

County of Los Angeles

TRAFFIC STUDY FOR STEPHEN SORENSEN PARK VARIOUS IMPROVEMENTS

NOVEMBER 2020

Prepared For:

ECORP Consulting, Inc.

2861 Pullman St

Santa Ana, CA 92705

(714) 648-0630

Prepared by:



1100 Corporate Center Drive, Suite 201

Monterey Park, California 91754

(323) 260-4703

Rev 6

JB91218

Table of Contents

1. INTRODUCTION	1
A. PROJECT LOCATION.....	1
B. PROJECT STUDY AREA	1
2. EXISTING CONDITIONS	4
3. PROJECT TRIPS	5
A. TRIP GENERATION TOTALS	5
B. PROJECT TRIP DISTRIBUTION	5
4. STUDY AREA OPERATIONS ANALYSIS	6
5. CEQA REVIEW	9

List of Tables

TABLE 1 – PROJECT VEHICLE TRIP GENERATION TOTALS	5
TABLE 2 – PROJECT STUDY INTERSECTIONS - EXISTING LEVEL-OF-SERVICE	6
TABLE 3 – PROJECT STUDY INTERSECTIONS - EXISTING WITH PROJECT LEVEL-OF-SERVICE	6
TABLE 4 – LIST OF RELATED PROJECTS	7
TABLE 5 – PROJECT STUDY INTERSECTIONS - FUTURE WITHOUT PROJECT LEVEL-OF-SERVICE	8
TABLE 6 – PROJECT STUDY INTERSECTIONS - FUTURE WITH PROJECT LEVEL-OF-SERVICE	8

List of Figures

FIGURE 1- PROJECT LOCATION AND TRAFFIC STUDY AREA	3
---	---

Attachment

ATTACHMENT A - STUDY INTERSECTION TURNING MOVEMENT COUNT SUMMARY
ATTACHMENT B – LEVEL OF SERVICE WORKSHEETS
ATTACHMENT C – CUMULATIVE PROJECTS MAP

1. Introduction

The purpose of this traffic study is to assess the potential traffic effects of the proposed Project on the surrounding roadway system. The proposed Project is the construction of new park amenities at the County of Los Angeles Stephen Sorensen Park. The report was prepared while under contract with ECORP Consulting, for inclusion in the environmental documentation.

The level of service analysis was provided for informational purposes, as intersection and roadway operational analysis is not required for California Environmental Quality Act (CEQA) analysis of proposed projects. Poor operations at the study intersections, with or without the Project, were not identified by the analysis, however.

A VMT screening analysis was provided, due to the low trip generating nature of the project, and the screening indicated that the project should be considered exempt from CEQA transportation analysis based on daily trip generation.

A. Project Location

The Project would provide new park amenities within the existing Stephen Sorensen Park: A 25,000-square-foot skate park, an 1,800-square-foot shade structure, a 1,600-square-foot concrete slab with fitness zone and shade structure, and a 2,500-square-foot gazebo. Access to and from the parking lots is provided via Avenue P.

Construction of the Project is planned by the County to occur between March 2022 and July 2023. Thus, the analysis assumes the Project will be completed within the year 2023.

B. Project Study Area

This study quantitatively assesses operations at three intersections in the vicinity. The weekday peak-period intersection (6:00 AM to 9:00 AM and 3:00 PM to 6:00 PM) counts were compiled from new counts conducted in the area. The following are the study intersections included in this analysis:

1. 170th Street and Lake Los Angeles Avenue
2. 170th Street and Avenue P
3. 170th Street and Palmdale Boulevard

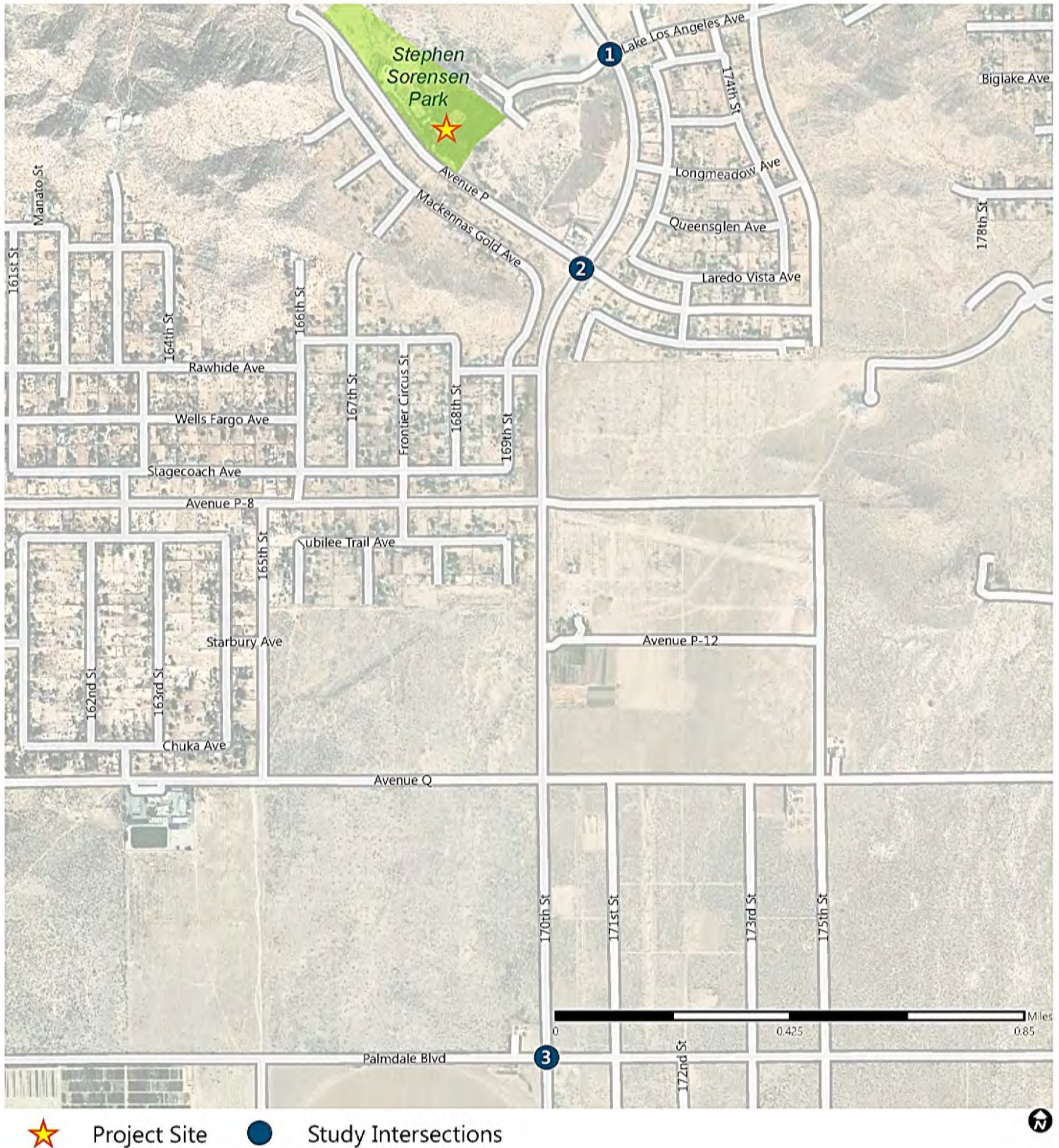
The Project site and traffic study area are illustrated on Figure 1. The traffic count summaries for the study intersections are provided in Attachment A.



KOA analyzed the trip distribution, trip assignment, and daily roadway volumes for the designated study area. In the sections that follow, operations with and without the proposed Project in the study area are discussed. A California Environmental Quality Act (CEQA) compliance review is also provided.

**Figure
1**

Stephen J. Sorensen Park Expansion Study Intersection Locations



2. Existing Conditions

The following describes the roadways in the traffic study area, as defined within Section 1.

Direct vehicular access to the Project site would be provided through the existing driveways, which connect to Avenue P at a point 1,500 to 2,500 feet west of 170th Street. Local access is provided primarily from 170th Street East to the east, and secondarily from 164th Street East to the west.

Further information on existing circulation in the study area is provided below. The following describes the project study area, and special facility characteristics present along the local roadway routes to and from the proposed Project site.

170th Street is a two-way, north-south major highway (as classified by the County of Los Angeles General Plan), which is located to the east of Sorensen Park. The roadway has a posted speed limit of 55 miles per hour south of Avenue P and 50 miles per hour north of Avenue P. A two-way cycle track (Class IV Bike Facility) parallels the roadway north of Avenue P..

Avenue P is a two-lane local residential roadway which runs along the park's southern boundary, continuing east to 175th Street. The roadway provides vehicle access to the park's parking lot. Avenue P does not have posted regulatory speed limit signs, and therefore the prima facie residential speed limit of 25 miles per hour (mph) applies.

Lake Los Angeles Avenue is a two-lane, east-west local residential roadway, which runs from west of 170th Street to 180th Street East. The roadway does not have posted regulatory speed limit signs, and therefore the prima facie residential speed limit of 25 miles per hour (mph) applies.

Palmdale Boulevard is a two-way, east-west major highway (as classified by the County of Los Angeles General Plan), which runs from 240th Street East (seven miles east of Lake Los Angeles) to Tierra Subida Avenue, in the city of Palmdale. Palmdale Boulevard intersects 170th Street 1 mile south of Sorensen Park. The roadway has a posted speed limit of 55 miles per hour

3. Project Trips

A. Trip Generation Totals

Project trip generation was calculated using the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 10th Edition*. The Public Park land use category was used to calculate the trips generated by the new park amenities. This land use category uses acreage as a base for calculating trips, and the amenities would be constructed within an approximate conglomerated park area of 0.7 acres.

The total acreage that the new amenities would encompass was applied as an input, to provide a conservative estimate. The highest trip generation rate in the range of public park rates for each period was used to simulate the most intense trip generation.

Based on the methodology above, the trip generation calculations are provided in Table 1. The Project amenities will generate 24 new trips a day during the week and 16 new trips a day on the weekend.

Table 1 – Project Vehicle Trip Generation Totals

ITE Code	Land Use	Intensity	Units	Weekday							*Weekend			
				Daily Trips	AM Peak Hour			PM Peak Hour			Daily Trips	Mid-day Peak Hour		
					Rate	In	Out	Rate	In	Out		Rate	In	Out
Trip Generation Rates														
411	Public Park ¹	-	Acres	34	4.5	59%	41%	3.5	55%	45%	22.8	5	39%	61%
Trip Generation Totals-New Use														
411	Public Park	0.709	Acres	24	3	2	1	2	1	1	16	4	2	2
Total				24	3	2	1	2	1	1	16	4	2	2

**Daily rate uses Saturday rate. Peak hour uses Sunday rate, as this was higher of the two weekend rates.*

1. Rates applied are highest in range of surveyed ITE rates, to be conservative

B. Project Trip Distribution

Project trips were distributed and assigned to the roadway network based on the location of nearby residential neighborhoods.

4. Study Area Operations Analysis

Existing Conditions

Based on the AM peak hour counts at the study intersection and the existing lane configuration and all-way stop control, existing average vehicle delay and level of service (LOS) were calculated. The calculations in Table 2 (existing) and Table 3 (existing with-Project) indicate that all of the study intersections currently operate at satisfactory LOS values.

**Table 2 – Project Study Intersections -
Existing Level-of-Service**

Study Intersections		AM Peak		PM Peak		Sat MD Peak	
		Delay	LOS	Delay	LOS	Delay	LOS
1	170th Street and Lake Los Angeles Avenue	12.1	B	13.1	B	14.0	B
2	170th Street and Avenue P	12.3	B	13.8	B	14.1	B
3	170th Street and Palmdale Boulevard	8.1	A	9.2	A	8.7	A

**Table 3 – Project Study Intersections -
Existing with Project Level-of-Service**

Study Intersections		AM Peak		PM Peak		Sat MD Peak	
		Delay	LOS	Delay	LOS	Delay	LOS
1	170th Street and Lake Los Angeles Avenue	12.1	B	13.1	B	14.1	B
2	170th Street and Avenue P	12.4	B	13.8	B	14.2	B
3	170th Street and Palmdale Boulevard	8.1	A	9.2	A	8.7	A

LOS = Level of Service; Delay (seconds)

Under existing with-Project conditions, all three study intersections would continue to operate at LOS A or B. The level of service worksheets are provided in Attachment B.

Future Conditions

KOA obtained a list of development projects in Lake Los Angeles from the Los Angeles County Department of Regional Planning. The development projects included in the analysis are listed in Table 4 and displayed in Attachment C.



Table 4 – List of Related Projects

No	Address	Land Use	Intens ty	Units	Daily	AM Peak Hour			PM Peak Hour			Weekend Daily ¹	Weekend Peak Hour		
						Total	In	Out	Total	In	Out		Total	In	Out
1	Rawhide Ave and 160 Street, Alpine Butte CA 93591	Single-Family Homes	1.0	Dwelling Units	9	1	0	1	1	1	0	10	1	0	1
2	17116 E Avenue O, Palmdale CA 93591	Fast-Food with Drive-Thru Window	7.641	KSF	3,599	307	157	150	250	130	120	3,611	421	219	202
3	39569 166th Street E, Palmdale CA 93591	Single-Family Homes	1.0	Dwelling Units	9	1	0	1	1	1	0	10	1	0	1
4	40513 Fieldspring Street, Lancaster CA 93535	Single-Family Homes	1.0	Dwelling Units	9	1	0	1	1	1	0	10	1	0	1
5	17215 Sweetaire Avenue, Lancaster CA 93535	Single-Family Homes	1.0	Dwelling Units	9	1	0	1	1	1	0	10	1	0	1
6	40659 174th Street E, Lake Los Angeles CA 93535	Single-Family Homes	1.0	Dwelling Units	9	1	0	1	1	1	0	10	1	0	1
7	17218 Lakespring Avenue, Lake Los Angeles CA 93591	Single-Family Homes	1.0	Dwelling Units	9	1	0	1	1	1	0	10	1	0	1
8	39385 168th Street E, Palmdale CA 93591	Single-Family Homes	2.0	Dwelling Units	19	1	0	1	2	1	1	19	2	1	1
9	40134 170th Street E #A & B, South Bldg., Palmdale CA 93591	High Turnover (Sit-Down) Restaurant	1.149	KSF	129	11	6	5	11	7	4	141	13	6	7
10	168th St E & Jubilee Trail Ave, Lake Los Angeles CA 93591	Single-Family Homes	1.0	Dwelling Units	9	1	0	1	1	1	0	10	1	0	1
11	40515 166th Street E, Lancaster CA 93535	Single-Family Homes	1.0	Dwelling Units	9	1	0	1	1	1	0	10	1	0	1
12	39505 167th Street E, Palmdale CA 93591	Single-Family Homes	1.0	Dwelling Units	9	1	0	1	1	1	0	10	1	0	1
13	Stagecoach Avenue Vic 168th St E, Lake Los Angeles CA 93591	Single-Family Homes	1.0	Dwelling Units	9	1	0	1	1	1	0	10	1	0	1
14	164th St and E Starsbury Avenue, Palmdale 93591	Single-Family Homes	1.000	Dwelling Units	9	1	0	1	1	1	0	10	1	0	1
15	40313 170th Street E, Palmdale CA 93591	Auto Parts Sales	7.225	KSF	400	19	10	9	35	17	18	0	0	0	0
16	166th Street and E Coolwater Avenue E, Palmdale CA 93591	Single-Family Homes	1.000	Dwelling Units	9	1	0	1	1	1	0	10	1	0	1
TOTALTRIPS:					4,255	350	173	177	310	167	143	3,891	448	226	222

1. Weekend Daily and Peak Hour Rates based off Sunday rates for Project Number 2 and off Saturday rates for all other projects.

Table 5 and Table 6 provide LOS calculations for the project completion year of 2023. KOA calculated future baseline volumes from the existing volumes by incorporating traffic from local related projects, which are development projects that are pending, awaiting approval, or under construction.

All intersections would operate at LOS C or better under Future without and Future with Project conditions. This analysis has been provided for informational purposes.

The level of service calculations are provided in Attachment B.

**Table 5 – Project Study Intersections -
Future without Project Level-of-Service**

Study Intersections		AM Peak		PM Peak		Sat MD Peak	
		Delay	LOS	Delay	LOS	Delay	LOS
1	170th Street and Lake Los Angeles Avenue	13.4	B	14.4	B	16.4	B
2	170th Street and Avenue P	13.6	B	15.1	C	16.3	B
3	170th Street and Palmdale Boulevard	8.2	A	9.4	A	8.9	A

LOS = Level of Service; Delay (seconds)

**Table 6 – Project Study Intersections -
Future with Project Level-of-Service**

Study Intersections		AM Peak		PM Peak		Sat MD Peak	
		Delay	LOS	Delay	LOS	Delay	LOS
1	170th Street and Lake Los Angeles Avenue	13.4	B	14.5	B	16.5	B
2	170th Street and Avenue P	13.7	B	15.2	C	16.3	B
3	170th Street and Palmdale Boulevard	8.2	A	9.4	A	9.0	A

LOS = Level of Service; Delay (seconds)

5. CEQA Review

Local agencies are required to adopt vehicle miles traveled (VMT) as a criterion in determining transportation impacts under the State of California Environmental Quality Act (CEQA). This adoption was required by Senate Bill (SB) 743 and the recent changes to Section 15064.3 of the CEQA Guidelines. VMT calculations provide a disclosure of regional impacts related to greenhouse gas production by motor vehicles. July 1, 2020, is the official State deadline for required compliance by local agencies. The County of Los Angeles Department of Public Works is underway with updates to local guidelines, but they had not been adopted as of the date of this report.

