TRAFFIC IMPACT STUDY WAREHOUSE DEVELOPMENT 11401 GREENSTONE AVENUE SANTA FE SPRINGS, CALIFORNIA

Prepared for

CITY OF SANTA FE SPRINGS PLANNING DEPARTMENT

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TRAFFIC IMPACT STUDY WAREHOUSE DEVELOPMENT 11401 GREENSTONE AVENUE SANTA FE SPRINGS, CALIFORNIA

PREPARER'S CERTIFICATE

This is to certify that the above titled traffic study has been prepared under the supervision of Patrick B. Lang, P.E., a Professional Traffic Engineer, registered in the State of California.

Patrick B. Lang, P.E. Registration #: TR 875 Date

Professional Engineer's Stamp

TRAFFIC IMPACT STUDY WAREHOUSE DEVELOPMENT **11401 GREENSTONE AVENUE** SANTA FE SPRINGS, CALIFORNIA

EXECUTIVE SUMMARY

The purpose of this traffic impact analysis is to evaluate the impacts on traffic circulation system relating to the proposed operation of Greenstone Warehouse in the City of Santa Fe Springs, California. The proposed project will be located on the west side of Greenstone Avenue between Lakeland Road and Sunshine Avenue. The proposed project consists of construction of a warehouse building with a total floor area of 144,411 square feet in gross floor area (including a total of 9,000 square feet ancillary office uses).

The following are the key objectives of the study:

- Documentation of existing 2021 traffic conditions in the vicinity of the site.
- Determination of Project Opening Year (2022) traffic conditions and level of service (LOS) without and with the project.
- Determination of project related impacts to the circulation system, and
- Identification of mitigation measures to reduce any significant impacts to a level of insignificance.

The study included evaluation of the following six key signalized intersections in the general vicinity of the site:

- Bloomfield Avenue and Florence Avenue (Signalized)
- Bloomfield Avenue and Lakeland Road (Signalized)
- Bloomfield Avenue and Imperial Highway (Signalized)
- Shoemaker Avenue and Florence Avenue (Signalized)
- Shoemaker Avenue and Lakeland Road (Signalized)
- Shoemaker Avenue and Imperial Highway (Signalized)

The proposed Greenstone Warehouse project is estimated to generate approximately 333 net one-way passenger car equivalent (PCE) trips per average weekday (167 inbound and 166 outbound). The average weekday net new peak hour PCE trips will be approximately 33 PCE trips during the AM peak hour (25 inbound and 8 outbound), and 36 PCE trips during the PM peak hour (10 inbound and 26 outbound).

Based on the results of the traffic impact analysis, the proposed Greenstone Warehouse project would not significantly impact any of the key intersections analyzed in the surrounding roadway system. The addition of project traffic will not increase the volume to capacity (V/C) ratios at these intersections beyond the significance thresholds of project related impacts as defined in the City's Traffic Study Guidelines. Therefore, no off-site mitigation measures would be necessary for the development of this project.

The project will provide two full-access driveways along the west side of Greenstone Avenue. Traffic volume accessing the driveways by making left turns is expected to be low and is not expected to cause any significant on-street delays or long queues. Adequate sight distance is available from the driveways along both directions on Greenstone Avenue.

A total of 205 parking space will be provided on-site for the proposed Greenstone Warehouse project in accordance with the parking code requirements of the City of Santa Fe Springs. The project's parking supply will adequately satisfy the City's parking requirement of 192 spaces per code.

TRAFFIC IMPACT STUDY WAREHOUSE DEVEOPMENT 11401 GREENSTONE AVENUE SANTA FE SPRINGS, CALIFORNIA

INTRODUCTION

The purpose of this traffic impact analysis is to evaluate the impacts on traffic circulation system due to the proposed operation of Greenstone Warehouse in the City of Santa Fe Springs, California. The proposed project will be located on the west side of Greenstone Avenue between Lakeland Road and Sunshine Avenue. The proposed project consists of construction of a warehouse building with a total floor area of 144,411 square feet, including 9,000 square feet for ancillary office uses.

The following are the key objectives identified for this study:

- Documentation of existing 2021 traffic conditions in the vicinity of the site.
- Determination of Project Opening Year (2022) traffic conditions and level of service (LOS) without and with the project.
- Determination of project related impacts to the circulation system, and
- Identification of mitigation measures to reduce any significant impacts to a level of insignificance.

The report provides data regarding existing operational characteristics of traffic in the general vicinity of the project, as well as an analysis of the proposed project's impacts to these existing and anticipated future traffic conditions. The report identifies and quantifies the impacts at key intersections and attempts to address the most appropriate and reasonable mitigation strategies at any impacted intersections which are identified to be operating at a deficient level of service.

This report investigates existing 2021 and anticipated future 2022 opening year traffic operating conditions. The study has been prepared per City of Santa Fe Springs's latest Traffic Impact Study Guidelines.

REPORT METHODOLOGY

STUDY APPROACH

This report approaches the task of identifying and quantifying the anticipated impacts to the circulation system with a structured, "building block" methodology. The first step is to inventory and quantify existing conditions. Upon this foundation of fact, a travel forecast model, based on physical and operational characteristics of road network and manual observation of peak hour traffic movements, is structured for the entire project area and calibrated manually, by adjusting any traffic flow inconsistency, to produce reliable output, verifiable with the existing data. With the project traffic calculated and distributed onto the study area, at the anticipated opening year of the project in 2022, the travel forecast methodology is utilized to assess the project's traffic impacts at that time. The methodology utilizes a growth factor for traffic based upon regional guidelines, any other projects in the project vicinity, as well as the traffic anticipated to be introduced from the proposed project to produce the travel forecast and level-of-service data for the future target year.

The trip generation estimate is based on the 10th edition of Institute of Transportation Engineers (ITE)'s "Trip Generation" manual. Research and interviews have been conducted with local and regional agencies in order to identify and characterize the most probable trip distribution patterns within the study area.

Project impacts are identified for the future year 2022 conditions. At those intersections operating deficiently (e.g., at a level worse than LOS D) and significantly impacted by the proposed project, a mitigation measure is identified and applied, and a before-and-after mitigation analysis conducted.

LEVEL OF SERVICE CRITERIA

Roadway operations and the relationship between capacity and traffic volumes are generally expressed in terms of levels of service (LOS). Levels of service are defined as LOS A through F. These levels recognize that, while an absolute limit exists as to the amount of traffic traveling through a given intersection (the absolute capacity), the conditions that motorists experience deteriorate rapidly as traffic approaches the absolute capacity. Under such conditions, congestion as well as delay is experienced. There is generally instability in the traffic flow, which means that relatively small incidents (e.g., momentary engine stall) can cause considerable fluctuations in speeds and delays. This near-capacity situation is labeled LOS E. Beyond LOS E, capacity is exceeded, and arriving traffic will exceed the ability of the intersection to accommodate it. An upstream queue will form and continue to expand in length until the demand volume reduces.

A complete description of the meaning of level of service can be found in the Highway Research Board's Special Report 209 titled *Highway Capacity Manual*. The manual establishes the definitions for levels of service A through F. Brief descriptions of the six levels of service, as extracted from the manual, are listed in **Table 1**. The thresholds of level of service for signalized and unsignalized intersections are shown in **Table 2**.

LOS D is the minimum threshold at all key intersections in the urbanized areas. The traffic study guidelines require that traffic mitigation measures be identified to provide for operations at the minimum threshold levels.

For the study area intersections, the Intersection Capacity Utilization (ICU) procedure has been utilized to determine intersection levels of service. Levels of service are presented for the entire intersection, consistent with the local and regional agency policies.

While the level of service concept and analysis methodology provides an indication of the performance of the entire intersection, the single letter grade A through F cannot describe specific operational deficiencies at intersections. Progression, queue formation, and left turn storage are examples of the operational issues that affect the performance of an intersection, but do not factor into the strict calculation of level of service. However, it provides a volume to capacity (V/C) ratio that is more meaningful when identifying a project's impact and developing mitigation measures. Therefore, this V/C ratio information is included in describing an intersection's operational performance under various scenarios.

LOS Description No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication. Typically, the approach appears quite А open, turns are made easily and nearly all drivers find freedom of operation. This service level represents stable operation, where an occasional approach phase is fully utilized and a substantial number are В approaching full use. Many drivers begin to feel restricted within platoons of vehicles. This level still represents stable operating conditions. Occasionally, drivers have to wait through more than one red signal indication, and С backups may develop behind turning vehicles. Most drivers feel somewhat restricted. This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak period; however, D enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups. Capacity occurs at the upper end of this service level. It represents the most vehicles that any particular intersection can accommodate. Е Full utilization of every signal cycle is seldom attained no matter how great the demand. This level describes forced flow operations at low speeds, where volumes exceed capacity. These conditions usually result from queues of vehicles backing up from restriction downstream. Speeds F are reduced substantially and stoppages may occur for short or long periods of time due to congestion. In the extreme case, both speed and volume can drop to zero.

TABLE 1 LEVEL OF SERVICE DEFINITIONS

Level of Service	Two-Way or All-Way Stop Controlled Intersection Average Delay per Vehicle (sec)	Signalized Intersection Average Delay per Vehicle (sec)	Volume to Capacity (V/C) Ratio
А	0 - 10	< or = 10	0-0.60
В	> 10 - 15	> 10 - 20	> 0.60 - 0.70
С	> 15 - 25	> 20 - 35	> 0.70 - 0.80
D	> 25 - 35	> 35 - 55	> 0.80 - 0.90
E	> 35 - 50	> 55 - 80	> 0.90 - 1.00
F	> 50	> 80 or a V/C ratio equal to or greater than 1.0	> 1.00

TABLE 2LEVEL OF SERVICE CRITERIA

EXISTING ROADWAY SYSTEM AND TRAFFIC VOLUMES

EXISTING CIRCULATION NETWORK

In order to assess future operating conditions both with and without the proposed project, existing traffic conditions within the study area were evaluated.

Figure 1, Vicinity Map, illustrates the existing circulation network within the study area as well as the location of the proposed project.

Figure 2 shows an aerial view of the circulation network. Major north-south regional access to the site is provided by Bloomfield Avenue and Shoemaker Avenue. Major east-west regional access is provided by Florence Avenue, Lakeland Road and Imperial Highway.

FIGURE 1 VICINITY MAP



FIGURE 2 AERIAL VIEW OF CIRCULAR NETWORK



The project will provide two full-access driveways on Greenstone Avenue for both cars and trucks. The following paragraphs provide a brief description of the existing roadways which comprise the circulation network of the study area, providing the majority of both regional and local access to the project.

<u>BLOOMFIELD AVENUE.</u> Bloomfield Avenue is a major north-south major arterial highway with two travel lanes in each direction. The street is approximately 84 to 90 feet wide and posted with a speed limit of 40 miles per hour. Directional travels are separated by either raised median or a 2-way turn lane along the center of the street. The intersections of Bloomfield Avenue at Florence Avenue, Lakeland Road and Imperial Highway are signalized. Parking is not permitted along the sides of the street. The average daily volume on Bloomfield Avenue is approximately 17,610 vehicles per day (assuming PM peak hour volume counted on Bloomfield Avenue represents approximately 10% of its average daily traffic volume).

<u>GREENSTONE AVENUE.</u> Greenstone Avenue is a north-south local street with one travel lane in each direction. The street is approximately 64 feet wide and posted with a speed limit of 35 miles per hour. Directional travels are separated by a yellow line along the center of the street. Parking is permitted along the sides of the street.

<u>SHOEMAKER AVENUE.</u> Shoemaker Avenue is a north-south secondary arterial highway per the City's Circulation Element of General Plan with two travel lanes in each direction. The street is approximately 84 feet wide and posted with a speed limit of 45 miles per hour in the vicinity of the project site. Directional travels are separated by a yellow line along the center of the street. The intersections of Shoemaker Avenue at Florence Avenue, Lakeland Road and Imperial Highway are signalized. Parking is permitted along the sides of the street. The average daily volume on Shoemaker Avenue is approximately 11,460 vehicles per day (assuming PM peak hour volume counted on Shoemaker Avenue represents approximately 10% of its average daily traffic volume).

<u>FLORENCE AVENUE</u>. Florence Avenue is a major east-west arterial street with two travel lanes in each direction plus left turn lanes at major intersections. Directional travel is separated by raised median islands along the center. The street is approximately 80 feet wide and posted with a speed limit of 40 miles per hour. Parking is not permitted along the sides of the street. The average daily volume on Florence Avenue is approximately 23,830 vehicles per day (assuming PM peak hour volume counted on Florence Avenue represents approximately 10% of its average daily traffic volume).

LAKELAND ROAD. Lakeland Road is a north-south secondary arterial highway with one travel lane in each direction. Directional travel is separated by a 2-way turn lane along the center of the street. The street is approximately 64 feet wide and posted with a speed limit of 40 miles per hour. Parking is partially permitted along the sides of the street. The average daily volume on Lakeland Road is approximately 7,000 vehicles per day (assuming PM peak hour volume counted on Lakeland Road represents approximately 10% of its average daily traffic volume).

<u>IMPERIAL HIGHWAY.</u> Imperial Highway is a major east-west arterial street with three travel lanes in each direction plus turn lanes at major intersections. Directional travel is separated by raised median islands along the center. The street is approximately 84 feet wide and posted with a speed limit of 45 miles per hour. Parking is not permitted along the sides of the street. The average daily volume on Imperial Highway is approximately 26,860 vehicles per day (assuming PM peak hour volume counted on Imperial Highway represents approximately 10% of its average daily traffic volume).

EXISTING TRAFFIC VOLUMES

For the purpose of evaluating existing operating conditions as well as future operating conditions with and without the proposed project, the study area was carefully selected in accordance with local traffic study guidelines. Manual turning movement counts for the selected intersections were collected in the field for the morning and evening peak periods during the month of April 2021. The intersections were counted during the peak hours of 7:00 to 9:00 AM and 4:00 to 6:00 PM on a typical weekday (Tuesday, Wednesday or Thursday) in a non-holiday week. It was determined that the following six (6) key signalized intersections would be analyzed in the study:

- Bloomfield Avenue and Florence Avenue (Signalized)
- Bloomfield Avenue and Lakeland Road (Signalized)
- Bloomfield Avenue and Imperial Highway (Signalized)
- Shoemaker Avenue and Florence Avenue (Signalized)
- Shoemaker Avenue and Lakeland Road (Signalized)
- Shoemaker Avenue and Imperial Highway (Signalized)

Existing lane configurations at the key intersections are shown in **Figure 3**.

Existing turning movement counts for AM and PM peak hour conditions are shown in **Figure 4.** Detailed turning movement counts are included in the Technical Appendix of this report.

EXISTING 2021 TRAFFIC CONDITIONS

Year 2021 existing traffic conditions were evaluated using the Intersection Capacity Utilization (ICU) method of level of service (LOS) analysis for signalized intersections. **Table 3** presents existing condition intersection level of service (LOS) analysis summary.

Detailed calculations relating to the study intersections are included in the Technical Appendix of this report.

Based on the results of this analysis, all 6 of the 6 study intersections are operating at an acceptable level of service (i.e., LOS D or better) during the AM and PM peak hours, as shown in **Table 3**.



FIGURE 3 EXISTING LANE CONFIGURATION AT KEY INTERSECTIONS

FIGURE 4 EXISTING 2021 PEAK HOUR TRIPS AT KEY INTERSECTIONS



4	Intercontion	Control	Peak	Existing (2021) Conditions				
"	mersection	Туре	Hour	LOS	V/C Ratio			
1	Bloomfield Ave &	Signal	AM	В	0.690			
1	Florence Ave	Signal	PM	С	0.790			
2	Bloomfield Ave &	Signal	AM	A	0.410			
	Lakeland Rd	Signal	PM	A	0.555			
2	Bloomfield Ave &	Signal	AM	A	0.600			
3	Imperial Hwy	Signai	PM	В	0.676			
	Shoemaker Ave &	Signal	AM	A	0.591			
4	Florence Ave	Signal	PM	В	0.660			
-	Shoemaker Ave &	Signal	AM	A	0.323			
5	Lakeland Rd	Signai	PM	A	0.411			
6	Shoemaker Ave &	Signal	AM	A	0.590			
6	Imperial Hwy	Signal	PM	В	0.606			

 TABLE 3

 EXISTING (2021) LEVEL OF SERVICE SUMMARY

OPENING YEAR 2022 PRE-PROJECT CONDITIONS

A 1.0 percent per year annual traffic growth rate was applied to existing traffic volumes to create a 2020 base condition (i.e., a factor of 1.02 was applied to 2021 volumes to obtain 2022 base traffic volumes due to ambient growth). This annual traffic growth rate accounts for the population growth within the study area and traffic from any other projects to be developed in the study area.

