa	DEHESA	VISTA GRANDE	SINGING TRAILS	Light Collector	Collector	0.89
Crest-Dehesa	DEHESA	SINGING TRAILS	WILLOW GLEN	Light Collector	Town Collector	0.81
Crest-Dehesa	DEHESA	WILLOW GLEN	HARBISON CANYON	Light Collector	Collector	6.44
Crest-Dehesa	DEHESA	HARBISON CANYON	VISTA DE LA MONTANA	Light Collector	Collector	0.50
Crest-Dehesa	DEHESA	VISTA DE LA MONTANA	SYCUAN	Light Collector	Collector	0.97
Crest-Dehesa	SYCUAN	DEHESA	SYCUAN CASINO	Light Collector	Collector	0.70
Desert	BORREGO SPRINGS	CHRISTMAS S	STIRRUP	Light Collector	Collector	0.42
Desert	CHRISTMAS N	BORREGO SPRINGS	PALM CANYON	Light Collector	Collector	0.13
Desert	CHRISTMAS S	CHRISTMAS N	BORREGO SPRINGS	Light Collector	Collector	0.14
Desert	PALM CANYON	SUN AND SHADOWS	OCOTILLO	Light Collector	Town Collector	0.22
Desert	PALM CANYON	OCOTILLO	CHRISTMAS N	Light Collector	Collector	0.95
Desert	PALM CANYON	CHRISTMAS N	DIAMON BAR ROAD	Light Collector	Collector	0.49
Desert	PALM CANYON	STIRRUP	DI GIORGIO	Light Collector	Town Collector	0.23
Desert	PALM CANYON	DI GIORGIO	FAIRWAY	Light Collector	Town Collector	0.48
Fallbrook	FALLBROOK	MAIN	OLD STAGE	Light Collector	Collector	0.25
Fallbrook	FALLBROOK	MANDARIN	GOLDEN	Light Collector	Collector	0.54
Fallbrook	FALLBROOK	GOLDEN	MC DONALD	Light Collector	Town Collector	0.35
Fallbrook	FALLBROOK	MC DONALD	DEBBY	Light Collector	Town Collector	0.28
Fallbrook	FALLBROOK	DEBBY	STAGE COACH	Light Collector	Town Collector	0.22
Fallbrook	MISSION	RAMP I-15 NB	OLD 395	Light Collector	Collector	0.10
Fallbrook	MISSION	RAMP I-15 SB	RAMP I-15 NB	Light Collector	Collector	0.31
Fallbrook	MISSION	OLD 395	RAMP I-15 SB	Light Collector	Prime Arterial	0.22
Fallbrook	MISSION	HAMILTON	DAVIS	Light Collector	Collector	1.39
Fallbrook	MISSION	STAGE COACH	GUM TREE	Light Collector	Collector	0.26
Fallbrook	MISSION	OLD STAGE	PEPPER TREE	Major	Prime Arterial	0.16
Fallbrook	OLD 395	MISSION	CPA BOUNDARY	Light Collector	Collector	0.64
Fallbrook	OLD 395	RECHE	CANONITA	Light Collector	Town Collector	0.72
Fallbrook	OLD 395	CANONITA	TECALOTE	Light Collector	Town Collector	0.57
Fallbrook	OLD 395	TECALOTE	PALA MESA	Light Collector	Collector	2.17

Appendix C
TIF Improvement Facilities

CPA	Name	From Cross Street	To Cross Street	Existing Classification	Required Classification	Additional Lane Miles Required
Fallbrook	OLD 395	PALA MESA	VIA BELMONTE	Light Collector	Collector	1.03
Fallbrook	OLD 395	VIA BELMONTE	PALA	Light Collector	Collector	0.83
Fallbrook	OLD 395	PALA	DULIN	Light Collector	Town Collector	0.54
Fallbrook	OLD 395	DULIN	DULIN	Light Collector	Collector	0.43
Fallbrook	OLD 395	DULIN	WEST LILAC	Light Collector	Collector	2.72
Fallbrook	OLIVE HILL	MISSION	AIRPARK DRIVEWAY	Light Collector	Collector	0.29
Fallbrook	OLIVE HILL	AIRPARK DRIVEWAY	ELM TREE	Light Collector	Collector	0.63
Fallbrook	OLIVE HILL	ELM TREE	LA TARA	Light Collector	Collector	0.73
Fallbrook	OLIVE HILL	LA TARA	WHITE HORSE	Light Collector	Collector	1.10
Fallbrook	OLIVE HILL	WHITE HORSE	LADERA VISTA	Light Collector	Collector	1.00
Fallbrook	OLIVE HILL	LADERA VISTA	BURMA	Light Collector	Collector	0.47
Fallbrook	OLIVE HILL	BURMA	RANCHO BONITO	Light Collector	Town Collector	0.31
Fallbrook	OLIVE HILL	RANCHO BONITO	RANCHO CAM	Light Collector	Town Collector	0.36
Fallbrook	OLIVE HILL	RANCHO CAM	GATEVIEW	Light Collector	Collector	1.68
Fallbrook	OLIVE HILL	GATEVIEW	VIA PUERTA DEL S	Light Collector	Collector	1.41
Fallbrook	PANKEY	.2 MILE NORTH OF PALA INTERSECTION	PALA	Light Collector	8L Prime	0.92
Fallbrook	PANKEY	PALA	SHEARER	Light Collector	Collector	0.17
Fallbrook	PEPPER TREE	MISSION	WOODLARK	Light Collector	Collector	0.23
Fallbrook	RECHE	STAGE COACH	RECHE WY	Light Collector	Collector	0.40
Fallbrook	RECHE	RECHE WY	FALLBROOK	Light Collector	Collector	0.62
Fallbrook	RECHE	FALLBROOK	LOS AMIGOS	Light Collector	Collector	0.16
Fallbrook	RECHE	LOS AMIGOS	GREEN CANYON	Light Collector	Collector	0.34
Fallbrook	RECHE	GREEN CANYON	LIVE OAK PARK	Light Collector	Town Collector	0.40
Fallbrook	RECHE	LIVE OAK PARK	GIRD	Light Collector	Town Collector	0.51
Fallbrook	RECHE	GIRD	SCOOTER	Light Collector	Town Collector	0.67
Fallbrook	RECHE	SCOOTER	CALLE TECOLOTIAN	Light Collector	Town Collector	0.58
Fallbrook	RECHE	CALLE TECOLOTIAN	RANGER	Light Collector	Town Collector	0.53
Fallbrook	RECHE	RANGER	OLD 395	Light Collector	Town Collector	0.39
Fallbrook	STAGE COACH	RECHE	RANCHWOOD	Light Collector	Town Collector	0.38
Fallbrook	STAGE COACH	RANCHWOOD	JOY	Light Collector	Collector	0.25
Fallbrook	STAGE COACH	JOY	BROOKE	Light Collector	Collector	0.72
Fallbrook	STAGE COACH	BROOKE	KNOLLWOOD	Light Collector	Town Collector	0.61
Fallbrook	STAGE COACH	KNOLLWOOD	MORRO	Town Collector	Collector	0.48

CPA	Name	From Cross Street	To Cross Street	Existing Classification	Required Classification	Additional Lane Miles Required
Fallbrook	STAGE COACH	MORRO	MISSION	Town Collector	Collector	0.48
Jamul-Dulzura	JAMUL	TUK A WILE	YUCCA	Light Collector	Town Collector	1.04
Jamul-Dulzura	JAMUL	YUCCA	LYONS VALLEY	Light Collector	Town Collector	0.08
Jamul-Dulzura	JEFFERSON	OLIVE VISTA	SR-94	Light Collector	Town Collector	0.18
Jamul-Dulzura	LYONS VALLEY	JEFFERSON	RESERVOIR	Light Collector	Collector	0.39
Jamul-Dulzura	LYONS VALLEY	RESERVOIR	JAMUL	Light Collector	Collector	0.36
Jamul-Dulzura	LYONS VALLEY	JAMUL	RIO GRANDE	Light Collector	Collector	0.85
Jamul-Dulzura	LYONS VALLEY	RIO GRANDE	PLEASANT VIEW	Light Collector	Collector	0.70
Jamul-Dulzura	PROCTOR VALLEY	MELODY	CALLE BUENO GANA	Light Collector	Town Collector	0.11
Jamul-Dulzura	PROCTOR VALLEY	CALLE BUENO GANA	SCHLEE CANYON	Light Collector	Town Collector	0.41
Jamul-Dulzura	PROCTOR VALLEY	SCHLEE CANYON	MAXFIELD	Light Collector	Collector	0.52
Jamul-Dulzura	PROCTOR VALLEY	MAXFIELD	JEFFERSON	Light Collector	Collector	0.38
Lakeside	ASHWOOD	WILLOW	MAPLEVIEW	Light Collector	Collector	2.23
Lakeside	EL NOPAL	FUTURE N/S MASS	MARJEAN	Light Collector	Town Collector	0.33
Lakeside	EL NOPAL	MARJEAN	RIVERFORD	Light Collector	Collector	0.22
Lakeside	I-8 BUSINESS / MAIN	JACKSON HILL	LAVALA	Light Collector	Collector	1.01
Lakeside	I-8 BUSINESS / MAIN	.31 MILES SOUTH OF KAY JAY / MOBILE HOME PARK ENTRANCE	LOS COCHES/CM CA	Light Collector	Collector	0.81
Lakeside	JULIAN	CACTUS	LOS COCHES/MAINE	Light Collector	Town Collector	0.18
Lakeside	JULIAN	PINO	LAKEVIEW	Light Collector	Town Collector	0.16
Lakeside	LAKE JENNINGS PA	EL MONTE	BASS	Light Collector	Collector	1.00
Lakeside	LAKE JENNINGS PA	BASS	PINKARD	Light Collector	Collector	1.74
Lakeside	LAKE JENNINGS PA	PINKARD	HARRITT	Light Collector	Collector	0.20
Lakeside	LAKE JENNINGS PA	RAMP I-8 WB	RAMP I-8 WB	Light Collector	Collector	0.06
Lakeside	LAKESIDE	RIVERSIDE	CHANNEL	Town Collector	Collector	0.42
Lakeside	LOS COCHES	JULIAN	DEL SOL	Town Collector	Collector	0.94
Lakeside	LOS COCHES	DEL SOL	LOS COCHES CT	Town Collector	Collector	1.01
Lakeside	LOS COCHES	LOS COCHES CT	BOWER	Town Collector	Collector	0.76
Lakeside	MAPLEVIEW	CHANNEL	SR-67	Light Collector	Collector	0.42
Lakeside	MAPLEVIEW	MAINE	VINE	Town Collector	Prime Arterial	0.11
Lakeside	OLDE 80	RIDGE HILL	PECAN PARK	Light Collector		0.07