The methodology applied to this analysis is based on current published CEQA guidelines and the California Governor's Office of Planning and Research (OPR) *Technical Advisory on Evaluating Transportation Impacts in CEQA*, of December 2018. Senate Bill (SB) 743 has defined VMT as the primary metric for CEQA transportation impact analysis, and the Technical Advisory was created to guide CEQA transportation analysis efforts.

Standards

There are four screening standards for land use projects that are defined by the OPR Technical Advisory. These were applied to the project characteristics and location to determine if a project exemption from CEQA analysis would be the recommended course of action:

1. Screening Threshold for Small Projects
2. Map-Based Screening for Residential and Office Projects
3. Presumption of Less than Significant Impact Near Transit Stations
4. Presumption of Less Than Significant Impact for Affordable Residential Development

Criterion #1 – Small Projects

This criterion states that a project can be determined to have a less than significant impact due to project location, size, or land use type. The screening threshold is defined as follows:

"Absent substantial evidence indicating that a project would generate a potentially significant level of VMT, or inconsistency with a Sustainable Communities Strategy (SCS) or general plan, projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than significant transportation impact."

Criterion #2 – Residential and Office Projects

This criterion targets projects with residential and/or office land uses that are located in areas with low VMT characteristics that exhibit similar features can be determined to exhibit low VMT without causing impacts. Based on the project land use, Criterion #2 is not applicable to the project.

Criterion #3 – Presumption of Less than Significant Impact near Transit Stations

This criterion defines an exemption for projects located within a Transit Priority Area, which are defined by both OPR and the Southern California Association of Governments (SCAG).

Criterion #4 – Presumption of Less Than Significant Impact for Affordable Residential Development

This criterion applies to affordable housing only, and does not apply to the proposed project.

Analysis of Relevant Criteria

Review of Criterion #1

Criterion #1 can be analyzed based on the trip generation of the project. The trip generation as analyzed in the earlier report section indicated that the Project amenities would generate 24 new trips a day during the week and 16 new trips a day on the weekend. The project would therefore generate a daily trips total that is below the 110-trip threshold. Criterion #1 for an exemption is satisfied.

Review of Criterion #3

This criterion states that projects that are located within a Transit Priority Area (TPA) should be exempt from CEQA transportation analysis. In the SCAG area, the exemptions include High Quality Transit Areas (HQTAs). These areas are based on definitions of a HQTC (High-Quality Transit Corridor) from Senate Bill (SB) 743, which defined VMT as the primary metric for CEQA transportation impact analysis. As defined by the CEQA guidelines, major transit stops include rail, busway, or ferry stops/terminals, or the intersection of two or more major bus routes with a peak-period frequency of service interval of 15 minutes or better.

The project area does not have transit service that operates at 15 minutes or better during peak periods, and therefore the Project does not meet Criterion #3 for an exemption.



Summary

Based on the analysis provided above, the proposed Project is presumed to have a less than significant impact on VMT. Therefore, a CEQA VMT analysis is not required.

ATTACHMENT A –
STUDY INTERSECTION TURNING MOVEMENT
COUNT SUMMARY

County of Los Angeles
N/S: 170th Street East
E/W: Lake Los Angeles Avenue
Weather: Clear

File Name : 01_CLA_170th E_Lake LA AM
Site Code : 04120149
Start Date : 3/4/2020
Page No : 1

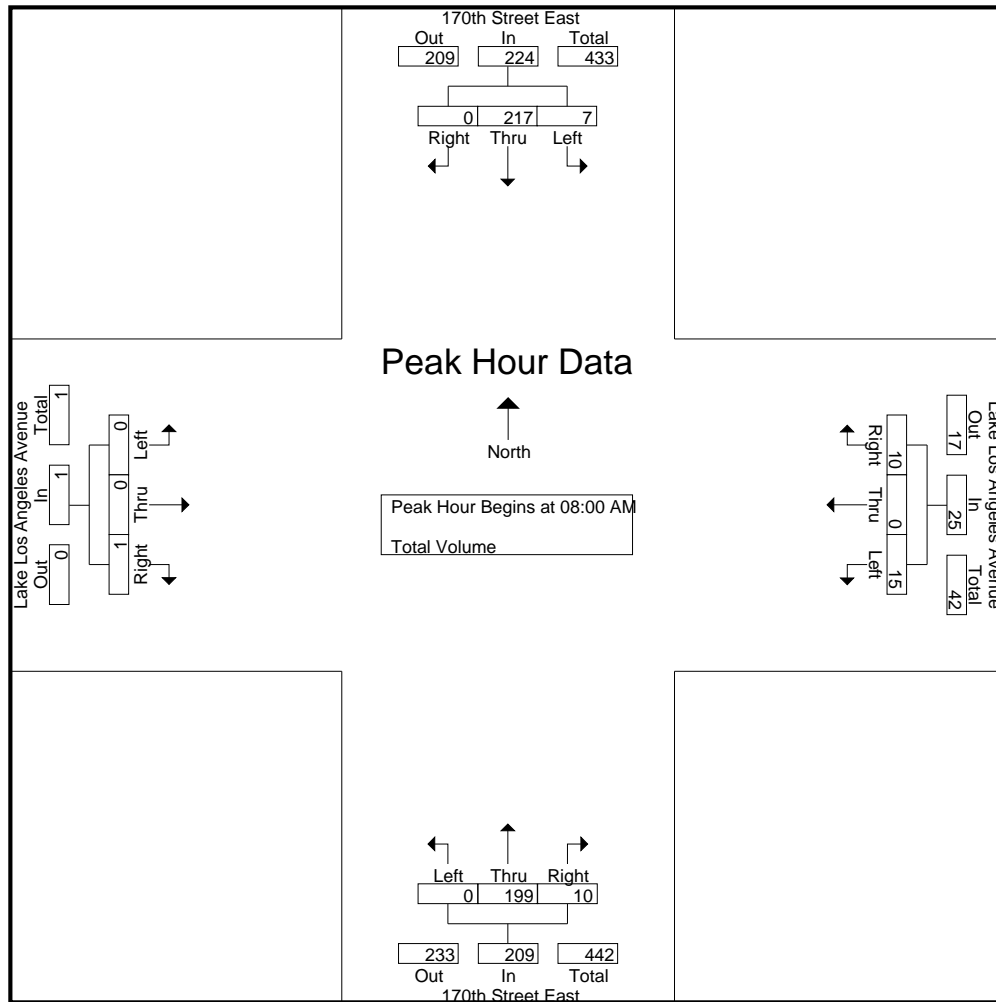
Groups Printed- Total Volume

	170th Street East Southbound				Lake Los Angeles Avenue Westbound				170th Street East Northbound				Lake Los Angeles Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	1	37	0	38	7	0	7	14	1	43	2	46	0	0	0	0	98
07:15 AM	0	38	0	38	6	0	3	9	0	40	2	42	0	0	1	1	90
07:30 AM	4	43	0	47	5	0	2	7	0	39	0	39	0	0	0	0	93
07:45 AM	0	35	0	35	4	0	3	7	0	44	5	49	0	0	0	0	91
Total	5	153	0	158	22	0	15	37	1	166	9	176	0	0	1	1	372
08:00 AM	4	53	0	57	3	0	5	8	0	39	3	42	0	0	1	1	108
08:15 AM	1	51	0	52	5	0	1	6	0	49	3	52	0	0	0	0	110
08:30 AM	1	74	0	75	2	0	2	4	0	61	2	63	0	0	0	0	142
08:45 AM	1	39	0	40	5	0	2	7	0	50	2	52	0	0	0	0	99
Total	7	217	0	224	15	0	10	25	0	199	10	209	0	0	1	1	459
Grand Total	12	370	0	382	37	0	25	62	1	365	19	385	0	0	2	2	831
Apprch %	3.1	96.9	0		59.7	0	40.3		0.3	94.8	4.9		0	0	100		
Total %	1.4	44.5	0	46	4.5	0	3	7.5	0.1	43.9	2.3	46.3	0	0	0.2	0.2	

	170th Street East Southbound				Lake Los Angeles Avenue Westbound				170th Street East Northbound				Lake Los Angeles Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	4	53	0	57	3	0	5	8	0	39	3	42	0	0	1	1	108
08:15 AM	1	51	0	52	5	0	1	6	0	49	3	52	0	0	0	0	110
08:30 AM	1	74	0	75	2	0	2	4	0	61	2	63	0	0	0	0	142
08:45 AM	1	39	0	40	5	0	2	7	0	50	2	52	0	0	0	0	99
Total Volume	7	217	0	224	15	0	10	25	0	199	10	209	0	0	1	1	459
% App. Total	3.1	96.9	0		60	0	40		0	95.2	4.8		0	0	100		
PHF	.438	.733	.000	.747	.750	.000	.500	.781	.000	.816	.833	.829	.000	.000	.250	.250	.808

County of Los Angeles
N/S: 170th Street East
E/W: Lake Los Angeles Avenue
Weather: Clear

File Name : 01_CLA_170th E_Lake LA AM
Site Code : 04120149
Start Date : 3/4/2020
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM				07:00 AM				08:00 AM				07:15 AM			
+0 mins.	4	53	0	57	7	0	7	14	0	39	3	42	0	0	1	1
+15 mins.	1	51	0	52	6	0	3	9	0	49	3	52	0	0	0	0
+30 mins.	1	74	0	75	5	0	2	7	0	61	2	63	0	0	0	0
+45 mins.	1	39	0	40	4	0	3	7	0	50	2	52	0	0	1	1
Total Volume	7	217	0	224	22	0	15	37	0	199	10	209	0	0	2	2
% App. Total	3.1	96.9	0		59.5	0	40.5		0	95.2	4.8		0	0	100	
PHF	.438	.733	.000	.747	.786	.000	.536	.661	.000	.816	.833	.829	.000	.000	.500	.500

County of Los Angeles
N/S: 170th Street East
E/W: Lake Los Angeles Avenue
Weather: Clear

File Name : 01_CLA_170th E_Lake LA PM
Site Code : 04120149
Start Date : 3/4/2020
Page No : 1

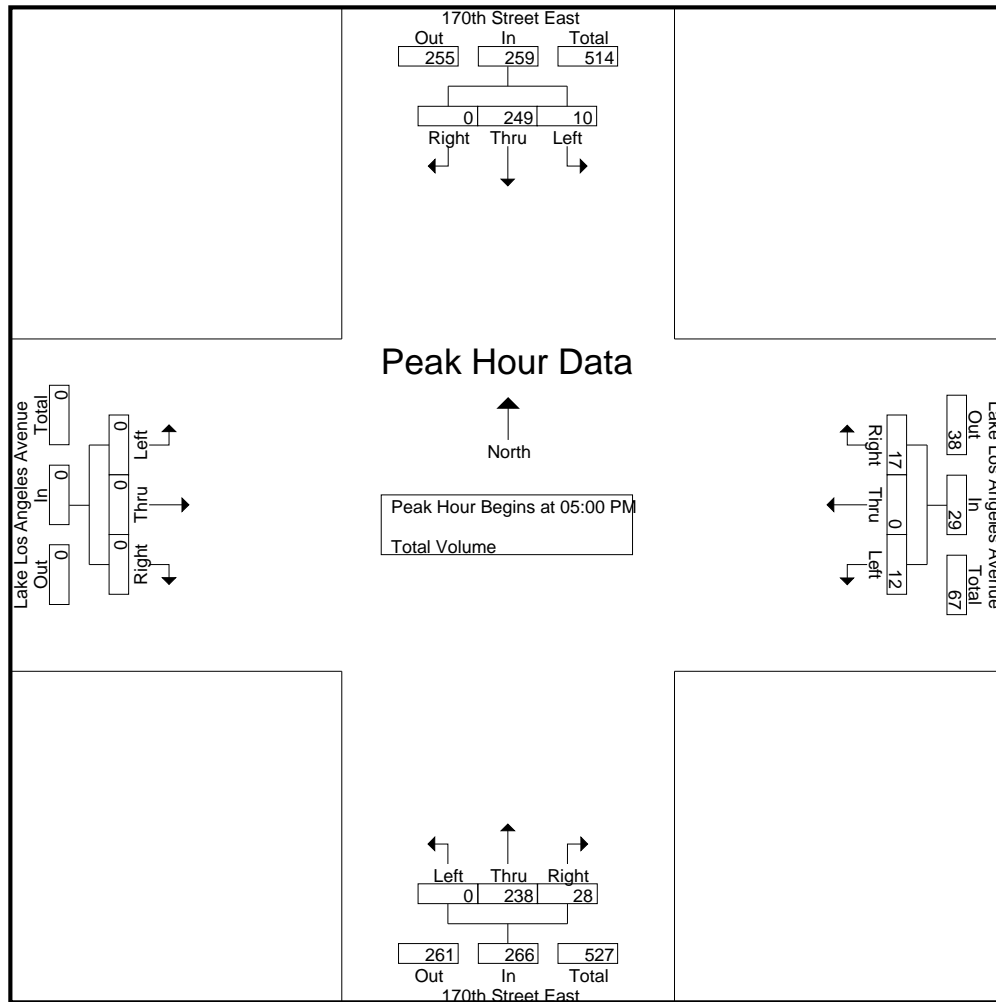
Groups Printed- Total Volume

	170th Street East Southbound				Lake Los Angeles Avenue Westbound				170th Street East Northbound				Lake Los Angeles Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	6	72	0	78	7	0	2	9	0	55	10	65	0	0	0	0	152
04:15 PM	3	56	0	59	4	0	2	6	1	56	6	63	0	0	0	0	128
04:30 PM	3	57	0	60	3	0	5	8	0	57	7	64	0	1	0	1	133
04:45 PM	1	81	0	82	1	0	0	1	0	42	9	51	0	0	0	0	134
Total	13	266	0	279	15	0	9	24	1	210	32	243	0	1	0	1	547
05:00 PM	1	65	0	66	1	0	3	4	0	52	9	61	0	0	0	0	131
05:15 PM	4	58	0	62	2	0	2	4	0	53	5	58	0	0	0	0	124
05:30 PM	2	66	0	68	5	0	4	9	0	55	7	62	0	0	0	0	139
05:45 PM	3	60	0	63	4	0	8	12	0	78	7	85	0	0	0	0	160
Total	10	249	0	259	12	0	17	29	0	238	28	266	0	0	0	0	554
Grand Total	23	515	0	538	27	0	26	53	1	448	60	509	0	1	0	1	1101
Apprch %	4.3	95.7	0		50.9	0	49.1		0.2	88	11.8		0	100	0		
Total %	2.1	46.8	0	48.9	2.5	0	2.4	4.8	0.1	40.7	5.4	46.2	0	0.1	0	0.1	

	170th Street East Southbound				Lake Los Angeles Avenue Westbound				170th Street East Northbound				Lake Los Angeles Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	1	65	0	66	1	0	3	4	0	52	9	61	0	0	0	0	131
05:15 PM	4	58	0	62	2	0	2	4	0	53	5	58	0	0	0	0	124
05:30 PM	2	66	0	68	5	0	4	9	0	55	7	62	0	0	0	0	139
05:45 PM	3	60	0	63	4	0	8	12	0	78	7	85	0	0	0	0	160
Total Volume	10	249	0	259	12	0	17	29	0	238	28	266	0	0	0	0	554
% App. Total	3.9	96.1	0		41.4	0	58.6		0	89.5	10.5		0	0	0		
PHF	.625	.943	.000	.952	.600	.000	.531	.604	.000	.763	.778	.782	.000	.000	.000	.000	.866

County of Los Angeles
N/S: 170th Street East
E/W: Lake Los Angeles Avenue
Weather: Clear

File Name : 01_CLA_170th E_Lake LA PM
Site Code : 04120149
Start Date : 3/4/2020
Page No : 2



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

	04:00 PM				05:00 PM				05:00 PM				04:00 PM			
+0 mins.	6	72	0	78	1	0	3	4	0	52	9	61	0	0	0	0
+15 mins.	3	56	0	59	2	0	2	4	0	53	5	58	0	0	0	0
+30 mins.	3	57	0	60	5	0	4	9	0	55	7	62	0	1	0	1
+45 mins.	1	81	0	82	4	0	8	12	0	78	7	85	0	0	0	0
Total Volume	13	266	0	279	12	0	17	29	0	238	28	266	0	1	0	1
% App. Total	4.7	95.3	0		41.4	0	58.6		0	89.5	10.5		0	100	0	
PHF	.542	.821	.000	.851	.600	.000	.531	.604	.000	.763	.778	.782	.000	.250	.000	.250

County of Los Angeles
N/S: 170th Street East
E/W: East Avenue P
Weather: Clear

File Name : 02_CLA_170th E_E Ave P AM
Site Code : 04120149
Start Date : 3/4/2020
Page No : 1