Per City's records, there are six (6) other related projects located within the one and onehalf mile radius of the project that will contribute to cumulative traffic volumes with the development of this project.

The locations of these related projects are shown in **Figure 5**.

Trip generation estimates for these related projects were developed by using nationally recognized and recommended rates contained in "Trip Generation" manual, 10th edition, published by the Institute of Transportation Engineers (ITE). ITE also provides information on percentage of truck traffic associated with warehouse/storage land use. For warehouse uses, vehicle trips were calculated in terms of passenger car equivalents (PCE) by using vehicle mix percentages provided for warehouse uses in the City of Fontana's "Truck Trip Generation Study", August 2003. A truck trip is generally equivalent to 2 or 3 passenger car trips depending on the type of trucks. Accordingly, a 2.0 factor was applied to the number of 2-axle and 3-axle truck trips and a 3.0 factor was applied to the number of 4+-axle truck trips to estimate passenger car equivalent (PCE) trips generated by the trucks.

Table 4 shows a summary of trip generation estimates for the related projects. It is estimated that the related projects will generate approximately 333 PCE trips per average day (167 inbound and 166 outbound). The average weekday net new peak hour trips will be approximately 33 PCE trips during the AM peak hour (25 inbound and 8 outbound), and 36 PCE trips during the PM peak hour (10 inbound and 26 outbound).

Figure 5 also shows the related projects' locations and trips distributed at the study intersections.

The peak hour traffic volumes from the related projects were added to existing traffic volumes with ambient growth at the study intersections to represent a 2022 pre-project traffic condition for the AM and PM peak hours. **Figure 6** shows future 2022 pre-project traffic volumes at the study intersections.

This pre-project traffic condition was evaluated using the Intersection Capacity Utilization (ICU) method of level of service (LOS) analysis for signalized intersections. The LOS and V/C ratios for the study intersections under 2022 pre-project conditions (without project) are shown in **Table 5**. Detailed calculations relating to the study intersections are included in the Technical Appendix of this report.



FIGURE 5 RELATED PROJECT LOCATIONS AND DISTRIBUTION OF PEAK HOUR TRIPS

TABLE 4 CUMULATIVE PLANNED PROJECT TRIP GENERATION

Land			Trip Generation Rate							Average Traffic Volume					
Use	Size &	Daily	AM	Peak F	lour	PM	Peak H	lour	Daily	AM	Peak H	lour	AM	Peak I	lour
(ITE Code)	Unit	Total	Total	%IN	%OUT	Total	%IN	%OUT	Total	IN	OUT	Total	IN	OUT	Total
Related Pro	Related Project 1: Amazon Last Mile Facility @ 11811 - 11831 Florence Ave Industrial 287,199 sf Industrial														
W/Hse (150)	287.20 KSF	1.74	0.17	77%	23%	0.19	27%	73%	500	38	11	49	15	40	55
	Passenger Car Equivalent (PCE) Trips: 663 50 15 65 19 53 72														
Related Pro	Related Project 2: BreitbumOperating L.P. @ 12405 Telegraph Rd - 302,121 sf Industrial														
W/Hse (150)	302.12 KSF	1.74	0.17	77%	23%	0.19	27%	73%	526	39	12	51	15	42	57
	Pass	enger (Car Equi	valent	(PCE) Tr	rips:			698	52	16	68	20	56	76
Related Pro	oject 3: JSF	Manag	ement,	LLC @	11212	Norwal	lk Blvd	- 128,89	96 sf Inc	Justria					
W/Hse (150)	128.896 KSF	1.74	0.17	77%	23%	0.19	27%	73%	224	17	5	22	6	18	24
	Pass	enger C	Car Equi	valent	(PCE) Tr	rips:			298	22	7	29	8	24	33
Related Pro	ject 4: PPI	- Indust	rial, LL(2 @ SE/	/C of Te	legraph	۱ Rd. &	Bloomf	ield Ave	e 17	8,627	sf Indi	ustrial		
W/Hse (150)	178.63 KSF	1.74	0.17	77%	23%	0.19	27%	73%	311	23	7	30	9	25	34
	Pass	enger C	Car Equi	valent	(PCE) Tr	rips:			413	31	9	40	12	33	45
Related Pro	ject 5: Sor	nic @ 1(0712 La	urel Av	re - 7,82	2 sf Co	mmerc	ial				<u> </u>			
Comm (820)	7.82 KSF	37.35	0.94	62%	38%	3.81	48%	52%	292	4	3	7	14	16	30
Related Pro	ject 6: Sto	orm Pro	perties	@ S/W	corner	of Carr	menita	Rd & La	keland	Rd - N	√ulti-f	amily	128-u	nits	
T. Home (220)	128 DU	7.32	0.46	23%	77%	0.56	63%	37%	937	14	45	59	45	27	72
Related Pro	ject 7: WD)I Site @	<u>م</u> 9951	Greenle	eaf Ave	- 213,9	56 sf Ir	ndustria							
W/Hse (150)	213.96 KSF	1.74	0.17	77%	23%	0.19	27%	73%	372	28	8	36	11	30	41
	Pass	enger C	Car Equi	valent	(PCE) Tr	rips:			494	37	11	48	15	40	54
															'
		Тс	otal Trip	os in PC	Έ				3795	210	106	316	134	248	382
Note:	Note: All rates are average rates. For warehouse uses, vehicle mix percentages were taken from City of Fontana's "Truck Trip Generation Study", August 2003 and truck trips were converted into passenger car equivalent (PCE) trips using PCE factors, i.e., one 2-axle or 3-axle truck trip = 2 passenger car trips, and one 4+-axle truck trip = 3 passenger car trips.														
	[Ref: Insti	tute of "	Transpo	ortatior	1 Engine	er's (IT:	E) "Trip) Gener	ation", 1	10th E	dition,	, 2017	1		



FIGURE 6 FUTURE 2020 PRE-PROJECT PEAK HOUR TRIPS

#	Intersection	Control	Peak	2022 Pre-Project Future Conditions				
		Туре	Hour	LOS	V/C Ratio			
1	Bloomfield Ave &	Signal	AM	В	0.704			
	Florence Ave	Signal	PM	D	0.813			
2	Bloomfield Ave &		AM	А	0.415			
2	Lakeland Rd	Signal	PM	А	0.566			
2	Bloomfield Ave &	Signal	AM	В	0.613			
5	Imperial Hwy	Signal	PM	В	0.690			
	Shoemaker Ave &	Signal	AM	В	0.607			
4	Florence Ave	Signal	PM	В	0.677			
E	Shoemaker Ave &	Signal	AM	А	0.326			
	Lakeland Rd	Signal	PM	А	0.416			
6	Shoemaker Ave &	Signal	AM	A	0.598			
6	Imperial Hwy	Signal	PM	В	0.612			

TABLE 52022 PRE-PROJECT FUTURE CONDITIONS LEVEL OF SERVICE SUMMARY

As the results indicate, all of the 6 study intersections will continue to operate at an acceptable level of service (i.e., LOS D or better) during the AM and PM peak hours.

PROPOSED PROJECT

PROJECT DESCRIPTION

The purpose of this traffic impact analysis is to evaluate the impacts on traffic circulation system due to the proposed operation of Greenstone Warehouse in the City of Santa Fe Springs, California. The proposed project will be located on the west side of Greenstone Avenue between Lakeland Road and Sunshine Avenue. The proposed project consists of construction of a warehouse building with a total floor area of 144,411 square feet in gross floor area (including a total of 9,000 square feet ancillary office uses).

Adequate parking spaces will be provided on-site for the proposed Greenstone Warehouse project in accordance with the parking code requirements of the City of Santa Fe Springs. Surface parking will consist of a total of 205 marked parking spaces.

Figure 7 shows the proposed site plan for the project.

FIGURE 7 PROJECT SITE PLAN



Greenstone Avenue Warehouse Project: Traffic Impact Analysis (TIA) Report

PROJECT TRIP GENERATION

In order to accurately assess future traffic conditions with the proposed project, trip generation estimates were developed for the project. Trip generation rates for the project are based on the nationally recognized recommendations contained in "Trip Generation" manual, 10th edition, published by the Institute of Transportation Engineers (ITE). ITE also provides information on percentage of truck traffic associated with warehouse/storage land use. The vehicle-mix percentages provided for heavy warehouse use in the City of Fontana's "Truck Trip Generation Study", August 2003, were used to determine the number of various types of truck trips to be generated. A truck trip is generally equivalent to 2 or 3 passenger car trips depending on the type of trucks. Accordingly, a 2.0 factor was applied to the number of 4+-axle truck trips to estimate passenger car equivalent (PCE) trips generated by the trucks.

Table 6 shows a summary of trip generation estimates for the project. It is estimated that the project will generate approximately 333 net one-way PCE trips per average day (167 inbound and 166 outbound). The average weekday net new peak hour PCE trips will be approximately 33 trips during the AM peak hour (25 inbound and 8 outbound), and 36 trips during the PM peak hour (10 inbound and 26 outbound).

TRIP DISTRIBUTION AND ASSIGNMENT

Arrival and departure distribution patterns for project-generated traffic were estimated based upon a review of circulation patterns within the study area network and regional traffic generation and attraction characteristics.

Figure 8 depicts the regional trip distribution percentages to and from the site.

Figure 9 depicts project traffic volumes at key circulation locations during the AM and PM peak hours.

TABLE 6TRIP GENERATION BY GREENSTONE WAREHOUSE

ITE			Trip Generation Rate ¹								Avera	ige Tra	ffic V	olume	
Code/	Size &	Daily	AM	Peak H	lour	PM	Peak H	our	Daily	AM	Peakl	Hour	PM Peak Ho		lour
Land Use	Unit	Total	Total	%IN	%OUT	Total	%IN	%OUT	Total	IN	OUT	Total	IN	OUT	Total
	Total Vehicle Trip Generation														
W/Hse	144.41														
(150)	KSF	1.74	0.17	77%	23%	0.19	27%	73%	251	19	6	25	7	20	27
Vehicle Mix ² and Passenger Car Equivalent (PCE) Trips															
				Ve	hicle Tr	ips		-			PC	E Trip	s		
Vehicle	Trip %	Daily	AM	Peak H	lour	PM	Peak H	our	Daily	AM	Peakl	Hour	PM	Peak H	lour
MIX		Total	IN	OUT	Total	IN	OUT	Total	Total	IN	OUT	Total	IN	OUT	Total
Car															
(PCE=1.0)	79.57%	200	15	4	19	5	16	21	200	15	5	20	6	16	22
(1 02-2.0)															
2-axle															
Truck	3.46%	9	1	0	1	1	1	2	17	1	1	2	0	1	1
(PCE=2.0)															
3-axle															
Truck	4.64%	11	1	1	2	0	1	1	23	2	0	2	1	2	3
(PCE=2.0)															
4-axle															
Truck	12.33%	31	2	1	3	1	2	3	93	7	2	9	3	7	10
(PCE=3.0)															
											1				
		ТС	TAL TR	IPS IN	PCE:				333	25	8	33	10	26	36
Note:	All trip r	ates ar	e avera	go rato	s nor In	stituto	of Tra	enorta	tion En	ginee		Venut	licati	on ma	Icua
Note.	"Trip Ge	neratio	on". 10t	h Editio	on. 201	7.	UI II ai	isporta		ginee		Js pur	Jicati	on ma	nuar
	inip oo		, 200	Laite	, 202										
	¹ Trip ra	tes for	Wareh	ouse (I	TE Code	e 150) f	rom In	stitute o	of Trans	sporta	tion E	ngine	ers (IT	E), "Tr	qip
	Generat	ion" m	anual, 1	10th Ed	ition, 2	017						0		-//	
	² Vehicle	e mix pe	ercenta	ges for	Heavy	Wareh	ouse (I	TE Code	e 150) f	rom t	he City	y of Fo	ntana	i, "Tru	ck
	Trip Ger	neration	n Study	", Augu	st 2003										



FIGURE 8 PERCENTAGES OF PROJECT RELATED TRIP DISTRIBUTION



FIGURE 9 DISTRIBUTION OF PROJECT RELATED PEAK HOUR TRIPS

2022 CUMULATIVE CONDITIONS WITH PROJECT TRAFFIC

2022 POST-PROJECT CUMULATIVE TRAFFIC VOLUMES WITH PROJECT

The 2021 cumulative post-project traffic volumes were estimated by adding project related traffic volumes to the 2022 pre-project traffic volumes with 1.0% per year ambient growth and related project traffic. **Figure 10** shows Year 2020 post-project cumulative volumes for AM and PM peak hours.

Year 2022 post-project cumulative (i.e., existing plus ambient traffic plus related project plus project traffic) conditions were evaluated using the Intersection Capacity Utilization (ICU) method of level of service (LOS) analysis for signalized intersections. The LOS and V/C ratios for the study intersections under 2022 post-project cumulative conditions (with project) are summarized in **Table 7**. Detailed calculations relating to the study intersections are included in the Technical Appendix of this report.

The results indicate that, all of the 6 study intersections will continue to operate at an acceptable level of service (LOS) D or better (i.e., within the range of acceptable thresholds of LOS A through D) during the AM and PM peak hours under future cumulative traffic conditions with the project.



FIGURE 10 FUTURE 2022 POST-PROJECT CUMULATIVE PEAK HOUR TRIPS

#	Intersection	Control	Peak	2022 Future with Project Conditions				
		гуре	Hour	LOS	V/C Ratio			
1	Bloomfield Ave &	Signal	AM	С	0.706			
	Florence Ave	Signal	PM	D	0.816			
2	Bloomfield Ave &	Signal	AM	А	0.420			
	Lakeland Rd	Signal	PM	А	0.566			
2	Bloomfield Ave &	Signal	AM	В	0.616			
	Imperial Hwy	Signal	PM	В	0.691			
	Shoemaker Ave &	Signal	AM	В	0.608			
4	Florence Ave	Signal	PM	В	0.677			
	Shoemaker Ave &	Signal	AM	А	0.327			
	Lakeland Rd	Signal	PM	A	0.416			
6	Shoemaker Ave &	Signal	AM	A	0.599			
0	Imperial Hwy	Signal	PM	В	0.613			

TABLE 72022 FUTURE WITH PROJECT CONDITIONS LEVEL OF SERVICE SUMMARY

PROJECT IMPACT AND MITIGATION MEAUSURES

As indicated in the previous section, all of the 6 study intersections will continue to operate at an acceptable level of service (LOS) D or better (i.e., within the range of acceptable thresholds of LOS A through D) during the AM and PM peak hours under future cumulative traffic conditions with the project.

The project's off-site traffic impact would not be considered significant at any of these intersections based on volume to capacity ratio and level of service expected after the project. A project's impact on the circulation system is determined by comparing the level of service (LOS) and V/C ratios at key intersections under the future pre-project conditions and future post-project conditions. A LOS level D or better is acceptable for urban area intersections. A level of service worse than D (i.e., LOS E or F) is considered deficient and unacceptable. A project's traffic impact is determined to be significant if the increase in V/C ratio is 0.04 or more at LOS C, or 0.02 or more at LOS D, or 0.01 or more at LOS E and F.

The LOS, V/C ratio (or ICU) for the study intersections under 2022 cumulative conditions (with project as well as without project) are summarized in **Table 8** to compare Project's traffic impact at key intersections.

