

STORBOX

Storage

Phase 3

DRAFT TRAFFIC STUDY  
FOR THE  
STORBOX STORAGE PHASE 3 EXPANSION PROJECT

Submitted to:

Barnard Foothill I, LLC

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Submitted by:



DRAFT  
TRAFFIC STUDY  
FOR THE  
STORBOX STORAGE PHASE 3 EXPANSION PROJECT

Prepared for:

**Barnard Foothill I, LLC**

Prepared by:

**RAJU ASSOCIATES, INC.**  
790 E. Colorado Boulevard, 903C  
Pasadena, California 91101  
(626) 796-6796

Ref: RA 121.01

- Current traffic analysis was performed by Raji Associates, Inc. to assess the traffic impacts of the proposed Storage Phase 3 Expansion Project located at 2233 E. Foothill Boulevard in the City of Pasadena. This study was conducted to determine the traffic impacts of the proposed Storage Phase 3 Expansion Project located at 2233 E. Foothill Boulevard in the City of Pasadena. The proposed project consists of an existing self-storage facility by 75,850 square feet and 1,800 gross square feet of office use. This expansion is proposed in addition to the Storage Phase 2 expansion of approximately 81,500 gross square feet of storage space.
- Current and future traffic analyses at three intersections and four roadway segments within the City of Pasadena were performed during the course of this study. At these locations, traffic operations were studied prior to and after implementation of the proposed project. Traffic conditions and impacts identified, improvements and mitigation measures developed, their effectiveness determined and residual traffic impacts, if any, associated as part of this study. A detailed traffic study was performed during the course of this study. At these locations, traffic circulation at the proposed driveway providing access to the parking for the expansion project were also evaluated and are discussed in this report. The following executive summary highlights the key findings of this study is presented.
- In the Cumulative (Future Year 2007) Base conditions, i.e., future conditions without the implementation of the proposed improvement project, all three analyzed intersections would continue to operate at an acceptable LOS D or better during both weekday morning and evening peak hours.
- The proposed project consisting of expansion of an existing self-storage facility by 75,850 square feet and 1,800 gross square feet of office use located at 2233 E. Foothill Boulevard in the City of Pasadena will result in 199 daily trips. 14 A.M. peak hour trips and 23 P.M. peak hour trips.
- In the Cumulative (Future Year 2007) Future project conditions, both AM and PM peak hour operations would be similar to those projected for the Cumulative Base conditions. All three intersection locations will continue to operate at acceptable levels of operation and trips would be similar to those projected for the Cumulative Base conditions. •

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Current and future traffic analyses at three intersections and four roadway segments within the City of Pasadena were performed during the course of this study. At these locations, traffic operations were studied prior to and after implementation of the proposed project. Traffic conditions and impacts identified, improvements and mitigation measures developed, their effectiveness determined and residual traffic impacts, if any, associated as part of this study. A detailed traffic study was performed during the course of this study. At these locations, traffic circulation at the proposed driveway providing access to the parking for the expansion project were also evaluated and are discussed in this report. The following executive summary highlights the key findings of this study is presented.

The proposed project consists of an additional expansion of an existing self-storage facility to provide storage space of approximately 75,850 gross square feet and approximately 1,800 gross square feet of office use. This expansion is proposed in addition to the Storage Phase 2 expansion of approximately 81,500 gross square feet of storage space.

The proposed project consists of an additional expansion of an existing self-storage facility to provide storage space of approximately 75,850 gross square feet and approximately 1,800 gross square feet of office use. This expansion is proposed in addition to the Storage Phase 2 expansion of approximately 81,500 gross square feet of storage space.

A detailed traffic study was performed by Raji Associates, Inc. to assess the traffic impacts of the proposed Storage Phase 3 Expansion Project located at 2233 E. Foothill Boulevard in the City of Pasadena. This study was conducted to determine the traffic impacts of the proposed Storage Phase 3 Expansion Project located at 2233 E. Foothill Boulevard in the City of Pasadena.

## EXECUTIVE SUMMARY

## SERVICES

- The Cumulative Future Year 2037-Due Project conditions show that the proposed Phase C expansion project would not cause any significant traffic impacts at any of the three analyzed intersection locations.
- Roadway segment analysis performed at four roadway segments indicates that the current and future operations along these roadways are at acceptable levels and would continue to remain the same with the proposed project. Additionally, no significant impacts are projected to occur due to the proposed project.
- The proposed project's access and circulation system was evaluated and assessed to be adequate for the project's operations on site.
- Summarizing, the proposed self storage expansion project would not cause any significant impacts to analyzed intersection and roadway segments operating conditions. All the analyzed intersections and roadways segments would continue to operate at acceptable levels of service.

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This report documents the assumptions, methodologies and findings of a study conducted by Ray Associates, Inc., to evaluate the potential traffic impacts of the proposed Storage Phase 3 Expansion Project. This project is located along the 2200 block of foothill Boulevard in the City of Pasadena, California.

The Proposed Project consists of additional expansion of an existing self storage facility to provide storage space of approximately 75,850 gross square feet and 1,800 square feet of office use. This expansion would be in addition to the Storage Phase 2 expansion project that consisted of approximately 81,600 gross square feet of additional storage space replacing 10,300 square feet of office use, 2,300 square feet of industrial use and 1,120 square feet of auto repair use.

The Proposed Project would be located at 2253 E. foothill Boulevard. Figure 1 illustrates the location of the Proposed Project in relation to the surrounding street system.

The currently existing driveway along foothill Boulevard will provide access to parking for the expansion component of the Project proposed along foothill Boulevard.

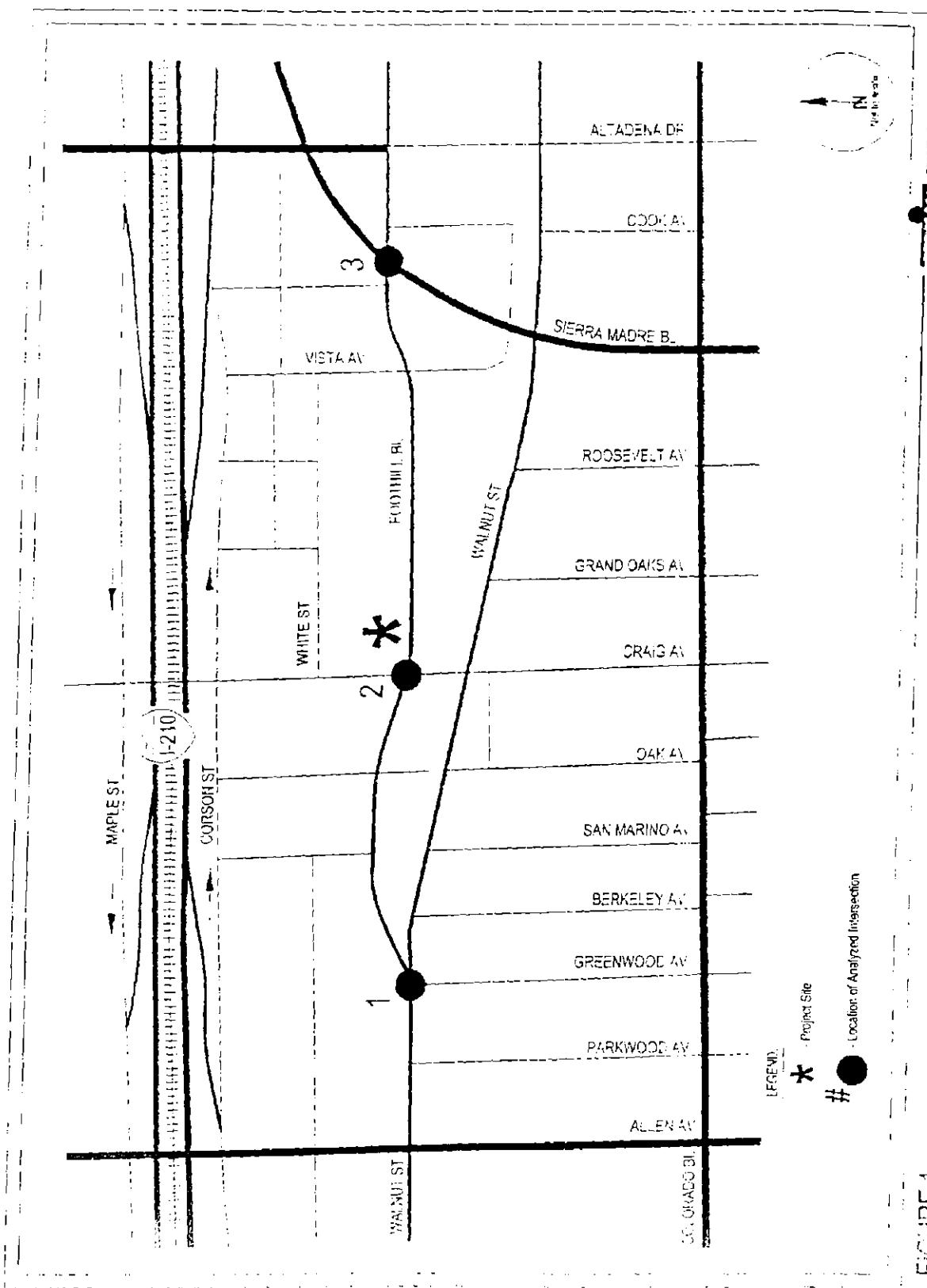
Associated parking equivalent to thirteen on-street (on-site) parking spaces in addition to ten existing spaces is proposed as part of the Phase 3 expansion project.

## PROJECT DESCRIPTION

### 1. INTRODUCTION

**Raju Associates, Inc.**

**FIGURE 1**  
**LOCATION OF PROJECT AND ANALYZED INTERSECTIONS**



1. Foothill Boulevard (Walnut Street) east of Alton Avenue
2. Foothill Boulevard west of North Almadena Avenue
3. Craig Avenue north of White Street
4. Craig Avenue south of Walnut Street

They include the following:

In addition to these intersections, four roadway segments were identified for analysis and evaluation relative to potential neighborhood traffic intrusion as a result of the proposed project.

1. Foothill Boulevard / Craig Avenue
2. Foothill Boulevard / Sierra Madre Boulevard
3. Walnut Street / Foothill Boulevard

The following 3 intersections were analyzed for the scenarios described above (See Figure 1):

- Cumulative Plus Project (2007) Conditions - The net traffic expected to be generated by growth and related projects in the vicinity of the study area by the year 2007.
- Cumulative Base (2007) Conditions - Future traffic conditions without the proposed project was developed for the year 2007. The objective of this analysis was to project future traffic growth and operating conditions which could be expected to result from regional forecasts. The impacts of the proposed project on future traffic operating conditions were forecasted. The impacts of the proposed project on future traffic operating conditions were then identified.
- Current (Existing) 2002 Conditions - The analysis of existing traffic conditions is intended to provide a basis for the remainder of the study. The existing traffic analysis includes an assessment of streets, traffic volumes, and operating conditions.

The scope of work for this study was developed in conjunction with the City of Pasadena Department of Transportation staff. The base assumptions, technical methodologies and geographic coverage of the study were all identified as part of the study approach. The study is directed at the analysis of potential traffic impacts on the street system produced by the proposed expansion project and includes an analysis of the following scenarios:

## **ORGANIZATION OF REPORT**

An executive summary presenting key details of the proposed project: existing and future traffic conditions with and without the project, traffic impacts and roadway and intersection improvements, if any is provided at the beginning of this report. The rest of the report is divided into six chapters. Chapter I presents an introduction and details of the various elements of the study. Chapter II describes the existing circulation system, traffic volumes, and traffic conditions within the study area. The methodology to obtain Future Year 2007 traffic volumes without and with the Proposed Project are described and applied in Chapter III. Chapter IV presents assessment of traffic conditions with and without the project and the potential traffic impacts due to the proposed project. An assessment of roadway link segment daily traffic volumes under current and with Project conditions within the study area and associated traffic impacts, if any, are presented in Chapter V. Access and Circulation evaluation is also presented in Chapter V. A summary of the analysis and study conclusions is included in Chapter VI. Appendices to this report include details of the technical analysis.

## **II. EXISTING CONDITIONS**

A comprehensive data collection effort was undertaken to develop a detailed description of existing conditions within the study area. The assessment of conditions relevant to this study includes an inventory of the street system, traffic volumes on these facilities, and operating conditions at key intersections. A detailed description of these elements is presented in this chapter.

### **STUDY AREA**

The study area is bounded by Corson Street on the north, Colorado Boulevard on the south, Altadena Drive in the City of Pasadena on the east, and Allen Avenue on the west.

### **EXISTING STREET SYSTEM**

The existing street system analyzed within the study area consists of a regional highway system including major arterials adjacent to the I-210 freeway, and a local street system including secondary arterials, collectors and local streets. A description of the regional and local access and circulation offered by the various roadways follows.

The I 210 freeway provides the primary regional access to the study area. The major and other arterial streets used to access the study area include Sierra Madre Boulevard, Foothill Boulevard, Allen Avenue and Walnut Street. Local access and circulation are provided by Craig Street, E. Corson Street, White Street and Vista Avenue. Brief descriptions of the arterial facilities serving the study area are included in the following section.

- **Sierra Madre Boulevard** - Sierra Madre Boulevard is a major arterial that traverses multiple jurisdictions in a north-south direction. The posted speed limit varies between 35

and 40 miles per hour (mph). Within the study area, Sierra Madre Boulevard generally offers three lanes in each direction with turn lanes at intersections. It also connects with the I-210 freeway to and from the east and west.

- Foothill Boulevard – This major arterial traverses through numerous jurisdictions in an east-west direction. It offers connections with major north-south arterials and is an important multi-modal transportation corridor facility within the City of Pasadena. Within the study area, this roadway offers four lanes with turn lanes at major or key intersections. Signalized intersections are available at Craig Avenue, Sierra Madre Boulevard and Walnut Street. Parking is generally allowed on either side of the street between Walnut Street and Sierra Madre Boulevard, except at major intersections where turn lanes are provided. The posted speed limit along this facility is 35 miles per hour (mph).
- Walnut Street – This facility is a secondary facility west of Foothill Boulevard traversing in an east-west direction within the City of Pasadena. The posted speed limit ranges between 30 to 35 miles per hour (mph). It offers two lanes in each direction with turn lanes at key intersections. Parking is generally allowed along many stretches of this roadway within the study area. South and east of Foothill Boulevard, Walnut Street is de-emphasized as a non-arterial facility, providing one lane in each direction.