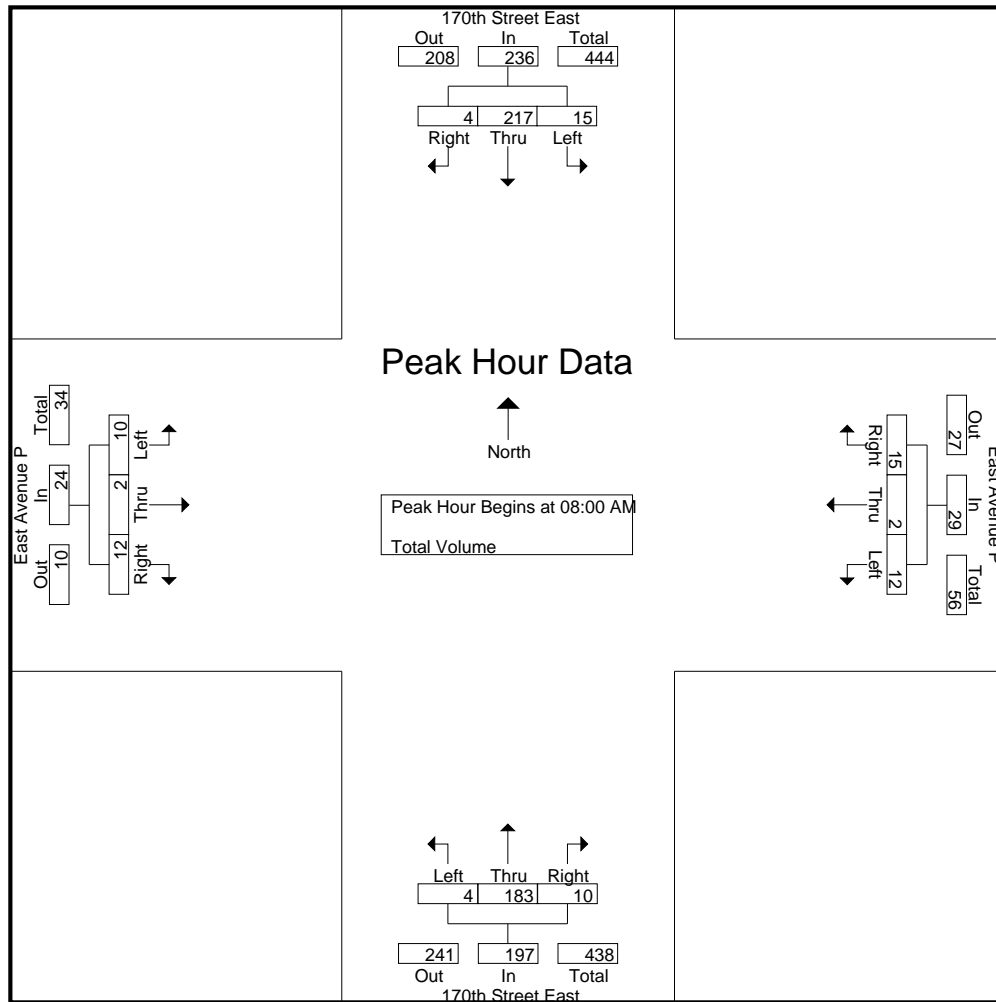
Groups Printed- Total Volume

	170th Street East Southbound				East Avenue P Westbound				170th Street East Northbound				East Avenue P Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	2	44	1	47	3	0	4	7	1	43	0	44	0	1	4	5	103
07:15 AM	5	41	3	49	2	1	4	7	1	34	3	38	3	1	1	5	99
07:30 AM	6	44	1	51	0	3	2	5	2	37	3	42	0	1	2	3	101
07:45 AM	3	32	2	37	1	1	3	5	2	36	0	38	0	1	4	5	85
Total	16	161	7	184	6	5	13	24	6	150	6	162	3	4	11	18	388
08:00 AM	4	48	0	52	1	0	5	6	0	33	3	36	2	0	0	2	96
08:15 AM	5	58	1	64	6	0	5	11	1	41	1	43	3	0	9	12	130
08:30 AM	3	70	3	76	3	2	2	7	2	58	2	62	3	1	2	6	151
08:45 AM	3	41	0	44	2	0	3	5	1	51	4	56	2	1	1	4	109
Total	15	217	4	236	12	2	15	29	4	183	10	197	10	2	12	24	486
Grand Total	31	378	11	420	18	7	28	53	10	333	16	359	13	6	23	42	874
Apprch %	7.4	90	2.6		34	13.2	52.8		2.8	92.8	4.5		31	14.3	54.8		
Total %	3.5	43.2	1.3	48.1	2.1	0.8	3.2	6.1	1.1	38.1	1.8	41.1	1.5	0.7	2.6	4.8	

	170th Street East Southbound				East Avenue P Westbound				170th Street East Northbound				East Avenue P Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	4	48	0	52	1	0	5	6	0	33	3	36	2	0	0	2	96
08:15 AM	5	58	1	64	6	0	5	11	1	41	1	43	3	0	9	12	130
08:30 AM	3	70	3	76	3	2	2	7	2	58	2	62	3	1	2	6	151
08:45 AM	3	41	0	44	2	0	3	5	1	51	4	56	2	1	1	4	109
Total Volume	15	217	4	236	12	2	15	29	4	183	10	197	10	2	12	24	486
% App. Total	6.4	91.9	1.7		41.4	6.9	51.7		2	92.9	5.1		41.7	8.3	50		
PHF	.750	.775	.333	.776	.500	.250	.750	.659	.500	.789	.625	.794	.833	.500	.333	.500	.805

County of Los Angeles
N/S: 170th Street East
E/W: East Avenue P
Weather: Clear

File Name : 02_CLA_170th E_E Ave P AM
Site Code : 04120149
Start Date : 3/4/2020
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM				07:45 AM				08:00 AM				07:45 AM			
+0 mins.	4	48	0	52	1	1	3	5	0	33	3	36	0	1	4	5
+15 mins.	5	58	1	64	1	0	5	6	1	41	1	43	2	0	0	2
+30 mins.	3	70	3	76	6	0	5	11	2	58	2	62	3	0	9	12
+45 mins.	3	41	0	44	3	2	2	7	1	51	4	56	3	1	2	6
Total Volume	15	217	4	236	11	3	15	29	4	183	10	197	8	2	15	25
% App. Total	6.4	91.9	1.7		37.9	10.3	51.7		2	92.9	5.1		32	8	60	
PHF	.750	.775	.333	.776	.458	.375	.750	.659	.500	.789	.625	.794	.667	.500	.417	.521

County of Los Angeles
N/S: 170th Street East
E/W: East Avenue P
Weather: Clear

File Name : 02_CLA_170th E_E Ave P PM
Site Code : 04120149
Start Date : 3/4/2020
Page No : 1

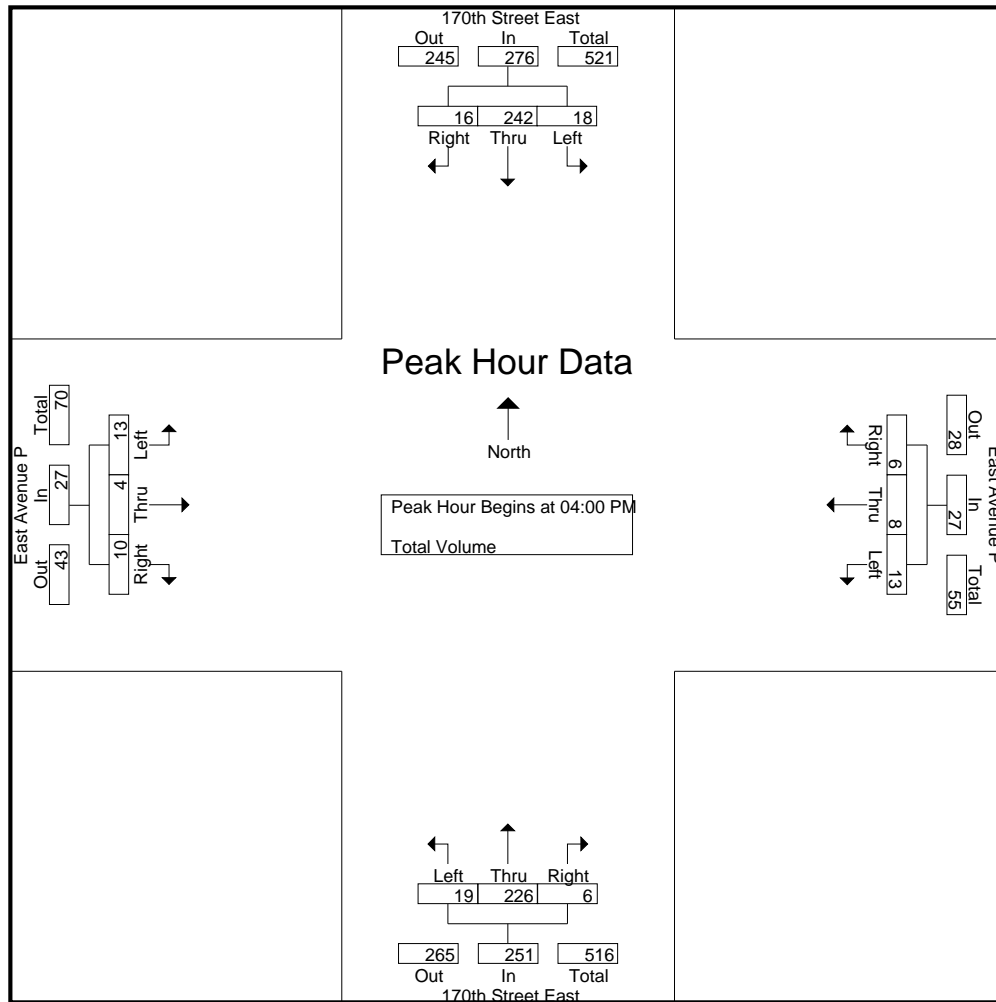
Groups Printed- Total Volume

	170th Street East Southbound				East Avenue P Westbound				170th Street East Northbound				East Avenue P Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	4	65	5	74	4	0	4	8	2	58	1	61	6	0	2	8	151
04:15 PM	3	53	5	61	2	2	2	6	6	61	3	70	1	0	4	5	142
04:30 PM	6	54	2	62	4	3	0	7	7	58	2	67	4	1	3	8	144
04:45 PM	5	70	4	79	3	3	0	6	4	49	0	53	2	3	1	6	144
Total	18	242	16	276	13	8	6	27	19	226	6	251	13	4	10	27	581
05:00 PM	3	56	4	63	2	0	4	6	0	50	3	53	6	3	0	9	131
05:15 PM	3	54	2	59	2	2	3	7	5	57	1	63	2	2	1	5	134
05:30 PM	2	69	5	76	2	2	1	5	2	58	3	63	0	0	3	3	147
05:45 PM	6	50	2	58	0	0	4	4	2	70	2	74	6	0	1	7	143
Total	14	229	13	256	6	4	12	22	9	235	9	253	14	5	5	24	555
Grand Total	32	471	29	532	19	12	18	49	28	461	15	504	27	9	15	51	1136
Apprch %	6	88.5	5.5		38.8	24.5	36.7		5.6	91.5	3		52.9	17.6	29.4		
Total %	2.8	41.5	2.6	46.8	1.7	1.1	1.6	4.3	2.5	40.6	1.3	44.4	2.4	0.8	1.3	4.5	

	170th Street East Southbound				East Avenue P Westbound				170th Street East Northbound				East Avenue P Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	4	65	5	74	4	0	4	8	2	58	1	61	6	0	2	8	151
04:15 PM	3	53	5	61	2	2	2	6	6	61	3	70	1	0	4	5	142
04:30 PM	6	54	2	62	4	3	0	7	7	58	2	67	4	1	3	8	144
04:45 PM	5	70	4	79	3	3	0	6	4	49	0	53	2	3	1	6	144
Total Volume	18	242	16	276	13	8	6	27	19	226	6	251	13	4	10	27	581
% App. Total	6.5	87.7	5.8		48.1	29.6	22.2		7.6	90	2.4		48.1	14.8	37		
PHF	.750	.864	.800	.873	.813	.667	.375	.844	.679	.926	.500	.896	.542	.333	.625	.844	.962

County of Los Angeles
N/S: 170th Street East
E/W: East Avenue P
Weather: Clear

File Name : 02_CLA_170th E_E Ave P PM
Site Code : 04120149
Start Date : 3/4/2020
Page No : 2



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

	04:45 PM				04:00 PM				05:00 PM				04:15 PM			
+0 mins.	5	70	4	79	4	0	4	8	0	50	3	53	1	0	4	5
+15 mins.	3	56	4	63	2	2	2	6	5	57	1	63	4	1	3	8
+30 mins.	3	54	2	59	4	3	0	7	2	58	3	63	2	3	1	6
+45 mins.	2	69	5	76	3	3	0	6	2	70	2	74	6	3	0	9
Total Volume	13	249	15	277	13	8	6	27	9	235	9	253	13	7	8	28
% App. Total	4.7	89.9	5.4		48.1	29.6	22.2		3.6	92.9	3.6		46.4	25	28.6	
PHF	.650	.889	.750	.877	.813	.667	.375	.844	.450	.839	.750	.855	.542	.583	.500	.778

County of Los Angeles
N/S: 170th Street East
E/W: East Palmdale Boulevard
Weather: Clear

File Name : 03_CLA_170th E_Palmdale AM
Site Code : 04120149
Start Date : 3/4/2020
Page No : 1

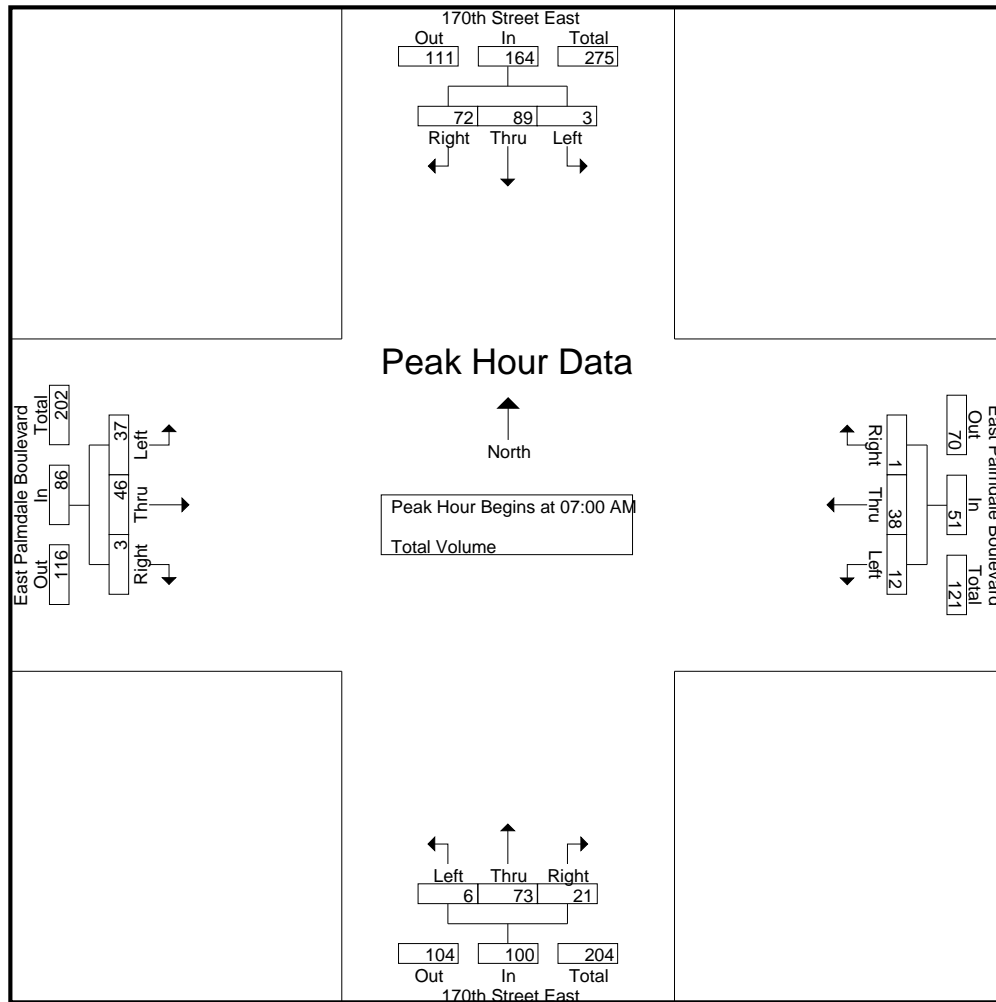
Groups Printed- Total Volume

	170th Street East Southbound				East Palmdale Boulevard Westbound				170th Street East Northbound				East Palmdale Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	19	22	41	3	17	0	20	0	22	5	27	4	5	2	11	99
07:15 AM	0	22	29	51	3	5	0	8	3	16	8	27	15	19	0	34	120
07:30 AM	2	25	8	35	1	8	1	10	1	20	5	26	9	11	1	21	92
07:45 AM	1	23	13	37	5	8	0	13	2	15	3	20	9	11	0	20	90
Total	3	89	72	164	12	38	1	51	6	73	21	100	37	46	3	86	401
08:00 AM	0	26	12	38	3	10	1	14	3	16	9	28	7	8	3	18	98
08:15 AM	1	24	20	45	0	8	0	8	0	25	3	28	9	2	1	12	93
08:30 AM	0	29	18	47	1	10	1	12	1	18	1	20	8	13	1	22	101
08:45 AM	0	19	18	37	2	7	0	9	1	18	6	25	8	6	0	14	85
Total	1	98	68	167	6	35	2	43	5	77	19	101	32	29	5	66	377
Grand Total	4	187	140	331	18	73	3	94	11	150	40	201	69	75	8	152	778
Apprch %	1.2	56.5	42.3		19.1	77.7	3.2		5.5	74.6	19.9		45.4	49.3	5.3		
Total %	0.5	24	18	42.5	2.3	9.4	0.4	12.1	1.4	19.3	5.1	25.8	8.9	9.6	1	19.5	

	170th Street East Southbound				East Palmdale Boulevard Westbound				170th Street East Northbound				East Palmdale Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	19	22	41	3	17	0	20	0	22	5	27	4	5	2	11	99
07:15 AM	0	22	29	51	3	5	0	8	3	16	8	27	15	19	0	34	120
07:30 AM	2	25	8	35	1	8	1	10	1	20	5	26	9	11	1	21	92
07:45 AM	1	23	13	37	5	8	0	13	2	15	3	20	9	11	0	20	90
Total Volume	3	89	72	164	12	38	1	51	6	73	21	100	37	46	3	86	401
% App. Total	1.8	54.3	43.9		23.5	74.5	2		6	73	21		43	53.5	3.5		
PHF	.375	.890	.621	.804	.600	.559	.250	.638	.500	.830	.656	.926	.617	.605	.375	.632	.835

County of Los Angeles
N/S: 170th Street East
E/W: East Palmdale Boulevard
Weather: Clear