#	Intersection	Control	Peak	2022 P Fւ Con	re-Project uture ditions	2022 F P Cor	Future with roject nditions	Incroseo
		туре	HOUI	LOS	V/C Ratio	LOS	V/C Ratio	in V/C by Project
1	Bloomfield Ave &	Signal	AM	В	0.704	С	0.706	0.002
	Florence Ave	Signal	PM	D	0.813	D	0.816	0.003
2	Bloomfield Ave &	Signal	AM	А	0.415	А	0.420	0.005
2	Lakeland Rd	Signal	PM	А	0.566	А	0.566	0.000
5	Bloomfield Ave &	Signal	AM	В	0.613	В	0.616	0.003
5	Imperial Hwy	Signal	PM	В	0.690	В	0.691	0.001
	Shoemaker Ave &	Signal	AM	В	0.607	В	0.608	0.001
4	Florence Ave	Signal	PM	В	0.677	В	0.677	0.000
	Shoemaker Ave &	Signal	AM	А	0.326	А	0.327	0.001
	Lakeland Rd	Signal	PM	А	0.416	А	0.416	0.000
6	Shoemaker Ave &	Signal	AM	А	0.598	А	0.599	0.001
0	Imperial Hwy	Signal	PM	В	0.612	В	0.613	0.001

TABLE 82022 FUTURE WITH AND WITHOUT PROJECT LEVEL OF SERVICE SUMMARY

As the above results indicate, the increases in V/C ratio by project traffic would not exceed the significance thresholds of project-related impacts. Therefore, the project is not expected to significantly impact traffic conditions at any of the key intersections in the vicinity.

Since the project's traffic impacts would not be significant at any of the off-site intersections, no off-site mitigation measures would be necessary for the development of this project.

SITE ACCESS ANALYSIS

The project will provide two full-access driveways along the east side of Greenstone Avenue. A maximum of 19 vehicles (passenger car equivalent) will enter the site during the peak hour through the driveways on Greenstone Avenue from the north by making a right-turn movement. A maximum of 20 vehicles (passenger car equivalent) will exit the site during the peak hour through the driveways to travel north by making a left-turn movement. This low volume of traffic is not expected to cause any significant on-street delays or long queues.

Adequate sight distance is available from the driveways along both directions on Greenstone Avenue.

PARKING DEMAND ANALYSIS

Adequate parking spaces will be provided on-site for the proposed Greenstone Warehouse project in accordance with the parking code requirements of the City of Santa Fe Springs.

The City's parking code requires 1 parking space per 500 square feet of warehouse facilities up to 20,000 square feet of floor area, 1 space per 750 square feet of warehouse facilities for 20,000 - 100,000 square feet of floor area, and 1 parking space per 1,000 square feet for the floor area beyond 100,000 square feet. For office uses, the code requires 1 parking space per 250 square feet; however, it applies only when office square feet exceed 15% of the total warehouse square feet. Therefore, the total parking requirement for the project will be 192 parking spaces [i.e., 20,000 / 500 + (100,000 - 20,000) / 750 + (144,411 - 100,000) / 1,000 = 40 + 107 + 45 = 192]. In addition, for trailer parking, the City requires 1 space (12'x53') per 4 dock doors. Therefore, for the buildings' 16 dock doors, 4 additional spaces (12'x53') will be required for trailer parking.

The project's site plan shows that surface parking will consist of a total of 205 marked parking spaces to be provided in the rear sides of the warehouse building, in addition to four (4) 12'x53' trailer parking spaces. Therefore, the project's parking requirement will be adequately satisfied.
CONCLUSION

Based on the results of the traffic impact analysis, the proposed Greenstone Warehouse project would not significantly impact any of the key intersections analyzed in the surrounding roadway system. The addition of project traffic will not increase the volume to capacity (V/C) ratios at these intersections beyond the significance thresholds of project related impacts as defined in the City's Traffic Study Guidelines. Therefore, no off-site mitigation measures would be necessary for the development of this project.

The project will provide a full-access driveway along the east side of Greenstone Avenue. Traffic volume accessing the driveways by making left turns is expected to be low and is not expected to cause any significant on-street delays or long queues. Adequate sight distance is available from the driveways along both direction on Greenstone Avenue.

A total of 205 parking space, including a total of four (4) 12'x53' trailer parking spaces, will be provided on-site for the proposed Greenstone Warehouse project in accordance with the parking code requirements of the City of Santa Fe Springs. The project's parking supply will adequately satisfy the City's parking requirement of 192 spaces per code.

APPENDIX A

TRAFFIC COUNTS

File Name : Bloomfield_Florence Site Code : 00000000 Start Date : 4/6/2021 Page No : 1

 					Groups	Printed-	Vehicles						
	Bloo	mfield Ave	e	Flor	rence Ave		Bloo	omfield Ave	.	Flor	rence Ave		
	Sou	ithbound		W	estbound		No	orthbound		Ea	stbound		
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	10	81	17	27	191	4	11	76	9	26	155	56	663
07:15 AM	9	101	30	34	227	9	12	106	13	34	178	45	798
07:30 AM	9	90	36	34	246	24	12	89	15	35	185	36	811
 07:45 AM	2	132	42	25	232	16	14	143	16	38	191	44	895
Total	30	404	125	120	896	53	49	414	53	133	709	181	3167
08:00 AM	7	106	34	37	227	16	12	90	16	36	163	30	774
08:15 AM	12	93	29	23	185	7	19	100	14	33	155	28	698
08:30 AM	10	91	37	22	199	8	4	81	29	22	170	23	696
 08:45 AM	10	112	26	17	221	5	25	116	22	26	151	20	751
Total	39	402	126	99	832	36	60	387	81	117	639	101	2919
1												i	
04:00 PM	12	153	36	16	220	7	12	136	35	40	215	23	905
04:15 PM	11	141	43	12	201	10	21	124	29	48	239	40	919
04:30 PM	18	154	32	47	252	16	21	147	49	45	232	66	1079
 04:45 PM	7	140	30	39	166	10	30	145	64	42	253	54	980
Total	48	588	141	114	839	43	84	552	177	175	939	183	3883
1												1	
05:00 PM	16	169	42	37	215	12	13	153	41	43	236	24	1001
05:15 PM	10	141	51	25	195	11	17	142	37	36	270	18	953
05:30 PM	5	111	31	35	203	9	14	112	36	35	228	18	837
 05:45 PM	7	103	43	15	167	12	14	132	34	48	276	18	869
Total	38	524	167	112	780	44	58	539	148	162	1010	78	3660
1												1	
Grand Total	155	1918	559	445	3347	176	251	1892	459	587	3297	543	13629
Apprch %	5.9	72.9	21.2	11.2	84.3	4.4	9.6	72.7	17.6	13.3	74.5	12.3	
Total %	1.1	14.1	4.1	3.3	24.6	1.3	1.8	13.9	3.4	4.3	24.2	4	

File Name : Bloomfield_Florence Site Code : 00000000 Start Date : 4/6/2021 Page No : 2

	:	Bloomfi	eld Ave			Floren	ice Ave			Bloomf	ield Ave			Floren	ice Ave		
		South	oouna			west	oouna			NOFU	Douna			Lasu	Jouna		
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 Analys	sis From (07:00 AN	A to 08:4	45 AM - Pe	ak 1 of 1		-				-				-		
Peak Hour for En	tire Inters	ection B	egins at	07:15 AM													
07:15 AM	9	101	30	140	34	227	9	270	12	106	13	131	34	178	45	257	798
07:30 AM	9	90	36	135	34	246	24	304	12	89	15	116	35	185	36	256	811
07:45 AM	2	132	42	176	25	232	16	273	14	143	16	173	38	191	44	273	895
08:00 AM	7	106	34	147	37	227	16	280	12	90	16	118	36	163	30	229	774
Total Volume	27	429	142	598	130	932	65	1127	50	428	60	538	143	717	155	1015	3278
% App. Total	4.5	71.7	23.7		11.5	82.7	5.8		9.3	79.6	11.2		14.1	70.6	15.3		
PHF	.750	.813	.845	.849	.878	.947	.677	.927	.893	.748	.938	.777	.941	.938	.861	.929	.916



File Name : Bloomfield_Florence Site Code : 00000000 Start Date : 4/6/2021 Page No : 3

		Bloomfi Southl	eld Ave bound			Floren Westl	ce Ave			Bloomf North	ield Ave bound			Florer Eastl	ice Ave		
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 Analys	sis From (04:00 PM	1 to 05:45	5 PM - Pea	k 1 of 1												
Peak Hour for En	tire Inters	ection B	egins at 0	4:30 PM													
04:30 PM	18	154	32	204	47	252	16	315	21	147	49	217	45	232	66	343	1079
04:45 PM	7	140	30	177	39	166	10	215	30	145	64	239	42	253	54	349	980
05:00 PM	16	169	42	227	37	215	12	264	13	153	41	207	43	236	24	303	1001
05:15 PM	10	141	51	202	25	195	11	231	17	142	37	196	36	270	18	324	953
Total Volume	51	604	155	810	148	828	49	1025	81	587	191	859	166	991	162	1319	4013
% App. Total	6.3	74.6	19.1		14.4	80.8	4.8		9.4	68.3	22.2		12.6	75.1	12.3		
PHF	.708	.893	.760	.892	.787	.821	.766	.813	.675	.959	.746	.899	.922	.918	.614	.945	.930



File Name : Bloomfield_Lakeland Site Code : 00000000 Start Date : 4/6/2021 Page No : 1

						Groups	Printed- V	/ehicles						
		Bloo	mfield Ave		Lak	eland Rd		Bloo	mfield Ave	e	Lal	keland Rd		
		Sou	<u>ithbound</u>		We	stbound		No	rthbound		Ea	stbound		
S	tart Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
(07:00 AM	22	120	23	9	25	4	12	91	11	10	27	13	367
(07:15 AM	26	135	19	8	22	7	21	103	5	16	38	26	426
(07:30 AM	25	148	12	2	19	14	4	110	8	8	32	8	390
(07:45 AM	21	159	13	13	36	12	7	150	8	14	40	21	494
	Total	94	562	67	32	102	37	44	454	32	48	137	68	1677
										1			1	
(08:00 AM	17	153	12	7	17	9	8	118	12	10	19	6	388
(08:15 AM	16	120	16	8	31	17	6	99	9	11	30	11	374
(08:30 AM	13	96	9	8	7	15	13	103	2	10	31	6	313
(08:45 AM	20	110	13	7	47	28	6	110	9	7	23	10	390
	Total	66	479	50	30	102	69	33	430	32	38	103	33	1465
(04·00 PM	12	146	17	9	42	13	22	122	15	17	39	12	466
, (04·15 PM	13	124	26	16	49	9	14	159	9	5	30	10	464
(04:30 PM	13	213	52	27	52	19	29	174	24	32	31	15	681
(04:45 PM	23	176	48	19	30	22	29	156	10	28	42	32	615
	Total	61	659	143	71	173	63	94	611	58	82	142	69	2226
										1				
(05:00 PM	14	192	20	12	50	6	19	187	12	13	37	13	575
(05:15 PM	12	173	17	13	49	12	15	154	14	5	31	11	506
(05:30 PM	16	151	9	17	49	10	18	151	10	9	30	10	480
	05:45 PM	9	134	15	7	41	10	11	137	17	13	27	3	424
	Total	51	650	61	49	189	38	63	629	53	40	125	37	1985
Gra	and Total	272	2350	321	182	566	207	234	2124	175	208	507	207	7353
1	Apprch %	9.2	79.9	10.9	19.1	59.3	21.7	9.2	83.9	6.9	22.6	55	22.5	
	Total %	3.7	32	4.4	2.5	7.7	2.8	3.2	28.9	2.4	2.8	6.9	2.8	

File Name : Bloomfield_Lakeland Site Code : 00000000 Start Date : 4/6/2021 Page No : 2

		Bloomfi Southl	eld Ave bound			Lakel West	and Rd bound			Bloomf North	ield Ave bound			Lakela Eastl	and Rd oound		
Start Time	Left Thru Right App. T is From 07:00 AM to 08:45 AM ire Intersection Begins at 07:15 A				Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analys	sis From (07:00 AN	A to 08:4	45 AM - Pe	ak 1 of 1												
Peak Hour for En	tire Inters	ection B	egins at	07:15 AM													
07:15 AM	26	135	19	180	8	22	7	37	21	103	5	129	16	38	26	80	426
07:30 AM	25	148	12	185	2	19	14	35	4	110	8	122	8	32	8	48	390
07:45 AM	21	159	13	193	13	36	12	61	7	150	8	165	14	40	21	75	494
08:00 AM	17	153	12	182	7	17	9	33	8	118	12	138	10	19	6	35	388
Total Volume	89	595	56	740	30	94	42	166	40	481	33	554	48	129	61	238	1698
% App. Total	12	80.4	7.6		18.1	56.6	25.3		7.2	86.8	6		20.2	54.2	25.6		
PHF	.856	.936	.737	.959	.577	.653	.750	.680	.476	.802	.688	.839	.750	.806	.587	.744	.859



File Name : Bloomfield_Lakeland Site Code : 00000000 Start Date : 4/6/2021 Page No : 3

		Bloomfi Southl	eld Ave bound			Lakela Westl	and Rd bound			Bloomf North	ield Ave bound			Lakel Eastl	and Rd bound		
Start Time	Left	Thru	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total	
Peak Hour Analys	sis From (04:00 PM	1 to 05:45	5 PM - Pea	k 1 of 1												
Peak Hour for En	tire Inters	section B	egins at (4:30 PM													
04:30 PM	13	213	52	278	27	52	19	98	29	174	24	227	32	31	15	78	681
04:45 PM	23	176	48	247	19	30	22	71	29	156	10	195	28	42	32	102	615
05:00 PM	14	192	20	226	12	50	6	68	19	187	12	218	13	37	13	63	575
05:15 PM	12	173	17	202	13	49	12	74	15	154	14	183	5	31	11	47	506
Total Volume	62	754	137	953	71	181	59	311	92	671	60	823	78	141	71	290	2377
% App. Total	6.5	79.1	14.4		22.8	58.2	19		11.2	81.5	7.3		26.9	48.6	24.5		
PHF	.674	.885	.659	.857	.657	.870	.670	.793	.793	.897	.625	.906	.609	.839	.555	.711	.873



File Name : Bloomfield_Imperial Site Code : 00000000 Start Date : 4/6/2021 Page No : 1

						Groups	Printed-	Vehicles						
		Blo	omfield Av	e	Im	perial Hwy	7	Blo	omfield Av	'e	Im	perial Hwy		
		S	outhbound		W	estbound		Ν	orthbound	.	Е	astbound		
S	tart Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
(07:00 AM	13	73	27	34	218	15	12	128	28	26	128	5	707
(07:15 AM	18	103	22	36	219	11	2	123	38	38	144	5	759
(07:30 AM	12	102	24	54	218	14	11	137	41	43	148	11	815
	07:45 AM	22	114	19	43	201	17	11	189	44	40	155	7	862
	Total	65	392	92	167	856	57	36	577	151	147	575	28	3143
(08:00 AM	20	97	22	38	189	16	11	124	43	26	173	5	764
(08:15 AM	14	93	23	38	168	18	20	97	46	27	137	13	694
(08:30 AM	16	88	21	49	157	8	5	85	51	25	143	2	650
(08:45 AM	18	91	13	54	151	16	26	69	35	26	119	4	622
	Total	68	369	79	179	665	58	62	375	175	104	572	24	2730
				1									1	
(04:00 PM	31	193	32	60	173	13	4	79	46	29	233	7	900
(04:15 PM	32	152	39	42	189	11	10	102	73	24	205	5	884
(04:30 PM	38	228	51	50	193	5	13	117	64	33	211	14	1017
(04:45 PM	32	179	55	43	161	2	0	141	63	24	216	17	933
	Total	133	752	177	195	716	31	27	439	246	110	865	43	3734
				1						1			1	
(05:00 PM	42	232	48	49	176	4	7	107	73	38	233	17	1026
(05:15 PM	38	178	31	50	177	12	19	126	71	16	188	10	916
(05:30 PM	16	191	29	47	185	6	9	105	72	16	269	13	958
	05:45 PM	40	135	33	50	130	5	23	73	59	30	238	20	836
	Total	136	736	141	196	668	27	58	411	275	100	928	60	3736
				1									1	
Gra	and Total	402	2249	489	737	2905	173	183	1802	847	461	2940	155	13343
A	Apprch %	12.8	71.6	15.6	19.3	76.1	4.5	6.5	63.6	29.9	13	82.7	4.4	
	Total %	3	16.9	3.7	5.5	21.8	1.3	1.4	13.5	6.3	3.5	22	1.2	