CPA	Name	From Cross Street	To Cross Street	Existing Classification	Required Classification	Additional Lane Miles Required
Lakeside	OLDE 80	PECAN PARK / SIERRA ALTA	PECAN PARK	Light Collector	Collector	0.61
Lakeside	OLDE 80	PECAN PARK	BOND	Light Collector	Collector	0.30
Lakeside	PEPPER	02ND/WINTER GARD	PEERLESS	Light Collector	Town Collector	0.25
Lakeside	RIVERFORD	EL NOPAL	RIVERSIDE/MAST	Light Collector	Collector	0.16
Lakeside	RIVERFORD	RIVERSIDE/MAST	WOODSIDE(N)	Town Collector	Major	0.63
Lakeside	RIVERFORD	WOODSIDE(N)	RAMP SR-67 SB	Light Collector	Collector	0.08
Lakeside	RIVERFORD	RAMP SR-67 SB	WOODSIDE SOUTH	Light Collector	Collector	0.18
Lakeside	RIVERSIDE	RIVERFORD	PALM ROW	Town Collector	Collector	0.56
Lakeside	RIVERSIDE	PALM ROW	VISTA CAMINO	Town Collector	Collector	0.42
Lakeside	RIVERSIDE	VISTA CAMINO	NEW BEDFORD	Town Collector	Collector	0.21
Lakeside	SIERRA ALTA	RAMP I-8 EB	OLDE 80	Light Collector	Collector	0.07
Lakeside	SIERRA ALTA	LAKE JENNINGS PA	RAMP I-8 EB	Light Collector	Collector	0.06
Lakeside	VALLE VISTA	VISTA CAMINO	PAGOSA	Light Collector	Town Collector	0.38
Lakeside	VALLE VISTA	PAGOSA	RIVERSIDE	Light Collector	Town Collector	0.41
Lakeside	WILLOW	SR-67	MORENO	Light Collector	Town Collector	0.25
Lakeside	WILLOW	MORENO	FILLBROOK	Light Collector	Town Collector	0.29
Lakeside	WILLOW	FILLBROOK	WILDCAT CANYON	Light Collector	Town Collector	0.36
Lakeside	WOODSIDE	NB OFF RAMP	RIVERFORD	Light Collector	Collector	0.13
Lakeside	WOODSIDE	MARILLA	RIVERVIEW	Light Collector	Collector	0.42
Lakeside	WOODSIDE	RIVERVIEW	WINTER GARDENS	Light Collector	Town Collector	0.35
North County Metro	17TH	LENDEE	SAN PASQUAL VALL	Light Collector	Collector	0.44
North County Metro	BUENA CREEK / SOUTH SANTA FE	SOUTH SANTA FE	SYCAMORE	Light Collector	Collector	0.04
North County Metro	BUENA CREEK	SYCAMORE	HARTWRIGHT	Light Collector	Collector	0.06
North County Metro	BUENA CREEK	HARTWRIGHT	HIDDEN OAK	Light Collector	Collector	1.40
North County Metro	BUENA CREEK	HIDDEN OAK	LONE OAK	Light Collector	Collector	0.33
North County Metro	BUENA CREEK	LONE OAK	MONTE VISTA	Light Collector	Collector	0.50
North County Metro	BUENA CREEK	MONTE VISTA	SUGARBUSH	Light Collector	Collector	1.21
North County Metro	BUENA CREEK	SUGARBUSH	HOLLYBERRY	Light Collector	Collector	0.17
North County Metro	BUENA CREEK	HOLLYBERRY	FREDAS HILL	Light Collector	Town Collector	0.28
North County Metro	BUENA CREEK	FREDAS HILL	BLUE BIRD CANYON	Light Collector	Town Collector	0.50
North County Metro	BUENA CREEK	BLUE BIRD CANYON	TAMARA	Light Collector	Town Collector	0.43
North County Metro	CAMINO DEL ARROYO	CAMINO LINDA DRIVE	RANCHO SANTA FE	Light Collector	Town Collector	0.06

CPA	Name	From Cross Street	To Cross Street	Existing Classification	Required Classification	Additional Lane Miles Required
North County Metro	CHAMPAGNE	WELK VIEW	LAWRENCE WELK	Light Collector	Collector	0.74
North County Metro	CHAMPAGNE	LAWRENCE	MOUNTAIN MEADOW	Light Collector	Collector	3.62
North County Metro	DEER SPRINGS	MULBERRY	MARILYN	Light Collector	Collector	0.33
North County Metro	DEER SPRINGS	SARVER	MESA ROCK	Light Collector	Prime Arterial	5.79
North County Metro	DEER SPRINGS	MESA ROCK	MOUNTAIN MEADOW	Light Collector	Prime Arterial	0.21
North County Metro	DEL DIOS	COUNTRY CLUB	ELM	Light Collector	Collector	0.74
North County Metro	HARMONY GROVE	WILGEN	CPA BOUNDARY	Light Collector	Town Collector	1.66
North County Metro	HARMONY GROVE	COUNTRY CLUB	WILGEN	Light Collector	Town Collector	0.39
North County Metro	HOLLYBERRY	BUENA CREEK	SALEM	Light Collector	Collector	0.48
North County Metro	N CENTRE CITY	MOUNTAIN MEADOW	JESMOND DENE	Light Collector	Town Collector	0.58
North County Metro	N CENTRE CITY	JESMOND DENE	MESA ROCK	Light Collector	Collector	2.51
North County Metro	N CENTRE CITY	MESA ROCK	IVY DELL	Light Collector	Collector	0.71
North County Metro	N CENTRE CITY	IVY DELL	CENTRE CITY	Light Collector	Collector	0.58
North County Metro	ROCK SPRING	.005 WEST OF BENNETT / ROCK SPRING INTERSECTION	BENNETT	Light Collector	Collector	0.01
North County Metro	ROCK SPRING	MONTIEL	SEVEN OAKES	Light Collector	Town Collector	0.05
North County Metro	SALEM	HOLLYBERRY	EMMA	Light Collector	Collector	1.00
North County Metro	SOUTH SANTA FE	WOODLAND	ROBELINI	Major	Prime Arterial	0.56
North County Metro	SYCAMORE	BUENA CREEK	ROBELINI	Major	Prime Arterial	0.50
North County Metro	SYCAMORE	RAMP SR-78 WB	RAMP SR-78 EB	Prime Arterial	8L Prime	0.09
North County Metro	VALLEY CENTER	NORTH COUNTY CPA BOUNDARY	VALLEY CENTER CPA BOUNDARY	Major	Prime Arterial	0.09
North County Metro	VIA RANCHO	VISTA DE LA CRESTA	VIA LOMA VISTA	Light Collector	Town Collector	0.57
North County Metro	VIA RANCHO	VIA LOMA VISTA	FELICITA	Light Collector	Collector	1.49
North County Metro	SAN PASQUAL ROAD	VIENTO VALLE	VIA SOL	Light Collector	Collector	2.15
Otay	AIRWAY	FARADAY	ENRICO FERMI	Light Collector	Collector	0.48
Otay	ALTA	DONOVAN STATE PRISON	CALZADA DE LA FUENTE	Light Collector	Collector	0.95
Otay	ALTA	PASEO DE LA FUENTE	CALZADA DE LA FUENTE	Light Collector	Prime Arterial	0.93
Otay	ALTA	OTAY MESA	PASEO DE LA FUENTE	Light Collector	Prime Arterial	0.83
Otay	ENRICO FERMI	OTAY MESA	RAMP SR-11 WB	Major	Prime Arterial	0.40

Appendix C
TIF Improvement Facilities

CPA	Name	From Cross Street	To Cross Street	Existing Classification	Required Classification	Additional Lane Miles Required
Otay	ENRICO FERMI	RAMP SR-11 WB	RAMP SR-11 EB	Major	Prime Arterial	0.18
Otay	ENRICO FERMI	RAMP SR-11 EB	AIRWAY	Major	Prime Arterial	0.65
Otay	ENRICO FERMI	AIRWAY	SIEMPRE VIVA	Light Collector	Prime Arterial	0.90
Otay	HARVEST	LONESTAR	OTAY MESA	Light Collector	Prime Arterial	2.93
Otay	LONESTAR	PIPER RANCH	HARVEST	Light Collector	Prime Arterial	2.31
Otay	OTAY LAKES	WUESTE	LOWER OTAY LAKE	Light Collector	Prime Arterial	1.21
Otay	OTAY LAKES	LOWER OTAY LAKE	CAMPO RD	Light Collector	Town Collector	3.29
Otay	OTAY MESA	PASEO DE LAS AMERICA	FARADAY	Major	Prime Arterial	1.58
Otay	OTAY MESA	FARADAY	ENRICO FERMI	Major	Prime Arterial	0.92
Otay	OTAY MESA	ENRICO FERMI	ALTA	Major	Prime Arterial	5.14
Pala-Pauma	VALLEY CENTER	PALA/SR-76	GOLSH	Town Collector	Collector	1.76
Pendleton-De Luz	BASILONE	RAMP I-5 SB	RAMP I-5 NB	Light Collector	Collector	0.19
Pendleton-De Luz	COAST	SAN DIEGO / I5 RAMP	MONTEREY	Light Collector	Collector	0.13
Pendleton-De Luz	SAN DIEGO / I5 RAMP	RAMP	RAMP	Light Collector	Prime Arterial	0.13
Pendleton-De Luz	SAN DIEGO / I5 RAMP	RAMP	RAMP	Light Collector	Prime Arterial	0.65
Pendleton-De Luz	VANDEGRIFT	WIRE MTN/MAIN GA	RAMP I-5 NB	Major	8L Prime	0.93
Pepper Drive-Bosto	BRADLEY	GRAVES	STONE EDGE CIRC	Light Collector	Collector	0.40
Pepper Drive-Bosto	BRADLEY	STONE EDGE	SAM HILL	Light Collector	Collector	0.23
Pepper Drive-Bosto	BRADLEY	SAM HILL	BERRY DALE	Light Collector	Collector	0.21
Pepper Drive-Bosto	BRADLEY	SUMMER PLACE	01ST	Light Collector	Town Collector	0.12
Pepper Drive-Bosto	GRAVES	PEPPER	GRAVES CT	Light Collector	Town Collector	0.14
Pepper Drive-Bosto	GREENFIELD	VERNON	GRAVES	Light Collector	Collector	0.86
Pepper Drive-Bosto	GREENFIELD	DENVER	DIAMOND	Light Collector	Collector	0.27
Pepper Drive-Bosto	GREENFIELD	DIAMOND	01ST	Light Collector	Collector	0.27
Pepper Drive-Bosto	GREENFIELD	01ST	ORO	Light Collector	Town Collector	0.26
Pepper Drive-Bosto	GREENFIELD	ORO	02ND	Light Collector	Town Collector	0.21
Pepper Drive-Bosto	MAGNOLIA	BRADLEY	CYPRESS	Light Collector	Collector	0.31
Pepper Drive-Bosto	MAGNOLIA	CYPRESS	VERNON	Light Collector	Collector	0.63
Pepper Drive-Bosto	PEERLESS	LILY	GREENFIELD	Light Collector	Town Collector	0.13
Pepper Drive-Bosto	PEPPER	TETON	VULCAN	Light Collector	Town Collector	0.05
Pepper Drive-Bosto	PEPPER	GARYWOOD/MARLIND	BATES	Light Collector	Town Collector	0.14
Pepper Drive-Bosto	PEPPER	BATES	MOLLISON	Light Collector	Collector	0.30
Pepper Drive-Bosto	PEPPER	MOLLISON	PEPPER VILLA	Light Collector	Town Collector	0.07

Appendix C
TIF Improvement Facilities

CPA	Name	From Cross Street	To Cross Street	Existing Classification	Required Classification	Additional Lane Miles Required
Pepper Drive-Bosto	PEPPER	PEPPER VILLA	01ST	Light Collector	Town Collector	0.25
Pepper Drive-Bosto	PEPPER	SOMER LANE	02ND/WINTER GARD	Light Collector	Town Collector	0.24
Rainbow	OLD 395	RAINBOW VALLEY	MISSION	Light Collector	Collector	1.71
Rainbow	OLD 395	RAINBOW GLEN	RAINBOW VALLEY	Light Collector	Collector	0.64
Rainbow	OLD 395	05TH	RAINBOW GLEN	Light Collector	Collector	1.14
Rainbow	OLD 395	02ND	05TH	Light Collector	Town Collector	0.29
Rainbow	RAINBOW VALLEY W	RAMP	OLD 395	Light Collector	Town Collector	0.04
Ramona	MONTECITO	DAVIS	RAMONA	Light Collector	Town Collector	0.39
Ramona	OLIVE	MAPLE	PINE	Light Collector	Collector	0.50
Ramona	OLIVE	PINE	ELM	Light Collector	Town Collector	0.29
Ramona	RAMONA	RAYMOND	MAIN	Light Collector	Town Collector	0.14
Ramona	RAMONA	ROWLEY	HANSON LANE	Light Collector	Town Collector	0.07
Ramona	SAN VICENTE	H STREET	BARGER	Town Collector	Collector	0.94
Ramona	SAN VICENTE	HANSON	JAY BIRD	Town Collector	Collector	0.51
Ramona	SAN VICENTE	JAY BIRD	CREELMAN	Town Collector	Collector	0.49
Ramona	SAN VICENTE	KEYES	DYE	Light Collector	Collector	0.14
Ramona	SAN VICENTE	DYE	BUNNIE KING	Light Collector	Collector	0.58
Ramona	SAN VICENTE	BUNNIE KING	CHUCKWAGON	Light Collector	Collector	2.57
Ramona	SAN VICENTE	CHUCKWAGON	WILDCAT CANYON	Light Collector	Collector	0.41
Ramona	WILDCAT CANYON	SAN VICENTE	LITTLE KLONDIKE	Light Collector	Collector	0.75
Ramona	WILDCAT CANYON	LITTLE KLONDIKE	SAN VINCENTE OAK	Light Collector	Town Collector	2.19
San Dieguito	CAM DEL NORTE	4S RANCH PARKWAY	RAMP	Light Collector	Prime Arterial	1.24
San Dieguito	DEL DIOS	RANCHO DEL RIO	LUNA DE MIEL	Light Collector	Collector	0.92
San Dieguito	EL APAJO	VIA DE SANTA FE	SAN DIEGUITO	Light Collector	Town Collector	0.57
San Dieguito	ELFIN FOREST	ELFIN OAKS	HARMONY GROVE	Light Collector	Collector	2.74
San Dieguito	HARMONY GROVE	CRESTWIND/WILGEN	QUESTHAVEN	Light Collector	Town Collector	1.16
San Dieguito	BAJADA	EL MIRLO	LA NORIA	Light Collector	Collector	0.57
San Dieguito	PASEO DELICIAS	LA FREMONTIA	VIA DE LA VALLE	Light Collector	Major	0.10
San Dieguito	RANCHO BERNARDO	CAM SAN BERNARDO	ALVA / CPA BOUNDARY	Major	Prime Arterial	0.57
San Dieguito	RANCHO SANTA FE	CPA BOUNDARY	EL MIRLO	Light Collector	Collector	0.33
San Dieguito	CAMINO DEL NORTE	4S RANCH PARKWAY	BLACK MOUNTAIN	Light Collector	Collector	0.51
San Dieguito	SAN DIEGUITO	WINLAND HILLS	CAM SANTA FE	Light Collector	Town Collector	0.74
San Dieguito	SAN DIEGUITO	RANCHO DIEGUENO	WINDLAND HILLS	Light Collector	Collector	0.66
San Dieguito	SAN DIEGUITO	CALLE DEL NIDO	RANCHO DIEGUENO	Light Collector	Town Collector	0.53

