

## SECTION 4.13

# TRAFFIC AND TRANSPORTATION

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### 4.13.1 INTRODUCTION

The purpose of this section is to document the conditions of existing roadways and transportation systems in the Project area, estimate trip generation and distribution characteristics of the Project, identify potentially significant traffic impacts, and recommend mitigation measures to reduce the significance of such impacts. Information in this section is based on the Traffic Impact Analysis for the *Butterfield Specific Plan*, prepared by LSA Associates Inc. (September 15, 2010), *City of Banning General Plan* (January 2006), the *Environmental Impact Report for the City of Banning Comprehensive General Plan and Zoning Ordinance* (June 2005), *City of Banning Municipal Code* (codified through January 2010) and the proposed *Draft Butterfield Specific Plan* (July 2010).

### 4.13.2 EXISTING CONDITONS

Descriptions of existing freeways, highways, arterial roadways, collectors, and local streets that would serve the Project study area are described below.

#### 4.13.2.1 ENVIRONMENTAL SETTING

The City of Banning General Plan Circulation Element describes the City of Banning and other communities in the Pass Region as being tied together by U.S. Interstate 10 (I-10) as well as a network of arterial roadways. Roadways in the vicinity of the Project include I-10, Highland Springs Avenue, Highland Home Road, and Wilson Street. Refer to Exhibit 4.13-1, *City of Banning General Plan Circulation Element*, and Exhibit 4.13-2, *Existing Roadway System*.

Classifications of roadways within the Project site vicinity, per the General Plan Circulation Element, are described as follows:

#### **Freeways and Highways**

Interstate 10 (I-10) is an eight lane divided freeway that runs through Banning, bisecting it into south and north communities. Field Road, Ramsey Street, Hargrave Street, 8<sup>th</sup> Street, 22<sup>nd</sup> Street, Sunset Avenue, and Highland Springs Avenue are the access streets that provide interchange access to I-10. The eastern portion of Highland Springs Avenue interchange is within the City of Banning, while the western portion of the interchange is in the City of Beaumont. I-10 is within the jurisdiction of the California Department of Transportation (CALTRANS), which regulates maintenance and development of the freeway.

State Highway 243 begins on 8<sup>th</sup> Street and runs south to Lincoln Street. It continues east on Lincoln Street and turns into San Gorgonio Avenue, which then turns into the Banning-Idyllwild Panoramic Highway.

### **Major Highways or Arterial Streets**

The City of Banning General Plan defines Major Highways, or arterial streets as those primarily for through traffic with limited access, with 4 to 6 lanes in width at build-out. Arterial streets should connect residential, shopping, employment, and recreational activities, but should not encroach upon neighborhoods. The following streets are adopted as arterial streets in the City of Banning General Plan:

### **Highland Springs Avenue (from Wilson Street to Brookside Avenue)**

Highland Springs Avenue is a north/south roadway, providing regional access to the I-10 freeway. Highland Springs Avenue is the dividing/boundary roadway between the City of Banning and the City of Beaumont. The City of Banning General Plan Circulation Element defines Highland Springs Avenue as an Arterial Highway in this segment adjacent to the Project.

### **Highland Home Road (from Wilson Street to Brookside Avenue)**

Highland Home Road is a north/south roadway along the east side of the Butterfield Specific Plan. In the northern part of the Project, Highland Home Road is proposed to bend to the west and connect with Brookside Ave. (an east-west street) at Highland Springs Avenue. The width of Highland Home Road is limited pursuant to the existing homes on the east side immediately north of Wilson Street and the existing approved Tract No. 30906 (Fiesta Development) also on the east side further north. Highland Home Road is designated at minimum as a Major Highway in the City of Banning General Plan.

### **Wilson Street**

Wilson Street, from Highland Springs Avenue to Highland Home Road, is designated a Major Highway in the City of Banning General Plan.

## **LEVEL OF SERVICE STANDARDS**

### **Intersection Levels of Service: Definition and Criteria**

Roadway operations and the relationship between capacity and traffic volumes are generally expressed in terms of levels of service, or LOS, which are defined using the letter grades A through F. These levels recognize that, while an absolute limit exists as to the amount of traffic

traveling through a given intersection (the absolute capacity), the conditions that motorists experience rapidly deteriorate as traffic approaches the absolute capacity. Under such conditions, congestion is experienced.

There is general instability in the traffic flow, which means that relatively small incidents (e.g., momentary engine stall) can cause considerable fluctuations in speeds and delays. This near-capacity situation is labeled LOS E. Beyond LOS E, capacity has been exceeded, and arriving traffic will exceed the ability of the intersection to accommodate it. An upstream queue will then form and continue to expand in length until the demand volume again declines.

A complete description of the meaning of level of service can be found in the Transportation Research Board Special Report 209, *Highway Capacity Manual*. The Manual establishes levels of service A through F. Table 4.13 -1 shows brief descriptions of the six levels of service, as abstracted from the Manual.

**Table 4.13-1:  
Traffic Level of Service Definitions**

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

Table 4.13-2 shows the level of service criteria for unsignalized and signalized intersections.

**Table 4.13-2:  
Level of Service Criteria for Unsignalized and Signalized Intersections**

Level of Service	Unsignalized Intersection Average Delay per Vehicle (sec.)	Signalized Intersection Average Delay per Vehicle (sec.)
A	$\leq 10$	$\leq 10$
B	$> 10$ and $\leq 15$	$> 10$ and $\leq 20$
C	$> 15$ and $\leq 25$	$> 20$ and $\leq 35$
D	$> 25$ and $\leq 35$	$> 35$ and $\leq 55$
E	$> 35$ and $\leq 50$	$> 55$ and $\leq 80$
F	$> 50$	$> 80$

Consistent with Riverside County guidelines, all study area intersections were analyzed using the 2000 *Highway Capacity Manual* (HCM 2000) analysis methodologies. Levels of service at all intersections were calculated using Traffix 7.8 or Synchro 7 software.

### **LOS Standards**

The Project study area spans three jurisdictions: City of Banning, City of Beaumont, and the County of Riverside (County). In addition, Caltrans has jurisdiction over I-10 and its freeway ramp terminus intersections. Caltrans endeavors to maintain an LOS between C and D at all intersections under its jurisdiction. Therefore, a maximum average delay of 45 seconds per vehicle is considered at Caltrans facilities. The City of Beaumont uses LOS D as the threshold of acceptability during peak hours. The County of Riverside uses LOS D as the threshold of acceptability in community development areas and LOS C in all other areas.

According to the City of Banning General Plan Circulation Element, the City considers LOS C as the upper limit of satisfactory operations except for intersections along Ramsey Street, where LOS D is considered satisfactory. Mitigation is required for any intersection where Project traffic causes the intersection to deteriorate from satisfactory to unsatisfactory operation. The City does not have an adopted criterion that defines significant impact at an already existing deficient intersection; therefore, a conservative criterion was developed to address this potential condition. If an intersection is already operating at an unsatisfactory LOS, any increase in delay due to the addition of one or more cars would constitute a significant Project impact.

It needs to be noted that Highland Springs Avenue defines the western City boundary and jurisdictions of intersections on Highland Springs Avenue are shared by both City of Banning and City of Beaumont/Riverside County.



Following are the study area intersections within the City of Banning that are being evaluated both for LOS C and LOS D standards:

- Highland Springs Avenue/16<sup>th</sup> Street-Cougar Way;
- Highland Springs Avenue/F Street;
- Highland Springs Avenue/Oak Valley Parkway-14<sup>th</sup> Street-B Street;
- Highland Springs Avenue/Starlight Avenue-A Street;
- Highland Springs Avenue/8<sup>th</sup> Street-Wilson Street;
- Highland Springs Avenue/1<sup>st</sup> Street-Sun Lakes Boulevard;
- Highland Springs Avenue/Potrero Boulevard;
- C Street-Apex Avenue/Wilson Street;
- Highland Home Road/Northern Loop;
- Highland Home Road/Beaumont Road-G Street;
- Highland Home Road/F Street;
- Highland Home Road/D Street;
- Highland Home Road/Wilson Street;
- Sunset Avenue/Wilson Street;
- Sunrise Avenue/Wilson Street;
- 16<sup>th</sup> Street/Wilson Street;
- 8<sup>th</sup> Street/Wilson Street;
- 4<sup>th</sup> Street/Wilson Street; and
- San Gorgonio Avenue/Wilson Street.

The Riverside County CMP has a standard of LOS E or better for CMP facilities. CMP facilities affected by the Project include SR-60, I-10, SR-79 (Beaumont Avenue) south of I-10, and SR-243 south of I-10.

## STREETS

LSA Associates conducted an analysis of current traffic conditions in the City of Banning in September 2010. Riverside County traffic study guidelines require analysis of all intersections of General Plan roadways to which the Project will contribute 50 or more peak hour trips not exceeding a 5-mile radius from the Project site, thus a total of 49 intersections and 22 directional (eastbound or westbound) freeway segments in the vicinity of the Project were analyzed. Twelve (12) study intersections are currently signalized; thirty-eight (38) study intersections are stop-sign controlled. Refer to Exhibit 4.13-3, *Study Area Intersections*, for the locations of the intersections analyzed. Also, refer to Table 4.13-3, *Existing Without and plus Project (Phase III)*

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*Intersection Levels of Service*, and Table 4.13-4, *Existing Without and plus Project (Phase III) Freeway Mainline Levels of Service*, for additional information.

Traffic counts were conducted by NDS, Inc. in May 2010. All study area intersections were analyzed using the 2000 *Highway Capacity Manual* (HCM 2000) analysis methodologies. Levels of service at all intersections were calculated using Traffix 7.8 software.

#### **Existing (Baseline) Conditions Levels of Service**

An LOS analysis was conducted to evaluate existing a.m. and p.m. peak hour traffic operations at the study area intersections. As shown in Table 4.13-3, the following five intersections currently exceed LOS thresholds:

- I-10 Eastbound Ramps/San Timoteo Canyon Drive [Caltrans] (a.m. and p.m. peak hours);
- Pennsylvania Avenue/I-10 Westbound Ramp [Caltrans] (p.m. peak hour);
- Highland Springs Avenue/6<sup>th</sup> Street-Ramsey Street (p.m. peak hour);
- Highland Springs Avenue/I-10 Westbound Ramps [Caltrans]; and
- 8<sup>th</sup> Street/I-10 Eastbound Ramps [Caltrans] (a.m. and p.m. peak hours).

Table 4.13-3  
Existing Without and plus Project (Phase III) Intersection Levels of Service

Intersection	Control	LOS STD.	A.M. Peak Hour						P.M. Peak Hour					
			Without Project			Plus Project			Without Project			Plus Project		
			V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS
1. I-10 Eastbound Ramps/San Timoteo Canyon Dr.	TWSC	45s	-	>100	F	-	>100	F	-	>100	F	-	>100	F
2. I-10 Westbound Ramps/Oak Valley Pkwy.	TWSC	45s	-	19.6	C	-	31.0	D	-	21.9	C	-	54.0	F
3. Elm Ave./Oak Valley Pkwy.-14th St.	TWSC	D	-	25.9	D	-	71.7	F	-	16.3	C	-	35.1	E
4. Beaumont Ave./Oak Valley Pkwy.-14th St.	Signal	D	0.51	24.0	C	0.68	26.3	C	0.34	23.9	C	0.47	23.1	C
5. Beaumont Ave./8th St.	AWSC	D	0.35	9.8	A	0.41	12.0	B	0.38	10.8	B	0.57	15.0	B
6. Beaumont Ave./I-10 Westbound Ramps	Signal	45s	0.54	24.0	C	0.63	27.6	C	0.60	26.6	C	0.67	28.7	C
7. Beaumont Ave./I-10 Eastbound Ramps	Signal	45s	0.71	23.5	C	0.76	23.5	C	0.73	27.3	C	0.83	29.3	C
8. Beaumont Ave./1st St.	Signal	D	0.71	24.5	C	0.73	24.2	C	0.66	28.5	C	0.76	29.8	C
9. Beaumont Ave./Westward Ave.			Future Intersection			Future Intersection			Future Intersection			Future Intersection		
10. Lamb Canyon Rd./California Ave.	TWSC	C	-	12.6	B	-	13.2	B	-	23.2	C	-	24.7	C
11. Palm Ave./Oak Valley Pkwy.-14th St.	AWSC	D	0.61	14.4	B	1.28	76.4	F	0.64	13.9	B	1.32	>100	F
12. Palm Ave./8th St.	AWSC	D	0.37	10.3	B	0.89	24.3	C	0.15	8.0	A	0.44	10.9	B
13. Pennsylvania Ave./Oak Valley Pkwy.-14th St.	AWSC	D	0.53	12.6	B	1.17	64.5	F	0.50	11.3	B	1.19	75.5	F
14. Pennsylvania Ave./8th St.	AWSC	D	0.68	14.5	B	1.10	59.7	F	0.46	10.4	B	0.72	20.7	C
15. Pennsylvania Ave./I-10 Westbound Ramp	TWSC	45s	-	24.3	C	-	45.4	E	-	95.2	F	-	>100	F
16. Pennsylvania Ave/I-10 Eastbound Ramp	TWSC	45s	-	14.1	B	-	16.9	C	-	13.7	B	-	17.4	C
17. Pennsylvania Ave./3rd St.	TWSC	D	-	14.8	B	-	18.6	C	-	15.6	C	-	20.5	C
18. Cherry Ave./Oak Valley Pkwy.-14th St.	AWSC	D	0.68	15.8	C	1.28	69.9	F	0.46	11.5	B	1.23	72.6	F
19. Starlight Ave/ Oak Valley Pkwy.-14th St.	AWSC	D	0.36	10.8	B	0.64	19.2	C	0.20	9.0	A	0.63	16.8	C
20. Highland Springs Ave./Brookside Ave.	TWSC	C	-	9.9	A	-	>100	F	-	9.2	A	-	>100	F
21. Highland Springs Ave./16th St.-Cougar Way			Future Intersection			Future Intersection			Future Intersection			Future Intersection		
22. Highland Springs Ave./F St.			Future Intersection			1.25	>100	F	Future Intersection			1.36	>100	F
23. Highland Springs Ave./Oak Valley Pkwy.-14th St.-B St.	Signal	C	0.44	20.8	C	1.18	89.7	F	0.34	17.2	B	1.20	96.6	F
24. Highland Springs Ave./Starlight Ave.-A St.	TWSC	C	-	17.6	C	-	>100	F	-	11.4	B	-	>100	F
25. Highland Springs Ave./8th St.-Wilson St.	Signal	C	0.42	30.1	C	0.88	41.3	D	0.59	27.1	C	1.31	>100	F
26. Highland Springs Ave./6th St.-Ramsey St.	Signal	D	0.41	22.9	C	0.64	26.7	C	0.69	89.00	F	1.10	>100	F
27. Highland Springs Ave./I-10 Westbound Ramps	Signal	45s	0.46	41.0	D	0.62	31.1	C	0.68	74.00	E	0.92	53.9	E
28. Highland Springs Ave./I-10 Eastbound Ramps	Signal	45s	0.58	28.0	C	0.88	62.7	E	0.67	16.20	B	1.22	71.6	E
29. Highland Springs Ave./1st St.-Sun Lakes Blvd.	Signal	C	0.23	30.3	C	0.22	27.6	C	0.29	31.0	C	0.37	28.8	C
30. Highland Springs Ave./Potrero Blvd.	TWSC	C	-	9.6	A	-	10.8	B	-	10.4	B	-	12.7	B
31. C St.-Apex Ave./Wilson St.	TWSC	C	-	14.3	B	-	>100	F	-	14.2	B	-	>100	F
32. Highland Home Rd./Northern Loop			Future Intersection			0.61	42.5	E	Future Intersection			1.16	>100	F
33. Highland Home Rd./Beaumont Rd.-G St			Future Intersection			0.16	12.7	B	Future Intersection			0.24	16.7	C
34. Highland Home Rd./F St.			Future Intersection			0.35	12.7	B	Future Intersection			0.26	11.5	B
35. Highland Home Rd./D St.			Future Intersection			0.41	22.4	C	Future Intersection			0.29	27.7	D
36. Highland Home Rd./Wilson St.	TWSC	C	-	13.2	B	-	>100	F	-	13.2	B	-	>100	F
37. Highland Home Rd./Ramsey St.	TWSC	D	-	10.5	B	-	>100	F	-	12.0	B	-	>100	F
38. Sunset Ave./Wilson St.	AWSC	C	0.56	11.6	B	1.21	79.5	F	0.49	11.8	B	1.16	69.7	F
39. Sunset Ave./Ramsey St.	Signal	D	0.22	23.4	C	0.56	24.0	C	0.24	23.1	C	0.63	25.2	C
40. Sunset Ave./I-10 Westbound Ramps	TWSC	45s	-	10.1	B	-	11.2	B	-	11.4	B	-	15.5	C
41. Sunset Ave./I-10 Eastbound Ramps	TWSC	45s	-	13.9	B	-	34.0	D	-	16.5	C	-	57.8	F
42. Sunrise Ave./Wilson St.	TWSC	C	-	11.4	B	-	25.1	D	-	10.8	B	-	22.0	C
43. 16th St./Wilson St.	TWSC	C	-	9.8	A	-	13.8	B	-	9.8	A	-	14.4	B
44. 8th St./Wilson St.	AWSC	C	0.44	12.3	B	0.82	21.1	C	0.30	9.3	A	0.51	12.1	B
45. 8th St./Ramsey St.	Signal	D	0.45	27.9	C	0.48	28.6	C	0.64	35.6	D	0.70	38.4	D
46. 8th St./I-10 Westbound Ramps	TWSC	45s	-	22.9	C	-	29.3	D	-	16.1	C	-	19.3	C
47. 8th St./I-10 Eastbound Ramps	TWSC	45s	-	>100	F	-	>100	F	-	37.4	E	-	79.8	F
48. 4th St./Wilson St.	AWSC	C	0.33	9.3	A	0.61	12.9	B	0.21	8.2	A	0.45	10.5	B
49. San Geronio Ave./Wilson St.	AWSC	C	0.34	9.2	A	0.62	12.6	B	0.19	8.5	A	0.43	10.8	B

Exceeds LOS standard.

Notes:

V/C = Volume/Capacity Ratio

LOS = Level of Service

TWSC = Two-Way Stop Control

AWSC=All-Way Stop Control

For TWSC intersections, reported delay is for worst-case approach.

**Note:** Intersections 22 & 32-35 are intersections proposed under the Butterfield SP; therefore, they are analyzed within the "Plus Project" column. Intersections 9 & 21 are not constructed at this time and are not part of the proposed Project; thus analysis of these intersections are excluded from Table 4.13-3, but are assumed to be constructed under the year 2022, 2032, 2042 and General Plan buildout analyses.

**Table 4.13-4**  
**Existing Without and plus Project (Phase III) Freeway Mainline Levels of Service**

Freeway Segment	Lanes			A.M. Peak Hour								P.M. Peak Hour							
				Without Project				With Project				Without Project				With Project			
	Mixed Flow	HOV	Cap.	Total Vol.	PHF <sup>1</sup> Vol.	V/C	LOS	Total Vol.	PHF <sup>1</sup> Vol.	V/C	LOS	Total Vol.	PHF <sup>1</sup> Vol.	V/C	LOS	Total Vol.	PHF <sup>1</sup> Vol.	V/C	LOS
EASTBOUND																			
Interstate 10																			
Cherry Valley Boulevard to Oak Valley Parkway	3	0	6,900	5,135	5,240	0.76	D	5,214	5,320	0.77	D	5,448	5,560	0.81	D	5,624	5,740	0.83	D
Oak Valley Parkway to SR-60	3	0	6,900	5,099	5,200	0.75	D	5,146	5,250	0.76	D	5,331	5,440	0.79	D	5,437	5,550	0.80	D
SR-60 to Beaumont Avenue	4	0	9,200	7,152	7,300	0.79	D	7,326	7,480	0.81	D	7,501	7,650	0.83	D	7,889	8,050	0.88	D
Beaumont Avenue to Pennsylvania Avenue	4	0	9,200	7,247	7,390	0.80	D	7,453	7,600	0.83	D	7,536	7,690	0.84	D	7,994	8,160	0.89	E
Pennsylvania Avenue to Highland Springs Avenue	4	0	9,200	7,591	7,750	0.84	D	7,797	7,960	0.87	D	7,857	8,020	0.87	D	8,315	8,480	0.92	E
Highland Springs Avenue to Sunset Avenue	4	0	9,200	7,325	7,470	0.81	D	7,416	7,570	0.82	D	7,559	7,710	0.84	D	7,633	7,790	0.85	D
Sunset Avenue to 22nd Street	4	0	9,200	7,164	7,310	0.80	D	7,408	7,560	0.82	D	7,321	7,470	0.81	D	7,519	7,670	0.83	D
22nd Street to 8th Street	4	0	9,200	6,992	7,130	0.78	D	7,175	7,320	0.80	D	7,128	7,270	0.79	D	7,276	7,420	0.81	D
8th Street to Hargrave Street	4	0	9,200	6,821	6,960	0.76	D	6,912	7,050	0.77	D	6,955	7,100	0.77	D	7,029	7,170	0.78	D
Hargrave Street to Ramsey Street	4	0	9,200	6,303	6,430	0.70	D	6,394	6,520	0.71	D	6,425	6,560	0.71	D	6,499	6,630	0.72	D
SR-60																			
Jack Rabbit Trail to I-10	2	0	4,600	2,181	2,230	0.49	C	2,308	2,360	0.51	C	2,440	2,490	0.54	C	2,722	2,780	0.60	C
WESTBOUND																			
Interstate 10																			
Cherry Valley Boulevard to Oak Valley Parkway	3	0	6,900	4,219	4,310	0.63	C	4,371	4,460	0.65	C	4,296	4,380	0.64	C	4,420	4,510	0.65	C
Oak Valley Parkway to SR-60	3	0	6,900	4,088	4,170	0.60	C	4,179	4,260	0.62	C	4,263	4,350	0.63	C	4,337	4,430	0.64	C
SR-60 to Beaumont Avenue	4	0	9,200	5,719	5,840	0.64	C	6,054	6,180	0.67	C	5,918	6,040	0.66	C	6,190	6,320	0.69	D
Beaumont Avenue to Pennsylvania Avenue	4	0	9,200	5,783	5,900	0.64	C	6,179	6,300	0.69	D	5,989	6,110	0.66	C	6,310	6,440	0.70	D
Pennsylvania Avenue to Highland Springs Avenue	4	0	9,200	5,946	6,070	0.66	C	6,342	6,470	0.70	D	6,242	6,370	0.69	D	6,563	6,700	0.73	D
Highland Springs Avenue to Sunset Avenue	4	0	9,200	5,693	5,810	0.63	C	5,740	5,860	0.64	C	6,028	6,150	0.67	C	6,134	6,260	0.68	D
Sunset Avenue to 22nd Street	4	0	9,200	5,508	5,620	0.61	C	5,635	5,750	0.63	C	5,842	5,960	0.65	C	6,124	6,250	0.68	C
22nd Street to 8th Street	4	0	9,200	5,350	5,460	0.59	C	5,445	5,560	0.60	C	5,695	5,810	0.63	C	5,907	6,030	0.66	C
8th Street to Hargrave Street	4	0	9,200	5,220	5,330	0.58	C	5,267	5,370	0.58	C	5,557	5,670	0.62	C	5,663	5,780	0.63	C
Hargrave Street to Ramsey Street	4	0	9,200	4,822	4,920	0.54	C	4,869	4,970	0.54	C	5,134	5,240	0.57	C	5,240	5,350	0.58	C
SR-60																			
Jack Rabbit Trail to I-10	2	0	4,600	2,019	2,060	0.45	B	2,263	2,310	0.50	C	1,536	1,570	0.34	B	1,734	1,770	0.39	B

\* Exceeds level of service standard

<sup>1</sup> Peak Hour Factor: PHF volume assumes a PHF of 0.98.

**Notes:**

According to the CMB, the capacity of a mixed-flow lane is 2,300 vehicles per hour, and the capacity of an HOV lane is 1,600 vehicles per hour.

## FREEWAYS

An examination was also made of freeway conditions along the Interstate 10 and SR-60 freeway within the Project study area. Ten freeway segments along Interstate 10 and one segment off of SR-60 that leads to I-10 most likely to be affected by the proposed Project were analyzed. Existing Annual Average Daily Traffic (AADT) volume data published by Caltrans in 2008 were used to develop the peak hour volumes for freeway segments. Total volumes on study area segments were divided into passenger vehicles and truck volumes based on the truck percentages available from the Caltrans 2008 AADT truck counts for each segment. Consistent with *Highway Capacity Manual* methodologies, passenger car equivalent (PCE) volumes for the freeway segments were computed using a PCE factor of 1.5 for all trucks, as the impact of trucks on freeway operations is lower than the impact at intersection operations. The peak hour segment volumes for the freeway segments were calculated by applying percentages to AADT in peak hour in each of these segments. The directional split of traffic volumes on each segment was computed using the Caltrans split of peak hour traffic in peak direction for these segments.

In order to analyze the existing conditions (2010), the 2008 count data were adjusted by adding growth for a period of two years to develop the 2010 traffic volume along the study area freeway segments. Table 4.13-5 shows the existing a.m. and p.m. peak hour segment volumes on the study area freeway segments.

Table 4.13-4 summarizes the existing a.m. and p.m. peak hour freeway mainline traffic volumes and levels of service for the freeway segments on I-10 and SR-60. As shown in Table 4.13-5, all freeway segments are currently operating at LOS E or better during the a.m. and p.m. peak hours in both directions.

**Table 4.13-5**  
**Existing (2010) Freeway Segment (PCE) Volumes**

Freeway Segment	A.M. Peak Hour											
	Eastbound						Westbound					
	Year	Year	Growth	Total	Project	W/ Project	Year	Year	Growth	Total	Project	W/ Project
	2008	2045	2008-2010	PCE <sup>1</sup>	Trips	PCE	2008	2045	2008-2010	PCE <sup>1</sup>	Trips	PCE
<b>Interstate 10</b>												
Cherry Valley Boulevard to Oak Valley Parkway	5,060	6,451	75	5,135	79	5,214	3,829	11,045	390	4,219	152	4,371
Oak Valley Parkway to SR-60	5,014	6,591	85	5,099	47	5,146	3,794	9,228	294	4,088	91	4,179
SR-60 to Beaumont Avenue	7,099	8,078	53	7,152	174	7,326	5,371	11,815	348	5,719	335	6,054
Beaumont Avenue to Pennsylvania Avenue	7,211	7,870	36	7,247	206	7,453	5,456	11,499	327	5,783	396	6,179
Pennsylvania Avenue to Highland Springs Avenue	7,584	7,718	7	7,591	206	7,797	5,738	9,587	208	5,946	396	6,342
Highland Springs Avenue to Sunset Avenue	7,302	7,729	23	7,325	91	7,416	5,524	8,654	169	5,693	47	5,740
Sunset Avenue to 22nd Street	7,125	7,851	39	7,164	244	7,408	5,390	7,568	118	5,508	127	5,635
22nd Street to 8th Street	6,955	7,643	37	6,992	183	7,175	5,262	6,885	88	5,350	95	5,445
8th Street to Hargrave Street	6,785	7,456	36	6,821	91	6,912	5,134	6,718	86	5,220	47	5,267
Hargrave Street to Ramsey Street	6,269	6,889	34	6,303	91	6,394	4,743	6,206	79	4,822	47	4,869
<b>SR-60</b>												
Jack Rabbit Trail to I-10	2,150	2,727	31	2,181	127	2,308	1,908	3,957	111	2,019	244	2,263

Freeway Segment	P.M. Peak Hour											
	Eastbound						Westbound					
	Year	Year	Growth	Total	Project	W/ Project	Year	Year	Growth	Total	Project	W/ Project
	2008	2045	2008-2010	PCE <sup>1</sup>	Trips	PCE	2008	2045	2008-2010	PCE <sup>1</sup>	Trips	PCE
<b>Interstate 10</b>												
Cherry Valley Boulevard to Oak Valley Parkway	5,093	11,664	355	5,448	176	5,624	3,959	10,187	337	4,296	124	4,420
Oak Valley Parkway to SR-60	5,046	10,322	285	5,331	106	5,437	3,923	10,209	340	4,263	74	4,337
SR-60 to Beaumont Avenue	7,143	13,765	358	7,501	388	7,889	5,554	12,280	364	5,918	272	6,190
Beaumont Avenue to Pennsylvania Avenue	7,257	12,419	279	7,536	458	7,994	5,642	12,054	347	5,989	321	6,310
Pennsylvania Avenue to Highland Springs Avenue	7,633	11,775	224	7,857	458	8,315	5,934	11,632	308	6,242	321	6,563
Highland Springs Avenue to Sunset Avenue	7,348	11,251	211	7,559	74	7,633	5,713	11,539	315	6,028	106	6,134
Sunset Avenue to 22nd Street	7,170	9,969	151	7,321	198	7,519	5,575	10,511	267	5,842	282	6,124
22nd Street to 8th Street	6,999	9,381	129	7,128	148	7,276	5,441	10,139	254	5,695	212	5,907
8th Street to Hargrave Street	6,829	9,153	126	6,955	74	7,029	5,309	9,893	248	5,557	106	5,663
Hargrave Street to Ramsey Street	6,309	8,456	116	6,425	74	6,499	4,905	9,140	229	5,134	106	5,240
<b>SR-60</b>												
Jack Rabbit Trail to I-10	2,259	5,615	181	2,440	282	2,722	1,358	4,651	178	1,536	198	1,734

<sup>1</sup> Passenger Car Equivalent volume, using a PCE factor of 1.5 for all trucks, based on HCM.

\* The interchange on Pennsylvania Avenue is expected to be upgraded to a full diamond interchange before General Plan build-out year.

## PUBLIC AND ALTERNATIVE TRANSPORTATION

Public transportation in the City of Banning is provided by Pass Transit. Pass Transit provides dial-a-ride service and bus services.

### Transit

The Transit Fixed Route Division of Banning operates three bus routes. Two routes serve the City of Banning (Northern and Southern Routes) and one runs from Banning to Cabazon (Cabazon Route). Routes can also be connected with Riverside Transit Authority (RTA). Headways are approximately 60 minutes on weekdays and weekends. The nearest transit stop

to the Project site is at the southeast corner of Highland Springs Avenue and Wilson Street, immediately across from the Project site.

### **Dial-A-Ride**

The dial-a-ride service is a curb-to-curb service for the general public and has experienced substantial growth since its inception. The dial-a-ride service requires reservation and is wheelchair accessible.

### **Bicycles**

There are currently no bikeways within the City of Banning's General Plan planning area. Development of a network of bikeways is constrained by the existing condition of street right-of-ways. However, future bike routes are being considered because a complete network of bikeways and pathways within an urban environment helps to reduce the reliance on cars, and contributes to a healthier city.

## **4.13.2.2 REGULATORY FRAMEWORK**

### **FEDERAL**

The Project Study Area includes I-10, an interstate freeway under the jurisdiction of Caltrans and the Federal Highway Administration (FHWA), and SR-60, a major east-west route under the jurisdiction of Caltrans. Federal funding for these facilities would have to comply with Caltrans-administered FHWA procedures, and any improvements to the SR-60 or I-10 interchanges would have to comply with Caltrans procedures, many of which reflect strict FHWA regulations<sup>1</sup>.

### **STATE**

#### **Caltrans**

As noted above, Caltrans has primary jurisdiction over improvements to SR-60, and acts as the federal representative for improvements to I-10 under a federal delegation agreement<sup>2</sup>. FHWA maintains certain review and approval authority over any project affecting the I-10.

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<sup>1</sup> FHWA and Caltrans regulations can be found at [www.dot.ca.gov/ser](http://www.dot.ca.gov/ser).

<sup>2</sup> [http://www.dot.ca.gov/hq/env/nepa\\_pilot/index.htm](http://www.dot.ca.gov/hq/env/nepa_pilot/index.htm).

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### Senate Bill 375

SB 375 is California state law that became effective January 1, 2009. The law requires California's Air Resources Board (CARB) to develop regional reduction targets for greenhouse gas (GHG) emissions associated with passenger vehicles and light duty truck traffic. SB 375 also prompts the creation of regional plans to reduce emissions from vehicle use throughout the state of California. California has 18 Metropolitan Planning Organizations (MPOs), which are tasked with creating Sustainable Community Strategies through integrated land use and transportation planning, as well as demonstrate an ability to attain the proposed reduction targets by 2020 and 2035. The Southern California Association of Governments (SCAG) is designated as the MPO for the Project region. Refer to Section 4.3, *Air Quality*, and Section 4.5, *Climate Change* for more discussion on SB 375.

### REGIONAL

#### **Southern California Association of Governments (SCAG):**

On May 8, 2008, the Regional Council of the Southern California Association of Governments (SCAG) adopted the 2008 Regional Transportation Plan (RTP). The 2008 RTP emphasizes the importance of system management, goods movement, and innovative transportation financing. The 2008 RTP strives to provide a regional investment framework to address the region's transportation and related challenges. It also looks to strategies that preserve and enhance the existing transportation system and integrate land use into transportation planning. The 2008 RTP includes goals and policies applicable to transportation.

#### **Riverside County Congestion Management Program:**

As required under 1990's Proposition 111, every county in California is required to develop a Congestion Management Program (CMP) that looks at the links between land use, transportation and air quality. In its role as the Riverside County Congestion Management Agency, Riverside County Transportation Commission (RCTC) prepares and periodically updates the county's CMP to meet federal Congestion Management System guidelines as well as state CMP legislation. The current CMP was adopted by RCTC in March 2010.

SCAG is required under federal planning regulations to determine that county CMPs within the SCAG region are consistent with the RTP. RCTC does not require Traffic Impact Assessments (TIA's) for development proposals. However, local agencies are required to maintain minimum level of service (LOS) thresholds included in their respective general plans. Therefore, TIA's on developments are required by the local agencies. Local agencies whose developments impact the CMP system by causing the LOS on a non-exempt segment to fall to "F" must prepare deficiency plans. These plans outline specific mitigation measures and a schedule for mitigating the deficiency.

Section 65089.3 (c) of the Government Code requires that RCTC, as the Congestion Management Agency (CMA), in consultation with the SCAG, cities and the county, develop a uniform database on traffic impacts for the use in a countywide transportation model. RCTC, in consultation with SCAG, must approve transportation computer models that will be used by local jurisdictions and the county to determine the quantitative impacts of development on the circulation system. Local transportation models shall be consistent with the databases used by SCAG.

## LOCAL

### **City of Banning – General Plan Circulation Element**

The *City of Banning General Plan* Circulation Element standard provides that LOS C is the upper limit of satisfactory operations except for intersections along Ramsey Street, where LOS D is considered satisfactory. Mitigation is required for any intersections where Project traffic causes the intersection to deteriorate from satisfactory to unsatisfactory operation. The City does not have an adopted criterion that defines significant impact at an existing deficient intersection; therefore, a conservative criterion was developed to address this potential condition. If an intersection is already operating at an unsatisfactory LOS, any increase in delay due to the addition of one or more cars would constitute a significant Project impact. This criterion was applied to study intersections in the jurisdictions of the City of Banning, City of Beaumont, and the County of Riverside.

### **City of Banning – Trip Reduction Plan**

Chapter 8.60 of the *City of Banning Municipal Code* is intended to protect the public health, welfare and safety by reducing congestion and air pollution caused by vehicle trips and vehicle miles traveled. It requires provision of on-site space to support alternative travel modes, and is applicable to new development that could employ one hundred or more persons, based upon the following methodology:

Land Use Category	Gross Square Feet per Employee
Retail Commercial	500 square feet per employee
Office/Professional	300 square feet per employee
Industrial/Manufacturing	500 square feet per employee
Warehouse	1,000 square feet per employee
Hotel/Motel	0.5 employees per guest room
Hospital	300 square feet per employee



For mixed-use developments, the Project employment factor shall be based upon the proportion of the development devoted to each land use. All applicable developments shall incorporate facilities and/or programs in their development plans sufficient to attain a twelve percent work-related trip reduction from the expected number of trips related to the Project as indicated in the Trip Generation Handbook published by the Institute of Traffic Engineers.

Facilities provided in accordance with the provisions may include but are not limited to:

- Preferential parking for carpool vehicles;
- Bicycle parking and shower facilities;
- Information center for transportation alternatives;
- Rideshare vehicle loading area;
- Vanpool vehicle accessibility;
- Bus stop improvements;
- On-site child care facilities;
- Local TSM and road improvements;
- Facilities to encourage telecommuting;
- Contributions to support regional facilities designed to reduce vehicle trips and miles traveled;
- On-site amenities, such as cafeterias and restaurants, automated teller machines and other services that would eliminate the need for additional trips.

## PARKING

The *Banning Municipal Code* establishes parking requirements for residential, institutional, commercial and industrial development, as described in Table 4.13-6, *City of Banning Parking Requirements*.

**Table 4.13-6  
City of Banning Parking Requirements**

Unit Type	Parking Spaces Required	
Single Family Residential	Two covered spaces within an enclosed garage	
Multi-Family Residential:	Studio and one bedroom	1 covered space per unit, plus 1 uncovered guest parking space for every 4 units
	2 bedrooms	2 covered spaces per unit, plus one uncovered guest parking space for every 4 units
	3 bedrooms or more	3 covered spaces per unit, plus one uncovered guest parking space for every 4 units
Commercial/Office	Golf course	6 spaces per hole, plus any spaces required for incidental uses such as pro shops, bars, banquet rooms, etc.
	Retail Commercial	1 space for each 250 square feet of gross floor area.
	Shopping Centers	1 space for each 250 sq ft of gross floor area for tenants within the main structure and in stand alone buildings. 1 space for each 225 sq ft of gross floor area for single tenants with over 15,000 square feet.
	General Offices	For up to 2000 square feet of gross floor area, 1 space for each 200 sq ft For 2001 to 7500 square feet of gross floor area, 1 space for each 250 sq ft. For over 7500 square feet of gross floor area, 1 space for each 300 sq ft
Restaurants		1 space for each 35 sq feet of public seating area, plus 1 space for each 200 sq ft of all other gross floor area, with a minimum of ten spaces.
Schools	Elementary/junior high	3 spaces for each classroom
	High school	8 spaces for each classroom
Source: Banning Municipal Code, Chapter 17.28		

### 4.13.3 SIGNIFICANCE THRESHOLD CRITERIA

The criteria used to determine the significance of potential impacts related to traffic and transportation are from the Initial Study checklist in Appendix G of the State CEQA Guidelines. The Project would result in a significant impact related to traffic and transportation if it would:

- a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit;
- b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways;
- c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks;
- d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment);
- e) Result in inadequate emergency access;
- f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

### 4.13.4 IMPACT ANALYSIS AND MITIGATION MEASURES

#### ANALYTIC METHOD

The traffic and transportation analysis uses a methodology consistent with Riverside County guidelines. As noted above, the previously approved Deutsch Specific Plan and certified Deutsch Specific Plan EIR addressed development of the Project site with up to 5,400 dwelling units. This analysis reflects the currently proposed Butterfield Specific Plan, including the off-site infrastructure and 21-acre unincorporated parcel. The traffic impact study analyzes existing (baseline) conditions through General Plan build-out plus Project conditions to identify potential impacts and mitigation measures per CEQA. Interim Phases between the site's initial existing (baseline) conditions and General Plan build-out plus Project conditions are also analyzed and summarized within the Traffic Impact Assessment (TIA), Appendix I.

Prior to preparing this traffic impact analysis, a Scoping Agreement for the TIA was developed and approved by the City. Based on market conditions and current absorption rates, year 2042 has been identified as the Project build-out year, which was included in the Scoping Agreement.

The initial Project construction is not expected to generate traffic until 2012 and the Project builds out over a 30-year period from 2012 to 2042. It should also be noted that the Highland Home Road/Interstate 10 (I-10) interchange is not a funded project and has not been assumed to be in place (constructed) and operational by 2042 or by the General Plan Build-out conditions. Hence, all the scenarios have been analyzed without assuming the extension of Highland Home Road south of Ramsey Street, to connect to I-10 or over the freeway to connect to Sun Lakes Boulevard.

### **Project Impacts and Cumulative Impacts**

This section focuses on the “Project” impacts, determined by adding 100% of Project trips to the existing road system. The Cumulative Impacts discussion following this is based on General Plan Buildout conditions, including Project traffic. Appendix I, *Traffic Impact Assessment*, provides additional analysis of interim traffic conditions (noted below), as well as comparative analyses of General Plan buildout “with and without” the Project, in addition to a discussion comparing General Plan buildout improvements required based on an LOS C and LOS D standard.

### **Interim Condition Assumptions**

The City approved year 2042 to be identified as the Project build-out year based on initial Project uses not generating traffic until 2012 and the Project building out over a 30-year period from 2012 to 2042. Traffic analysis has been conducted in Appendix I, *Traffic Impact Analysis* for year 2022, when an approximation of an initial phase (Phase I) of the Project may be completed and for year 2032, when an approximation of a second phase (Phase II) of the Project may be completed. These interim year analyses are addressed in further detail in Appendix I, *Traffic Impact Analysis*.

### **PROJECT DESIGN FEATURES AND EXISTING REGULATIONS, RULES, AND REQUIREMENTS**

Existing local, State, and federal regulations noted below will avoid or mitigate potential traffic and transportation impacts. The following Project design features will also reduce, avoid or offset potentially adverse traffic and transportation impacts (refer to Section 4.5, *Climate Change*, for additional measures related to reducing Project traffic impacts).

1. The Project proposes non-vehicular circulation facilities that will include bicycle lanes, trails, pathways, and sidewalks that facilitate and encourage alternative non-vehicular modes of transportation that would reduce vehicular traffic throughout the Butterfield Specific Plan area.
2. The Project proposes mixed use commercial, recreational and school facilities within the Specific Plan, which will reduce vehicle trips to the adjacent City and regional street system.

3. The Project incorporates substantial circulation system improvements into the Specific Plan, including Highland Home Road extension, retention of a local frontage street to serve existing residences along existing Highland Home Road adjacent to the Project, and allowance for ultimate ROW required for adjacent City streets.
4. The Project has provided for emergency secondary access, at the request of City staff, within PAs 5 and 11.
5. The Butterfield Specific Plan will allow and provide for the use of electric Low Speed Vehicles (LSV's) or Neighborhood Electric Vehicles (NEV's) on all internal Project streets. The Butterfield Specific Plan proposes roadway cross sections that provide striped dual NEV and bike lanes on the right side of all proposed Collector Streets.
6. City of Banning Pass Transit and Riverside County Transit Agencies shall be consulted, in conjunction with Project development, to coordinate the potential for expanded transit/bus service and vanpools, and to discuss and implement potential transit turnout locations within the Project area.

### **PROJECT IMPACT ANALYSIS**

***Note to the reader:** This section has been organized to first provide an overview of the Project traffic impact methodology, as it relates to the "Existing plus Project" condition. Following this summary, and resultant Project trip generation, trip distribution, and calculated intersection and freeway levels of service, a discussion of recommended Project mitigation follows. Responses to individual CEQA checklist significance criteria are then addressed based on the overall Project traffic impact analysis that follows. The TIA, contained in Appendix I, provides extensive additional discussion, tables, exhibits and worksheets.*

#### **Project Trip Generation**

Trip generation for the proposed Project was calculated using rates for Land Use 210 ("Single Family Detached Housing"), Land Use 230 ("Residential Condominium/Townhomes"), Land Use 820 ("Shopping Center"), Land Use 430 ("Golf Course"), and Land Use 520 ("Elementary School"), from the Institute of Transportation Engineers (ITE) *Trip Generation*, 8<sup>th</sup> Edition. Retail establishments typically draw some trips from traffic passing the site on an adjacent street. These trips are not "new" trips and were already occurring on the adjacent street system prior to the development of the commercial site but enter the commercial site en route to some other destination. These trips are referred to as "pass-by" trips and only affect traffic at the project driveways. Pass-by trips were adjusted from the total gross trips by taking pass-by trip percentages for the proposed commercial land uses from the ITE *Trip Generation Handbook* (2004) for Land Use 820 ("Shopping Center"). As is typical of most mixed-use projects, a percentage of trips generated by the project will be trips entirely within the Project itself, such

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as a trip from a retail store to a residence within the Project or a trip from home (residence) to school with the Project. These trips are referred to as “internal trips” and do not affect the surrounding street traffic or even the Project driveways. Internal trips were calculated using the Project select zone model plots obtained from the Pass Area Model (PAM; used for City of Banning General Plan Update, June 2005).

Table 4.13-7, *Project Trip Generation*, summarizes the trip generation by phase for the Project during the a.m. and p.m. peak hours.

As shown in Table 4.13-7, Phase I (Year 2022) is expected to generate 2,427 trips during the a.m. peak hour, 3,087 trips during the p.m. peak hour, and 34,049 daily trips. Phases I and II (Year 2032) are expected to generate 3,527 trips during the a.m. peak hour, 4,542 trips during the p.m. peak hour, and 48,156 daily trips. Project Completion (Year 2042) is expected to generate 4,626 trips during the a.m. peak hour, 5,998 trips during the p.m. peak hour, and 62,263 daily trips.

**Table 4.13-7  
Project Trip Generation**

			A.M. Peak Hour			P.M. Peak Hour			
Land Use	Units		In	Out	Total	In	Out	Total	Daily
Phase I - Year 2022									
Residential <sup>1</sup>	1,394	DU	265	780	1,045	878	530	1,408	13,341
Commercial <sup>2</sup>	549	TSF							
Gross Trips			338	216	554	1,200	1,279	2,480	25,944
Pass By Trips <sup>3</sup>			(80)	(80)	(161)	(359)	(359)	(719)	(7,521)
Net New Trips			257	136	393	841	920	1,761	18,423
Condominium/Townhouse <sup>4</sup>	402	DU	30	147	177	140	69	209	2,334
Elementary School <sup>5</sup>	200	TSF	584	458	1,042				3,092
Golf Course <sup>6</sup>	18	Holes	32	8	40	23	28	51	643
Internal Trip Capture <sup>7</sup>	10%		(117)	(153)	(270)	(188)	(155)	(343)	(3,783)
Total Phase I			1,051	1,376	2,427	1,694	1,392	3,087	34,049
Phase II - Year 2032									
Residential <sup>1</sup>	1,394	DU	265	780	1,045	878	530	1,408	13,341
Condominium/Townhouse <sup>4</sup>	402	DU	30	147	177	140	69	209	2,334
Internal Trip Capture (Phases I & II) <sup>7</sup>	10%		(146)	(246)	(392)	(290)	(215)	(505)	(5,351)
Total Phase I and II			1,316	2,210	3,527	2,610	1,932	4,542	48,156
Phase III - Year 2042									
Residential <sup>1</sup>	1,394	DU	265	780	1,045	878	530	1,408	13,341
Condominium/Townhouse <sup>4</sup>	402	DU	30	147	177	140	69	209	2,334
Internal Trip Capture (Phases I, II & III) <sup>7</sup>	10%		(176)	(338)	(514)	(392)	(275)	(666)	(6,918)
Total Phase I, II and III			1,582	3,044	4,626	3,526	2,471	5,998	62,263
Gross Project Trip Generation			1,757	3,383	5,140	3,918	2,746	6,664	69,181
Total Internal Trip Capture			(176)	(338)	(514)	(392)	(275)	(666)	(6,918)
Net Total Trip Generation			1,582	3,044	4,626	3,526	2,471	5,998	62,263

<sup>1</sup> Rates based on Land Use 210 - Single Family Detached Housing from Institute of Transportation Engineers (ITE) Trip Generation, 8th Edition.

<sup>2</sup> Rates based on Land Use 820 - Shopping Center from ITE Trip Generation, 8th Edition.

<sup>3</sup> Pass-By Rates based on Land Use 820 - Shopping Center from ITE Trip Generation Handbook, 2nd Edition.

<sup>4</sup> Rates based on Land Use 230 - Residential Condominium/Townhomes from ITE Trip Generation, 8th Edition.

<sup>5</sup> Rates based on Land Use 520 - Elementary School from ITE Trip Generation, 8th Edition.

<sup>6</sup> Rates based on Land Use 430 - Golf Course from ITE Trip Generation, 8th Edition.

<sup>7</sup> Internal Trip Capture Rates based on Project Select Zone from the Pass Area Model

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### **Trip Distribution and Assignment**

Project trip distribution patterns were developed using the PAM select zone trip assignment. Since the PAM considers the General Plan Build-out roadway network configuration, trip distribution patterns for existing plus Project and year 2022 plus Project scenarios were adjusted based on the existing roadway network configuration.

Exhibit 4.13-4 illustrates the trip distribution pattern for Existing and Year 2022 scenarios. Exhibit 4.13-5 illustrates the trip distribution pattern for Year 2032, Year 2042, and General Plan Build-Out scenarios. Exhibit 4.13-4 and Exhibit 4.13-5 illustrate the a.m. and p.m. peak hour Project trips for existing plus Project conditions at the study area intersections. Appendix I, *Traffic Impact Analysis*, Exhibit 4.13-6 and Table 4.13-7 illustrate the a.m. and p.m. peak hour project trips for Year 2042 project completion and General Plan Build-out year conditions at the study area intersections.

### **Existing (Baseline) plus Project Intersection Levels of Service**

A level of service analysis was conducted to evaluate existing (baseline) plus Project a.m. and p.m. peak hour traffic operations at the study area intersections. As shown in Table 4.13-3, *Existing Without and plus Project (Phase III) Intersection Levels of Service*, 25 intersections exceed LOS thresholds, prior to mitigation. Table 4.13-8 shows that, with mitigation recommended below, all intersections will function at acceptable levels of service. However, as addressed below and in the following “Potential Impacts Due To Traffic Mitigation”, and “Proposed Intersection Improvements – Funding Programs/Sources”, mitigation of certain Project-related impacts in other jurisdictions (besides Banning) are outside the control of the Applicant and the City of Banning, and/or would require substantial ROW or otherwise may not be feasible to construct. Therefore, these locations may have unavoidable significant impacts associated with either Project or cumulative traffic levels.



**Table 4.13-8**  
**Existing plus Project Mitigation Intersection Levels of Service**

Intersection	Control	LOS STD.	A.M. Peak Hour			P.M. Peak Hour		
			V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS
1 . I-10 Eastbound Ramps/San Timeteo Canyon Dr.	Signal	45s	0.79	15.8	B	0.71	21.6	C
2 . I-10 Westbound Ramps/Oak Valley Pkwy.	Signal	45s	0.47	8.8	A	0.56	13.2	B
3 . Elm Ave./Oak Valley Pkwy.-14th St.	TWSC	D	-	15.6	C	-	12.7	B
4 . Beaumont Ave./Oak Valley Pkwy.-14th St.	Signal	D	0.68	26.3	C	0.47	23.1	C
5 . Beaumont Ave./8th St.	AWSC	D	0.41	12.0	B	0.57	15.0	B
6 . Beaumont Ave./I-10 Westbound Ramps	Signal	45s	0.63	27.6	C	0.67	28.7	C
7 . Beaumont Ave./I-10 Eastbound Ramps	Signal	45s	0.76	23.5	C	0.83	29.3	C
8 . Beaumont Ave./1st St.	Signal	D	0.73	24.2	C	0.76	29.8	C
9 . Beaumont Ave./Westward Ave.			<i>Future Intersection</i>			<i>Future Intersection</i>		
10 . Lamb Canyon Rd./California Ave.	TWSC	C	-	13.2	B	-	24.7	C
11 . Palm Ave./Oak Valley Pkwy.-14th St.	Signal	D	0.49	14.7	B	0.52	8.4	A
12 . Palm Ave./8th St.	AWSC	D	0.89	24.3	C	0.44	10.9	B
13 . Pennsylvania Ave./Oak Valley Pkwy.-14th St.	AWSC	D	0.60	14.9	B	0.65	15.7	C
14 . Pennsylvania Ave./8th St.	AWSC	D	0.92	34.2	D	0.71	18.6	C
15 . Pennsylvania Ave./I-10 Westbound Ramp	Signal	45s	0.55	14.8	B	0.61	19.5	B
16 . Pennsylvania Ave./I-10 Eastbound Ramp	TWSC	45s	-	16.9	C	-	17.4	C
17 . Pennsylvania Ave./3rd St.	TWSC	D	-	18.6	C	-	20.5	C
18 . Cherry Ave./Oak Valley Pkwy.-14th St.	Signal	D	0.65	22.2	C	0.52	24.0	C
19 . Starlight Ave/ Oak Valley Pkwy.-14th St.	AWSC	D	0.64	19.2	C	0.63	16.8	C
20 . Highland Springs Ave./Brookside Ave.	AWSC	C	0.68	19.9	C	0.88	24.5	C
21 . Highland Springs Ave./16th St.-Cougar Way			<i>Future Intersection</i>			<i>Future Intersection</i>		
22 . Highland Springs Ave./F St.	Signal	C	0.61	20.5	C	0.79	21.3	C
23 . Highland Springs Ave./Oak Valley Pkwy.-14th St.-B St.	Signal	C	0.88	34.8	C	0.85	31.2	C
24 . Highland Springs Ave./Starlight Ave.-A St.	Signal	C	0.85	31.8	C	0.87	30.9	C
25 . Highland Springs Ave./8th St.-Wilson St.	Signal	C	0.75	30.9	C	0.77	27.7	C
26 . Highland Springs Ave./6th St.-Ramsey St.	Signal	D	0.70	28.4	C	0.82	36.1	D
27 . Highland Springs Ave./I-10 Westbound Ramps	Signal	45s	0.53	10.2	B	0.75	20.3	C
28 . Highland Springs Ave./I-10 Eastbound Ramps	Signal	45s	0.59	20.2	C	0.78	24.7	C
29 . Highland Springs Ave./1st St.-Sun Lakes Blvd.	Signal	C	0.22	28.1	C	0.37	29.0	C
30 . Highland Springs Ave./Potrero Blvd.	TWSC	C	-	10.8	B	-	12.7	B
31 . C St.-Apex Ave./Wilson St.	Signal	C	0.72	27.6	C	0.78	28.9	C
32 . Highland Home Rd./Northern Loop	Signal	C	0.52	18.9	B	0.65	21.2	C
33 . Highland Home Rd./Beaumont Rd.-G St	TWSC	C	-	12.7	B	-	16.7	C
34 . Highland Home Rd./F St.	TWSC	C	-	12.7	B	-	11.5	B
35 . Highland Home Rd./D St.	Signal	C	0.49	14.2	B	0.81	15.2	B
36 . Highland Home Rd./Wilson St.	Signal	C	0.56	28.3	C	0.83	34.4	C
37 . Highland Home Rd./Ramsey St.	Signal	D	0.53	22.5	C	0.60	17.5	B
38 . Sunset Ave./Wilson St.	Signal	C	0.66	13.1	B	0.68	18.4	B
39 . Sunset Ave./Ramsey St.	Signal	D	0.56	24.0	C	0.63	25.2	C
40 . Sunset Ave./I-10 Westbound Ramps	TWSC	45s	-	11.2	B	-	15.5	C
41 . Sunset Ave./I-10 Eastbound Ramps	TWSC	45s	-	19.6	C	-	21.5	C
42 . Sunrise Ave./Wilson St.	TWSC	C	0.82	19.7	C	0.70	16.0	C
43 . 16th St./Wilson St.	TWSC	C	-	13.8	B	-	14.4	B
44 . 8th St./Wilson St.	AWSC	C	0.82	21.1	C	0.51	12.1	B
45 . 8th St./Ramsey St.	Signal	D	0.48	28.6	C	0.70	38.4	D
46 . 8th St./I-10 Westbound Ramps	TWSC	45s	-	29.3	D	-	19.3	C
47 . 8th St./I-10 Eastbound Ramps	Signal	45s	0.61	22.3	C	0.57	20.9	C
48 . 4th St./Wilson St.	AWSC	C	0.61	12.9	B	0.45	10.5	B
49 . San Geronio Ave./Wilson St.	AWSC	C	0.62	12.6	B	0.43	10.8	B

Notes:

V/C = Volume/Capacity Ratio

LOS = Level of Service

TWSC = Two-Way Stop Control

AWSC=All-Way Stop Control

For TWSC intersections, reported delay is for worst-case approach.

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**Existing (Baseline) plus Project Freeway Segment Levels of Service**

Project volumes on study area freeway segments were developed by applying the Project trip distribution patterns at study area interchanges to the Project. Table 4.13-4 summarizes existing without and plus Project (Phase III) a.m. and p.m. peak hour freeway mainline traffic volumes and levels of service for the freeway segments on I-10 and SR-60. The TIA indicates conceptual freeway mainline improvements that could be implemented to address future regional growth on the State's local highway system for years 2022, 2032, 2042, and General Plan buildout (refer to Table 4.13-9 below); however, as indicated in Table 4.13-4, all freeway segments under existing conditions would operate at LOS E or better during the a.m. and p.m. peak hours in both directions with implementation of the Project. As discussed further below, regional improvements, including freeway mainline improvements, are necessary to address existing and projected cumulative traffic levels, and are funded through a variety of local, State and federal sources. Addressing regional transportation system impacts is beyond the scope of this Project or EIR, as such highway improvements are under the jurisdiction of FHWA, Caltrans, SCAG, WRCOG and others, and involve a balance between numerous criteria such as travel modes (single-occupancy vs. HOV), regulations and incentives to reduce VMT or promote carpooling (such as HOV toll facilities), provisions for heavy truck travel, design standards (such as interchange spacing, lane widths, mass transit, and/or mixed-flow lanes), and integration with other regional transportation systems such as air and freight-based goods movement.

**PROJECT MITIGATION MEASURES**

**Overview of Mitigation Measures.** The following mitigation measures have been developed to reduce all Project-related impacts to less than significant levels. For each mitigation measure, the improvement is preceded by a parenthetical number representing the TIA intersection study location, and is followed by the local agency with jurisdiction over the improvement location (in CAPS). Where relevant, the mitigation measure notes where the improvement is already funded (see discussion above for detailed discussion). The mitigation measure also notes the potential for right-of-way acquisition and associated potential impacts (refer to following discussion regarding "Potential Impacts of Traffic Mitigation").

As described above, the existing (baseline) plus Project conditions have been analyzed to determine full build out of the Project on the existing conditions. This is based on adding 100% of Project traffic (at buildout) to the existing road network and existing traffic volumes, then developing mitigation to bring the respective location back to pre-Project conditions. Actual Project traffic volumes and related impacts will be much lower, gradually increasing to the buildout levels assumed in this scenario over the 30-year buildout of the Project (refer to Appendix I, *Traffic Impact Assessment*, for a detailed analysis of various interim year scenarios).

**City of Banning Improvements.** For the Existing plus Project traffic improvements within the City of Banning, the Applicant will be required to construct or fund the improvements on a phased schedule as determined necessary with each Final Tract Map submittal (see Mitigation Measure TRF-1). If not constructed by the City or others, the Applicant shall construct Project-related improvements in the City of Banning noted below, for credit against Project traffic fees (refer to Mitigation Measure TRF-2).

The Applicant's total traffic-related fees are estimated at over \$49 million, based on current City fees, for residential units only, and excluding contributions to General Fund revenue, plan check fees, improvement plan fees, and other City fees and Project funding sources.

**City of Beaumont Improvements.** As described in the funding discussion above, Project-related impacts in the City of Beaumont are funded through several existing City of Beaumont fee programs. Since the Project's land use and associated traffic generation has not materially changed since 1992, the City of Beaumont's long-range circulation system planning has accounted for City of Banning traffic. In addition, the Project will be paying TUMF fees, which are expressly intended for mitigation of regional traffic impacts, and the Applicant is materially participating with Beaumont in addressing regional traffic issues such as the Highland Springs Avenue/I-10 interchange (see discussion below under "Caltrans Improvements").

**Highland Springs Avenue Beaumont/Banning Improvements.** Project-related impacts along Highland Springs Avenue, adjacent to the western Project boundary, would be located on the boundary of the City of Banning and the City of Beaumont. Considering that the Applicant, Pardee Homes, is the owner/developer for the Sundance Specific Plan in the City of Beaumont, and based on a long history of successfully working with the Cities of Beaumont and Banning to cooperatively resolve traffic issues, the Applicant shall construct improvements within the City of Beaumont, as identified below, along Highland Springs Avenue from Brookside Avenue to I-10.

**County of Riverside Improvements.** As described in the funding discussion above, Project-related impacts to County roadways are funded through several existing County fee programs, most notably TUMF. Since the Project's land use and associated traffic generation has not materially changed since 1992, the County's long-range circulation system planning has accounted for traffic that would ultimately be generated by development of the Project site. In addition to TUMF fees, which are expressly intended for mitigation regional traffic impacts, the Project will also be contributing toward funding of County road improvements through General Fund revenue from property tax, sales tax and other Project-related revenue. The Applicant has also been materially participating and funding portions of several regional transportation improvement studies (described under "Caltrans Improvements" below), and will be extending Highland Home Road from its existing terminus just north of Wilson Street northerly through the Project and connecting to the existing terminus of Brookside Avenue. This is a regional road improvement providing important additional north/south and east/west

circulation between Beaumont, Banning, the I-10 corridor, and unincorporated Cherry Valley areas and beyond. The Applicant would incur significant costs for this road improvement, and the improvement would be funded 100% by the Applicant.

**Caltrans Improvements.** Since the Project's land use and associated traffic generation has not materially changed since 1992, the long-range Caltrans system planning has accounted for City of Banning traffic. In addition, the Project will be paying TUMF fees, which are expressly intended for mitigation regional traffic impacts. The Project will also be contributing toward regional road improvements through property tax, sales tax, vehicle license fees, gas tax, income tax, and other Project-related sources. Project-related revenue from gasoline tax alone is estimated at over \$7 million<sup>3</sup> annually at buildout; however, the amount of locally generated gas taxes from future Project residents to be applied to local I-10 improvements cannot be determined or guaranteed. The California interstate system, such as I-10, also receives additional state and federal funding through the federal highway reauthorization bills, special federal authorizations, and state and local bond measures. The Applicant has been materially participating in, and leading, the combined efforts of the Cities of Banning and Beaumont to address regional traffic issues, such as the I-10/Highland Springs Avenue interchange<sup>4</sup>.

Based on the review of the Pass Area Regional Transportation Needs Assessment Report (PARTNAR) prepared by Caltrans (February 2010), a new interchange at Highland Home Road and I-10 was not identified as a future need in the region. Highland Home Road/I-10 interchange is not listed in the need assessment report for the region. Also, the recently completed I-10/Highland Springs Interchange Project Study Report (PSR), submitted for review to Caltrans, shows that existing interchanges on I-10 with some improvements will provide adequate access to regional traffic to and from the freeway in a 2035 condition.

**Improvements Funded or Controlled by Others.** Notwithstanding the above regarding the adequacy and availability of Project-related funding for Project-related improvements, certain mitigation measures identified below are under the control of jurisdictions other than the City of Banning. In addition, the Project's funding of improvements in these jurisdictions is in some cases not location-specific (while TUMF fees and Beaumont's fee programs are targeted toward specific locations, not all locations are presently identified in TUMF or Beaumont fee programs, and some regional improvements receive funding through General Fund and similar sources, for which the timing and allocation to specific improvements is uncertain). As such, neither the City of Banning nor the Applicant can guarantee that the mitigation measures identified in jurisdictions other than Banning will in fact be constructed in a timely manner. In addition, as noted in the "Potential Impacts Due To Traffic Mitigation" below, certain improvements may

<sup>3</sup> Based on 62,000 total daily trips, an assumed average triplength of 10 miles, average fuel economy of 20 mpg, and current state/federal gas taxes of \$0.639/gallon.

<sup>4</sup> Pardee Homes was recently recognized for its leadership and funding support for the "Highland Springs Avenue Improvements Task Force", at the City of Beaumont's October 5, 2010 City Council meeting. This Task Force will identify interim measures to improve current local roadway conditions.

not proceed due to feasibility issues associated with potential ROW acquisition, cost, and/or structural takes. Therefore, as noted at the end of this section, this represents a “potentially significant impact” even with identified mitigation.

### Mitigation Measures

The circulation mitigations identified in Table 4.13-9 are required to mitigate levels of service for study intersections to pre-Project conditions or better to meet current LOS criteria (*refer to discussion below regarding funding and phasing of these improvements, and note that many of these improvements are already included in local or regional improvement programs*):

**TRF-1:** If not constructed by the City or others, the Applicant shall construct road improvements identified in Table 4.13-9, *Summary of Future Improvements* (“Existing plus Project” improvements in the City of Banning only). These improvements include portions on Highland Springs Avenue in the City of Beaumont, between I-10 and Brookfield, but exclude locations that are deemed by the affected jurisdiction(s) to be infeasible due to impacts of ROW acquisition. If constructed by the Applicant, the cost of these improvements shall be credited against applicable City fees, and/or shall be eligible for reimbursement agreements with the City and/or third parties. The Improvements listed in Table 4.13-9 shall be consistent with the General Plan Circulation Element.

**TRF-2:** As part of each Final Tract Map, or appropriate group of maps, the Applicant shall prepare a TIA Validation Report (TVR) based on the criteria provided herein for review and approval by the City Engineer. Final Tract Map approvals resulting in less than 500 p.m. peak hour trips (Exempt Maps) shall not require a TVR, unless the cumulative total of prior approved Exempt Maps exceeds 1,000 p.m. peak hour trips since the last TVR.

The TVR shall identify which of the Existing plus Project improvements identified in Table 4.13-9 are required to be constructed for the respective Final Tract Map, to ensure adequate emergency access and satisfactory levels of service. Improvements identified in an approved TVR shall be conditions of Final Tract Map approval. To the extent that any of the improvements mentioned above are included in a fee program, the cost for those improvements, if constructed by the Applicant, will be eligible for fee credits.

The ongoing traffic impact assessment program will be based on the p.m. peak-hour trip threshold. The Final Tract Maps’ total number of p.m. peak hour trips will be established based on the trip generation listed in Table 4.13-7, *Project Trip Generation*. If a portion of commercial development and some residential development is included in the Final Tract Map, the total number of trips

generated by each use (commercial and residential) will be calculated for the p.m. peak hour and compared to a predefined threshold.

Recognizing the variety of land use options, overlays and permitted or conditionally permitted uses, the TVR will also be used to verify, as the Project builds out, that the Project's total peak hour trips are consistent with the assumptions in the Project TIA.

***Impact 4.13-1: Conflict with an Applicable Plan, Ordinance, or Policy***

***Threshold:*** *Would the project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?*

***Determination: Potentially Significant and Unavoidable Impact with Mitigation Incorporated*** (due to uncertainty of mitigation feasibility at Highland Springs/Wilson, and lack of control over mitigation implementation in jurisdictions other than Banning, as noted in the text).

Refer to the above discussion regarding the Project's effects upon the local circulation system.

**City of Banning General Plan Policy Analysis**

Goal: A safe and efficient transportation system.

Policy 1: The City's Recommended General Plan Street System shall be strictly implemented.

**Consistent:** The Project proposes a circulation system that is described in Section 3, *Project Description*. Any roadways constructed within the Project would need to comply with applicable City and County design standards and regulations as set forth in the Specific Plan. The Applicant is requesting consideration of various special provisions as is typical with the Specific Plan process. If approved by the City, the Specific Plan provisions would supersede the respective General Plan maps for the Project site. These special provisions include consideration of private streets within the Specific Plan, potential gated communities, and a modified cross-section for portions of Wilson Street and Highland Home Road to better reflect site-specific conditions. These are addressed in detail within the Specific Plan, Section 3, *Circulation*.



Table 4.13-9  
Summary of Future Improvements

Intersection	Jurisdiction	Existing Plus Project (Project Completion)	Existing Plus Project (Project Completion)			General Plan Build-Out Plus Project	General Plan Build-Out		
			Funded through TUMF Program	Funded through Local Fee Program	Project Funded		Funded through TUMF Program	Funded through Local Fee Program	New Funding
1 . I-10 Eastbound Ramps/San Timeteo Canyon Dr.	Caltrans	Signalize.		Signalize		Signalize, 2 SBL, 3 EBT, WBL, 2 WBT, WBR, Convert SBR - Free SBR.	Signalize, 2 SBL, 3 EBT, WBL, 2 WBT, WBR, Convert SBR - Free SBR.		
2 . I-10 Westbound Ramps/Oak Valley Pkwy.	Caltrans	Signalize.		Signalize		Signalize, Convert NBR to free NBR, 2 EBT, EBR, 2 WBT.	Signalize, Convert NBR to free NBR, 2 EBT, EBR, 2 WBT.		
3 . Elm Ave./Oak Valley Pkwy.-14th St.	Beaumont	Signalize.		Signalize		Signalize, NBL, SBL, SBR, EBL, EBT, EBR, WBT.		Signalize	NBL, SBL, SBR, EBL, EBT, EBR, WBT.
4 . Beaumont Ave./Oak Valley Pkwy.-14th St.	Beaumont								
5 . Beaumont Ave./8th St.	Beaumont					Signalize, NBL		Signalize	NBL
6 . Beaumont Ave./I-10 Westbound Ramps	Caltrans					NBL.	NBL.		
7 . Beaumont Ave./I-10 Eastbound Ramps	Caltrans					EBL, SBL.	EBL, SBL.		
8 . Beaumont Ave./1st St.	Beaumont					EB & WB PERM-PROT, NBT, SBT, EBT, WBT, WBR with overlap.	EB & WB PERM-PROT, NBT, SBT, EBT, WBT, WBR with overlap.		
9 . Beaumont Ave./Westward Ave.	Beaumont					Signalize, NBL, NBR, SBL, SBR, 2 EBL, WBL.	Signalize, NBL, NBR, SBL, SBR, 2 EBL, WBL.		
10 . Lamb Canyon Rd./California Ave.	Riverside County					Signalize, SBL	SBL	Signalize	
11 . Palm Ave./Oak Valley Pkwy.-14th St.	Beaumont	Signalize.		Signalize		Signalize, EBT,WBT, Re-stripe EB, WB, & NB approaches to 1 left-turn and a through right lane	EBT,WBT, Re-stripe EB, WB, & NB approaches to 1 left-turn and a through right lane	Signalize	
12 . Palm Ave./8th St.	Beaumont					Signalize, WBL.		Signalize	WBL
13 . Pennsylvania Ave./Oak Valley Pkwy.-14th St.	Beaumont	(EBT,WBT) Stripe.	(EBT,WBT) Stripe.			Signalize, (EBT, WBT) Stripe	(EBT, WBT) Stripe	Signalize	
14 . Pennsylvania Ave./8th St.	Beaumont	WBL, WBR.			WBL, WBR. *	Signalize, NBR, EBL, WBL, WBR.		Signalize	NBR, EBL, WBL, WBR.
15 . Pennsylvania Ave./I-10 Westbound Ramp	Caltrans	Signalize.		Signalize		Signalize, NBR, SBL, NBT.	Signalize, NBR, SBL, NBT.		
16 . Pennsylvania Ave./I-10 Eastbound Ramp	Caltrans					Signalize, NBT, EBR.	Signalize, NBT, EBR.		
17 . Pennsylvania Ave./3rd St.	Beaumont					TWLTL	TWLTL		
18 . Cherry Ave./Oak Valley Pkwy.-14th St.	Beaumont	Signalize.		Signalize		Signalize, EBT		Signalize	EBT
19 . Starlight Ave/ Oak Valley Pkwy.-14th St.	Beaumont					Signalize		Signalize	
20 . Highland Springs Ave./Brookside Ave.	Riverside County	Convert TWSC to AWSC, WBR.			Convert TWSC to AWSC, WBR.	Signalize, NBT, NBR, 2 SBL, SBT, EBL, EBT, EBR, 2 WBL, WBT, WBR.	NBT, SBT		Signalize, NBR, 2 SBL, EBL, EBT, EBR, 2 WBL, WBT, WBR.
21 . Highland Springs Ave./16th St.-Cougar Way	Beaumont/Banning					Signalize			Signalize
22 . Highland Springs Ave./F St.	Beaumont/Banning	Signalize.		Signalize		Signalize, NBR		Signalize	NBR
23 . Highland Springs Ave./Oak Valley Pkwy.-14th St.-B St.	Beaumont/Banning	NBL, NBR, WBL.	NBL, NBR, WBL.			NBL, NBT, SBT.	NBL, NBT, SBT.		
24 . Highland Springs Ave./Starlight Ave.-A St.	Beaumont/Banning	Signalize,NBT,SBT,SBL, WBL.	NBT,SBT,SBL.	Signalize	WBL	Signalize, NBL, NBT, NBR with overlap, SBL, SBT, SBR, EBL, EBR with overlap, WBL.	NBT, SBL, SBT	Signalize	NBL, NBR with overlap, SBR, EBL, EBR with overlap, WBL.
25 . Highland Springs Ave./8th St.-Wilson St.	Beaumont/Banning	NBT,WBL.	NBT,WBL.			2 NBT, SBL, SBR, EBR, WBL, Convert the WBR to WBR with overlap.	2 NBT, SBL, SBR, EBR, WBL, Convert the WBR to WBR with overlap.		
26 . Highland Springs Ave./6th St.-Ramsey St.	Beaumont/Banning	Optimize Traffic Signal		Optimize Traffic Signal		Optimize Traffic Signal, NBL, NBT, SBL, SBT, WBL.	NBL, NBT, SBL, SBT, WBL.	Optimize Traffic Signal	
27 . Highland Springs Ave./I-10 Westbound Ramps	Caltrans	Optimize Traffic Signal	Optimize Traffic Signal			Optimize Traffic Signal, NBL, NBT, WBL, WBR.	Optimize Traffic Signal, NBL, NBT, WBL, WBR.		
28 . Highland Springs Ave./I-10 Eastbound Ramps	Caltrans	Optimize Traffic Signal, EBL	Optimize Traffic Signal, EBL			Optimize Traffic Signal, NBT, SBL, EBL, EBR.	Optimize Traffic Signal, NBT, SBL, EBL, EBR.		
29 . Highland Springs Ave./1st St.-Sun Lakes Blvd.	Beaumont/Banning					NBT, NBR with overlap, SBL, EBR with overlap, 2 WBL, Convert WBTL to WBT.	NBT, NBR with overlap, SBL, EBR with overlap, 2 WBL, Convert WBTL to WBT.		
30 . Highland Springs Ave./Potrero Blvd.	Beaumont/Banning					Signalize		Signalize	
31 . C St.-Apex Ave./Wilson St.	Banning	Signalize, EBL.	EBL		Signalize	Signalize, EBL, EBT, WBT.	EBL, EBT, WBT.		Signalize
32 . Highland Home Rd./Northern Loop	Banning	Signalize.			Signalize	Signalize, NBL, NBT, SBT, SBR			Signalize, NBL, NBT, SBT, SBR
33 . Highland Home Rd./Beaumont Rd.-G St	Banning					Signalize, NBT, 2 SBL, WBL, NBR			Signalize, NBT, 2 SBL, WBL, NBR
34 . Highland Home Rd./F St.	Banning					Signalize, NBL			Signalize, NBL
35 . Highland Home Rd./D St.	Banning	Signalize.			Signalize	Signalize, NBL			Signalize, NBL
36 . Highland Home Rd./Wilson St.	Banning	Signalize, SBL.		Signalize	SBL	Signalize, NBT, 2 SBL, SBT, WBR with overlap.		Signalize	NBT, 2 SBL, SBT, WBR with overlap.
37 . Highland Home Rd./Ramsey St.	Banning	Signalize.		Signalize		Signalize, WBR with overlap		Signalize	WBR with overlap
38 . Sunset Ave./Wilson St.	Banning	Signalize.		Signalize		Signalize, 2 NBL, NBT, SBL, SBT, SBR with overlap, 2 WBL, WBT, WBR, 2 EBL, EBT, EBR.	WBL, WBT, EBL, EBT	Signalize	2 NBL, NBT, SBL, SBT, SBR with overlap, WBL, WBR, EBL, EBR.
39 . Sunset Ave./Ramsey St.	Banning					NBL, NBR, SBL, SBR, EBR with overlap, WBL.			NBL, NBR, SBL, SBR, EBR with overlap, WBL.
40 . Sunset Ave./I-10 Westbound Ramps	Caltrans					Signalize, Free SBR.	Signalize, Free SBR.		
41 . Sunset Ave./I-10 Eastbound Ramps	Caltrans	Convert SBTL to SBL, EBL.	Convert SBTL to SBL, EBL.			Signalize, SBL, 2 EBL.	Signalize, SBL, 2 EBL.		
42 . Sunrise Ave./Wilson St.	Banning	Convert TWSC to AWSC.			Convert TWSC to AWSC.	Signalize, EBTL, Convert WBR to WBTR.	EBTL, Convert WBR to WBTR.		Signalize
43 . 16th St./Wilson St.	Banning					Signalize			Signalize
44 . 8th St./Wilson St.	Banning					Signalize, NBL, SBL, WBR	NBL, SBL, WBR	Signalize	
45 . 8th St./Ramsey St.	Banning					NBL, NBR, EBT, WBL.	NBL, NBR, EBT, WBL.		
46 . 8th St./I-10 Westbound Ramps	Caltrans					Signalize, 2 NBL, NBT, SBT.			Signalize, 2 NBL, NBT, SBT.
47 . 8th St./I-10 Eastbound Ramps	Caltrans	Signalize.			Signalize.	Signalize, NBT,SBT, SBL, EBL, EBR.			Signalize, NBT,SBT, SBL, EBL, EBR.
48 . 4th St./Wilson St.	Banning					Signalize			Signalize
49 . San Gorgonio Ave./Wilson St.	Banning					Signalize, EBT, EBL, WBTL		Signalize	EBT, EBL, WBTL

Notes:  
\* With the exception of Pennsylvania Avenue/8th Street, Pardee Homes will not provide project funding at City of Beaumont intersections.  
NB, SB, EB, WB: Northbound, Southbound, Eastbound, Westbound  
L, T, R: Left, Through, Right  
Within the City of Beaumont  
Shared by both City of Beaumont and Banning  
Within the City of Banning  
Improvement funded by Beaumont Transportation Fee/TUMF  
Improvement funded by Banning Signal Fee  
Improvement funded by Beaumont Signal Fee

Exhibit 3.0-3, *Land Use Plan* in Section 3.0, *Project Description*, illustrates the internal backbone street network for the proposed Butterfield Specific Plan Project. The street network that comprises these major streets has seven internal intersections within the Project site. Both a.m. and p.m. peak hour intersection volumes that were obtained from the model were used to analyze the operating conditions of these seven internal intersections. Each intersection was analyzed as a stop-controlled intersection at the minor street approach only. Table 4.13-10 shows that all the intersections operate acceptably at LOS C or better in a.m. and p.m. peak hour. A signal warrant analysis was conducted for the seven intersections to determine if a signal is warranted at any of the intersections where a signal has been recommended as mitigation. As shown in Appendix I, *Traffic Impact Analysis*, Appendix G, all intersections where a signal has been recommended as mitigation warrant signals. Detailed HCM worksheets for the analyses are also included in Appendix I, *Traffic Impact Analysis* (Appendix H).

**Table 4.13-10**  
**Internal Intersections Level of Service Summary**

Intersection		A.M. Peak Hour		P.M. Peak Hour	
		Delay (seconds)	LOS	Delay (seconds)	LOS
1	F Street/Northern Loop	12.3	B	13.7	B
2	E Street/F Street	9.2	A	10.1	B
3	E Street/Southern Loop	9.1	A	10.9	B
4	D Street/Southern Loop	10.6	B	12.1	B
5	C Street/Southern Loop	9.1	A	9.6	A
6	A Street/Southern Loop	11.8	B	20.4	C
7	B Street/Southern Loop	11.3	B	15.5	C

Policy 2: Local streets shall be scaled to encourage neighborhood interaction, pedestrian safety and reduced speeds.

**Consistent:** The proposed Project includes local streets that provide access from arterial highways to proposed residential areas, parks, schools, commercial sites, golf course, and other recreational areas. The Project roadways that are modified collector classification or higher are designed to provide on-street bicycle lanes, minimum 6 feet wide, providing connections to regional and local facilities, and residential areas within the Project. Trails/pathways and sidewalks providing pedestrian safety from vehicles will also be provided along roadways within the Project.

Policy 5: Consider amendments to the Highland Home/Highland Springs/18<sup>th</sup> Street/Brookside street configurations based on public safety, design feasibility and area needs.



**Consistent:** Proposed Project improvements for Highland Springs Avenue, from Wilson Street to Brookside Avenue, will accommodate an ultimate minimum right-of-way of approximately 102 feet, which will provide a raised median and two travel lanes in each direction, an outside emergency and bike lane on each side, as well as parkway improvements. Highland Home Road, from Wilson Street to proposed “F” Street, has existing homes and the approved Tract No. 30906 (Fiesta Development) on the east side of the proposed and existing roadway. However, this portion of the road is planned to provide a combined 126 foot right-of-way, a 16 foot raised median, a 14 foot lane on each side adjacent to the median, 12 foot outside lanes, and a 6 foot wide emergency or bike lane on each side. A parkway containing tall shrubs or a wall will separate the proposed Highland Home Road roadway and the existing homes and proposed 20-foot wide frontage road.

Highland Home Road from just south of the proposed “D” Street to “F” Street, is proposed to provide 104 feet of right-of-way, which includes a 16 feet raised median, two travel lanes on each side, and a 6 feet wide emergency or bike lane per side.

Highland Home Road, from proposed “F” Street to Brookside Avenue is proposed to provide 100 feet of right-of-way, including a median, two through lanes on each side and a emergency/parking lane or minimum 6 feet bicycle lanes on each side.

Policy 6: The City shall maintain peak hour Level of Service C or better on all local intersections, except those on Ramsey street and at I-10 interchanges, where Level of Service D or better shall be maintained.

**Consistent:** Appendix I, *Traffic Impact Analysis*, presents transportation improvements and mitigations that would provide acceptable levels of service at study area intersections in accordance with Policy 6. All study area intersections are mitigated to pre-Project conditions. Refer to the discussion below regarding “Potential Impacts Due To Traffic Mitigation”, regarding potential reduction in impacts should the City of Banning accept an LOS D criteria on other urban arterials such as Highland Springs Avenue. The TIA provides a detailed discussion regarding off-site traffic improvements that would not be necessary should the City elect to adopt an LOS D criteria on specified urban streets.

Policy 7: New development proposals shall pay their fair share for the improvement of streets within and surrounding their projects on which they have an impact, including roadways, bridges, grade separations and traffic signals.

**Consistent:** As described in greater detail in the Funding discussion in Section 4.13-5, the Project will pay applicable City of Banning traffic fees, regional TUMF fees, and will implement identified improvements within the Specific Plan and along Project frontages.

Policy 10: Sidewalks shall be provided on all roadways 66 feet wide or wider. In Rural Residential land use designation, pathways shall be provided.

Policy 11: Sidewalks or other pedestrian walkways shall be required on all streets within all new subdivisions.

**Consistent:** All Project roadways 60 feet wide or wider within the Project will have sidewalks provided for safe pedestrian circulation. The Project proposes various sidewalks and other pedestrian walkways throughout the site. Refer to Section 3, *Project Description*.

***Impact 4.13-2: Conflict with an Applicable Congestion Management Program***

**Threshold:** *Would the project conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?*

**Determination:** *Potentially Significant and Unavoidable Impact with Mitigation Incorporated* (although the TIA identifies mitigation to achieve acceptable levels of service, CMP facilities are outside the jurisdiction of the City of Banning, and the recommended improvements may not be implemented due to feasibility, prioritization or other factors).

The Riverside County CMP has a standard of LOS E or better for CMP facilities. CMP facilities affected by the Project include SR-60, I-10, SR-79 (Beaumont Avenue) south of I-10, and SR-243 south of I-10. As discussed in Appendix I, Traffic Impact Assessment, Section 7, the TIA identifies potential freeway ramp improvements and freeway mainline improvements, as well as recommended mitigation measures for SR-79 and SR-243. Freeway mainline improvements are described further below in Cumulative Impacts. The EIR identifies mitigation to achieve acceptable levels of service for CMP facilities (discussed above). However, as these improvement locations are outside the control of the City of Banning and the Applicant, timely implementation of the mitigation measures is uncertain, and therefore these issues must be considered a “potentially unavoidable significant impact”.

***Impact 4.13-3: Result in a Change in Air Traffic Patterns or Cause Safety Risks***

**Threshold:** *Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?*

**Determination:** *No Impact*

The proposed Project site is located approximately 4 miles northwest of the Banning Municipal Airport. The proposed Project will not change air traffic patterns because there are no

structures proposed to be constructed within the Project site that would be tall enough to encroach into or physically affect existing air traffic patterns. Also refer to Section 7.0, *Effects Found Not To Be Significant*.

***Impact 4.13-4: Increase Hazards***

***Threshold:*** *Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

***Determination:*** *Less than Significant*

All Project roadways would be designed and built in compliance with City of Banning, County of Riverside, CALTRANS and other relevant regulating agency development standards, requirements, and regulations. The Project site will not be subject to active “farming” involving frequent or intense use of agricultural equipment. The Applicant intends to continue allowing periodic grazing activity on the site as a Project benefit, and such uses have historically not created any significant safety hazards, nor are they anticipated to in the future. Also refer to Section 7.0, *Effects Found Not To Be Significant*.

***Impact 4.13-5: Result in Inadequate Emergency Access***

***Threshold:*** *Would the project result in inadequate emergency access?*

***Determination:*** *No Impact*

The Project proposes several ingress/egress points into the Butterfield Specific Plan Project area, which provide options for alternate emergency routes. City road design requirements provide adequate space for the passage of emergency vehicles based on the road classification width. The Project has been modified based on initial discussions with City staff to provide additional emergency access points for PAs 5 and 11. The Project creates additional regional access by extending and widening existing Highland Home Road to connect to existing Brookside Avenue.

***Impact 4.13-6: Conflict with Adopted Policies, Plans, or Programs or Decrease Safety of Alternative Travel Facilities***

***Threshold:*** *Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?*

***Determination:*** *Less than Significant*

Public transit in the City of Banning is currently provided by the City's Transit Fixed Route Division, which provides bus services and Dial-A-Ride service. Riverside Transit Agency (RTA) coordinates transit services with the City of Banning. The Project would not decrease transit performance because the Project is required to consult with the City of Banning and Riverside County Transit authorities to expand scheduled bus service, to implement long-term public transportation projects, and to develop vanpools and subscription bus service where appropriate. The proposed Project includes a variety of alternative transportation modes such as a pedestrian trail system, accommodation for Neighborhood Electric Vehicles (NEV), and bicycle lanes. These modes of transportation are consistent with the City of Banning General Plan Circulation Element because the City's General Plan and various Policies support planning that allows and enhances access to commercial services and places of employment and recreation without the essential use of motorized vehicles. The proposed addition of pedestrian, bicycle and NEV facilities that are connected and not discontinuous, like various existing facilities within the City, will provide safe paths for pedestrians, bicycles and NEVs to travel throughout the Specific Plan area. Refer to the Butterfield Specific Plan Section 3.2, *Circulation Plan*, for more detail on the proposed alternative transportation facilities. Additional non-vehicular transportation measures are discussed in Section 4.5, *Climate Change*. The proposed Project would not conflict with the performance of transit systems within the area or with adopted plans or programs related to pedestrian, bicycle, and transit facilities. Impacts would be less than significant in this regard.

#### **4.13.5 PROPOSED INTERSECTION IMPROVEMENTS – FUNDING PROGRAMS/SOURCES**

Infrastructure improvements are needed to accommodate the projected population growth in the Pass Area region. As a part of the infrastructure improvements, several roadway segments, interchanges and intersections will have to be improved to accommodate the corresponding growth in traffic in the future. Several funding mechanisms/programs at both the regional and local level are developed by jurisdictions to address the long term transportation infrastructure needs for the region. Typically, these programs collect a mitigation fee for listed set of improvements along roadway segments, interchanges, and intersections. The following are the fee programs that cover the roadway segments, interchanges and intersections in the study area for the proposed Project:

- The Western Riverside Council of Governments (WRCOG), Transportation Uniform Mitigation Fee
- City of Beaumont Road and Bridge Fee
- City of Beaumont Traffic Signal, Railroad Crossing and Fire Station Impact Mitigation Fee
- City of Banning Development Impact Fee

The City of Banning's General Plan (GP) and supporting Environmental Impact Report (EIR) contains City commitments (i.e., mitigation measures) to assuring that acceptable levels of service are maintained and currently accounts for the development of the existing Deutsch SP, which is consistent with the density and intensity of land uses for the proposed project. Policy 3 and Program 3A of the GP Circulation Element provide that the City Public Works Department shall establish and maintain a 5-year Capital Improvement Program (CIP) and update it annually. Program 4B provides that the City will aggressively pursue the addition of Banning projects to the TUMF program. Policy 6 and Program 6B provide that the City will maintain peak hour LOS C or better on all local intersections, except those on Ramsey Street and at I-10 interchanges, where LOS D or better shall be maintained and that the City will periodically review current traffic volumes and the actual pattern of development to coordinate, program and, as necessary, revise road improvements. Policy 7 provides that new development proposals shall pay their fair share for the improvement of streets within and surrounding their projects on which they have an impact, including roadways, bridges, grade separations, and traffic signals.

**WRCOG Transportation Uniform Mitigation Fee (TUMF)<sup>5</sup>:**

The underlying purpose of the TUMF program is “the need to establish a comprehensive funding source to mitigate the cumulative regional transportation impacts of new development on regional arterial highways.” As new development occurs in Western Riverside County, the cumulative transportation impacts of this new development is reflected in increased demand for transportation infrastructure leading to decreased levels of service, increased delay and increased congestion on regional transportation facilities, and an overall decline in regional mobility. Therefore, the need to invest in additional transportation infrastructure to meet the increased travel demand and to sustain pre-development traffic conditions to “keep traffic flowing” represents the fundamental premise of the TUMF program.

Under the TUMF program a backbone roadway network and freeway interchanges that connect to the backbone roadway network are identified. Within the City of Banning the following roadway segments are included in the TUMF program and are proposed to be widened;

- 8th Street between Wilson Street and I-10 – widened to a 2 lane facility
- The Highland Springs Boulevard and Sunset Avenue interchanges with I-10
- The Sunset Avenue interchanges with I-0
- Highland Springs between Cherry Valley Boulevard and Wilson Street – widened to a 4 lane facility

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<sup>5</sup> Source: Transportation Uniform Mitigation Fee 10-Year Strategic Plan and Transportation Improvement Program Development Guidelines (Updated November 15, 2006 and Amended June 05, 2007) and WRCOG TUMF Nexus Study – 2009 Program Update.

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- Highland Springs between Wilson Street and Sun Lakes Boulevard – widened to a 6 lane facility
  - Ramsey Street between Highland Springs Avenue and 8th Street – widened to a 4 lane facility
  - Sun Lakes Boulevard between Highland Springs Avenue and Highland Home Road – widened to a 4 lane facility
  - Sun Lakes Boulevard between Highland Home Road and Sunset Avenue – widened to a 2 lane facility
  - Wilson Street between Highland Springs Avenue and 8th Street – widened to a 4 lane facility

It should be noted that a typical roadway standard for TUMF network improvements assumes the following standard design characteristics that are generally consistent with the minimum statutory requirements for roadway capacity expansion in the region:

- 12 foot wide asphalt concrete roadway lanes;
- 14 foot painted median (or center left turn lane);
- 4 foot wide paved shoulder/bike lanes (on the roadway);
- Curb and gutter with accompanying roadway storm water drainage;
- 6 foot wide sidewalks

The unit cost values for the TUMF were developed for various eligible improvement types that all provide additional capacity needed to mitigate the cumulative regional traffic impacts on the regional system of highways and arterials. Eligible improvement types include:

- Construction of additional network roadway lanes;
- Construction of new network roadway segments;
- Expansion of existing network bridge structures;
- Construction of new network bridge structures;
- Expansion of existing network interchanges with freeways;
- Construction of new network interchanges with freeways;
- Grade separation of existing network at-grade railroad crossings;
- Expansion of existing network-to-network intersections.

The roadway improvements in excess of the typical roadway standard (as described above) are not eligible for TUMF funding and will be the responsibility of the local developer or funding

agency. Where improvements in excess of the typical roadway standard are to be implemented, the equivalent value for implementing the typical roadway standard will be eligible for funding as part of the TUMF program.

Several intersections along the TUMF network roadway are included in the Butterfield Specific Plan Traffic Impact Analysis, as noted in applicable mitigation measures below.

**City of Beaumont Road and Bridge Fee<sup>6</sup>:**

The transportation facility fee known as the Beaumont Road and Bridge Fee was developed to fund the design, construction and upgrade of certain transportation facilities necessary to serve future development in the City. The facilities to be funded by the transportation facility fee are listed below:

- SR-60/Potrero Boulevard Interchange
- I-10/Oak Valley Parkway Interchange
- I-10/SR-79 Interchange
- I-10/Highland Springs Avenue Interchange
- I-10/Pennsylvania Avenue Interchange
- Potrero Boulevard between Oak Valley Parkway and First Street
- Beaumont Avenue (SR-79) between 6th Street and Westward Avenue
- Pennsylvania Avenue between 6th Street and First Street
- Highland Springs Avenue between 6th Street and First Street

The ultimate build out of the transportation facilities listed above are planned to be consistent with the Circulation Element of the City's General Plan. All of the I-10 interchanges listed above were included in the Butterfield Specific Plan Traffic Impact Analysis.

**City of Beaumont Traffic Signal, Railroad Crossing and Fire Station Impact Mitigation Fee<sup>7</sup>**

The ordinance for establishing the traffic signal, railroad crossing and fire station impact mitigation fee included the establishment of a separate fee account for Traffic Signal Mitigation and the fees collected in this account would be expended solely for the purchase and installation of traffic signals at intersections throughout the City. The ordinance does not list the

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<sup>6</sup> Resolution of the City of Beaumont Amending the Beaumont Road and Bridge Area Benefit District Transportation Facility Fee (Resolution No. 2008-44) – November 2008.

<sup>7</sup> An Ordinance of the City Council of the City of Beaumont Establishing Traffic Signal and Railroad Crossing Mitigation Fees, September 1999 (Ordinance no. 794).

intersections but has included a total of 65 locations within the City that will require signalization in the future. It is reasonable to assume that all major intersections (collector to collector) within the City would be included in the Traffic Signal Mitigation Fee.

#### **City of Banning Development Impact Fee<sup>8</sup>**

The City of Banning has developed individual impact fees for five infrastructure categories which are combined together under one fee known as the Development Impact Fee. The five infrastructure categories are as follows:

- Traffic/Control
- Fire/Emergency Services
- Police
- General Government
- Parks and Recreation

The Traffic/Control Development Fees were derived using a plan-based methodology, which incorporates planned capacity and signalization improvements for 2005 to 2025 time-period. The following intersection signals are included in the traffic control portion of the development fees:

- Lincoln Street/San Gorgonio Avenue
- Lincoln Street/8th Street
- Lincoln Street/Hargrave Street
- Lincoln Street/22nd Street
- Highland Home Road/Westward Avenue
- Highland Home Road/Ramsey Street
- Highland Home Road/Wilson Street
- Highland Home Road/Sun Lakes Boulevard
- Highland Springs Avenue/Wilson Street
- Westward Avenue/San Gorgonio Avenue
- Westward Avenue/Sunset Avenue
- Westward Avenue/22nd Street
- Westward Avenue/8th Street

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<sup>8</sup> City of Banning Development Impact Fee, June 2006.



- Sunset Avenue/Lincoln Street
- Sunset Avenue/Wilson Street
- San Geronio Avenue/Wilson Street
- Ramsey Street/16th Street
- 8th Street/Wilson Street
- Jacinto View Road/Highland Home Road
- Hargrave Street/Westward Avenue
- Highland Springs Avenue/Sun Lakes Boulevard
- Wilson Street/Mountain Avenue
- Wilson Street/Oregon Trail

Of the intersections listed above, eight intersections are included in the Butterfield Specific Plan Traffic Impact Analysis.

#### 4.13.6 POTENTIAL IMPACTS DUE TO TRAFFIC MITIGATION

Additional right-of-way necessary to improve various intersection traffic conditions could result in impacts to land use or biological resources. The following is a list of intersections discussed in the mitigation section of this analysis that would require or may require additional right-of-way for improvements. This discussion is based on a preliminary assessment of potential improvement geometrics, potential additional ROW, and potential impacts related to the additional ROW acquisition. The applicable jurisdiction(s) will conduct preliminary design studies, prepare final design plans, and determine whether or not additional CEQA review is required for each individual improvement. The intent of this discussion is to minimize or avoid the need for future CEQA documents for Project-related transportation improvements, by identifying the offsite improvements, discussing the anticipated nature of potential impacts, and by developing site-specific improvement guidelines as reflected in TRF-3.

##### **Project Improvements with no anticipated significant impacts**

The following improvements are anticipated to not require any additional right-of-way, such as signals or restriping (location numbers refer to Study Area locations as shown in Exhibit 4.13-3, *Study Area Intersections*): 1, 2, 3, 11, 13, 14, 15, 18, 22, 26, 27, 31, 32, 35, 37, 38, 42, 47

##### **Project improvements with relatively minor right-of-way requirements**

20 – Highland Springs/Brookside – approximately 12 feet of ROW for WBR, which would affect disturbed land adjacent to the golf course.

23 – Highland Springs/Oak Valley – substantial ROW required, although this improvement is within the Project, which can accommodate the necessary ROW. Improvements may require utility relocations including existing power poles along the west side of Highland Springs.

24 – Highland Springs/Starlight – similar to #23 above, these improvements are within the Sundance and Butterfield Specific Plans, although drainage channel and utility modifications or relocations may be necessary. Refer to mitigation measure TRF-3 regarding special design considerations for offsite improvements.

28 – Highland Springs/I-10 EB ramps – EB left turn lane can be accommodated within a disturbed area between I-10 and the existing eastbound off-ramp.

36 – Highland Home/Wilson – southbound left turn lane can be accommodated within Project development area, although modifications to existing Pershing Channel will be necessary. This impact is addressed as part of the overall Project impacts throughout the EIR, and the channel modifications are accounted for in the biological resource and jurisdictional delineation analyses.

41 – Sunset/I-10 EB Ramp – the eastbound left turn can be accommodated within a disturbed area between the existing eastbound off-ramp and the I-10. This area appears to be a partially landscaped freeway slope that contains scrub bushes and a few non-native trees. Refer to mitigation measure TRF-3 for special design considerations.

#### **Project improvements with potentially significant impacts and/or feasibility concerns**

25 – Highland Springs/Wilson – Approximately 8-10 feet of ROW may be required from the existing hospital parking area. It is anticipated these improvements can occur with limited effect on hospital parking, but would result in loss of landscaped area along Highland Springs south of Wilson, as well as relocating the existing bus stop, utilities and signage. Recommended improvement for westbound Wilson can occur within the Project site.

#### ***Mitigation Measure for Off-Site Traffic Improvements in the City of Banning***

**TRF-3** Improvement plans shall be prepared for each Project-related offsite traffic improvement and approved by the City Engineer. Improvement plans shall incorporate the following considerations, as applicable:

- a) Obtain encroachment permit(s) from the applicable jurisdiction(s) for offsite improvements;
- b) Through creative design techniques, where determined feasible and consistent with City policy, modify roadway geometry to reduce potential impacts to

existing developed areas (such as reduced lane widths, reduced or eliminated medians, reduced turn lane transition zones, and/or shifting intersection approaches to widen intersection quadrants where associated impacts would be reduced);

- c) Maintain access for existing residences and businesses at all times;
- d) Replace landscaped areas within the affected parcel and along the parcel frontage wherever practical;
- e) Assist the affected property owner in restriping affected parking areas and/or reconfiguring affected driveways to avoid or offset improvement-related impacts;
- f) Follow applicable Project EIR mitigation measures related to biological resources (i.e., BIO-1 through BIO-5), with respect to minimizing loss of native vegetation, replacement or relocation of mature trees, use of native and/or drought tolerant vegetation in new landscaped areas, and ensuring consistency with applicable MSHCP and regulatory agency permitting provisions; and
- g) Compensate the affected property owner based on fair market valuation of the acquired ROW in accordance with applicable local, State and federal regulations.

#### 4.13.7 CUMULATIVE IMPACTS

##### *Determination: Potentially Significant and Unavoidable Impact with Mitigation Incorporated*

In addition to Existing plus Project traffic impacts described above, the TIA provides a detailed analysis of various interim traffic conditions between Year 2012 and General Plan buildout. This cumulative analysis below is based on the General Plan buildout scenario. Refer to Appendix I, TIA for discussion regarding additional interim scenarios noted below.

##### **General Plan Buildout Assumptions – Growth Rate (Cumulative Projects)**

The adopted General Plan Circulation Element for the City does not define a build-out year for the General Plan land uses and, in order to develop the proportional growth between existing condition and General Plan Build-out condition, a General Plan Build-out year was estimated for the traffic impact analysis. Due to the regional nature of the Project Study area, the TIA utilizes the regional growth factor represented in the Southern California Associated Governments' (SCAG) Regional Transportation Plan (RTP 2008), which is a housing growth rate of 2.57 percent.

The SCAG RTP 2008 was used to estimate the projected compounded average annual growth rate between the base year (2003) and future year (2035) for the Banning region for the purposes of estimating a potential Banning General Plan buildout horizon year. As a regional

Metropolitan Planning Organization (MPO), SCAG develops forecast for the region for future conditions based on existing socio-economic data which includes housing. This socio-economic data is also used to develop traffic forecasts for the region for future conditions. Also, the forecasts developed by SCAG are used by other local agencies (Riverside County) and Caltrans for planning purposes. Hence, the use of growth rate based on SCAG RTP is most relevant and accurate not only for this Project, but any project in the region.

The SCAG compounded average annual growth rate of 2.57 percent between 2003 and 2035 was calculated using growth within SCAG zones that cover the region in and around Banning that includes the area within the City limits, the sphere of influence, and planning areas. The growth rate (2.57 percent) was applied to the difference between total projected buildout units (buildout conditions) and the total existing residential units within the region to determine the General Plan buildout year.

This growth rate was applied to existing City housing stock as of 2003 to determine a General Plan buildout year, resulting in a Year 2045 General Plan buildout. The total development reflected in General Plan buildout was then amortized over the 42-year period from 2003 to 2045 to develop interim traffic condition analyses. Section 4.4 of the TIA provides a detailed discussion of this methodology. The actual timing and extent of future development will depend on numerous factors including market conditions, broader economic cycles, and trends in housing products. In addition, the major planned developments in the Project Area (summarized in Section 4.0 of this EIR and shown in Exhibit 2-1, including Banning Bench, Black Bench, Five Bridges, Four Seasons, Sun Lakes, Sundance, and Lariat) are reflected in the respective General Plans, and their associated traffic impacts are therefore accounted in the General Plan buildout analysis.

### **General Plan Buildout Roadway Network**

The City of Banning General Plan Circulation Element (Updated June 2005), the City of Beaumont General Plan Circulation Element (Revised December 2004), and the Pass Area Circulation Plan propose a long range circulation system that includes the following improvements:

- The conversion of the I-10/Pennsylvania Avenue interchange to a complete interchange;
- Redesigning the I-10/Oak Valley Parkway interchange; and
- Redesigning of the I-10/Beaumont Avenue interchange.

### **General Plan Buildout Assumptions – Traffic Modeling Methodology**

The City of Banning General Plan Circulation Element (Updated June 2005) included analyses of build-out conditions based on Projected traffic volumes forecast using the PAM. This model was also used to forecast build-out traffic volumes for the City of Beaumont General Plan

Circulation Element. The future traffic projections in the PAM for City of Banning General Plan Build-out conditions are based on a street network that proposes the northerly extension of Highland Home Road from Wilson Street to approximately 12th Street and then bends 90 degrees to the west and connects to Brookside Avenue rather than to Cherry Valley Boulevard. Connection of Highland Home Road to Brookside Avenue or to Cherry Valley Boulevard has very little effect on the circulation patterns in this region due to low traffic along Highland Home Road in the area around the confluence of Highland Springs Avenue, Highland Home Road, Brookside Avenue, and Cherry Valley Boulevard. Based on discussion in the traffic study for the City's General Plan, which states that "from a traffic perspective, there appears to be little advantage of one over the other" (General Plan Circulation Element, page 47), it is clear that the connection of Highland Home Road to Brookside Avenue or Cherry Valley Boulevard does not have notable effect on traffic in the area. Hence, this study analyzes the future traffic/circulation impacts using the street network that has the northerly extension of Highland Home Road connected to Brookside Avenue instead of Cherry Valley Boulevard. The I-10/Highland Home Road interchange is neither included in this program nor included in the 2008 SCAG RTP and hence is not assumed in the future network.

#### **General Plan Buildout Conditions**

Refer to Table 4.13-11, *General Plan Build-out Without and plus Project (Project Completion) Intersection Levels of Service (without mitigation)*, Table 4.13-12, *General Plan Build-out Year Without and plus Project (Project Completion) Freeway Mainline Levels of Service (without mitigation)*, Table 4.13-13, *General Plan Build-out Year plus Project With Mitigations Intersection Levels of Service*, Table 4.13-14, *General Plan Build-out Year plus Project With Mitigations Freeway Mainline Levels of Service*, show that, with mitigation, all intersections and freeway segments would operate at acceptable levels of service. As discussed above and in the "Potential Impacts of Cumulative Traffic Mitigation" below, certain improvements may not be constructed or not constructed in a timely manner, due to feasibility, cost, significant ROW impacts, or other factors. In addition, improvements outside of the City of Banning are not within the control of the City or the Applicant, and as such the EIR cannot be assured of their implementation. Therefore, with respect to cumulative traffic impacts, the EIR must find that locations outside of the City of Banning or identified below as having "potentially significant impacts" may not be implemented, thereby representing a "potentially unavoidable significant impact".

#### **General Plan Buildout Without Project Condition Traffic Volumes**

Exhibit 4.13-8 illustrates the General Plan Build-out a.m. peak hour without Project traffic volumes and Exhibit 4.13-9 illustrates the General Plan Build-out p.m. peak hour without Project traffic volumes at each of the study area intersections.

### **General Plan Buildout plus Project Condition Traffic Volumes**

General Plan Build-out year plus Project traffic volumes were developed by adding the Project completion traffic to the General Plan Build-out year without Project traffic volumes. Exhibit 4.13-10 illustrates the General Plan Build-out year plus Project a.m. peak hour traffic volumes and Exhibit 4.13-11 illustrates the General Plan Build-out year plus Project p.m. peak hour traffic volumes at each of the study intersections.

### **General Plan Buildout Condition Freeway Segment Traffic Volumes**

Table 4.13-15 shows the General Plan Build-out year without and plus Project peak hour segment volumes on the study area freeway segments. Detailed volume development worksheets are included in Appendix I, *Traffic Impact Analysis* (Appendix B).

**Table 4.13-11**  
**General Plan Build-out without and plus Project (Project Completion) Intersection Levels of Service**

Intersection	Control	LOS STD.	A.M. Peak Hour						P.M. Peak Hour					
			Without Project			With Project			Without Project			With Project		
			V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS
1. I-10 Eastbound Ramps/San Timoteo Canyon Dr.	TWSC	45s	-	>100	F	-	>100	F	-	>100	F	-	>100	F
2. I-10 Westbound Ramps/Oak Valley Pkwy.	TWSC	45s	-	>100	F	-	>100	F	-	>100	F	-	>100	F
3. Elm Ave./Oak Valley Pkwy.-14th St.	TWSC	D	-	>100	F	-	>100	F	-	>100	F	-	>100	F
4. Beaumont Ave./Oak Valley Pkwy.-14th St.	Signal	D	0.70	25.5	C	0.88	30.00	C	0.73	25.0	C	0.96	31.6	C
5. Beaumont Ave./8th St.	AWSC	D	0.65	15.5	C	0.76	22.20	C	1.51	>100	F	1.79	>100	F
6. Beaumont Ave./I-10 Westbound Ramps	Signal	45s	1.14	85.0	F	1.14	85.30	F	0.98	39.6	D	0.98	40.9	D
7. Beaumont Ave./I-10 Eastbound Ramps	Signal	45s	0.88	32.2	C	0.88	32.00	C	1.29	>100	F	1.29	>100	F
8. Beaumont Ave./1st St.	Signal	D	0.86	30.2	C	0.87	30.50	C	2.50	>100	F	2.54	>100	F
9. Beaumont Ave./Westward Ave.	TWSC	D	-	>100	F	-	>100	F	-	>100	F	-	>100	F
10. Lamb Canyon Rd./California Ave.	TWSC	C	-	>100	F	-	>100	F	-	>100	F	-	>100	F
11. Palm Ave./Oak Valley Pkwy.-14th St.	AWSC	D	2.16	>100	F	2.85	>100	F	2.90	>100	F	3.80	>100	F
12. Palm Ave./8th St.	AWSC	D	0.79	18.7	C	1.06	56.90	F	1.95	>100	F	2.43	>100	F
13. Pennsylvania Ave./Oak Valley Pkwy.-14th St.	AWSC	D	1.33	>100	F	1.87	>100	F	2.08	>100	F	2.77	>100	F
14. Pennsylvania Ave./8th St.	AWSC	D	0.79	18.3	C	1.04	58.90	F	2.31	>100	F	2.78	>100	F
15. Pennsylvania Ave./I-10 Westbound Ramp	TWSC	45s	-	>100	F	-	>100	F	-	>100	F	-	>100	F
16. Pennsylvania Ave./I-10 Eastbound Ramp	TWSC	45s	-	>100	F	-	>100	F	-	>100	F	-	>100	F
17. Pennsylvania Ave./3rd St.	TWSC	D	-	37.2	E	-	48.90	E	-	>100	F	-	>100	F
18. Cherry Ave./Oak Valley Pkwy.-14th St.	AWSC	D	1.59	>100	F	1.64	>100	F	2.09	>100	F	3.09	>100	F
19. Starlight Ave./Oak Valley Pkwy.-14th St.	AWSC	D	0.58	16.0	C	0.94	46.20	E	1.28	>100	F	1.90	>100	F
20. Highland Springs Ave./Brookside Ave.	TWSC	C	-	>100	F	-	>100	F	-	>100	F	-	>100	F
21. Highland Springs Ave./16th St.-Cougar Way	TWSC	C	0.05	12.7	B	0.07	14.50	B	0.58	28.6	D	0.88	83.3	F
22. Highland Springs Ave./F St.			Future Intersection			1.54	>100	F	Future Intersection			2.70	>100	F
23. Highland Springs Ave./Oak Valley Pkwy.-14th St.-B St.	Signal	C	0.77	35.0	C	0.94	>100	F	1.12	88.2	F	1.46	>100	F
24. Highland Springs Ave./Starlight Ave.-A St.	TWSC	C	-	52.2	F	-	>100	F	-	>100	F	-	>100	F
25. Highland Springs Ave./8th St.-Wilson St.	Signal	C	0.75	36.0	D	1.14	93.20	F	0.99	58.9	E	1.64	>100	F
26. Highland Springs Ave./6th St.-Ramsey St.	Signal	D	0.93	54.3	D	1.27	>100	F	1.56	>100	F	1.86	>100	F
27. Highland Springs Ave./I-10 Westbound Ramps	Signal	45s	1.13	>100	F	1.34	>100	F	1.20	82.0	F	1.33	>100	F
28. Highland Springs Ave./I-10 Eastbound Ramps	Signal	45s	1.19	>100	F	1.47	>100	F	1.10	96.7	F	1.55	>100	F
29. Highland Springs Ave./1st St.-Sun Lakes Blvd.	Signal	C	0.64	30.0	C	0.68	30.10	C	1.37	>100	F	1.44	>100	F
30. Highland Springs Ave./Potrero Blvd.	TWSC	C	-	>100	F	-	>100	F	-	>100	F	-	>100	F
31. C St.-Apex Ave./Wilson St.	TWSC	C	-	27.4	D	-	>100	F	-	72.8	F	-	>100	F
32. Highland Home Rd./Northern Loop			Future Intersection			-	>100	F	Future Intersection			-	>100	F
33. Highland Home Rd./Beaumont Rd.-G St	TWSC	C	0.74	>100	F	-	>100	F	0.70	>100	F	-	>100	F
34. Highland Home Rd./F St.			Future Intersection			-	38.80	E	Future Intersection			-	26.1	D
35. Highland Home Rd./D St.			Future Intersection			-	>100	F	Future Intersection			-	>100	F
36. Highland Home Rd./Wilson St.	TWSC	C	-	>100	F	-	>100	F	-	>100	F	-	>100	F
37. Highland Home Rd./Ramsey St.	TWSC	D	-	27.6	D	-	>100	F	-	>100	F	-	>100	F
38. Sunset Ave./Wilson St.	AWSC	C	2.60	>100	F	2.85	>100	F	3.24	>100	F	3.96	>100	F
39. Sunset Ave./Ramsey St.	Signal	D	1.41	79.2	E	2.08	>100	F	1.68	>100	F	2.44	>100	F
40. Sunset Ave./I-10 Westbound Ramps	TWSC	45s	-	>100	F	-	>100	F	-	>100	F	-	>100	F
41. Sunset Ave./I-10 Eastbound Ramps	TWSC	45s	-	>100	F	-	>100	F	-	>100	F	-	>100	F
42. Sunrise Ave./Wilson St.	TWSC	C	-	34.0	D	-	>100	F	-	>100	F	-	>100	F
43. 16th St./Wilson St.	TWSC	C	-	14.4	B	-	22.80	C	-	28.4	D	-	>100	F
44. 8th St./Wilson St.	AWSC	C	0.93	32.3	D	1.30	82.10	F	2.55	>100	F	2.99	>100	F
45. 8th St./Ramsey St.	Signal	D	1.11	>100	F	1.14	>100	F	1.32	>100	F	1.36	>100	F
46. 8th St./I-10 Westbound Ramps	TWSC	45s	-	>100	F	-	>100	F	-	>100	F	-	>100	F
47. 8th St./I-10 Eastbound Ramps	TWSC	45s	-	>100	F	-	>100	F	-	>100	F	-	>100	F
48. 4th St./Wilson St.	AWSC	C	1.06	45.8	E	1.36	>100	F	2.08	>100	F	2.40	>100	F
49. San Geronio Ave./Wilson St.	AWSC	C	1.17	67.4	F	1.48	>100	F	2.23	>100	F	2.57	>100	F

Exceeds LOS standard.

Notes:

V/C = Volume/Capacity Ratio

LOS = Level of Service

TWSC = Two-Way Stop Control

AWSC=All-Way Stop Control

For TWSC intersections, reported delay is for worst-case approach.

**Table 4.13-12**  
**General Plan Build-out Year Without and plus Project (Project Completion)**  
**Freeway Mainline Levels of Service**

Freeway Segment	Lanes			A.M. Peak Hour																P.M. Peak Hour			
				Without Project				With Project												Total Vol.	PHF <sup>1</sup>	V/C	LOS
	Mixed Flow	HOV	Cap.	Total Vol.	PHF <sup>1</sup> Vol.	V/C	LOS	Total Vol.	PHF <sup>1</sup> Vol.	V/C	LOS	Total Vol.	PHF <sup>1</sup> Vol.	V/C	LOS	Total Vol.	PHF <sup>1</sup> Vol.	V/C	LOS				
<b>EASTBOUND</b>																							
<b>Interstate 10</b>																							
Cherry Valley Boulevard to Oak Valley Parkway	3	0	6,900	6,451	6,580	0.95	E	6,530	6,660	0.97	E	11,664	11,900	1.73	F *	11,840	12,080	1.75	F *				
Oak Valley Parkway to SR-60	3	0	6,900	6,591	6,730	0.98	E	6,638	6,770	0.98	E	10,322	10,530	1.53	F *	10,428	10,640	1.54	F *				
SR-60 to Beaumont Avenue	4	0	9,200	6,985	7,130	0.78	D	7,159	7,310	0.80	D	11,271	11,500	1.25	F *	11,659	11,900	1.29	F *				
Beaumont Avenue to Pennsylvania Avenue	4	0	9,200	6,826	6,970	0.76	D	7,032	7,180	0.78	D	10,864	11,090	1.21	F *	11,322	11,550	1.26	F *				
Pennsylvania Avenue to Highland Springs Avenue	4	0	9,200	7,718	7,880	0.86	D	7,924	8,090	0.88	D	11,775	12,020	1.31	F *	12,233	12,480	1.36	F *				
Highland Springs Avenue to Sunset Avenue	4	0	9,200	7,729	7,890	0.86	D	7,820	7,980	0.87	D	11,251	11,480	1.25	F *	11,325	11,560	1.26	F *				
Sunset Avenue to 22nd Street	4	0	9,200	7,851	8,010	0.87	D	8,095	8,260	0.90	E	9,969	10,170	1.11	F *	10,167	10,370	1.13	F *				
22nd Street to 8th Street	4	0	9,200	7,643	7,800	0.85	D	7,826	7,990	0.87	D	9,381	9,570	1.04	F *	9,529	9,720	1.06	F *				
8th Street to Hargrave Street	4	0	9,200	7,456	7,610	0.83	D	7,547	7,700	0.84	D	9,153	9,340	1.02	F *	9,227	9,420	1.02	F *				
Hargrave Street to Ramsey Street	4	0	9,200	6,889	7,030	0.76	D	6,980	7,120	0.77	D	8,456	8,630	0.94	E	8,530	8,700	0.95	E				
<b>SR-60</b>																							
Jack Rabbit Trail to I-10	2	0	4,600	2,727	2,780	0.60	C	2,854	2,910	0.63	C	5,615	5,730	1.25	F *	5,897	6,020	1.31	F *				
<b>WESTBOUND</b>																							
<b>Interstate 10</b>																							
Cherry Valley Boulevard to Oak Valley Parkway	3	0	6,900	11,045	11,270	1.63	F *	11,197	11,430	1.66	F *	10,187	10,390	1.51	F *	10,311	10,520	1.53	F *				
Oak Valley Parkway to SR-60	3	0	6,900	9,228	9,420	1.37	F *	9,319	9,510	1.38	F *	10,209	10,420	1.51	F *	10,283	10,490	1.52	F *				
SR-60 to Beaumont Avenue	4	0	9,200	9,205	9,390	1.02	F *	9,540	9,730	1.06	F *	10,975	11,200	1.22	F *	11,247	11,480	1.25	F *				
Beaumont Avenue to Pennsylvania Avenue	4	0	9,200	9,035	9,220	1.00	F *	9,431	9,620	1.05	F *	10,887	11,110	1.21	F *	11,208	11,440	1.24	F *				
Pennsylvania Avenue to Highland Springs Avenue	4	0	9,200	9,587	9,780	1.06	F *	9,983	10,190	1.11	F *	11,632	11,870	1.29	F *	11,953	12,200	1.33	F *				
Highland Springs Avenue to Sunset Avenue	4	0	9,200	8,654	8,830	0.96	E	8,701	8,880	0.97	E	11,539	11,770	1.28	F *	11,645	11,880	1.29	F *				
Sunset Avenue to 22nd Street	4	0	9,200	7,568	7,720	0.84	D	7,695	7,850	0.85	D	10,511	10,730	1.17	F *	10,793	11,010	1.20	F *				
22nd Street to 8th Street	4	0	9,200	6,885	7,030	0.76	D	6,980	7,120	0.77	D	10,139	10,350	1.13	F *	10,351	10,560	1.15	F *				
8th Street to Hargrave Street	4	0	9,200	6,718	6,850	0.75	D	6,765	6,900	0.75	D	9,893	10,090	1.10	F *	9,999	10,200	1.11	F *				
Hargrave Street to Ramsey Street	4	0	9,200	6,206	6,330	0.69	D	6,253	6,380	0.69	D	9,140	9,330	1.01	F *	9,246	9,430	1.03	F *				
<b>SR-60</b>																							
Jack Rabbit Trail to I-10	2	0	4,600	3,957	4,040	0.88	D	4,201	4,290	0.93	E	4,651	4,750	1.03	F *	4,849	4,950	1.08	F *				

\* Exceeds level of service standard

Exceeds level of service standard

<sup>1</sup> Peak Hour Factor. PHF volume assumes a PHF of 0.98.

Note:

According to the CMP, the capacity of a mixed-flow lane is 2,300 vehicles per hour, and the capacity of an HOV lane is 1,600 vehicles per hour.



**Table 4.13-13**  
**General Plan Build-out Year plus Project with Mitigations Intersection Level of Service**

Intersection	Control	LOS STD.	A.M. Peak Hour			P.M. Peak Hour		
			V/C	Delay (sec)	LOS	V/C	Delay (sec)	LOS
1 . I-10 Eastbound Ramps/San Timoteo Canyon Dr.	Signal	45s	0.52	14.4	B	0.74	28.4	C
2 . I-10 Westbound Ramps/Oak Valley Pkwy.	Signal	45s	0.96	20.0	B	0.95	23.2	C
3 . Elm Ave./Oak Valley Pkwy.-14th St.	Signal	D	0.87	34.9	C	0.90	36.7	D
4 . Beaumont Ave./Oak Valley Pkwy.-14th St.	Signal	D	0.88	30.0	C	0.96	31.6	C
5 . Beaumont Ave./8th St.	Signal	D	0.50	20.6	C	0.90	40.8	D
6 . Beaumont Ave./I-10 Westbound Ramps	Signal	45s	0.94	42.5	D	0.94	42.8	D
7 . Beaumont Ave./I-10 Eastbound Ramps	Signal	45s	0.77	27.2	C	0.97	37.1	D
8 . Beaumont Ave./1st St.	Signal	D	0.70	29.9	C	1.00	54.4	D
9 . Beaumont Ave./Westward Ave.	Signal	D	0.69	32.5	C	0.94	52.2	D
10 . Lamb Canyon Rd./California Ave.	Signal	C	0.77	30.5	C	0.83	34.2	C
11 . Palm Ave./Oak Valley Pkwy.-14th St.	Signal	D	0.52	13.0	B	0.78	20.2	C
12 . Palm Ave./8th St.	Signal	D	0.54	19.1	B	0.91	33.9	C
13 . Pennsylvania Ave./Oak Valley Pkwy.-14th St.	Signal	D	0.51	16.4	B	0.89	28.2	C
14 . Pennsylvania Ave./8th St.	Signal	D	0.52	19.3	B	0.89	32.9	C
15 . Pennsylvania Ave./I-10 Westbound Ramp	Signal	45s	0.77	29.1	C	0.96	43.4	D
16 . Pennsylvania Ave/I-10 Eastbound Ramp	Signal	45s	0.66	33.3	C	0.85	31.6	C
17 . Pennsylvania Ave./3rd St.	TWSC	D	-	18.9	C	-	33.3	D
18 . Cherry Ave./Oak Valley Pkwy.-14th St.	Signal	D	0.84	34.7	C	0.96	53.5	D
19 . Starlight Ave/ Oak Valley Pkwy.-14th St.	Signal	D	0.46	27.0	C	0.70	28.1	C
20 . Highland Springs Ave./Brookside Ave.	Signal	C	0.49	24.9	C	0.77	30.3	C
21 . Highland Springs Ave./16th St.-Cougar Way	Signal	C	0.30	3.9	A	0.51	12.8	B
22 . Highland Springs Ave./F St.	Signal	C	0.59	19.8	B	0.63	17.4	B
23 . Highland Springs Ave./Oak Valley Pkwy.-14th St.-B St.	Signal	C	0.69	30.0	C	0.75	30.3	C
24 . Highland Springs Ave./Starlight Ave.-A St.	Signal	C	0.81	33.8	C	0.88	34.0	C
25 . Highland Springs Ave./8th St.-Wilson St.	Signal	C	0.76	31.1	C	0.81	34.9	C
26 . Highland Springs Ave./6th St.-Ramsey St.	Signal	D	0.77	28.5	C	0.93	38.9	D
27 . Highland Springs Ave./I-10 Westbound Ramps	Signal	45s	0.93	38.0	D	0.89	16.7	B
28 . Highland Springs Ave./I-10 Eastbound Ramps	Signal	45s	0.75	30.8	C	0.78	22.6	C
29 . Highland Springs Ave./1st St.-Sun Lakes Blvd.	Signal	C	0.55	26.8	C	0.84	34.7	C
30 . Highland Springs Ave./Potrero Blvd.	Signal	C	0.45	21.9	C	0.56	18.8	B
31 . C St.-Apex Ave./Wilson St.	Signal	C	0.66	25.8	C	0.76	25.2	C
32 . Highland Home Rd./Northern Loop	Signal	C	0.60	29.2	C	0.85	31.5	C
33 . Highland Home Rd./Beaumont Rd.-G St	Signal	C	0.69	32.2	C	0.76	31.9	C
34 . Highland Home Rd./F St.	Signal	C	0.79	24.1	C	0.82	24.6	C
35 . Highland Home Rd./D St.	Signal	C	0.81	14.9	B	0.89	15.0	B
36 . Highland Home Rd./Wilson St.	Signal	C	0.69	25.2	C	0.84	33.4	C
37 . Highland Home Rd./Ramsey St.	Signal	D	0.61	23.0	C	0.96	37.0	D
38 . Sunset Ave./Wilson St.	Signal	C	0.66	28.0	C	0.87	34.9	C
39 . Sunset Ave./Ramsey St.	Signal	D	0.79	34.0	C	0.97	53.5	D
40 . Sunset Ave./I-10 Westbound Ramps	Signal	45s	0.96	45.3	D	0.82	44.1	D
41 . Sunset Ave./I-10 Eastbound Ramps	Signal	45s	0.91	37.2	D	0.98	42.2	D
42 . Sunrise Ave./Wilson St.	Signal	C	0.40	11.1	B	0.79	20.3	C
43 . 16th St./Wilson St.	Signal	C	0.29	6.4	A	0.55	10.1	B
44 . 8th St./Wilson St.	Signal	C	0.58	23.0	C	0.91	34.2	C
45 . 8th St./Ramsey St.	Signal	D	0.75	35.7	D	0.85	42.8	D
46 . 8th St./I-10 Westbound Ramps	Signal	45s	0.92	32.3	C	0.95	41.8	D
47 . 8th St./I-10 Eastbound Ramps	Signal	45s	0.73	31.3	C	0.99	41.8	D
48 . 4th St./Wilson St.	Signal	C	0.69	18.6	B	0.95	25.7	C
49 . San Geronio Ave./Wilson St.	Signal	C	0.54	28.0	C	0.88	33.3	C

Notes:

V/C = Volume/Capacity Ratio

LOS = Level of Service

TWSC = Two-Way Stop Control

For TWSC intersections, reported delay is for worst-case approach.

**Table 4.13-14**  
**General Plan Build-out Year plus Project with Mitigations Freeway**  
**Mainline Level of Service**

Freeway Segment	Lanes			A.M. Peak Hour				P.M. Peak Hour			
	Flow	HOV	Cap.	Total Vol.	PHF <sup>1</sup> Vol.	V/C	LOS	Total Vol.	PHF <sup>1</sup> Vol.	V/C	LOS
<b>EASTBOUND</b>											
<b>Interstate 10</b>											
Cherry Valley Boulevard to Oak Valley Parkway	5	1	13,100	6,530	6,660	0.508	B	11,840	12,080	0.922	E
Oak Valley Parkway to SR-60	4	1	10,800	6,638	6,770	0.627	B	10,428	10,640	0.985	E
SR-60 to Beaumont Avenue	5	1	13,100	7,159	7,310	0.558	B	11,659	11,900	0.908	E
Beaumont Avenue to Pennsylvania Avenue	5	1	13,100	7,032	7,180	0.548	B	11,322	11,550	0.882	E
Pennsylvania Avenue to Highland Springs Avenue	5	1	13,100	7,924	8,090	0.618	B	12,233	12,480	0.953	E
Highland Springs Avenue to Sunset Avenue	5	1	13,100	7,820	7,980	0.609	B	11,325	11,560	0.882	E
Sunset Avenue to 22nd Street	4	1	10,800	8,095	8,260	0.765	D	10,167	10,370	0.960	E
22nd Street to 8th Street	4	1	10,800	7,826	7,990	0.740	D	9,529	9,720	0.900	E
8th Street to Hargrave Street	4	1	10,800	7,547	7,700	0.713	D	9,227	9,420	0.872	D
Hargrave Street to Ramsey Street	4	0	9,200	6,980	7,120	0.774	D	8,530	8,700	0.946	E
<b>SR-60</b>											
Jack Rabbit Trail to I-10	2	1	6,200	2,854	2,910	0.469	B	5,897	6,020	0.971	E
<b>WESTBOUND</b>											
<b>Interstate 10</b>											
Cherry Valley Boulevard to Oak Valley Parkway	5	1	13,100	11,197	11,430	0.873	D	10,311	10,520	0.803	D
Oak Valley Parkway to SR-60	4	1	10,800	9,319	9,510	0.881	E	10,283	10,490	0.971	E
SR-60 to Beaumont Avenue	5	1	13,100	9,540	9,730	0.743	D	11,247	11,480	0.876	D
Beaumont Avenue to Pennsylvania Avenue	5	1	13,100	9,431	9,620	0.734	D	11,208	11,440	0.873	D
Pennsylvania Avenue to Highland Springs Avenue	5	1	13,100	9,983	10,190	0.778	D	11,953	12,200	0.931	E
Highland Springs Avenue to Sunset Avenue	5	1	13,100	8,701	8,880	0.678	B	11,645	11,880	0.907	E
Sunset Avenue to 22nd Street	5	1	13,100	7,695	7,850	0.599	B	10,793	11,010	0.840	D
22nd Street to 8th Street	4	1	10,800	6,980	7,120	0.659	B	10,351	10,560	0.978	E
8th Street to Hargrave Street	4	1	10,800	6,765	6,900	0.639	B	9,999	10,200	0.944	E
Hargrave Street to Ramsey Street	4	1	10,800	6,253	6,380	0.591	B	9,246	9,430	0.873	D
<b>SR-60</b>											
Jack Rabbit Trail to I-10	2	1	6,200	4,201	4,290	0.692	D	4,849	4,950	0.798	D

\* Exceeds level of service standard

<sup>1</sup> Peak Hour Factor. PHF volume assumes a PHF of 0.98.

**Note:**

According to the CMP, the capacity of a mixed-flow lane is 2,300 vehicles per hour, and the capacity of an HOV lane is 1,600 vehicles per hour.

**Table 4.13-15**  
**General Plan Build-out Conditions Freeway Segment PCE Volumes**

Freeway Segment	A.M. Peak Hour																			
	Eastbound										Westbound									
	Model Volume	Select Zone	Total Volume	Truck %	Auto	Truck	PCE	Without Project PCE	Project Trips	With Project PCE	Model Volume	Select Zone	Total Volume	Truck %	Auto	Truck	PCE	Without Project PCE	Project Trips	With Project PCE
Interstate 10																				
Cherry Valley Boulevard to Oak Valley Parkway	6,120	66	6,054	13.10%	5,261	793	1190	6,451	79	6,530	10,675	309	10,366	13.10%	9,008	1358	2037	11,045	152	11,197
Oak Valley Parkway to SR-60	6,220	46	6,174	13.50%	5,341	833	1250	6,591	47	6,638	8,733	89	8,644	13.50%	7,477	1167	1751	9,228	91	9,319
SR-60 to Beaumont Avenue	6,684	141	6,543	13.50%	5,660	883	1325	6,985	174	7,159	8,987	364	8,623	13.50%	7,459	1164	1746	9,205	335	9,540
Beaumont Avenue to Pennsylvania Avenue	6,534	170	6,364	14.50%	5,441	923	1385	6,826	206	7,032	8,886	462	8,424	14.50%	7,203	1221	1832	9,035	396	9,431
Pennsylvania Avenue to Highland Springs Avenue	7,416	220	7,196	14.50%	6,153	1043	1565	7,718	206	7,924	9,533	594	8,939	14.50%	7,643	1296	1944	9,587	396	9,983
Highland Springs Avenue to Sunset Avenue	7,288	82	7,206	14.50%	6,161	1045	1568	7,729	91	7,820	8,151	82	8,069	14.50%	6,899	1170	1755	8,654	47	8,701
Sunset Avenue to 22nd Street	7,637	310	7,327	14.30%	6,279	1048	1572	7,851	244	8,095	7,182	119	7,063	14.30%	6,053	1010	1515	7,568	127	7,695
22nd Street to 8th Street	7,441	308	7,133	14.30%	6,113	1020	1530	7,643	183	7,826	6,531	106	6,425	14.30%	5,506	919	1379	6,885	95	6,980
8th Street to Hargrave Street								7,456	91	7,547								6,718	47	6,765
Hargrave Street to Ramsey Street								6,889	91	6,980								6,206	47	6,253
SR-60																				
Jack Rabbit Trail to I-10	2,616	95	2,521	16.30%	2,110	411	617	2,727	127	2,854	3,934	275	3,659	16.30%	3,063	596	894	3,957	244	4,201

Freeway Segment	P.M. Peak Hour																			
	Eastbound																			
	Model Volume	Select Zone	Total Volume	Truck %	Auto	Truck	PCE	Without Project PCE	Project Trips	With Project PCE	Model Volume	Select Zone	Total Volume	Truck %	Auto	Truck	PCE	Without Project PCE	Project Trips	With Project PCE
Interstate 10																				
Cherry Valley Boulevard to Oak Valley Parkway	11,151	204	10,947	13.10%	9,513	1434	2151	11,664	176	11,840	9,682	121	9,561	13.10%	8,309	1252	1878	10,187	124	10,311
Oak Valley Parkway to SR-60	9,766	97	9,669	13.50%	8,364	1305	1958	10,322	106	10,428	9,622	59	9,563	13.50%	8,272	1291	1937	10,209	74	10,283
SR-60 to Beaumont Avenue	10,879	321	10,558	13.50%	9,133	1425	2138	11,271	388	11,659	10,473	192	10,281	13.50%	8,893	1388	2082	10,975	272	11,247
Beaumont Avenue to Pennsylvania Avenue	10,508	379	10,129	14.50%	8,660	1469	2204	10,864	458	11,322	10,410	259	10,151	14.50%	8,679	1472	2208	10,887	321	11,208
Pennsylvania Avenue to Highland Springs Avenue	11,496	517	10,979	14.50%	9,387	1592	2388	11,775	458	12,233	11,159	314	10,845	14.50%	9,272	1573	2360	11,632	321	11,953
Highland Springs Avenue to Sunset Avenue	10,591	101	10,490	14.50%	8,969	1521	2282	11,251	74	11,325	10,887	128	10,759	14.50%	9,199	1560	2340	11,539	106	11,645
Sunset Avenue to 22nd Street	9,477	173	9,304	14.30%	7,974	1330	1995	9,969	198	10,167	10,154	345	9,809	14.30%	8,406	1403	2105	10,511	282	10,793
22nd Street to 8th Street	8,912	157	8,755	14.30%	7,503	1252	1878	9,381	148	9,529	9,788	326	9,462	14.30%	8,109	1353	2030	10,139	212	10,351
8th Street to Hargrave Street								9,153	74	9,227								9,893	106	9,999
Hargrave Street to Ramsey Street								8,456	74	8,530								9,140	106	9,246
SR-60																				
Jack Rabbit Trail to I-10	5,491	299	5,192	16.30%	4,346	846	1269	5,615	282	5,897	4,458	158	4,300	16.30%	3,599	701	1052	4,651	198	4,849

## Mitigation for Cumulative Impacts

As described above, the Project's contribution toward cumulative mitigation is in the form of TUMF fees and other contributions such as Project-related gas tax, property tax and General Fund revenue. Table 4.13-9 provides a summary of all recommended future improvements, for Existing plus Project and General Plan build-out conditions. Table 4.13-16 *Project Contribution to Total New Traffic*, and Table 4.13-17, *Project Contribution to Total New Freeway Traffic Volumes*, show the Project's relative share of the projected future traffic growth.

**TRF-4** The applicant shall pay a fair share toward cumulative impacts not otherwise captured in existing fee programs, funding sources or in lieu improvements noted above, if such a program is in place at the time of building permit issuance, based on project contribution percentages identified in Table 4.13-16.

**Table 4.13-16**  
*Project Contribution to Total New Traffic*

Intersection	A.M. Peak Hour					P.M. Peak Hour					Worst Case
	Total Approach Volume		Total Growth	Project Trips	Project %	Total Approach Volume		Total Growth	Project Trips	Project %	
	Existing	2045				Existing	2045				
1 . I-10 Eastbound Ramps/San Timoteo Canyon Dr.	983	6,103	5,120	217	4.2%	1,097	7,063	5,966	311	5.2%	5.2%
2 . I-10 Westbound Ramps/Oak Valley Pkwy.	1,452	6,259	4,807	278	5.8%	1,290	7,514	6,224	360	5.8%	5.8%
3 . Elm Ave/Oak Valley Pkwy.-14th St.	1,024	3,194	2,170	371	17.1%	850	4,378	3,528	480	13.6%	17.1%
4 . Beaumont Ave/Oak Valley Pkwy.-14th St.	1,906	3,498	1,592	417	26.2%	1,661	4,308	2,647	540	20.4%	26.2%
5 . Beaumont Ave/8th St.	799	1,617	818	231	28.2%	991	3,123	2,132	300	14.1%	28.2%
6 . Beaumont Ave/I-10 Westbound Ramps	1,270	3,472	2,202	61	2.8%	1,582	4,828	3,246	49	1.5%	2.8%
7 . Beaumont Ave/I-10 Eastbound Ramps	1,946	3,521	1,575	93	5.9%	2,265	5,181	2,916	120	4.1%	5.9%
8 . Beaumont Ave/1st St.	2,337	3,687	1,350	93	6.9%	2,665	5,348	2,683	120	4.5%	6.9%
9 . Beaumont Ave/Westward Ave.	1,927	3,254	1,327	93	7.0%	2,158	4,634	2,476	120	4.8%	7.0%
10 . Lamb Canyon Rd./California Ave.	2,193	2,783	590	46	7.8%	2,435	3,630	1,195	60	5.0%	7.8%
11 . Palm Ave/Oak Valley Pkwy.-14th St.	1,201	2,897	1,696	462	27.2%	1,007	3,933	2,926	600	20.5%	27.2%
12 . Palm Ave/8th St.	558	1,517	959	324	33.8%	388	2,673	2,285	420	18.4%	33.8%
13 . Pennsylvania Ave/Oak Valley Pkwy.-14th St.	930	2,371	1,441	509	35.3%	781	3,310	2,529	660	26.1%	35.3%
14 . Pennsylvania Ave/8th St.	834	1,542	708	370	52.3%	725	3,286	2,561	480	18.7%	52.3%
15 . Pennsylvania Ave/I-10 Westbound Ramp	902	2,555	1,653	185	11.2%	1,129	3,440	2,311	240	10.4%	11.2%
16 . Pennsylvania Ave/I-10 Eastbound Ramp	847	2,209	1,362	185	13.6%	962	3,207	2,245	240	10.7%	13.6%
17 . Pennsylvania Ave/3rd St.	650	1,795	1,145	185	16.2%	809	2,745	1,936	240	12.4%	16.2%
18 . Cherry Ave/Oak Valley Pkwy.-14th St.	1,224	2,740	1,516	509	33.6%	913	3,635	2,722	660	24.2%	33.6%
19 . Starlight Ave/ Oak Valley Pkwy.-14th St.	706	2,040	1,334	601	45.1%	544	3,231	2,687	780	29.0%	45.1%
20 . Highland Springs Ave./Brookside Ave.	458	2,699	2,241	649	29.0%	422	4,371	3,949	840	21.3%	29.0%
21 . Highland Springs Ave./16th St.-Cougar Way	456	842	386	232	60.1%	420	1,374	954	300	31.4%	60.1%
22 . Highland Springs Ave./F St.	-	-	-	926	100.0%	-	-	-	1,200	100.0%	100.0%
23 . Highland Springs Ave./Oak Valley Pkwy.-14th St.-B St.	762	3,037	2,275	1,664	73.1%	720	4,435	3,715	2,158	58.1%	73.1%
24 . Highland Springs Ave./Starlight Ave.-A St.	1,034	3,623	2,589	1,712	66.1%	1,108	5,076	3,968	2,219	55.9%	66.1%
25 . Highland Springs Ave./8th St.-Wilson St.	1,522	4,065	2,543	1,619	63.7%	1,625	5,537	3,912	2,100	53.7%	63.7%
26 . Highland Springs Ave./6th St.-Ramsey St.	1,917	5,254	3,337	1,342	40.2%	2,527	7,031	4,504	1,739	38.6%	40.2%
27 . Highland Springs Ave./I-10 Westbound Ramps	1,788	5,388	3,600	1,203	33.4%	2,576	5,603	3,027	1,559	51.5%	51.5%
28 . Highland Springs Ave./I-10 Eastbound Ramps	1,802	4,700	2,898	759	26.2%	2,754	5,053	2,299	1,132	49.2%	49.2%
29 . Highland Springs Ave./1st St.-Sun Lakes Blvd.	835	3,060	2,225	277	12.4%	1,168	5,434	4,266	360	8.4%	12.4%
30 . Highland Springs Ave./Potrero Blvd.	293	2,042	1,749	184	10.5%	357	2,771	2,414	240	9.9%	10.5%
31 . C St.-Apex Ave./Wilson St.	626	2,054	1,428	693	48.5%	657	3,048	2,391	900	37.6%	48.5%
32 . Highland Home Rd./Northern Loop	-	-	-	971	100.0%	-	-	-	1,259	100.0%	100.0%
33 . Highland Home Rd./Beaumont Rd.-G St	-	-	-	649	100.0%	-	-	-	840	100.0%	100.0%
34 . Highland Home Rd./F St.	-	-	-	879	100.0%	-	-	-	1,140	100.0%	100.0%
35 . Highland Home Rd./D St.	-	-	-	1,203	100.0%	-	-	-	1,560	100.0%	100.0%
36 . Highland Home Rd./Wilson St.	628	3,543	2,915	1,386	47.5%	690	5,326	4,636	1,800	38.8%	47.5%
37 . Highland Home Rd./Ramsey St.	589	2,228	1,639	740	45.1%	868	4,031	3,163	960	30.4%	45.1%
38 . Sunset Ave./Wilson St.	730	3,096	2,366	510	21.6%	799	5,030	4,231	660	15.6%	21.6%
39 . Sunset Ave./Ramsey St.	1,069	3,827	2,758	555	20.1%	1,349	6,240	4,891	720	14.7%	20.1%
40 . Sunset Ave./I-10 Westbound Ramps	668	3,539	2,871	370	12.9%	809	4,464	3,655	480	13.1%	13.1%
41 . Sunset Ave./I-10 Eastbound Ramps	446	2,924	2,478	322	13.0%	577	3,923	3,346	374	11.2%	13.0%
42 . Sunrise Ave./Wilson St.	436	1,580	1,144	417	36.5%	435	3,179	2,744	540	19.7%	36.5%
43 . 16th St./Wilson St.	405	1,226	821	324	39.5%	409	2,754	2,345	420	17.9%	39.5%
44 . 8th St./Wilson St.	820	1,701	881	231	26.2%	626	3,042	2,416	300	12.4%	26.2%
45 . 8th St./Ramsey St.	1,236	2,464	1,228	92	7.5%	1,551	3,809	2,258	120	5.3%	7.5%
46 . 8th St./I-10 Westbound Ramps	1,086	2,711	1,625	109	6.7%	1,130	3,269	2,139	155	7.2%	7.2%
47 . 8th St./I-10 Eastbound Ramps	952	2,517	1,565	107	6.8%	912	3,120	2,208	109	4.9%	6.8%
48 . 4th St./Wilson St.	436	1,631	1,195	231	19.3%	368	2,809	2,441	300	12.3%	19.3%
49 . San Geronio Ave./Wilson St.	507	1,644	1,137	231	20.3%	449	2,956	2,507	300	12.0%	20.3%

Note: At project driveways, which are new intersections, project traffic contribution is 100% since the intersection would not exist without the project.

**Table 4.13-17**  
**Project Contribution to Total New Freeway Traffic Volumes**

	A.M. Peak Hour					P.M. Peak Hour					Worse Case Project % <sup>2</sup>
	Exist. Vol.	GPBO <sup>1</sup> Plus Proj. Vol.	Total Growth	Project Trips	Project %	Exist. Vol.	GPBO <sup>1</sup> Plus Proj. Vol.	Total Growth	Project Trips	Project %	
Freeway Segments											
EASTBOUND											
Interstate 10											
Cherry Valley Boulevard to Oak Valley Parkway	5,135	6,530	1,395	79	5.7%	5,448	11,840	6,392	176	2.8%	2.8%
Oak Valley Parkway to SR-60	5,099	6,638	1,539	47	3.1%	5,331	10,428	5,097	106	2.1%	2.1%
SR-60 to Beaumont Avenue	6,202	7,159	957	174	18.2%	6,175	11,659	5,484	388	7.1%	7.1%
Beaumont Avenue to Pennsylvania Avenue	6,264	7,032	768	206	26.8%	6,547	11,322	4,775	458	9.6%	9.6%
Pennsylvania Avenue to Highland Springs Avenue	7,591	7,924	333	206	61.9%	7,857	12,233	4,376	458	10.5%	10.5%
Highland Springs Avenue to Sunset Avenue	7,325	7,820	495	91	18.4%	7,559	11,325	3,766	74	2.0%	2.0%
Sunset Avenue to 22nd Street	7,164	8,095	931	244	26.2%	7,321	10,167	2,846	198	7.0%	7.0%
22nd Street to 8th Street	6,992	7,826	834	183	21.9%	7,128	9,529	2,401	148	6.2%	6.2%
8th Street to Hargrave Street	6,821	7,547	726	91	12.5%	6,955	9,227	2,273	74	3.3%	3.3%
Hargrave Street to Ramsey Street	6,303	6,980	678	91	13.4%	6,425	8,530	2,105	74	3.5%	3.5%
SR-60											
Jack Rabbit Trail to I-10	2,181	2,854	673	127	18.9%	2,440	5,897	3,457	282	8.2%	8.2%
WESTBOUND											
Interstate 10											
Cherry Valley Boulevard to Oak Valley Parkway	4,219	11,197	6,978	152	2.2%	4,296	10,311	6,015	124	2.1%	2.2%
Oak Valley Parkway to SR-60	4,088	9,319	5,231	91	1.7%	4,263	10,283	6,020	74	1.2%	1.2%
SR-60 to Beaumont Avenue	4,496	9,540	5,044	335	6.6%	5,299	11,247	5,948	272	4.6%	4.6%
Beaumont Avenue to Pennsylvania Avenue	4,534	9,431	4,897	396	8.1%	5,396	11,208	5,812	321	5.5%	5.5%
Pennsylvania Avenue to Highland Springs Avenue	5,946	9,983	4,037	396	9.8%	6,242	11,953	5,711	321	5.6%	5.6%
Highland Springs Avenue to Sunset Avenue	5,693	8,701	3,008	47	1.6%	6,028	11,645	5,617	106	1.9%	1.9%
Sunset Avenue to 22nd Street	5,508	7,695	2,187	127	5.8%	5,842	10,793	4,951	282	5.7%	5.7%
22nd Street to 8th Street	5,350	6,980	1,630	95	5.8%	5,695	10,351	4,656	212	4.6%	4.6%
8th Street to Hargrave Street	5,220	6,765	1,545	47	3.0%	5,557	9,999	4,442	106	2.4%	2.4%
Hargrave Street to Ramsey Street	4,822	6,253	1,431	47	3.3%	5,134	9,246	4,112	106	2.6%	2.6%
SR-60											
Jack Rabbit Trail to I-10	2,019	4,201	2,182	244	11.2%	1,536	4,849	3,313	198	6.0%	6.0%

<sup>1</sup> The interchange on Pennsylvania Avenue is expected to be upgraded to a full diamond interchange before General Plan build-out year.

<sup>2</sup> GPBO: General Plan Build-out

<sup>3</sup> Project Contribution Percentage (%) based on project contribution in the worse case (V/C) scenario between a.m. and p.m. peak hours.

## Potential Impacts of Cumulative Traffic Mitigation

Additional right-of-way necessary to improve various intersection traffic conditions could result in impacts to land use or biological resources. The following is a list of intersections that may require additional right-of-way for improvements. This discussion is based on a preliminary assessment of potential improvement geometrics, potential additional ROW, and potential impacts related to the additional ROW acquisition. The applicable jurisdiction(s) will conduct preliminary design studies, prepare final design plans, and determine whether or not additional CEQA review is required for each individual improvement.

## Cumulative Improvements with no anticipated significant impacts

The following improvements are anticipated to not require any additional right-of-way, such as signals or restriping (location numbers refer to Study Area locations as shown in Exhibit 4.13-3, *Study Area Intersections*): 10, 12, 13, 14, 17, 18, 19, 21, 30, 37, and 43.

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**Cumulative improvements with relatively minor right-of-way requirements**

5: Beaumont/8<sup>th</sup> – relatively minor additional ROW, would likely require loss of landscape frontage for existing commercial uses south of 8<sup>th</sup>

8: Beaumont/1<sup>st</sup> – this is a major Beaumont improvement requiring between 12 and 18 feet of additional ROW, primarily along the southbound and westbound improvements. Most of these improvements are not required until General Plan buildout. Improvements may require loss of landscaping and/or parking for existing commercial structures.

9: Beaumont/Westward – similar to #8, this would require approximately 8 to 24 feet of additional ROW, from the north, south and eastbound approaches. This area is currently vacant agricultural land.

11: Palm/Oak Valley/14<sup>th</sup> – this would require approximately 8 feet of additional ROW for eastbound and westbound through lanes, potentially requiring loss of landscaping and impacting existing residences that front onto Oak Valley Parkway. Refer to improvement #3 discussion below.

15/16: Pennsylvania/I-10 ramps – this is a Caltrans improvement requiring approximately 12 feet of additional ROW at the ramps, affecting existing landscaping, and requiring through lane widening for the underpass.

23: Highland Springs/Oak Valley/14<sup>th</sup> – these improvements are mostly within the Project. Southbound through lane improvements on Highland Springs Avenue may require modifications to the existing drainage channel along the west side of Highland Springs Avenue.

24: Highland Springs/Starlight – similar to #23 above, this intersection requires major improvements, although most are within (and accounted for in) the Project, or planned as part of the adjacent Sundance development. Highland Springs Avenue widening may require drainage channel modifications.

36: Highland Home/Wilson – this improvement would occur within the Project, and has been addressed throughout the EIR.

40/41 – Sunset/I-10 Ramps – this is a Caltrans improvement requiring an additional 10 to 20 feet of ROW, primarily affecting existing landscaped freeway slopes, but also requiring widening of the existing underpass.

44: 8<sup>th</sup>/Wilson – this improvement requires 12 feet of additional ROW in the northbound approach, potentially affecting three residences that front 8<sup>th</sup> Street in the southeast quadrant (potential loss of frontyard landscaping and driveway modification).

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**Cumulative improvements with potentially significant impacts and/or feasibility concerns**

1: San Timoteo/I-10 – this is a major Caltrans improvement, with estimated additional ROW between 24 and 40 feet at the intersection and approaches. This location appears bordered by mostly disturbed areas and non-native vegetation, although there are a few mature trees east of the eastbound ramps (on Caltrans landscaped slopes), and the area west of the eastbound ramps appear to contain native vegetation and a few scattered trees. Refer to mitigation measure TRF-3 for special design considerations.

2: Oak Valley/I-10 – similar to #1, this is a major Caltrans improvement, requiring an estimated 16 to 24 feet of additional ROW. The area appears to consist mostly of disturbed lands. Improvements shown at intersections 1 and 2 indicate a need for a widening bridge over I-10.

3: Elm/Oak Valley/14<sup>th</sup> – this is a major improvement needed as part of City of Beaumont General Plan buildout (but not before), requiring 8 to 24 feet of additional ROW. Improvements for locations 2, 3, 4, 11, 13 and 18 indicate a need for widening Oak Valley Parkway from the City's urban core westerly to the I-10. This improvement would have considerable ROW impacts including adjacent developed parcels, a major crossing of San Timoteo Creek and smaller drainages, potential loss of existing vegetation and mature trees, and potential loss of existing landscaped areas. Residential areas "front" onto this section of Oak Valley Parkway, making cumulative noise, traffic and access mitigation difficult.

6: Beaumont/I-10 westbound ramps – this is a major Caltrans improvement requiring approximately 6 to 12 feet of additional ROW, including widening of the existing I-10 bridge. The affected area appears to primarily consist of landscaped Caltrans slopes and mature trees.

7: Beaumont/I-10 Eastbound ramps – similar to #6 above, this improvement would require approximately 6 to 12 feet of additional ROW and widening the existing bridge.

20: Highland Springs/Brookside – this location requires substantial ROW at General Plan buildout, affecting the existing golf course and homes in the northwest quadrant. The ultimate improvements would be six lanes wide on Brookside west of Highland Springs Avenue. While much of the widening could occur within the undeveloped land along the south side of Brookside, the ultimate improvements may impact existing homes along the north side. On a broader level, the ultimate widening of Brookside as a County roadway would impact existing residences and other uses along Brookside for its length, from Highland Springs to I-10, shown as a Secondary Arterial with an 88' ROW.

25: Highland Springs/Wilson – this improvement will require substantial ROW within the Project, as well as approximately 20 feet of ROW for the northbound improvements affecting the hospital parking area, 20 feet of ROW for southbound improvements (which could be at least partially accommodated by shifting the centerline east to absorb impacts within the

Project), and 12 feet for eastbound improvements (affecting a currently vacant commercial parcel). The southbound improvements may require drainage channel modification. The northbound improvements may result in substantial impact to the hospital parking lot, including loss of 34 parking spaces along Highlands Springs Avenue. The second northbound through lane is only required in General Plan buildout, and could be avoided if the City accepted an LOS D standard at this location, potentially avoiding significant impacts to hospital parking. *This improvement may not be feasible due to extensive ROW acquisition and commercial property impacts on Highland Springs between the I-10 westbound off-ramp and Wilson Street.*

26: Highland Springs/6<sup>th</sup>/Ramsey – this improvement only has significant impacts in the General Plan buildout condition, requiring widening of Highland Springs Avenue as well as intersection improvements, affecting adjacent landscape and parking. Northbound through lane additions would require approximately 24 feet of additional ROW, and may require removal of both commercial buildings located at the southeast intersection quadrant. *This improvement may not be feasible due to extensive ROW acquisition and commercial property impacts on Highland Springs between the I-10 westbound off-ramp and Wilson Street.*

27: Highland Springs/I-10 Westbound Ramps – this is a major Caltrans improvement, necessary only in the General Plan buildout condition, requiring significant ROW for westbound ramp widening (affecting Caltrans ROW and disturbed slope areas), as well as widening the existing I-10 underpass. As noted above, the Applicant is working extensively with Banning, Beaumont and Caltrans in addressing both interim and long-term solutions for Highland Springs/I-10 improvements.

28: Highland Springs/I-10 Eastbound Ramps – similar to #27 above, this improvement will require substantial ROW, mostly affecting Caltrans slopes and landscaped areas, as well as widening of the existing underpass.

29: Highland Springs/1<sup>st</sup>/Sun Lakes – this improvement will require 12 to 24 feet of additional ROW (only required in the General Plan buildout condition), affecting existing landscape, the Sun Lakes golf course (perimeter landscaping), signage and landscaped medians.

31: C/Apex/Wilson – this improvement would require approximately 12 feet of additional ROW for new eastbound and westbound through lanes, as part of Year 2042 and General Plan buildout conditions. The additional eastbound through lane would be avoided if the City accepted an LOS D threshold. Wilson Street widening, from Highland Springs Avenue to east of the Project, could affect numerous existing uses along Wilson Street, as reflected in improvement recommendations. *This improvement may not be feasible due to extensive ROW acquisition and commercial and residential property impacts, including potential substantial changes to access, frontage, parking and possible direct or indirect structure takes.*



38: Sunset/Wilson – this is a major City-wide improvement, with most of the major improvements required at General Plan buildout or Year 2042, including 24 to 36 feet of additional ROW at each intersection quadrant, as part of the overall Wilson Street widening. Uses impacted at this location include mobile homes and parking for the mobile home park, residences in the southeast quadrant that “front” onto Wilson, and vacant land along the north side of Wilson Street. *This improvement may not be feasible due to extensive ROW acquisition and commercial and residential property impacts, including potential substantial changes to access, frontage, parking and possible direct or indirect structure takes.*

39: Sunset/Ramsey – similar to #38 above, this is a major City-wide improvement, requiring approximately 12 to 24 feet of additional ROW, affecting existing commercial properties (loss of landscaping, potential loss of parking).

42: Sunrise/Wilson – similar to #38 above, this improvement is required at General Plan buildout, requiring approximately 12 feet of additional ROW for a new eastbound through lane. This may affect existing residences along the south side of Wilson, which front onto Wilson Street. *This improvement may not be feasible due to ROW acquisition and residential property impacts, including potential substantial changes to access, frontage, parking and possible direct or indirect structure takes.*

45: 8<sup>th</sup>/Ramsey – this is a major City-wide improvement required at General Plan buildout, potentially requiring an additional 12 feet of ROW at three quadrants, resulting in loss of landscaping and parking for commercial buildings, and potentially the loss of the existing commercial structure in the northeast quadrant. *Due to potential structural take and substantial parking loss, this improvement may not be feasible.*

46/47: 8<sup>th</sup>/I-10 Ramps – this is a major Caltrans improvement, with portions of improvements being required beginning in Year 2032. Approximately 12 to 30 feet of additional ROW is estimated, including widening of the existing underpass, loss of landscape and trees on Caltrans and adjacent slopes, potential loss of commercial parcel landscape and/or parking, and potential railroad underpass widening.

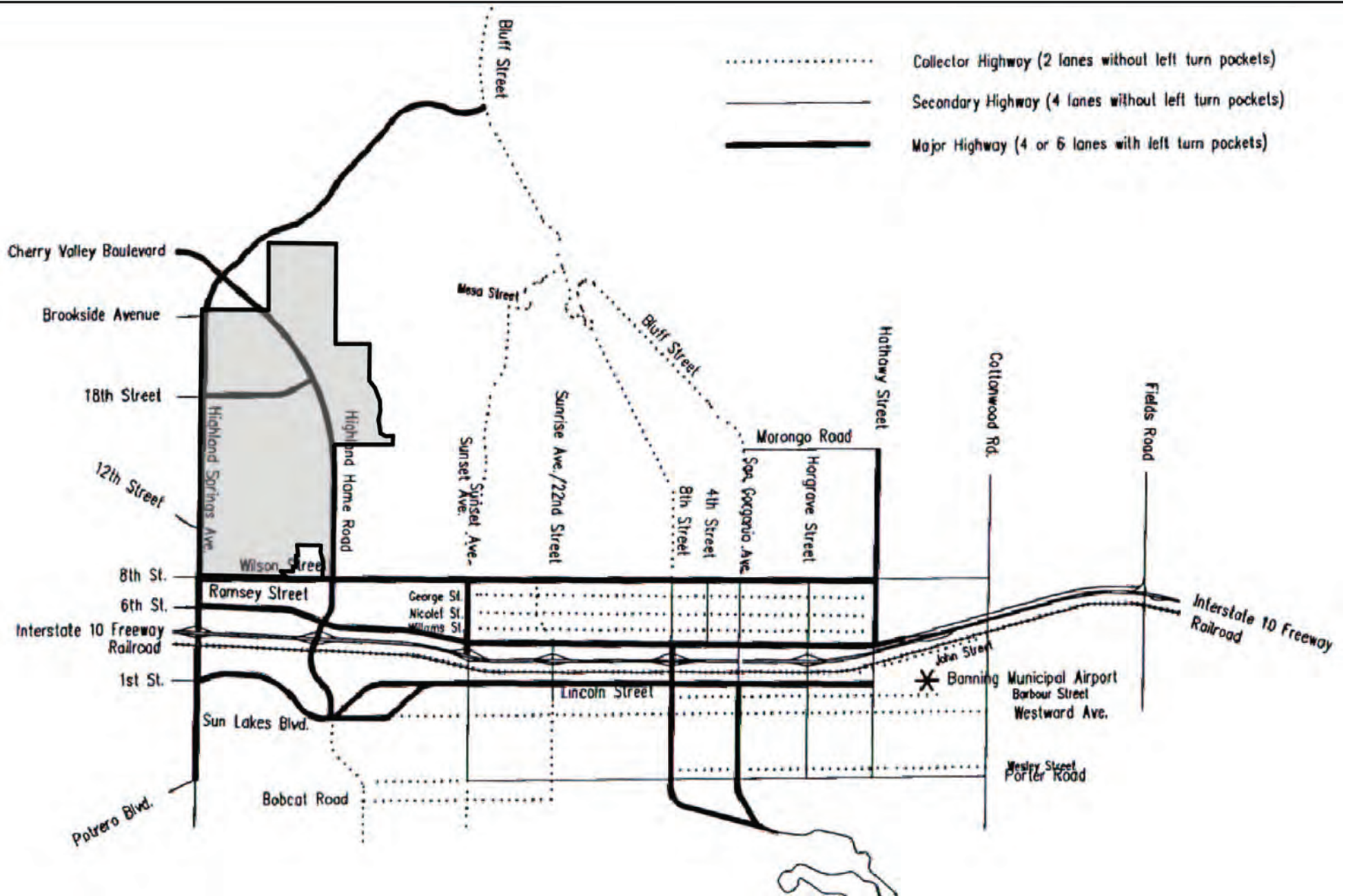
49: San Gorgonio/Wilson – this improvement will require approximately 12 to 24 feet of additional ROW, widening Wilson Street in this area by approximately 36 feet. This may require loss of landscaping, and may affect residences and the existing school at this location, including modifications to access and potential affects to existing structures. *This improvement may not be feasible due to extensive ROW acquisition and commercial and residential property impacts, including potential substantial changes to access, frontage, parking and possible direct or indirect structure takes.*

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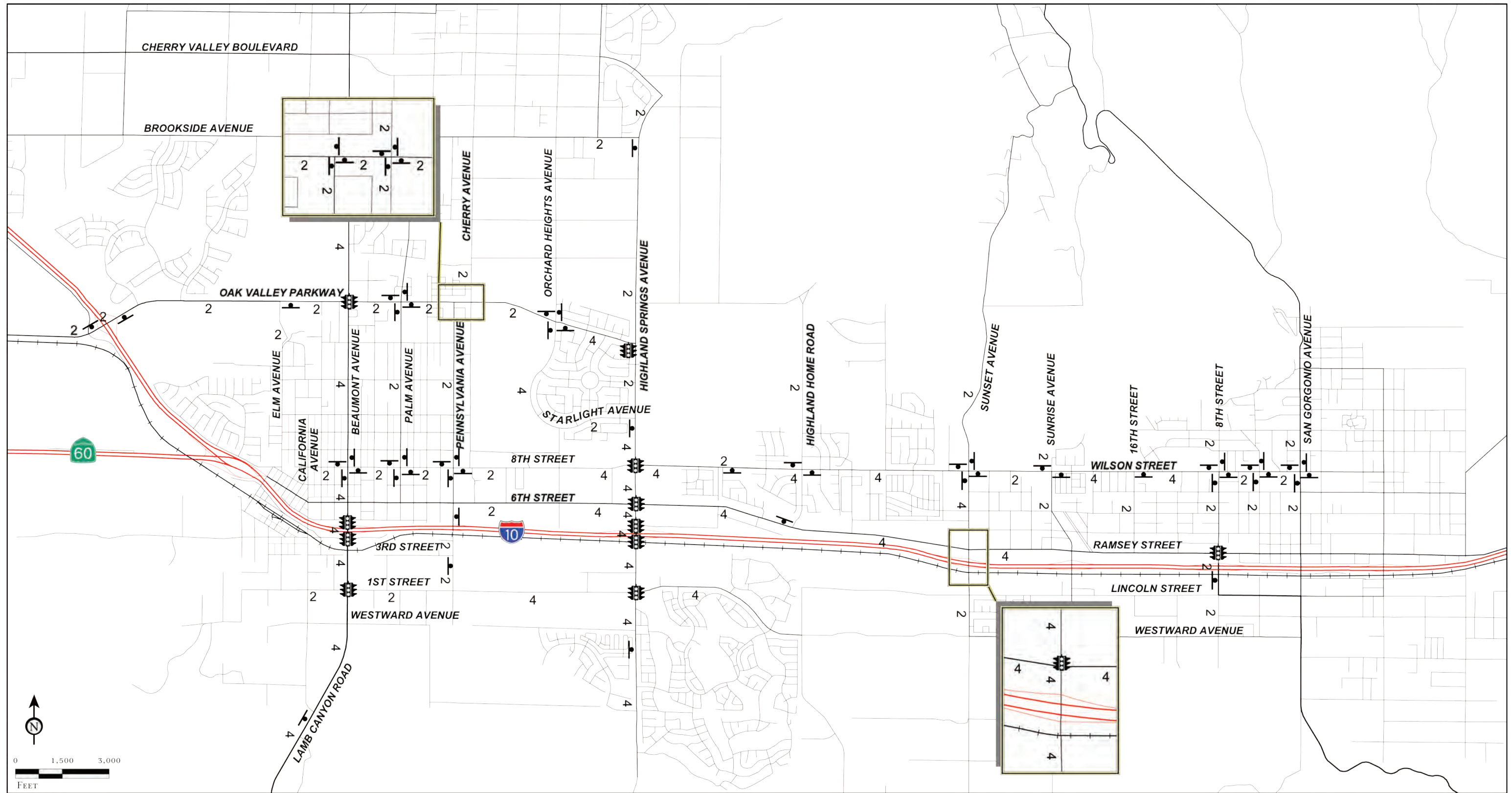
#### 4.13.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Construction of the recommended improvements, when and where needed, would achieve applicable level of service performance at all study area intersections; however, as discussed earlier, many improvements could also result in significant impacts to existing land uses (due to Project right-of-way requirements). These traffic measures would require varying levels of construction activities, which could result in air quality, noise, and traffic impacts. As these improvements are designed and implemented, appropriate construction practices intended to minimize impacts would be required. For example, the implementation of best management practices with regard to erosion, the watering of construction sites, the use of properly operating equipment, and the use of noise reduction devices would minimize environmental impacts. In addition, traffic flow during construction of the improvements would be considered by the appropriate agency.



Also, due to the speculative nature of the timing of implementation and availability of funding to implement the planned improvements listed above to less than significant levels cannot be guaranteed, and as such, remain potentially significant and unavoidable. Further, many of the recommended improvements are located in jurisdictions outside the City of Banning. Most of these improvements have been, can be and should be implemented by those other agencies, but successfully completing the improvements in a timely fashion cannot be guaranteed.



SOURCE: LSA, Traffic Impact Assessment, December 2010  
(refer to Appendix I, Figure 22)

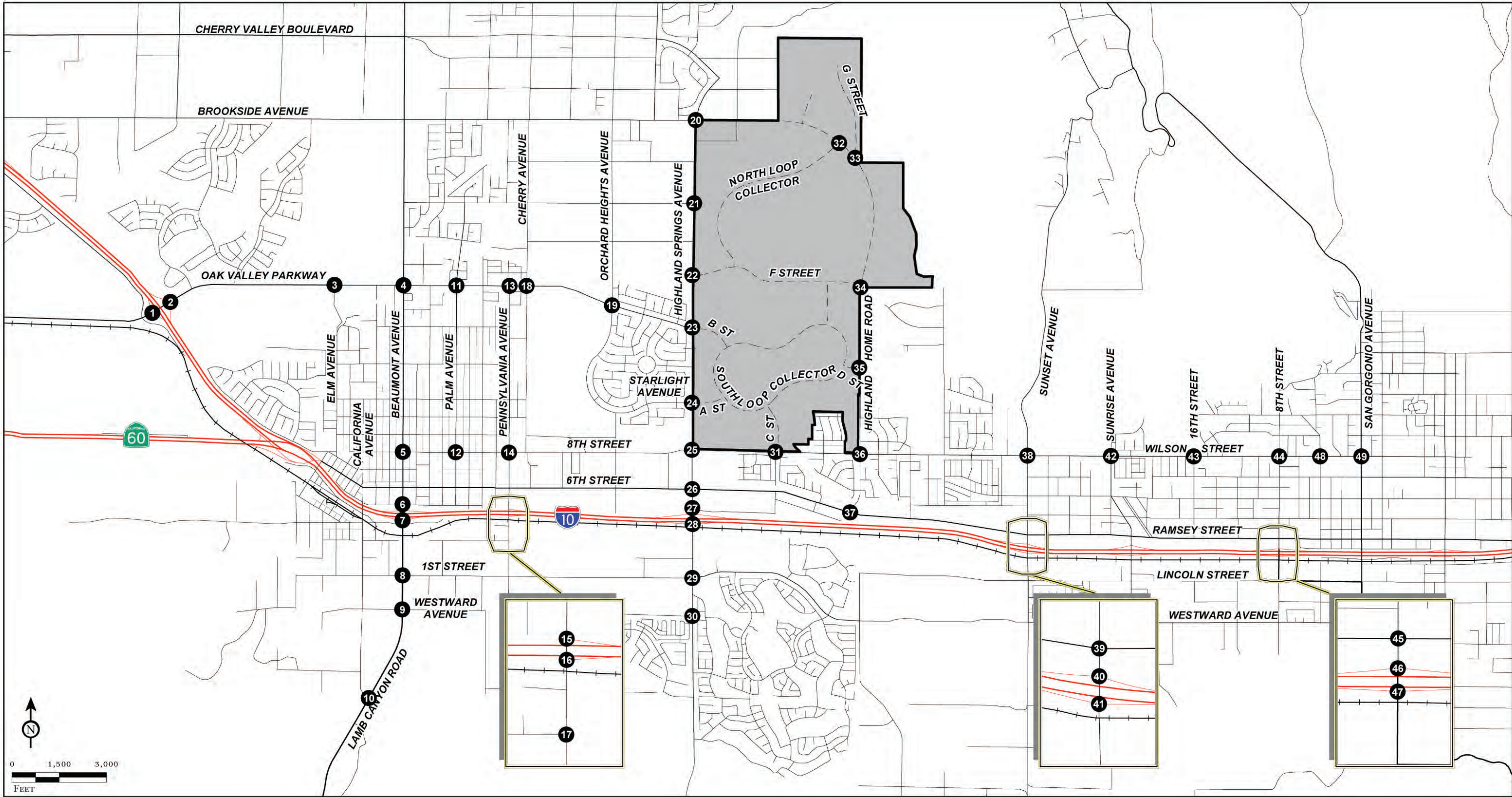


LSA

-  SIGNAL LIGHT
-  STOP SIGN
- 2 NUMBER OF MID-BLOCK LANES

SOURCE: LSA, Traffic Impact Assessment, December 2010  
(refer to Appendix I, Figure 3)



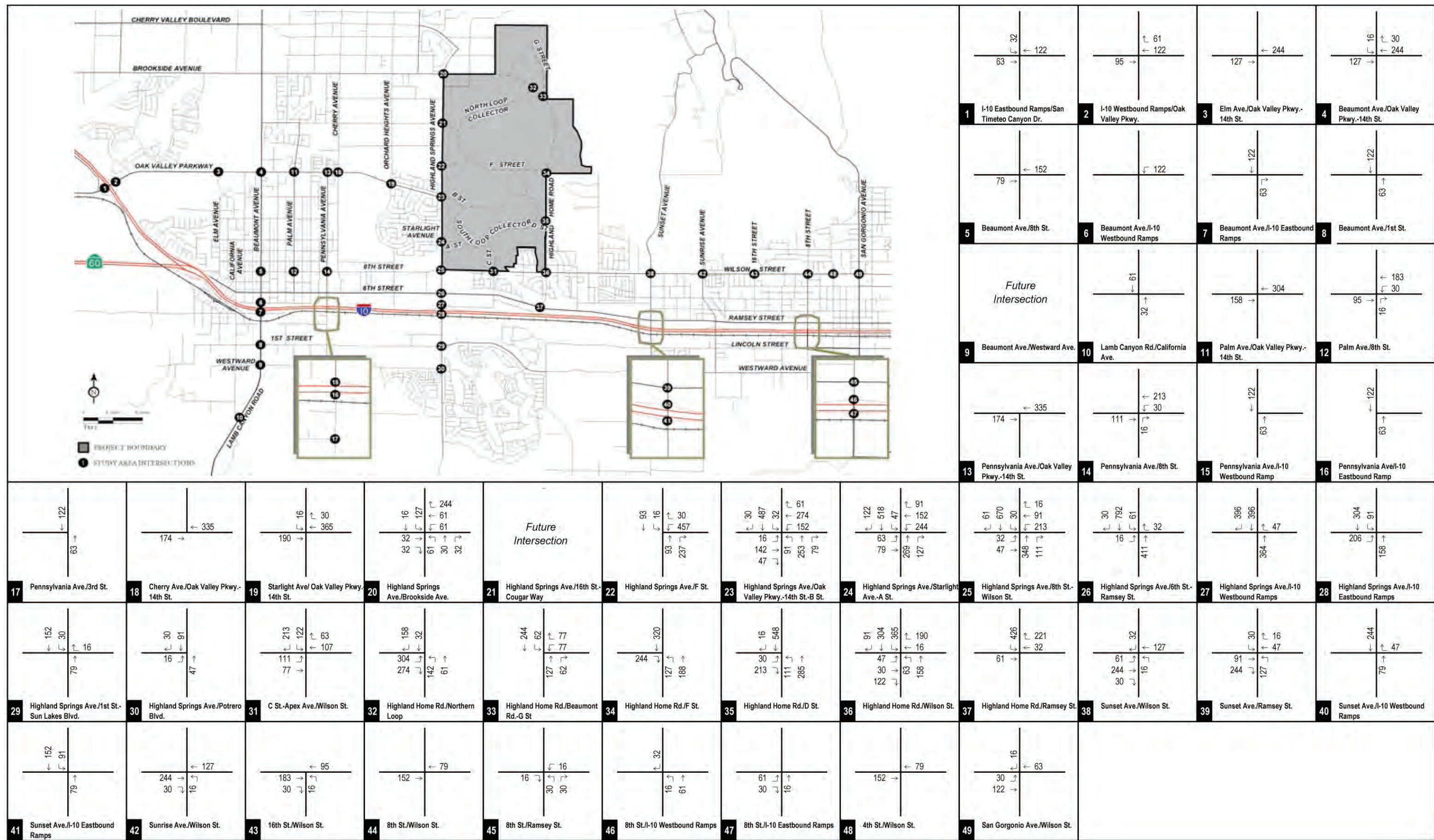


LSA

SOURCE: LSA, Traffic Impact Assessment, December 2010  
(refer to Appendix I, Figure 4)

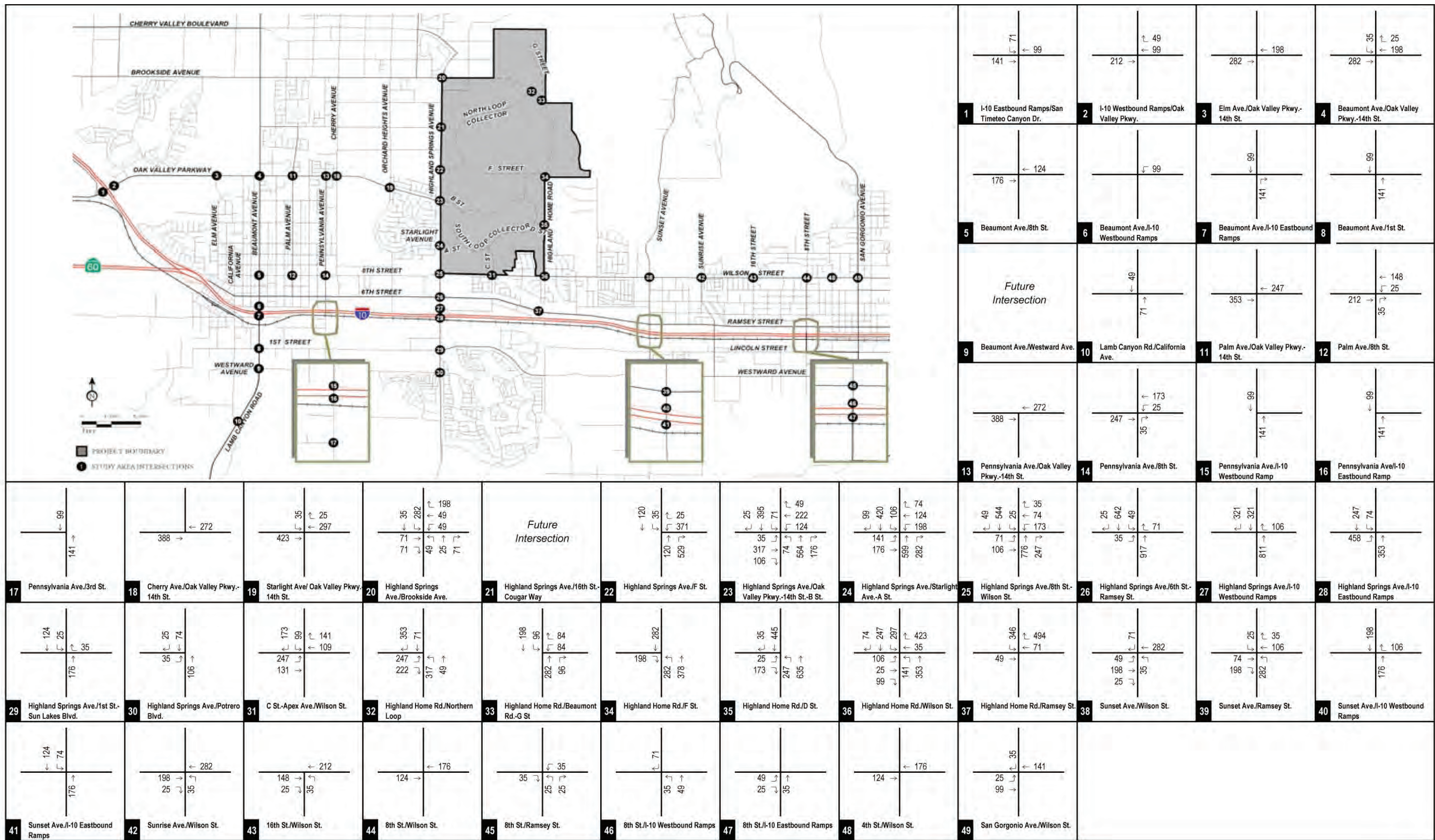
- PROJECT BOUNDARY
- STUDY AREA INTERSECTIONS





SOURCE: LSA, Traffic Impact Assessment, December 2010  
(refer to Appendix I, Figure 9A)



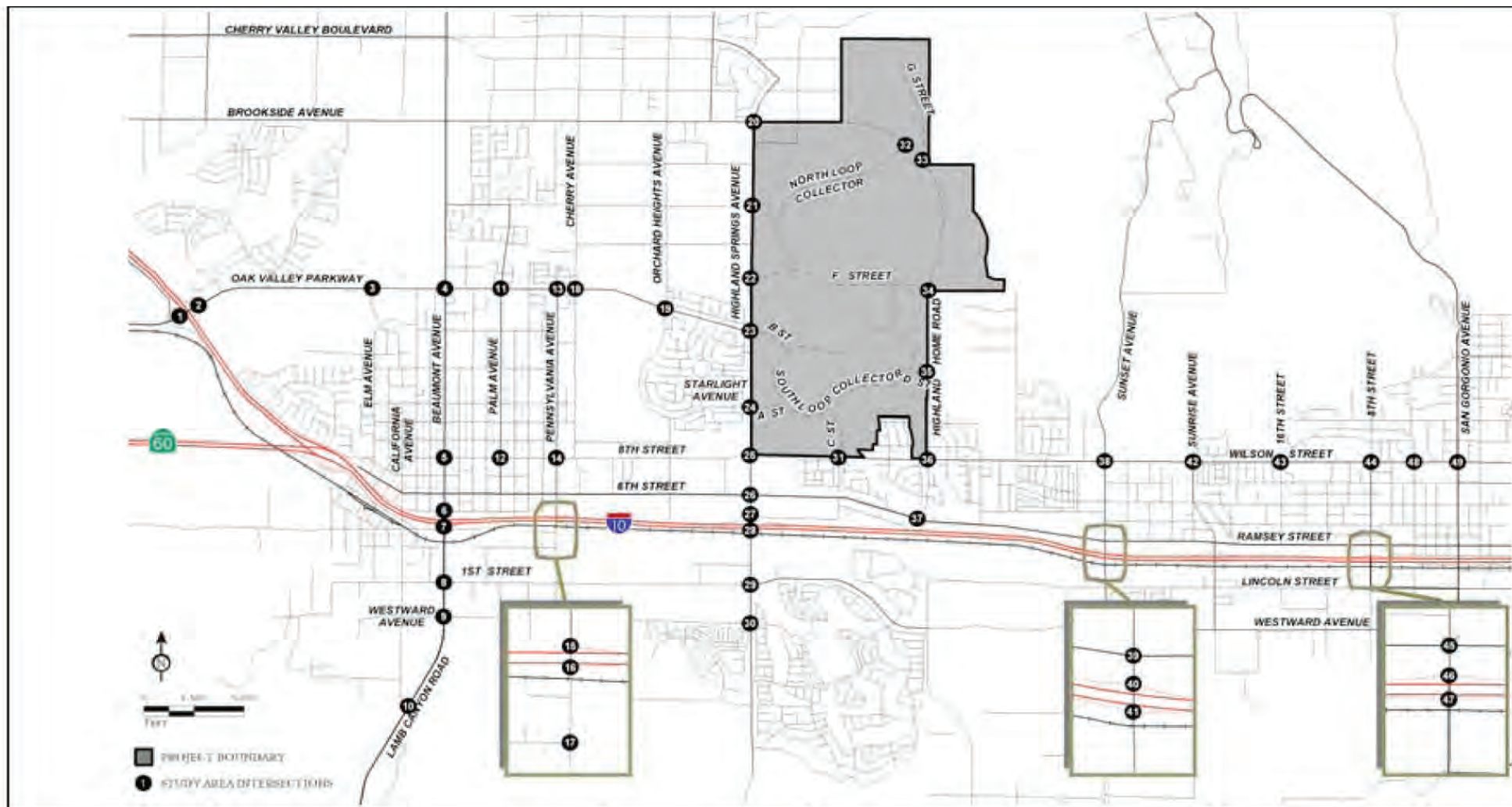


SOURCE: LSA, Traffic Impact Assessment, December 2010  
(refer to Appendix I, Figure 9B)





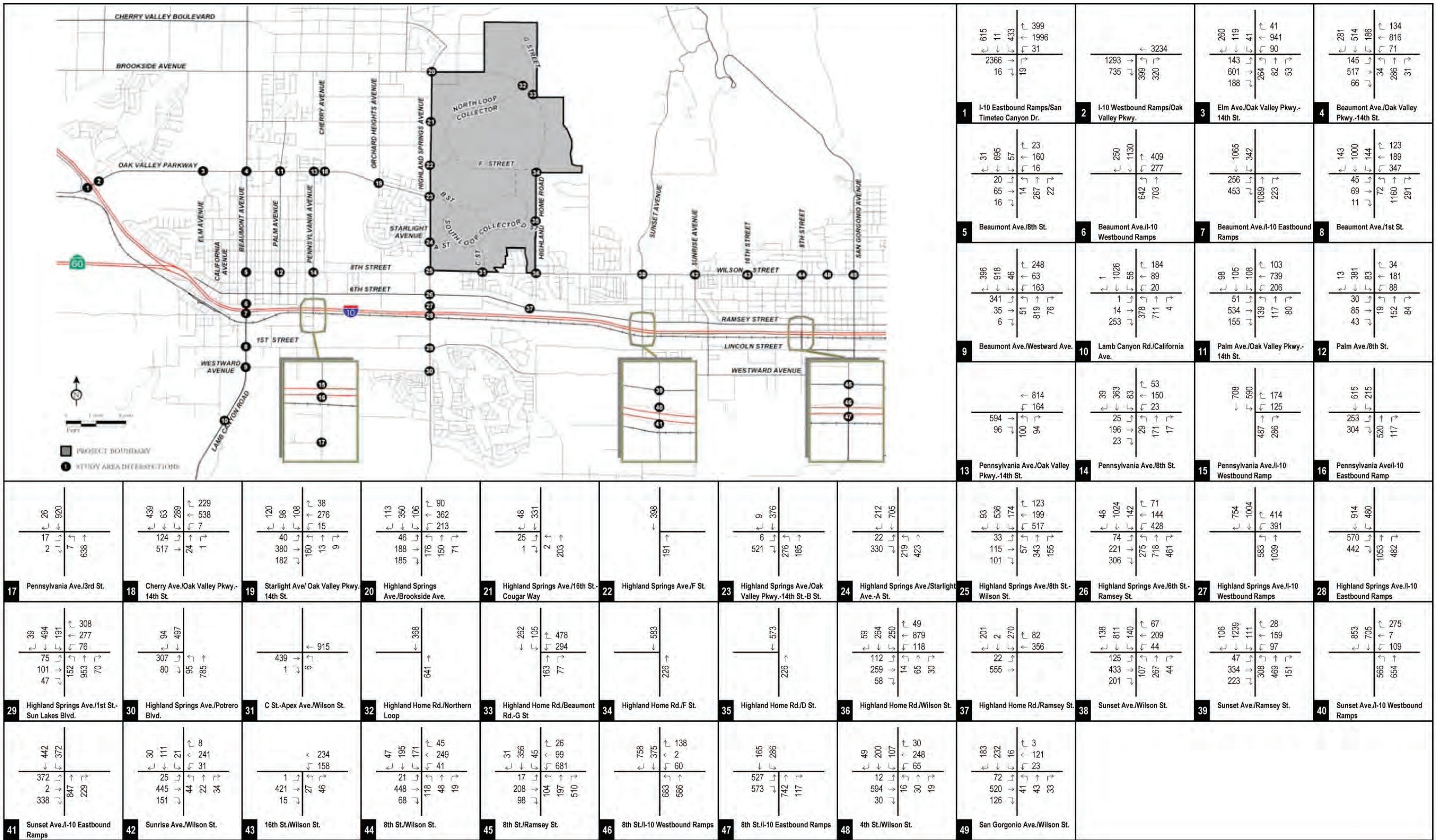




1 I-10 Eastbound Ramps/San Timeteo Canyon Dr.	2 I-10 Westbound Ramps/Oak Valley Pkwy.	3 Elm Ave./Oak Valley Pkwy.-14th St.	4 Beaumont Ave./Oak Valley Pkwy.-14th St.
5 Beaumont Ave./8th St.	6 Beaumont Ave./I-10 Westbound Ramps	7 Beaumont Ave./I-10 Eastbound Ramps	8 Beaumont Ave./1st St.
9 Beaumont Ave./Westward Ave.	10 Lamb Canyon Rd./California Ave.	11 Palm Ave./Oak Valley Pkwy.-14th St.	12 Palm Ave./8th St.
13 Pennsylvania Ave./Oak Valley Pkwy.-14th St.	14 Pennsylvania Ave./8th St.	15 Pennsylvania Ave./I-10 Westbound Ramp	16 Pennsylvania Ave./I-10 Eastbound Ramp
17 Pennsylvania Ave./3rd St.	18 Cherry Ave./Oak Valley Pkwy.-14th St.	19 Starlight Ave./Oak Valley Pkwy.-14th St.	20 Highland Springs Ave./Brookside Ave.
21 Highland Springs Ave./16th St.-Cougar Way	22 Highland Springs Ave./F St.	23 Highland Springs Ave./Oak Valley Pkwy.-14th St.-B St.	24 Highland Springs Ave./Starlight Ave.-A St.
25 Highland Springs Ave./8th St.-Wilson St.	26 Highland Springs Ave./6th St.-Ramsey St.	27 Highland Springs Ave./I-10 Westbound Ramps	28 Highland Springs Ave./I-10 Eastbound Ramps
29 Highland Springs Ave./1st St.-Sun Lakes Blvd.	30 Highland Springs Ave./Potrero Blvd.	31 C St.-Apex Ave./Wilson St.	32 Highland Home Rd./Northern Loop
33 Highland Home Rd./Beaumont Rd.-G St	34 Highland Home Rd./F St.	35 Highland Home Rd./D St.	36 Highland Home Rd./Wilson St.
37 Highland Home Rd./Ramsey St.	38 Sunset Ave./Wilson St.	39 Sunset Ave./Ramsey St.	40 Sunset Ave./I-10 Westbound Ramps
41 Sunset Ave./I-10 Eastbound Ramps	42 Sunrise Ave./Wilson St.	43 16th St./Wilson St.	44 8th St./Wilson St.
45 8th St./Ramsey St.	46 8th St./I-10 Westbound Ramps	47 8th St./I-10 Eastbound Ramps	48 4th St./Wilson St.
49 San Geronimo Ave./Wilson St.			

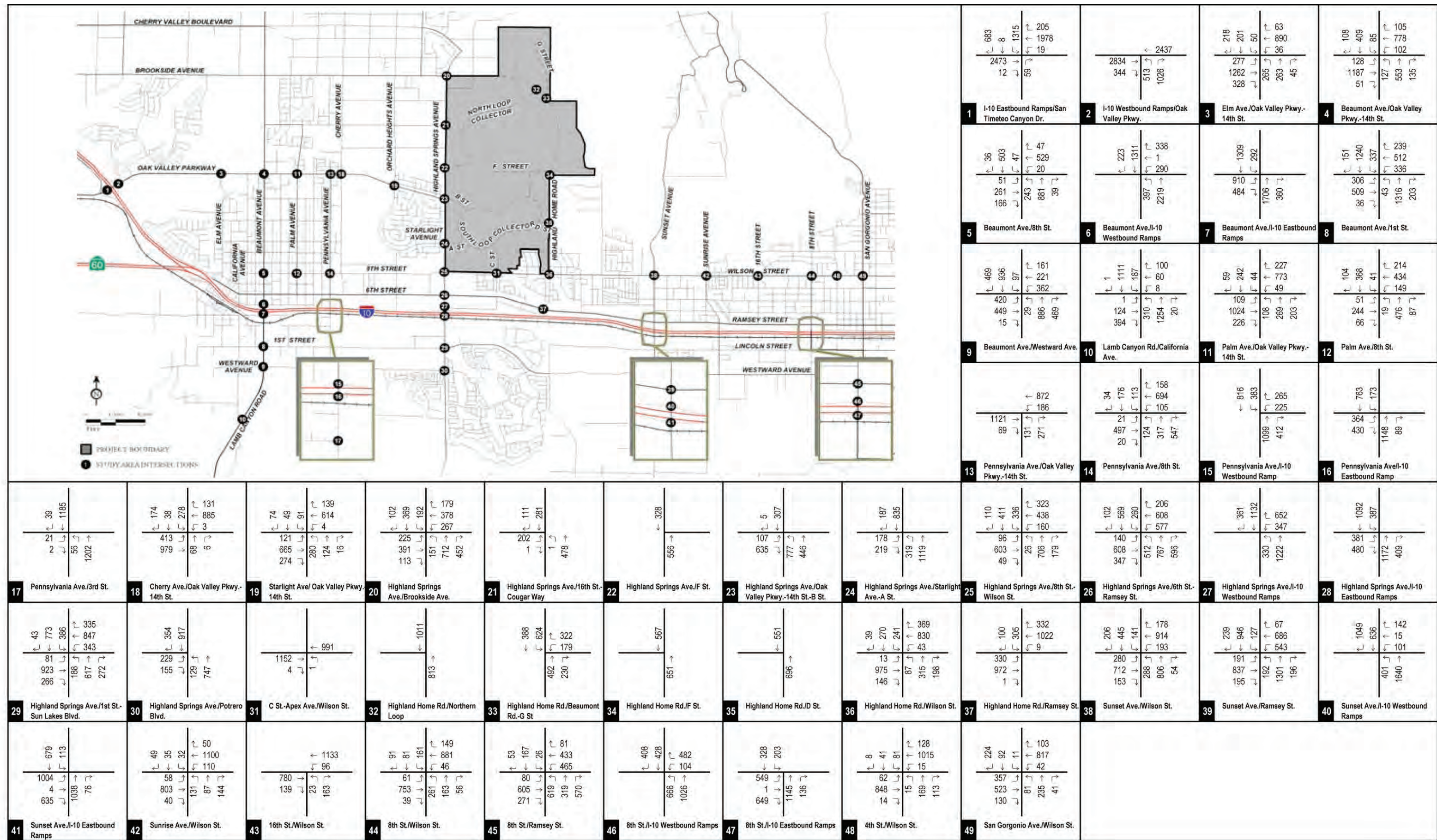
SOURCE: LSA, Traffic Impact Assessment, December 2010  
(refer to Appendix I, Figure 12B)





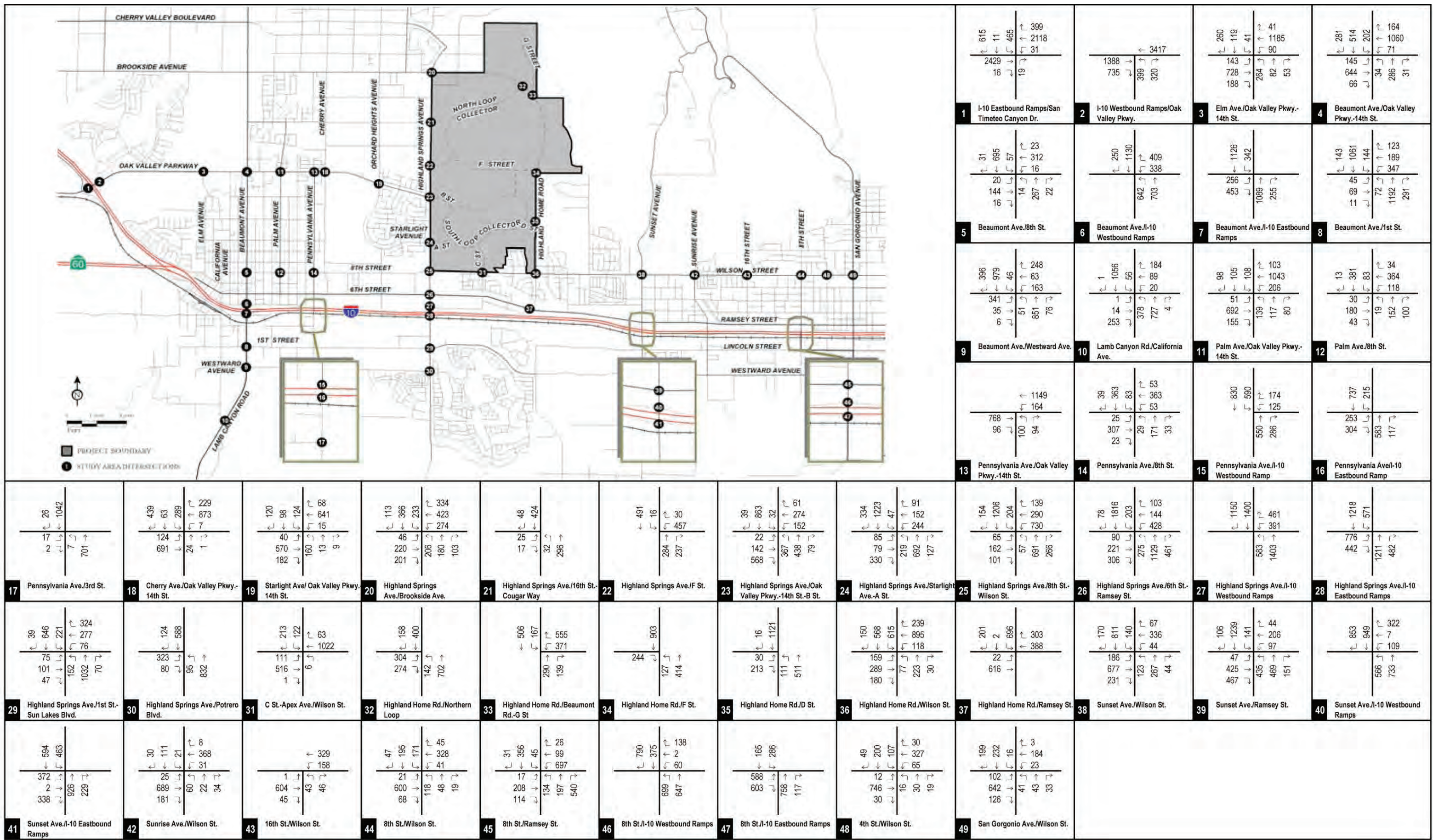
SOURCE: LSA, Traffic Impact Assessment, December 2010  
(refer to Appendix I, Figure 27A)





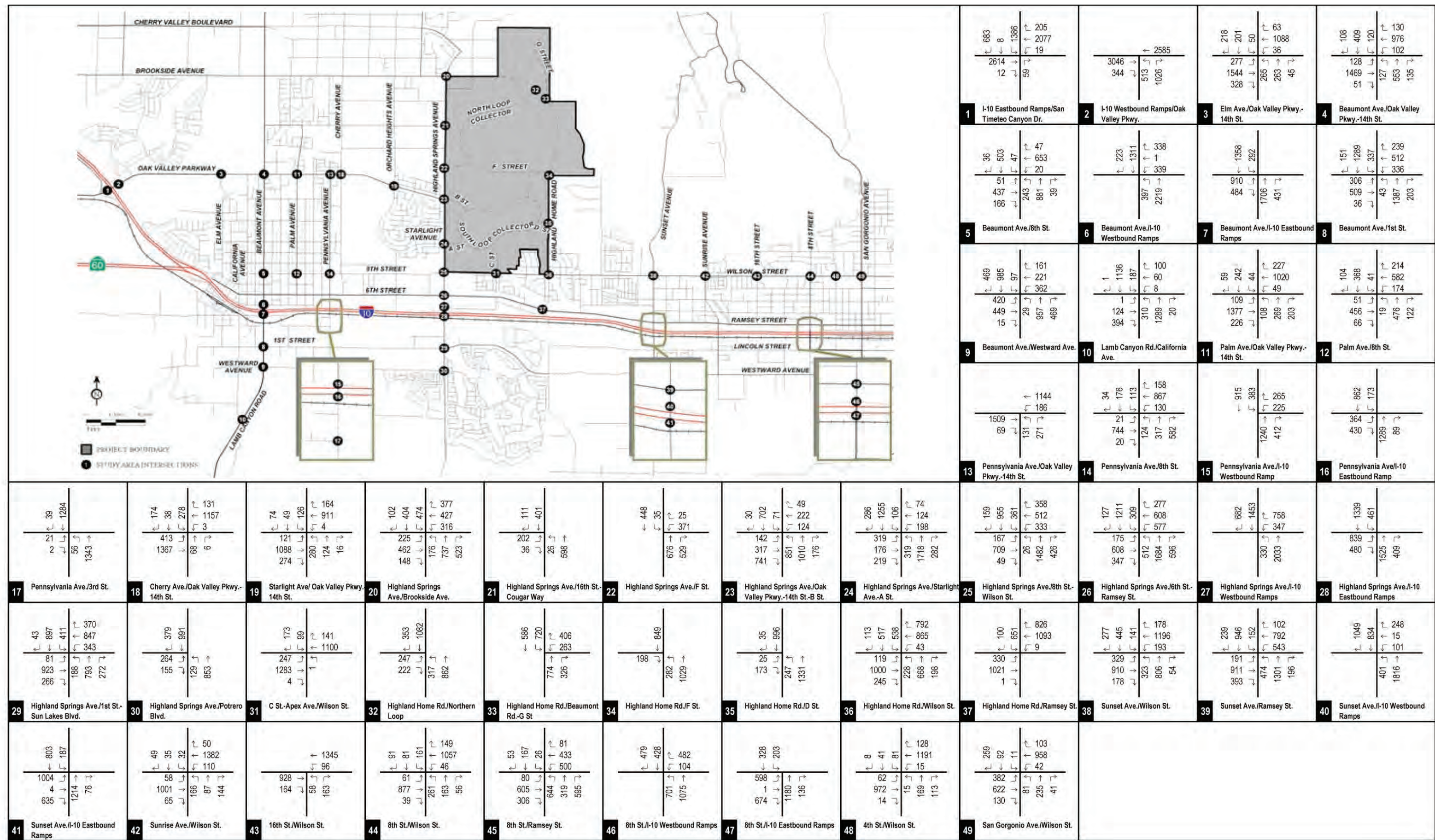
SOURCE: LSA, Traffic Impact Assessment, December 2010  
 (refer to Appendix I, Figure 27B)





SOURCE: LSA, Traffic Impact Assessment, December 2010  
 (refer to Appendix I, Figure 28A)





SOURCE: LSA, Traffic Impact Assessment, December 2010  
(refer to Appendix I, Figure 28B)