File Name : Bloomfield_Imperial Site Code : 00000000 Start Date : 4/6/2021 Page No : 2

		Bloomfi	eld Ave			Imper	ial Hwy			Bloomf	ield Ave			Imper	ial Hwy		
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 Analys	sis From	07:00 AN	A to 08:4	5 AM - Pe	ak 1 of 1												
Peak Hour for En	tire Inters	section B	egins at (07:15 AM													
07:15 AM	18	103	22	143	36	219	11	266	2	123	38	163	38	144	5	187	759
07:30 AM	12	102	24	138	54	218	14	286	11	137	41	189	43	148	11	202	815
07:45 AM	22	114	19	155	43	201	17	261	11	189	44	244	40	155	7	202	862
08:00 AM	20	97	22	139	38	189	16	243	11	124	43	178	26	173	5	204	764
Total Volume	72	416	87	575	171	827	58	1056	35	573	166	774	147	620	28	795	3200
% App. Total	12.5	72.3	15.1		16.2	78.3	5.5		4.5	74	21.4		18.5	78	3.5		
PHF	.818	.912	.906	.927	.792	.944	.853	.923	.795	.758	.943	.793	.855	.896	.636	.974	.928



File Name : Bloomfield_Imperial Site Code : 00000000 Start Date : 4/6/2021 Page No : 3

		Bloomfi South	eld Ave			Imper West	ial Hwy bound			Bloomf North	ield Ave bound			Imper Eastl	ial Hwy oound		
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 Analys	sis From (04:00 PN	1 to 05:45	5 PM - Pea	k 1 of 1												
Peak Hour for En	tire Inters	ection B	egins at (04:30 PM													
04:30 PM	38	228	51	317	50	193	5	248	13	117	64	194	33	211	14	258	1017
04:45 PM	32	179	55	266	43	161	2	206	0	141	63	204	24	216	17	257	933
05:00 PM	42	232	48	322	49	176	4	229	7	107	73	187	38	233	17	288	1026
05:15 PM	38	178	31	247	50	177	12	239	19	126	71	216	16	188	10	214	916
Total Volume	150	817	185	1152	192	707	23	922	39	491	271	801	111	848	58	1017	3892
% App. Total	13	70.9	16.1		20.8	76.7	2.5		4.9	61.3	33.8		10.9	83.4	5.7		
PHF	.893	.880	.841	.894	.960	.916	.479	.929	.513	.871	.928	.927	.730	.910	.853	.883	.948



File Name: Shoemaker_FlorenceSite Code: 00000000Start Date: 4/1/2021Page No: 1

					Groups	Printed-	Vehicles						
	Sho	emaker Av	/e	Flo	rence Ave)	Shoe	maker Av	/e	Flo	rence Ave	•	
	So	Shoemaker Ave Southbound Left Thru Righ 2 62 10 7 63 8			estbound		No	rthbound		Ea	stbound		
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	2	62	10	14	203	10	11	56	4	14	111	37	534
07:15 AM	7	63	8	10	243	11	19	68	7	26	138	30	630
07:30 AM	6	64	9	13	264	12	32	65	6	12	150	18	651
07:45 AM	1	74	8	13	239	15	31	77	10	19	141	27	655
Total	16	263	35	50	949	48	93	266	27	71	540	112	2470
08:00 AM	3	54	13	17	167	3	30	64	10	14	144	22	541
08:15 AM	1	67	10	6	188	26	22	70	4	13	136	18	561
08:30 AM	4	57	11	5	168	3	24	60	8	13	123	23	499
08:45 AM	5	48	8	10	181	6	32	53	14	12	158	21	548
Total	13	226	42	38	704	38	108	247	36	52	561	84	2149
04:00 PM	21	96	19	13	161	3	25	81	17	9	226	28	699
04:15 PM	5	106	10	8	206	4	27	74	13	11	233	18	715
04:30 PM	12	125	22	9	205	5	13	90	27	12	252	23	795
04:45 PM	10	116	10	12	181	4	23	97	19	5	240	27	744
Total	48	443	61	42	753	16	88	342	76	37	951	96	2953
05:00 PM	13	97	18	13	181	6	33	125	26	9	257	29	807
05:15 PM	6	69	13	9	223	4	30	60	16	9	288	25	752
05:30 PM	16	112	21	10	189	7	28	58	22	13	247	25	748
05:45 PM	9	92	21	12	176	4	13	76	16	3	221	36	679
Total	44	370	73	44	769	21	104	319	80	34	1013	115	2986
Grand Total	121	1302	211	174	3175	123	393	1174	219	194	3065	407	10558
Approb %	74	79 7	12.9	5	91.4	3.5	22	65.7	12.3	53	83.6	11 1	10000
Total %	1.1	12.3	2	1.6	30.1	1.2	3.7	11.1	2.1	1.8	29	3.9	
10101 /0			- 1		00.1		0.1		<u> </u>			0.0	

File Name : Shoemaker_Florence Site Code : 00000000 Start Date : 4/1/2021 Page No : 2

	:	Shoema	aker Av	e		Florer	nce Ave	•		Shoem	aker Av	'e		Florer	nce Ave	•	
		South	bound			west	bound			NOTU	bound			Easi	bound		
Start Time	Left Thru Right App. sis From 07:00 AM to 08:45 htire Intersection Begins at 07 7 63 8			App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analy	ysis Fron	n 07:00	AM to 0	8:45 AM -	Peak 1	of 1	-								-		
Peak Hour for E	ntire Inte	rsection	Begins	at 07:15	AM												
07:15 AM	7	63	8	78	10	243	11	264	19	68	7	94	26	138	30	194	630
07:30 AM	6	64	9	79	13	264	12	289	32	65	6	103	12	150	18	180	651
07:45 AM	1	74	8	83	13	239	15	267	31	77	10	118	19	141	27	187	655
08:00 AM	3	54	13	70	17	167	3	187	30	64	10	104	14	144	22	180	541
Total Volume	17	255	38	310	53	913	41	1007	112	274	33	419	71	573	97	741	2477
% App. Total	5.5	82.3	12.3		5.3	90.7	4.1		26.7	65.4	7.9		9.6	77.3	13.1		
PHF	.607	.861	.731	.934	.779	.865	.683	.871	.875	.890	.825	.888	.683	.955	.808.	.955	.945



File Name : Shoemaker_Florence Site Code : 00000000 Start Date : 4/1/2021 Page No : 3

	:	Shoema South	aker Av bound	e		Florer	nce Ave bound	•		Shoem North	aker Av	'e		Flore East	nce Ave bound	•	
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 Anal	ysis Fror	n 04:00	PM to 0	5:45 PM -	Peak 1	of 1	-				-				-		
Peak Hour for E	ntire Inte	rsection	Begins	at 04:30	PM												
04:30 PM	12	125	22	159	9	205	5	219	13	90	27	130	12	252	23	287	795
04:45 PM	10	116	10	136	12	181	4	197	23	97	19	139	5	240	27	272	744
05:00 PM	13	97	18	128	13	181	6	200	33	125	26	184	9	257	29	295	807
05:15 PM	6	69	13	88	9	223	4	236	30	60	16	106	9	288	25	322	752
Total Volume	41	407	63	511	43	790	19	852	99	372	88	559	35	1037	104	1176	3098
% App. Total	8	79.6	12.3		5	92.7	2.2		17.7	66.5	15.7		3	88.2	8.8		
PHF	.788	.814	.716	.803	.827	.886	.792	.903	.750	.744	.815	.760	.729	.900	.897	.913	.960



File Name : Shoemaker_Lakeland Site Code : 00000000 Start Date : 4/1/2021 Page No : 1

					Groups	s Printed	- Vehicles						
	Sh	oemaker A	ve	Lak	eland Roa	ad	Sho	emaker A	ve	Lake	eland Roa	ld	
	S	Southbound	d	W	estbound		N	orthbound	k k	Ea	astbound		
Start Time	e Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AN	1 5	82	14	2	13	8	9	59	4	8	13	10	227
07:15 AN	1 5	83	16	5	19	12	22	84	4	10	10	7	277
07:30 AN	1 5	67	14	1	25	11	21	97	2	5	17	9	274
07:45 AN	1 6	110	16	4	19	16	20	119	2	5	11	13	341
Tota	l 21	342	60	12	76	47	72	359	12	28	51	39	1119
	1			I.			1		I.			1	
08:00 AN	1 8	80	10	3	21	10	13	100	2	7	27	10	291
08:15 AN	1 6	83	8	4	15	6	21	85	1	8	13	11	261
08:30 AN	1 2	55	11	4	21	5	11	78	2	7	14	18	228
08:45 AN	1 6	63	12	1	13	6	18	89	2	10	13	8	241
Tota	I 22	281	41	12	70	27	63	352	7	32	67	47	1021
04:00 DA		117	10	10	27	11	10	04	0	10	20	20	205
04.00 PN		104	10	13	27	10	10	94	9	12	39	29	300
04.13 PN		104	14	4	20	13	21	94	4	11	33	10	343
04.30 PN		119	0		40	5	23	113	3	10	40	20	414
04:45 PN	1 7	138	10	21	107	25	70	114	21	<u> </u>	41	22	401
1018	II 25	470	40	51	107	30	79	415	21	54	100	94	1545
05:00 PM	6	121	17	8	31	16	20	120	5	16	31	34	425
05:15 PM	1 3		13	18	21	8	16	80	4	11	19	16	307
05:30 PM	1 5	105	21	4	17	11	q	80	5	8	22	16	303
05:45 PM	1 8	109	14	4	7	6	8	91	4	7	28	14	300
Tota	1 22	433	65		76	41	53	371	18	42	100	80	1335
1010		100	00	01	10			011	10		100	00	1000
Grand Tota	l 90	1534	214	89	329	150	267	1497	58	156	376	260	5020
Apprch %	6 4.9	83.5	11.6	15.7	57.9	26.4	14.7	82.2	3.2	19.7	47.5	32.8	
Total %	6 1.8	30.6	4.3	1.8	6.6	3	5.3	29.8	1.2	3.1	7.5	5.2	

File Name : Shoemaker_Lakeland Site Code : 00000000 Start Date : 4/1/2021 Page No : 2

		Shoema	aker Av	/e		Lakela	nd Roa	d		Shoem	aker Av	'e		Lakela	nd Roa	d	
		South	bound			Westbound				North	bound			East	bound		
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 Anal	ysis Fror	n 07:00	AM to 0	8:45 AM -	Peak 1	of 1	-				-				-		
Peak Hour for E	ntire Inte	ersectior	n Begins	at 07:15	AM												
07:15 AM	5	83	16	104	5	19	12	36	22	84	4	110	10	10	7	27	277
07:30 AM	5	67	14	86	1	25	11	37	21	97	2	120	5	17	9	31	274
07:45 AM	6	110	16	132	4	19	16	39	20	119	2	141	5	11	13	29	341
08:00 AM	8	80	10	98	3	21	10	34	13	100	2	115	7	27	10	44	291
Total Volume	24	340	56	420	13	84	49	146	76	400	10	486	27	65	39	131	1183
% App. Total	5.7	81	13.3		8.9	57.5	33.6		15.6	82.3	2.1		20.6	49.6	29.8		
PHF	.750	.773	.875	.795	.650	.840	.766	.936	.864	.840	.625	.862	.675	.602	.750	.744	.867



File Name : Shoemaker_Lakeland Site Code : 00000000 Start Date : 4/1/2021 Page No : 3

	:	Shoema South	aker Av bound	e		Lakela West	nd Roa bound	d	:	Shoem North	aker Av	'e		Lakela East	nd Roa bound	d	
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 Anal	ysis Fror	n 04:00	PM to 0	5:45 PM -	Peak 1	of 1											
Peak Hour for E	ntire Inte	ersection	Begins	at 04:15	PM												
04:15 PM	7	104	14	125	4	25	13	42	21	94	4	119	11	33	15	59	345
04:30 PM	5	119	8	132	7	40	5	52	23	113	3	139	18	45	28	91	414
04:45 PM	7	138	16	161	7	15	6	28	17	114	5	136	13	41	22	76	401
05:00 PM	6	121	17	144	8	31	16	55	20	120	5	145	16	31	34	81	425
Total Volume	25	482	55	562	26	111	40	177	81	441	17	539	58	150	99	307	1585
% App. Total	4.4	85.8	9.8		14.7	62.7	22.6		15	81.8	3.2		18.9	48.9	32.2		
PHF	.893	.873	.809	.873	.813	.694	.625	.805	.880	.919	.850	.929	.806	.833	.728	.843	.932



File Name : Shoemaker_Imperial Site Code : 00000000 Start Date : 4/1/2021 Page No : 1

					Groups	Printed-	Vehicles						
	Sho	emaker Av	ve	Imp	perial Hwy	/	Sho	emaker Av	ve	Im	perial Hwy	/	
	Sc	outhbound	I	We	estbound		No	orthbound		Ea	astbound		
Start Time	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Int. Total
07:00 AM	34	5	41	0	273	23	18	3	0	27	152	27	603
07:15 AM	40	10	26	1	257	23	6	6	2	39	134	15	559
07:30 AM	34	7	28	3	309	26	18	3	3	45	158	7	641
07:45 AM	41	10	40	4	296	29	9	7	1	42	154	11	644
Total	149	32	135	8	1135	101	51	19	6	153	598	60	2447
08:00 AM	38	9	37	2	292	30	15	10	1	40	208	14	696
08:15 AM	36	4	20	4	266	35	6	4	5	26	162	10	578
08:30 AM	28	6	28	1	274	28	4	6	0	27	197	11	610
08:45 AM	24	8	35	1	220	14	8	10	2	20	145	6	493
Total	126	27	120	8	1052	107	33	30	8	113	712	41	2377
												1	
04:00 PM	44	10	36	4	238	26	35	9	4	41	295	2	744
04:15 PM	37	5	39	7	213	30	15	13	1	40	284	8	692
04:30 PM	61	8	43	6	241	30	18	11	4	45	295	4	766
04:45 PM	57	8	36	3	249	27	22	5	0	43	294	7	751
Iotal	199	31	154	20	941	113	90	38	9	169	1168	21	2953
05:00 PM	41	15	49	4	262	45	16	7	8	30	331	5	813
05:15 PM	59	8	43	2	280	29	9	11	2	29	334	1	807
05:30 PM	25	5	28	4	266	45	17	8	2	35	276	10	721
05:45 PM	32	3	34	3	212	27	11	9	5	29	293	9	667
Total	157	31	154	13	1020	146	53	35	17	123	1234	25	3008
Grand Total	631	121	563	49	4148	467	227	122	40	558	3712	147	10785
Apprch %	48	9.2	42.8	1.1	88.9	10	58.4	31.4	10.3	12.6	84	3.3	
Total %	5.9	1.1	5.2	0.5	38.5	4.3	2.1	1.1	0.4	5.2	34.4	1.4	

File Name : Shoemaker_Imperial Site Code : 00000000 Start Date : 4/1/2021 Page No : 2