Appendix C
TIF Improvement Facilities

CPA	Name	From Cross Street	To Cross Street	Existing Classification	Required Classification	Additional Lane Miles Required
San Dieguito	SAN DIEGUITO	EL APAJO	CALLE DEL NIDO	Light Collector	Town Collector	0.08
San Dieguito	SAN DIEGUITO	VIA DOS VALLES	EL APAJO	Light Collector	Collector	1.48
San Dieguito	SAN DIEGUITO	SAN DIEGO CL / CPA BOUNDARY	VIA DOS VALLES	Light Collector	Collector	1.70
San Dieguito	SAN ELIJO RD	FALL VIEW	HIDDEN CANYON	Major	Prime Arterial	0.50
San Dieguito	VIA DE LA VALLE	PASEO DELICIAS	LAS COLINAS	Light Collector	Collector	0.05
San Dieguito	VIA DE LA VALLE	LAS COLINAS	VIA DE SANTA FE	Light Collector	Collector	1.12
San Dieguito	VIA DE LA VALLE	VIA DE SANTA FE	LA GRACIA	Light Collector	Collector	0.79
San Dieguito	VIA DE LA VALLE	LA GRACIA	CALZADA DEL BOSQ	Light Collector	Town Collector	0.49
San Dieguito	VIA DE SANTA FE	VIA DE LA VALLE	CALZADA DEL BOSQ	Light Collector	Town Collector	0.65
San Dieguito	VIA DE SANTA FE	CALZADA DEL BOSQ	EL APAJO	Light Collector	Collector	0.83
Spring Valley	APPLE	GRAND AVE	RAMONA	Light Collector	Town Collector	0.15
Spring Valley	APPLE	RAMONA	MAYA	Light Collector	Town Collector	0.26
Spring Valley	JAMACHA ROAD	RAMP SR-125 HOV	RAMP SR-125 NB	Major	Prime Arterial	0.18
Spring Valley	JAMACHA ROAD	RAMP SR-125 NB	SWEETWATER	Major	Prime Arterial	0.15
Spring Valley	KENWOOD	DALE	RAMP SR-94 EB	Light Collector	Town Collector	0.03
Spring Valley	PARADISE VALLEY	ELKELTON	RAMP SR-125 SB	Major	Prime Arterial	0.15
Spring Valley	PARADISE VALLEY	RAMP SR-125 SB	RAMP SR-125 NB	Major	Prime Arterial	0.29
Spring Valley	PARADISE VALLEY	RAMP SR-125 NB	SWEETWATER-NEW	Major	Prime Arterial	0.07
Spring Valley	TROY	SWEET WATER	CENTRAL	Light Collector	Collector	0.49
Spring Valley	TROY	CENTRAL	BANCROFT	Light Collector	Collector	0.43
Sweetwater	BRIARWOOD	RAMP SR-54 EB	ROBINWOOD	Light Collector	Collector	0.10
Sweetwater	SWEETWATER	VALLEY	WILLOW	Light Collector	Town Collector	0.32
Sweetwater	SWEETWATER	BRIARWOOD	BONITA WOODS	Light Collector	Collector	0.81
Valle De Oro	BANCROFT	CAMPO	RAMP SR-94 WB	Light Collector	Town Collector	0.04
Valle De Oro	FUERTE	GROSSMONT SUMMIT	GROSSMONT	Light Collector	Town Collector	0.02
Valle De Oro	FUERTE	GROSSMONT	SIERRA VISTA	Light Collector	Town Collector	0.20
Valle De Oro	FUERTE	SIERRA VISTA	SUMMIT	Light Collector	Town Collector	0.31
Valle De Oro	FUERTE	SUMMIT	PANDORA	Light Collector	Town Collector	0.31
Valle De Oro	FUERTE	PANDORA	LEMON	Light Collector	Town Collector	0.10
Valle De Oro	HILLSDALE	CHASE	WIND RIVER	Light Collector	Town Collector	0.16
Valle De Oro	JAMUL	STEELE CANYON	IVANHOE RANCH	Light Collector	Collector	0.35
Valle De Oro	JAMUL	IVANHOE RANCH	COTTONWOOD SPRIN	Light Collector	Collector	0.95
Valle De Oro	JAMUL	COTTONWOOD SPRIN	TUK A WILE	Light Collector	Town Collector	1.34

Appendix C
TIF Improvement Facilities

CPA	Name	From Cross Street	To Cross Street	Existing Classification	Required Classification	Additional Lane Miles Required
Valle De Oro	STEELE CANYON	WILLOW GLEN	JAMUL	Light Collector	Collector	1.00
Valle De Oro	STEELE CANYON	JAMUL	OLD CALIFORNIA	Light Collector	Town Collector	0.19
Valle De Oro	WILLOW GLEN	HILLSDALE	STEELE CANYON	Light Collector	Town Collector	0.81
Valley Center	CHAMPAGNE	OLD 395	OLD CASTLE	Light Collector	Collector	0.32
Valley Center	CHAMPAGNE	OLD CASTLE	CPA BOUNDARY	Light Collector	Collector	1.93
Valley Center	COLE GRADE	VIA VALENCIA	FRUITVALE	Town Collector	Collector	1.36
Valley Center	COLE GRADE	FRUITVALE	1003 ft NORTH OF VALLEY CENTER	Town Collector	Collector	0.96
Valley Center	COLE GRADE	1003 ft NORTH OF VALLEY CENTER	VALLEY CENTER	Town Collector	Major	0.38
Valley Center	LILAC	WEST LILAC	LILAC HILL	Light Collector	Town Collector	0.26
Valley Center	LILAC	LILAC HILL	OLD CASTLE	Light Collector	Town Collector	1.27
Valley Center	LILAC	OLD CASTLE	ROBLE VERDE	Light Collector	Collector	1.27
Valley Center	LILAC	ROBLE VERDE	ANTHONY	Light Collector	Collector	2.02
Valley Center	LILAC	ANTHONY	BETSWORTH	Light Collector	Collector	2.80
Valley Center	LILAC	BETSWORTH	VALLEY CENTER	Light Collector	Collector	0.58
Valley Center	MIRAR DE VALLE	RED IRON BARK	RANCHO VISTA	Light Collector	Town Collector	0.26
Valley Center	OLD 395	CAM DEL REY	CIRCLE R	Light Collector	Collector	1.65
Valley Center	OLD 395	CIRCLE R	GOPHER CANYON	Light Collector	Collector	0.30
Valley Center	OLD CASTLE	CHAMPAGNE	PRIVATE ROAD e/o QUEEN ANN	Light Collector	Collector	3.44
Valley Center	OLD CASTLE	PRIVATE ROAD e/o QUEEN ANN	AIRFLIGHT	Light Collector	Town Collector	2.21
Valley Center	VALLEY CENTER	VESPER	COLE GRADE	Light Collector	Collector	0.43
Valley Center	VALLEY CENTER	COLE GRADE	MILLER	Major	Prime Arterial	1.04
Valley Center	VALLEY CENTER	MILLER	CHAPARREL	Major	Prime Arterial	0.94
Valley Center	VALLEY CENTER	CHAPARREL	LILAC	Major	Prime Arterial	0.59
Valley Center	VALLEY CENTER	SUNDAY	CHARLAN	Major	Prime Arterial	0.94
Valley Center	VALLEY CENTER	CHARLAN	WOODS VALLEY	Major	Prime Arterial	0.56
Valley Center	VALLEY CENTER	WOODS VALLEY	BANBURY	Major	Prime Arterial	0.29
Valley Center	VALLEY CENTER	CPA BOUNDARY	ESCONDIDO CL	Major	Prime Arterial	2.09

Appendix C
State Improvement Facilities

CPA	Name	From	To	Lanes	Additional Lane Miles Required
Bonsall	MISSION	CPA BOUNDARY	.045 MILES WEST OF MISSION / PALA	2	13.66
Bonsall	MISSION	.045 WEST OF MISSION/PALA	.045 EAST OF MISSION / PALA	4	0.36
Bonsall	PALA	.045 EAST OF MISSION / PALA	CPA BOUNDARY	2	2.55
Central Mountain	SR-78	RAMONA CPA - WEST OF CENTRAL MOUNTAIN	RAMONA CPA - EAST OF CENTRAL MOUNTAIN	2	0.42
Fallbrook	PALA	CPA BOUNDARY	COUSER CANYON ROAD	2	12.44
Jamul-Dulzura	CAMPO	.175 Miles after CPA BOUNDARY / COUGAR CANYON ROAD	.29 Miles after CPA BOUNDARY / COUGAR CANYON ROAD	2	0.58
Jamul-Dulzura	CAMPO	2.195 Miles after CPA BOUNDARY / COUGAR CANYON ROAD	STONEY OAK ROAD	2	10.73
Lakeside	SR-67	.2 miles South of SCRIPPS POWAY PARKWAY	.8 Miles South of FOSTER TRUCK TRAIL - Lanes change from 3 to 4	2	2.23
Lakeside	SR-67	SCRIPPS POWAY PARKWAY	.2 Miles South of SCRIPPS POWAY PARKWAY	2	0.23
Lakeside	SR-67	CPA BOUNDARY	SCRIPPS POWAY PARKWAY	2	1.26
Lakeside	SR-67	VINE STREET ENTRANCE	MAPLEVIEW	3	0.92
Lakeside	SR-67	MAPLE VIEW	START OF SR. 67	4	0.07
Mountain Empire	TECATE	SR-94	HUMPHRIES ROAD	2	2.93
North County Metro	SAN PASQUAL VALLEY			2	0.16
North County Metro	SAN PASQUAL VALLEY	BEAR VALLEY	.12 AFTER OLD SAN PASQUAL ROAD	2	2.24
North County Metro	SR-78	SYCAMORE (SEGMENT ON MAP)	SMILAX / CPA BOUNDARY	2	1.52
North Mountain	JULIAN / SR - 67	CPA BOUNDARY	SR-79	2	7.92
Pala-Pauma	SR-76	RED GATE ROAD (West Side)	CALLE EL POTRERO	2	2.50
Ramona	JULIAN / SR - 67	CPA BOUNDARY	MUSSEY GRADE	2	8.90
Ramona	JULIAN / SR - 67	OLD JULIAN	RAMONA CPA - WEST OF CENTRAL MOUNTAIN	2	3.43
Ramona	JULIAN / SR - 67 / MAIN	10 TH	8TH	4	0.72
Ramona	SR-78	CPA BOUNDARY	HAVER FORD	2	3.85

