

# GENERAL PLAN BUILDOUT WITH PROJECT FRIDAY PM PEAK HOUR INTERSECTION VOLUMES

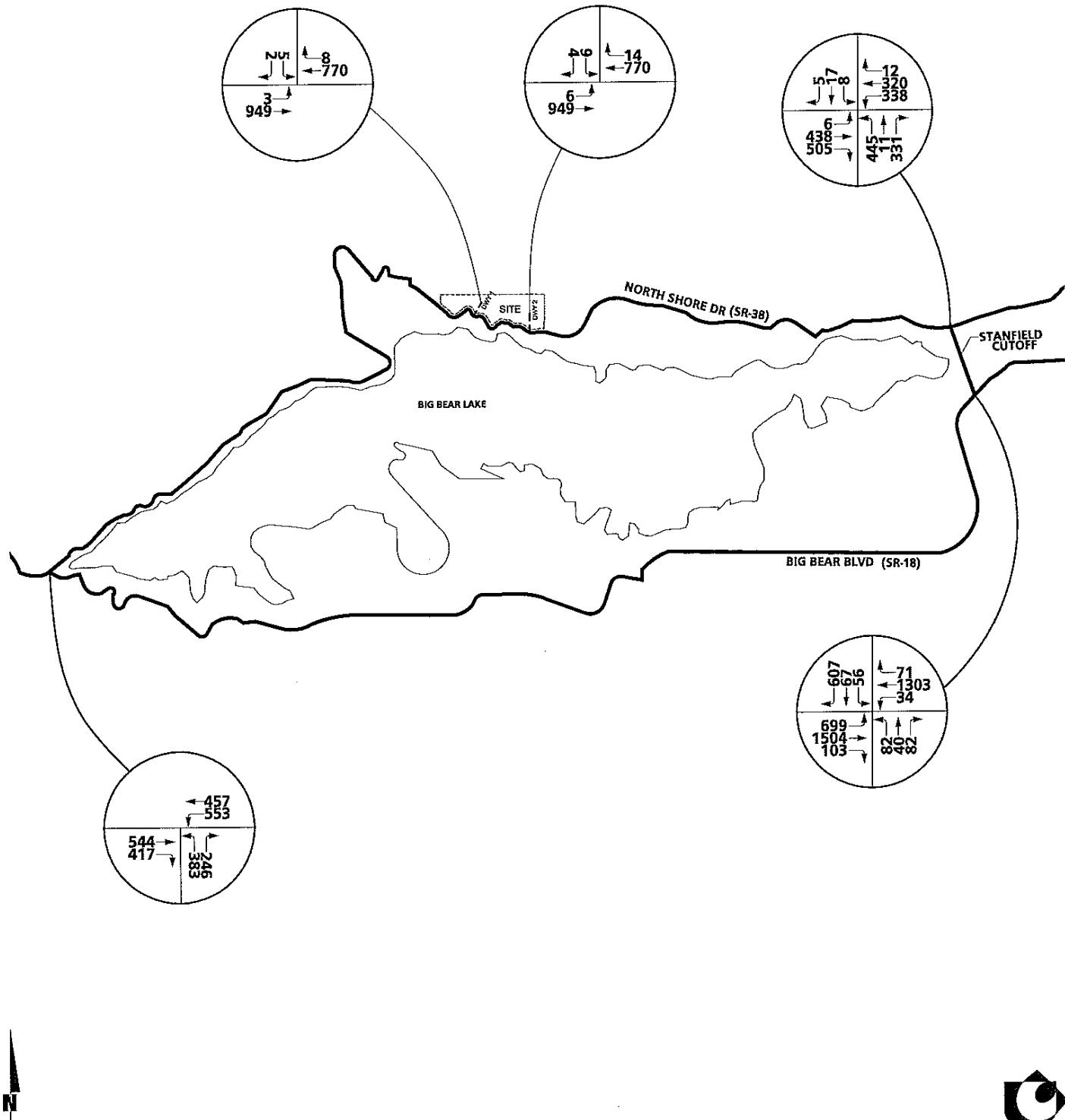
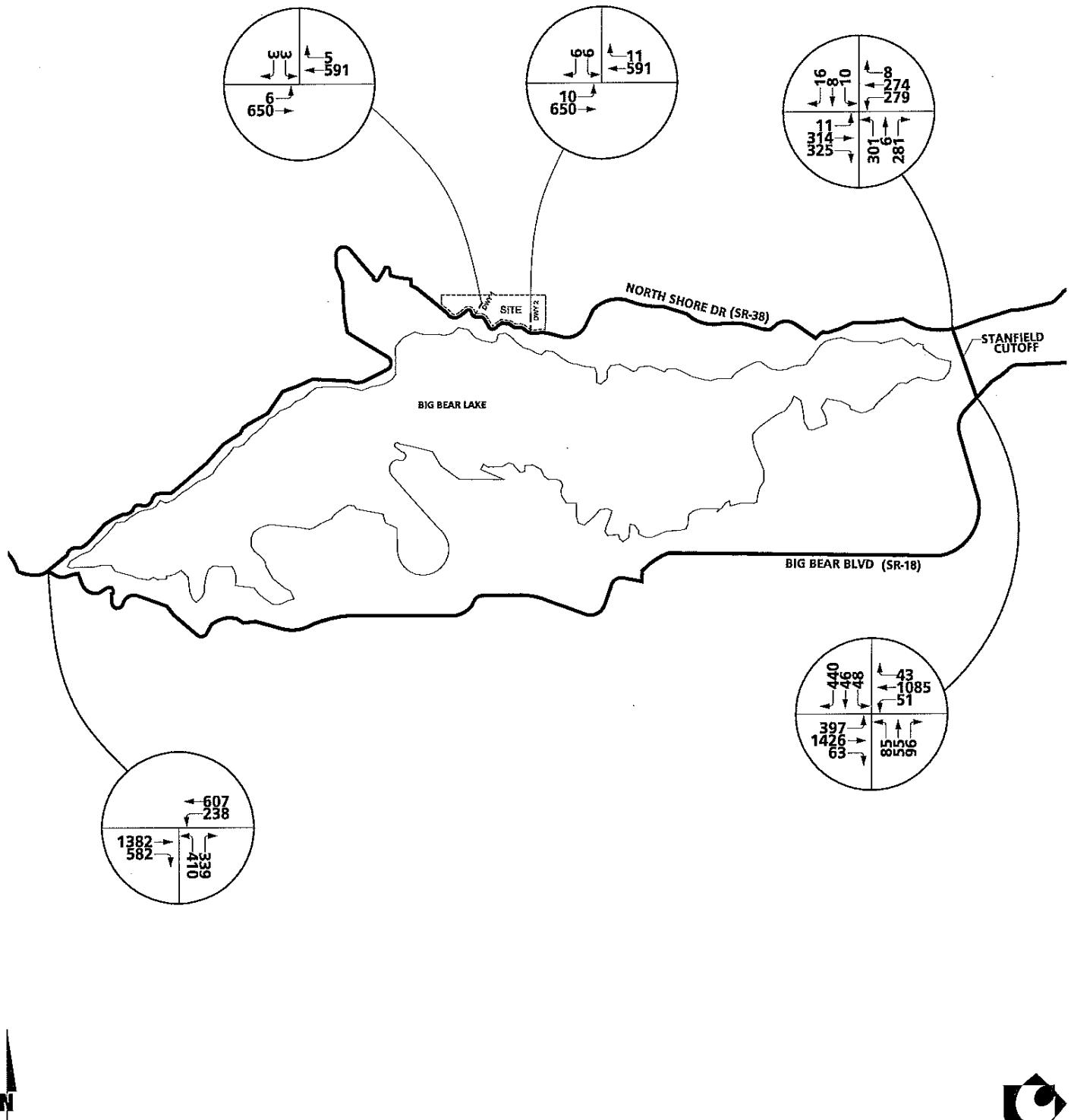


EXHIBIT 5-F

# **GENERAL PLAN BUILDOUT WITH PROJECT SUNDAY MIDDAY PEAK HOUR INTERSECTION VOLUMES**



Big Bear Blvd (SR-18) (NS) at:

- North Shore Drive (SR-38) (EW)

Stanfield Cut Off (NS) at:

- North Shore Drive (SR-38) (EW)

Stanfield Cut Off (NS) at:

- Big Bear Blvd (SR-18) (EW)

Driveway #1 (NS) at:

- North Shore Drive (SR-38) (EW)

Driveway #2 (NS) at:

- North Shore Drive (SR-38) (EW)

The operations analysis worksheets for General Plan Buildout With Project (2030) traffic conditions are included in Appendix "H".

## **6.0 SUMMARY AND RECOMMENDATIONS**

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This chapter summarizes the findings of this traffic impact analysis, and provides a series of recommendations related to project implementation.

### **6.1 Summary**

The traffic issues related to the proposed land use and development have been evaluated in the context of the California Environmental Quality Act (CEQA) and the San Bernardino County Congestion Management Program (CMP). In conformance with the requirements of the San Bernardino County Congestion Management Program (CMP), the proposed project does not require a CMP traffic study. The CMP requires no analysis for projects that generate less than 250 peak hour trips. The project generates approximately 51 and 51 trips during the AM and PM peak hours, respectively; which is less than the required threshold for a CMP traffic study. However, a long-range traffic analysis has been required by County staff.

Project traffic volumes for all future conditions were estimated using a manual approach. The trip generation calculation is based on the most recent Institute of Transportation Engineers Trip Generation Rates, 7th Edition. The project trip distributions are derived from a select zone run of the San Bernardino Mountain Model.

Long Range General Plan Buildout (2030) conditions have been estimated based on the San Bernardino Mountain Model and the addition of both the project related peak hour volumes and the known cumulative development peak hour volumes per discussions with County staff.

### **6.1.1 The Project**

The Moon Camp residential project is proposed to include 50 new single-family detached dwelling units and three lots for open space and common area on approximately 62.43 acres. Exhibit 1-B illustrates the project site plan.

The traffic related to the project has been calculated in accordance with the following accepted procedural steps:

- Trip Generation
- Trip Distribution
- Traffic Assignment

Table 2-2 (previously presented) summarizes the projected trip generation for the proposed development. As indicated in Table 2-2, the proposed Moon Camp residential development is projected to generate 479 trip-ends per day with 51 vehicles per hour during the weekday PM peak hour.

### **6.1.2 Existing Study Area Conditions**

Regional access to the site is provided via North Shore Boulevard.

### **6.1.3 Future Conditions**

An Interim Year (2010) analysis and long-range General Plan Buildout (2030) analysis are included in this report. Interim Year (2010) traffic operations analysis has been completed for the Friday PM and Sunday Mid-day peak hours and are shown in Tables 5-1 and 5-2 (previously presented). Friday PM peak hour and Sunday Mid-day peak hour traffic operations analysis are summarized in Tables 5-3 (previously presented)

for General Plan Buildout With Project (2030) conditions. All study intersections are projected to experience Level of Service "C" or better operations during the peak hours for all scenario analyzed.

## 6.2 Recommendations

The recommendations in this section address all necessary on-site improvements and off-site transportation improvements.

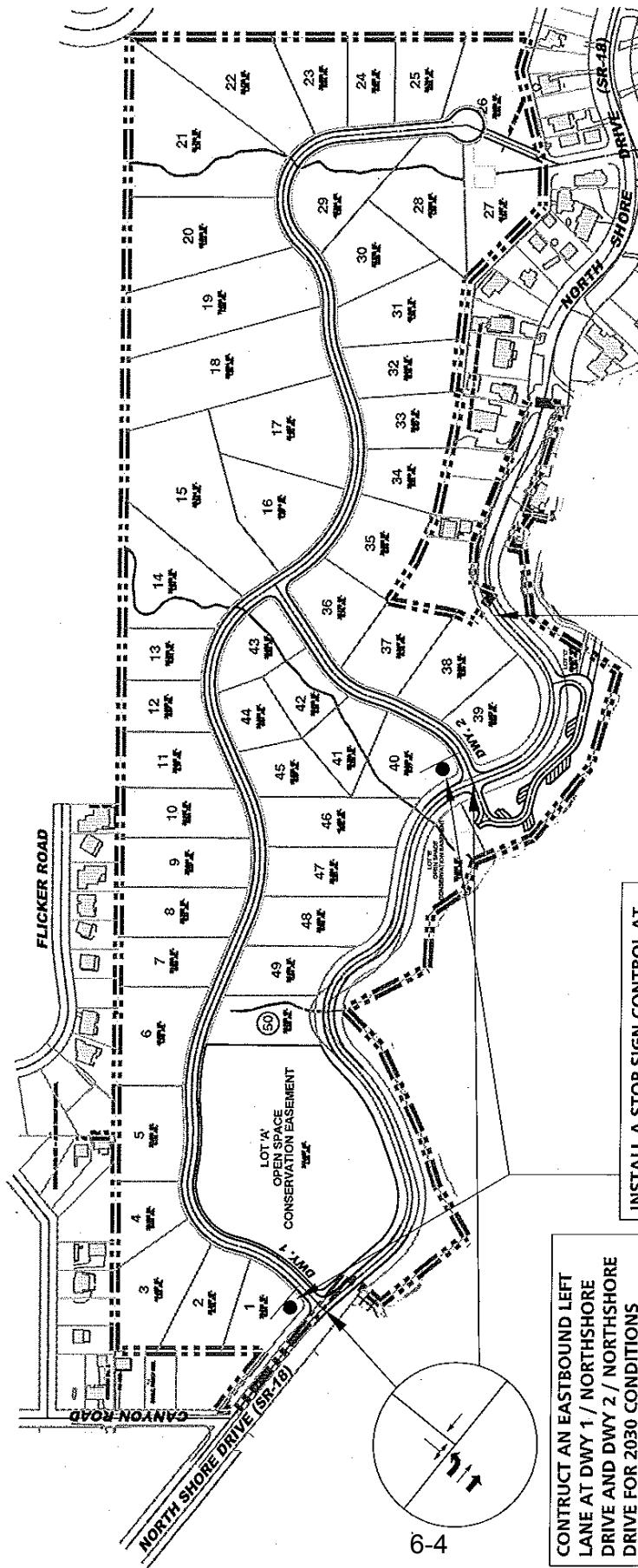
### 6.2.1 On-Site Improvements

On-site improvements and improvements adjacent to the site will be required in conjunction with the proposed development to ensure adequate circulation within the project itself. Exhibit 6-A illustrates the recommended improvement measures to address on-site circulation requirements of the proposed site, which include the following:

- Sight distance at the project access roadway should be reviewed with respect to Caltrans / County of San Bernardino sight distance standards at the time of final grading landscape and street improvement plans.
- Traffic signing / striping should be implemented in conjunction with detailed construction plans for the project site.
- Construct North Shore Drive at its ultimate half-section width as a Mountain Major highway from Canyon Drive to the Easterly project boundary.
- Install a stop sign control at Driveway #1 and Driveway #2

# EXHIBIT 6-A

## CIRCULATION RECOMMENDATIONS



**CONSTRUCT NORTH SHORE DRIVE AT ITS ULTIMATE HALF-SECTION AS A MOUNTAIN MAJOR HIGHWAY FROM CANYON ROAD TO THE EASTERLY PROJECT BOUNDARY.**

**SIGHT DISTANCE AT EACH PROJECT ACCESS ROADWAY SHOULD BE REVIEWED WITH RESPECT TO STANDARD CALTRANS AND COUNTY OF SAN BERNARDINO SIGHT DISTANCE STANDARDS AT THE TIME OF FINAL GRADING, LANDSCAPE AND STREET IMPROVEMENT PLANS.**

**RECOMMENDED IMPROVEMENT**

► = RECOMMENDED IMPROVEMENT

● = STOP SIGN

- Construct an Eastbound Left Turn Lane at Driveway 1 / North Shore Drive and Driveway 2/ North Shore Drive for 2030 Buildout Conditions
- Construct a 2<sup>nd</sup> Eastbound Through Lane at Driveway 1 / North Shore Drive and Driveway 2/ North Shore Drive for 2030 Buildout Conditions

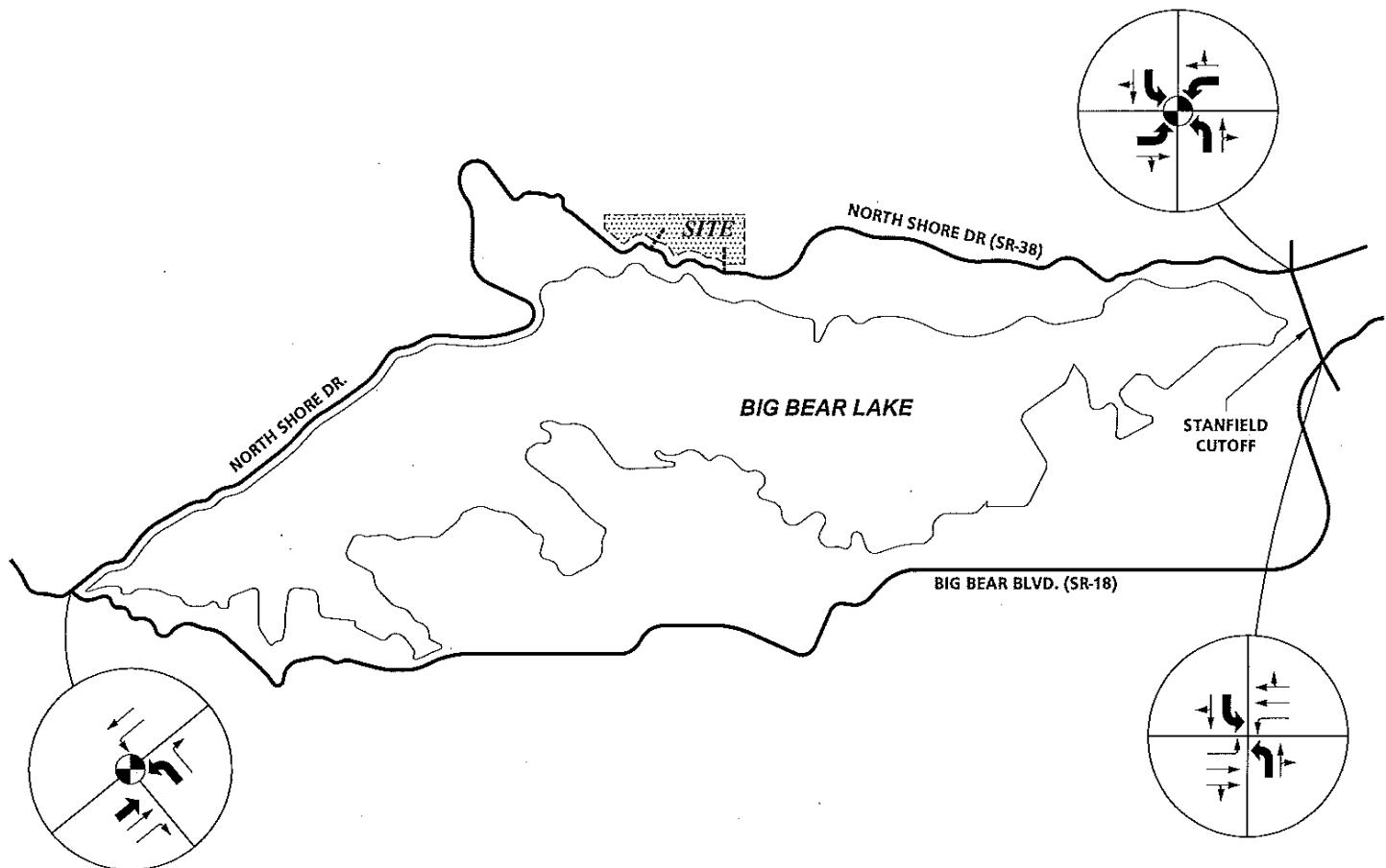
#### 6.2.2 Off-Site Improvements

The necessary off-site improvement recommendations were described in previous sections of this report. Exhibit 6-B illustrates the recommended improvements for 2010 Without Project and With Project traffic conditions. There are no additional recommended improvements for 2010 With Project traffic conditions compared to 2010 Without Project traffic conditions. Exhibit 6-C illustrates the recommended improvements for General Plan Buildout (2030) traffic conditions compared to the improvements shown on Exhibit 6-B.

#### 6.2.3 Project Fair Share Analysis

This section of the report summarizes the improvements and associated costs required to meet San Bernardino Congestion Management Program (CMP) level of service requirements for long range traffic condition, per discussion with County staff.

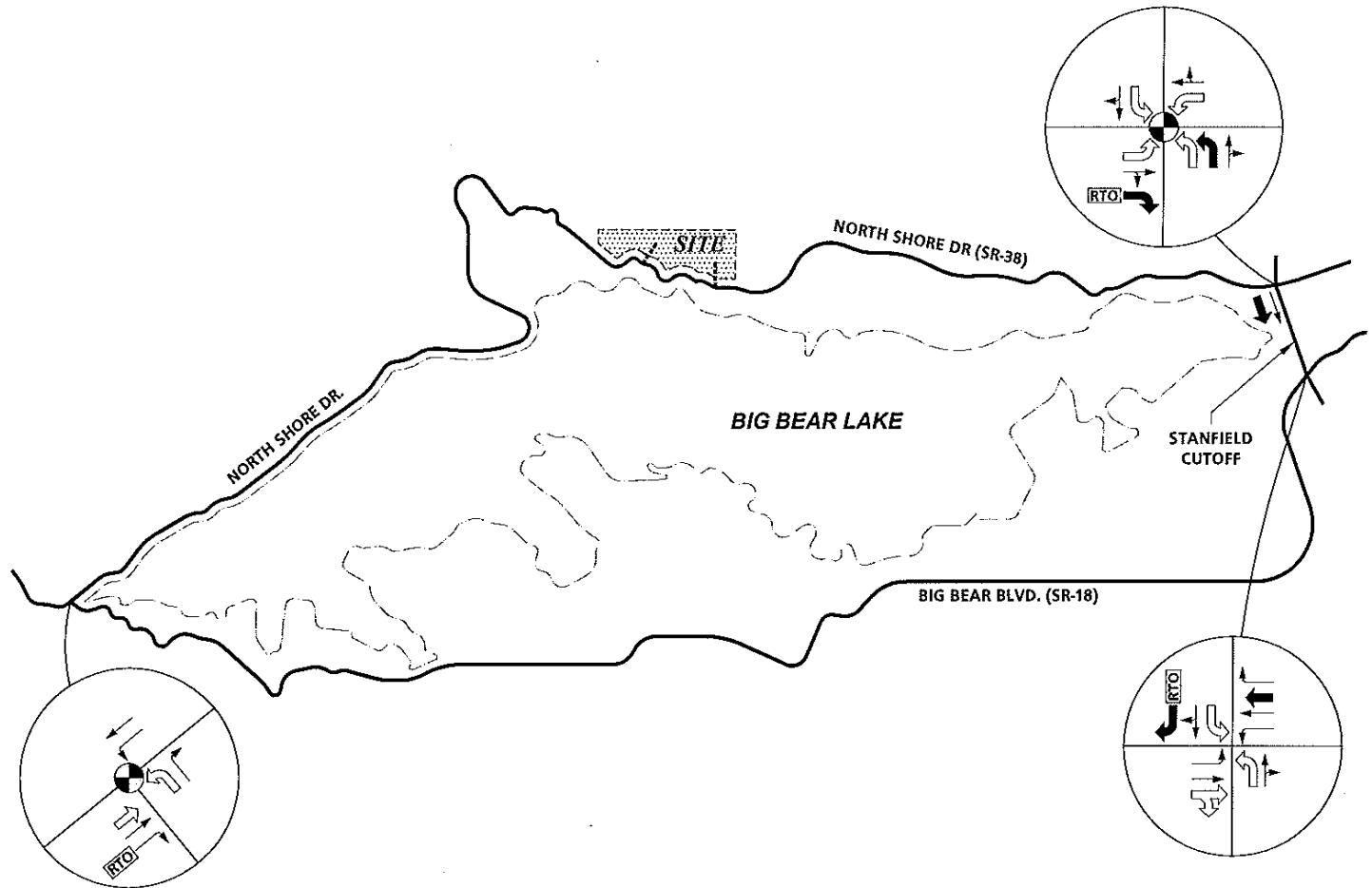
Table 6-1 indicates the needed long range 2030 improvements and resulting costs for the study area intersections. The cost data is provided in Appendix "G" of the San Bernardino Congestion Management Program, 2003 update (see Appendix "I"). Estimated cost (per SANBAG CMP table)

**RECOMMENDED IMPROVEMENTS FOR 2010  
WITHOUT AND WITH PROJECT CONDITIONS****LEGEND:**

- = TRAFFIC SIGNAL
- ↔ = EXISTING LANE
- = CURRENT PHASE IMPROVEMENTS



# ADDITIONAL RECOMMENDED IMPROVEMENTS FOR GENERAL PLAN BUILDOUT (2030) CONDITIONS



## LEGEND:

- = TRAFFIC SIGNAL
- = EXISTING LANE
- ↔ = CURRENT PHASE IMPROVEMENTS
- ↖ = PREVIOUS PHASE IMPROVEMENTS
- RTO = RIGHT TURN OVERLAP PHASING IMPROVEMENTS



**TABLE 6-1**  
**ROADWAY IMPROVEMENTS COST**

INTERSECTION	2030 IMPROVEMENTS	COST
North Shore Dr. (SR-38) (NS) at: • Big Bear Blvd. (SR-18) (EW)	Install Traffic Signal Construct NB Left Turn Lane Construct EB Through Lane Add Right Turn Overlap Phasing	\$250,000 \$50,000 \$289,720 \$25,000  <b>\$614,720</b>
Standfield Cutoff (NS) at: • North Shore Dr. (EW)	Install Traffic Signal Construct 2 NB left turn lanes Construct SB left turn lane Construct EB left turn lane Construct EB right turn lane Add Right Turn Overlap Phasing Construct WB left turn lane	\$250,000 \$100,000 \$50,000 \$50,000 \$50,000 \$25,000 \$50,000  <b>\$575,000</b>
Stanfield Cutoff (NS) at: • Big Bear Blvd. (EW)	Construct NB left turn lane Construct SB left turn lane Add Right Turn Overlap Phasing Construct EB through lane Construct WB through lane	\$50,000 \$50,000 \$25,000 \$289,720 \$289,720  <b>\$704,440</b>
<b>TOTAL - COST OF CONSTRUCTION</b>		<b>\$1,894,160</b>

Source: Appendix "G" of the San Bernardino Congestion Management Program, 2003 update.

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for a through lane is \$289,720 (600 feet long for upstream and 600 feet long including taper for downstream). As indicated in Table 6-1, the total cost of needed intersection improvements is \$1,894,160.

The project fair share contribution towards the required improvements has also been calculated. Table 6-2 includes the project's cost contribution based on the project's percent of new traffic. As indicated in Table 6-2, the highest Friday PM or Sunday Mid-day fair share cost is approximately \$129,193.

#### 6.2.4 Transportation System Management Actions

##### a. Off-Site

As development in the area occurs, transit agencies should consider expanding service within the area.

##### b. On-Site

The on-site design should accommodate private and/or public bus access design and parking as necessary.

TABLE 6-2

PROJECT FAIR SHARE

SEGMENT	COST	PEAK HOUR	EXISTING TRAFFIC	2030 WITH PROJECT TRAFFIC	PROJECT TRAFFIC	TOTAL NEW TRAFFIC	PROJECT % OF NEW TRAFFIC	(A)		(B)	
								FRIDAY PM PROJECT COST SHARE	SUNDAY MID. PROJECT COST SHARE	FRIDAY PM PROJECT COST SHARE	SUNDAY MID. PROJECT COST SHARE
North Shore Dr. (SR-38) (NS) at: • Big Bear Blvd. (EW)	\$614,720	Friday PM Sunday Midday	906 2208	1625 2639	15 26	719 431	2.09% 6.03%	\$12,824	\$37,083	\$37,083	\$37,083
Stanfield Cutoff (NS) at: • North Shore Dr. (EW)	\$575,000	Friday PM Sunday Midday	822 904	1,119 1,196	35 26	297 292	11.78% 8.90%	\$67,761	\$51,199	\$67,761	\$67,761
Stanfield Cutoff (NS) at: • Big Bear Blvd. (EW)	\$704,440	Friday PM Sunday Midday	2,745 2,625	3,584 3,463	29 21	839 838	3.46% 2.51%	\$24,349	\$17,653	\$24,349	\$24,349
<b>GRAND TOTAL - COST SHARE FOR IMPROVEMENTS</b>								<b>\$104,934</b>	<b>\$105,935</b>	<b>\$129,193</b>	

**E.2 - Revised Traffic Study  
(Urban Crossroads, June 2007)**

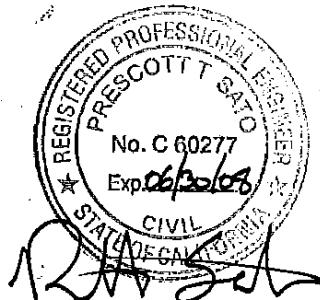




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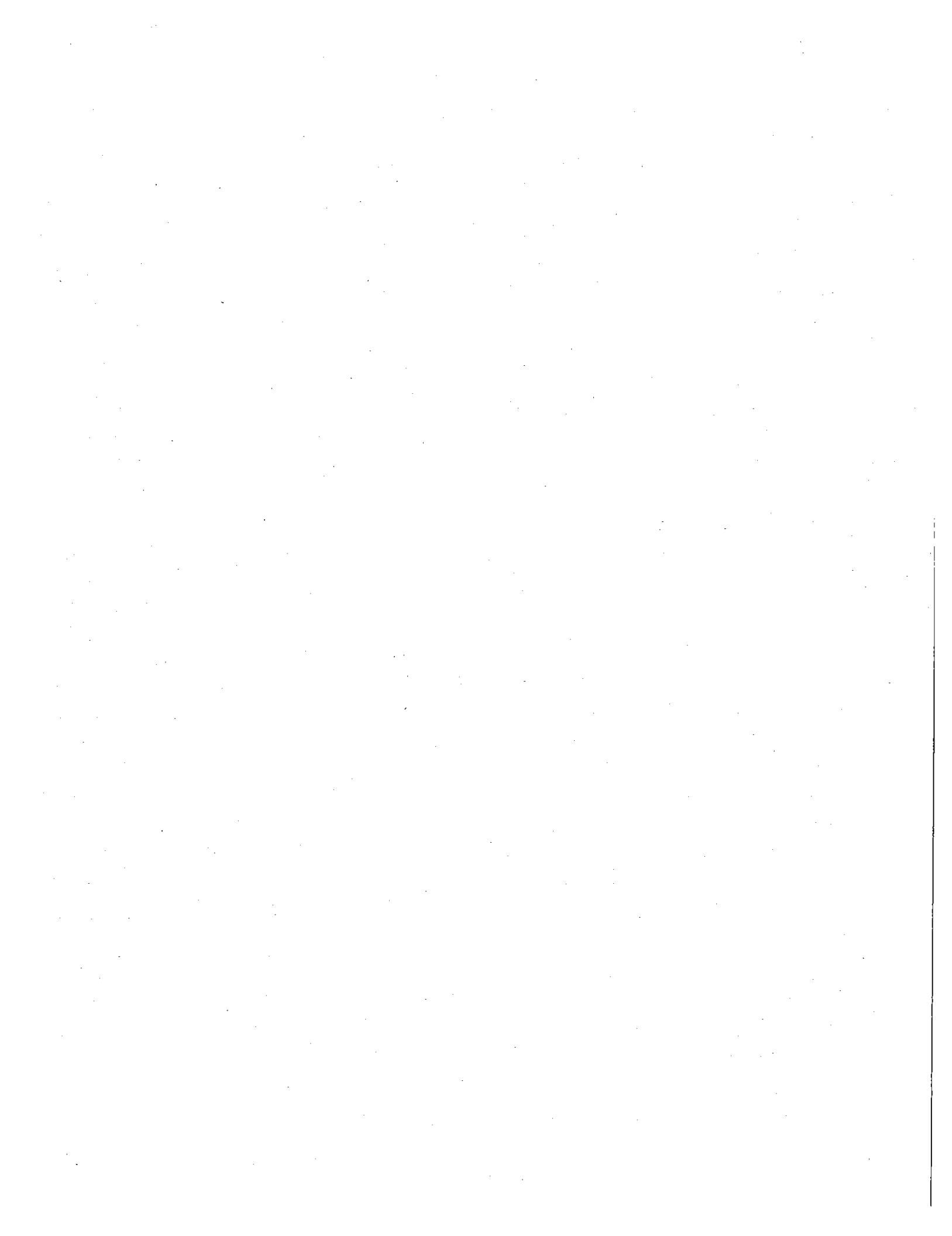
MOON CAMP  
TRAFFIC IMPACT ANALYSIS  
COUNTY OF SAN BERNARDINO, CALIFORNIA

June 29, 2007 (REVISED)  
April 24, 2007

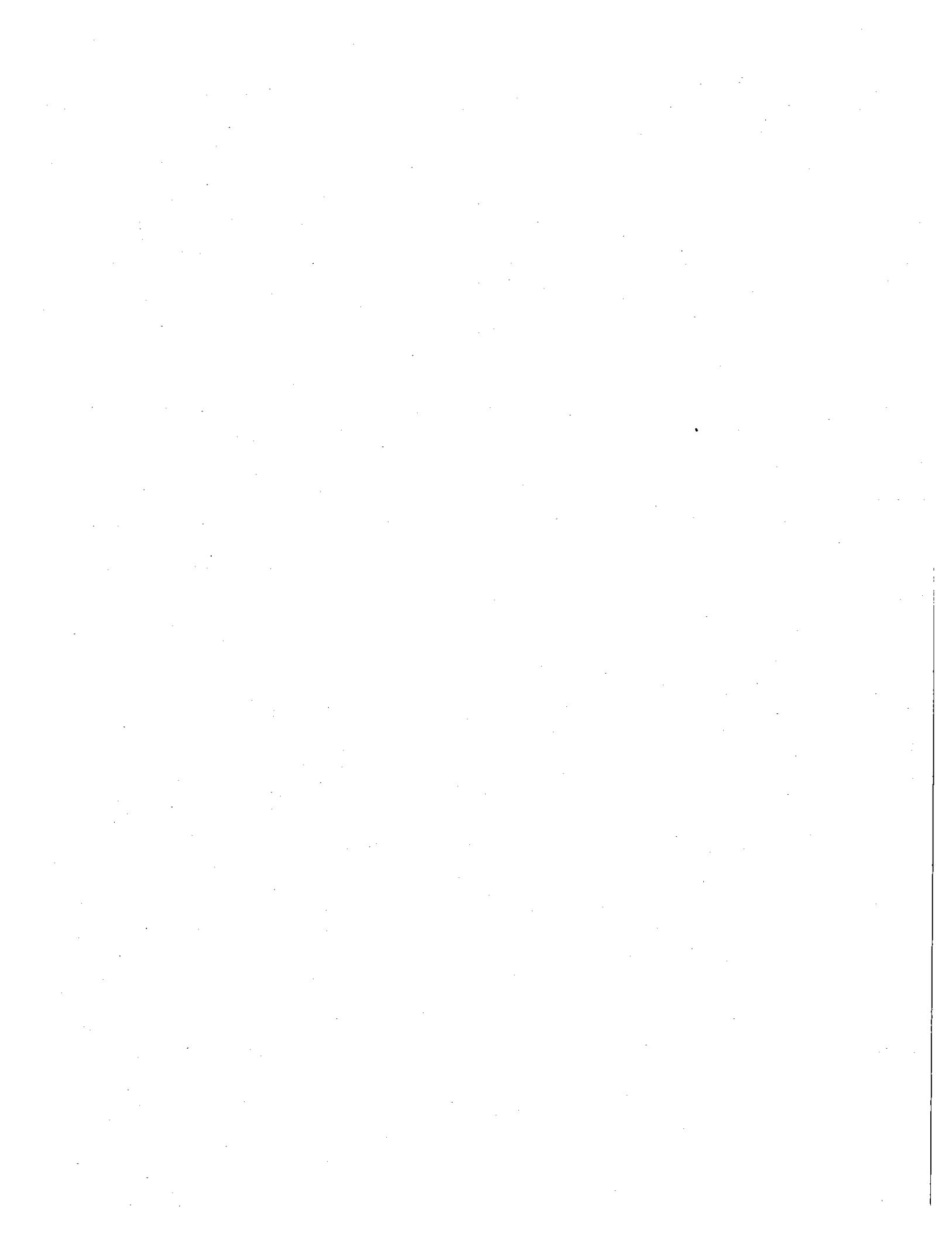
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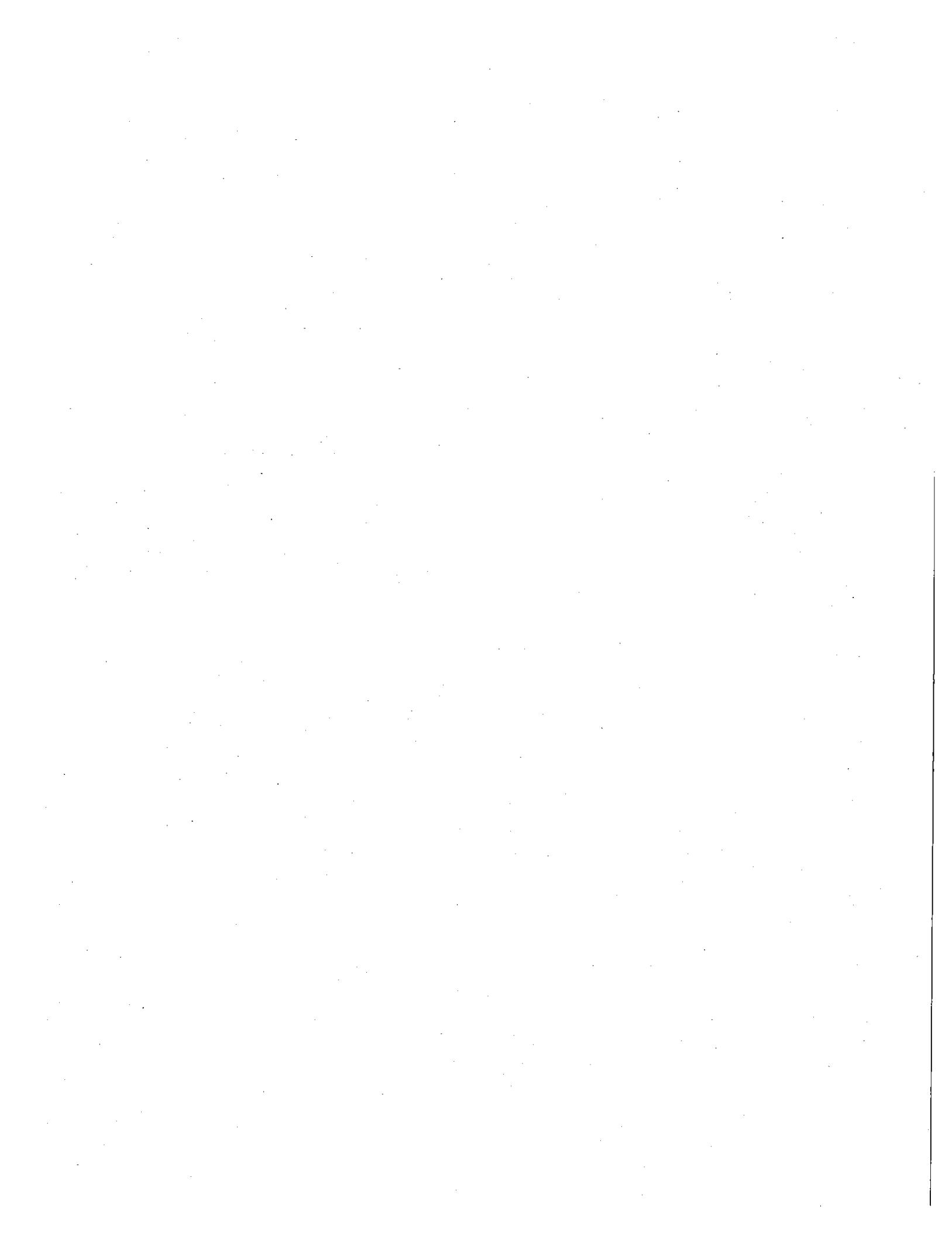
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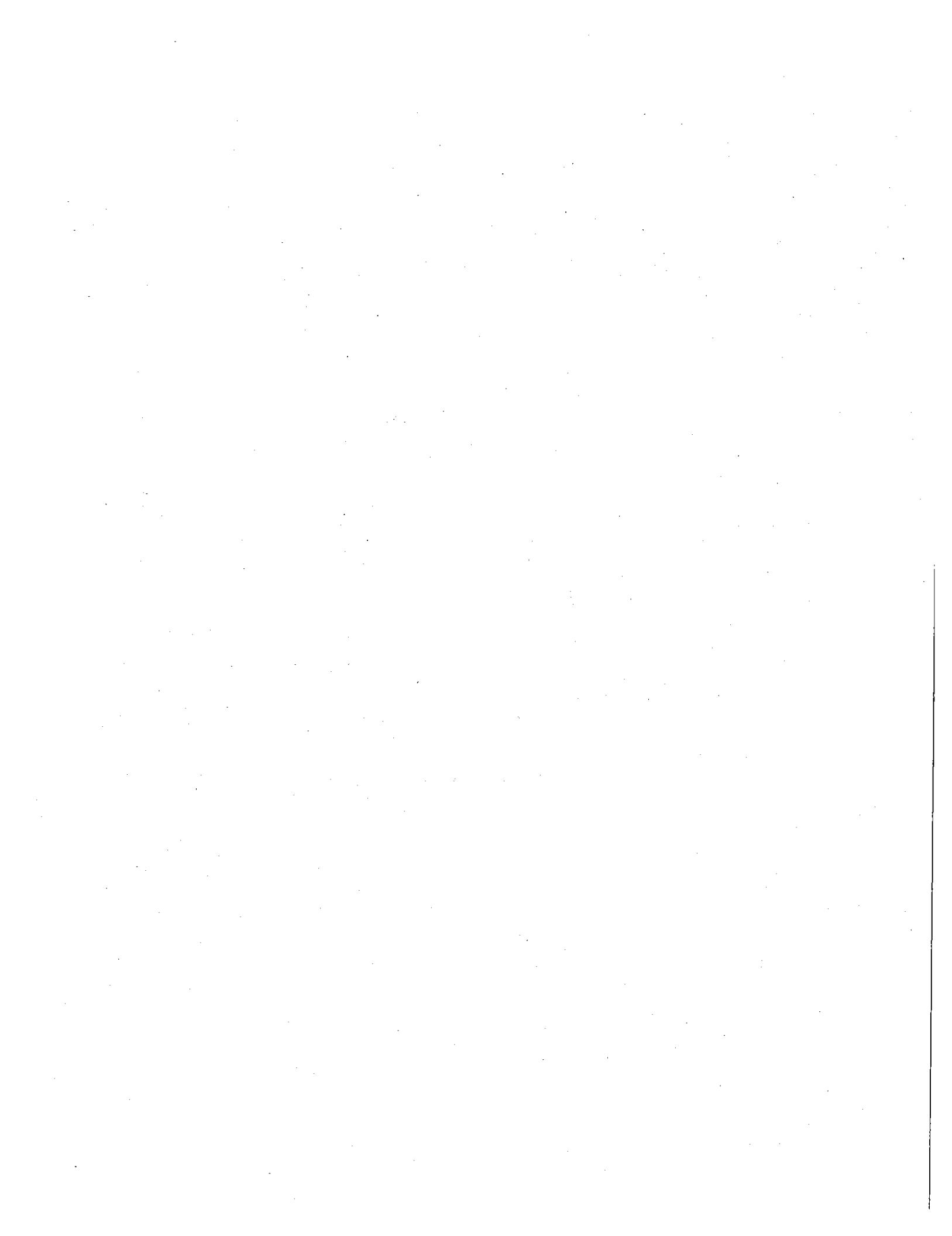
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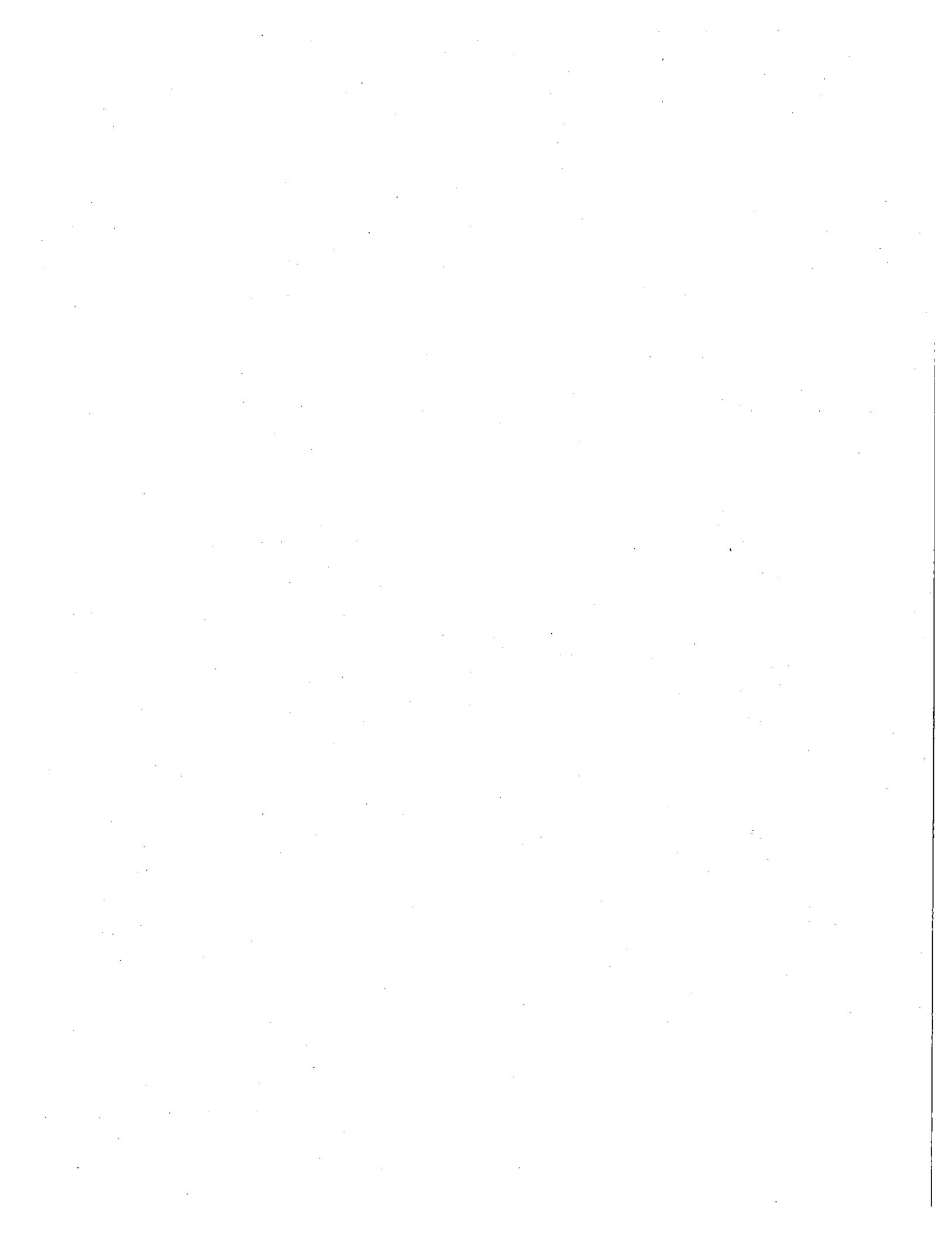


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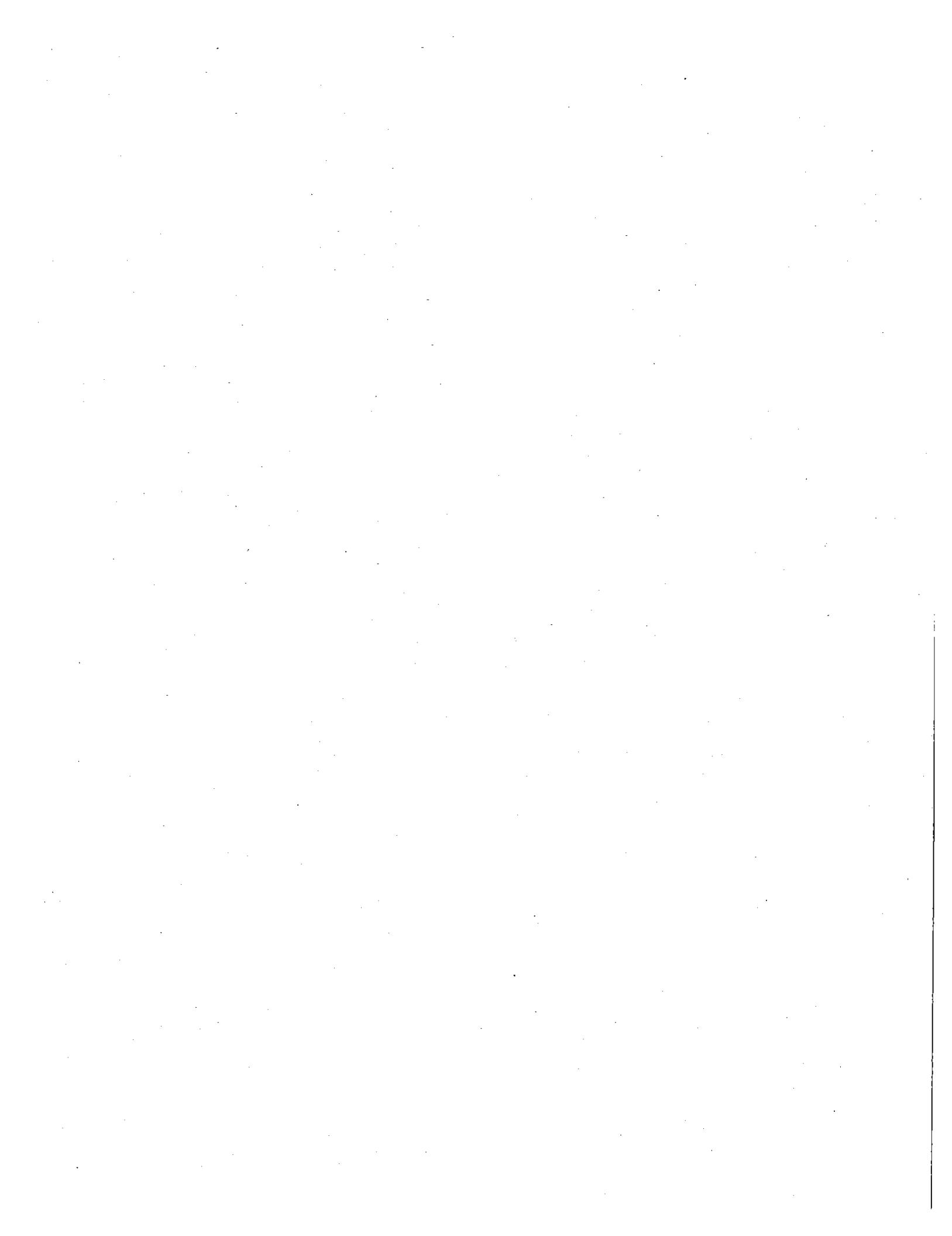


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**MOON CAMP  
TRAFFIC IMPACT ANALYSIS  
COUNTY OF SAN BERNARDINO, CALIFORNIA**

**1.0 INTRODUCTION**

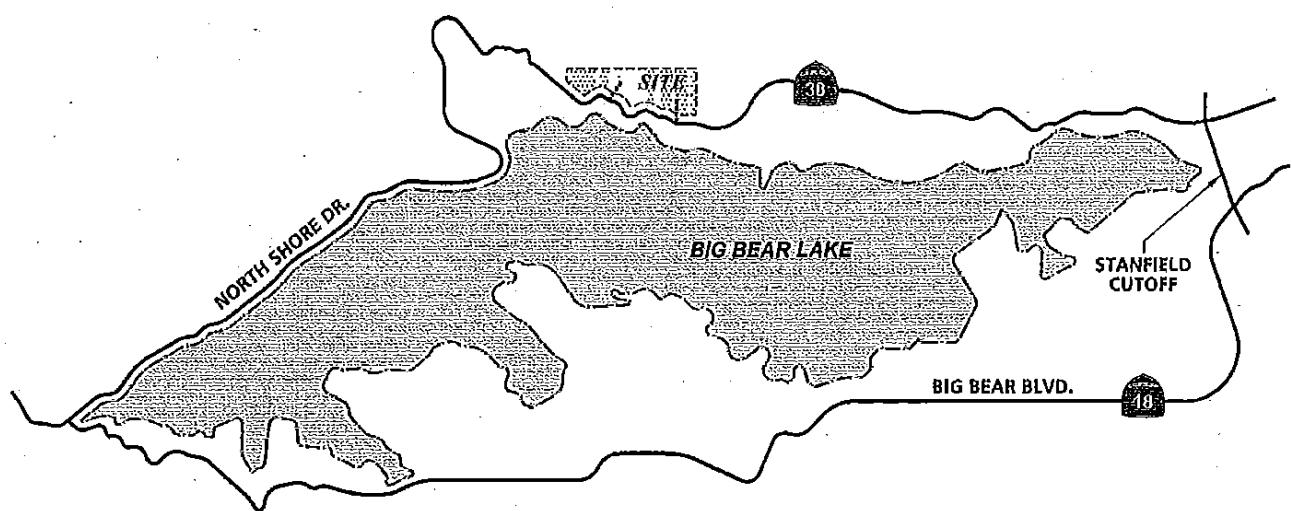
This report summarizes the traffic impact analysis conducted to assess the potential impacts of the proposed Moon Camp residential development on the roadway system in the study area. The proposed development is generally located along North Shore Drive in the County of San Bernardino. The Moon Camp residential project is proposed to include 50 new single-family detached dwelling units and three lots for open space and common area on approximately 62.43 acres. The general location of the project site is presented on Exhibit 1-A.

In conformance with the requirements of the San Bernardino County Congestion Management Program (CMP), the proposed project does not require a CMP traffic study. The CMP requires no analysis for projects generating less than 250 peak hour trips. The project generates approximately 51 and 51 trips during the AM and PM peak hours, respectively; which is less than the required threshold for a CMP traffic study. However, per discussion with County staff, the traffic study should follow CMP guidelines and a long-range traffic analysis is required.

The introduction to this report presents an overview of the project and provides a brief description of the study area. The analysis methodologies used to evaluate the impacts of the project are described and the definitions of roadway system deficiencies and significant project impacts are presented in the context of the County of San Bernardino and CEQA requirements.

Subsequent sections of the report will describe the project in detail and provide a complete description of existing and projected traffic conditions within the study area.

EXHIBIT 1-A  
**LOCATION MAP**



MOON CAMP TIA, San Bernardino County, California - 04409:01 (REVISED)



## **1.1 Project Overview**

The proposed Moon Camp residential development is generally located north of North Shore Drive south of Flicker Road and east of Canyon Road in San Bernardino County. The Moon Camp residential project is proposed to include 50 new single-family detached dwelling units and three open space lots and common area. Exhibit 1-B illustrates the site plan.

There are two (2) primary full access points to the project site located off North Shore Drive.

Additional detailed discussion of the roadway network features of the project and its traffic generation characteristics will be provided in subsequent sections of this report.

## **1.2 Study Area**

The overall study area evaluated in this study is presented on Exhibit 1-A. Based on discussion with County transportation staff, the study area includes the following existing study intersections:

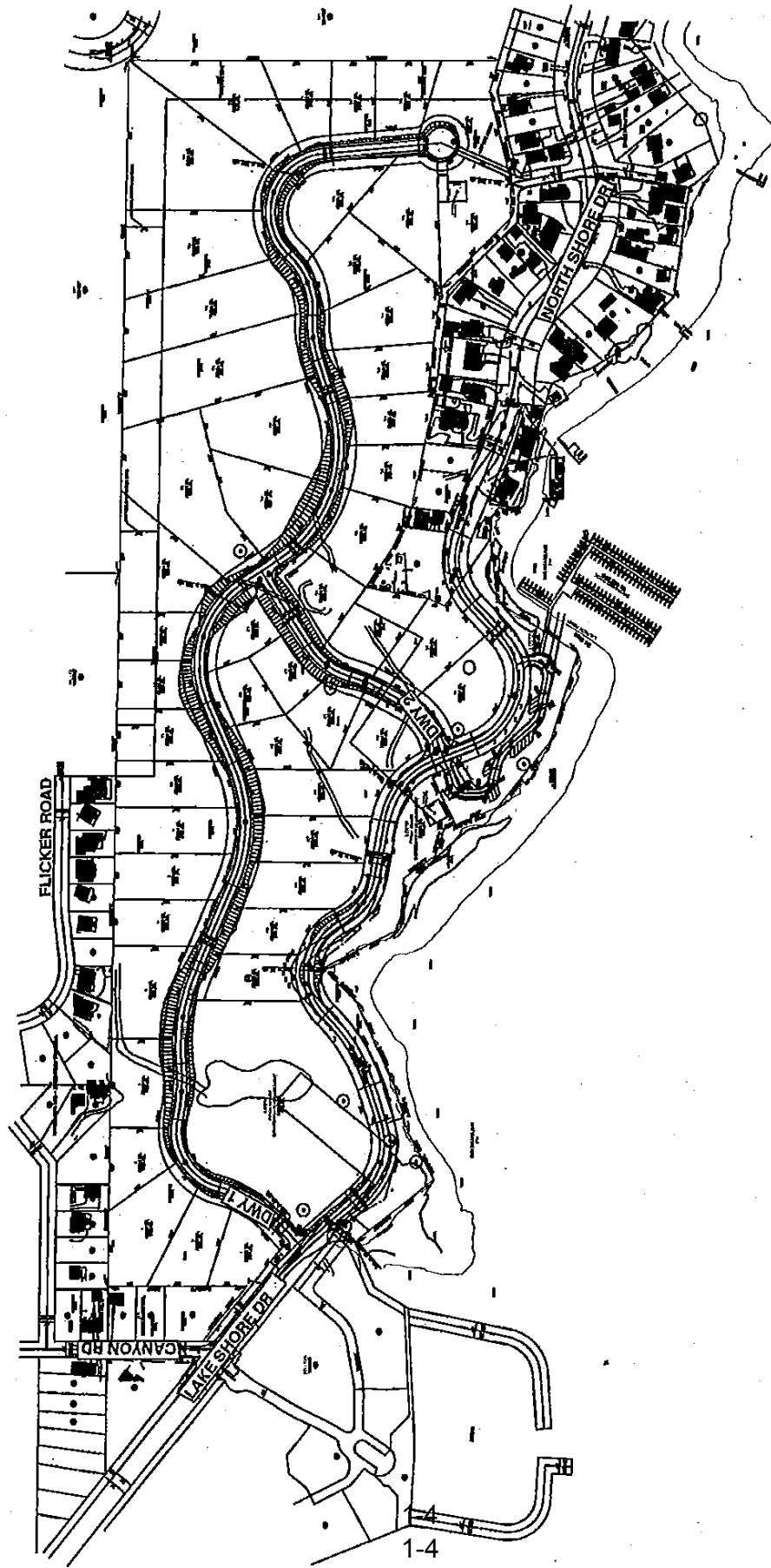
Stanfield Cutoff (NS) at:

- North Shore Drive (SR-38) (EW)
- Big Bear Boulevard (SR-18) (EW)

North Shore Drive (SR-38) (NS) at:

- Big Bear Boulevard (SR-18) (EW)

**EXHIBIT 1-B**  
**SITE PLAN**



MOON CAMP TIA, San Bernardino County, California • 04409: 02 SP



### **1.3 Analysis Methodologies**

This section of the report presents the methodologies used to perform the traffic analyses summarized in this report. The methodologies described are consistent with the San Bernardino County Congestion Management Program. The following analysis years are considered in this report:

- Existing Condition – 2007
- Interim Year – 2010
- Long Range – 2030

The overall methodologies used to develop future traffic volume forecasts, and the explicit traffic operations analysis methodologies are summarized herein. The primary section of interest to the non-technically oriented reviewer is Section 1.4.2 (Definition of Significant Impact).

#### **1.3.1 Overall Analysis Methodology**

As described previously, traffic conditions are evaluated in this report for existing conditions, 2010 Interim Year Without Project conditions, 2010 Interim Year With Project conditions, and Long Range General Plan Buildout (2030) conditions.

Actual traffic count data was obtained from manual intersection counts (conducted in March 2007, see Appendix "A") to quantify existing traffic conditions. Per discussion with County staff, the peak season of the study area occurs during the summer months, thus a 16% growth is applied to manual intersection counts to represent existing peak hour intersection volumes.

Project traffic volumes for all future conditions were estimated using the manual approach. Trip generation has been estimated based on data collected by the Institute of Transportation Engineers (ITE). The project trip distribution was derived from a select zone run of the San Bernardino Mountain Model.

Interim Year conditions have been estimated based on areawide growth (other projects that are approved, pending, or under construction) and the addition of the project related peak hour volumes. An area-wide growth of 2% per year is applied to adjusted existing volumes (with 16% growth).

The Interim Year 2010 without project traffic volumes are estimated based on the 2007 existing traffic volumes (with 16% adjustment) plus the 2007 to 2010 background growth volumes (2%) plus the known cumulative development volumes.

Project traffic volumes for all future conditions were estimated using the manual approach described in the CMP guidelines. The trip generation calculation is based on the most recent Institute of Transportation Engineers Trip Generation Rates, 7th Edition. The project trip distribution was developed from a select zone run of the San Bernardino Mountain Model and was reviewed by the County of San Bernardino staff. The project only traffic forecasts have been generated by applying the trip generation, distribution and traffic assignment calculations.

Long Range General Plan Buildout (2030) conditions have been estimated based on the San Bernardino Mountain Model and the addition of both the project related peak hour volumes and the known cumulative development peak hour volumes per discussions with County staff.

### 1.3.2 Traffic Operations Analysis

The current technical guide to the evaluation of traffic operations is the 2000 Highway Capacity Manual (HCM) (Transportation Research Board Special Report 209). The HCM defines level of service as a qualitative measure which describes operational conditions within a traffic stream, generally in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. The criteria used to evaluate LOS (Level of Service) conditions vary based on the type of roadway and whether the traffic flow is considered interrupted or uninterrupted. The definitions of level of service for uninterrupted flow (flow unrestrained by the existence of traffic control devices) are:

- LOS "A" represents free flow. Individual users are virtually unaffected by the presence of others in the traffic stream.
- LOS "B" is in the range of stable flow, but the presence of other users in the traffic stream begins to be noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver.
- LOS "C" is in the range of stable flow; but marks the beginning of the range of flow in which the operation of individual users becomes significantly affected by interactions with others in the traffic stream.
- LOS "D" represents high-density but stable flow. Speed and freedom to maneuver are severely restricted, and the driver experiences a generally poor level of comfort and convenience.

- LOS "E" represents operating conditions at or near the capacity level. All speeds are reduced to a low, but relatively uniform value. Small increases in flow will cause breakdowns in traffic movement.
- LOS "F" is used to define forced or breakdown flow. This condition exists wherever the amount of traffic approaching a point exceeds the amount which can traverse the point. Queues form behind such locations.

Uninterrupted flow is generally found only on limited access (freeway) facilities in urban areas. The definitions of level of service for interrupted traffic flow (flow restrained by the existence of traffic signals and other traffic control devices) differ slightly depending on the type of traffic control.

The level of service is typically dependent on the quality of traffic flow at the intersections along a roadway. The HCM methodology expresses the level of service at an intersection in terms of delay time for the various intersection approaches. The HCM uses different procedures depending on the type of intersection control. The levels of service determined in this study are calculated using the HCM methodology.

For signalized intersections, average total delay per vehicle for the overall intersection is used to determine level of service. Levels of service at signalized study intersections have been evaluated using an HCM intersection analysis program.

The study area intersections which are stop sign controlled with stop-control on the minor street only have been analyzed using the two-way stop

controlled unsignalized intersection analysis methodology of the HCM. For these intersections, the calculation of level of service is dependent on the occurrence of gaps occurring in the traffic flow of the main street. Using data collected describing the intersection configuration and traffic volumes at these locations to calculate average intersection delay; the level of service has been calculated. The level of service criteria for this type of intersection analysis is based on total delay per vehicle for the worst minor street movement(s).

The levels of service are defined in terms of average delay for the intersection analysis methodology as follows:

LEVEL OF SERVICE	AVERAGE TOTAL DELAY PER VEHICLE (SECONDS)	
	SIGNALIZED	UNSIGNALIZED
A	0 to 10.00	0 to 10.00
B	10.1 to 20.00	10.01 to 15.00
C	20.1 to 35.00	15.01 to 25.00
D	35.1 to 55.00	25.01 to 35.00
E	55.1 to 80.00	35.01 to 50.00
F	Over 80.0 or V/C $\geq$ 1.00	50.01 and up

Per the CMP guidelines, signalized intersections are considered deficient (LOS "F") if the overall intersection critical volume to capacity (V/C) ratio equals or exceeds 1.0, even if the level of service defined by the delay value is below the defined LOS standard. The V/C ratio is defined as the critical volumes divided by the intersection capacity. A V/C ratio greater than 1.0 implies an infinite queue.

The LOS analysis for signalized intersections has been performed using optimized signal timing. This analysis has included an assumed lost time of two seconds per phase in accordance with San Bernardino CMP recommended default values. Signal timing optimization has considered pedestrian safety and signal coordination requirements. Appropriate time for pedestrian crossing have also been considered in the signalized intersection analysis. The following formula has been used to calculate the pedestrian minimum times for all HCM runs:

$$[(\text{Curb to Curb distance}) / (4 \text{ feet/second})] + 5 \text{ seconds}$$

The resulting minimum green times are shown in the appendices for each analyzed scenario. Saturation flow rates of 1,800 vehicles per hour of green (vphg) for through and right-turn lanes and 1,700 vphg for single left-turn lanes, 1,600 vphg per lane for dual left-turn lanes, and 1,500 vphg per lane for triple left-turn lanes have been assumed for all capacity analysis under 2007 Existing and 2010 Interim Year conditions. Under 2030 Horizon Year conditions, saturation flow rates of 1,900 vphg for through and right-turn lanes and 1,800 vphg for single left-turn lanes, 1,700 vphg per lane for dual left-turn lanes, and 1,600 vphg per lane for triple left-turn lanes have been assumed. These are the default values recommended by the CMP guidelines.

The 2030 peak hour factor has been adjusted upwards to 0.95. This is specifically allowed by the San Bernardino CMP guidelines to account for the effects of congestion on peak spreading. Peak spreading refers to the tendency of traffic to spread more evenly across time as congestion increases.

## 1.4 Definition of Deficiency and Significant Impact

The following definitions of deficiencies and significant impacts have been developed in accordance with the County of San Bernardino requirements.

### 1.4.1 Definition of Deficiency

County of San Bernardino guidelines indicate that peak hour intersection operations of LOS "C" or better are considered acceptable. Therefore, any intersection operating at LOS "D" or worse is considered deficient. Per CMP direction, state controlled facilities (state highways, freeway ramp intersection, etc.) are subject to local jurisdiction (California Department of Transportation) traffic operations requirements, with no greater than 45 seconds average stopped delay per vehicle allowed during peak hour operations (middle of LOS "D")

The identification of a CMP deficiency requires further analysis in satisfaction of CMP and County requirements, including:

- Evaluation of the mitigation measures required to restore traffic operations to an acceptable level of service with respect to CMP and local jurisdiction LOS standards.
- Calculation of the project share of new traffic on the impacted CMP facility during peak hours of traffic.
- Estimation of the cost required to implement the improvements required to restore traffic operations to an acceptable level of service as described above.

This study incorporates each of these aspects for all locations where a CMP deficiency is identified.

#### 1.4.2 Definition of Significant Impact

The identification of significant impacts is a requirement of CEQA, and is not directly addressed in the CMP document. The County of San Bernardino General Plan and Circulation Element have been adopted in accordance with CEQA requirements, and any roadway improvements within the County of San Bernardino which are consistent with these documents are not considered a significant impact, so long as the project contributes its "fair share" funding for improvements.

A traffic impact is considered significant and immittigable if the project both:

- i) contributes measurable traffic to and ii) substantially and adversely changes the level of service at any off-site location projected to experience deficient operations under foreseeable cumulative conditions, where feasible improvements consistent with the County of San Bernardino General Plan cannot be constructed.

## **2.0 PROJECT DESCRIPTION**

---

This section describes the project land uses and traffic characteristics for each of the future conditions analyzed.

### **2.1 Project Description**

The proposed Moon Camp residential development is located along North Shore Drive in the County of San Bernardino. The Moon Camp residential project is proposed to include 50 new single-family detached dwelling units and one existing single-family detached dwelling unit. Exhibit 1-B (previously presented) illustrates the site plan.

There are two (2) primary full access points to the project site located off North Shore Drive.

### **2.2 Project Traffic**

The traffic related to the project has been calculated in accordance with the following accepted procedural steps:

- Trip Generation
- Trip Distribution
- Traffic Assignment

These steps are described in detail below.

#### **2.2.1 Project Trip Generation**

The trip generation calculation is based on the most recent Institute of Transportation Engineers Trip Generation Rates, 7th Edition. Table 2-1 indicates the proposed trip generation rates. As indicated in Table 2-2, the

TABLE 2-1  
TRIP GENERATION RATES<sup>1</sup>

LAND USE	ITE CODE	QUANTITY	UNITS <sup>2</sup>	FRIDAY PM PEAK HOUR			SUNDAY MID-DAY PEAK HOUR			DAILY
				IN	OUT	TOTAL	IN	OUT	TOTAL	
<b>PROJECT</b>										
Single Family Residential	210	50	DU	0.64	0.37	1.01	0.64	0.37	1.01	9.57
<b>CUMULATIVE PROJECTS</b>										
Hotel	310	Varies	ROOMS	0.31	0.28	0.59	0.31	0.28	0.59	8.17
Townhomes/Condominium	230	78	DU	0.35	0.17	0.52	0.35	0.17	0.52	5.86
Fast Food Restaurant With Drive-Thru	934	2.5	TSF	18.01	16.63	34.64	18.01	16.63	34.64	496.12
Shopping Center	820	10	TSF	6.57	7.12	13.70	6.57	7.12	13.70	152.03
Shopping Center	820	22.517	TSF	4.99	5.40	10.39	4.99	5.40	10.39	114.43
Automobile Care Center	942	4.375	TSF	1.69	1.69	3.38	1.69	1.69	3.38	20.00
Mini-Warehouse	151	3	AC	1.99	1.84	3.83	1.99	1.84	3.83	38.87
Office	710	6.3	TSF	0.17	0.83	1.00	0.17	0.83	1.00	11.01
Church	560	20	TSF	0.34	0.32	0.66	0.34	0.32	0.66	9.11

<sup>1</sup> Source: ITE (Institute of Transportation Engineers) Trip Generation Manual, 7th Edition, 2003.

<sup>2</sup> DU = Dwelling Units

**TABLE 2-2**  
**PROJECT TRIP GENERATION SUMMARY**

LAND USE	QUANTITY	UNITS <sup>1</sup>	FRIDAY PM PEAK HOUR			SUNDAY MID-DAY PEAK HOUR			DAILY
			IN	OUT	TOTAL	IN	OUT	TOTAL	
Single Family Residential	50	DU	32	19	51	32	19	51	479

---

<sup>1</sup> DU = Dwelling Units

proposed Moon Camp residential development is projected to generate 479 trip-ends per day with 51 vehicles per hour during the weekday AM peak hour and 51 vehicles per hour during the weekday PM peak hour. It is our understanding that the weekday PM peak hour generates more trips than the Sunday Midday peak hour. Based on discussions with County of San Bernardino staff, weekday PM peak hour trip generation has been used in both Friday PM peak hour analysis and Sunday Mid-day peak hour analysis to represent a conservative worst case condition.

#### 2.2.2 Project Trip Distribution and Assignment

The project trip distribution and assignment process represents the directional orientation of traffic to and from the project site. Trip distribution is heavily influenced by the geographical location of the site, the location of surrounding uses, and the proximity to the regional freeway system.

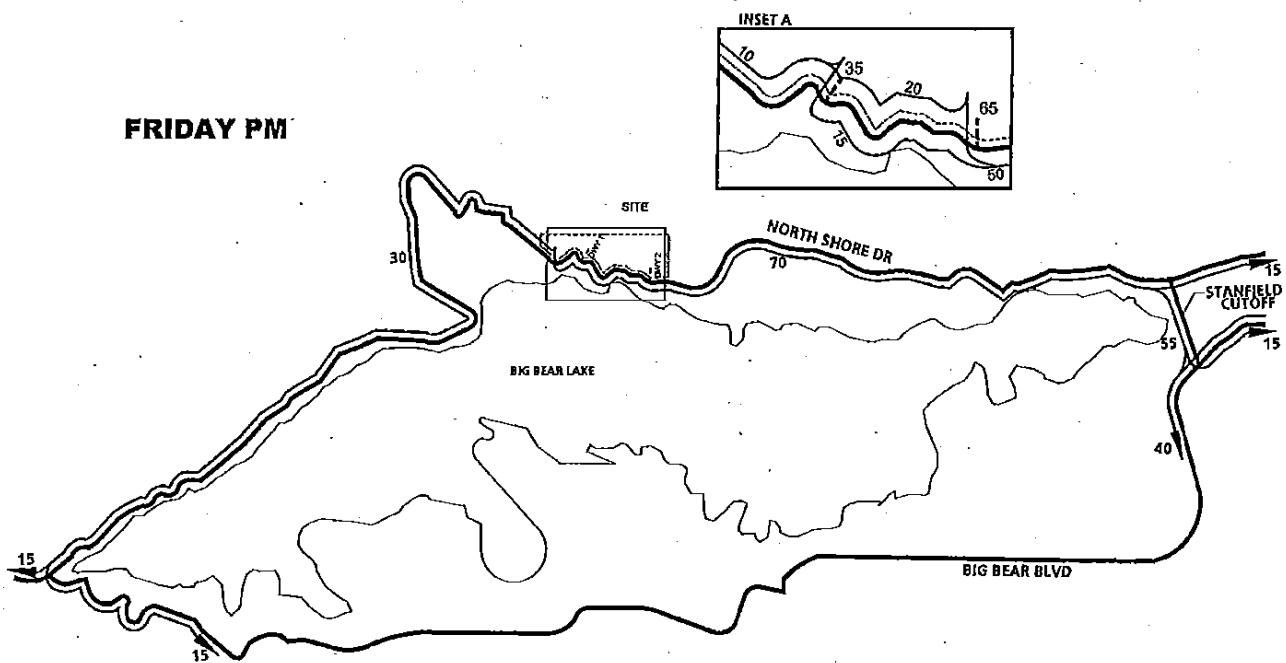
Project trip distribution has been derived from a select zone run of the San Bernardino Mountain Model. The trip distribution pattern for both Friday PM peak and Sunday Mid-day peak is based on the Friday PM distribution per discussions with County staff. Exhibit 2-A illustrates the project trip distribution.

#### 2.2.3 Project Only Traffic Volume Forecasts

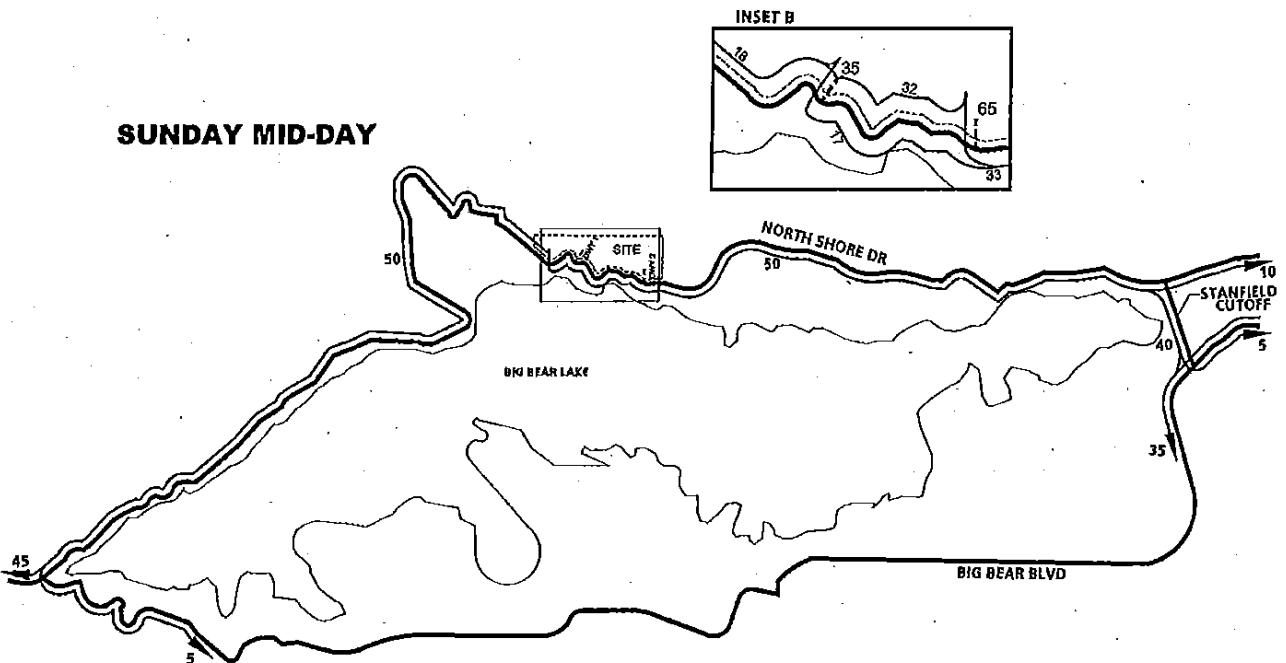
The project only traffic forecasts have been generated by applying the trip generation, distribution and traffic assignment calculations. The project ADT volumes are presented on Exhibit 2-B. The project only Friday PM peak hour and Sunday Mid-day peak hour intersection volumes are depicted on Exhibit 2-C.

EXHIBIT 2-A  
**PROJECT TRIP DISTRIBUTION**

**FRIDAY PM**



**SUNDAY MID-DAY**



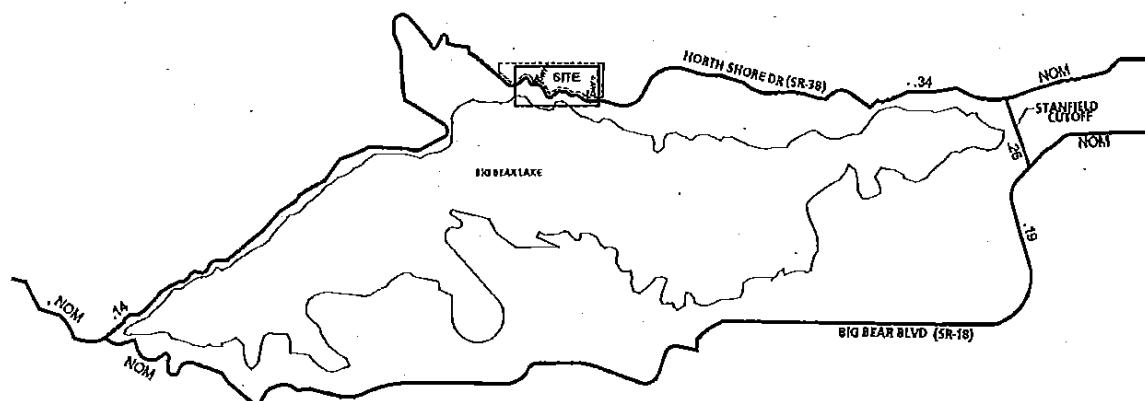
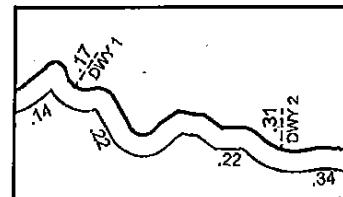
**LEGEND:**

10 = PERCENT TO/FROM PROJECT

EXHIBIT 2-B  
**PROJECT AVERAGE DAILY TRAFFIC**

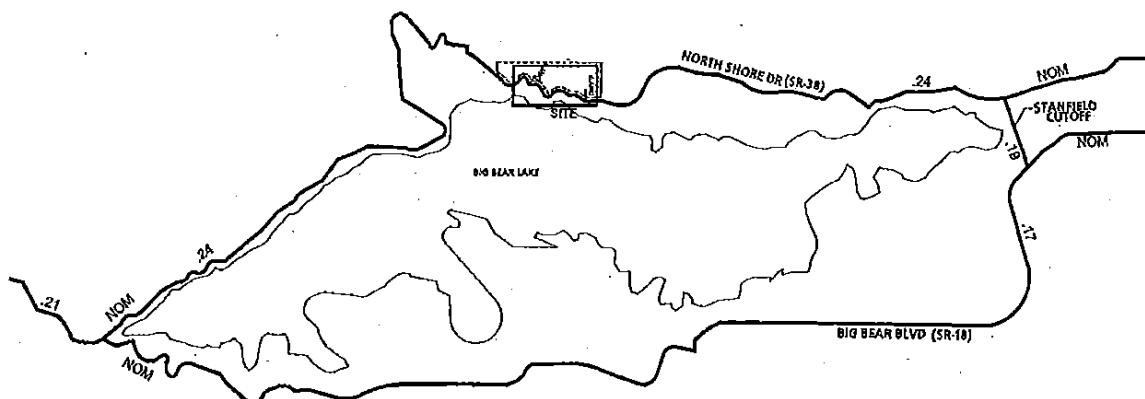
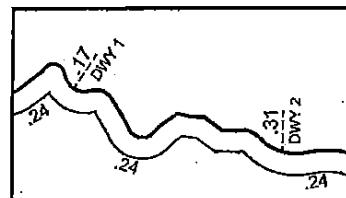
**FRIDAY PM**

INSET A



**SUNDAY MID-DAY**

INSET B



**LEGEND:**

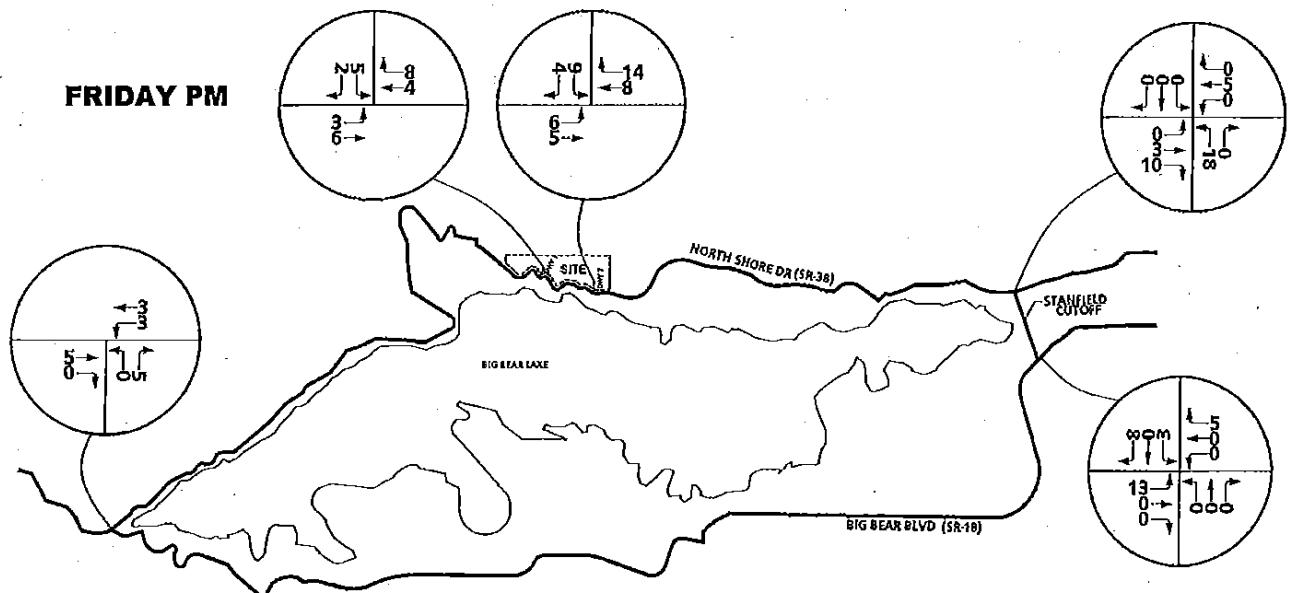
10.0 = VEHICLES PER DAY (1000'S)

NOM = NOMINAL, LESS THAN 50 VEHICLES PER DAY

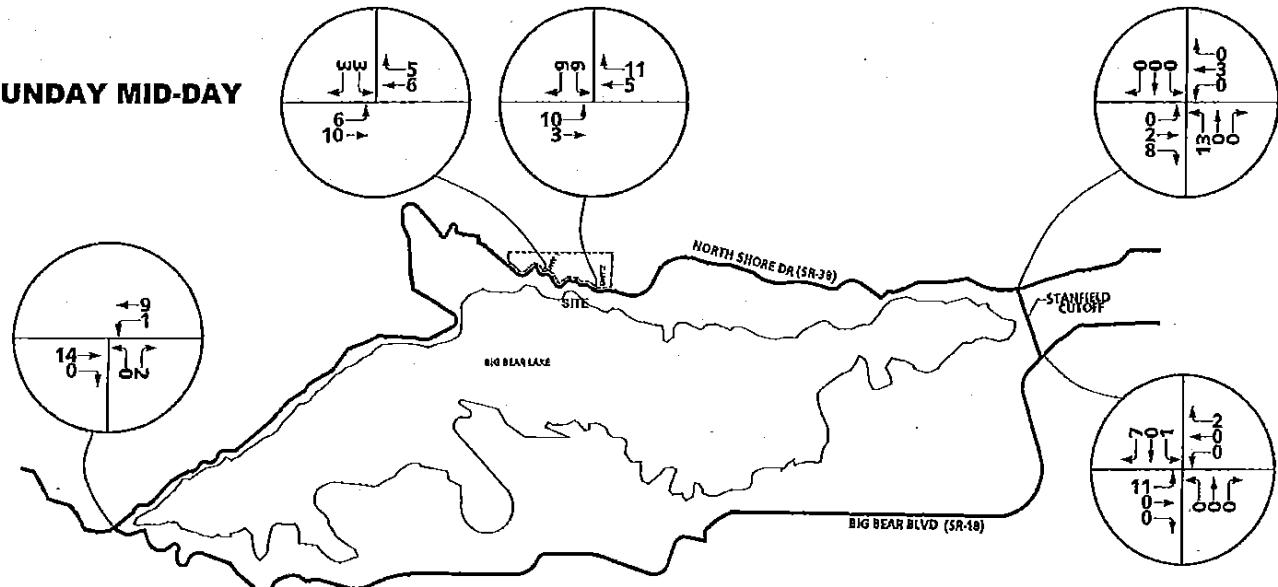
EXHIBIT 2-C

## PROJECT FRIDAY PM PEAK HOUR / SUNDAY MIDDAY PEAK HOUR INTERSECTION VOLUMES

**FRIDAY PM**



**SUNDAY MID-DAY**



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### **3.0 - EXISTING CONDITIONS**

---

This section of the report summarizes existing roadway and traffic conditions in the study area. All analysis locations which exist today have been analyzed. The number of through travel lanes for existing roadways and intersection controls are presented, along with existing traffic count data collected for this study. This data was used to analyze existing traffic operations in the study area. Existing plans for roadway improvements are also described in this section.

#### **3.1 Existing Roadway System and Daily Traffic Volumes**

The number of through travel lanes for existing roadways and existing intersection controls within the study area are presented on Exhibit 3-A.

Exhibits 3-B and 3-C depict the current average daily traffic (ADT) volumes in the study area on Friday and Sunday, respectively. Existing ADT volumes are estimated based upon the latest traffic data collected by Urban Crossroads, Inc. (see Appendix "A"). Peak hour data has been used to estimate the average daily traffic volumes on each leg using the following formula:

$$\text{Peak Hour (Approach Volume} + \text{Exit Volume}) \times 12 = \text{Leg Volume.}$$

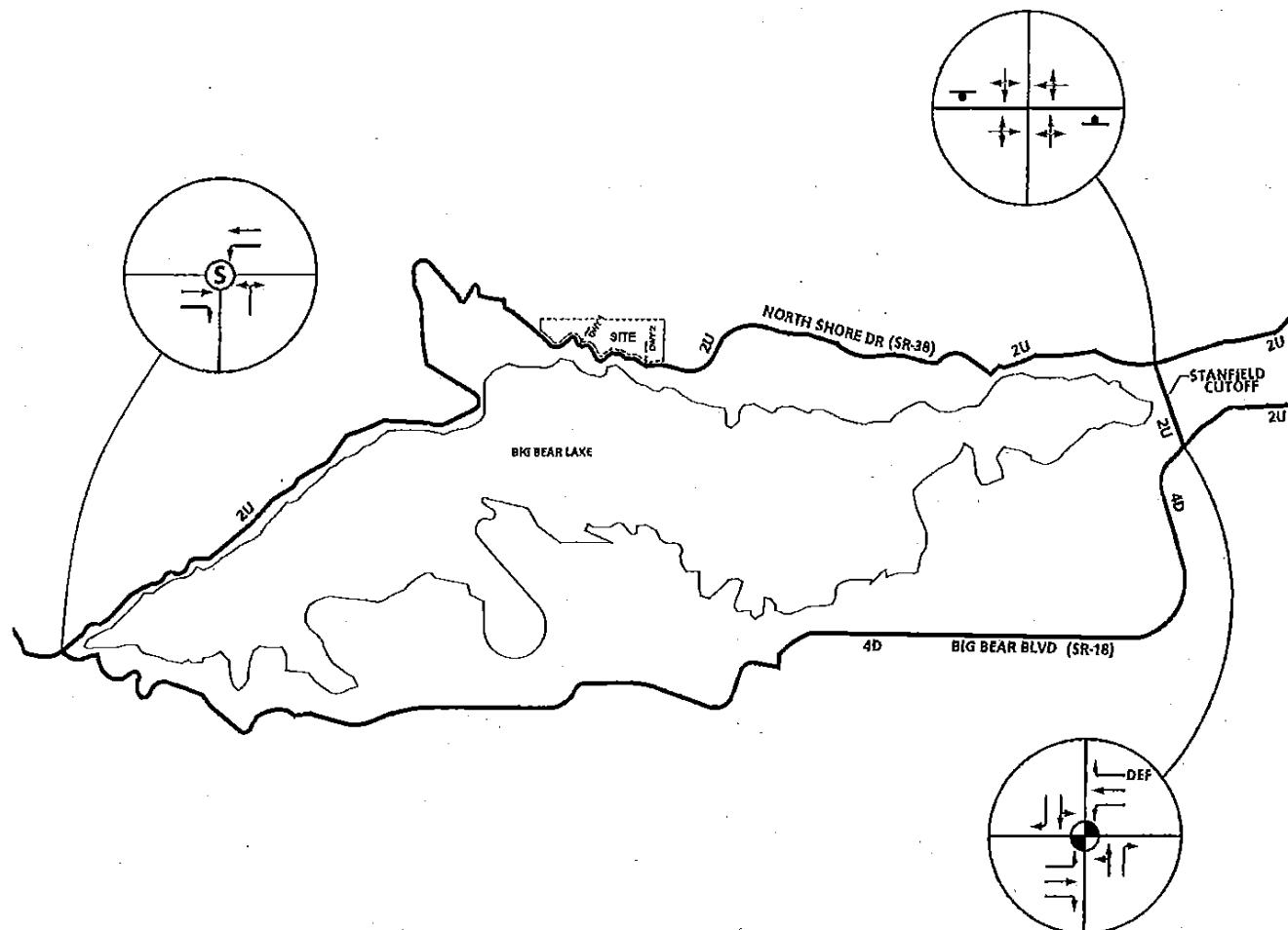
Regional access to the site is provided by North Shore Drive (SR-38)

#### **3.2 Existing Peak Hour Traffic Volumes**

Actual traffic count data was obtained from manual intersection counts (March 2007, see Appendix "A") to quantify existing traffic conditions. The Friday PM peak hour traffic volumes were determined by counting the two hour period between 4:00 PM- 6:00 PM in the evening. The Sunday Mid-day peak hour traffic volumes were identified by counting the two hour period from 12:00 PM – 2:00 PM. Per discussions with County staff, since the peak season of the study area occurs during the summer months, a 16% growth is applied to the manual intersection counts to represent existing peak hour intersection volumes.

EXHIBIT 3-A

## EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS

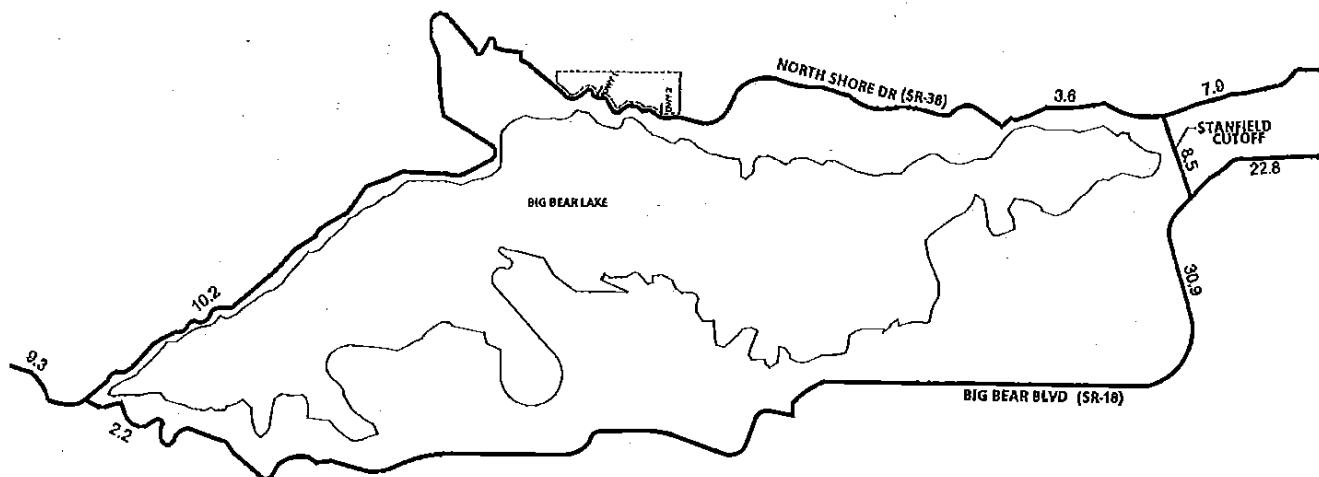


### LEGEND:

- (Traffic Signal)
- (All Way Stop)
- (Stop Sign)
- 4 = NUMBER OF LANES
- D = DIVIDED
- U = UNDIVIDED
- DEF = DEFACTO RIGHT TURN LANE

EXHIBIT 3-B

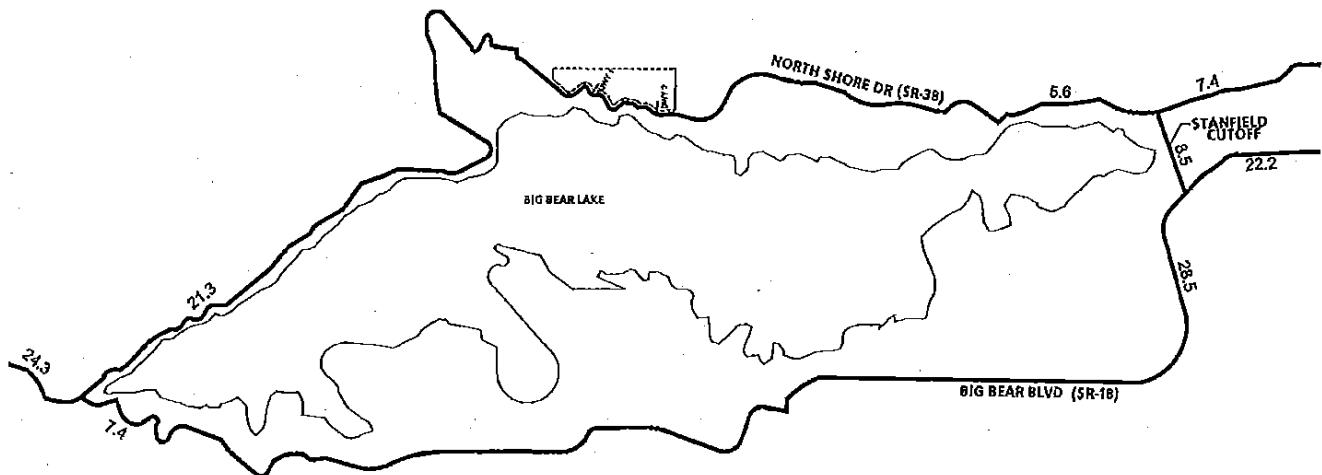
## EXISTING FRIDAY AVERAGE DAILY TRAFFIC (ADT)



**LEGEND:**

10,0 = VEHICLES PER DAY (1000'S)

EXHIBIT 3-C  
**EXISTING SUNDAY AVERAGE  
DAILY TRAFFIC (ADT)**



**LEGEND:**

10.0 = VEHICLES PER DAY (1000'S)

Existing intersection level of service calculations are based upon the adjusted manual Friday PM and Sunday Mid-day peak hour turning movement counts, as shown on Exhibits 3-D and 3-E.

### 3.3 Existing Traffic Operations

Existing peak hour traffic operations have been evaluated for both the Friday PM and Sunday Mid-day peak hours of traffic throughout the study area. The results of this analysis are summarized in Table 3-1, along with the existing intersection geometrics and control devices at each analysis location. As indicated in Table 3-1, the following study area intersections are currently operating at an unacceptable level of service during both Friday PM and Sunday Mid-day peak hours:

Big Bear Blvd (SR-18) (NS) at:

- North Shore Drive (SR-38) (EW)

Stanfield Cut Off (NS) at:

- North Shore Drive (SR-38) (EW)

Stanfield Cut Off (NS) at:

- Big Bear Blvd (SR-18) (EW)

The operations analysis worksheets for existing conditions are included in Appendix "B".

Traffic signal warrant analysis (included in Appendix "C") has been conducted for existing conditions and traffic signals are currently warranted at the following study area intersections:

Big Bear Blvd (SR-18) (NS) at:

- North Shore Drive (SR-38) (EW)

Stanfield Cut Off (NS) at:

- North Shore Drive (SR-38) (EW)

EXHIBIT 3-D  
**EXISTING FRIDAY PM PEAK HOUR  
INTERSECTION VOLUMES**

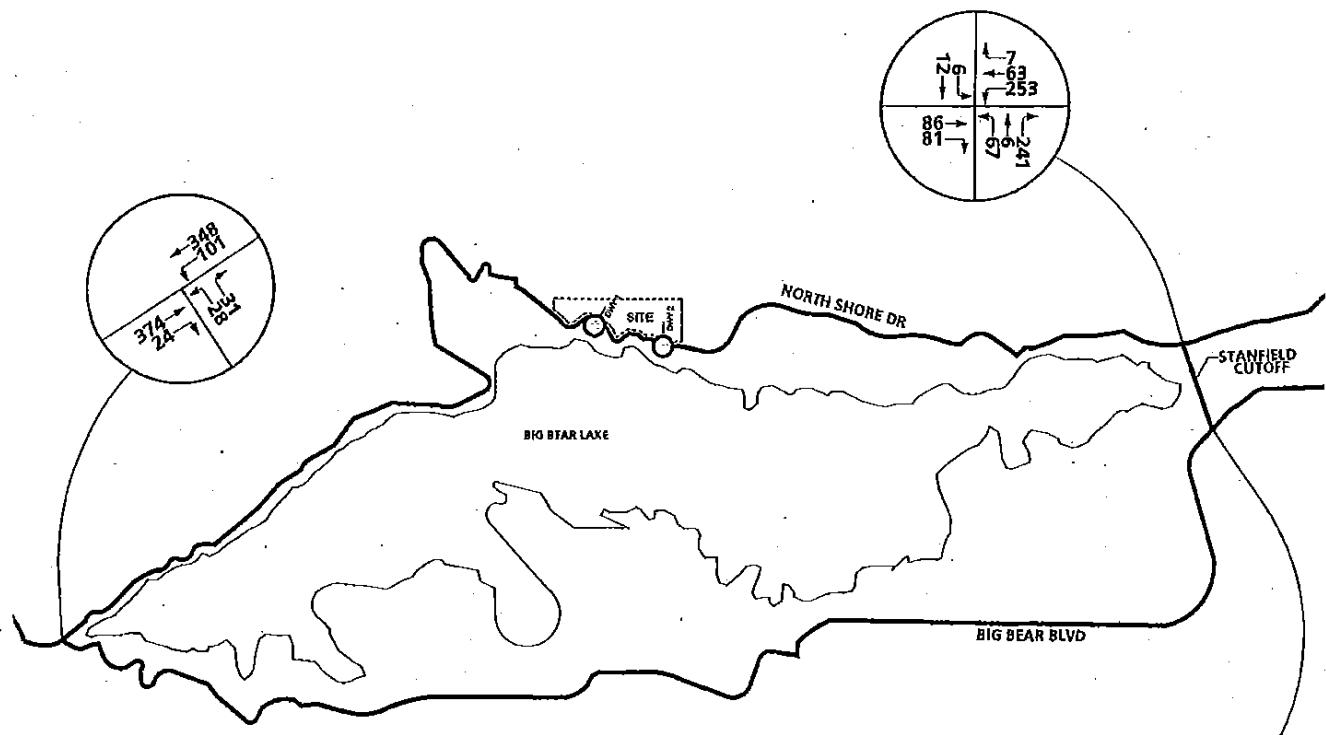
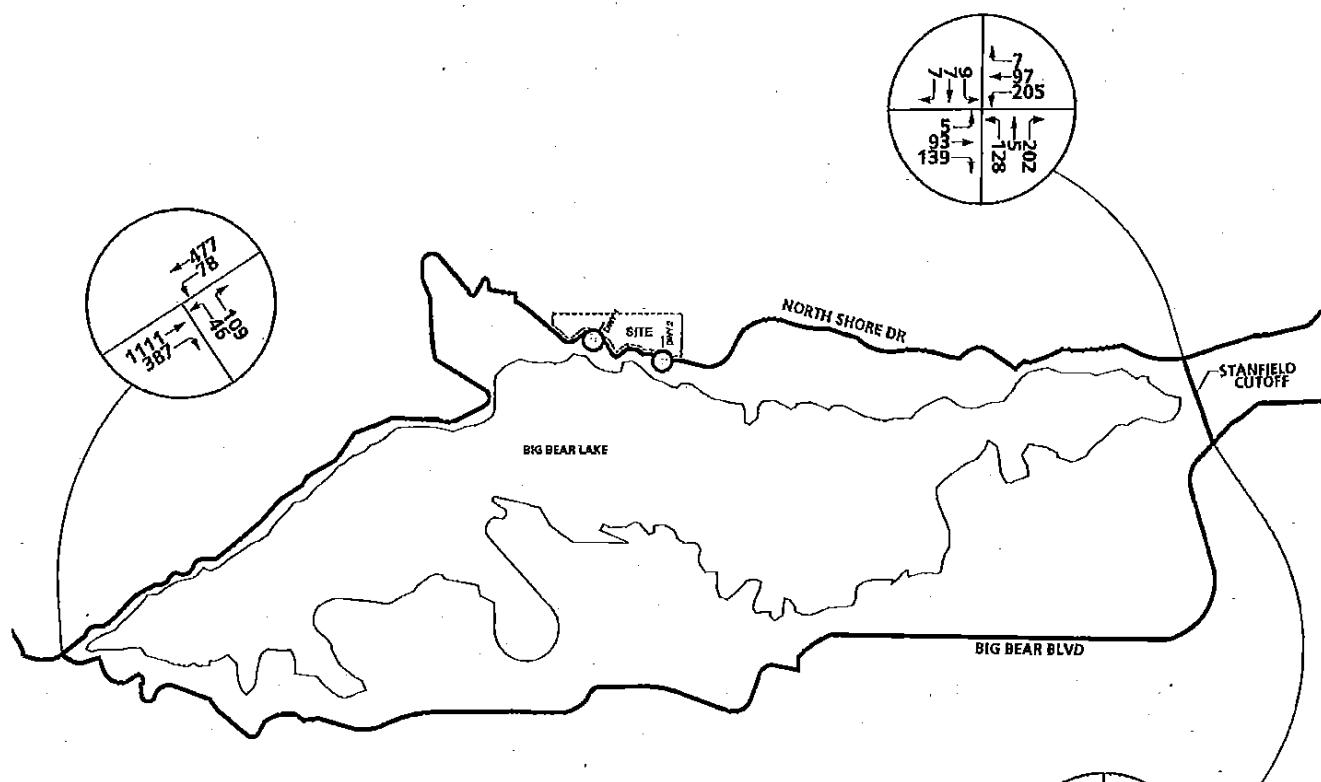


EXHIBIT 3-E  
**EXISTING SUNDAY MID-DAY PEAK  
HOUR INTERSECTION VOLUMES**



**TABLE 3-1**  
**INTERSECTION ANALYSIS FOR EXISTING CONDITIONS**

INTERSECTION	TRAFFIC CONTROL <sup>3</sup>	INTERSECTION APPROACH LANES <sup>1</sup>								DELAY <sup>2</sup> (SECS.)		LEVEL OF SERVICE					
		NORTH-BOUND			SOUTH-BOUND			EAST-BOUND		WEST-BOUND							
		L	T	R	L	T	R	L	T	R	L	T	R	Fri. PM	Sun. MD	Fri. PM	Sun. MD
North Shore Dr. (SR-38) (NS) at: • Big Bear Blvd. (SR-18) (EW)	CSS	0	1	0	0	0	0	0	1	1	1	1	0	22.6	-- <sup>4</sup>	C	F
Stanfield Cutoff (NS) at: • North Shore Dr. (SR-38) (EW) • Big Bear Blvd. (SR-18) (EW)	CSS	0	1	0	0	1	0	0	1	0	0	1	0	25.5	34.5	D	D
	TS	0	1	1	0	1	1	1	1	1	1	1	1	-- <sup>4</sup>	81.1	F	F

<sup>1</sup> When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right;

<sup>2</sup> Delay and level of service calculated using the following analysis software: Traffix, Version 7.6 R3 (2006). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for worst individual movement (or movements sharing a single lane) are shown.

<sup>3</sup> TS = Traffic Signal

CSS = Cross Street Stop

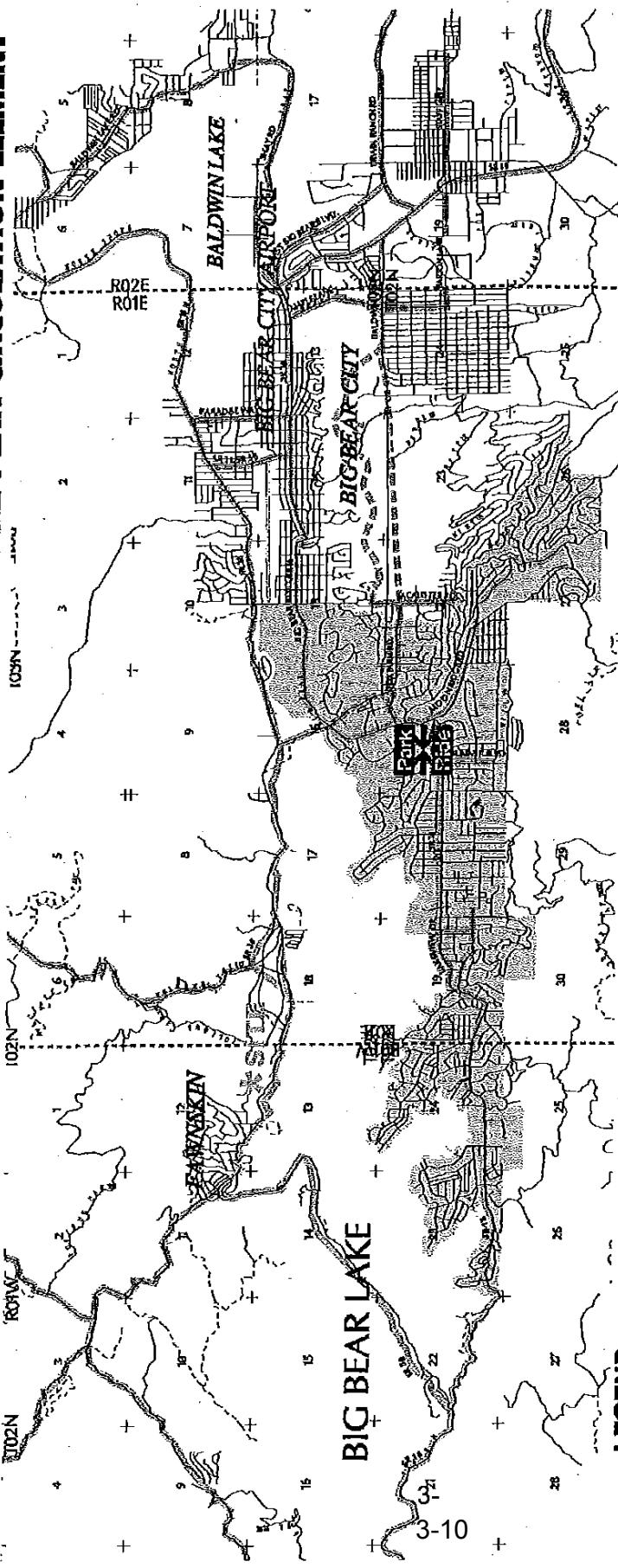
<sup>4</sup> -- = Delay High, Intersection Unstable, Level of Service "F".

S:\Carlsbad\_Jobs\04400\04409\excel\04409-05.xls]T 3-1

### **3.4 Planned Transportation Improvements and Relationships to General Plan**

The long-range transportation system within the study area is expected to undergo significant improvement as a result of work to be performed by Caltrans, the County of San Bernardino, and City of Big Bear Lake. The County of San Bernardino General Plan Circulation Element and General Plan roadway cross-sections are shown on Exhibits 3-F and 3-G, respectively. The City of Big Bear Lake General Plan Circulation Element and General Plan roadway cross-sections are shown on Exhibits 3-H and 3-I, respectively.

**EXHIBIT 3-F**  
**SAN BERNARDINO COUNTY**  
**GENERAL PLAN CIRCULATION ELEMENT**



Bureau of Land Management	National Parks and Monuments, National Forests and Wildlife Refuges
Military Reservations (Includes U.S. Army, Navy, Air Force, and Corps of Engineers)	Airport Runways
State, County, and Municipal Lands	Railway Location
Positional Accuracy of Map Data is ± 750 feet	Airport Runways
Indian Lands and Reservations	Railway Location
Unclassified Water Body	Airport Runways
Incorporated Cities	Railway Location
Private Unincorporated Lands	Airport Runways

**MOON CAMP TIA, San Bernardino County, California - 04409: SAN BERNARDINO COUNTY GPCE**



## EXHIBIT 3-G

# SAN BERNARDINO COUNTY GENERAL PLAN ROADWAY CROSS-SECTIONS (PAGE 1 OF 2)

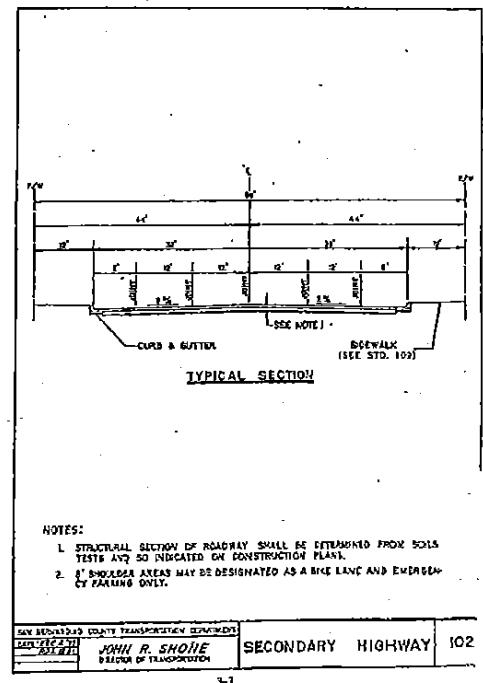
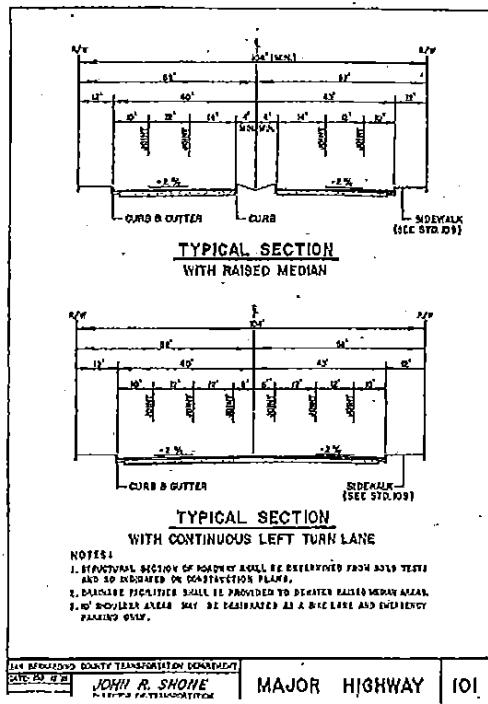
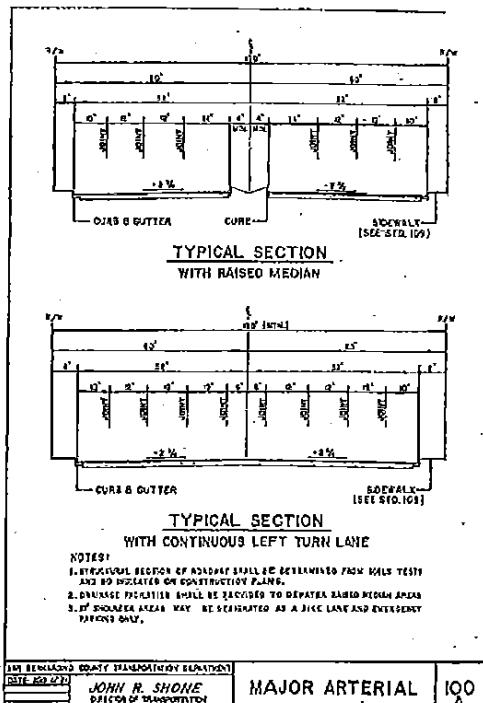
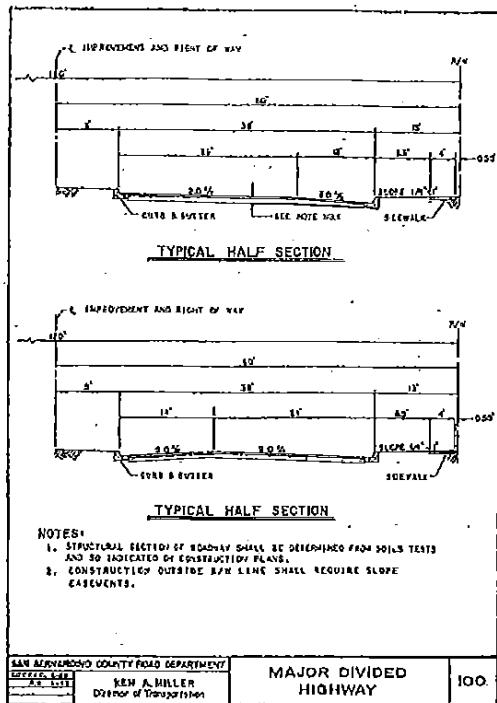
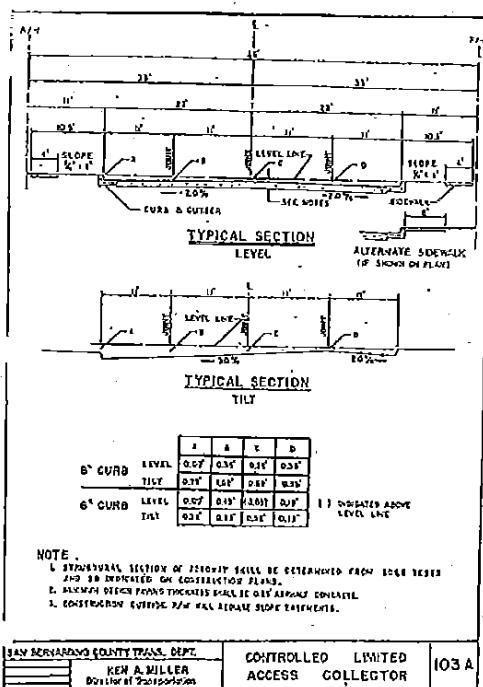
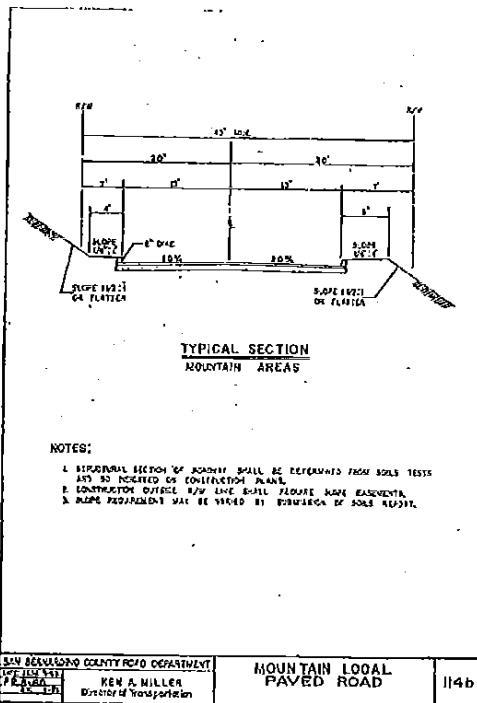


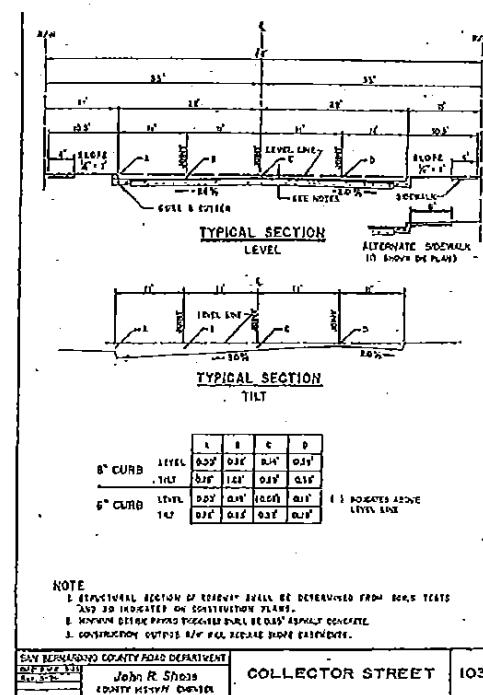
EXHIBIT 3-G  
**SAN BERNARDINO COUNTY**  
**GENERAL PLAN ROADWAY CROSS-SECTIONS**  
**(PAGE 2 OF 2)**



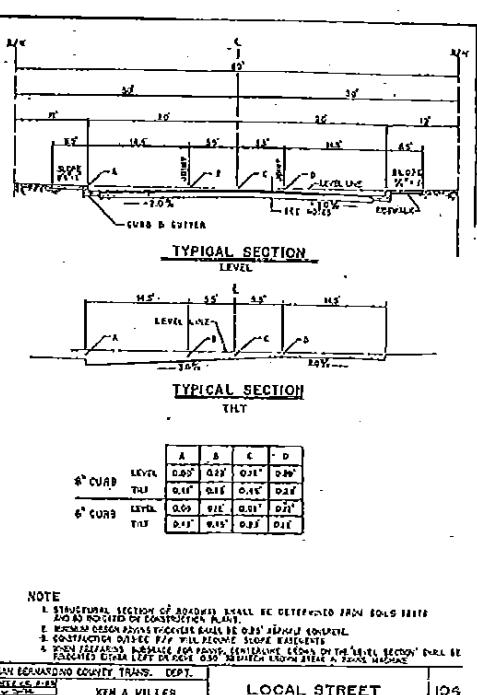
SAN BERNARDINO COUNTY TRANS. DEPT.	CONTROLLED ACCESS	LIMITED COLLECTOR	103A
KEN A. MILLER Director of Transportation			



SAN BERNARDINO COUNTY ROAD DEPARTMENT DIRECTOR OF TRANSPORTATION	KEN A. MILLER Director of Transportation	MOUNTAIN LOCAL PAVED ROAD	114b
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SAN BERNARDINO COUNTY TRANS. DEPT.	COLLECTOR STREET	103
DIRECTOR John R. Shore COUNTY HIGHWAY DIRECTOR		



SAN BERNARDINO COUNTY TRANS. DEPT.	LOCAL STREET	104A
DIRECTOR KEN A. MILLER Director of Transportation		

**EXHIBIT 3-H**  
**CITY OF BIG BEAR LAKE**  
**GENERAL PLAN CIRCULATION ELEMENT**



MOON CAMP TIA, San Bernardino County, California - 04409: Big Bear GPCE

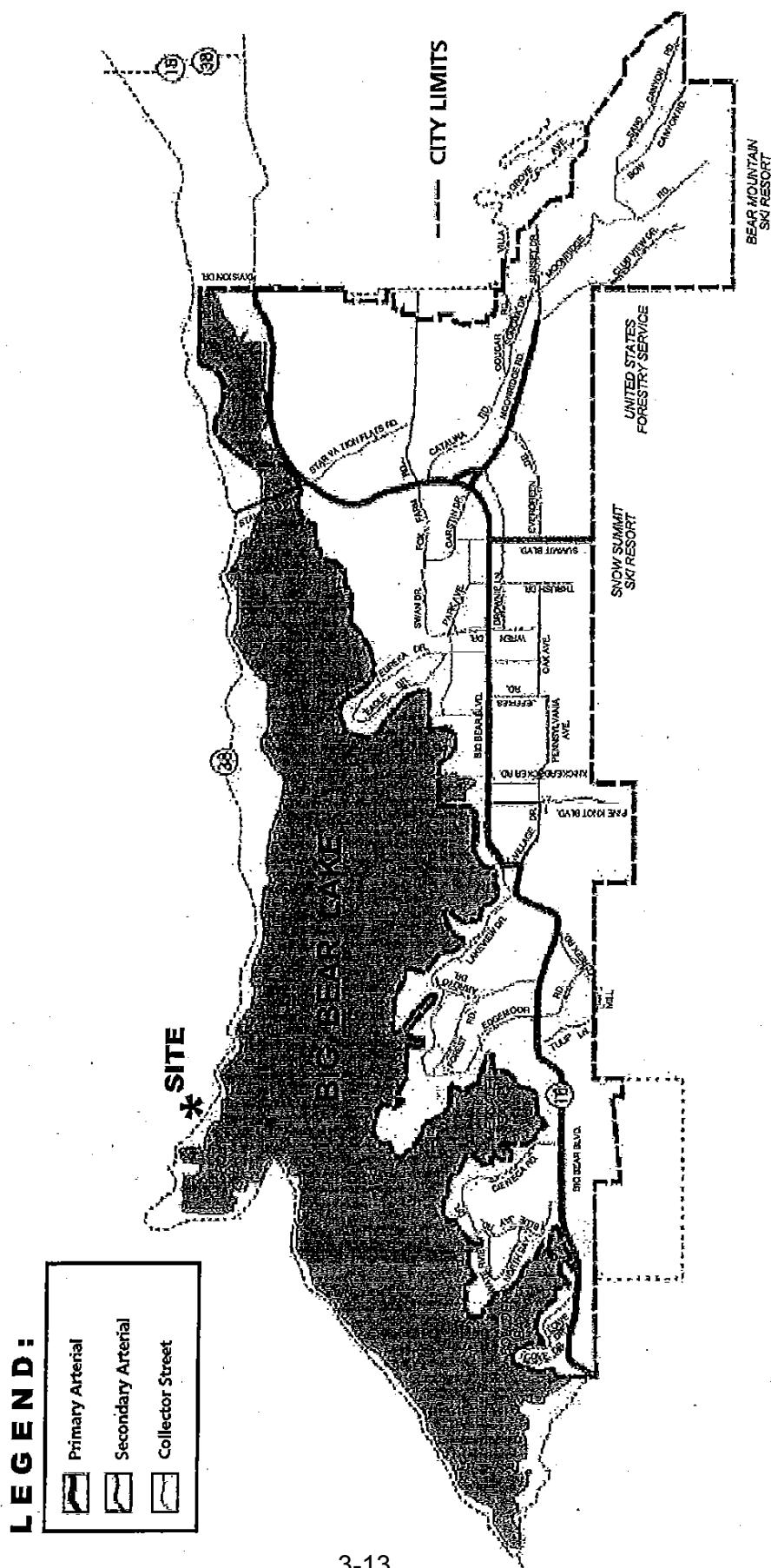
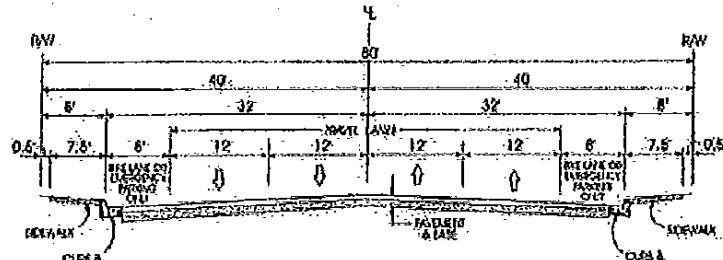
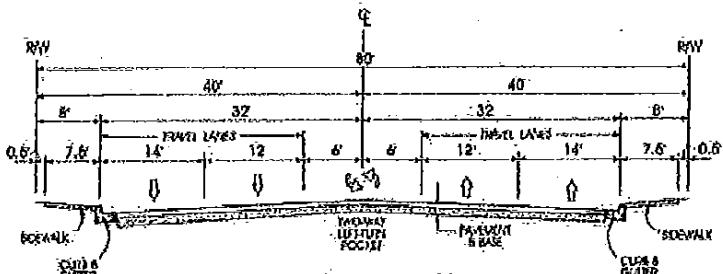


EXHIBIT 3-I

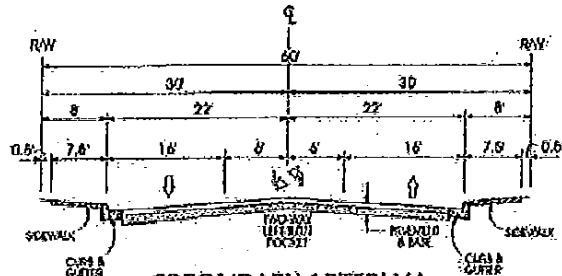
# CITY OF BIG BEAR LAKE GENERAL PLAN ROADWAY CROSS-SECTIONS (PAGE 1 OF 2)



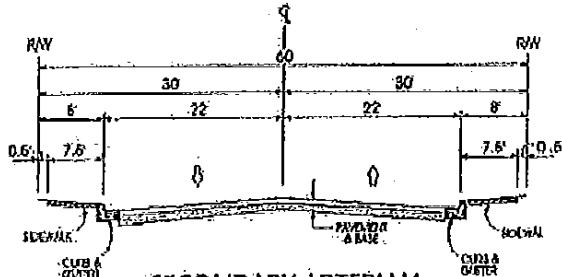
**PRIMARY ARTERIAL**  
(WITH TWO LINES OR EMERGENCY PARKING)  
TYPICAL SECTION



**PRIMARY ARTERIAL**  
(WITH TWO-WAY LEFT TURN POCKET)  
TYPICAL SECTION



**SECONDARY ARTERIAL**  
(WITH TWO-WAY LEFT TURN POCKET)  
TYPICAL SECTION

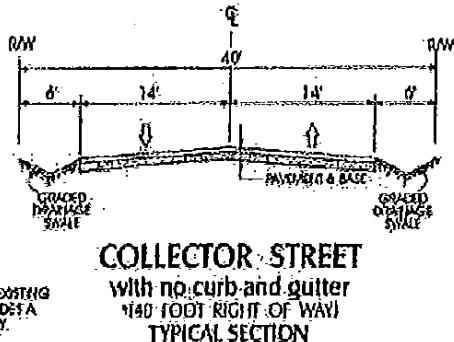
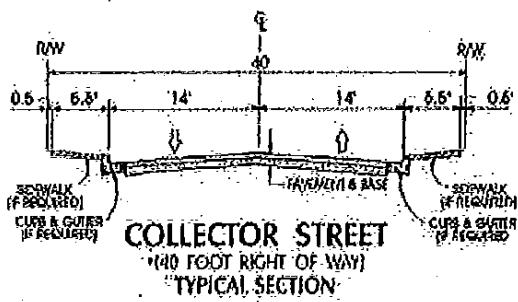
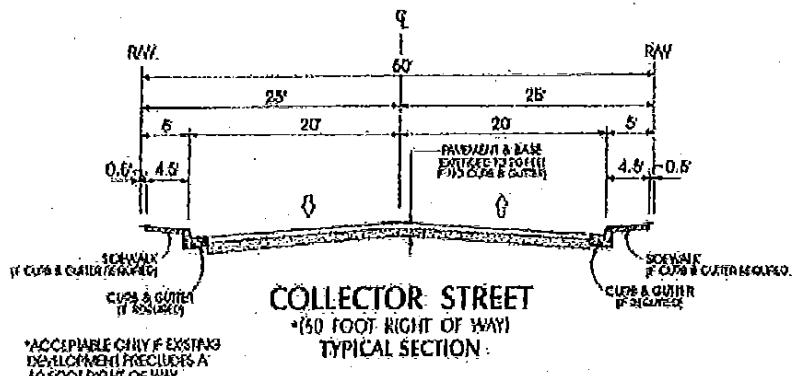
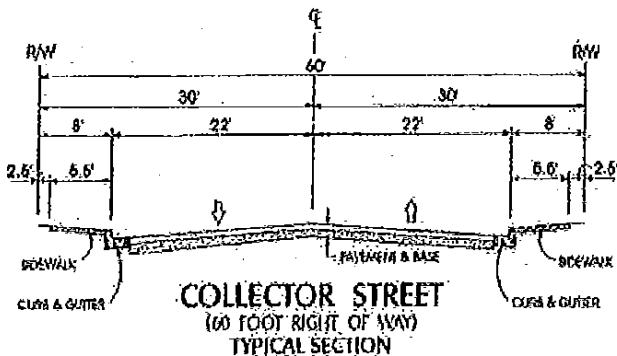


**SECONDARY ARTERIAL**  
(NO TWO-WAY LEFT TURN POCKET)  
TYPICAL SECTION

THESE CROSS SECTIONS MAY  
BE MODIFIED BASED UPON  
ADOPTED SPECIFIC PLANS OR  
EXISTING CONDITIONS.

EXHIBIT 3-I

# CITY OF BIG BEAR LAKE GENERAL PLAN ROADWAY CROSS-SECTIONS (PAGE 2 OF 2)



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## **4.0 FUTURE DAILY TRAFFIC CONDITIONS**

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This chapter of the report describes the development of the future year traffic volume forecasts and presents the resulting daily traffic volumes which will be used for traffic operations analysis. Future traffic conditions without the project are presented first, followed by the future with project traffic volumes. Traffic signal warrant analysis for future conditions has also been presented in this chapter.

### **4.1 Future With and Without Project Traffic Conditions**

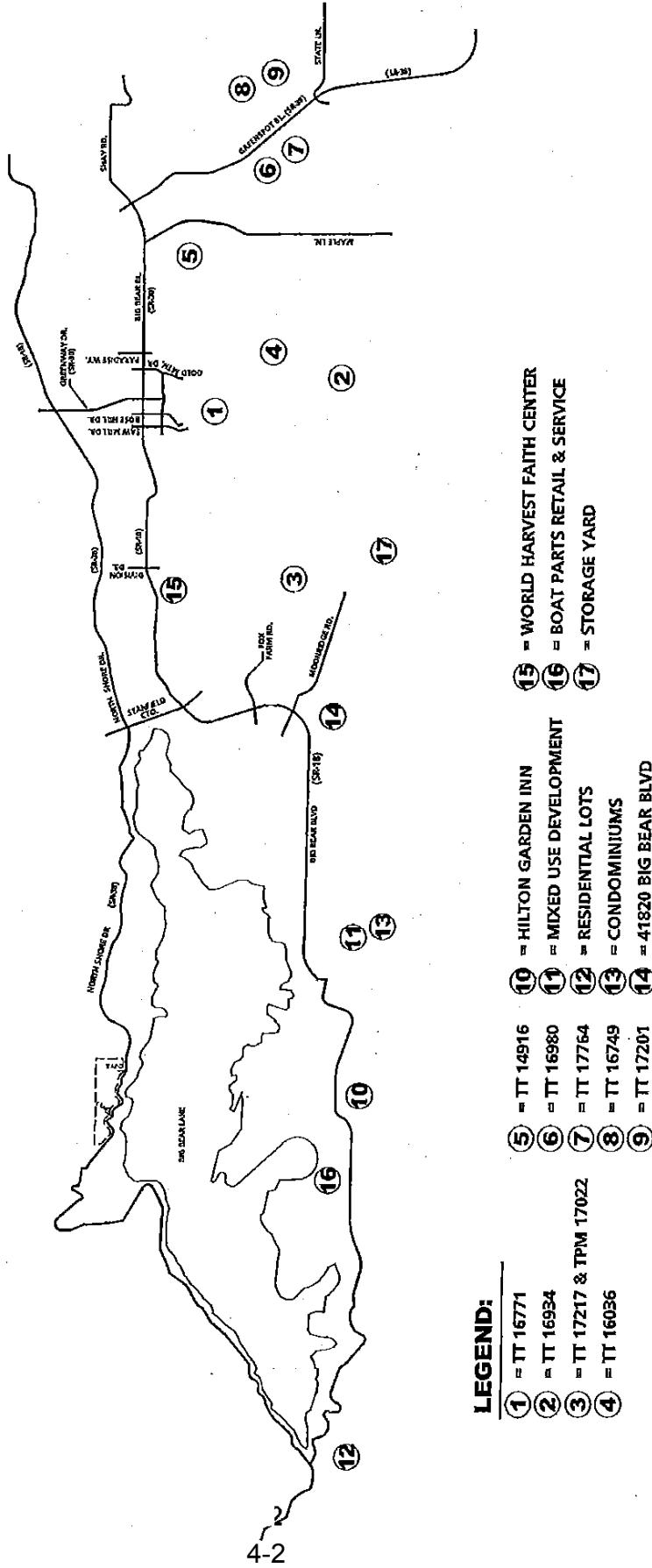
Per discussion with County staff, the areawide growth has been interpolated from adjusted existing volumes (with 16% growth) to General Plan Buildout (2030) volumes. The areawide growth varies for each movement at each intersection (see Appendix "D"). The interpolated area-wide growth rate has been added to peak hour traffic volumes on surrounding roadways, in addition to traffic generated by the project and other development.

Long Range General Plan Buildout (2030) conditions have been estimated based on a select zone run of the San Bernardino Mountain Model, in addition to traffic generated by the project and the known cumulative development.

The County of San Bernardino was contacted in order to determine if there were any projects planned within the study area that would have an impact on future traffic volumes at the study intersections. Based on information given by the County of San Bernardino and City of Big Bear staff, a total of 17 cumulative projects were identified to affect the study intersections. The location of each of these other developments is shown on Exhibit 4-A.

As indicated in Table 4-1, other developments are projected to generate 15,111 trip-ends per day with 1,455 vehicles per hour during the AM peak hour and 1,455 vehicles per hour during the PM peak hour. Appendix "D" contains the

**EXHIBIT 4A**  
**OTHER DEVELOPMENT LOCATION MAP**



**LEGEND:**

- |                            |                              |                                    |
|----------------------------|------------------------------|------------------------------------|
| (1) = TT 16771             | (10) = HILTON GARDEN INN     | (15) = WORLD HARVEST FAITH CENTER  |
| (2) = TT 16934             | (11) = MIXED USE DEVELOPMENT | (16) = BOAT PARTS RETAIL & SERVICE |
| (3) = TT 17217 & TPM 17022 | (7) = TT 17764               | (12) = RESIDENTIAL LOTS            |
| (4) = TT 16036             | (8) = TT 16749               | (13) = CONDOMINIUMS                |
| (9) = TT 17201             | (14) = 41820 BIG BEAR BLVD   | (17) = STORAGE YARD                |



**TABLE 4-1**  
**FRIDAY PM PEAK HOUR/SUNDAY MIDDAY PEAK HOUR**  
**OTHER DEVELOPMENT TRIP GENERATION**

ID #	PROJECT NAME	LAND USE <sup>1</sup>	QUANTITY	UNITS <sup>2</sup>	PEAK HOUR						DAILY	
					FRIDAY PM			SUNDAY MIDDAY				
					IN	OUT	TOTAL	IN	OUT	TOTAL		
<b>SAN BERNARDINO COUNTY</b>												
1	TT 16771 <sup>3</sup>	SFR	242	DU	155	90	246	155	90	245	2,316	
2	TT 16934 <sup>4</sup>	SFR	228	DU	146	84	230	146	84	230	2,182	
3	TT 17217 & TT 17022 <sup>4</sup>	SFR	53	DU	34	20	54	34	20	64	607	
4	TT 16036	SFR	116	DU	74	43	117	74	43	117	1,110	
5	TT 14916	SFR	51	DU	33	19	52	33	19	52	488	
6	TT 16980	SFR	15	DU	10	6	16	10	6	16	144	
7	TT 1776H	SFR	10	DU	8	4	10	8	4	10	98	
8	TT 16749	SFR	86	DU	65	32	87	65	32	87	823	
9	TT 17201	SFR	66	DU	42	24	66	42	24	66	632	
<b>TOTAL (COUNTY OF SAN BERNARDINO)</b>					555	322	877	555	322	877	8,298	
<b>CITY OF BIG BEAR</b>												
10	Hilton Garden Inn	Hotel	91	ROOMS	28	26	53	28	26	53	743	
		Retail	22.6	TSF	112	122	234	112	122	234	2,675	
		Less Pass-By (15%)			-17	-18	-35	-17	-18	-35	-386	
11	Mixed Use Development	Subtotal Commercial			95	104	199	95	104	199	2,189	
		Office	6.3	TSF	1	5	6	1	5	6	60	
		SFR	10	DU	6	4	10	6	4	10	98	
		Sub-Total			102	113	216	102	113	216	2,364	
12	Residential Lots	SFR	8	DU	5	3	8	5	3	8	77	
13	Condominiums	MFDU	78	DU	27	13	40	27	13	40	457	
		Hotel	55	ROOMS	17	16	32	17	15	32	449	
		Retail	10	TSF	66	71	137	66	71	137	1,620	
14	41820 Big Bear Blvd.	Fast-Food	2.5	TSF	45	42	87	45	42	87	1,240	
		Less Pass-By (15%)			-17	-17	-34	-17	-17	-34	-414	
		Subtotal Commercial			94	96	190	94	96	190	2,346	
		Sub-Total			111	111	222	111	111	222	2,705	
15	World Harvest Faith Center	Church	20	TSF	7	6	13	7	6	13	182	
16	Boat Parts Retail & Service	Auto Care Center	4.375	TSF	7	7	14	7	7	14	88	
17	Storage Yard	Mini Warehouse	3	AC	6	6	12	6	6	12	117	
<b>TOTAL (CITY OF BIG BEAR)</b>					294	284	578	294	284	578	6,813	
	<b>TOTAL</b>				849	606	1,455	849	606	1,455	15,111	

<sup>1</sup> SFR = Single Family Residential

<sup>2</sup> DU = Dwelling Unit

TSF= Thousand Square Feet

AC = Acres

<sup>3</sup> Source: TT 16771 Traffic Impact Analysis, County of San Bernardino, Urban Crossroads, Inc. July 2006

<sup>4</sup> Source: TT 17217 and TT 17022 Traffic Impact Analysis, County of San Bernardino, Urban Crossroads, Inc. July 2006

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directional distribution and assignment of the other development traffic. Based on the identified trip distribution for the other development on arterial highways throughout the study area, other development average daily traffic (ADT) and Friday PM/Sunday Mid-day peak hour intersection turning movement volumes (based on PM peak hour trip generation) are shown on Exhibits 4-B and 4-C, respectively.

Project traffic volumes on study area roadway segments are determined by generating project trips and manually routing the traffic through the roadway network. The routing patterns follow the trip distributions which were previously presented in Section 2. Trips are assigned to each individual roadway link and intersection occurring along a specific route.

The accumulation of traffic assigned to each roadway link represents the project traffic volume for that link. Project only ADT volumes were previously presented in Section 2.

#### 4.1.1 2010 Without Project Daily Traffic Volumes

The ADT's for 2010 Without Project traffic conditions have been determined by adding the 2007 existing traffic volumes (with 16% adjustment) plus the 2% background growth volumes per year (6% for three years) plus the known cumulative development volumes. 2010 Friday ADT and Sunday ADT volumes for without project traffic conditions are shown on Exhibit 4-D and 4-E, respectively.

For 2010 Without Project traffic conditions, no new traffic signals are projected to be warranted (see Appendix "C"), compared to Existing Conditions.

EXHIBIT 4-B

**OTHER DEVELOPMENT  
AVERAGE DAILY TRAFFIC**

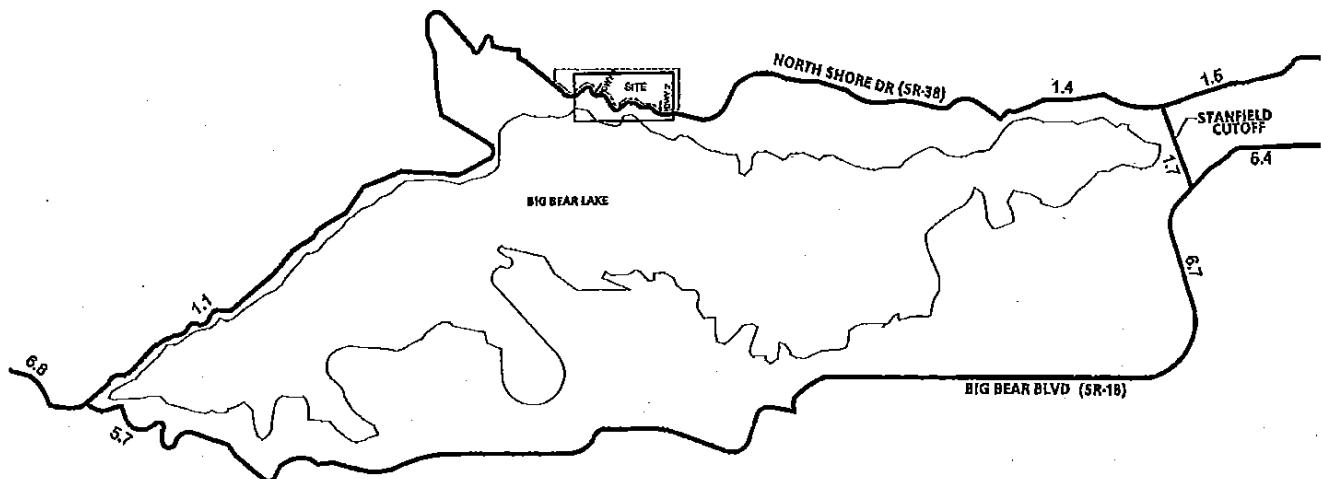


EXHIBIT 4-C

## OTHER DEVELOPMENT FRIDAY PM PEAK HOUR/ SUNDAY MIDDAY PEAK HOUR INSTERSECTION VOLUMES

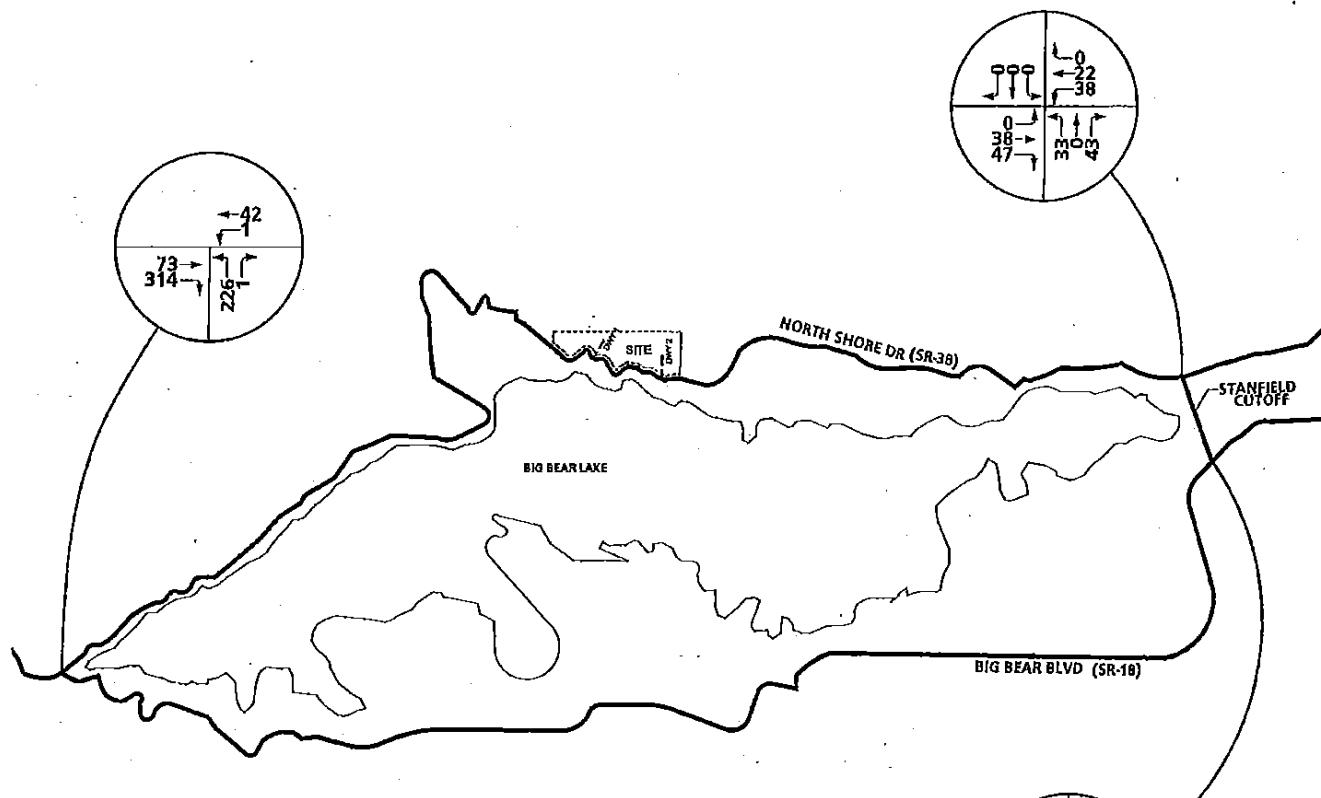
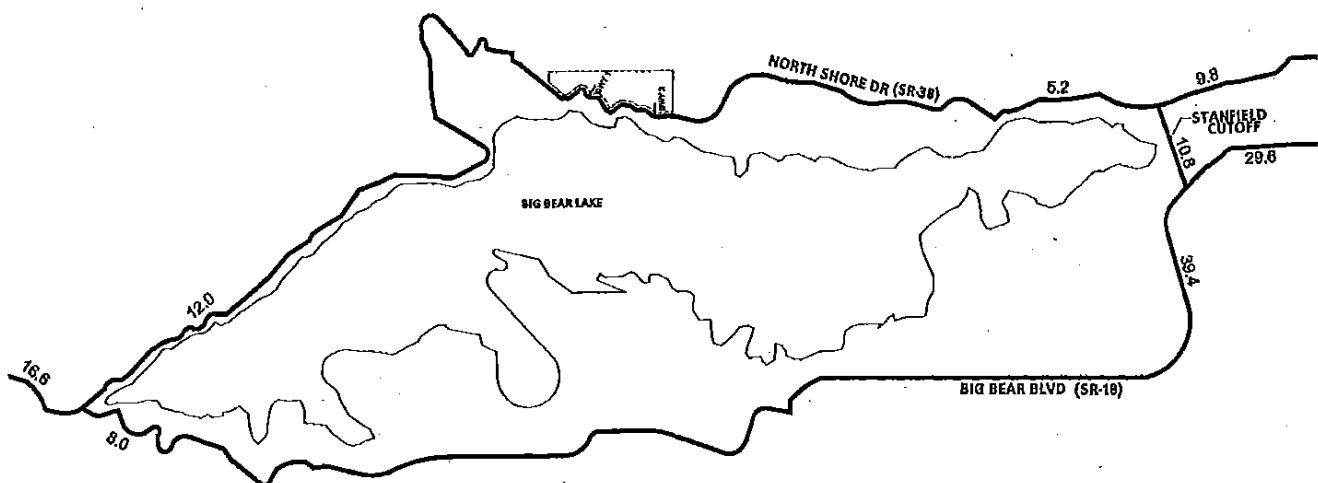


EXHIBIT 4-D

**2010 WITHOUT PROJECT FRIDAY  
AVERAGE DAILY TRAFFIC**

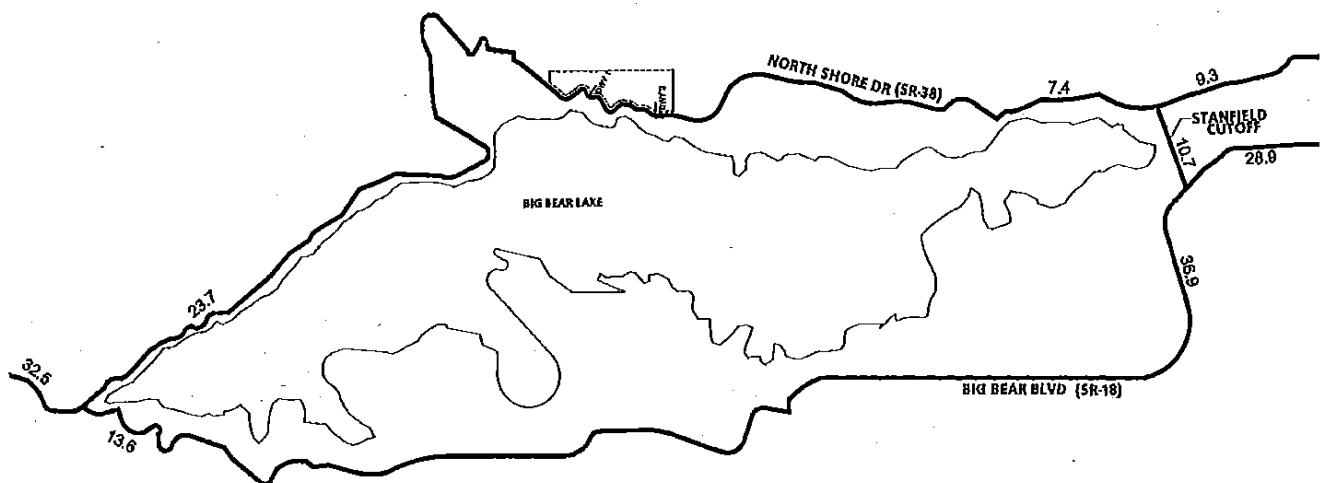


**LEGEND:**

10.0 = VEHICLES PER DAY (1000'S)

EXHIBIT 4-E

**2010 WITHOUT PROJECT SUNDAY  
AVERAGE DAILY TRAFFIC**



**LEGEND:**

10.0 = VEHICLES PER DAY (1000'S)

#### **4.1.2 2010 With Project Daily Traffic Volumes**

The ADT's for the 2010 With Project have been determined by adding the project only traffic volumes to the 2010 Without Project traffic volumes. 2010 Friday and Sunday ADT volumes with the project traffic are shown on Exhibit 4-F and 4-G, respectively.

For 2010 With Project traffic conditions, no new traffic signals are projected to be warranted (see Appendix "C"), as compared to 2010 Without Project conditions.

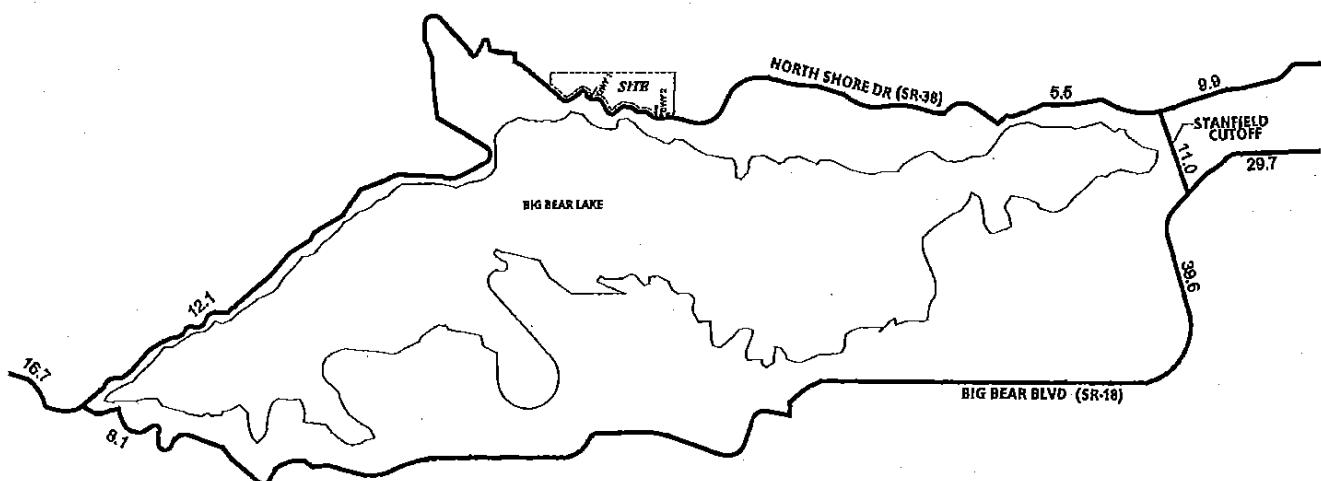
#### **4.1.3 General Plan Buildout (2030) Daily Traffic Volumes**

The ADT's for General Plan Buildout (2030) conditions have been determined by adding the project only and other cumulative development traffic volumes to the 2030 ADT volumes derived from the San Bernardino Mountain Model. General Plan Buildout Without Project (2030) Winter Friday and Sunday ADT volumes are shown on Exhibits 4-H and 4-I, respectively. Based on the San Bernardino Mountain Model for General Plan Buildout (2030), the peak season is shown to be winter. Therefore, the winter ADT results were used for post-processing peak hour turning volumes and level of service analysis to achieve a conservative analysis. General Plan Buildout With Project (2030) Winter Friday and Sunday ADT volumes are shown on Exhibits 4-J and 4-K, respectively.

For General Plan Buildout With Project (2030) traffic conditions, no new traffic signals are projected to be warranted (see Appendix "C") at study area analysis intersections.

EXHIBIT 4-F

## 2010 WITH PROJECT FRIDAY AVERAGE DAILY AVERAGE TRAFFIC



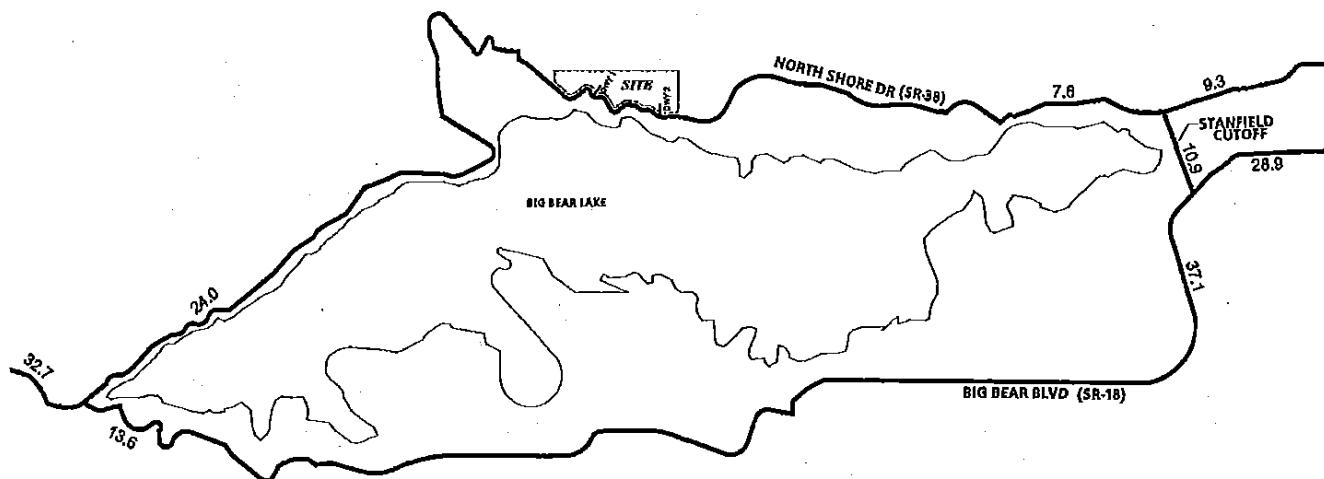
**LEGEND:**

10.0 = VEHICLES PER DAY (1000'S)



EXHIBIT 4-G

**2010 WITH PROJECT SUNDAY  
AVERAGE DAILY TRAFFIC**



**LEGEND:**

10.0 = VEHICLES PER DAY (1000'S)

EXHIBIT 4-H

**GENERAL PLAN BUILDOUT (2030)  
WINTER FRIDAY AVERAGE DAILY TRAFFIC**

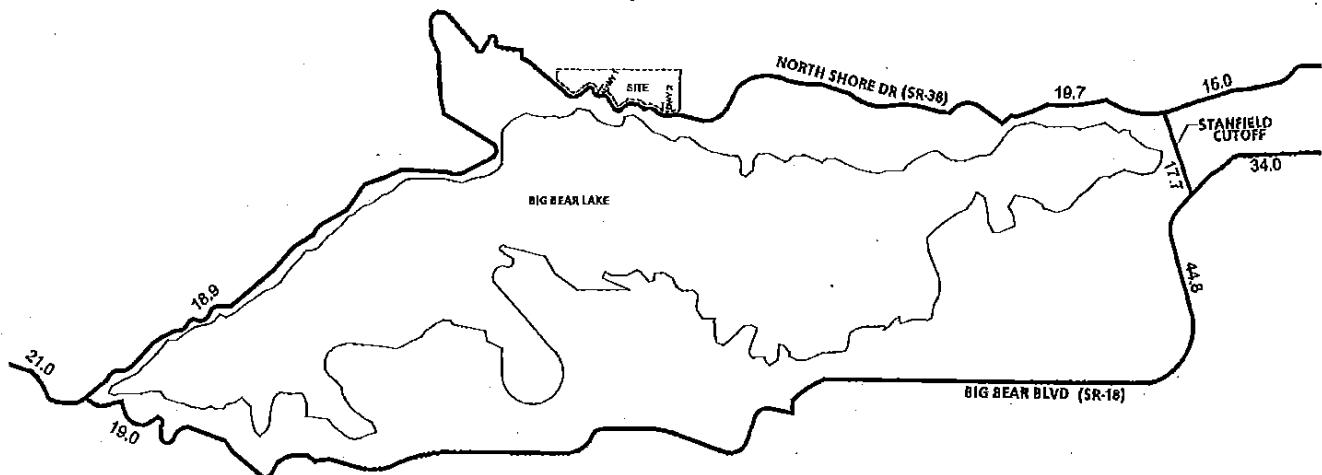
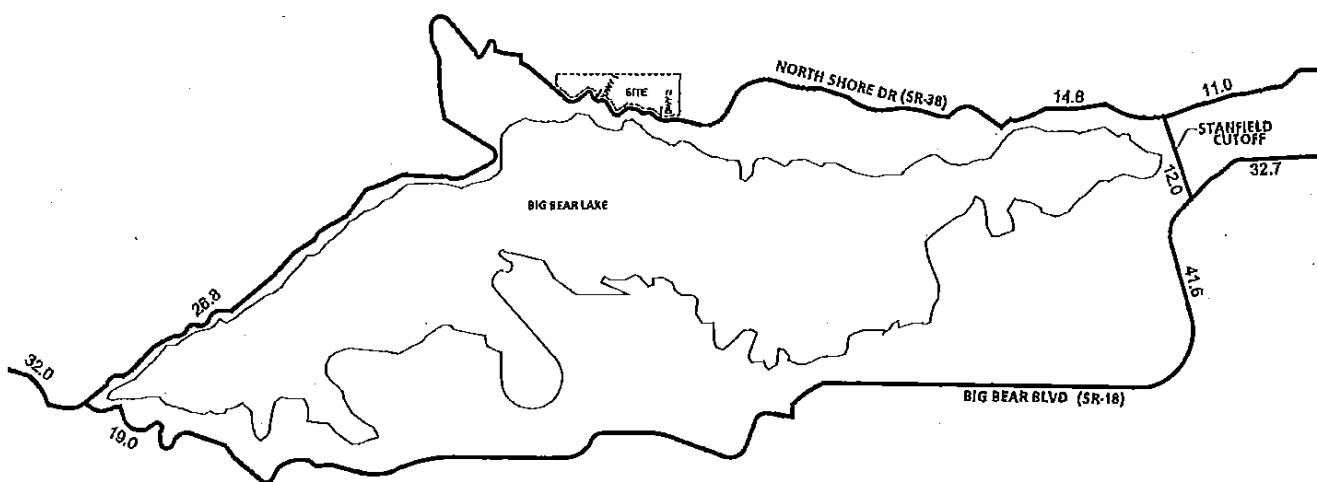
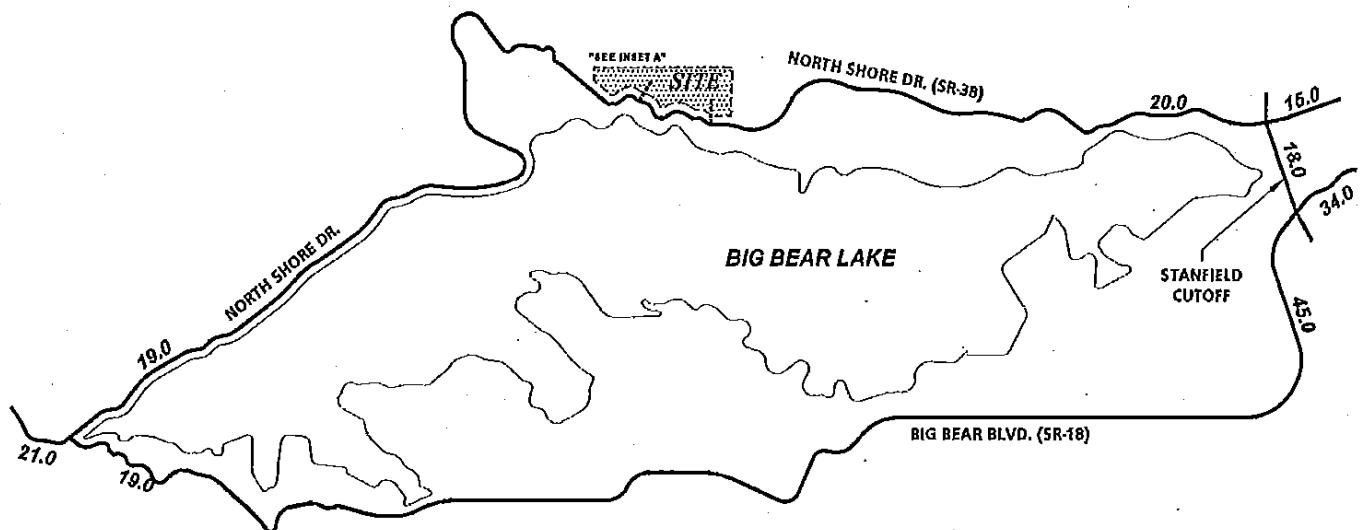
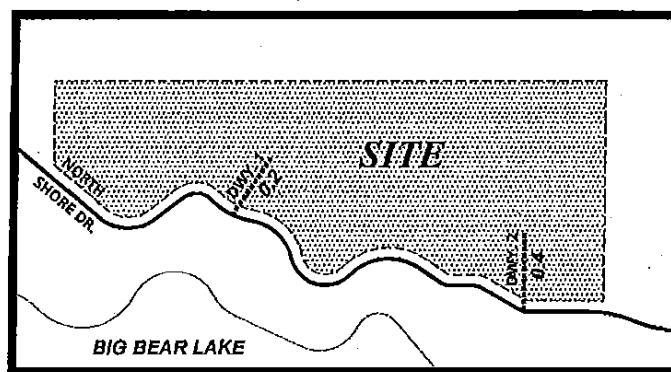


EXHIBIT 4-I

## GENERAL PLAN BUILDOUT (2030) WINTER SUNDAY AVERAGE DAILY TRAFFIC (ADT)



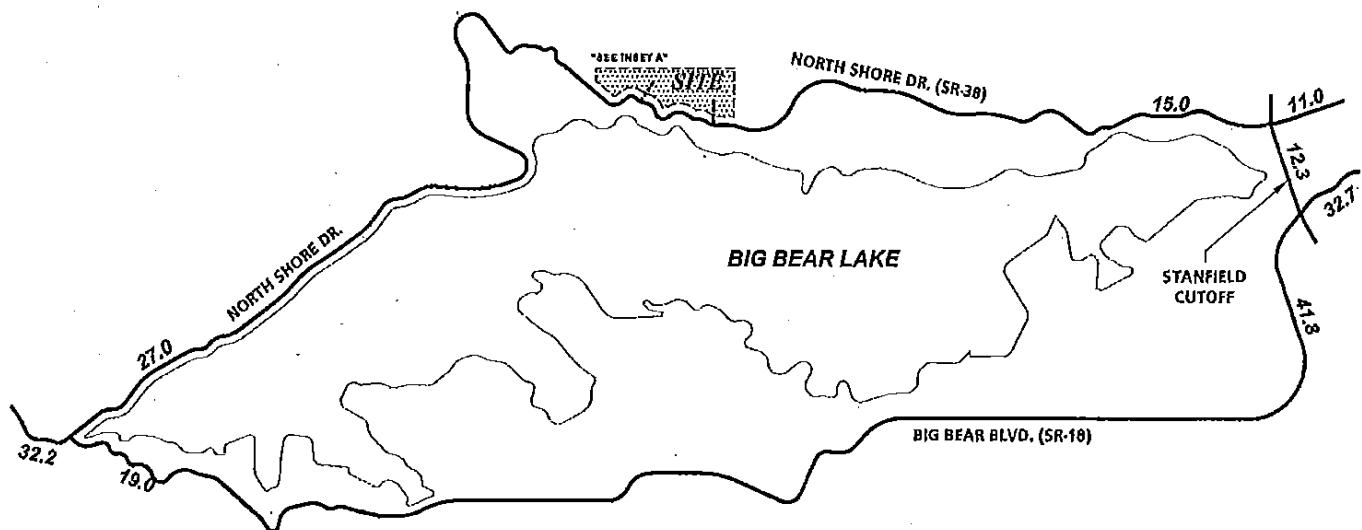
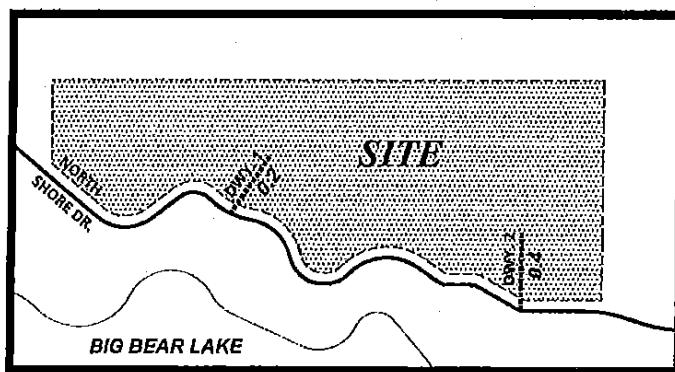
# GENERAL PLAN BUILDOUT WITH PROJECT (2030) WINTER FRIDAY AVERAGE DAILY TRAFFIC

**INSET A****LEGEND:**

10.0 = VEHICLES PER DAY (1000'S)



# GENERAL PLAN BUILDOUT WITH PROJECT (2030) WINTER SUNDAY AVERAGE DAILY TRAFFIC

**INSET A****LEGEND:**

10.0 = VEHICLES PER DAY (1000'S)



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## **5.0 FUTURE TRAFFIC OPERATIONS ANALYSIS**

---

This section of the report presents the operations analysis for the traffic volume forecasts for future traffic conditions without the project and for future traffic conditions with the project. The analysis procedures conform to the requirements of the County of San Bernardino CMP. The operations analysis for each analysis year is presented in a separate subsection.

### **5.1 Future Interim Year Traffic Operations**

#### **5.1.1 2010 Without Project Conditions**

The intersection operations analysis for 2010 Without Project traffic conditions are summarized in Table 5-1, based on the geometrics analysis at the study area intersections, without and with improvements. 2010 Without Project Friday PM and Sunday Mid-day peak hour intersection turning movement volumes are shown on Exhibits 5-A and 5-B, respectively. As shown in Table 5-1, the following study area intersections are currently operating at an unacceptable level of service during both Friday PM and Sunday Mid-day peak hours:

Big Bear Blvd (SR-18) (NS) at:

- North Shore Drive (SR-38) (EW)

Stanfield Cut Off (NS) at:

- North Shore Drive (SR-38) (EW)

Stanfield Cut Off (NS) at:

- Big Bear Blvd (SR-18) (EW)

The operations analysis worksheets for 2010 Without Project conditions are included in Appendix "E".

TABLE 5-1  
INTERSECTION ANALYSIS FOR 2010 WITHOUT PROJECT CONDITIONS

INTERSECTION	TRAFFIC CONTROL <sup>3</sup>	INTERSECTION APPROACH LANES <sup>1</sup>								DELAY <sup>2</sup> (SECS.)		LEVEL OF SERVICE					
		NORTH-BOUND			SOUTH-BOUND			EAST-BOUND		WEST-BOUND							
		L	T	R	L	T	R	L	T	R	L	T	R	Fri. PM	Sun. MD	Fri. PM	Sun. MD
North Shore Dr. (SR-38) (NS) at: - Big Bear Blvd. (SR-18) (EW) - Without Improvements - With Improvements	CSS	0	1	0	0	0	0	0	1	1	1	1	0	-4	-4	F	F
	TS	1	0	1	0	0	0	0	2	1	1	1	0	14.0	21.2	B	C
Stanfield Cutoff (NS) at: - North Shore Dr. (SR-38) (EW) - Without Improvements - With Improvements - Big Bear Blvd. (SR-18) (EW) - Without Improvements - With Improvements	CSS	0	1	0	0	1	0	0	1	0	0	1	0	-4	-4	F	F
	TS	1	1	0	1	1	0	1	1	0	1	1	0	31.9	30.7	C	C
	TS	0	1	1	0	1	1	1	1	1	1	1	1	-4	-4	F	F
	TS	1	1	0	1	1	0	1	2	0	1	2	0	31.4	26.8	C	C

<sup>1</sup> When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

I. = Left; T = Through; R = Right; 1 = Improvement

<sup>2</sup> Delay and level of service calculated using the following analysis software: Traffix, Version 7.8 R3 (2006). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for worst individual movement (or movements sharing a single lane) are shown.

<sup>3</sup> TS = Traffic Signal

CSS = Cross Street Stop

AWS = All Way Stop

<sup>4</sup> .. = Delay High, Intersection Unstable, Level of Service "F".

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EXHIBIT 5-A

**2010 WITHOUT PROJECT FRIDAY PM  
PEAK HOUR INTERSECTION VOLUMES**

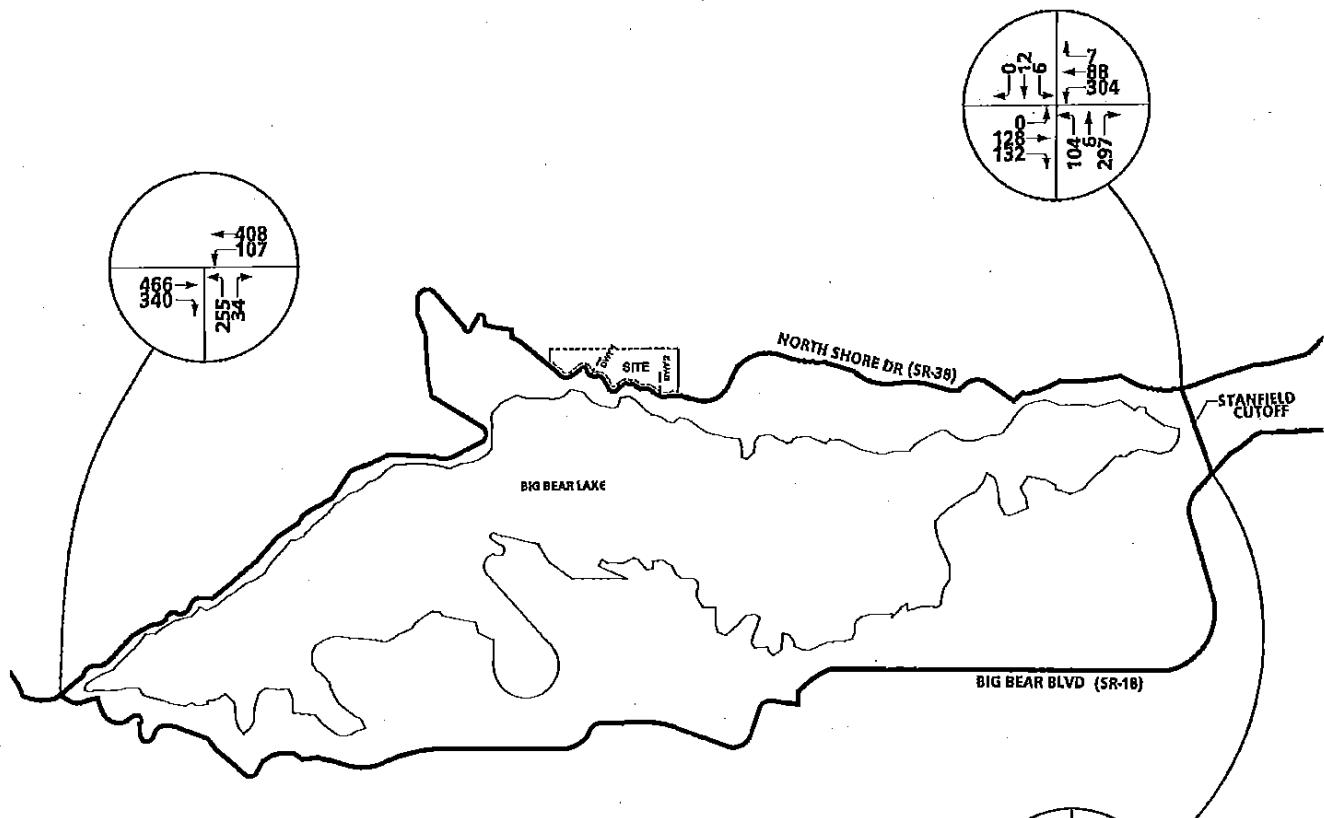
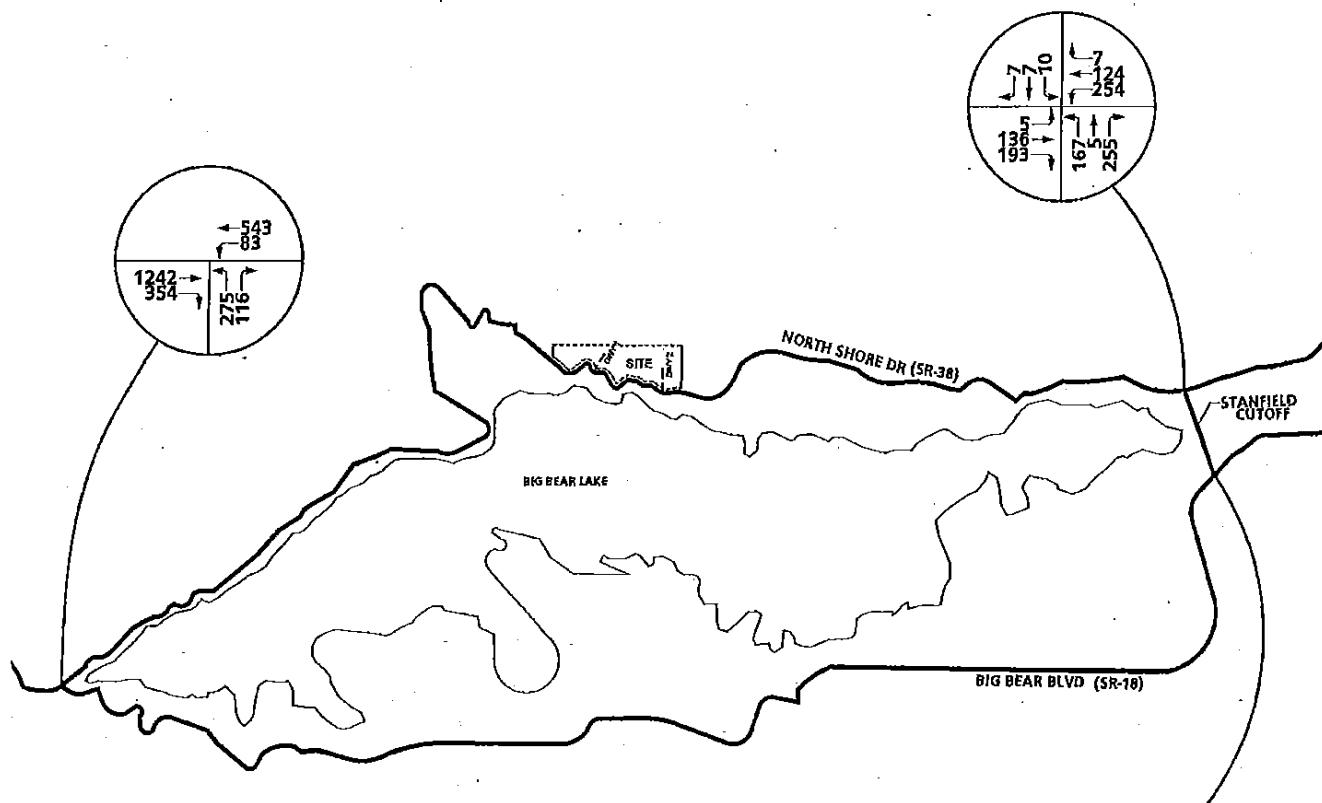


EXHIBIT 5-B

## 2010 WITHOUT PROJECT SUNDAY MID-DAY PEAK HOUR INTERSECTION VOLUMES



### 5.1.2 2010 With Project Conditions

The intersection operations analysis for 2010 With Project traffic conditions are summarized in Table 5-2, based on the geometrics analysis at the study area intersections, without and with improvements. 2010 With Project Friday PM and Sunday Mid-day peak hour intersection turning movement volumes are shown on Exhibits 5-C and 5-D, respectively. As shown in Table 5-2, the following study area intersections are currently operating at an unacceptable level of service during both Friday PM and Sunday Mid-day peak hours:

Big Bear Blvd (SR-18) (NS) at:

- North Shore Drive (SR-38) (EW)

Stanfield Cut Off (NS) at:

- North Shore Drive (SR-38) (EW)

Stanfield Cut Off (NS) at:

- Big Bear Blvd (SR-18) (EW)

The operations analysis worksheets for 2010 With Project conditions are included in Appendix "F".

## 5.2 General Plan Buildout With Project (2030) Traffic Operations

The intersection operations analysis for General Plan Buildout With Project (2030) traffic conditions are summarized in Table 5-3, based on the geometrics analysis at the study area intersections, without and with improvements. General Plan Buildout With Project (2030) Friday PM and Sunday Mid-day peak hour intersection turning movement volumes are shown on Exhibits 5-E and 5-F, respectively. The General Plan Buildout post-processed volumes worksheets are provided in Appendix "G". As shown in Table 5-3, the following study area intersections are currently operating at an unacceptable level of service during both Friday PM and Sunday Mid-day peak hours:

**TABLE 6-2**  
**INTERSECTION ANALYSIS FOR 2010 WITH PROJECT CONDITIONS**

INTERSECTION	TRAFFIC CONTROL <sup>3</sup>	INTERSECTION APPROACH LANES <sup>1</sup>												DELAY <sup>2</sup> (SECS.)		LEVEL OF SERVICE	
		NORTH-BOUND			SOUTH-BOUND			EAST-BOUND			WEST-BOUND						
		L	T	R	L	T	R	L	T	R	L	T	R	Fri. PM	Sun. MD	Fri. PM	Sun. MD
North Shore Dr. (SR-38) (NS) at: Big Bear Blvd. (SR-18) (EW) - Without Improvements - With Improvements	CSS TS	0 1	1 0	0 1	0 0	0 0	0 0	0 2	1 1	1 1	1 1	1 1	0 0	-4 14.0	-4 22.1	F B	F C
Stanfield Cutoff (NS) at: North Shore Dr. (SR-38) (EW) - Without Improvements - With Improvements Big Bear Blvd. (SR-18) (EW) - Without Improvements - With Improvements	CSS TS TS	0 1 0	1 1 0	0 1 1	1 0 0	0 1 1	0 0 0	0 1 1	1 1 0	0 1 0	0 1 0	0 1 0	-4 32.4	-4 31.5	F C	F G	
Driveway # 1 (NS) at: North Shore Dr. (SR-38) (EW)	CSS	0 0	0 0	0 1	0 0	11.1 12.0	12.0	B	B								
Driveway # 2 (NS) at: North Shore Dr. (SR-38) (EW)	CSS	0 0	0 0	0 1	0 0	11.2 12.1	12.1	B	B								

<sup>1</sup> When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; 1 = Improvement

<sup>2</sup> Delay and level of service calculated using the following analysis software: Treffix, Version 7.8 R3 (2006). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for worst individual movement (or movements sharing a single lane) are shown.

<sup>3</sup> TS = Traffic Signal  
CSS = Cross Street Stop  
AWS = All Way Stop

<sup>4</sup> -- = Delay High, Intersection Unstable, Level of Service "F".

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EXHIBIT 5-C

**2010 WITH PROJECT FRIDAY PM  
PEAK INTERSECTION VOLUMES**

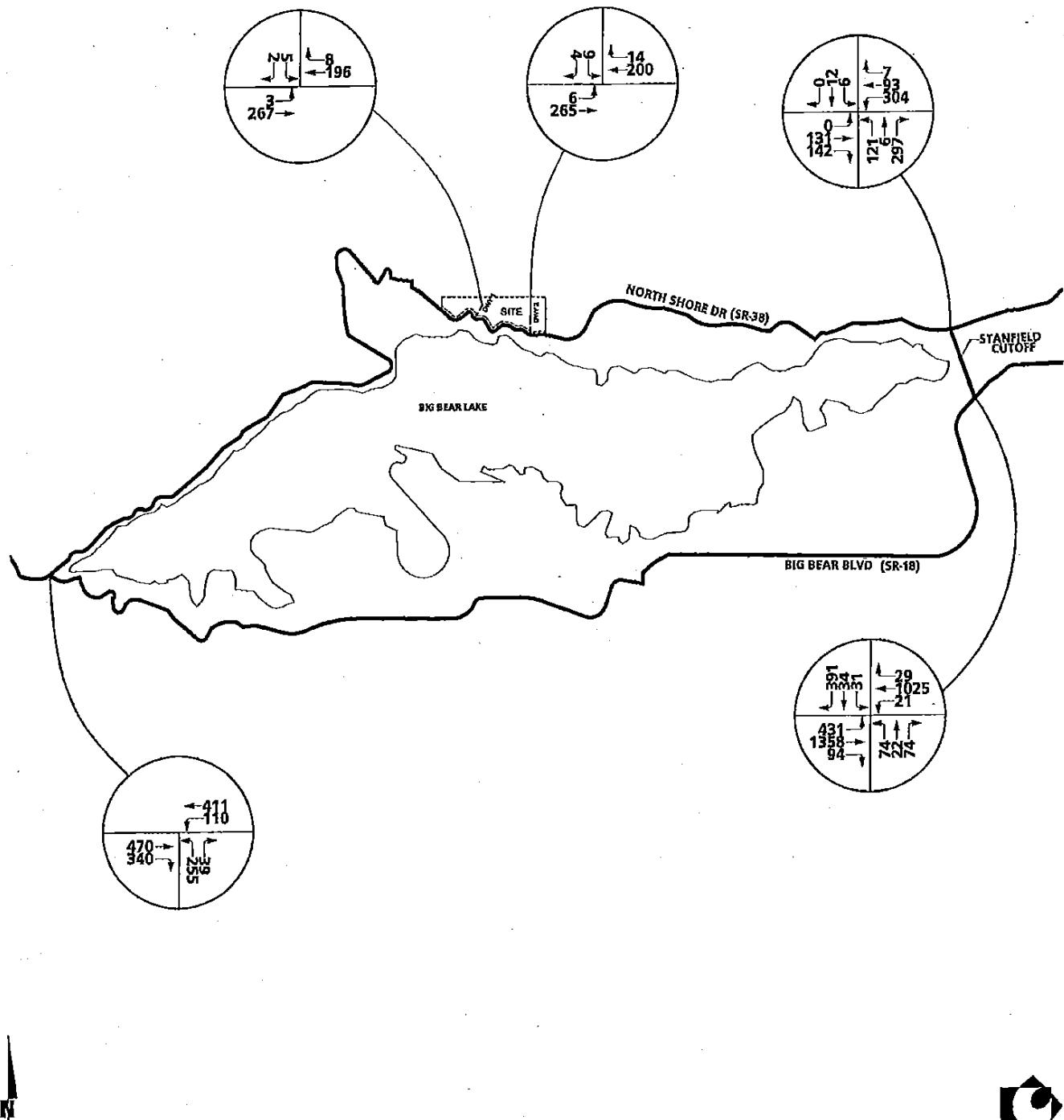
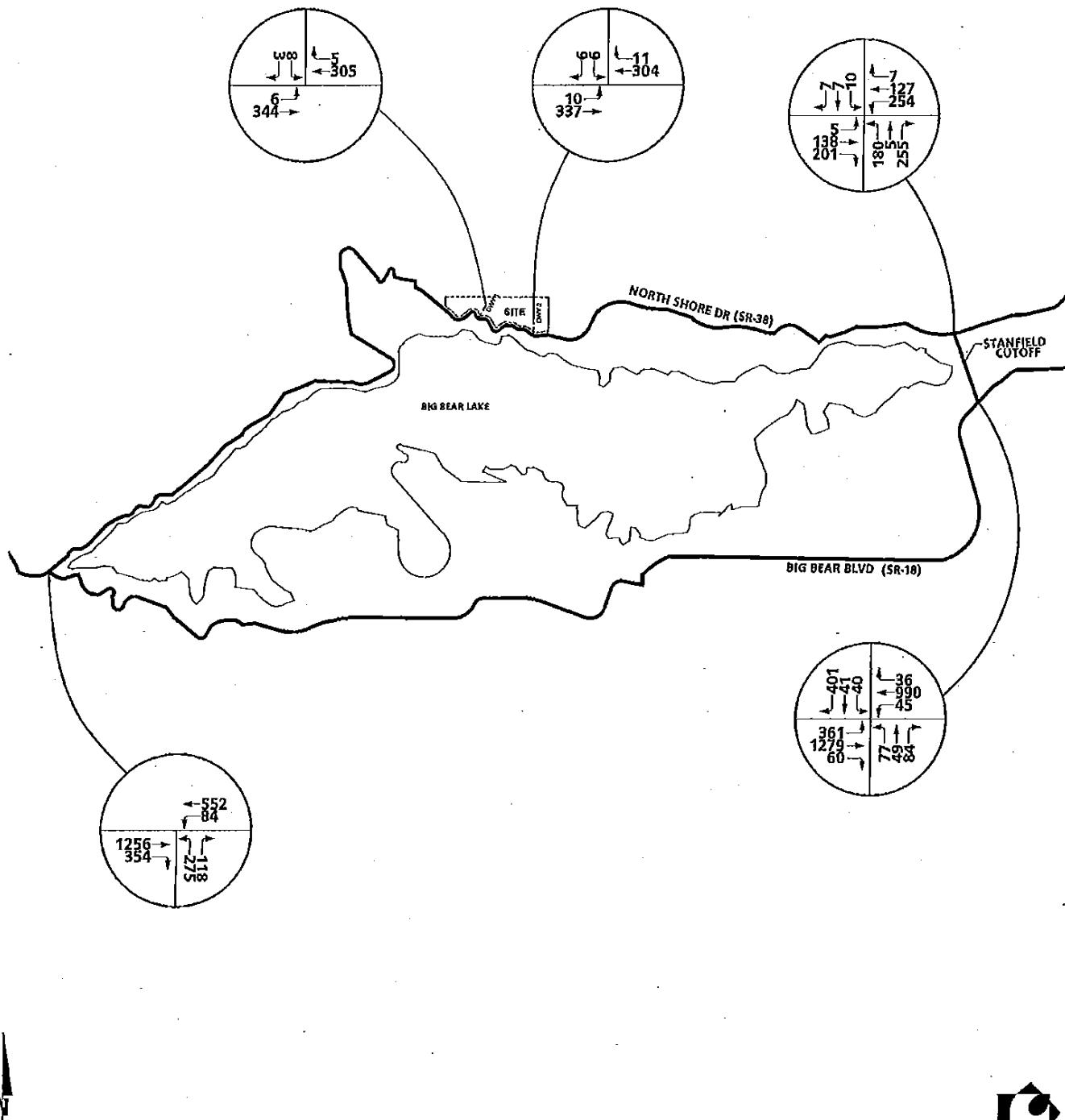


EXHIBIT 5-D

## 2010 WITH PROJECT SUNDAY MIDDAY PEAK INTERSECTION VOLUMES



**TABLE 5-3**  
**INTERSECTION ANALYSIS FOR GENERAL PLAN BUILDOUT (2030) CONDITIONS**

INTERSECTION	TRAFFIC CONTROL <sup>3</sup>	INTERSECTION APPROACH LANES <sup>1</sup>												DELAY <sup>2</sup> (SECS.)		LEVEL OF SERVICE	
		NORTH-BOUND			SOUTH-BOUND			EAST-BOUND			WEST-BOUND						
		L	T	R	L	T	R	L	T	R	L	T	R	Fri. PM	Sun. MD	Fri. PM	Sun. MD
North Shore Dr. (SR-38) (NS) at:																	
• Big Bear Blvd. (SR-18) (EW)	CSS	0	1	0	0	0	0	0	1	1	1	1	0	.. <sup>4</sup>	.. <sup>4</sup>	F	F
- Without Improvements	TS	1	0	1	0	0	0	0	2	1 <sup>&gt;</sup>	1	1	0	20.4	18.6	C	B
- With Improvements																	
Stanfield Cutoff (NS) at:																	
• North Shore Dr. (SR-38) (EW)	CSS	0	1	0	0	1	0	0	1	0	0	1	0	.. <sup>4</sup>	.. <sup>4</sup>	F	F
- Without Improvements	TS	2	1	0	1	1	0	1	1	1 <sup>&gt;</sup>	1	1	0	34.2	28.0	C	C
- With Improvements	TS	0	1	1	0	1	1	1	1	1	1	1	1	.. <sup>4</sup>	.. <sup>4</sup>	F	F
• Big Bear Blvd. (SR-18) (EW)	TS	1	1	0	1	1	1 <sup>&gt;</sup>	1	2	0	1	2	1	31.7	21.5	C	C
- Without Improvements																	
- With Improvements																	
Driveway # 1 (NS) at:																	
• North Shore Dr. (SR-38) (EW)	CSS	0	0	0	0	1	0	0	1	0	0	1	0	49.6	24.2	E	C
- Without Improvements	CSS	0	0	0	0	1	0	1	2	0	0	1	0	23.1	16.7	C	C
- With Improvements																	
Driveway # 2 (NS) at:																	
• North Shore Dr. (SR-38) (EW)	CSS	0	0	0	0	1	0	0	1	0	0	1	0	41.9	18.8	E	C
- Without Improvements	CSS	0	0	0	0	1	0	1	2	0	0	1	0	23.8	16.7	C	C
- With Improvements																	

<sup>1</sup> When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; I = Improvement; > = Right Turn Overlap Phase

<sup>2</sup> Delay and level of service calculated using the following analysis software: Traffix, Version 7.7 R5 (2005). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for worst individual movement (or movements sharing a single lane) are shown.

<sup>3</sup> TS = Traffic Signal  
CSS = Cross Street Stop  
AWS = All Way Stop

<sup>4</sup> .. = Delay High, Intersection Unstable, Level of Service "F".

<sup>5</sup> Volume to Capacity ratio is greater than 1.00 = Level of Service "F".

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EXHIBIT 5-E

## GENERAL PLAN BUILDOUT WITH PROJECT FRIDAY PM PEAK HOUR INTERSECTION VOLUMES

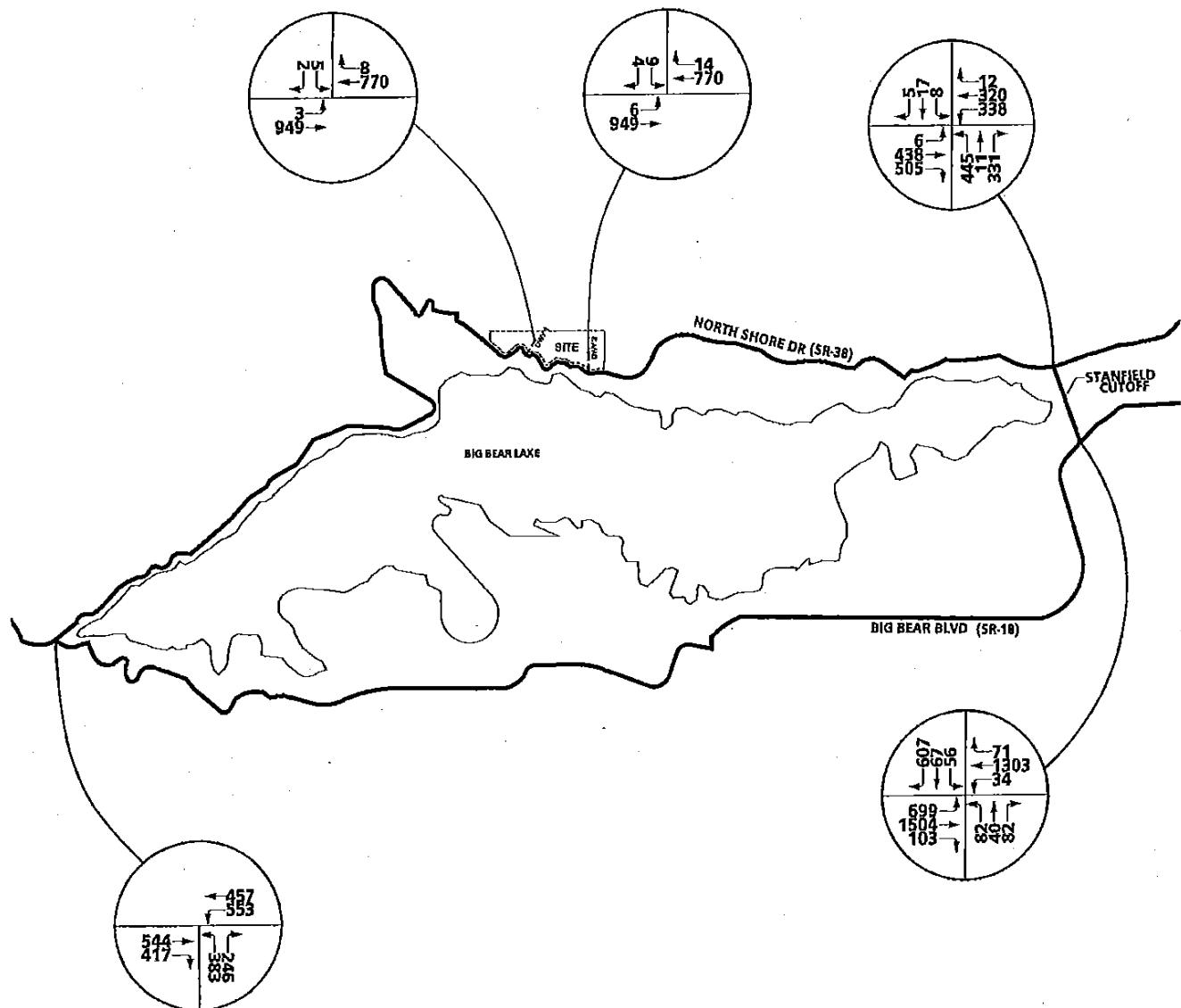
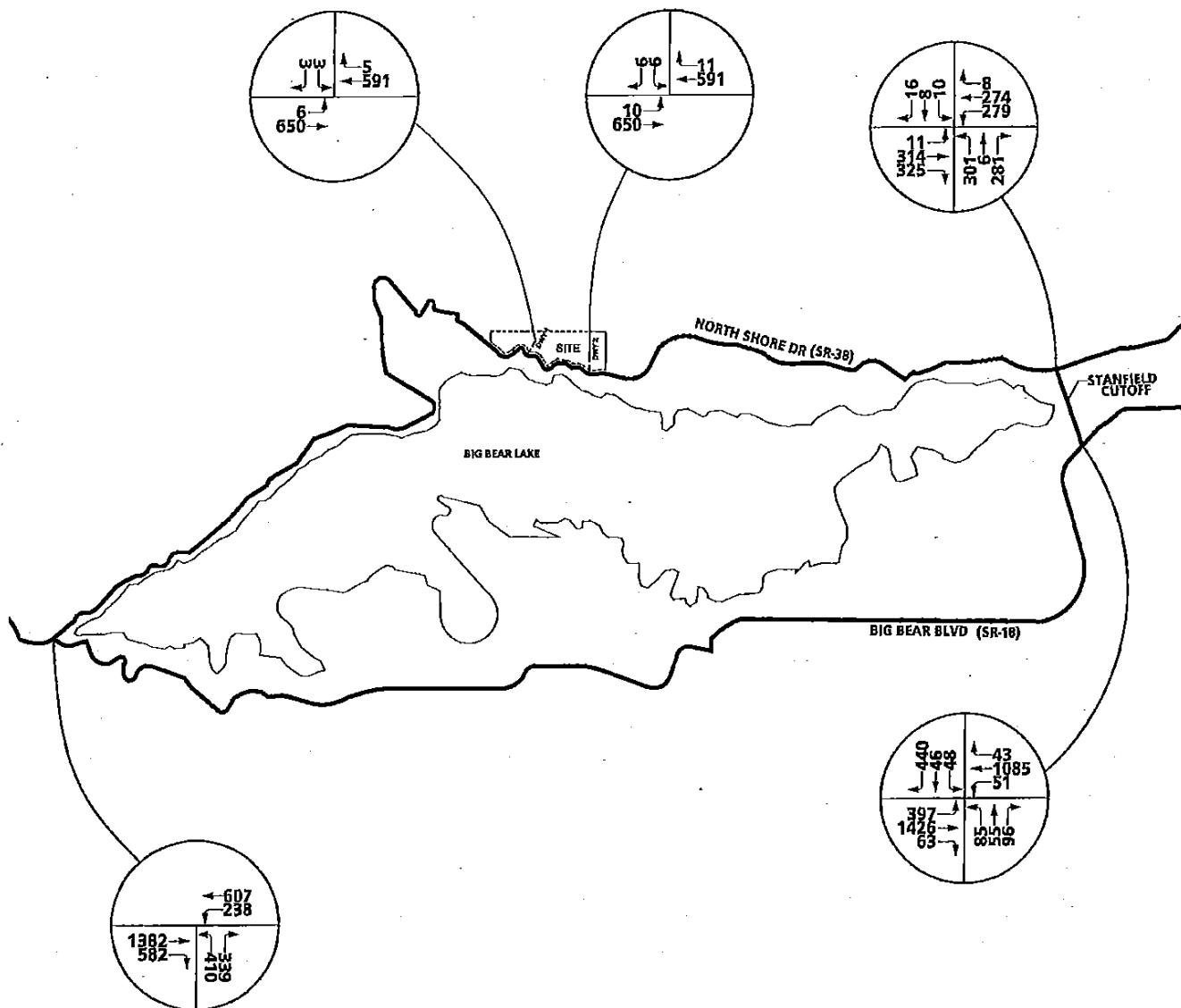


EXHIBIT 5-F

## GENERAL PLAN BUILDOUT WITH PROJECT SUNDAY MIDDAY PEAK HOUR INTERSECTION VOLUMES



Big Bear Blvd (SR-18) (NS) at:

- North Shore Drive (SR-38) (EW)

Stanfield Cut Off (NS) at:

- North Shore Drive (SR-38) (EW)

Stanfield Cut Off (NS) at:

- Big Bear Blvd (SR-18) (EW)

Driveway #1 (NS) at:

- North Shore Drive (SR-38) (EW)

Driveway #2 (NS) at:

- North Shore Drive (SR-38) (EW)

The operations analysis worksheets for General Plan Buildout With Project (2030) traffic conditions are included in Appendix "H".

## **6.0 SUMMARY AND RECOMMENDATIONS**

---

This chapter summarizes the findings of this traffic impact analysis, and provides a series of recommendations related to project implementation.

### **6.1 Summary**

The traffic issues related to the proposed land use and development have been evaluated in the context of the California Environmental Quality Act (CEQA) and the San Bernardino County Congestion Management Program (CMP). In conformance with the requirements of the San Bernardino County Congestion Management Program (CMP), the proposed project does not require a CMP traffic study. The CMP requires no analysis for projects that generate less than 250 peak hour trips. The project generates approximately 51 and 51 trips during the AM and PM peak hours, respectively; which is less than the required threshold for a CMP traffic study. However, a long-range traffic analysis has been required by County staff.

Project traffic volumes for all future conditions were estimated using a manual approach. The trip generation calculation is based on the most recent Institute of Transportation Engineers Trip Generation Rates, 7th Edition. The project trip distributions are derived from a select zone run of the San Bernardino Mountain Model.

Long Range General Plan Buildout (2030) conditions have been estimated based on the San Bernardino Mountain Model and the addition of both the project related peak hour volumes and the known cumulative development peak hour volumes per discussions with County staff.

### **6.1.1 The Project**

The Moon Camp residential project is proposed to include 50 new single-family detached dwelling units and three lots for open space and common area on approximately 62.43 acres. Exhibit 1-B illustrates the project site plan.

The traffic related to the project has been calculated in accordance with the following accepted procedural steps:

- Trip Generation
- Trip Distribution
- Traffic Assignment

Table 2-2 (previously presented) summarizes the projected trip generation for the proposed development. As indicated in Table 2-2, the proposed Moon Camp residential development is projected to generate 479 trip-ends per day with 51 vehicles per hour during the weekday PM peak hour.

### **6.1.2 Existing Study Area Conditions**

Regional access to the site is provided via North Shore Boulevard.

### **6.1.3 Future Conditions**

An Interim Year (2010) analysis and long-range General Plan Buildout (2030) analysis are included in this report. Interim Year (2010) traffic operations analysis has been completed for the Friday PM and Sunday Mid-day peak hours and are shown in Tables 5-1 and 5-2 (previously presented). Friday PM peak hour and Sunday Mid-day peak hour traffic operations analysis are summarized in Tables 5-3 (previously presented)

for General Plan Buildout With Project (2030) conditions. All study intersections are projected to experience Level of Service "C" or better operations during the peak hours for all scenario analyzed.

## 6.2 Recommendations

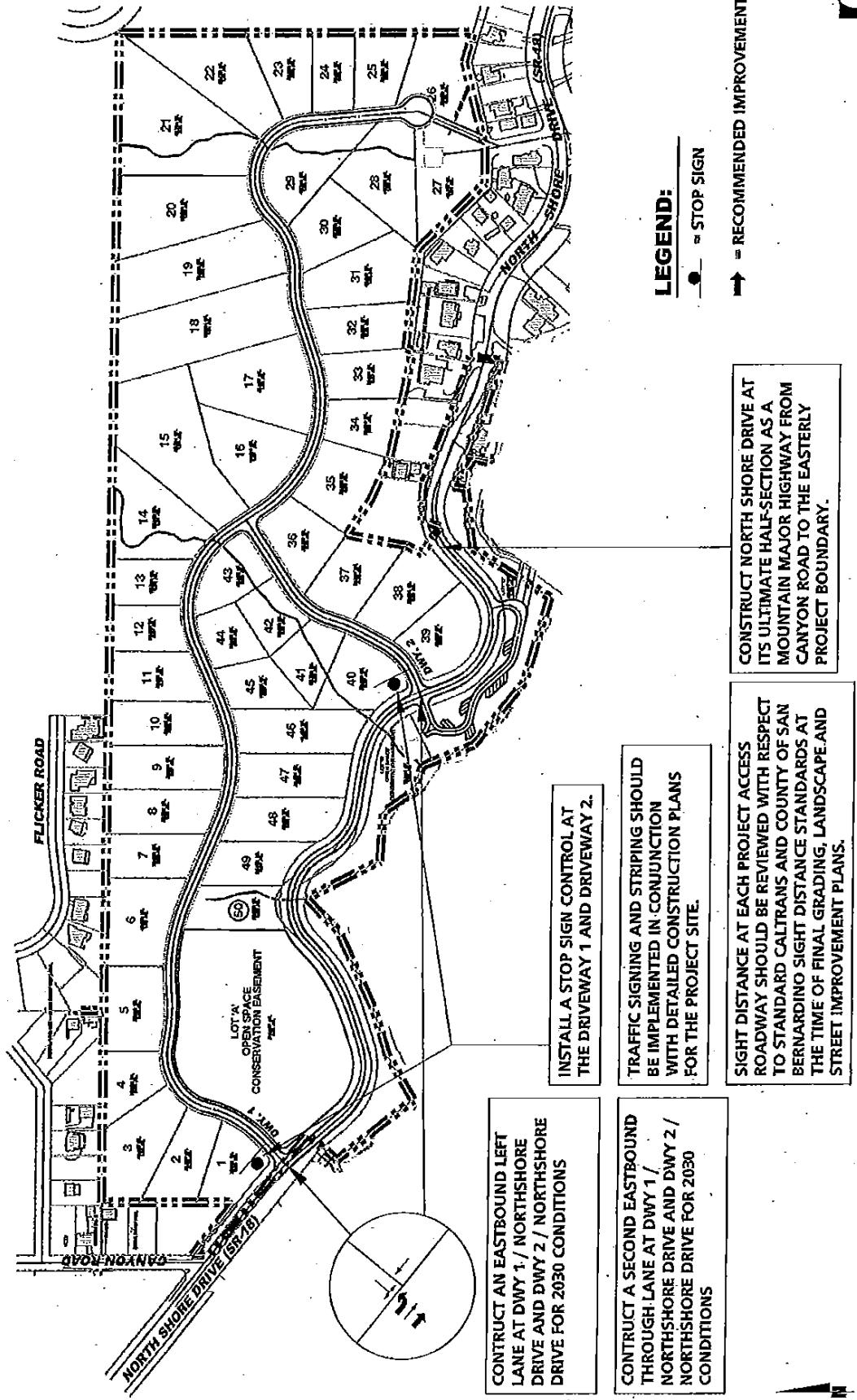
The recommendations in this section address all necessary on-site improvements and off-site transportation improvements.

### 6.2.1 On-Site Improvements

On-site improvements and improvements adjacent to the site will be required in conjunction with the proposed development to ensure adequate circulation within the project itself. Exhibit 6-A illustrates the recommended improvement measures to address on-site circulation requirements of the proposed site, which include the following:

- Sight distance at the project access roadway should be reviewed with respect to Caltrans / County of San Bernardino sight distance standards at the time of final grading landscape and street improvement plans.
- Traffic signing / striping should be implemented in conjunction with detailed construction plans for the project site.
- Construct North Shore Drive at its ultimate half-section width as a Mountain Major highway from Canyon Drive to the Easterly project boundary.
- Install a stop sign control at Driveway #1 and Driveway #2

# EXHIBIT 6-A CIRCULATION RECOMMENDATIONS



- Construct an Eastbound Left Turn Lane at Driveway 1 / North Shore Drive and Driveway 2/ North Shore Drive for 2030 Buildout Conditions
- Construct a 2<sup>nd</sup> Eastbound Through Lane at Driveway 1 / North Shore Drive and Driveway 2/ North Shore Drive for 2030 Buildout Conditions

#### 6.2.2 Off-Site Improvements

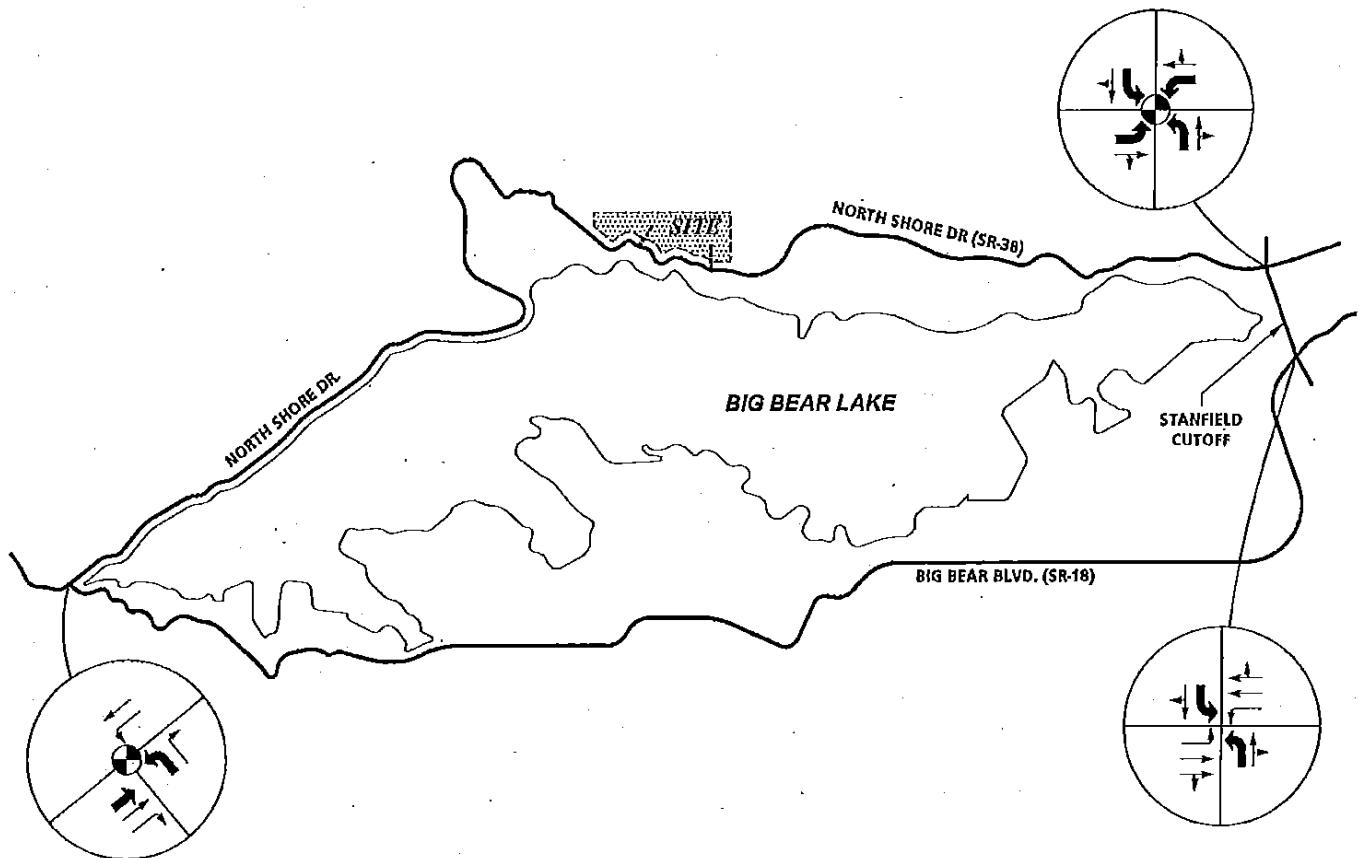
The necessary off-site improvement recommendations were described in previous sections of this report. Exhibit 6-B illustrates the recommended improvements for 2010 Without Project and With Project traffic conditions. There are no additional recommended improvements for 2010 With Project traffic conditions compared to 2010 Without Project traffic conditions. Exhibit 6-C illustrates the recommended improvements for General Plan Buildout (2030) traffic conditions compared to the improvements shown on Exhibit 6-B.

#### 6.2.3 Project Fair Share Analysis

This section of the report summarizes the improvements and associated costs required to meet San Bernardino Congestion Management Program (CMP) level of service requirements for long range traffic condition, per discussion with County staff.

Table 6-1 indicates the needed long range 2030 improvements and resulting costs for the study area intersections. The cost data is provided in Appendix "G" of the San Bernardino Congestion Management Program, 2003 update (see Appendix "I"). Estimated cost (per SANBAG CMP table)

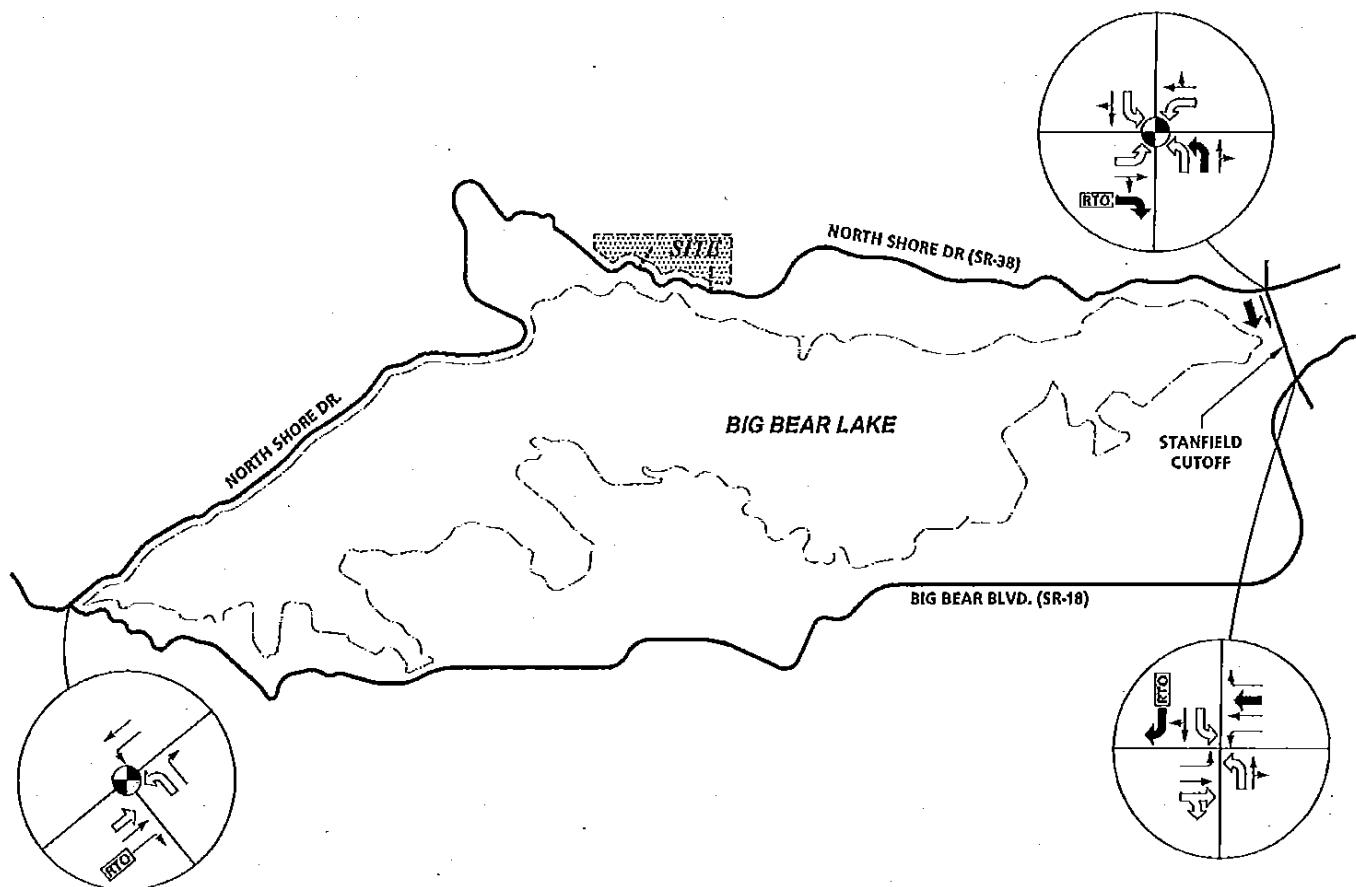
EXHIBIT 6-B  
**RECOMMENDED IMPROVEMENTS FOR 2010  
WITHOUT AND WITH PROJECT CONDITIONS**



**LEGEND:**

- = TRAFFIC SIGNAL
- ↔ = EXISTING LANE
- = CURRENT PHASE IMPROVEMENTS

# ADDITIONAL RECOMMENDED IMPROVEMENTS FOR GENERAL PLAN BUILDOUT (2030) CONDITIONS

**LEGEND:**

- = TRAFFIC SIGNAL
- = EXISTING LANE
- = CURRENT PHASE IMPROVEMENTS
- ← = PREVIOUS PHASE IMPROVEMENTS
- RTO = RIGHT TURN OVERLAP PHASING IMPROVEMENTS



**TABLE 6-1**  
**ROADWAY IMPROVEMENTS COST**

INTERSECTION	2030 IMPROVEMENTS	COST
North Shore Dr. (SR-38) (NS) at: • Big Bear Blvd. (SR-18) (EW)	Install Traffic Signal Construct NB Left Turn Lane Construct EB Through Lane Add Right Turn Overlap Phasing	\$400,000 \$50,000 \$289,720 \$25,000  <b>\$764,720</b>
Stanfield Cutoff (NS) at: • North Shore Dr. (EW)	Install Traffic Signal Construct 2 NB left turn lanes Construct SB left turn lane Construct EB left turn lane Construct EB right turn lane Add Right Turn Overlap Phasing Construct WB left turn lane	\$400,000 \$100,000 \$50,000 \$50,000 \$50,000 \$25,000 \$50,000  <b>\$725,000</b>
Stanfield Cutoff (NS) at: • Big Bear Blvd. (EW)	Construct NB left turn lane Construct SB left turn lane Construct SB right turn lane Add Right Turn Overlap Phasing Construct EB through lane Construct WB through lane Signal Modification	\$50,000 \$50,000 \$50,000 \$25,000 \$289,720 \$289,720 \$40,000  <b>\$794,440</b>
<b>TOTAL - COST OF CONSTRUCTION</b>		<b>\$2,284,160</b>

Source: Appendix "G" of the San Bernardino Congestion Management Program, 2003 update.

for a through lane is \$289,720 (600 feet long for upstream and 600 feet long including taper for downstream). As indicated in Table 6-1, the total cost of needed intersection improvements is \$2,284,160.

The project fair share contribution towards the required improvements has also been calculated. Table 6-2 includes the project's cost contribution based on the project's percent of new traffic. As indicated in Table 6-2, the highest Friday PM or Sunday Mid-day fair share cost is approximately \$48,921.

#### 6.2.4 Transportation System Management Actions

##### a. Off-Site

As development in the area occurs, transit agencies should consider expanding service within the area.

##### b. On-Site

The on-site design should accommodate private and/or public bus access design and parking as necessary.

TABLE 6-2  
PROJECT FAIR SHARE

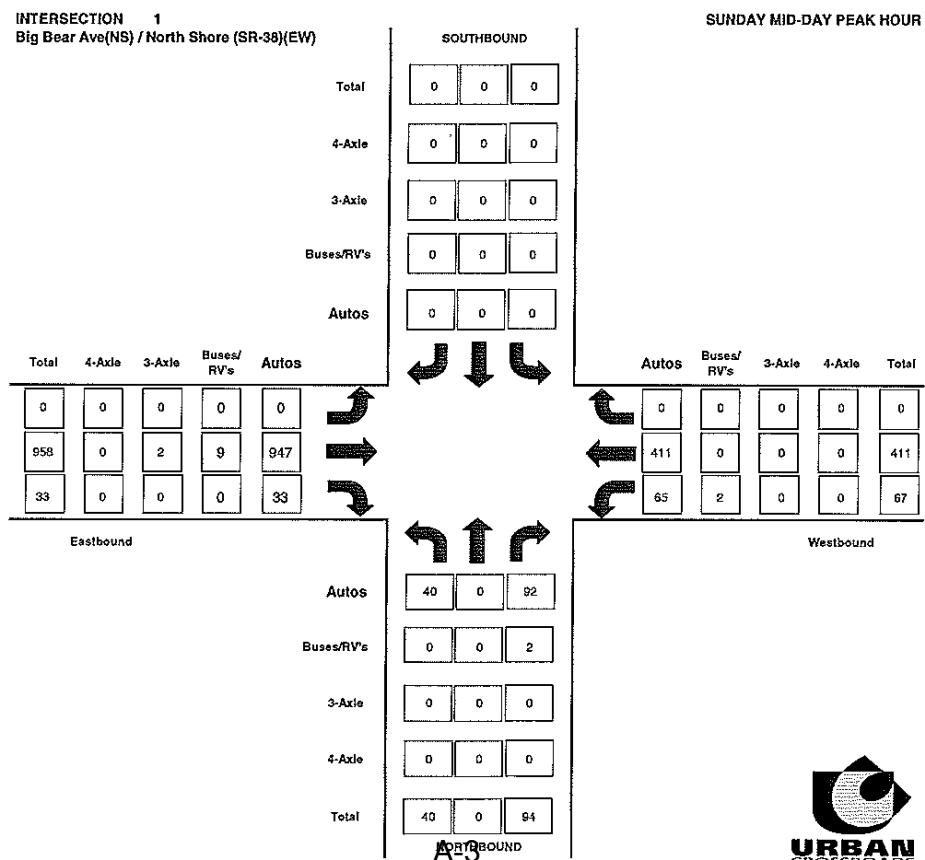
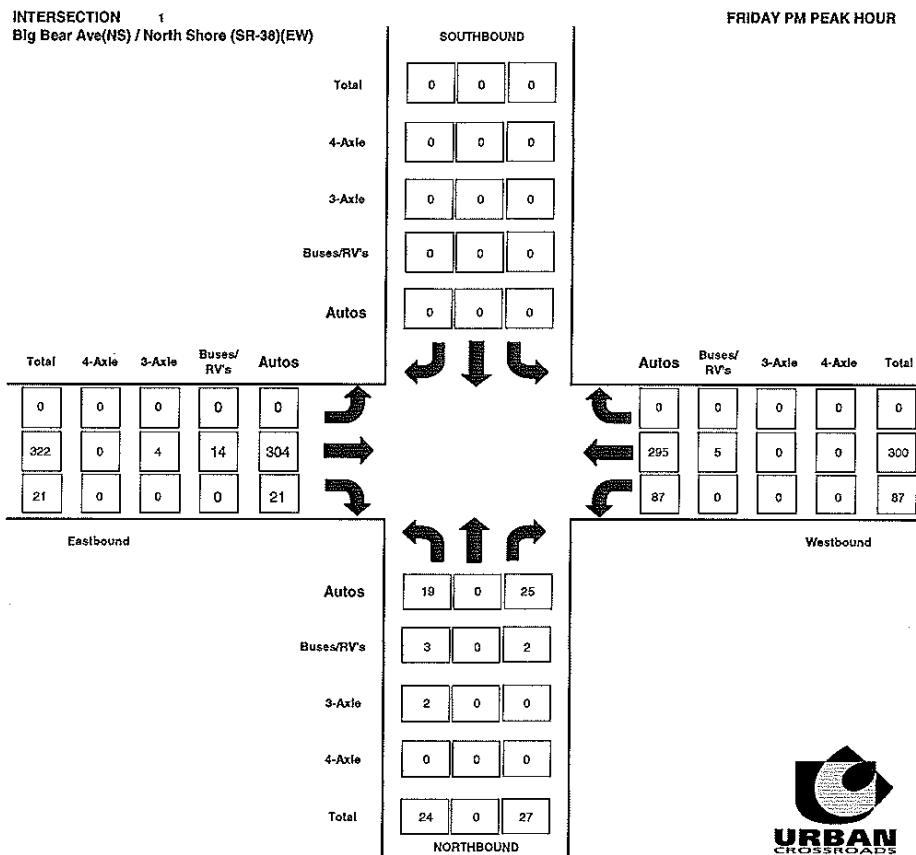
SEGMENT	COST	PEAK HOUR	EXISTING TRAFFIC	2030 WITH PROJECT TRAFFIC	PROJECT TRAFFIC	TOTAL NEW TRAFFIC	PROJECT % OF NEW TRAFFIC	(A) FRIDAY PM PROJECT COST SHARE		(B) SUNDAY MID. PROJECT COST SHARE		HIGHEST SUNDAY MID. COST SHARE
								(A) FRIDAY PM PROJECT COST SHARE	(B) SUNDAY MID. PROJECT COST SHARE			
North Shore Dr. (SR-38) (NS) at: • Big Bear Blvd. (EW)	\$764,720	Friday PM Sunday Midday	906 2208	2,600 3,558	16 26	1,694 1,350	0.94% 1.93%	\$7,223	\$14,728			
Stanfield Cutoff (NS) at: • North Shore Dr. (EW)	\$725,000	Friday PM Sunday Midday	822 904	2,436 1,833	36 26	1,614 929	2.23% 2.80%	\$16,171	\$20,291			
Stanfield Cutoff (NS) at: • Big Bear Blvd. (EW)	\$794,440	Friday PM Sunday Midday	2,745 2,635	4,648 3,835	29 21	1,903 1,200	1.52% 1.75%	\$12,107	\$13,903			
<b>GRAND TOTAL - COST SHARE FOR IMPROVEMENTS</b>								<b>\$35,500</b>	<b>\$48,921</b>			<b>\$48,921</b>

S:\Carsbad\_Jobs\04400\04409\excel\04409-06 Fair Share Revised.xls|TT 6-2

APPENDIX A  
TRAFFIC COUNT DATA



### PASSENGER CAR EQUIVALENCY PEAK HOUR COUNT SUMMARY



City of: Big Bear  
 N/S: Big Bear Blvd  
 E/W: North Shore Dr

File Name : Not Named 1  
 Site Code : 1  
 Start Date : 3/2/2007  
 Page No : 1

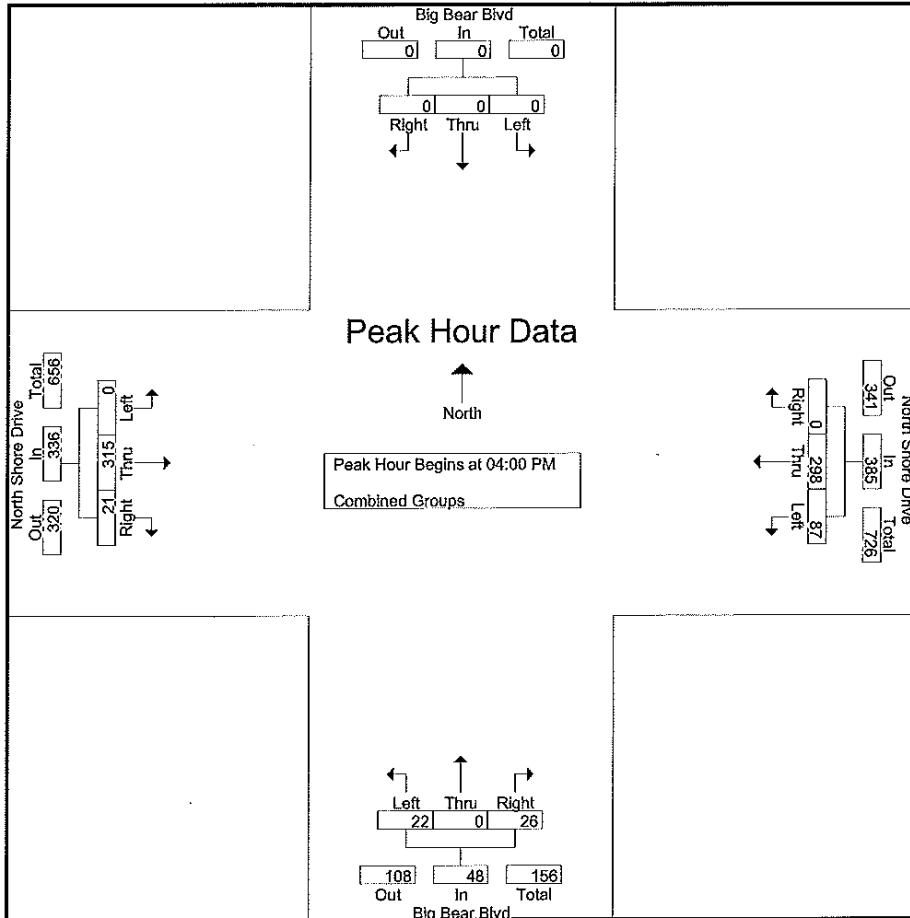
Groups Printed- Combined Groups

	Big Bear Blvd Southbound				North Shore Drive Westbound				Big Bear Blvd Northbound				North Shore Drive Eastbound				Int. Total	
	Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	17	87	0	104	3	0	9	12	0	80	5	85	201
04:15 PM	0	0	0	0	0	20	92	0	112	9	0	6	15	0	96	7	103	230
04:30 PM	0	0	0	0	0	20	66	0	86	6	0	6	12	0	88	7	95	193
04:45 PM	0	0	0	0	0	30	53	0	83	4	0	5	9	0	51	2	53	145
Total		0	0	0	0	87	298	0	385	22	0	26	48	0	315	21	336	769
05:00 PM	0	0	0	0	0	30	70	0	100	5	0	4	9	0	71	5	76	185
05:15 PM	0	0	0	0	0	17	74	0	91	2	0	5	7	0	79	6	85	183
05:30 PM	0	0	0	0	0	20	53	0	73	2	0	3	5	0	77	6	83	161
05:45 PM	0	0	0	0	0	8	43	0	51	1	0	2	3	0	45	0	45	99
Total		0	0	0	0	75	240	0	315	10	0	14	24	0	272	17	289	628
Grand Total		0	0	0	0	162	538	0	700	32	0	40	72	0	587	38	625	1397
Apprch %		0	0	0	0	23.1	76.9	0	44.4	0	0	55.6	0	0	93.9	6.1		
Total %		0	0	0	0	11.6	38.5	0	50.1	2.3	0	2.9	5.2	0	42	2.7	44.7	

	Big Bear Blvd Southbound				North Shore Drive Westbound				Big Bear Blvd Northbound				North Shore Drive Eastbound				Int. Total	
	Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 04:00 PM																		
04:00 PM	0	0	0	0	0	17	87	0	104	3	0	9	12	0	80	5	85	201
04:15 PM	0	0	0	0	0	20	92	0	112	9	0	6	15	0	96	7	103	230
04:30 PM	0	0	0	0	0	20	66	0	86	6	0	6	12	0	88	7	95	193
04:45 PM	0	0	0	0	0	30	53	0	83	4	0	5	9	0	51	2	53	145
Total Volume		0	0	0	0	87	298	0	385	22	0	26	48	0	315	21	336	769
% App. Total		0	0	0	0	22.6	77.4	0	45.8	0	0	54.2	0	0	93.8	6.2		
PHF	.000	.000	.000	.000	.725	.810	.000	.859	.611	.000	.722	.800	.000	.820	.750	.816	.836	

City of: Big Bear  
N/S: Big Bear Blvd  
E/W: North Shore Dr

File Name : Not Named 1  
Site Code : 1  
Start Date : 3/2/2007  
Page No : 2



#### Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	17	87	0	104	3	0	9	12	0	80	5	85
+15 mins.	0	0	0	0	20	92	0	112	9	0	6	15	0	96	7	103
+30 mins.	0	0	0	0	20	66	0	86	6	0	6	12	0	88	7	95
+45 mins.	0	0	0	0	30	53	0	83	4	0	5	9	0	51	2	53
Total Volume	0	0	0	0	87	298	0	385	22	0	26	48	0	315	21	336
% App. Total	0	0	0	0	22.6	77.4	0	45.8	0	54.2	0	93.8	0	93.8	6.2	
PHF	.000	.000	.000	.000	.725	.810	.000	.859	.611	.000	.722	.800	.000	.820	.750	.816

City of: Big Bear  
 N/S: Big Bear Blvd  
 E/W: North Shore Dr

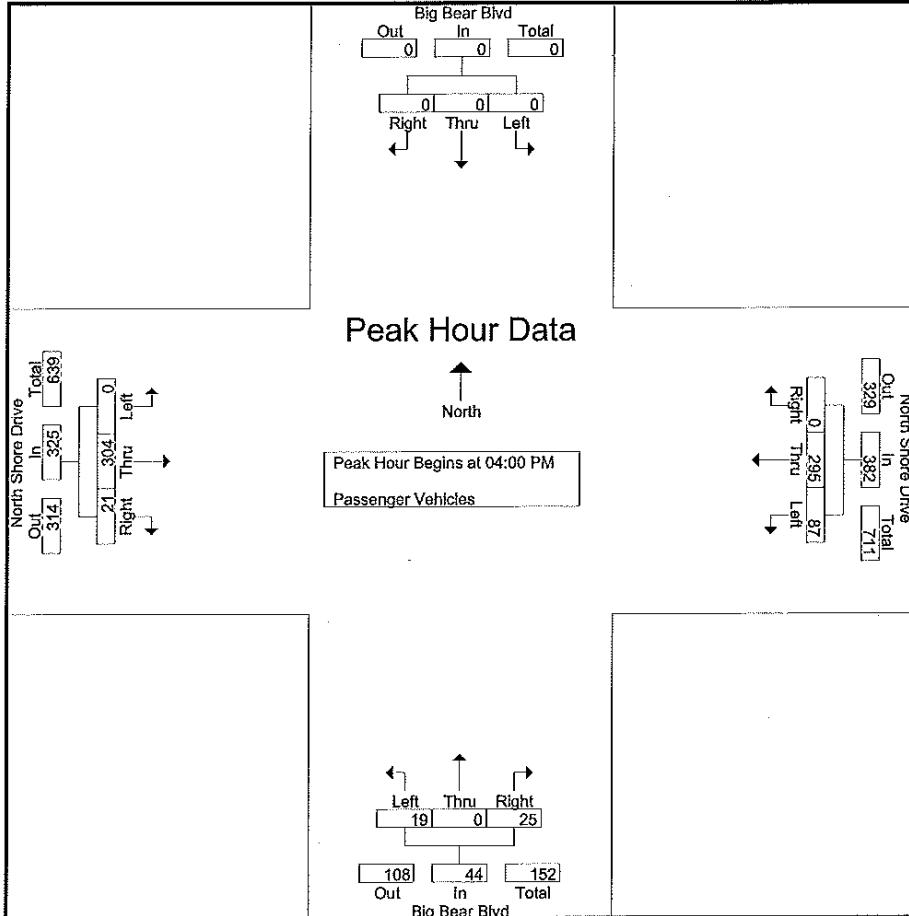
File Name : NShoreDr(SR-18) Friday  
 Site Code : 1  
 Start Date : 3/2/2007  
 Page No : 1

Groups Printed- Passenger Vehicles																	
	Big Bear Blvd Southbound				North Shore Drive Westbound				Big Bear Blvd Northbound				North Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	17	86	0	103	3	0	9	12	0	79	5	84	199
04:15 PM	0	0	0	0	20	91	0	111	7	0	5	12	0	90	7	97	220
04:30 PM	0	0	0	0	20	65	0	85	5	0	6	11	0	86	7	93	189
04:45 PM	0	0	0	0	30	53	0	83	4	0	5	9	0	49	2	51	143
Total	0	0	0	0	87	295	0	382	19	0	25	44	0	304	21	325	751
05:00 PM	0	0	0	0	30	69	0	99	3	0	4	7	0	69	5	74	180
05:15 PM	0	0	0	0	17	74	0	91	2	0	3	5	0	78	6	84	180
05:30 PM	0	0	0	0	20	53	0	73	2	0	3	5	0	75	6	81	159
05:45 PM	0	0	0	0	8	43	0	51	1	0	2	3	0	43	0	43	97
Total	0	0	0	0	75	239	0	314	8	0	12	20	0	265	17	282	616
Grand Total	0	0	0	0	162	534	0	696	27	0	37	64	0	569	38	607	1367
Appreh %	0	0	0	0	23.3	76.7	0	42.2	0	0	57.8	0	0	93.7	6.3		
Total %	0	0	0	0	11.9	39.1	0	50.9	2	0	2.7	4.7	0	41.6	2.8	44.4	

	Big Bear Blvd Southbound				North Shore Drive Westbound				Big Bear Blvd Northbound				North Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	17	86	0	103	3	0	9	12	0	79	5	84	199
04:15 PM	0	0	0	0	20	91	0	111	7	0	5	12	0	90	7	97	220
04:30 PM	0	0	0	0	20	65	0	85	5	0	6	11	0	86	7	93	189
04:45 PM	0	0	0	0	30	53	0	83	4	0	5	9	0	49	2	51	143
Total Volume	0	0	0	0	87	295	0	382	19	0	25	44	0	304	21	325	751
% App. Total	0	0	0	0	22.8	77.2	0	43.2	0	0	56.8	0	0	93.5	6.5		
PHF	.000	.000	.000	.000	.725	.810	.000	.860	.679	.000	.694	.917	.000	.844	.750	.838	.853

City of: Big Bear  
N/S: Big Bear Blvd  
E/W: North Shore Dr

File Name : NShoreDr(SR-18) Friday  
Site Code : 1  
Start Date : 3/2/2007  
Page No : 2



#### Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	17	86	0	103	3	0	9	12	0	79	5	84
+15 mins.	0	0	0	0	20	91	0	111	7	0	5	12	0	90	7	97
+30 mins.	0	0	0	0	20	65	0	85	5	0	6	11	0	86	7	93
+45 mins.	0	0	0	0	30	53	0	83	4	0	5	9	0	49	2	51
Total Volume	0	0	0	0	87	295	0	382	19	0	25	44	0	304	21	325
% App. Total	0	0	0		22.8	77.2	0		43.2	0	56.8		0	93.5	6.5	
PHF	.000	.000	.000	.000	.725	.810	.000	.860	.679	.000	.694	.917	.000	.844	.750	.838

City of: Big Bear  
N/S: Big Bear Blvd  
E/W: North Shore Dr

### Traffic Data Consultants

File Name : NShoreDr(SR-18) Friday  
Site Code : 1  
Start Date : 3/2/2007  
Page No : 1

#### Groups Printed- Large 2 Axle

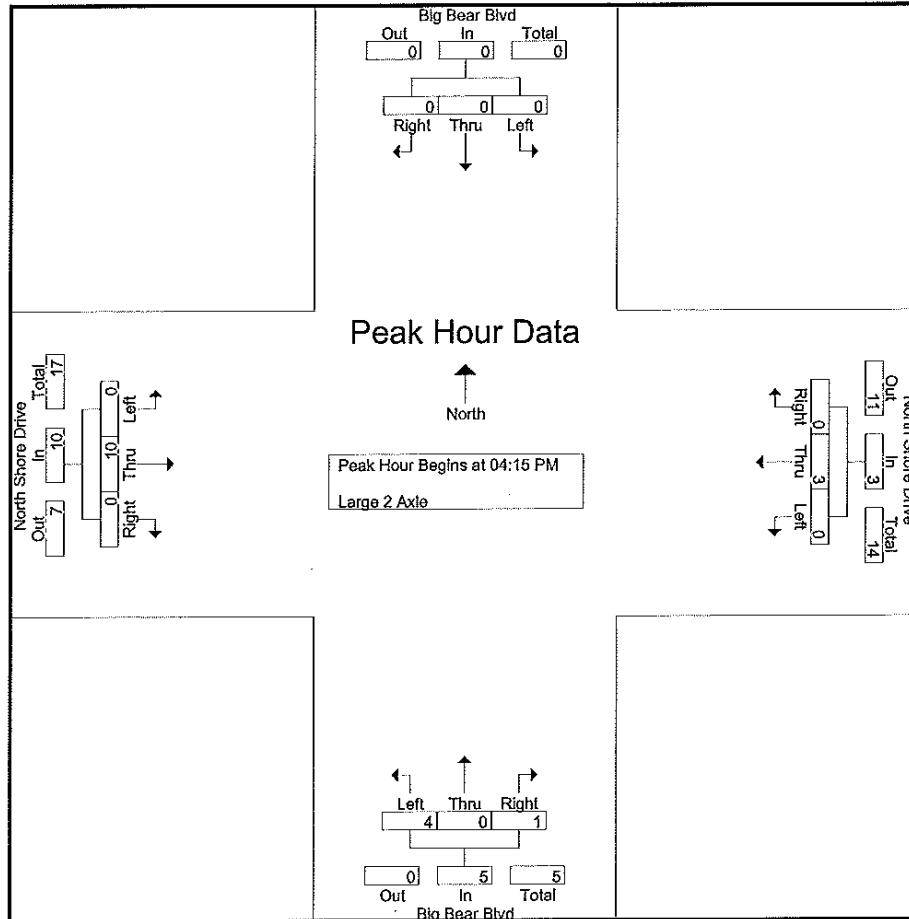
	Big Bear Blvd Southbound				North Shore Drive Westbound				Big Bear Blvd Northbound				North Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
04:15 PM	0	0	0	0	0	1	0	1	2	0	1	3	0	6	0	6	10
04:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	0	0	0	0	3	0	3	2	0	1	3	0	9	0	9	15
05:00 PM	0	0	0	0	0	1	0	1	2	0	0	2	0	2	0	2	5
05:15 PM	0	0	0	0	0	0	0	0	0	0	2	2	0	1	0	1	3
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
Total	0	0	0	0	0	1	0	1	2	0	2	4	0	7	0	7	12
Grand Total	0	0	0	0	0	4	0	4	4	0	3	7	0	16	0	16	27
Apprch %	0	0	0	0	0	100	0	0	57.1	0	42.9	0	0	100	0	0	
Total %	0	0	0	0	0	14.8	0	14.8	14.8	0	11.1	25.9	0	59.3	0	59.3	

	Big Bear Blvd Southbound				North Shore Drive Westbound				Big Bear Blvd Northbound				North Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	1	0	1	2	0	1	3	0	6	0	6	10
04:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
05:00 PM	0	0	0	0	0	1	0	1	2	0	0	2	0	2	0	2	5
Total Volume	0	0	0	0	0	3	0	3	4	0	1	5	0	10	0	10	18
% App. Total	0	0	0	0	0	100	0	0	80	0	20	0	0	100	0	0	
PHF	.000	.000	.000	.000	.000	.750	.000	.750	.500	.000	.250	.417	.000	.417	.000	.417	.450

City of: Big Bear  
N/S: Big Bear Blvd  
E/W: North Shore Dr

## Traffic Data Consultants

File Name : NShoreDr(SR-18) Friday  
Site Code : 1  
Start Date : 3/2/2007  
Page No : 2



### Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM	04:00 PM	04:00 PM	04:15 PM	04:15 PM	04:15 PM	04:15 PM
+0 mins.	0	0	0	1	2	1	6
+15 mins.	0	0	0	0	0	0	0
+30 mins.	0	0	0	1	0	0	1
+45 mins.	0	0	0	0	0	2	0
Total Volume	0	0	0	3	4	0	10
% App. Total	0	0	0	100	80	20	0
PHF	.000	.000	.000	.000	.750	.500	.417

City of: Big Bear  
N/S: Big Bear Blvd  
E/W: North Shore Dr

### Traffic Data Consultants

File Name : NShoreDr(SR-18) Friday  
Site Code : 1  
Start Date : 3/2/2007  
Page No : 1

Groups Printed- 3 Axle

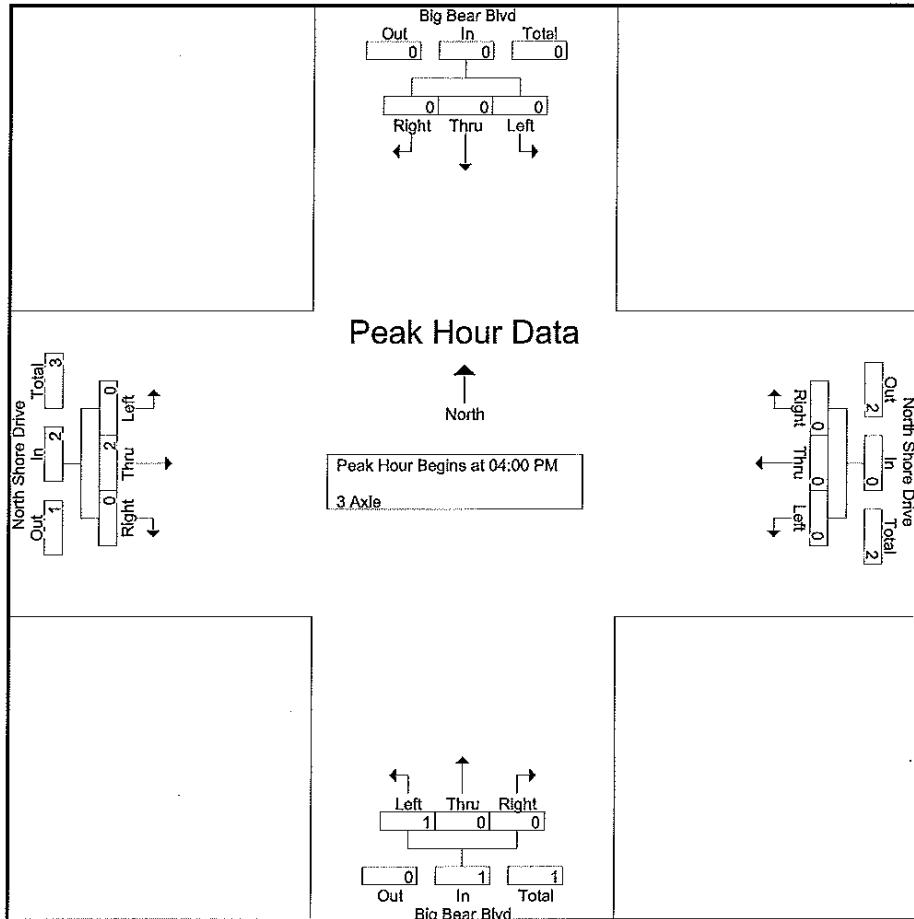
	Big Bear Blvd Southbound				North Shore Drive Westbound				Big Bear Blvd Northbound				North Shore Drive Eastbound					
	Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:15 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:30 PM		0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	1	
04:45 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	
Total		0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	2	3
05:00 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total		0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	2	3
Apprch %		0	0	0	0	0	0	0	0	100	0	0	0	0	100	0	0	0
Total %		0	0	0	0	0	0	0	0	33.3	0	0	33.3	0	66.7	0	66.7	

	Big Bear Blvd Southbound				North Shore Drive Westbound				Big Bear Blvd Northbound				North Shore Drive Eastbound					
	Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 04:00 PM																		
04:00 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:15 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:30 PM		0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	1	
04:45 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	
Total Volume		0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	2	3
% App. Total		0	0	0	0	0	0	0	0	100	0	0	0	0	100	0	0	
PHF		.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.000	.500	.000	.500	.375

City of: Big Bear  
N/S: Big Bear Blvd  
E/W: North Shore Dr

## Traffic Data Consultants

File Name : NShoreDr(SR-18) Friday  
Site Code : 1  
Start Date : 3/2/2007  
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	1	0	0	1	0	1	0	1
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Total Volume	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	2
% App. Total	0	0	0	0	0	0	0	100	0	0	0	0	100	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.000	.500	.000	.500	.500

City of: Big Bear  
 N/S: Big Bear Blvd  
 E/W: North Shore Drive

File Name : NShoreDr&BigBearBlvd Comb Sun  
 Site Code : 1  
 Start Date : 3/4/2007  
 Page No : 1

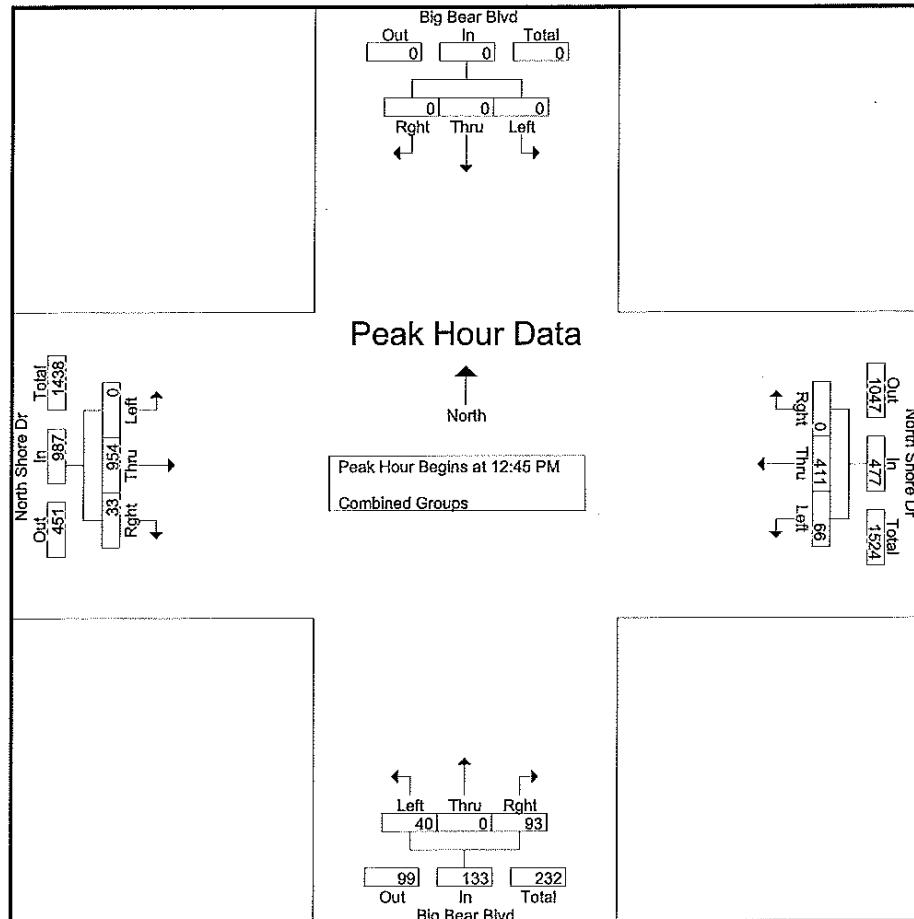
Groups Printed- Combined Groups

Start Time	Big Bear Blvd Southbound				North Shore Dr Westbound				Big Bear Blvd Northbound				North Shore Dr Eastbound				Int. Total
	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	
12:00 PM	0	0	0	0	21	115	0	136	11	0	25	36	0	174	11	185	357
12:15 PM	0	0	0	0	18	101	0	119	8	0	21	29	0	183	6	189	337
12:30 PM	0	0	0	0	18	104	0	122	4	0	24	28	0	183	12	195	345
12:45 PM	0	0	0	0	10	103	0	113	7	0	27	34	0	228	8	236	383
Total	0	0	0	0	67	423	0	490	30	0	97	127	0	768	37	805	1422
01:00 PM	0	0	0	0	11	104	0	115	14	0	27	41	0	237	8	245	401
01:15 PM	0	0	0	0	26	126	0	152	6	0	19	25	0	251	10	261	438
01:30 PM	0	0	0	0	19	78	0	97	13	0	20	33	0	238	7	245	375
01:45 PM	0	0	0	0	18	71	0	89	8	0	22	30	0	213	13	226	345
Total	0	0	0	0	74	379	0	453	41	0	88	129	0	939	38	977	1559
Grand Total	0	0	0	0	141	802	0	943	71	0	185	256	0	1707	75	1782	2981
Apprch %	0	0	0	0	15	85	0	27.7	0	0	72.3	0	0	95.8	4.2		
Total %	0	0	0	0	4.7	26.9	0	31.6	2.4	0	6.2	8.6	0	57.3	2.5	59.8	

Start Time	Big Bear Blvd Southbound				North Shore Dr Westbound				Big Bear Blvd Northbound				North Shore Dr Eastbound				Int. Total	
	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total		
<b>Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1</b>																		
<b>Peak Hour for Entire Intersection Begins at 12:45 PM</b>																		
12:45 PM	0	0	0	0	10	103	0	113	7	0	27	34	0	228	8	236	383	
01:00 PM	0	0	0	0	11	104	0	115	14	0	27	41	0	237	8	245	401	
01:15 PM	0	0	0	0	26	126	0	152	6	0	19	25	0	251	10	261	438	
01:30 PM	0	0	0	0	19	78	0	97	13	0	20	33	0	238	7	245	375	
Total Volume	0	0	0	0	66	411	0	477	40	0	93	133	0	954	33	987	1597	
% App. Total	0	0	0	0	13.8	86.2	0	30.1	0	0	69.9	0	0	96.7	3.3			
PHF	.000	.000	.000	.000	.635	.815	.000	.785	.714	.000	.861	.811	.000	.950	.825	.945	.912	

City of: Big Bear  
 N/S: Big Bear Blvd  
 E/W: North Shore Drive

File Name : NShoreDr&BigBearBlvd Comb Sun  
 Site Code : 1  
 Start Date : 3/4/2007  
 Page No : 2



#### Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	12:00 PM	12:30 PM	12:45 PM		12:45 PM
+0 mins.	0	0	0	0	228
+15 mins.	0	0	0	10	237
+30 mins.	0	0	0	104	251
+45 mins.	0	0	0	103	238
Total Volume	0	0	0	104	954
% App. Total	0	0	0	103	96.7
PHF	.000	.000	.000	.625	.945

City of: Big Bear  
 N/S: Big Bear Blvd  
 E/W: North Shore Drive

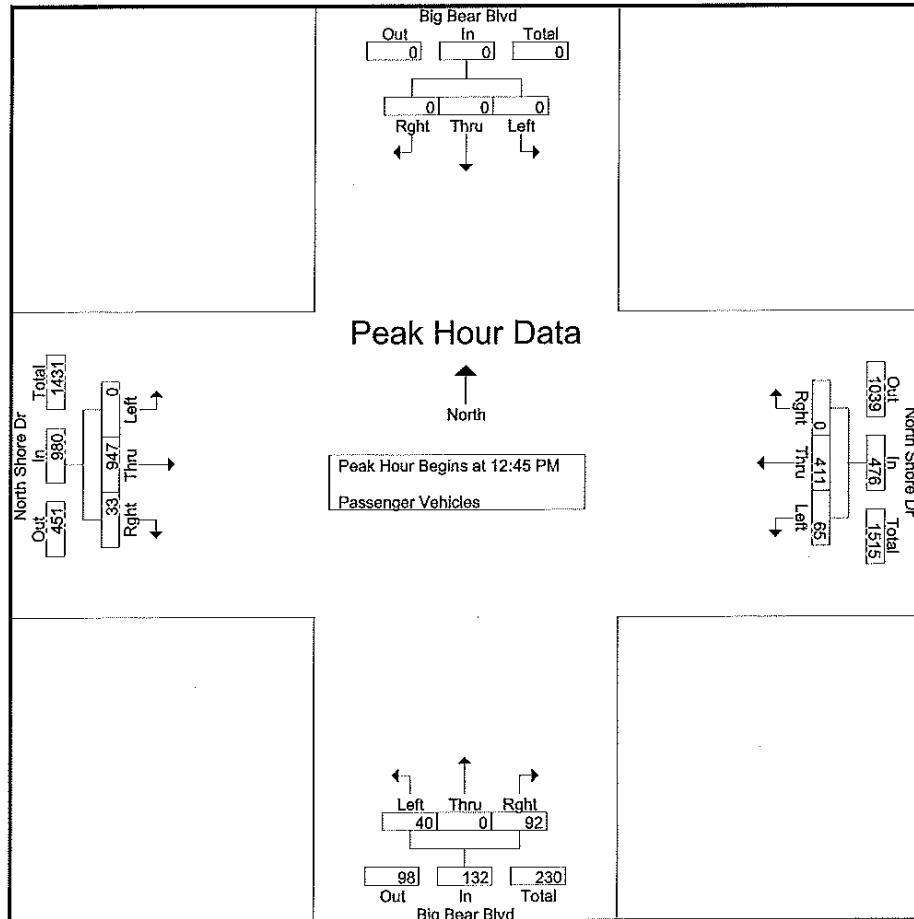
File Name : NShoreDr(SR-18) Sunday  
 Site Code : 1  
 Start Date : 3/4/2007  
 Page No : 1

Groups Printed- Passenger Vehicles																	
	Big Bear Blvd Southbound				North Shore Dr Westbound				Big Bear Blvd Northbound				North Shore Dr Eastbound				
Start Time	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Int. Total
12:00 PM	0	0	0	0	21	115	0	136	11	0	25	36	0	172	11	183	355
12:15 PM	0	0	0	0	18	97	0	115	8	0	21	29	0	183	5	188	332
12:30 PM	0	0	0	0	18	104	0	122	4	0	24	28	0	183	12	195	345
12:45 PM	0	0	0	0	10	103	0	113	7	0	27	34	0	226	8	234	381
Total	0	0	0	0	67	419	0	486	30	0	97	127	0	764	36	800	1413
01:00 PM	0	0	0	0	11	104	0	115	14	0	26	40	0	236	8	244	399
01:15 PM	0	0	0	0	26	126	0	152	6	0	19	25	0	248	10	258	435
01:30 PM	0	0	0	0	18	78	0	96	13	0	20	33	0	237	7	244	373
01:45 PM	0	0	0	0	17	70	0	87	7	0	21	28	0	211	13	224	339
Total	0	0	0	0	72	378	0	450	40	0	86	126	0	932	38	970	1546
Grand Total	0	0	0	0	139	797	0	936	70	0	183	253	0	1696	74	1770	2959
Apprch %	0	0	0	0	14.9	85.1	0	27.7	0	0	72.3	0	0	95.8	4.2		
Total %	0	0	0	0	4.7	26.9	0	31.6	2.4	0	6.2	8.6	0	57.3	2.5	59.8	

	Big Bear Blvd Southbound				North Shore Dr Westbound				Big Bear Blvd Northbound				North Shore Dr Eastbound				
Start Time	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:45 PM																	
12:45 PM	0	0	0	0	10	103	0	113	7	0	27	34	0	226	8	234	381
01:00 PM	0	0	0	0	11	104	0	115	14	0	26	40	0	236	8	244	399
01:15 PM	0	0	0	0	26	126	0	152	6	0	19	25	0	248	10	258	435
01:30 PM	0	0	0	0	18	78	0	96	13	0	20	33	0	237	7	244	373
Total Volume	0	0	0	0	65	411	0	476	40	0	92	132	0	947	33	980	1588
% App. Total	0	0	0	0	13.7	86.3	0	30.3	0	0	69.7	0	0	96.6	3.4		
PHF	.000	.000	.000	.000	.625	.815	.000	.783	.714	.000	.852	.825	.000	.955	.825	.950	.913

City of: Big Bear  
 N/S: Big Bear Blvd  
 E/W: North Shore Drive

File Name : NShoreDr(SR-18) Sunday  
 Site Code : 1  
 Start Date : 3/4/2007  
 Page No : 2



Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	12:00 PM	12:30 PM	12:45 PM	
+0 mins.	0 0 0 0	18 104 0 122	7 0 27 34	0 226 8 234
+15 mins.	0 0 0 0	10 103 0 113	14 0 26 40	0 236 8 244
+30 mins.	0 0 0 0	11 104 0 115	6 0 19 25	0 248 10 258
+45 mins.	0 0 0 0	26 126 0 152	13 0 20 33	0 237 7 244
Total Volume	0 0 0 0	65 437 0 502	40 0 92 132	0 947 33 980
% App. Total	0 0 0	12.9 87.1 0	30.3 0 69.7	0 96.6 3.4
PHF	.000 .000 .000 .000	.625 .867 .000 .826	.714 .000 .852 .825	.000 .955 .825 .950

City of: Big Bear  
 N/S: Big Bear Blvd  
 E/W: North Shore Drive

File Name : NShoreDr(SR-18) Sunday  
 Site Code : 1  
 Start Date : 3/4/2007  
 Page No : 1

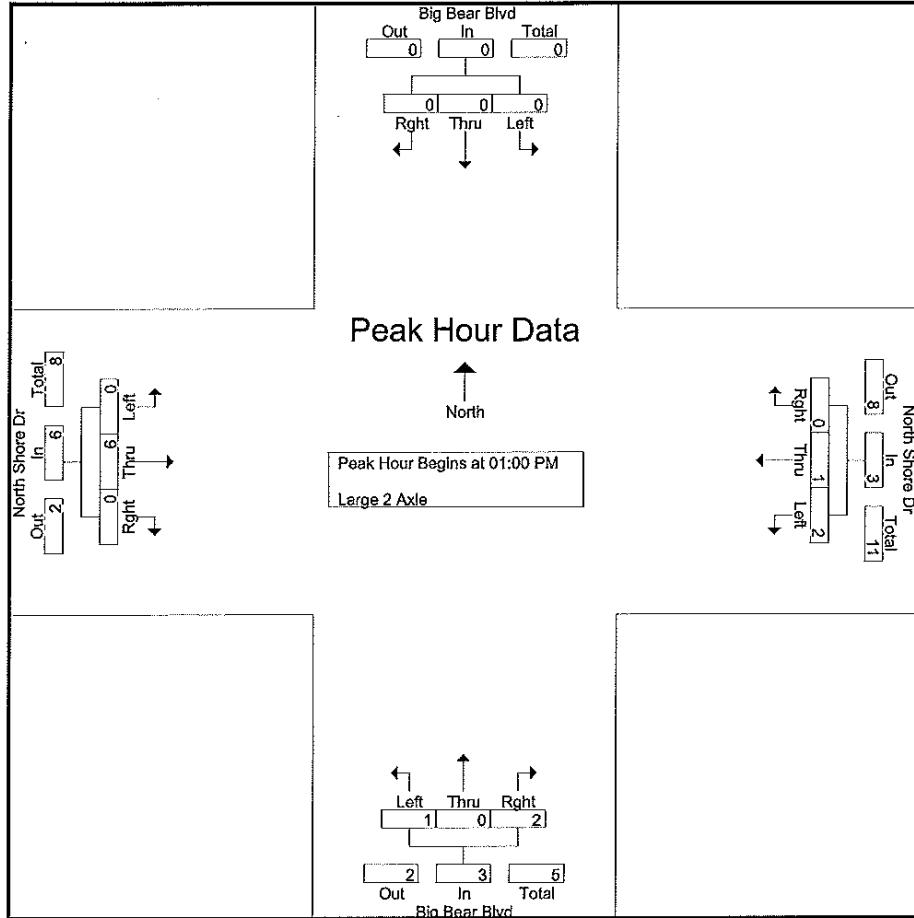
Groups Printed- Large 2 Axle

	Big Bear Blvd Southbound				North Shore Dr Westbound				Big Bear Blvd Northbound				North Shore Dr Eastbound				
	Start Time	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
12:15 PM	0	0	0	0	0	0	3	0	3	0	0	0	0	0	0	1	1
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
Total		0	0	0	0	0	3	0	3	0	0	0	0	0	4	1	5
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3
01:30 PM	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	1
01:45 PM	0	0	0	0	0	1	1	0	2	1	0	1	2	0	2	0	2
Total		0	0	0	0	2	1	0	3	1	0	2	3	0	6	0	6
Grand Total		0	0	0	0	2	4	0	6	1	0	2	3	0	10	1	11
Apprch %		0	0	0	0	33.3	66.7	0	33.3	0	0	66.7	0	90.9	9.1		20
Total %		0	0	0	0	10	20	0	30	5	0	10	15	0	50	5	55

	Big Bear Blvd Southbound				North Shore Dr Westbound				Big Bear Blvd Northbound				North Shore Dr Eastbound				
	Start Time	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 01:00 PM																	
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3
01:30 PM	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	1
01:45 PM	0	0	0	0	0	1	1	0	2	1	0	1	2	0	2	0	2
Total Volume		0	0	0	0	2	1	0	3	1	0	2	3	0	6	0	6
% App. Total		0	0	0	0	66.7	33.3	0	33.3	0	0	66.7	0	100	0		
PHF	.000	.000	.000	.000	.500	.250	.000	.375	.250	.000	.500	.375	.000	.500	.000	.500	.500

City of: Big Bear  
 N/S: Big Bear Blvd  
 E/W: North Shore Drive

File Name : NShoreDr(SR-18) Sunday  
 Site Code : 1  
 Start Date : 3/4/2007  
 Page No : 2



Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1  
 Peak Hour for Each Approach Begins at:

	12:00 PM				12:00 PM				01:00 PM				12:45 PM			
	Out	In	Total	PHF												
+0 mins.	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	2
+15 mins.	0	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3
+45 mins.	0	0	0	0	0	0	0	0	1	0	1	2	0	1	0	1
Total Volume	0	0	0	0	0	3	0	3	1	0	2	3	0	6	0	6
% App. Total	0	0	0	0	0	100	0	33.3	0	66.7	0	100	0	100	0	100
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.250	.000	.500	.375	.000	.500	.000	.500

City of: Big Bear  
 N/S: Big Bear Blvd  
 E/W: North Shore Drive

File Name : NShoreDr(SR-18) Sunday  
 Site Code : 1  
 Start Date : 3/4/2007  
 Page No : 1

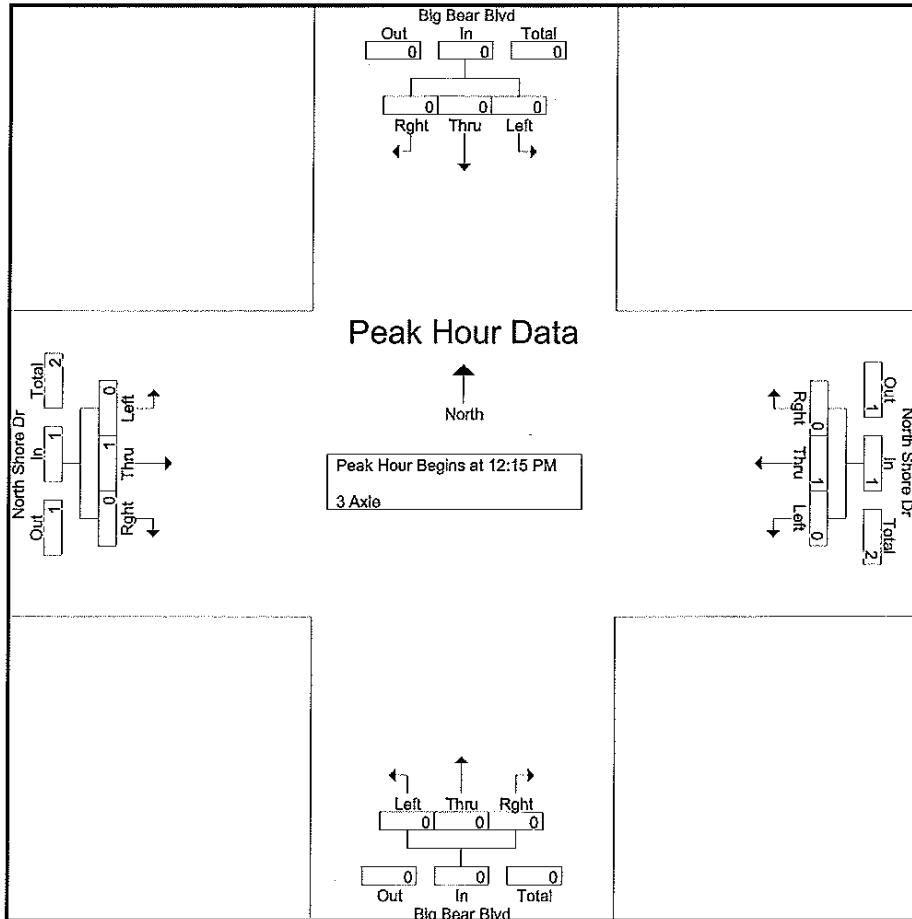
Groups Printed- 3 Axle

	Big Bear Blvd Southbound				North Shore Dr Westbound				Big Bear Blvd Northbound				North Shore Dr Eastbound				
Start Time	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Int. Total
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Grand Total	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
Apprch %	0	0	0	0	0	100	0	0	0	0	0	0	0	100	0	0	0
Total %	0	0	0	0	0	50	0	50	0	0	0	0	0	50	0	50	50

	Big Bear Blvd Southbound				North Shore Dr Westbound				Big Bear Blvd Northbound				North Shore Dr Eastbound				
Start Time	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:15 PM																	
12:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total Volume	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
% App. Total	0	0	0	0	0	100	0	0	0	0	0	0	0	100	0	0	0
PHF	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.000	.250	.000	.250	.500

City of: Big Bear  
 N/S: Big Bear Blvd  
 E/W: North Shore Drive

File Name : NShoreDr(SR-18) Sunday  
 Site Code : 1  
 Start Date : 3/4/2007  
 Page No : 2



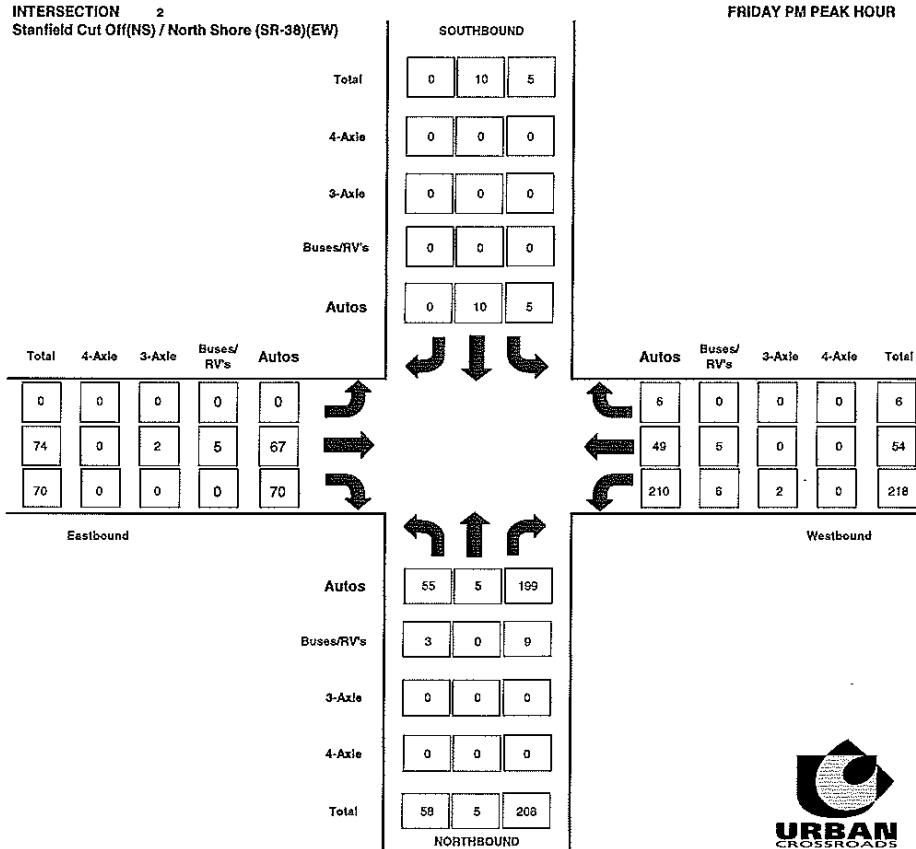
#### Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	12:00 PM	12:00 PM	12:00 PM	12:15 PM
+0 mins.	0	0	0	0
+15 mins.	0	0	0	0
+30 mins.	0	0	0	0
+45 mins.	0	0	0	0
Total Volume	0	0	0	0
% App. Total	0	0	100	0
PHF	.000	.000	.000	.250

### PASSENGER CAR EQUIVALENCY PEAK HOUR COUNT SUMMARY

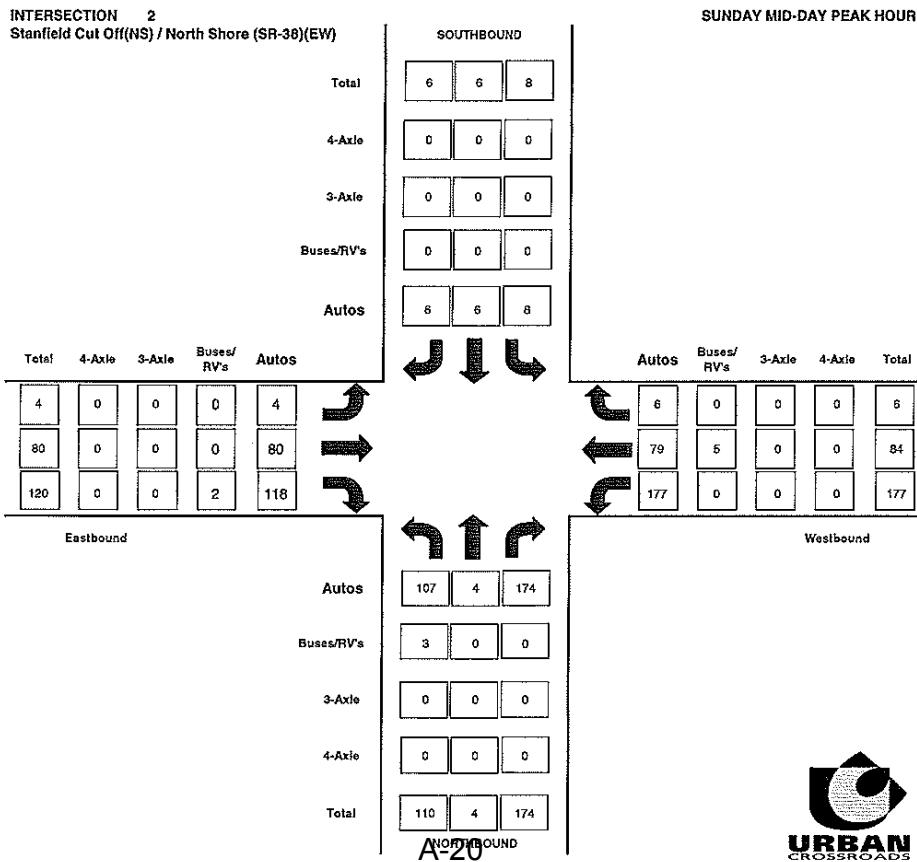
**INTERSECTION 2**  
Stanfield Cut Off(NS) / North Shore (SR-38)(EW)



**FRIDAY PM PEAK HOUR**



**INTERSECTION 2**  
Stanfield Cut Off(NS) / North Shore (SR-38)(EW)



**SUNDAY MID-DAY PEAK HOUR**



City of: Big Bear  
 N/S: Stanfield Cutoff  
 E/W: North Shore Dr

### Traffic Data Consultants

File Name : Stanfield&NShoreDr Combined Fri  
 Site Code : 2  
 Start Date : 3/2/2007  
 Page No : 1

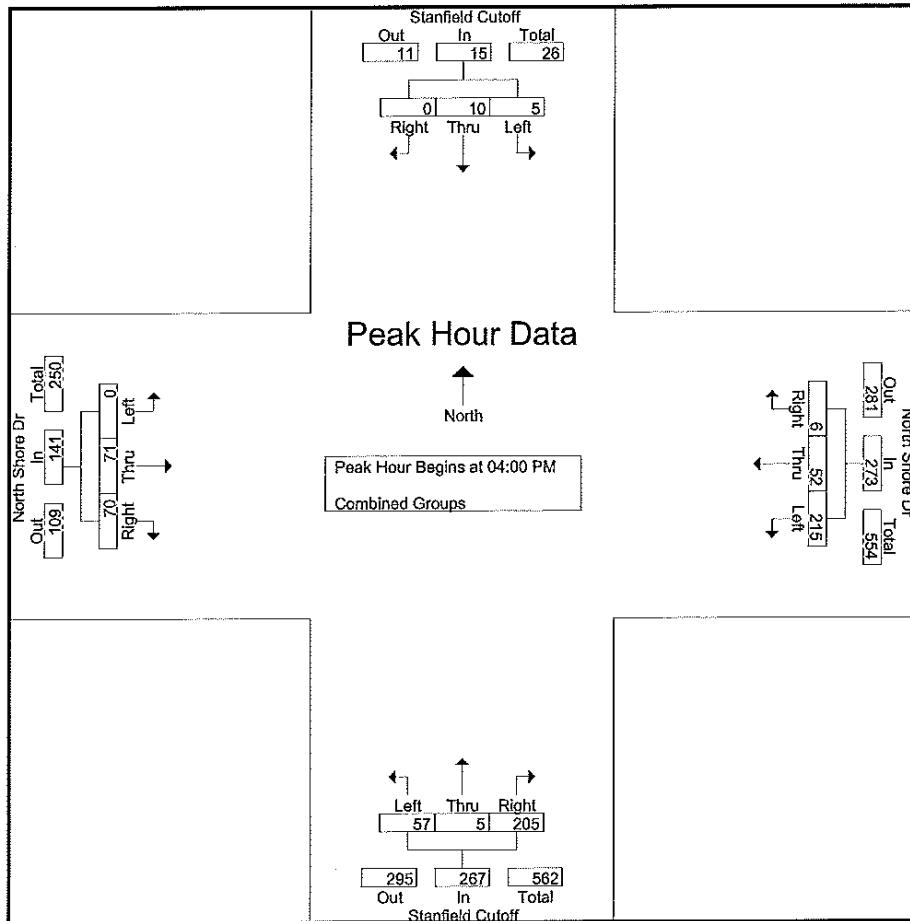
Groups Printed- Combined Groups																	
	Stanfield Cutoff Southbound				North Shore Dr Westbound				Stanfield Cutoff Northbound				North Shore Dr Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	1	4	0	5	64	15	2	81	18	1	48	67	0	19	22	41	194
04:15 PM	0	6	0	6	46	10	0	56	11	2	53	66	0	21	20	41	169
04:30 PM	1	0	0	1	57	15	2	74	12	1	54	67	0	11	17	28	170
04:45 PM	3	0	0	3	48	12	2	62	16	1	50	67	0	20	11	31	163
Total	5	10	0	15	215	52	6	273	57	5	205	267	0	71	70	141	696
05:00 PM	1	3	0	4	44	9	2	55	15	4	62	81	0	12	12	24	164
05:15 PM	2	2	0	4	41	8	1	50	14	2	38	54	0	20	15	35	143
05:30 PM	0	2	1	3	40	10	0	50	12	2	48	62	0	11	10	21	136
05:45 PM	3	1	0	4	32	6	1	39	13	0	42	55	0	25	21	46	144
Total	6	8	1	15	157	33	4	194	54	8	190	252	0	68	58	126	587
Grand Total	11	18	1	30	372	85	10	467	111	13	395	519	0	139	128	267	1283
Apprch %	36.7	60	3.3		79.7	18.2	2.1		21.4	2.5	76.1		0	52.1	47.9		
Total %	0.9	1.4	0.1	2.3	29	6.6	0.8	36.4	8.7	1	30.8	40.5	0	10.8	10	20.8	

	Stanfield Cutoff Southbound				North Shore Dr Westbound				Stanfield Cutoff Northbound				North Shore Dr Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	1	4	0	5	64	15	2	81	18	1	48	67	0	19	22	41	194
04:15 PM	0	6	0	6	46	10	0	56	11	2	53	66	0	21	20	41	169
04:30 PM	1	0	0	1	57	15	2	74	12	1	54	67	0	11	17	28	170
04:45 PM	3	0	0	3	48	12	2	62	16	1	50	67	0	20	11	31	163
Total Volume	5	10	0	15	215	52	6	273	57	5	205	267	0	71	70	141	696
% App. Total	33.3	66.7	0		78.8	19	2.2		21.3	1.9	76.8		0	50.4	49.6		
PHF	.417	.417	.000	.625	.840	.867	.750	.843	.792	.625	.949	.996	.000	.845	.795	.860	.897

City of: Big Bear  
N/S: Stanfield Cutoff  
E/W: North Shore Dr

## Traffic Data Consultants

File Name : Stanfield&NShoreDr Combined Fri  
Site Code : 2  
Start Date : 3/2/2007  
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:15 PM				04:00 PM			
+0 mins.	1	4	0	5	64	15	2	81	11	2	53	66	0	19	22	41
+15 mins.	0	6	0	6	46	10	0	56	12	1	54	67	0	21	20	41
+30 mins.	1	0	0	1	57	15	2	74	16	1	50	67	0	11	17	28
+45 mins.	3	0	0	3	48	12	2	62	15	4	62	81	0	20	11	31
Total Volume	5	10	0	15	215	52	6	273	54	8	219	281	0	71	70	141
% App. Total	33.3	66.7	0		78.8	19	2.2		19.2	2.8	77.9		0	50.4	49.6	
PHF	.417	.417	.000	.625	.840	.867	.750	.843	.844	.500	.883	.867	.000	.845	.795	.860

City of: Big Bear  
 N/S: Stanfield Cutoff  
 E/W: North Shore Dr

### Traffic Data Consultants

File Name : Stanfield@NSHoreDr  
 Site Code : 2  
 Start Date : 3/2/2007  
 Page No : 1

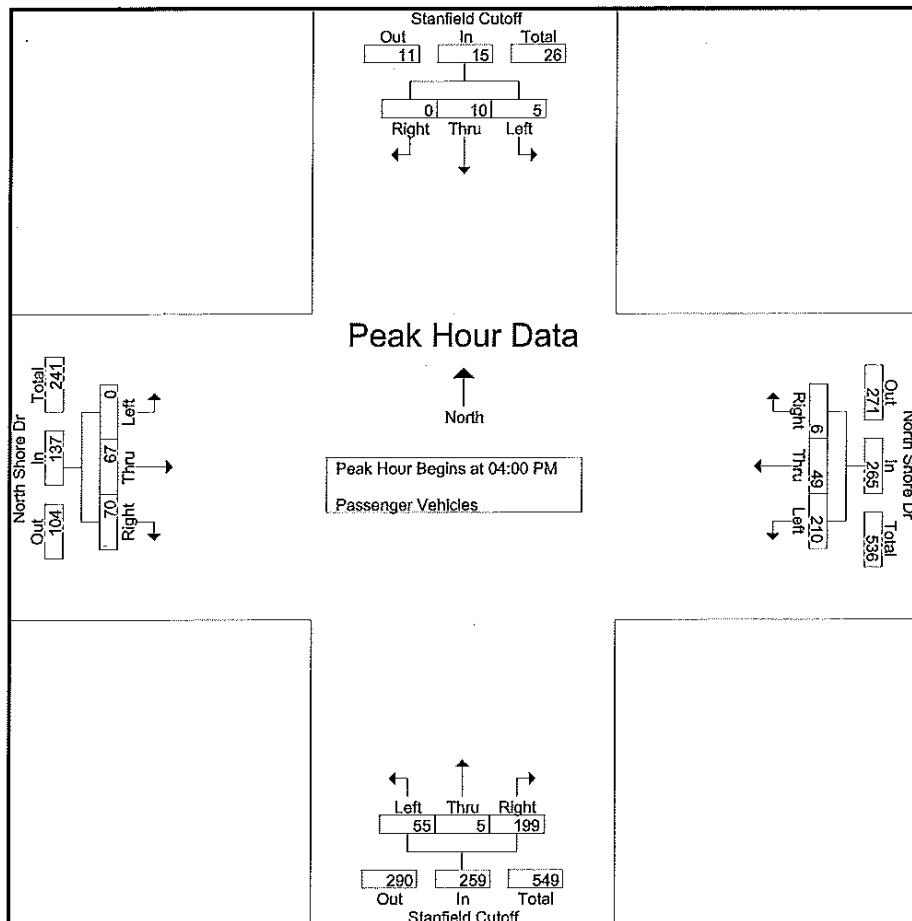
Groups Printed- Passenger Vehicles																	
	Stanfield Cutoff Southbound				North Shore Dr Westbound				Stanfield Cutoff Northbound				North Shore Dr Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	1	4	0	5	61	14	2	77	16	1	48	65	0	18	22	40	187
04:15 PM	0	6	0	6	46	10	0	56	11	2	52	65	0	21	20	41	168
04:30 PM	1	0	0	1	56	14	2	72	12	1	52	65	0	9	17	26	164
04:45 PM	3	0	0	3	47	11	2	60	16	1	47	64	0	19	11	30	157
Total	5	10	0	15	210	49	6	265	55	5	199	259	0	67	70	137	676
05:00 PM	1	3	0	4	44	8	2	54	13	4	61	78	0	11	12	23	159
05:15 PM	2	2	0	4	39	8	1	48	14	2	38	54	0	17	14	31	137
05:30 PM	0	2	1	3	38	10	0	48	12	2	48	62	0	11	10	21	134
05:45 PM	2	1	0	3	30	6	1	37	13	0	42	55	0	24	20	44	139
Total	5	8	1	14	151	32	4	187	52	8	189	249	0	63	56	119	569
Grand Total	10	18	1	29	361	81	10	452	107	13	388	508	0	130	126	256	1245
Apprch %	34.5	62.1	3.4		79.9	17.9	2.2		21.1	2.6	76.4		0	50.8	49.2		
Total %	0.8	1.4	0.1	2.3	29	6.5	0.8	36.3	8.6	1	31.2	40.8	0	10.4	10.1	20.6	

	Stanfield Cutoff Southbound				North Shore Dr Westbound				Stanfield Cutoff Northbound				North Shore Dr Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	1	4	0	5	61	14	2	77	16	1	48	65	0	18	22	40	187
04:15 PM	0	6	0	6	46	10	0	56	11	2	52	65	0	21	20	41	168
04:30 PM	1	0	0	1	56	14	2	72	12	1	52	65	0	9	17	26	164
04:45 PM	3	0	0	3	47	11	2	60	16	1	47	64	0	19	11	30	157
Total Volume	5	10	0	15	210	49	6	265	55	5	199	259	0	67	70	137	676
% App. Total	33.3	66.7	0		79.2	18.5	2.3		21.2	1.9	76.8		0	48.9	51.1		
PHF	.417	.417	.000	.625	.861	.875	.750	.860	.859	.625	.957	.996	.000	.798	.795	.835	.904

City of: Big Bear  
N/S: Stanfield Cutoff  
E/W: North Shore Dr

## Traffic Data Consultants

File Name : Stanfield@NSHoreDr  
Site Code : 2  
Start Date : 3/2/2007  
Page No : 2



### Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:15 PM				04:00 PM			
+0 mins.	1	4	0	5	61	14	2	77	11	2	52	65	0	18	22	40
+15 mins.	0	6	0	6	46	10	0	56	12	1	52	65	0	21	20	41
+30 mins.	1	0	0	1	56	14	2	72	16	1	47	64	0	9	17	26
+45 mins.	3	0	0	3	47	11	2	60	13	4	61	78	0	19	11	30
Total Volume	5	10	0	15	210	49	6	265	52	8	212	272	0	67	70	137
% App. Total	33.3	66.7	0		79.2	18.5	2.3		19.1	2.9	77.9		0	48.9	51.1	
PHF	.417	.417	.000	.625	.861	.875	.750	.860	.813	.500	.869	.872	.000	.798	.795	.835

City of: Big Bear  
 N/S: Stanfield Cutoff  
 E/W: North Shore Dr

### Traffic Data Consultants

File Name : Stanfield@NSHoreDr  
 Site Code : 2  
 Start Date : 3/2/2007  
 Page No : 1

#### Groups Printed- Large 2 Axle

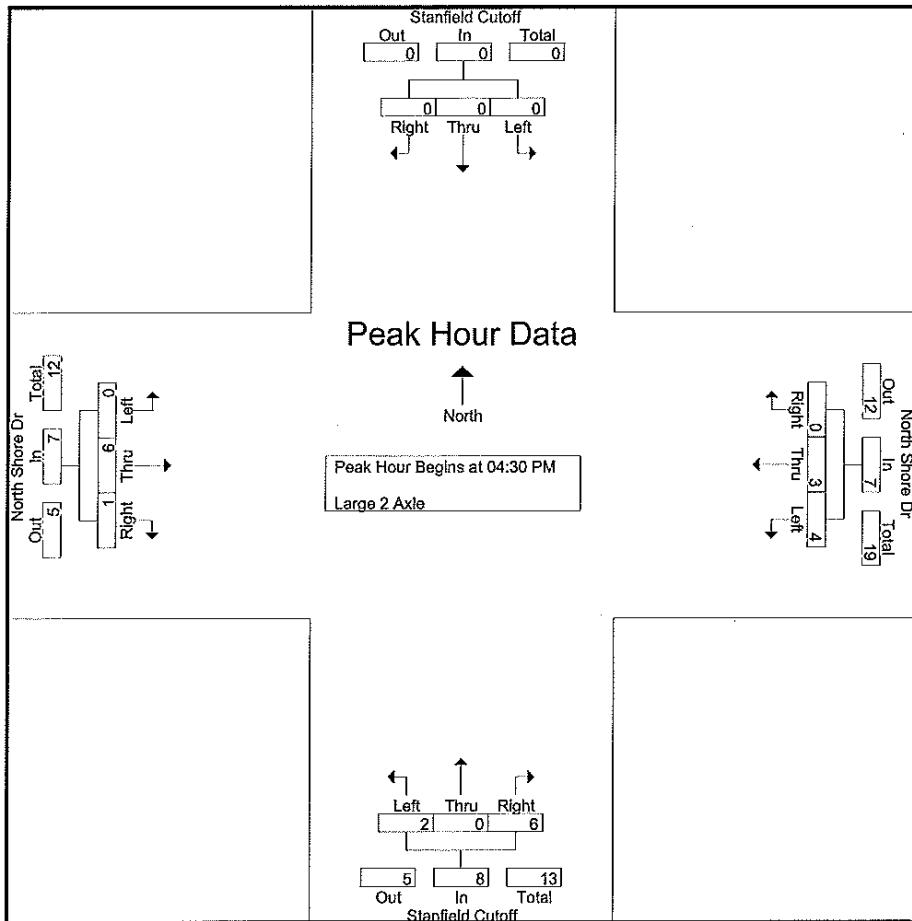
	Stanfield Cutoff Southbound				North Shore Dr Westbound				Stanfield Cutoff Northbound				North Shore Dr Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	2	1	0	3	2	0	0	2	0	1	0	1	6
04:15 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
04:30 PM	0	0	0	0	1	1	0	2	0	0	2	2	0	1	0	1	5
04:45 PM	0	0	0	0	1	1	0	2	0	0	3	3	0	1	0	1	6
Total	0	0	0	0	4	3	0	7	2	0	6	8	0	3	0	3	18
05:00 PM	0	0	0	0	0	1	0	1	2	0	1	3	0	1	0	1	5
05:15 PM	0	0	0	0	2	0	0	2	0	0	0	0	0	3	1	4	6
05:30 PM	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	2
05:45 PM	1	0	0	1	2	0	0	2	0	0	0	0	0	1	1	2	5
Total	1	0	0	1	6	1	0	7	2	0	1	3	0	5	2	7	18
Grand Total	1	0	0	1	10	4	0	14	4	0	7	11	0	8	2	10	36
Apprch %	100	0	0		71.4	28.6	0		36.4	0	63.6		0	80	20		
Total %	2.8	0	0	2.8	27.8	11.1	0	38.9	11.1	0	19.4	30.6	0	22.2	5.6	27.8	

	Stanfield Cutoff Southbound				North Shore Dr Westbound				Stanfield Cutoff Northbound				North Shore Dr Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	1	1	0	2	0	0	2	2	0	1	0	1	5
04:45 PM	0	0	0	0	1	1	0	2	0	0	3	3	0	1	0	1	6
05:00 PM	0	0	0	0	0	1	0	1	2	0	1	3	0	1	0	1	5
05:15 PM	0	0	0	0	2	0	0	2	0	0	0	0	0	3	1	4	6
Total Volume	0	0	0	0	4	3	0	7	2	0	6	8	0	6	1	7	22
% App. Total	0	0	0		57.1	42.9	0		25	0	75		0	85.7	14.3		
PHF	.000	.000	.000	.000	.500	.750	.000	.875	.250	.000	.500	.667	.000	.500	.250	.438	.917

City of: Big Bear  
N/S: Stanfield Cutoff  
E/W: North Shore Dr

## Traffic Data Consultants

File Name : Stanfield@NSHoreDr  
Site Code : 2  
Start Date : 3/2/2007  
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	05:00 PM	04:00 PM	04:15 PM	04:30 PM
+0 mins.	0 0 0 0	2 1 0 3	0 0 1 1	0 1 0 1
+15 mins.	0 0 0 0	0 0 0 0	0 0 2 2	0 1 0 1
+30 mins.	0 0 0 0	1 1 0 2	0 0 3 3	0 1 0 1
+45 mins.	1 0 0 1	1 1 0 2	0 1 3 0	3 1 4
Total Volume	1 0 0 1	4 3 0 7	2 0 7 9	0 6 1 7
% App. Total	100 0 0	57.1 42.9 0	22.2 0 77.8	0 85.7 14.3
PHF	.250 .000 .000 .250	.500 .750 .000 .583	.250 .000 .583 .750	.000 .500 .250 .438

City of: Big Bear  
 N/S: Stanfield Cutoff  
 E/W: North Shore Dr

### Traffic Data Consultants

File Name : Stanfield@NSHoreDr  
 Site Code : 2  
 Start Date : 3/2/2007  
 Page No : 1

#### Groups Printed- 3 Axle

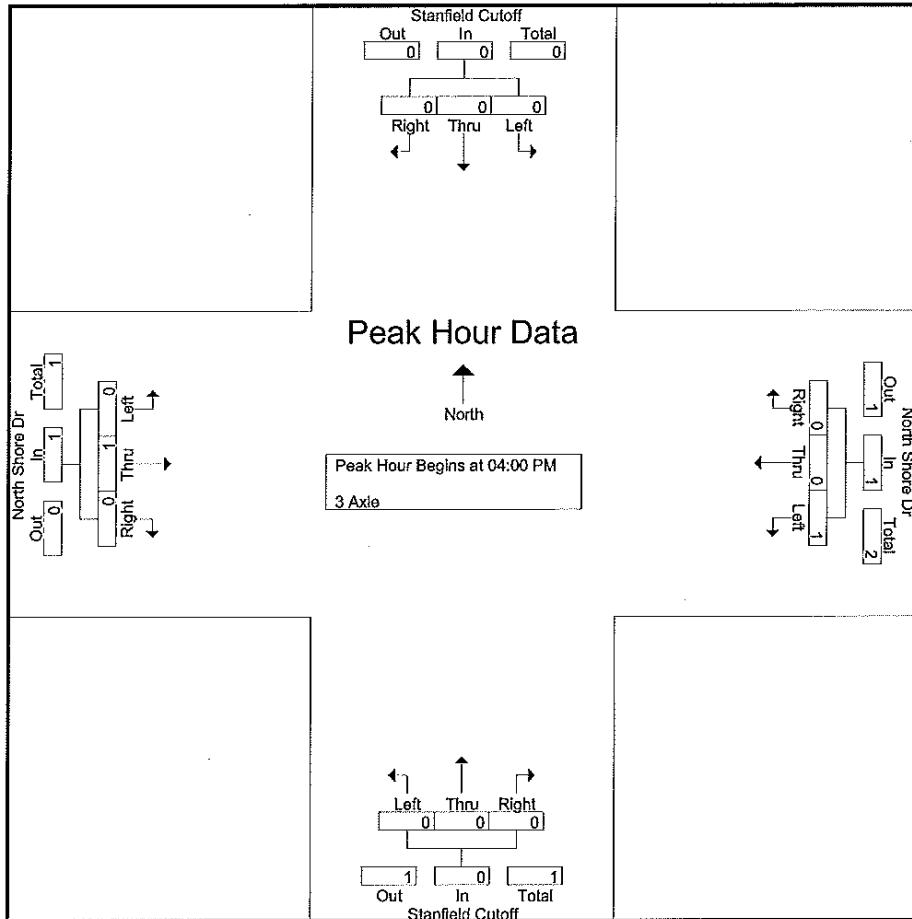
	Stanfield Cutoff Southbound				North Shore Dr Westbound				Stanfield Cutoff Northbound				North Shore Dr Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	1	2
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	1	2
Apprch %	0	0	0	100	0	0	0	0	0	0	0	0	0	100	0	0	0
Total %	0	0	0	0	50	0	0	50	0	0	0	0	0	50	0	50	50

	Stanfield Cutoff Southbound				North Shore Dr Westbound				Stanfield Cutoff Northbound				North Shore Dr Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	1	2
% App. Total	0	0	0	100	0	0	0	0	0	0	0	0	0	100	0	0	0
PHF	.000	.000	.000	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.250	.000	.250	.500

City of: Big Bear  
N/S: Stanfield Cutoff  
E/W: North Shore Dr

## Traffic Data Consultants

File Name : Stanfield@NSHoreDr  
Site Code : 2  
Start Date : 3/2/2007  
Page No : 2



### Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM										
+0 mins.	0	0	0	0	1	0	0	1	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	1	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	0	0	1	0	1	0
% App. Total	0	0	0	0	100	0	0	0	0	100	0
PHF	.000	.000	.000	.000	.250	.000	.000	.250	.000	.250	.000

City of: Big Bear  
 N/S: Stanfield Cutoff  
 E/W: North Shore Drive

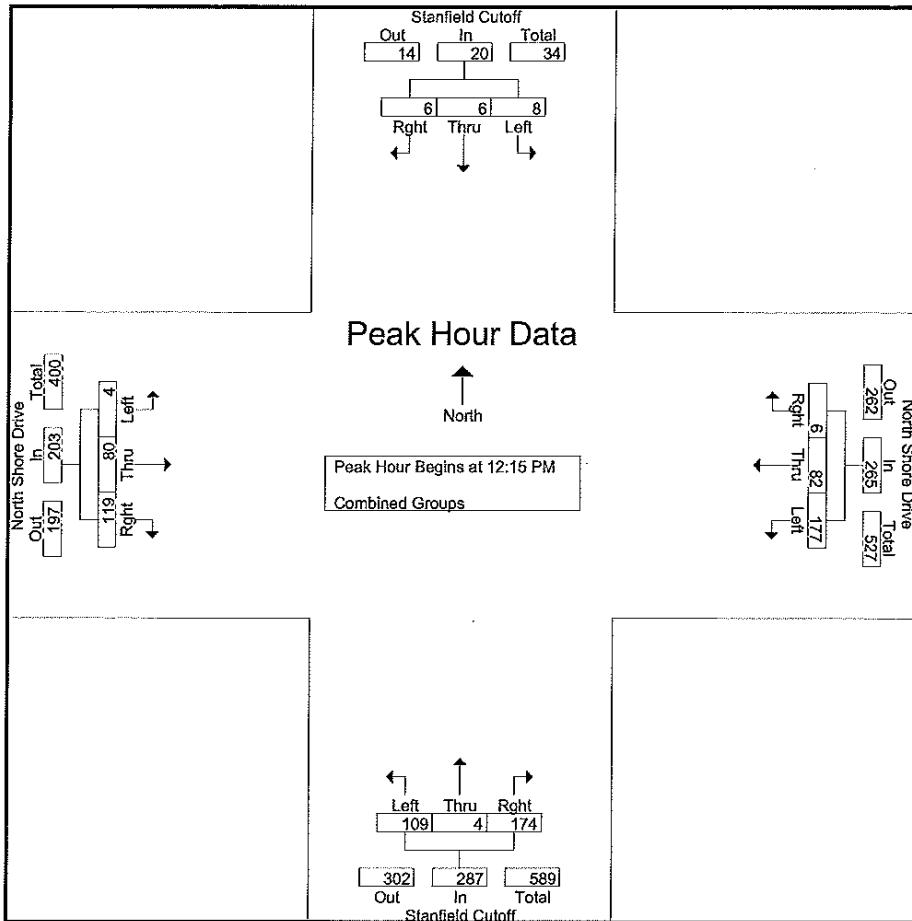
File Name : Stanfield&NShoreDr Combined Sun  
 Site Code : 2  
 Start Date : 3/4/2007  
 Page No : 1

Groups Printed- Combined Groups																	
	Stanfield Cutoff Southbound				North Shore Drive Westbound				Stanfield Cutoff Northbound				North Shore Drive Eastbound				
	Start Time	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total
12:00 PM	2	1	1	4	39	15	4	58	32	1	39	72	0	16	24	40	174
12:15 PM	2	3	3	8	50	25	1	76	23	0	36	59	1	17	25	43	186
12:30 PM	2	1	2	5	47	21	2	70	36	0	41	77	2	21	35	58	210
12:45 PM	2	1	1	4	33	25	2	60	23	2	56	81	0	16	25	41	186
Total	8	6	7	21	169	86	9	264	114	3	172	289	3	70	109	182	756
01:00 PM	2	1	0	3	47	11	1	59	27	2	41	70	1	26	34	61	193
01:15 PM	4	0	1	5	48	14	3	65	22	0	54	76	0	21	19	40	186
01:30 PM	1	3	0	4	34	20	2	56	30	1	62	93	0	14	27	41	194
01:45 PM	0	1	0	1	26	16	3	45	25	1	31	57	0	28	25	53	156
Total	7	5	1	13	155	61	9	225	104	4	188	296	1	89	105	195	729
Grand Total	15	11	8	34	324	147	18	489	218	7	360	585	4	159	214	377	1485
Apprch %	44.1	32.4	23.5		66.3	30.1	3.7		37.3	1.2	61.5		1.1	42.2	56.8		
Total %	1	0.7	0.5	2.3	21.8	9.9	1.2	32.9	14.7	0.5	24.2	39.4	0.3	10.7	14.4	25.4	

	Stanfield Cutoff Southbound				North Shore Drive Westbound				Stanfield Cutoff Northbound				North Shore Drive Eastbound				Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1 Peak Hour for Entire Intersection Begins at 12:15 PM
	Start Time	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total
12:15 PM	2	3	3	8	50	25	1	76	23	0	36	59	1	17	25	43	186
12:30 PM	2	1	2	5	47	21	2	70	36	0	41	77	2	21	35	58	210
12:45 PM	2	1	1	4	33	25	2	60	23	2	56	81	0	16	25	41	186
01:00 PM	2	1	0	3	47	11	1	59	27	2	41	70	1	26	34	61	193
Total Volume	8	6	6	20	177	82	6	265	109	4	174	287	4	80	119	203	775
% App. Total	40	30	30		66.8	30.9	2.3		38	1.4	60.6		2	39.4	58.6		
PHF	1.000	.500	.500	.625	.885	.820	.750	.872	.757	.500	.777	.886	.500	.769	.850	.832	.923

City of: Big Bear  
 N/S: Stanfield Cutoff  
 E/W: North Shore Drive

File Name : Stanfield&NShoreDr Combined Sun  
 Site Code : 2  
 Start Date : 3/4/2007  
 Page No : 2



#### Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	12:00 PM	12:15 PM	12:45 PM	12:15 PM
+0 mins.	2	1	1	4
+15 mins.	2	3	3	8
+30 mins.	2	1	2	5
+45 mins.	2	1	1	4
Total Volume	8	6	7	21
% App. Total	38.1	28.6	33.3	
PHF	1.000	.500	.583	.656
	177	82	6	265
	66.8	30.9	2.3	
				31.9
				1.6
				66.6
				320
				4
				80
				119
				203
				58.6
				2
				39.4
				58.6
				.500
				.769
				.850
				.832

City of: Big Bear  
 N/S: Stanfield Cutoff  
 E/W: North Shore Drive

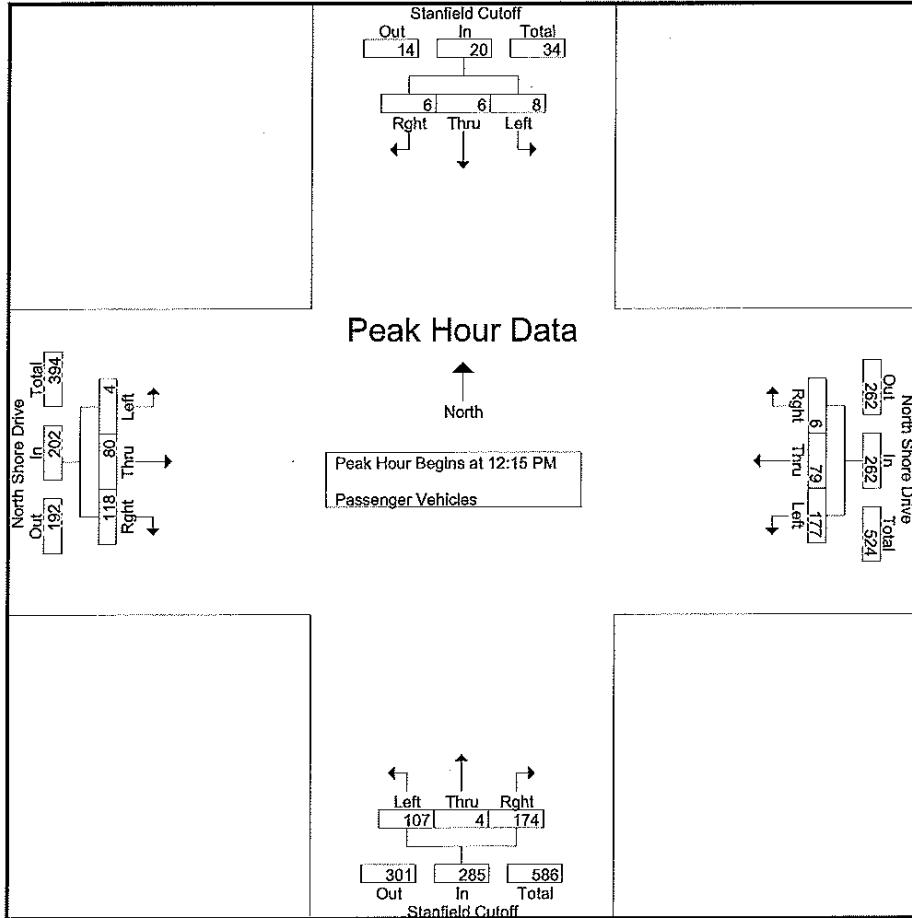
File Name : Stanfield@NShoreDr Sunday  
 Site Code : 2  
 Start Date : 3/4/2007  
 Page No : 1

Groups Printed- Passenger Vehicles																	
	Stanfield Cutoff Southbound				North Shore Drive Westbound				Stanfield Cutoff Northbound				North Shore Drive Eastbound				
Start Time	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Int. Total
12:00 PM	2	1	1	4	39	15	4	58	32	1	39	72	0	16	24	40	174
12:15 PM	2	3	3	8	50	23	1	74	23	0	36	59	1	17	25	43	184
12:30 PM	2	1	2	5	47	21	2	70	36	0	41	77	2	21	35	58	210
12:45 PM	2	1	1	4	33	25	2	60	22	2	56	80	0	16	25	41	185
Total	8	6	7	21	169	84	9	262	113	3	172	288	3	70	109	182	753
01:00 PM	2	1	0	3	47	10	1	58	26	2	41	69	1	26	33	60	190
01:15 PM	4	0	1	5	48	14	3	65	22	0	53	75	0	19	19	38	183
01:30 PM	1	3	0	4	34	20	2	56	29	1	62	92	0	14	27	41	193
01:45 PM	0	1	0	1	25	16	3	44	25	1	30	56	0	27	23	50	151
Total	7	5	1	13	154	60	9	223	102	4	186	292	1	86	102	189	717
Grand Total	15	11	8	34	323	144	18	485	215	7	358	580	4	156	211	371	1470
Apprch %	44.1	32.4	23.5		66.6	29.7	3.7		37.1	1.2	61.7		1.1	42	56.9		
Total %	1	0.7	0.5	2.3	22	9.8	1.2	33	14.6	0.5	24.4	39.5	0.3	10.6	14.4	25.2	

	Stanfield Cutoff Southbound				North Shore Drive Westbound				Stanfield Cutoff Northbound				North Shore Drive Eastbound				
Start Time	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:15 PM																	
12:15 PM	2	3	3	8	50	23	1	74	23	0	36	59	1	17	25	43	184
12:30 PM	2	1	2	5	47	21	2	70	36	0	41	77	2	21	35	58	210
12:45 PM	2	1	1	4	33	25	2	60	22	2	56	80	0	16	25	41	185
01:00 PM	2	1	0	3	47	10	1	58	26	2	41	69	1	26	33	60	190
Total Volume	8	6	6	20	177	79	6	262	107	4	174	285	4	80	118	202	769
% App. Total	40	30	30		67.6	30.2	2.3		37.5	1.4	61.1		2	39.6	58.4		
PHF	1.000	.500	.500	.625	.885	.790	.750	.885	.743	.500	.777	.891	.500	.769	.843	.842	.915

City of: Big Bear  
 N/S: Stanfield Cutoff  
 E/W: North Shore Drive

File Name : Stanfield@NShoreDr Sunday  
 Site Code : 2  
 Start Date : 3/4/2007  
 Page No : 2



#### Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	12:00 PM				12:00 PM				12:45 PM				12:15 PM			
	Out	In	Total	Out	In	Total	Out	In	Total	Out	In	Total	Out	In	Total	Out
+0 mins.	2	1	1	4	39	15	4	58	22	2	56	80	1	17	25	43
+15 mins.	2	3	3	8	50	23	1	74	26	2	41	69	2	21	35	58
+30 mins.	2	1	2	5	47	21	2	70	22	0	53	75	0	16	25	41
+45 mins.	2	1	1	4	33	25	2	60	29	1	62	92	1	26	33	60
Total Volume	8	6	7	21	169	84	9	262	99	5	212	316	4	80	118	202
% App. Total	38.1	28.6	33.3		64.5	32.1	3.4		31.3	1.6	67.1		2	39.6	58.4	
PHF	1.000	.500	.583	.656	.845	.840	.563	.885	.853	.625	.855	.859	.500	.769	.843	.842

City of: Big Bear  
N/S: Stanfield Cutoff  
E/W: North Shore Drive

### Traffic Data Consultants

File Name : Stanfield@NShoreDr Sunday  
Site Code : 2  
Start Date : 3/4/2007  
Page No : 1

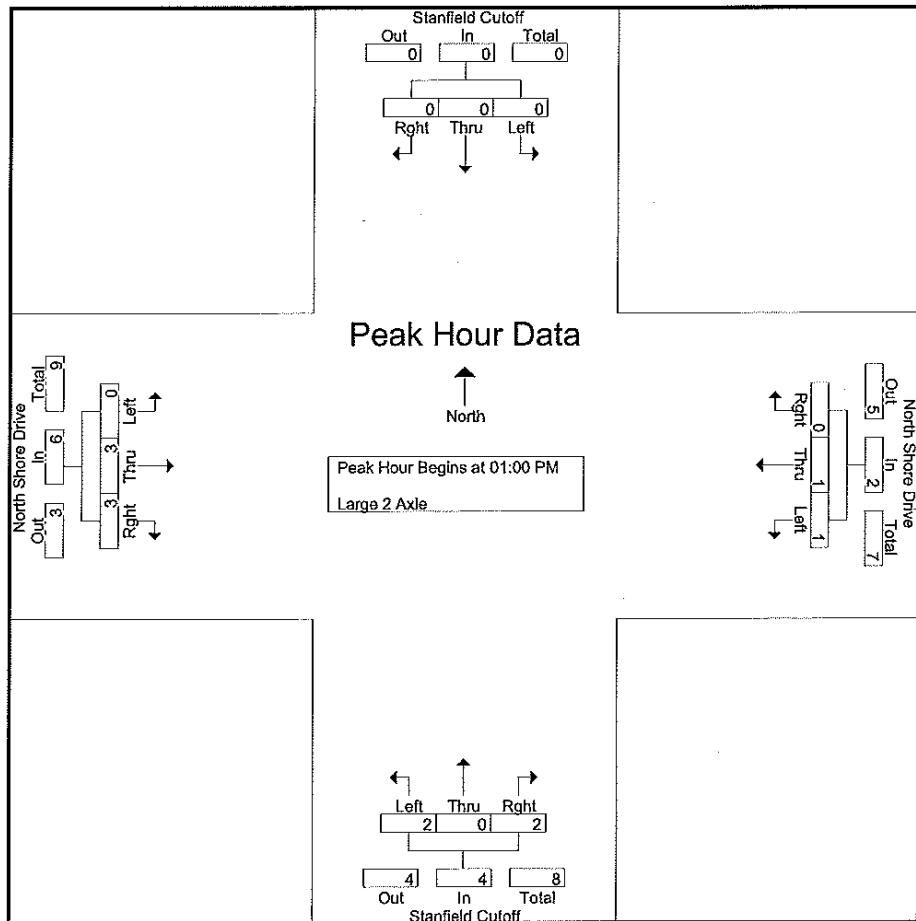
Groups Printed- Large 2 Axle																	
	Stanfield Cutoff Southbound				North Shore Drive Westbound				Stanfield Cutoff Northbound				North Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
Total	0	0	0	0	0	2	0	2	1	0	0	1	0	0	0	0	3
01:00 PM	0	0	0	0	0	1	0	1	1	0	0	1	0	0	1	1	3
01:15 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	2	3
01:30 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
01:45 PM	0	0	0	0	1	0	0	1	0	0	1	1	0	1	2	3	5
Total	0	0	0	0	1	1	0	2	2	0	2	4	0	3	3	6	12
Grand Total	0	0	0	0	-1	3	0	4	3	0	2	5	0	3	3	6	15
Apprch %	0	0	0	0	25	75	0	60	0	40	0	50	0	50	50		
Total %	0	0	0	0	6.7	20	0	26.7	20	0	13.3	33.3	0	20	20	40	

	Stanfield Cutoff Southbound				North Shore Drive Westbound				Stanfield Cutoff Northbound				North Shore Drive Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 01:00 PM																	
01:00 PM	0	0	0	0	0	1	0	1	1	0	0	1	0	0	1	1	3
01:15 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	2	3
01:30 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
01:45 PM	0	0	0	0	1	0	0	1	0	0	1	1	0	1	2	3	5
Total Volume	0	0	0	0	1	1	0	2	2	0	2	4	0	3	3	6	12
% App. Total	0	0	0	0	50	50	0	50	0	50	0	50	0	50	50		
PHF	.000	.000	.000	.000	.250	.250	.000	.500	.500	.000	.500	1.000	.000	.375	.375	.500	.600

City of: Big Bear  
N/S: Stanfield Cutoff  
E/W: North Shore Drive

## Traffic Data Consultants

File Name : Stanfield@NShoreDr Sunday  
Site Code : 2  
Start Date : 3/4/2007  
Page No : 2



Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1  
Peak Hour for Each Approach Begins at:

	12:00 PM	12:15 PM	12:45 PM	01:00 PM
+0 mins.	0 0 0 0	0 2 0 2	1 0 0 1	0 0 1 1
+15 mins.	0 0 0 0	0 0 0 0	0 1 0 1	0 2 0 2
+30 mins.	0 0 0 0	0 0 0 0	0 0 1 1	0 0 0 0
+45 mins.	0 0 0 0	0 1 0 1	1 0 0 1	0 1 2 3
Total Volume	0 0 0 0	0 3 0 3	3 0 1 4	0 3 3 6
% App. Total	0 0 0 0	0 100 0 75	0 25 1 0	50 50 0 0
PHF	.000 .000 .000 .000	.000 .375 .000 .375	.750 .000 .250 1,000	.000 .375 .375 .500

City of: Big Bear  
 N/S: Stanfield Cutoff  
 E/W: North Shore Drive

### Traffic Data Consultants

File Name : Stanfield@NShoreDr Sunday  
 Site Code : 2  
 Start Date : 3/4/2007  
 Page No : 1

#### Groups Printed- 3 Axle

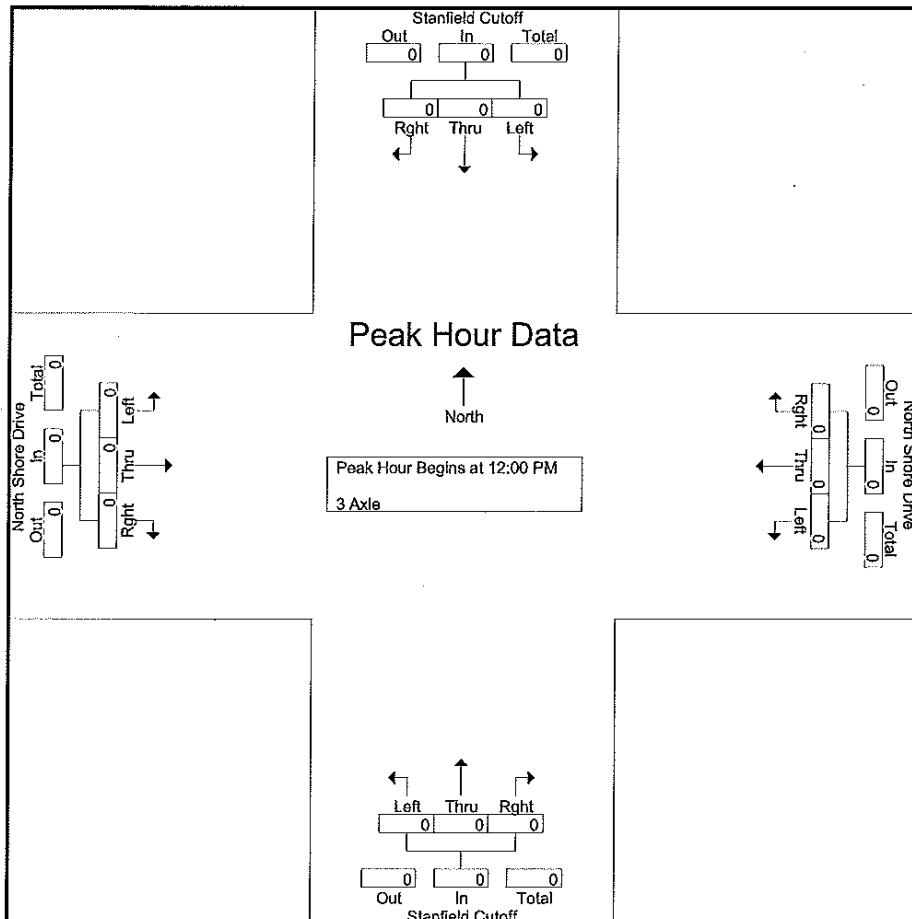
	Stanfield Cutoff Southbound				North Shore Drive Westbound				Stanfield Cutoff Northbound				North Shore Drive Eastbound				
	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Int. Total
Start Time																	
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Approch %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total %																	

	Stanfield Cutoff Southbound				North Shore Drive Westbound				Stanfield Cutoff Northbound				North Shore Drive Eastbound				
	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Int. Total
Start Time																	
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:00 PM																	
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	

City of: Big Bear  
N/S: Stanfield Cutoff  
E/W: North Shore Drive

## Traffic Data Consultants

File Name : Stanfield@NShoreDr Sunday  
Site Code : 2  
Start Date : 3/4/2007  
Page No : 2



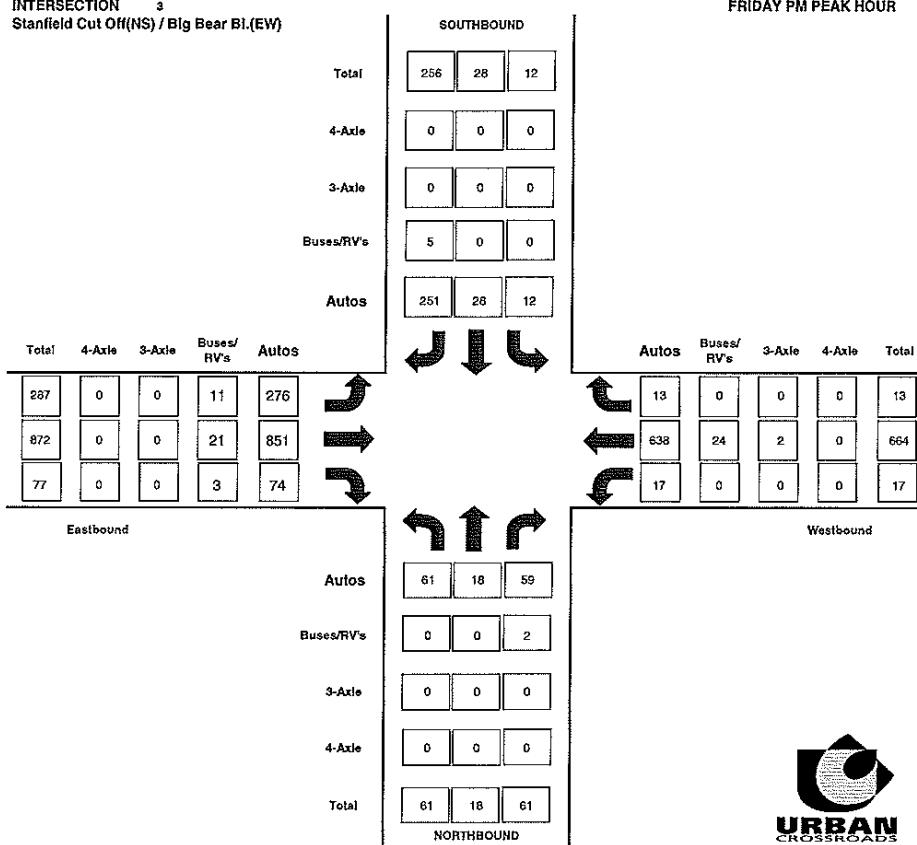
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

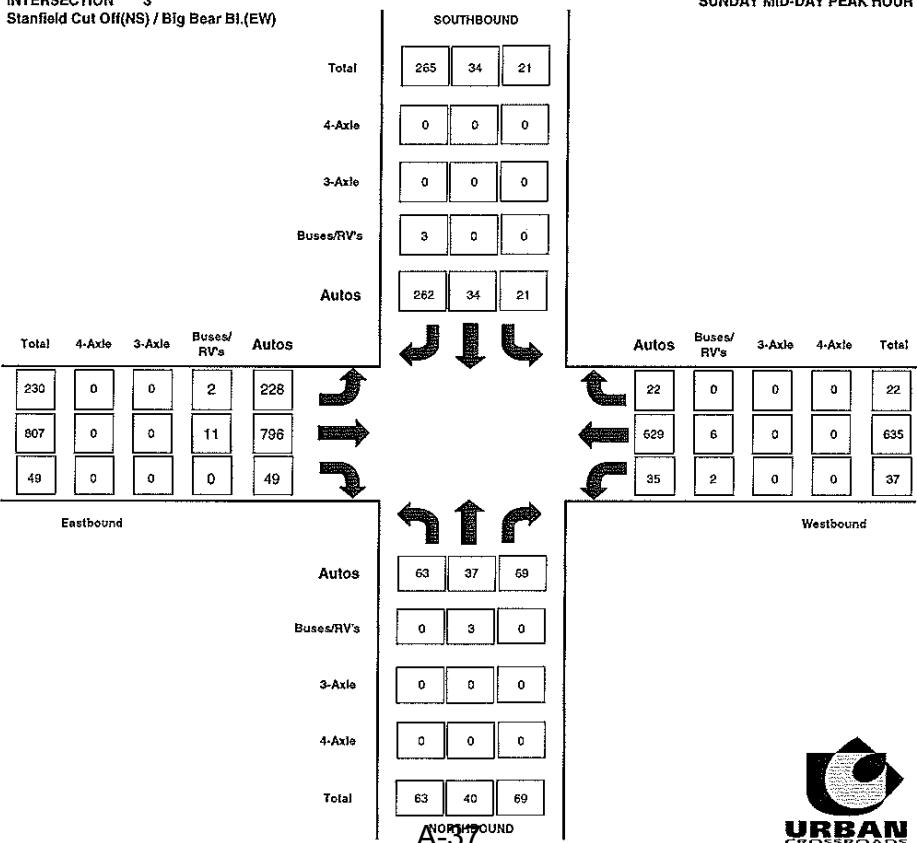
	12:00 PM											
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

### PASSENGER CAR EQUIVALENCY PEAK HOUR COUNT SUMMARY

**INTERSECTION 3**  
Stanfield Cut Off(NS) / Big Bear Bl.(EW)



**INTERSECTION 3**  
Stanfield Cut Off(NS) / Big Bear Bl.(EW)



City of: Big Bear  
N/S: Stanfield Cutoff  
E/W: Big Bear Blvd

### Traffic Data Consultants

File Name : Stanfield&BigBear Combined Fri  
Site Code : 3  
Start Date : 3/2/2007  
Page No : 1

#### Groups Printed- Combined Groups

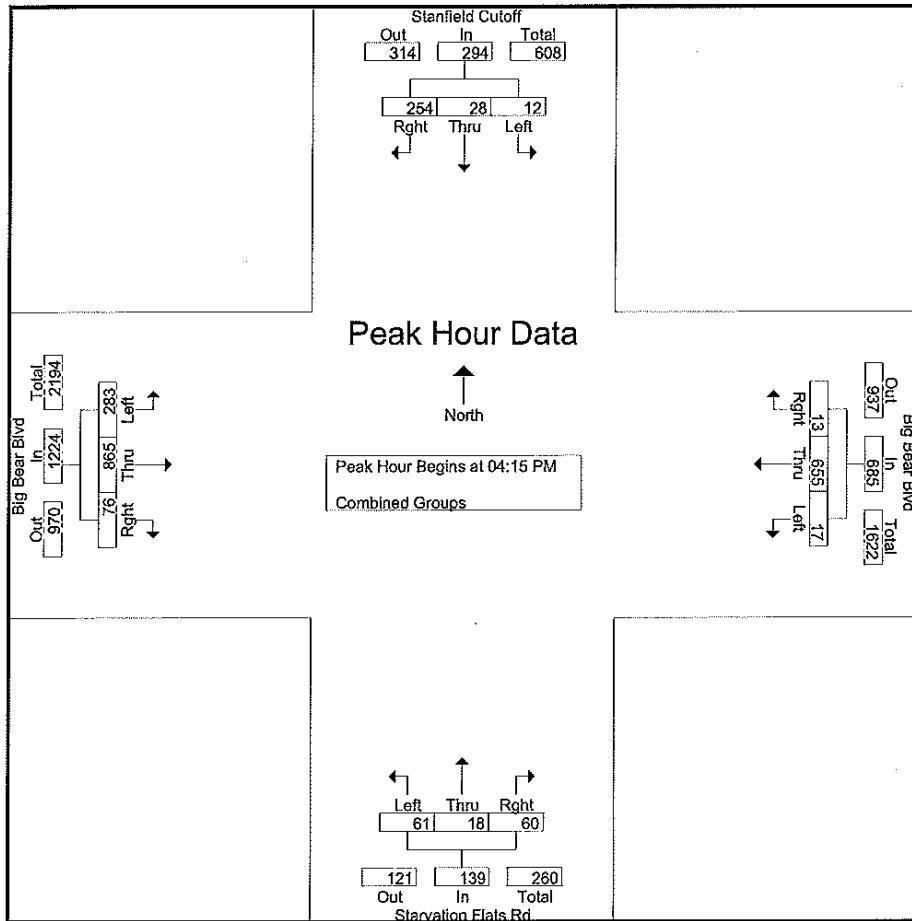
	Stanfield Cutoff Southbound				Big Bear Blvd Westbound				Starvation Flats Rd Northbound				Big Bear Blvd Eastbound				Int. Total	
	Start Time	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	
04:00 PM		3	3	62	68	5	165	6	176	15	3	14	32	67	194	12	273	549
04:15 PM		2	11	65	78	6	154	5	165	12	4	19	35	75	203	16	294	572
04:30 PM		6	7	77	90	4	170	2	176	19	5	18	42	66	211	20	297	605
04:45 PM		1	4	58	63	2	164	1	167	14	5	12	31	73	223	17	313	574
Total		12	25	262	299	17	653	14	684	60	17	63	140	281	831	65	1177	2300
05:00 PM		3	6	54	63	5	167	5	177	16	4	11	31	69	228	23	320	591
05:15 PM		1	4	58	63	8	156	1	165	16	6	13	35	44	240	7	291	554
05:30 PM		3	5	46	54	7	143	1	151	10	5	8	23	49	237	12	298	526
05:45 PM		3	10	55	68	23	127	1	151	13	3	10	26	45	196	9	250	495
Total		10	25	213	248	43	593	8	644	55	18	42	115	207	901	51	1159	2166
Grand Total		22	50	475	547	60	1246	22	1328	115	35	105	255	488	1732	116	2336	4466
Apprch %		4	9.1	86.8		4.5	93.8	1.7		45.1	13.7	41.2		20.9	74.1	5		
Total %		0.5	1.1	10.6	12.2	1.3	27.9	0.5	29.7	2.6	0.8	2.4	5.7	10.9	38.8	2.6	52.3	

	Stanfield Cutoff Southbound				Big Bear Blvd Westbound				Starvation Flats Rd Northbound				Big Bear Blvd Eastbound				Int. Total	
	Start Time	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 04:15 PM																		
04:15 PM		2	11	65	78	6	154	5	165	12	4	19	35	75	203	16	294	572
04:30 PM		6	7	77	90	4	170	2	176	19	5	18	42	66	211	20	297	605
04:45 PM		1	4	58	63	2	164	1	167	14	5	12	31	73	223	17	313	574
05:00 PM		3	6	54	63	5	167	5	177	16	4	11	31	69	228	23	320	591
Total Volume		12	28	254	294	17	655	13	685	61	18	60	139	283	865	76	1224	2342
% App. Total		4.1	9.5	86.4		2.5	95.6	1.9		43.9	12.9	43.2		23.1	70.7	6.2		
PHF		.500	.636	.825	.817	.708	.963	.650	.968	.803	.900	.789	.827	.943	.948	.826	.956	.968

City of: Big Bear  
N/S: Stanfield Cutoff  
E/W: Big Bear Blvd

## Traffic Data Consultants

File Name : Stanfield&BigBear Combined Fri  
Site Code : 3  
Start Date : 3/2/2007  
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:15 PM				04:00 PM				04:15 PM			
+0 mins.	3	3	62	68	6	154	5	165	15	3	14	32	75	203	16	294
+15 mins.	2	11	65	78	4	170	2	176	12	4	19	35	66	211	20	297
+30 mins.	6	7	77	90	2	164	1	167	19	5	18	42	73	223	17	313
+45 mins.	1	4	58	63	5	167	5	177	14	5	12	31	69	228	23	320
Total Volume	12	25	262	299	17	655	13	685	60	17	63	140	283	865	76	1224
% App. Total	4	8.4	87.6		2.5	95.6	1.9		42.9	12.1	45		23.1	70.7	6.2	
PHF	.500	.568	.851	.831	.708	.963	.650	.968	.789	.850	.829	.833	.943	.948	.826	.956

City of: Big Bear  
 N/S: Stanfield Cutoff  
 E/W: Big Bear Blvd

### Traffic Data Consultants

File Name : Stanfield@BigBearBlvd Friday  
 Site Code : 3  
 Start Date : 3/2/2007  
 Page No : 1

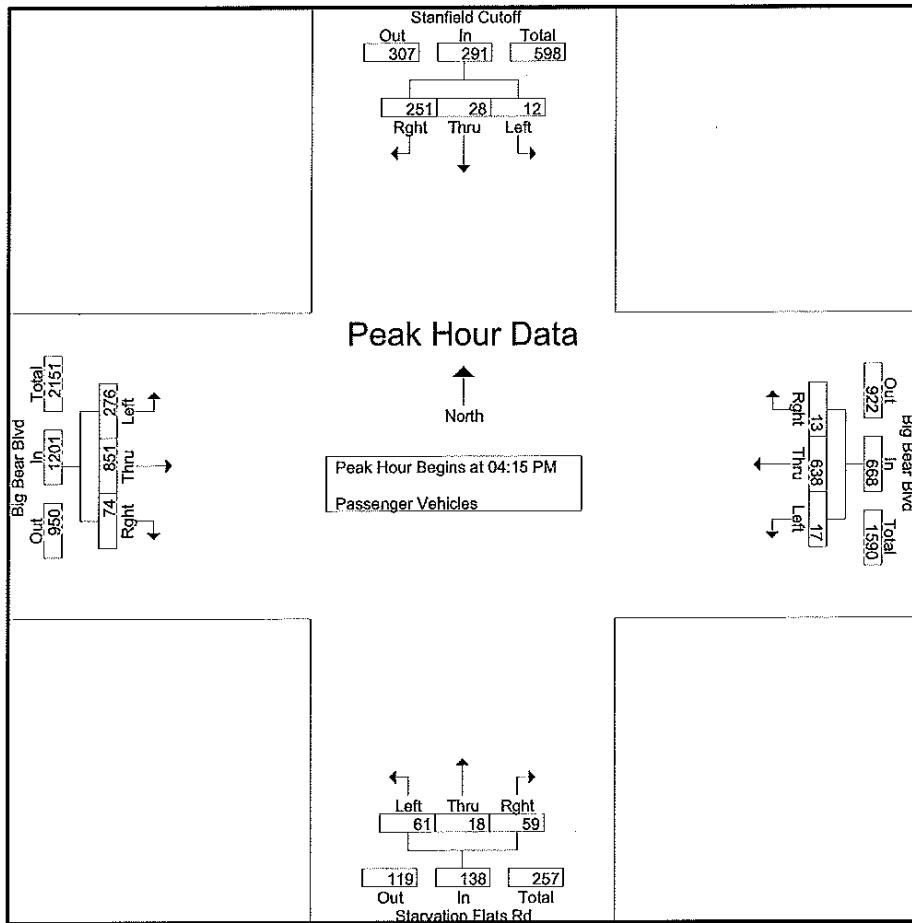
Groups Printed- Passenger Vehicles																	
	Stanfield Cutoff Southbound				Big Bear Blvd Westbound				Starvation Flats Rd Northbound				Big Bear Blvd Eastbound				
Start Time	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Int. Total
04:00 PM	3	3	59	65	5	159	6	170	15	3	14	32	67	194	12	273	540
04:15 PM	2	11	64	77	6	149	5	160	12	4	19	35	74	200	16	290	562
04:30 PM	6	7	76	89	4	166	2	172	19	5	18	42	64	208	19	291	594
04:45 PM	1	4	57	62	2	160	1	163	14	5	12	31	71	218	17	306	562
Total	12	25	256	293	17	634	14	665	60	17	63	140	276	820	64	1160	2258
05:00 PM	3	6	54	63	5	163	5	173	16	4	10	30	67	225	22	314	580
05:15 PM	1	4	55	60	8	150	1	159	16	6	12	34	43	236	7	286	539
05:30 PM	3	4	45	52	7	141	1	149	10	5	7	22	49	234	12	295	518
05:45 PM	3	10	52	65	23	125	1	149	13	3	9	25	45	188	9	242	481
Total	10	24	206	240	43	579	8	630	55	18	38	111	204	883	50	1137	2118
Grand Total	22	49	462	533	60	1213	22	1295	115	35	101	251	480	1703	114	2297	4376
Apprch %	4.1	9.2	86.7		4.6	93.7	1.7		45.8	13.9	40.2		20.9	74.1	5		
Total %	0.5	1.1	10.6	12.2	1.4	27.7	0.5	29.6	2.6	0.8	2.3	5.7	11	38.9	2.6	52.5	

	Stanfield Cutoff Southbound				Big Bear Blvd Westbound				Starvation Flats Rd Northbound				Big Bear Blvd Eastbound				
Start Time	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	2	11	64	77	6	149	5	160	12	4	19	35	74	200	16	290	562
04:30 PM	6	7	76	89	4	166	2	172	19	5	18	42	64	208	19	291	594
04:45 PM	1	4	57	62	2	160	1	163	14	5	12	31	71	218	17	306	562
05:00 PM	3	6	54	63	5	163	5	173	16	4	10	30	67	225	22	314	580
Total Volume	12	28	251	291	17	638	13	668	61	18	59	138	276	851	74	1201	2298
% App. Total	4.1	9.6	86.3		2.5	95.5	1.9		44.2	13	42.8		23	70.9	6.2		
PHF	.500	.636	.826	.817	.708	.961	.650	.965	.803	.900	.776	.821	.932	.946	.841	.956	.967

City of: Big Bear  
N/S: Stanfield Cutoff  
E/W: Big Bear Blvd

## Traffic Data Consultants

File Name : Stanfield@BigBearBlvd Friday  
Site Code : 3  
Start Date : 3/2/2007  
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1  
Peak Hour for Each Approach Begins at:

	04:00 PM				04:15 PM				04:00 PM				04:15 PM			
+0 mins.	3	3	59	65	6	149	5	160	15	3	14	32	74	200	16	290
+15 mins.	2	11	64	77	4	166	2	172	12	4	19	35	64	208	19	291
+30 mins.	6	7	76	89	2	160	1	163	19	5	18	42	71	218	17	306
+45 mins.	1	4	57	62	5	163	5	173	14	5	12	31	67	225	22	314
Total Volume	12	25	256	293	17	638	13	668	60	17	63	140	276	851	74	1201
% App. Total	4.1	8.5	87.4		2.5	95.5	1.9		42.9	12.1	45		23	70.9	6.2	
PHF	.500	.568	.842	.823	.708	.961	.650	.965	.789	.850	.829	.833	.932	.946	.841	.956

City of: Big Bear  
 N/S: Stanfield Cutoff  
 E/W: Big Bear Blvd

### Traffic Data Consultants

File Name : Stanfield@BigBearBlvd Friday  
 Site Code : 3  
 Start Date : 3/2/2007  
 Page No : 1

#### Groups Printed- Large 2 Axle

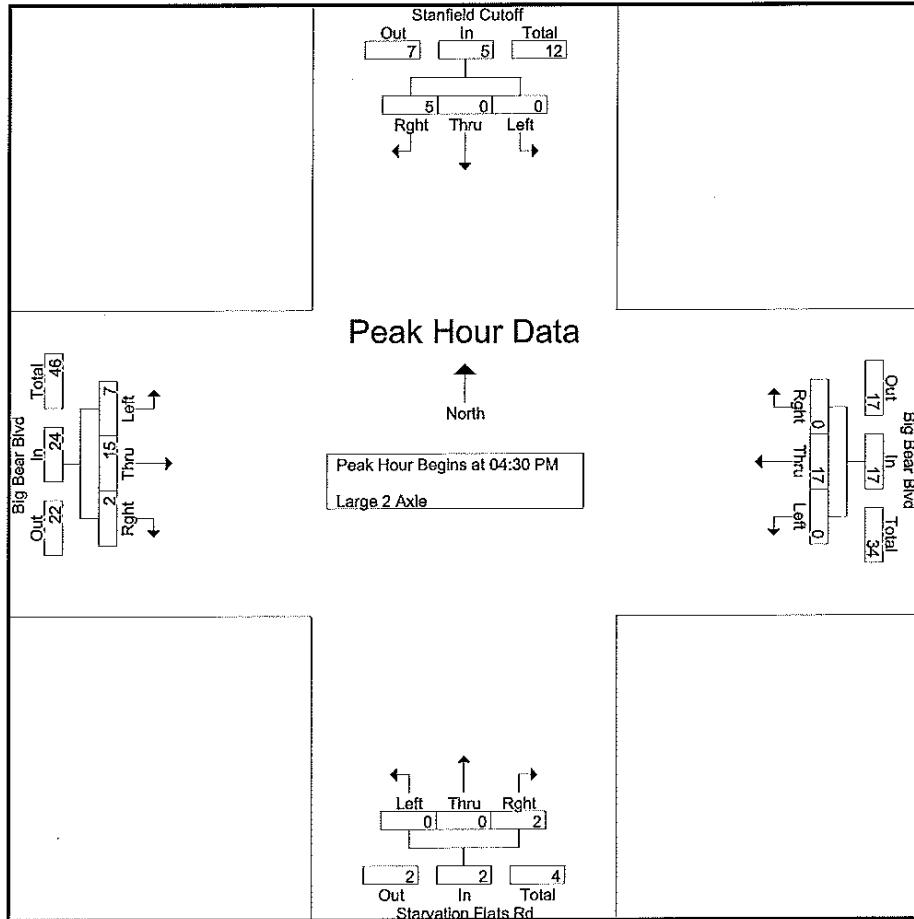
	Stanfield Cutoff Southbound				Big Bear Blvd Westbound				Starvation Flats Rd Northbound				Big Bear Blvd Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	0	2	2	0	5	0	5	0	0	0	0	0	0	0	0	7
04:15 PM	0	0	1	1	0	5	0	5	0	0	0	0	1	3	0	4	10
04:30 PM	0	0	1	1	0	4	0	4	0	0	0	0	2	3	1	6	11
04:45 PM	0	0	1	1	0	4	0	4	0	0	0	0	2	5	0	7	12
Total	0	0	5	5	0	18	0	18	0	0	0	0	5	11	1	17	40
05:00 PM	0	0	0	0	0	3	0	3	0	0	1	1	2	3	1	6	10
05:15 PM	0	0	3	3	0	6	0	6	0	0	1	1	1	4	0	5	15
05:30 PM	0	1	1	2	0	2	0	2	0	0	1	1	0	3	0	3	8
05:45 PM	0	0	3	3	0	2	0	2	0	0	0	0	0	8	0	8	13
Total	0	1	7	8	0	13	0	13	0	0	3	3	3	18	1	22	46
Grand Total	0	1	12	13	0	31	0	31	0	0	3	3	8	29	2	39	86
Apprch %	0	7.7	92.3		0	100	0		0	0	100		20.5	74.4	5.1		
Total %	0	1.2	14	15.1	0	36	0	36	0	0	3.5	3.5	9.3	33.7	2.3	45.3	

	Stanfield Cutoff Southbound				Big Bear Blvd Westbound				Starvation Flats Rd Northbound				Big Bear Blvd Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	1	1	0	4	0	4	0	0	0	0	2	3	1	6	11
04:45 PM	0	0	1	1	0	4	0	4	0	0	0	0	2	5	0	7	12
05:00 PM	0	0	0	0	0	3	0	3	0	0	1	1	2	3	1	6	10
05:15 PM	0	0	3	3	0	6	0	6	0	0	1	1	1	4	0	5	15
Total Volume	0	0	5	5	0	17	0	17	0	0	2	2	7	15	2	24	48
% App. Total	0	0	100		0	100	0		0	0	100		29.2	62.5	8.3		
PHF	.000	.000	.417	.417	.000	.708	.000	.708	.000	.000	.500	.500	.875	.750	.500	.857	.800

City of: Big Bear  
N/S: Stanfield Cutoff  
E/W: Big Bear Blvd

## Traffic Data Consultants

File Name : Stanfield@BigBearBlvd Friday  
Site Code : 3  
Start Date : 3/2/2007  
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### Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	05:00 PM	04:00 PM	04:45 PM	04:30 PM
+0 mins.	0 0 0 0	0 5 0 5	0 0 0 0	2 3 1 6
+15 mins.	0 0 3 3	0 5 0 5	0 0 1 1	2 5 0 7
+30 mins.	0 1 1 2	0 4 0 4	0 0 1 1	2 3 1 6
+45 mins.	0 0 3 3	0 4 0 4	0 0 1 1	1 4 0 5
Total Volume	0 1 7 8	0 18 0 18	0 0 3 3	7 15 2 24
% App. Total	0 12.5 87.5	0 100 0 100	0 0 100	29.2 62.5 8.3
PHF	.000 .250 .583 .667	.000 .900 .000 .900	.000 .000 .750 .750	.875 .750 .500 .857

**City of: Big Bear**  
**N/S: Stanfield Cutoff**  
**E/W: Big Bear Blvd**

Traffic Data Consultants  
**File Name : Stanfield@BigBearBlvd Friday**  
**Site Code : 3**  
**Start Date : 3/2/2007**  
**Page No : 1**

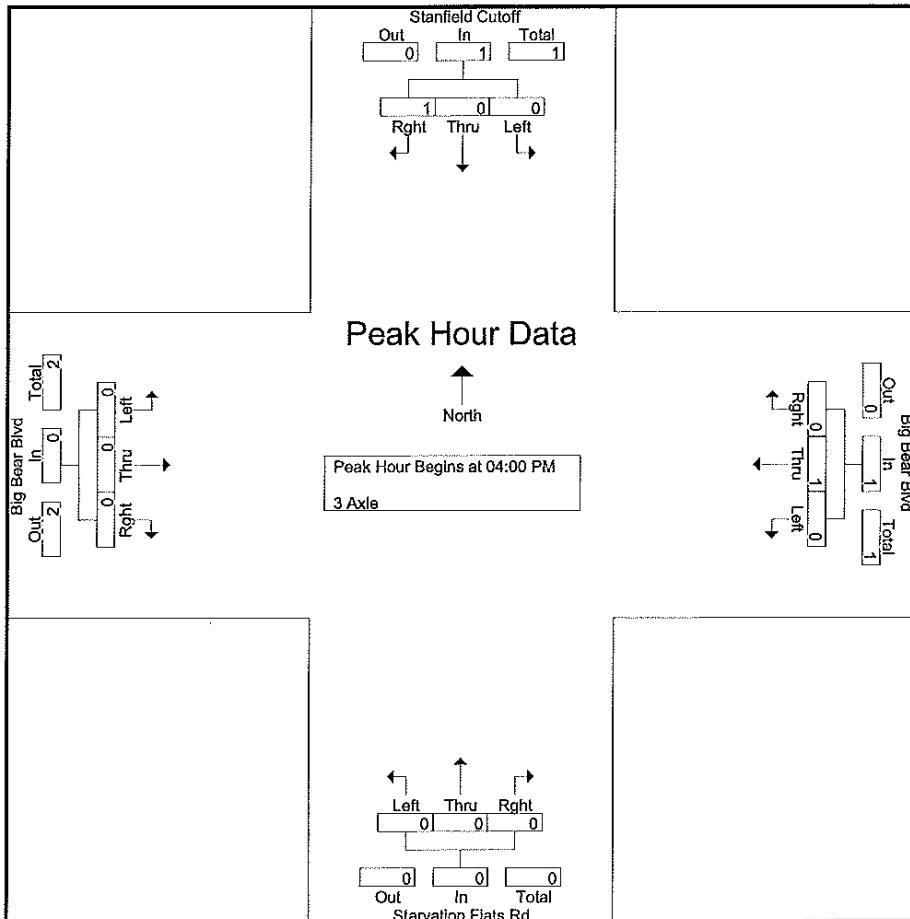
Groups Printed- 3 Axle																	
Start Time	Stanfield Cutoff Southbound				Big Bear Blvd Westbound				Starvation Flats Rd Northbound				Big Bear Blvd Eastbound				
	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Int. Total
04:00 PM	0	0	1	1	0	1	0	1	0	0	0	0	0	0	0	0	2
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	1	1	0	1	0	1	0	0	0	0	0	0	0	0	2
05:00 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
Total	0	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0	2
Grand Total	0	0	1	1	0	2	0	2	0	0	1	1	0	0	0	0	4
Apprch %	0	0	100	100	0	100	0	100	0	0	100	100	0	0	0	0	0
Total %	0	0	25	25	0	50	0	50	0	0	25	25	0	0	0	0	0

Start Time	Stanfield Cutoff Southbound				Big Bear Blvd Westbound				Starvation Flats Rd Northbound				Big Bear Blvd Eastbound				Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1 Peak Hour for Entire Intersection Begins at 04:00 PM
	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	
04:00 PM	0	0	1	1	0	1	0	1	0	0	0	0	0	0	0	0	
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 <th data-kind="ghost"></th>	
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 <th data-kind="ghost"></th>	
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 <th data-kind="ghost"></th>	
Total Volume	0	0	1	1	0	1	0	1	0	0	0	0	0	0	0	0	
% App. Total	0	0	100	100	0	100	0	100	0	0	0	0	0	0	0	0	
PHF	.000	.000	.250	.250	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.000	.250	

City of: Big Bear  
N/S: Stanfield Cutoff  
E/W: Big Bear Blvd

## Traffic Data Consultants

File Name : Stanfield@BigBearBlvd Friday  
Site Code : 3  
Start Date : 3/2/2007  
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				05:00 PM				04:00 PM			
+0 mins.	0	0	1	1	0	1	0	1	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
Total Volume	0	0	1	1	0	1	0	1	0	0	1	1	0	0	0	0
% App. Total	0	0	100	100	0	100	0	0	0	0	100	100	0	0	0	0
PHF	.000	.000	.250	.250	.000	.250	.000	.250	.000	.000	.250	.250	.000	.000	.000	.000

City of: Big Bear  
N/S: Stanfield Cutoff  
E/W: Big Bear Blvd

### Traffic Data Consultants

File Name : Stanfield&BigBearBlvd Comb Sun  
Site Code : 3  
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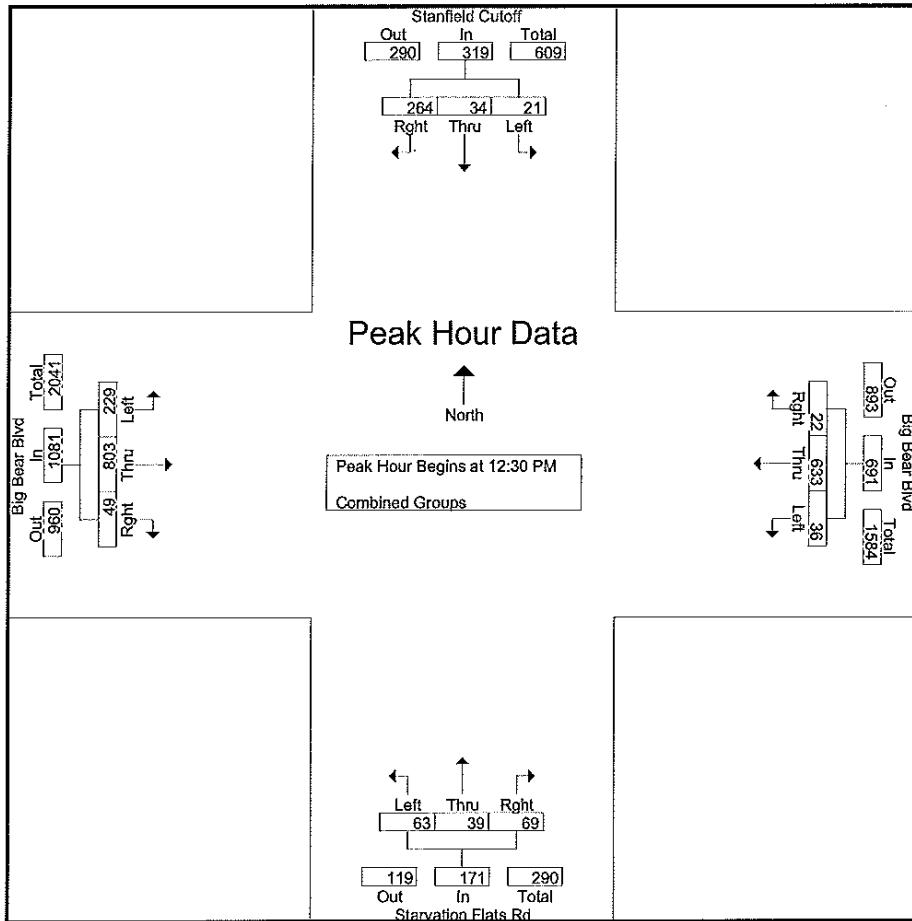
Groups Printed- Combined Groups																	
	Stanfield Cutoff Southbound				Big Bear Blvd Westbound				Starvation Flats Rd Northbound				Big Bear Blvd Eastbound				
Start Time	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Int. Total
12:00 PM	1	4	53	58	17	156	7	180	17	9	7	33	51	184	12	247	518
12:15 PM	3	15	99	117	2	149	6	157	9	4	9	22	22	104	8	134	430
12:30 PM	7	10	81	98	11	166	4	181	11	8	18	37	59	178	11	248	564
12:45 PM	4	11	58	73	7	173	6	186	23	16	21	60	59	198	12	269	588
Total	15	40	291	346	37	644	23	704	60	37	55	152	191	664	43	898	2100
01:00 PM	6	10	67	83	6	144	9	159	17	6	14	37	52	194	15	261	540
01:15 PM	4	3	58	65	12	150	3	165	12	9	16	37	59	233	11	303	570
01:30 PM	5	8	47	60	13	133	10	156	15	3	12	30	81	183	4	268	514
01:45 PM	5	11	43	59	12	140	6	158	18	9	16	43	67	197	6	270	530
Total	20	32	215	267	43	567	28	638	62	27	58	147	259	807	36	1102	2154
Grand Total	35	72	506	613	80	1211	51	1342	122	64	113	299	450	1471	79	2000	4254
Apprch %	5.7	11.7	82.5		6	90.2	3.8		40.8	21.4	37.8		22.5	73.6	4		
Total %	0.8	1.7	11.9	14.4	1.9	28.5	1.2	31.5	2.9	1.5	2.7	7	10.6	34.6	1.9	47	

	Stanfield Cutoff Southbound				Big Bear Blvd Westbound				Starvation Flats Rd Northbound				Big Bear Blvd Eastbound				
Start Time	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:30 PM																	
12:30 PM	7	10	81	98	11	166	4	181	11	8	18	37	59	178	11	248	564
12:45 PM	4	11	58	73	7	173	6	186	23	16	21	60	59	198	12	269	588
01:00 PM	6	10	67	83	6	144	9	159	17	6	14	37	52	194	15	261	540
01:15 PM	4	3	58	65	12	150	3	165	12	9	16	37	59	233	11	303	570
Total Volume	21	34	264	319	36	633	22	691	63	39	69	171	229	803	49	1081	2262
% App. Total	6.6	10.7	82.8		5.2	91.6	3.2		36.8	22.8	40.4		21.2	74.3	4.5		
PHF	.750	.773	.815	.814	.750	.915	.611	.929	.685	.609	.821	.713	.970	.862	.817	.892	.962

City of: Big Bear  
N/S: Stanfield Cutoff  
E/W: Big Bear Blvd

## Traffic Data Consultants

File Name : Stanfield&BigBearBlvd Comb Sun  
Site Code : 3  
Start Date : 3/4/2007  
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Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	12:15 PM				12:00 PM				12:30 PM				01:00 PM			
+0 mins.	3	15	99	117	17	156	7	180	11	8	18	37	52	194	15	261
+15 mins.	7	10	81	98	2	149	6	157	23	16	21	60	59	233	11	303
+30 mins.	4	11	58	73	11	166	4	181	17	6	14	37	81	183	4	268
+45 mins.	6	10	67	83	7	173	6	186	12	9	16	37	67	197	6	270
Total Volume	20	46	305	371	37	644	23	704	63	39	69	171	259	807	36	1102
% App. Total	5.4	12.4	82.2		5.3	91.5	3.3		36.8	22.8	40.4		23.5	73.2	3.3	
PHF	.714	.767	.770	.793	.544	.931	.821	.946	.685	.609	.821	.713	.799	.866	.600	.909

City of: Big Bear  
N/S: Stanfield Cutoff  
E/W: Big Bear Blvd

### Traffic Data Consultants

File Name : Stanfield@BigBearBlvd Sunday  
Site Code : 3  
Start Date : 3/4/2007  
Page No : 1

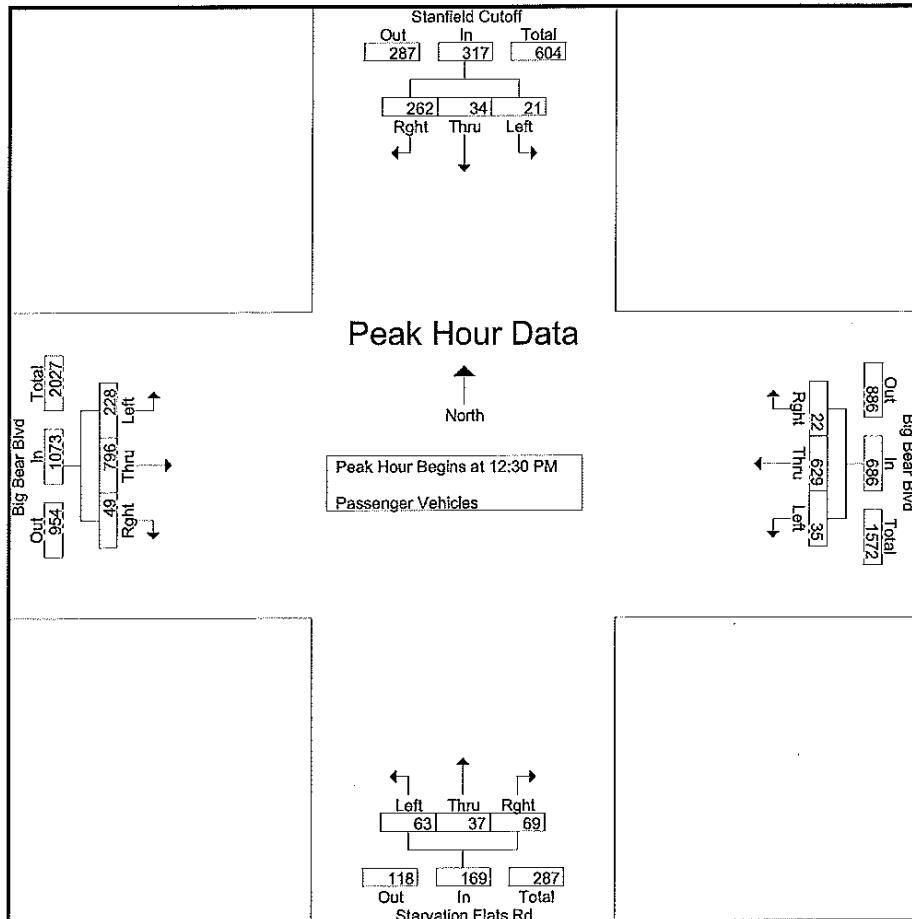
Groups Printed- Passenger Vehicles																	
	Stanfield Cutoff Southbound				Big Bear Blvd Westbound				Starvation Flats Rd Northbound				Big Bear Blvd Eastbound				
Start Time	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Int. Total
12:00 PM	1	4	53	58	17	156	7	180	17	9	7	33	51	182	12	245	516
12:15 PM	3	15	99	117	2	149	6	157	9	4	9	22	22	102	8	132	428
12:30 PM	7	10	81	98	11	166	4	181	11	8	18	37	59	175	11	245	561
12:45 PM	4	11	57	72	6	171	6	183	23	16	21	60	58	198	12	268	583
Total	15	40	290	345	36	642	23	701	60	37	55	152	190	657	43	890	2088
01:00 PM	6	10	66	82	6	144	9	159	17	5	14	36	52	191	15	258	535
01:15 PM	4	3	58	65	12	148	3	163	12	8	16	36	59	232	11	302	566
01:30 PM	5	8	47	60	13	132	10	155	15	3	12	30	80	183	4	267	512
01:45 PM	5	10	42	57	12	139	6	157	18	9	16	43	67	197	6	270	527
Total	20	31	213	264	43	563	28	634	62	25	58	145	258	803	36	1097	2140
Grand Total	35	71	503	609	79	1205	51	1335	122	62	113	297	448	1460	79	1987	4228
Apprch %	5.7	11.7	82.6		5.9	90.3	3.8		41.1	20.9	38		22.5	73.5	4		
Total %	0.8	1.7	11.9	14.4	1.9	28.5	1.2	31.6	2.9	1.5	2.7	7	10.6	34.5	1.9	47	

	Stanfield Cutoff Southbound				Big Bear Blvd Westbound				Starvation Flats Rd Northbound				Big Bear Blvd Eastbound				
Start Time	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:30 PM																	
12:30 PM	7	10	81	98	11	166	4	181	11	8	18	37	59	175	11	245	561
12:45 PM	4	11	57	72	6	171	6	183	23	16	21	60	58	198	12	268	583
01:00 PM	6	10	66	82	6	144	9	159	17	5	14	36	52	191	15	258	535
01:15 PM	4	3	58	65	12	148	3	163	12	8	16	36	59	232	11	302	566
Total Volume	21	34	262	317	35	629	22	686	63	37	69	169	228	796	49	1073	2245
% App. Total	6.6	10.7	82.6		5.1	91.7	3.2		37.3	21.9	40.8		21.2	74.2	4.6		
PHF	.750	.773	.809	.809	.729	.920	.611	.937	.685	.578	.821	.704	.966	.858	.817	.888	.963

City of: Big Bear  
N/S: Stanfield Cutoff  
E/W: Big Bear Blvd

## Traffic Data Consultants

File Name : Stanfield@BigBearBlvd Sunday  
Site Code : 3  
Start Date : 3/4/2007  
Page No : 2



### Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	12:15 PM				12:00 PM				12:30 PM				01:00 PM			
+0 mins.	3	15	99	117	17	156	7	180	11	8	18	37	52	191	15	258
+15 mins.	7	10	81	98	2	149	6	157	23	16	21	60	59	232	11	302
+30 mins.	4	11	57	72	11	166	4	181	17	5	14	36	80	183	4	267
+45 mins.	6	10	66	82	6	171	6	183	12	8	16	36	67	197	6	270
<b>Total Volume</b>	<b>20</b>	<b>46</b>	<b>303</b>	<b>369</b>	<b>36</b>	<b>642</b>	<b>23</b>	<b>701</b>	<b>63</b>	<b>37</b>	<b>69</b>	<b>169</b>	<b>258</b>	<b>803</b>	<b>36</b>	<b>1097</b>
<b>% App. Total</b>	<b>5.4</b>	<b>12.5</b>	<b>82.1</b>		<b>5.1</b>	<b>91.6</b>	<b>3.3</b>		<b>37.3</b>	<b>21.9</b>	<b>40.8</b>		<b>23.5</b>	<b>73.2</b>	<b>3.3</b>	
<b>PHF</b>	<b>.714</b>	<b>.767</b>	<b>.765</b>	<b>.788</b>	<b>.529</b>	<b>.939</b>	<b>.821</b>	<b>.958</b>	<b>.685</b>	<b>.578</b>	<b>.821</b>	<b>.704</b>	<b>.806</b>	<b>.865</b>	<b>.600</b>	<b>.908</b>

City of: Big Bear  
N/S: Stanfield Cutoff  
E/W: Big Bear Blvd

### Traffic Data Consultants

File Name : Stanfield@BigBearBlvd Sunday  
Site Code : 3  
Start Date : 3/4/2007  
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#### Groups Printed- Large 2 Axle

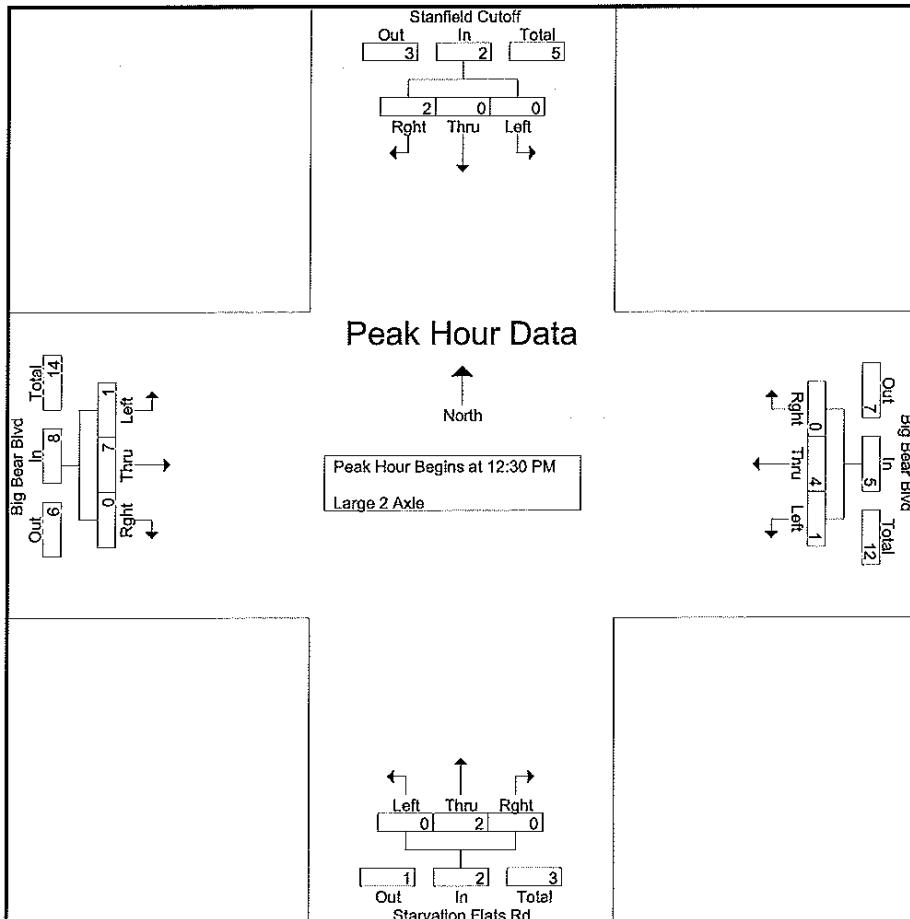
	Stanfield Cutoff Southbound				Big Bear Blvd Westbound				Starvation Flats Rd Northbound				Big Bear Blvd Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	3
12:45 PM	0	0	1	1	1	2	0	3	0	0	0	0	1	0	0	1	5
Total	0	0	1	1	1	2	0	3	0	0	0	0	1	7	0	8	12
01:00 PM	0	0	1	1	0	0	0	0	0	1	0	1	0	3	0	3	5
01:15 PM	0	0	0	0	0	2	0	2	0	1	0	1	0	1	0	1	4
01:30 PM	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	1	2
01:45 PM	0	1	1	2	0	1	0	1	0	0	0	0	0	0	0	0	3
Total	0	1	2	3	0	4	0	4	0	2	0	2	1	4	0	5	14
Grand Total	0	1	3	4	1	6	0	7	0	2	0	2	2	11	0	13	26
Approch %	0	25	75		14.3	85.7	0		0	100	0		15.4	84.6	0		
Total %	0	3.8	11.5	15.4	3.8	23.1	0	26.9	0	7.7	0	7.7	7.7	42.3	0	50	

	Stanfield Cutoff Southbound				Big Bear Blvd Westbound				Starvation Flats Rd Northbound				Big Bear Blvd Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:30 PM																	
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	3
12:45 PM	0	0	1	1	1	2	0	3	0	0	0	0	1	0	0	1	5
01:00 PM	0	0	1	1	0	0	0	0	0	1	0	1	0	3	0	3	5
01:15 PM	0	0	0	0	0	2	0	2	0	1	0	1	0	1	0	1	4
Total Volume	0	0	2	2	1	4	0	5	0	2	0	2	1	7	0	8	17
% App. Total	0	0	100		20	80	0		0	100	0		12.5	87.5	0		
PHF	.000	.000	.500	.500	.250	.500	.000	.417	.000	.500	.000	.500	.250	.583	.000	.667	.850

City of: Big Bear  
N/S: Stanfield Cutoff  
E/W: Big Bear Blvd

## Traffic Data Consultants

File Name : Stanfield@BigBearBlvd Sunday  
Site Code : 3  
Start Date : 3/4/2007  
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Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	01:00 PM				12:45 PM				12:30 PM				12:15 PM			
+0 mins.	0	0	1	1	1	2	0	3	0	0	0	0	0	2	0	2
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3
+30 mins.	0	0	0	0	0	2	0	2	0	1	0	1	1	0	0	1
+45 mins.	0	1	1	2	0	1	0	1	0	1	0	1	0	3	0	3
Total Volume	0	1	2	3	1	5	0	6	0	2	0	2	1	8	0	9
% App. Total	0	33.3	66.7		16.7	83.3	0		0	100	0		11.1	88.9	0	
PHF	.000	.250	.500	.375	.250	.625	.000	.500	.000	.500	.000	.500	.250	.667	.000	.750

City of: Big Bear  
 N/S: Stanfield Cutoff  
 E/W: Big Bear Blvd

### Traffic Data Consultants

File Name : Stanfield@BigBearBlvd Sunday  
 Site Code : 3  
 Start Date : 3/4/2007  
 Page No : 1

#### Groups Printed- 3 Axle

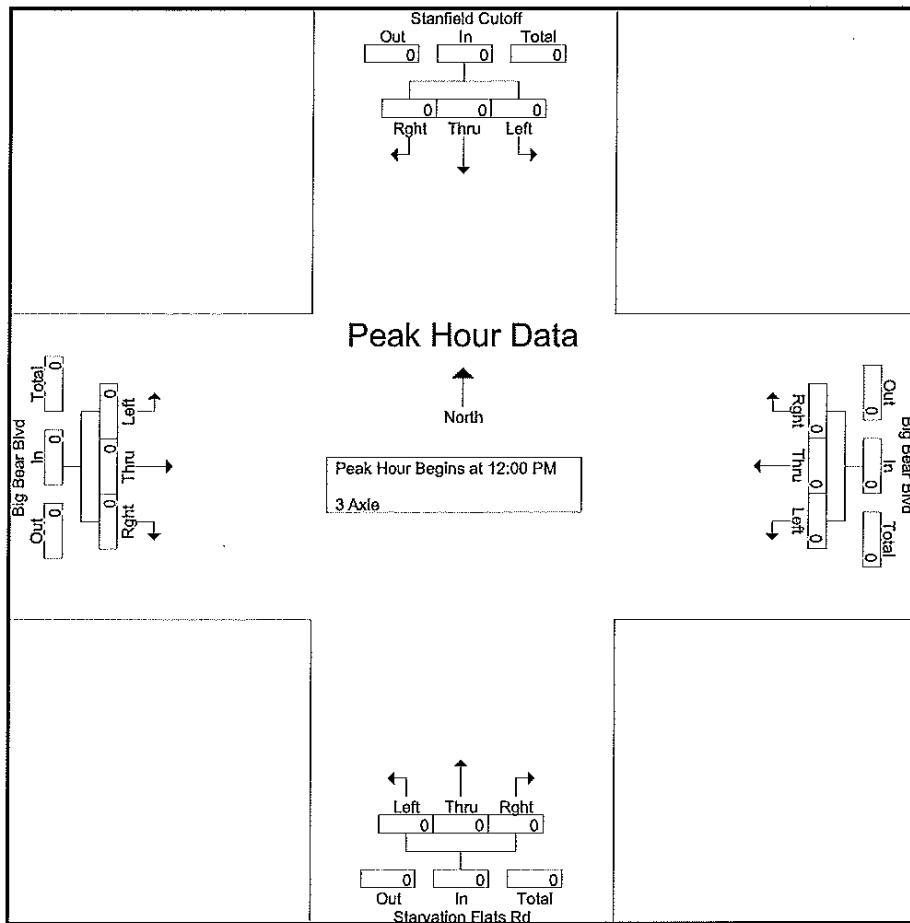
	Stanfield Cutoff Southbound				Big Bear Blvd Westbound				Starvation Flats Rd Northbound				Big Bear Blvd Eastbound				
	Start Time	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %																	

	Stanfield Cutoff Southbound				Big Bear Blvd Westbound				Starvation Flats Rd Northbound				Big Bear Blvd Eastbound				
	Start Time	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total	Left	Thru	Rght	App. Total
Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 12:00 PM																	
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

City of: Big Bear  
N/S: Stanfield Cutoff  
E/W: Big Bear Blvd

## Traffic Data Consultants

File Name : Stanfield@BigBearBlvd Sunday  
Site Code : 3  
Start Date : 3/4/2007  
Page No : 2



Peak Hour Analysis From 12:00 PM to 01:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	12:00 PM				12:00 PM				12:00 PM				12:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

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**APPENDIX B**

**EXISTING CONDITIONS INTERSECTION ANALYSIS**



EX Fri PM

Thu Apr 19, 2007 09:29:00

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MOON CAMP (TT 16136) TRAFFIC IMPACT ANALYSIS (JN 0409)  
 Existing Conditions  
 FRIDAY PM PEAK HOUR

## Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #101 Big Bear Blvd (NS) / North Shore (SR-38) (EW)

Average Delay (sec/veh) : 15.4 Worst Case Level Of Service: C[ 16.5]

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign

Rights: Include Include Include Include

Lanes: 0 0 1! 0 0 0 0 0 0 0 0 1 0 1 1 0 1 0 0

## Volume Module:

Base Vol:	24	0	27	0	0	0	0	322	21	87	300	0
Growth Adj:	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
Initial Bse:	28	0	31	0	0	0	0	374	24	101	348	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
PHF Volume:	33	0	37	0	0	0	0	447	29	121	416	0
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	33	0	37	0	0	0	0	447	29	121	416	0

## Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxxx	6.5	6.2	7.1	6.5	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxxxx	4.0	3.3	3.5	4.0	xxxxx

## Capacity Module:

Cnflct Vol:	0	xxxx	xxxxx	xxxx	xxxx	xxxxxx	xxxx	104	0	309	85	xxxxx
Potent Cap.:	900	xxxx	xxxxx	xxxx	xxxx	xxxxxx	xxxx	790	900	648	809	xxxxx
Move Cap.:	900	xxxx	xxxxx	xxxx	xxxx	xxxxxx	xxxx	760	900	325	778	xxxxx
Volume/Cap:	0.04	xxxx	xxxx	xxxx	xxxx	xxxxxx	xxxx	0.59	0.03	0.37	0.53	xxxxx

## Level Of Service Module:

2Way95thQ:	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxxx	xxxx	3.9	0.1	1.7	3.2	xxxxx			
Control Del:	9.2	xxxx	xxxxx	xxxx	xxxx	xxxxxx	xxxxxx	16.3	9.1	22.5	14.8	xxxxx			
LOS by Move:	A	*	*	*	*	*	*	*	C	A	C	B	*		
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx		
SharedQueue:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx		
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx		
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*	*		
ApproachDel:	xxxxxx		xxxxxx					15.8		16.5					
ApproachLOS:	*		*					C		C					

Note: Queue reported is the number of cars per lane.

EX Fri PM

Thu Apr 19, 2007 09:29:00

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MOON CAMP (TT 16136) TRAFFIC IMPACT ANALYSIS (JN 0409)  
Existing Conditions  
FRIDAY PM PEAK HOUR

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

\*\*\*\*\*  
Intersection #102 Stanfield Cut Off (NS) / North Shore Dr. (EW)  
\*\*\*\*\*

Average Delay (sec/veh): 11.4 Worst Case Level Of Service: D[ 25.5]  
\*\*\*\*\*

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
-----|-----|-----|-----|-----|

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled  
Rights: Include Include Include Include  
Lanes: 0 0 1! 0 0 0 1 0 0 0 0 0 1 0 0 0 0 1! 0 0  
-----|-----|-----|-----|-----|

Volume Module:

Base Vol:	58	5	208	5	10	0	0	74	70	218	54	6
Growth Adj:	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
Initial Bse:	67	6	241	6	12	0	0	86	81	253	63	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	75	6	269	6	13	0	0	96	91	282	70	8
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	75	6	269	6	13	0	0	96	91	282	70	8

Critical Gap Module:

Critical Gp:	7.1	6.5	6.2	7.1	6.5	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	785	782	141	916	824	xxxxx	xxxx	xxxx	xxxxx	186	xxxx	xxxxx
Potent Cap.:	313	328	912	255	310	xxxxx	xxxx	xxxx	xxxxx	1400	xxxx	xxxxx
Move Cap.:	245	250	912	144	236	xxxxx	xxxx	xxxx	xxxxx	1400	xxxx	xxxxx
Volume/Cap:	0.31	0.03	0.29	0.04	0.05	xxxx	xxxx	xxxx	xxxxx	0.20	xxxx	xxxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.8	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	8.2	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	559	xxxxx	195	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	4.3	xxxx	0.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	21.6	xxxx	25.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Shared LOS:	*	C	*	D	*	*	*	*	*	*	*	*
ApproachDel:		21.6			25.5		xxxxxx		xxxxxx			
ApproachLOS:		C			D		*		*			

Note: Queue reported is the number of cars per lane.

EX Fri PM

Thu Apr 19, 2007 09:29:00

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MOON CAMP (TT 16136) TRAFFIC IMPACT ANALYSIS (JN 0409)  
 Existing Conditions  
 FRIDAY PM PEAK HOUR

## Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #103 Stanfield Cut Off (NS) / Big Bear Blvd. (SR-18) (EW)

Cycle (sec): 130 Critical Vol./Cap. (X): 0.719  
 Loss Time (sec): 8 (Y+R=2.0 sec) Average Delay (sec/veh): 106.5  
 Optimal Cycle: 84 Level Of Service: F

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Split Phase	Split Phase	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	24 24 24	24 24 24	10 18 18	10 18 18
Lanes:	0 1 0 0 1	0 1 0 0 1	1 0 1 0 1	1 0 1 0 1

Volume Module:

Base Vol:	61	18	61	12	28	256	287	872	77	17	664	13
Growth Adj:	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
Initial Bse:	71	21	71	14	32	297	333	1012	89	20	770	15
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	73	22	73	14	34	307	344	1045	92	20	796	16
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	73	22	73	14	34	307	344	1045	92	20	796	16
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	73	22	73	14	34	307	344	1045	92	20	796	16

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.78	0.22	1.00	0.31	0.69	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1329	392	1800	531	1238	1800	1700	1800	1800	1700	1800	1800

Capacity Analysis Module:

Vol/Sat:	0.05	0.05	0.04	0.03	0.03	0.17	0.20	0.58	0.05	0.01	0.44	0.01
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.18	0.18	0.18	0.18	0.18	0.18	0.18	0.49	0.49	0.08	0.39	0.39
Volume/Cap:	0.30	0.30	0.22	0.15	0.15	0.92	1.13	1.18	0.10	0.16	1.13	0.02
Delay/Veh:	48.1	48.1	46.6	45.4	45.4	85.3	145.5	118	14.0	58.6	112	22.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	48.1	48.1	46.6	45.4	45.4	85.3	145.5	118	14.0	58.6	112	22.1
LOS by Move:	D	D	D	D	D	F	F	F	B	E	F	C
HCM2kAvgQ:	3	3	2	2	2	16	23	63	1	1	46	0

Note: Queue reported is the number of cars per lane.

EX Sun MD

Thu Apr 19, 2007 09:29:15

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MOON CAMP (TT 16136) TRAFFIC IMPACT ANALYSIS (JN 0409)  
Existing Conditions  
SUNDAY MID-DAY PEAK HOUR

Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #101 Big Bear Blvd (NS)/ North Shore (SR-38) (EW)

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign

Rights: Include Include Include Include

Lanes: 0 0 1! 0 0 0 0 0 0 0 0 1 0 1 1 0 1 0 0

Volume Module:

Base Vol: 40 0 94 0 0 0 0 958 33 67 411 0

Growth Adj: 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16

Initial Bse: 46 0 109 0 0 0 0 1111 38 78 477 0

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91

PHF Volume: 51 0 120 0 0 0 0 1219 42 85 523 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Final Volume: 51 0 120 0 0 0 0 1219 42 85 523 0

Critical Gap Module:

Critical Gp: 4.1 xxxx xxxx xxxx xxxx xxxx xxxx 6.5 6.2 7.1 6.5 xxxx

FollowUpTim: 2.2 xxxx xxxx xxxx xxxx xxxx xxxx 4.0 3.3 3.5 4.0 xxxx

Capacity Module:

Cnflct Vol: 0 xxxx xxxx xxxx xxxx xxxx xxxx 221 0 771 162 xxxx

Potent Cap.: 900 xxxx xxxx xxxx xxxx xxxx xxxx 681 900 320 734 xxxx

Move Cap.: 900 xxxx xxxx xxxx xxxx xxxx xxxx 641 900 0 692 xxxx

Volume/Cap: 0.06 xxxx xxxx xxxx xxxx xxxx 1.90 0.05 xxxx 0.76 xxxx

Level Of Service Module:

2Way95thQ: 0.2 xxxx xxxx xxxx xxxx xxxx xxxx 78.0 0.1 xxxx 7.0 xxxx

Control Del: 9.2 xxxx xxxx xxxx xxxx xxxx xxxx 427 9.2 xxxx 24.5 xxxx

LOS by Move: A \* \* \* \* \* \* \* F A \* C \*

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT

Shared Cap.: xxxx xxxx

SharedQueue:xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx

Shrd ConDel:xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx xxxx

Shared LOS: \* \* \* \* \* \* \* \* \* \* \* \*

ApproachDel: xxxxxx xxxxxx 413.4 xxxxxx

ApproachLOS: \* \* F F

Note: Queue reported is the number of cars per lane.

MOON CAMP (TT 16136) TRAFFIC IMPACT ANALYSIS (JN 0409)  
 Existing Conditions  
 SUNDAY MID-DAY PEAK HOUR

## Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

\*\*\*\*\*Intersection #102 Stanfield Cut Off (NS) / North Shore Dr. (EW)\*\*\*\*\*

Average Delay (sec/veh): 15.2 Worst Case Level Of Service: D[ 34.5]\*\*\*\*\*

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled

Rights: Include Include Include Include

Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0

## Volume Module:

Base Vol: 110 4 174 8 6 6 4 80 120 177 84 6

Growth Adj: 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16 1.16

Initial Bse: 128 5 202 9 7 7 5 93 139 205 97 7

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92

PHF Volume: 138 5 219 10 8 8 5 101 151 222 106 8

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

FinalVolume: 138 5 219 10 8 8 5 101 151 222 106 8

Critical Gap Module:

Critical Gp: 7.1 6.5 6.2 7.1 6.5 6.2 4.1 xxxx xxxx 4.1 xxxx xxxx

FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxx 2.2 xxxx xxxx

## Capacity Module:

Cnflct Vol: 748 744 176 852 816 109 113 xxxx xxxx 251 xxxx xxxx

Potent Cap.: 331 345 872 282 314 950 1489 xxxx xxxx 1326 xxxx xxxx

Move Cap.: 273 278 872 177 253 950 1489 xxxx xxxx 1326 xxxx xxxx

Volume/Cap: 0.51 0.02 0.25 0.06 0.03 0.01 0.00 xxxx xxxx 0.17 xxxx xxxx

Level Of Service Module:

2Way95thQ: xxxx xxxx xxxx xxxx xxxx 0.0 xxxx xxxx 0.6 xxxx xxxx

Control Del:xxxxx xxxx xxxx xxxx xxxx 7.4 xxxx xxxx 8.3 xxxx xxxx

LOS by Move: \* \* \* \* \* A \* \* A \* \*

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT

Shared Cap.: xxxx 467 xxxx 266 xxxx xxxx xxxx xxxx xxxx xxxx xxxx

SharedQueue:xxxxx 6.8 xxxx xxxx 0.3 xxxx xxxx xxxx xxxx xxxx xxxx xxxx

Shrd ConDel:xxxxx 34.5 xxxx xxxx 19.9 xxxx xxxx xxxx xxxx xxxx xxxx

Shared LOS: \* D \* \* C \* \* \* \* \* \* \*

ApproachDel: 34.5 19.9 xxxx xxxx

ApproachLOS: D C \* \*

\*\*\*\*\*Note: Queue reported is the number of cars per lane.\*\*\*\*\*

MOON CAMP (TT 16136) TRAFFIC IMPACT ANALYSIS (JN 0409)  
 Existing Conditions  
 SUNDAY MID-DAY PEAK HOUR

## Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

\*\*\*\*\*  
 Intersection #103 Stanfield Cut Off (NS) / Big Bear Blvd. (SR-18) (EW)  
 \*\*\*\*\*

Cycle (sec):	130	Critical Vol./Cap. (X):	0.720
Loss Time (sec):	8 (Y+R=2.0 sec)	Average Delay (sec/veh):	81.1
Optimal Cycle:	84	Level Of Service:	F

 \*\*\*\*\*

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Split Phase	Split Phase	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	24 24 24	24 24 24	10 18 18	10 18 18
Lanes:	0 1 0 0 1	0 1 0 0 1	1 0 1 0 1	1 0 1 0 1

 \*\*\*\*\*

## Volume Module:

Base Vol:	63	40	69	21	34	265	230	807	49	37	635	22
Growth Adj:	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
Initial Bse:	73	46	80	24	39	307	267	936	57	43	737	26
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	76	48	83	25	41	320	277	973	59	45	766	27
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	76	48	83	25	41	320	277	973	59	45	766	27
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	76	48	83	25	41	320	277	973	59	45	766	27

 \*\*\*\*\*

## Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.63	0.37	1.00	0.40	0.60	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1063	675	1800	672	1088	1800	1700	1800	1800	1700	1800	1800

 \*\*\*\*\*

## Capacity Analysis Module:

Vol/Sat:	0.07	0.07	0.05	0.04	0.04	0.18	0.16	0.54	0.03	0.03	0.43	0.01
Crit Moves:	****	****				****	****		****	****		
Green/Cycle:	0.18	0.18	0.18	0.18	0.18	0.18	0.16	0.49	0.49	0.08	0.41	0.41
Volume/Cap:	0.39	0.39	0.25	0.20	0.20	0.96	1.03	1.10	0.07	0.34	1.03	0.04
Delay/Veh:	50.0	50.0	47.1	46.3	46.3	93.1	118.8	86.4	13.6	63.8	75.9	20.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	50.0	50.0	47.1	46.3	46.3	93.1	118.8	86.4	13.6	63.8	75.9	20.2
LOS by Move:	D	D	D	D	D	F	F	F	B	E	E	C
HCM2kAvgQ:	4	4	3	2	2	17	17	53	1	2	39	0

 \*\*\*\*\*

Note: Queue reported is the number of cars per lane.

\*\*\*\*\*

**APPENDIX C**  
**TRAFFIC SIGNAL WARRANTS**



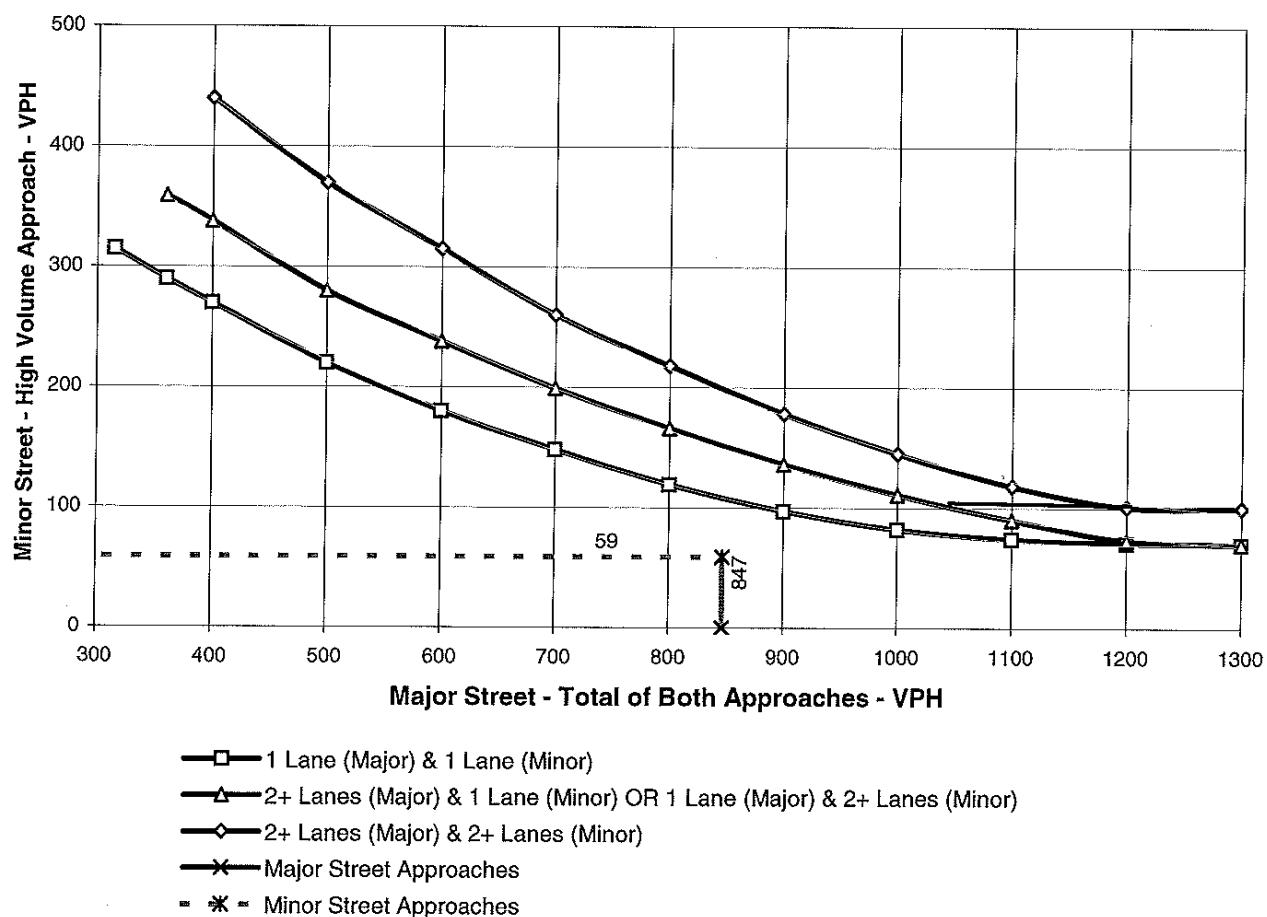
## PEAK HOUR VOLUME WARRANT (Rural Areas)

### FRIDAY PM PEAK HOUR CONDITIONS (EXISTING CONDITIONS)

Major Street Name = **NORTH SHORE (EW)**      Total of Both Approaches (VPH) = **847**  
 Number of Approach Lanes Major Street = **1**

Minor Street Name = **BIGBEAR (NS)**      High Volume Approach (VPH) = **59**  
 Number of Approach Lanes Minor Street = **1**

#### SIGNAL WARRANT NOT SATISFIED



\*\* NOTE:

100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 75 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

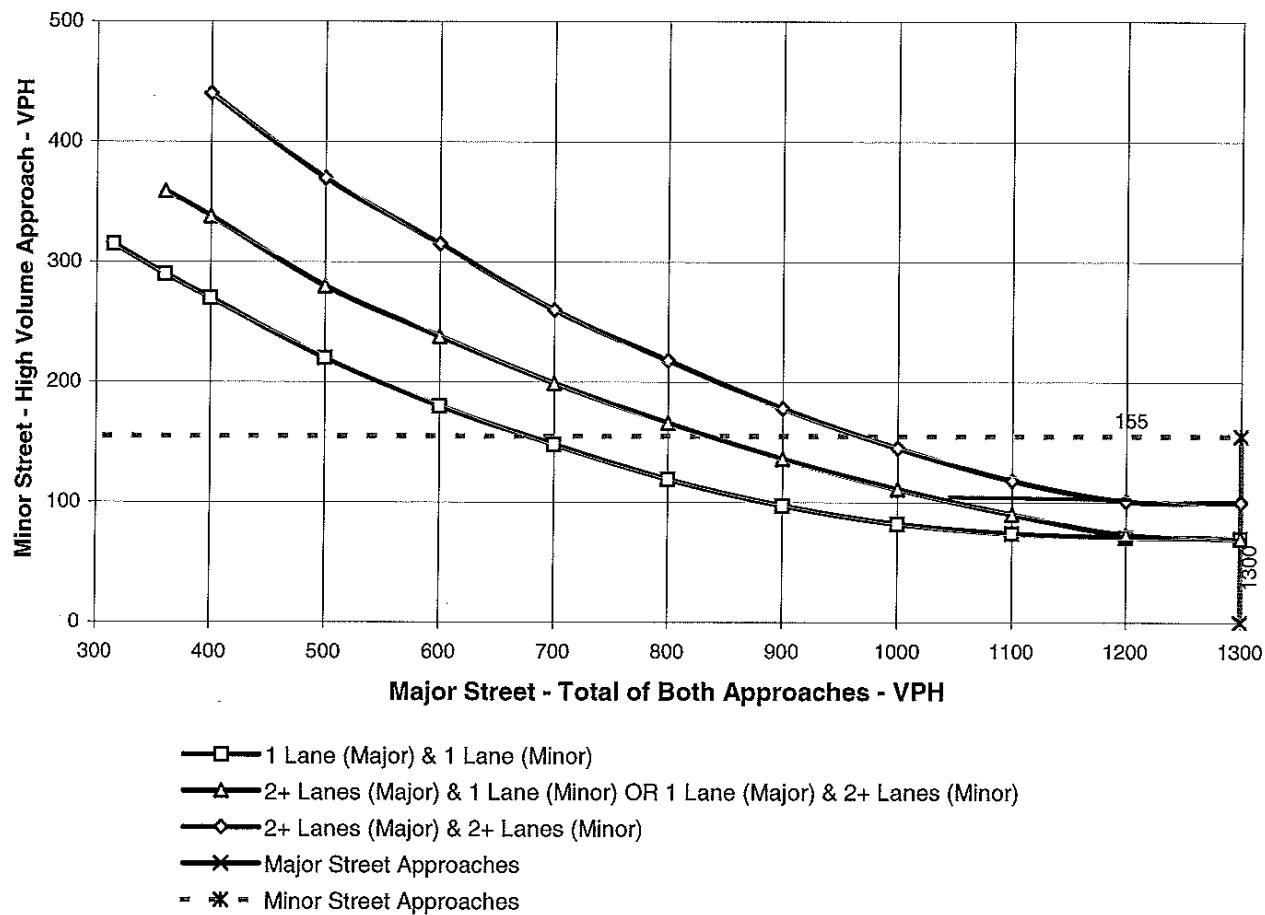
## PEAK HOUR VOLUME WARRANT (Rural Areas)

### SUNDAY MIDDAY PEAK HOUR CONDITIONS (EXISTING CONDITIONS)

Major Street Name = **NORTH SHORE (EW)**      Total of Both Approaches (VPH) = **1704**  
 Number of Approach Lanes Major Street = **1**

Minor Street Name = **BIGBEAR (NS)**      High Volume Approach (VPH) = **155**  
 Number of Approach Lanes Minor Street = **1**

#### WARRANTED FOR A SIGNAL



**\*\* NOTE:**

100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 75 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

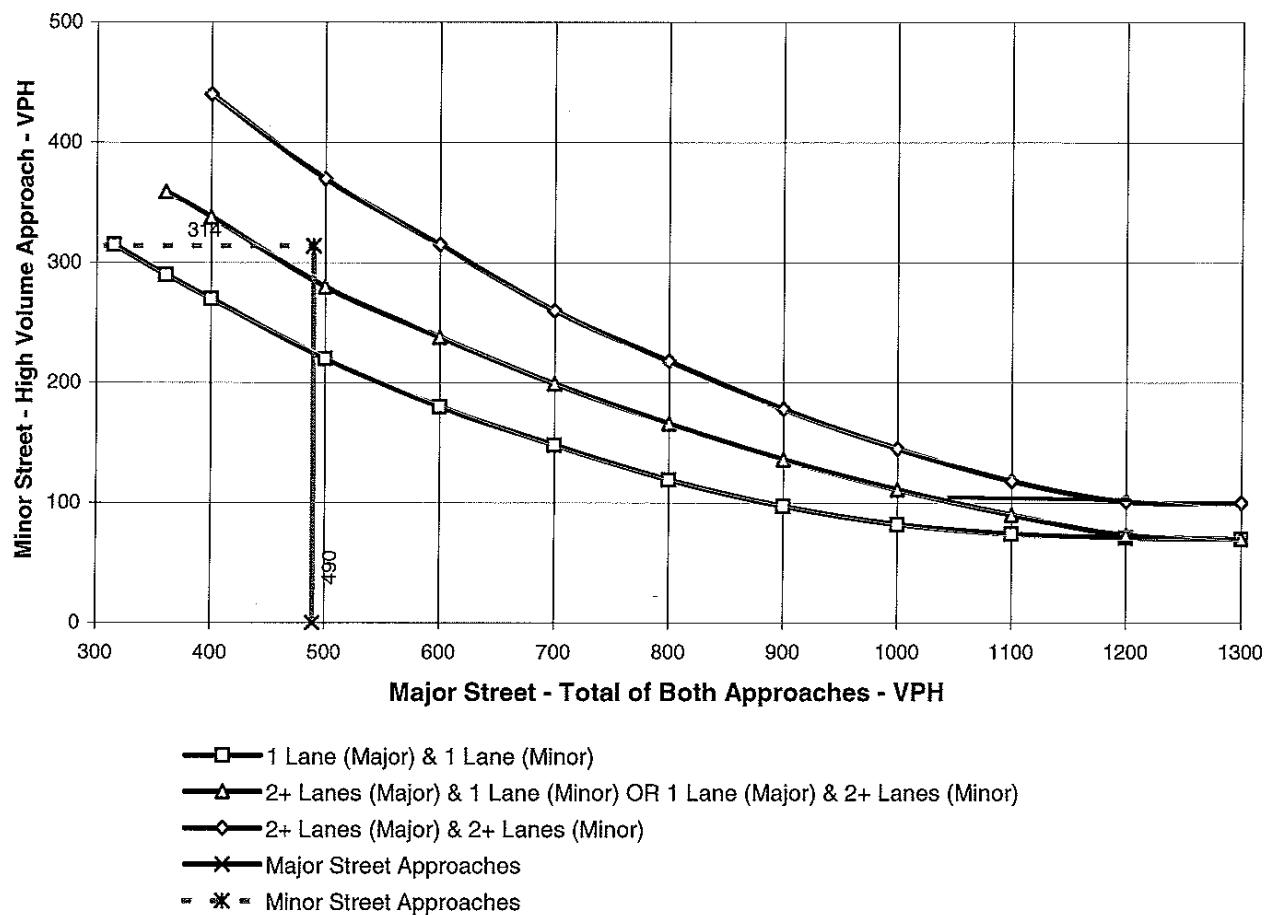
## PEAK HOUR VOLUME WARRANT (Rural Areas)

### FRIDAY PM PEAK HOUR CONDITIONS (EXISTING CONDITIONS)

Major Street Name = **NORTH SHORE (EW)**      Total of Both Approaches (VPH) = **490**  
 Number of Approach Lanes Major Street = **1**

Minor Street Name = **STANFIELD CUT OFF (NS)**      High Volume Approach (VPH) = **314**  
 Number of Approach Lanes Minor Street = **1**

#### WARRANTED FOR A SIGNAL



**\*\* NOTE:**

100 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACH WITH TWO OR MORE LANES AND 75 VPH APPLIES AS THE LOWER THRESHOLD VOLUME FOR A MINOR STREET APPROACHING WITH ONE LANE.

### TRAFFIC SIGNAL WARRANTS

(Based on Estimated Average Daily Traffic-See Note 2)

Major St:	DWY 1	Minor St:	North Shore	Year =	GP FRI
Volume =	20,000 Lanes=	1	Volume =	200 Lanes=	1 (one-way)

URBAN	RURAL XX	Minimum Requirements EADT			
1. Minimum Vehicular		Vehicles per day on major street (both approaches)		Vehicles per day on higher volume minor-street approach (one direction only)	
Satisfied	Not Satisfied XX				
Number of lanes for moving traffic on each approach.					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1	20,000 1	8,000	5,600 *	2,400	1,680
2 +	1	9,600	6,720	2,400	1,680
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240
2. Interruption of Continuous traffic		Vehicles per day on major street (both approaches)		Vehicles per day on higher volume minor-street approach (one direction only)	
Satisfied	Not Satisfied XX				
Number of lanes for moving traffic on each approach.					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1	20,000 1	12,000	8,400 *	1,200	850
2 +	1	14,400	10,080	1,200	850
2 +	2 +	14,000	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120
3. Combination		2 Warrants		2 Warrants	
Satisfied	Not Satisfied XX				
No one warrant satisfied but following warrants fulfilled 80% or more..					
12%	24%				
1	2				

NOTES: 1. Heavier left turn movement from the major street may be included with minor street volume if a separate signal phase is to be provided for the left-turn movement.

2. To be used only for NEW INTERSECTIONS or other locations where actual traffic volumes cannot be counted.

### TRAFFIC SIGNAL WARRANTS

(Based on Estimated Average Daily Traffic-See Note 2)

Major St:	DWY 2	Minor St:	North Shore	Year =	GP FRI
Volume =	20,000 Lanes=	1	Volume =	400 Lanes=	1 (one-way)

URBAN	RURAL XX	Minimum Requirements EADT					
1. Minimum Vehicular							
Satisfied	Not Satisfied XX	Vehicles per day on major street (both approaches)		Vehicles per day on higher volume minor-street approach (one direction only)			
Number of lanes for moving traffic on each approach.							
Major Street	Minor Street	Urban	Rural	Urban	Rural		
1	20,000 1	8,000	5,600 *	2,400	1,680		
2 +	1	9,600	6,720	2,400	1,680		
2 +	2 +	9,600	6,720	3,200	2,240		
1	2 +	8,000	5,600	3,200	2,240		
2. Interruption of Continuous traffic							
Satisfied	Not Satisfied XX	Vehicles per day on major street (both approaches)		Vehicles per day on higher volume minor-street approach (one direction only)			
Number of lanes for moving traffic on each approach.							
Major Street	Minor Street	Urban	Rural	Urban	Rural		
1	20,000 1	12,000	8,400 *	1,200	850		
2 +	1	14,400	10,080	1,200	850		
2 +	2 +	14,000	10,080	1,600	1,120		
1	2 +	12,000	8,400	1,600	1,120		
3. Combination		2 Warrants		2 Warrants			
Satisfied	Not Satisfied XX						
No one warrant satisfied but following warrants fulfilled 80% or more..							
24%	47%						
1	2						

- NOTES: 1. Heavier left turn movement from the major street may be included with minor street volume if a separate signal phase is to be provided for the left-turn movement.
2. To be used only for NEW INTERSECTIONS or other locations where actual traffic volumes cannot be counted.

### TRAFFIC SIGNAL WARRANTS

(Based on Estimated Average Daily Traffic-See Note 2)

Major St:	DWY 1	Minor St:	North Shore	Year =	GP Buildo
Volume =	15,000	Lanes=	1	Volume =	200 Lanes=
					1 (one-way)

URBAN	RURAL	XX	Minimum Requirements EADT				
1. Minimum Vehicular							
Satisfied	Not Satisfied	XX	Vehicles per day on major street (both approaches)				
Number of lanes for moving traffic on each approach.							
Major Street	Minor Street		Urban	Rural	Urban	Rural	
1	15,000	1	200	8,000	5,600 *	2,400	1,680
2 +		1		9,600	6,720	2,400	1,680
2 +		2 +		9,600	6,720	3,200	2,240
1		2 +		8,000	5,600	3,200	2,240
2. Interruption of Continuous traffic							
Satisfied	Not Satisfied	XX	Vehicles per day on major street (both approaches)				
Number of lanes for moving traffic on each approach.							
Major Street	Minor Street		Urban	Rural	Urban	Rural	
1	15,000	1	200	12,000	8,400 *	1,200	850
2 +		1		14,400	10,080	1,200	850
2 +		2 +		14,000	10,080	1,600	1,120
1		2 +		12,000	8,400	1,600	1,120
3. Combination			2 Warrants				
Satisfied	Not Satisfied	XX					
No one warrant satisfied but following warrants fulfilled 80% or more..							
12%	24%						
1	2						

NOTES: 1. Heavier left turn movement from the major street may be included with minor street volume if a separate signal phase is to be provided for the left-turn movement.

2. To be used only for NEW INTERSECTIONS or other locations where actual traffic volumes cannot be counted.

### TRAFFIC SIGNAL WARRANTS

(Based on Estimated Average Daily Traffic-See Note 2)

Major St:	DWY 2	Minor St:	North Shore	Year =	GP Buildor
Volume =	15,000 Lanes=	1	Volume =	400 Lanes=	1 (one-way)

URBAN	RURAL XX	Minimum Requirements EADT			
1. Minimum Vehicular					
Satisfied	Not Satisfied XX	Vehicles per day on major street (both approaches)			
Number of lanes for moving traffic on each approach.					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1	15,000 1	8,000	5,600 *	2,400	1,680
2 +	1	9,600	6,720	2,400	1,680
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240
2. Interruption of Continuous traffic					
Satisfied	Not Satisfied XX	Vehicles per day on major street (both approaches)			
Number of lanes for moving traffic on each approach.					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1	15,000 1	12,000	8,400 *	1,200	850
2 +	1	14,400	10,080	1,200	850
2 +	2 +	14,000	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120
3. Combination		2 Warrants			
Satisfied	Not Satisfied XX				
No one warrant satisfied but following warrants fulfilled 80% or more..					
24%	47%				
1	2				

- NOTES: 1. Heavier left turn movement from the major street may be included with minor street volume if a separate signal phase is to be provided for the left-turn movement.
2. To be used only for NEW INTERSECTIONS or other locations where actual traffic volumes cannot be counted.

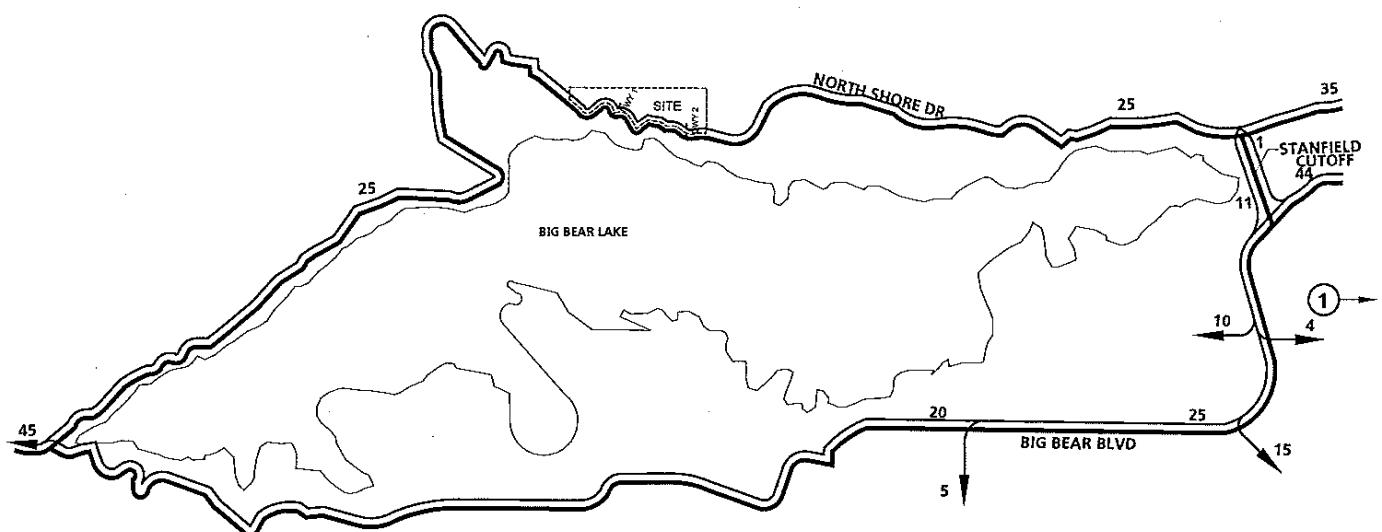
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**APPENDIX D**

**OTHER DEVELOPMENT TRIP DISTRIBUTION**



EXHIBIT D-1  
**TT 16771**  
**TRIP DISTRIBUTION**

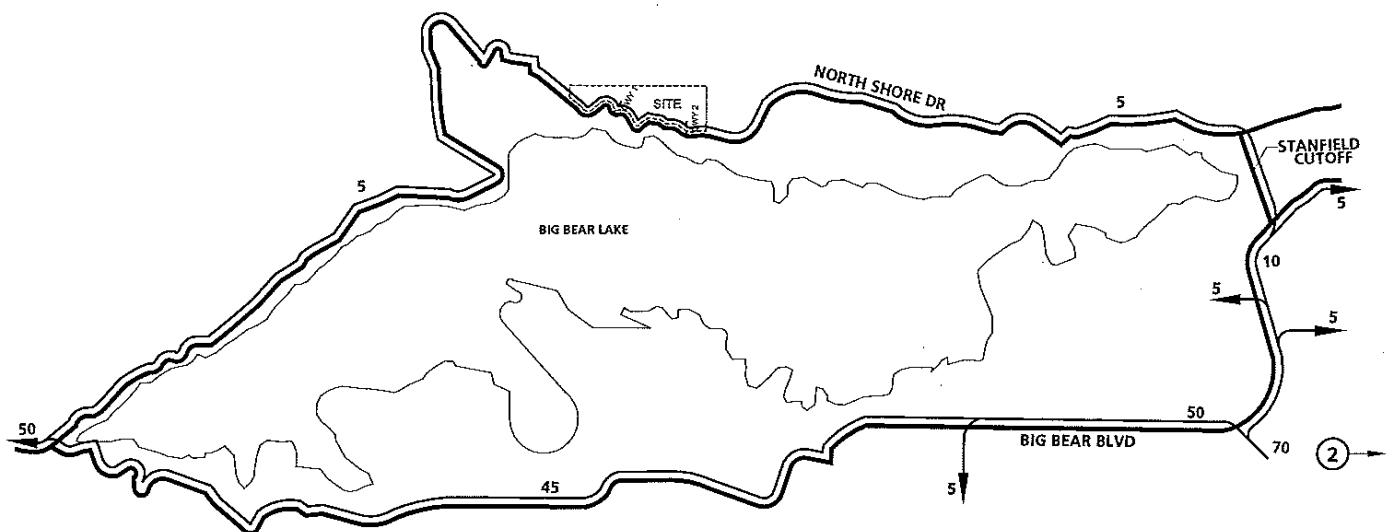


**LEGEND:**

(1) = TT 16771

SOURCE: BASED ON TT16771 TIA,  
SAN BERNARDINO COUNTY  
(URBAN CROSSROADS, INC.), JULY 2006

EXHIBIT D-2  
**TT 16934**  
**TRIP DISTRIBUTION**



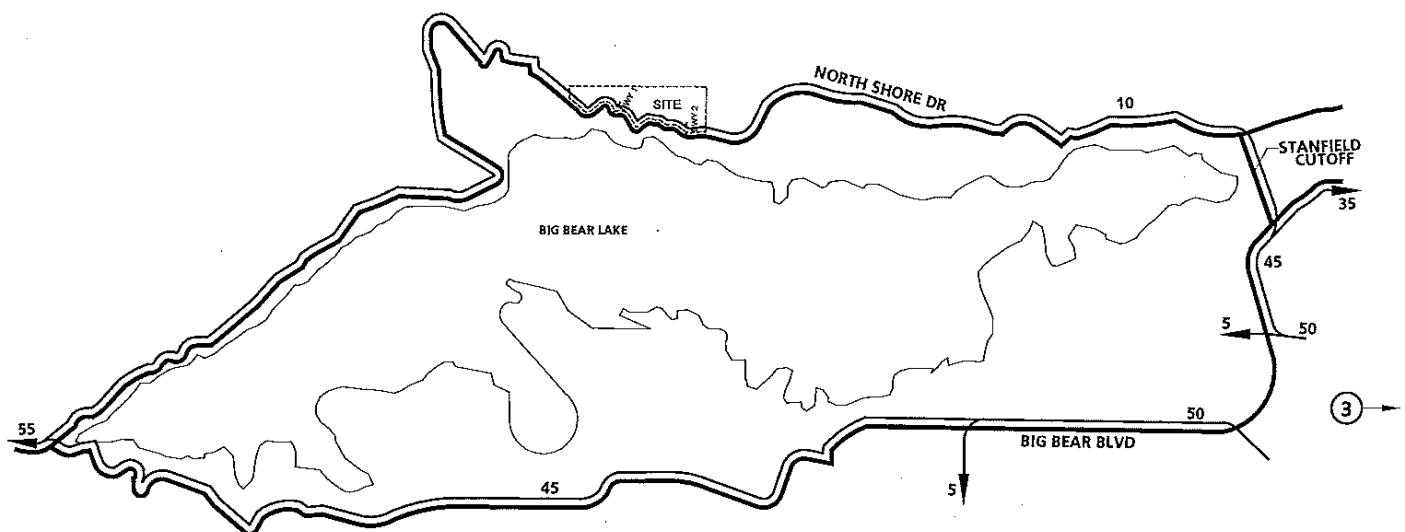
SOURCE: BASED TT 17217 & TT 17022 TIA  
SAN BERNARDINO COUNTY  
(URBAN CROSSROADS, INC.), JULY 2006

**LEGEND:**

(2) = TT 16934



EXHIBIT D-3  
**TT 17217 & 17022  
TRIP DISTRIBUTION**

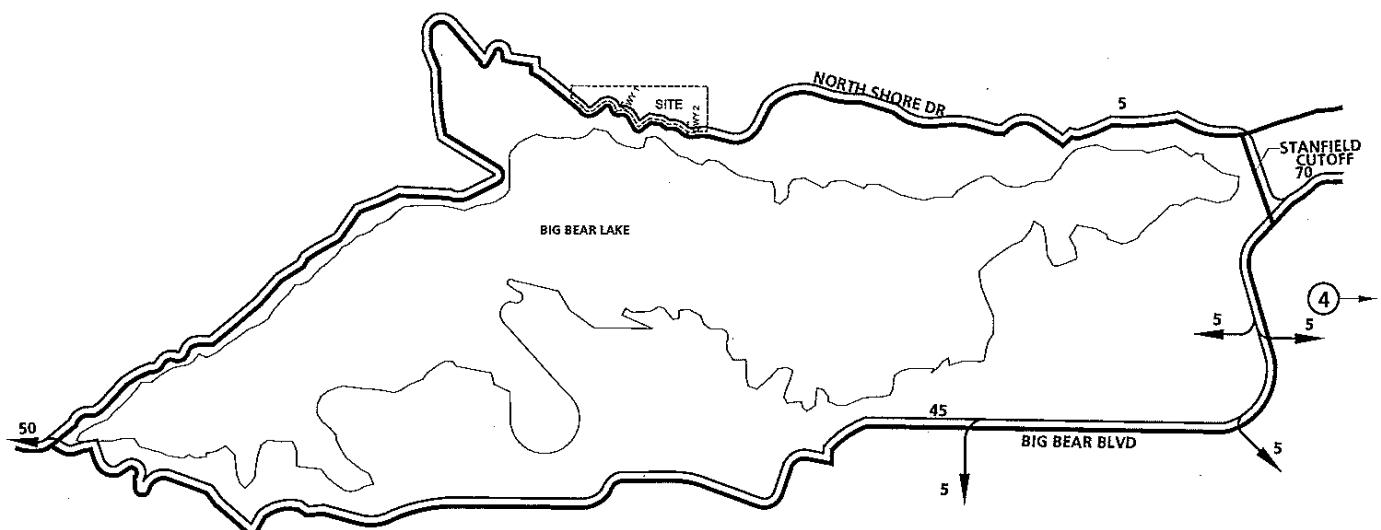


SOURCE: BASED TT 17217 & TT 17022 TIA  
SAN BERNARDINO COUNTY  
(URBAN CROSSROADS, INC.), JULY 2006

**LEGEND:**

**(3)** = TT 17217 & 17022

EXHIBIT D-4  
**TT 16036**  
**TRIP DISTRIBUTION**

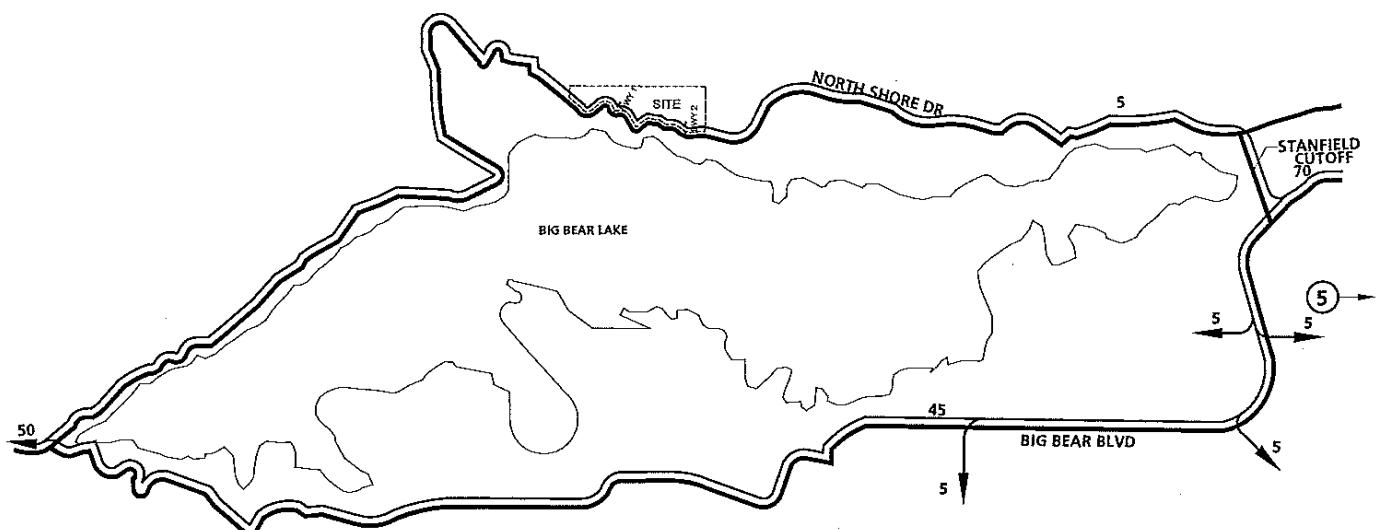


**LEGEND:**

(4) = TT 16036



EXHIBIT D-5  
**TT 14916**  
**TRIP DISTRIBUTION**

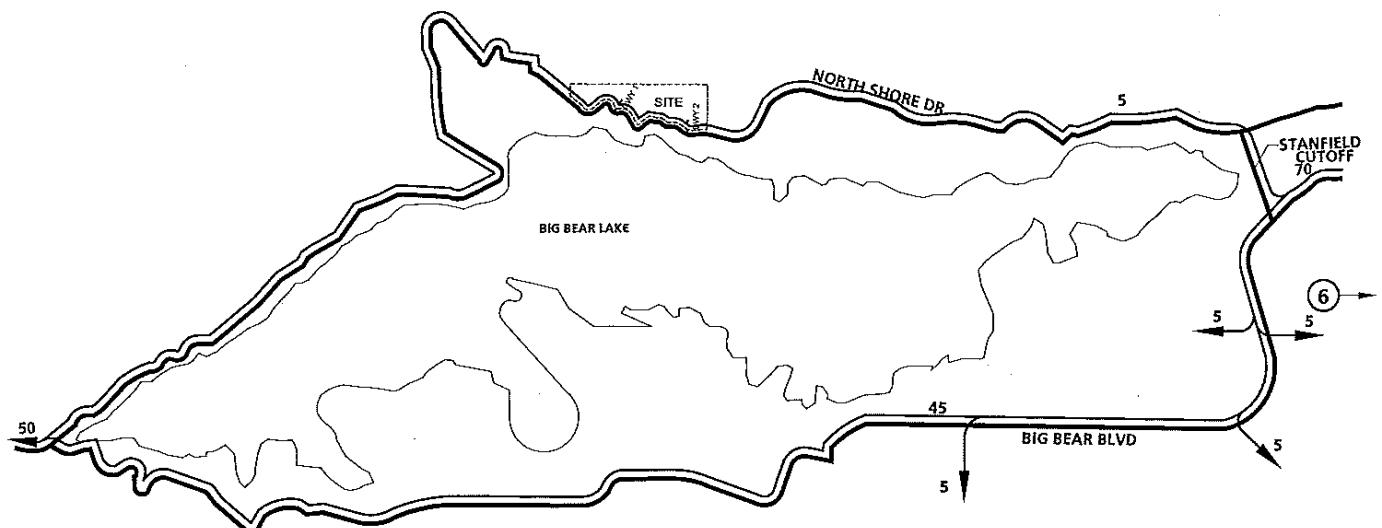


**LEGEND:**

(5) = TT 14916



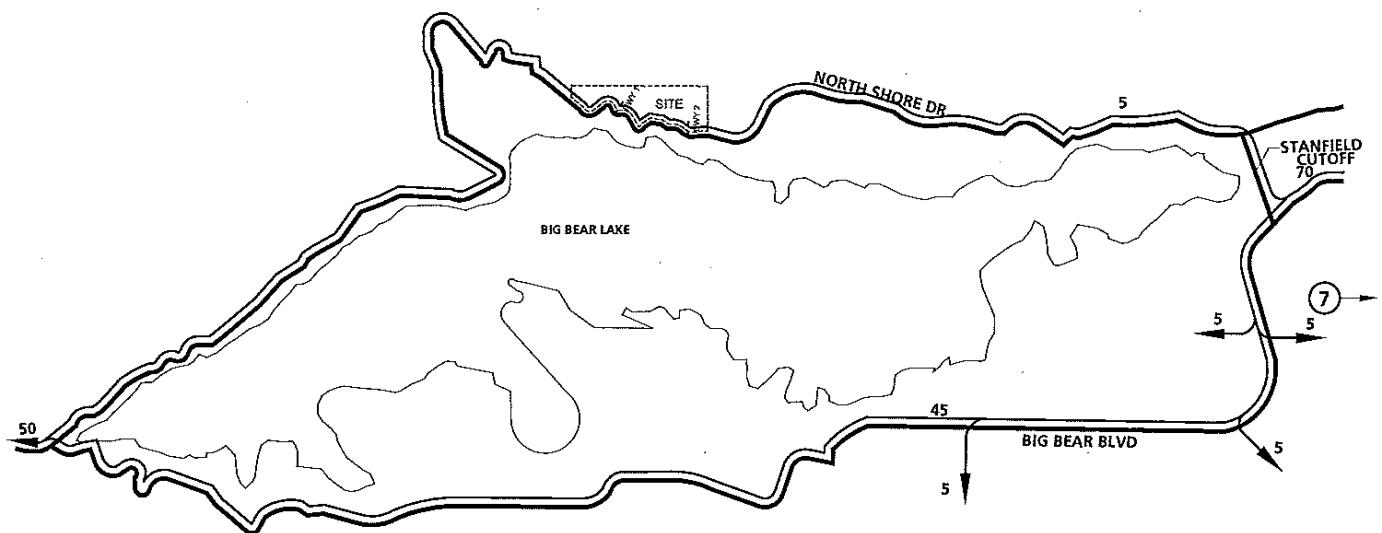
EXHIBIT D-6  
**TT 16980**  
**TRIP DISTRIBUTION**



**LEGEND:**

**(6)** = TT 16980

EXHIBIT D-7  
**TT 1776H**  
**TRIP DISTRIBUTION**

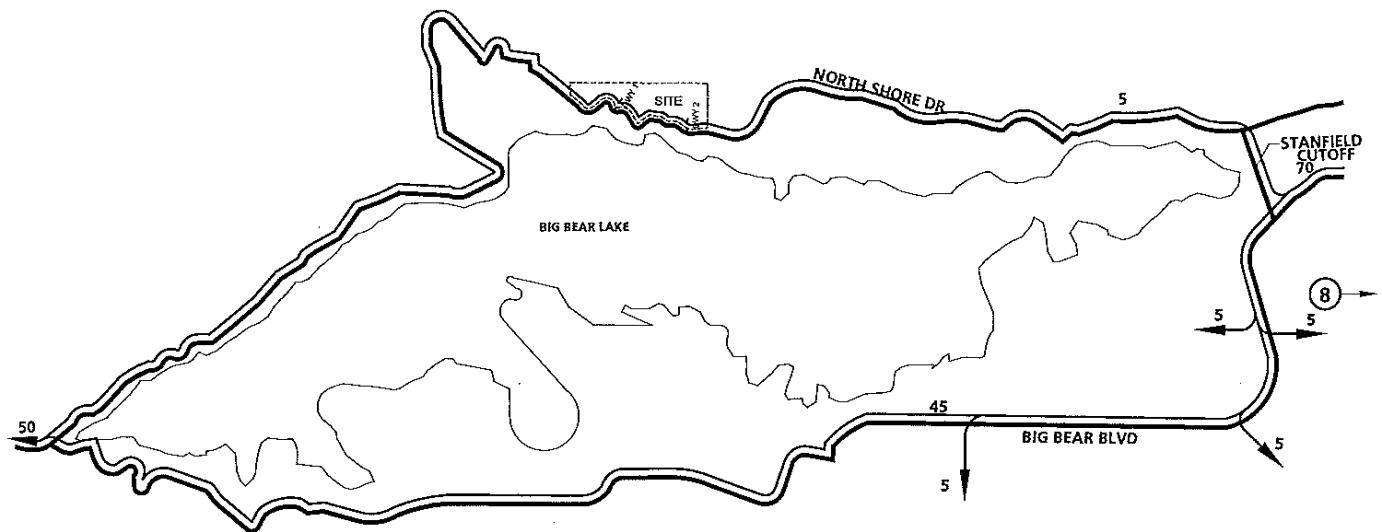


**LEGEND:**

(7) = TT 1776H



EXHIBIT D-8  
**TT 16749**  
**TRIP DISTRIBUTION**

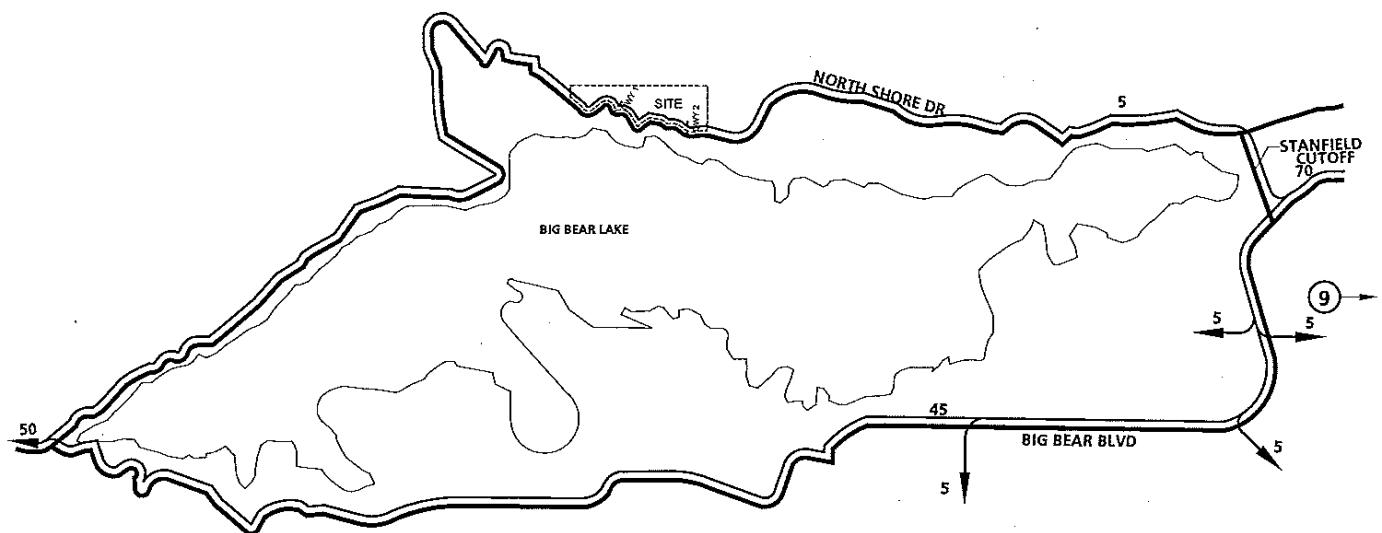


**LEGEND:**

(8) = TT 16749



EXHIBIT D-9  
**TT 17201**  
**TRIP DISTRIBUTION**

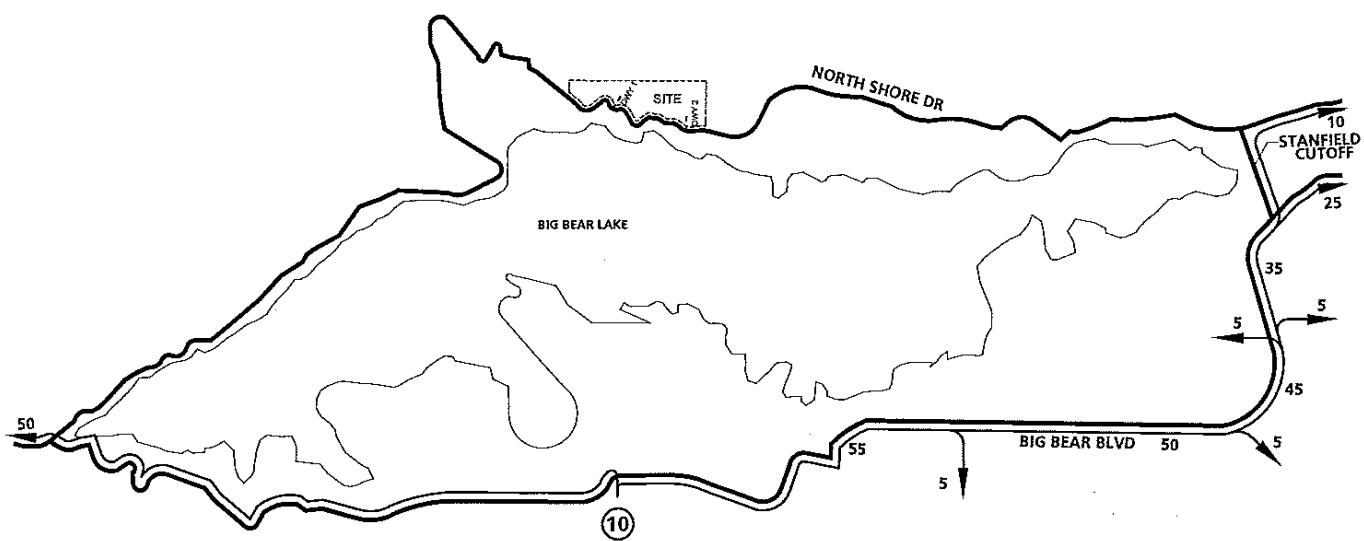


**LEGEND:**

(9) = TT 17201



EXHIBIT D-10  
**HILTON GARDEN INN  
TRIP DISTRIBUTION**

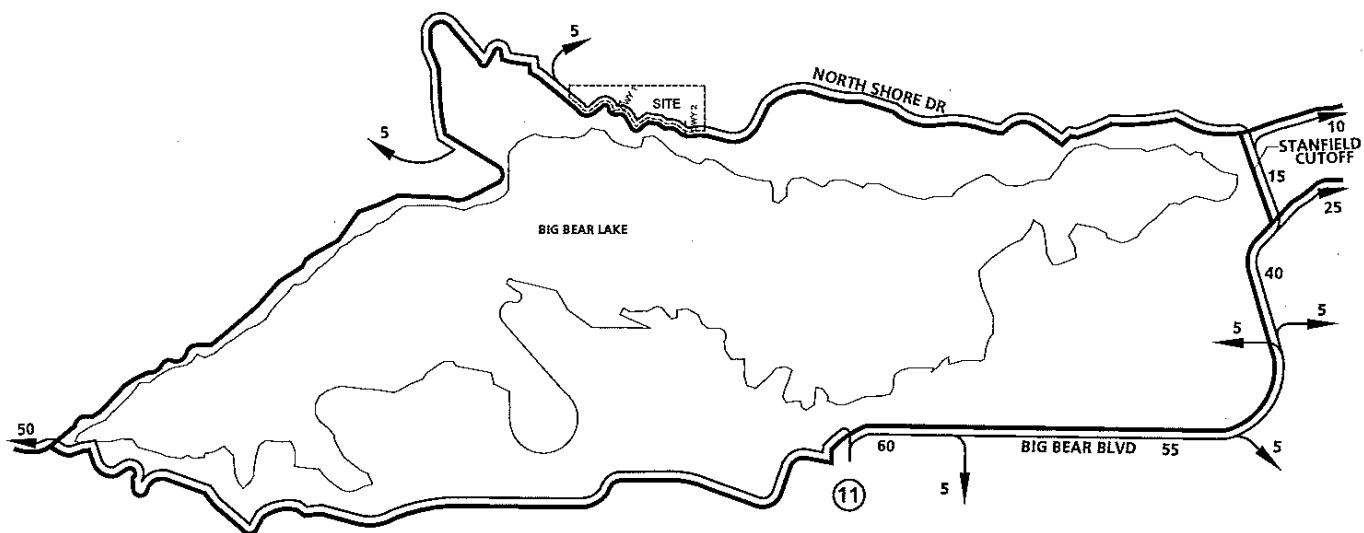


**LEGEND:**

(10) = HILTON GARDEN INN



EXHIBIT D-11  
**MIXED-USE DEVELOPMENT TRIP DISTRIBUTION**

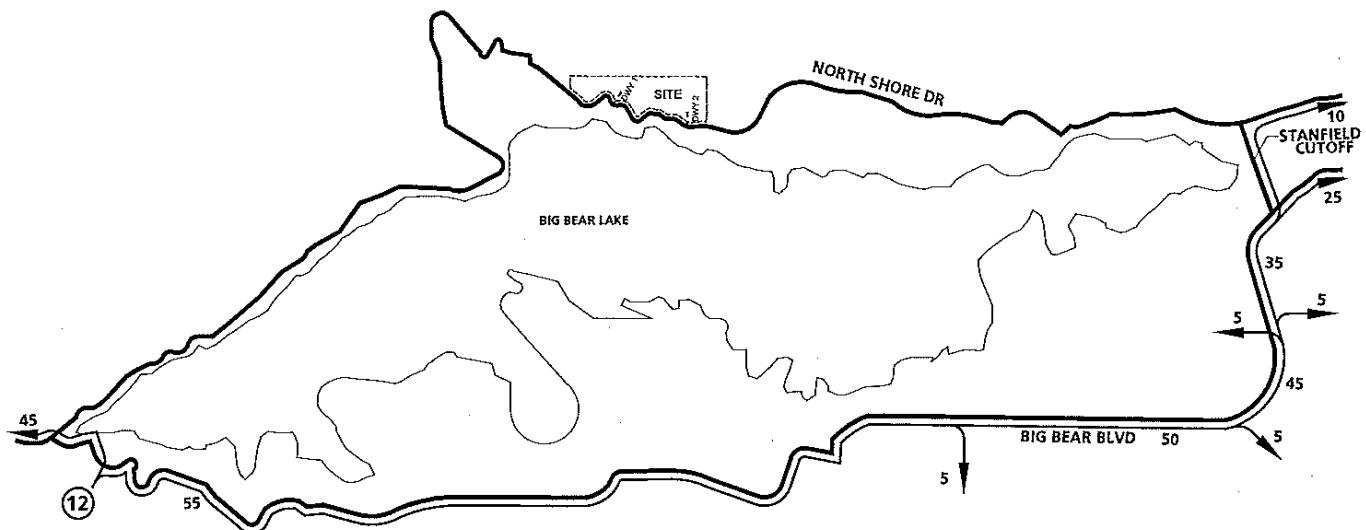


**LEGEND:**

(11) = MIXED-USED DEVELOPMENT



EXHIBIT D-12  
**RESIDENTIAL LOTS  
TRIP DISTRIBUTION**

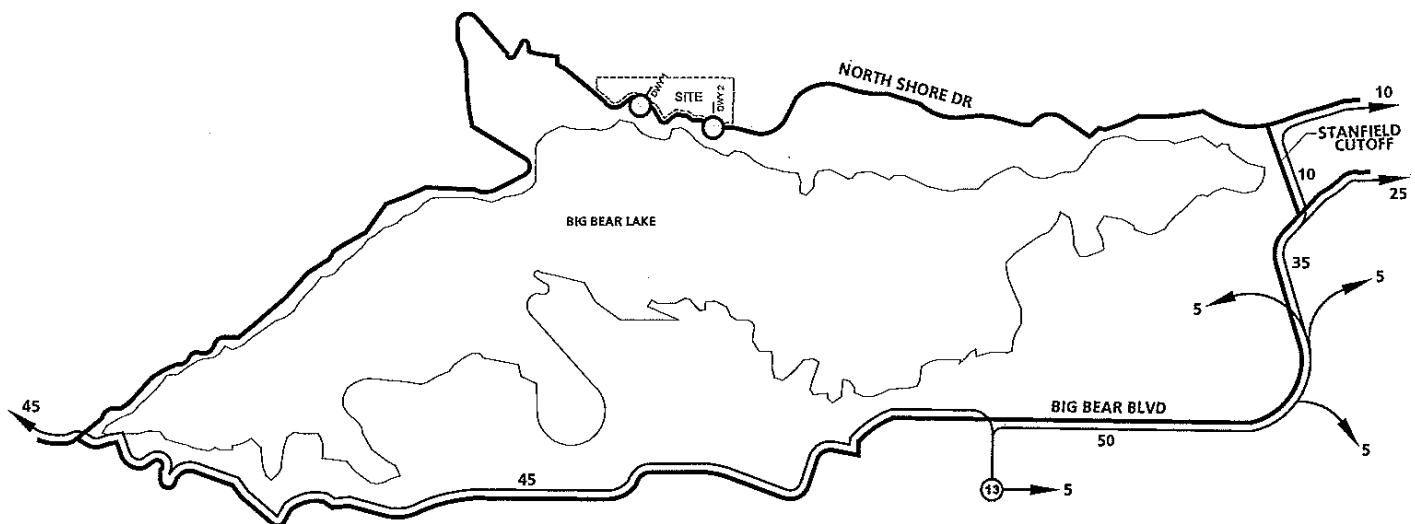


**LEGEND:**

(12) = RESIDENTIAL LOTS



EXHIBIT D-13  
**CONDOMINIUMS**

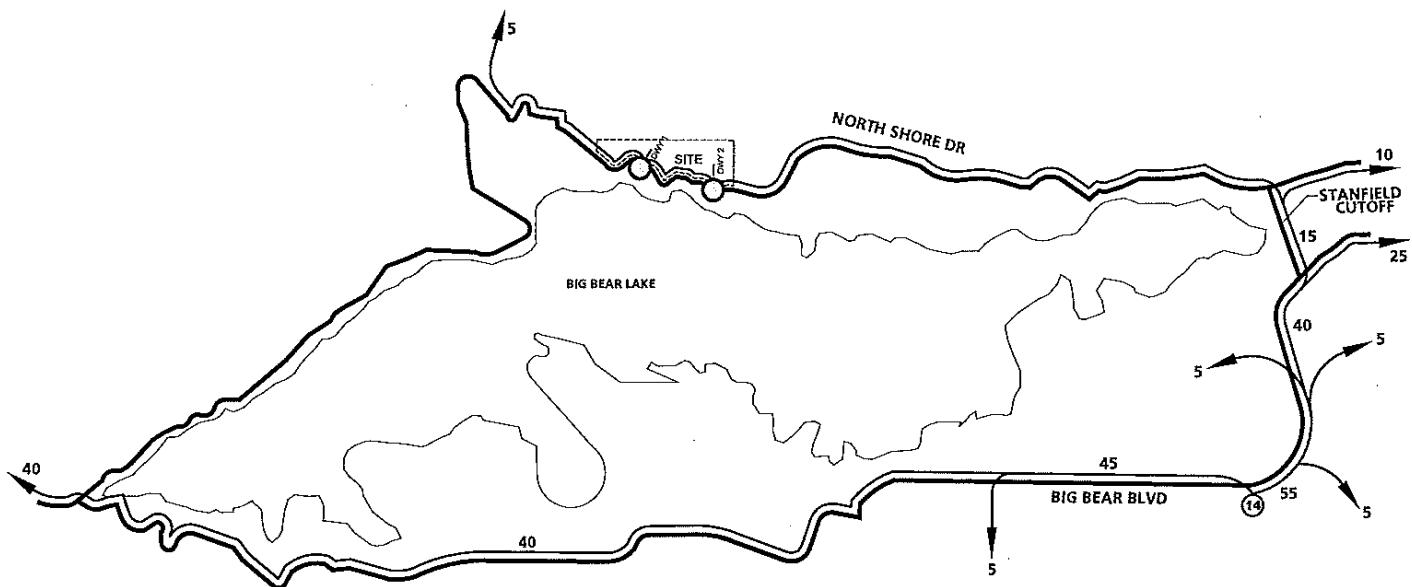


**LEGEND:**

(13) = CONDOMINIUMS



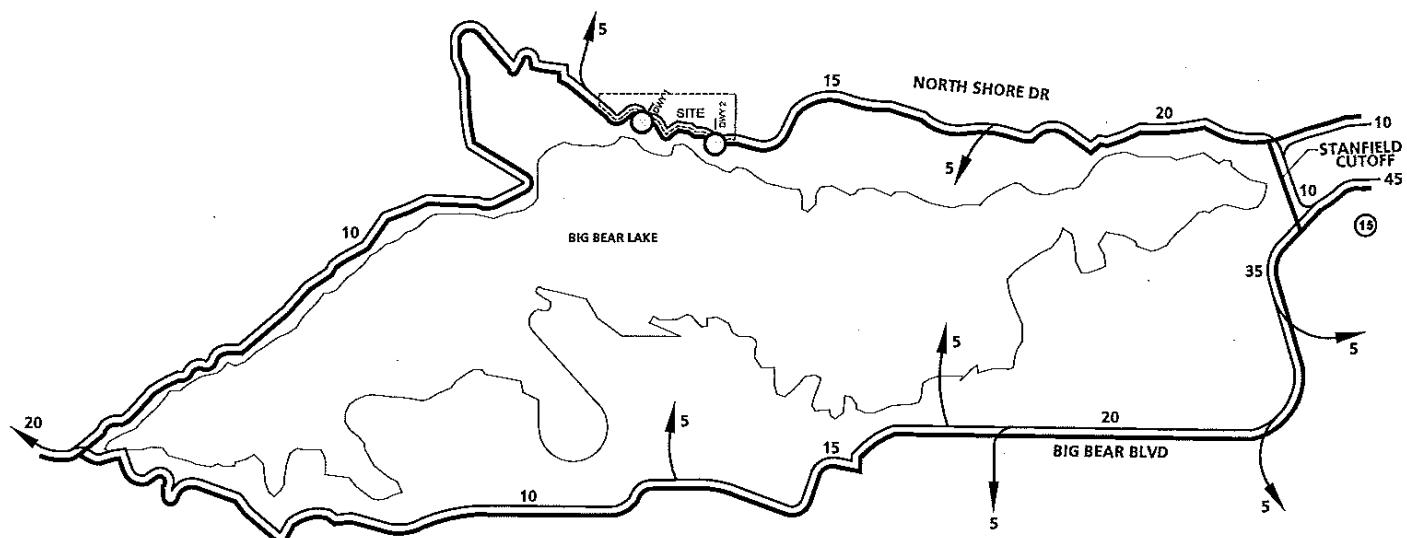
EXHIBIT D-14  
**41820 BIG BEAR BLVD.**



**LEGEND:**

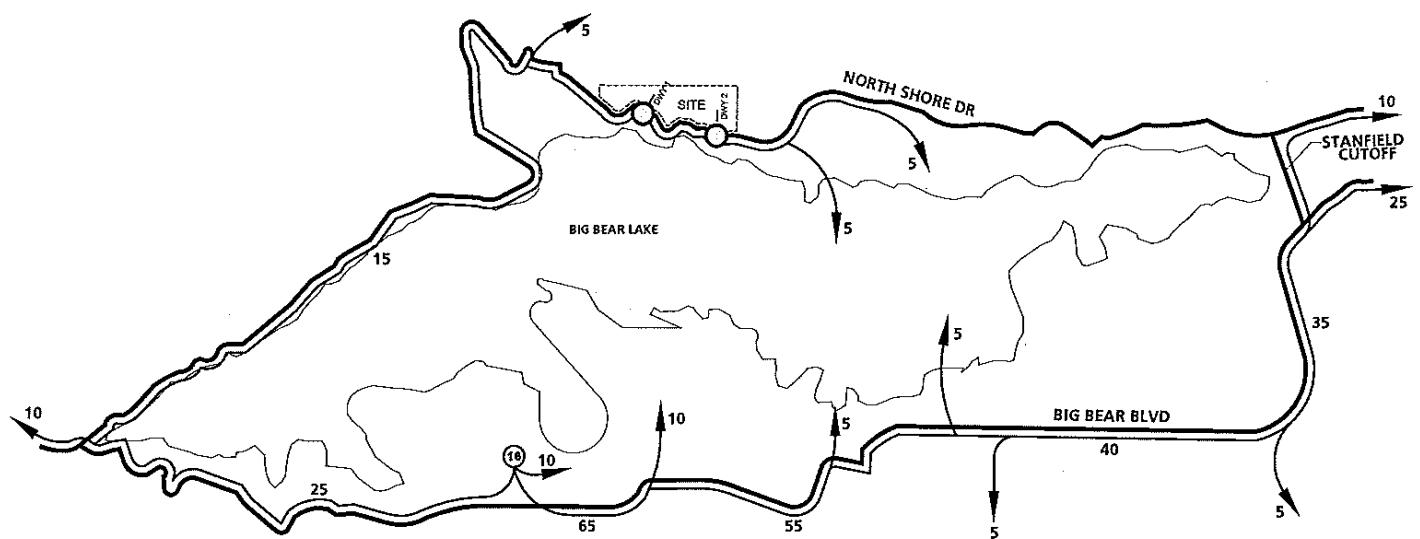
**(14) = 41820 BIG BEAR BLVD.**



**WORLD HARVEST FAITH CENTER****LEGEND:**

**(15)** = WORLD HARVEST FAITH CENTER

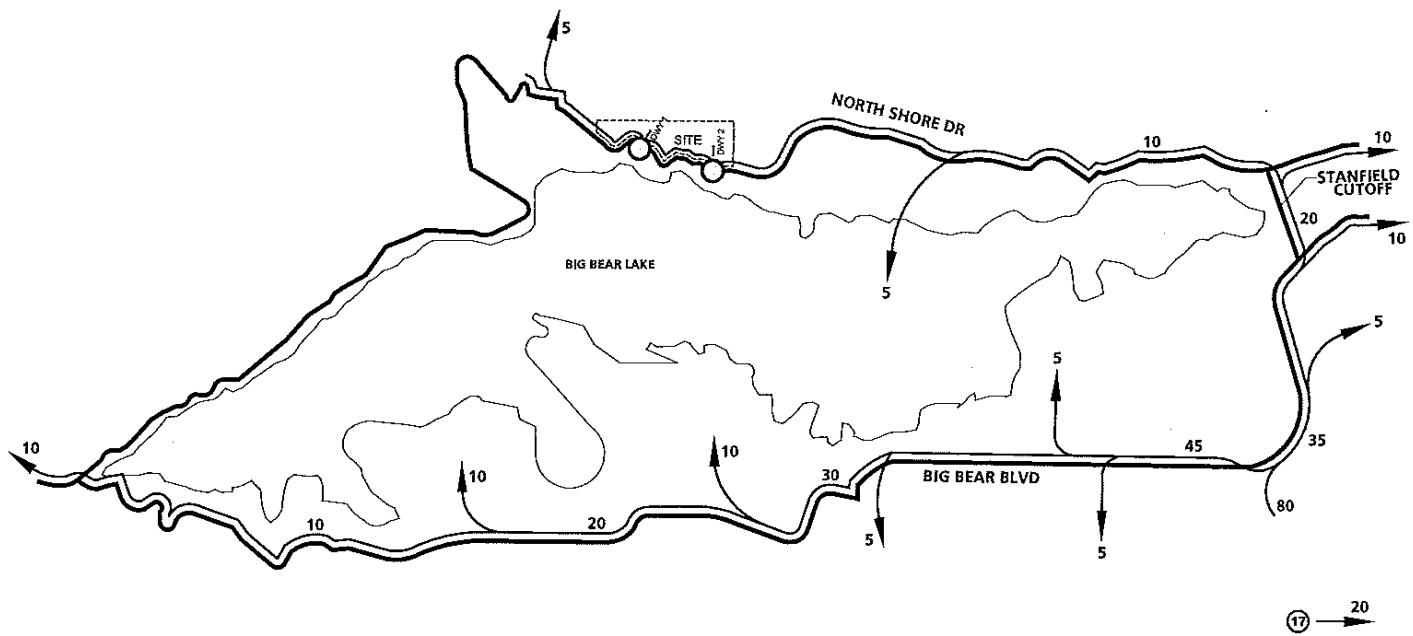


**BOAT PARTS RETAIL & SERVICE****LEGEND:**

⑯ = BOAT PARTS RETAIL & SERVICE



EXHIBIT D-17  
**STORAGE YARD**



**LEGEND:**

⑯ = STORAGE YARD



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**APPENDIX E**

2010 CONDITIONS INTERSECTION ANALYSIS WITHOUT PROJECT



MOON CAMP (TT 16136) TRAFFIC IMPACT ANALYSIS (JN 04409)  
 2010 Without Project Conditions  
 FRIDAY PM PEAK HOUR

## Level Of Service Computation Report

2000 HCM Unsigned Method (Future Volume Alternative)

Intersection #101 Big Bear Blvd (NS) / North Shore (SR-38) (EW)

Average Delay (sec/veh) : OVERFLOW Worst Case Level Of Service: F[xxxxx]

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign

Rights: Include Include Channel Include

Lanes: 0 0 1! 0 0 0 0 0 0 0 1 0 1 1 0 1 0 0

## Volume Module:

Base Vol: 24 0 27 0 0 0 0 322 21 87 300 0

Growth Adj: 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22

Initial Bse: 29 0 33 0 0 0 0 393 26 106 366 0

Added Vol: 226 0 1 0 0 0 0 73 314 1 42 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 255 0 34 0 0 0 0 466 340 107 408 0

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.84 0.84 0.84 0.84 0.84 0.84 0.84 0.84 0.84 0.84 0.84 0.84

PHF Volume: 305 0 41 0 0 0 0 557 406 128 488 0

Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0

FinalVolume: 305 0 41 0 0 0 0 557 406 128 488 0

## Critical Gap Module:

Critical Gp: 4.1 xxxx xxxx xxxx xxxx xxxx xxxx 6.5 6.2 7.1 6.5 xxxx

FollowUpTim: 2.2 xxxx xxxx xxxx xxxx xxxx 4.0 3.3 3.5 4.0 xxxx

## Capacity Module:

Cnflct Vol: 0 xxxx xxxx xxxx xxxx xxxx xxxx 651 0 910 631 xxxx

Potent Cap.: 900 xxxx xxxx xxxx xxxx xxxx 390 900 258 401 xxxx

Move Cap.: 900 xxxx xxxx xxxx xxxx xxxx 231 900 0 237 xxxx

Volume/Cap: 0.34 xxxx xxxx xxxx xxxx xxxx 2.42 0.45 xxxx 2.06 xxxx

Level Of Service Module:

2Way95thQ: 1.5 xxxx xxxx xxxx xxxx xxxx 45.4 2.4 xxxx 36.4 xxxx

Control Del: 11.0 xxxx xxxx xxxx xxxx xxxx 683 12.2 xxxx 525 xxxx

LOS by Move: B \* \* \* \* \* \* F B \* F \*

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT

Shared Cap.: xxxx xxxx

SharedQueue:xxxx xxxx xxxx

Shrd ConDel:xxxx xxxx xxxx

Shared LOS: \* \* \* \* \* \* \* \* \* \* \* \*

ApproachDel: xxxxxx xxxxxx 400.2 xxxxxx

ApproachLOS: \* \* F F

\*\*\*\*\*

Note: Queue reported is the number of cars per lane.

\*\*\*\*\*

MOON CAMP (TT 16136) TRAFFIC IMPACT ANALYSIS (JN 04409)  
 2011 Without Project Conditions With Improvements  
 FRIDAY PM PEAK HOUR

## Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #101 Big Bear Blvd (NS)/ North Shore (SR-38) (EW)

Cycle (sec): 60 Critical Vol./Cap. (X): 0.534  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 14.0  
 Optimal Cycle: 47 Level Of Service: B

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Split Phase	Split Phase	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	17 0 0 17	0 0 0 0	0 12 12 12	12 12 0 0
Lanes:	1 0 0 0 1	0 0 0 0 0	0 0 2 0 1	1 0 1 0 0

## Volume Module:

Base Vol:	24	0	27	0	0	0	0	322	21	87	300	0
Growth Adj:	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
Initial Bse:	29	0	33	0	0	0	0	393	26	106	366	0
Added Vol:	226	0	1	0	0	0	0	73	314	1	42	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	255	0	34	0	0	0	0	466	340	107	408	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
PHF Volume:	305	0	41	0	0	0	0	557	406	128	488	0
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	305	0	41	0	0	0	0	557	406	128	488	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.05	1.00	1.00	1.00	1.00
Final Volume:	305	0	41	0	0	0	0	585	406	128	488	0

## Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	1.00	0.00
Final Sat.:	1700	0	1800	0	0	0	0	3600	1800	1700	1800	0

## Capacity Analysis Module:

Vol/Sat:	0.18	0.00	0.02	0.00	0.00	0.00	0.00	0.16	0.23	0.08	0.27	0.00
Crit Moves:	****								****	****		
Green/Cycle:	0.31	0.00	0.31	0.00	0.00	0.00	0.00	0.39	0.39	0.20	0.59	0.00
Volume/Cap:	0.58	0.00	0.07	0.00	0.00	0.00	0.00	0.42	0.58	0.38	0.46	0.00
Delay/Veh:	21.6	0.0	14.5	0.0	0.0	0.0	0.0	13.0	16.5	23.9	5.6	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	21.6	0.0	14.5	0.0	0.0	0.0	0.0	13.0	16.5	23.9	5.6	0.0
LOS by Move:	C	A	B	A	A	A	A	B	B	C	A	A
HCM2kAvgQ:	5	0	0	0	0	0	0	4	6	2	4	0

Note: Queue reported is the number of cars per lane.

MOON CAMP (TT 16136) TRAFFIC IMPACT ANALYSIS (JN 04409)  
 2010 Without Project Conditions  
 FRIDAY PM PEAK HOUR

Level Of Service Computation Report  
 2000 HCM Unsignalized Method (Future Volume Alternative)

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Intersection #102 Stanfield Cut Off (NS) / North Shore Dr. (EW)

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Average Delay (sec/veh): 54.9 Worst Case Level Of Service: F[137.9]

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Rights:	Include	Include	Include	Include
Lanes:	0 0 1! 0 0	0 1 0 0 0	0 0 0 1 0	0 0 1! 0 0

---

Volume Module:

Base Vol:	58	5	208	5	10	0	0	74	70	218	54	6
Growth Adj:	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
Initial Bse:	71	6	254	6	12	0	0	90	85	266	66	7
Added Vol:	33	0	43	0	0	0	0	38	47	38	22	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	104	6	297	6	12	0	0	128	132	304	88	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	116	7	331	7	14	0	0	143	148	339	98	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	116	7	331	7	14	0	0	143	148	339	98	8

---

Critical Gap Module:

Critical Gp:	7.1	6.5	6.2	7.1	6.5	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx

---

Capacity Module:

Cnflct Vol:	1003	1001	217	1165	1070	xxxxx	xxxx	xxxx	xxxxx	291	xxxx	xxxxx
Potent Cap.:	223	245	828	173	223	xxxxx	xxxx	xxxx	xxxxx	1283	xxxx	xxxxx
Move Cap.:	156	165	828	75	150	xxxxx	xxxx	xxxx	xxxxx	1283	xxxx	xxxxx
Volume/Cap:	0.74	0.04	0.40	0.09	0.09	xxxx	xxxx	xxxx	xxxxx	0.26	xxxx	xxxx

---

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1.1	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxx	xxxxx	8.8	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT - LTR - RT											
Shared Cap.:	xxxx	383	xxxxx	113	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	18.2	xxxxx	0.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	138	xxxxx	43.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Shared LOS:	*	F	*	E	*	*	*	*	*	*	*	*
ApproachDel:		137.9			43.8		xxxxxx		xxxxxx			
ApproachLOS:		F			E		*		*			

---

Note: Queue reported is the number of cars per lane.

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MOON CAMP (TT 16136) TRAFFIC IMPACT ANALYSIS (JN 04409)  
 2011 Without Project Conditions With Improvements  
 FRIDAY PM PEAK HOUR

Level Of Service Computation Report  
 2000 HCM Operations Method (Future Volume Alternative)

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Intersection #102 Stanfield Cut Off (NS) / North Shore Dr. (EW)

---

Cycle (sec): 60 Critical Vol./Cap. (X): 0.637  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 31.9  
 Optimal Cycle: 54 Level Of Service: C

---

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Protected	Protected	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	10 13 13	10 13 13	10 13 13	10 13 13
Lanes:	1 0 0 1 0	1 0 0 1 0	1 0 0 1 0	1 0 0 1 0

---

Volume Module:

Base Vol:	58	5	208	5	10	0	0	74	70	218	54	6
Growth Adj:	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
Initial Bse:	71	6	254	6	12	0	0	90	85	266	66	7
Added Vol:	33	0	43	0	0	0	0	38	47	38	22	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	104	6	297	6	12	0	0	128	132	304	88	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	116	7	331	7	14	0	0	143	148	339	98	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	116	7	331	7	14	0	0	143	148	339	98	8
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	116	7	331	7	14	0	0	143	148	339	98	8

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Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.02	0.98	1.00	1.00	0.00	1.00	0.49	0.51	1.00	0.92	0.08
Final Sat.:	1700	36	1764	1700	1800	0	1700	886	914	1700	1662	138

---

Capacity Analysis Module:

Vol/Sat:	0.07	0.19	0.19	0.00	0.01	0.00	0.00	0.16	0.16	0.20	0.06	0.06
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.17	0.23	0.23	0.17	0.23	0.00	0.00	0.22	0.22	0.25	0.47	0.47
Volume/Cap:	0.39	0.80	0.80	0.02	0.03	0.00	0.00	0.75	0.75	0.80	0.13	0.13
Delay/Veh:	25.8	36.4	36.4	21.1	18.2	0.0	0.0	34.2	34.2	35.8	7.7	7.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	25.8	36.4	36.4	21.1	18.2	0.0	0.0	34.2	34.2	35.8	7.7	7.7
LOS by Move:	C	D	D	C	B	A	A	C	C	D	A	A
HCM2kAvgQ:	2	8	8	0	0	0	0	7	7	9	1	1

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Note: Queue reported is the number of cars per lane.

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MOON CAMP (TT 16136) TRAFFIC IMPACT ANALYSIS (JN 04409)  
 2010 Without Project Conditions  
 FRIDAY PM PEAK HOUR

## Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #103 Stanfield Cut Off (NS) / Big Bear Blvd. (SR-18) (EW)

Cycle (sec):	130	Critical Vol./Cap. (X):	1.140
Loss Time (sec):	8 (Y+R=2.0 sec)	Average Delay (sec/veh):	242.2
Optimal Cycle:	180	Level Of Service:	F

 \*\*\*\*\*

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Split Phase	Split Phase	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	24 24 24	24 24 24	10 18 18	10 18 18
Lanes:	0 1 0 0 1	0 1 0 0 1	1 0 1 0 1	1 0 1 0 1

 \*\*\*\*\*

## Volume Module:

Base Vol:	61 18 61 12 28 256 287 872 77 17 664 13
Growth Adj:	1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22
Initial Bse:	74 22 74 15 34 312 350 1064 94 21 810 16
Added Vol:	0 0 0 13 0 71 68 294 0 0 215 8
PasserByVol:	0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut:	74 22 74 28 34 383 418 1358 94 21 1025 24
User Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:	0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97
PHF Volume:	77 23 77 29 35 396 432 1403 97 21 1059 25
Reduced Vol:	0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:	77 23 77 29 35 396 432 1403 97 21 1059 25
PCE Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:	77 23 77 29 35 396 432 1403 97 21 1059 25

 \*\*\*\*\*

## Saturation Flow Module:

Sat/Lane:	1800 1800 1800 1800 1800 1800 1800 1800 1800 1800 1800 1800
Adjustment:	0.94 1.00 1.00 0.94 1.00 1.00 0.94 1.00 1.00 0.94 1.00 1.00
Lanes:	0.78 0.22 1.00 0.46 0.54 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Sat.:	1329 392 1800 784 969 1800 1700 1800 1800 1700 1800 1800

 \*\*\*\*\*

## Capacity Analysis Module:

Vol/Sat:	0.06 0.06 0.04 0.04 0.04 0.22 0.25 0.78 0.05 0.01 0.59 0.01
Crit Moves:	**** **** ***
Green/Cycle:	0.18 0.18 0.18 0.18 0.18 0.18 0.17 0.49 0.49 0.08 0.40 0.40
Volume/Cap:	0.31 0.31 0.23 0.20 0.20 1.19 1.48 1.58 0.11 0.16 1.48 0.03
Delay/Veh:	48.4 48.4 46.8 46.2 46.2 165.1 287.4 293 14.0 58.8 259 21.5
User DelAdj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:	48.4 48.4 46.8 46.2 46.2 165.1 287.4 293 14.0 58.8 259 21.5
LOS by Move:	D D D D D F F F B E F C
HCM2kAvgQ:	4 4 3 2 2 26 38 118 1 1 84 0

 \*\*\*\*\*

Note: Queue reported is the number of cars per lane.

MOON CAMP (TT 16136) TRAFFIC IMPACT ANALYSIS (JN 04409)  
 2011 Without Project Conditions With Improvements  
 FRIDAY PM PEAK HOUR

## Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #103 Stanfield Cut Off (NS) / Big Bear Blvd. (SR-18) (EW)

Cycle (sec): 80 Critical Vol./Cap.(X): 0.875  
 Loss Time (sec): 6 (Y+R=2.0 sec) Average Delay (sec/veh): 31.4  
 Optimal Cycle: 76 Level Of Service: C

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Permitted	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	24 24 24	24 24 24	10 18 18	10 18 18
Lanes:	1 0 0 1 0	1 0 0 1 0	1 0 1 1 0	1 0 1 1 0

## Volume Module:

Base Vol:	61	18	61	12	28	256	287	872	77	17	664	13
Growth Adj:	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
Initial Bse:	74	22	74	15	34	312	350	1064	94	21	810	16
Added Vol:	0	0	0	13	0	71	68	294	0	0	215	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	74	22	74	28	34	383	418	1358	94	21	1025	24
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	77	23	77	29	35	396	432	1403	97	21	1059	25
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	77	23	77	29	35	396	432	1403	97	21	1059	25
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.05	1.05	1.00	1.05	1.05
Final Volume:	77	23	77	29	35	396	432	1473	102	21	1112	26

## Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.23	0.77	1.00	0.08	0.92	1.00	1.87	0.13	1.00	1.95	0.05
Final Sat.:	1700	410.	1390	1700	147	1653	1700	3367	233	1700	3518	82

## Capacity Analysis Module:

Vol/Sat:	0.05	0.06	0.06	0.02	0.24	0.24	0.25	0.44	0.44	0.01	0.32	0.32
Crit Moves:				****		****				****		
Green/Cycle:	0.30	0.30	0.30	0.30	0.30	0.30	0.28	0.49	0.49	0.14	0.35	0.35
Volume/Cap:	0.15	0.18	0.18	0.06	0.80	0.80	0.91	0.90	0.90	0.09	0.91	0.91
Delay/Veh:	20.9	21.2	21.2	19.9	37.1	37.1	52.3	22.7	22.7	30.8	35.2	35.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	20.9	21.2	21.2	19.9	37.1	37.1	52.3	22.7	22.7	30.8	35.2	35.2
LOS by Move:	C	C	C	B	D	D	D	C	C	C	D	D
HCM2kAvgQ:	1	2	2	0	12	12	15	21	21	1	17	17

Note: Queue reported is the number of cars per lane.

MOON CAMP (TT 16136) TRAFFIC IMPACT ANALYSIS (JN 04409)  
 2010 Without Project Conditions  
 SUNDAY MID-DAY PEAK HOUR

-----  
 Level Of Service Computation Report  
 2000 HCM Unsignalized Method (Future Volume Alternative)  
 \*\*\*\*  
 Intersection #101 Big Bear Blvd (NS) / North Shore (SR-38) (EW)  
 \*\*\*\*  
 Average Delay (sec/veh): OVERFLOW      Worst Case Level Of Service: F [xxxxx]  
 \*\*\*\*  
 Approach:      North Bound      South Bound      East Bound      West Bound  
 Movement:      L - T - R      L - T - R      L - T - R      L - T - R  
 |-----|-----|-----|-----|-----|  
 Control:      Uncontrolled      Uncontrolled      Stop Sign      Stop Sign  
 Rights:      Include      Include      Channel      Include  
 Lanes:      0 0 1! 0 0      0 0 0 0      0 0 1 0 1      1 0 1 0 0  
 |-----|-----|-----|-----|-----|  
 Volume Module:  
 Base Vol:      40 0 94 0 0 0 0 958 33 67 411 0  
 Growth Adj:    1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22  
 Initial Bse:    49 0 115 0 0 0 0 1169 40 82 501 0  
 Added Vol:     226 0 1 0 0 0 0 73 314 1 42 0  
 PasserByVol:   0 0 0 0 0 0 0 0 0 0 0 0  
 Initial Fut:   275 0 116 0 0 0 0 1242 354 83 543 0  
 User Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 PHF Adj:     0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91  
 PHF Volume:   301 0 127 0 0 0 0 1362 388 91 596 0  
 Reduct Vol:   0 0 0 0 0 0 0 0 0 0 0 0  
 FinalVolume: 301 0 127 0 0 0 0 1362 388 91 596 0  
 Critical Gap Module:  
 Critical Gp: 4.1 xxxx xxxx xxxx xxxx xxxx xxxx 6.5 6.2 7.1 6.5 xxxx  
 FollowUpTim: 2.2 xxxx xxxx xxxx xxxx xxxx xxxx 4.0 3.3 3.5 4.0 xxxx  
 |-----|-----|-----|-----|-----|  
 Capacity Module:  
 Cnflct Vol: 0 xxxx xxxx xxxx xxxx xxxx xxxx 729 0 1347 666 xxxx  
 Potent Cap.: 900 xxxx xxxx xxxx xxxx xxxx 352 900 130 383 xxxx  
 Move Cap.: 900 xxxx xxxx xxxx xxxx xxxx 210 900 0 229 xxxx  
 Volume/Cap: 0.33 xxxx xxxx xxxx xxxx xxxx 6.47 0.43 xxxx 2.60 xxxx  
 |-----|-----|-----|-----|-----|  
 Level Of Service Module:  
 2Way95thQ: 1.5 xxxx xxxx xxxx xxxx xxxx xxxx 147 2.2 xxxx 50.3 xxxx  
 Control Del: 11.0 xxxx xxxx xxxx xxxx xxxx xxxx 2504 12.0 xxxx 767 xxxx  
 LOS by Move: B \* \* \* \* \* \* \* F B \* F \*  
 Movement: LT - LTR - RT  
 Shared Cap.: xxxx  
 SharedQueue:xxxxx xxxx  
 Shrd ConDel:xxxxx xxxx  
 Shared LOS: \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \*  
 ApproachDel: xxxxxx xxxxxx 1951.2 xxxxxx  
 ApproachLOS: \* \* F F  
 \*\*\*\*  
 Note: Queue reported is the number of cars per lane.  
 \*\*\*\*

MOON CAMP (TT 16136) TRAFFIC IMPACT ANALYSIS (JN 04409)  
 2010 Without Project Conditions With Improvements  
 SUNDAY MID-DAY PEAK HOUR

## Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #101 Big Bear Blvd (NS)/ North Shore (SR-38) (EW)

Cycle (sec): 60 Critical Vol./Cap. (X): 0.697  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 21.2  
 Optimal Cycle: 47 Level Of Service: C

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Split Phase	Split Phase	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	17 0 17	0 0 0	0 12 12	12 12 0
Lanes:	1 0 0 0 1	0 0 0 0 0	0 0 2 0 1	1 0 1 0 0

## Volume Module:

Base Vol:	40	0	94	0	0	0	0	958	33	67	411	0
Growth Adj:	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
Initial Bse:	49	0	115	0	0	0	0	1169	40	82	501	0
Added Vol:	226	0	1	0	0	0	0	73	314	1	42	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	275	0	116	0	0	0	0	1242	354	83	543	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	301	0	127	0	0	0	0	1362	388	91	596	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	301	0	127	0	0	0	0	1362	388	91	596	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.05	1.00	1.00	1.00	1.00
Final Volume:	301	0	127	0	0	0	0	1430	388	91	596	0

## Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	1.00
Final Sat.:	1700	0	1800	0	0	0	0	3600	1800	1700	1800

## Capacity Analysis Module:

Vol/Sat:	0.18	0.00	0.07	0.00	0.00	0.00	0.00	0.40	0.22	0.05	0.33	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.28	0.00	0.28	0.00	0.00	0.00	0.00	0.42	0.42	0.20	0.62	0.00
Volume/Cap:	0.63	0.00	0.25	0.00	0.00	0.00	0.00	0.95	0.52	0.27	0.54	0.00
Delay/Veh:	24.7	0.0	17.7	0.0	0.0	0.0	0.0	29.3	14.0	22.2	5.4	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	24.7	0.0	17.7	0.0	0.0	0.0	0.0	29.3	14.0	22.2	5.4	0.0
LOS by Move:	C	A	B	A	A	A	A	C	B	C	A	A
HCM2kAvgQ:	6	0	2	0	0	0	0	19	5	2	4	0

Note: Queue reported is the number of cars per lane.

MOON CAMP (TT 16136) TRAFFIC IMPACT ANALYSIS (JN 04409)  
 2010 Without Project Conditions  
 SUNDAY MID-DAY PEAK HOUR

## Level Of Service Computation Report

2000 HCM Unsigned Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #102 Stanfield Cut Off (NS) / North Shore Dr. (EW)  
 \*\*\*\*\*Average Delay (sec/veh): 82.7 Worst Case Level Of Service: F[219.6]  
 \*\*\*\*\*

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Rights:	Include	Include	Include	Include
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0

## Volume Module:

Base Vol:	110	4	174	8	6	6	4	80	120	177	84	6
Growth Adj:	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
Initial Bse:	134	5	212	10	7	7	5	98	146	216	102	7
Added Vol:	33	0	43	0	0	0	0	38	47	38	22	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	167	5	255	10	7	7	5	136	193	254	124	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	181	5	277	11	8	8	5	147	210	275	135	8
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	181	5	277	11	8	8	5	147	210	275	135	8

## Critical Gap Module:

Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxx

## Capacity Module:

CnFLICT Vol:	959	955	252	1092	1056	139	143	xxxx	xxxxx	356	xxxx	xxxx
Potent Cap.:	239	260	792	194	227	915	1452	xxxx	xxxxx	1213	xxxx	xxxx
Move Cap.:	181	190	792	98	166	915	1452	xxxx	xxxxx	1213	xxxx	xxxx
Volume/Cap:	1.00	0.03	0.35	0.11	0.05	0.01	0.00	xxxx	xxxx	0.23	xxxx	xxxx

## Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.0	xxxx	xxxxx	0.9	xxxx	xxxx
Control Del:	xxxxx	xxxx	xxxx	xxxx	xxxx	xxxx	7.5	xxxx	xxxxx	8.8	xxxx	xxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT - LTR - RT											
Shared Cap.:	xxxx	335	xxxx	xxxx	160	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxx
SharedQueue:	xxxxx	23.4	xxxx	xxxx	0.6	xxxx	xxxxx	xxxx	xxxxx	xxxx	xxxx	xxxx
Shrd ConDel:	xxxxx	220	xxxx	xxxx	31.8	xxxxx	xxxxx	xxxx	xxxxx	xxxx	xxxx	xxxx
Shared LOS:	*	F	*	*	D	*	*	*	*	*	*	*
ApproachDel:		219.6			31.8		xxxxxx		xxxxxx			
ApproachLOS:		F			D		*		*			

\*\*\*\*\*  
 Note: Queue reported is the number of cars per lane.  
 \*\*\*\*\*

MOON CAMP (TT 16136) TRAFFIC IMPACT ANALYSIS (JN 04409)  
 2010 Without Project Conditions With Improvements  
 SUNDAY MID-DAY PEAK HOUR

## Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #102 Stanfield Cut Off (NS) / North Shore Dr. (EW)

Cycle (sec): 60 Critical Vol./Cap.(X): 0.603  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 30.7  
 Optimal Cycle: 54 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
	Movement:	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Protected	Protected	Protected	Protected	Protected	Protected	Protected	Protected	Protected	Protected	Protected	
Rights:	Include	Include	Include	Include	Include	Include	Include	Include	Include	Include	Include	
Min. Green:	10	13	13	10	13	13	10	13	13	10	13	13
Lanes:	1	0	0	1	0	1	1	0	0	1	0	0

## Volume Module:

Base Vol:	110	4	174	8	6	6	4	80	120	177	84	6
Growth Adj:	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
Initial Bse:	134	5	212	10	7	7	5	98	146	216	102	7
Added Vol:	33	0	43	0	0	0	0	38	47	38	22	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	167	5	255	10	7	7	5	136	193	254	124	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	181	5	277	11	8	8	5	147	210	275	135	8
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	181	5	277	11	8	8	5	147	210	275	135	8
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	181	5	277	11	8	8	5	147	210	275	135	8

## Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.02	0.98	1.00	0.50	0.50	1.00	0.41	0.59	1.00	0.94	0.06
Final Sat.:	1700	34	1766	1700	900	900	1700	742	1058	1700	1700	100

## Capacity Analysis Module:

Vol/Sat:	0.11	0.16	0.16	0.01	0.01	0.01	0.00	0.20	0.20	0.16	0.08	0.08
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.17	0.22	0.22	0.17	0.22	0.22	0.21	0.27	0.27	0.22	0.27	0.27
Volume/Cap:	0.64	0.72	0.72	0.04	0.04	0.04	0.01	0.74	0.74	0.74	0.29	0.29
Delay/Veh:	33.9	32.9	32.9	21.2	18.8	18.8	18.9	30.2	30.2	34.7	18.7	18.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	33.9	32.9	32.9	21.2	18.8	18.8	18.9	30.2	30.2	34.7	18.7	18.7
LOS by Move:	C	C	C	C	B	B	B	C	C	C	B	B
HCM2kAvgQ:	4	6	6	0	0	0	0	8	8	7	2	2

Note: Queue reported is the number of cars per lane.

MOON CAMP (TT 16136) TRAFFIC IMPACT ANALYSIS (JN 04409)  
 2010 Without Project Conditions  
 SUNDAY MID-DAY PEAK HOUR

## Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #103 Stanfield Cut Off (NS) / Big Bear Blvd. (SR-18) (EW)

Cycle (sec):	130	Critical Vol./Cap. (X):	1.139
Loss Time (sec):	8 (Y+R=2.0 sec)	Average Delay (sec/veh):	207.6
Optimal Cycle:	180	Level Of Service:	F

 \*\*\*\*\*

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|-----|-----|-----|-----|

Control: Split Phase Split Phase Protected Protected

Rights: Include Include Include Include

Min. Green: 24 24 24 24 24 24 10 18 18 10 18 18

Lanes: 0 1 0 0 1 0 1 0 0 1 0 1 0 1 0 1

-----|-----|-----|-----|-----|-----|-----|-----|

## Volume Module:

Base Vol: 63 40 69 21 34 265 230 807 49 37 635 22

Growth Adj: 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22

Initial Bse: 77 49 84 26 41 323 281 985 60 45 775 27

Added Vol: 0 0 0 13 0 71 68 294 0 0 215 8

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 77 49 84 39 41 394 349 1279 60 45 990 35

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96

PHF Volume: 80 51 88 40 43 410 362 1329 62 47 1029 36

Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 80 51 88 40 43 410 362 1329 62 47 1029 36

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 80 51 88 40 43 410 362 1329 62 47 1029 36

-----|-----|-----|-----|-----|-----|-----|-----|

## Saturation Flow Module:

Sat/Lane: 1800 1800 1800 1800 1800 1800 1800 1800 1800 1800 1800 1800

Adjustment: 0.94 1.00 1.00 0.94 1.00 1.00 0.94 1.00 1.00 0.94 1.00 1.00

Lanes: 0.63 0.37 1.00 0.50 0.50 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Final Sat.: 1063 675 1800 844 906 1800 1700 1800 1800 1700 1800 1800

-----|-----|-----|-----|-----|-----|-----|-----|

## Capacity Analysis Module:

Vol/Sat: 0.08 0.08 0.05 0.05 0.05 0.23 0.21 0.74 0.03 0.03 0.57 0.02

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*

Green/Cycle: 0.18 0.18 0.18 0.18 0.18 0.18 0.15 0.49 0.49 0.08 0.41 0.41

Volume/Cap: 0.41 0.41 0.26 0.26 0.26 1.23 1.38 1.50 0.07 0.36 1.38 0.05

Delay/Veh: 50.5 50.5 47.3 47.3 47.3 181.4 247.4 257 13.7 64.5 212 20.1

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 50.5 50.5 47.3 47.3 47.3 181.4 247.4 257 13.7 64.5 212 20.1

LOS by Move: D D D D D F F F B E F C

HCM2kAvgQ: 5 5 3 3 3 28 30 106 1 2 76 1

\*\*\*\*\*

Note: Queue reported is the number of cars per lane.

\*\*\*\*\*

MOON CAMP (TT 16136) TRAFFIC IMPACT ANALYSIS (JN 04409)  
 2010 Without Project Conditions With Improvements  
 SUNDAY MID-DAY PEAK HOUR

## Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

\*\*\*\*\*

Intersection #103 Stanfield Cut Off (NS) / Big Bear Blvd. (SR-18) (EW)

\*\*\*\*\*

Cycle (sec): 80 Critical Vol./Cap. (X): 0.741

Loss Time (sec): 6 (Y+R=2.0 sec) Average Delay (sec/veh): 26.8

Optimal Cycle: 58 Level Of Service: C

\*\*\*\*\*

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|-----|-----|-----|-----|

Control: Permitted Permitted Protected Protected

Rights: Include Include Include Include

Min. Green: 24 24 24 24 24 24 10 18 18 10 18 18

Lanes: 1 0 0 1 0 1 0 0 1 0 1 0 1 0 1 0 1 1 0

-----|-----|-----|-----|-----|-----|-----|-----|

## Volume Module:

Base Vol: 63 40 69 21 34 265 230 807 49 37 635 22

Growth Adj: 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22

Initial Bse: 77 49 84 26 41 323 281 985 60 45 775 27

Added Vol: 0 0 0 13 0 71 68 294 0 0 215 8

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 77 49 84 39 41 394 349 1279 60 45 990 35

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96

PHF Volume: 80 51 88 40 43 410 362 1329 62 47 1029 36

Reducet Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 80 51 88 40 43 410 362 1329 62 47 1029 36

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.05 1.05 1.05 1.05 1.05

FinalVolume: 80 51 88 40 43 410 362 1395 65 47 1080 38

-----|-----|-----|-----|-----|-----|-----|-----|

## Saturation Flow Module:

Sat/Lane: 1800 1800 1800 1800 1800 1800 1800 1800 1800 1800 1800 1800

Adjustment: 0.94 1.00 1.00 0.94 1.00 1.00 0.94 1.00 1.00 0.94 1.00 1.00

Lanes: 1.00 0.37 0.63 1.00 0.10 0.90 1.00 1.91 0.09 1.00 1.93 0.07

Final Sat.: 1700 661 1139 1700 171 1629 1700 3439 161 1700 3478 122

-----|-----|-----|-----|-----|-----|-----|-----|

## Capacity Analysis Module:

Vol/Sat: 0.05 0.08 0.08 0.02 0.25 0.25 0.21 0.41 0.41 0.03 0.31 0.31

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*

Green/Cycle: 0.31 0.31 0.31 0.31 0.31 0.31 0.25 0.49 0.49 0.13 0.37 0.37

Volume/Cap: 0.15 0.25 0.25 0.08 0.82 0.82 0.85 0.82 0.82 0.22 0.85 0.85

Delay/Veh: 20.4 21.5 21.5 19.6 38.2 38.2 46.8 17.8 17.8 33.9 28.4 28.4

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 20.4 21.5 21.5 19.6 38.2 38.2 46.8 17.8 17.8 33.9 28.4 28.4

LOS by Move: C C C B D D D B B C C C

HCM2kAvgQ: 1 2 2 1 13 13 12 16 16 1 15 15

\*\*\*\*\*

Note: Queue reported is the number of cars per lane.

\*\*\*\*\*

**APPENDIX E**

2010 CONDITIONS INTERSECTION ANALYSIS WITH PROJECT



MOON CAMP (TT 16136) TRAFFIC IMPACT ANALYSIS (JN 04409)  
 2010 With Project Conditions  
 FRIDAY PM PEAK HOUR

Level Of Service Computation Report  
 2000 HCM Unsignalized Method (Future Volume Alternative)

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Intersection #101 Big Bear Blvd (NS) / North Shore (SR-38) (EW)

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Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxxx]

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Rights:	Include	Include	Channel	Include
Lanes:	0 0 1! 0 0	0 0 0 0 0	0 0 1 0 1	1 0 1 0 0

---

Volume Module:

Base Vol:	24	0	27	0	0	0	0	322	21	87	300	0
Growth Adj:	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
Initial Bse:	29	0	33	0	0	0	0	393	26	106	366	0
Added Vol:	226	0	6	0	0	0	0	77	314	4	45	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	255	0	39	0	0	0	0	470	340	110	411	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
PHF Volume:	305	0	47	0	0	0	0	562	406	132	492	0
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	305	0	47	0	0	0	0	562	406	132	492	0

---

Critical Gap Module:

Critical Gp:	4.1	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	6.5	6.2	7.1	6.5	xxxxx
FollowUpTim:	2.2	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	4.0	3.3	3.5	4.0	xxxxx

---

Capacity Module:

Cnflct Vol:	0	xxxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	657	0	915	634	xxxxx
Potent Cap.:	900	xxxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	387	900	256	399	xxxxx
Move Cap.:	900	xxxxx	xxxx	xxxx	xxxx	xxxxx	xxxx	229	900	0	236	xxxxx
Volume/Cap:	0.34	xxxx	xxxx	xxxx	xxxx	xxxxx	xxxx	2.46	0.45	xxxx	2.08	xxxx

---

Level Of Service Module:

2Way95thQ:	1.5	xxxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	46.2	2.4	xxxx	36.9	xxxxx
Control Del:	11.0	xxxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	701	12.2	xxxxx	535	xxxxx
LOS by Move:	B	*	*	*	*	*	*	F	B	*	F	*
Movement:	LT - LTR - RT											
Shared Cap.:	xxxx	xxxx	xxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx		xxxxxx					412.0		xxxxxx		
ApproachLOS:	*		*					F		F		

---

Note: Queue reported is the number of cars per lane.

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MOON CAMP (TT 16136) TRAFFIC IMPACT ANALYSIS (JN 04409)  
 2010 With Project Conditions With Improvements  
 FRIDAY PM PEAK HOUR

## Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #101 Big Bear Blvd (NS) / North Shore (SR-38) (EW)

Cycle (sec): 60 Critical Vol./Cap. (X): 0.536  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 14.0  
 Optimal Cycle: 47 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Split Phase	Split Phase	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	17 0 17	0 0 0	0 12 12	12 12 0
Lanes:	1 0 0 0 1	0 0 0 0 0	0 2 0 1	1 0 1 0 0

Volume Module:

Base Vol:	24	0	27	0	0	0	0	322	21	87	300	0
Growth Adj:	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
Initial Bse:	29	0	33	0	0	0	0	393	26	106	366	0
Added Vol:	226	0	6	0	0	0	0	77	314	4	45	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	255	0	39	0	0	0	0	470	340	110	411	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
PHF Volume:	305	0	47	0	0	0	0	562	406	132	492	0
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	305	0	47	0	0	0	0	562	406	132	492	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.05	1.00	1.00	1.00	1.00
FinalVolume:	305	0	47	0	0	0	0	590	406	132	492	0

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	2.00	1.00	1.00	1.00	0.00
Final Sat.:	1700	0	1800	0	0	0	0	3600	1800	1700	1800	0

Capacity Analysis Module:

Vol/Sat:	0.18	0.00	0.03	0.00	0.00	0.00	0.00	0.16	0.23	0.08	0.27	0.00
Crit Moves:	****								****	****		
Green/Cycle:	0.31	0.00	0.31	0.00	0.00	0.00	0.00	0.39	0.39	0.20	0.59	0.00
Volume/Cap:	0.58	0.00	0.08	0.00	0.00	0.00	0.00	0.42	0.58	0.39	0.46	0.00
Delay/Veh:	21.6	0.0	14.6	0.0	0.0	0.0	0.0	13.0	16.5	24.1	5.6	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	21.6	0.0	14.6	0.0	0.0	0.0	0.0	13.0	16.5	24.1	5.6	0.0
LOS by Move:	C	A	B	A	A	A	A	B	B	C	A	A
HCM2kAvgQ:	5	0	1	0	0	0	0	4	6	3	4	0

Note: Queue reported is the number of cars per lane.

MOON CAMP (TT 16136) TRAFFIC IMPACT ANALYSIS (JN 04409)  
 2010 With Project Conditions  
 FRIDAY PM PEAK HOUR

## Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #102 Stanfield Cut Off (NS) / North Shore Dr. (EW)  
 \*\*\*\*\*Average Delay (sec/veh): 78.9 Worst Case Level Of Service: F[200.1]  
 \*\*\*\*\*Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R  
 |-----|-----|-----|-----|-----|-----|-----|Control: Stop Sign Stop Sign Uncontrolled Uncontrolled  
 Rights: Include Include Include Include  
 Lanes: 0 0 1! 0 0 0 1 0 0 0 0 0 1 0 0 0 1! 0 0  
 |-----|-----|-----|-----|-----|-----|-----|

## Volume Module:

Base Vol:	58	5	208	5	10	0	0	74	70	218	54	6
Growth Adj:	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
Initial Bse:	71	6	254	6	12	0	0	90	85	266	66	7
Added Vol:	50	0	43	0	0	0	0	41	57	38	27	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	121	6	297	6	12	0	0	131	142	304	93	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	135	7	331	7	14	0	0	146	159	339	104	8
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Volume:	135	7	331	7	14	0	0	146	159	339	104	8

## Critical Gap Module:

Critical Gp:	7.1	6.5	6.2	7.1	6.5	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx

## Capacity Module:

Cnflct Vol:	1018	1015	226	1180	1090	xxxxx	xxxx	xxxx	xxxxx	305	xxxx	xxxxx
Potent Cap.:	218	240	819	169	217	xxxxx	xxxx	xxxx	xxxxx	1267	xxxx	xxxxx
Move Cap.:	151	161	819	73	145	xxxxx	xxxx	xxxx	xxxxx	1267	xxxx	xxxxx
Volume/Cap:	0.89	0.04	0.40	0.09	0.09	xxxx	xxxx	xxxx	xxxxx	0.27	xxxx	xxxxx

## Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	1.1	xxxx	xxxxx						
Control Del:	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxx	xxxx	xxxxx	8.9	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	353	xxxxx	109	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	22.7	xxxxx	0.7	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	200	xxxxx	45.5	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Shared LOS:	*	F	*	E	*	*	*	*	*	*	*	*
ApproachDel:	200.1			45.5			xxxxxx			xxxxxx		
ApproachLOS:	F			E			*			*		

\*\*\*\*\*  
 Note: Queue reported is the number of cars per lane.  
 \*\*\*\*\*

MOON CAMP (TT 16136) TRAFFIC IMPACT ANALYSIS (JN 04409)  
 2010 With Project Conditions With Improvements  
 FRIDAY PM PEAK HOUR

## Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #102 Stanfield Cut Off (NS) / North Shore Dr. (EW)

Cycle (sec):	60	Critical Vol./Cap. (X):	0.647
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	32.4
Optimal Cycle:	54	Level Of Service:	C

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R

Control:	Protected	Protected	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	10 13	13	10 13	13
Lanes:	1 0 0 1 0	1 0 0 1 0	1 0 0 1 0	1 0 0 1 0

## Volume Module:

Base Vol:	58	5	208	5	10	0	0	74	70	218	54	6
Growth Adj:	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
Initial Bse:	71	6	254	6	12	0	0	90	85	266	66	7
Added Vol:	50	0	43	0	0	0	0	41	57	38	27	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	121	6	297	6	12	0	0	131	142	304	93	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	135	7	331	7	14	0	0	146	159	339	104	8
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	135	7	331	7	14	0	0	146	159	339	104	8
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	135	7	331	7	14	0	0	146	159	339	104	8

## Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.02	0.98	1.00	1.00	0.00	1.00	0.48	0.52	1.00	0.93	0.07
Final Sat.:	1700	36	1764	1700	1800	0	1700	863	937	1700	1669	131

## Capacity Analysis Module:

Vol/Sat:	0.08	0.19	0.19	0.00	0.01	0.00	0.00	0.17	0.17	0.20	0.06	0.06
Crit Moves:	****	****	****					****	****			
Green/Cycle:	0.17	0.23	0.23	0.17	0.23	0.00	0.00	0.22	0.22	0.25	0.47	0.47
Volume/Cap:	0.45	0.80	0.80	0.02	0.03	0.00	0.00	0.78	0.78	0.80	0.13	0.13
Delay/Veh:	27.2	36.4	36.4	21.1	18.2	0.0	0.0	36.6	36.6	35.8	7.8	7.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	27.2	36.4	36.4	21.1	18.2	0.0	0.0	36.6	36.6	35.8	7.8	7.8
LOS by Move:	C	D	D	C	B	A	A	D	D	D	A	A
HCM2kAvgQ:	3	8	8	0	0	0	0	8	8	9	1	1

Note: Queue reported is the number of cars per lane.

MOON CAMP (TT 16136) TRAFFIC IMPACT ANALYSIS (JN 04409)  
 2010 With Project Conditions  
 FRIDAY PM PEAK HOUR

## Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #103 Stanfield Cut Off (NS) / Big Bear Blvd. (SR-18) (EW)

Cycle (sec): 130 Critical Vol./Cap. (X): 1.145  
 Loss Time (sec): 8 (Y+R=2.0 sec) Average Delay (sec/veh): 245.3  
 Optimal Cycle: 180 Level Of Service: F

\*\*\*\*\*

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|-----|-----|-----|-----|

Control: Split Phase Split Phase Protected Protected

Rights: Include Include Include Include

Min. Green: 24 24 24 24 24 24 10 18 18 10 18 18

Lanes: 0 1 0 0 1 0 1 0 0 1 0 1 1 0 1 0 1

-----|-----|-----|-----|-----|-----|-----|-----|

Volume Module:

Base Vol: 61 18 61 12 28 256 287 872 77 17 664 13

Growth Adj: 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22

Initial Bse: 74 22 74 15 34 312 350 1064 94 21 810 16

Added Vol: 0 0 0 16 0 79 81 294 0 0 215 13

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 74 22 74 31 34 391 431 1358 94 21 1025 29

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97

PHF Volume: 77 23 77 32 35 404 445 1403 97 21 1059 30

Reduc Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 77 23 77 32 35 404 445 1403 97 21 1059 30

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

FinalVolume: 77 23 77 32 35 404 445 1403 97 21 1059 30

-----|-----|-----|-----|-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1800 1800 1800 1800 1800 1800 1800 1800 1800 1800 1800 1800

Adjustment: 0.94 1.00 1.00 0.94 1.00 1.00 0.94 1.00 1.00 0.94 1.00 1.00

Lanes: 0.78 0.22 1.00 0.49 0.51 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Final Sat.: 1329 392 1800 828 923 1800 1700 1800 1800 1700 1800 1800

-----|-----|-----|-----|-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.06 0.06 0.04 0.04 0.04 0.22 0.26 0.78 0.05 0.01 0.59 0.02

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

Green/Cycle: 0.18 0.18 0.18 0.18 0.18 0.18 0.18 0.49 0.49 0.08 0.39 0.39

Volume/Cap: 0.31 0.31 0.23 0.21 0.21 1.22 1.49 1.58 0.11 0.16 1.49 0.04

Delay/Veh: 48.4 48.4 46.8 46.4 46.4 174.8 292.8 293 14.0 58.8 265 22.0

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 48.4 48.4 46.8 46.4 46.4 174.8 292.8 293 14.0 58.8 265 22.0

LOS by Move: D D D D D F F F B E F C

HCM2kAvgQ: 4 4 3 2 2 28 39 118 1 1 85 1

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Note: Queue reported is the number of cars per lane.

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MOON CAMP (TT 16136) TRAFFIC IMPACT ANALYSIS (JN 04409)  
 2010 With Project Conditions With Improvements  
 FRIDAY PM PEAK HOUR

Level Of Service Computation Report  
 2000 HCM Operations Method (Future Volume Alternative)

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Intersection #103 Stanfield Cut Off (NS) / Big Bear Blvd. (SR-18) (EW)

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Cycle (sec):	80	Critical Vol./Cap. (X):	0.891
Loss Time (sec):	6 (Y+R=2.0 sec)	Average Delay (sec/veh):	32.5
Optimal Cycle:	82	Level Of Service:	C

---

Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Permitted			Permitted			Protected			Protected					
Rights:	Include			Include			Include			Include					
Min. Green:	24	24	24	24	24	24	10	18	18	10	18	18			
Ilanes:	1	0	0	1	0	1	0	0	1	1	0	1	1	0	

---

Volume Module:

Base Vol:	61	18	61	12	28	256	287	872	77	17	664	13
Growth Adj:	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
Initial Bse:	74	22	74	15	34	312	350	1064	94	21	810	16
Added Vol:	0	0	0	16	0	79	81	294	0	0	215	13
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	74	22	74	31	34	391	431	1358	94	21	1025	29
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	77	23	77	32	35	404	445	1403	97	21	1059	30
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	77	23	77	32	35	404	445	1403	97	21	1059	30
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.05	1.05	1.00	1.05	1.05
FinalVolume:	77	23	77	32	35	404	445	1473	102	21	1112	31

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Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.23	0.77	1.00	0.08	0.92	1.00	1.87	0.13	1.00	1.95	0.05
Final Sat.:	1700	410	1390	1700	145	1655	1700	3367	233	1700	3501	99

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Capacity Analysis Module:

Vol/Sat:	0.05	0.06	0.06	0.02	0.24	0.24	0.26	0.44	0.44	0.01	0.32	0.32
Crit Moves:	****			****			****			****		
Green/Cycle:	0.30	0.30	0.30	0.30	0.30	0.30	0.28	0.49	0.49	0.14	0.34	0.34
Volume/Cap:	0.15	0.18	0.18	0.06	0.81	0.81	0.93	0.90	0.90	0.09	0.93	0.93
Delay/Veh:	20.9	21.2	21.2	19.9	38.2	38.2	54.3	22.7	22.7	30.8	37.3	37.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	20.9	21.2	21.2	19.9	38.2	38.2	54.3	22.7	22.7	30.8	37.3	37.3
LOS by Move:	C	C	C	B	D	D	D	C	C	C	D	D
HCM2kAvgQ:	1	2	2	1	12	12	16	21	21	1	18	18

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Note: Queue reported is the number of cars per lane.

MOON CAMP (TT 16136) TRAFFIC IMPACT ANALYSIS (JN 04409)  
 2010 With Project Conditions  
 FRIDAY PM PEAK HOUR

Level Of Service Computation Report  
 2000 HCM Unsignalized Method (Future Volume Alternative)

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Intersection #104 Site Driveway #1 (NS) / North Shore (SR-38) (EW)

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Average Delay (sec/veh): 0.2 Worst Case Level Of Service: B [ 11.1 ]

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Rights:	Include	Include	Include	Include
Lanes:	0 0 0 0 0	0 0 1! 0 0	0 1 0 0 0	0 0 0 1 0

---

Volume Module:

Base Vol:	0 0 0 0 0	0 0 0 0 144	0 0 0 112 0
Growth Adj:	1.22 1.22 1.22 1.22 1.22	1.22 1.22 1.22 1.22 1.22	1.22 1.22 1.22 1.22 1.22
Initial Bse:	0 0 0 0 0	0 0 0 176 0	0 0 0 137 0
Added Vol:	0 0 0 5 0	2 3 91 0	0 0 59 8
PasserByVol:	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0
Initial Fut:	0 0 0 5 0	2 3 267 0	0 0 196 8
User Adj:	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00
PHF Adj:	0.95 0.95 0.95 0.95 0.95	0.95 0.95 0.95 0.95 0.95	0.95 0.95 0.95 0.95 0.95
PHF Volume:	0 0 0 5 0	2 3 281 0	0 0 206 8
Reduc Vol:	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0
FinalVolume:	0 0 0 5 0	2 3 281 0	0 0 206 8

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Critical Gap Module:

Critical Gp:	xxxxx xxxx xxxx 6.4	6.5 6.2 4.1	xxxxx xxxx xxxx xxxx xxxx xxxx
FollowUpTim:	xxxxx xxxx xxxx 3.5	4.0 3.3 2.2	xxxxx xxxx xxxx xxxx xxxx xxxx

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Capacity Module:

Cnflct Vol:	xxxxx xxxx xxxx 497	497 210 214	xxxxx xxxx xxxx xxxx xxxx xxxx
Potent Cap.:	xxxxx xxxx xxxx 536	477 835 1368	xxxxx xxxx xxxx xxxx xxxx xxxx
Move Cap.:	xxxxx xxxx xxxx 535	476 835 1368	xxxxx xxxx xxxx xxxx xxxx xxxx
Volume/Cap:	xxxxx xxxx xxxx 0.01	0.00 0.00 0.00	xxxxx xxxx xxxx xxxx xxxx xxxx

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Level Of Service Module:

2Way95thQ:	xxxxx xxxx xxxx xxxx xxxx xxxx	0.0	xxxxx xxxx xxxx xxxx xxxx xxxx
Control Del:	xxxxx xxxx xxxx xxxx xxxx xxxx	7.6	xxxxx xxxx xxxx xxxx xxxx xxxx
LOS by Move:	* * * * *	A *	* * * *
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxxx xxxx xxxx xxxx 596	xxxxx xxxx xxxx xxxx xxxx xxxx	xxxxx xxxx xxxx xxxx xxxx xxxx
SharedQueue:	xxxxx xxxx xxxx xxxx 0.0	xxxxx xxxx xxxx xxxx xxxx xxxx	xxxxx xxxx xxxx xxxx xxxx xxxx
Shrd ConDel:	xxxxx xxxx xxxx xxxx 11.1	xxxxx	7.6 xxxx xxxx xxxx xxxx xxxx
Shared LOS:	* * * * B	A *	* * * *
ApproachDel:	xxxxxx	11.1	xxxxxx
ApproachLOS:	*	B	*

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Note: Queue reported is the number of cars per lane.

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MOON CAMP (TT 16136) TRAFFIC IMPACT ANALYSIS (JN 04409)  
 2010 With Project Conditions  
 FRIDAY PM PEAK HOUR

Level Of Service Computation Report  
 2000 HCM Unsignalized Method (Future Volume Alternative)

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Intersection #105 Site Driveway #2 (NS) / North Shore (SR-38) (EW)

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Average Delay (sec/veh) : 0.4 Worst Case Level Of Service: B[ 11.2]

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Rights:	Include	Include	Include	Include
Lanes:	0 0 0 0 0	0 0 1! 0 0	0 1 0 0 0	0 0 0 1 0

---

Volume Module:

Base Vol:	0 0 0 0 0	0 0 0 0 0	0 144 0 0 0	0 0 112 0 0
Growth Adj:	1.22 1.22 1.22 1.22 1.22	1.22 1.22 1.22 1.22 1.22	1.22 1.22 1.22 1.22 1.22	1.22 1.22 1.22 1.22 1.22
Initial Bse:	0 0 0 0 0	0 0 0 0 0	0 176 0 0 0	0 0 137 0 0
Added Vol:	0 0 0 9 0	0 0 4 6 89	0 0 0 0 0	0 0 63 14 0
PasserByVol:	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0
Initial Fut:	0 0 0 9 0	0 4 6 265	0 0 0 0 0	0 0 200 14 0
User Adj:	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00
PHF Adj:	0.95 0.95 0.95 0.95 0.95	0.95 0.95 0.95 0.95 0.95	0.95 0.95 0.95 0.95 0.95	0.95 0.95 0.95 0.95 0.95
PHF Volume:	0 0 0 9 0	0 0 4 6 279	0 0 0 0 0	0 0 210 15 0
Reduct Vol:	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0	0 0 0 0 0
FinalVolume:	0 0 0 9 0	0 4 6 279	0 0 0 0 0	0 0 210 15 0

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Critical Gap Module:

Critical Gp:xxxxx xxxx xxxx	6.4 6.5 6.2 4.1	xxxx xxxx xxxx xxxx xxxx xxxx
FollowUpTim:xxxxx xxxx xxxx	3.5 4.0 3.3 2.2	xxxx xxxx xxxx xxxx xxxx

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Capacity Module:

Cnflict Vol: xxxx xxxx xxxx	509 509 218 225	xxxx xxxx xxxx xxxx xxxx
Potent Cap.: xxxx xxxx xxxx	528 470 827 1356	xxxx xxxx xxxx xxxx xxxx
Move Cap.: xxxx xxxx xxxx	526 468 827 1356	xxxx xxxx xxxx xxxx xxxx
Volume/Cap: xxxx xxxx xxxx	0.02 0.00 0.01 0.00	xxxx xxxx xxxx xxxx xxxx

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Level Of Service Module:

2Way95thQ: xxxx xxxx xxxx xxxx xxxx xxxx	0.0	xxxx xxxx xxxx xxxx xxxx
Control Del:xxxxx xxxx xxxx xxxx xxxx xxxx	7.7	xxxx xxxx xxxx xxxx xxxx
LOS by Move: * * * * *	A *	* * * *
Movement: LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.: xxxx xxxx xxxx 592 xxxx	xxxx xxxx xxxx xxxx xxxx	xxxx xxxx xxxx xxxx xxxx
SharedQueue:xxxxx xxxx xxxx xxxx 0.1 xxxx	0.0	xxxx xxxx xxxx xxxx xxxx
Shrd ConDel:xxxxx xxxx xxxx 11.2 xxxx	7.7	xxxx xxxx xxxx xxxx xxxx
Shared LOS: * * * * B	A *	* * * *
ApproachDel: xxxxxxxx 11.2	xxxxxx	xxxxxx
ApproachLOS: * B	*	*

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Note: Queue reported is the number of cars per lane.

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MOON CAMP (TT 16136) TRAFFIC IMPACT ANALYSIS (JN 04409)  
 2010 With Project Conditions  
 SUNDAY MID-DAY PEAK HOUR

Level Of Service Computation Report  
 2000 HCM Unsignalized Method (Future Volume Alternative)

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Intersection #101 Big Bear Blvd (NS) / North Shore (SR-38) (EW)

---

Average Delay (sec/veh) : OVERFLOW Worst Case Level Of Service: F[xxxxx]

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Rights:	Include	Include	Channel	Include
Lanes:	0 0 1! 0 0	0 0 0 0 0	0 0 1 0 1	1 0 1 0 0

---

Volume Module:

Base Vol:	40 0 94 0 0 0 0 958 33 67 411 0
Growth Adj:	1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22
Initial Bse:	49 0 115 0 0 0 0 1169 40 82 501 0
Added Vol:	226 0 3 0 0 0 0 87 314 2 51 0
PasserByVol:	0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut:	275 0 118 0 0 0 0 1256 354 84 552 0
User Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:	0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91
PHF Volume:	301 0 129 0 0 0 0 1377 388 92 606 0
Reduct Vol:	0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume:	301 0 129 0 0 0 0 1377 388 92 606 0

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Critical Gap Module:

Critical Gp:	4.1 xxxx xxxx xxxx xxxx xxxx xxxx 6.5 6.2 7.1 6.5 xxxx
FollowUpTim:	2.2 xxxx xxxx xxxx xxxx xxxx 4.0 3.3 3.5 4.0 xxxx

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Capacity Module:

Cnflct Vol:	0 xxxx xxxx xxxx xxxx xxxx xxxx 732 0 1356 667 xxxx
Potent Cap.:	900 xxxx xxxx xxxx xxxx xxxx 351 900 128 382 xxxx
Move Cap.:	900 xxxx xxxx xxxx xxxx xxxx 210 900 0 228 xxxx
Volume/Cap:	0.33 xxxx xxxx xxxx xxxx xxxx 6.56 0.43 xxxx 2.65 xxxx

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Level Of Service Module:

2Way95thQ:	1.5 xxxx xxxx xxxx xxxx xxxx xxxx 149 2.2 xxxx 51.6 xxxx
Control Del:	11.0 xxxx xxxx xxxx xxxx xxxx xxxx 2546 12.0 xxxx 788 xxxx
LOS by Move:	B * * * * * * F B * F *
Movement:	LT - LTR - RT
Shared Cap.:	xxxx
SharedQueue:	xxxx
Shrd ConDel:	xxxx
Shared LOS:	* * * * * * * * * * * *
ApproachDel:	xxxxxx xxxx 1988.3 xxxx
ApproachLOS:	* * F F

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Note: Queue reported is the number of cars per lane.

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MOON CAMP (TT 16136) TRAFFIC IMPACT ANALYSIS (JN 04409)  
 2010 With Project Conditions With Improvements  
 SUNDAY MID-DAY PEAK HOUR

## Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #101 Big Bear Blvd (NS) / North Shore (SR-38) (EW)

Cycle (sec): 60 Critical Vol./Cap. (X): 0.703  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 22.1  
 Optimal Cycle: 47 Level Of Service: C

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Split Phase	Split Phase	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	17 0 17	0 0 0	0 0 12	12 12 0
Lanes:	1 0 0 0 1	0 0 0 0 0	0 0 2 0 1	1 0 1 0 0

Volume Module:	Base Vol.	Growth Adj.	Initial Bse.	Added Vol.	PasserByVol.	Initial Fut.	User Adj.	PHF Adj.	PHF Volume:	Reduc Vol.	Reduced Vol.	PCE Adj.	MLF Adj.	FinalVolume:
	40 0 94	1.22 1.22 1.22	49 0 115	226 0 3	0 0 0	275 0 118	1.00 1.00 1.00	0.91 0.91 0.91	301 0 129	0 0 0	0 0 0	1.00 1.00 1.00	1.00 1.00 1.00	301 0 129
	0 0 0	1.22 1.22 1.22	0 0 0	0 0 0	0 0 0	0 0 0	1.00 1.00 1.00	0.91 0.91 0.91	0 0 0	0 0 0	0 0 0	1.00 1.00 1.00	1.00 1.00 1.00	0 0 0
	0 0 0	1.22 1.22 1.22	0 0 0	0 0 0	0 0 0	0 0 0	1.00 1.00 1.00	0.91 0.91 0.91	0 0 0	0 0 0	0 0 0	1.00 1.00 1.00	1.00 1.00 1.00	0 0 0

Volume Module:	Base Vol.	Growth Adj.	Initial Bse.	Added Vol.	PasserByVol.	Initial Fut.	User Adj.	PHF Adj.	PHF Volume:	Reduc Vol.	Reduced Vol.	PCE Adj.	MLF Adj.	FinalVolume:
	40 0 94	1.22 1.22 1.22	49 0 115	226 0 3	0 0 0	275 0 118	1.00 1.00 1.00	0.91 0.91 0.91	301 0 129	0 0 0	0 0 0	1.00 1.00 1.00	1.00 1.00 1.00	301 0 129
	0 0 0	1.22 1.22 1.22	0 0 0	0 0 0	0 0 0	0 0 0	1.00 1.00 1.00	0.91 0.91 0.91	0 0 0	0 0 0	0 0 0	1.00 1.00 1.00	1.00 1.00 1.00	0 0 0
	0 0 0	1.22 1.22 1.22	0 0 0	0 0 0	0 0 0	0 0 0	1.00 1.00 1.00	0.91 0.91 0.91	0 0 0	0 0 0	0 0 0	1.00 1.00 1.00	1.00 1.00 1.00	0 0 0
	0 0 0	1.22 1.22 1.22	0 0 0	0 0 0	0 0 0	0 0 0	1.00 1.00 1.00	0.91 0.91 0.91	0 0 0	0 0 0	0 0 0	1.00 1.00 1.00	1.00 1.00 1.00	0 0 0

Saturation Flow Module:	Sat/Lane:	Adjustment:	Lanes:	Final Sat.:
	1800 1800 1800	1.00 1.00 1.00	1.00 0.00 0.00	1700 0 1800
	1800 1800 1800	0.94 0.94 0.94	0.00 0.00 0.00	1800 0 1800
	1800 1800 1800	1.00 1.00 1.00	1.00 1.00 1.00	1800 0 1800
	1800 1800 1800	0.94 1.00 1.00	1.00 1.00 1.00	1800 0 1800
	1800 1800 1800	1.00 1.00 1.00	1.00 1.00 1.00	1800 0 1800

Capacity Analysis Module:	Vol/Sat:	Crit Moves:	Green/Cycle:	Volume/Cap:	Delay/Veh:	User DelAdj:	AdjDel/Veh:	LOS by Move:	HCM2kAvgQ:
	0.18 0.00 0.07 0.00 0.00 0.00 0.00 0.40 0.22 0.05 0.34 0.00	****	0.28 0.00 0.28 0.00 0.00 0.00 0.00 0.42 0.42 0.20 0.62 0.00	0.63 0.00 0.25 0.00 0.00 0.00 0.00 0.96 0.52 0.27 0.55 0.00	24.7 0.0 17.8 0.0 0.0 0.0 0.0 31.0 14.0 22.2 5.5 0.0	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	24.7 0.0 17.8 0.0 0.0 0.0 0.0 31.0 14.0 22.2 5.5 0.0	C A B A A A A C B C A A	6 0 2 0 0 0 0 19 5 2 4 0
	0.18 0.00 0.07 0.00 0.00 0.00 0.00 0.40 0.22 0.05 0.34 0.00	****	0.28 0.00 0.28 0.00 0.00 0.00 0.00 0.42 0.42 0.20 0.62 0.00	0.63 0.00 0.25 0.00 0.00 0.00 0.00 0.96 0.52 0.27 0.55 0.00	24.7 0.0 17.8 0.0 0.0 0.0 0.0 31.0 14.0 22.2 5.5 0.0	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	24.7 0.0 17.8 0.0 0.0 0.0 0.0 31.0 14.0 22.2 5.5 0.0	C A B A A A A C B C A A	6 0 2 0 0 0 0 19 5 2 4 0
	0.18 0.00 0.07 0.00 0.00 0.00 0.00 0.40 0.22 0.05 0.34 0.00	****	0.28 0.00 0.28 0.00 0.00 0.00 0.00 0.42 0.42 0.20 0.62 0.00	0.63 0.00 0.25 0.00 0.00 0.00 0.00 0.96 0.52 0.27 0.55 0.00	24.7 0.0 17.8 0.0 0.0 0.0 0.0 31.0 14.0 22.2 5.5 0.0	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00	24.7 0.0 17.8 0.0 0.0 0.0 0.0 31.0 14.0 22.2 5.5 0.0	C A B A A A A C B C A A	6 0 2 0 0 0 0 19 5 2 4 0

Note: Queue reported is the number of cars per lane.

MOON CAMP (TT 16136) TRAFFIC IMPACT ANALYSIS (JN 04409)  
 2010 With Project Conditions  
 SUNDAY MID-DAY PEAK HOUR

Level Of Service Computation Report  
 2000 HCM Unsigned Method (Future Volume Alternative)

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Intersection #102 Stanfield Cut Off (NS) / North Shore Dr. (EW)

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Average Delay (sec/veh): 99.4 Worst Case Level Of Service: F[263.2]

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Rights:	Include	Include	Include	Include
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0	0 0 1! 0 0

---

Volume Module:

Base Vol:	110	4	174	8	6	6	4	80	120	177	84	6
Growth Adj:	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
Initial Bse:	134	5	212	10	7	7	5	98	146	216	102	7
Added Vol:	46	0	43	0	0	0	0	40	55	38	25	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	180	5	255	10	7	7	5	138	201	254	127	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	195	5	277	11	8	8	5	149	218	275	138	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	195	5	277	11	8	8	5	149	218	275	138	8

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Critical Gap Module:

Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxxx	xxxxx	4.1	xxxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxxx	xxxxx	2.2	xxxxx	xxxxx

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Capacity Module:

Cnflct Vol:	969	965	258	1102	1070	142	146	xxxxx	xxxxx	367	xxxxx	xxxxx
Potent Cap.:	235	257	785	191	223	911	1448	xxxxx	xxxxx	1202	xxxxx	xxxxx
Move Cap.:	177	187	785	96	162	911	1448	xxxxx	xxxxx	1202	xxxxx	xxxxx
Volume/Cap:	1.10	0.03	0.35	0.11	0.05	0.01	0.00	xxxxx	xxxxx	0.23	xxxxx	xxxxx

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Level Of Service Module:

2Way95thQ:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx	0.9	xxxxx	xxxxx
Control Del:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	7.5	xxxxx	xxxxx	8.9	xxxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT - LTR - RT											
Shared Cap.:	xxxxx	322	xxxxx	xxxxx	157	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
SharedQueue:	xxxxx	26.2	xxxxx	xxxxx	0.6	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Shrd ConDel:	xxxxx	263	xxxxx	xxxxx	32.5	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Shared LOS:	*	F	*	*	D	*	*	*	*	*	*	*
ApproachDel:	263.2		32.5				xxxxxx			xxxxxx		
ApproachLOS:	F		D				*			*		

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Note: Queue reported is the number of cars per lane.

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MOON CAMP (TT 16136) TRAFFIC IMPACT ANALYSIS (JN 04409)  
 2010 With Project Conditions With Improvements  
 SUNDAY MID-DAY PEAK HOUR

## Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #102 Stanfield Cut Off (NS) / North Shore Dr. (EW)

Cycle (sec): 60 Critical Vol./Cap. (X): 0.610  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 31.5  
 Optimal Cycle: 54 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	10	13	13	10	13	13	10	13	13	10	13	13
Lanes:	1	0	0	1	0	0	1	0	0	1	0	0

Volume Module:

Base Vol:	110	4	174	8	6	6	4	80	120	177	84	6
Growth Adj:	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
Initial Bse:	134	5	212	10	7	7	5	98	146	216	102	7
Added Vol:	46	0	43	0	0	0	0	40	55	38	25	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	180	5	255	10	7	7	5	138	201	254	127	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	195	5	277	11	8	8	5	149	218	275	138	8
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	195	5	277	11	8	8	5	149	218	275	138	8
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	195	5	277	11	8	8	5	149	218	275	138	8

Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.02	0.98	1.00	0.50	0.50	1.00	0.41	0.59	1.00	0.95	0.05
Final Sat.:	1700	34	1766	1700	900	900	1700	731	1069	1700	1702	98

Capacity Analysis Module:

Vol/Sat:	0.11	0.16	0.16	0.01	0.01	0.01	0.00	0.20	0.20	0.16	0.08	0.08
Crit Moves:	****	***	***	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.17	0.22	0.22	0.17	0.22	0.22	0.21	0.27	0.27	0.21	0.27	0.27
Volume/Cap:	0.69	0.72	0.72	0.04	0.04	0.04	0.01	0.76	0.76	0.76	0.30	0.30
Delay/Veh:	36.4	32.9	32.9	21.2	18.8	18.8	18.9	30.7	30.7	35.8	18.8	18.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	36.4	32.9	32.9	21.2	18.8	18.8	18.9	30.7	30.7	35.8	18.8	18.8
LOS by Move:	D	C	C	C	B	B	B	C	C	D	B	B
HCM2kAvgQ:	5	6	6	0	0	0	0	8	8	7	2	2

Note: Queue reported is the number of cars per lane.

MOON CAMP (TT 16136) TRAFFIC IMPACT ANALYSIS (JN 04409)  
 2010 With Project Conditions  
 SUNDAY MID-DAY PEAK HOUR

Level Of Service Computation Report  
 2000 HCM Operations Method (Future Volume Alternative)

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Intersection #103 Stanfield Cut Off (NS) / Big Bear Blvd. (SR-18) (EW)

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Cycle (sec):	130	Critical Vol./Cap. (X):	1.143
Loss Time (sec):	8 (Y+R=2.0 sec)	Average Delay (sec/veh):	210.8
Optimal Cycle:	180	Level Of Service:	F

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Split Phase	Split Phase	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	24 24 24	24 24 24	10 18 18	10 18 18
Lanes:	0 1 0 0 1	0 1 0 0 1	1 0 1 0 1	1 0 1 0 1

---

Volume Module:

Base Vol:	63	40	69	21	34	265	230	807	49	37	635	22
Growth Adj:	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
Initial Bse:	77	49	84	26	41	323	281	985	60	45	775	27
Added Vol:	0	0	0	14	0	78	80	294	0	0	215	9
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	77	49	84	40	41	401	361	1279	60	45	990	36
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	80	51	88	41	43	417	375	1329	62	47	1029	37
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	80	51	88	41	43	417	375	1329	62	47	1029	37
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	80	51	88	41	43	417	375	1329	62	47	1029	37

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Saturation Flow Module:

Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	0.63	0.37	1.00	0.50	0.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1063	675	1800	855	895	1800	1700	1800	1800	1700	1800	1800

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Capacity Analysis Module:

Vol/Sat:	0.08	0.08	0.05	0.05	0.05	0.23	0.22	0.74	0.03	0.03	0.57	0.02
Crit Moves:	****		****		****	****	****	****	****	****	****	****
Green/Cycle:	0.18	0.18	0.18	0.18	0.18	0.18	0.16	0.49	0.49	0.08	0.41	0.41
Volume/Cap:	0.41	0.41	0.26	0.26	0.26	1.26	1.39	1.50	0.07	0.36	1.39	0.05
Delay/Veh:	50.5	50.5	47.3	47.4	47.4	190.2	252.1	257	13.7	64.5	218	20.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	50.5	50.5	47.3	47.4	47.4	190.2	252.1	257	13.7	64.5	218	20.5
LOS by Move:	D	D	D	D	D	F	F	F	B	E	F	C
HCM2kAvgQ:	5	5	3	3	3	29	31	106	1	2	77	1

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Note: Queue reported is the number of cars per lane.

MOON CAMP (TT 16136) TRAFFIC IMPACT ANALYSIS (JN 04409)  
 2010 With Project Conditions With Improvements  
 SUNDAY MID-DAY PEAK HOUR

Level Of Service Computation Report  
 2000 HCM Operations Method (Future Volume Alternative)

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Intersection #103 Stanfield Cut Off (NS) / Big Bear Blvd. (SR-18) (EW)

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Cycle (sec):	80	Critical Vol./Cap. (X):	0.745
Loss Time (sec):	6 (Y+R=2.0 sec)	Average Delay (sec/veh):	27.6
Optimal Cycle:	58	Level Of Service:	C

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Approach:	North Bound			South Bound			East Bound			West Bound		
	L -	T -	R	L -	T -	R	L -	T -	R	L -	T -	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	24	24	24	24	24	24	10	18	18	10	18	18
Lanes:	1	0	0	1	0	1	0	1	1	0	1	1

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Volume Module:												
Base Vol:	63	40	69	21	34	265	230	807	49	37	635	22
Growth Adj:	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22	1.22
Initial Bse:	77	49	84	26	41	323	281	985	60	45	775	27
Added Vol:	0	0	0	14	0	78	80	294	0	0	215	9
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	77	49	84	40	41	401	361	1279	60	45	990	36
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	80	51	88	41	43	417	375	1329	62	47	1029	37
Reducet Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	80	51	88	41	43	417	375	1329	62	47	1029	37
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.05	1.05	1.00	1.05	1.05
FinalVolume:	80	51	88	41	43	417	375	1395	65	47	1080	39

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Saturation Flow Module:												
Sat/Lane:	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Adjustment:	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00	0.94	1.00	1.00
Lanes:	1.00	0.37	0.63	1.00	0.09	0.91	1.00	1.91	0.09	1.00	1.93	0.07
Final Sat.:	1700	661	1139	1700	169	1631	1700	3439	161	1700	3474	126

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Capacity Analysis Module:												
Vol/Sat:	0.05	0.08	0.08	0.02	0.26	0.26	0.22	0.41	0.41	0.03	0.31	0.31
Crit Moves:	*****			*****			*****			***		
Green/Cycle:	0.31	0.31	0.31	0.31	0.31	0.31	0.26	0.49	0.49	0.13	0.36	0.36
Volume/Cap:	0.15	0.25	0.25	0.08	0.83	0.83	0.86	0.83	0.83	0.22	0.86	0.86
Delay/Veh:	20.2	21.3	21.3	19.4	38.3	38.3	48.2	18.2	18.2	33.9	30.0	30.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	20.2	21.3	21.3	19.4	38.3	38.3	48.2	18.2	18.2	33.9	30.0	30.0
LOS by Move:	C	C	C	B	D	D	D	B	B	C	C	C
HCM2kAvgQ:	1	2	2	1	13	13	12	16	16	1	16	16

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Note: Queue reported is the number of cars per lane.

MOON CAMP (TT 16136) TRAFFIC IMPACT ANALYSIS (JN 04409)  
 2010 With Project Conditions  
 SUNDAY MID-DAY PEAK HOUR

## Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #104 Site Driveway #1 (NS) / North Shore (SR-38) (EW)  
 \*\*\*\*\*  
 Average Delay (sec/veh): 0.2 Worst Case Level Of Service: B[ 12.0]  
 \*\*\*\*\*  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R  
 |-----| |-----| |-----| |-----|  
 Control: Stop Sign Stop Sign Uncontrolled Uncontrolled  
 Rights: Include Include Include Include  
 Lanes: 0 0 0 0 0 0 1! 0 0 0 1 0 0 0 0 0 0 1 0  
 |-----| |-----| |-----| |-----|  
 Volume Module:  
 Base Vol: 0 0 0 0 0 0 0 0 204 0 0 0 200 0  
 Growth Adj: 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22 1.22  
 Initial Bse: 0 0 0 0 0 0 0 0 249 0 0 0 244 0  
 Added Vol: 0 0 0 3 0 3 6 95 0 0 0 61 5  
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
 Initial Fut: 0 0 0 3 0 3 6 344 0 0 0 305 5  
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95  
 PHF Volume: 0 0 0 3 0 3 6 362 0 0 0 321 5  
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0  
 FinalVolume: 0 0 0 3 0 3 6 362 0 0 0 321 5  
 Critical Gap Module:  
 Critical Gp:xxxxx xxxx xxxx 6.4 6.5 6.2 4.1 xxxx xxxx xxxx xxxx xxxx  
 FollowUpTim:xxxxx xxxx xxxx 3.5 4.0 3.3 2.2 xxxx xxxx xxxx xxxx xxxx  
 |-----| |-----| |-----| |-----|  
 Capacity Module:  
 Cnflct Vol: xxxx xxxx xxxx 698 698 324 326 xxxx xxxx xxxx xxxx xxxx  
 Potent Cap.: xxxx xxxx xxxx 409 367 722 1245 xxxx xxxx xxxx xxxx xxxx  
 Move Cap.: xxxx xxxx xxxx 408 365 722 1245 xxxx xxxx xxxx xxxx xxxx  
 Volume/Cap: xxxx xxxx xxxx 0.01 0.00 0.00 0.01 xxxx xxxx xxxx xxxx xxxx  
 |-----| |-----| |-----| |-----|  
 Level Of Service Module:  
 2Way95thQ: xxxx xxxx xxxx xxxx xxxx xxxx 0.0 xxxx xxxx xxxx xxxx xxxx  
 Control Del:xxxxx xxxx xxxx xxxx xxxx xxxx 7.9 xxxx xxxx xxxx xxxx xxxx  
 LOS by Move: \* \* \* \* \* \* A \* \* \* \* \*  
 Movement: LT - LTR - RT  
 Shared Cap.: xxxx xxxx xxxx 521 xxxx xxxx xxxx xxxx xxxx xxxx  
 SharedQueue:xxxxx xxxx xxxx xxxx 0.0 xxxx 0.0 xxxx xxxx xxxx xxxx  
 Shrd ConDel:xxxxx xxxx xxxx xxxx 12.0 xxxx 7.9 xxxx xxxx xxxx xxxx  
 Shared LOS: \* \* \* \* B \* A \* \* \* \* \*  
 ApproachDel: xxxxx 12.0 xxxxxx  
 ApproachLOS: \* B \* \*  
 \*\*\*\*\*  
 Note: Queue reported is the number of cars per lane.  
 \*\*\*\*

MOON CAMP (TT 16136) TRAFFIC IMPACT ANALYSIS (JN 04409)  
 2010 With Project Conditions  
 SUNDAY MID-DAY PEAK HOUR

## Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #105 Site Driveway #2 (NS) / North Shore (SR-38) (EW)  
 \*\*\*\*\*Average Delay (sec/veh): 0.3 Worst Case Level Of Service: B[ 12.1]  
 \*\*\*\*\*

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Rights:	Include	Include	Include	Include
Lanes:	0 0 0 0 0	0 0 1! 0 0	0 1 0 0 0	0 0 0 1 0

## Volume Module:

Base Vol:	0 0 0 0 0	0 0 0 0 0	0 204 0 0 200 0
Growth Adj:	1.22 1.22 1.22	1.22 1.22 1.22	1.22 1.22 1.22 1.22 1.22 1.22
Initial Bse:	0 0 0	0 0 0	0 249 0 0 244 0
Added Vol:	0 0 0	6 0 6	10 88 0 0 60 11
PasserByVol:	0 0 0	0 0 0	0 0 0 0 0 0
Initial Fut:	0 0 0	6 0 6	10 337 0 0 304 11
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:	0.95 0.95 0.95	0.95 0.95 0.95	0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume:	0 0 0	6 0 6	11 355 0 0 320 12
Reduc Vol:	0 0 0	0 0 0	0 0 0 0 0 0
FinalVolume:	0 0 0	6 0 6	11 355 0 0 320 12

## Critical Gap Module:

Critical Gp:	xxxxx xxxx xxxx 6.4	6.5 6.2 4.1	xxxx xxxx xxxx xxxx xxxx xxxx xxxx
FollowUpTim:	xxxxx xxxx xxxx 3.5	4.0 3.3 2.2	xxxx xxxx xxxx xxxx xxxx xxxx xxxx

## Capacity Module:

Cnflict Vol:	xxxx xxxx xxxx 701	701 326 332	xxxx xxxx xxxx xxxx xxxx xxxx
Potent Cap.:	xxxx xxxx xxxx 408	365 720 1239	xxxx xxxx xxxx xxxx xxxx xxxx
Move Cap.:	xxxx xxxx xxxx 405	362 720 1239	xxxx xxxx xxxx xxxx xxxx xxxx
Volume/Cap:	xxxx xxxx xxxx 0.02	0.00 0.01 0.01	xxxx xxxx xxxx xxxx xxxx xxxx

## Level Of Service Module:

2Way95thQ:	xxxx xxxx xxxx xxxx xxxx xxxx	0.0	xxxx xxxx xxxx xxxx xxxx xxxx
Control Del:	xxxxx xxxx xxxx xxxx xxxx xxxx	7.9	xxxx xxxx xxxx xxxx xxxx xxxx
LOS by Move:	* * * * *	A	* * * * *
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx xxxx xxxx 518	xxxx xxxx xxxx xxxx xxxx xxxx	xxxx xxxx xxxx xxxx xxxx xxxx
SharedQueue:	xxxxx xxxx xxxx xxxx 0.1	xxxx xxxx xxxx xxxx xxxx xxxx	0.0 xxxx xxxx xxxx xxxx xxxx
Shrd ConDel:	xxxxx xxxx xxxx xxxx 12.1	xxxxx xxxx xxxx xxxx xxxx xxxx	7.9 xxxx xxxx xxxx xxxx xxxx
Shared LOS:	* * * * B	A	* * * * *
ApproachDel:	xxxxxx 12.1	xxxxxx	xxxxxx
ApproachLOS:	*	B	*

\*\*\*\*\*

Note: Queue reported is the number of cars per lane.

\*\*\*\*\*

**APPENDIX G**  
**POST PROCESSING SHEETS**



Project: MOONCAMP  
 Scenario: Year 2030 with Project (Sunday MD)

Job #: 4409  
 Analyst: JS  
 Date: 4/1/07

LOCATION: Big Bear (NS) / North Shore Drive (SR-38) (EW)  
 FORECAST YEAR: 2030

INDIVIDUAL TURN VOLUME GROWTH REVIEW									
APPROACH	TURNING MOVEMENT	SUNDAY MD PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA			
		IY 2010 VOLUME	GP BUILDOUT VOLUME	DIFFERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFFERENCE	% CHANGE
NORTH BOUND	Left	275	410	135	49%	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	118	339	221	187%	0	0	0	#DIV/0!
	NB Total	393	749	356	91%	0	0	0	#DIV/0!
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	SB Total	0	0	0	#DIV/0!	0	0	0	#DIV/0!
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	1,256	1,382	126	10%	0	0	0	#DIV/0!
	Right	354	582	228	64%	0	0	0	#DIV/0!
	EB Total	1,610	1,964	354	22%	0	0	0	#DIV/0!
WEST BOUND	Left	84	238	154	183%	0	0	0	#DIV/0!
	Through	552	607	55	10%	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	WB Total	636	845	209	33%	0	0	0	#DIV/0!
TOTAL ENTERING VOLUME		2,639	3,558	919	35%	0	0	0	#DIV/0!

FORECAST PEAK HOUR TO ADT COMPARISON								
		VOLUMES		PERCENT OF ADT		ADT		
		SUN MD	PM	SUN MD	PM			
North Leg	Inbound	0	0					
North Leg	Outbound	0	0					
North Leg	<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>#DIV/0!</b>	<b>#DIV/0!</b>			-
South Leg	Inbound	749	0					
South Leg	Outbound	820	0					
South Leg	<b>TOTAL</b>	<b>1,569</b>	<b>0</b>	<b>8%</b>	<b>0%</b>			<b>19,000</b>
East Leg	Inbound	845	0					
East Leg	Outbound	1,721	0					
East Leg	<b>TOTAL</b>	<b>2,566</b>	<b>0</b>	<b>10%</b>	<b>0%</b>			<b>27,000</b>
West Leg	Inbound	1,964	0					
West Leg	Outbound	1,017	0					
West Leg	<b>TOTAL</b>	<b>2,981</b>	<b>0</b>	<b>9%</b>	<b>0%</b>			<b>32,200</b>
<b>OVERALL TOTAL</b>		<b>7,116</b>		<b>9%</b>	<b>0%</b>			<b>78,200</b>

S:\Carlsbad\_Jobs\\_04400\04409\POSTPROCESSING\SUNDAY\[Big Bear\_North Shore.xls]Output (3)

Project: MOONCAMP  
 Scenario: Year 2030 with Project (Sunday MD)

Job #: 4409  
 Analyst: JS  
 Date: 4/1/07

LOCATION: Stanfield Cutoff (NS) / North Shore Drive (SR-38) (EW)  
 FORECAST YEAR: 2030

INDIVIDUAL TURN VOLUME GROWTH REVIEW									
APPROACH	TURNING MOVEMENT	SUNDAY MD PEAK HOUR INPUT DATA			PM PEAK HOUR INPUT DATA				
		IY 2010 VOLUME	GP BUILDOUT VOLUME	DIFFERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFFERENCE	% CHANGE
NORTH BOUND	Left	180	301	121	67%	#DIV/0!		#DIV/0!	
	Through	5	6	1	20%	#DIV/0!		#DIV/0!	
	Right	255	281	26	10%	#DIV/0!		#DIV/0!	
NB Total		440	588	148	34%	#DIV/0!		#DIV/0!	
SOUTH BOUND	Left	10	10	0	0%	#DIV/0!		#DIV/0!	
	Through	7	8	1	14%	#DIV/0!		#DIV/0!	
	Right	7	16	9	129%	#DIV/0!		#DIV/0!	
SB Total		24	34	10	42%	#DIV/0!		#DIV/0!	
EAST BOUND	Left	5	11	6	120%	#DIV/0!		#DIV/0!	
	Through	138	314	176	128%	#DIV/0!		#DIV/0!	
	Right	201	325	124	62%	#DIV/0!		#DIV/0!	
EB Total		344	650	306	89%	#DIV/0!		#DIV/0!	
WEST BOUND	Left	254	279	25	10%	#DIV/0!		#DIV/0!	
	Through	127	274	147	116%	#DIV/0!		#DIV/0!	
	Right	7	8	1	14%	#DIV/0!		#DIV/0!	
WB Total		388	561	173	45%	#DIV/0!		#DIV/0!	
TOTAL ENTERING VOLUME		1,196	1,833	637	53%	0	0	0	#DIV/0!

FORECAST PEAK HOUR TO ADT COMPARISON						
		VOLUMES		PERCENT OF ADT		ADT
		SUN MD	PM	SUN MD	PM	
North Leg	Inbound	34	0	8%	0%	700
	Outbound	25	0			
	<b>TOTAL</b>	<b>59</b>	<b>0</b>			
South Leg	Inbound	588	0	10%	0%	12,000
	Outbound	612	0			
	<b>TOTAL</b>	<b>1,200</b>	<b>0</b>			
East Leg	Inbound	561	0	11%	0%	11,000
	Outbound	605	0			
	<b>TOTAL</b>	<b>1,166</b>	<b>0</b>			
West Leg	Inbound	650	0	8%	0%	15,000
	Outbound	591	0			
	<b>TOTAL</b>	<b>1,241</b>	<b>0</b>			
<b>OVERALL TOTAL</b>		<b>3,666</b>	<b>-</b>	<b>9%</b>	<b>0%</b>	<b>38,700</b>

S:\Carlsbad\_Jobs\\_04400\04409\POSTPROCESSING\SUNDAY\[Stanfield\_North Shore.xls]Output (3)

Project: MOON CAMP  
 Scenario: Year 2030 with Project (Sunday MD)

Job #: 4409  
 Analyst: JS  
 Date: 4/1/07

LOCATION: Stanfield Cutoff (NS) / Big Bear Boulevard (EW)  
 FORECAST YEAR: 2030

INDIVIDUAL TURN VOLUME GROWTH REVIEW						
APPROACH	TURNING MOVEMENT	SUNDAY MD PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA
		IY 2010 VOLUME	GP BUILDOUT VOLUME	DIFFERENCE	% CHANGE	
NORTH BOUND	Left	77	85	8	10%	0
	Through	49	55	6	12%	0
	Right	84	96	12	14%	0
NB Total		210	236	26	12%	0
SOUTH BOUND	Left	40	48	8	20%	0
	Through	41	46	5	12%	0
	Right	401	440	39	10%	0
SB Total		482	534	52	11%	0
EAST BOUND	Left	361	397	36	10%	0
	Through	1,279	1,426	147	11%	0
	Right	60	63	3	5%	0
EB Total		1,700	1,886	186	11%	0
WEST BOUND	Left	45	51	6	13%	0
	Through	990	1,085	95	10%	0
	Right	36	43	7	19%	0
WB Total		1,071	1,179	108	10%	0
TOTAL ENTERING VOLUME		3,463	3,835	372	11%	0

FORECAST PEAK HOUR TO ADT COMPARISON						
		VOLUMES		PERCENT OF ADT		ADT
		SUN MD	PM	SUN MD	PM	
North Leg	Inbound	534	0	8%	0%	12,300
	Outbound	495	0			
	<b>TOTAL</b>	<b>1,029</b>	<b>0</b>			
South Leg	Inbound	236	0	8%	0%	4,800
	Outbound	160	0			
	<b>TOTAL</b>	<b>396</b>	<b>0</b>			
East Leg	Inbound	1,179	0	8%	0%	32,700
	Outbound	1,570	0			
	<b>TOTAL</b>	<b>2,749</b>	<b>0</b>			
West Leg	Inbound	1,886	0	8%	0%	41,800
	Outbound	1,610	0			
	<b>TOTAL</b>	<b>3,496</b>	<b>0</b>			
<b>OVERALL TOTAL</b>		<b>7,670</b>	-	<b>8%</b>	<b>0%</b>	<b>91,600</b>

S:\Carlsbad\_Jobs\\_04400\04409\POSTPROCESSING\SUNDAY\[Stanfield\_Big Bear.xls]Output (3)

Project: MOONCAMP  
 Scenario: Year 2030 with Project (Friday PM)

Job #: 4409  
 Analyst: JS  
 Date: 4/1/07

LOCATION: Northshore (NS) / Big Bear Boulevard (EW)  
 FORECAST YEAR: 2030

INDIVIDUAL TURN VOLUME GROWTH REVIEW									
APPROACH	TURNING MOVEMENT	FRI PM PEAK HOUR INPUT DATA			PM PEAK HOUR INPUT DATA				
		IY 2010 VOLUME	GP BUILDOUT VOLUME	DIFFERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFFERENCE	% CHANGE
NORTH BOUND	Left	269	383	114	42%	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	39	246	207	531%	0	0	0	#DIV/0!
NB Total		308	629	321	104%	0	0	0	#DIV/0!
SOUTH BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
SB Total		0	0	0	#DIV/0!	0	0	0	#DIV/0!
EAST BOUND	Left	0	0	0	#DIV/0!	0	0	0	#DIV/0!
	Through	470	544	74	16%	0	0	0	#DIV/0!
	Right	353	417	64	18%	0	0	0	#DIV/0!
EB Total		823	961	138	17%	0	0	0	#DIV/0!
WEST BOUND	Left	110	553	443	403%	0	0	0	#DIV/0!
	Through	411	457	46	11%	0	0	0	#DIV/0!
	Right	0	0	0	#DIV/0!	0	0	0	#DIV/0!
WB Total		521	1,010	489	94%	0	0	0	#DIV/0!
TOTAL ENTERING VOLUME		1,652	2,600	948	57%	0	0	0	#DIV/0!

FORECAST PEAK HOUR TO ADT COMPARISON						
		VOLUMES		PERCENT OF ADT		ADT
		FRI PM	PM	FRI PM	PM	
North Leg	Inbound	0	0			
North Leg	Outbound	0	0			
North Leg	<b>TOTAL</b>	<b>0</b>	<b>0</b>	<b>#DIV/0!</b>	<b>#DIV/0!</b>	-
South Leg	Inbound	629	0			
South Leg	Outbound	970	0			
South Leg	<b>TOTAL</b>	<b>1,599</b>	<b>0</b>	<b>8%</b>	<b>0%</b>	<b>19,000</b>
East Leg	Inbound	1,010	0			
East Leg	Outbound	790	0			
East Leg	<b>TOTAL</b>	<b>1,800</b>	<b>0</b>	<b>9%</b>	<b>0%</b>	<b>19,000</b>
West Leg	Inbound	961	0			
West Leg	Outbound	840	0			
West Leg	<b>TOTAL</b>	<b>1,801</b>	<b>0</b>	<b>9%</b>	<b>0%</b>	<b>21,000</b>
<b>OVERALL TOTAL</b>		<b>5,200</b>		<b>9%</b>	<b>0%</b>	<b>59,000</b>

S:\Carlsbad\_Jobs\\_04400\04409\POSTPROCESSING\FRIDAY\[NorthShore\_Big Bear.xls]Output (3)

Project: MOONCAMP  
 Scenario: Year 2030 with Project (Friday PM)

Job #: 4409  
 Analyst: JS  
 Date: 7/5/06

LOCATION: Stanfield Cutoff (NS) / North Shore Drive (SR-38) (EW)  
 FORECAST YEAR: 2030

INDIVIDUAL TURN VOLUME GROWTH REVIEW								
APPROACH	TURNING MOVEMENT	FRI PM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA		
		IY 2010 VOLUME	GP BUILDOUT VOLUME	DIFFERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFFERENCE
NORTH BOUND	Left	123	445	322	262%	0	0	0 #DIV/0!
	Through	6	11	5	83%	0	0	0 #DIV/0!
	Right	301	331	30	10%	0	0	0 #DIV/0!
	NB Total	430	787	357	83%	0	0	0 #DIV/0!
SOUTH BOUND	Left	6	8	2	33%	0	0	0 #DIV/0!
	Through	12	17	5	42%	0	0	0 #DIV/0!
	Right	1	5	4	400%	0	0	0 #DIV/0!
	SB Total	19	30	11	58%	0	0	0 #DIV/0!
EAST BOUND	Left	1	6	5	500%	0	0	0 #DIV/0!
	Through	131	438	307	234%	0	0	0 #DIV/0!
	Right	144	505	361	251%	0	0	0 #DIV/0!
	EB Total	276	949	673	244%	0	0	0 #DIV/0!
WEST BOUND	Left	307	338	31	10%	0	0	0 #DIV/0!
	Through	93	320	227	244%	0	0	0 #DIV/0!
	Right	7	12	5	71%	0	0	0 #DIV/0!
	WB Total	407	670	263	65%	0	0	0 #DIV/0!
TOTAL ENTERING VOLUME		1,132	2,436	1304	115%	0	0	0 #DIV/0!

FORECAST PEAK HOUR TO ADT COMPARISON								
		VOLUMES		PERCENT OF ADT		ADT		
		FRI PM	PM	FRI PM	PM			
North Leg	Inbound	30	0					
North Leg	Outbound	29	0					
<b>North Leg</b>	<b>TOTAL</b>	<b>59</b>	<b>0</b>	<b>11%</b>	<b>0%</b>	<b>550</b>		
South Leg	Inbound	787	0					
South Leg	Outbound	860	0					
<b>South Leg</b>	<b>TOTAL</b>	<b>1,647</b>	<b>0</b>	<b>9%</b>	<b>0%</b>	<b>18,000</b>		
East Leg	Inbound	670	0					
East Leg	Outbound	777	0					
<b>East Leg</b>	<b>TOTAL</b>	<b>1,447</b>	<b>0</b>	<b>10%</b>	<b>0%</b>	<b>15,000</b>		
West Leg	Inbound	949	0					
West Leg	Outbound	770	0					
<b>West Leg</b>	<b>TOTAL</b>	<b>1,719</b>	<b>0</b>	<b>9%</b>	<b>0%</b>	<b>20,000</b>		
<b>OVERALL TOTAL</b>		<b>4,872</b>	<b>-</b>	<b>9%</b>	<b>0%</b>	<b>53,550</b>		

S:\Carlsbad\_Jobs\\_04400\04409\POSTPROCESSING\FRIDAY\[Stanfield\_North Shore.xls]Output (3)

Project: MOONCAMP  
 Scenario: Year 2030 with Project (Friday PM)

Job #: 4409  
 Analyst: JS  
 Date: 4/12/07

LOCATION: Stanfield Cutoff (NS) / Big Bear Boulevard (EW)  
 FORECAST YEAR: 2030

INDIVIDUAL TURN VOLUME GROWTH REVIEW								
APPROACH	TURNING MOVEMENT	FRI PM PEAK HOUR INPUT DATA				PM PEAK HOUR INPUT DATA		
		IY 2010 VOLUME	GP BUILDOUT VOLUME	DIFFERENCE	% CHANGE	EXISTING COUNT	FUTURE VOLUME	DIFFERENCE
NORTH BOUND	Left	74	82	8	11%	0	0	#DIV/0!
	Through	22	40	18	82%	0	0	#DIV/0!
	Right	74	82	8	11%	0	0	#DIV/0!
	NB Total	170	204	34	20%	0	0	#DIV/0!
SOUTH BOUND	Left	31	56	25	81%	0	0	#DIV/0!
	Through	34	67	33	97%	0	0	#DIV/0!
	Right	396	607	211	53%	0	0	#DIV/0!
	SB Total	461	730	269	58%	0	0	#DIV/0!
EAST BOUND	Left	436	699	263	60%	0	0	#DIV/0!
	Through	1,367	1,504	137	10%	0	0	#DIV/0!
	Right	94	103	9	10%	0	0	#DIV/0!
	EB Total	1,897	2,306	409	22%	0	0	#DIV/0!
WEST BOUND	Left	21	34	13	62%	0	0	#DIV/0!
	Through	1,033	1,303	270	26%	0	0	#DIV/0!
	Right	29	71	42	145%	0	0	#DIV/0!
	WB Total	1,083	1,408	325	30%	0	0	#DIV/0!
TOTAL ENTERING VOLUME		3,611	4,648	1037	29%	0	0	#DIV/0!

FORECAST PEAK HOUR TO ADT COMPARISON								
		VOLUMES		PERCENT OF ADT		ADT		
		FRI PM	PM	FRI PM	PM			
North Leg	Inbound	730	0					
North Leg	Outbound	810	0					
North Leg	<b>TOTAL</b>	<b>1,540</b>	<b>0</b>	<b>9%</b>	<b>0%</b>			<b>18,100</b>
South Leg	Inbound	204	0					
South Leg	Outbound	204	0					
South Leg	<b>TOTAL</b>	<b>408</b>	<b>0</b>	<b>10%</b>	<b>0%</b>			<b>4,200</b>
East Leg	Inbound	1,408	0					
East Leg	Outbound	1,642	0					
East Leg	<b>TOTAL</b>	<b>3,050</b>	<b>0</b>	<b>9%</b>	<b>0%</b>			<b>34,000</b>
West Leg	Inbound	2,306	0					
West Leg	Outbound	1,992	0					
West Leg	<b>TOTAL</b>	<b>4,298</b>	<b>0</b>	<b>10%</b>	<b>0%</b>			<b>45,000</b>
<b>OVERALL TOTAL</b>		<b>9,296</b>	-	<b>9%</b>	<b>0%</b>			<b>101,300</b>

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## **APPENDIX H**

**GENERAL PLAN BUILDOUT WITH PROJECT (2030) CONDITIONS  
INTERSECTION ANALYSIS**



MOONCAMP TRAFFIC IMPACT ANALYSIS (JN 04409)  
 General Plan Buildout Conditions  
 FRIDAY PM PEAK HOUR

## Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

\*\*\*\*\*
 Intersection #101 Big Bear Blvd (NS) / North Shore (SR-38) (EW)
 \*\*\*\*

Average Delay (sec/veh): OVERFLOW      Worst Case Level Of Service: F[xxxxx]
 \*\*\*\*

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Uncontrolled	Uncontrolled	Stop Sign	Stop Sign
Rights:	Include	Include	Include	Include
Lanes:	0 0 1! 0 0	0 0 0 0 0	0 0 1 0 1	1 0 1 0 0

Volume Module:  
 Base Vol: 383 0 246 0 0 0 544 417 553 457 0  
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 Initial Bse: 383 0 246 0 0 0 544 417 553 457 0  
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95  
 PHF Volume: 403 0 259 0 0 0 573 439 582 481 0  
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0  
 FinalVolume: 403 0 259 0 0 0 573 439 582 481 0
 \*\*\*\*

Critical Gap Module:  
 Critical Gp: 4.1 xxxx xxxx xxxx xxxx xxxx xxxx 6.5 6.2 7.1 6.5 xxxx  
 FollowUpTim: 2.2 xxxx xxxx xxxx xxxx xxxx xxxx 4.0 3.3 3.5 4.0 xxxx
 \*\*\*\*

Capacity Module:  
 Cnflct Vol: 0 xxxx xxxx xxxx xxxx xxxx xxxx 1065 0 1222 936 xxxx  
 Potent Cap.: 900 xxxx xxxx xxxx xxxx xxxx 224 900 158 267 xxxx  
 Move Cap.: 900 xxxx xxxx xxxx xxxx xxxx 95 900 0 113 xxxx  
 Volume/Cap: 0.45 xxxx xxxx xxxx xxxx xxxx 6.04 0.49 xxxx 4.26 xxxx
 \*\*\*\*

Level Of Service Module:  
 2Way95thQ: 2.3 xxxx xxxx xxxx xxxx xxxx xxxx 63.1 2.7 xxxx 49.6 xxxx  
 Control Del: 12.2 xxxx xxxx xxxx xxxx xxxx 2355 12.7 xxxx 1544 xxxx  
 LOS by Move: B \* \* \* \* \* \* \* F B \* F \*  
 Movement: LT - LTR - RT  
 Shared Cap.: xxxx  
 SharedQueue:xxxxx xxxx  
 Shrd ConDel:xxxxx xxxx  
 Shared LOS: \* \* \* \* \* \* \* \* \* \* \* \* \* \* \*  
 ApproachDel: xxxxxx xxxxxx 1338.5 xxxxxx  
 ApproachLOS: \* \* F F
 \*\*\*\*

Note: Queue reported is the number of cars per lane.

\*\*\*\*\*

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MOONCAMP TRAFFIC IMPACT ANALYSIS (JN 04409)  
 General Plan Buildout Conditions With Improvements  
 FRIDAY PM PEAK HOUR

Level Of Service Computation Report  
 2000 HCM Operations Method (Base Volume Alternative)

\*\*\*\*\*
 Intersection #101 Big Bear Blvd (NS) / North Shore (SR-38) (EW)
 \*\*\*\*\*

Cycle (sec): 65 Critical Vol./Cap. (X): 0.769  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 20.4  
 Optimal Cycle: 48 Level Of Service: C

\*\*\*\*\*
 Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 |-----|-----|-----|-----|
 Control: Split Phase Split Phase Protected Protected
 Rights: Include Include Ovl Include
 Min. Green: 17 0 17 0 0 0 0 0 12 12 12 12 12 0
 Lanes: 1 0 0 0 1 0 0 0 0 0 2 0 1 1 0 1 0 0
 |-----|-----|-----|-----|
 Volume Module:
 Base Vol: 383 0 246 0 0 0 0 544 417 553 457 0
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 383 0 246 0 0 0 0 544 417 553 457 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
 PHF Volume: 403 0 259 0 0 0 0 573 439 582 481 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 403 0 259 0 0 0 0 573 439 582 481 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Volume: 403 0 259 0 0 0 0 573 439 582 481 0
 |-----|-----|-----|-----|
 Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.95 1.00 1.00 0.95 1.00 1.00 0.95 1.00 1.00 0.95 1.00 1.00
 Lanes: 1.00 0.00 1.00 0.00 0.00 0.00 0.00 2.00 1.00 1.00 1.00 0.00
 Final Sat.: 1800 0 1900 0 0 0 0 3800 1900 1800 1900 0
 |-----|-----|-----|-----|
 Capacity Analysis Module:
 Vol/Sat: 0.22 0.00 0.14 0.00 0.00 0.00 0.00 0.15 0.23 0.32 0.25 0.00
 Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\*
 Green/Cycle: 0.29 0.00 0.29 0.00 0.00 0.00 0.00 0.20 0.49 0.42 0.62 0.00
 Volume/Cap: 0.77 0.00 0.47 0.00 0.00 0.00 0.00 0.77 0.47 0.77 0.41 0.00
 Delay/Veh: 31.3 0.0 21.6 0.0 0.0 0.0 0.0 32.2 10.5 21.5 4.5 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 31.3 0.0 21.6 0.0 0.0 0.0 0.0 32.2 10.5 21.5 4.5 0.0
 LOS by Move: C A C A A A A C B C A A
 HCM2kAvgQ: 10 0 4 0 0 0 0 7 5 12 3 0
 \*\*\*\*
 Note: Queue reported is the number of cars per lane.
 \*\*\*\*

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MOONCAMP TRAFFIC IMPACT ANALYSIS (JN 04409)  
 General Plan Buildout Conditions  
 FRIDAY PM PEAK HOUR

Level Of Service Computation Report  
 2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #102 Stanfield Cut Off (NS) / North Shore Dr. (EW)

Average Delay (sec/veh): 7869.9 Worst Case Level Of Service: F[24333.0]

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Rights:	Include	Include	Include	Include
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 1 0 1 0	0 0 1! 0 0

Volume Module:

Base Vol:	445	11	331	8	17	5	6	438	505	338	320	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	445	11	331	8	17	5	6	438	505	338	320	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	468	12	348	8	18	5	6	461	532	356	337	13
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	468	12	348	8	18	5	6	461	532	356	337	13

Critical Gap Module:

Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxxx	xxxxx	4.1	xxxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxxx	xxxxx	2.2	xxxxx	xxxxx

Capacity Module:

Cnflict Vol:	1806	1801	496	1304	2060	343	349	xxxxx	xxxxx	993	xxxxx	xxxxx
Potent Cap.:	62	81	578	139	56	704	1221	xxxxx	xxxxx	705	xxxxx	xxxxx
Move Cap.:	9	30	578	20	20	704	1221	xxxxx	xxxxx	705	xxxxx	xxxxx
Volume/Cap:	53.02	0.39	0.60	0.42	0.87	0.01	0.01	xxxxx	xxxxx	0.50	xxxxx	xxxxx

Level Of Service Module:

2Way95thQ:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx	2.9	xxxxx	xxxxx
Control Del:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	8.0	xxxxx	xxxxx	15.2	xxxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	C	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxxx	15	xxxxx	xxxxx	24	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
SharedQueue:	xxxxx	105	xxxxx	xxxxx	3.9	xxxxx	0.0	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Shrd ConDel:	xxxxx	xxxxx	xxxxx	xxxxx	527	xxxxx	8.0	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
Shared LOS:	*	F	*	*	F	*	A	*	*	*	*	*
ApproachDel:	xxxxxx				526.9		xxxxxx			xxxxxx		
ApproachLOS:		F				F		*		*		

Note: Queue reported is the number of cars per lane.

MOONCAMP TRAFFIC IMPACT ANALYSIS (JN 04409)  
 General Plan Buildout Conditions With Improvements  
 FRIDAY PM PEAK HOUR

Level Of Service Computation Report  
 2000 HCM Operations Method (Base Volume Alternative)

\*\*\*\*\*
 Intersection #102 Stanfield Cut Off (NS) / North Shore Dr. (EW)
 \*\*\*\*\*

Cycle (sec): 65 Critical Vol./Cap. (X): 0.724  
 Loss Time (sec): 8 (Y+R=4.0 sec) Average Delay (sec/veh): 34.2  
 Optimal Cycle: 52 Level Of Service: C
 \*\*\*\*\*

Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected			Protected			Protected			Protected					
Rights:	Include			Include			Ovl			Include					
Min. Green:	10	12	12	10	12	12	10	12	12	10	12	12			
Lanes:	2	0	0	1	0	1	0	1	0	1	0	1	0	0	

Volume Module:

Base Vol:	445	11	331	8	17	5	6	438	505	338	320	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	445	11	331	8	17	5	6	438	505	338	320	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	468	12	348	8	18	5	6	461	532	356	337	13
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	468	12	348	8	18	5	6	461	532	356	337	13
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	468	12	348	8	18	5	6	461	532	356	337	13

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	2.00	0.03	0.97	1.00	0.77	0.23	1.00	1.00	1.00	1.00	0.96	0.04
Final Sat.:	3378	61	1839	1800	1468	432	1800	1900	1900	1800	1831	69

Capacity Analysis Module:

Vol/Sat:	0.14	0.19	0.19	0.00	0.01	0.01	0.00	0.24	0.28	0.20	0.18	0.18
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.17	0.22	0.22	0.15	0.20	0.20	0.23	0.28	0.45	0.23	0.28	0.28
Volume/Cap:	0.82	0.87	0.87	0.03	0.06	0.06	0.02	0.87	0.63	0.87	0.67	0.67
Delay/Veh:	38.6	46.0	46.0	23.6	21.2	21.2	19.4	39.9	15.0	45.9	27.5	27.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	38.6	46.0	46.0	23.6	21.2	21.2	19.4	39.9	15.0	45.9	27.5	27.5
LOS by Move:	D	D	D	C	C	C	B	D	B	D	C	C
HCM2kAvgQ:	8	10	10	0	0	0	0	12	8	11	7	7

Note: Queue reported is the number of cars per lane.

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MOONCAMP TRAFFIC IMPACT ANALYSIS (JN 04409)  
 General Plan Buildout Conditions  
 FRIDAY PM PEAK HOUR

Level Of Service Computation Report  
 2000 HCM Operations Method (Base Volume Alternative)

Intersection #103 Stanfield Cut Off (NS) / Big Bear Blvd. (SR-18) (EW)

Cycle (sec): 180 Critical Vol./Cap. (X): 1.579  
 Loss Time (sec): 8 (Y+R=2.0 sec) Average Delay (sec/veh): 303.8  
 Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Split Phase	Split Phase	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	24 24 24	24 24 24	10 18 18	10 18 18
Lanes:	0 1 0 0 1	0 1 0 0 1	1 0 1 0 1	1 0 1 0 1

Volume Module:

Base Vol:	82	40	82	56	67	607	699	1504	103	34	1303	71
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	82	40	82	56	67	607	699	1504	103	34	1303	71
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	85	41	85	58	69	627	722	1554	106	35	1346	73
Reduced Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	85	41	85	58	69	627	722	1554	106	35	1346	73
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Volume:	85	41	85	58	69	627	722	1554	106	35	1346	73

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	0.68	0.32	1.00	0.47	0.53	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1231	601	1900	844	1009	1900	1800	1900	1900	1800	1900	1900

Capacity Analysis Module:

Vol/Sat:	0.07	0.07	0.04	0.07	0.07	0.33	0.40	0.82	0.06	0.02	0.71	0.04
Crit Moves:	****			****	****	****	****	****	****	****	****	****
Green/Cycle:	0.13	0.13	0.13	0.19	0.19	0.19	0.23	0.58	0.58	0.06	0.40	0.40
Volume/Cap:	0.52	0.52	0.33	0.36	0.36	1.75	1.75	1.41	0.10	0.35	1.75	0.10
Delay/Veh:	80.2	80.2	74.3	66.5	66.5	422.3	417.2	216	10.8	91.3	391	29.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	80.2	80.2	74.3	66.5	66.5	422.3	417.2	216	10.8	91.3	391	29.8
LOS by Move:	F	F	E	E	E	F	F	F	B	F	F	C
HCM2kAvgQ:	7	7	4	6	6	67	81	138	1	2	142	2

Note: Queue reported is the number of cars per lane.

MOONCAMP TRAFFIC IMPACT ANALYSIS (JN 04409)  
 General Plan Buildout Conditions With Improvements  
 FRIDAY PM PEAK HOUR

Level Of Service Computation Report  
 2000 HCM Operations Method (Base Volume Alternative)

---

Intersection #103 Stanfield Cut Off (NS) / Big Bear Blvd. (SR-18) (EW)

---

Cycle (sec):	120	Critical Vol./Cap. (X):	0.865
Loss Time (sec):	6 (Y+R=2.0 sec)	Average Delay (sec/veh):	31.7
Optimal Cycle:	81	Level Of Service:	C

---

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Permitted	Permitted	Protected	Protected
Rights:	Include	Ovl	Include	Include
Min. Green:	10 20 20	10 20 20	14 14 14	14 14 14
Lanes:	1 0 0 1 0	1 0 1 0 1	1 0 1 1 0	1 0 2 0 1

---

Volume Module:

Base Vol:	82 40 82 56 67 607 699 1504 103 34 1303 71
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:	82 40 82 56 67 607 699 1504 103 34 1303 71
User Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:	0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97
PHF Volume:	85 41 85 58 69 627 722 1554 106 35 1346 73
Reduc Vol:	0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:	85 41 85 58 69 627 722 1554 106 35 1346 73
PCE Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume:	85 41 85 58 69 627 722 1554 106 35 1346 73

---

Saturation Flow Module:

Sat/Lane:	1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:	0.95 1.00 1.00 0.95 1.00 1.00 0.95 1.00 1.00 0.95 1.00 1.00
Lanes:	1.00 0.33 0.67 1.00 1.00 1.00 1.00 1.87 0.13 1.00 2.00 1.00
Final Sat.:	1800 623 1277 1800 1900 1900 1800 3556 244 1800 3800 1900

---

Capacity Analysis Module:

Vol/Sat:	0.05 0.07 0.07 0.03 0.04 0.33 0.40 0.44 0.44 0.02 0.35 0.04
Crit Moves:	**** **** ****
Green/Cycle:	0.17 0.17 0.17 0.17 0.17 0.58 0.42 0.62 0.62 0.17 0.37 0.37
Volume/Cap:	0.28 0.40 0.40 0.19 0.22 0.57 0.96 0.71 0.71 0.12 0.96 0.11
Delay/Veh:	46.1 48.3 48.3 44.5 44.8 11.7 55.2 10.0 10.0 43.5 51.4 23.5
User DelAdj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:	46.1 48.3 48.3 44.5 44.8 11.7 55.2 10.0 10.0 43.5 51.4 23.5
LOS by Move:	D D D D D B E B B D D C
HCM2kAvgQ:	3 4 4 2 2 10 32 14 14 1 29 1

---

Note: Queue reported is the number of cars per lane.

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MOONCAMP TRAFFIC IMPACT ANALYSIS (JN 04409)  
General Plan Buildout Conditions  
FRIDAY PM PEAK HOUR

Level Of Service Computation Report

2000 HCM Unsigned Method (Base Volume Alternative)

\*\*\*\*\*  
Intersection #104 Site Driveway #1 (NS) / North Shore (SR-38) (EW)  
\*\*\*\*\*  
Average Delay (sec/veh) : 0.2 Worst Case Level Of Service: E[ 39.5]  
\*\*\*\*\*  
Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R  
-----|-----|-----|-----|-----|-----|-----|-----|  
Control: Stop Sign Stop Sign Uncontrolled Uncontrolled  
Rights: Include Include Include Include  
Lanes: 0 0 0 0 0 1 0 0 0 1 0 1 0 0 0 0 0 0 1 0  
-----|-----|-----|-----|-----|-----|-----|-----|  
Volume Module:  
Base Vol: 0 0 0 5 0 2 3 949 0 0 770 8  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 0 0 0 5 0 2 3 949 0 0 770 8  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95  
PHF Volume: 0 0 0 5 0 2 3 999 0 0 811 8  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Final Volume: 0 0 0 5 0 2 3 999 0 0 811 8  
-----|-----|-----|-----|-----|-----|-----|-----|  
Critical Gap Module:  
Critical Gp:xxxxx xxxx xxxx 6.4 xxxx 6.2 4.1 xxxx xxxx xxxx xxxx xxxx  
FollowUpTim:xxxxx xxxx xxxx 3.5 xxxx 3.3 2.2 xxxx xxxx xxxx xxxx xxxx  
-----|-----|-----|-----|-----|-----|-----|-----|  
Capacity Module:  
Cnflct Vol: xxxx xxxx xxxx 1820 xxxx 815 819 xxxx xxxx xxxx xxxx xxxx  
Potent Cap.: xxxx xxxx xxxx 86 xxxx 381 818 xxxx xxxx xxxx xxxx xxxx  
Move Cap.: xxxx xxxx xxxx 86 xxxx 381 818 xxxx xxxx xxxx xxxx xxxx  
Volume/Cap: xxxx xxxx xxxx 0.06 xxxx 0.01 0.00 xxxx xxxx xxxx xxxx xxxx  
-----|-----|-----|-----|-----|-----|-----|-----|  
Level Of Service Module:  
2Way95thQ: xxxx xxxx xxxx 0.2 xxxx 0.0 0.0 xxxx xxxx xxxx xxxx xxxx  
Control Del:xxxxx xxxx xxxx 49.5 xxxx 14.5 9.4 xxxx xxxx xxxx xxxx xxxx  
LOS by Move: \* \* \* E \* B A \* \* \* \* \* \*  
Movement: LT - LTR - RT  
Shared Cap.: xxxx  
SharedQueue:xxxxx xxxx xxxx xxxx xxxx xxxx 0.0 xxxx xxxx xxxx xxxx xxxx  
Shrd ConDel:xxxxx xxxx xxxx xxxx xxxx xxxx 9.4 xxxx xxxx xxxx xxxx xxxx  
Shared LOS: \* \* \* \* \* \* A \* \* \* \* \*  
ApproachDel: xxxxxx 39.5 xxxxxx xxxxxx  
ApproachLOS: \* E \* \*  
\*\*\*\*\*  
Note: Queue reported is the number of cars per lane.  
\*\*\*\*\*

MOONCAMP TRAFFIC IMPACT ANALYSIS (JN 04409)  
 General Plan Buildout Conditions With Improvements  
 FRIDAY PM PEAK HOUR

Level Of Service Computation Report  
 2000 HCM Unsignalized Method (Future Volume Alternative)

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Intersection #104 Site Driveway #1 (NS) / North Shore (SR-38) (EW)

---

Average Delay (sec/veh): 0.1 Worst Case Level Of Service: C[ 23.1]

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Approach:	North Bound		South Bound		East Bound		West Bound												
	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R				
Control:	Stop Sign				Stop Sign				Uncontrolled				Uncontrolled						
Rights:	Include				Include				Include				Include						
Lanes:	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0	1	0

---

Volume Module:

Base Vol:	0	0	0	5	0	2	3	949	0	0	770	8
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	5	0	2	3	949	0	0	770	8
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	5	0	2	3	949	0	0	770	8
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	5	0	2	3	999	0	0	811	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	5	0	2	3	999	0	0	811	8

---

Critical Gap Module:

Critical Gp:xxxxx xxxx xxxx	6.4	6.5	6.2	4.1	xxxx							
FollowUpTim:xxxxx xxxx xxxx	3.5	4.0	3.3	2.2	xxxx							

---

Capacity Module:

Cnflct Vol: xxxx xxxx xxxx	1321	1820	815	819	xxxx							
Potent Cap.: xxxx xxxx xxxx	175	78	381	818	xxxx							
Move Cap.: xxxx xxxx xxxx	174	78	381	818	xxxx							
Volume/Cap: xxxx xxxx xxxx	0.03	0.00	0.01	0.00	xxxx							

---

Level Of Service Module:

2Way95thQ: xxxx xxxx xxxx	xxxx	xxxx	xxxx	0.0	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx			
Control Del:xxxxx xxxx xxxx	xxxx	xxxx	xxxx	9.4	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx			
LOS by Move: * * * * *	*	*	*	*	*	*	A	*	*	*	*	*			
Movement: LT - LTR - RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.: xxxx xxxx xxxx	206	xxxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx			
SharedQueue:xxxxx xxxx xxxx	0.1	xxxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx			
Shrd ConDel:xxxxx xxxx xxxx	23.1	xxxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx			
Shared LOS: * * * * C	*	*	*	*	C	*	*	*	*	*	*	*			
ApproachDel: xxxxxx			23.1			xxxxxx			xxxxxx			xxxxxx			
ApproachLOS: *				C			*			*		*			

---

Note: Queue reported is the number of cars per lane.

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MOONCAMP TRAFFIC IMPACT ANALYSIS (JN 04409)  
 General Plan Buildout Conditions  
 FRIDAY PM PEAK HOUR

Level Of Service Computation Report  
 2000 HCM Unsigned Method (Base Volume Alternative)

\*\*\*\*\*  
 Intersection #105 Site Driveway #2 (NS) / North Shore (SR-38) (EW)  
 \*\*\*\*\*  
 Average Delay (sec/veh) : 0.3 Worst Case Level Of Service: E[ 41.9]  
 \*\*\*\*\*  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R  
 |-----|-----|-----|-----|-----|-----|-----|  
 Control: Stop Sign Stop Sign Uncontrolled Uncontrolled  
 Rights: Include Include Include Include  
 Lanes: 0 0 0 0 0 0 1! 0 0 0 1 0 0 0 0 1 0  
 |-----|-----|-----|-----|-----|-----|-----|  
 Volume Module:  
 Base Vol: 0 0 0 9 0 4 6 949 0 0 770 14  
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 Initial Bse: 0 0 0 9 0 4 6 949 0 0 770 14  
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95  
 PHF Volume: 0 0 0 9 0 4 6 999 0 0 811 15  
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
 FinalVolume: 0 0 0 9 0 4 6 999 0 0 811 15  
 |-----|-----|-----|-----|-----|-----|-----|  
 Critical Gap Module:  
 Critical Gp:xxxxx xxxx xxxx 6.4 6.5 6.2 4.1 xxxx xxxx xxxx xxxx xxxx  
 FollowUpTim:xxxxx xxxx xxxx 3.5 4.0 3.3 2.2 xxxx xxxx xxxx xxxx xxxx  
 |-----|-----|-----|-----|-----|-----|-----|  
 Capacity Module:  
 Cnflct Vol: xxxx xxxx xxxx 1829 1829 818 825 xxxx xxxx xxxx xxxx xxxx  
 Potent Cap.: xxxx xxxx xxxx 85 77 379 814 xxxx xxxx xxxx xxxx xxxx  
 Move Cap.: xxxx xxxx xxxx 85 77 379 814 xxxx xxxx xxxx xxxx xxxx  
 Volume/Cap: xxxx xxxx xxxx 0.11 0.00 0.01 0.01 xxxx xxxx xxxx xxxx xxxx  
 |-----|-----|-----|-----|-----|-----|-----|  
 Level Of Service Module:  
 2Way95thQ: xxxx xxxx xxxx xxxx xxxx xxxx 0.0 xxxx xxxx xxxx xxxx xxxx  
 Control Del:xxxxx xxxx xxxx xxxx xxxx xxxx 9.5 xxxx xxxx xxxx xxxx xxxx  
 LOS by Move: \* \* \* \* \* \* A \* \* \* \* \*  
 Movement: LT - LTR - RT  
 Shared Cap.: xxxx xxxx xxxx 111 xxxx xxxx xxxx xxxx xxxx xxxx  
 SharedQueue:xxxxx xxxx xxxx xxxx 0.4 xxxx 0.0 xxxx xxxx xxxx xxxx xxxx  
 Shrd ConDel:xxxxx xxxx xxxx xxxx 41.9 xxxx 9.5 xxxx xxxx xxxx xxxx xxxx  
 Shared LOS: \* \* \* \* E A \* \* \* \* \*  
 ApproachDel: xxxxxx 41.9 xxxxxx xxxxxx  
 ApproachLOS: \* E \* \*  
 \*\*\*\*\*  
 Note: Queue reported is the number of cars per lane.  
 \*\*\*\*\*

MOONCAMP TRAFFIC IMPACT ANALYSIS (JN 04409)  
 General Plan Buildout Conditions With Improvements  
 FRIDAY PM PEAK HOUR

Level Of Service Computation Report  
 2000 HCM Unsignalized Method (Future Volume Alternative)

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Intersection #105 Site Driveway #2 (NS) / North Shore (SR-38) (EW)

---

Average Delay (sec/veh) : 0.2      Worst Case Level Of Service: C[ 23.6]

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Approach:	North Bound		South Bound		East Bound		West Bound	
	Movement:	L - T - R	L - T - R	L - T - R	L - T - R			
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled				
Rights:	Include	Include	Include	Include				
Lanes:	0 0 0 0 0	0 0 1! 0 0	1 0 2 0 0	0 0 0 1 0				

---

Volume Module:

Base Vol:	0 0 0 9 0 4 6 949 0 0 770 5
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:	0 0 0 9 0 4 6 949 0 0 770 5
Added Vol:	0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol:	0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut:	0 0 0 9 0 4 6 949 0 0 770 5
User Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:	0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume:	0 0 0 9 0 4 6 999 0 0 811 5
Reduced Vol:	0 0 0 0 0 0 0 0 0 0 0 0
Final Volume:	0 0 0 9 0 4 6 999 0 0 811 5

---

Critical Gap Module:

Critical Gp:xxxxx xxxx xxxx 6.4 6.5 6.2 4.1 xxxx xxxx xxxx xxxx xxxx
FollowUpTim:xxxxx xxxx xxxx 3.5 4.0 3.3 2.2 xxxx xxxx xxxx xxxx xxxx

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Capacity Module:

Cnflct Vol: xxxx xxxx xxxx 1325 1825 813 816 xxxx xxxx xxxx xxxx xxxx
Potent Cap.: xxxx xxxx xxxx 173 78 381 821 xxxx xxxx xxxx xxxx xxxx
Move Cap.: xxxx xxxx xxxx 172 77 381 821 xxxx xxxx xxxx xxxx xxxx
Volume/Cap: xxxx xxxx xxxx 0.05 0.00 0.01 0.01 xxxx xxxx xxxx xxxx xxxx

---

Level Of Service Module:

2Way95thQ: xxxx xxxx xxxx xxxx xxxx xxxx 0.0 xxxx xxxx xxxx xxxx xxxx
Control Del:xxxxx xxxx xxxx xxxx xxxx xxxx 9.4 xxxx xxxx xxxx xxxx xxxx
LOS by Move: * * * * * * A * * * * *
Movement: LT - LTR - RT
Shared Cap.: xxxx xxxx xxxx 207 xxxx xxxx xxxx xxxx xxxx xxxx xxxx
SharedQueue:xxxxx xxxx xxxx xxxx 0.2 xxxx xxxx xxxx xxxx xxxx xxxx xxxx
Shrd ConDel:xxxxx xxxx xxxx 23.6 xxxx xxxx xxxx xxxx xxxx xxxx xxxx
Shared LOS: * * * * C * * * * * * *
ApproachDel: -xxxxx 23.6 xxxxxx xxxxxx
ApproachLOS: * C * *

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Note: Queue reported is the number of cars per lane.

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MOONCAMP TRAFFIC IMPACT ANALYSIS (JN 04409)  
 General Plan Buildout Conditions  
 SUNDAY MID-DAY PEAK HOUR

## Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #101 Big Bear Blvd (NS) / North Shore (SR-38) (EW)

Average Delay (sec/veh): OVERFLOW Worst Case Level Of Service: F[xxxx]

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign

Rights: Include Include Include Include

Lanes: 0 0 1! 0 0 0 0 0 0 0 1 0 1 1 0 1 0 0

## Volume Module:

Base Vol:	410	0	339	0	0	0	0	1382	582	238	607	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	410	0	339	0	0	0	0	1382	582	238	607	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	432	0	357	0	0	0	0	1455	613	251	639	0
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	432	0	357	0	0	0	0	1455	613	251	639	0

## Critical Gap Module:

Critical Gp:	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	6.5	6.2	7.1	6.5	xxxxx
FollowUpTim:	2.2	xxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxxx	4.0	3.3	3.5	4.0	xxxxx

## Capacity Module:

Cnflct Vol:	0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	1220	0	1769	1042	xxxxx
Potent Cap.:	900	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	182	900	66	232	xxxxx
Move Cap.:	900	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	67	900	0	86	xxxxx
Volume/Cap:	0.48	xxxx	xxxx	xxxx	xxxx	xxxxx	xxxx	21.69	0.68	xxxx	7.47	xxxx

## Level Of Service Module:

2Way95thQ:	2.6	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	177	5.5	xxxx	72.5	xxxxx			
Control Del:	12.6	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	9426	17.1	xxxxx	3007	xxxxx			
LOS by Move:	B	*	*	*	*	*	*	F	C	*	F	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxxx		
SharedQueue:	xxxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx		
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxxx	xxxxx	xxxx	xxxx	xxxx	xxxx	xxxx		
Shared LOS:	*	*	*	*	*	*	*	*	*	*	*	*	*		
ApproachDel:	xxxxxx		xxxxxx					6637.8		xxxxxx					
ApproachLOS:	*		*						F			F			

Note: Queue reported is the number of cars per lane.

MOONCAMP TRAFFIC IMPACT ANALYSIS (JN 04409)  
 General Plan Buildout Conditions With Improvements  
 SUNDAY MID-DAY PEAK HOUR

Level Of Service Computation Report  
 2000 HCM Operations Method (Base Volume Alternative)

Intersection #101 Big Bear Blvd (NS) / North Shore (SR-38) (EW)

Cycle (sec): 65 Critical Vol./Cap. (X): 0.839  
 Loss Time (sec): 6 (Y+R=4.0 sec) Average Delay (sec/veh): 18.6  
 Optimal Cycle: 60 Level Of Service: B

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Split Phase	Split Phase	Protected	Protected
Rights:	Include	Include	Ovl	Include
Min. Green:	17 0 17	0 0 0	0 12 12	12 12 0
Lanes:	1 0 0 0 1	0 0 0 0	0 0 2 0 1	1 0 1 0 0

Volume Module:

Base Vol:	410 0 339	0 0 0	0 1382 582	238 607 0
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Initial Bse:	410 0 339	0 0 0	0 1382 582	238 607 0
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	0.95 0.95 0.95	0.95 0.95 0.95	0.95 0.95 0.95	0.95 0.95 0.95
PHF Volume:	432 0 357	0 0 0	0 1455 613	251 639 0
Reduc Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	432 0 357	0 0 0	0 1455 613	251 639 0
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Volume:	432 0 357	0 0 0	0 1455 613	251 639 0

Saturation Flow Module:

Sat/Lane:	1900 1900 1900	1900 1900 1900	1900 1900 1900	1900 1900 1900
Adjustment:	0.95 1.00 1.00	0.95 1.00 1.00	0.95 1.00 1.00	0.95 1.00 1.00
Lanes:	1.00 0.00 1.00	0.00 0.00 0.00	0.00 2.00 1.00	1.00 1.00 0.00
Final Sat.:	1800 0 1900	0 0 0	0 3800 1900	1800 1900 0

Capacity Analysis Module:

Vol/Sat:	0.24 0.00 0.19	0.00 0.00 0.00	0.00 0.00 0.38	0.32 0.14 0.34	0.00 ****
Crit Moves:	****				****
Green/Cycle:	0.28 0.00 0.28	0.00 0.00 0.00	0.00 0.00 0.44	0.72 0.18 0.63	0.00
Volume/Cap:	0.86 0.00 0.67	0.00 0.00 0.00	0.00 0.00 0.86	0.45 0.75 0.53	0.00
Delay/Veh:	39.7 0.0 27.6	0.0 0.0 0.0	0.0 0.0 19.7	1.6 39.8 5.1	0.0
User DelAdj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00
AdjDel/Veh:	39.7 0.0 27.6	0.0 0.0 0.0	0.0 0.0 19.7	1.6 39.8 5.1	0.0
LOS by Move:	D A C	A A A	A B A	D A A	
HCM2kAvgQ:	12 0 7	0 0 0	0 16 1	7 5 0	

Note: Queue reported is the number of cars per lane.

MOONCAMP TRAFFIC IMPACT ANALYSIS (JN 04409)  
 General Plan Buildout Conditions  
 SUNDAY MID-DAY PEAK HOUR

## Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #102 Stanfield Cut Off (NS) / North Shore Dr. (EW)											
*****											
Average Delay (sec/veh): 583.9 Worst Case Level Of Service: F[1812.4]											
*****											
Approach: North Bound South Bound East Bound West Bound											
Movement:	L - T - R	L - T - R	L - T - R	L - T - R							
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled							
Rights:	Include	Include	Include	Include							
Lanes:	0 0 1! 0 0	0 0 1! 0 0	0 1 0 1 0	0 0 1! 0 0							
Volume Module:											
Base Vol:	301 6 281	10 8 16	11 314	325	279	274	8				
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00				
Initial Bse:	301 6 281	10 8 16	11 314	325	279	274	8				
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00				
PHF Adj:	0.95 0.95 0.95	0.95 0.95 0.95	0.95 0.95 0.95	0.95 0.95 0.95	0.95 0.95 0.95	0.95 0.95 0.95	0.95 0.95 0.95				
PHF Volume:	317 6 296	11 8 17	12 331	342	294	288	8				
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0	0 0 0				
FinalVolume:	317 6 296	11 8 17	12 331	342	294	288	8				
Critical Gap Module:											
Critical Gp:	7.1 6.5 6.2	7.1 6.5 6.2	4.1 xxxx xxxx	4.1 xxxx xxxx							
FollowUpTim:	3.5 4.0 3.3	3.5 4.0 3.3	2.2 xxxx xxxx	2.2 xxxx xxxx							
Capacity Module:											
Cnflict Vol:	1417 1409 336	1072 1576 293	297 xxxx xxxx	673 xxxx xxxx							
Potent Cap.:	116 140 710	200 111 751	1276 xxxx xxxx	928 xxxx xxxx							
Move Cap.:	72 86 710	77 68 751	1276 xxxx xxxx	928 xxxx xxxx							
Volume/Cap.:	4.39 0.07 0.42	0.14 0.12 0.02	0.01 xxxx xxxx	0.32 xxxx xxxx							
Level Of Service Module:											
2Way95thQ:	xxxx xxxx xxxx	xxxx xxxx xxxx	0.0 xxxx xxxx	1.4 xxxx xxxx							
Control Del:	xxxxx xxxx xxxx	xxxxx xxxx xxxx	7.8 xxxx xxxx	10.7 xxxx xxxx							
LOS by Move:	*	*	A *	B *							
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT							
Shared Cap.:	xxxx 127 xxxx	127 xxxx	xxxx xxxx xxxx	xxxx xxxx xxxx							
SharedQueue:	xxxxx 65.1 xxxx	xxxxx 1.1 xxxx	0.0 xxxx xxxx	xxxx xxxx xxxx							
Shrd ConDel:	xxxxx 1812 xxxx	44.1 xxxx	7.8 xxxx xxxx	xxxx xxxx xxxx							
Shared LOS:	*	F *	E *	A *							
ApproachDel:	1812.4	44.1	xxxxxx	xxxxxx							
ApproachLOS:	F	E	*	*							

Note: Queue reported is the number of cars per lane.

MOONCAMP TRAFFIC IMPACT ANALYSIS (JN 04409)  
 General Plan Buildout Conditions With Improvements  
 SUNDAY MID-DAY PEAK HOUR

Level Of Service Computation Report  
 2000 HCM Operations Method (Base Volume Alternative)

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Intersection #102 Stanfield Cut Off (NS) / North Shore Dr. (EW)

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Cycle (sec):	65	Critical Vol./Cap.(X):	0.572
Loss Time (sec):	8 (Y+R=4.0 sec)	Average Delay (sec/veh):	26.0
Optimal Cycle:	52	Level Of Service:	C

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Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Protected	Protected	Protected	Protected
Rights:	Include	Include	Ovl	Include
Min. Green:	10 12 12	10 12 12	10 12 12	10 12 12
Lanes:	2 0 0 1 0	1 0 0 1 0	1 0 1 0 1	1 0 0 1 0

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Volume Module:

Base Vol:	301	6	281	10	8	16	11	314	325	279	274	8
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	301	6	281	10	8	16	11	314	325	279	274	8
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	317	6	296	11	8	17	12	331	342	294	288	8
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	317	6	296	11	8	17	12	331	342	294	288	8
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	317	6	296	11	8	17	12	331	342	294	288	8

---

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	2.00	0.02	0.98	1.00	0.33	0.67	1.00	1.00	1.00	1.00	0.97	0.03
Final Sat.:	3378	40	1860	1800	633	1267	1800	1900	1900	1800	1846	54

---

Capacity Analysis Module:

Vol/Sat:	0.09	0.16	0.16	0.01	0.01	0.01	0.01	0.17	0.18	0.16	0.16	0.16
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.18	0.23	0.23	0.15	0.21	0.21	0.22	0.25	0.43	0.24	0.27	0.27
Volume/Cap:	0.54	0.69	0.69	0.04	0.06	0.06	0.03	0.69	0.42	0.69	0.58	0.58
Delay/Veh:	27.8	31.2	31.2	23.7	20.8	20.8	19.9	29.7	12.7	31.2	25.5	25.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	27.8	31.2	31.2	23.7	20.8	20.8	19.9	29.7	12.7	31.2	25.5	25.5
LOS by Move:	C	C	C	C	C	C	B	C	B	C	C	C
HCM2kAvgQ:	4	7	7	0	0	0	0	7	4	7	6	6

---

Note: Queue reported is the number of cars per lane.

---

MOONCAMP TRAFFIC IMPACT ANALYSIS (JN 04409)  
 General Plan Buildout Conditions  
 SUNDAY MID-DAY PEAK HOUR

Level Of Service Computation Report  
 2000 HCM Operations Method (Base Volume Alternative)

---

Intersection #103 Stanfield Cut Off (NS) / Big Bear Blvd. (SR-18) (EW)

---

Cycle (sec):	180	Critical Vol./Cap. (X):	1.182
Loss Time (sec):	8 (Y+R=2.0 sec)	Average Delay (sec/veh):	175.0
Optimal Cycle:	180	Level Of Service:	F

---

Approach:	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Split Phase	Split Phase	Protected	Protected
Rights:	Include	Include	Include	Include
Min. Green:	24 24 24	24 24 24	10 18 18	10 18 18
Lanes:	0 1 0 0 1	0 1 0 0 1	1 0 1 0 1	1 0 1 0 1

---

Volume Module:

Base Vol:	85 55 96	48 46 440	397 1426	63 51 1085	43
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00
Initial Bse:	85 55 96	48 46 440	397 1426	63 51 1085	43
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00
PHF Adj:	0.96 0.96 0.96	0.96 0.96 0.96	0.96 0.96 0.96	0.96 0.96 0.96	0.96
PHF Volume:	88 57 100	50 48 457	413 1482	65 53 1128	45
Reduced Vol:	0 0 0	0 0 0	0 0 0	0 0 0	0
Reduced Vol:	88 57 100	50 48 457	413 1482	65 53 1128	45
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00
Final Volume:	88 57 100	50 48 457	413 1482	65 53 1128	45

---

Saturation Flow Module:

Sat/Lane:	1900 1900 1900	1900 1900 1900	1900 1900 1900	1900 1900 1900	1900 1900 1900
Adjustment:	0.95 1.00 1.00	0.95 1.00 1.00	0.95 1.00 1.00	0.95 1.00 1.00	0.95 1.00 1.00
Lanes:	0.62 0.38 1.00	0.52 0.48 1.00	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 1.00
Final Sat.:	1116 722 1900	943 904 1900	1800 1900 1900	1900 1800 1900	1900 1900 1900

---

Capacity Analysis Module:

Vol/Sat:	0.08 0.08 0.05	0.05 0.05 0.24	0.23 0.78	0.03 0.03 0.59	0.02
Crit Moves:	****	****	****	****	****
Green/Cycle:	0.13 0.13 0.13	0.18 0.18 0.18	0.18 0.18 0.59	0.59 0.06 0.46	0.46
Volume/Cap:	0.59 0.59 0.39	0.29 0.29 1.33	1.28 1.33	0.06 0.53 1.28	0.05
Delay/Veh:	83.6 83.6 75.9	66.0 66.0 241.7	222.9 178	9.8 101.4 176	21.9
User DelAdj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00	1.00 1.00 1.00	1.00
AdjDel/Veh:	83.6 83.6 75.9	66.0 66.0 241.7	222.9 178	9.8 101.4 176	21.9
LOS by Move:	F F E E E	F F F A F F			C
HCM2kAvgQ:	8 8 5	5 5 40	37 124	1 4 91	1

---

Note: Queue reported is the number of cars per lane.

---

MOONCAMP TRAFFIC IMPACT ANALYSIS (JN 04409)  
 General Plan Buildout Conditions With Improvements  
 SUNDAY MID-DAY PEAK HOUR

-----  
 Level Of Service Computation Report  
 2000 HCM Operations Method (Base Volume Alternative)  
 \*\*\*\*  
 Intersection #103 Stanfield Cut Off (NS) / Big Bear Blvd. (SR-18) (EW)  
 \*\*\*\*  
 Cycle (sec): 120 Critical Vol./Cap. (X): 0.641  
 Loss Time (sec): 6 (Y+R=2.0 sec) Average Delay (sec/veh): 21.5  
 Optimal Cycle: 54 Level Of Service: C  
 \*\*\*\*  
 Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R  
 |-----|-----|-----|-----|-----|-----|-----|  
 Control: Permitted Permitted Protected Protected  
 Rights: Include Ovl Include Include  
 Min. Green: 10 20 20 10 20 20 14 14 14 14 14 14  
 Lanes: 1 0 0 1 0 1 0 1 1 0 1 1 0 2 0 1  
 |-----|-----|-----|-----|-----|-----|-----|  
 Volume Module:  
 Base Vol: 85 55 96 48 46 440 397 1426 63 51 1085 43  
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 Initial Bse: 85 55 96 48 46 440 397 1426 63 51 1085 43  
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 PHF Adj: 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96 0.96  
 PHF Volume: 88 57 100 50 48 457 413 1482 65 53 1128 45  
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
 Reduced Vol: 88 57 100 50 48 457 413 1482 65 53 1128 45  
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 FinalVolume: 88 57 100 50 48 457 413 1482 65 53 1128 45  
 |-----|-----|-----|-----|-----|-----|-----|  
 Saturation Flow Module:  
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900  
 Adjustment: 0.95 1.00 1.00 0.95 1.00 1.00 0.95 1.00 1.00 0.95 1.00 1.00  
 Lanes: 1.00 0.36 0.64 1.00 1.00 1.00 1.00 1.92 0.08 1.00 2.00 1.00  
 Final Sat.: 1800 692 1208 1800 1900 1900 1800 3639 161 1800 3800 1900  
 |-----|-----|-----|-----|-----|-----|-----|  
 Capacity Analysis Module:  
 Vol/Sat: 0.05 0.08 0.08 0.03 0.03 0.24 0.23 0.41 0.41 0.03 0.30 0.02  
 Crit Moves: \*\*\*\* \*\*\* \*\*\*  
 Green/Cycle: 0.17 0.17 0.17 0.17 0.17 0.51 0.34 0.61 0.61 0.17 0.44 0.44  
 Volume/Cap: 0.29 0.50 0.50 0.17 0.15 0.47 0.67 0.67 0.67 0.17 0.67 0.05  
 Delay/Veh: 46.3 50.9 50.9 44.0 43.8 16.1 37.9 10.1 10.1 43.3 24.7 16.3  
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 AdjDel/Veh: 46.3 50.9 50.9 44.0 43.8 16.1 37.9 10.1 10.1 43.3 24.7 16.3  
 LOS by Move: D D D D B D B B D C B  
 HCM2kAvgQ: 3 6 6 2 1 8 13 13 13 2 15 1  
 \*\*\*\*  
 Note: Queue reported is the number of cars per lane.  
 \*\*\*\*

MOONCAMP TRAFFIC IMPACT ANALYSIS (JN 04409)  
 General Plan Buildout Conditions  
 SUNDAY MID-DAY PEAK HOUR

## Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

---

Intersection #104 Site Driveway #1 (NS) / North Shore (SR-38) (EW)

---

Average Delay (sec/veh): 0.1 Worst Case Level Of Service: C [ 18.2 ]

---

	North Bound	South Bound	East Bound	West Bound
Movement:	L - T - R	L - T - R	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Rights:	Include	Include	Include	Include
Lanes:	0 0 0 0 0	1 0 0 0 1	0 1 0 0 0	0 0 0 1 0

---

Volume Module:

Base Vol:	0 0 0 3 0 3 6 650 0 0 591 5
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:	0 0 0 3 0 3 6 650 0 0 591 5
User Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:	0 0 0 3 0 3 6 650 0 0 591 5
Reduc Vol:	0 0 0 0 0 0 0 0 0 0 0 0
Final Volume:	0 0 0 3 0 3 6 650 0 0 591 5

---

Critical Gap Module:

Critical Gp:xxxxx xxxx xxxx 6.4 xxxx 6.2 4.1 xxxx xxxx xxxx xxxx xxxx
FollowUpTim:xxxxx xxxx xxxx 3.5 xxxx 3.3 2.2 xxxx xxxx xxxx xxxx xxxx

---

Capacity Module:

Cnflict Vol: xxxx xxxx xxxx 1256 xxxx 594 596 xxxx xxxx xxxx xxxx xxxx
Potent Cap.: xxxx xxxx xxxx 191 xxxx 509 990 xxxx xxxx xxxx xxxx xxxx
Move Cap.: xxxx xxxx xxxx 190 xxxx 509 990 xxxx xxxx xxxx xxxx xxxx
Volume/Cap: xxxx xxxx xxxx 0.02 xxxx 0.01 0.01 xxxx xxxx xxxx xxxx xxxx

---

Level Of Service Module:

2Way95thQ: xxxx xxxx xxxx 0.0 xxxx 0.0 0.0 xxxx xxxx xxxx xxxx xxxx
Control Del:xxxxx xxxx xxxx 24.2 xxxx 12.1 8.7 xxxx xxxx xxxx xxxx xxxx
LOS by Move: * * * C * B A * * * * *
Movement: LT - LTR - RT
Shared Cap.: xxxx
SharedQueue:xxxxx xxxx xxxx xxxx xxxx xxxx 0.0 xxxx xxxx xxxx xxxx xxxx
Shrd ConDel:xxxxx xxxx xxxx xxxx xxxx xxxx 8.7 xxxx xxxx xxxx xxxx xxxx
Shared LOS: * * * * * A * * * * *
ApproachDel: xxxxxx 18.2 xxxxxx xxxxxx
ApproachLOS: * C * *

---

Note: Queue reported is the number of cars per lane.

---

MOONCAMP TRAFFIC IMPACT ANALYSIS (JN 04409)  
 General Plan Buildout Conditions With Improvements  
 SUNDAY MID-DAY PEAK HOUR

Level Of Service Computation Report  
 2000 HCM Unsignalized Method (Future Volume Alternative)

---

Intersection #104 Site Driveway #1 (NS) / North Shore (SR-38) (EW)

---

Average Delay (sec/veh): 0.2 Worst Case Level Of Service: C [ 15.7 ]

---

Approach:	North Bound		South Bound		East Bound		West Bound	
	L	- T - R	L	- T - R	L	- T - R	L	- T - R
Control:	Stop Sign		Stop Sign		Uncontrolled		Uncontrolled	
Rights:	Include		Include		Include		Include	
Lanes:	0 0 0 0 0		0 0 1! 0 0		1 0 2 0 0		0 0 0 1 0	

---

Volume Module:

Base Vol:	0 0 0 6 0 6 10 650 0 0 591 11
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:	0 0 0 6 0 6 10 650 0 0 591 11
Added Vol:	0 0 0 0 0 0 0 0 0 0 0 0
PasserByVol:	0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut:	0 0 0 6 0 6 10 650 0 0 591 11
User Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:	0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume:	0 0 0 6 0 6 11 684 0 0 622 12
Reduc Vol:	0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume:	0 0 0 6 0 6 11 684 0 0 622 12

---

Critical Gap Module:

Critical Gp:xxxxx xxxx xxxx	6.4 6.5 6.2 4.1 xxxx xxxx xxxx xxxx xxxx
FollowUpTim:xxxxx xxxx xxxx	3.5 4.0 3.3 2.2 xxxx xxxx xxxx xxxx xxxx

---

Capacity Module:

CnFLICT Vol: xxxx xxxx xxxx	991 1333 628 634 xxxx xxxx xxxx xxxx xxxx
Potent Cap.: xxxx xxxx xxxx	275 155 487 959 xxxx xxxx xxxx xxxx xxxx
Move Cap.: xxxx xxxx xxxx	273 154 487 959 xxxx xxxx xxxx xxxx xxxx
Volume/Cap: xxxx xxxx xxxx	0.02 0.00 0.01 0.01 xxxx xxxx xxxx xxxx xxxx

---

Level Of Service Module:

2Way95thQ: xxxx xxxx xxxx xxxx xxxx xxxx	0.0 xxxx xxxx xxxx xxxx xxxx
Control Del:xxxxx xxxx xxxx xxxx xxxx xxxx	8.8 xxxx xxxx xxxx xxxx xxxx
LOS by Move: * * * * * * A *	* * * * *
Movement: LT - LTR - RT	LT - LTR - RT
Shared Cap.: xxxx xxxx xxxx 350 xxxx xxxx xxxx xxxx xxxx	xxxx xxxx xxxx xxxx xxxx xxxx xxxx
SharedQueue:xxxxx xxxx xxxx xxxx 0.1 xxxx xxxx xxxx xxxx xxxx xxxx	xxxx xxxx xxxx xxxx xxxx xxxx xxxx
Shrd ConDel:xxxxx xxxx xxxx xxxx 15.7 xxxx xxxx xxxx xxxx xxxx	xxxx xxxx xxxx xxxx xxxx xxxx
Shared LOS: * * * * C	* * * * *
ApproachDel: xxxxxx	15.7
ApproachLOS: *	C

---

Note: Queue reported is the number of cars per lane.

---

MOONCAMP TRAFFIC IMPACT ANALYSIS (JN 04409)  
 General Plan Buildout Conditions  
 SUNDAY MID-DAY PEAK HOUR

## Level Of Service Computation Report

2000 HCM Unsignalized Method (Base Volume Alternative)

\*\*\*\*\*  
 Intersection #105 Site Driveway #2 (NS) / North Shore (SR-38) (EW)  
 \*\*\*\*\*Average Delay (sec/veh): 0.2 Worst Case Level Of Service: C[ 18.8]  
 \*\*\*\*\*Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R

Control:	Stop Sign	Stop Sign	Uncontrolled	Uncontrolled
Rights:	Include	Include	Include	Include
Lanes:	0 0 0 0 0	0 0 1! 0 0	0 1 0 0 0	0 0 0 1 0

Volume Module:

Base Vol:	0 0 0 6 0 6 10 650 0 0 591 11
Growth Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:	0 0 0 6 0 6 10 650 0 0 591 11
User Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume:	0 0 0 6 0 6 10 650 0 0 591 11
Reduc Vol:	0 0 0 0 0 0 0 0 0 0 0 0
FinalVolume:	0 0 0 6 0 6 10 650 0 0 591 11

Critical Gap Module:

Critical Gp:	xxxxx xxxx xxxx 6.4 6.5 6.2 4.1 xxxx xxxx xxxx xxxx xxxx xxxx
FollowUpTim:	xxxxx xxxx xxxx 3.5 4.0 3.3 2.2 xxxx xxxx xxxx xxxx xxxx xxxx

Capacity Module:

Cnflct Vol:	xxxxx xxxx xxxx 1267 1267 597 602 xxxx xxxx xxxx xxxx xxxx xxxx
Potent Cap.:	xxxxx xxxx xxxx 188 170 507 985 xxxx xxxx xxxx xxxx xxxx xxxx
Move Cap.:	xxxxx xxxx xxxx 187 169 507 985 xxxx xxxx xxxx xxxx xxxx xxxx
Volume/Cap:	xxxxx xxxx xxxx 0.03 0.00 0.01 0.01 xxxx xxxx xxxx xxxx xxxx

Level Of Service Module:

2Way95thQ:	xxxxx xxxx xxxx xxxx xxxx xxxx 0.0 xxxx xxxx xxxx xxxx xxxx
Control Del:	xxxxx xxxx xxxx xxxx xxxx xxxx 8.7 xxxx xxxx xxxx xxxx xxxx
LOS by Move:	* * * * * * A * * * * *
Movement:	LT - LTR - RT
Shared Cap.:	xxxxx xxxx xxxx xxxx 273 xxxx xxxx xxxx xxxx xxxx xxxx
SharedQueue:	xxxxx xxxx xxxx xxxx 0.1 xxxx 0.0 xxxx xxxx xxxx xxxx xxxx
Shrd ConDel:	xxxxx xxxx xxxx xxxx 18.8 xxxx 8.7 xxxx xxxx xxxx xxxx xxxx
Shared LOS:	* * * * C A * * * * *
ApproachDel:	xxxxxx 18.8 xxxxxx
ApproachLOS:	* C * *

\*\*\*\*\*  
 Note: Queue reported is the number of cars per lane.  
 \*\*\*\*\*

MOONCAMP TRAFFIC IMPACT ANALYSIS (JN 04409)  
 General Plan Buildout Conditions With Improvements  
 SUNDAY MID-DAY PEAK HOUR

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

\*\*\*\*\*  
 Intersection #105 Site Driveway #2 (NS) / North Shore (SR-38) (EW)  
 \*\*\*\*\*

Average Delay (sec/veh): 0.2 Worst Case Level Of Service: C[ 15.7]  
 \*\*\*\*\*

Approach:	North Bound		South Bound		East Bound		West Bound					
	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign		Stop Sign		Uncontrolled		Uncontrolled					
Rights:	Include		Include		Include		Include					
Lanes:	0	0	0	0	0	0	1	0	2	0	0	0

Volume Module:

Base Vol:	0	0	0	6	0	6	10	650	0	0	591	11
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	6	0	6	10	650	0	0	591	11
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	6	0	6	10	650	0	0	591	11
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	6	0	6	11	684	0	0	622	12
Reduc Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	6	0	6	11	684	0	0	622	12

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxx	991	1333	628	634	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	275	155	487	959	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	273	154	487	959	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap.:	xxxx	xxxx	xxxx	0.02	0.00	0.01	0.01	xxxx	xxxx	xxxx	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.8	xxxx	xxxxx	xxxxx	xxxx	xxxxx			
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	350	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx	xxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxx	15.7	xxxxx	xxxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
Shared LOS:	*	*	*	*	C	*	*	*	*	*	*	*			

ApproachDel: xxxxx 15.7 xxxxxx xxxxxx

ApproachLOS: \* C \* \*

\*\*\*\*\*

Note: Queue reported is the number of cars per lane.

\*\*\*\*\*

**APPENDIX I**

**COST ESTIMATE FOR ROADWAY IMPROVEMENTS**



<b>Local Interchange Improvements CONT...</b>	
2.	Reconstruct Existing Interchange
	Realign and widen existing ramps (to 2 lanes)    \$750,000/Each Ramp
	Construct Loop on – ramps (Does not include realigning existing ramp)                                  \$700,000/Each Ramp
	Upgrade existing Diamond IC to Partial – Cloverleaf                          \$6,000,000
3.	Improve Existing Interchange
	Widen ramps (From one to two lanes)    \$350,000/Each Ramp
	Widen existing OC structure    \$110/Sq. Ft.
	Signalize ramp intersection    \$90,000/Location
	Upgrade existing signal at ramp terminal                                  \$75,000/Intersection
	Upgrade existing signal at ramp terminal (Add lights only)    \$25,000/Each
4.	Ramp Metering System
	\$60,000/Each location
<b>Intersection Improvements</b>	
1.	Signalization of local intersection (with some roadwork)
	\$250,000
2.	Upgrade existing Intersection signalization
	\$75,000
3.	Upgrade existing Traffic Controller/Assemblies
	\$40,000/Each
4.	Install new signal
	\$90,000/location
5.	Add signal heads
	\$25,000/Intersection
6.	Construct left – turn lane (240' long)
	\$50,000/Each Location
7.	Street widening (12' wide) (Pavement only)
	\$180,000/Mile
8.	Curb and gutter (Type A2-8)
	\$15/LF

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## **Appendix F: Applicable Fire Code Requirements**