	:	Shoem	aker Av	/e		Imper	ial Hwy	,		Shoem	aker Av	'e		Imper	ial Hwy	1	
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 Anal	ysis Fror	n 07:00	AM to C	8:45 AM -	Peak 1	of 1											
Peak Hour for E	ntire Inte	ersectior	Begins	at 07:30	AM												
07:30 AM	34	7	28	69	3	309	26	338	18	3	3	24	45	158	7	210	641
07:45 AM	41	10	40	91	4	296	29	329	9	7	1	17	42	154	11	207	644
08:00 AM	38	9	37	84	2	292	30	324	15	10	1	26	40	208	14	262	696
08:15 AM	36	4	20	60	4	266	35	305	6	4	5	15	26	162	10	198	578
Total Volume	149	30	125	304	13	1163	120	1296	48	24	10	82	153	682	42	877	2559
% App. Total	49	9.9	41.1		1	89.7	9.3		58.5	29.3	12.2		17.4	77.8	4.8		
PHF	.909	.750	.781	.835	.813	.941	.857	.959	.667	.600	.500	.788	.850	.820	.750	.837	.919



File Name : Shoemaker_Imperial Site Code : 00000000 Start Date : 4/1/2021 Page No : 3

	;	Shoema South	aker Av bound	е		Imper West	ial Hwy bound	,		Shoem North	aker Av	'e		Imper East	ial Hwy bound	1	
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 Anal	ysis Fror	n 04:00	PM to 0	5:45 PM -	Peak 1	of 1	-				-				-		
Peak Hour for E	ntire Inte	rsection	Begins	at 04:30	PM												
04:30 PM	61	8	43	112	6	241	30	277	18	11	4	33	45	295	4	344	766
04:45 PM	57	8	36	101	3	249	27	279	22	5	0	27	43	294	7	344	751
05:00 PM	41	15	49	105	4	262	45	311	16	7	8	31	30	331	5	366	813
05:15 PM	59	8	43	110	2	280	29	311	9	11	2	22	29	334	1	364	807
Total Volume	218	39	171	428	15	1032	131	1178	65	34	14	113	147	1254	17	1418	3137
% App. Total	50.9	9.1	40		1.3	87.6	11.1		57.5	30.1	12.4		10.4	88.4	1.2		
PHF	.893	.650	.872	.955	.625	.921	.728	.947	.739	.773	.438	.856	.817	.939	.607	.969	.965



APPENDIX B

LEVEL OF SERVICE ANALYSIS ICU CALCULATION SHEET

Location:	Bloomfield Aver	nue and Florence Avenue		City:	Santa	Fe Springs
Project No.	CCE2021-01	Analyzed By:	PBL	File Na	me:	PR1
Problem Co	ondition:	Base 2021 Traffic Volumes (Count Date: 4/6/2021)			

Existing Geometric Configuration

	Avai	ilable		Peak	Но	ur	Volum	es			Movem	ent V/C	Crit	ical
Movement	Lai	nes	Exis	ting	Cumu	lative	Pro	ject	Study	y Vol.	Perl	_ane	V	C
	No.	Cap.	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
N/B Left	1	1,600	50	81					50	81	0.031	0.051	0.031	0.051
N/B Thru	2	3,200	428	587					428	587	0.153	0.243		
N/B Right	-	-	60	191					60	191	0.000	0.000		
S/B Left	1	1,600	27	51					27	51	0.017	0.032		
S/B Thru	2	3,200	429	604					429	604	0.178	0.237	0.178	0.237
S/B Right	-	-	142	155					142	155	0.000	0.000		
E/B Left	1	1,600	143	166					143	166	0.089	0.104	0.089	
E/B Thru	2	3,200	717	991					717	991	0.224	0.310		0.310
E/B Right	1	1,600	155	162					155	162	0.066	0.051		
W/B Left	1	1,600	130	148					130	148	0.081	0.093		0.093
W/B Thru	2	3,200	932	828					932	828	0.291	0.259	0.291	
W/B Right	1	1,600	65	49					65	49	0.024	0.031		
									Sun	n Of Cri	tical V/C	:	0.590	0.690
											Lost Tir	ne:	0.100	0.100
	ANAL	YSIS RE	SULTS	S :							Total V	//C:	0.690	0.790
Level Of Service:								e:	В	С				

ASSUMPTIONS AND METHODOLOGY

Existing Counts Year:	2021	LOS Definition	
Study Volume Year:	2021		
Annual Growth Factor:	1.00 Percent	Total V/C	Level Of Service
		Under 0.605	A
Lane Capacity		0.605 - 0.704	В
Single Through Lane =	1600 Vehicles Per Hour	0.705 - 0.804	C
Single Turn Lane =	1600 Vehicles Per Hour	0.805 - 0.904	D
Dual Turn Lane =	2880 Vehicles Per Hour	0.905 - 1.004	E
		Over 1.005	F

Lost time for signal Yellow and All red intervals: 0.10 of V/C Ratio

NOTES:

Location:	Bloomfield Avenue an	d Florence Avenue		City:	Santa Fe	e Springs
Project No.	CCE2021-01	Analyzed By:	PBL	File Nan	ne:	PR1

 Problem Condition:
 Base 2021 Traffic Volumes with Project (Count Date: 4/6/2021)

 Existing Geometric Configuration

	Ava	ilable		Peak	Но	ur	Volum	es			Movem	ent V/C	Crit	ical
Movement	Laı	nes	Exis	ting	Cumu	lative	Pro	ject	Study	y Vol.	Perl	ane	V	'C
	No.	Cap.	MA	PM	AM	PM	AM	PM	MA	PM	MA	PM	AM	РМ
N/B Left	1	1,600	50	81			1	4	51	85	0.032	0.053	0.032	0.053
N/B Thru	2	3,200	428	587			1	3	429	590	0.153	0.244		
N/B Right	-	-	60	191					60	191	0.000	0.000		
S/B Left	1	1,600	27	51					27	51	0.017	0.032		
S/B Thru	2	3,200	429	604			3	1	432	605	0.179	0.238	0.179	0.238
S/B Right	-	-	142	155					142 155 0.000 0.0			0.000		
E/B Left	1	1,600	143	166					143	166	0.089	0.104	0.089	
E/B Thru	2	3,200	717	991					717	991	0.224	0.310		0.310
E/B Right	1	1,600	155	162			4	2	159	164	0.068	0.049		
W/B Left	1	1,600	130	148					130	148	0.081	0.093		0.093
W/B Thru	2	3,200	932	828					932	828	0.291	0.259	0.291	
W/B Right	1	1,600	65	49					65	49	0.024	0.031		
									Sun	n Of Cri	tical V/C	:	0.592	0.693
											Lost Tir	ne:	0.100	0.100
	ANAL	YSIS RE	SULTS	5:							Total V	//C:	0.692	0.793
Level Of Service:										e:	В	С		

ASSUMPTIONS AND METHODOLOGY

Existing Counts Year:	2021	LOS Definition	
Study Volume Year:	2021		
Annual Growth Factor:	1.00 Percent	Total V/C	Level Of Service
		Under 0.605	A
Lane Capacity		0.605 - 0.704	В
Single Through Lane =	1600 Vehicles Per Hour	0.705 - 0.804	C
Single Turn Lane =	1600 Vehicles Per Hour	0.805 - 0.904	D
Dual Turn Lane =	2880 Vehicles Per Hour	0.905 - 1.004	E
		Over 1.005	F

Lost time for signal Yellow and All red intervals: 0.10 of V/C Ratio

NOTES:

Location:	Bloomfield Avenue an	nd Florence Avenue		City:	Santa Fe	e Springs
Project No.	CCE2021-01	Analyzed By:	PBL	File Nan	ne:	PR1

Problem Condition:

Future 2022 Traffic Volumes & Cumulative Projects without Project Existing Geometric Configuration

	Δνα	ilahlo		Poak	Ho		Volum	26			Movem	ent V/C	Crit	ical
Movement	Lai	nes	Exis	sting	Cum	lative	Pro	iect	Study	v Vol.	Perl	ane	V	
	No.	Cap.	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
N/B Left	1	1,600	50	81	0	0			51	82	0.032	0.051	0.032	0.051
N/B Thru	2	3,200	428	587	14	6			446	599	0.160	0.248		
N/B Right	-	-	60	191	5	2			66	195	0.000	0.000		
S/B Left	1	1,600	27	51	0	0			27	52	0.017	0.032		
S/B Thru	2	3,200	429	604	4	15			437	625	0.181	0.244	0.181	0.244
S/B Right	-	-	142	155	0	0			143	157	0.000	0.000		
E/B Left	1	1,600	143	166	0	0			144	168	0.090	0.105	0.090	
E/B Thru	2	3,200	717	991	8	26			732	1027	0.229	0.321		0.321
E/B Right	1	1,600	155	162	0	0			157	164	0.066	0.051		
W/B Left	1	1,600	130	148	1	5			132	154	0.083	0.097		0.097
W/B Thru	2	3,200	932	828	22	13			963	849	0.301	0.265	0.301	
W/B Right	1	1,600	65	49	0	0			66	49	0.024	0.031		
									Sun	n Of Cr	tical V/C	:	0.604	0.713
											Lost Tir	ne:	0.100	0.100
	ANAL	YSIS RE	ESULTS	S :							Total V	//C:	0.704	0.813
										Level	Of Servic	e:	В	D

ASSUMPTIONS AND METHODOLOGY

Existing Counts Year:	2021	LOS Definition	
Study Volume Year:	2022		
Annual Growth Factor:	1.00 Percent	Total V/C	Level Of Service
		Under 0.605	A
Lane Capacity		0.605 - 0.704	В
Single Through Lane =	1600 Vehicles Per Hour	0.705 - 0.804	C
Single Turn Lane =	1600 Vehicles Per Hour	0.805 - 0.904	D
Dual Turn Lane =	2880 Vehicles Per Hour	0.905 - 1.004	E
		Over 1.005	F

Lost time for signal Yellow and All red intervals: 0.10 of V/C Ratio

NOTES:

Location:	Bloomfield Avenue an	d Florence Avenue		City:	Santa Fe	e Springs
Project No.	CCE2021-01	Analyzed By:	PBL	File Na	me:	PR1

Problem Condition:

Future 2022 Traffic Volumes & Cumulative Projects with Project Existing Geometric Configuration

asing Geometric Computation

	Ava	ilable		Peak	Но	ur	Volum	es			Movem	ent V/C	Criti	cal	
Movement	Lai	nes	Exist	ing	Cumu	ative	Proje	ect	Study	/ Vol.	Per L	ane	V/0	C	
	No.	Cap.	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	
N/B Left	1	1,600	50	81	-	-	1	4	52	86	0.032	0.054	0.032	0.054	
N/B Thru	2	3,200	428	587	14	6	1	3	447	602	0.160	0.249			
N/B Right	-	-	60	191	5	2	-	-	66	195	0.000	0.000			
S/B Left	1	1,600	27	51	-	-	-	-	27	52	0.017	0.032			
S/B Thru	2	3,200	429	604	4	15	3	1	440	626	0.182	0.245	0.182	0.245	
S/B Right	-	-	142	155	-	-	-	-	143	157	0.000	0.000			
E/B Left	1	1,600	143	166	-	-	-	-	144	168	0.090	0.105	0.090		
E/B Thru	2	3,200	717	991	8	26	-	-	732	1027	0.229	0.321		0.321	
E/B Right	1	1,600	155	162	-	-	4	2	161	166	0.068	0.050			
W/B Left	1	1,600	130	148	1	5	-	-	132	154	0.083	0.097		0.097	
W/B Thru	2	3,200	932	828	22	13	-	-	963	849	0.301	0.265	0.301		
W/B Right	1	1,600	65	49	-	-	-	-	66	49	0.024	0.031			
									Sun	n Of Cr	tical V/C	:	0.606	0.716	
											Lost Tir	ne:	0.100	0.100	
	ANAL	YSIS RE	SULTS	5:							Total V	//C:	0.706	0.816	
								Level Of Service:							

ASSUMPTIONS AND METHODOLOGY

Existing Counts Year:	2021	LOS Definition	
Study Volume Year:	2022		
Annual Growth Factor:	1.00 Percent	Total V/C	Level Of Service
		Under 0.605	A
Lane Capacity		0.605 - 0.704	В
Single Through Lane =	1600 Vehicles Per Hour	0.705 - 0.804	C
Single Turn Lane =	1600 Vehicles Per Hour	0.805 - 0.904	D
Dual Turn Lane =	2880 Vehicles Per Hour	0.905 - 1.004	E
		Over 1.005	F

Lost time for signal Yellow and All red intervals: 0.10 of V/C Ratio

NOTES:

Location:	Bloomfield Ave	City:	Santa F	e Springs		
Project No.	CCE2021-01	Analyzed By:	PBL	File Na	me:	PR1
Problem Co	ondition:	Base 2021 Traffic Volumes (Count Date: 4/6/2021)			
		Existing Geometric Configura	ation			

	Ava	ilable		Peak	Но	ur	Volum	es			Movem	ent V/C	Crit	ical
Movement	Laı	nes	Exis	ting	Cumu	lative	Pro	ject	Study	y Vol.	Perl	ane	V	'C
	No.	Cap.	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
N/B Left	1	1,600	40	92					40	92	0.025	0.058	0.025	0.058
N/B Thru	2	3,200	481	671					481	671	0.150	0.210		
N/B Right	1	1,600	33	60					33	60	0.002	0.038		
S/B Left	1	1,600	89	62					89	62	0.056	0.039		
S/B Thru	2	3,200	595	754					595	754	0.186	0.236	0.186	0.236
S/B Right	1	1,600	56	137					56	137	0.005	0.037		
E/B Left	1	1,600	48	78					48	78	0.030	0.049		0.049
E/B Thru	1	1,600	129	141					129	141	0.081	0.088	0.081	
E/B Right	1	1,600	61	71					61	71	0.013	0.044		
W/B Left	1	1,600	30	71					30	71	0.019	0.044	0.019	
W/B Thru	1	1,600	94	181					94	181	0.059	0.113		0.113
W/B Right	1	1,600	42	59					42	59	0.026	0.037		
									Sun	n Of Cri	tical V/C	:	0.310	0.455
											Lost Tir	ne:	0.100	0.100
	ANAL	YSIS RE	SULTS	S :							Total V	//C:	0.410	0.555
										Level	Of Servic	e:	А	А

ASSUMPTIONS AND METHODOLOGY

Existing Counts Year:	2021	LOS Definition	
Study Volume Year:	2021		
Annual Growth Factor:	1.00 Percent	Total V/C	Level Of Service
		Under 0.605	A
Lane Capacity		0.605 - 0.704	В
Single Through Lane =	1600 Vehicles Per Hour	0.705 - 0.804	C
Single Turn Lane =	1600 Vehicles Per Hour	0.805 - 0.904	D
Dual Turn Lane =	2880 Vehicles Per Hour	0.905 - 1.004	E
		Over 1.005	F

Lost time for signal Yellow and All red intervals: 0.10 of V/C Ratio

NOTES:

Location:	Bloomfield Avenue an	d Lakeland Road		City:	Santa Fe	e Springs
Project No.	CCE2021-01	Analyzed By:	PBL	File Nan	ne:	PR1

 Problem Condition:
 Base 2021 Traffic Volumes with Project (Count Date: 4/6/2021)

 Existing Geometric Configuration

	Ava	ilable		Peak	Но	ur	Volum	es			Movem	ent V/C	Crit	ical
Movement	Laı	nes	Exis	ting	Cumu	lative	Pro	ject	Study	y Vol.	Perl	ane	V	C
	No.	Cap.	MA	PM	AM	PM	AM	PM	MA	PM	AM	PM	AM	PM
						ĺ								
N/B Left	1	1,600	40	92					40	92	0.025	0.058	0.025	0.058
N/B Thru	2	3,200	481	671					481	671	0.150	0.210		
N/B Right	1	1,600	33	60			6	3	39	63	0.004	0.039		
S/B Left	1	1,600	89	62			7	3	96	65	0.060	0.041		
S/B Thru	2	3,200	595	754					595	754	0.186	0.236	0.186	0.236
S/B Right	1	1,600	56	137					56	137	0.005	0.037		
E/B Left	1	1,600	48	78					48	78	0.030	0.049		0.049
E/B Thru	1	1,600	129	141					129	141	0.081	0.088	0.081	
E/B Right	1	1,600	61	71					61	71	0.013	0.044		
W/B Left	1	1,600	30	71			2	7	32	78	0.020	0.049	0.020	
W/B Thru	1	1,600	94	181					94	181	0.059	0.113		0.113
W/B Right	1	1,600	42	59			2	7	44	66	0.028	0.001		
									Sun	n Of Cri	tical V/C	:	0.312	0.455
											Lost Tir	ne:	0.100	0.100
	ANAL	YSIS RE	SULTS	S :							Total V	//C:	0.412	0.555
										Level	Of Servic	ce:	А	А