1/9/2008

APPENDIX C

- Existing Conditions Analysis Worksheets

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost 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
Leading Detector (ft)	50	50	50	50	50		50	50		50	50	50
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.981			0.978				0.850
Flt Protected		0.966			0.964		0.950			0.950		
Satd. Flow (prot)	0	1799	1583	0	1762	0	1770	1822	0	1770	1863	1583
Flt Permitted		0.738			0.736		0.950			0.950		
Satd. Flow (perm)	0	1375	1583	0	1345	0	1770	1822	0	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			204		10			13				62
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		166			257			358			330	
Travel Time (s)		2.5			3.9			5.4			5.0	
Volume (vph)	46	18	188	191	29	37	116	401	68	28	429	57
Lane Group Flow (vph)	0	70	204	0	280	0	126	510	0	30	466	62
Turn Type	Perm		pm+ov	Perm			Prot			Prot		Perm
Protected Phases		4	5		8		5	2		1	6	
Permitted Phases	4		4	8								6
Total Split (s)	34.5	34.5	16.9	34.5	34.5	0.0	16.9	45.7	0.0	9.8	38.6	38.6
Act Effct Green (s)		20.6	35.2		20.6		10.5	46.1		5.8	35.1	35.1
Actuated g/C Ratio		0.26	0.45		0.26		0.13	0.59		0.07	0.45	0.45
v/c Ratio		0.19	0.25		0.77		0.53	0.47		0.25	0.56	0.08
Control Delay		23.3	2.5		40.8		42.2	13.6		44.3	21.4	5.2
Queue Delay		0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0
Total Delay		23.3	2.5		40.8		42.2	13.6		44.3	21.4	5.2
LOS		C	A		D		D	B		D	C	A
Approach Delay		7.8			40.8			19.3			20.9	
Approach LOS		A			D			B			C	
Queue Length 50th (ft)		27	0		123		58	112		14	167	0
Queue Length 95th (ft)		58	31		212		123	305		44	320	24
Internal Link Dist (ft)		86			177			278			250	
Turn Bay Length (ft)												
Base Capacity (vph)		478	806		474		285	1078		122	834	743
Starvation Cap Reductn		0	0		0		0	0		0	0	0
Spillback Cap Reductn		0	0		0		0	0		0	0	0
Storage Cap Reductn		0	0		0		0	0		0	0	0
Reduced v/c Ratio		0.15	0.25		0.59		0.44	0.47		0.25	0.56	0.08

Intersection Summary

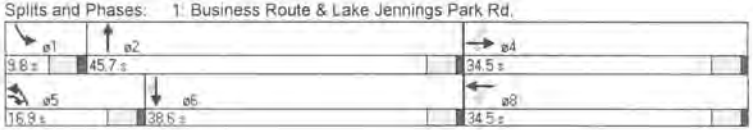
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 78.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.77

C-1

Intersection Signal Delay: 21.5
Intersection Capacity Utilization 60.0%
Analysis Period (min) 15

Intersection LOS: C
ICU Level of Service B

Splits and Phases: 1: Business Route & Lake Jennings Park Rd.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost 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
Leading Detector (ft)	50	50	50	50	50		50	50		50	50	50
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.979			0.962				0.850
Flt Protected		0.966			0.967		0.950			0.950		
Satd. Flow (prot)	0	1799	1583	0	1763	0	1770	1792	0	1770	1863	1583
Flt Permitted		0.730			0.696		0.950			0.950		
Satd. Flow (perm)	0	1360	1583	0	1269	0	1770	1792	0	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			204		10			29				87
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		166			257			358			330	
Travel Time (s)		2.5			3.9			5.4			5.0	
Volume (vph)	82	34	206	120	26	27	157	500	167	45	560	85
Lane Group Flow (vph)	0	119	210	0	177	0	160	680	0	46	571	87
Turn Type	Perm		pm+ov	Perm			Prot			Prot		Perm
Protected Phases		4	5		8		5	2		1	6	
Permitted Phases	4		4	8								6
Total Split (s)	26.3	26.3	19.6	26.3	26.3	0.0	19.6	53.1	0.0	10.6	44.1	44.1
Act Effct Green (s)		15.7	32.1		15.7		12.3	51.5		6.5	41.0	41.0
Actuated g/C Ratio		0.19	0.40		0.19		0.15	0.63		0.08	0.50	0.50
v/c Ratio		0.45	0.28		0.70		0.59	0.59		0.34	0.61	0.10
Control Delay		34.9	3.4		44.2		42.8	13.4		46.0	19.7	3.9
Queue Delay		0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0
Total Delay		34.9	3.4		44.2		42.8	13.4		46.0	19.7	3.9
LOS		C	A		D		D	B		D	B	A
Approach Delay		14.8			44.2			19.0			19.5	
Approach LOS		B			D			B			B	
Queue Length 50th (ft)		56	2		83		80	213		24	207	0
Queue Length 95th (ft)		106	38		151		147	381		60	373	25
Internal Link Dist (ft)		86			177			278			250	
Turn Bay Length (ft)												
Base Capacity (vph)		348	744		332		329	1147		137	941	843
Starvation Cap Reductn		0	0		0		0	0		0	0	0
Spillback Cap Reductn		0	0		0		0	0		0	0	0
Storage Cap Reductn		0	0		0		0	0		0	0	0
Reduced v/c Ratio		0.34	0.28		0.53		0.49	0.59		0.34	0.61	0.10

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 81.2
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.70

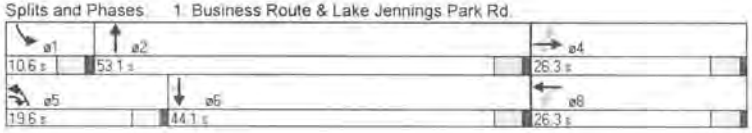
C-2

Existing-PM
050909-Oakmont II
1: Business Route & Lake Jennings Park Rd.

Intersection Signal Delay: 20.7
Intersection Capacity Utilization 66.1%
Analysis Period (min) 15

Intersection LOS: C
ICU Level of Service C

Splits and Phases: 1: Business Route & Lake Jennings Park Rd.



Y:\050909-Oakmont II (STD)\Analysis\Synchro\March 9 2007\EX (Lake Jennings)-PM.sy7
R Peaslee/vsh
Darnell & Associates, Inc.
3/9/2007

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	17	258	326	0	3	795
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	19	284	358	0	3	874
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						358
pX, platoon unblocked	0.82					
vC, conflicting volume	1238	358			358	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1292	358			358	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	87	59			100	
cM capacity (veh/h)	147	686			1200	

Direction, Lane #	WB 1	WB 2	NB 1	SB 1	SB 2
Volume Total	19	284	358	3	874
Volume Left	19	0	0	3	0
Volume Right	0	284	0	0	0
cSH	147	686	1700	1200	1700
Volume to Capacity	0.13	0.41	0.21	0.00	0.51
Queue Length 95th (ft)	11	51	0	0	0
Control Delay (s)	33.1	13.9	0.0	8.0	0.0
Lane LOS	D	B		A	
Approach Delay (s)	15.1		0.0	0.0	
Approach LOS	C				

Intersection Summary			
Average Delay	3.0		
Intersection Capacity Utilization	51.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	19	213	622	0	2	885
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	20	220	641	0	2	912
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						358
pX, platoon unblocked	0.78					
vC, conflicting volume	1558	641			641	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1717	641			641	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	74	54			100	
cM capacity (veh/h)	77	475			943	

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	20	220	641	0	2	912
Volume Left	20	0	0	0	2	0
Volume Right	0	220	0	0	0	0
cSH	77	475	1700	1700	943	1700
Volume to Capacity	0.26	0.46	0.38	0.00	0.00	0.54
Queue Length 95th (ft)	23	60	0	0	0	0
Control Delay (s)	67.3	19.0	0.0	0.0	8.8	0.0
Lane LOS	F	C			A	
Approach Delay (s)	22.9		0.0		0.0	
Approach LOS	C					

Intersection Summary			
Average Delay	3.1		
Intersection Capacity Utilization	56.6%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								↑	↱		↑	↱
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	0	0	0	0	326	332	0	279	556
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	0	0	0	0	0	0	0	358	365	0	307	611
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)											513	
pX, platoon unblocked												
vC, conflicting volume	665	665	307	665	665	358	307			358		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	665	665	307	665	665	358	307			358		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	100	100			100		
cM capacity (veh/h)	374	381	733	374	381	686	1254			1200		

Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	358	365	307	611
Volume Left	0	0	0	0
Volume Right	0	365	0	611
cSH	1700	1700	1700	1700
Volume to Capacity	0.21	0.21	0.18	0.36
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	37.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	0	0	0	0	539	289	0	732	233
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	0	0	0	0	0	0	0	550	295	0	747	238
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)											513	
pX, platoon unblocked	0.81	0.81	0.81	0.81	0.81		0.81					
vC, conflicting volume	1297	1592	747	1297	1535	550	985			845		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1365	1727	689	1365	1657	550	981			845		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	100	100			100		
cM capacity (veh/h)	101	72	363	101	80	535	573			792		

Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	550	295	747	238
Volume Left	0	0	0	0
Volume Right	0	295	0	238
cSH	1700	1700	1700	1700
Volume to Capacity	0.32	0.17	0.44	0.14
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	41.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	0	0	0	0	635	37	0	157	169
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	0	0	0	0	0	0	0	648	38	0	160	172
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)											976	
pX, platoon unblocked												
vC, conflicting volume	808	808	160	808	808	648	160			648		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	808	808	160	808	808	648	160			648		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	100	100			100		
cM capacity (veh/h)	299	315	885	299	315	470	1419			938		

Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	648	38	160	172
Volume Left	0	0	0	0
Volume Right	0	38	0	172
cSH	1700	1700	1700	1700
Volume to Capacity	0.38	0.02	0.09	0.10
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	36.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑	↱		↑	↱						
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	852	42	0	352	409	0	0	0	0	0	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	0	869	43	0	359	417	0	0	0	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)					976							
pX, platoon unblocked												
vC, conflicting volume	777			912			1229	1271	359	1229	1646	869
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	777			912			1229	1271	359	1229	1646	869
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	100	100	100
cM capacity (veh/h)	840			747			155	168	685	155	99	351

Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	869	43	359	417
Volume Left	0	0	0	0
Volume Right	0	43	0	417
cSH	1700	1700	1700	1700
Volume to Capacity	0.51	0.03	0.21	0.25
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	48.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	197	412	8	6	0	443	0	25	14	145	8	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	203	425	8	6	0	457	0	26	14	149	8	0

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total (vph)	203	433	6	457	40	158
Volume Left (vph)	203	0	6	0	0	149
Volume Right (vph)	0	8	0	457	14	0
Hadj (s)	0.53	0.02	0.23	-0.57	-0.18	0.22
Departure Headway (s)	5.6	5.1	5.5	3.2	5.4	5.6
Degree Utilization, x	0.32	0.61	0.01	0.41	0.06	0.24
Capacity (veh/h)	623	694	610	1115	615	606
Control Delay (s)	10.0	14.7	8.6	8.4	8.7	10.4
Approach Delay (s)	13.2		8.4		8.7	10.4
Approach LOS	B		A		A	B

Intersection Summary			
Delay	11.0		
HCM Level of Service	B		
Intersection Capacity Utilization	51.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	348	390	25	18	0	508	0	53	16	334	17	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	359	402	26	19	0	524	0	55	16	344	18	0

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total (vph)	359	428	19	524	71	362
Volume Left (vph)	359	0	19	0	0	344
Volume Right (vph)	0	26	0	524	16	0
Hadj (s)	0.53	-0.01	0.23	-0.57	-0.11	0.22
Departure Headway (s)	6.4	5.9	6.7	3.2	6.3	6.0
Degree Utilization, x	0.64	0.70	0.03	0.47	0.12	0.60
Capacity (veh/h)	550	596	486	1116	534	582
Control Delay (s)	19.0	20.2	9.9	9.0	10.2	17.7
Approach Delay (s)	19.7		9.0		10.2	17.7
Approach LOS	C		A		B	C

Intersection Summary			
Delay	15.6		
HCM Level of Service	C		
Intersection Capacity Utilization	64.5%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	43	145	61	81	127	66
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	52	177	74	99	155	80
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			229		388	141
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			229		388	141
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			94		73	91
cM capacity (veh/h)			1339		581	907

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	229	173	235
Volume Left	0	74	155
Volume Right	177	0	80
cSH	1700	1339	662
Volume to Capacity	0.13	0.06	0.36
Queue Length 95th (ft)	0	4	40
Control Delay (s)	0.0	3.6	13.4
Lane LOS		A	B
Approach Delay (s)	0.0	3.6	13.4
Approach LOS			B

Intersection Summary			
Average Delay	5.9		
Intersection Capacity Utilization	39.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	135	124	21	61	87	47
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	161	148	25	73	104	56
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			308		357	235
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			308		357	235
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		84	93
cM capacity (veh/h)			1252		628	805

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	308	98	160
Volume Left	0	25	104
Volume Right	148	0	56
cSH	1700	1252	681
Volume to Capacity	0.18	0.02	0.23
Queue Length 95th (ft)	0	2	23
Control Delay (s)	0.0	2.2	11.9
Lane LOS		A	B
Approach Delay (s)	0.0	2.2	11.9
Approach LOS			B