File Name : 03_CLA_170th E_Palmdale AM
Site Code : 04120149
Start Date : 3/4/2020
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:00 AM				07:30 AM				07:15 AM			
+0 mins.	1	23	13	37	3	17	0	20	1	20	5	26	15	19	0	34
+15 mins.	0	26	12	38	3	5	0	8	2	15	3	20	9	11	1	21
+30 mins.	1	24	20	45	1	8	1	10	3	16	9	28	9	11	0	20
+45 mins.	0	29	18	47	5	8	0	13	0	25	3	28	7	8	3	18
Total Volume	2	102	63	167	12	38	1	51	6	76	20	102	40	49	4	93
% App. Total	1.2	61.1	37.7		23.5	74.5	2		5.9	74.5	19.6		43	52.7	4.3	
PHF	.500	.879	.788	.888	.600	.559	.250	.638	.500	.760	.556	.911	.667	.645	.333	.684

County of Los Angeles
N/S: 170th Street East
E/W: East Palmdale Boulevard
Weather: Clear

File Name : 03_CLA_170th E_Palmdale PM
Site Code : 04120149
Start Date : 3/4/2020
Page No : 1

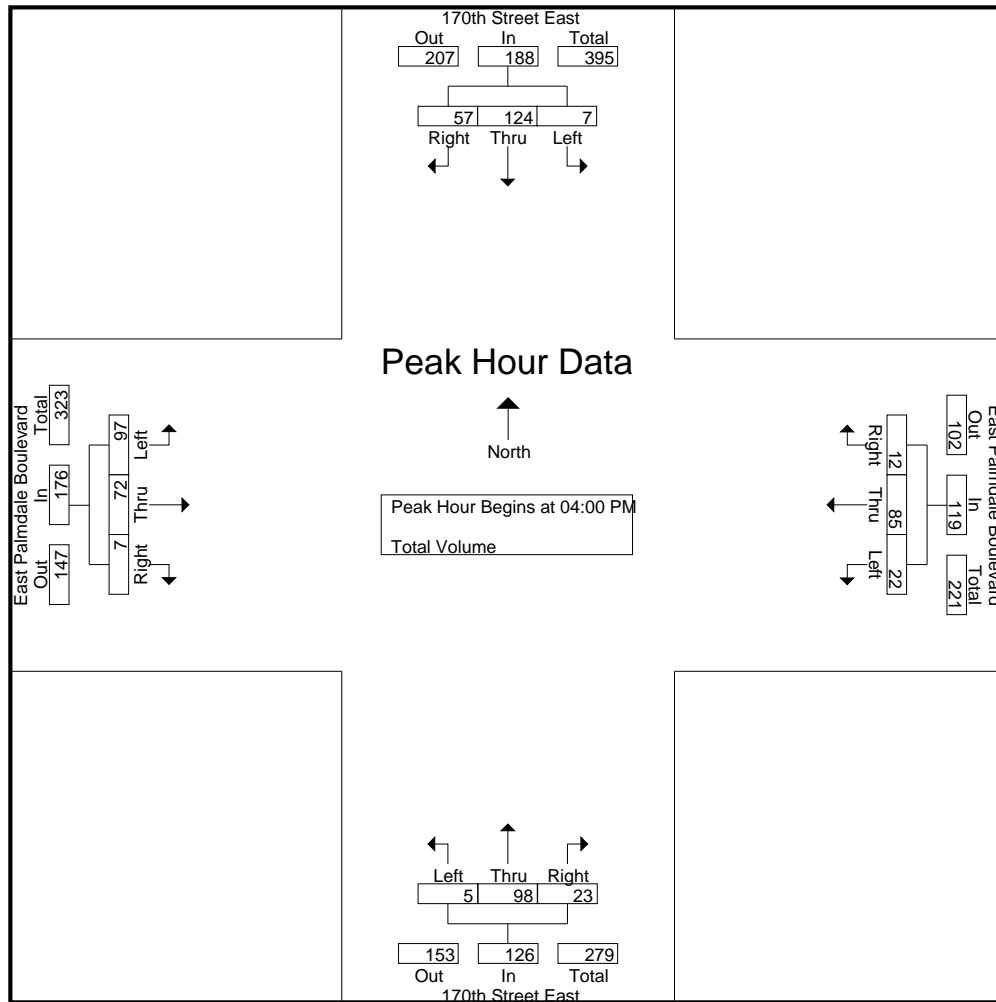
Groups Printed- Total Volume

	170th Street East Southbound				East Palmdale Boulevard Westbound				170th Street East Northbound				East Palmdale Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	3	41	13	57	10	37	4	51	0	25	7	32	30	15	2	47	187
04:15 PM	2	28	16	46	5	18	4	27	3	38	6	47	22	17	4	43	163
04:30 PM	1	23	11	35	4	17	3	24	2	18	4	24	24	18	1	43	126
04:45 PM	1	32	17	50	3	13	1	17	0	17	6	23	21	22	0	43	133
Total	7	124	57	188	22	85	12	119	5	98	23	126	97	72	7	176	609
05:00 PM	0	31	10	41	5	7	1	13	1	25	4	30	17	20	3	40	124
05:15 PM	1	28	13	42	2	6	0	8	1	30	7	38	24	24	1	49	137
05:30 PM	1	27	10	38	1	8	1	10	1	30	3	34	28	7	1	36	118
05:45 PM	1	35	13	49	2	5	0	7	1	33	4	38	19	16	0	35	129
Total	3	121	46	170	10	26	2	38	4	118	18	140	88	67	5	160	508
Grand Total	10	245	103	358	32	111	14	157	9	216	41	266	185	139	12	336	1117
Apprch %	2.8	68.4	28.8		20.4	70.7	8.9		3.4	81.2	15.4		55.1	41.4	3.6		
Total %	0.9	21.9	9.2	32.1	2.9	9.9	1.3	14.1	0.8	19.3	3.7	23.8	16.6	12.4	1.1	30.1	

	170th Street East Southbound				East Palmdale Boulevard Westbound				170th Street East Northbound				East Palmdale Boulevard Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	3	41	13	57	10	37	4	51	0	25	7	32	30	15	2	47	187
04:15 PM	2	28	16	46	5	18	4	27	3	38	6	47	22	17	4	43	163
04:30 PM	1	23	11	35	4	17	3	24	2	18	4	24	24	18	1	43	126
04:45 PM	1	32	17	50	3	13	1	17	0	17	6	23	21	22	0	43	133
Total Volume	7	124	57	188	22	85	12	119	5	98	23	126	97	72	7	176	609
% App. Total	3.7	66	30.3		18.5	71.4	10.1		4	77.8	18.3		55.1	40.9	4		
PHF	.583	.756	.838	.825	.550	.574	.750	.583	.417	.645	.821	.670	.808	.818	.438	.936	.814

County of Los Angeles
N/S: 170th Street East
E/W: East Palmdale Boulevard
Weather: Clear

File Name : 03_CLA_170th E_Palmdale PM
Site Code : 04120149
Start Date : 3/4/2020
Page No : 2



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

	04:00 PM				04:00 PM				05:00 PM				04:00 PM			
+0 mins.	3	41	13	57	10	37	4	51	1	25	4	30	30	15	2	47
+15 mins.	2	28	16	46	5	18	4	27	1	30	7	38	22	17	4	43
+30 mins.	1	23	11	35	4	17	3	24	1	30	3	34	24	18	1	43
+45 mins.	1	32	17	50	3	13	1	17	1	33	4	38	21	22	0	43
Total Volume	7	124	57	188	22	85	12	119	4	118	18	140	97	72	7	176
% App. Total	3.7	66	30.3		18.5	71.4	10.1		2.9	84.3	12.9		55.1	40.9	4	
PHF	.583	.756	.838	.825	.550	.574	.750	.583	1.000	.894	.643	.921	.808	.818	.438	.936



ATTACHMENT B –
LEVEL OF SERVICE WORKSHEETS

Sorensen Park TIS

Vistro File: J:\...\Analysis_JB91218.vistro

Scenario 1 Existing AM

Report File: J:\...\Ex AM.pdf

3/20/2020

Intersection Analysis Summary





ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Lake Los Angeles Ave/ 170th St E	Two-way stop	HCM 6th Edition	WB Left	0.028	12.1	B
2	E Avenue P/ 170th St E	Two-way stop	HCM 6th Edition	EB Left	0.020	12.3	B
3	E Palmdale Blvd/ 170th St E	All-way stop	HCM 6th Edition	EB Thru	0.188	8.1	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Lake Los Angeles Ave/ 170th St E

Control Type:	Two-way stop	Delay (sec / veh):	12.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.028

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	10.00	12.00	12.00	10.00	13.00	13.00	16.00	16.00	16.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	110.00	100.00	100.00	90.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	50.00			50.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	199	10	7	217	0	0	0	1	15	0	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	199	10	7	217	0	0	0	1	15	0	10
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	50	3	2	54	0	0	0	0	4	0	3
Total Analysis Volume [veh/h]	0	199	10	7	217	0	0	0	1	15	0	10
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results





V/C, Movement V/C Ratio	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.01
d_M, Delay for Movement [s/veh]	7.66	0.00	0.00	7.66	0.00	0.00	11.94	12.09	9.38	12.06	12.28	9.55
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.13	0.13	0.13
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.39	0.00	0.00	0.09	0.09	0.09	3.15	3.15	3.15
d_A, Approach Delay [s/veh]	0.00			0.24			9.38			11.05		
Approach LOS	A			A			A			B		
d_I, Intersection Delay [s/veh]	0.74											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 2: E Avenue P/ 170th St E

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 1 hour

Delay (sec / veh): 12.3
 Level Of Service: B
 Volume to Capacity (v/c): 0.020

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	0	0	1	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	295.00	100.00	100.00	206.00	265.00	100.00	100.00	95.00	100.00	100.00
Speed [mph]	55.00			50.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	4	183	10	15	217	4	10	2	12	12	2	15
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	183	10	15	217	4	10	2	12	12	2	15
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	46	3	4	54	1	3	1	3	3	1	4
Total Analysis Volume [veh/h]	4	183	10	15	217	4	10	2	12	12	2	15
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.02	0.00	0.02
d_M, Delay for Movement [s/veh]	7.68	0.00	0.00	7.64	0.00	0.00	12.32	12.32	9.47	12.28	12.27	9.29
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.00	0.03	0.03	0.00	0.06	0.06	0.06	0.07	0.07	0.07
95th-Percentile Queue Length [ft/ln]	0.22	0.22	0.00	0.82	0.82	0.00	1.53	1.42	1.42	1.82	1.64	1.64
d_A, Approach Delay [s/veh]	0.16			0.49			10.89			10.73		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	1.48											
Intersection LOS	B											





Intersection Level Of Service Report

Intersection 3: E Palmdale Blvd/ 170th St E

Control Type: All-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 1 hour

Delay (sec / veh): 8.1
 Level Of Service: A
 Volume to Capacity (v/c): 0.188

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	12.00	12.00	12.00	11.00	11.00	11.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	6	73	21	3	89	72	37	46	3	12	38	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	73	21	3	89	72	37	46	3	12	38	1
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	18	5	1	22	18	9	12	1	3	10	0
Total Analysis Volume [veh/h]	6	73	21	3	89	72	37	46	3	12	38	1
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	832	874	776	773
Degree of Utilization, x	0.12	0.19	0.11	0.07

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.41	0.69	0.37	0.21
95th-Percentile Queue Length [ft]	10.23	17.29	9.35	5.30
Approach Delay [s/veh]	7.92	8.07	8.22	7.99
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	8.05			
Intersection LOS	A			

Sorensen Park TIS

Vistro File: J:\...\Analysis_JB91218.vistro

Scenario 1 Existing AM

Report File: J:\...\Ex AM.pdf

3/20/2020

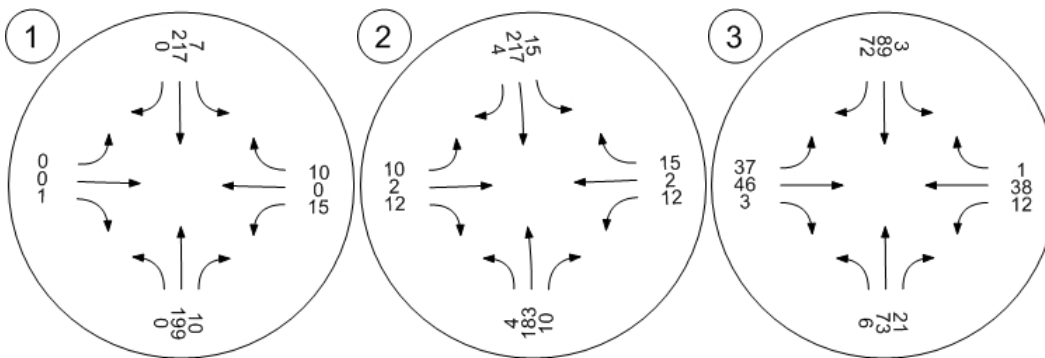
Turning Movement Volume: Summary

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Lake Los Angeles Ave/ 170th St E	0	199	10	7	217	0	0	0	1	15	0	10	459

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
2	E Avenue P/ 170th St E	4	183	10	15	217	4	10	2	12	12	2	15	486

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3	E Palmdale Blvd/ 170th St E	6	73	21	3	89	72	37	46	3	12	38	1	401

Traffic Volume - Future Total Volume



Sorensen Park TIS

Vistro File: J:\...\Analysis_JB91218.vistro

Scenario 2 Existing Pm

Report File: J:\...\Ex PM.pdf

3/20/2020

Intersection Analysis Summary





ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Lake Los Angeles Ave/ 170th St E	Two-way stop	HCM 6th Edition	WB Left	0.026	13.1	B
2	E Avenue P/ 170th St E	Two-way stop	HCM 6th Edition	WB Left	0.031	13.8	B
3	E Palmdale Blvd/ 170th St E	All-way stop	HCM 6th Edition	EB Left	0.245	9.2	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Lake Los Angeles Ave/ 170th St E

Control Type:	Two-way stop	Delay (sec / veh):	13.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.026

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	10.00	12.00	12.00	10.00	13.00	13.00	16.00	16.00	16.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	110.00	100.00	100.00	90.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	50.00			50.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	238	28	10	249	0	0	0	0	12	0	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	238	28	10	249	0	0	0	0	12	0	17
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	60	7	3	62	0	0	0	0	3	0	4
Total Analysis Volume [veh/h]	0	238	28	10	249	0	0	0	0	12	0	17
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results





V/C, Movement V/C Ratio	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.02
d_M, Delay for Movement [s/veh]	7.73	0.00	0.00	7.80	0.00	0.00	13.05	13.03	9.56	13.07	13.18	9.87
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.15	0.15	0.15
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.58	0.00	0.00	0.00	0.00	0.00	3.74	3.74	3.74
d_A, Approach Delay [s/veh]	0.00			0.30			11.88			11.19		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	0.73											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 2: E Avenue P/ 170th St E

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 1 hour

Delay (sec / veh): 13.8
 Level Of Service: B
 Volume to Capacity (v/c): 0.031

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	0	0	1	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	295.00	100.00	100.00	206.00	265.00	100.00	100.00	95.00	100.00	100.00
Speed [mph]	55.00			50.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	19	226	6	18	242	16	13	4	10	13	8	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	226	6	18	242	16	13	4	10	13	8	6
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	57	2	5	61	4	3	1	3	3	2	2
Total Analysis Volume [veh/h]	19	226	6	18	242	16	13	4	10	13	8	6
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.00	0.03	0.01	0.01	0.03	0.02	0.01
d_M, Delay for Movement [s/veh]	7.80	0.00	0.00	7.73	0.00	0.00	13.76	13.50	9.64	13.81	13.67	9.61
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh/ln]	0.04	0.04	0.00	0.04	0.04	0.00	0.09	0.07	0.07	0.10	0.08	0.08
95th-Percentile Queue Length [ft/ln]	1.11	1.11	0.00	1.02	1.02	0.00	2.37	1.68	1.68	2.38	2.02	2.02
d_A, Approach Delay [s/veh]	0.59			0.50			12.19			12.83		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	1.66											
Intersection LOS	B											





Intersection Level Of Service Report

Intersection 3: E Palmdale Blvd/ 170th St E

Control Type: All-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 1 hour

Delay (sec / veh): 9.2
 Level Of Service: A
 Volume to Capacity (v/c): 0.245

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	12.00	12.00	12.00	11.00	11.00	11.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	5	98	23	7	124	57	97	72	7	22	85	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	98	23	7	124	57	97	72	7	22	85	12
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	25	6	2	31	14	24	18	2	6	21	3
Total Analysis Volume [veh/h]	5	98	23	7	124	57	97	72	7	22	85	12
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	745	769	726	730
Degree of Utilization, x	0.17	0.24	0.24	0.16

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.61	0.97	0.96	0.58
95th-Percentile Queue Length [ft]	15.25	24.20	23.90	14.57
Approach Delay [s/veh]	8.82	9.20	9.54	8.89
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	9.16			
Intersection LOS	A			

Sorensen Park TIS

Vistro File: J:\...\Analysis_JB91218.vistro

Scenario 2 Existing Pm

Report File: J:\...\Ex PM.pdf

3/20/2020

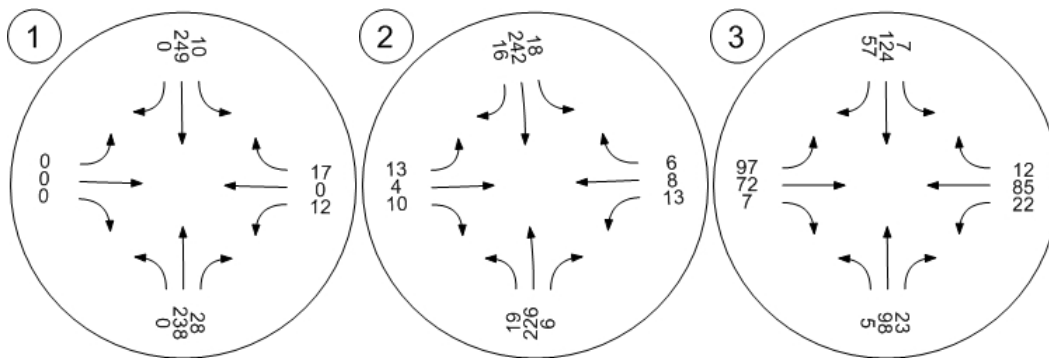
Turning Movement Volume: Summary

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Lake Los Angeles Ave/ 170th St E	0	238	28	10	249	0	0	0	0	12	0	17	554