ASSUMPTIONS AND METHODOLOGY

Existing Counts Year:	2021	LOS Definition	
Study Volume Year:	2021		
Annual Growth Factor:	1.00 Percent	Total V/C	Level Of Service
		Under 0.605	A
Lane Capacity		0.605 - 0.704	В
Single Through Lane =	1600 Vehicles Per Hour	0.705 - 0.804	C
Single Turn Lane =	1600 Vehicles Per Hour	0.805 - 0.904	D
Dual Turn Lane =	2880 Vehicles Per Hour	0.905 - 1.004	E
		Over 1.005	F

Lost time for signal Yellow and All red intervals: 0.10 of V/C Ratio

NOTES:

Location:	Bloomfield Avenue ar	nd Lakeland Road		City:	Santa Fe	e Springs
Project No.	CCE2021-01	Analyzed By:	PBL	File Nam	ne:	PR1

Problem Condition:

Future 2022 Traffic Volumes & Cumulative Projects without Project Existing Geometric Configuration

	Ava	ilable		Peak	Но	ur	Volum	es			Movem	ent V/C	Crit	ical
Movement	Laı	nes	Exis	ting	Cumu	lative	Pro	ject	Study	y Vol.	Perl	ane	V/C	
	No.	Cap.	AM	PM	AM	PM	AM	PM	AM	PM	AM	РМ	AM	PM
N/B Left	1	1,600	40	92	0	0			40	93	0.025	0.058	0.025	0.058
N/B Thru	2	3,200	481	671	19	8			505	686	0.158	0.214		
N/B Right	1	1,600	33	60	0	0			33	61	0.002	0.038		
S/B Left	1	1,600	89	62	0	0			90	63	0.056	0.039		
S/B Thru	2	3,200	595	754	5	20			606	782	0.189	0.244	0.189	0.244
S/B Right	1	1,600	56	137	0	0			57	138	0.005	0.037		
E/B Left	1	1,600	48	78	0	0			48	79	0.030	0.049		0.049
E/B Thru	1	1,600	129	141	0	0			130	142	0.081	0.089	0.081	
E/B Right	1	1,600	61	71	0	0			62	72	0.013	0.045		
W/B Left	1	1,600	30	71	0	0			30	72	0.019	0.045	0.019	
W/B Thru	1	1,600	94	181	0	0			95	183	0.059	0.114		0.114
W/B Right	1	1,600	42	59	0	0			42	60	0.027	0.037		
									Sun	n Of Cri	tical V/C		0.315	0.466
											Lost Tir	ne:	0.100	0.100
	ANAL	YSIS RE	SULTS	S :					Total V/C:			0.415	0.566	
Level Of Service:								A	A					

ASSUMPTIONS AND METHODOLOGY

Existing Counts Year:	2021	LOS Definition	
Study Volume Year:	2022		
Annual Growth Factor:	1.00 Percent	Total V/C	Level Of Service
		Under 0.605	A
Lane Capacity		0.605 - 0.704	В
Single Through Lane =	1600 Vehicles Per Hour	0.705 - 0.804	C
Single Turn Lane =	1600 Vehicles Per Hour	0.805 - 0.904	D
Dual Turn Lane =	2880 Vehicles Per Hour	0.905 - 1.004	E
		Over 1.005	F

Lost time for signal Yellow and All red intervals: 0.10 of V/C Ratio

NOTES:

Location:	Bloomfield Avenue an	d Lakeland Road		City:	Santa Fe	e Springs
Project No.	CCE2021-01	Analyzed By:	PBL	File Nan	ie:	PR1

Problem Condition:

Future 2022 Traffic Volumes & Cumulative Projects with Project Existing Geometric Configuration

	Ava	ilable		Peak	Но	ur	Volume	es			Movem	ent V/C	Criti	cal
Movement	Laı	nes	Exist	ing	Cumu	ative	Proje	ect	Study	/ Vol.	PerL	ane	V/0	C
	No.	Cap.	MA	PM	AM	PM	AM	РМ	AM	PM	AM	PM	AM	PM
N/B Left	1	1,600	40	92	-	-	-	-	40	93	0.025	0.058		0.058
N/B Thru	2	3,200	481	671	19	8	-	-	505	686	0.158	0.214	0.158	
N/B Right	1	1,600	33	60	-	-	6	3	39	64	0.004	0.040		
S/B Left	1	1,600	89	62	-	-	7	3	97	66	0.061	0.041	0.061	
S/B Thru	2	3,200	595	754	5	20	-	-	606	782	0.189	0.244		0.244
S/B Right	1	1,600	56	137	-	-	-	-	57	138	0.005	0.037		
E/B Left	1	1,600	48	78	-	-	-	-	48	79	0.030	0.049		0.049
E/B Thru	1	1,600	129	141	-	-	-	-	130	142	0.081	0.089	0.081	
E/B Right	1	1,600	61	71	-	-	-	-	62	72	0.013	0.045		
W/B Left	1	1,600	30	71	-	-	2	7	32	79	0.020	0.049	0.020	
W/B Thru	1	1,600	94	181	-	-	-	-	95	183	0.059	0.114		0.114
W/B Right	1	1,600	42	59	-	-	2	7	44	67	0.028	0.001		
									Sun	n Of Cr	itical V/C		0.320	0.466
											Lost Tir	ne:	0.100	0.100
	ANAL	YSIS RE	SULTS	5:							Total V	//C:	0.420	0.566
										Level	Of Servic	e:	А	А

ASSUMPTIONS AND METHODOLOGY

Existing Counts Year:	2021	LOS Definition	
Study Volume Year:	2022		
Annual Growth Factor:	1.00 Percent	Total V/C	Level Of Service
		Under 0.605	A
Lane Capacity		0.605 - 0.704	В
Single Through Lane =	1600 Vehicles Per Hour	0.705 - 0.804	C
Single Turn Lane =	1600 Vehicles Per Hour	0.805 - 0.904	D
Dual Turn Lane =	2880 Vehicles Per Hour	0.905 - 1.004	E
		Over 1.005	F

Lost time for signal Yellow and All red intervals: 0.10 of V/C Ratio

NOTES:

Location:	Bloomfield Aven	nue and Imperial Highway		City:	Santa F	e Springs	
Project No.	CCE2021-01	Analyzed By:	PBL	File Nan	ne:	PR1	
Broblom C	andition:	2000 2021 Troffic Volumos (Count Data: 4/6/2021)				

 Problem Condition:
 Base 2021 Traffic Volumes (Count Date: 4/6/2021)

 Existing Geometric Configuration

	Ava	ilable		Peak	Но	ur	Volum	es			Movem	ent V/C	Crit	ical
Movement	Laı	nes	Exis	ting	Cumu	lative	Pro	ject	Study	y Vol.	Perl	ane	V/C	
	No.	Cap.	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
N/B Left	1	1,600	35	39					35	39	0.022	0.024		0.024
N/B Thru	2	3,200	573	491					573	491	0.179	0.153	0.179	
N/B Right	1	1,600	166	271					166	271	0.104	0.049		
S/B Left	1	1,600	72	150					72	150	0.045	0.094	0.045	
S/B Thru	2	3,200	416	817					416	817	0.130	0.255		0.255
S/B Right	1	1,600	87	185					87	185	0.054	0.046		
E/B Left	1	1,600	147	111					147	111	0.092	0.069	0.092	
E/B Thru	3	4,800	620	848					620	848	0.129	0.177		0.177
E/B Right	1	1,600	28	58					28	58	0.018	0.012		
W/B Left	1	1,600	171	192					171	192	0.107	0.120		0.120
W/B Thru	3	4,800	827	707					827	707	0.184	0.152	0.184	
W/B Right	-	-	58	23					58	23	0.000	0.000		
								Sun	n Of Cri	tical V/C	:	0.500	0.576	
											Lost Tir	ne:	0.100	0.100
	ANAL	YSIS RE	SULTS	S :					Total V/C:			0.600	0.676	
Level Of Service:								А	В					

ASSUMPTIONS AND METHODOLOGY

Existing Counts Year:	2021	LOS Definition	
Study Volume Year:	2021		
Annual Growth Factor:	1.00 Percent	Total V/C	Level Of Service
		Under 0.605	A
Lane Capacity		0.605 - 0.704	В
Single Through Lane =	1600 Vehicles Per Hour	0.705 - 0.804	C
Single Turn Lane =	1600 Vehicles Per Hour	0.805 - 0.904	D
Dual Turn Lane =	2880 Vehicles Per Hour	0.905 - 1.004	E
		Over 1.005	F

Lost time for signal Yellow and All red intervals: 0.10 of V/C Ratio

NOTES:

Location:	Bloomfield Avenue an	d Imperial Highway		City:	Santa Fe	e Springs
Project No.	CCE2021-01	Analyzed By:	PBL	File Nam	ie:	PR1

 Problem Condition:
 Base 2021 Traffic Volumes with Project (Count Date: 4/6/2021)

 Existing Geometric Configuration

	Ava	ilable		Peak	Ho	ur	Volum	es			Movem	ent V/C	Crit	ical
Movement	Laı	nes	Exis	ting	Cumu	lative	Pro	ject	Study	y Vol.	Perl	ane	V/C	
	No.	Cap.	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
N/B Left	1	1,600	35	39					35	39	0.022	0.024		0.024
N/B Thru	2	3,200	573	491			3	1	576	492	0.180	0.154	0.180	
N/B Right	1	1,600	166	271					166	271	0.104	0.049		
S/B Left	1	1,600	72	150					72	150	0.045	0.094	0.045	
S/B Thru	2	3,200	416	817			1	3	417	820	0.130	0.256		0.256
S/B Right	1	1,600	87	185			1	4	88	189	0.055	0.048		
E/B Left	1	1,600	147	111			3	2	150	113	0.094	0.071	0.094	
E/B Thru	3	4,800	620	848					620	848	0.129	0.177		0.177
E/B Right	1	1,600	28	58					28	58	0.018	0.012		
W/B Left	1	1,600	171	192					171	192	0.107	0.120		0.120
W/B Thru	3	4,800	827	707					827	707	0.184	0.152	0.184	
W/B Right	-	-	58	23					58	23	0.000	0.000		
									Sun	n Of Cri	tical V/C		0.503	0.577
										Lost Tir	ne:	0.100	0.100	
	ANAL	YSIS RE	SULTS	S :							Total V	//C:	0.603	0.677
Level Of Service:								e:	A	В				

ASSUMPTIONS AND METHODOLOGY

Existing Counts Year:	2021	LOS Definition	
Study Volume Year:	2021		
Annual Growth Factor:	1.00 Percent	Total V/C	Level Of Service
		Under 0.605	A
Lane Capacity		0.605 - 0.704	В
Single Through Lane =	1600 Vehicles Per Hour	0.705 - 0.804	C
Single Turn Lane =	1600 Vehicles Per Hour	0.805 - 0.904	D
Dual Turn Lane =	2880 Vehicles Per Hour	0.905 - 1.004	E
		Over 1.005	F

Lost time for signal Yellow and All red intervals: 0.10 of V/C Ratio

NOTES:

Location:	Bloomfield Avenue an	d Imperial Highway		City: Santa F	e Springs
Project No.	CCE2021-01	Analyzed By:	PBL	File Name:	PR1

Problem Condition:

Future 2022 Traffic Volumes & Cumulative Projects without ProjectExisting Geometric Configuration

	Ava	ilable		Peak	Ho	ur	Volum	es			Movem	ent V/C	Crit	ical
Movement	Laı	nes	Exis	ting	Cumu	lative	Pro	ject	Study	y Vol.	Per L	ane	V/C	
	No.	Cap.	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
N/B Left	1	1,600	35	39	0	0			35	39	0.022	0.025		0.025
N/B Thru	2	3,200	573	491	19	8			598	504	0.187	0.157	0.187	
N/B Right	1	1,600	166	271	0	0			168	274	0.105	0.050		
S/B Left	1	1,600	72	150	0	0			73	152	0.045	0.095	0.045	
S/B Thru	2	3,200	416	817	5	20			425	845	0.133	0.264		0.264
S/B Right	1	1,600	87	185	0	0			88	187	0.055	0.047		
E/B Left	1	1,600	147	111	0	0			148	112	0.093	0.070	0.093	
E/B Thru	3	4,800	620	848	3	9			629	865	0.131	0.180		0.180
E/B Right	1	1,600	28	58	0	0			28	59	0.018	0.012		
W/B Left	1	1,600	171	192	0	0			173	194	0.108	0.121		0.121
W/B Thru	3	4,800	827	707	9	4			844	718	0.188	0.154	0.188	
W/B Right	-	-	58	23	0	0			59	23	0.000	0.000		
									Sun	n Of Cri	tical V/C		0.513	0.590
											Lost Tir	ne:	0.100	0.100
	ANAL	YSIS RE	SULTS	S :					Total V/C: 0.613 0			0.690		
Level Of Service:									e:	В	В			

ASSUMPTIONS AND METHODOLOGY

Existing Counts Year:	2021	LOS Definition	
Study Volume Year:	2022		
Annual Growth Factor:	1.00 Percent	Total V/C	Level Of Service
		Under 0.605	A
Lane Capacity		0.605 - 0.704	В
Single Through Lane =	1600 Vehicles Per Hour	0.705 - 0.804	C
Single Turn Lane =	1600 Vehicles Per Hour	0.805 - 0.904	D
Dual Turn Lane =	2880 Vehicles Per Hour	0.905 - 1.004	E
		Over 1.005	F

Lost time for signal Yellow and All red intervals: 0.10 of V/C Ratio

NOTES:

Location:	Bloomfield Avenue an	id Imperial Highway		City:	Santa F	e Springs
Project No.	CCE2021-01	Analyzed By:	PBL	File Nar	ne:	PR1

Problem Condition:

Future 2022 Traffic Volumes & Cumulative Projects with Project Existing Geometric Configuration

	Ava	ilable		Peak	Но	ur	Volume	es			Movem	ent V/C	Criti	cal
Movement	Laı	nes	Exist	ing	Cumul	ative	Proje	ect	Study	/ Vol.	Per L	ane	V/0	C
	No.	Сар.	AM	PM	AM	PM	AM	PM	AM	PM	AM	РМ	AM	PM
N/B Left	1	1,600	35	39	-	-	-	-	35	39	0.022	0.025		0.025
N/B Thru	2	3,200	573	491	19	8	3	1	601	505	0.188	0.158	0.188	
N/B Right	1	1,600	166	271	-	-	-	-	168	274	0.105	0.050		
S/B Left	1	1,600	72	150	-	-	-	-	73	152	0.045	0.095	0.045	
S/B Thru	2	3,200	416	817	5	20	1	3	426	848	0.133	0.265		0.265
S/B Right	1	1,600	87	185	-	-	1	4	89	191	0.056	0.048		
E/B Left	1	1,600	147	111	-	-	3	2	151	114	0.095	0.071	0.095	
E/B Thru	3	4,800	620	848	3	9	-	-	629	865	0.131	0.180		0.180
E/B Right	1	1,600	28	58	-	-	-	-	28	59	0.018	0.012		
W/B Left	1	1,600	171	192	-	-	-	-	173	194	0.108	0.121		0.121
W/B Thru	3	4,800	827	707	9	4	-	-	844	718	0.188	0.154	0.188	
W/B Right	-	-	58	23	-	-	-	-	59	23	0.000	0.000		
Sum Of Critical V/C:										0.516	0.591			
											Lost Tir	ne:	0.100	0.100
	ANAL	YSIS RE	SULTS	5:					Total V/C: 0.61			0.616	0.691	
	Level Of Service:										В	В		