Intersection Summary			
Average Delay	3.7		
Intersection Capacity Utilization	35.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	19	177	317	16	24	14
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	21	197	352	18	27	16
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	370				600	361
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	370				600	361
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				94	98
cM capacity (veh/h)	1189				456	683

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	218	370	42
Volume Left	21	0	27
Volume Right	0	18	16
cSH	1189	1700	519
Volume to Capacity	0.02	0.22	0.08
Queue Length 95th (ft)	1	0	7
Control Delay (s)	0.9	0.0	12.5
Lane LOS	A		B
Approach Delay (s)	0.9	0.0	12.5
Approach LOS			B

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	35.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	28	381	230	38	30	19
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	33	443	267	44	35	22
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	312				798	290
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	312				798	290
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	97				90	97
cM capacity (veh/h)	1249				346	750

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	476	312	57
Volume Left	33	0	35
Volume Right	0	44	22
cSH	1249	1700	437
Volume to Capacity	0.03	0.18	0.13
Queue Length 95th (ft)	2	0	11
Control Delay (s)	0.8	0.0	14.5
Lane LOS	A		B
Approach Delay (s)	0.8	0.0	14.5
Approach LOS			B

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	49.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Yield			Yield			Stop			Stop	
Volume (vph)	98	106	7	1	189	77	5	3	0	48	2	131
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	122	132	9	1	236	96	6	4	0	60	2	164

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	264	334	10	226
Volume Left (vph)	123	1	6	60
Volume Right (vph)	9	96	0	164
Hadj (s)	0.11	-0.14	0.16	-0.35
Departure Headway (s)	5.1	4.8	6.0	5.0
Degree Utilization, x	0.37	0.44	0.02	0.32
Capacity (veh/h)	670	722	507	653
Control Delay (s)	11.1	11.5	9.1	10.3
Approach Delay (s)	11.1	11.5	9.1	10.3
Approach LOS	B	B	A	B

Intersection Summary			
Delay	11.0		
HCM Level of Service	B		
Intersection Capacity Utilization	47.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Yield			Yield			Stop			Stop	
Volume (vph)	72	293	6	0	186	19	7	1	1	23	0	61
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	83	337	7	0	214	22	8	1	1	26	0	70

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	426	236	10	97
Volume Left (vph)	83	0	8	26
Volume Right (vph)	7	22	1	70
Hadj (s)	0.06	-0.02	0.12	-0.35
Departure Headway (s)	4.5	4.6	5.7	5.1
Degree Utilization, x	0.54	0.30	0.02	0.14
Capacity (veh/h)	769	742	535	627
Control Delay (s)	12.6	9.7	8.8	8.9
Approach Delay (s)	12.6	9.7	8.8	8.9
Approach LOS	B	A	A	A

Intersection Summary			
Delay	11.2		
HCM Level of Service	B		
Intersection Capacity Utilization	45.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	107	123	156	14	9	129
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	116	134	170	15	10	140
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	434	80	150			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	434	80	150			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	77	86	88			
cM capacity (veh/h)	510	980	1431			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	250	185	150
Volume Left	116	170	0
Volume Right	134	0	140
cSH	686	1431	1700
Volume to Capacity	0.36	0.12	0.09
Queue Length 95th (ft)	42	10	0
Control Delay (s)	13.2	7.3	0.0
Lane LOS	B	A	
Approach Delay (s)	13.2	7.3	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	8.0		
Intersection Capacity Utilization	41.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	13	17	10	22	20	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	14	18	11	24	22	8
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	71	26	29			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	71	26	29			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	98	99			
cM capacity (veh/h)	927	1050	1584			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	33	35	29
Volume Left	14	11	0
Volume Right	18	0	8
cSH	993	1584	1700
Volume to Capacity	0.03	0.01	0.02
Queue Length 95th (ft)	3	1	0
Control Delay (s)	8.7	2.3	0.0
Lane LOS	A	A	
Approach Delay (s)	8.7	2.3	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	3.8		
Intersection Capacity Utilization	18.4%	ICU Level of Service	A
Analysis Period (min)	15		

APPENDIX D

- Existing + Project Conditions Analysis Worksheets

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost 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
Leading Detector (ft)	50	50	50	50	50		50	50		50	50	50
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.980			0.978				0.850
Flt Protected		0.966			0.964		0.950			0.950		
Satd. Flow (prot)	0	1799	1583	0	1760	0	1770	1822	0	1770	1863	1583
Flt Permitted		0.739			0.737		0.950			0.950		
Satd. Flow (perm)	0	1377	1583	0	1345	0	1770	1822	0	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			204		10			13				62
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		166			257			358			330	
Travel Time (s)		2.5			3.9			5.4			5.0	
Volume (vph)	46	19	188	195	30	39	116	401	68	29	429	57
Lane Group Flow (vph)	0	71	204	0	287	0	126	510	0	32	466	62
Turn Type	Perm		pm+ov	Perm			Prot			Prot		Perm
Protected Phases		4	5		8		5	2		1	6	
Permitted Phases	4		4	8								6
Total Split (s)	34.5	34.5	16.9	34.5	34.5	0.0	16.9	45.7	0.0	9.8	38.6	38.6
Act Effct Green (s)		21.0	35.6		21.0		10.5	46.1		5.8	35.1	35.1
Actuated g/C Ratio		0.27	0.45		0.27		0.13	0.59		0.07	0.45	0.45
v/c Ratio		0.19	0.25		0.78		0.53	0.48		0.26	0.56	0.08
Control Delay		23.2	2.5		41.3		42.4	13.8		45.0	21.7	5.3
Queue Delay		0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0
Total Delay		23.2	2.5		41.3		42.4	13.8		45.0	21.7	5.3
LOS		C	A		D		D	B		D	C	A
Approach Delay		7.9			41.3			19.5			21.2	
Approach LOS		A			D			B			C	
Queue Length 50th (ft)		27	0		127		59	114		15	170	0
Queue Length 95th (ft)		59	31		218		123	305		47	320	24
Internal Link Dist (ft)		86			177			278			250	
Turn Bay Length (ft)												
Base Capacity (vph)		479	809		474		284	1072		122	830	740
Starvation Cap Reductn		0	0		0		0	0		0	0	0
Spillback Cap Reductn		0	0		0		0	0		0	0	0
Storage Cap Reductn		0	0		0		0	0		0	0	0
Reduced v/c Ratio		0.15	0.25		0.61		0.44	0.48		0.26	0.56	0.08

Intersection Summary

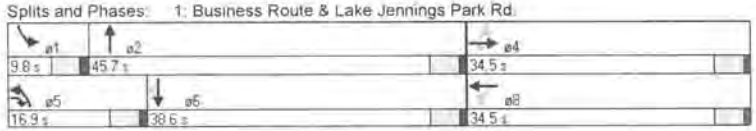
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 78.8
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.78

Existing+Project-AM
050909-Oakmont II
1: Business Route & Lake Jennings Park Rd

Intersection Signal Delay: 21.8
Intersection Capacity Utilization 60.4%
Analysis Period (min) 15

Intersection LOS: C
ICU Level of Service B

Splits and Phases: 1: Business Route & Lake Jennings Park Rd



Y:\050909-Oakmont II (STD)\Analysis\Synchro\March 9 2007\EX + Proj (Lake Jennings)-AM.sy7
R Peaslee/vsh
Darnell & Associates, Inc
3/9/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost 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
Leading Detector (ft)	50	50	50	50	50		50	50		50	50	50
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.978			0.962				0.850
Flt Protected		0.966			0.967		0.950			0.950		
Satd. Flow (prot)	0	1799	1583	0	1762	0	1770	1792	0	1770	1863	1583
Flt Permitted		0.729			0.695		0.950			0.950		
Satd. Flow (perm)	0	1358	1583	0	1266	0	1770	1792	0	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			204		10			29				87
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		166			257			358			330	
Travel Time (s)		2.5			3.9			5.4			5.0	
Volume (vph)	82	35	206	122	27	28	157	500	167	48	560	85
Lane Group Flow (vph)	0	120	210	0	181	0	160	680	0	49	571	87
Turn Type	Perm		pm+ov	Perm			Prot			Prot		Perm
Protected Phases		4	5		8		5	2		1	6	
Permitted Phases	4		4	8								6
Total Split (s)	26.3	26.3	19.6	26.3	26.3	0.0	19.6	53.1	0.0	10.6	44.1	44.1
Act Effct Green (s)		15.9	32.3		15.9		12.3	51.5		6.5	41.0	41.0
Actuated g/C Ratio		0.20	0.40		0.20		0.15	0.63		0.08	0.50	0.50
v/c Ratio		0.45	0.28		0.71		0.59	0.59		0.37	0.61	0.10
Control Delay		34.8	3.4		44.8		42.9	13.5		47.0	19.9	3.9
Queue Delay		0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0
Total Delay		34.8	3.4		44.8		42.9	13.5		47.0	19.9	3.9
LOS		C	A		D		D	B		D	B	A
Approach Delay		14.8			44.8			19.1			19.8	
Approach LOS		B			D			B			B	
Queue Length 50th (ft)		56	2		85		80	215		25	208	0
Queue Length 95th (ft)		107	38		154		147	381		63	373	25
Internal Link Dist (ft)		86			177			278			250	
Turn Bay Length (ft)												
Base Capacity (vph)		347	746		331		328	1145		137	939	841
Starvation Cap Reductn		0	0		0		0	0		0	0	0
Spillback Cap Reductn		0	0		0		0	0		0	0	0
Storage Cap Reductn		0	0		0		0	0		0	0	0
Reduced v/c Ratio		0.35	0.28		0.55		0.49	0.59		0.36	0.61	0.10

Intersection Summary

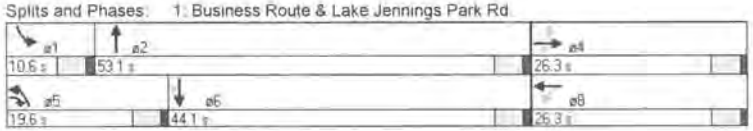
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 81.4
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.71

Existing + Project -PM
050909-Oakmont II
1: Business Route & Lake Jennings Park Rd.

Intersection Signal Delay: 20.9
Intersection Capacity Utilization 66.4%
Analysis Period (min) 15

Intersection LOS: C
ICU Level of Service C

Splits and Phases: 1: Business Route & Lake Jennings Park Rd.



Y:\050909-Oakmont II (STD)\Analysis\Synchro\March 9 2007\EX + Proj (Lake Jennings)-PM.sy7
R Peaslee/vsh
Darnell & Associates, Inc.
3/9/2007

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	17	258	326	0	3	799
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	19	284	358	0	3	878
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						358
pX, platoon unblocked	0.82					
vC, conflicting volume	1243	358			358	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1297	358			358	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	87	59			100	
cM capacity (veh/h)	145	686			1200	

Direction, Lane #	WB 1	WB 2	NB 1	SB 1	SB 2
Volume Total	19	284	358	3	878
Volume Left	19	0	0	3	0
Volume Right	0	284	0	0	0
cSH	145	686	1700	1200	1700
Volume to Capacity	0.13	0.41	0.21	0.00	0.52
Queue Length 95th (ft)	11	51	0	0	0
Control Delay (s)	33.4	13.9	0.0	8.0	0.0
Lane LOS	D	B		A	
Approach Delay (s)	15.1		0.0	0.0	
Approach LOS	C				

Intersection Summary			
Average Delay	3.0		
Intersection Capacity Utilization	52.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	19	213	622	0	2	887
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	20	220	641	0	2	914
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						358
pX, platoon unblocked	0.78					
vC, conflicting volume	1560	641			641	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1720	641			641	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	74	54			100	
cM capacity (veh/h)	76	475			943	

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	20	220	641	0	2	914
Volume Left	20	0	0	0	2	0
Volume Right	0	220	0	0	0	0
cSH	76	475	1700	1700	943	1700
Volume to Capacity	0.26	0.46	0.38	0.00	0.00	0.54
Queue Length 95th (ft)	23	60	0	0	0	0
Control Delay (s)	67.7	19.0	0.0	0.0	8.8	0.0
Lane LOS	F	C			A	
Approach Delay (s)	22.9		0.0		0.0	
Approach LOS	C					

Intersection Summary			
Average Delay	3.1		
Intersection Capacity Utilization	56.7%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	0	0	0	0	326	332	0	279	560
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	0	0	0	0	0	0	0	358	365	0	307	615
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)											513	
pX, platoon unblocked												
vC, conflicting volume	665	665	307	665	665	358	307			358		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	665	665	307	665	665	358	307			358		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	100	100			100		
cM capacity (veh/h)	374	381	733	374	381	686	1254			1200		

Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	358	365	307	615
Volume Left	0	0	0	0
Volume Right	0	365	0	615
cSH	1700	1700	1700	1700
Volume to Capacity	0.21	0.21	0.18	0.36
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	38.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	0	0	0	0	539	289	0	732	235
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	0	0	0	0	0	0	0	550	295	0	747	240
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)											513	
pX, platoon unblocked	0.81	0.81	0.81	0.81	0.81		0.81					
vC, conflicting volume	1297	1592	747	1297	1537	550	987			845		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1365	1727	689	1365	1659	550	984			845		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	100	100			100		
cM capacity (veh/h)	101	72	363	101	79	535	571			792		

Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	550	295	747	240
Volume Left	0	0	0	0
Volume Right	0	295	0	240
cSH	1700	1700	1700	1700
Volume to Capacity	0.32	0.17	0.44	0.14
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	41.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	0	0	0	0	635	37	0	157	169
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	0	0	0	0	0	0	0	648	38	0	160	172
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)											976	
pX, platoon unblocked												
vC, conflicting volume	808	808	160	808	808	648	160			648		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	808	808	160	808	808	648	160			648		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	100	100			100		
cM capacity (veh/h)	299	315	885	299	315	470	1419			938		

Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	648	38	160	172
Volume Left	0	0	0	0
Volume Right	0	38	0	172
cSH	1700	1700	1700	1700
Volume to Capacity	0.38	0.02	0.09	0.10
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	36.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	852	42	0	352	409	0	0	0	0	0	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	0	869	43	0	359	417	0	0	0	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)					976							
pX, platoon unblocked												
vC, conflicting volume	777			912			1229	1271	359	1229	1646	869
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	777			912			1229	1271	359	1229	1646	869
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	100	100	100
cM capacity (veh/h)	840			747			155	168	685	155	99	351

Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	869	43	359	417
Volume Left	0	0	0	0
Volume Right	0	43	0	417
cSH	1700	1700	1700	1700
Volume to Capacity	0.51	0.03	0.21	0.25
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	48.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	197	414	8	6	0	443	0	25	14	145	8	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	203	427	8	6	0	457	0	26	14	149	8	0

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total (vph)	203	435	6	457	40	158
Volume Left (vph)	203	0	6	0	0	149
Volume Right (vph)	0	8	0	457	14	0
Hadj (s)	0.53	0.02	0.23	-0.57	-0.18	0.22
Departure Headway (s)	5.6	5.1	5.5	3.2	5.4	5.6
Degree Utilization, x	0.32	0.62	0.01	0.41	0.06	0.24
Capacity (veh/h)	623	694	609	1115	614	605
Control Delay (s)	10.0	14.8	8.6	8.4	8.7	10.4
Approach Delay (s)	13.3		8.4		8.7	10.4
Approach LOS	B		A		A	B

Intersection Summary			
Delay	11.0		
HCM Level of Service	B		
Intersection Capacity Utilization	51.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	348	395	25	18	0	508	0	53	16	334	17	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	359	407	26	19	0	524	0	55	16	344	18	0

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total (vph)	359	433	19	524	71	362
Volume Left (vph)	359	0	19	0	0	344
Volume Right (vph)	0	26	0	524	16	0
Hadj (s)	0.53	-0.01	0.23	-0.57	-0.11	0.22
Departure Headway (s)	6.4	5.9	6.7	3.2	6.3	6.0
Degree Utilization, x	0.64	0.71	0.03	0.47	0.12	0.60
Capacity (veh/h)	550	596	486	1116	534	582
Control Delay (s)	19.0	20.7	9.9	9.0	10.2	17.8
Approach Delay (s)	20.0		9.0		10.2	17.8
Approach LOS	C		A		B	C

Intersection Summary			
Delay	15.7		
HCM Level of Service	C		
Intersection Capacity Utilization	64.5%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	43	147	61	81	134	67
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Hourly flow rate (vph)	52	179	74	99	163	82
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			232		390	142
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			232		390	142
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			94		72	91
cM capacity (veh/h)			1336		580	906

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	232	173	245
Volume Left	0	74	163
Volume Right	179	0	82
cSH	1700	1336	659
Volume to Capacity	0.14	0.06	0.37
Queue Length 95th (ft)	0	4	43
Control Delay (s)	0.0	3.6	13.7
Lane LOS		A	B
Approach Delay (s)	0.0	3.6	13.7
Approach LOS			B

Intersection Summary			
Average Delay	6.1		
Intersection Capacity Utilization	40.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	135	128	22	61	91	47
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	161	152	26	73	108	56
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			313		362	237
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			313		362	237
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		83	93
cM capacity (veh/h)			1247		624	802

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	313	99	164
Volume Left	0	26	108
Volume Right	152	0	56
cSH	1700	1247	675
Volume to Capacity	0.18	0.02	0.24
Queue Length 95th (ft)	0	2	24
Control Delay (s)	0.0	2.2	12.0
Lane LOS		A	B
Approach Delay (s)	0.0	2.2	12.0
Approach LOS			B

Intersection Summary			
Average Delay	3.8		
Intersection Capacity Utilization	37.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	19	179	318	19	25	14
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	21	199	353	21	28	16
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	374				605	364
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	374				605	364
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				94	98
cM capacity (veh/h)	1184				453	681

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	220	374	43
Volume Left	21	0	28
Volume Right	0	21	16
cSH	1184	1700	515
Volume to Capacity	0.02	0.22	0.08
Queue Length 95th (ft)	1	0	7
Control Delay (s)	0.9	0.0	12.6
Lane LOS	A		B
Approach Delay (s)	0.9	0.0	12.6
Approach LOS			B

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	35.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	29	387	231	40	32	19
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	34	450	269	47	37	22
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	315				809	292
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	315				809	292
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	97				89	97
cM capacity (veh/h)	1245				340	747

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	484	315	59
Volume Left	34	0	37
Volume Right	0	47	22
cSH	1245	1700	427
Volume to Capacity	0.03	0.19	0.14
Queue Length 95th (ft)	2	0	12
Control Delay (s)	0.8	0.0	14.8
Lane LOS	A		B
Approach Delay (s)	0.8	0.0	14.8
Approach LOS			B

Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	49.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Yield			Yield			Stop			Stop	
Volume (vph)	100	107	7	1	190	78	5	3	0	49	2	132
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	125	134	9	1	238	98	6	4	0	61	2	165

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	268	336	10	229
Volume Left (vph)	125	1	6	61
Volume Right (vph)	9	98	0	165
Hadj (s)	0.11	-0.14	0.16	-0.35
Departure Headway (s)	5.1	4.8	6.0	5.1
Degree Utilization, x	0.38	0.45	0.02	0.32
Capacity (veh/h)	668	720	504	650
Control Delay (s)	11.2	11.6	9.1	10.4
Approach Delay (s)	11.2	11.6	9.1	10.4
Approach LOS	B	B	A	B

Intersection Summary			
Delay	11.1		
HCM Level of Service	B		
Intersection Capacity Utilization	47.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Yield			Yield			Stop			Stop	
Volume (vph)	76	294	6	0	188	21	7	1	1	24	0	62
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	87	338	7	0	216	24	8	1	1	28	0	71

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	432	240	10	99
Volume Left (vph)	87	0	8	28
Volume Right (vph)	7	24	1	71
Hadj (s)	0.06	-0.03	0.12	-0.34
Departure Headway (s)	4.5	4.7	5.7	5.1
Degree Utilization, x	0.55	0.31	0.02	0.14
Capacity (veh/h)	766	740	531	622
Control Delay (s)	12.8	9.7	8.8	8.9
Approach Delay (s)	12.8	9.7	8.8	8.9
Approach LOS	B	A	A	A

Intersection Summary			
Delay	11.3		
HCM Level of Service	B		
Intersection Capacity Utilization	46.1%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis 10: Project Access E / Oakmont Terrace & Oak Creek Rd

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	112	15	159	14	9	130
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	122	16	173	15	10	141
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	441	80	151			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	441	80	151			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	76	98	88			
cM capacity (veh/h)	504	980	1430			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	138	188	151
Volume Left	122	173	0
Volume Right	16	0	141
cSH	535	1430	1700
Volume to Capacity	0.26	0.12	0.09
Queue Length 95th (ft)	26	10	0
Control Delay (s)	14.1	7.3	0.0
Lane LOS	B	A	
Approach Delay (s)	14.1	7.3	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	6.9		
Intersection Capacity Utilization	35.2%	ICU Level of Service	A
Analysis Period (min)	15		

HCM Unsignalized Intersection Capacity Analysis 10: Project Access E / Oakmont Terrace & Oak Creek Rd

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	15	19	16	22	20	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	16	21	17	24	22	11
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	86	27	33			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	86	27	33			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	98	99			
cM capacity (veh/h)	905	1048	1579			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	37	41	33
Volume Left	16	17	0
Volume Right	21	0	11
cSH	980	1579	1700
Volume to Capacity	0.04	0.01	0.02
Queue Length 95th (ft)	3	1	0
Control Delay (s)	8.8	3.1	0.0
Lane LOS	A	A	
Approach Delay (s)	8.8	3.1	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	4.1		
Intersection Capacity Utilization	18.7%	ICU Level of Service	A
Analysis Period (min)	15		

APPENDIX E

- Cumulative Conditions Analysis Worksheets

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost 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
Leading Detector (ft)	50	50	50	50	50		50	50		50	50	50
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.977			0.977				0.850
Flt Protected		0.965			0.965		0.950			0.950		
Satd. Flow (prot)	0	1798	1583	0	1756	0	1770	1820	0	1770	1863	1583
Flt Permitted		0.696			0.721		0.950			0.950		
Satd. Flow (perm)	0	1296	1583	0	1312	0	1770	1820	0	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			70		13			13				65
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		166			257			358			330	
Travel Time (s)		2.5			3.9			5.4			5.0	
Volume (vph)	70	26	260	291	41	70	164	754	134	47	727	66
Lane Group Flow (vph)	0	104	283	0	437	0	178	966	0	51	790	72
Turn Type	Perm		pm+ov	Perm			Prot			Prot		Perm
Protected Phases		4	5		8		5	2		1	6	
Permitted Phases	4		4	8								6
Total Split (s)	34.5	34.5	16.9	34.5	34.5	0.0	16.9	45.7	0.0	9.8	38.6	38.6
Act Effct Green (s)		30.2	46.4		30.2		12.2	45.0		5.8	34.6	34.6
Actuated g/C Ratio		0.34	0.52		0.34		0.14	0.51		0.06	0.39	0.39
v/c Ratio		0.24	0.33		0.96		0.73	1.04		0.46	1.09	0.11
Control Delay		23.2	10.2		64.3		55.9	66.3		55.0	89.5	6.2
Queue Delay		0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0
Total Delay		23.2	10.2		64.3		55.9	66.3		55.0	89.5	6.2
LOS		C	B		E		E	E		D	F	A
Approach Delay		13.7			64.3			64.7			81.0	
Approach LOS		B			E			E			F	
Queue Length 50th (ft)		42	63		235		98	~645		29	~516	2
Queue Length 95th (ft)		82	114		#432		#189	#882		66	#736	29
Internal Link Dist (ft)		86			177			278			250	
Turn Bay Length (ft)												
Base Capacity (vph)		442	851		457		255	926		111	724	655
Starvation Cap Reductn		0	0		0		0	0		0	0	0
Spillback Cap Reductn		0	0		0		0	0		0	0	0
Storage Cap Reductn		0	0		0		0	0		0	0	0
Reduced v/c Ratio		0.24	0.33		0.96		0.70	1.04		0.46	1.09	0.11

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 89
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.09

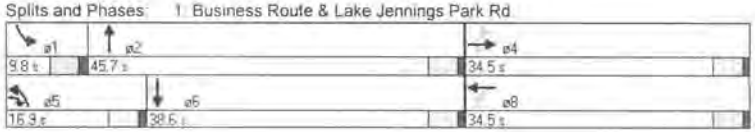
Near Term w/o Project-AM
050909-Oakmont II
1: Business Route & Lake Jennings Park Rd.

Intersection Signal Delay: 62.9 — Intersection LOS: E
Intersection Capacity Utilization 90.4% — ICU Level of Service E
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

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

Splits and Phases: 1: Business Route & Lake Jennings Park Rd.



Y:\050909-Oakmont II (STD)\Analysis\Synchro\March 9 2007\NT w-o Proj (Lake Jennings)-AM.sy7
R Peaslee/vsh
Darnell & Associates, Inc
3/9/2007

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost 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
Leading Detector (ft)	50	50	50	50	50		50	50		50	50	50
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	0
Turning Speed (mph)	15		9	15		9	15		9	15		9
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.974			0.954				0.850
Flt Protected		0.967			0.967		0.950			0.950		
Satd. Flow (prot)	0	1801	1583	0	1754	0	1770	1777	0	1770	1863	1583
Flt Permitted		0.705			0.625		0.950			0.950		
Satd. Flow (perm)	0	1313	1583	0	1134	0	1770	1777	0	1770	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			101		13			39				100
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		166			257			358			330	
Travel Time (s)		2.5			3.9			5.4			5.0	
Volume (vph)	105	49	265	191	37	54	238	687	304	89	783	99
Lane Group Flow (vph)	0	157	270	0	288	0	243	1011	0	91	799	101
Turn Type	Perm		pm+ov	Perm			Prot			Prot		Perm
Protected Phases		4	5		8		5	2		1	6	
Permitted Phases	4		4	8								6
Total Split (s)	26.3	26.3	19.6	26.3	26.3	0.0	19.6	53.1	0.0	10.6	44.1	44.1
Act Effct Green (s)		22.3	41.2		22.3		14.9	50.6		6.6	40.1	40.1
Actuated g/C Ratio		0.25	0.46		0.25		0.17	0.57		0.07	0.45	0.45
v/c Ratio		0.48	0.34		0.98		0.82	0.99		0.71	0.95	0.13
Control Delay		34.6	10.7		83.0		59.4	46.5		71.2	47.5	3.7
Queue Delay		0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0
Total Delay		34.6	10.7		83.0		59.4	46.5		71.2	47.5	3.7
LOS		C	B		F		E	D		E	D	A
Approach Delay		19.5			83.0			49.0			45.2	
Approach LOS		B			F			D			D	
Queue Length 50th (ft)		76	55		157		134	~608		52	426	0
Queue Length 95th (ft)		138	110		#324		#253	#849		#127	#680	27
Internal Link Dist (ft)		86			177			278			250	
Turn Bay Length (ft)												
Base Capacity (vph)		328	778		293		307	1023		128	837	766
Starvation Cap Reductn		0	0		0		0	0		0	0	0
Spillback Cap Reductn		0	0		0		0	0		0	0	0
Storage Cap Reductn		0	0		0		0	0		0	0	0
Reduced v/c Ratio		0.48	0.35		0.98		0.79	0.99		0.71	0.95	0.13

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 89.3
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.99

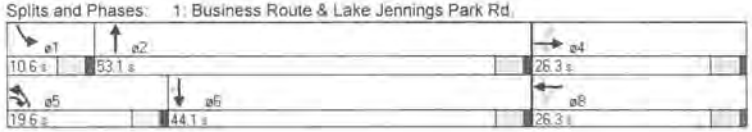
Near Term w/o Project-PM
050909-Oakmont II
1: Business Route & Lake Jennings Park Rd.

Intersection Signal Delay: 46.8
Intersection Capacity Utilization 92.1%
Analysis Period (min) 15

Intersection LOS: D
ICU Level of Service F

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

Splits and Phases: 1: Business Route & Lake Jennings Park Rd.



Y:\050909-Oakmont II (STD)\Analysis\Synchro\March 9 2007\NT w-o Proj (Lake Jennings)-PM.sy7
R Peaslee/vsh
Darnell & Associates, Inc.
3/9/2007

e-2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	33	291	734	0	3	1240
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	36	320	807	0	3	1363
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						358
pX, platoon unblocked	0.60					
vC, conflicting volume	2176	807			807	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2950	807			807	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	0	16			100	
cM capacity (veh/h)	10	382			818	

Direction, Lane #	WB 1	WB 2	NB 1	SB 1	SB 2
Volume Total	36	320	807	3	1363
Volume Left	36	0	0	3	0
Volume Right	0	320	0	0	0
cSH	10	382	1700	818	1700
Volume to Capacity	3.72	0.84	0.47	0.00	0.80
Queue Length 95th (ft)	Err	194	0	0	0
Control Delay (s)	Err	47.9	0.0	9.4	0.0
Lane LOS	F	E		A	
Approach Delay (s)	1061.4		0.0	0.0	
Approach LOS	F				

Intersection Summary			
Average Delay	149.5		
Intersection Capacity Utilization	75.3%	ICU Level of Service	D
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	35	258	883	0	2	1220
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	36	266	910	0	2	1258
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						358
pX, platoon unblocked	0.57					
vC, conflicting volume	2172	910			910	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	3066	910			910	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	0	20			100	
cM capacity (veh/h)	8	333			748	

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	36	266	910	0	2	1258
Volume Left	36	0	0	0	2	0
Volume Right	0	266	0	0	0	0
cSH	8	333	1700	1700	748	1700
Volume to Capacity	4.68	0.80	0.54	0.00	0.00	0.74
Queue Length 95th (ft)	Err	166	0	0	0	0
Control Delay (s)	Err	47.7	0.0	0.0	9.8	0.0
Lane LOS	F	E			A	
Approach Delay (s)	1236.5		0.0		0.0	
Approach LOS	F					

Intersection Summary			
Average Delay	151.1		
Intersection Capacity Utilization	74.2%	ICU Level of Service	D
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	0	0	0	0	725	464	0	623	676
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	0	0	0	0	0	0	0	797	510	0	685	743
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)											513	
pX, platoon unblocked												
vC, conflicting volume	1481	1481	685	1481	1481	797	685			797		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1481	1481	685	1481	1481	797	685			797		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	100	100			100		
cM capacity (veh/h)	103	125	448	103	125	387	909			825		

Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	797	510	685	743
Volume Left	0	0	0	0
Volume Right	0	510	0	743
cSH	1700	1700	1700	1700
Volume to Capacity	0.47	0.30	0.40	0.44
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	45.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	0	0	0	0	814	396	0	1020	302
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	0	0	0	0	0	0	0	831	404	0	1041	308
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)											513	
pX, platoon unblocked	0.61	0.61	0.61	0.61	0.61		0.61					
vC, conflicting volume	1871	2276	1041	1871	2180	831	1349			1235		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	2437	3103	1067	2437	2945	831	1575			1235		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	100	100			100		
cM capacity (veh/h)	13	7	164	13	9	370	253			564		

Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	831	404	1041	308
Volume Left	0	0	0	0
Volume Right	0	404	0	308
cSH	1700	1700	1700	1700
Volume to Capacity	0.49	0.24	0.61	0.18
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	57.0%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	0	0	0	0	0	0	1148	54	0	431	208
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	0	0	0	0	0	0	0	1171	55	0	440	212
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)											976	
pX, platoon unblocked												
vC, conflicting volume	1611	1611	440	1611	1611	1171	440			1171		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1611	1611	440	1611	1611	1171	440			1171		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	100	100	100	100			100		
cM capacity (veh/h)	84	104	617	84	104	234	1120			596		

Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	1171	55	440	212
Volume Left	0	0	0	0
Volume Right	0	55	0	212
cSH	1700	1700	1700	1700
Volume to Capacity	0.69	0.03	0.26	0.12
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	63.8%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	1206	59	0	578	457	0	0	0	0	0	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	0	1231	60	0	590	466	0	0	0	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)								None			None	
Median type												
Median storage veh)												
Upstream signal (ft)					976							
pX, platoon unblocked												
vC, conflicting volume	1056			1291			1820	1881	590	1820	2287	1231
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1056			1291			1820	1881	590	1820	2287	1231
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	100	100	100
cM capacity (veh/h)	659			537			60	71	508	60	39	216

Direction, Lane #	NB 1	NB 2	SB 1	SB 2
Volume Total	1231	60	590	466
Volume Left	0	0	0	0
Volume Right	0	60	0	466
cSH	1700	1700	1700	1700
Volume to Capacity	0.72	0.04	0.35	0.27
Queue Length 95th (ft)	0	0	0	0
Control Delay (s)	0.0	0.0	0.0	0.0
Lane LOS				
Approach Delay (s)	0.0		0.0	
Approach LOS				

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	66.8%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	246	508	27	8	0	819	0	121	22	235	31	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	254	524	28	8	0	844	0	125	23	242	32	0

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total (vph)	254	552	8	844	147	274
Volume Left (vph)	254	0	8	0	0	242
Volume Right (vph)	0	28	0	844	23	0
Hadj (s)	0.53	0.00	0.23	-0.57	-0.06	0.21
Departure Headway (s)	6.4	5.8	6.8	3.2	6.2	6.2
Degree Utilization, x	0.45	0.90	0.02	0.75	0.26	0.47
Capacity (veh/h)	553	610	490	1121	558	561
Control Delay (s)	13.3	38.1	9.9	15.1	11.4	14.7
Approach Delay (s)	30.3		15.1		11.4	14.7
Approach LOS	D		C		B	B

Intersection Summary			
Delay	20.7		
HCM Level of Service	C		
Intersection Capacity Utilization	82.0%	ICU Level of Service	E
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	444	475	91	27	0	714	0	103	21	410	91	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	458	490	94	28	0	736	0	106	22	423	94	0

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total (vph)	458	584	28	736	128	516
Volume Left (vph)	458	0	28	0	0	423
Volume Right (vph)	0	94	0	736	22	0
Hadj (s)	0.53	-0.08	0.23	-0.57	-0.07	0.20
Departure Headway (s)	7.2	6.6	7.8	3.2	6.9	6.3
Degree Utilization, x	0.92	1.07	0.06	0.65	0.25	0.91
Capacity (veh/h)	494	555	435	1119	501	564
Control Delay (s)	48.4	82.7	11.3	12.0	12.2	43.6
Approach Delay (s)	67.6		12.0		12.2	43.6
Approach LOS	F		B		B	E

Intersection Summary			
Delay	42.3		
HCM Level of Service	E		
Intersection Capacity Utilization	85.5%	ICU Level of Service	E
Analysis Period (min)	15		

APPENDIX F

- Project Access Sight Distance

CREW ENGINEERING
AND SURVEYING
5725 KEARNY VILLA ROAD, SUITE D
SAN DIEGO, CALIFORNIA 92123
(858) 571-0555

July 3, 2008

County of San Diego
Department of Public Works
5201 Ruffin Road, Suite B
San Diego, CA 92123

Attn.: Ed Sinsay

Subject: Sight Distance Statement, T.M. 5421 RPL1, Second Iteration Reiview Comment F.7

Dear Ed,

This letter is to explain that my staff attended the above referenced project on 10/05/07. Based upon their visual examination, it is our opinion that adequate unobstructed sight distance in both directions along Flinn Springs Road, Old Highway 80 and Oak Creek Road from the private driveways, and private and public roads serving the project, for the prevailing operating speeds of traffic on Flinn Springs Road, Old Highway 80 and Oak Creek Road, per Section 6.1.E of the County Public Road Standards (approved July 14, 1999) can be achieved.

The sight distance of adjacent driveways and street openings will not be adversely affected by this project.

Respectfully Submitted,
Crew Engineering and Surveying

Ronald C Ashman

Ronald C. Ashman
Civil Engineer/Land Surveyor
RCE 34300, Expires 9-30-09

REGISTERED PROFESSIONAL ENGINEER
RONALD CREW ASHMAN
No. 34300
CIVIL
STATE OF CALIFORNIA

F-1

APPENDIX G

- Response to County Comments

Darnell & ASSOCIATES, INC.
TRANSPORTATION PLANNING & TRAFFIC ENGINEERING

MEMORANDUM

DATE: July 10, 2008

TO: Hsiung Cheng
CC: Tom Koerner, Crew Engineering and Surveying

FROM: Bill E. Darnell, P.E.

D&A Ref. No: 050909

RE: Oakmont II (TM 5421, Environmental No. 05-14-003; KIVA 05-0036728) – Responses to County of San Diego March 24, 2008 Second Iteration Review Comments on our March 24, 2007 Traffic Study

Darnell & Associates, Inc. (D&A) has reviewed the County of San Diego's March 24, 2008 Second Iteration Review Comments on our March 24, 2007 Traffic Study for the Oakmont II (TM 5421) project. The following summarizes our responses to each of the County's comments. These responses have been incorporated into our July 2008 iteration of the traffic study.

Comment 1: The traffic study is nearly one year ole (March 2007). Some of the existing traffic count data is based on counts collected in 2005 (Pg. 9). The traffic study and traffic count data should be updated in order to better assess existing project conditions and circumstances.

Response 1: New counts were collected along Olde Highway 80, Flinn Springs Road, Blossom Valley Road, and Oak Creek Road in June 2008 (when school was in session); however, as shown in Figure A, the June 2008 counts were either lower or showed no substantial increase when compared to the counts collected in 2005 and 2007.

The only segments that were found to have higher traffic volumes based on the June 2008 counts were the segment of Oak Creek Road between Flinn Springs Road and Oakmont Terrace (1,079 vs. 913) and the segment of Oakmont Terrace between Oak Creek Road and the east school entrance (2,015 vs. 1,556) . Evaluations of these segments found that even if the June 2008 counts were utilized; both segments would continue to operate well below the recommended 4,500 daily capacity under existing plus project conditions (i.e. under existing plus project conditions Oak Creek Road between Flinn Springs Road and Oakmont Terrace would carry 1,144 ADT and Oakmont Terrace between Oak Creek Road and the east school entrance would carry 2,154 ADT).

Thus, the June 2008 counts were not utilized in the analysis and no changes to the existing volumes were made. (See page 8 of clean version of the report.)

Comment 2: The TIA should note (Pg. 15) that the County's "Guidelines for Determining Significance" were adopted September 26, 2006 and revised effective December 5, 2007

1446 Front Street • Suite 300 • San Diego, CA 92101
Phone: 619-233-9373 • Fax: 619-233-4034
E-mail: office@darnell-assoc.com

43300 Business Park Drive • Suite A-204 • Temecula, CA 92590
Phone: 951-699-8209 • Fax: 951-699-8269
E-mail: office@darnell-assoc.com

Response 2: The traffic study was revised accordingly. (See Page 15 of the clean version of the report.)

Comment 3: The traffic study should update the discussion of the County's TIF program. The Board of Supervisors adopted the updated TIF program on January 30, 2008.

Response 3: The discussion on the TIF program has been updated to reference the TIF program update that was adopted on January 30, 2008. (See pages 22 and 27 of the clean version of the report.)

Comment 4: The project's cumulative impacts to the I-8/Lake Jennings Park Road interchange on-and off-ramps can be fully mitigated via the update TIF program. Consider Revision to Sections VI and V.

Response 4: The cumulative impact analysis of the traffic study has been deleted. Payment of the TIF will mitigate the projects cumulative impacts to the I-8/Lake Jennings Park Road interchange ramps. (See pages 20, 22, and page 27 of the clean version of the report).

Comment 5: The traffic study states (Pg. 30) that existing shrubs/bushes along Old Highway 80 be trimmed to improve the sight distance. A clear space easement should be obtained in order to ensure/maintain sight distance in the future.

Response 5: Discussions with the Civil Engineer found that adequate unobstructed sight distance can be provided at all project driveways. See the letter provided by Crew Engineering and Surveying attached to the end of this memo.

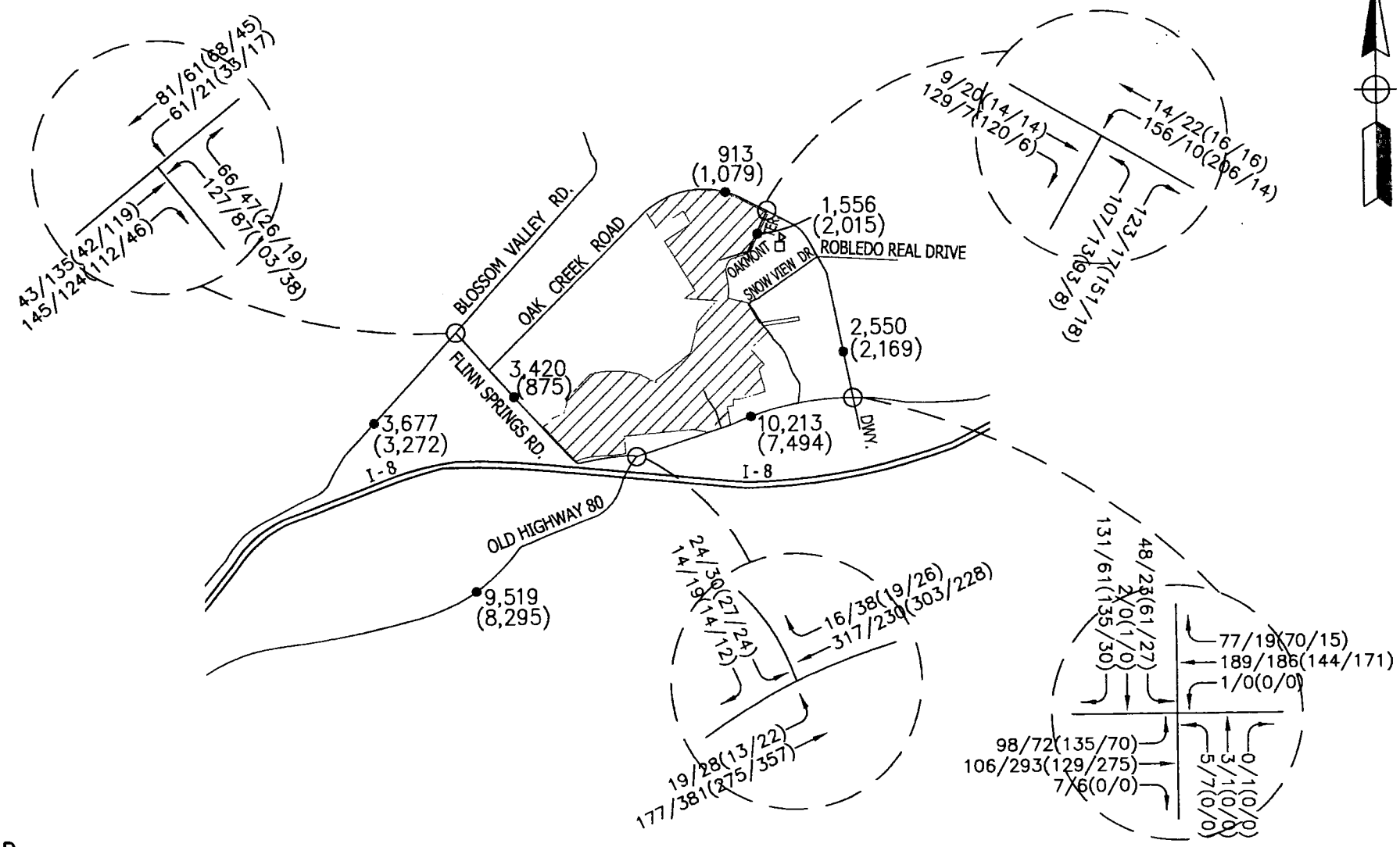
Comment 6: The traffic study states (Pg. 33) that sight distance along the Old Highway 80) driveways be reevaluated after the project site is graded and exact position of the driveways is determined. The traffic study should update the discussion of the project's sight distance assessment. The traffic study should clarify if any grading has occurred and/or if the project driveway location has been determined.

Response 6: The Civil Engineer, will certify the sight distance of the driveway once the project site has been graded. Until the developer actually grades the site and physically constructs the driveway, the sight distance at the driveway can not be certified. However, based on Crew Engineering and Surveying's visual examination of the site, it is their professional opinion that adequate unobstructed sight distance in both directions along Flinn Springs Road, Olde Highway 80, and Oak Creek Road from the private driveways, and private roads serving the project for the prevailing operating speeds of traffic on Flinn Springs Road, Olde Highway 80, and Oak Creek Road, per Section 6.1E of the County Public Road Standards can be achieved and that the sight distance of adjacent driveways and street openings will not be adversely affected by the proposed project. (See the letter provided by Crew Engineering and Surveying attached to the end of this memo.)

Comment 7: The project engineer should verify the adequacy of the corner sight distance at all of the project driveways (Flinn Springs Rd, Old Highway 80, & Oak Creek Rd).

Response 7: The Civil Engineer, will certify the sight distance at all of the project driveways off Flinn Springs Road, Old Highway 80, and Oakmont Terrace once the project site has been graded.

Attachments: Figure A – Existing Traffic Volumes
July 3, 3008 Letter from Crew Engineering and Surveying, Re: Sight Distance Statement



LEGEND

- BLOSSOM VALLEY ELEMENTARY SCHOOL
- PROJECT SITE
- DIRECTION OF TRAVEL

DWY – DRIVEWAY

XX/YY(XX/YY) – AM/PM PEAK HOUR TRAFFIC FROM 3-24-07 REPORT (FROM JUNE '08 COUNT)

● Z,ZZZ(Z,ZZZ) – AVERAGE DAILY TRAFFIC FROM 3-24-08 REPORT (FROM JUNE '08 COUNT)

Darnell & ASSOCIATES, INC.

050909FIG-A.dwg 7-07-08 SN

FIGURE A

EXISTING TRAFFIC VOLUMES

G-3

CREW ENGINEERING
AND SURVEYING
5725 KEARNY VILLA ROAD, SUITE D
SAN DIEGO, CALIFORNIA 92123
(858) 571-0555

July 3, 2008

County of San Diego
Department of Public Works
5201 Ruffin Road, Suite B
San Diego, CA 92123

Attn.: Ed Sinsay

Subject: Sight Distance Statement, T.M. 5421 RPL1, Second Iteration Reiview Comment F.7

Dear Ed,

This letter is to explain that my staff attended the above referenced project on 10/05/07. Based upon their visual examination, it is our opinion that adequate unobstructed sight distance in both directions along Flinn Springs Road, Old Highway 80 and Oak Creek Road from the private driveways, and private and public roads serving the project, for the prevailing operating speeds of traffic on Flinn Springs Road, Old Highway 80 and Oak Creek Road, per Section 6.1.E of the County Public Road Standards (approved July 14, 1999) can be achieved.

The sight distance of adjacent driveways and street openings will not be adversely affected by this project.

Respectfully Submitted,
Crew Engineering and Surveying

Ronald C Ashman

Ronald C. Ashman
Civil Engineer/Land Surveyor
RCE 34300, Expires 9-30-09

REGISTERED PROFESSIONAL ENGINEER
RONALD CREW ASHMAN
No. 34300
CIVIL
STATE OF CALIFORNIA

Darnell & ASSOCIATES, INC.
TRANSPORTATION PLANNING & TRAFFIC ENGINEERING

MEMORANDUM

DATE: March 24, 2007

TO: Hsiung Cheng

FROM: Candice M. Tritt; and
Bill E. Darnell, P.E.

D&A Ref. No: 050909

RE: Oakmont II Residential Subdivision (TM 5421) - Response to County Comments

Darnell & Associates, Inc. (D&A) has reviewed the County of San Diego's comments dated August 14, 2006, on our October 26, 2005 Traffic Study for the Oakmont II project (TM 5421). The following summarizes our response to each of the County's comments. These responses have been incorporated into our March 2007 traffic study.

Comment 1: *On page 2, the traffic study should identify the discussion of the cumulative scenario/impacts on page 16.*

Response 1: The traffic study has been revised accordingly.

Comment 2: *Access to the project site will be primarily from the I-8/Lake Jennings Park Road interchange. The traffic study should discuss and identify the project's cumulative impacts to the I-8/Lake Jennings Park Road interchange. The TIF program does not collect monies intended for future improvements to I-8 facilities. Subsequently, the I-8 interchange improvements may not be eligible for a TIF contribution. The project applicant/consultant may want to coordinate with other development projects that have been conditioned to make improvements at the I-8/Lake Jennings Park Road interchange in an effort to develop coordinated mitigation measures amongst all the projects with similar cumulative impacts.*

Response 2: Cumulative analysis has been performed, and the traffic study has been revised accordingly.

Comment 3: *The traffic study indicates that the project's trip distribution assumption was manually adjusted to account for trips to the Blossom Valley Elementary School. Figures 6 and 7 should show the location of the Blossom Valley Elementary School.*

Response 3: The figures have been revised accordingly.

1446 FRONT STREET • SUITE 300 • SAN DIEGO, CA 92101
PHONE: 619-233-9373 • FAX: 619-233-4034
E-mail: office@darnell-assoc.com

Comment 4: *The traffic study (Pg. 14) should elaborate on the discussion of how the County's draft guidelines are used to determine a development project's conformance with the PFE policies.*

Response 4: The traffic study has been revised accordingly.

Comment 5: *The traffic study should discuss how the County's guidelines (Table 5) are used to determine if a project's potential traffic impacts would be perceptible to the average driver.*

Response 5: The traffic study has been revised accordingly.