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
2	E Avenue P/ 170th St E	19	226	6	18	242	16	13	4	10	13	8	6	581

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3	E Palmdale Blvd/ 170th St E	5	98	23	7	124	57	97	72	7	22	85	12	609

Traffic Volume - Future Total Volume



Sorensen Park TIS

Vistro File: J:\...\Analysis_JB91218.vistro

Scenario 3 Existing Weekend

Report File: J:\...\Ex Sat MD.pdf

3/20/2020

Intersection Analysis Summary





ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Lake Los Angeles Ave/ 170th St E	Two-way stop	HCM 6th Edition	WB Left	0.045	14.0	B
2	E Avenue P/ 170th St E	Two-way stop	HCM 6th Edition	WB Left	0.044	14.1	B
3	E Palmdale Blvd/ 170th St E	All-way stop	HCM 6th Edition	EB Left	0.227	8.7	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Lake Los Angeles Ave/ 170th St E

Control Type:	Two-way stop	Delay (sec / veh):	14.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.045

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	10.00	12.00	12.00	10.00	13.00	13.00	16.00	16.00	16.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	110.00	100.00	100.00	90.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	50.00			50.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	3	241	24	24	265	2	3	1	1	19	0	19
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	241	24	24	265	2	3	1	1	19	0	19
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	60	6	6	66	1	1	0	0	5	0	5
Total Analysis Volume [veh/h]	3	241	24	24	265	2	3	1	1	19	0	19
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.02	0.00	0.00	0.01	0.00	0.00	0.05	0.00	0.02
d_M, Delay for Movement [s/veh]	7.78	0.00	0.00	7.82	0.00	0.00	13.93	13.78	9.75	14.03	14.06	10.07
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	B
95th-Percentile Queue Length [veh/ln]	0.01	0.00	0.00	0.06	0.00	0.00	0.03	0.03	0.03	0.22	0.22	0.22
95th-Percentile Queue Length [ft/ln]	0.17	0.00	0.00	1.41	0.00	0.00	0.84	0.84	0.84	5.58	5.58	5.58
d_A, Approach Delay [s/veh]	0.09			0.65			13.06			12.05		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	1.22											
Intersection LOS	B											





Intersection Level Of Service Report

Intersection 2: E Avenue P/ 170th St E

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 1 hour

Delay (sec / veh): 14.1
 Level Of Service: B
 Volume to Capacity (v/c): 0.044

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	0	0	1	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	295.00	100.00	100.00	206.00	265.00	100.00	100.00	95.00	100.00	100.00
Speed [mph]	55.00			50.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	13	241	10	26	240	14	7	6	6	18	2	23
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	13	241	10	26	240	14	7	6	6	18	2	23
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	60	3	7	60	4	2	2	2	5	1	6
Total Analysis Volume [veh/h]	13	241	10	26	240	14	7	6	6	18	2	23
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.02	0.00	0.00	0.02	0.01	0.01	0.04	0.00	0.03
d_M, Delay for Movement [s/veh]	7.77	0.00	0.00	7.79	0.00	0.00	14.08	13.78	9.65	14.14	13.84	9.68
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh/ln]	0.03	0.03	0.00	0.06	0.06	0.00	0.05	0.07	0.07	0.14	0.10	0.10
95th-Percentile Queue Length [ft/ln]	0.75	0.75	0.00	1.51	1.51	0.00	1.32	1.68	1.68	3.42	2.61	2.61
d_A, Approach Delay [s/veh]	0.38			0.72			12.59			11.74		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	1.73											
Intersection LOS	B											





Intersection Level Of Service Report

Intersection 3: E Palmdale Blvd/ 170th St E

Control Type: All-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 1 hour

Delay (sec / veh): 8.7
 Level Of Service: A
 Volume to Capacity (v/c): 0.227

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	12.00	12.00	12.00	11.00	11.00	11.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	10	92	12	5	107	76	94	50	9	14	34	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	92	12	5	107	76	94	50	9	14	34	5
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	23	3	1	27	19	24	13	2	4	9	1
Total Analysis Volume [veh/h]	10	92	12	5	107	76	94	50	9	14	34	5
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	778	827	751	744
Degree of Utilization, x	0.15	0.23	0.20	0.07

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.51	0.88	0.77	0.23
95th-Percentile Queue Length [ft]	12.85	22.02	19.13	5.74
Approach Delay [s/veh]	8.42	8.64	9.02	8.21
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	8.66			
Intersection LOS	A			

Sorensen Park TIS

Vistro File: J:\...\Analysis_JB91218.vistro

Scenario 3 Existing Weekend

Report File: J:\...\Ex Sat MD.pdf

3/20/2020

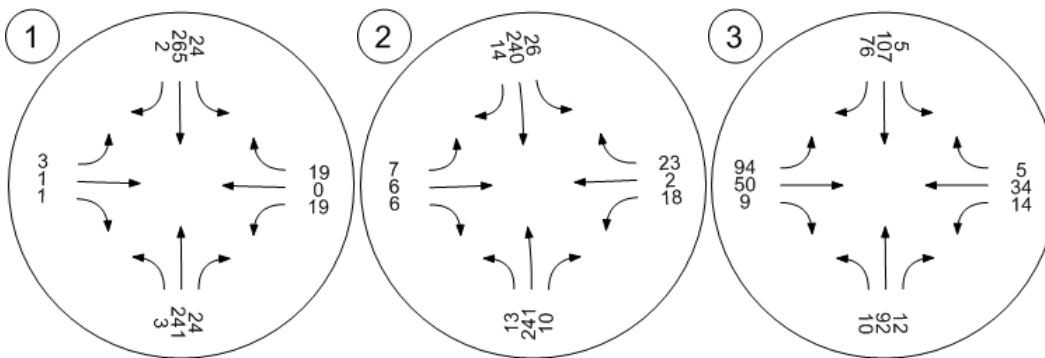
Turning Movement Volume: Summary

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Lake Los Angeles Ave/ 170th St E	3	241	24	24	265	2	3	1	1	19	0	19	602

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
2	E Avenue P/ 170th St E	13	241	10	26	240	14	7	6	6	18	2	23	606

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3	E Palmdale Blvd/ 170th St E	10	92	12	5	107	76	94	50	9	14	34	5	508

Traffic Volume - Future Total Volume



Sorensen Park TIS

Vistro File: J:\...\Analysis_JB91218.vistro

Scenario 4 Ex+Proj AM

Report File: J:\...\Ex+Proj AM.pdf

3/20/2020

Intersection Analysis Summary





ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Lake Los Angeles Ave/ 170th St E	Two-way stop	HCM 6th Edition	WB Left	0.028	12.1	B
2	E Avenue P/ 170th St E	Two-way stop	HCM 6th Edition	EB Left	0.022	12.4	B
3	E Palmdale Blvd/ 170th St E	All-way stop	HCM 6th Edition	EB Thru	0.188	8.1	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Lake Los Angeles Ave/ 170th St E

Control Type:	Two-way stop	Delay (sec / veh):	12.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.028

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	10.00	12.00	12.00	10.00	13.00	13.00	16.00	16.00	16.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	110.00	100.00	100.00	90.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	50.00			50.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	199	10	7	217	0	0	0	1	15	0	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	1	0	0	1	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	200	10	7	218	0	0	0	1	15	0	10
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	50	3	2	55	0	0	0	0	4	0	3
Total Analysis Volume [veh/h]	0	200	10	7	218	0	0	0	1	15	0	10
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results





V/C, Movement V/C Ratio	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.01
d_M, Delay for Movement [s/veh]	7.66	0.00	0.00	7.66	0.00	0.00	11.96	12.10	9.39	12.08	12.30	9.55
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.13	0.13	0.13
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.39	0.00	0.00	0.09	0.09	0.09	3.16	3.16	3.16
d_A, Approach Delay [s/veh]	0.00			0.24			9.39			11.07		
Approach LOS	A			A			A			B		
d_I, Intersection Delay [s/veh]	0.74											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 2: E Avenue P/ 170th St E

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 1 hour

Delay (sec / veh): 12.4
 Level Of Service: B
 Volume to Capacity (v/c): 0.022

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	0	0	1	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	295.00	100.00	100.00	206.00	265.00	100.00	100.00	95.00	100.00	100.00
Speed [mph]	55.00			50.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	4	183	10	15	217	4	10	2	12	12	2	15
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	0	0	0	0	1	1	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	183	10	15	217	5	11	2	12	12	2	15
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	46	3	4	54	1	3	1	3	3	1	4
Total Analysis Volume [veh/h]	5	183	10	15	217	5	11	2	12	12	2	15
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.02	0.00	0.02
d_M, Delay for Movement [s/veh]	7.68	0.00	0.00	7.64	0.00	0.00	12.37	12.35	9.47	12.31	12.31	9.29
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.00	0.03	0.03	0.00	0.07	0.06	0.06	0.07	0.07	0.07
95th-Percentile Queue Length [ft/ln]	0.28	0.28	0.00	0.82	0.82	0.00	1.69	1.42	1.42	1.83	1.64	1.64
d_A, Approach Delay [s/veh]	0.19			0.48			10.97			10.75		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	1.51											
Intersection LOS	B											





Intersection Level Of Service Report

Intersection 3: E Palmdale Blvd/ 170th St E

Control Type: All-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 1 hour

Delay (sec / veh): 8.1
 Level Of Service: A
 Volume to Capacity (v/c): 0.188

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	12.00	12.00	12.00	11.00	11.00	11.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	6	73	21	3	89	72	37	46	3	12	38	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	1	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	73	21	3	89	72	38	46	3	12	38	1
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	18	5	1	22	18	10	12	1	3	10	0
Total Analysis Volume [veh/h]	6	73	21	3	89	72	38	46	3	12	38	1
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	831	874	775	772
Degree of Utilization, x	0.12	0.19	0.11	0.07

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.41	0.69	0.38	0.21
95th-Percentile Queue Length [ft]	10.24	17.30	9.47	5.30
Approach Delay [s/veh]	7.92	8.07	8.23	7.99
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	8.06			
Intersection LOS	A			

Sorensen Park TIS

Vistro File: J:\...\Analysis_JB91218.vistro

Scenario 4 Ex+Proj AM

Report File: J:\...\Ex+Proj AM.pdf

3/20/2020

Turning Movement Volume: Summary

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Lake Los Angeles Ave/ 170th St E	0	200	10	7	218	0	0	0	1	15	0	10	461

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
2	E Avenue P/ 170th St E	5	183	10	15	217	5	11	2	12	12	2	15	489

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3	E Palmdale Blvd/ 170th St E	6	73	21	3	89	72	38	46	3	12	38	1	402

Sorensen Park TIS

Vistro File: J:\...\Analysis_JB91218.vistro

Scenario 4 Ex+Proj AM

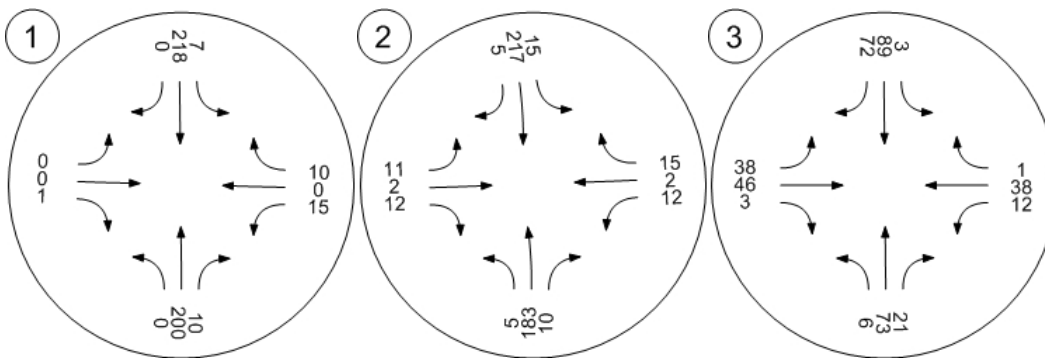
Report File: J:\...\Ex+Proj AM.pdf

3/20/2020

Trip Generation summary**Added Trips**

Zone ID: Name	Land Use variables	Code	Ind. Var.	Rate	Quantity	% In	% Out	Trips In	Trips Out	Total Trips	% of Total Trips
1: Zone	Public Park	411	Acres	1.000	0.000	50.00	50.00	2	1	3	100.00
Added Trips Total								2	1	3	100.00

Traffic Volume - Future Total Volume



Sorensen Park TIS

Vistro File: J:\...\Analysis_JB91218.vistro

Scenario 5 Ex+Proj PM

Report File: J:\...\Ex+Proj PM.pdf

3/20/2020

Intersection Analysis Summary





ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Lake Los Angeles Ave/ 170th St E	Two-way stop	HCM 6th Edition	WB Left	0.026	13.1	B
2	E Avenue P/ 170th St E	Two-way stop	HCM 6th Edition	WB Left	0.031	13.8	B
3	E Palmdale Blvd/ 170th St E	All-way stop	HCM 6th Edition	EB Left	0.245	9.2	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Lake Los Angeles Ave/ 170th St E

Control Type:	Two-way stop	Delay (sec / veh):	13.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.026

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	10.00	12.00	12.00	10.00	13.00	13.00	16.00	16.00	16.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	110.00	100.00	100.00	90.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	50.00			50.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	238	28	10	249	0	0	0	0	12	0	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	1	0	0	1	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	239	28	10	250	0	0	0	0	12	0	17
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	60	7	3	63	0	0	0	0	3	0	4
Total Analysis Volume [veh/h]	0	239	28	10	250	0	0	0	0	12	0	17
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.02
d_M, Delay for Movement [s/veh]	7.74	0.00	0.00	7.80	0.00	0.00	13.07	13.06	9.56	13.09	13.20	9.88
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.15	0.15	0.15
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.58	0.00	0.00	0.00	0.00	0.00	3.75	3.75	3.75
d_A, Approach Delay [s/veh]	0.00			0.30			11.90			11.21		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	0.72											
Intersection LOS	B											





Intersection Level Of Service Report

Intersection 2: E Avenue P/ 170th St E

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 1 hour

Delay (sec / veh): 13.8
 Level Of Service: B
 Volume to Capacity (v/c): 0.031

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	0	0	1	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	295.00	100.00	100.00	206.00	265.00	100.00	100.00	95.00	100.00	100.00
Speed [mph]	55.00			50.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	19	226	6	18	242	16	13	4	10	13	8	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	1	1	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	19	226	6	18	242	17	14	4	10	13	8	6
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	57	2	5	61	4	4	1	3	3	2	2
Total Analysis Volume [veh/h]	19	226	6	18	242	17	14	4	10	13	8	6
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.01	0.00	0.00	0.03	0.01	0.01	0.03	0.02	0.01
d_M, Delay for Movement [s/veh]	7.80	0.00	0.00	7.73	0.00	0.00	13.78	13.50	9.64	13.81	13.68	9.61
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh/ln]	0.04	0.04	0.00	0.04	0.04	0.00	0.10	0.07	0.07	0.10	0.08	0.08
95th-Percentile Queue Length [ft/ln]	1.11	1.11	0.00	1.02	1.02	0.00	2.56	1.68	1.68	2.39	2.02	2.02
d_A, Approach Delay [s/veh]	0.59			0.50			12.26			12.84		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	1.68											
Intersection LOS	B											





Intersection Level Of Service Report

Intersection 3: E Palmdale Blvd/ 170th St E

Control Type: All-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 1 hour

Delay (sec / veh): 9.2
 Level Of Service: A
 Volume to Capacity (v/c): 0.245

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	12.00	12.00	12.00	11.00	11.00	11.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	5	98	23	7	124	57	97	72	7	22	85	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	98	23	7	124	57	97	72	7	22	85	12
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	25	6	2	31	14	24	18	2	6	21	3
Total Analysis Volume [veh/h]	5	98	23	7	124	57	97	72	7	22	85	12
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	745	769	726	730
Degree of Utilization, x	0.17	0.24	0.24	0.16

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.61	0.97	0.96	0.58
95th-Percentile Queue Length [ft]	15.25	24.20	23.90	14.57
Approach Delay [s/veh]	8.82	9.20	9.54	8.89
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	9.16			
Intersection LOS	A			

Sorensen Park TIS

Vistro File: J:\...\Analysis_JB91218.vistro

Scenario 5 Ex+Proj PM

Report File: J:\...\Ex+Proj PM.pdf

3/20/2020

Turning Movement Volume: Summary

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Lake Los Angeles Ave/ 170th St E	0	239	28	10	250	0	0	0	0	12	0	17	556

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
2	E Avenue P/ 170th St E	19	226	6	18	242	17	14	4	10	13	8	6	583

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3	E Palmdale Blvd/ 170th St E	5	98	23	7	124	57	97	72	7	22	85	12	609

Sorensen Park TIS

Vistro File: J:\...\Analysis_JB91218.vistro

Scenario 5 Ex+Proj PM

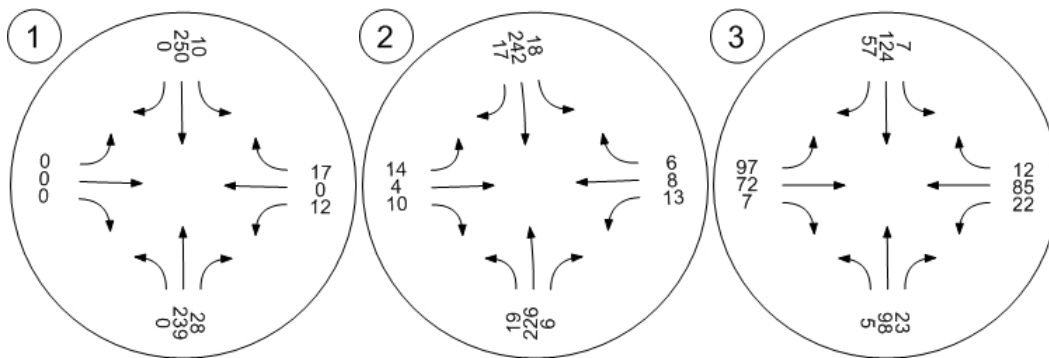
Report File: J:\...\Ex+Proj PM.pdf

3/20/2020

Trip Generation summary**Added Trips**

Zone ID: Name	Land Use variables	Code	Ind. Var.	Rate	Quantity	% In	% Out	Trips In	Trips Out	Total Trips	% of Total Trips
1: Zone	Public Park	411	Acres	1.000	0.000	50.00	50.00	1	1	2	100.00
Added Trips Total								1	1	2	100.00

Traffic Volume - Future Total Volume



Sorensen Park TIS

Vistro File: J:\...\Analysis_JB91218.vistro

Scenario 6 Ex+Proj Weekend MD

Report File: J:\...\Ex+Proj Sat MD.pdf

3/20/2020

Intersection Analysis Summary





ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Lake Los Angeles Ave/ 170th St E	Two-way stop	HCM 6th Edition	WB Left	0.045	14.1	B
2	E Avenue P/ 170th St E	Two-way stop	HCM 6th Edition	WB Left	0.044	14.2	B
3	E Palmdale Blvd/ 170th St E	All-way stop	HCM 6th Edition	EB Left	0.229	8.7	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Lake Los Angeles Ave/ 170th St E

Control Type:	Two-way stop	Delay (sec / veh):	14.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.045

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	10.00	12.00	12.00	10.00	13.00	13.00	16.00	16.00	16.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	110.00	100.00	100.00	90.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	50.00			50.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	3	241	24	24	265	2	3	1	1	19	0	19
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	1	0	0	1	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	242	24	24	266	2	3	1	1	19	0	19
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	61	6	6	67	1	1	0	0	5	0	5
Total Analysis Volume [veh/h]	3	242	24	24	266	2	3	1	1	19	0	19
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results





V/C, Movement V/C Ratio	0.00	0.00	0.00	0.02	0.00	0.00	0.01	0.00	0.00	0.05	0.00	0.02
d_M, Delay for Movement [s/veh]	7.78	0.00	0.00	7.83	0.00	0.00	13.96	13.81	9.76	14.06	14.08	10.08
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	B
95th-Percentile Queue Length [veh/ln]	0.01	0.00	0.00	0.06	0.00	0.00	0.03	0.03	0.03	0.22	0.22	0.22
95th-Percentile Queue Length [ft/ln]	0.17	0.00	0.00	1.41	0.00	0.00	0.84	0.84	0.84	5.59	5.59	5.59
d_A, Approach Delay [s/veh]	0.09			0.64			13.09			12.07		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	1.22											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 2: E Avenue P/ 170th St E

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 1 hour

Delay (sec / veh): 14.2
 Level Of Service: B
 Volume to Capacity (v/c): 0.044

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	0	0	1	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	295.00	100.00	100.00	206.00	265.00	100.00	100.00	95.00	100.00	100.00
Speed [mph]	55.00			50.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	13	241	10	26	240	14	7	6	6	18	2	23
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	0	0	0	0	1	1	0	1	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	241	10	26	240	15	8	6	7	18	2	23
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	60	3	7	60	4	2	2	2	5	1	6
Total Analysis Volume [veh/h]	14	241	10	26	240	15	8	6	7	18	2	23
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.02	0.00	0.00	0.02	0.01	0.01	0.04	0.00	0.03
d_M, Delay for Movement [s/veh]	7.78	0.00	0.00	7.79	0.00	0.00	14.14	13.81	9.66	14.20	13.89	9.68
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh/ln]	0.03	0.03	0.00	0.06	0.06	0.00	0.06	0.07	0.07	0.14	0.10	0.10
95th-Percentile Queue Length [ft/ln]	0.81	0.81	0.00	1.51	1.51	0.00	1.52	1.78	1.78	3.45	2.61	2.61
d_A, Approach Delay [s/veh]	0.41			0.72			12.55			11.77		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	1.77											
Intersection LOS	B											





Intersection Level Of Service Report

Intersection 3: E Palmdale Blvd/ 170th St E

Control Type: All-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 1 hour

Delay (sec / veh): 8.7
 Level Of Service: A
 Volume to Capacity (v/c): 0.229

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	12.00	12.00	12.00	11.00	11.00	11.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	10	92	12	5	107	76	94	50	9	14	34	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	1	1	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	92	12	5	107	77	95	50	9	14	34	5
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	23	3	1	27	19	24	13	2	4	9	1
Total Analysis Volume [veh/h]	10	92	12	5	107	77	95	50	9	14	34	5
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	778	826	750	744
Degree of Utilization, x	0.15	0.23	0.21	0.07

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.51	0.89	0.77	0.23
95th-Percentile Queue Length [ft]	12.86	22.17	19.31	5.75
Approach Delay [s/veh]	8.42	8.65	9.03	8.21
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	8.67			
Intersection LOS	A			

Sorensen Park TIS

Vistro File: J:\...\Analysis_JB91218.vistro

Scenario 6 Ex+Proj Weekend MD

Report File: J:\...\Ex+Proj Sat MD.pdf

3/20/2020

Turning Movement Volume: Summary

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Lake Los Angeles Ave/ 170th St E	3	242	24	24	266	2	3	1	1	19	0	19	604

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
2	E Avenue P/ 170th St E	14	241	10	26	240	15	8	6	7	18	2	23	610

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3	E Palmdale Blvd/ 170th St E	10	92	12	5	107	77	95	50	9	14	34	5	510

Sorensen Park TIS

Vistro File: J:\...\Analysis_JB91218.vistro

Scenario 6 Ex+Proj Weekend MD

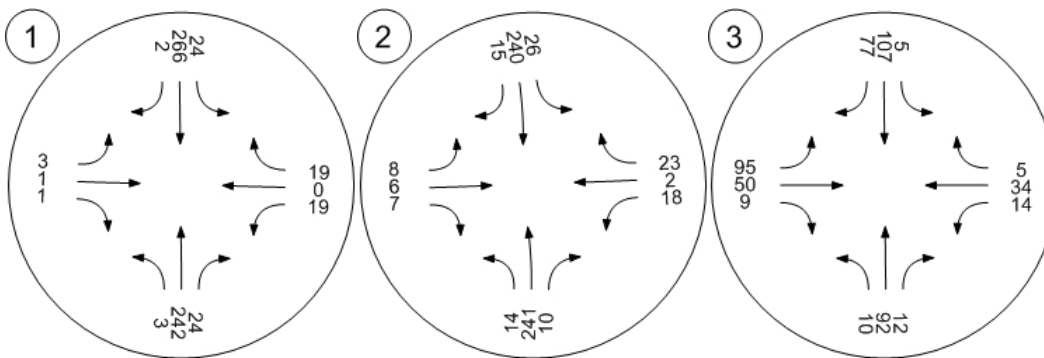
Report File: J:\...\Ex+Proj Sat MD.pdf

3/20/2020

Trip Generation summary**Added Trips**

Zone ID: Name	Land Use variables	Code	Ind. Var.	Rate	Quantity	% In	% Out	Trips In	Trips Out	Total Trips	% of Total Trips
1: Zone	Public Park	411	Acres	1.000	0.000	50.00	50.00	2	2	4	100.00
Added Trips Total								2	2	4	100.00

Traffic Volume - Future Total Volume



Sorensen Park TIS

Vistro File: J:\...\Analysis_JB91218.vistro

Scenario 7 Future No Project AM

Report File: J:\...\FnP_AM.pdf

5/28/2020

Intersection Analysis Summary





ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Lake Los Angeles Ave/ 170th St E	Two-way stop	HCM 6th Edition	WB Left	0.034	13.6	B
2	E Avenue P/ 170th St E	Two-way stop	HCM 6th Edition	EB Left	0.024	13.8	B
3	E Palmdale Blvd/ 170th St E	All-way stop	HCM 6th Edition	EB Left	0.219	8.3	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Lake Los Angeles Ave/ 170th St E

Control Type:	Two-way stop	Delay (sec / veh):	13.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.034

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	10.00	12.00	12.00	10.00	13.00	13.00	16.00	16.00	16.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	110.00	100.00	100.00	90.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	50.00			50.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	199	10	7	217	0	0	0	1	15	0	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	46	0	8	42	0	0	0	0	0	0	10
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	251	10	15	266	0	0	0	1	15	0	20
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	63	3	4	67	0	0	0	0	4	0	5
Total Analysis Volume [veh/h]	0	251	10	15	266	0	0	0	1	15	0	20
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results





V/C, Movement V/C Ratio	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.03
d_M, Delay for Movement [s/veh]	7.77	0.00	0.00	7.79	0.00	0.00	13.52	13.31	9.67	13.58	13.64	9.99
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.19	0.19	0.19
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.87	0.00	0.00	0.10	0.10	0.10	4.76	4.76	4.76
d_A, Approach Delay [s/veh]	0.00			0.42			9.67			11.53		
Approach LOS	A			A			A			B		
d_I, Intersection Delay [s/veh]	0.92											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 2: E Avenue P/ 170th St E

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 1 hour

Delay (sec / veh): 13.8
 Level Of Service: B
 Volume to Capacity (v/c): 0.024

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	0	0	1	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	295.00	100.00	100.00	206.00	265.00	100.00	100.00	95.00	100.00	100.00
Speed [mph]	55.00			50.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	4	183	10	15	217	4	10	2	12	12	2	15
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	37	0	8	34	0	0	0	0	0	0	9
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	226	10	23	258	4	10	2	12	12	2	24
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	57	3	6	65	1	3	1	3	3	1	6
Total Analysis Volume [veh/h]	4	226	10	23	258	4	10	2	12	12	2	24
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.02	0.00	0.00	0.02	0.00	0.02	0.03	0.00	0.03
d_M, Delay for Movement [s/veh]	7.77	0.00	0.00	7.75	0.00	0.00	13.79	13.41	9.72	13.58	13.41	9.59
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.00	0.05	0.05	0.00	0.07	0.06	0.06	0.09	0.11	0.11
95th-Percentile Queue Length [ft/ln]	0.23	0.23	0.00	1.32	1.32	0.00	1.83	1.53	1.53	2.14	2.65	2.65
d_A, Approach Delay [s/veh]	0.13			0.63			11.72			11.05		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	1.55											
Intersection LOS	B											





Intersection Level Of Service Report

Intersection 3: E Palmdale Blvd/ 170th St E

Control Type: All-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 1 hour

Delay (sec / veh): 8.3
 Level Of Service: A
 Volume to Capacity (v/c): 0.219

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	12.00	12.00	12.00	11.00	11.00	11.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	6	73	21	3	89	72	37	46	3	12	38	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	21	17	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	75	22	3	92	95	55	47	3	12	39	1
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	19	6	1	23	24	14	12	1	3	10	0
Total Analysis Volume [veh/h]	6	75	22	3	92	95	55	47	3	12	39	1
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	816	868	760	757
Degree of Utilization, x	0.13	0.22	0.14	0.07

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.43	0.84	0.48	0.22
95th-Percentile Queue Length [ft]	10.82	20.95	12.01	5.53
Approach Delay [s/veh]	8.05	8.30	8.50	8.11
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	8.27			
Intersection LOS	A			

Sorensen Park TIS

Vistro File: J:\...\Analysis_JB91218.vistro

Scenario 7 Future No Project AM

Report File: J:\...\FnP_AM.pdf

5/28/2020

Turning Movement Volume: Summary

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Lake Los Angeles Ave/ 170th St E	0	251	10	15	266	0	0	0	1	15	0	20	578

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
2	E Avenue P/ 170th St E	4	226	10	23	258	4	10	2	12	12	2	24	587

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3	E Palmdale Blvd/ 170th St E	6	75	22	3	92	95	55	47	3	12	39	1	450

Sorensen Park TIS

Vistro File: J:\...\Analysis_JB91218.vistro

Scenario 7 Future No Project AM

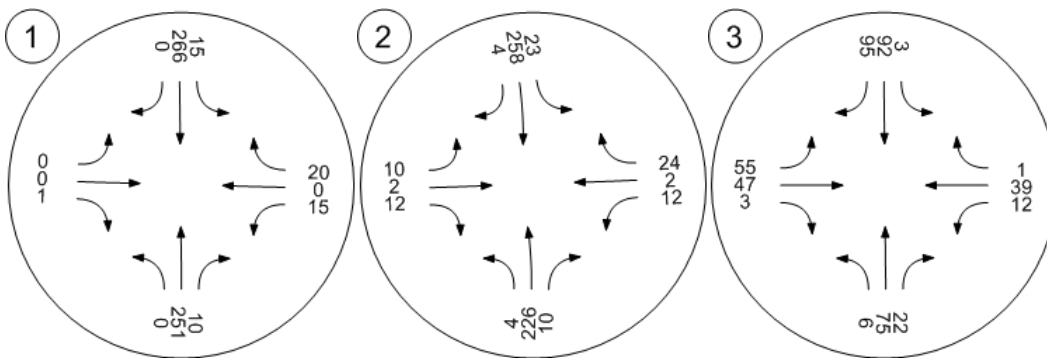
Report File: J:\...\FnP_AM.pdf

5/28/2020

Trip Generation summary**Added Trips**

Zone ID: Name	Land Use variables	Code	Ind. Var.	Rate	Quantity	% In	% Out	Trips In	Trips Out	Total Trips	% of Total Trips
4: Area Project Zone 1	Area Projects			1.000	0.000	50.00	50.00	173	169	342	97.71
5: Area Projects Zone 2	Area Projects			1.000	0.000	50.00	50.00	0	1	1	0.29
6: Area Projects Zone 3	Area Projects			1.000	0.000	50.00	50.00	0	7	7	2.00
Added Trips Total								173	177	350	100.00

Traffic Volume - Future Total Volume



Sorensen Park TIS

Vistro File: J:\...\Analysis_JB91218.vistro

Scenario 8 Future No Project PM

Report File: J:\...\FnP_PM.pdf

5/28/2020

Intersection Analysis Summary





ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Lake Los Angeles Ave/ 170th St E	Two-way stop	HCM 6th Edition	WB Left	0.031	14.7	B
2	E Avenue P/ 170th St E	Two-way stop	HCM 6th Edition	EB Left	0.036	15.5	C
3	E Palmdale Blvd/ 170th St E	All-way stop	HCM 6th Edition	EB Left	0.282	9.5	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Lake Los Angeles Ave/ 170th St E

Control Type:	Two-way stop	Delay (sec / veh):	14.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.031

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	10.00	12.00	12.00	10.00	13.00	13.00	16.00	16.00	16.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	110.00	100.00	100.00	90.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	50.00			50.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	238	28	10	249	0	0	0	0	12	0	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	40	0	8	38	0	0	0	0	0	0	8
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	285	29	18	295	0	0	0	0	12	0	26
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	71	7	5	74	0	0	0	0	3	0	7
Total Analysis Volume [veh/h]	0	285	29	18	295	0	0	0	0	12	0	26
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results





V/C, Movement V/C Ratio	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.04
d_M, Delay for Movement [s/veh]	7.84	0.00	0.00	7.93	0.00	0.00	14.77	14.35	9.84	14.68	14.61	10.31
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.21	0.21	0.21
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	1.10	0.00	0.00	0.00	0.00	0.00	5.29	5.29	5.29
d_A, Approach Delay [s/veh]	0.00			0.46			12.98			11.69		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	0.88											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 2: E Avenue P/ 170th St E

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 1 hour

Delay (sec / veh): 15.5
 Level Of Service: C
 Volume to Capacity (v/c): 0.036

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	0	0	1	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	295.00	100.00	100.00	206.00	265.00	100.00	100.00	95.00	100.00	100.00
Speed [mph]	55.00			50.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	19	226	6	18	242	16	13	4	10	13	8	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	32	0	7	31	0	0	0	0	0	0	8
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	265	6	26	280	16	13	4	10	13	8	14
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	66	2	7	70	4	3	1	3	3	2	4
Total Analysis Volume [veh/h]	20	265	6	26	280	16	13	4	10	13	8	14
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.02	0.00	0.00	0.04	0.01	0.01	0.04	0.02	0.02
d_M, Delay for Movement [s/veh]	7.89	0.00	0.00	7.84	0.00	0.00	15.47	14.74	9.89	15.34	14.99	9.92
Movement LOS	A	A	A	A	A	A	C	B	A	C	B	A
95th-Percentile Queue Length [veh/ln]	0.05	0.05	0.00	0.06	0.06	0.00	0.11	0.07	0.07	0.11	0.12	0.12
95th-Percentile Queue Length [ft/ln]	1.20	1.20	0.00	1.54	1.54	0.00	2.83	1.83	1.83	2.80	3.10	3.10
d_A, Approach Delay [s/veh]	0.54			0.63			13.30			13.09		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	1.75											
Intersection LOS	C											





Intersection Level Of Service Report

Intersection 3: E Palmdale Blvd/ 170th St E

Control Type: All-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 1 hour

Delay (sec / veh): 9.5
 Level Of Service: A
 Volume to Capacity (v/c): 0.282

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	12.00	12.00	12.00	11.00	11.00	11.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	5	98	23	7	124	57	97	72	7	22	85	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	15	20	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	101	24	7	128	74	120	74	7	23	88	12
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	25	6	2	32	19	30	19	2	6	22	3
Total Analysis Volume [veh/h]	5	101	24	7	128	74	120	74	7	23	88	12
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	726	758	713	713
Degree of Utilization, x	0.18	0.28	0.28	0.17

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.65	1.14	1.17	0.62
95th-Percentile Queue Length [ft]	16.33	28.47	29.35	15.61
Approach Delay [s/veh]	9.04	9.56	10.04	9.10
Approach LOS	A	A	B	A
Intersection Delay [s/veh]	9.52			
Intersection LOS	A			

Sorensen Park TIS

Vistro File: J:\...\Analysis_JB91218.vistro

Scenario 8 Future No Project PM

Report File: J:\...\FnP_PM.pdf

5/28/2020

Turning Movement Volume: Summary

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Lake Los Angeles Ave/ 170th St E	0	285	29	18	295	0	0	0	0	12	0	26	665

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
2	E Avenue P/ 170th St E	20	265	6	26	280	16	13	4	10	13	8	14	675

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3	E Palmdale Blvd/ 170th St E	5	101	24	7	128	74	120	74	7	23	88	12	663

Sorensen Park TIS

Vistro File: J:\...\Analysis_JB91218.vistro

Scenario 8 Future No Project PM

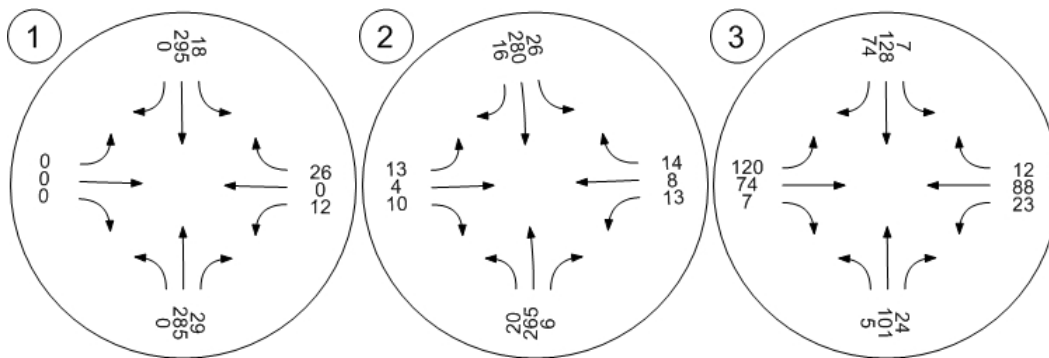
Report File: J:\...\FnP_PM.pdf

5/28/2020

Trip Generation summary**Added Trips**

Zone ID: Name	Land Use variables	Code	Ind. Var.	Rate	Quantity	% In	% Out	Trips In	Trips Out	Total Trips	% of Total Trips
4: Area Project Zone 1	Area Projects			1.000	0.000	50.00	50.00	159	142	301	97.10
5: Area Projects Zone 2	Area Projects			1.000	0.000	50.00	50.00	1	0	1	0.32
6: Area Projects Zone 3	Area Projects			1.000	0.000	50.00	50.00	7	1	8	2.58
Added Trips Total								167	143	310	100.00

Traffic Volume - Future Total Volume



Sorensen Park TIS

Vistro File: J:\...\Analysis_JB91218.vistro

Scenario 9 Future No Project Weekend MD

Report File: J:\...\FnP_WkMD.pdf

5/28/2020

Intersection Analysis Summary





ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Lake Los Angeles Ave/ 170th St E	Two-way stop	HCM 6th Edition	EB Left	0.010	16.8	C
2	E Avenue P/ 170th St E	Two-way stop	HCM 6th Edition	EB Left	0.022	16.6	C
3	E Palmdale Blvd/ 170th St E	All-way stop	HCM 6th Edition	EB Left	0.267	9.0	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Lake Los Angeles Ave/ 170th St E

Control Type:	Two-way stop	Delay (sec / veh):	16.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.010

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	10.00	12.00	12.00	10.00	13.00	13.00	16.00	16.00	16.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	110.00	100.00	100.00	90.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	50.00			50.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	3	241	24	24	265	2	3	1	1	19	0	19
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	60	0	11	53	0	0	0	0	0	0	12
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	308	25	36	326	2	3	1	1	20	0	32
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	77	6	9	82	1	1	0	0	5	0	8
Total Analysis Volume [veh/h]	3	308	25	36	326	2	3	1	1	20	0	32
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results





V/C, Movement V/C Ratio	0.00	0.00	0.00	0.03	0.00	0.00	0.01	0.00	0.00	0.06	0.00	0.04
d_M, Delay for Movement [s/veh]	7.93	0.00	0.00	8.02	0.00	0.00	16.78	15.91	10.18	16.75	16.45	10.85
Movement LOS	A	A	A	A	A	A	C	C	B	C	C	B
95th-Percentile Queue Length [veh/ln]	0.01	0.00	0.00	0.09	0.00	0.00	0.04	0.04	0.04	0.35	0.35	0.35
95th-Percentile Queue Length [ft/ln]	0.18	0.00	0.00	2.27	0.00	0.00	1.07	1.07	1.07	8.78	8.78	8.78
d_A, Approach Delay [s/veh]	0.07			0.79			15.28			13.12		
Approach LOS	A			A			C			B		
d_I, Intersection Delay [s/veh]	1.42											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 2: E Avenue P/ 170th St E

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 1 hour

Delay (sec / veh): 16.6
 Level Of Service: C
 Volume to Capacity (v/c): 0.022

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	0	0	1	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	295.00	100.00	100.00	206.00	265.00	100.00	100.00	95.00	100.00	100.00
Speed [mph]	55.00			50.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	13	241	10	26	240	14	7	6	6	18	2	23
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	49	0	11	42	0	0	0	0	0	0	11
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	13	297	10	38	289	14	7	6	6	19	2	35
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	74	3	10	72	4	2	2	2	5	1	9
Total Analysis Volume [veh/h]	13	297	10	38	289	14	7	6	6	19	2	35
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results





V/C, Movement V/C Ratio	0.01	0.00	0.00	0.03	0.00	0.00	0.02	0.02	0.01	0.06	0.01	0.05
d_M, Delay for Movement [s/veh]	7.89	0.00	0.00	7.96	0.00	0.00	16.59	15.58	10.00	16.46	15.72	10.14
Movement LOS	A	A	A	A	A	A	C	C	A	C	C	B
95th-Percentile Queue Length [veh/ln]	0.03	0.03	0.00	0.09	0.09	0.00	0.07	0.08	0.08	0.18	0.17	0.17
95th-Percentile Queue Length [ft/ln]	0.78	0.78	0.00	2.34	2.34	0.00	1.69	1.95	1.95	4.53	4.19	4.19
d_A, Approach Delay [s/veh]	0.32			0.89			14.19			12.48		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	1.87											
Intersection LOS	C											

Intersection Level Of Service Report Intersection 3: E Palmdale Blvd/ 170th St E

Control Type: All-way stop
Analysis Method: HCM 6th Edition
Analysis Period: 1 hour

Delay (sec / veh): 9.0
Level Of Service: A
Volume to Capacity (v/c): 0.267

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	12.00	12.00	12.00	11.00	11.00	11.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	10	92	12	5	107	76	94	50	9	14	34	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	25	24	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	95	12	5	110	103	121	52	9	14	35	5
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	24	3	1	28	26	30	13	2	4	9	1
Total Analysis Volume [veh/h]	10	95	12	5	110	103	121	52	9	14	35	5
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	757	816	735	724
Degree of Utilization, x	0.15	0.27	0.25	0.07

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.55	1.09	0.98	0.24
95th-Percentile Queue Length [ft]	13.69	27.24	24.60	6.04
Approach Delay [s/veh]	8.63	9.02	9.51	8.37
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	9.03			
Intersection LOS	A			

Sorensen Park TIS

Vistro File: J:\...\Analysis_JB91218.vistro

Scenario 9 Future No Project Weekend MD

Report File: J:\...\FnP_WkMD.pdf

5/28/2020

Turning Movement Volume: Summary

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Lake Los Angeles Ave/ 170th St E	3	308	25	36	326	2	3	1	1	20	0	32	757

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
2	E Avenue P/ 170th St E	13	297	10	38	289	14	7	6	6	19	2	35	736

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3	E Palmdale Blvd/ 170th St E	10	95	12	5	110	103	121	52	9	14	35	5	571

Sorensen Park TIS

Vistro File: J:\...\Analysis_JB91218.vistro

Scenario 9 Future No Project Weekend MD

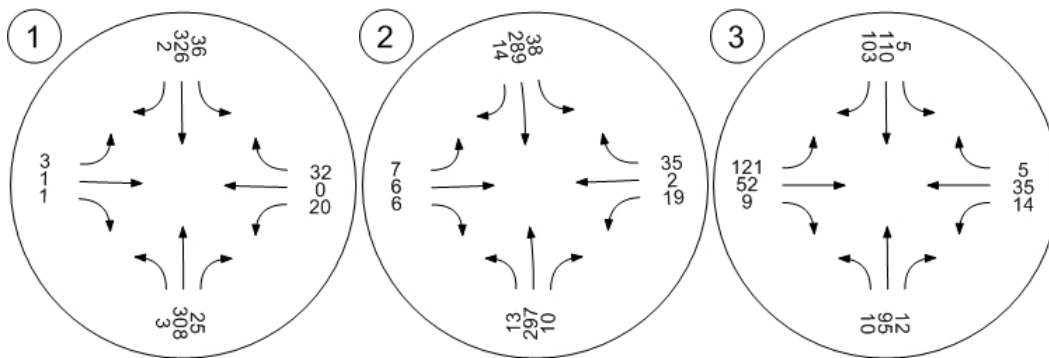
Report File: J:\...\FnP_WkMD.pdf

5/28/2020

Trip Generation summary**Added Trips**

Zone ID: Name	Land Use variables	Code	Ind. Var.	Rate	Quantity	% In	% Out	Trips In	Trips Out	Total Trips	% of Total Trips
4: Area Project Zone 1	Area Projects			1.000	0.000	50.00	50.00	225	214	439	97.99
5: Area Projects Zone 2	Area Projects			1.000	0.000	50.00	50.00	0	1	1	0.22
6: Area Projects Zone 3	Area Projects			1.000	0.000	50.00	50.00	1	7	8	1.79
Added Trips Total								226	222	448	100.00

Traffic Volume - Future Total Volume



Sorensen Park TIS

Vistro File: J:\...\Analysis_JB91218.vistro

Scenario 10 Future with Project AM

Report File: J:\...\F+P_AM.pdf

5/28/2020

Intersection Analysis Summary





ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Lake Los Angeles Ave/ 170th St E	Two-way stop	HCM 6th Edition	WB Left	0.034	13.6	B
2	E Avenue P/ 170th St E	Two-way stop	HCM 6th Edition	EB Left	0.026	13.8	B
3	E Palmdale Blvd/ 170th St E	All-way stop	HCM 6th Edition	EB Left	0.219	8.3	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Lake Los Angeles Ave/ 170th St E

Control Type:	Two-way stop	Delay (sec / veh):	13.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.034

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	10.00	12.00	12.00	10.00	13.00	13.00	16.00	16.00	16.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	110.00	100.00	100.00	90.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	50.00			50.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	199	10	7	217	0	0	0	1	15	0	10
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	47	0	8	43	0	0	0	0	0	0	10
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	252	10	15	267	0	0	0	1	15	0	20
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	63	3	4	67	0	0	0	0	4	0	5
Total Analysis Volume [veh/h]	0	252	10	15	267	0	0	0	1	15	0	20
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results





V/C, Movement V/C Ratio	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.03
d_M, Delay for Movement [s/veh]	7.78	0.00	0.00	7.80	0.00	0.00	13.55	13.33	9.67	13.61	13.66	10.00
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.19	0.19	0.19
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.87	0.00	0.00	0.10	0.10	0.10	4.77	4.77	4.77
d_A, Approach Delay [s/veh]	0.00			0.41			9.67			11.54		
Approach LOS	A			A			A			B		
d_I, Intersection Delay [s/veh]	0.91											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 2: E Avenue P/ 170th St E

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 1 hour

Delay (sec / veh): 13.8
 Level Of Service: B
 Volume to Capacity (v/c): 0.026

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	0	0	1	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	295.00	100.00	100.00	206.00	265.00	100.00	100.00	95.00	100.00	100.00
Speed [mph]	55.00			50.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	4	183	10	15	217	4	10	2	12	12	2	15
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	37	0	8	34	1	1	0	0	0	0	9
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	226	10	23	258	5	11	2	12	12	2	24
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	57	3	6	65	1	3	1	3	3	1	6
Total Analysis Volume [veh/h]	5	226	10	23	258	5	11	2	12	12	2	24
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.02	0.00	0.00	0.03	0.00	0.02	0.03	0.00	0.03
d_M, Delay for Movement [s/veh]	7.78	0.00	0.00	7.75	0.00	0.00	13.85	13.44	9.72	13.62	13.45	9.59
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	A
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.00	0.05	0.05	0.00	0.08	0.06	0.06	0.09	0.11	0.11
95th-Percentile Queue Length [ft/ln]	0.29	0.29	0.00	1.32	1.32	0.00	2.03	1.53	1.53	2.15	2.65	2.65
d_A, Approach Delay [s/veh]	0.16			0.62			11.83			11.07		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	1.58											
Intersection LOS	B											





Intersection Level Of Service Report

Intersection 3: E Palmdale Blvd/ 170th St E

Control Type: All-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 1 hour

Delay (sec / veh): 8.3
 Level Of Service: A
 Volume to Capacity (v/c): 0.219

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	12.00	12.00	12.00	11.00	11.00	11.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	6	73	21	3	89	72	37	46	3	12	38	1
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	21	18	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	75	22	3	92	95	56	47	3	12	39	1
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	19	6	1	23	24	14	12	1	3	10	0
Total Analysis Volume [veh/h]	6	75	22	3	92	95	56	47	3	12	39	1
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	816	868	759	757
Degree of Utilization, x	0.13	0.22	0.14	0.07

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.43	0.84	0.49	0.22
95th-Percentile Queue Length [ft]	10.83	20.97	12.15	5.53
Approach Delay [s/veh]	8.05	8.31	8.51	8.11
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	8.27			
Intersection LOS	A			

Sorensen Park TIS

Vistro File: J:\...\Analysis_JB91218.vistro

Scenario 10 Future with Project AM

Report File: J:\...\F+P_AM.pdf

5/28/2020

Turning Movement Volume: Summary

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Lake Los Angeles Ave/ 170th St E	0	252	10	15	267	0	0	0	1	15	0	20	580

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
2	E Avenue P/ 170th St E	5	226	10	23	258	5	11	2	12	12	2	24	590

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3	E Palmdale Blvd/ 170th St E	6	75	22	3	92	95	56	47	3	12	39	1	451

Sorensen Park TIS

Vistro File: J:\...\Analysis_JB91218.vistro

Scenario 10 Future with Project AM

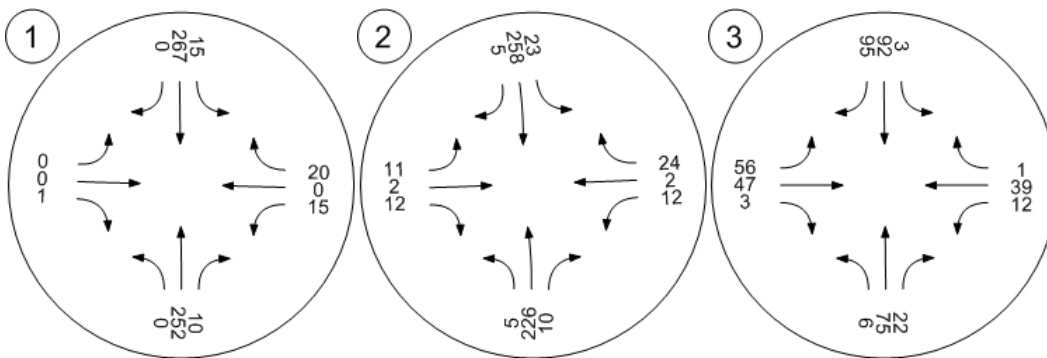
Report File: J:\...\F+P_AM.pdf

5/28/2020

Trip Generation summary**Added Trips**

Zone ID: Name	Land Use variables	Code	Ind. Var.	Rate	Quantity	% In	% Out	Trips In	Trips Out	Total Trips	% of Total Trips
1: Zone	Public Park	411	Acres	1.000	0.000	50.00	50.00	2	1	3	0.85
4: Area Project Zone 1	Area Projects			1.000	0.000	50.00	50.00	173	169	342	96.88
5: Area Projects Zone 2	Area Projects			1.000	0.000	50.00	50.00	0	1	1	0.28
6: Area Projects Zone 3	Area Projects			1.000	0.000	50.00	50.00	0	7	7	1.98
Added Trips Total								175	178	353	100.00

Traffic Volume - Future Total Volume



Sorensen Park TIS

Vistro File: J:\...\Analysis_JB91218.vistro

Scenario 11 Future With Project PM

Report File: J:\...\F+P_PM.pdf

5/28/2020

Intersection Analysis Summary





ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Lake Los Angeles Ave/ 170th St E	Two-way stop	HCM 6th Edition	WB Left	0.031	14.7	B
2	E Avenue P/ 170th St E	Two-way stop	HCM 6th Edition	EB Left	0.039	15.5	C
3	E Palmdale Blvd/ 170th St E	All-way stop	HCM 6th Edition	EB Left	0.282	9.5	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Lake Los Angeles Ave/ 170th St E

Control Type:	Two-way stop	Delay (sec / veh):	14.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.031

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	10.00	12.00	12.00	10.00	13.00	13.00	16.00	16.00	16.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	110.00	100.00	100.00	90.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	50.00			50.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	0	238	28	10	249	0	0	0	0	12	0	17
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	41	0	8	39	0	0	0	0	0	0	8
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	286	29	18	296	0	0	0	0	12	0	26
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	72	7	5	74	0	0	0	0	3	0	7
Total Analysis Volume [veh/h]	0	286	29	18	296	0	0	0	0	12	0	26
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results





V/C, Movement V/C Ratio	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.04
d_M, Delay for Movement [s/veh]	7.84	0.00	0.00	7.93	0.00	0.00	14.80	14.37	9.84	14.71	14.64	10.31
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.21	0.21	0.21
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	1.10	0.00	0.00	0.00	0.00	0.00	5.30	5.30	5.30
d_A, Approach Delay [s/veh]	0.00			0.45			13.01			11.70		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	0.88											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 2: E Avenue P/ 170th St E

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 1 hour

Delay (sec / veh): 15.5
 Level Of Service: C
 Volume to Capacity (v/c): 0.039

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	0	0	1	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	295.00	100.00	100.00	206.00	265.00	100.00	100.00	95.00	100.00	100.00
Speed [mph]	55.00			50.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	19	226	6	18	242	16	13	4	10	13	8	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	32	0	7	31	1	1	0	0	0	0	8
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	20	265	6	26	280	17	14	4	10	13	8	14
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	66	2	7	70	4	4	1	3	3	2	4
Total Analysis Volume [veh/h]	20	265	6	26	280	17	14	4	10	13	8	14
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.02	0.00	0.00	0.04	0.01	0.01	0.04	0.02	0.02
d_M, Delay for Movement [s/veh]	7.89	0.00	0.00	7.84	0.00	0.00	15.50	14.74	9.89	15.35	15.00	9.92
Movement LOS	A	A	A	A	A	A	C	B	A	C	B	A
95th-Percentile Queue Length [veh/ln]	0.05	0.05	0.00	0.06	0.06	0.00	0.12	0.07	0.07	0.11	0.12	0.12
95th-Percentile Queue Length [ft/ln]	1.21	1.21	0.00	1.54	1.54	0.00	3.06	1.83	1.83	2.80	3.10	3.10
d_A, Approach Delay [s/veh]	0.54			0.63			13.39			13.10		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	1.77											
Intersection LOS	C											





Intersection Level Of Service Report

Intersection 3: E Palmdale Blvd/ 170th St E

Control Type: All-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 1 hour

Delay (sec / veh): 9.5
 Level Of Service: A
 Volume to Capacity (v/c): 0.282

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	12.00	12.00	12.00	11.00	11.00	11.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	5	98	23	7	124	57	97	72	7	22	85	12
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	15	20	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	101	24	7	128	74	120	74	7	23	88	12
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	25	6	2	32	19	30	19	2	6	22	3
Total Analysis Volume [veh/h]	5	101	24	7	128	74	120	74	7	23	88	12
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	726	758	713	713
Degree of Utilization, x	0.18	0.28	0.28	0.17

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.65	1.14	1.17	0.62
95th-Percentile Queue Length [ft]	16.33	28.47	29.35	15.61
Approach Delay [s/veh]	9.04	9.56	10.04	9.10
Approach LOS	A	A	B	A
Intersection Delay [s/veh]	9.52			
Intersection LOS	A			

Sorensen Park TIS

Vistro File: J:\...\Analysis_JB91218.vistro

Scenario 11 Future With Project PM

Report File: J:\...\F+P_PM.pdf

5/28/2020

Turning Movement Volume: Summary

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Lake Los Angeles Ave/ 170th St E	0	286	29	18	296	0	0	0	0	12	0	26	667

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
2	E Avenue P/ 170th St E	20	265	6	26	280	17	14	4	10	13	8	14	677

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3	E Palmdale Blvd/ 170th St E	5	101	24	7	128	74	120	74	7	23	88	12	663

Sorensen Park TIS

Vistro File: J:\...\Analysis_JB91218.vistro

Scenario 11 Future With Project PM

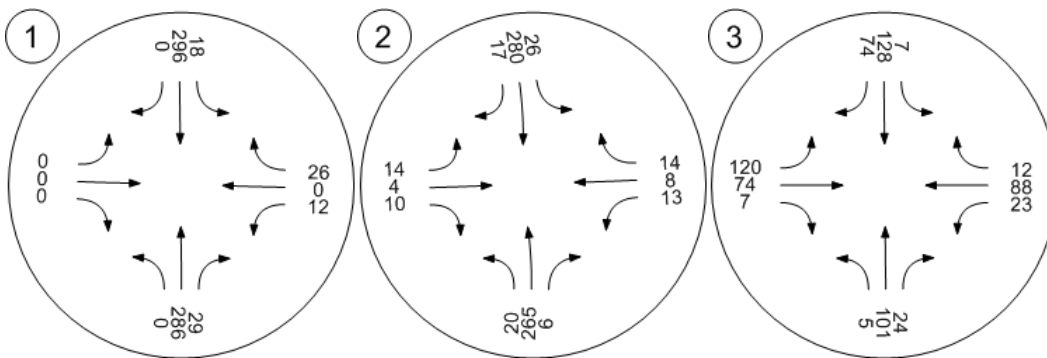
Report File: J:\...\F+P_PM.pdf

5/28/2020

Trip Generation summary**Added Trips**

Zone ID: Name	Land Use variables	Code	Ind. Var.	Rate	Quantity	% In	% Out	Trips In	Trips Out	Total Trips	% of Total Trips
1: Zone	Public Park	411	Acres	1.000	0.000	50.00	50.00	1	1	2	0.64
4: Area Project Zone 1	Area Projects			1.000	0.000	50.00	50.00	159	142	301	96.47
5: Area Projects Zone 2	Area Projects			1.000	0.000	50.00	50.00	1	0	1	0.32
6: Area Projects Zone 3	Area Projects			1.000	0.000	50.00	50.00	7	1	8	2.56
Added Trips Total								168	144	312	100.00

Traffic Volume - Future Total Volume



Sorensen Park TIS

Vistro File: J:\...\Analysis_JB91218.vistro

Scenario 12 Future With Project Weekend MD

Report File: J:\...\F+P_WkendMD.pdf

5/28/2020

Intersection Analysis Summary





ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Lake Los Angeles Ave/ 170th St E	Two-way stop	HCM 6th Edition	EB Left	0.010	16.8	C
2	E Avenue P/ 170th St E	Two-way stop	HCM 6th Edition	EB Left	0.025	16.7	C
3	E Palmdale Blvd/ 170th St E	All-way stop	HCM 6th Edition	EB Left	0.268	9.0	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Lake Los Angeles Ave/ 170th St E

Control Type:	Two-way stop	Delay (sec / veh):	16.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.010

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	10.00	12.00	12.00	10.00	13.00	13.00	16.00	16.00	16.00	12.00	12.00	12.00
No. of Lanes in Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Pocket Length [ft]	110.00	100.00	100.00	90.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	50.00			50.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	3	241	24	24	265	2	3	1	1	19	0	19
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	61	0	11	54	0	0	0	0	0	0	12
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	309	25	36	327	2	3	1	1	20	0	32
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	77	6	9	82	1	1	0	0	5	0	8
Total Analysis Volume [veh/h]	3	309	25	36	327	2	3	1	1	20	0	32
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results





V/C, Movement V/C Ratio	0.00	0.00	0.00	0.03	0.00	0.00	0.01	0.00	0.00	0.06	0.00	0.04
d_M, Delay for Movement [s/veh]	7.93	0.00	0.00	8.03	0.00	0.00	16.82	15.94	10.19	16.79	16.48	10.86
Movement LOS	A	A	A	A	A	A	C	C	B	C	C	B
95th-Percentile Queue Length [veh/ln]	0.01	0.00	0.00	0.09	0.00	0.00	0.04	0.04	0.04	0.35	0.35	0.35
95th-Percentile Queue Length [ft/ln]	0.18	0.00	0.00	2.27	0.00	0.00	1.07	1.07	1.07	8.81	8.81	8.81
d_A, Approach Delay [s/veh]	0.07			0.79			15.31			13.14		
Approach LOS	A			A			C			B		
d_I, Intersection Delay [s/veh]	1.41											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 2: E Avenue P/ 170th St E

Control Type: Two-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 1 hour

Delay (sec / veh): 16.7
 Level Of Service: C
 Volume to Capacity (v/c): 0.025

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	1	0	0	1	1	0	0	1	0	0
Pocket Length [ft]	100.00	100.00	295.00	100.00	100.00	206.00	265.00	100.00	100.00	95.00	100.00	100.00
Speed [mph]	55.00			50.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	No			No			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	13	241	10	26	240	14	7	6	6	18	2	23
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	49	0	11	42	1	1	0	1	0	0	11
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	297	10	38	289	15	8	6	7	19	2	35
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	74	3	10	72	4	2	2	2	5	1	9
Total Analysis Volume [veh/h]	14	297	10	38	289	15	8	6	7	19	2	35
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results





V/C, Movement V/C Ratio	0.01	0.00	0.00	0.03	0.00	0.00	0.03	0.02	0.01	0.06	0.01	0.05
d_M, Delay for Movement [s/veh]	7.90	0.00	0.00	7.96	0.00	0.00	16.67	15.62	10.00	16.54	15.77	10.14
Movement LOS	A	A	A	A	A	A	C	C	B	C	C	B
95th-Percentile Queue Length [veh/ln]	0.03	0.03	0.00	0.09	0.09	0.00	0.08	0.08	0.08	0.18	0.17	0.17
95th-Percentile Queue Length [ft/ln]	0.84	0.84	0.00	2.34	2.34	0.00	1.94	2.06	2.06	4.56	4.19	4.19
d_A, Approach Delay [s/veh]	0.34			0.88			14.15			12.51		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	1.91											
Intersection LOS	C											

Intersection Level Of Service Report
Intersection 3: E Palmdale Blvd/ 170th St E

Control Type: All-way stop
 Analysis Method: HCM 6th Edition
 Analysis Period: 1 hour

Delay (sec / veh): 9.0
 Level Of Service: A
 Volume to Capacity (v/c): 0.268

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	11.00	11.00	11.00	12.00	12.00	12.00	11.00	11.00	11.00	12.00	12.00	12.00
No. of Lanes in Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Speed [mph]	55.00			55.00			55.00			55.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	10	92	12	5	107	76	94	50	9	14	34	5
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303	1.0303
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	26	25	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	10	95	12	5	110	104	122	52	9	14	35	5
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	24	3	1	28	26	31	13	2	4	9	1
Total Analysis Volume [veh/h]	10	95	12	5	110	104	122	52	9	14	35	5
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings**Lanes**

Capacity per Entry Lane [veh/h]	756	816	735	724
Degree of Utilization, x	0.15	0.27	0.25	0.07

Movement, Approach, & Intersection Results

95th-Percentile Queue Length [veh]	0.55	1.10	0.99	0.24
95th-Percentile Queue Length [ft]	13.71	27.42	24.81	6.05
Approach Delay [s/veh]	8.63	9.03	9.53	8.38
Approach LOS	A	A	A	A
Intersection Delay [s/veh]	9.05			
Intersection LOS	A			

Sorensen Park TIS

Vistro File: J:\...\Analysis_JB91218.vistro

Scenario 12 Future With Project Weekend MD

Report File: J:\...\F+P_WkendMD.pdf

5/28/2020

Turning Movement Volume: Summary

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
1	Lake Los Angeles Ave/ 170th St E	3	309	25	36	327	2	3	1	1	20	0	32	759

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
2	E Avenue P/ 170th St E	14	297	10	38	289	15	8	6	7	19	2	35	740

ID	Intersection Name	Northbound			Southbound			Eastbound			Westbound			Total Volume
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
3	E Palmdale Blvd/ 170th St E	10	95	12	5	110	104	122	52	9	14	35	5	573

Sorensen Park TIS

Vistro File: J:\...\Analysis_JB91218.vistro

Scenario 12 Future With Project Weekend MD

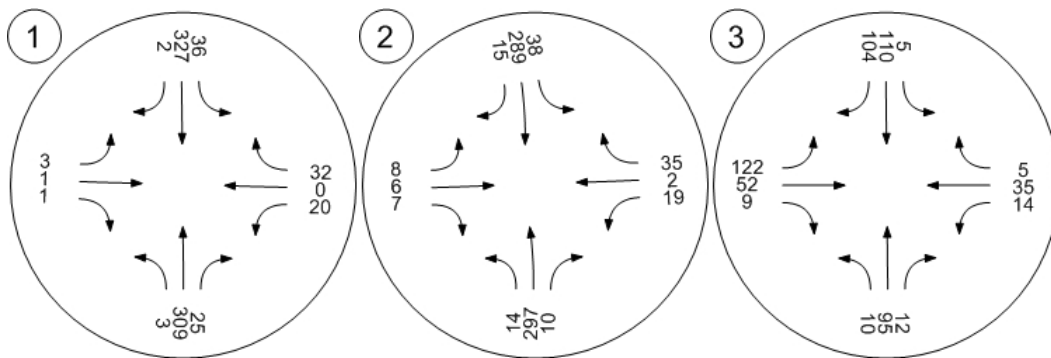
Report File: J:\...\F+P_WkendMD.pdf

5/28/2020

Trip Generation summary**Added Trips**

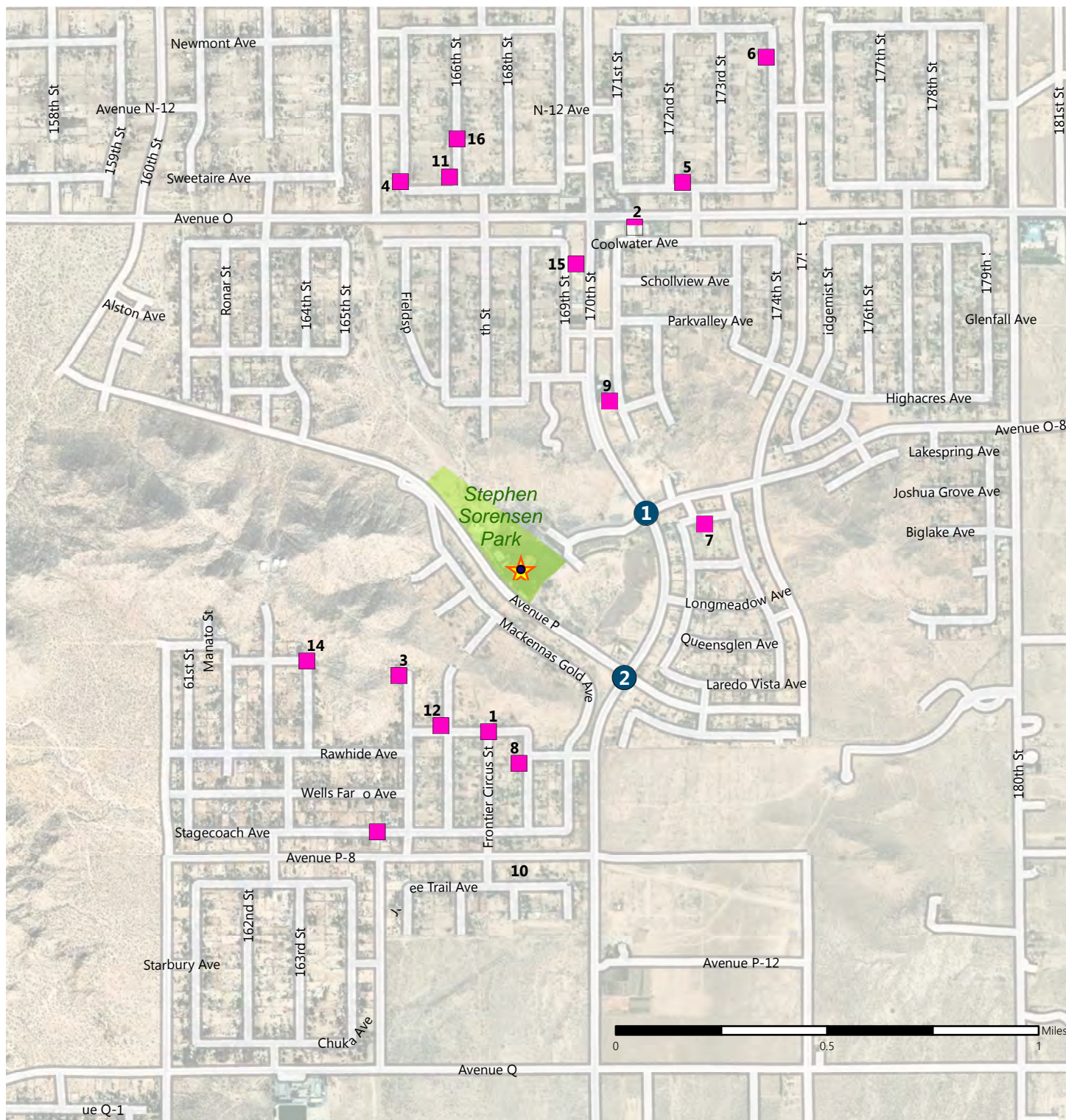
Zone ID: Name	Land Use variables	Code	Ind. Var.	Rate	Quantity	% In	% Out	Trips In	Trips Out	Total Trips	% of Total Trips
1: Zone	Public Park	411	Acres	1.000	0.000	50.00	50.00	2	2	4	0.88
4: Area Project Zone 1	Area Projects			1.000	0.000	50.00	50.00	225	214	439	97.12
5: Area Projects Zone 2	Area Projects			1.000	0.000	50.00	50.00	0	1	1	0.22
6: Area Projects Zone 3	Area Projects			1.000	0.000	50.00	50.00	1	7	8	1.77
Added Trips Total								228	224	452	100.00

Traffic Volume - Future Total Volume





ATTACHMENT C –
CUMULATIVE PROJECTS MAP



Project Site



Study Intersections



Area Projects