ASSUMPTIONS AND METHODOLOGY

Existing Counts Year:	2021	LOS Definition	
Study Volume Year:	2022		
Annual Growth Factor:	1.00 Percent	Total V/C	Level Of Service
		Under 0.605	A
Lane Capacity		0.605 - 0.704	В
Single Through Lane =	1600 Vehicles Per Hour	0.705 - 0.804	C
Single Turn Lane =	1600 Vehicles Per Hour	0.805 - 0.904	D
Dual Turn Lane =	2880 Vehicles Per Hour	0.905 - 1.004	E
		Over 1.005	F

Lost time for signal Yellow and All red intervals: 0.10 of V/C Ratio

NOTES:

Location:	Shoemaker Avenue	and Florence Avenue		City:	Santa F	e Springs	
Project No.	CCE2021-01 Analyzed By:		PBL	_File Nan	ne:	PR1	
Problem C	andition: Pasa	2021 Traffic Volumos	(Coupt Date: 4/1/2021)				

 Problem Condition:
 Base 2021 Traffic Volumes (Count Date: 4/1/2021)

 Existing Geometric Configuration

	Ava	ilable		Peak	Но	ur	Volum	es			Movem	ent V/C	Crit	ical
Movement	Lai	nes	Exis	sting	Cumu	lative	Pro	ject	Stud	y Vol.	Perl	ane	V	C
	No.	Cap.	AM	PM	AM	PM	AM	PM	AM	PM	AM	РМ	AM	PM
						ĺ								
N/B Left	1	1,600	112	99					112	99	0.070	0.062	0.070	0.062
N/B Thru	2	3,200	274	372					274	372	0.086	0.116		
N/B Right	1	1,600	33	88					33	88	0.021	0.028		
S/B Left	1	1,600	17	41					17	41	0.011	0.026		
S/B Thru	2	3,200	255	407					255	407	0.092	0.147	0.092	0.147
S/B Right	-	-	38	63					38	63	0.000	0.000		
E/B Left	1	1,600	71	35					71	35	0.044	0.022	0.044	
E/B Thru	2	3,200	573	1037					573	1037	0.179	0.324		0.324
E/B Right	1	1,600	97	104					97	104	0.061	0.003		
W/B Left	1	1,600	53	43					53	43	0.033	0.027		0.027
W/B Thru	2	3,200	913	790					913	790	0.285	0.247	0.285	
W/B Right	1	1,600	41	19					41	19	0.015	0.012		
									Sun	n Of Cri	tical V/C		0.491	0.560
											Lost Tir	ne:	0.100	0.100
	ANAL	YSIS RE	SULTS	S :							Total V	//C:	0.591	0.660
										Level	Of Servic	e:	А	В

ASSUMPTIONS AND METHODOLOGY

Existing Counts Year:	2021		LOS Definition	
Study Volume Year:	2021			
Annual Growth Factor:	1.00 Percent		Total V/C	Level Of Service
			Under 0.605	A
Lane Capacity			0.605 - 0.704	В
Single Through Lane =	1600 Vehicles Per Hour		0.705 - 0.804	C
Single Turn Lane =	1600 Vehicles Per Hour		0.805 - 0.904	D
Dual Turn Lane =	2880 Vehicles Per Hour		0.905 - 1.004	E
			Over 1.005	F
Lost time for signal Yellow a	ind All red intervals: 0.10	of V/C Ratio		

NOTES:

CROWN CITY ENGINEERS, CALIFORNIA

Location:	Shoemaker Avenue a	nd Florence Avenue		City:	Santa Fe	Springs
Project No.	CCE2021-01	Analyzed By:	PBL	File Nam	ie: [PR1

 Problem Condition:
 Base 2021 Traffic Volumes with Project (Count Date: 4/6/2021)

 Existing Geometric Configuration

	Ava	ilable		Peak	Но	ur	Volum	es			Movem	ent V/C	Crit	ical
Movement	Laı	nes	Exis	sting	Cumu	lative	Pro	ject	Stud	y Vol.	Perl	ane	V/C	
	No.	Cap.	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
N/B Left	1	1,600	112	99					112	99	0.070	0.062	0.070	0.062
N/B Thru	2	3,200	274	372			1	3	275	375	0.086	0.117		
N/B Right	1	1,600	33	88			1	3	34	91	0.021	0.029		
S/B Left	1	1,600	17	41					17	41	0.011	0.026		
S/B Thru	2	3,200	255	407			3	1	258	408	0.093	0.147	0.093	0.147
S/B Right	-	-	38	63					38	63	0.000	0.000		
E/B Left	1	1,600	71	35					71	35	0.044	0.022	0.044	
E/B Thru	2	3,200	573	1037					573	1037	0.179	0.324		0.324
E/B Right	1	1,600	97	104					97	104	0.061	0.003		
W/B Left	1	1,600	53	43			3	1	56	44	0.035	0.028		0.028
W/B Thru	2	3,200	913	790					913	790	0.285	0.247	0.285	
W/B Right	1	1,600	41	19					41	19	0.015	0.012		
									Sun	n Of Cri	tical V/C	:	0.492	0.561
											Lost Tir	ne:	0.100	0.100
	ANAL	YSIS RE	SULTS	S :					Total V/C: 0.592 0			0.661		
										Level	Of Servic	e:	А	В

ASSUMPTIONS AND METHODOLOGY

Existing Counts Year:	2021	LOS Definition	
Study Volume Year:	2021		
Annual Growth Factor:	1.00 Percent	Total V/C	Level Of Service
		Under 0.605	A
Lane Capacity		0.605 - 0.704	В
Single Through Lane =	1600 Vehicles Per Hour	0.705 - 0.804	C
Single Turn Lane =	1600 Vehicles Per Hour	0.805 - 0.904	D
Dual Turn Lane =	2880 Vehicles Per Hour	0.905 - 1.004	E
		Over 1.005	F

Lost time for signal Yellow and All red intervals: 0.10 of V/C Ratio

NOTES:

Location:	Shoemaker Avenue a	nd Florence Avenue		City: Santa Fe Springs		
Project No.	CCE2021-01	Analyzed By:	PBL	File Nar	ne:	PR1
		-			-	

Problem Condition:

Future 2022 Traffic Volumes & Cumulative Projects without Project Existing Geometric Configuration

	Avai	lable		Peak	Но	ur	Volum	es			Movem	ent V/C	Crit	ica
Movement	Lai	nes	Exis	sting	Cumu	lative	Pro	ject	Study Vol.		Per Lane		V/C	
	No.	Cap.	AM	PM	AM	PM	AM	PM	AM	PM	AM	РМ	AM	PM
N/B Left	1	1,600	112	99	0	0			113	100	0.071	0.062	0.071	0.062
N/B Thru	2	3,200	274	372	5	2			282	378	0.088	0.118		
N/B Right	1	1,600	33	88	0	0			33	89	0.021	0.028		
S/B Left	1	1,600	17	41	0	0			17	41	0.011	0.026		
S/B Thru	2	3,200	255	407	1	5			259	416	0.093	0.151	0.093	0.151
S/B Right	-	-	38	63	1	5			39	69	0.000	0.000		
E/B Left	1	1,600	71	35	5	2			77	37	0.048	0.023	0.048	
E/B Thru	2	3,200	573	1037	8	26			587	1073	0.183	0.335		0.335
E/B Right	1	1,600	97	104	0	0			98	105	0.061	0.003		
W/B Left	1	1,600	53	43	0	0			54	43	0.033	0.027		0.027
W/B Thru	2	3,200	913	790	22	13			944	811	0.295	0.253	0.295	
W/B Right	1	1,600	41	19	0	0			41	19	0.015	0.012		
							Sum Of Critical V/C:			0.507	0.577			
							Lost Time:			0.100	0.100			
ANALYSIS RESULTS :							Total V/C:			0.607	0.677			
							Level Of Service:			В	В			

ASSUMPTIONS AND METHODOLOGY

Existing Counts Year:	2021	LOS Definition	LOS Definition			
Study Volume Year:	2022					
Annual Growth Factor:	Growth Factor: 1.00 Percent		Level Of Service			
		Under 0.605	A			
Lane Capacity		0.605 - 0.704	В			
Single Through Lane =	1600 Vehicles Per Hour	0.705 - 0.804	С			
Single Turn Lane =	1600 Vehicles Per Hour	0.805 - 0.904	D			
Dual Turn Lane =	2880 Vehicles Per Hour	0.905 - 1.004	E			
		Over 1.005	F			
Lost time for signal Yellow a	and All red intervals: 0.10 of V/C Ra	tio				

NOTES:

CROWN CITY ENGINEERS, CALIFORNIA

Location:	Shoemaker Avenue a	nd Florence Avenue		City:	Santa Fe	e Springs
Project No.	CCE2021-01	Analyzed By:	PBL	File Nar	ne:	PR1

Problem Condition:

Future 2022 Traffic Volumes & Cumulative Projects with Project

Existing Geometric Configuration

	Ava	ilable		Peak	Но	ur	Volume	es			Movem	ent V/C	Criti	cal
Movement	Laı	nes	Exist	ting	Cumu	ative	Proje	ect	Study	Study Vol. Per Lane		V/C		
	No.	Cap.	MA	PM	AM	PM	AM	РМ	AM	PM	AM	PM	AM	PM
											1			
N/B Left	1	1,600	112	99	-	-	-	-	113	100	0.071	0.062	0.071	0.062
N/B Thru	2	3,200	274	372	5	2	1	3	283	381	0.088	0.119		
N/B Right	1	1,600	33	88	-	-	1	3	34	92	0.021	0.030		
S/B Left	1	1,600	17	41	-	-	-	-	17	41	0.011	0.026		
S/B Thru	2	3,200	255	407	1	5	3	1	262	417	0.094	0.152	0.094	0.152
S/B Right	-	-	38	63	1	5	-	-	39	69	0.000	0.000		
E/B Left	1	1,600	71	35	5	2	-	-	77	37	0.048	0.023	0.048	
E/B Thru	2	3,200	573	1037	8	26			587	1073	0.183	0.335		0.335
E/B Right	1	1,600	97	104	-	-	-	-	98	105	0.061	0.003		
W/B Left	1	1,600	53	43	-	-	3	1	57	44	0.035	0.028		0.028
W/B Thru	2	3,200	913	790	22	13	-	-	944	811	0.295	0.253	0.295	
W/B Right	1	1,600	41	19	-	-	-	-	41	19	0.015	0.012		
									Sun	n Of Cr	itical V/C	:	0.508	0.577
											Lost Tir	ne:	0.100	0.100
	ANAL	YSIS RE	SULTS	S :							Total V	//C:	0.608	0.677
										Level	Of Servic	e:	В	В

ASSUMPTIONS AND METHODOLOGY

Existing Counts Year:	2021	LOS Definition	
Study Volume Year:	2022		
Annual Growth Factor:	1.00 Percent	Total V/C	Level Of Service
		Under 0.605	A
Lane Capacity		0.605 - 0.704	В
Single Through Lane =	1600 Vehicles Per Hour	0.705 - 0.804	C
Single Turn Lane =	1600 Vehicles Per Hour	0.805 - 0.904	D
Dual Turn Lane =	2880 Vehicles Per Hour	0.905 - 1.004	E
		Over 1.005	F

Lost time for signal Yellow and All red intervals: 0.10 of V/C Ratio

NOTES:

Location:	Shoemaker A	venue and Lakeland Road		City:	Santa	Fe Springs	
Project No.	CCE2021-01	Analyzed By:	PBL	File Na	ame:	PR1	
Problem Co	ondition:	Base 2021 Traffic Volumes (Count Date: 4/1/2021)				

Existing Geometric Configuration

	Ava	ilable		Peak	Но	ur	Volum	es			Movem	ent V/C	Crit	ical
Movement	Laı	nes	Exis	ting	Cumu	lative	Pro	ject	Study Vol.		Perl	ane	V	'C
	No.	Cap.	MA	PM	AM	PM	AM	PM	MA	PM	MA	РМ	АМ	PM
N/B Left	1	1,600	76	81					76	81	0.048	0.051	0.048	0.051
N/B Thru	2	3,200	400	441					400	441	0.125	0.138		
N/B Right	1	1,600	10	17					10	17	0.006	0.011		
S/B Left	1	1,600	24	25					24	25	0.015	0.016		
S/B Thru	2	3,200	340	482					340	482	0.106	0.151	0.106	0.151
S/B Right	1	1,600	56	55					56	55	0.018	0.034		
E/B Left	1	1,600	27	58					27	58	0.017	0.036	0.017	
E/B Thru	1	1,600	65	150					65	150	0.041	0.094		0.094
E/B Right	1	1,600	39	99					39	99	0.024	0.011		
W/B Left	1	1,600	13	26					13	26	0.008	0.016		0.016
W/B Thru	1	1,600	84	111					84	111	0.053	0.069	0.053	
W/B Right	1	1,600	49	40					49	40	0.016	0.009		
									Sun	n Of Cri	tical V/C		0.223	0.311
									Lost Tir	ne:	0.100	0.100		
	ANALYSIS RES										Total V	//C:	0.323	0.411
ANALTSIS RESULTS .										Level	Of Servic	e:	A	A

ASSUMPTIONS AND METHODOLOGY

2021	LOS Definition	
2021		
1.00 Percent	Total V/C	Level Of Service
	Under 0.605	A
	0.605 - 0.704	В
1600 Vehicles Per Hour	0.705 - 0.804	C
1600 Vehicles Per Hour	0.805 - 0.904	D
2880 Vehicles Per Hour	0.905 - 1.004	E
	Over 1.005	F
	2021 2021 1.00 Percent 1600 Vehicles Per Hour 1600 Vehicles Per Hour 2880 Vehicles Per Hour	2021 LOS Definition 2021 Total V/C 1.00 Percent Under 0.605 1600 Vehicles Per Hour 0.705 - 0.804 1600 Vehicles Per Hour 0.805 - 0.904 2880 Vehicles Per Hour 0.905 - 1.004 Over 1.005 0.905

Lost time for signal Yellow and All red intervals: 0.10 of V/C Ratio

NOTES:

Location:	Shoemaker Avenue a	nd Lakeland Road		City: Sa	inta Fe Springs
Project No.	CCE2021-01	Analyzed By:	PBL	File Name:	PR1

Problem Condition:

Base 2021 Traffic Volumes with Project (Count Date: 4/6/2021)

Existing Geometric Configuration

	Ava	ilable		Peak	Но	ur	Volum	es			Movem	ent V/C	Crit	ical
Movement	Laı	nes	Exis	ting	Cumu	lative	Pro	ject	Study Vol.		Per Lane		V/C	
	No.	Cap.	MA	PM	AM	PM	AM	PM	MA	PM	AM	PM	AM	PM
						ĺ								
N/B Left	1	1,600	76	81					76	81	0.048	0.051	0.048	0.051
N/B Thru	2	3,200	400	441					400	441	0.125	0.138		
N/B Right	1	1,600	10	17					10	17	0.006	0.011		
S/B Left	1	1,600	24	25					24	25	0.015	0.016		
S/B Thru	2	3,200	340	482					340	482	0.106	0.151	0.106	0.151
S/B Right	1	1,600	56	55			6	2	62	57	0.021	0.036		
E/B Left	1	1,600	27	58			2	6	29	64	0.018	0.040	0.018	
E/B Thru	1	1,600	65	150					65	150	0.041	0.094		0.094
E/B Right	1	1,600	39	99					39	99	0.024	0.011		
W/B Left	1	1,600	13	26					13	26	0.008	0.016		0.016
W/B Thru	1	1,600	84	111					84	111	0.053	0.069	0.053	
W/B Right	1	1,600	49	40					49	40	0.016	0.009		
									Sun	n Of Cri	tical V/C	:	0.224	0.311
											Lost Tir	ne:	0.100	0.100
	ANAL	YSIS RE	SULTS	5:							Total V	//C:	0.324	0.411
										Level	Of Servic	ce:	А	А