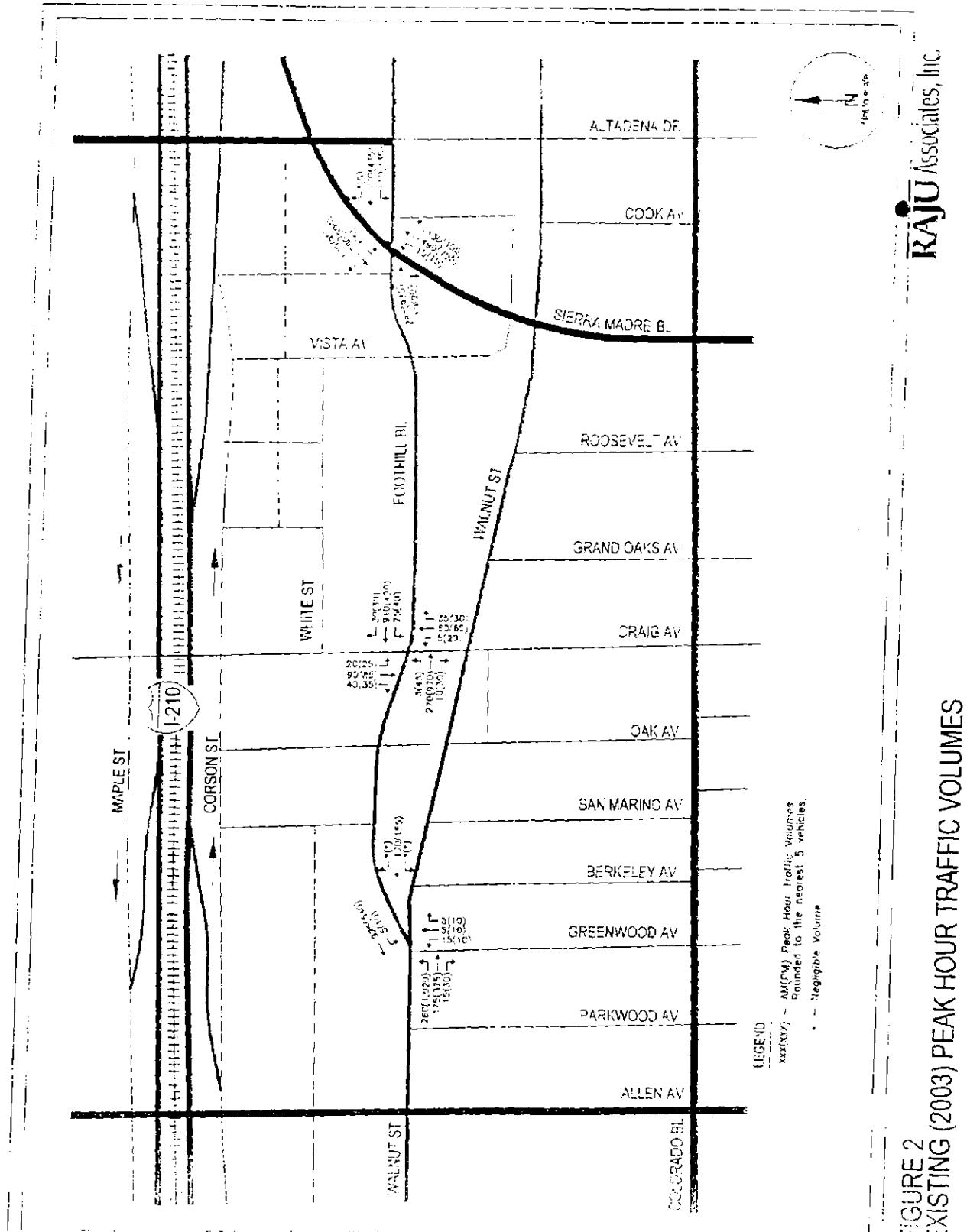
The existing lane configurations of the analyzed intersections are included in Appendix A.

## EXISTING TRAFFIC VOLUMES AND LEVELS OF SERVICE

The following sections present the existing intersection peak hour traffic volumes, a description of the methodology utilized to analyze the intersection traffic conditions, and the resulting level of service conditions at each of the study intersections for existing conditions.

### Existing Traffic Volumes

Weekday morning and evening peak hour traffic counts were compiled from data collected at the 3 analyzed intersections during the week of November 10, 2003. These weekday traffic volumes reflect typical weekday operations during current year 2003 conditions. The traffic volumes in Figure 2 represent, for the purposes of this analysis the Existing 2003 AM and PM peak hour conditions, respectively. The raw data showing the counts are attached in Appendix B.



**FIGURE 2**  
**EXISTING (2003) PEAK HOUR TRAFFIC VOLUMES**

provided in Appendix C of this report.

during both the morning and evening peak hours. All the capacity calculations are illustrated in the table, all three existing intersections are currently operating at LOS D or better morning and evening peak hours and the corresponds to LOS A at the study intersections. As of the 3 intersections in the study area. The table indicates the existing V/C ratio during the 2 summarizes the results of the intersection capacity analysis for existing conditions at each

at the analyzed intersections

intersection characteristics illustrated in Appendix A to determine the existing operating conditions used in conjunction with the level of service methodologies described above, and the current intersections in connection with the level of service methodologies described above, respectively, were

#### Existing Levels of Service

calculations in accordance with the City of Pasadena's Guidelines.

intersection. A capacity of 1600 vehicles per lane per hour was assumed in the capacity intersection volume to capacity (V/C) ratio and corresponds to level of service for each study intersection. Pasadena's requirements for analyzing intersection conditions was used to determine the

All three analyzed intersections are controlled by traffic signals.

definitions of signalized intersections is provided in Table 1 ranging from excellent conditions at LOS A to deteriorated conditions at LOS F. LOS G is typically recognized as the minimum acceptable level of service in urban areas. The Level of service level of service (LOS), is a qualitative measure used to describe the conditions of traffic flow, ranging from excellent conditions at LOS A to deteriorated conditions at LOS F. LOS G is typically

#### Level of Service Methodology

TABLE 1  
LEVEL OF SERVICE DEFINITIONS FOR SIGNALIZED INTERSECTIONS

Level of Service	Volume/Capacity Ratio	Definition
A	≤ 0.90 - 0.800	EXCELLENT - No vehicle waits longer than one red light and no approach phase is fully used.
B	> 0.800 - 0.700	VARY GOOD - An occasional approach phase is fully utilized; many drivers begin to feel somewhat what restricted within groups of vehicles.
C	> 0.700 - 0.600	GOOD - Occasionally drivers have to wait through more than one red light. Backups may develop behind turning vehicles.
D	> 0.600 - 0.300	F.A.R. - Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	> 0.900 - 1.000	Poor - Represents the most vehicles intersection approaches can accommodate. May be long lines of waiting vehicles through several signal cycles.
F	> 1.000	FAILURE - Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.

Source: Transportation Research Board, *Transportation Research Circular No. 212: Interim Materials on Highway Capacity*, 1980.

TABLE 2  
INTERSECTION LEVEL OF SERVICE ANALYSIS - EXISTING (2003) CONDITIONS

INTERSECTION	AM PEAK HOUR		PM PEAK HOUR	
	V/C	LOS	V/C	LOS
1. Foothill Bl/Greenwood Av & Walnut St.	0.512	A	0.658	B
2. Craig Av & Foothill Bl	0.498	A	0.637	A
3. Sierra Madre Bl & Foothill Bl	0.491	A	0.656	B

Notes:

ICU consists of capacity analysis who utilized for the study per City of Pasadena TMC objectives.

### III. FUTURE YEAR 2007 TRAFFIC PROJECTIONS

In order to properly evaluate the potential impact of the proposed project on the local street system, estimates of the Future Year 2007 traffic volumes both with and without the project were developed. The Future Year 2007 without the project was first projected including estimates for background growth in area-wide trip making and trips generated by future developments in the vicinity of the study area. The Future (2007) without project traffic represents the cumulative base conditions. The traffic generated by the proposed project was then estimated and assigned separately to the street system. The addition of the project traffic and the cumulative base traffic represents the Cumulative (2007) Plus Project scenario. Each of these future traffic scenarios is further described in this chapter.

#### CUMULATIVE (2007) BASE TRAFFIC PROJECTIONS

The Cumulative (2007) Base traffic projections reflect growth in traffic from two primary sources: Firstly, the background or ambient growth to reflect the effects of overall area-wide regional growth both within and outside the study area; and secondly, from traffic generated by specific cumulative projects located within, or in the vicinity of, the study area. Each of these components is described below.

##### Area-wide Ambient Traffic Growth

An area-wide regional growth factor of 1.5% per year was estimated based on projections from the most recent City of Pasadena Mobility Element model. Future traffic increases due to regional growth and development are expected to continue at this rate. With the project completion date of

## Project: base conditions

The traffic volumes presented in Figure 4, represent the Future Cumulative (2007) without

any traffic restrictions during AM and PM peak hours

Figure 4 provides the Cumulative (Year 2007) Base traffic volumes at each of the junctions. Figure 4 also shows ambient growth traffic to obtain the Cumulative (2007) Base traffic were added to the existing plus ambient growth traffic to obtain the Cumulative (2007) Base traffic estimates. Assignments of the cumulative projects were performed and these related projects' traffic estimates were assigned to the exits; the trip generation rates and the traffic distribution and the traffic related projects' trip generation is shown in Table 4. The geographic distribution and these trip generation rates for the related projects were computed using these rates and these

Transportation Engineers 1997). These rates and scenarios are described in detail in Table 3 obtained based on rates and scenarios provided in the Trip Generation, 6<sup>th</sup> Edition (Institute of the trip generation rates for the various related projects in the vicinity of the study area were

projects. The locations of related projects are shown in Figure 3 noting that the Storady Storage Phase 2 Expansion Project is included as one of the related the City of Pasadena. Seven cumulative projects were identified within the study area. It is worth processed expansion project. Data describing cumulative projects in the area was solicited from developments that are planned and expected to be in place within the same timeframes as the form other future development projects in the vicinity. These "cumulative projects" are those as indicated, the success potential source of traffic growth in the study area was that expected

## Cumulative Project: Traffic Generation and Assignment

area-wide ambient growth

2007 the existing 2007 traffic volumes were adjusted upwards by a factor of 6% to reflect this

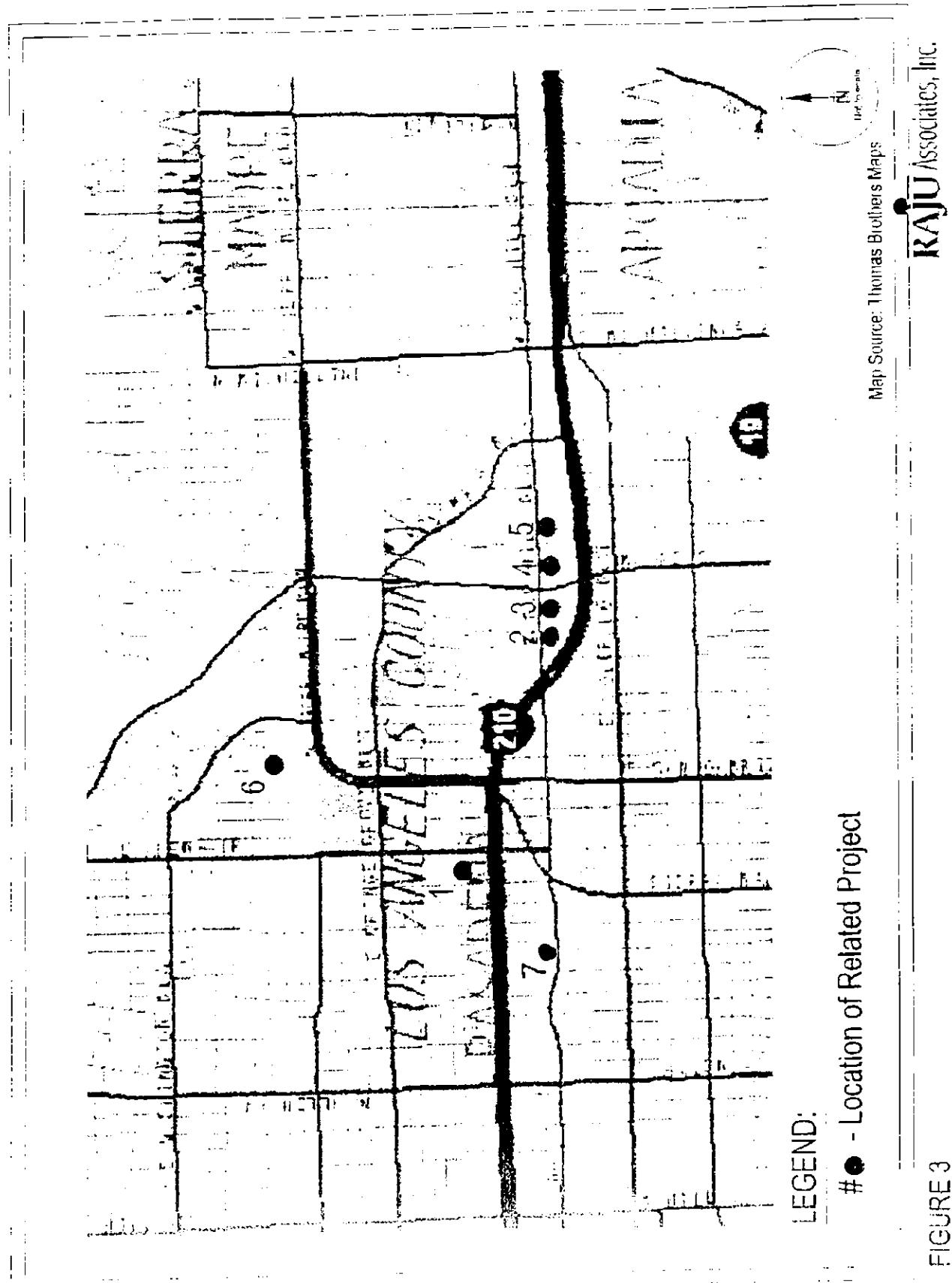


FIGURE 3  
LOCATION OF RELATED PROJECTS

TABLE 3  
TRIP GENERATION RATES - WEEKDAY

Land Use	Average Daily Rate	AM Peak Hour			PM Peak Hour		
		Rate	%In	%Out	Rate	%In	%Out
Retail (Trips per 1,000 sf)	[1]	[1]	61%	39%	[1]	48%	52%
Research & Development (Trips per 1,000 sf)	[2]	[2]	65%	35%	[2]	15%	85%
Condominium/Townhouse (Trips per dwelling unit)	5.88	0.44	17%	83%	0.54	67%	33%
Office Park (Trips per 1,000 sf)	[3]	[3]	69%	11%	[3]	14%	86%
Self-Storage (Trips per 1,000 sf)	[2]	0.15	59%	41%	0.26	51%	49%

Note:

[1] Trip generation for retail was calculated using the following formulas:

Daily	$\ln(T) = 0.643 \ln(X) + 5.866$
AM Peak Hour	$\ln(T) = 0.596 \ln(X) + 2.329$
PM Peak Hour	$\ln(T) = 0.660 \ln(X) + 3.403$

[2] Trip generation for research and development center was calculated using the following formulas:

Daily	$\ln(T) = 0.824 \ln(X) + 3.135$
AM Peak Hour	$\ln(T) = 0.875 \ln(X) + 0.883$
PM Peak Hour	$\ln(T) = 0.832 \ln(X) + 1.06$

[3] Trip generation for office park was calculated using the following formulas:

Daily	$T = 10.422(X) + 409.04$
AM Peak Hour	$\ln(T) = 0.535 \ln(X) + 1.54$
PM Peak Hour	$T = 1.213(X) + 106.215$

[4] Trip generation for self-storage was calculated using the following formulas:

Daily	$\ln(T) = 1.01 \ln(X) + 0.815$
-------	--------------------------------

Where:

$\ln$  = Natural logarithm

$T$  = Two-way volume of traffic (total trip-ends)

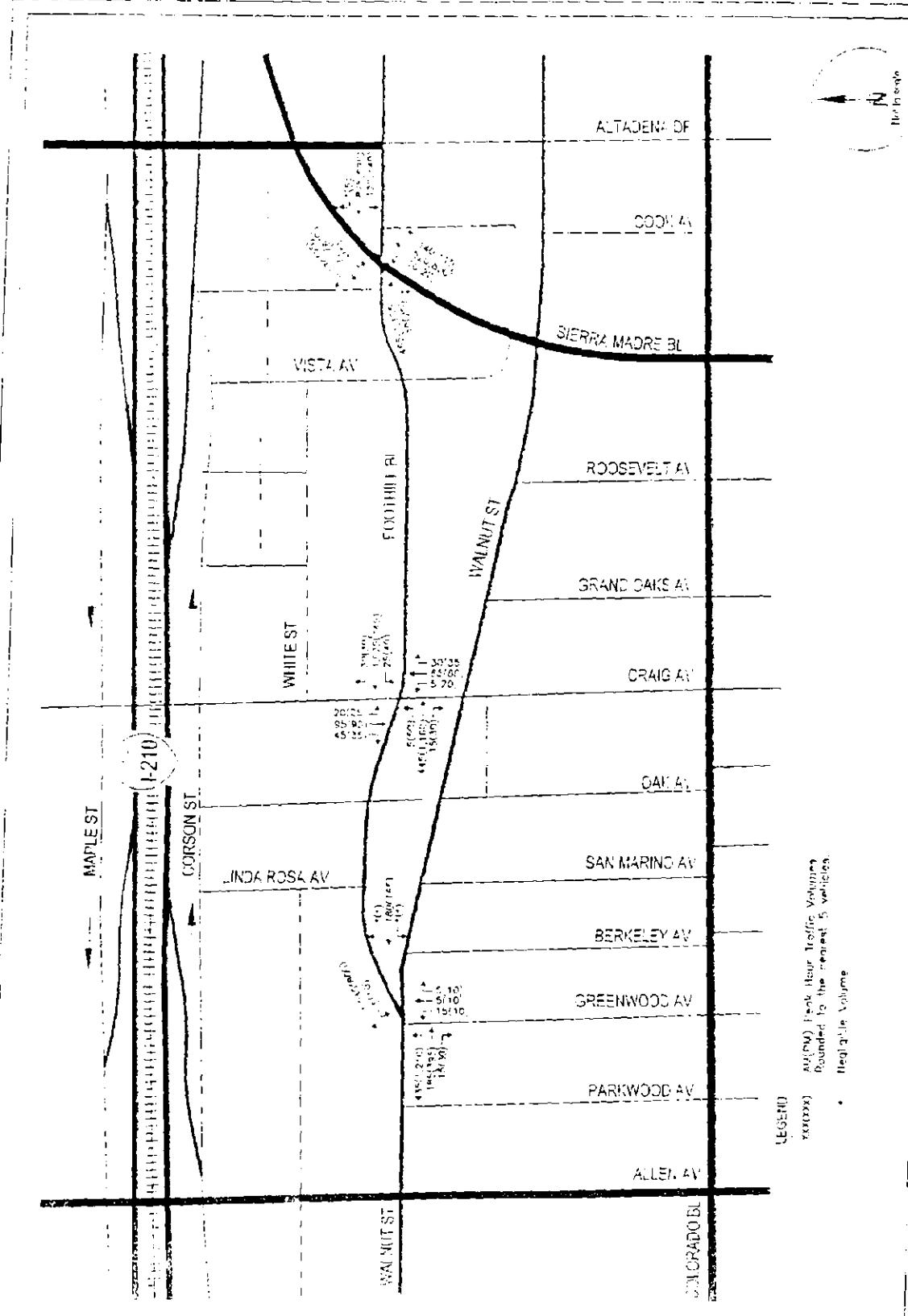
$X$  = Area in 1,000 gross square feet of leasable area

Source: *ITE Trip Generation Manual, 6th Edition*

TABLE 4  
ESTIMATED WEEKDAY TRIP GENERATION OF RELATED PROJECTS

X9 Project Name	Location	Land Use	Size	Daily Trips		AM Peak Hour		PM Peak Hour		Total
				IN	OUT	IN	OUT	IN	OUT	
1. 435 N Alameda Av	Condominium	52 du	305	4	19	23	19	9	28	
2. 3160 Foothill Bl	Retail	150,000 sf	8,847	124	73	2,13	3,04	4,57	8,27	
3. 3202 F Foothill Bl	Self-Storage	375,000 sf	8,910	35	23	65	140	45	93	
4. 3360 E. Foothill Bl	Research and Development	360,000 sf	2,893	338	69	4,17	54	134	450	
5. 3465 E. Foothill Bl	Residential	128 du	1,102	14	69	83	63	14	117	
6. 2233 E. Foothill Bl	Office Park	95,000 sf	1,195	187	23	210	31	60	221	
7. 1000 Rose Av	Townhomes	52 du	305	4	10	13	12	7	29	
8. 2233 E. Foothill Bl	Self Storage	81,500 sf	(54)	(23)	0	(23)	6	11	(1)	
9. 2233 E. Foothill Bl Phase 2 (1)				16,07A	15,695	591	397	641	1,012	1,654

Source: "Project Study for the Stobox Expansion Project", Rayu Associates, November 2003.



**Raju Associates, Inc.**

**FIGURE 4**  
**CUMULATIVE (2007) BASE PEAK HOUR TRAFFIC VOLUMES**

interection level distribution percentages are shown in Appendix D. Based on these distribution assumptions and trip generation from the proposed project, traffic estimates of project only trips were estimated. These project only trips are presented in Figure 5

To and From the West	30%
To and From the East	30%
To and From the South	25%
To and From the North	15%

The trip distribution for project trips was assumed to be the following:

#### Project Trip Distribution

during the evening peak hour

From Table 5 it can be observed that the proposed project's trip generation would result in 199 daily trips in which 14 trips would occur during the morning peak hour and 23 trips would occur

generation estimates.

Utilizing the Trip Generation, 6<sup>1</sup> Edition rates, the proposed project's net trip generation including the replacement of existing uses was determined. Table 5 presents details of the proposed project's trip generation including type of use, size, applicable rates or calculations and trip generation estimates.

#### Project Trip Generation

The implementation of the proposed project consists of an additional 75,850 gross square feet of self-storage space and 13,000 gross square feet of office use

#### PROJECT TRAFFIC VOLUMES

TABLE 5  
ESTIMATED PROJECT TRIP GENERATION

Category	Size	Daily	AM Peak Hour		PM Peak Hour		TOTAL
			IN	OUT	IN	OUT	
Self-Storage	75,850 sf	179	7	4	11	10	20
Office	1,800 sf	20	2	1	3	1	3
Total		199	9	5	14	11	23

Note: Trip generation for self-storage was calculated using the following formulas.

$$\ln(T) = 1.01 \ln(X) + 0.815$$

$$T = 1.15(X)$$

$$T = 0.26(X)$$

Trip generation for office was calculated using the following formulas.

$$T = 1.91(X)$$

$$T = 1.56(X)$$

$$T = 1.49(X)$$

Where:

$\ln$  = Natural logarithm

T = Two-way volume of traffic (total trip ends)

X = Area in 1,000 gross square feet of leasable area

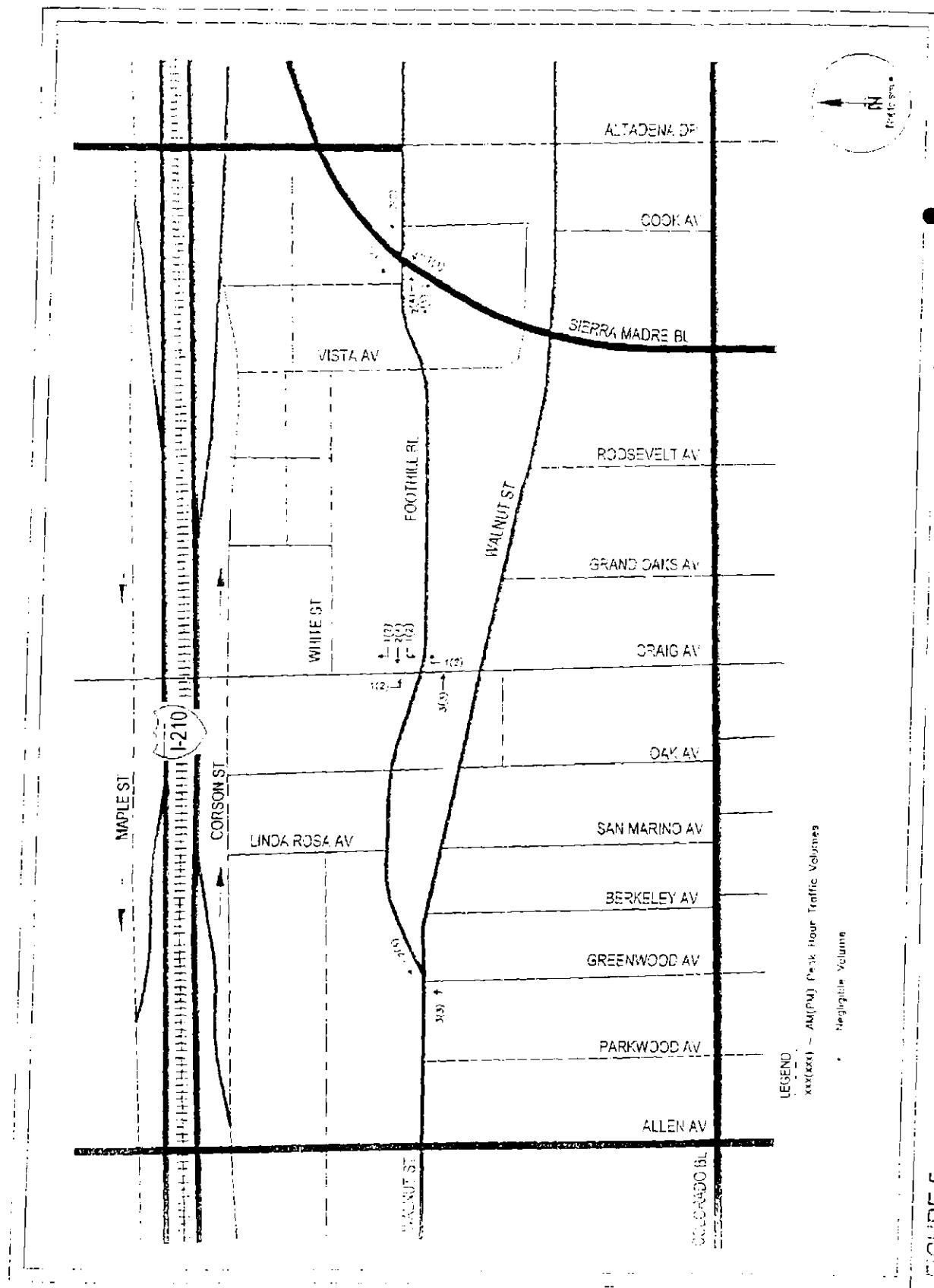
Inbound 59%      Outbound 41%

Inbound 41%      Outbound 59%

Source: *ITE Trip Generation Manual, 6th Edition*

**RAYU Associates, Inc.**

**FIGURE 5  
PROJECT ONLY PEAK HOUR TRAFFIC VOLUMES**

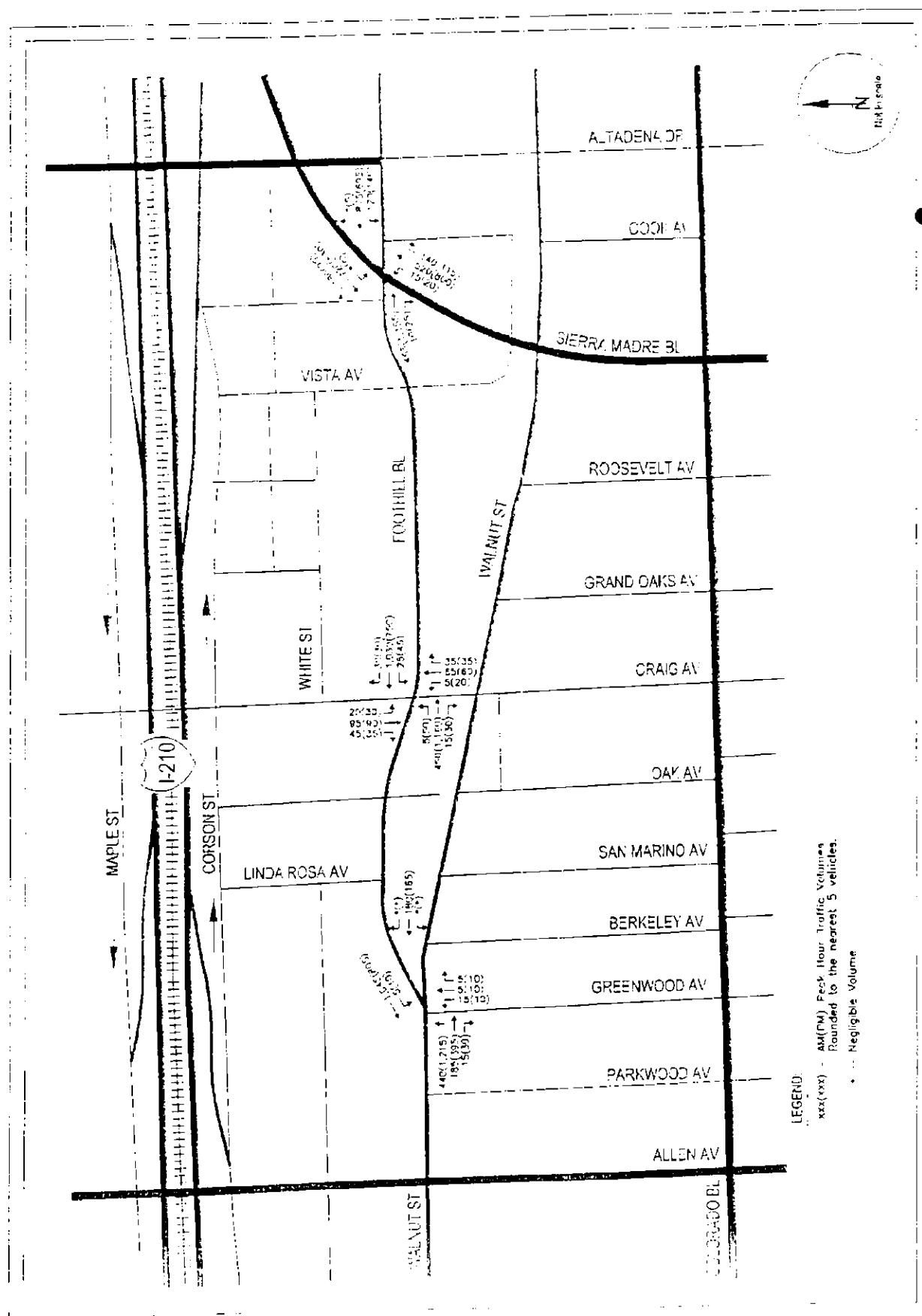


#### FUTURE YEAR 2007 CUMULATIVE PLUS PROJECT TRAFFIC VOLUMES

Utilizing the intersection specific project only traffic estimates developed for both A.M. and P.M. peak hours due to the proposed expansion project, the traffic forecasts for the Future Year 2007 with Project conditions were developed. The Future Year 2007 Cumulative Base traffic forecasts were combined with the project only traffic volumes to obtain the Future with Project traffic volume forecasts. The Future Year 2007 Cumulative plus Project traffic volumes during both A.M. and P.M. peak hours are presented in Figure 6.

**RAJU** Associates, Inc.

FIGURE 6  
CUMULATIVE (2007) PLUS PROJECT PEAK HOUR TRAFFIC VOLUMES



	In V/C Ratio	Under current conditions
	Project-related increase	Intersection LOS
A	0.06	
B	0.05	
C	0.04	
D	0.03	
E	0.02	
F	0.01	

The City of Pasadena Department of Transportation has established threshold criteria that determine if a project has a significant traffic impact at a specific intersection. According to the criteria provided by the City of Pasadena, a project impact is considered significant if the following conditions are met:

#### SIGNIFICANT TRAFFIC IMPACT CRITERIA

The traffic impact analysis compares the volume to capacity (V/C) ratios at each study location under the cumulative base and cumulative plus project conditions to determine the incremental difference in V/C ratios caused by the proposed project. This provides the information needed to assess the potential impact of the project using significance criteria established by the City of Pasadena.

The results were then used to assess the potential impact of the proposed project on the local street system utilizing the methodologies and assumptions per the City of Pasadena traffic study guidelines. The Future Year 2007 Cumulative Base and Cumulative plus Project conditions were analyzed

#### IV. FUTURE YEAR 2007 TRAFFIC CONDITIONS & IMPACT ANALYSIS

Using these criteria, for example, a project would have a significant impact at an intersection if it is operating at LOS A and the incremental change in V/C ratio due to the proposed project is 0.06 or greater. Similarly, the sliding scale criteria states that a project would have a significant impact at an intersection if the incremental increase in V/C ratio is 0.01 or greater when the intersection is operating at a LOS F.

#### CUMULATIVE (2007) BASE TRAFFIC CONDITIONS

The Cumulative (2007) Base without proposed project peak hour traffic volumes were analyzed at each of the study intersections to determine the V/C ratio and corresponding level of service. Table 6 presents the results of the Year 2007 Cumulative Base (without project) traffic analysis. As indicated in the Table, all three analyzed intersections will continue to operate at LOS D or better during both morning and evening peak hours.

#### CUMULATIVE (2007) PLUS PROJECT TRAFFIC CONDITIONS

The Cumulative (2007) Plus Project peak hour traffic volumes were analyzed to determine the volume to capacity (V/C) ratio and LOS at each of the analyzed intersections. The results of this analysis are also summarized on Table 6. Table 6 indicates that with the proposed project, all the analyzed intersections will continue to operate at acceptable LOS during both the morning and evening peak hours. Operating V/C ratios at the intersections in comparison to the Cumulative (2007) Base conditions are projected to slightly increase from a range of 0.001 to 0.004 to those projected for the base conditions.

All capacity calculation worksheets are attached in Appendix C of the report.

**TABLE 6**  
**INTERSECTION LEVEL OF SERVICE ANALYSIS**  
**FUTURE YEAR 2007 CONDITIONS**

Intersection	Peak Hour	Cumulative (2007)		Cumulative (2007) + Project Conditions		Increase in LOS	Impact	Significant
		Base V/C	LOS	Base V/C	LOS			
1 Foothill Bl/Greenwood Av & Walnut St	AM	0.548	A	0.551	A	0.003	No	No
	PM	0.733	C	0.734	C	0.001	No	No
2 Craig Av & Foothill Bl	AM	0.535	A	0.537	A	0.002	No	No
	PM	0.604	B	0.608	B	0.004	No	No
3 Sierra Madre Bl & Foothill Bl	AM	0.533	A	0.534	A	0.001	No	No
	PM	0.730	C	0.732	C	0.002	No	No

Notes:

All methods of capacity analysis was utilized for this study per City of Pasadena ITA guidelines.

## **PROJECT IMPACTS**

Using the specified significant impact criteria, the traffic impacts at the analysis locations were determined. Table 6 identifies the individual impacts during both A.M. and P.M. peak hours at each of the analysis locations. It can be observed that none of the analyzed intersections would be significantly impacted by the proposed expansion project. Therefore, no mitigation measures would be required for the proposed project.

The City of Pasadena has established specific threshold criteria for impacts to any street segment by a project excluding ambient growth and the required traffic mitigation. These thresholds are described in the following page.

#### **Street Segment Impact Thresholds**

Current daily traffic counts were conducted during the week of November 10, 2003 using machine counters. These traffic counts are included in Appendix B.

1. Foothill Boulevard east of Allen Avenue
2. Foothill Boulevard west of Alabern Drive
3. Craig Avenue north of White Street
4. Craig Avenue south of Walnut Street

The City of Pasadena Department of Transportation staff identified four roadway segments include locations for analysis and assessment of conditions with the project. These roadway segments include:

#### **ROADWAY SEGMENT ANALYSIS**

This chapter provides analyses of roadway segments in the vicinity of the project. This analysis is targeted towards assessment of potential neighborhood traffic intrusion as a result of the proposed project. Additionally, on-street parking evaluation within the immediate vicinity of the site and other access/circulation issues are also addressed in this chapter.

#### **V. ROADWAY SEGMENT & ACCESS/CIRCULATION ANALYSIS**

### Street Segment (ADT Impact Thresholds)

<u>ADT Growth on Street Segment</u>	<u>Required Traffic Mitigation</u>
<u>0.0-2.4% ADT Growth</u> Project review & Initial Study	Staff Review & Conditions
<u>2.5% - 4.9% ADT Growth</u> Examined by Initial Study Focused Traffic Study	Soft Mitigation Required. TDM, Rideshare, etc
<u>5.0% - 7.4% ADT Growth</u> Examined by Initial Study Full Traffic Study Required	Soft Mitigation Required. Physical Mitigation Required. Project Alternatives Considered.
<u>7.5%+ ADT Growth</u> Examined by Initial Study Full Traffic Study Required	Soft Mitigation Required. Extensive Physical Mitigation Required. Project Alternatives Considered.

The daily traffic volumes resulting from the addition of trips generated by the proposed project to the existing daily traffic counts is shown in Table 7. The ADT impacts of the proposed project are also shown in Table 7.

From Table 7, it can be observed that the analyzed roadway segments have an increase in ADT ranging from 0.2% to 1% due to the proposed project. Therefore, there are no ADT impacts associated with the proposed project.

**TABLE 7**  
**AVERAGE DAILY TRAFFIC ANALYSIS**

Street Segment	Existing 2003 ADT	Project ADT	Existing 2003 Plus Project ADT	% Change	Significant Impact
E Foothill Boulevard e/o Allen Avenue	21,915	60	21,975	0.3%	No
E Foothill Boulevard w/o Altadena Drive	20,649	40	20,689	0.2%	No
Craig Avenue n/o White Street	2,940	30	2,970	1.0%	No
Craig Avenue s/o Walnut Street	3,142	30	3,172	1.0%	No

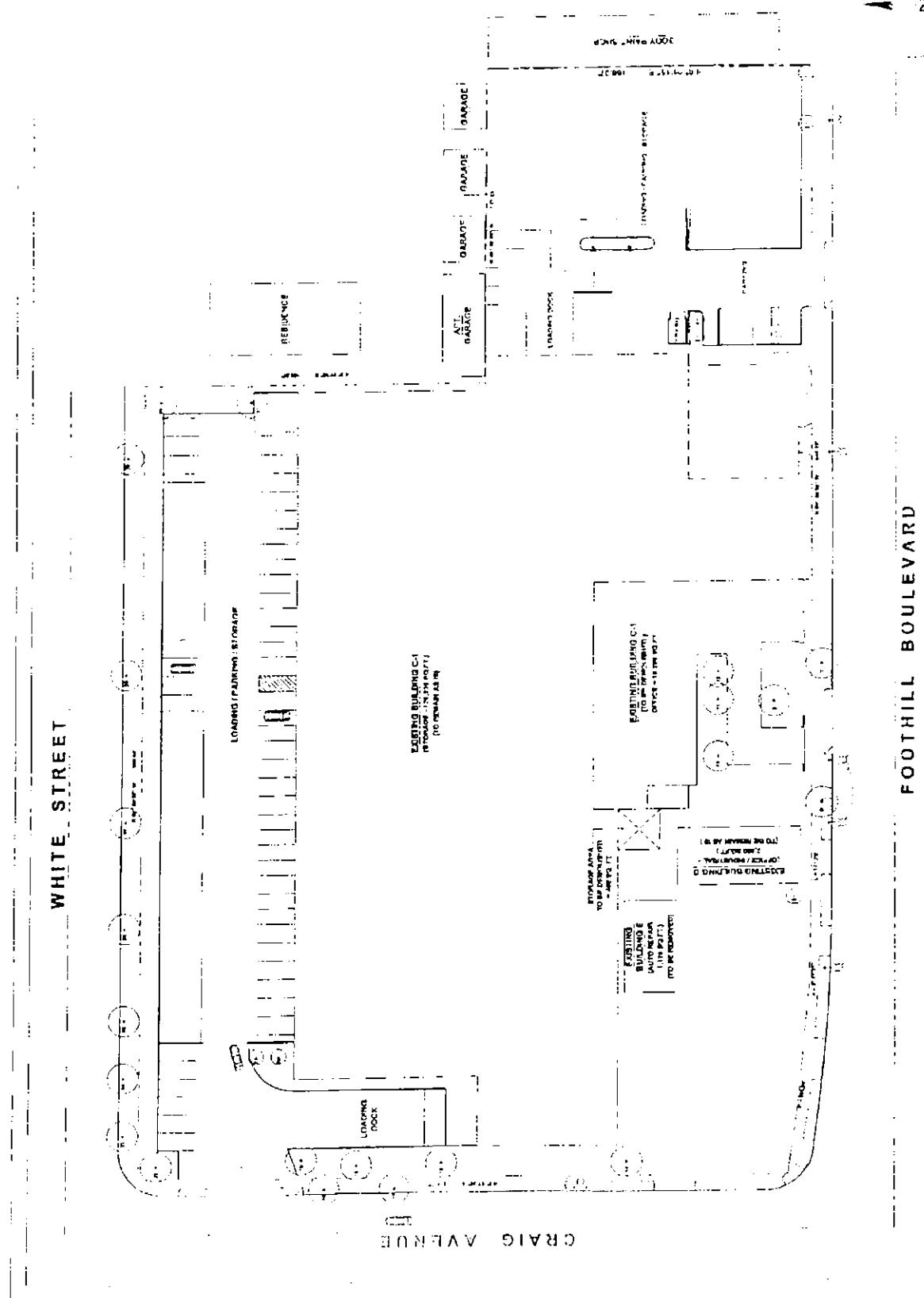
Based on a review of the proposed site plan, the access and circulation proposed for the project's on-site parking would function adequately.

- Issues arising from the proposed project's construction would be incorporated in such a manner that there would be no significant distance between the proposed driveway along Foothill Boulevard and the current driveway along Foothill Boulevard.
- There would be no net loss of on-street parking spaces. Project design features would be incorporated in such a manner that there would be no significant distance between the proposed driveway along Foothill Boulevard and the current driveway along Foothill Boulevard.
- There would be no net loss of on-street parking spaces. Project design features would be incorporated in such a manner that there would be no significant distance between the proposed driveway along Foothill Boulevard and the current driveway along Foothill Boulevard.
- Four curb cuts on driveways along Foothill Boulevard are being closed and instead, a new driveway is being proposed immediately east of the office driveway by Phase 2. The proposed Phase 3 Project would not change access and egress conditions beyond Phase 2. The Proposed Phase 3 Project would obtain access to its parking from the current driveway along Foothill Boulevard.
- Following completion of the Existing Site Plan and Proposed Site Plan for this Project, the following observations can be made from these exhibits:

Figures 7 and 8 present the Existing Site Plan and Proposed Site Plan for this Project. The figures show the Existing Site Plan and Proposed Site Plan for this Project. The

The existing Stroobos Garage Facility provides access to its parking along Foothill Boulevard and Craig Avenue. The Phase 2 expansion proposes to obtain access to its own surface parking off-site from the currently existing driveway along Foothill Boulevard.

## PARKING, ACCESS & CIRCULATION ISSUES



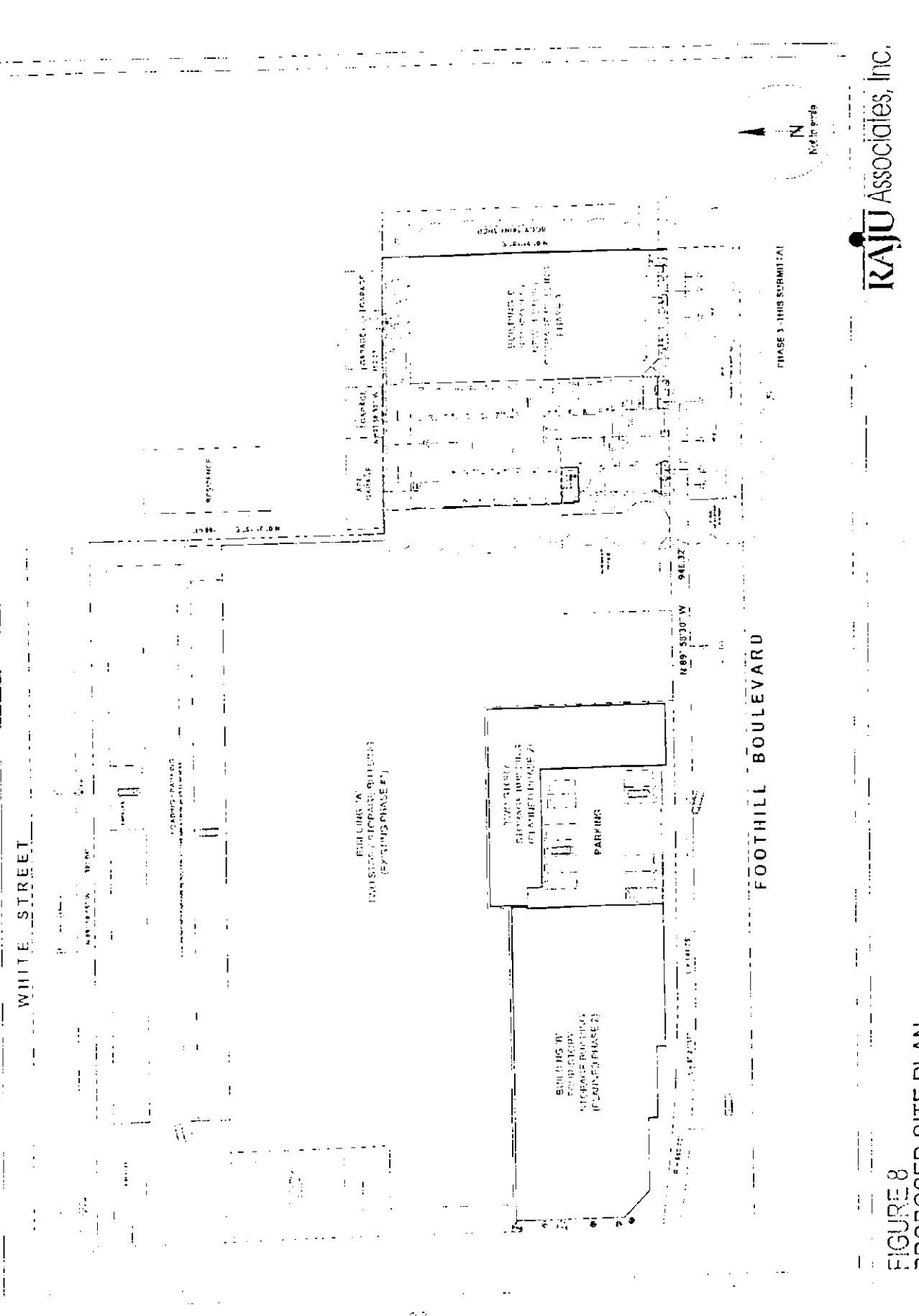


FIGURE 8  
PROPOSED SITE PLAN

**RAJU** Associates, Inc.

The Proposed Phase 3 Expansion Project would be providing an additional 13 spaces adjacent to 10 existing parking spaces in the parking area for the Proposed Project and a small portion of existing self-storage use. Based on a detailed parking study performed for the Phase 2 Project, the Proposed Phase 3 Expansion Project would require 9 spaces. There would be adequate off-site parking for the Proposed Phase 3 Expansion Project.

#### Parking Provisions for the Proposed Project

- Existing on-street parking surveys indicate that approximately 66 spaces are currently available on the north side and 44 spaces on the south side of Foothill Boulevard between east and west sides each, within the survey area.
- Typical weekday and weekend day (Saturday) utilization surveys were performed between 9:00 A.M. and 6:00 P.M. The number of parked cars within the survey area was counted every hour for the duration of the survey.
- Maximum utilization of 50% along Craig Avenue and 45% along Foothill Boulevard within the study area were observed during weekdays. During Saturdays, peak occupancies of 29% along Craig Avenue and 41% along Foothill Boulevard were observed within the study area.
- It can be concluded that adequate on-street parking currently exists (and will continue to exist with the proposed project) in the vicinity of the study area.

Table 3 presents the results from the on-street parking survey performed for this project. The following observations can be made:

Existing on-street parking inventories indicate that approximately 66 spaces are currently available along Foothill Boulevard between Linda Ross Avenue and Vista Avenue and along Craig Avenue between Carson Street and Walnut Street were surveyed as part of this analysis. Days were performed during the weeks of November 16 and 17, 2003. On-street parking days were performed during typical weekdays and weekends.

#### Op-Street Parking Analysis

TABLE 8  
ON-STREET PARKING UTILIZATION SUMMARY - EXISTING CONDITIONS

Street	From To	Side	PARKING UTILIZATION BY TIME OF DAY																									
			9:00 AM		10:00 AM		11:00 AM		12:00 PM		1:00 PM		2:00 PM		3:00 PM		4:00 PM		5:00 PM		6:00 PM		7:00 PM					
			Weekday	Saturday	Weekday	Saturday	Weekday	Saturday	Weekday	Saturday	Weekday	Saturday	Weekday	Saturday	Weekday	Saturday	Weekday	Saturday	Weekday	Saturday	Weekday	Saturday	Weekday	Saturday	Weekday	Saturday	Weekday	Saturday
Craig Av	Concord St to White St	west	3	2	2	1	2	3	1	5	1	3	1	2	1	1	1	2	3	2	2	1	2	1	2	1	2	1
		east	4	2	0	5	1	1	0	1	0	1	1	2	2	1	3	1	4	1	1	2	1	2	1	2	1	
Craig Av	White St to Foothill Bl	west	11	2	1	2	1	2	1	3	1	4	2	3	1	3	1	3	1	3	1	3	1	3	1	3	1	
		east	7	2	0	6	4	0	3	0	3	0	3	0	3	0	3	0	4	0	4	0	4	0	4	0	4	0
Craig Av	Foothill Bl to Valencia St	east	3	3	3	3	3	3	3	3	3	2	4	3	3	2	3	1	3	0	3	1	2	3	1	2	1	
		west	24	17%	3%	13%	13%	21%	13%	17%	25%	21%	17%	21%	17%	13%	17%	13%	17%	13%	17%	13%	17%	13%	17%	13%	17%	13%
		Subtotal along Craig Av																										
		Percent Utilization																										
Foothill Bl	Un. to Rosa Av to Oak Av	north	12	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		south	8	0	2	0	2	0	3	1	5	3	1	1	2	1	3	1	0	0	0	1	1	0	0	0	0	
Foothill Bl	Oak Av to Craig Av	north	7	5	4	4	4	4	5	1	5	7	6	5	5	5	6	6	6	6	6	6	6	6	6	6	6	
		south	3	3	2	3	3	3	3	3	3	4	3	3	4	2	4	0	3	0	3	0	3	0	3	0	3	
Foothill Bl	Craig Av to Vista Av	north	12	8	1	7	4	15	1	9	0	11	0	19	2	14	2	9	5	10	1	2	1	2	1	2	1	
		south	33	5	8	6	8	9	7	6	9	14	13	8	5	13	2	9	3	6	1	1	2	1	2	1		
		Subtotal along Foothill Bl																										
		Percent Utilization																										

- This study was undertaken to assess existing traffic conditions, estimate future conditions with and without the proposed project, analyze potential traffic impacts of the proposed project across all signalized intersections along Foothill Boulevard adjacent to the proposed project site within the City of Pasadena and the following summarizes the results of this analysis.
- A total of 3 intersections were analyzed within the study area for this project. These locations are all signalized intersections along Foothill Boulevard adjacent to the proposed project site within the City of Pasadena.
- Currently, all three analyzed intersection locations are operating at acceptable levels of service (LOS D or better) during both morning and evening peak hours.
- In the Cumulative (Future Year 2007) Base conditions, i.e., future conditions without implementation of the proposed expansion project, all three signalized intersections would continue to operate at an acceptable LOS D or better during the weekday morning and evening peak hours.
- The proposed project consisting of approximately 75,850 square feet of self-storage expansion space and 1,800 square feet of office use. The proposed project would generate approximately 199 daily trips in which 14 trips would occur during the morning peak hour and 23 trips would occur during the evening peak hour.
- In the Cumulative (Future Year 2007) plus Project conditions, both AM and PM peak hour operating conditions would be similar to those projected for the Cumulative Base conditions. All three analyzed intersections will continue to operate at acceptable levels of service.
- The Cumulative (Future Year 2007) plus Project conditions show that the proposed Phase 3 expansion project would not cause any significant traffic impacts at any of the analysis locations.
- On-street parking and access/circulation system were assessed and a review of the proposed site plan indicates that there would be no adverse impact from the proposed project on adequate and that there would be no adverse impact from the proposed project on On-street parking and access/circulation systems.

## VI. SUMMARY OF CONCLUSIONS

## **APPENDIX A**

### INTERSECTION LANE CONFIGURATIONS

STREET	EXISTING 2006	FUTURE (2007) CONDITIONS
1 N/S FOOTHILL BL/ GREENWOOD AV EW/W WALNUT ST		Same as Existing
2 N/S CRAIG AVENUE EW/W FOOTHILL BL		Same as Existing
3 N/S SIERRA MADRE BL EW/W FOOTHILL BL		Same as Existing

## **APPENDIX B**

DM : DATE REQUESTED 09/17/10

REPORT NUMBER 445277

1400 15 21 2010 09:59 AM PT

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: RAJU ASSOCIATES  
 PROJECT: STORBOX STORAGE EXPANSION PROJECT - PASADENA  
 DATE: THURSDAY, NOVEMBER 10, 2008  
 PERIOD: 7:00 AM TO 9:00 AM  
 INTERSECTION: N/S GREENWOOD AVENUE  
 E/W E. FOOTHILL BLVD / WALNUT ST  
 FILE NUMBER: 2-AM

15 MINUTE TOTALS	5-F-W	6-F-G	6-F-W	4-W-F	5-W-W	6-W-G	7-G-F	7-G-W	8-G-W	10-W-G	11-W-W	11-W-F
	WETH	WBTL	WBLT	WBRT	WBTH	WBTL	NBRT	NBRT	NBTL	EBRT	EBTH	EBTL

700-715	157	0	0	0	10	0	0	1	2	1	17	39
715-730	158	2	0	0	17	0	1	0	1	2	20	46
730-745	223	0	0	0	41	0	2	2	6	4	39	55
745-800	243	4	0	0	33	0	0	3	1	3	51	57
800-815	234	0	0	0	42	0	5	1	8	6	47	67
815-830	221	0	0	0	54	0	0	2	5	3	38	62
830-845	229	0	0	0	38	0	0	0	2	4	38	73
845-900	179	1	0	0	41	0	1	0	2	4	34	60

1 HOUR TOTALS	5-F-W	6-F-G	6-F-W	4-W-F	5-W-W	6-W-G	7-G-F	7-G-W	8-G-W	10-W-G	11-W-W	11-W-F	
	WETH	WBTL	WBLT	WBRT	WBTH	WBTL	NBRT	NBRT	NBTL	EBRT	EBTH	EBTL	TOTALS
700-800	822	6	0	0	101	0	3	6	10	10	127	197	1262
715-815	896	6	0	0	133	0	6	6	16	15	157	226	1465
730-830	931	4	0	0	170	0	7	8	18	15	175	241	1570
745-845	827	4	0	0	162	0	5	6	14	16	174	259	1573
800-900	863	1	0	0	176	0	6	3	15	17	157	262	1500

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: RAJU ASSOCIATES  
 PROJECT: STORBOX STORAGE EXPANSION PROJECT - PASADENA  
 DATE: THURSDAY, NOVEMBER 13, 2003  
 PERIOD: 4:00 PM TO 6:00 PM  
 INTERSECTION: N/S GREENWOOD AVENUE  
 E/W E. FOOTHILL BLVD / WALNUT ST  
 FILE NUMBER: 2PM

15 MINUTE TOTALS	5 F-W	6 F-G	6 F-W	4 W-F	5 W-W	6 W-G	7 G-F	7 G-W	8 G-W	10 W-G	11 W-W	11 W-F
	WBTH	WBLT	WBTL	WBRT	WBTH	WBTL	NBRT	NBRT	NBLT	EBRT	EBTH	EBTH

400-415	124	4	0	0	36	0	1	3	3	5	55	221
415-430	123	1	0	0	28	0	3	2	2	8	67	244
430-445	136	1	0	0	32	0	0	4	4	4	77	210
445-500	118	6	0	0	46	0	4	2	3	7	109	251
500-515	181	1	0	0	52	0	2	1	3	9	83	277
515-530	105	1	0	0	21	0	2	5	1	7	100	277
535-545	135	4	0	0	41	0	1	1	1	5	82	216
545-600	117	2	0	0	35	0	1	1	1	4	70	213

1 HOUR TOTALS	5 F-W	6 F-G	6 F-W	4 W-F	5 W-W	6 W-G	7 G-F	7 G-W	8 G-W	10 W-G	11 W-W	11 W-F
	WBTH	WBLT	WBTL	WBRT	WBTH	WBTL	NBRT	NBRT	NBLT	EBRT	EBTH	EBTH
400-500	502	12	0	0	138	0	8	11	12	25	309	926
415-515	559	9	0	0	152	0	5	9	12	29	336	902
430-530	541	9	0	0	146	0	8	12	11	27	369	1015
445-545	540	12	0	0	150	0	9	9	8	28	374	1021
500-600	538	6	0	0	150	0	6	6	6	25	335	883

THE TRAFFIC SOLUTION  
 329 DIAMOND STREET  
 ARCADIA, CALIFORNIA 91006  
 408-449-7976

FROM : THE TRAFFIC SOLUTION

REPORT NO. 1200-000000000000

DATE : NOVEMBER 10, 2003

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

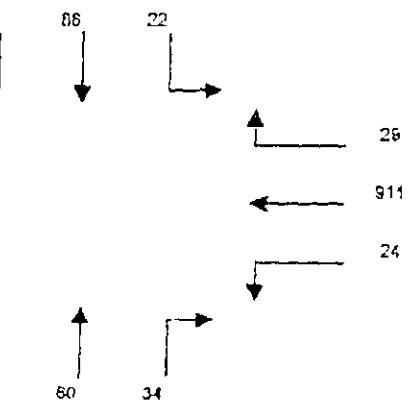
CLIENT RAJIN ASSOCIATES  
 PROJECT: STORBOX STORAGE EXPANSION PROJECT - PASADENA  
 DATE THURSDAY, NOVEMBER 10, 2003  
 PERIOD: 7:00 AM TO 9:00 AM  
 INTERSECTION: N/S. CRAIG STREET  
 E/W. E. FOOTHILL BOULEVARD  
 FILE NUMBER: 1-AM

15-MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SBRT	SBTH	SBLT	WBRT	WBTH	WBTL	NSRT	NBTH	NBLT	EBRT	EBTH	EBLT
700-716	7	11	1	1	160	1	0	12	1	1	43	1
716-730	9	16	1	1	194	2	10	14	0	1	56	2
730-745	12	12	4	4	235	7	9	13	2	0	56	2
745-800	12	36	5	5	243	5	7	18	0	1	56	1
800-815	11	27	5	6	240	7	5	11	2	3	72	0
815-830	7	26	5	7	209	6	8	14	1	3	68	3
830-845	12	15	6	11	213	6	14	16	0	0	74	2
845-900	8	14	4	6	168	3	5	21	2	0	54	3

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	
	SBRT	SBTH	SBLT	WBRT	WBTH	WBTL	NSRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
700-800	40	71	11	11	807	15	32	58	3	2	211	6	1258
715-815	44	67	16	16	887	21	31	57	4	5	240	6	1413
730-830	42	89	20	22	697	20	29	57	5	7	250	6	1449
745-845	42	68	22	29	911	24	34	60	3	12	268	6	1438
800-900	36	72	21	32	836	22	32	62	5	13	266	8	1407

A.M. PEAK HOUR  
 0745-0845

E. FOOTHILL BOULEVARD



CRAIG STREET

THE TRAFFIC SOLUTION  
 329 DIAMOND STREET  
 ARCADIA, CALIFORNIA 91006  
 626-446-7870

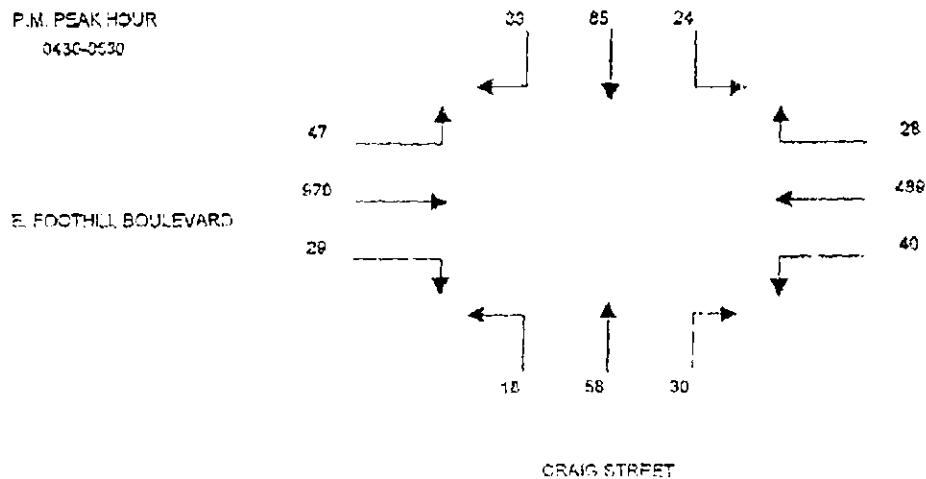
## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: KAJI ASSOCIATES  
 PROJECT: MOTORHOME STORAGE EXPANSION PROJECT - PASADENA  
 DATE: THURSDAY, NOVEMBER 12, 2002  
 PERIOD: 4:00 PM TO 6:00 PM  
 INTERSECTION: N/C CRAIG STREET  
 E/W E. FOOTHILL BOULEVARD  
 FILE NUMBER: 6-PM

15 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
	SERT	SETH	SBLT	WBRT	WBTH	WBTL	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT
430-445	6	27	0	5	98	9	13	29	4	7	228	16
445-460	6	22	7	9	129	7	9	16	4	7	215	13
460-475	8	19	6	6	121	10	6	14	6	7	219	10
475-490	6	23	3	5	110	11	13	11	2	7	231	12
490-505	11	30	9	5	125	10	5	22	5	6	275	10
505-520	6	14	6	12	125	9	6	11	5	8	245	15
520-535	6	14	3	8	101	4	4	13	9	7	203	9
535-550	9	22	7	6	114	5	5	10	8	11	163	7

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
	SERT	SETH	SBLT	WBRT	WBTH	WBTL	NBRT	NBTH	NBLT	EBRT	EBTH	EBLT	TOTALS
400-500	28	80	24	26	463	37	41	70	16	26	893	45	1751
415-515	33	93	25	25	495	36	33	63	17	27	940	45	1834
430-530	33	65	24	26	469	40	30	56	18	29	870	47	1851
445-545	31	80	23	30	469	34	28	57	21	29	864	46	1632
500-600	32	80	27	31	473	28	20	56	27	33	826	41	1784

P.M. PEAK HOUR  
0430-0530



CRAIG STREET

THE TRAFFIC SOLUTION  
 329 DIAMOND STREET  
 ARCADIA, CALIFORNIA 91006  
 (626) 446-7877

## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: RAJIV ASSOCIATES  
 PROJECT: STORBOX STORAGE EXPANSION PROJECT - PASADENA  
 DATE: THURSDAY, NOVEMBER 11, 2004  
 PERIOD: 7:00 AM TO 9:00 AM  
 INTERSECTION: N/C S. SIERRA MADRE BOULEVARD  
 E/W E. FOOTHILL BOULEVARD  
 FILE NUMBER: 3-AM

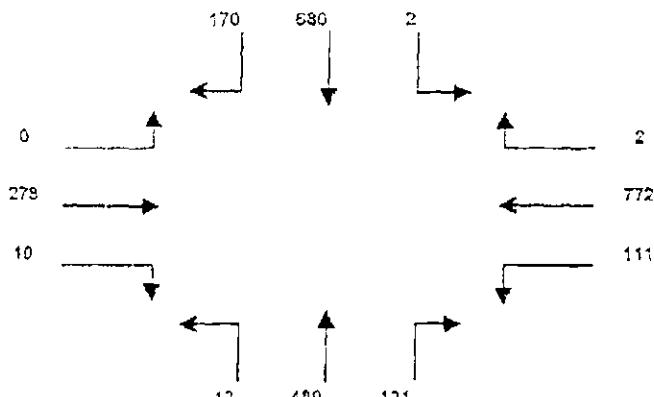
15 MINUTE TOTALS	1	2	3	4	5	6	7	8	9	10	11	12
	SERT	SETH	SELT	WBRT	WBTH	WBTL	NBRT	NBTH	NBLT	EERT	EBTH	EBLT
700-715	26	84	0	1	127	16	10	50	2	0	4*	0
715-730	22	101	1	1	126	21	11	62	1	1	50	0
730-745	56	173	1	1	197	26	26	119	2	7	77	0
745-800	45	205	0	1	202	29	34	117	3	3	67	0
800-815	57	177	1	0	207	39	39	124	6	2	67	0
815-830	30	125	0	0	176	18	22	126	2	3	72	0
830-845	25	123	1	1	207	31	19	125	3	7	74	0
845-900	24	94	0	0	160	21	33	130	2	5	72	0

1 HOUR TOTALS	1	2	3	4	5	6	7	8	9	10	11	12	
	SERT	SETH	SELT	WBRT	WBTH	WBTL	NBRT	NBTH	NBLT	EERT	EBTH	EBLT	TOTALS
700-800	163	573	2	4	644	90	91	376	6	6	230	0	2167
715-815	162	656	3	5	724	114	110	442	12	8	256	0	2482
730-830	170	680	2	2	772	111	121	466	13	10	276	0	2656
745-845	137	630	2	2	752	117	124	525	14	15	281	0	2619
800-900	114	519	2	4	750	109	123	516	13	17	286	0	2455

## A.M. PEAK HOUR:

0730-0830

E. FOOTHILL BOULEVARD



S. SIERRA MADRE BOULEVARD

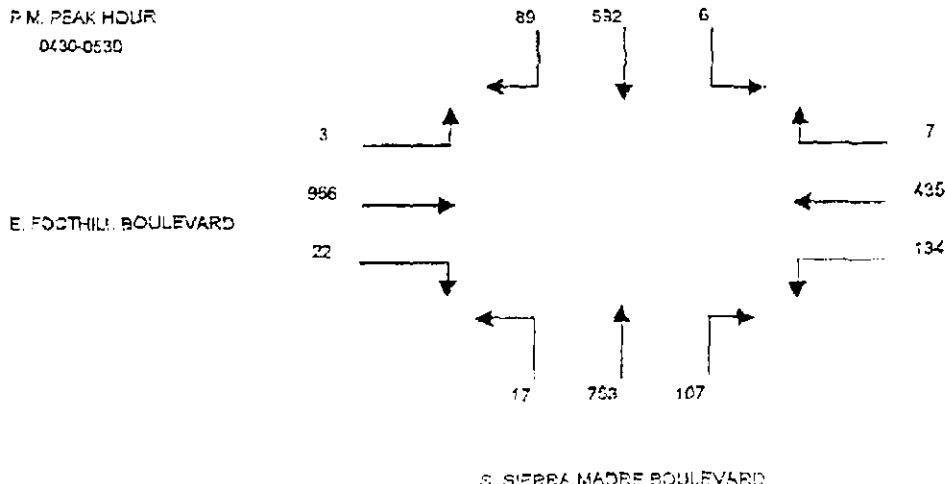
## INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: RAJU ASSOCIATES  
 PROJECT: STORENOK STORAGE EXPANSION PROJECT - PASADENA  
 DATE: THURSDAY, NOVEMBER 13, 2003  
 PERIOD: 4:00 PM TO 6:00 PM  
 INTERSECTION: N/S S. SIERRA MADRE BOULEVARD  
 E/W E. FOOTHILL BOULEVARD  
 FILE NUMBER: 0-PM

1 MINUTE	1	2	3	4	5	6	7	8	9	10	11	12
	TOTALS	SBRT	SUTH	SBLT	WBPT	WBTH	WBTL	NBRT	NBTH	NBLT	EBRT	EPTH
400-415	26	160	0	2	84	26	41	142	5	9	211	2
415-430	25	170	0	2	104	58	31	158	5	8	235	1
430-445	16	157	3	1	112	41	27	174	3	5	222	1
445-500	22	139	0	0	117	26	21	167	4	3	226	0
500-515	27	158	1	1	106	31	22	192	4	7	253	1
515-530	21	140	0	5	100	34	37	206	6	8	265	1
530-545	26	124	0	7	85	46	28	167	5	7	237	0
545-600	20	130	6	3	113	33	44	142	4	8	209	0

1 HOUR	1	2	3	4	5	6	7	8	9	10	11	12	
	TOTALS	SBRT	SUTH	SBLT	WBPT	WBTH	WBTL	NBRT	NBTH	NBLT	EBRT	EPTH	EBLT
400-500	92	630	3	5	427	180	120	621	17	24	895	4	3029
415-515	92	622	4	4	439	185	101	711	16	22	837	3	3107
430-530	68	592	6	7	435	134	107	782	17	22	966	2	3131
445-545	57	559	5	13	406	139	106	746	16	24	961	2	3098
500-600	94	652	7	16	404	144	131	701	19	30	854	2	3064

P.M. PEAK HOUR  
0430-0530



S. SIERRA MADRE BOULEVARD

THE TRAFFIC SOLUTION  
 329 DIAMOND STREET  
 ANCHORAGE, ALASKA 99101  
 800.446.7978

## THE TRAFFIC SOLUTION - ADT WORKSHEET

SCHOOL

RAJU ASSOCIATES

PROJECT

STOREROOM STORAGE EXPANSION PROJECT - PASADENA

LOCATION

E. Foothill Boulevard &amp; Allen Avenue

DATE

THURSDAY, NOVEMBER 13, 2003

FILE NO.

A

		WESTBOUND					
TIME	ADT	07:00-08:30	08:30-09:00	09:00-10:00	10:00-11:00		
06:00-06:30	15	14	8	81	45		
06:30-07:00	6	10	5	6	29		
07:00-07:30	0	4	31	1	14		
07:30-08:00	1	5	2	4	12		
08:00-08:30	3	7	5	6	21		
08:30-09:00	6	14	13	26	58		
09:00-09:30	29	35	82	112	238		
09:30-10:00	140	215	374	309	938		
10:00-10:30	313	266	236	258	1075		
10:30-11:00	214	140	150	169	671		
11:00-11:30	130	114	129	140	503		
11:30-12:00	120	172	131	159	532		
12:00-12:30	175	161	192	192	521		
12:30-13:00	188	172	195	165	711		
13:00-13:30	162	164	172	163	651		
13:30-14:00	157	183	171	194	705		
14:00-14:30	185	185	163	216	751		
14:30-15:00	208	254	270	269	1001		
15:00-15:30	236	248	233	162	679		
15:30-16:00	148	107	89	109	451		
16:00-16:30	76	67	62	63	268		
16:30-17:00	68	45	69	70	253		
17:00-17:30	41	33	22	25	121		
17:30-18:00	21	14	12	8	56		
		TOTAL		10854			
AMPTIME		07:30-08:30					
MIDTIME		1162					
ENDTIME		17:15-18:15					
VOLTIME		1029					

		EASTBOUND			
TIME	ADT	09:00-10:00	10:00-11:00	11:00-12:00	12:00-13:00
06:00-06:30	7	14	4	4	39
06:30-07:00	9	3	6	2	20
07:00-07:30	2	6	3	3	13
07:30-08:00	2	1	9	1	4
08:00-08:30	3	3	2	7	15
08:30-09:00	5	2	15	19	41
09:00-09:30	21	20	34	55	134
09:30-10:00	44	74	167	130	365
10:00-10:30	144	111	122	113	490
10:30-11:00	111	109	120	130	472
11:00-11:30	107	130	117	162	516
11:30-12:00	131	150	151	175	598
12:00-12:30	208	172	184	159	723
12:30-13:00	159	153	165	162	640
13:00-13:30	144	164	174	221	703
13:30-14:00	232	243	295	310	1080
14:00-14:30	345	343	349	356	1393
14:30-15:00	362	333	370	357	1392
15:00-15:30	331	292	233	212	1068
15:30-16:00	199	145	125	121	600
16:00-16:30	105	85	76	51	327
16:30-17:00	56	64	59	51	240
17:00-17:30	39	35	19	22	115
17:30-18:00	25	15	26	7	73
		TOTAL			
AMPTIME		11:00-12:00			
MIDTIME		598			
ENDTIME		17:15-18:15			
VOLTIME		1421			

TOTAL BI-DIRECTIONAL VOLUME	21615
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THE TRAFFIC SOLUTION • ALT WORKSHEET

1200 AM-1200 PM (ESTIMATED)

11:00 AM-12:00 PM (ESTIMATED)

## THE TRAFFIC SOLUTION - ALT WORKSHEET

DATE:

FALL 2000

TIME:

STORMWATER MANAGEMENT PROJECT - ALTADENA

LOCATION:

E BOOTHILL BOULEVARD W ALTADENA, CA 91001

DATE:

THURSDAY, NOVEMBER 13, 2003

PART NO:

A2

DIRECTION		WESTBOUND				
01-00-001	50	15	55	13	20	5
01-00-002	12	11	14	13	12	5
01-00-003	11	16	10	6	4	45
01-00-004	4	9	4	6	6	32
01-00-005	4	4	9	11	11	11
01-00-006	1	4	3	6	6	14
01-00-007	8	7	5	8	8	25
01-00-008	5	12	15	35	37	37
01-00-009	37	65	68	108	258	258
01-00-010	183	195	262	262	170	170
01-00-011	579	223	221	262	916	916
01-00-012	175	128	145	108	637	637
01-00-013	107	162	105	153	407	407
01-00-014	118	144	143	156	560	560
01-00-015	103	153	152	172	642	642
01-00-016	141	149	154	134	549	549
01-00-017	135	137	142	135	546	546
01-00-018	123	153	165	157	595	595
01-00-019	171	144	175	185	675	675
01-00-020	205	215	228	242	891	891
01-00-021	240	207	181	153	781	781
01-00-022	149	83	60	68	360	360
01-00-023	57	47	66	64	244	244
01-00-024	50	52	72	50	224	224
01-00-025	33	22	24	11	90	90
01-00-026	15	18	8	6	48	48
		TOTAL			8473	8473
AM PEAK HOUR		11:00-12:00			11:00-12:00	11:00-12:00
AM PEAK HOUR VOLUME		582			582	582
PM PEAK HOUR		16:00-17:00			16:00-17:00	16:00-17:00
PM PEAK HOUR VOLUME		1653			1653	1653

DIRECTION		EASTBOUND				
01-00-001	10	10	10	10	10	10
01-00-002	9	12	12	12	12	26
01-00-003	2	3	3	3	3	13
01-00-004	2	4	2	2	1	9
01-00-005	3	2	1	1	4	11
01-00-006	2	1	5	5	5	13
01-00-007	2	5	15	15	15	87
01-00-008	19	22	34	43	118	118
01-00-009	56	76	97	101	332	332
01-00-010	134	116	116	105	471	471
01-00-011	102	109	104	108	423	423
01-00-012	112	112	105	130	459	459
01-00-013	109	141	167	145	562	562
01-00-014	137	164	164	181	696	696
01-00-015	151	171	144	159	635	635
01-00-016	180	156	196	206	724	724
01-00-017	241	258	228	259	1126	1126
01-00-018	407	373	375	398	1563	1563
01-00-019	375	344	355	349	1433	1433
01-00-020	358	348	276	256	1240	1240
01-00-021	194	123	143	113	573	573
01-00-022	107	95	69	45	315	315
01-00-023	49	54	43	48	184	184
01-00-024	27	26	25	15	83	83
01-00-025	12	13	19	6	50	50
TOTAL					11176	11176

TOTAL DIRECTIONAL VOLUME	20049
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FROM THE TRAFFIC SOLUTION

MONDAY, NOVEMBER 10, 2003

10:00 AM - 12:00 PM

## THE TRAFFIC SOLUTION - AST WORKSHEET

CLIENT  
PROJECT  
LOCATION  
DATE  
FILE NO.

RAJN ASSOCIATES  
STORBOX STORAGE EXPANSION PROJECT - PASADENA  
CRATE AVENUE AND WHITE STREET  
THURSDAY, NOVEMBER 13, 2003  
A-3

DIRECTION		NORTHBOUND			SOUTHBOUND		
TIME	PERIOD	06:45	07:00	07:15	07:30	07:45	08:00
06:45-07:00	2	3	3	1	9	2	8
07:00-07:15	1	0	2	0	3	0	2
07:15-07:30	1	0	1	0	2	1	3
07:30-07:45	0	2	0	3	2	0	1
07:45-08:00	0	1	1	1	3	0	1
08:00-08:15	0	5	11	0	6	0	1
08:15-08:30	7	5	2	8	20	12	11
08:30-08:45	6	15	21	27	69	33	28
08:45-09:00	20	21	21	19	81	33	28
09:00-09:15	17	18	11	23	69	25	101
09:15-09:30	15	13	12	27	65	21	83
09:30-09:45	21	13	27	29	82	23	78
09:45-10:00	37	29	26	25	117	37	95
10:00-10:15	19	23	20	21	83	22	112
10:15-10:30	28	31	32	36	127	30	129
10:30-10:45	47	43	42	36	168	30	101
10:45-10:59	30	34	32	27	123	20	85
10:59-11:15	44	30	38	23	143	10	81
11:15-11:30	40	36	20	18	115	22	78
11:30-11:45	22	25	10	13	70	25	95
11:45-11:59	8	12	11	9	40	42	140
11:59-12:00	7	13	7	3	30	37	137
12:00-12:15	7	10	10	3	30	39	136
12:15-12:30	5	2	3	2	12	14	81
			TOTAL	1479			
			11:00-12:00			07:30-08:30	
			82			150	
			14:45-15:45			10:15-11:15	
			168			150	

DIRECTION		NORTHBOUND			SOUTHBOUND		
TIME	PERIOD	06:45	07:00	07:15	07:30	07:45	08:00
06:45-07:00	3	2	1	2	8	2	8
07:00-07:15	1	1	0	0	2	1	3
07:15-07:30	1	1	0	1	3	1	3
07:30-07:45	0	1	0	0	1	1	2
07:45-08:00	1	0	0	1	1	0	1
08:00-08:15	0	0	1	0	1	0	1
08:15-08:30	4	3	6	0	13	0	13
08:30-08:45	17	15	22	53	112	33	129
08:45-09:00	33	32	29	35	129	25	101
09:00-09:15	30	26	29	25	101	21	85
09:15-09:30	20	23	23	21	85	10	81
09:30-09:45	10	29	17	25	78	18	78
09:45-10:00	22	19	20	17	95	25	95
10:00-10:15	25	18	28	36	112	37	137
10:15-10:30	26	22	28	36	112	39	136
10:30-10:45	42	42	25	31	140	14	81
10:45-10:59	29	37	41	33	137	27	59
10:59-11:15	39	33	31	33	136	4	33
11:15-11:30	14	27	20	20	81	5	33
11:30-11:45	27	17	13	2	59	5	25
11:45-11:59	4	15	8	5	33	5	25
11:59-12:00	5	9	8	0	25	3	4
		5	5	9	6	3	4
		3	1	0	0	TOTAL	1461

TOTAL BI-DIRECTIONAL VOLUME	2940
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THE TRAFFIC SOLUTION • ADT WORKSHEET

CLIENT  
PARK AVENUE  
ADDRESS  
1000 PARK AVENUE  
DATE  
TIME

FAIR AVENUE  
STORAGE EXPANSION PROJECT AT ALDENA  
CRAVEN AVENUE & WALNUT STREET  
THURSDAY, NOVEMBER 10, 2000  
A.M.

NO TURN ROUND					
TIME	10:00	10:30	11:00	11:30	12:00
10:00-00:	2	0	1	1	5
10:00-01:	0	1	0	2	3
10:00-02:	0	1	0	0	1
10:00-03:	0	1	0	0	1
10:00-04:	0	1	0	0	1
10:00-05:	0	1	3	3	7
10:00-06:	1	3	4	3	10
10:00-07:	2	4	6	10	22
10:00-08:	10	17	34	19	80
10:00-09:	12	24	21	23	92
10:00-10:	20	20	27	27	84
10:00-11:	12	19	25	19	85
10:00-12:	28	28	171	15	89
10:00-13:	11	22	31	17	63
10:00-14:	15	39	34	26	114
10:00-15:	35	37	31	22	125
10:00-16:	36	44	28	31	140
10:00-17:	36	15	33	24	108
10:00-18:	29	25	34	18	106
10:00-19:	36	24	19	15	83
10:00-20:	17	18	5	7	47
10:00-21:	12	13	11	9	45
10:00-22:	4	10	13	5	32
10:00-23:	6	11	6	0	25
10:00-24:	21	1	2	2	7
TOTAL				1412	
AM TO PM HOUR					
10:00-11:00					
VOLUME					
110					
PM TO AM HOUR					
14:00-15:00					
VOLUME					
140					

SOUTHBOUND					
TIME	10:00	10:30	11:00	11:30	12:00
10:00-00:	4	2	0	2	8
10:00-01:	0	0	0	1	1
10:00-02:	1	3	0	1	5
10:00-03:	0	2	1	0	3
10:00-04:	0	1	1	1	3
10:00-05:	1	0	1	1	3
10:00-06:	6	3	3	0	16
10:00-07:	13	11	26	22	82
10:00-08:	30	35	19	19	102
10:00-09:	24	34	14	20	88
10:00-10:	16	28	24	28	98
10:00-11:	19	36	26	26	107
10:00-12:	35	35	22	26	127
10:00-13:	35	37	31	30	123
10:00-14:	32	33	44	59	168
10:00-15:	34	25	42	30	141
10:00-16:	37	33	20	26	116
10:00-17:	24	18	14	11	67
10:00-18:	13	18	16	15	63
10:00-19:	13	3	14	9	39
10:00-20:	8	12	3	5	26
10:00-21:	4	3	7	2	16
TOTAL					1730
AM TO PM HOUR					
07:30-08:30					
VOLUME					
123					
PM TO AM HOUR					
15:00-16:00					
VOLUME					
180					

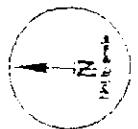
TOTAL BI DIRECTIONAL VOLUME

3142

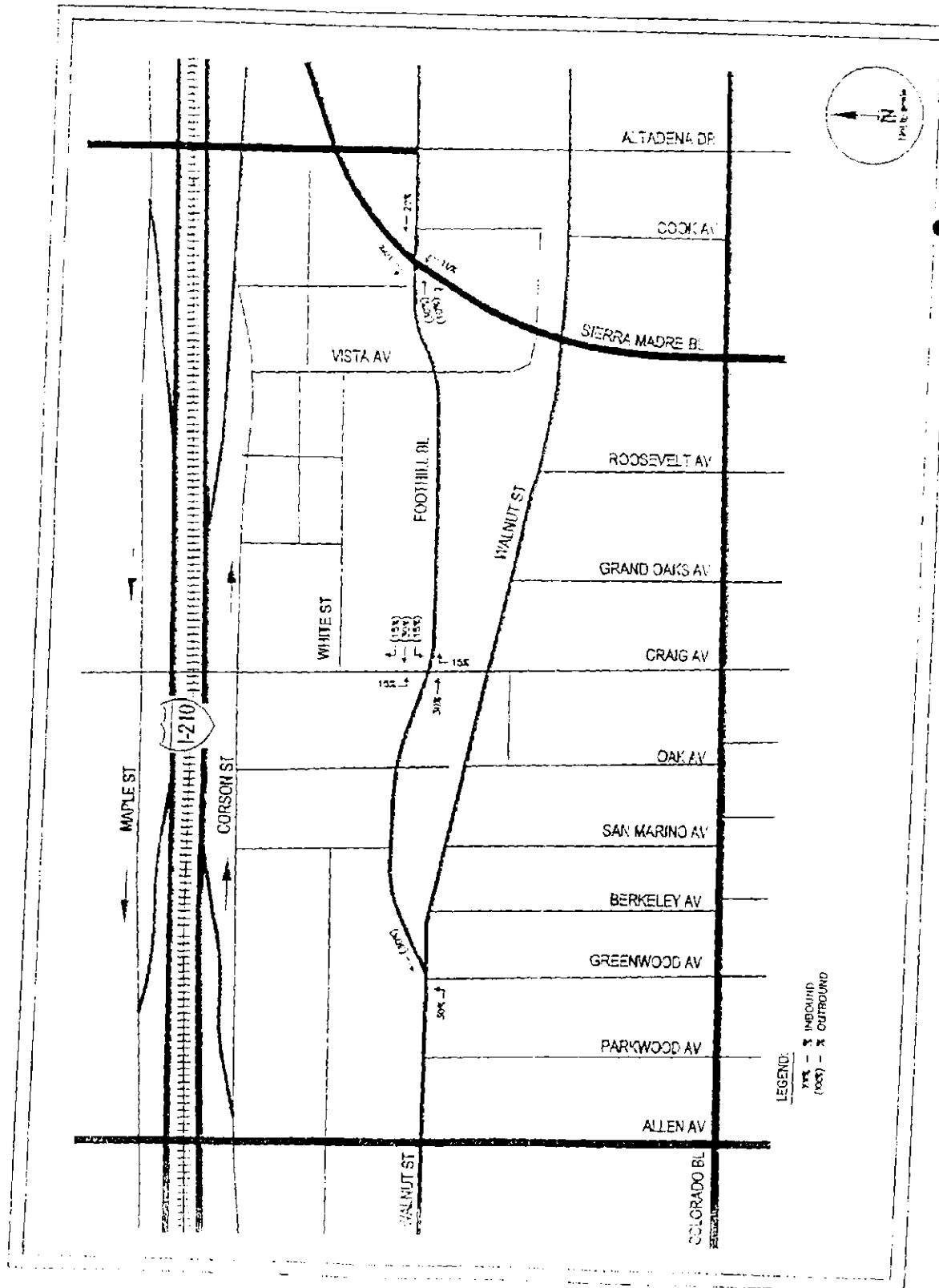
## APPENDIX C

PROJECT DISTRIBUTION

RAJU Associates, Inc.



LEGEND:  
INBOUND  
OUTBOUND



Project: Storbox Storage Expansion Project  
 N/S Street: Foothill Boulevard/Greenwood Avenue  
 E/W Street: Walnut Street  
 Scenario: EXISTING (2003) CONDITIONS

## Peak Period: AM PEAK HOUR

Thru Lane	1600 vph	N-S Split Phase	N
Left Lane	1600 vph	E-W Split Phase	N
Double L1 Penalty	0 %	Lost Time (% of cycle)	10
ITS	0 %	V/C Round Off (decimals)	3

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	0	0	0.000	N-S(1): 0.307 *
	TH	2.00	931	3,200	0.291 *	N-S(2): 0.000
	LT	0.00	0	0	0.000	E-W(1): 0.000
Westbound	RT	0.00	0	0	0.000	E-W(2): 0.105 *
	TH	1.00	168	1,600	0.105 *	V/C: 0.412
	LT	0.00	0	0	0.000	Lost Time: 0.100
Northbound	RT	0.00	6	0	0.000	
	TH	1.00	5	1,600	0.016 *	
	LT	0.00	14	1,600	0.009	
Eastbound	RT	0.00	15	0	0.000	ICU: 0.512
	TH	0.85	174	1,354	0.140	
	LT	1.15	259	1,846	0.140	LOS: A

## Peak Period: PM PEAK HOUR

APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	0	0	0.000	N-S(1): 0.016 *
	TH	2.00	552	3,200	0.173	N-S(2): 0.000
	LT	0.00	0	0	0.000	E-W(1): 0.445
Westbound	RT	0.00	0	0	0.000	E-W(2): 0.542 *
	TH	1.00	155	1,600	0.097 *	V/C: 0.558
	LT	0.00	0	0	0.000	Lost Time: 0.100
Northbound	RT	0.00	9	0	0.000	
	TH	1.00	9	1,600	0.016 *	
	LT	0.00	6	1,500	0.005	
Eastbound	RT	0.00	28	0	0.000	ICU: 0.658
	TH	0.57	374	904	0.445	
	LT	1.43	1,021	2,296	0.445 *	LOS: B

\* - Denotes critical movement

Project: Storage Expansion Project							
N/S Street:	Craig Avenue	E/W Street:	Foothill Boulevard	Scenarios:	EXISTING (2003) CONDITIONS		
Thru Lane:	1600 Vph	Left Lane:	1600 Vph	Double Lf Penality:	10 %	TTS:	0 %
N-S Split Phase:	N	E-W Split Phase:	N	Loss: Time (% of cycle):	10	V/C Round Off (dec's):	3
Peak Period:	AM PEAK HOUR						
Approach	MVT	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	42	0	0.000	N-S(1): 0.075 N-S(2): 0.097 E-W(4): 0.103 E-W(5): 0.120 Westbound	
Northbound	RT	0.00	22	1,600	0.014	E-W(2): 0.1298 E-W(3): 0.1403 E-W(4): 0.1437 E-W(5): 0.1491	
Eastbound	RT	0.00	24	1,600	0.015	NS(2): 0.100 NS(1): 0.084 Southbound	
Westbound	RT	0.00	25	1,600	0.015	NS(2): 0.100 NS(1): 0.084 Northbound	
Northbound	LT	1.00	40	1,600	0.025	V/C: 0.437 Lost Time: 0.1100 Westbound	
Southbound	TH	2.00	489	3,200	0.025	V/C: 0.437 Lost Time: 0.1100 Northbound	
Westbound	TH	1.00	58	1,600	0.066	LT: 0.00 TH: 0.00 Northbound	
Eastbound	TH	2.00	58	1,600	0.066	LT: 0.00 TH: 0.00 Southbound	
Peak Period:	PM PEAK HOUR						
Approach	MVT	Lanes	Volume	Capacity	V/C	ICU ANALYSIS	
Southbound	RT	0.00	33	0	0.000	N-S(1): 0.084 N-S(2): 0.100 E-W(1): 0.337 E-W(2): 0.437	
Northbound	RT	0.00	24	1,600	0.000	NS(2): 0.100 NS(1): 0.084 Southbound	
Eastbound	RT	0.00	25	1,600	0.000	NS(2): 0.100 NS(1): 0.084 Westbound	
Westbound	RT	0.00	26	1,600	0.000	E-W(1): 0.337 E-W(2): 0.437	
Northbound	LT	1.00	40	1,600	0.025	V/C: 0.437 Lost Time: 0.1100 Southbound	
Southbound	TH	2.00	489	3,200	0.025	V/C: 0.437 Lost Time: 0.1100 Northbound	
Westbound	TH	1.00	58	1,600	0.066	LT: 0.00 TH: 0.00 Northbound	
Eastbound	TH	2.00	58	1,600	0.066	LT: 0.00 TH: 0.00 Southbound	
Peak Period:	ICU ANALYSIS						
* denotes critical management							

Project:	Storbox Storage Expansion Project					
N/S Street:	Sierra Madre Boulevard					
E/W Street:	Foothill Boulevard					
Scenario:	EXISTING (2003) CONDITIONS					
Peak Period:	AM PEAK HOUR					
Thru Lanes:	1600 vph				N-S Split Phase:	N
Left Lanes:	1600 vph				E-W Split Phase:	N
Double Et Penalty:	10 %				Lost Time (% of cycle):	10
ITS:	0 %				V/C Round Off (nearest):	3
APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	170	1,600	0.106	N-S(1): 0.105
	TH	3.00	580	4,800	0.142 *	N-S(2): 0.150 *
	LT	0.00	2	1,600	0.001	E-W(1): 0.169
Westbound	RT	0.00	2	1,600	0.000	E-W(2): 0.242 *
	TH	2.00	772	3,200	0.242 *	
	LT	1.00	111	1,600	0.069	V/C: 0.392
Northbound	RT	1.00	131	1,600	0.083	Lost Time: 0.100
	TH	3.00	489	4,800	0.105	
	LT	0.00	13	1,600	0.008 *	
Eastbound	RT	0.00	10	1,600	0.000	ICU: 0.492
	TH	2.00	278	3,200	0.090	
	LT	0.00	0	1,600	0.000 *	LOS: A
Peak Period:	PM PEAK HOUR					
APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	89	1,600	0.056	N-S(1): 0.164 *
	TH	3.00	592	4,800	0.125	N-S(2): 0.136
	LT	0.00	6	1,600	0.004 *	E-W(1): 0.394 *
Westbound	RT	0.00	7	1,600	0.000	E-W(2): 0.136
	TH	2.00	435	3,200	0.138	
	LT	1.00	134	1,600	0.084 *	V/C: 0.558
Northbound	RT	1.00	167	1,600	0.000	Lost Time: 0.100
	TH	3.00	753	4,800	0.160 *	
	LT	0.00	17	1,600	0.011	
Eastbound	RT	0.00	22	1,600	0.000	ICU: 0.556
	TH	2.00	969	3,200	0.310 *	
	LT	0.00	0	1,600	0.000	LOS: B

\* Denotes critical movement

Printed: 1/22/2004

Project:	Starbox Storage Expansion Project					
N/S Street:	Foothill Boulevard/Greenwood Avenue					
E/W Street:	Walnut Street					
Scenario:	CUMULATIVE (2007) BASE CONDITIONS					
Peak Period:	AM PEAK HOUR					
Thru Lane:	1600 vph				N-S Split Phase:	N
Left Lane:	1600 vph				E-W Split Phase:	N
Double Lt Penalty:	0 %				Lost Time (% of cycle):	10
ITS:	0 %				V/C Round Off (decs):	3
APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	0	0	0.000	N-S(1): 0.335 *
	TH	2.00	1,048	3,200	0.328 *	N-S(2): 0.000
	LT	0.00	0	0	0.000	E-W(1): 0.002
Westbound	RT	0.00	0	0	0.000	E-W(2): 0.113 *
	TH	1.00	178	1,600	0.111 *	
	LT	0.00	0	0	0.000	V/C: 0.448
Northbound	RT	0.00	6	0	0.000	Lost Time: 0.100
	TH	1.00	5	1,600	0.016 *	
	LT	0.00	15	1,600	0.009	
Eastbound	RT	0.00	17	0	0.000	ICU: 0.548
	TH	0.53	184	1,010	0.199	
	LT	1.37	436	2,190	0.199	LOS: A
Peak Period:	PM PEAK HOUR					
APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	0	0	0.000	N-S(1): 0.018 *
	TH	2.00	812	3,200	0.254	N-S(2): 0.000
	LT	0.00	0	0	0.000	E-W(1): 0.512
Westbound	RT	0.00	0	0	0.000	E-W(2): 0.615 *
	TH	1.00	164	1,600	0.103 *	
	LT	0.00	0	0	0.000	V/C: 0.633
Northbound	RT	0.00	10	0	0.000	Lost Time: 0.100
	TH	1.00	10	1,600	0.018 *	
	LT	0.00	8	1,600	0.005	
Eastbound	RT	0.00	30	0	0.000	ICU: 0.733
	TH	0.52	395	632	0.512	
	LT	1.48	1,212	2,368	0.512 *	LOS: C

\* Denotes critical movement

Printed 1/22/2004

Project:	Storbo: Storage Expansion Project					
N/S Street:	Craig Avenue					
E/W Street:	Foothill Boulevard					
Scenario:	CUMULATIVE (2007) BASE CONDITIONS					
Peak Period:	AM PEAK HOUR					
Thru Lane:	1600 vph					N-S Split Phase:
Left Lane:	1600 vph					E-W Split Phase:
Double L: Penalty	10 %					Lost Time (% of cycle):
ITS	0 %					V/C Round Off (decs.):
						10
						3
APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	45	0	0.000	N-S(1): 0.074
	TH	1.00	93	1,600	0.096 *	N-S(2): 0.106 *
	LT	0.00	19	1,600	0.012	E-W(1): 0.159
Westbound	RT	0.00	31	0	0.000	E-W(2): 0.335 *
	TH	2.00	1,027	3,200	0.311 *	V/C: 0.425
	LT	1.00	25	1,600	0.016	Lost Time: 0.100
Northbound	RT	0.00	32	0	0.000	
	TH	1.00	64	1,600	0.032	
	LT	0.00	3	1,600	0.002 *	
Eastbound	RT	0.00	13	0	0.000	ICU: 0.535
	TH	2.00	445	3,200	0.143	
	LT	1.00	6	1,600	0.004 *	LOS: A
Peak Period:	PM PEAK HOUR					
APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	35	0	0.000	N-S(1): 0.087
	TH	1.00	90	1,600	0.094 *	N-S(2): 0.106 *
	LT	0.00	26	1,600	0.016	E-W(1): 0.398 *
Westbound	RT	0.00	29	0	0.000	E-W(2): 0.273
	TH	2.00	745	3,200	0.242	V/C: 0.504
	LT	1.00	41	1,600	0.026 *	Lost Time: 0.100
Northbound	RT	0.00	33	0	0.000	
	TH	1.00	61	1,600	0.071	
	LT	0.00	19	1,600	0.012 *	
Eastbound	RT	0.00	31	0	0.000	ICU: 0.504
	TH	2.00	1,158	3,200	0.372 *	
	LT	1.00	50	1,600	0.031	LOS: B

\* - Denotes critical movement

Printed: 1/22/2004

Project:	Storbox Storage Expansion Project					
N/S Street:	Sierra Madre Boulevard					
E/W Street:	Foothill Boulevard					
Scenario:	CUMULATIVE (2007) BASE CONDITIONS					
Peak Period:	AM PEAK HOUR					
Thru Lane:	1600 vph					N-S Split Phase: N
Left Lane:	1600 vph					E-W Split Phase: N
Double Lt Penalty:	10 %					Lost Time (% of cycle): 10
ITS:	0 %					V/C Round Off (dec): 3
APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	178	1,600	0.111	N-S(1): 0.111
	TH	3.00	721	4,800	0.151 *	N-S(2): 0.159 *
	LT	0.00	2	1,600	0.001	E-W(1): 0.222
Westbound	RT	0.00	2	0	0.000	E-W(2): 0.274 *
	TH	2.00	875	3,200	0.274 *	
	LT	1.00	118	1,600	0.074	V/C: 0.433
Northbound	RT	1.00	139	1,600	0.083	Lost Time: 0.100
	TH	3.00	518	4,800	0.110	
	LT	0.00	12	1,600	0.008 *	
Eastbound	RT	0.00	11	0	0.000	ICU: 0.633
	TH	2.00	463	3,200	0.148	
	LT	0.00	0	0	0.000 *	LOS: A
Peak Period:	PM PEAK HOUR					
APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	95	1,600	0.059	N-S(1): 0.174 *
	TH	3.00	628	4,800	0.132	N-S(2): 0.144
	LT	0.00	6	1,600	0.004 *	E-W(1): 0.456 *
Westbound	RT	0.00	7	0	0.000	E-W(2): 0.218
	TH	2.00	691	3,200	0.218	
	LT	1.00	142	1,600	0.089 *	V/C: 0.630
Northbound	RT	1.00	113	1,600	0.000	Lost Time: 0.100
	TH	3.00	798	4,800	0.170 *	
	LT	0.00	19	1,600	0.012	
Eastbound	RT	0.00	22	0	0.000	ICU: 0.730
	TH	2.00	1,153	3,200	0.367 *	
	LT	0.00	0	0	0.000	LOS: C

\* Denotes critical movement

Printed: 1/22/2004

Project:	Storbor Storage Expansion Project					
N/S Street:	Foothill Boulevard/Greenwood Avenue					
E/W Street:	Walnut Street					
Scenario:	CUMULATIVE (2007) PLUS PROJECT CONDITIONS					
Peak Period:	AM PEAK HOUR					
Thru Lane:	1600 vph				N-S Split Phase:	N
Left Lane:	1600 vph				E-W Split Phase:	N
Double L: Penalty:	0 %				Lost Time (% of cycle):	10
ITS:	0 %				V/C Round Off (dec.):	3
APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	0	0	0.000	N-S(1): 0.335 *
	TH	2.00	1,050	3,200	0.328 *	N-S(2): 0.000
	LT	0.00	0	0	0.000	E-W(1): 0.005
Westbound	RT	0.00	0	0	0.000	E-W(2): 0.116 *
	TH	1.00	178	1,600	0.111 *	
	LT	0.00	0	0	0.000	V/C: 0.451
Northbound	RT	0.00	6	0	0.000	Lost Time: 0.100
	TH	1.00	5	1,600	0.016 *	
	LT	0.00	15	1,600	0.009	
Eastbound	RT	0.00	17	0	0.000	ICU: 0.551
	TH	0.63	184	1,005	0.200	
	LT	1.37	439	2,195	0.200	LOS: A
Peak Period:	PM PEAK HOUR					
APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	0	0	0.000	N-S(1): 0.018 *
	TH	2.00	816	3,200	0.255	N-S(2): 0.000
	LT	0.00	0	0	0.000	E-W(1): 0.513
Westbound	RT	0.00	0	0	0.000	E-W(2): 0.516 *
	TH	1.00	164	1,600	0.103 *	
	LT	0.00	0	0	0.000	V/C: 0.634
Northbound	RT	0.00	10	0	0.000	Lost Time: 0.100
	TH	1.00	10	1,600	0.018 *	
	LT	0.00	8	1,600	0.005	
Eastbound	RT	0.00	30	0	0.000	ICU: 0.734
	TH	0.52	396	831	0.513	
	LT	1.48	1,215	2,369	0.513 *	LOS: C

\* Denotes critical movement

Printed 1/22/2004

Project:	Storbox Storage Expansion Project					
N/S Street:	Craig Avenue					
E/W Street:	Foothill Boulevard					
Scenario:	CUMULATIVE (2007) PLUS PROJECT CONDITIONS					
Peak Period:	AM PEAK HOUR					
Thru Lane:	1600 vph					N-S Split Phase :
Left Lane:	1600 vph					N-E Split Phase :
Double L: Penalty:	10 %					Lost Time (% of cycle) :
ITS:	0 %					V/C Round Off (desc.) :
APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	45	0	0.000	N-S(1): 0.076
	TH	1.00	93	1,600	0.099 *	N-S(2): 0.101 *
	LT	0.00	20	1,600	0.013	E-W(1): 0.160
Westbound	RT	0.00	32	0	0.000	E-W(2): 0.336 *
	TH	2.00	1,029	3,200	0.332 *	
	LT	1.00	25	1,600	0.016	V/C: 0.437
Northbound	RT	0.00	33	0	0.000	Lost Time: 0.100
	TH	1.00	64	1,600	0.063	
	LT	0.00	3	1,600	0.002 *	
Eastbound	RT	0.00	13	0	0.000	ICU: 0.537
	TH	2.00	448	3,200	0.144	
	LT	1.00	6	1,600	0.004 *	LOS: A
Peak Period:	PM PEAK HOUR					
APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	0.00	35	0	0.000	N-S(1): 0.090
	TH	1.00	90	1,600	0.096 *	N-S(2): 0.108 *
	LT	0.00	28	1,600	0.018	E-W(1): 0.400 *
Westbound	RT	0.00	31	0	0.000	E-W(2): 0.275
	TH	2.00	749	3,200	0.244	
	LT	1.00	43	1,600	0.027 *	V/C: 0.508
Northbound	RT	0.00	35	0	0.000	Lost Time: 0.100
	TH	1.00	61	1,600	0.072	
	LT	0.00	19	1,600	0.012 *	
Eastbound	RT	0.00	31	0	0.000	ICU: 0.608
	TH	2.00	1,161	3,200	0.373 *	
	LT	1.00	50	1,600	0.031	LOS: B

\* Denotes critical movement

Printed: 1/22/2004

Project:	Storbor Storage Expansion Project					
N/S Street:	Sierra Madre Boulevard					
E/W Street:	Foothilli Boulevard					
Scenario:	CUMULATIVE (2007) PLUS PROJECT CONDITIONS					
Peak Period:	AM PEAK HOUR					
Thru Lane:	1600 vph					N-S Split Phase: N
Left Lane:	1600 vph					E-W Split Phase: N
Double Lt Penalty:	10 %					Lost Time (% of cycle): 30
ITS:	0 %					V/C Round Off (decim.): 3
APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	179	1,600	0.112	N-S(1): 0.112
	TH	3.00	721	4,800	0.151 *	N-S(2): 0.159 *
	LT	0.00	2	1,600	0.001	E-W(1): 0.223
Westbound	RT	0.00	2	0	0.000	E-W(2): 0.275 *
	TH	2.00	677	3,200	0.215 *	
	LT	1.00	118	1,600	0.074	V/C: 0.434
Northbound	RT	1.00	139	1,600	0.083	Lost Time: 0.100
	TH	3.00	518	4,800	0.111	
	LT	0.00	13	1,600	0.008 *	
Eastbound	RT	0.00	11	0	0.000	ICU: 0.534
	TH	2.00	455	3,200	0.149	
	LT	0.00	0	0	0.000 *	LOS: A
Peak Period:	PM PEAK HOUR					
APPROACH	MVMT	LANES	VOLUME	CAPACITY	V/C	ICU ANALYSIS
Southbound	RT	1.00	96	1,600	0.060	N-S(1): 0.174 *
	TH	3.00	628	4,800	0.132	N-S(2): 0.145
	LT	0.00	6	1,600	0.004 *	E-W(1): 0.458 *
Westbound	RT	0.00	7	0	0.000	E-W(2): 0.219
	TH	2.00	693	3,200	0.219	
	LT	1.00	142	1,600	0.089 *	V/C: 0.632
Northbound	RT	1.00	113	1,600	0.066	Lost Time: 0.100
	TH	3.00	798	4,800	0.170 *	
	LT	0.00	20	1,600	0.013	
Eastbound	RT	0.00	23	0	0.000	ICU: 0.732
	TH	2.00	1,157	3,200	0.369 *	
	LT	0.00	0	0	0.000	LOS: C

\* - Denotes critical movement