ASSUMPTIONS AND METHODOLOGY

Existing Counts Year:	2021	LOS Definition	
Study Volume Year:	2021		
Annual Growth Factor:	1.00 Percent	Total V/C	Level Of Service
		Under 0.605	A
Lane Capacity		0.605 - 0.704	В
Single Through Lane =	1600 Vehicles Per Hour	0.705 - 0.804	C
Single Turn Lane =	1600 Vehicles Per Hour	0.805 - 0.904	D
Dual Turn Lane =	2880 Vehicles Per Hour	0.905 - 1.004	E
		Over 1.005	F

Lost time for signal Yellow and All red intervals: 0.10 of V/C Ratio

NOTES:

Location:	Shoemaker Avenue a	and Lakeland Road		City:	Santa Fe	e Springs
Project No.	CCE2021-01	Analyzed By:	PBL	File Na	ne:	PR1

Problem Condition:

Future 2022 Traffic Volumes & Cumulative Projects without Project Existing Geometric Configuration

	Ava	ilable		Peak	Ho	ur	Volum	es			Movem	ent V/C	Crit	ical
Movement	Laı	nes	Exis	ting	Cumu	lative	Pro	ject	Study	Study Vol. Per Lane		ane	V/C	
	No.	Cap.	AM	PM	AM	PM	AM	PM	AM	PM	AM	РМ	AM	PM
N/B Left	1	1,600	76	81	0	0			77	82	0.048	0.051	0.048	0.051
N/B Thru	2	3,200	400	441	5	2			409	447	0.128	0.140		
N/B Right	1	1,600	10	17	0	0			10	17	0.006	0.011		
S/B Left	1	1,600	24	25	0	0			24	25	0.015	0.016		
S/B Thru	2	3,200	340	482	1	5			344	492	0.108	0.154	0.108	0.154
S/B Right	1	1,600	56	55	0	0			57	56	0.018	0.035		
E/B Left	1	1,600	27	58	0	0			27	59	0.017	0.037	0.017	
E/B Thru	1	1,600	65	150	0	0			66	152	0.041	0.095		0.095
E/B Right	1	1,600	39	99	0	0			39	100	0.025	0.011		
W/B Left	1	1,600	13	26	0	0			13	26	0.008	0.016		0.016
W/B Thru	1	1,600	84	111	0	0			85	112	0.053	0.070	0.053	
W/B Right	1	1,600	49	40	0	0			49	40	0.016	0.009		
									Sun	n Of Cri	tical V/C	:	0.226	0.316
											Lost Tir	ne:	0.100	0.100
	ANAL	YSIS RE	SULTS	3 :					Total V/C:			0.326	0.416	
										Level	Of Servic	e:	А	А

ASSUMPTIONS AND METHODOLOGY

Existing Counts Year:	2021	LOS Definition	
Study Volume Year:	2022		
Annual Growth Factor:	1.00 Percent	Total V/C	Level Of Service
		Under 0.605	A
Lane Capacity		0.605 - 0.704	В
Single Through Lane =	1600 Vehicles Per Hour	0.705 - 0.804	C
Single Turn Lane =	1600 Vehicles Per Hour	0.805 - 0.904	D
Dual Turn Lane =	2880 Vehicles Per Hour	0.905 - 1.004	E
		Over 1.005	F
Lost time for signal Yellow a	and All red intervals: 0.10 of V/C Ratio		

NOTES:

CROWN CITY ENGINEERS, CALIFORNIA

Location:	Shoemaker Avenue a	nd Lakeland Road		City:	Santa F	e Springs
Project No.	CCE2021-01	Analyzed By:	PBL	File Nan	ne:	PR1

Problem Condition:

Future 2022 Traffic Volumes & Cumulative Projects with Project Existing Geometric Configuration

	Ava	ilable		Peak	Но	ur	Volum	es			Movem	ent V/C	Criti	cal
Movement	La	nes	Exist	ting	Cumu	ative	Proje	ect	Study	/ Vol.	Per L	ane	V/0	C
	No.	Cap.	AM	PM	AM	PM	AM	PM	AM	PM	AM	РМ	AM	РМ
N/B Left	1	1,600	76	81	-	-	-	-	77	82	0.048	0.051	0.048	0.051
N/B Thru	2	3,200	400	441	5	2	-	-	409	447	0.128	0.140		
N/B Right	1	1,600	10	17	-	-	-	-	10	17	0.006	0.011		
S/B Left	1	1,600	24	25	-	-	-	-	24	25	0.015	0.016		
S/B Thru	2	3,200	340	482	1	5	-	-	344	492	0.108	0.154	0.108	0.154
S/B Right	1	1,600	56	55	-	-	6	2	63	58	0.021	0.036		
E/B Left	1	1,600	27	58	-	-	2	6	29	65	0.018	0.040	0.018	
E/B Thru	1	1,600	65	150	-	-	-	-	66	152	0.041	0.095		0.095
E/B Right	1	1,600	39	99	-	-	-	-	39	100	0.025	0.011		
W/B Left	1	1,600	13	26	-	-	-	-	13	26	0.008	0.016		0.016
W/B Thru	1	1,600	84	111	-	-	-	-	85	112	0.053	0.070	0.053	
W/B Right	1	1,600	49	40	-	-	-	-	49	40	0.016	0.009		
									Sun	n Of Cr	itical V/C	:	0.227	0.316
											Lost Tir	ne:	0.100	0.100
	ANAL	YSIS RE	SULTS	S :							Total V	//C:	0.327	0.416
									Level	Of Servic	e:	А	А	

ASSUMPTIONS AND METHODOLOGY

Existing Counts Year:	2021	LOS Definition	
Study Volume Year:	2022		
Annual Growth Factor:	1.00 Percent	Total V/C	Level Of Service
		Under 0.605	A
Lane Capacity		0.605 - 0.704	В
Single Through Lane =	1600 Vehicles Per Hour	0.705 - 0.804	C
Single Turn Lane =	1600 Vehicles Per Hour	0.805 - 0.904	D
Dual Turn Lane =	2880 Vehicles Per Hour	0.905 - 1.004	E
		Over 1.005	F

Lost time for signal Yellow and All red intervals: 0.10 of V/C Ratio

NOTES:

Location:	Shoemaker Av	venue and Imperial Highway		City:	Santa F	e Springs
Project No.	CCE2021-01	Analyzed By:	PBL	File Na	me:	PR1
Problem Co	ondition:	Base 2021 Traffic Volumes (Count Date: 4/1/2021)			

Existing Geometric Configuration

	Δια	ilabla		Poak	Ha		Volum				Movom	ont V/C	Crit	ical
	Ava	lable		reak			Volum		01.1				CIII	llual
Movement	Lai	nes	Exis	sting	Cumi	Ilative	Pro	ject	Stud	y Vol.	Perl	ane	V	<u>C</u>
	No.	Cap.	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
N/B Left	1	1,600	48	65					48	65	0.030	0.041	0.030	0.041
N/B Thru	1	1,600	24	34					24	34	0.015	0.021		
N/B Right	1	1,600	10	14					10	14	0.006	0.009		
S/B Left	1	1,600	149	218					149	218	0.093	0.136		
S/B Thru	1	1,600	30	39					30	39	0.097	0.131	0.097	0.131
S/B Right	-	-	125	171					125	171	0.000	0.000		
E/B Left	1	1,600	153	147					153	147	0.096	0.092	0.096	0.092
E/B Thru	3	4,800	682	1254					682	1254	0.151	0.265		
E/B Right	-	-	42	17					42	17	0.000	0.000		
W/B Left	1	1,600	13	15					13	15	0.008	0.009		
W/B Thru	3	4,800	1163	1032					1163	1032	0.267	0.242	0.267	0.242
W/B Right	-	-	120	131					120	131	0.000	0.000		
									Sun	n Of Cri	tical V/C	:	0.490	0.506
											Lost Tir	ne:	0.100	0.100
	ANAL	YSIS RE	ESULTS	S :					Total V/C: 0.590			0.606		
Level Of Service:							e:	А	В					

ASSUMPTIONS AND METHODOLOGY

Existing Counts Year:	2021	LOS Definition	
Study Volume Year:	2021		
Annual Growth Factor:	1.00 Percent	Total V/C	Level Of Service
		Under 0.605	A
Lane Capacity		0.605 - 0.704	В
Single Through Lane =	1600 Vehicles Per Hour	0.705 - 0.804	C
Single Turn Lane =	1600 Vehicles Per Hour	0.805 - 0.904	D
Dual Turn Lane =	2880 Vehicles Per Hour	0.905 - 1.004	E
		Over 1.005	F

Lost time for signal Yellow and All red intervals: 0.10 of V/C Ratio

NOTES:

Location:	Shoemaker Ave	nue and Imperial Highway		City: Sant	a Fe Springs
Project No.	CCE2021-01	Analyzed By:	PBL	File Name:	PR1
Broblom C	ndition: D	2000 2021 Troffic Volumos	with Project (Count Date: 4		

 Problem Condition:
 Base 2021 Traffic Volumes with Project (Count Date: 4/6/2021)

 Existing Geometric Configuration

	Ava	ilable		Peak	Но	ur	Volum	es			Movem	ent V/C	Crit	ical
Movement	Laı	nes	Exis	sting	Cumu	lative	Pro	ject	Stud	y Vol.	Perl	ane	V	C
	No.	Сар.	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
N/B Left	1	1,600	48	65					48	65	0.030	0.041	0.030	0.041
N/B Thru	1	1,600	24	34					24	34	0.015	0.021		
N/B Right	1	1,600	10	14					10	14	0.006	0.009		
S/B Left	1	1,600	149	218			2	6	151	224	0.094	0.140		
S/B Thru	1	1,600	30	39					30	39	0.097	0.131	0.097	0.131
S/B Right	-	-	125	171					125	171	0.000	0.000		
E/B Left	1	1,600	153	147					153	147	0.096	0.092	0.096	0.092
E/B Thru	3	4,800	682	1254					682	1254	0.151	0.265		
E/B Right	-	-	42	17					42	17	0.000	0.000		
W/B Left	1	1,600	13	15					13	15	0.008	0.009		
W/B Thru	3	4,800	1163	1032					1163	1032	0.269	0.243	0.269	0.243
W/B Right	-	-	120	131			6	2	126	133	0.000	0.000		
									Sun	n Of Cri	tical V/C	:	0.491	0.506
											Lost Tir	ne:	0.100	0.100
	ANAL	YSIS RE	SULTS	S :					Total V/C: 0.591			0.606		
Level Of Service:								A	В					

ASSUMPTIONS AND METHODOLOGY

Existing Counts Year:	2021	LOS Definition	
Study Volume Year:	2021		
Annual Growth Factor:	1.00 Percent	Total V/C	Level Of Service
		Under 0.605	A
Lane Capacity		0.605 - 0.704	В
Single Through Lane =	1600 Vehicles Per Hour	0.705 - 0.804	C
Single Turn Lane =	1600 Vehicles Per Hour	0.805 - 0.904	D
Dual Turn Lane =	2880 Vehicles Per Hour	0.905 - 1.004	E
		Over 1.005	F

Lost time for signal Yellow and All red intervals: 0.10 of V/C Ratio

NOTES:

Location:	Shoemaker Avenue a	nd Imperial Highway		City:	Santa Fe	Springs
Project No.	CCE2021-01	Analyzed By:	PBL	File Nam	ne:	PR1

Problem Condition:

Future 2022 Traffic Volumes & Cumulative Projects without Project Existing Geometric Configuration

	Ava	ilable		Peak	Ho	ur	Volum	es			Movem	ent V/C	Crit	ical
Movement	Laı	nes	Exis	sting	Cumu	Ilative	Pro	ject	Study	y Vol.	Per l	ane	V	'C
	No.	Сар.	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
N/B Left	1	1,600	48	65	0	0			48	66	0.030	0.041	0.030	0.041
N/B Thru	1	1,600	24	34	0	0			24	34	0.015	0.021		
N/B Right	1	1,600	10	14	0	0			10	14	0.006	0.009		
S/B Left	1	1,600	149	218	1	5			151	225	0.095	0.141		
S/B Thru	1	1,600	30	39	0	0			30	39	0.098	0.133	0.098	0.133
S/B Right	-	-	125	171	0	0			126	173	0.000	0.000		
E/B Left	1	1,600	153	147	0	0			155	148	0.097	0.093	0.097	0.093
E/B Thru	3	4,800	682	1254	3	9			692	1276	0.153	0.269		
E/B Right	-	-	42	17	0	0			42	17	0.000	0.000		
W/B Left	1	1,600	13	15	0	0			13	15	0.008	0.009		
W/B Thru	3	4,800	1163	1032	9	4			1184	1046	0.273	0.246	0.273	0.246
W/B Right	-	-	120	131	5	2			126	134	0.000	0.000		
									Sun	n Of Cri	tical V/C		0.498	0.512
											Lost Tir	ne:	0.100	0.100
	ANAL	YSIS RE	SULTS	S :					Total V/C: 0.598 0			0.612		
Level Of Service:									A	В				

ASSUMPTIONS AND METHODOLOGY

Existing Counts Year:	2021		LOS Definition	
Study Volume Year:	2022			
Annual Growth Factor:	1.00 Percent		Total V/C	Level Of Service
			Under 0.605	A
Lane Capacity			0.605 - 0.704	В
Single Through Lane =	1600 Vehicles Per Hour		0.705 - 0.804	C
Single Turn Lane =	1600 Vehicles Per Hour		0.805 - 0.904	D
Dual Turn Lane =	2880 Vehicles Per Hour		0.905 - 1.004	E
			Over 1.005	F
Lost time for signal Yellow a	and All red intervals: 0.10	of V/C Ratio		

NOTES:

Location:	Shoemaker Avenue a	nd Imperial Highway		City:	City: Santa Fe Springs		
Project No.	CCE2021-01	Analyzed By:	PBL	File Na	me:	PR1	

Problem Condition:

Future 2022 Traffic Volumes & Cumulative Projects with Project

Existing Geometric Configuration

	Ava	ilable		Peak	Но	ur	Volum	es			Movem	ent V/C	Criti	cal
Movement Lane		nes	Existing		Cumulative		Project		Study Vol.		Per Lane		V/C	
	No.	Cap.	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
N/B Left	1	1,600	48	65	-	-	-	-	48	66	0.030	0.041	0.030	0.041
N/B Thru	1	1,600	24	34	-	-	-	-	24	34	0.015	0.021		
N/B Right	1	1,600	10	14	-	-	-	-	10	14	0.006	0.009		
S/B Left	1	1,600	149	218	1	5	2	6	153	231	0.096	0.144		
S/B Thru	1	1,600	30	39	-	-	-	-	30	39	0.098	0.133	0.098	0.133
S/B Right	-	-	125	171	-	-	-	-	126	173	0.000	0.000		
E/B Left	1	1,600	153	147	-	-	-	-	155	148	0.097	0.093	0.097	0.093
E/B Thru	3	4,800	682	1254	3	9	-	-	692	1276	0.153	0.269		
E/B Right	-	-	42	17	-	-	-	-	42	17	0.000	0.000		
W/B Left	1	1,600	13	15	-	-	-	-	13	15	0.008	0.009		
W/B Thru	3	4,800	1163	1032	9	4	-	-	1184	1046	0.274	0.246	0.274	0.246
W/B Right	-	-	120	131	5	2	6	2	132	136	0.000	0.000		
							Sum Of Critical V/C:			0.499	0.513			
							Lost Time:			0.100	0.100			
ANALYSIS RESULTS :							Total V/C:			0.599	0.613			
						Level Of Service: A			В					

ASSUMPTIONS AND METHODOLOGY

Existing Counts Year:	2021	LOS Definition	LOS Definition			
Study Volume Year:	2022					
Annual Growth Factor:	1.00 Percent	Total V/C	Level Of Service			
		Under 0.605	A			
Lane Capacity		0.605 - 0.704	В			
Single Through Lane =	1600 Vehicles Per Hour	0.705 - 0.804	C			
Single Turn Lane =	1600 Vehicles Per Hour	0.805 - 0.904	D			
Dual Turn Lane =	2880 Vehicles Per Hour	0.905 - 1.004	E			
		Over 1.005	F			

Lost time for signal Yellow and All red intervals: 0.10 of V/C Ratio

NOTES: