June 10, 2022

Ms. Cassie Ruiz, Development Manager
IN-N-OUT BURGER
13502 Hamburger Lane
Baldwin Park, California 91706

RE: In-N-Out Burger (1900 E. Plaza Blvd) Project Focused Traffic Analysis
Project No. 19442

Dear Ms. Ruiz:

Ganddini Group, Inc. is pleased to provide this Focused Traffic Analysis for the proposed In-N-Out Burger (1900 E. Plaza Blvd) Project in the City of National City, California. The purpose of this study is to evaluate site access and operational issues for the proposed redevelopment of the project site. A glossary is provided in Appendix A to assist the reader with terms related to transportation engineering.

PROJECT LOCATION & STUDY AREA

The 1.3-acre project site is located at the southwest corner of the intersection of East Plaza Boulevard and Interstate 805 (I-805) in the City of National City, California. The project site is currently developed with a sit-down restaurant that is proposed to be demolished. Figure 1 shows the project location map and study area consisting of the following study intersections:

1. Project Driveway (NS) at East Plaza Boulevard (EW)[1]
2. I-805 Southbound Ramps (NS) at East Plaza Boulevard (EW)
3. I-805 Northbound Ramps (NS) at East Plaza Boulevard (EW)
4. Palm Avenue (NS) at East Plaza Boulevard (EW)

The project site is surrounded by the following land uses:

- North (opposite of East Plaza Boulevard): Commercial and multi-family residential
- South: Multi-family and single-family residential
- East: I-805 Freeway
- West: Car wash with easement and shared access driveway

PROJECT DESCRIPTION

The proposed project involves construction of a new 3,879 square foot In-N-Out Burger restaurant with drive through window and related parking and landscaping improvements. The existing vehicular access at East Plaza Boulevard is proposed to be maintained as right in/out and left turn in access; the existing "KEEP CLEAR" pavement markings in front of the project driveway on East Plaza Boulevard are proposed to be maintained. The front entrance of the proposed building will be oriented facing west. The project proposes to provide a

[1] (NS) = North-South roadway; (EW) = East-West roadway

Legend

(#) Study Intersection

(#) Project Driveway

Figure 1
Project Location Map

total of 55 vehicle parking spaces and four short-term bicycle parking spaces. Figure 2 shows the proposed project site plan.

PROJECT TRIP GENERATION

Table 1 shows the existing, proposed, and net project trip generation. As shown in Table 1, the proposed project is forecast to result in approximately 1,655 net new daily trips on weekdays compared to the existing restaurant, including a reduction of 60 trips during the AM peak hour and 103 new trips during the PM peak hour.

Trip generation rates for the existing restaurant to be displaced were obtained from the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition, 2021). The existing sit-down restaurant closes at 2:00 PM; therefore, trip generation was assumed to be negligible for the PM peak hour. Although the ITE *Trip Generation Manual* contains data for a fast-food restaurant with drive through window land use, In-N-Out is generally understood to generate more trips than the average fast-food restaurant. To provide a conservative analysis, trip generation for the proposed In-N-Out is based on average trip generation rates derived from trip counts of existing In-N-Out restaurants throughout California. Appendix B provides the count worksheets and average trip generation rate calculations for In-N-Out.

Pass-By Trip Adjustments

Land uses such as shopping centers, restaurants, gasoline stations, and convenience stores will often locate next to busy roadways to attract motorists already on the street. Since the trip generation rates contained in the ITE *Trip Generation Manual* represent vehicles entering and exiting at the site driveway(s), it is appropriate to reduce the initial trip generation forecast by the applicable pass-by trip rate when calculating the net new trips that will be added to the surrounding street system. The trip generation forecasts shown in Table 1 include applicable pass-by trip adjustments for both the existing and proposed uses based on average pass-by rates from the ITE *Trip Generation Manual*. For time periods with no pass-by data provided in ITE *Trip Generation Manual*, the pass-by rates were assumed as half of the ITE peak hour rate.

It is anticipated that a substantial amount of the project trips will be comprised of diverted trips from the I-805 freeway since the project site is located directly adjacent to the I-805 southbound on-ramp. Diverted trips are similar to pass-by trips by consisting of vehicle trips that are currently on the roadway system, however, instead of passing by along a roadway with direct access to the project site, these trips divert from other roadways without direct access to the project, thus contributing new trips in the immediate vicinity. Diverted trips generated by the project are shown separately since these are anticipated to exhibit unique travel patterns compared to primary and pass-by trips.

PROJECT TRIP DISTRIBUTION AND ASSIGNMENT

Figure 3 shows the forecast directional distribution patterns for primary trips generated by the project. Figure 4 shows the forecast direction distribution patterns for pass-by and diverted trips associated with the project. The project trip distribution patterns were developed using engineering judgment based on review of other In-N-Out locations in the vicinity, existing volume data, surrounding land uses, and the local and regional roadway facilities in the project vicinity. Based on preliminary review, it was determined that outbound left turn access for the project site would result in deficient Level of Service and excessive on-site queues; therefore, the project driveway was evaluated assuming left turn in and right in/right out access. Outbound project trips traveling to the west will be required to turn right out and are anticipated to U-turn at 12th Street or circle around 12th Street and Grove Street.

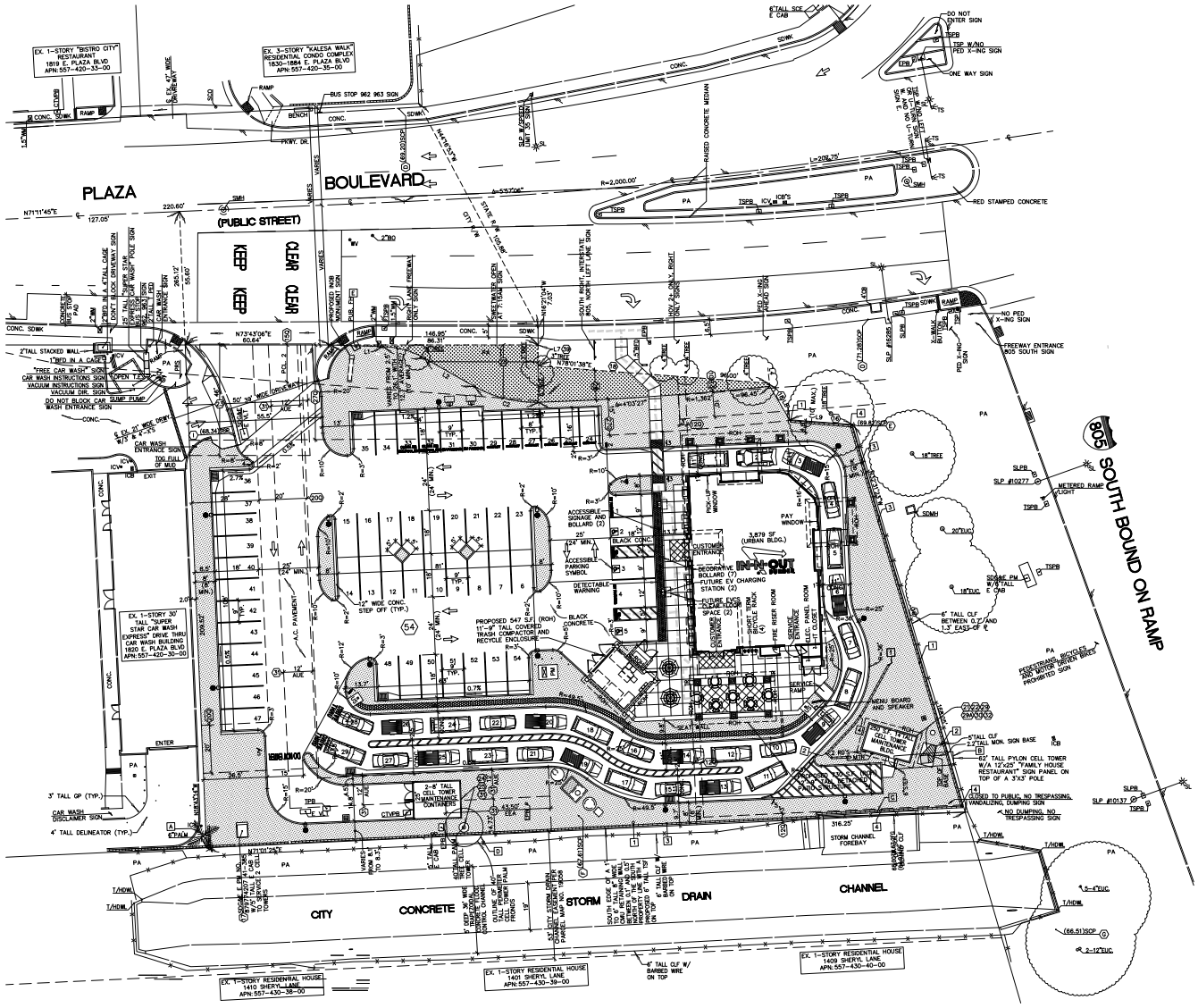


Figure 2
Site Plan

Table 1
Project Trip Generation

Trip Generation Rates									
Land Use	Source[1]	Land Use Variable[2]	AM Peak Hour			PM Peak Hour			Daily Rate
			% In	% Out	Rate	% In	% Out	Rate	
Proposed In-N-Out Burger Restaurant	Surveys	TSF	n/a	n/a	n/a	52%	48%	59.24	773.38
Existing High Turnover Sit-Down Restaurant	ITE 932 [3]	TSF	55%	45%	957%	n/a	n/a	n/a	107.20

Trips Generated									
Land Use	Source	Quantity	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Proposed In-N-Out Burger Restaurant	Surveys	3.879 TSF	0	0	0	119	110	229	3,000
Primary Trips (26% PM, 63% Daily) [4]			*0*	*0*	*0*	*31*	*29*	*60*	*1,890*
Diverted Trips (19% PM, 9.5% Daily) [4]			*0*	*0*	*0*	*23*	*21*	*44*	*285*
Pass-By (55% PM, 27.5% Daily) [4]			*0*	*0*	*0*	*65*	*61*	*126*	*825*
Subtotal - Non-Passy By Trips			0	0	0	54	49	103	2,175
Existing High Turnover Sit-Down Restaurant	ITE 932 [3]	6.178 TSF	33	27	60	0	0	0	662
Pass-By (43% PM, 21.5% Daily) [4]			*0*	*0*	*0*	*0*	*0*	*0*	*142*
Subtotal - Non-Passy By Trips			33	27	60	0	0	0	520
TOTAL NET NEW PROJECT TRIPS GENERATED			**-33**	**-27**	**-60**	**+54**	**+49**	**+103**	**+1,655**

Notes:

1. Surveys = Trip generation surveys of existing In-N-Out restaurants; see Appendix B.
   ITE = Institute of Transportation Engineers *Trip Generation Manual* (11th Edition, 2021); ### = Land Use Code.
2. TSF = Thousand Square Feet
3. The existing sit-down restaurant closes at 2:00 PM on weekdays; therefore, trip generation is assumed to be negligible during the weekday PM peak hour.
4. Source: ITE *Trip Generation Manual* . For time periods with no pass-by data provided in ITE *Trip Generation Manual* , the pass-by rates were assumed as half of ITE peak hour rate.

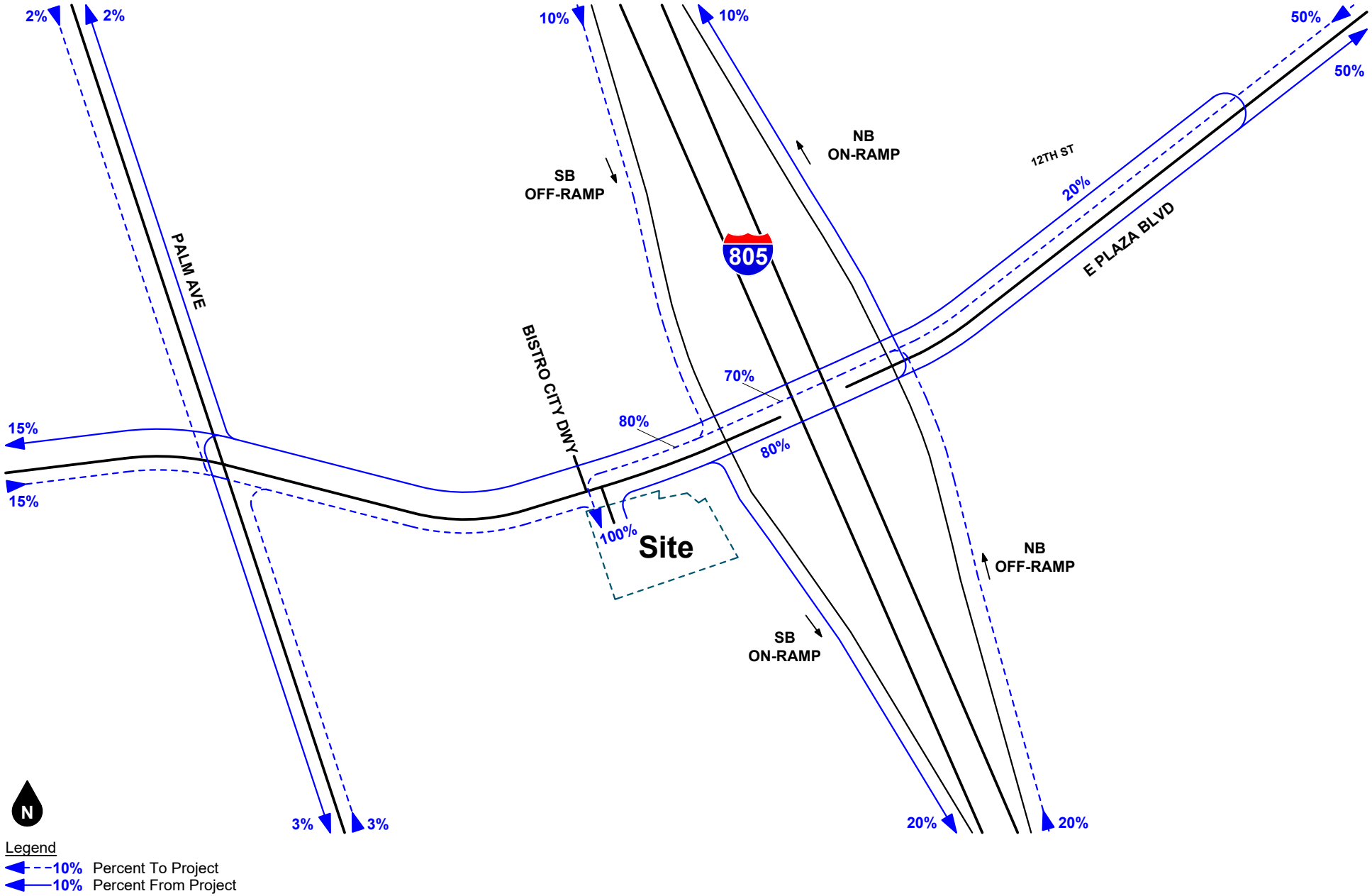


Figure 3
Project Trip Distribution - Primary Trips

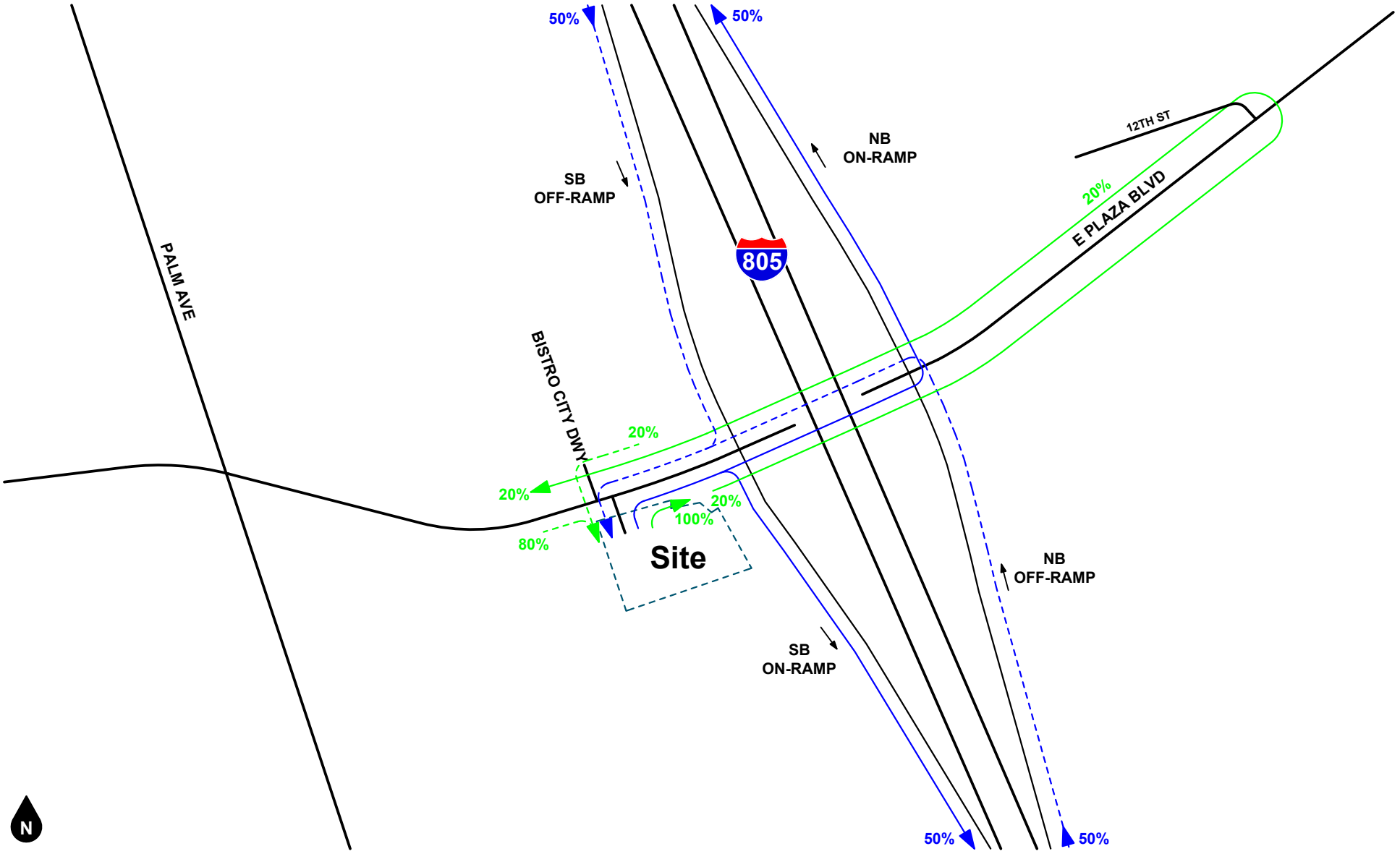


Figure 4
Project Trip Distribution - Pass-By and Diverted Trips

Based on the identified project trip generation and distributions, project-generated PM peak hour intersection turning movement volumes are shown on Figure 5. Project-generated volumes are not shown for the AM peak hour (typically one hour between 7-9 AM) since the proposed project is not operational during this time.

EXISTING VOLUMES

Figure 6 show the Existing PM peak hour intersection turning movement volumes. Existing peak hour intersection volumes are based upon peak period intersection turning movement counts obtained in October 2021 and September 2019 during typical weekday conditions. The counts collected in in 2019 were increased by a growth rate of one percent per year over a two-year period to adjust for 2021 baseline conditions. The weekday AM peak period was counted between 7:00 AM and 9:00 AM and the weekday PM peak period was counted between 4:00 PM and 6:00 PM; these periods generally capture the peak times for commuter traffic when the roadway system is typically experiencing peak demand. The actual peak hour within each two-hour count period is determined based on the sum of the four consecutive 15-minute periods with the highest total volume. Thus, the weekday PM peak hour at one intersection may be 4:45 PM to 5:45 PM if those four consecutive 15-minute periods have the highest total volume and may vary at other intersections. Intersection turning movement count worksheets are provided in Appendix C.

EXISTING PLUS PROJECT

Figure 7 shows the PM peak hour intersection turning movement volumes for Existing Plus Project conditions. Existing Plus Project volumes were determined by adding project-generated trips to Existing volumes.

ANALYTICAL METHODOLOGIES

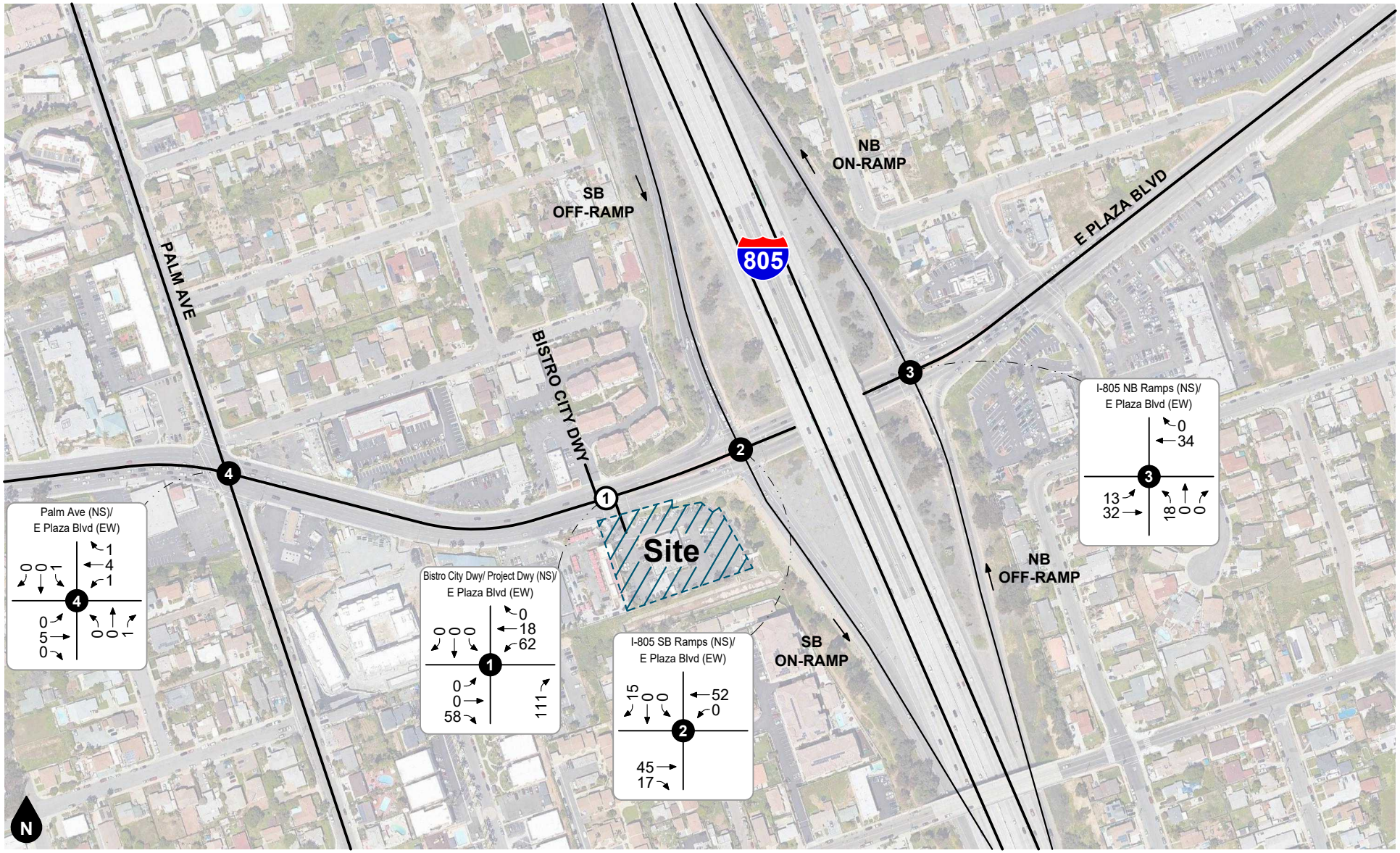
INTERSECTION LEVEL OF SERVICE ANALYSIS

The technique used to assess the performance of intersections is known as the intersection delay methodology based on the procedures contained in the *Highway Capacity Manual* (Transportation Research Board, 6th Edition). The methodology considers the traffic volume and distribution of movements, traffic composition, geometric characteristics, and signalization details to calculate the average control delay per vehicle and corresponding Level of Service. Control delay is defined as the portion of delay attributed to the intersection traffic control (such as a traffic signal or stop sign) and includes initial deceleration, queue move-up time, stopped delay, and final acceleration delay. The intersection control delay is then correlated to Level of Service based on the following thresholds:

Level of Service	Intersection Control Delay (Seconds / Vehicle)	
	Signalized Intersection	Unsignalized Intersection
A	≤ 10.0	≤ 10.0
B	> 10.0 to ≤ 20.0	> 10.0 to ≤ 15.0
C	> 20.0 to ≤ 35.0	> 15.0 to ≤ 25.0
D	> 35.0 to ≤ 55.0	> 25.0 to ≤ 35.0
E	> 55.0 to ≤ 80.0	> 35.0 to ≤ 50.0
F	> 80.0	> 50.0

Source: Transportation Research Board, Highway Capacity Manual (6th Edition).

Level of Service is used to qualitatively describe the performance of a roadway facility, ranging from Level of Service A (free-flow conditions) to Level of Service F (extreme congestion and system failure). At intersections



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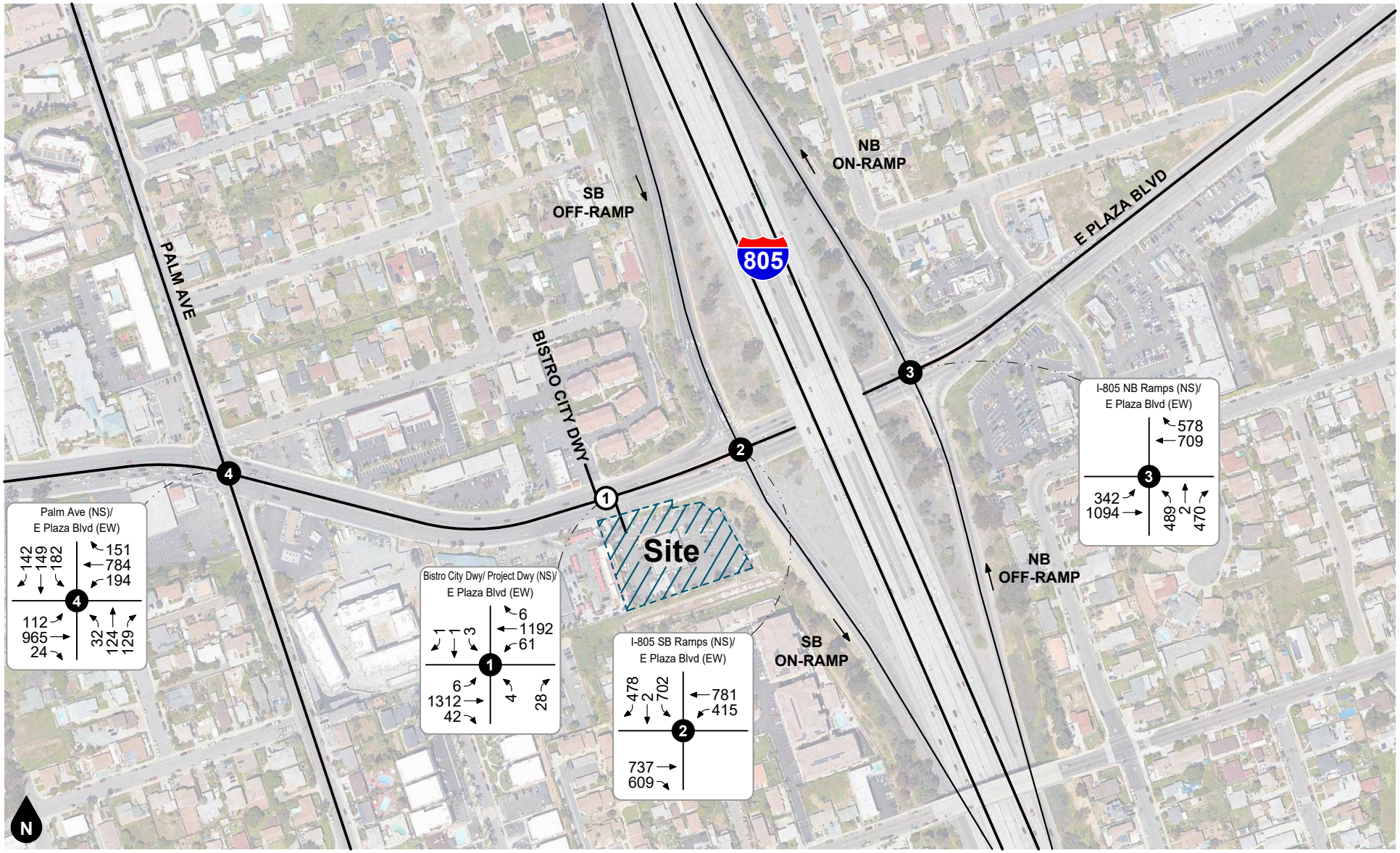
(#) Study Intersection

(#) Project Driveway

Figure 5
Project PM Peak Hour Intersection Turning Movement Volumes



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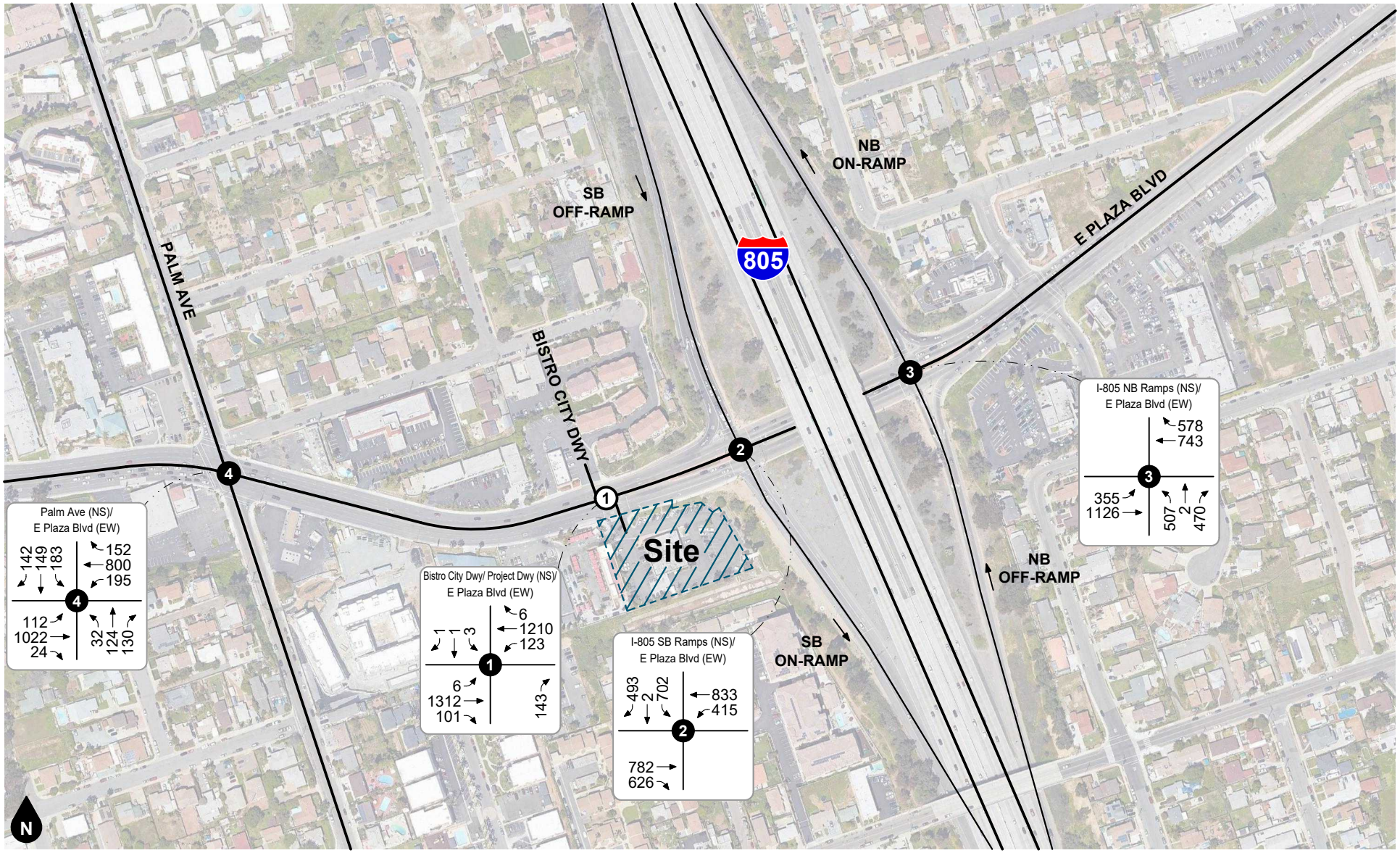
(#) Study Intersection

(#) Project Driveway

Figure 6
Existing PM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

(#) Project Driveway

Figure 7
Existing Plus Project
PM Peak Hour Intersection Turning Movement Volumes

with traffic signal or all way stop control, Level of Service is determined by the average control delay for the overall intersection. At intersections with cross street stop control (i.e., one- or two-way stop control), Level of Service is determined by the average control delay for the worst approach.

Intersection delay and Level of Service calculations were performed using the Synchro software. A base saturation flow rate of 1,900 vehicles per hour per lane and existing signal timing plans were used. The Synchro Level of Service reports are provided in Appendix D.

SITE ACCESS QUEUING ANALYSIS

Site Access queuing analysis was performed using Synchro/SimTraffic simulation runs to provide a stochastic analysis. The stochastic analysis accounts for random probability distributions and was conducted using the SimTraffic software. SimTraffic is a micro-simulation software that tracks each individual vehicle in the roadway network model and records operational measures, such as queuing and delay, based on the simulated performance. To simulate real-life variability, the software uses a randomization process to generate vehicles with varying driver behaviors. Therefore, each run of the simulation will produce varying outcomes. The simulations were run for four 15-minute intervals with existing peak hour factors applied during one interval.

For each scenario, average and 95th-percentile queue lengths are reported from the average of three simulation runs. The 95th-percentile queue length represents a queue length expected to be exceeded only five percent of the time, or approximately one out of every 20 cycles, and is the design value commonly used in traffic engineering practice for evaluating queues and storage lengths. The SimTraffic simulation/queuing analysis reports are provided in Appendix E.

OPERATIONAL ASSESSMENT

INTERSECTION LEVELS OF SERVICE

Table 2 shows the study intersection Levels of Service for Existing and Existing Plus Project conditions. As shown in Table 2, the study intersections currently operate at Level of Service D or better during the PM peak hour, except for the following study intersections:

1. Project Driveway (NS) at East Plaza Boulevard (EW)
   - Level of Service E for the southbound approach (Bistro City easterly driveway egress)

4. Palm Avenue (NS) at East Plaza Boulevard (EW)
   - Level of Service E

As also shown in Table 2, the study intersections are forecast to continue operating at Level of Service D or better during the PM peak hour for Existing Plus Project conditions, except for the following study intersections:

1. Project Driveway (NS) at East Plaza Boulevard (EW)
   - Worsens to Level of Service F for the southbound approach (Bistro City easterly driveway egress)

4. Palm Avenue (NS) at East Plaza Boulevard (EW)
   - Continues operating at Level of Service E

Table 2
Intersection Level of Service

ID	Study Intersection	Traffic Control[1]	Existing PM Peak Hour Delay[2]	Existing PM Peak Hour LOS[3]	Existing Plus Project PM Peak Hour Delay[2]	Existing Plus Project PM Peak Hour LOS[3]
1.	Project Dwy at East Plaza Blvd	Unsignalized				
	Northbound (Project Dwy)	CSS	21.9	C	25.1	D
	Southbound (Bistro City Dwy)	CSS	35.5	E	61.3	F
2.	I-805 SB Ramps at East Plaza Blvd	TS	44.5	D	44.8	D
3.	I-805 NB Ramps at East Plaza Blvd	TS	33.0	C	33.5	C
4.	Palm Ave at East Plaza Blvd	TS	71.4	E	71.6	E

Notes:

(1) TS = Traffic Signal; CSS = Cross Street Stop

(2) Delay is shown in seconds/vehicle. For intersections with traffic signal control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, Level of Service is based on average delay of the worst approach.

(3) LOS = Level of Service

The poor Level of Service for the project driveway at East Plaza Boulevard primarily relates to the southbound left turn and through movements from the Bistro City driveway on the north side of East Plaza Boulevard, opposite the project driveway, which account for four trips during the PM peak hour. Furthermore, it appears that circulation for the Bistro City site is intended to flow in a counter-clockwise direction with vehicles exiting further west. If the addition of the proposed project does in fact result in intolerable delay for egress from the easterly Bistro City driveway during the peak hour, these trips are likely to exit from the westerly driveway.

The project-related increase in delay at the intersection of Palm Avenue and East Plaza Boulevard is nominal and below the threshold for improvements commonly used in the San Diego region (less than 2 seconds); therefore, no improvements are necessary.

SITE ACCESS QUEUING OPERATIONS

Table 3 shows queuing analysis results for the key movements relating to project site access. Figure 8 shows the off-ramp storage capacity measurements. Figure 9 illustrates the forecast vehicular queues based on the queuing analysis.

As shown in Table 3, the project driveway northbound approach (egress) is forecast to experience an average queue length of 65 feet (2-3 vehicles) and a 95th-percentile queue length of 120 feet (approximately 5 vehicles) during the PM peak hour for Existing Plus Project conditions. As shown on Figure 8, the average northbound queue at the project driveway can be accommodated on-site without adversely impacting circulation to/from the proposed drive through lane or the majority of parking stalls. Approximately 8 parking stalls along the northerly drive aisle may be temporarily inaccessible when the 95th-percentile queue is reached, however, the blockage would be relatively brief and is not expected to impact inbound circulation or result in off-site overflow. The westbound left turn movement into the project site is forecast to experience an average queue length of 49 feet (2 vehicles) and a 95th-percentile queue length of 93 feet (approximately 4 vehicles), both of which can be accommodated within 125 feet of existing two-way left turn lane between the project driveway centerline and the beginning of the raised median.

As also shown in Table 3, the eastbound lanes at the I-805 Southbound Ramps/East Plaza Boulevard intersection are forecast to experience an average queue length of 229 feet and a 95th-percentile queue length of 339 feet, which extends westerly beyond the project driveway. Keep clear pavement markings are currently painted to prevent the eastbound queue along East Plaza Boulevard from blocking the project driveway and are proposed to be maintained.

The 95th-percentile queue lengths for the I-805 northbound and southbound off-ramps are forecast to be accommodated within the available storage capacity, except for the northbound right turn from the I-805 northbound off-ramp at East Plaza Boulevard. The addition of northbound right turn lane overflow queue into the adjacent shared through/left turn lane would result in a 95th-percentile queue of approximately 463 feet, which can be accommodated within the off-ramp without spilling back into the freeway mainline.

Recommendations

Restricting the project driveway egress to right turn out only would maintain acceptable Level of Service and queuing for the northbound approach/project egress. The two primary ways to restrict the project driveway to right turn out involve installation of signing and striping indicating no left turns or construction of a raised median along East Plaza Boulevard (with westbound left turn pocket). In consideration of minimizing impacts to Bistro City and maintaining access for the Bistro City easterly driveway to the extent possible, it is recommended that the project install a painted “half-porkchop” median in the northbound project driveway

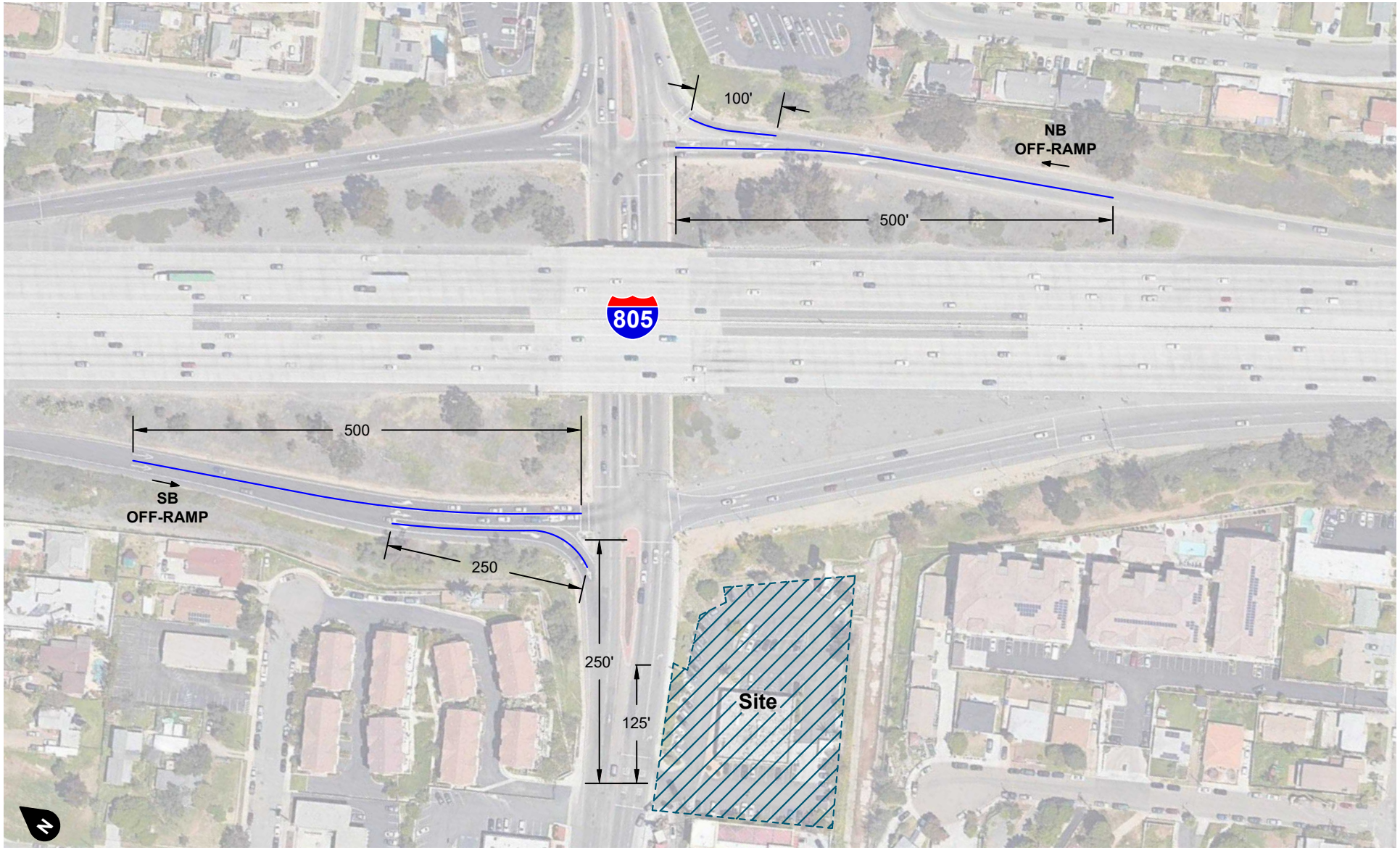


Figure 8
Storage Lengths

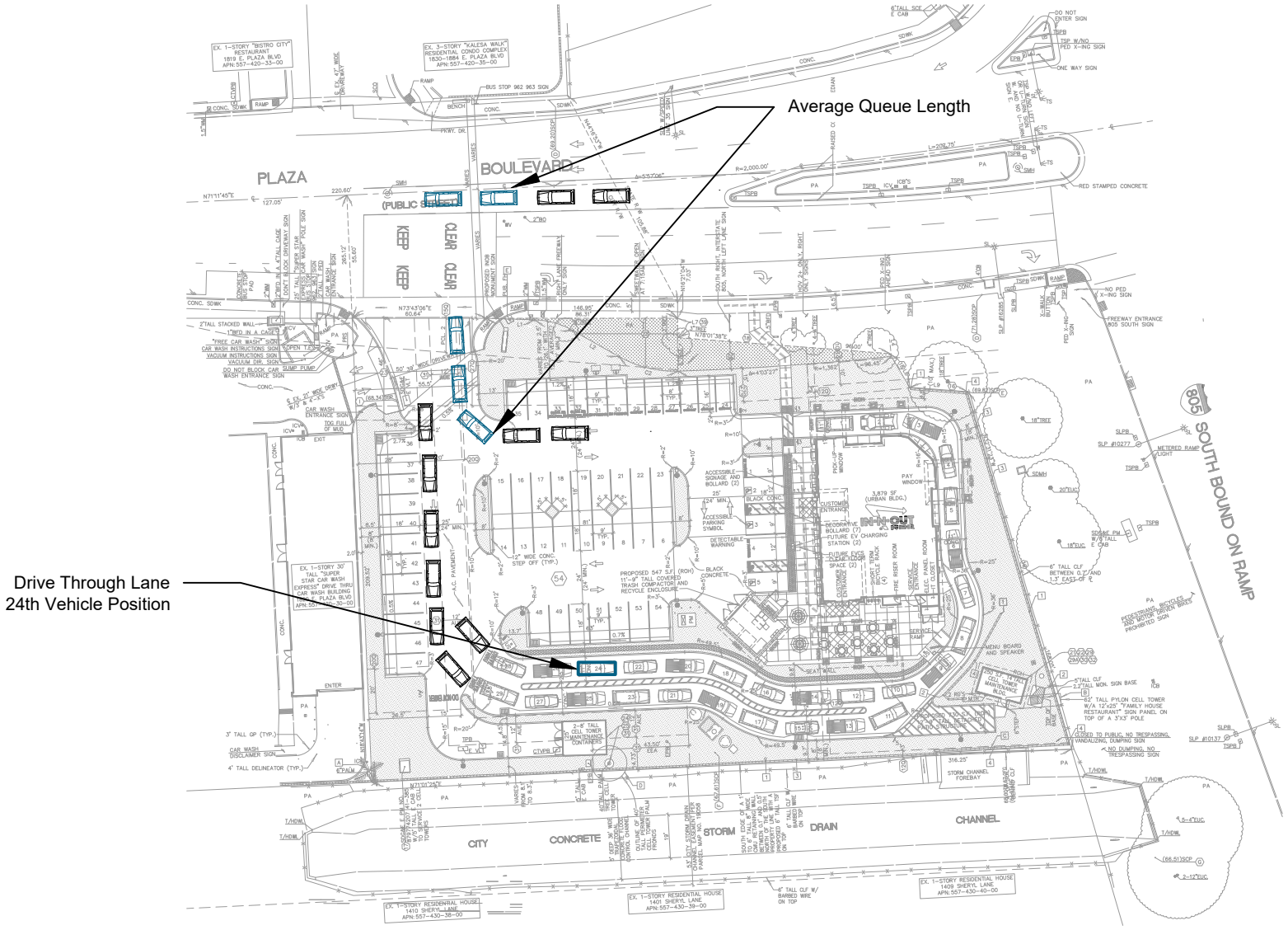


Figure 9
Forecast Queue Lengths

Table 3
Queuing Analysis

ID	Study Intersection	Lane	Storage Length (feet/lane)	PM Peak Hour Queue Length (feet/lane)			
				Existing		Existing Plus Project	
				Average	95th-Percentile	Average	95th-Percentile
1.	Project Dwy at East Plaza Blvd	NB	50+	31	74	65	120
		WBL	125	26	58	49	93
2.	I-805 SB Ramps at East Plaza Blvd	EBT	250	229	320	219	322
		EBR	250	234	348	229	339
		SBL	500+	267	377	272	368
		SBLT	500+	208	331	210	313
		SBR	250	44	190	50	208
3.	I-805 NB Ramps at East Plaza Blvd	NBL	550+	204	319	204	305
		NBLT	550+	160	316	172	323
		NBR	100+	87	247	82	240

Notes:
(1) NB = Northbound; WB = Westbound; EB = Eastbound; L = Left; T = Through; R = Right

(2) Project driveway northbound movement includes left turns for Existing conditions and right turn only for Existing Plus Project conditions.

egress to orient exiting vehicles to the right and in conjunction with no left turn out signage (R3-2 sign per California Manual on Uniform Traffic Control Devices).

Installation of a traffic signal at the project driveway would not be warranted based on the peak hour volume and is not feasible due to insufficient spacing from the adjacent signal control at I-805 Southbound Ramps/East Plaza Boulevard. The poor Level of Service for the southbound approach at the Project Driveway/East Plaza Boulevard intersection (i.e., Bistro City easterly driveway egress) relates to only four vehicles. These vehicles would likely divert and exit from the Bistro City westerly driveway, in accordance with the intended counter-clockwise circulation for that property. Thus, this issue is effectively anticipated to self-correct during the peak hour and Bistro City access would be maintained during off-peak hours.

DRIVE THROUGH LANE QUEUING OPERATIONS

As shown on the project site plan, the project is proposing a combination dual/single-lane drive through layout with a total storage capacity for up to approximately 29 vehicles. The proposed layout includes a dual-lane drive through entry that merges into one lane prior to a single service point for taking orders at the menu board located at the 9th vehicle position from the pick-up window. As also shown on Figure 9, the project site can accommodate stacking for approximately 7 additional vehicles on-site prior to entering the drive through lane for a total on-site stacking capacity of approximately 36 vehicles.

To evaluate adequacy of the proposed drive through lane, this analysis compiled data of actual vehicular queues observed within the drive through lanes at existing In-N-Out Burger restaurants throughout Southern California. Queue survey data used for this analysis was collected at the following locations:

Survey Location	Weekday	Weekend
Corona – 2305 Compton Avenue, Corona, CA 92881	12/4-8/2017	12/2-3/2017
Highland – 28009 Greenspot Road, Highland, CA 92346	12/4-8/2017	12/2-3/2017
Indio - 82043 Highway 111, Indio, CA 92201	6/27/2019	6/22/2019
La Quinta – 78611 Highway 111, La Quinta, CA 92253	6/27/2019	6/22/2019
Long Beach - 6391 E Pacific Coast Hwy, Long Beach, CA 90803	5/16/2012	5/19/2012
Los Angeles - 9149 S Sepulveda Blvd, Los Angeles, CA 90045	5/16/2012	5/19/2012
Thousand Palms – 72265 Varner Rd, Thousand Palms, CA 92276	6/27/2019	6/22/2019

Drive through lane queues at the Corona and Highland locations were counted over multiple weekdays and weekend days from 10:30 AM to 1:00 AM. Weekday counts were conducted on Monday, December 4, 2017 through Friday, December 8, 2017 and weekend counts were conducted on Saturday, December 2, 2017 and Sunday, December 3, 2017. To provide a conservative assessment, the queue values for the greatest queue observed during the specified time period on any given weekday or weekend day during which the counts were collected. The drive though queue survey sheets are provided in Attachment F.

Tables 4 and 5 summarize the drive through lane queue survey results for weekdays and weekends, respectively. As shown in Table 4, the peak drive through lane queue ranged from 15 to 24 vehicles on weekdays. The average peak queue observed on weekdays is equal to 20 vehicles and the 85th-percentile queue is equal to 23 vehicles. As shown in Table 5, the peak drive through lane queue ranged from 16 to 25 vehicles on weekends. The average peak queue observed on weekends is equal to 22 vehicles and the 85th-percentile queue is equal to 24 vehicles.

Table 4
Weekday Drive Through Queue Survey Summary

Time	Peak Queue Observed within 15-Minute Increment								
	Corona	Highland	Indio	La Quinta	Long Beach	Los Angeles	Thousand Palms	Average	85th-%ile
LUNCH									
11:00 AM	17	14	5	8	3	6	15	10	15
11:15 AM	17	17	7	7	6	12	16	12	17
11:30 AM	16	16	12	12	7	16	18	14	16
11:45 AM	17	17	12	13	14	19	14	15	17
12:00 PM	23	19	12	21	15	20	17	18	21
12:15 PM	24	21	10	22	15	18	16	18	22
12:30 PM	23	21	9	19	13	21	16	17	21
12:45 PM	17	20	12	18	8	19	20	16	20
1:00 PM	16	19	16	18	12	22	10	16	19
1:15 PM	18	14	12	20	13	21	12	16	20
1:30 PM	17	16	10	18	8	20	13	15	18
1:45 PM	15	18	8	16	7	20	10	13	18
2:00 PM	16	17	7	14	8	21	19	15	19
DINNER									
4:00 PM	17	15	7	15	6	17	7	12	17
4:15 PM	16	19	4	21	5	15	10	13	19
4:30 PM	17	17	7	20	3	12	9	12	17
4:45 PM	16	18	7	20	6	10	11	13	18
5:00 PM	23	19	6	22	5	9	10	13	22
5:15 PM	23	19	12	18	7	14	14	15	19
5:30 PM	23	19	10	21	7	17	13	16	21
5:45 PM	18	21	9	19	5	19	9	14	19
6:00 PM	23	23	10	16	12	20	12	17	23
6:15 PM	24	22	8	22	7	19	16	17	22
6:30 PM	24	19	11	23	10	20	18	18	23
6:45 PM	24	18	10	21	12	18	18	17	21
7:00 PM	23	19	7	21	10	17	19	17	21
7:15 PM	18	21	10	16	11	18	20	16	20
7:30 PM	23	21	12	7	7	19	17	15	21
7:45 PM	24	19	7	17	6	20	16	16	20
8:00 PM	23	18	15	16	8	21	10	16	21
8:15 PM	17	17	12	17	6	19	17	15	17
8:30 PM	16	17	10	15	9	19	15	14	17
PEAK	**24**	**23**	**16**	**23**	**15**	**22**	**20**	**20**	**23**

Source: Queue observations at existing In-N-Out restaurants; see Appendix F.

Table 5
Weekend Drive Through Queue Survey Summary

Time	Peak Queue Observed within 15-Minute Increment								
	Corona	Highland	Indio	La Quinta	Long Beach	Los Angeles	Thousand Palms	Average	85th-%ile
LUNCH									
11:00 AM	9	9	6	8	7	8	8	8	9
11:15 AM	13	14	4	11	8	11	8	10	13
11:30 AM	17	16	7	16	9	12	12	13	16
11:45 AM	19	18	8	11	16	18	14	15	18
12:00 PM	17	18	11	10	16	20	11	15	18
12:15 PM	18	20	8	14	14	16	12	15	18
12:30 PM	23	20	9	18	16	20	18	18	20
12:45 PM	24	21	11	16	10	20	16	17	21
1:00 PM	24	19	16	15	15	23	15	18	23
1:15 PM	23	20	7	14	16	22	15	17	22
1:30 PM	24	20	6	18	10	20	18	17	20
1:45 PM	23	22	8	15	9	20	18	16	22
2:00 PM	22	17	12	16	12	21	14	16	21
DINNER									
4:00 PM	20	14	10	14	8	10	12	13	15
4:15 PM	18	15	15	17	10	14	11	14	17
4:30 PM	17	16	15	17	8	18	12	15	17
4:45 PM	17	18	16	20	5	8	11	14	18
5:00 PM	23	19	20	21	9	8	12	16	21
5:15 PM	24	20	22	18	10	9	11	16	22
5:30 PM	24	22	22	19	10	20	6	18	22
5:45 PM	23	18	24	12	9	19	16	17	23
6:00 PM	24	23	21	11	13	20	19	19	23
6:15 PM	24	21	16	10	9	19	17	17	21
6:30 PM	25	20	10	17	10	20	15	17	21
6:45 PM	25	19	11	18	14	18	20	18	21
7:00 PM	24	21	8	10	12	19	19	16	21
7:15 PM	24	19	7	12	13	20	13	15	20
7:30 PM	23	18	6	11	9	21	12	14	21
7:45 PM	23	19	9	8	9	22	14	15	22
8:00 PM	15	20	12	15	10	21	13	15	20
8:15 PM	16	19	9	16	9	22	17	15	19
8:30 PM	17	21	8	16	11	18	17	15	18
PEAK	**25**	**23**	**24**	**21**	**16**	**23**	**20**	**22**	**24**

Source: Queue observations at existing In-N-Out restaurants; see Appendix F.

Recommended Design Value

In statistics, the 85th-percentile describes the value at which 85 percent of the samples are distributed at or below. Assuming the survey sample is representative of future In-N-Out locations, design of the drive through lane for the 85th-percentile queue is expected to accommodate the peak queue for 85 percent of sites. Whereas designing for the average peak could result in drive through lane overflow at roughly one out of two locations, use of the 85th-precentile is intended to provide a more conservative approach without unnecessarily over-designing the drive through lane for a substantial majority of sites.

The proposed In-N-Out drive through lane with queuing capacity for approximately 29 vehicles is forecast to provide adequate storage capacity within the drive through layout based on an 85th-percentile peak queue of 24 vehicles observed from a sample of comparable In-N-Out restaurants.

TRIP GENERATION AND QUEUING COMPARISON FOR SAN DIEGO IN-N-OUT LOCATION

The existing In-N-Out locations included in the trip generation and drive through queuing analysis above are based on locations throughout California and are expected to be generally representative of conditions for typical In-N-Out restaurants. To verify validity of this data for use in the San Diego region, a new trip generation and drive through queuing survey was conducted at the existing In-N-Out restaurant located at 4375 Kearny Mesa Road, San Diego, California 92111. The count worksheets and trip generation calculations are provided in Appendix F.

As shown in Appendix F, the In-N-Out located at 4375 Kearny Mesa Road, San Diego, was observed to generate 58.81 trips per thousand square feet during the weekday PM peak hour and a peak drive through queue of 23 vehicles, both data points of which are lower than the trip generation rate and recommended drive through queuing capacity design value used in this analysis.

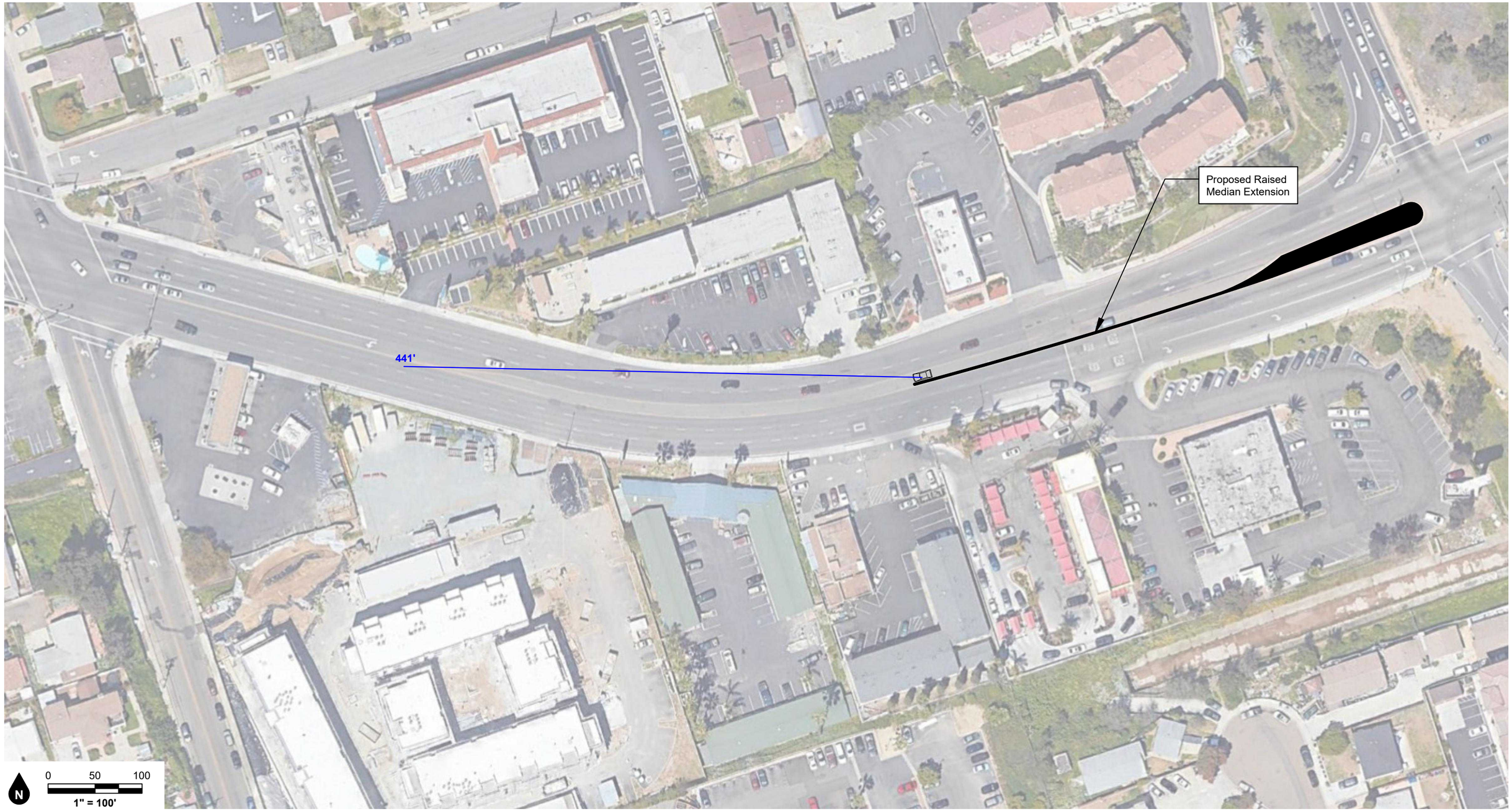
PLAZA BOULEVARD MEDIAN ALTERNATIVES

As requested by City staff, two additional scenarios were evaluated for potential modifications to the median along Plaza Boulevard as a contingency improvement should westbound queues entering the project site exceed expectations:

1) Extend the raised median from I-805 southbound ramps to Palm Avenue. This would result in all inbound trips approaching the site from westbound Plaza Boulevard to pass the site and make a U-turn at Palm Avenue. Additionally, this impact left turn access for all properties on the north and south sides of Plaza Boulevard between I-805 and Palm Avenue, requiring additional U-turn movements at Palm Avenue or at 12th Street on the east side of I-805. For purposes of this analysis, only U-turns associated with In-N-Out and existing volumes at the Bistro City East Driveway were re-assigned.

2) Extend the raised median from I-805 southbound ramps to the western property line of the adjacent car wash and approximate location of egress driveway for an existing Produce Store. This would only impact existing access for the project site and Bistro City on the north side of Plaza Boulevard. Figure 10 shows a sight distance analysis for the left turn lane to demonstrate feasibility.

Table 6 shows the study intersection Levels of Service for Existing, Existing Plus Project conditions (no median modifications), and Existing Plus Project with the two median modification alternatives. As shown in Table 6, the intersections are forecast to operate within acceptable Levels of Service with the potential median modifications, except at the intersection of Palm Avenue/East Plaza Boulevard, which is forecast to degrade



Legend

Intersection Sight Distance

ISD = 1.47 x V x T, where

V = design speed and T = time gap.

ISD = 1.47 x 40 mph x 7.5 seconds = 441 feet

Figure 10
Conceptual Median Extension to Produce Store and Sight Distance

Table 6
Intersection Level of Service With Plaza Boulevard Median Alternatives

ID	Study Intersection	Traffic Control[1]	Existing		Existing Plus Project					
					No Median Modification		Median Extension to Palm		Median Extension to Produce Store	
			PM Peak Hour		PM Peak Hour		PM Peak Hour		PM Peak Hour	
			Delay[2]	LOS[3]	Delay[2]	LOS[3]	Delay[2]	LOS[3]	Delay[2]	LOS[3]
1.	Project Dwy at East Plaza Blvd	Unsignalized								
	Northbound (Project Dwy)	CSS	21.9	C	25.1	D	29.0	D	29.1	D
	Southbound (Bistro City Dwy)	CSS	35.5	E	61.3	F	13.7	B	15.3	C
2.	I-805 SB Ramps at East Plaza Blvd	TS	44.5	D	44.8	D	44.8	D	44.8	D
3.	I-805 NB Ramps at East Plaza Blvd	TS	33.0	C	33.5	C	33.5	C	33.4	C
4.	Palm Ave at East Plaza Blvd	TS	71.4	E	71.6	E	132.4	F	71.4	E
5.	Mid-Block U-Turn at East Plaza Blvd	Unsignalized	-	-	-	-	-	-	20.1	C

Notes:

(1) TS = Traffic Signal; CSS = Cross Street Stop

(2) Delay is shown in seconds/vehicle. For intersections with traffic signal control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, Level of Service is based on average delay of the worst approach.

(3) LOS = Level of Service

to Level of Service F for the median extension to Palm Avenue condition and continue operating at Level of Service E for the median extension to the produce store condition.

VEHICLE MILES TRAVELED (VMT) ASSESSMENT

BACKGROUND

California Senate Bill 743 (SB 743) directs the State Office of Planning and Research (OPR) to amend the California Environmental Quality Act (CEQA) Guidelines for evaluating transportation impacts to provide alternatives to Level of Service that "promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." In December 2018, the California Natural Resources Agency certified and adopted the updated CEQA Guidelines package. The amended CEQA Guidelines, specifically Section 15064.3, recommend the use of Vehicle Miles Travelled (VMT) as the primary metric for the evaluation of transportation impacts associated with land use and transportation projects. In general terms, VMT quantifies the amount and distance of automobile travel attributable to a project or region. All agencies and projects State-wide are required to utilize the updated CEQA guidelines recommending use of VMT for evaluating transportation impacts as of July 1, 2020.

The updated CEQA Guidelines allow for lead agency discretion in establishing methodologies and thresholds provided there is substantial evidence to demonstrate that the established procedures promote the intended goals of the legislation. Where quantitative models or methods are unavailable, Section 15064.3 allows agencies to assess VMT qualitatively using factors such as availability of transit and proximity to other destinations. The Office of Planning and Research (OPR) *Technical Advisory on Evaluating Transportation Impacts in CEQA* (State of California, December 2018) ["OPR Technical Advisory"] provides technical considerations regarding methodologies and thresholds with a focus on office, residential, and retail developments as these projects tend to have the greatest influence on VMT.

SCREENING ASSESSMENT FOR LOCAL SERVING RETAIL

The OPR Technical Advisory defines local serving retail as less than 50,000 square feet. New retail development typically redistributes shopping trips rather than creating new trips. By adding retail opportunities into the urban fabric and thereby improving proximity, local-serving retail tends to shorten trips and reduce VMT. Similarly, the proposed project would improve proximity to dining opportunities and more specifically shorten trips for local In-N-Out customers who would otherwise drive to a further location. Therefore, the proposed project satisfies the State-recommended screening criteria for local-serving retail uses and may be presumed to result in a less than significant VMT impact.

CONCLUSIONS

The proposed project is forecast to result in approximately 1,655 net new daily trips on weekdays compared to the existing restaurant, including a reduction of 60 trips during the AM peak hour and 103 new trips during the PM peak hour.

The study intersections are forecast to continue operating at Level of Service D or better during the PM peak hour for Existing Plus Project conditions, except for the Project Driveway/East Plaza Boulevard intersection (southbound approach for Bistro City easterly driveway egress) that is forecast to worsen from Level of Service E to Level of Service F, and the Palm Avenue/East Plaza Boulevard intersection that is forecast to continue operating at Level of Service E.

Ms. Cassie Ruiz
IN-N-OUT BURGER
June 10, 2022

It is recommended that the project install a painted "half-porkchop" median in the northbound project driveway egress to orient exiting vehicles to the right and in conjunction with no left turn out signage (R3-2 sign per California Manual on Uniform Traffic Control Devices).

Based on results of the queuing analysis, the westbound left lane into the project driveway and freeway off-ramps are forecast to provide sufficient storage capacity to accommodate 95th-percentile queue lengths.

The proposed In-N-Out drive through lane with queuing capacity for approximately 29 vehicles is forecast to provide adequate storage capacity within the drive through layout based on an 85th-percentile peak queue of 24 vehicles observed from a sample of comparable In-N-Out restaurants.

The proposed project satisfies the State-recommended screening criteria for local-serving retail uses and may be presumed to result in a less than significant VMT impact.

It has been a pleasure to assist you with this project. Should you have any questions or if we can be of further assistance, please do not hesitate to call at (714) 795-3100.

Sincerely,
GANDDINI GROUP, INC.

Giancarlo Ganddini, PE, PTP
Principal Traffic Engineer

APPENDIX A

GLOSSARY

ACRONYMS

AC	Acres
ADT	Average Daily Traffic
Caltrans	California Department of Transportation
DU	Dwelling Unit
ICU	Intersection Capacity Utilization
GFA	Gross Floor Area
LOS	Level of Service
PCE	Passenger Car Equivalent
SP	Service Population
TSF	Thousand Square Feet
V/C	Volume/Capacity
VMT	Vehicle Miles Traveled

TERMS

ACTUATED SIGNAL CONTROL: A type of traffic signal control in which display of each phase depends on whether the corresponding phase detector has registered a service call or the phase is on recall.

ACTUATION: Detection of a roadway user that is forwarded to the signal controller.

AVERAGE DAILY TRAFFIC: The average 24-hour volume for a stated period divided by the number of days in that period. For example, Annual Average Daily Traffic is the total volume during a year divided by 365 days.

BANDWIDTH: The number of seconds of green time available for through traffic in a signal progression.

BOTTLENECK: A point of constriction along a roadway that limits the amount of traffic that can proceed downstream from its location.

CALL: An indication within a signal controller that a particular phase is waiting for service, either through actuation from a roadway user or phase recall.

CAPACITY: The maximum number of vehicles that can be reasonably expected to pass through a roadway facility during a specified period.

CHANNELIZATION: The separation of conflicting traffic movements by use of pavement markings, raised curbs, or other suitable means to facilitate free flow movement.

CLEARANCE INTERVAL: Equal to the yellow plus all-red time, if any, when a traffic signal changes between phases (i.e., the amount of time between the end of a green light from one movement to the beginning of a green light for the next).

COORDINATED SIGNAL CONTROL: A type of traffic signal control in which non-coordinated phases associated with minor movements are constrained such that the coordinated phases are served at a specific time during the signal cycle, thus maintaining the efficient progression of traffic flow along the major roadway.

CONTROL DELAY: The portion of delay attributed to the intersection traffic control (such as a traffic signal or stop sign). It includes initial deceleration, queue move-up time, stopped delay, and final acceleration delay.

CORDON: An imaginary boundary line around or across a study area across which vehicles, persons, or other information can be collected for survey and analytical purposes.

CORNER SIGHT DISTANCE: The minimum sight distance required by the driver of a vehicle to cross or enter the lanes of the major roadway without requiring approaching traffic traveling at a given speed to radically alter their speed or trajectory.

CYCLE: A complete sequence of signal indications for all phases.

CYCLE LENGTH: The total time for a traffic signal to complete one full cycle.

DAILY CAPACITY: A theoretical value representing the daily traffic volume that will typically result in a peak hour volume equal to the capacity of the roadway.

DELAY: The total additional travel time experienced by a roadway user (driver, passenger, bicyclist, or pedestrian) beyond that required to travel at a desired speed.

DENSITY: The number of vehicles occupying in a unit length of the through traffic lanes of a roadway at any given instant. Usually expressed in vehicles per mile.

DETECTOR: A device used to count or determine the presence of a roadway user.

DESIGN SPEED: A speed used for purposes of designing horizontal and vertical alignments of a highway.

DIRECTIONAL SPLIT: The percent of two-way traffic traveling in a specified direction.

DIVERSION: The rerouting of traffic from a normal path of travel between two points, such as to avoid congestion or perform a secondary trip.

FREE FLOW: Traffic flow that is unaffected by a traffic control and/or or upstream or downstream conditions.

GAP: Time or distance between two vehicles measured from rear bumper of the front vehicle to front bumper of the second vehicle.

GAP ACCEPTANCE: The method by which a driver accepts an available gap in traffic to enter or cross the road.

HEADWAY: Time or distance between two successive vehicles measured from same point on both vehicles (i.e., front bumper to front bumper).

LEVEL OF SERVICE: A grading scale of quantitative performance measures representing the quality of service of a transportation facility or service from an average traveler's perspective.

LOOP DETECTOR: A vehicle detector consisting of a loop of wire embedded in the roadway, energized by alternating current and producing an output circuit closure when passed over by a vehicle.

MULTI-MODAL: More than one mode, such as automobile, transit, bicycle, and pedestrian.

OFFSET: The time interval between the beginning of a traffic signal cycle at one intersection and the beginning of signal cycle an adjacent intersection.

PLATOON: A set of vehicles traveling at similar speed and moving as a general group with clear separation between other vehicles ahead and behind.

PASSENGER CAR EQUIVALENT: A metric used to assess the impact of larger vehicles, such as trucks, recreational vehicles, and buses, by converting the traffic volume of larger vehicles to an equivalent number of passenger cars.

PEDESTRIAN CLEARANCE INTERVAL: Also known as the "Flashing Don't Walk" interval, it signals the end of pedestrian entry into the crosswalk following the "Walk" indication and provides time for pedestrians who have already entered the crosswalk to finishing crossing.

PEAK HOUR: The hour within a day in which the maximum volume occurs.

PEAK HOUR FACTOR: The peak hour volume divided by the four times the peak 15-minute flow rate.

PHASE: In traffic signals, the green, yellow, and red clearance intervals assigned to a specified traffic movement.

PRETIMED SIGNAL: A traffic signal operation in which the cycle length, phasing sequence, and phasing times are predetermined and fixed, regardless of actual demand for any given traffic movement. Also known as a fixed time signal.

PROGRESSION: The coordinated movement of vehicles through signalized intersections along a corridor.

QUEUE: The number of vehicles waiting at a service area such as a traffic signal, stop sign, or access gate.

QUEUE LENGTH: The length of vehicle queue, typically expressed in feet, waiting at a service area such as a traffic signal, stop sign, or access gate.

RECALL: A signal phasing operation in which a specified phase places a call to the signal controller each time a conflicting phase is served, thus ensuring the specified phase will be serviced again.

SEMI-ACTUATED CONTROL: A type of traffic signal control in which only the minor movements are provided detection.

SIGHT DISTANCE: The continuous length of roadway visible to a driver or roadway user.

STACKING DISTANCE: The length of area available behind a service area, such as a traffic signal or gate, for vehicle queuing to occur.

STOPPING SIGHT DISTANCE: The minimum distance required by the driver of a vehicle traveling at a given speed to bring the vehicle to a stop after an object on the road becomes visible, including reaction and response time.

TRIP OR TRIP END: The one-directional movement of a person or vehicle. Every trip has an origin and a destination at its respective ends (i.e., trip ends). In terms of site trip generation, the same vehicle entering and exiting a site generates two trips: one inbound trip and one outbound trip.

TRIP GENERATION RATE: The rate at which a land use generates trips per the specified land use variable, such per dwelling unit or per thousand square feet.

TRUCK: A heavy motor vehicle generally used for transporting goods.

VEHICLE MILES TRAVELED: A measure of the amount and distance of automobile travel essentially calculated as the sum of each trip times the trip length.

APPENDIX B

TRIP GENERATION CALCULATIONS

In-N-Out Burger Restaurant (with Drive-Through Window)
Weekday, peak hour of adjacent street traffic,
One hour between 4 and 6 p.m.

ID	Location	Full Address	1,000 SF GFA	Weekday PM			Rate (Trips/TSF)
				In	Out	Total	
1	Redondo Beach	3801 Inglewood Ave, Redondo Beach, CA 90278	2.800	94	89	183	65.36
2	Long Beach	6391 E Pacific Coast Highway, Long Beach, CA 90803	3.600	69	73	142	39.44
3	Los Angeles	9149 S Sepulveda Blvd, Los Angeles, CA 90045	3.800	127	111	238	62.63
4	Millbrae	11 Rollins Rd, Millbrae, CA 94030	3.750	128	107	235	62.67
5	Redwood City	949 Veterans Blvd, Redwood City, CA 94063	3.750	66	75	141	37.60
6	Rocklin	5490 Crossings Dr, Rocklin, CA 95677	3.750	84	75	159	42.40
7	Vacaville	170 Nut Tree Pkwy, Vacaville, CA 95687	3.750	87	65	152	40.53
8	Fairfield	1364 Holiday Ln, Fairfield, CA 94534	3.750	75	57	132	35.20
9	Mountain View	1159 N Rengstorff Ave, Mountain View, CA 94043	3.100	110	113	223	71.94
10	Mountain View	53 W El Camino Real, Mountain View, CA 94040	2.970	141	138	279	93.94
11	Union City	32060 Union Landing Blvd, Union City, CA 94587	3.160	137	133	270	85.44
12	Rancho San Margarita	30121 Santa Margarita Pkwy, Rancho Santa Margarita, CA 92688	3.665	137	133	270	73.67
Total			41.845	1,255	1,169	2,424	710.82
Average			3.487	105	97	202	59.24

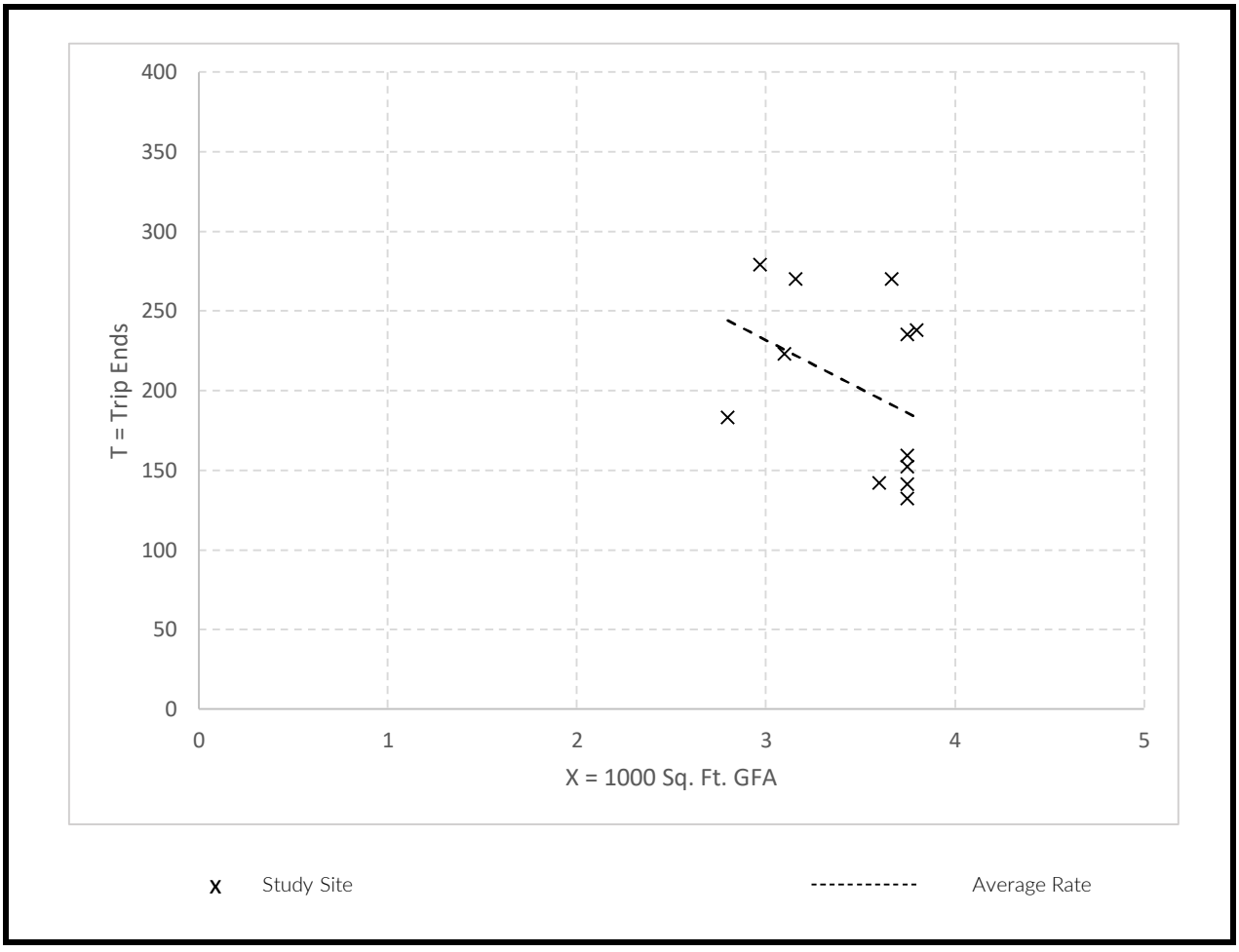
In-N-Out Burger Restaurant (with Drive-Through Window)

Vehicle Trip Ends vs:	1000 Sq. Ft. GFA
On a:	Weekday, peak hour of adjacent street traffic, One hour between 4 and 6 p.m.
Setting/Location:	General Urban/Suburban
Number of Studies:	12
1000 Sq. Ft. GFA (Average):	3.487
Directional Distribution:	52% entering, 48% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
59.24	35.2 - 93.94	19.13

Data Plot & Equation



Trip generation data for each site is provided on the attached count sheets.

Ganddini Group, Inc. (November 2020)

In-N-Out Burger Restaurant (with Drive-Through Window)
Weekday

ID	Location	Full Address	1,000 SF GFA	Weekday PM			Rate (Trips/TSF)
				In	Out	Total	
1	Redondo Beach	3801 Inglewood Ave, Redondo Beach, CA 90278					
2	Long Beach	6391 E Pacific Coast Highway, Long Beach, CA 90803					
3	Los Angeles	9149 S Sepulveda Blvd, Los Angeles, CA 90045					
4	Millbrae	11 Rollins Rd, Millbrae, CA 94030	3.750	2,569	2,568	5,137	1369.87
5	Redwood City	949 Veterans Blvd, Redwood City, CA 94063	3.750	1,113	1,112	2,225	593.33
6	Rocklin	5490 Crossings Dr, Rocklin, CA 95677	3.750	860	860	1,720	458.67
7	Vacaville	170 Nut Tree Pkwy, Vacaville, CA 95687	3.750	940	939	1,879	501.07
8	Fairfield	1364 Holiday Ln, Fairfield, CA 94534	3.750	831	831	1,662	443.20
9	Mountain View	1159 N Rengstorff Ave, Mountain View, CA 94043	3.100	1,268	1,267	2,535	817.74
10	Mountain View	53 W El Camino Real, Mountain View, CA 94040	2.970	1,481	1,481	2,962	997.31
11	Union City	32060 Union Landing Blvd, Union City, CA 94587	3.160	1,577	1,576	3,153	997.78
12	Rancho San Margarita	30121 Santa Margarita Pkwy, Rancho Santa Margarita, CA 92688	3.665	1,432	1,432	2,864	781.45
Total			31.645	12,071	12,066	24,137	6960.42
Average			3.516	1,341	1,341	2,682	773.38

In-N-Out Burger Restaurant (with Drive-Through Window)

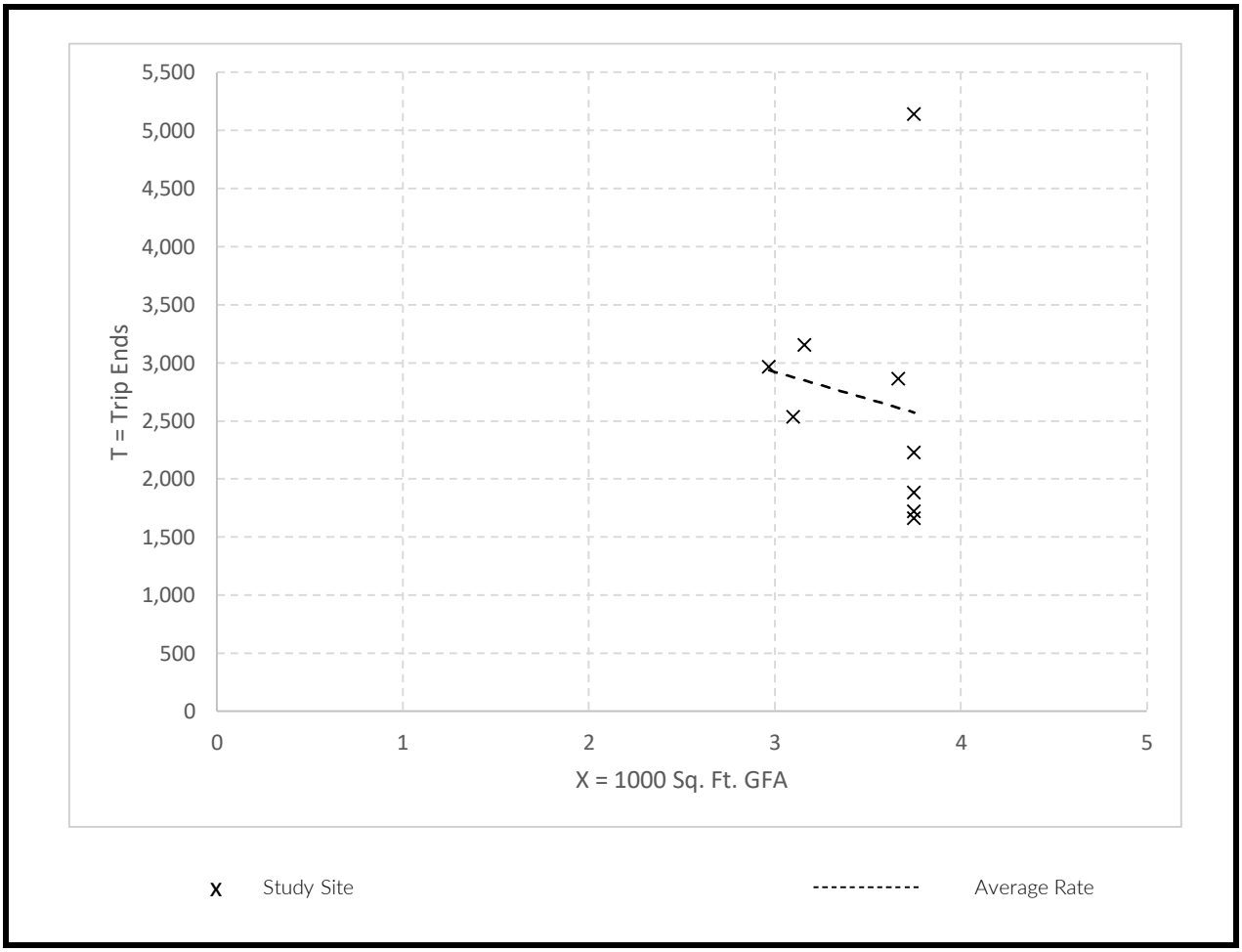
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 9
1000 Sq. Ft. GFA (Average): 3.516
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
773.38	443.2 - 1369.87	462.54

Data Plot & Equation



Trip generation data for each site is provided on the attached count sheets.

Ganddini Group, Inc. (November 2020)

Redondo Beach
(3801 Inglewood Ave, Redondo Beach, CA 90278)

Wednesday, May16th 2012 CITY: Redondo Beach PROJECT: IN N OUT

Prepared by

AM Period	IN		OUT		MAXIMUM QUEUE	PM Period	IN		OUT		MAXIMUM QUEUE
00:00						12:00	32		24		23
00:15						12:15	42		42		26
00:30						12:30	36		29		11
00:45						12:45	27	137	38	133	11
01:00						13:00	31		26		17
01:15						13:15	28		23		16
01:30						13:30	32		31		11
01:45						13:45	X	91	X	80	9
02:00						14:00					10
02:15						14:15					8
02:30						14:30					15
02:45						14:45					13
03:00						15:00					10
03:15						15:15					12
03:30						15:30					14
03:45						15:45					13
04:00						16:00	17		16		16
04:15						16:15	18		19		19
04:30						16:30	29		24		17
04:45						16:45	18	82	23	82	18
05:00						17:00	28		23		22
05:15						17:15	19		19		24
05:30						17:30	24		21		23
05:45						17:45	28	99	21	84	16
06:00						18:00	13		26		18
06:15						18:15	X		X		23
06:30						18:30	X		X		25
06:45						18:45	X	13	X	26	26
07:00						19:00					23
07:15						19:15					27
07:30						19:30					19
07:45						19:45					21
08:00						20:00					23
08:15						20:15					22
08:30						20:30					18
08:45						20:45					28
09:00						21:00					27
09:15						21:15					16
09:30						21:30					17
09:45						21:45					16
10:00					4	22:00					15
10:15					8	22:15					18
10:30					6	22:30					19
10:45					6	22:45					16
11:00					11	23:00					15
11:15					21	23:15					13
11:30	24		34		23	23:30					12
11:45	25	49	37	71	21	23:45					11
Total Vol.		49		71				422		405	

Daily Total	
IN	**471**
OUT	**476**

PACIFIC TRAFFIC & TRANSIT DATA SERVICES

Long Beach
(6391 E Pacific Coast Highway, Long Beach, CA 90803)

Wednesday, May 16,2012 CITY: Long Beach PROJECT: In N Out Burger

AM Period	IN		OUT		MAXIMUM QUEUE	PM Period	IN		OUT		MAXIMUM QUEUE
00:00						12:00	31		25		15
00:15						12:15	30		15		15
00:30						12:30	52		50		13
00:45						12:45	25	138	29	119	8
01:00						13:00	29		29		12
01:15						13:15	32		27		13
01:30						13:30	18		23		8
01:45						13:45	X	79	X	79	7
02:00						14:00					8
02:15						14:15					7
02:30						14:30					8
02:45						14:45					6
03:00						15:00					6
03:15						15:15					5
03:30						15:30					4
03:45						15:45					5
04:00						16:00	16		19		6
04:15						16:15	12		17		5
04:30						16:30	14		14		3
04:45						16:45	16	58	10	60	6
05:00						17:00	19		14		5
05:15						17:15	20		19		7
05:30						17:30	19		19		7
05:45						17:45	11	69	21	73	5
06:00						18:00	17		20		12
06:15						18:15	X		X		7
06:30						18:30	X		X		10
06:45						18:45	X	17	X	20	12
07:00						19:00					10
07:15						19:15					11
07:30						19:30					7
07:45						19:45					6
08:00						20:00					8
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08:30						20:30					9
08:45						20:45					10
09:00						21:00					12
09:15						21:15					16
09:30						21:30					14
09:45						21:45					15
10:00						22:00					14
10:15					5	22:15					13
10:30					8	22:30					12
10:45					7	22:45					12
11:00					3	23:00					11
11:15					6	23:15					13
11:30	19		25		7	23:30					9
11:45	21	40	27	52	14	23:45					8
Total Vol.		40		52				361		351	

Daily Total	
IN	**401**
OUT	**361**

PACIFIC TRAFFIC & TRANSIT DATA SERVICES

Los Angeles
(9149 S Sepulveda Blvd, Los Angeles, CA 90045)

Wednesday, May 16th, 2012 CITY: Los Angeles PROJECT: In-N-Out Burger

AM Period	IN		OUT		MAXIMUM QUEUE	PM Period	IN		OUT		MAXIMUM QUEUE
00:00						12:00	39		35		20
00:15						12:15	48		36		18
00:30						12:30	52		37		21
00:45						12:45	57	196	41	149	19
01:00						13:00	39		45		22
01:15						13:15	36		46		21
01:30						13:30	35		41		20
01:45						13:45	X	110	X	132	20
02:00						14:00					21
02:15						14:15					21
02:30						14:30					22
02:45						14:45					21
03:00						15:00					18
03:15						15:15					17
03:30						15:30					16
03:45						15:45					18
04:00						16:00	31		24		17
04:15						16:15	18		18		15
04:30						16:30	27		28		12
04:45						16:45	33	109	22	92	10
05:00						17:00	34		30		9
05:15						17:15	25		33		14
05:30						17:30	36		23		17
05:45						17:45	32	127	25	111	19
06:00						18:00	30		36		20
06:15						18:15					19
06:30						18:30					20
06:45						18:45					18
07:00						19:00					17
07:15						19:15					18
07:30						19:30					19
07:45						19:45					20
08:00						20:00					21
08:15						20:15					19
08:30						20:30					19
08:45						20:45					20
09:00						21:00					18
09:15						21:15					19
09:30						21:30					20
09:45						21:45					19
10:00					0	22:00					21
10:15					2	22:15					17
10:30					5	22:30					16
10:45					6	22:45					14
11:00					6	23:00					16
11:15					12	23:15					17
11:30	28		32		16	23:30					15
11:45	31	59	29	61	120 19	23:45					13
Total Vol.		59		61				542		484	

Daily Totals		
IN		**OUT**
601		**545**

PACIFIC TRAFFIC & TRANSIT DATA SERVICES

Millbrae
(11 Rollins Rd, Millbrae, CA 94030)

Wednesday, May 27, 2015 CITY: Millbrae PROJECT: SC0629

11 Rollings Rd

Prepaired by AimTD LLC tel. 951 249 3226

AM Period	IN1		OUT1			PM Period	IN1		OUT1		
00:00	20		10			12:00	49		53		
00:15	27		34			12:15	60		74		
00:30	8		15			12:30	47		63		
00:45	2	57	14	73	130	12:45	55	211	57	247	458
01:00	1		5			13:00	40		51		
01:15	0		3			13:15	52		56		
01:30	1		1			13:30	35		51		
01:45	1	3	1	10	13	13:45	48	175	40	198	373
02:00	2		5			14:00	31		42		
02:15	0		0			14:15	30		29		
02:30	0		0			14:30	39		31		
02:45	0	2	1	6	8	14:45	33	133	30	132	265
03:00	0		1			15:00	38		26		
03:15	1		0			15:15	28		34		
03:30	2		0			15:30	40		29		
03:45	2	5	0	1	6	15:45	31	137	30	119	256
04:00	0		0			16:00	34		37		
04:15	3		3			16:15	26		28		
04:30	2		2			16:30	25		18		
04:45	1	6	0	5	11	16:45	8	93	19	102	195
05:00	1		0			17:00	35		11		
05:15	1		0			17:15	32		25		
05:30	3		1			17:30	29		24		
05:45	8	13	2	3	16	17:45	24	120	30	90	210
06:00	7		7			18:00	32		43		
06:15	15		5			18:15	39		38		
06:30	14		3			18:30	42		39		
06:45	7	43	7	22	65	18:45	44	157	43	163	320
07:00	9		5			19:00	30		46		
07:15	9		5			19:15	35		47		
07:30	11		6			19:30	47		41		
07:45	10	39	6	22	61	19:45	51	163	49	183	346
08:00	17		8			20:00	49		50		
08:15	12		3			20:15	44		53		
08:30	11		10			20:30	45		33		
08:45	11	51	12	33	84	20:45	45	183	42	178	361
09:00	11		15			21:00	31		40		
09:15	16		12			21:15	23		40		
09:30	17		18			21:30	24		39		
09:45	20	64	10	55	119	21:45	26	104	38	157	261
10:00	34		10			22:00	21		32		
10:15	31		22			22:15	27		29		
10:30	39		19			22:30	33		38		
10:45	37	141	36	87	228	22:45	34	115	36	135	250
11:00	48		36			23:00	21		26		
11:15	41		38			23:15	27		27		
11:30	58		59			23:30	31		30		
11:45	54	201	52	185	386	23:45	19	98	25	108	206
Total Vol.		625		502	**1127**			1689		1812	**3501**

Daily Totals

IN1	OUT1	Combined
2314	2314	**4628**

	AM			PM		
Split %	55.5%	44.5%	**24.4%**	48.2%	51.8%	**75.6%**
Peak Hour	11:30	11:45	**11:30**	12:00	12:00	**12:00**
Volume	221	242	**459**	211	247	**458**
P.H.F.	0.92	0.82	**0.86**	0.85	0.83	**0.86**

pacific@aimtd.com Tell. 951 249 3226

Wednesday, May 27, 2015 CITY: Millbrae PROJECT: SC0629

11 Rollings Rd

Prepaired by AimTD LLC tel. 951 249 3226

AM Period	IN1		OUT1			PM Period	IN1		OUT1		
00:00	0		0			12:00	3		12		
00:15	0		0			12:15	20		3		
00:30	1		0			12:30	15		4		
00:45	1	2	2	2	4	12:45	16	54	4	23	77
01:00	0		0			13:00	15		6		
01:15	0		0			13:15	18		4		
01:30	0		0			13:30	15		3		
01:45	0	0	0	0		13:45	3	51	2	15	66
02:00	0		0			14:00	4		3		
02:15	0		0			14:15	1		3		
02:30	0		0			14:30	0		4		
02:45	0	0	2	2	2	14:45	1	6	7	17	23
03:00	0		0			15:00	2		5		
03:15	1		0			15:15	3		1		
03:30	0		0			15:30	2		3		
03:45	0	1	0	0	1	15:45	2	9	3	12	21
04:00	0		0			16:00	4		5		
04:15	0		0			16:15	2		5		
04:30	0		1			16:30	0		4		
04:45	0	0	0	1	1	16:45	3	9	2	16	25
05:00	0		0			17:00	1		5		
05:15	0		0			17:15	1		5		
05:30	0		0			17:30	3		3		
05:45	2	2	1	1	3	17:45	3	8	4	17	25
06:00	0		1			18:00	6		1		
06:15	6		0			18:15	0		5		
06:30	5		2			18:30	1		4		
06:45	4	15	2	5	20	18:45	2	9	4	14	23
07:00	1		5			19:00	3		2		
07:15	1		4			19:15	3		4		
07:30	3		0			19:30	4		3		
07:45	4	9	1	10	19	19:45	5	15	2	11	26
08:00	3		2			20:00	1		4		
08:15	2		3			20:15	2		5		
08:30	5		8			20:30	4		7		
08:45	2	12	4	17	29	20:45	0	7	2	18	25
09:00	3		4			21:00	0		1		
09:15	2		8			21:15	1		1		
09:30	1		2			21:30	0		2		
09:45	5	11	6	20	31	21:45	1	2	1	5	7
10:00	3		3			22:00	0		1		
10:15	2		2			22:15	0		1		
10:30	9		5			22:30	0		0		
10:45	4	18	5	15	33	22:45	1	1	0	2	3
11:00	1		8			23:00	1		1		
11:15	5		6			23:15	3		0		
11:30	4		6			23:30	0		1		
11:45	7	17	2	22	39	23:45	0	4	0	2	6
Total Vol.		87		95	**182**			175		152	**327**

Daily Totals

IN1	OUT1	Combined
262	247	**509**

	AM			PM		
Split %	47.8%	52.2%	**35.8%**	53.5%	46.5%	**64.2%**
Peak Hour	11:45	11:15	**11:45**	12:15	12:00	**12:15**
Volume	45	26	**66**	66	23	**83**
P.H.F.	0.56	0.54	**0.72**	0.84	0.48	**0.72**

pacific@aimtd.com Tell. 951 249 3226

Redwood City
(949 Veterans Blvd, Redwood City, CA 94063)

Wednesday, May 27, 2015 CITY: Redwood City PROJECT: SC0629

949 Veterans Blvd **Prepaired by AimTD LLC tel. 951 249 3226**

AM Period	IN1		OUT1			PM Period	IN1		OUT1		
00:00	7		2			12:00	11		18		
00:15	0		1			12:15	14		22		
00:30	3		2			12:30	6		20		
00:45	1	11	0	5	16	12:45	4	35	14	74	109
01:00	0		1			13:00	2		16		
01:15	0		0			13:15	7		32		
01:30	0		0			13:30	12		16		
01:45	0	0	0	1	1	13:45	14	35	13	77	112
02:00	0		0			14:00	13		11		
02:15	0		0			14:15	17		12		
02:30	0		0			14:30	12		7		
02:45	0	0	0	0		14:45	9	51	13	43	94
03:00	0		0			15:00	14		13		
03:15	0		0			15:15	6		15		
03:30	0		0			15:30	8		13		
03:45	0	0	0	0		15:45	7	35	11	52	87
04:00	0		0			16:00	8		6		
04:15	1		0			16:15	11		8		
04:30	0		0			16:30	7		5		
04:45	0	1	0	0	1	16:45	7	33	9	28	61
05:00	2		2			17:00	5		12		
05:15	0		0			17:15	7		8		
05:30	1		1			17:30	5		8		
05:45	1	4	1	4	8	17:45	11	28	3	31	59
06:00	1		0			18:00	4		5		
06:15	0		0			18:15	11		8		
06:30	1		0			18:30	16		9		
06:45	0	2	0	0	2	18:45	8	39	12	34	73
07:00	0		0			19:00	8		9		
07:15	1		0			19:15	8		9		
07:30	0		0			19:30	3		4		
07:45	0	1	0	0	1	19:45	9	28	7	29	57
08:00	0		0			20:00	5		8		
08:15	0		0			20:15	6		12		
08:30	0		0			20:30	7		4		
08:45	1	1	0	0	1	20:45	9	27	2	26	53
09:00	0		0			21:00	11		8		
09:15	0		0			21:15	13		7		
09:30	0		1			21:30	11		5		
09:45	0	0	0	1	1	21:45	5	40	9	29	69
10:00	2		1			22:00	10		9		
10:15	4		0			22:15	9		9		
10:30	1		6			22:30	5		7		
10:45	2	9	3	10	19	22:45	5	29	9	34	63
11:00	8		1			23:00	3		5		
11:15	5		5			23:15	2		6		
11:30	10		7			23:30	2		2		
11:45	14	37	11	24	61	23:45	1	8	0	13	21
Total Vol.		66		45	**111**			388		470	**858**

Daily Totals

IN1	OUT1	Combined
454	515	**969**

	AM			PM		
Split %	59.5%	40.5%	**11.5%**	45.2%	54.8%	**88.5%**
Peak Hour	11:30	11:45	**11:45**	13:30	12:30	**13:15**
Volume	49	71	**116**	56	82	**118**
P.H.F.	0.88	0.81	**0.81**	0.93	0.64	**0.81**

pacific@aimtd.com Tell. 951 249 3226

Wednesday, May 27, 2015 CITY: Redwood City PROJECT: SC0629

949 Veterans Blvd **Prepaired by AimTD LLC tel. 951 249 3226**

AM Period	IN1		OUT1			PM Period	IN1		OUT1		
00:00	2		2			12:00	22		11		
00:15	9		8			12:15	21		21		
00:30	2		8			12:30	20		20		
00:45	4	17	4	22	39	12:45	17	80	12	64	144
01:00	0		4			13:00	19		19		
01:15	0		0			13:15	20		14		
01:30	0		0			13:30	14		19		
01:45	0	0	0	4	4	13:45	14	67	12	64	131
02:00	0		2			14:00	7		11		
02:15	0		0			14:15	11		6		
02:30	0		0			14:30	16		10		
02:45	0	0	0	2	2	14:45	15	49	13	40	89
03:00	0		0			15:00	15		12		
03:15	0		0			15:15	4		7		
03:30	0		0			15:30	5		9		
03:45	0	0	0	0		15:45	7	31	8	36	67
04:00	0		0			16:00	12		8		
04:15	0		0			16:15	6		9		
04:30	0		0			16:30	6		4		
04:45	0	0	0	0		16:45	10	34	9	30	64
05:00	0		0			17:00	11		8		
05:15	0		0			17:15	11		12		
05:30	1		0			17:30	10		9		
05:45	0	1	0	0	1	17:45	8	40	8	37	77
06:00	0		0			18:00	12		9		
06:15	0		1			18:15	16		9		
06:30	0		0			18:30	9		16		
06:45	0	0	0	1	1	18:45	7	44	10	44	88
07:00	0		0			19:00	14		22		
07:15	1		0			19:15	12		11		
07:30	0		0			19:30	13		8		
07:45	0	1	0	0	1	19:45	13	52	11	52	104
08:00	0		0			20:00	11		9		
08:15	0		0			20:15	10		7		
08:30	0		0			20:30	9		10		
08:45	0	0	1	1	1	20:45	4	34	9	35	69
09:00	2		1			21:00	19		11		
09:15	0		0			21:15	19		12		
09:30	2		1			21:30	14		12		
09:45	3	7	1	3	10	21:45	15	67	13	48	115
10:00	1		1			22:00	6		12		
10:15	3		1			22:15	10		12		
10:30	5		6			22:30	15		9		
10:45	4	13	2	10	23	22:45	8	39	12	45	84
11:00	20		5			23:00	10		10		
11:15	9		12			23:15	5		10		
11:30	11		10			23:30	2		5		
11:45	18	58	8	35	93	23:45	3	20	4	29	49
Total Vol.		97		78	**175**			557		524	**1081**

Daily Totals

IN1	OUT1	Combined
654	602	**1256**

	AM			PM		
Split %	55.4%	44.6%	**13.9%**	51.5%	48.5%	**86.1%**
Peak Hour	11:45	11:45	**11:45**	12:00	12:15	**12:15**
Volume	81	60	**141**	80	72	**149**
P.H.F.	0.92	0.71	**0.84**	0.94	0.86	**0.84**

pacific@aimtd.com Tell. 951 249 3226

Rocklin
(5490 Crossings Dr, Rocklin, CA 95677)

Average Daily Traffic Volumes

Prepared by: Field Data Services of Arizona, Inc.

Thursday, February 04, 2016 CITY: Rocklin Dwy 1 PROJECT: sc0824

Prepaired by AimTD LLC tel. 714.253.7888

AM Period	in		out			PM Period	in		out		
00:00	0		0			12:00	21		16		
00:15	0		0			12:15	16		23		
00:30	0		0			12:30	15		22		
00:45	0	0	0	0		12:45	17	69	17	78	147
01:00	0		0			13:00	7		23		
01:15	0		0			13:15	13		16		
01:30	0		0			13:30	10		15		
01:45	0	0	0	0		13:45	20	50	10	64	114
02:00	0		0			14:00	18		13		
02:15	0		0			14:15	16		14		
02:30	0		0			14:30	5		21		
02:45	0	0	0	0		14:45	20	59	9	57	116
03:00	0		0			15:00	12		7		
03:15	0		0			15:15	19		13		
03:30	0		0			15:30	10		14		
03:45	0	0	0	0		15:45	8	49	15	49	98
04:00	0		0			16:00	15		14		
04:15	0		0			16:15	10		19		
04:30	0		0			16:30	14		18		
04:45	0	0	0	0		16:45	13	52	12	63	115
05:00	0		0			17:00	11		19		
05:15	0		0			17:15	17		18		
05:30	0		0			17:30	30		11		
05:45	0	0	0	0		17:45	11	69	17	65	134
06:00	0		0			18:00	6		20		
06:15	0		0			18:15	11		18		
06:30	0		0			18:30	13		20		
06:45	0	0	0	0		18:45	18	48	18	76	124
07:00	0		0			19:00	5		20		
07:15	0		0			19:15	17		21		
07:30	0		0			19:30	12		14		
07:45	0	0	0	0		19:45	14	48	14	69	117
08:00	2		0			20:00	15		12		
08:15	0		1			20:15	17		11		
08:30	3		0			20:30	15		10		
08:45	2	7	3	4	11	20:45	5	52	15	48	100
09:00	4		3			21:00	7		13		
09:15	4		1			21:15	8		13		
09:30	2		2			21:30	4		12		
09:45	1	11	1	7	18	21:45	6	25	14	52	77
10:00	4		3			22:00	8		6		
10:15	10		2			22:15	1		12		
10:30	12		7			22:30	1		1		
10:45	22	48	10	22	70	22:45	3	13	1	20	33
11:00	24		19			23:00	4		6		
11:15	31		15			23:15	1		5		
11:30	12		23			23:30	0		4		
11:45	16	83	17	74	157	23:45	0	5	1	16	21
Total Vol.		149		107	**256**			539		657	**1196**

	Daily Totals		
	in	out	**Combined**
	688	764	**1452**

	AM			**PM**		
Split %	58.2%	41.8%	**17.6%**	45.1%	54.9%	**82.4%**
Peak Hour	10:30	11:30	**11:00**	16:45	12:15	**12:00**
Volume	89	79	**157**	71	85	**147**
P.H.F.	0.72	0.86	**0.85**	0.85	0.92	**0.85**

Average Daily Traffic Volumes

Prepared by: Field Data Services of Arizona, Inc.

Thursday, February 04, 2016 CITY: Rocklin Dwy 2 PROJECT: sc0824

Prepaired by AimTD LLC tel. 714.253.7888

AM Period	in		out			PM Period	in		out		
00:00	0		0			12:00	2		4		
00:15	0		0			12:15	1		2		
00:30	0		0			12:30	4		4		
00:45	0	0	0	0		12:45	1	8	4	14	22
01:00	0		0			13:00	6		7		
01:15	0		0			13:15	2		2		
01:30	0		0			13:30	6		2		
01:45	0	0	0	0		13:45	2	16	2	13	29
02:00	0		0			14:00	2		4		
02:15	0		0			14:15	2		2		
02:30	0		0			14:30	3		2		
02:45	0	0	0	0		14:45	2	9	0	8	17
03:00	0		0			15:00	7		3		
03:15	0		0			15:15	1		3		
03:30	0		0			15:30	3		2		
03:45	0	0	0	0		15:45	7	18	0	8	26
04:00	0		0			16:00	4		2		
04:15	0		0			16:15	4		2		
04:30	0		0			16:30	4		1		
04:45	0	0	0	0		16:45	7	19	2	7	26
05:00	0		0			17:00	2		3		
05:15	0		0			17:15	4		3		
05:30	0		0			17:30	3		1		
05:45	0	0	0	0		17:45	6	15	3	10	25
06:00	0		0			18:00	8		2		
06:15	0		0			18:15	6		1		
06:30	0		0			18:30	6		0		
06:45	0	0	0	0		18:45	3	23	1	4	27
07:00	0		0			19:00	5		1		
07:15	0		0			19:15	1		0		
07:30	0		0			19:30	5		0		
07:45	0	0	0	0		19:45	2	13	1	2	15
08:00	0		0			20:00	6		4		
08:15	0		0			20:15	0		1		
08:30	0		0			20:30	7		2		
08:45	1	1	1	1	2	20:45	5	18	1	8	26
09:00	0		1			21:00	3		4		
09:15	0		1			21:15	2		2		
09:30	0		1			21:30	2		1		
09:45	1	1	0	3	4	21:45	2	9	0	7	16
10:00	0		0			22:00	5		1		
10:15	2		0			22:15	1		0		
10:30	0		0			22:30	1		0		
10:45	1	3	1	1	4	22:45	1	8	0	1	9
11:00	1		4			23:00	1		1		
11:15	4		0			23:15	0		0		
11:30	1		1			23:30	0		0		
11:45	1	7	4	9	16	23:45	2	3	0	1	4
Total Vol.		12		14	**26**			159		83	**242**

	Daily Totals		
	in	out	**Combined**
	171	97	**268**

	AM			**PM**		
Split %	46.2%	53.8%	**9.7%**	65.7%	34.3%	**90.3%**
Peak Hour	11:15	11:45	**11:45**	17:45	12:15	**17:45**
Volume	8	14	**22**	26	17	**32**
P.H.F.	0.50	0.88	**0.69**	0.81	0.61	**0.69**

Vacaville
(170 Nut Tree Pkwy, Vacaville, CA 95687)

Average Daily Traffic Volumes

Prepared by: Field Data Services of Arizona, Inc.

Thursday, February 04, 2016 CITY: Vacaville PROJECT: sc0824

Prepaired by AimTD LLC tel. 714.253.7888

AM Period	in		out			PM Period	in		out		
00:00	0		0			12:00	12		22		
00:15	0		0			12:15	9		22		
00:30	0		0			12:30	13		22		
00:45	0	0	0	0		12:45	8	42	20	86	128
01:00	0		0			13:00	3		21		
01:15	0		0			13:15	7		22		
01:30	0		0			13:30	6		16		
01:45	0	0	0	0		13:45	3	19	26	85	104
02:00	0		0			14:00	8		17		
02:15	0		0			14:15	3		27		
02:30	0		0			14:30	1		22		
02:45	0	0	0	0		14:45	2	14	12	78	92
03:00	0		0			15:00	3		13		
03:15	0		0			15:15	5		15		
03:30	0		0			15:30	3		23		
03:45	0	0	0	0		15:45	6	17	19	70	87
04:00	0		0			16:00	1		16		
04:15	0		0			16:15	2		17		
04:30	0		0			16:30	3		16		
04:45	0	0	0	0		16:45	2	8	19	68	76
05:00	0		0			17:00	3		15		
05:15	0		0			17:15	17		15		
05:30	0		0			17:30	8		18		
05:45	0	0	0	0		17:45	5	33	13	61	94
06:00	0		0			18:00	7		26		
06:15	0		0			18:15	4		25		
06:30	0		0			18:30	7		20		
06:45	0	0	0	0		18:45	3	21	18	89	110
07:00	0		0			19:00	3		27		
07:15	0		0			19:15	2		18		
07:30	0		0			19:30	6		20		
07:45	0	0	0	0		19:45	6	17	17	82	99
08:00	0		0			20:00	12		15		
08:15	0		0			20:15	16		15		
08:30	0		0			20:30	2		19		
08:45	0	0	0	0		20:45	3	33	20	69	102
09:00	0		0			21:00	5		17		
09:15	0		1			21:15	14		16		
09:30	2		1			21:30	2		18		
09:45	0	2	0	2	4	21:45	2	23	14	65	88
10:00	0		2			22:00	5		10		
10:15	0		1			22:15	1		15		
10:30	3		3			22:30	0		12		
10:45	5	8	9	15	23	22:45	4	10	9	46	56
11:00	6		11			23:00	4		6		
11:15	6		10			23:15	1		10		
11:30	11		12			23:30	1		5		
11:45	17	40	16	49	89	23:45	2	8	6	27	35
Total Vol.		50		66	**116**			245		826	**1071**

Daily Totals	in	out	**Combined**
	295	892	**1187**

	AM			**PM**		
Split %	43.1%	56.9%	**9.8%**	22.9%	77.1%	**90.2%**
Peak Hour	11:45	11:45	**11:45**	12:00	13:45	**12:00**
Volume	51	82	**133**	42	92	**128**
P.H.F.	0.75	0.93	**0.95**	0.90	0.85	**0.95**

Average Daily Traffic Volumes

Prepared by: Field Data Services of Arizona, Inc.

Thursday, February 04, 2016 CITY: Vacaville Dwy 2 PROJECT: sc0824

Prepaired by AimTD LLC tel. 714.253.7888

AM Period	in		out			PM Period	in		out		
00:00	0		0			12:00	14		1		
00:15	0		0			12:15	13		1		
00:30	0		0			12:30	9		2		
00:45	0	0	0	0		12:45	14	50	1	5	55
01:00	0		0			13:00	14		0		
01:15	0		0			13:15	14		1		
01:30	0		0			13:30	9		1		
01:45	0	0	0	0		13:45	15	52	0	2	54
02:00	0		0			14:00	14		0		
02:15	0		0			14:15	12		0		
02:30	0		0			14:30	8		0		
02:45	0	0	0	0		14:45	14	48	2	2	50
03:00	0		0			15:00	9		0		
03:15	0		0			15:15	8		0		
03:30	0		0			15:30	7		0		
03:45	0	0	0	0		15:45	10	34	0	0	34
04:00	0		0			16:00	9		0		
04:15	0		0			16:15	8		2		
04:30	0		0			16:30	10		1		
04:45	0	0	0	0		16:45	12	39	1	4	43
05:00	0		0			17:00	11		1		
05:15	0		0			17:15	8		2		
05:30	0		0			17:30	10		1		
05:45	0	0	0	0		17:45	25	54	0	4	58
06:00	0		0			18:00	20		1		
06:15	0		0			18:15	22		0		
06:30	0		0			18:30	15		0		
06:45	0	0	0	0		18:45	18	75	1	2	77
07:00	0		0			19:00	14		0		
07:15	0		0			19:15	15		2		
07:30	0		0			19:30	14		2		
07:45	0	0	0	0		19:45	16	59	1	5	64
08:00	0		0			20:00	16		2		
08:15	0		0			20:15	9		2		
08:30	1		0			20:30	17		1		
08:45	0	1	1	1	2	20:45	13	55	0	5	60
09:00	0		0			21:00	17		2		
09:15	1		0			21:15	10		1		
09:30	0		1			21:30	14		1		
09:45	0	1	0	1	2	21:45	12	53	1	5	58
10:00	3		0			22:00	9		2		
10:15	1		0			22:15	12		1		
10:30	4		1			22:30	7		1		
10:45	13	21	0	1	22	22:45	9	37	2	6	43
11:00	7		0			23:00	7		0		
11:15	14		1			23:15	4		1		
11:30	12		0			23:30	4		1		
11:45	11	44	0	1	45	23:45	7	22	1	3	25
Total Vol.		67		4	**71**			578		43	**621**

Daily Totals	in	out	**Combined**
	645	47	**692**

	AM			**PM**		
Split %	94.4%	5.6%	**10.3%**	93.1%	6.9%	**89.7%**
Peak Hour	11:15	11:45	**11:15**	17:45	19:15	**17:45**
Volume	51	4	**53**	82	7	**83**
P.H.F.	0.91	0.50	**0.88**	0.89	0.88	**0.88**

Fairfield
(1364 Holiday Ln, Fairfield, CA 94534)

Average Daily Traffic Volumes

Prepared by: Field Data Services of Arizona, Inc.

Thursday, February 04, 2016 CITY: Fairfield PROJECT: sc0824

Prepaired by AimTD LLC tel. 714.253.7888

AM Period	in		out			PM Period	in		out		
00:00	0		0			12:00	21		17		
00:15	0		0			12:15	21		20		
00:30	0		0			12:30	27		18		
00:45	0	0	0	0		12:45	27	96	24	79	175
01:00	0		0			13:00	21		19		
01:15	0		0			13:15	16		19		
01:30	0		0			13:30	9		23		
01:45	0	0	0	0		13:45	20	66	19	80	146
02:00	0		0			14:00	22		19		
02:15	0		0			14:15	20		25		
02:30	0		0			14:30	17		18		
02:45	0	0	0	0		14:45	16	75	17	79	154
03:00	0		0			15:00	12		17		
03:15	0		0			15:15	19		20		
03:30	0		0			15:30	20		18		
03:45	0	0	0	0		15:45	28	79	23	78	157
04:00	0		0			16:00	17		16		
04:15	0		0			16:15	24		18		
04:30	0		0			16:30	20		13		
04:45	0	0	0	0		16:45	14	75	10	57	132
05:00	0		0			17:00	11		14		
05:15	0		0			17:15	12		14		
05:30	0		0			17:30	16		17		
05:45	0	0	0	0		17:45	9	48	17	62	110
06:00	0		0			18:00	14		14		
06:15	0		0			18:15	21		15		
06:30	0		0			18:30	14		17		
06:45	0	0	0	0		18:45	10	59	15	61	120
07:00	0		0			19:00	17		12		
07:15	0		0			19:15	19		18		
07:30	0		0			19:30	11		19		
07:45	0	0	0	0		19:45	17	64	15	64	128
08:00	2		3			20:00	12		13		
08:15	2		3			20:15	10		14		
08:30	4		2			20:30	12		11		
08:45	5	13	5	13	26	20:45	3	37	8	46	83
09:00	6		5			21:00	12		5		
09:15	2		5			21:15	3		8		
09:30	9		7			21:30	9		18		
09:45	11	28	8	25	53	21:45	6	30	7	38	68
10:00	8		6			22:00	6		6		
10:15	12		5			22:15	6		3		
10:30	15		9			22:30	8		10		
10:45	14	49	12	32	81	22:45	6	26	9	28	54
11:00	17		12			23:00	6		11		
11:15	14		17			23:15	5		6		
11:30	12		18			23:30	2		2		
11:45	25	68	18	65	133	23:45	5	18	5	24	42
Total Vol.		158		135	**293**			673		696	**1369**

	Daily Totals		
	in	out	Combined
	831	831	**1662**

	AM			PM		
Split %	53.9%	46.1%	**17.6%**	49.2%	50.8%	**82.4%**
Peak Hour	11:45	11:30	**11:45**	12:00	13:30	**12:15**
Volume	94	73	**167**	96	86	**177**
P.H.F.	0.87	0.91	**0.93**	0.89	0.86	**0.93**

Average Daily Traffic Volumes

Prepared by: Field Data Services of Arizona, Inc.

Saturday, February 06, 2016 CITY: Fairfield PROJECT: sc0824

Prepaired by AimTD LLC tel. 714.253.7888

AM Period	in		out			PM Period	in		out		
00:00	0		0			12:00	34		22		
00:15	0		0			12:15	24		30		
00:30	0		0			12:30	22		28		
00:45	0	0	0	0		12:45	25	105	23	103	208
01:00	0		0			13:00	24		20		
01:15	0		0			13:15	20		13		
01:30	0		0			13:30	18		20		
01:45	0	0	0	0		13:45	27	89	21	74	163
02:00	0		0			14:00	12		28		
02:15	0		0			14:15	23		20		
02:30	0		0			14:30	19		18		
02:45	0	0	0	0		14:45	17	71	18	84	155
03:00	0		0			15:00	18		13		
03:15	0		0			15:15	18		27		
03:30	0		0			15:30	18		18		
03:45	0	0	0	0		15:45	25	79	24	82	161
04:00	0		0			16:00	16		21		
04:15	0		0			16:15	26		15		
04:30	0		0			16:30	30		18		
04:45	0	0	0	0		16:45	26	98	26	80	178
05:00	0		0			17:00	28		32		
05:15	0		0			17:15	25		22		
05:30	0		0			17:30	27		20		
05:45	0	0	0	0		17:45	32	112	17	91	203
06:00	0		0			18:00	22		15		
06:15	0		0			18:15	25		22		
06:30	0		0			18:30	30		24		
06:45	0	0	0	0		18:45	21	98	20	81	179
07:00	0		0			19:00	20		22		
07:15	0		0			19:15	9		12		
07:30	0		0			19:30	19		18		
07:45	0	0	0	0		19:45	21	69	23	75	144
08:00	0		0			20:00	19		18		
08:15	1		0			20:15	14		20		
08:30	3		2			20:30	9		14		
08:45	3	7	1	3	10	20:45	5	47	18	70	117
09:00	5		0			21:00	14		14		
09:15	2		2			21:15	14		11		
09:30	5		2			21:30	20		20		
09:45	5	17	4	8	25	21:45	11	59	16	61	120
10:00	6		4			22:00	11		10		
10:15	7		5			22:15	9		14		
10:30	8		8			22:30	9		12		
10:45	15	36	13	30	66	22:45	33	62	15	51	113
11:00	17		13			23:00	6		13		
11:15	13		14			23:15	5		19		
11:30	19		18			23:30	4		19		
11:45	23	72	23	68	140	23:45	4	19	29	80	99
Total Vol.		132		109	**241**			908		932	**1840**

	Daily Totals		
	in	out	Combined
	1040	1041	**2081**

	AM			PM		
Split %	54.8%	45.2%	**11.6%**	49.3%	50.7%	**88.4%**
Peak Hour	11:45	11:45	**11:45**	17:00	12:00	**12:00**
Volume	103	103	**206**	112	103	**208**
P.H.F.	0.76	0.86	**0.92**	0.96	0.86	**0.92**

Mountain View & Union City
(1159 N Rengstorff Ave, Mountain View, CA 94043,
(53 W El Camino Real, Mountain View, CA 94040,
(32060 Union Landing Blvd, Union City, CA 94587)

Prepared by National Data & Surveying Services

In-N-Out Parking & Queues

Locations: 17-7657
City: Mountain View & Union City,CA

Day: Thursday
Date: 9/14/2017

Parking Study

Time	1. 1159 N Rengstorff,Mountain View			2. 53 El Camino Real, Mountain View				3. 32060 Union Landing, Union City			Grand Total
	Reg	HC	Sub Total	Reg	HC	Reserved	Sub Total	Reg	HC	Sub Total	
Spaces	**63**	**4**	**67**	**44**	**4**	**4**	**52**	**40**	**2**	**42**	**161**
4:00 PM	21	1	22	26	1	2	29	34	0	34	**85**
4:30 PM	23	2	25	22	1	3	26	32	2	34	**85**
5:00 PM	22	2	24	26	0	1	27	23	1	24	**75**
5:30 PM	24	1	25	28	0	1	29	29	0	29	**83**
6:00 PM	28	1	29	36	0	2	38	25	1	26	**93**

Queue Study

Time	1. 1159 N Rengstorff,Mountain View Drive-Thru Max Queue	2. 53 El Camino Real, Mountain View Drive-Thru Max Queue	3. 32060 Union Landing, Union City Drive-Thru Max Queue
4:00 PM	7	6	17
4:15 PM	4	3	17
4:30 PM	8	9	13
4:45 PM	9	11	2
5:00 PM	7	7	14
5:15 PM	10	11	12
5:30 PM	13	17	12
5:45 PM	12	16	12
6:00 PM	6	17	6

NOTES:

2. 53 El Camino Real,Mountain View

- At 5:30pm an In-N-Out employee came out to the drive-thru to manually take orders - didn't appear to have an impact on the queue wait time or shrinking the line at drive-thru.
- The drive-thru can hold 12-13 cars in queue before extending to the street.

Driveway In & Outs

	Site	1		2		3	
	Time	IN	OUT	IN	OUT	IN	OUT
15 Minute Intervals Peak	4:00 PM	13	15	21	28	27	25
	4:15 PM	19	12	19	20	25	32
	4:30 PM	19	24	23	15	11	22
	4:45 PM	19	19	22	23	23	23
	5:00 PM	14	13	26	19	29	28
	5:15 PM	24	15	28	22	27	21
	5:30 PM	24	21	27	24	23	24
	5:45 PM	23	24	32	24	27	24
	Sum	155	143	198	175	192	199
1 Hour Intervals	10:30 AM	68	35	78	60	77	68
	11:30 AM	154	123	178	157	136	108
	12:30 PM	131	159	164	170	154	150
	1:30 PM	116	119	113	114	131	132
	2:30 PM	67	77	99	112	82	102
	3:30 PM	65	67	75	83	118	100
	4:30 PM	76	71	99	79	90	94
	5:30 PM	109	96	117	114	116	105
	6:30 PM	110	113	141	138	137	133
	7:30 PM	107	100	108	111	131	130
	8:30 PM	76	90	113	125	133	136
	9:30 PM	83	81	102	100	110	123
	10:30 PM	52	67	59	66	90	102
	11:30 PM	35	50	29	35	61	67
	12:30 AM	17	21	11	12	11	26
	Sum	1266	1269	1486	1476	1577	1576

Rancho Santa Margarita
(30121 Santa Margarita Pkwy, Rancho Santa Margarita, CA 92688)

Rancho Santa Margarita
Weekday Peak Hour Trip Generation Calculations

Weekday MD				
Time	In	Out	Total	Hourly Total
11:00 AM	24	15	39	215
11:15 AM	24	22	46	239
11:30 AM	32	30	62	248
11:45 AM	37	31	68	252
12:00 PM	37	26	63	260
12:15 PM	30	25	55	261
12:30 PM	28	38	66	267
12:45 PM	44	32	76	244
1:00 PM	32	32	64	220
1:15 PM	27	34	61	-
1:30 PM	16	27	43	-
1:45 PM	24	28	52	-
PEAK HOUR	**131**	**136**	**267**	**12:30 PM**

Weekday PM				
Time	In	Out	Total	Hourly Total
4:00 PM	37	20	57	213
4:15 PM	26	18	44	231
4:30 PM	37	16	53	240
4:45 PM	27	32	59	260
5:00 PM	35	40	75	270
5:15 PM	32	21	53	-
5:30 PM	34	39	73	-
5:45 PM	36	33	69	-
PEAK HOUR	**137**	**133**	**270**	**5:00 PM**

DAILY TOTAL	**2,864**

Thursday, May 09, 2019 CITY: Rancho Santa Margarita PROJECT: SC

ADT1 Driveway 1 north of Santa Margarita. **Prepared by AimTD LLC tel. 714 253 7888**

AM Period	IN		OUT		EB		WB			PM Period	IN		OUT		EB		WB		
0:00	1		2		0		0			12:00	21		24		0		0		
0:15	2		4		0		0			12:15	15		18		0		0		
0:30	4		6		0		0			12:30	20		33		0		0		
0:45	1	8	4	16	0	0	0	0	24	12:45	24	80	22	97	0	0	0	0	177
1:00	0		1		0		0			13:00	20		25		0		0		
1:15	0		0		0		0			13:15	20		29		0		0		
1:30	0		1		0		0			13:30	7		21		0		0		
1:45	0	0	2	4	0	0	0	0	4	13:45	17	64	26	101	0	0	0	0	165
2:00	0		0		0		0			14:00	15		15		0		0		
2:15	0		0		0		0			14:15	11		20		0		0		
2:30	0		0		0		0			14:30	17		21		0		0		
2:45	0	0	0	0	0	0	0	0		14:45	12	55	20	76	0	0	0	0	131
3:00	0		0		0		0			15:00	10		18		0		0		
3:15	0		0		0		0			15:15	14		16		0		0		
3:30	0		0		0		0			15:30	13		30		0		0		
3:45	0	0	0	0	0	0	0	0		15:45	11	48	23	87	0	0	0	0	135
4:00	0		0		0		0			16:00	24		16		0		0		
4:15	0		0		0		0			16:15	18		14		0		0		
4:30	0		0		0		0			16:30	21		11		0		0		
4:45	3	3	0	0	0	0	0	0	3	16:45	14	77	28	69	0	0	0	0	146
5:00	0		0		0		0			17:00	15		33		0		0		
5:15	0		0		0		0			17:15	25		15		0		0		
5:30	0		0		0		0			17:30	23		34		0		0		
5:45	0	0	0	0	0	0	0	0		17:45	23	86	32	114	0	0	0	0	200
6:00	0		0		0		0			18:00	25		29		0		0		
6:15	1		0		0		0			18:15	33		31		0		0		
6:30	0		0		0		0			18:30	19		26		0		0		
6:45	1	2	2	2	0	0	0	0	4	18:45	21	98	30	116	0	0	0	0	214
7:00	0		0		0		0			19:00	23		24		0		0		
7:15	0		0		0		0			19:15	19		28		0		0		
7:30	2		2		0		0			19:30	21		25		0		0		
7:45	0	2	1	3	0	0	0	0	5	19:45	15	78	14	91	0	0	0	0	169
8:00	0		0		0		0			20:00	18		25		0		0		
8:15	0		0		0		0			20:15	12		23		0		0		
8:30	2		0		0		0			20:30	9		18		0		0		
8:45	1	3	0	0	0	0	0	0	3	20:45	9	48	34	100	0	0	0	0	148
9:00	0		0		0		0			21:00	15		21		0		0		
9:15	1		0		0		0			21:15	12		14		0		0		
9:30	0		0		0		0			21:30	11		23		0		0		
9:45	2	3	0	0	0	0	0	0	3	21:45	8	46	18	76	0	0	0	0	122
10:00	5		1		0		0			22:00	4		14		0		0		
10:15	3		9		0		0			22:15	9		14		0		0		
10:30	9		4		0		0			22:30	10		11		0		0		
10:45	12	29	7	21	0	0	0	0	50	22:45	6	29	15	54	0	0	0	0	83
11:00	18		12		0		0			23:00	4		12		0		0		
11:15	12		20		0		0			23:15	4		11		0		0		
11:30	24		27		0		0			23:30	1		6		0		0		
11:45	23	77	25	84	0	0	0	0	161	23:45	5	14	10	39	0	0	0	0	53
Total Vol.	127		130						**257**		723		1020						**1743**

Daily Totals	NB	SB	EB	WB	Combined
	850	1150			**2000**

	AM			PM		
Split %	49.4%	50.6%	**12.9%**	41.5%	58.5%	**87.2%**
Peak Hour	11:30	11:45	**11:45**	17:30	17:30	**17:30**
Volume	83	100	**179**	104	126	**230**
P.H.F.	0.86	0.76	**0.84**	0.96	0.93	**0.90**

cs@aimtd.com Tell. 714 253 7888

Thursday, May 09, 2019 CITY: Rancho Santa Margarita PROJECT: SC

ADT2 Driveway 2 north of Santa Margarita. **Prepared by AimTD LLC tel. 714 253 7888**

AM Period	IN		OUT		EB		WB			PM Period	IN		OUT		EB		WB		
0:00	7		4		0		0			12:00	16		2		0		0		
0:15	5		2		0		0			12:15	15		7		0		0		
0:30	1		2		0		0			12:30	8		5		0		0		
0:45	1	14	4	12	0	0	0	0	26	12:45	20	59	10	24	0	0	0	0	83
1:00	0		0		0		0			13:00	12		7		0		0		
1:15	0		1		0		0			13:15	7		5		0		0		
1:30	0		0		0		0			13:30	9		6		0		0		
1:45	0	0	0	1	0	0	0	0	1	13:45	7	35	2	20	0	0	0	0	55
2:00	0		0		0		0			14:00	8		8		0		0		
2:15	0		0		0		0			14:15	12		4		0		0		
2:30	0		0		0		0			14:30	9		9		0		0		
2:45	0	0	0	0	0	0	0	0		14:45	7	36	6	27	0	0	0	0	63
3:00	0		0		0		0			15:00	23		4		0		0		
3:15	0		0		0		0			15:15	18		7		0		0		
3:30	0		0		0		0			15:30	12		7		0		0		
3:45	0	0	0	0	0	0	0	0		15:45	4	57	5	23	0	0	0	0	80
4:00	0		0		0		0			16:00	13		4		0		0		
4:15	0		0		0		0			16:15	8		4		0		0		
4:30	0		0		0		0			16:30	16		5		0		0		
4:45	0	0	0	0	0	0	0	0		16:45	13	50	4	17	0	0	0	0	67
5:00	0		0		0		0			17:00	20		7		0		0		
5:15	0		0		0		0			17:15	7		6		0		0		
5:30	0		0		0		0			17:30	11		5		0		0		
5:45	0	0	0	0	0	0	0	0		17:45	13	51	1	19	0	0	0	0	70
6:00	0		0		0		0			18:00	12		9		0		0		
6:15	0		0		0		0			18:15	15		3		0		0		
6:30	0		1		0		0			18:30	5		4		0		0		
6:45	0	0	0	1	0	0	0	0	1	18:45	15	47	5	21	0	0	0	0	68
7:00	0		0		0		0			19:00	14		7		0		0		
7:15	0		0		0		0			19:15	7		1		0		0		
7:30	0		0		0		0			19:30	6		3		0		0		
7:45	1	1	0	0	0	0	0	0	1	19:45	7	34	9	20	0	0	0	0	54
8:00	0		0		0		0			20:00	17		5		0		0		
8:15	0		0		0		0			20:15	11		3		0		0		
8:30	0		0		0		0			20:30	7		7		0		0		
8:45	0	0	0	0	0	0	0	0		20:45	13	48	4	19	0	0	0	0	67
9:00	0		0		0		0			21:00	36		6		0		0		
9:15	0		0		0		0			21:15	10		5		0		0		
9:30	0		0		0		0			21:30	4		4		0		0		
9:45	1	1	0	0	0	0	0	0	1	21:45	11	61	11	26	0	0	0	0	87
10:00	4		1		0		0			22:00	3		4		0		0		
10:15	3		1		0		0			22:15	6		9		0		0		
10:30	2		2		0		0			22:30	4		3		0		0		
10:45	6	15	3	7	0	0	0	0	22	22:45	4	17	0	16	0	0	0	0	33
11:00	6		3		0		0			23:00	10		5		0		0		
11:15	12		2		0		0			23:15	5		5		0		0		
11:30	8		3		0		0			23:30	1		1		0		0		
11:45	14	40	6	14	0	0	0	0	54	23:45	1	17	3	14	0	0	0	0	31
Total Vol.	71		35						**106**		512		246						**758**

Daily Totals	NB	SB	EB	WB	Combined
	583	281			**864**

	AM			PM		
Split %	67.0%	33.0%	**12.3%**	67.5%	32.5%	**87.7%**
Peak Hour	11:30	11:45	**11:45**	20:15	12:15	**20:30**
Volume	53	20	**73**	67	29	**88**
P.H.F.	0.83	0.71	**0.83**	0.85	0.73	**0.52**

cs@aimtd.com Tell. 714 253 7888

APPENDIX C

INTERSECTION TURNING MOVEMENT COUNT DATA

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

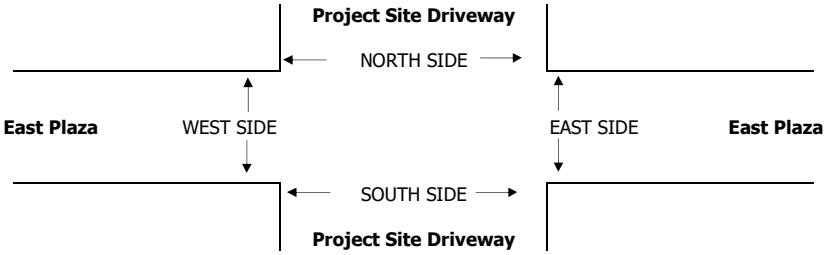
DATE:	LOCATION:	National City	PROJECT #:	SC
Wed, Oct 20, 21	NORTH & SOUTH:	Project Site Driveway	LOCATION #:	1
	EAST & WEST:	East Plaza	CONTROL:	NO CONTROL

NOTES:

Queue EB PM

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Project Site Driveway			SOUTHBOUND Project Site Driveway			EASTBOUND East Plaza			WESTBOUND East Plaza			
	LANES:	NL 0	NT 1	NR 0	SL 0	ST 1	SR 0	EL 0	ET 2	ER 1	WL 0	WT 2	WR 0	TOTAL
AM	7:00 AM	0	0	0	0	0	0	0	114	4	7	267	1	393
	7:15 AM	1	0	3	0	0	0	0	116	4	6	281	1	412
	7:30 AM	2	0	5	0	0	1	1	168	10	16	330	0	533
	7:45 AM	2	0	6	0	0	0	0	155	13	21	267	0	464
	8:00 AM	1	0	10	0	0	0	1	150	14	23	282	0	481
	8:15 AM	2	0	7	0	0	0	0	166	13	16	310	0	514
	8:30 AM	4	0	9	0	0	0	0	147	10	34	298	0	502
	8:45 AM	2	0	10	0	0	0	0	145	11	32	227	0	427
	VOLUMES	14	0	50	0	0	1	2	1,161	79	155	2,262	2	3,726
	APPROACH %	22%	0%	78%	0%	0%	100%	0%	93%	6%	6%	94%	0%	
	APP/DEPART	64	/	4	1	/	226	1,242	/	1,219	2,419	/	2,277	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	7	0	28	0	0	1	2	639	50	76	1,189	0	1,992
	APPROACH %	20%	0%	80%	0%	0%	100%	0%	92%	7%	6%	94%	0%	
	PEAK HR FACTOR		0.795			0.250			0.965			0.914		0.934
	APP/DEPART	35	/	2	1	/	122	691	/	671	1,265	/	1,197	0
PM	4:00 PM	1	0	14	0	0	2	0	314	11	16	270	1	629
	4:15 PM	2	0	7	0	0	0	1	337	13	23	309	2	694
	4:30 PM	1	0	5	1	0	1	2	301	20	13	278	1	623
	4:45 PM	1	0	17	3	0	1	2	300	12	16	304	2	658
	5:00 PM	0	0	9	0	1	0	1	339	8	13	288	0	659
	5:15 PM	0	0	5	0	0	1	0	347	17	15	284	0	669
	5:30 PM	2	0	5	2	0	0	2	318	13	13	304	3	662
	5:45 PM	2	0	9	1	0	0	3	308	4	20	316	3	666
	VOLUMES	9	0	71	7	1	5	11	2,564	98	129	2,353	12	5,260
	APPROACH %	11%	0%	89%	54%	8%	38%	0%	96%	4%	5%	94%	0%	
	APP/DEPART	80	/	22	13	/	224	2,673	/	2,646	2,494	/	2,368	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	4	0	28	3	1	1	6	1,312	42	61	1,192	6	2,656
	APPROACH %	13%	0%	88%	60%	20%	20%	0%	96%	3%	5%	95%	0%	
	PEAK HR FACTOR		0.727			0.625			0.934			0.928		0.993
	APP/DEPART	32	/	12	5	/	102	1,360	/	1,345	1,259	/	1,197	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

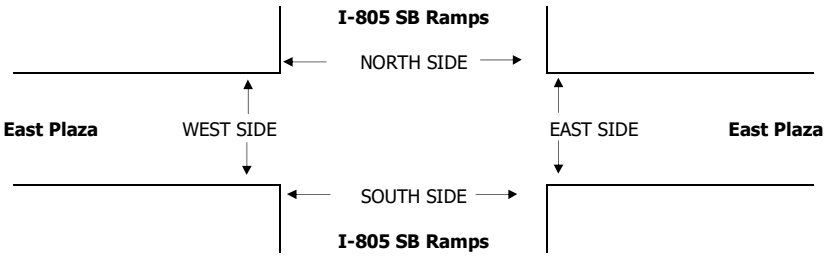
DATE:	LOCATION:	National City	PROJECT #:	SC
Wed, Oct 20, 21	NORTH & SOUTH:	I-805 SB Ramps	LOCATION #:	2
	EAST & WEST:	East Plaza	CONTROL:	SIGNAL

NOTES:

Queue EB PM

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND I-805 SB Ramps			SOUTHBOUND I-805 SB Ramps			EASTBOUND East Plaza			WESTBOUND East Plaza			
	LANES:	NL X	NT X	NR X	SL 1.5	ST 0.5	SR 1	EL X	ET 2	ER 1	WL 2	WT 2	WR X	TOTAL
AM	7:00 AM	0	0	0	74	0	46	0	60	54	60	230	0	524
	7:15 AM	0	0	0	72	0	34	0	65	55	84	253	0	563
	7:30 AM	0	0	0	79	0	58	0	73	102	80	288	0	680
	7:45 AM	0	0	0	115	1	74	0	73	88	99	214	0	664
	8:00 AM	0	0	0	95	1	86	0	88	74	80	219	0	643
	8:15 AM	0	0	0	79	1	60	0	98	75	78	267	0	658
	8:30 AM	0	0	0	88	1	88	0	88	68	78	244	0	655
	8:45 AM	0	0	0	86	0	86	0	79	78	62	173	0	564
	VOLUMES	0	0	0	688	4	532	0	624	594	621	1,888	0	4,951
	APPROACH %	0%	0%	0%	56%	0%	43%	0%	51%	49%	25%	75%	0%	
	APP/DEPART	0	/	0	1,224	/	1,218	1,218	/	1,313	2,509	/	2,420	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	0	0	0	368	3	278	0	332	339	337	988	0	2,645
	APPROACH %	0%	0%	0%	57%	0%	43%	0%	49%	51%	25%	75%	0%	
	PEAK HR FACTOR		0.000			0.854			0.959			0.900		0.972
	APP/DEPART	0	/	0	649	/	678	671	/	701	1,325	/	1,266	0
PM	4:00 PM	0	0	0	185	0	129	0	164	163	101	157	0	899
	4:15 PM	0	0	0	150	2	121	0	196	149	77	212	0	907
	4:30 PM	0	0	0	178	0	128	0	159	148	96	163	0	872
	4:45 PM	0	0	0	160	0	135	0	175	143	106	187	0	906
	5:00 PM	0	0	0	154	1	107	0	196	152	117	194	0	921
	5:15 PM	0	0	0	176	1	116	0	194	158	117	183	0	945
	5:30 PM	0	0	0	170	0	130	0	175	150	85	190	0	900
	5:45 PM	0	0	0	202	0	125	0	172	149	96	214	0	958
	VOLUMES	0	0	0	1,375	4	991	0	1,431	1,212	795	1,500	0	7,308
	APPROACH %	0%	0%	0%	58%	0%	42%	0%	54%	46%	35%	65%	0%	
	APP/DEPART	0	/	0	2,370	/	2,011	2,643	/	2,806	2,295	/	2,491	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	0	0	0	702	2	478	0	737	609	415	781	0	3,724
	APPROACH %	0%	0%	0%	59%	0%	40%	0%	55%	45%	35%	65%	0%	
	PEAK HR FACTOR		0.000			0.904			0.956			0.961		0.972
	APP/DEPART	0	/	0	1,182	/	1,026	1,346	/	1,439	1,196	/	1,259	0



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

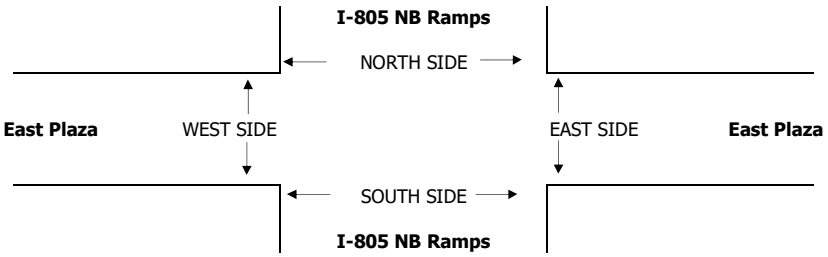
DATE:	LOCATION:	National City	PROJECT #:	SC
Wed, Oct 20, 21	NORTH & SOUTH:	I-805 NB Ramps	LOCATION #:	3
	EAST & WEST:	East Plaza	CONTROL:	SIGNAL

NOTES:

Queue EB AM/PM

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND I-805 NB Ramps			SOUTHBOUND I-805 NB Ramps			EASTBOUND East Plaza			WESTBOUND East Plaza			
	LANES:	NL 1.5	NT 0.5	NR 1	SL X	ST X	SR X	EL 2	ET 2	ER X	WL X	WT 2	WR 1	TOTAL
AM	7:00 AM	198	12	147	0	0	0	40	94	0	0	93	126	710
	7:15 AM	197	12	118	0	0	0	39	98	0	0	140	160	764
	7:30 AM	228	16	117	0	0	0	42	110	0	0	141	164	818
	7:45 AM	162	21	150	0	0	0	33	154	0	0	151	145	816
	8:00 AM	178	13	175	0	0	0	47	137	0	0	121	129	800
	8:15 AM	191	16	156	0	0	0	45	132	0	0	154	137	831
	8:30 AM	204	6	152	0	0	0	49	127	0	0	118	117	773
	8:45 AM	131	5	129	0	0	0	32	131	0	0	107	107	642
	VOLUMES	1,489	101	1,144	0	0	0	327	983	0	0	1,025	1,085	6,154
	APPROACH %	54%	4%	42%	0%	0%	0%	25%	75%	0%	0%	49%	51%	
	APP/DEPART	2,734	/	1,513	0	/	0	1,310	/	2,127	2,110	/	2,514	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	759	66	598	0	0	0	167	533	0	0	567	575	3,265
	APPROACH %	53%	5%	42%	0%	0%	0%	24%	76%	0%	0%	50%	50%	
	PEAK HR FACTOR		0.972			0.000			0.936			0.936		0.982
	APP/DEPART	1,423	/	808	0	/	0	700	/	1,131	1,142	/	1,326	0
PM	4:00 PM	111	0	101	0	0	0	76	273	0	0	150	130	841
	4:15 PM	134	2	111	0	0	0	101	243	0	0	155	138	884
	4:30 PM	111	1	133	0	0	0	78	259	0	0	150	140	872
	4:45 PM	117	0	145	0	0	0	84	251	0	0	176	139	912
	5:00 PM	122	2	111	0	0	0	90	260	0	0	189	117	891
	5:15 PM	125	0	117	0	0	0	80	290	0	0	175	147	934
	5:30 PM	111	0	136	0	0	0	74	271	0	0	166	157	915
	5:45 PM	131	0	106	0	0	0	98	273	0	0	179	157	944
	VOLUMES	962	5	960	0	0	0	681	2,120	0	0	1,340	1,125	7,193
	APPROACH %	50%	0%	50%	0%	0%	0%	24%	76%	0%	0%	54%	46%	
	APP/DEPART	1,927	/	1,811	0	/	0	2,801	/	3,080	2,465	/	2,302	0
	BEGIN PEAK HR		5:00 PM											
	VOLUMES	489	2	470	0	0	0	342	1,094	0	0	709	578	3,684
	APPROACH %	51%	0%	49%	0%	0%	0%	24%	76%	0%	0%	55%	45%	
	PEAK HR FACTOR		0.973			0.000			0.968			0.958		0.976
	APP/DEPART	961	/	922	0	/	0	1,436	/	1,564	1,287	/	1,198	0



National Data & Surveying Services

Intersection Turning Movement Count

Location: Palm Ave & Plaza Blvd
City: National City
Control: Signalized

Project ID: 19-04330-004
Date: 9/4/2019

Total

NS/EW Streets:	Palm Ave					Palm Ave					Plaza Blvd					Plaza Blvd									
AM	NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					WESTBOUND2				
	1	1	0	0	0	1	1	0	0	0	1	3	0	0	0	1	3	0	0	0	0	0	0	0	
	NL	NT	NR	NU	NR2	SL	ST	SR	SU	SL2	EL	ET	ER	EU	ET2	WL	WT	WR	WU	WU2	W2L2	W2T2	W2R2	W2U2	TOTAL
7:00 AM	11	34	29	0	1	42	40	8	0	0	10	39	1	0	1	20	245	42	0	1	0	2	1	0	527
7:15 AM	6	52	35	0	2	26	47	16	0	0	20	49	2	1	1	22	247	37	1	0	0	0	1	0	565
7:30 AM	10	39	46	0	1	37	30	15	0	0	18	54	4	0	2	31	238	54	0	0	0	0	3	0	582
7:45 AM	18	28	36	0	3	43	43	30	0	0	13	79	6	2	1	28	225	53	1	3	0	0	1	0	613
8:00 AM	13	39	31	0	1	28	17	23	0	0	18	72	1	0	0	17	229	61	1	2	0	0	2	0	555
8:15 AM	8	42	34	0	1	36	18	18	0	0	9	88	5	0	1	21	249	54	2	2	0	0	0	0	588
8:30 AM	11	12	28	0	3	24	11	14	0	0	7	97	6	1	1	20	223	46	1	3	0	1	3	0	512
8:45 AM	6	15	19	0	0	36	19	20	0	1	22	92	6	2	0	25	247	51	3	0	0	0	1	0	565
	NL	NT	NR	NU	NR2	SL	ST	SR	SU	SL2	EL	ET	ER	EU	ET2	WL	WT	WR	WU	WU2	W2L2	W2T2	W2R2	W2U2	TOTAL
TOTAL VOLUMES :	83	261	258	0	12	272	225	144	0	1	117	570	31	6	7	184	1903	398	9	11	0	3	12	0	4507
APPROACH %'s :	13.52%	42.51%	42.02%	0.00%	1.95%	42.37%	35.05%	22.43%	0.00%	0.16%	16.01%	77.98%	4.24%	0.82%	0.96%	7.35%	75.97%	15.89%	0.36%	0.44%	0.00%	20.00%	80.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																								TOTAL
PEAK HR VOL :	49	148	147	0	6	144	108	86	0	0	58	293	16	2	4	97	941	222	4	7	0	0	6	0	2338
PEAK HR FACTOR :	0.681	0.881	0.799	0.000	0.500	0.837	0.628	0.717	0.000	0.000	0.806	0.832	0.667	0.250	0.500	0.782	0.945	0.910	0.500	0.583	0.000	0.000	0.500	0.000	0.954
			0.911					0.728					0.905					0.969					0.500		

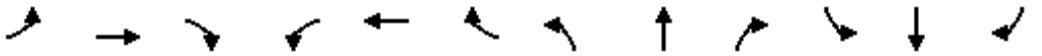
NS/EW Streets:	Palm Ave					Palm Ave					Plaza Blvd					Plaza Blvd									
NOON	NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					WESTBOUND2				
	1	1	0	0	0	1	1	0	0	0	1	3	0	0	0	1	3	0	0	0	0	0	0	0	
	NL	NT	NR	NU	NR2	SL	ST	SR	SU	SL2	EL	ET	ER	EU	ET2	WL	WT	WR	WU	WU2	W2L2	W2T2	W2R2	W2U2	TOTAL
12:00 PM	0	23	26	0	1	39	20	33	0	0	29	201	2	0	0	29	208	30	0	2	0	0	2	0	645
12:15 PM	12	23	34	0	1	26	29	18	0	0	16	218	7	1	0	31	219	31	0	0	0	0	1	0	667
12:30 PM	9	21	17	0	0	36	19	30	0	0	20	218	8	0	2	26	182	32	0	2	0	0	1	0	623
12:45 PM	4	21	38	0	0	34	12	24	0	0	15	212	4	3	1	25	225	32	2	0	0	0	1	0	653
1:00 PM	6	16	33	0	0	49	29	31	0	0	17	209	5	0	4	27	180	38	3	2	0	0	0	1	650
1:15 PM	6	20	27	0	0	40	25	18	0	0	14	184	10	1	0	33	196	31	0	2	0	0	1	0	608
1:30 PM	4	22	32	0	0	49	33	22	0	0	16	202	7	0	0	26	185	29	3	2	0	0	1	0	633
1:45 PM	5	15	33	0	1	30	27	26	0	0	21	224	4	0	1	42	210	32	2	1	0	0	0	0	674
	NL	NT	NR	NU	NR2	SL	ST	SR	SU	SL2	EL	ET	ER	EU	ET2	WL	WT	WR	WU	WU2	W2L2	W2T2	W2R2	W2U2	TOTAL
TOTAL VOLUMES :	46	161	240	0	3	303	194	202	0	0	148	1668	47	5	8	239	1605	255	10	11	0	0	7	1	5153
APPROACH %'s :	10.22%	35.78%	53.33%	0.00%	0.67%	43.35%	27.75%	28.90%	0.00%	0.00%	7.89%	88.91%	2.51%	0.27%	0.43%	11.27%	75.71%	12.03%	0.47%	0.52%	0.00%	0.00%	87.50%	12.50%	
PEAK HR :	12:15 PM - 01:15 PM																								TOTAL
PEAK HR VOL :	31	81	122	0	1	145	89	103	0	0	68	857	24	4	7	109	806	133	5	4	0	0	3	1	2593
PEAK HR FACTOR :	0.646	0.880	0.803	0.000	0.250	0.740	0.767	0.831	0.000	0.000	0.850	0.983	0.750	0.333	0.438	0.879	0.896	0.875	0.417	0.500	0.000	0.000	0.750	0.250	0.972
			0.839					0.773					0.968					0.930					1.000		

NS/EW Streets:	Palm Ave					Palm Ave					Plaza Blvd					Plaza Blvd									
PM	NORTHBOUND					SOUTHBOUND					EASTBOUND					WESTBOUND					WESTBOUND2				
	1	1	0	0	0	1	1	0	0	0	1	3	0	0	0	1	3	0	0	0	0	0	0	0	
	NL	NT	NR	NU	NR2	SL	ST	SR	SU	SL2	EL	ET	ER	EU	ET2	WL	WT	WR	WU	WU2	W2L2	W2T2	W2R2	W2U2	TOTAL
3:00 PM	6	47	27	0	0	49	64	27	0	0	19	215	4	1	0	29	181	44	0	5	0	0	1	0	719
3:15 PM	10	21	29	0	1	37	31	30	0	1	33	218	7	1	2	46	180	36	0	2	0	0	3	0	688
3:30 PM	10	31	35	0	0	49	50	35	0	0	23	220	7	1	1	28	164	35	0	4	0	0	0	1	694
3:45 PM	3	38	31	0	0	37	41	29	0	0	13	199	9	1	1	46	172	37	0	1	0	0	0	0	658
4:00 PM	8	19	32	0	0	45	31	24	0	2	29	201	7	2	2	38	174	45	1	6	0	0	1	0	667
4:15 PM	7	20	27	0	0	38	39	28	0	1	20	193	9	0	1	52	177	35	0	2	0	0	3	0	652
4:30 PM	7	24	39	0	0	35	42	38	0	1	21	196	2	0	0	53	194	34	2	2	0	0	1	0	691
4:45 PM	8	24	31	0	0	42	31	35	0	0	22	237	3	0	1	46	210	34	0	2	0	0	0	0	726
5:00 PM	12	32	30	0	2	43	39	27	0	0	28	264	3	0	0	49	183	33	1	1	0	0	2	0	749
5:15 PM	4	28	32	0	1	36	35	42	0	0	31	226	8	0	2	52	229	34	0	1	0	0	0	0	761
5:30 PM	7	35	33	0	0	57	41	35	0	0	25	219	10	0	1	42	147	47	0	1	0	0	0	0	700
5:45 PM	13	34	35	0	4	41	37	38	0	1	29	194	10	2	2	35	168	27	1	4	0	1	2	0	678
	NL	NT	NR	NU	NR2	SL	ST	SR	SU	SL2	EL	ET	ER	EU	ET2	WL	WT	WR	WU	WU2	W2L2	W2T2	W2R2	W2U2	TOTAL
TOTAL VOLUMES :	95	353	381	0	8	509	481	388	0	6	293	2582	79	8	13	516	2179	441	5	31	0	1	13	1	8383
APPROACH %'s :	11.35%	42.17%	45.52%	0.00%	0.96%	36.78%	34.75%	28.03%	0.00%	0.43%	9.85%	86.79%	2.66%	0.27%	0.44%	16.27%	68.69%	13.90%	0.16%	0.98%	0.00%	6.67%	86.67%	6.67%	
PEAK HR :	04:45 PM - 05:45 PM																								TOTAL
PEAK HR VOL :	31	119	126	0	3	178	146	139	0	0	106	946	24	0	4	189	769	148	1	5	0	0	2	0	2936
PEAK HR FACTOR :	0.646	0.850	0.955	0.000	0.375	0.781	0.890	0.827	0.000	0.000	0.855	0.896	0.600	0.000	0.500	0.909	0.840	0.787	0.250	0.625	0.000	0.000	0.250	0.000	0.965
			0.918					0.870					0.915					0.880					0.250		

APPENDIX D

LEVEL OF SERVICE REPORTS

Existing



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	1312	42	61	1192	6	4	0	28	3	1	1
Future Volume (vph)	6	1312	42	61	1192	6	4	0	28	3	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	500		0	130		0	0		0	0		0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (ft)	50			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995			0.999			0.882			0.973	
Flt Protected	0.950			0.950				0.994			0.971	
Satd. Flow (prot)	1770	5060	0	1770	3536	0	0	1633	0	0	1760	0
Flt Permitted	0.950			0.950				0.994			0.971	
Satd. Flow (perm)	1770	5060	0	1770	3536	0	0	1633	0	0	1760	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		935			332			232			171	
Travel Time (s)		18.2			6.5			6.3			4.7	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	6	1325	42	62	1204	6	4	0	28	3	1	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	6	1367	0	62	1210	0	0	32	0	0	5	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		0			0			0			0	
Two way Left Turn Lane		Yes										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 54.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	1312	42	61	1192	6	4	0	28	3	1	1
Future Vol, veh/h	6	1312	42	61	1192	6	4	0	28	3	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	500	-	-	130	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	99	99	99	99	99	99	99	99	99	99	99	99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	1325	42	62	1204	6	4	0	28	3	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1210	0	0	1367	0	0	2085	2692	684	1873	2710	605
Stage 1	-	-	-	-	-	-	1358	1358	-	1331	1331	-
Stage 2	-	-	-	-	-	-	727	1334	-	542	1379	-
Critical Hdwy	4.14	-	-	5.34	-	-	6.99	6.54	7.14	6.99	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	7.34	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.74	5.54	-
Follow-up Hdwy	2.22	-	-	3.12	-	-	3.67	4.02	3.92	3.67	4.02	3.32
Pot Cap-1 Maneuver	572	-	-	259	-	-	41	21	335	58	21	441
Stage 1	-	-	-	-	-	-	114	215	-	160	222	-
Stage 2	-	-	-	-	-	-	371	221	-	463	210	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	572	-	-	259	-	-	33	16	335	43	16	441
Mov Cap-2 Maneuver	-	-	-	-	-	-	85	91	-	116	79	-
Stage 1	-	-	-	-	-	-	113	213	-	158	169	-
Stage 2	-	-	-	-	-	-	280	168	-	419	208	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.1	21.9	35.5
HCM LOS			C	E

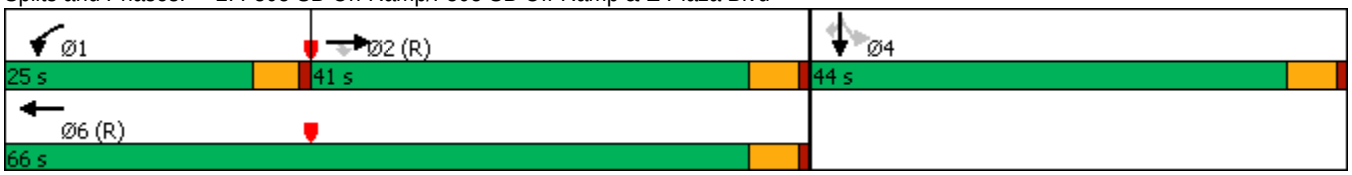
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	245	572	-	-	259	-	-	123
HCM Lane V/C Ratio	0.132	0.011	-	-	0.238	-	-	0.041
HCM Control Delay (s)	21.9	11.4	-	-	23.2	-	-	35.5
HCM Lane LOS	C	B	-	-	C	-	-	E
HCM 95th %tile Q(veh)	0.4	0	-	-	0.9	-	-	0.1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	737	609	415	781	0	0	0	0	702	2	478
Future Volume (vph)	0	737	609	415	781	0	0	0	0	702	2	478
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		250	188		0	0		0	700		230
Storage Lanes	0		0	2		0	0		0	1		1
Taper Length (ft)	25			25			25			0		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Frt			0.850									0.850
Flt Protected				0.950						0.950	0.953	
Satd. Flow (prot)	0	3539	1583	3433	3539	0	0	0	0	1681	1686	1583
Flt Permitted				0.950						0.950	0.953	
Satd. Flow (perm)	0	3539	1583	3433	3539	0	0	0	0	1681	1686	1583
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)			628									151
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		332			411			923			716	
Travel Time (s)		6.5			8.0			21.0			16.3	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	760	628	428	805	0	0	0	0	724	2	493
Shared Lane Traffic (%)										50%		
Lane Group Flow (vph)	0	760	628	428	805	0	0	0	0	362	364	493
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		0			0			8			8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2	1	1	2					1	2	1
Detector Template		Thru	Right	Left	Thru					Left	Thru	Right
Leading Detector (ft)		100	20	20	100					20	100	20
Trailing Detector (ft)		0	0	0	0					0	0	0
Detector 1 Position(ft)		0	0	0	0					0	0	0
Detector 1 Size(ft)		6	20	20	6					20	6	20
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Detector 1 Queue (s)		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Detector 1 Delay (s)		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Detector 2 Position(ft)		94			94						94	
Detector 2 Size(ft)		6			6						6	
Detector 2 Type		Cl+Ex			Cl+Ex						Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0						0.0	
Turn Type		NA	Perm	Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases			2							4		4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		2	2	1	6					4	4	4
Switch Phase												
Minimum Initial (s)		5.0	5.0	5.0	7.0					5.0	5.0	5.0
Minimum Split (s)		20.1	20.1	9.7	18.1					34.1	34.1	34.1
Total Split (s)		41.0	41.0	25.0	66.0					44.0	44.0	44.0
Total Split (%)		37.3%	37.3%	22.7%	60.0%					40.0%	40.0%	40.0%
Maximum Green (s)		35.9	35.9	20.3	60.9					38.9	38.9	38.9
Yellow Time (s)		4.1	4.1	3.7	4.1					4.1	4.1	4.1
All-Red Time (s)		1.0	1.0	1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		2.0	2.0	2.0	2.0					2.0	2.0	2.0
Total Lost Time (s)		7.1	7.1	6.7	7.1					7.1	7.1	7.1
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Vehicle Extension (s)		3.0	3.0	3.0	3.0					3.0	3.0	3.0
Recall Mode		C-Min	C-Min	None	C-Min					None	None	None
Walk Time (s)		7.0	7.0	1.0	7.0					7.0	7.0	7.0
Flash Dont Walk (s)		8.0	8.0	1.0	6.0					22.0	22.0	22.0
Pedestrian Calls (#/hr)		0	0	0	0					0	0	0
Act Effct Green (s)		41.3	41.3	16.1	64.1					31.7	31.7	31.7
Actuated g/C Ratio		0.38	0.38	0.15	0.58					0.29	0.29	0.29
v/c Ratio		0.57	0.64	0.85	0.39					0.75	0.75	0.88
Control Delay		53.2	28.8	58.3	15.8					45.0	45.1	42.3
Queue Delay		0.0	0.0	0.0	0.4					0.0	0.0	0.0
Total Delay		53.2	28.8	58.3	16.2					45.0	45.1	42.3
LOS		D	C	E	B					D	D	D
Approach Delay		42.1			30.9						43.9	
Approach LOS		D			C						D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 96 (87%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.88			
Intersection Signal Delay: 39.1		Intersection LOS: D	
Intersection Capacity Utilization 142.5%		ICU Level of Service H	
Analysis Period (min) 15			

Splits and Phases: 2: I-805 SB On-Ramp/I-805 SB Off-Ramp & E Plaza Blvd



HCM 6th Signalized Intersection Summary
2: I-805 SB On-Ramp/I-805 SB Off-Ramp & E Plaza Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	737	609	415	781	0	0	0	0	702	2	478
Future Volume (veh/h)	0	737	609	415	781	0	0	0	0	702	2	478
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	760	628	428	805	0				725	0	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1628	726	449	2307	0				790	0	
Arrive On Green	0.00	0.15	0.15	0.04	0.21	0.00				0.22	0.00	0.00
Sat Flow, veh/h	0	3647	1585	3456	3647	0				3563	0	1585
Grp Volume(v), veh/h	0	760	628	428	805	0				725	0	0
Grp Sat Flow(s),veh/h/ln	0	1777	1585	1728	1777	0				1781	0	1585
Q Serve(g_s), s	0.0	21.5	42.6	13.6	21.2	0.0				21.9	0.0	0.0
Cycle Q Clear(g_c), s	0.0	21.5	42.6	13.6	21.2	0.0				21.9	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1628	726	449	2307	0				790	0	
V/C Ratio(X)	0.00	0.47	0.86	0.95	0.35	0.00				0.92	0.00	
Avail Cap(c_a), veh/h	0	1628	726	575	2307	0				1195	0	
HCM Platoon Ratio	1.00	0.33	0.33	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.84	0.84	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	34.4	43.4	52.3	23.5	0.0				41.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.0	13.0	20.6	0.4	0.0				8.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	10.4	20.7	7.6	10.1	0.0				10.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	35.4	56.4	72.9	23.8	0.0				49.8	0.0	0.0
LnGrp LOS	A	D	E	E	C	A				D	A	
Approach Vol, veh/h		1388			1233						725	A
Approach Delay, s/veh		44.9			40.9						49.8	
Approach LOS		D			D						D	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	21.0	57.5		31.5		78.5						
Change Period (Y+Rc), s	* 4.7	5.1		5.1		5.1						
Max Green Setting (Gmax), s	* 20	35.9		38.9		60.9						
Max Q Clear Time (g_c+I1), s	15.6	44.6		23.9		23.2						
Green Ext Time (p_c), s	0.7	0.0		2.5		6.4						

Intersection Summary												
HCM 6th Ctrl Delay			44.5									
HCM 6th LOS			D									

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

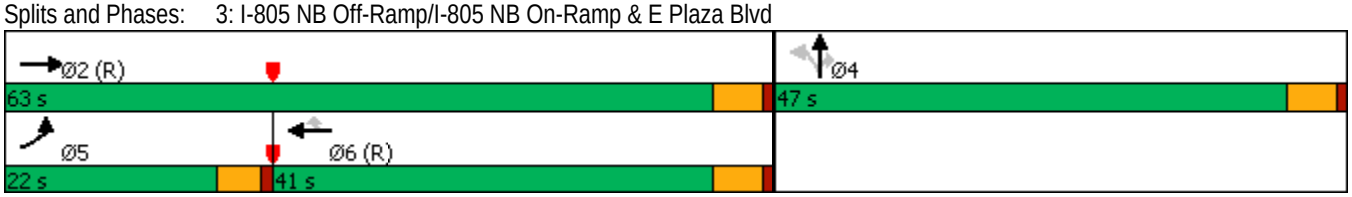
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	342	1094	0	0	709	578	489	2	470	0	0	0
Future Volume (vph)	342	1094	0	0	709	578	489	2	470	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	188		0	0		0	970		110	0		0
Storage Lanes	2		0	0		1	1		1	0		0
Taper Length (ft)	25			25			0			25		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt						0.850			0.850			
Flt Protected	0.950						0.950	0.953				
Satd. Flow (prot)	3433	3539	0	0	3539	1583	1681	1686	1583	0	0	0
Flt Permitted	0.950						0.950	0.953				
Satd. Flow (perm)	3433	3539	0	0	3539	1583	1681	1686	1583	0	0	0
Right Turn on Red			No			Yes			Yes			No
Satd. Flow (RTOR)						590			67			
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		411			388			1009			530	
Travel Time (s)		8.0			7.6			22.9			12.0	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	349	1116	0	0	723	590	499	2	480	0	0	0
Shared Lane Traffic (%)							50%					
Lane Group Flow (vph)	349	1116	0	0	723	590	249	252	480	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		0			0			8			8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2	1	1	2	1			
Detector Template	Left	Thru			Thru	Right	Left	Thru	Right			
Leading Detector (ft)	20	100			100	20	20	100	20			
Trailing Detector (ft)	0	0			0	0	0	0	0			
Detector 1 Position(ft)	0	0			0	0	0	0	0			
Detector 1 Size(ft)	20	6			6	20	20	6	20			
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			
Detector 1 Queue (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			
Detector 1 Delay (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	5	2			6			4				
Permitted Phases						6	4		4			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2			6	6	4	4	4			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0	5.0	5.0	5.0	5.0			
Minimum Split (s)	9.7	18.1			19.1	19.1	34.1	34.1	34.1			
Total Split (s)	22.0	63.0			41.0	41.0	47.0	47.0	47.0			
Total Split (%)	20.0%	57.3%			37.3%	37.3%	42.7%	42.7%	42.7%			
Maximum Green (s)	17.3	57.9			35.9	35.9	41.9	41.9	41.9			
Yellow Time (s)	3.7	4.1			4.1	4.1	4.1	4.1	4.1			
All-Red Time (s)	1.0	1.0			1.0	1.0	1.0	1.0	1.0			
Lost Time Adjust (s)	2.0	2.0			2.0	2.0	2.0	2.0	2.0			
Total Lost Time (s)	6.7	7.1			7.1	7.1	7.1	7.1	7.1			
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			
Recall Mode	None	C-Min			C-Min	C-Min	None	None	None			
Walk Time (s)	1.0	7.0			7.0	7.0	7.0	7.0	7.0			
Flash Dont Walk (s)	1.0	6.0			7.0	7.0	22.0	22.0	22.0			
Pedestrian Calls (#/hr)	0	0			0	0	0	0	0			
Act Effct Green (s)	13.6	61.6			41.3	41.3	34.2	34.2	34.2			
Actuated g/C Ratio	0.12	0.56			0.38	0.38	0.31	0.31	0.31			
v/c Ratio	0.83	0.56			0.54	0.61	0.48	0.48	0.89			
Control Delay	56.4	9.5			30.6	5.6	32.8	32.9	50.2			
Queue Delay	0.0	0.4			0.8	0.3	0.0	0.0	0.0			
Total Delay	56.4	9.9			31.4	5.9	32.8	32.9	50.2			
LOS	E	A			C	A	C	C	D			
Approach Delay		20.9			19.9			41.4				
Approach LOS		C			B			D				

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 34 (31%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.89			
Intersection Signal Delay: 25.9		Intersection LOS: C	
Intersection Capacity Utilization 142.5%		ICU Level of Service H	
Analysis Period (min) 15			

Splits and Phases: 3: I-805 NB Off-Ramp/I-805 NB On-Ramp & E Plaza Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	342	1094	0	0	709	578	489	2	470	0	0	0
Future Volume (veh/h)	342	1094	0	0	709	578	489	2	470	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	349	1116	0	0	723	0	500	0	0			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	364	2545	0	0	1954		551	0				
Arrive On Green	0.03	0.24	0.00	0.00	0.55	0.00	0.15	0.00	0.00			
Sat Flow, veh/h	3456	3647	0	0	3647	1585	3563	0	1585			
Grp Volume(v), veh/h	349	1116	0	0	723	0	500	0	0			
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1585	1781	0	1585			
Q Serve(g_s), s	11.1	29.4	0.0	0.0	12.6	0.0	15.2	0.0	0.0			
Cycle Q Clear(g_c), s	11.1	29.4	0.0	0.0	12.6	0.0	15.2	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	364	2545	0	0	1954		551	0				
V/C Ratio(X)	0.96	0.44	0.00	0.00	0.37		0.91	0.00				
Avail Cap(c_a), veh/h	481	2545	0	0	1954		1292	0				
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.74	0.74	0.00	0.00	0.93	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	52.8	23.2	0.0	0.0	14.0	0.0	45.7	0.0	0.0			
Incr Delay (d2), s/veh	22.1	0.4	0.0	0.0	0.5	0.0	6.0	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	6.2	14.1	0.0	0.0	5.0	0.0	7.1	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	74.9	23.6	0.0	0.0	14.5	0.0	51.7	0.0	0.0			
LnGrp LOS	E	C	A	A	B		D	A				
Approach Vol, veh/h		1465			723	A		500	A			
Approach Delay, s/veh		35.8			14.5			51.7				
Approach LOS		D			B			D				

Timer - Assigned Phs		2		4	5	6			
Phs Duration (G+Y+Rc), s		85.9		24.1	18.3	67.6			
Change Period (Y+Rc), s		5.1		5.1	* 4.7	5.1			
Max Green Setting (Gmax), s		57.9		41.9	* 17	35.9			
Max Q Clear Time (g_c+I1), s		31.4		17.2	13.1	14.6			
Green Ext Time (p_c), s		9.0		1.8	0.5	4.9			

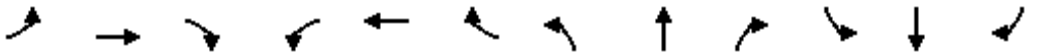
Intersection Summary		
HCM 6th Ctrl Delay		33.0
HCM 6th LOS		C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

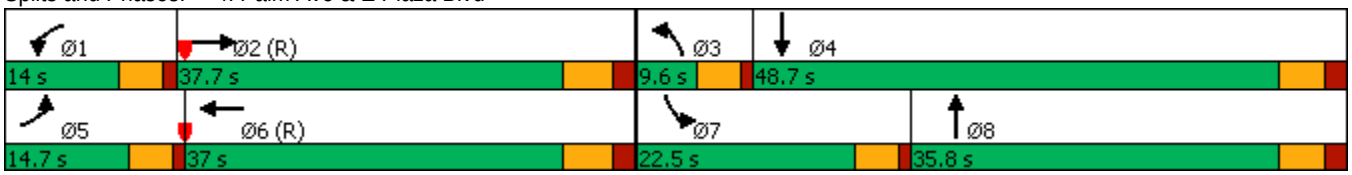


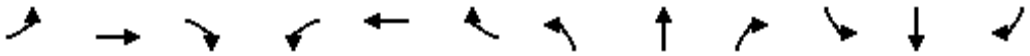
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	112	965	24	194	784	151	32	124	129	182	149	142
Future Volume (vph)	112	965	24	194	784	151	32	124	129	182	149	142
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		0	235		0	200		0	215		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	120			120			60			45		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996			0.976			0.924			0.927	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	5065	0	1770	4963	0	1770	1721	0	1770	1727	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	5065	0	1770	4963	0	1770	1721	0	1770	1727	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			35			46			49	
Link Speed (mph)		35			30			30			30	
Link Distance (ft)		865			935			561			541	
Travel Time (s)		16.9			21.3			12.8			12.3	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	115	995	25	200	808	156	33	128	133	188	154	146
Shared Lane Traffic (%)												
Lane Group Flow (vph)	115	1020	0	200	964	0	33	261	0	188	300	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		8			8			8			8	
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	10.0		5.0	10.0		5.0	6.0		5.0	6.0	
Minimum Split (s)	9.6	37.1		9.6	34.1		9.6	11.7		9.6	48.7	
Total Split (s)	14.7	37.7		14.0	37.0		9.6	35.8		22.5	48.7	
Total Split (%)	13.4%	34.3%		12.7%	33.6%		8.7%	32.5%		20.5%	44.3%	
Maximum Green (s)	10.1	31.6		9.4	30.9		5.0	30.1		17.9	43.0	
Yellow Time (s)	3.6	4.1		3.6	4.1		3.6	3.7		3.6	3.7	
All-Red Time (s)	1.0	2.0		1.0	2.0		1.0	2.0		1.0	2.0	
Lost Time Adjust (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Total Lost Time (s)	6.6	8.1		6.6	8.1		6.6	7.7		6.6	7.7	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Walk Time (s)		7.0			7.0						7.0	
Flash Dont Walk (s)		24.0			21.0						36.0	
Pedestrian Calls (#/hr)		0			0						0	
Act Effct Green (s)	11.0	28.5		21.2	38.8		3.9	17.4		13.9	29.5	
Actuated g/C Ratio	0.10	0.26		0.19	0.35		0.04	0.16		0.13	0.27	
v/c Ratio	0.65	0.78		0.59	0.54		0.53	0.84		0.84	0.60	
Control Delay	65.2	42.3		54.0	20.9		82.7	59.4		77.6	33.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	65.2	42.3		54.0	20.9		82.7	59.4		77.6	33.7	
LOS	E	D		D	C		F	E		E	C	
Approach Delay		44.6			26.5			62.0			50.6	
Approach LOS		D			C			E			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 115			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 40.4		Intersection LOS: D	
Intersection Capacity Utilization 78.6%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 4: Palm Ave & E Plaza Blvd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	965	24	194	784	151	32	124	129	182	149	142
Future Volume (veh/h)	112	965	24	194	784	151	32	124	129	182	149	142
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	115	995	25	200	808	156	33	128	133	188	154	146
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	71	2065	52	116	1844	353	19	136	141	190	227	215
Arrive On Green	0.04	0.40	0.40	0.13	0.86	0.86	0.01	0.16	0.16	0.11	0.26	0.26
Sat Flow, veh/h	1781	5123	129	1781	4302	824	1781	840	873	1781	883	837
Grp Volume(v), veh/h	115	661	359	200	638	326	33	0	261	188	0	300
Grp Sat Flow(s),veh/h/ln	1781	1702	1847	1781	1702	1722	1781	0	1713	1781	0	1720
Q Serve(g_s), s	4.4	15.8	15.8	7.2	4.7	4.8	1.2	0.0	16.6	11.6	0.0	17.3
Cycle Q Clear(g_c), s	4.4	15.8	15.8	7.2	4.7	4.8	1.2	0.0	16.6	11.6	0.0	17.3
Prop In Lane	1.00		0.07	1.00		0.48	1.00		0.51	1.00		0.49
Lane Grp Cap(c), veh/h	71	1372	745	116	1459	738	19	0	276	190	0	443
V/C Ratio(X)	1.63	0.48	0.48	1.72	0.44	0.44	1.73	0.00	0.94	0.99	0.00	0.68
Avail Cap(c_a), veh/h	131	1372	745	120	1459	738	49	0	438	257	0	641
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	52.8	24.3	24.3	47.8	4.8	4.8	54.4	0.0	45.6	49.1	0.0	36.7
Incr Delay (d2), s/veh	328.8	1.2	2.2	357.7	1.0	1.9	417.6	0.0	21.8	46.8	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.4	6.4	7.2	14.5	1.4	1.6	2.7	0.0	8.7	7.6	0.0	7.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	381.6	25.5	26.6	405.6	5.8	6.7	472.0	0.0	67.4	95.9	0.0	38.6
LnGrp LOS	F	C	C	F	A	A	F	A	E	F	A	D
Approach Vol, veh/h		1135			1164			294			488	
Approach Delay, s/veh		61.9			74.7			112.8			60.6	
Approach LOS		E			E			F			E	

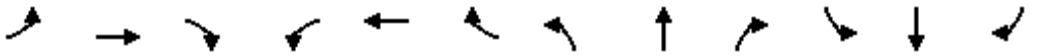
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.8	52.4	7.8	36.0	10.9	55.3	18.3	25.4
Change Period (Y+Rc), s	4.6	6.1	4.6	* 5.7	4.6	6.1	4.6	* 5.7
Max Green Setting (Gmax), s	9.4	31.6	5.0	* 43	10.1	30.9	17.9	* 30
Max Q Clear Time (g_c+I1), s	9.2	17.8	3.2	19.3	6.4	6.8	13.6	18.6
Green Ext Time (p_c), s	0.0	5.5	0.0	1.9	0.1	7.1	0.2	1.2

Intersection Summary	
HCM 6th Ctrl Delay	71.4
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Existing Plus Project



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	1312	101	123	1210	6	0	0	143	3	1	1
Future Volume (vph)	6	1312	101	123	1210	6	0	0	143	3	1	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	500		0	130		0	0		0	0		0
Storage Lanes	1		0	1		0	0		1	0		0
Taper Length (ft)	50			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.989			0.999				0.865		0.973	
Flt Protected	0.950			0.950							0.971	
Satd. Flow (prot)	1770	5029	0	1770	3536	0	0	0	1611	0	1760	0
Flt Permitted	0.950			0.950							0.971	
Satd. Flow (perm)	1770	5029	0	1770	3536	0	0	0	1611	0	1760	0
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		935			332			232			171	
Travel Time (s)		18.2			6.5			6.3			4.7	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	6	1325	102	124	1222	6	0	0	144	3	1	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	6	1427	0	124	1228	0	0	0	144	0	5	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		0			0			0			0	
Two way Left Turn Lane		Yes										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 55.3%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	1312	101	123	1210	6	0	0	143	3	1	1
Future Vol, veh/h	6	1312	101	123	1210	6	0	0	143	3	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	500	-	-	130	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	99	99	99	99	99	99	99	99	99	99	99	99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	1325	102	124	1222	6	0	0	144	3	1	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1228	0	0	1427	0	0	-	-	714	2015	2912	614
Stage 1	-	-	-	-	-	-	-	-	-	1473	1473	-
Stage 2	-	-	-	-	-	-	-	-	-	542	1439	-
Critical Hdwy	4.14	-	-	5.34	-	-	-	-	7.14	6.99	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	6.74	5.54	-
Follow-up Hdwy	2.22	-	-	3.12	-	-	-	-	3.92	3.67	4.02	3.32
Pot Cap-1 Maneuver	563	-	-	242	-	-	0	0	321	46	15	435
Stage 1	-	-	-	-	-	-	0	0	-	130	189	-
Stage 2	-	-	-	-	-	-	0	0	-	463	197	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	563	-	-	242	-	-	-	-	321	15	7	435
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	66	40	-
Stage 1	-	-	-	-	-	-	-	-	-	129	92	-
Stage 2	-	-	-	-	-	-	-	-	-	252	195	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	3.2	25.1	61.3
HCM LOS			D	F

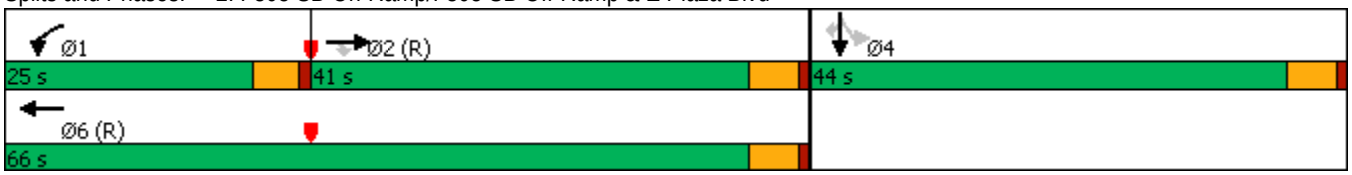
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	321	563	-	-	242	-	-	69
HCM Lane V/C Ratio	0.45	0.011	-	-	0.513	-	-	0.073
HCM Control Delay (s)	25.1	11.5	-	-	34.6	-	-	61.3
HCM Lane LOS	D	B	-	-	D	-	-	F
HCM 95th %tile Q(veh)	2.2	0	-	-	2.7	-	-	0.2

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	782	626	415	833	0	0	0	0	702	2	493
Future Volume (vph)	0	782	626	415	833	0	0	0	0	702	2	493
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		250	188		0	0		0	700		230
Storage Lanes	0		0	2		0	0		0	1		1
Taper Length (ft)	25			25			25			0		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Frt			0.850									0.850
Flt Protected				0.950						0.950	0.953	
Satd. Flow (prot)	0	3539	1583	3433	3539	0	0	0	0	1681	1686	1583
Flt Permitted				0.950						0.950	0.953	
Satd. Flow (perm)	0	3539	1583	3433	3539	0	0	0	0	1681	1686	1583
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)			645									131
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		332			411			923			716	
Travel Time (s)		6.5			8.0			21.0			16.3	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	806	645	428	859	0	0	0	0	724	2	508
Shared Lane Traffic (%)										50%		
Lane Group Flow (vph)	0	806	645	428	859	0	0	0	0	362	364	508
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		0			0			8			8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2	1	1	2					1	2	1
Detector Template		Thru	Right	Left	Thru					Left	Thru	Right
Leading Detector (ft)		100	20	20	100					20	100	20
Trailing Detector (ft)		0	0	0	0					0	0	0
Detector 1 Position(ft)		0	0	0	0					0	0	0
Detector 1 Size(ft)		6	20	20	6					20	6	20
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Detector 1 Queue (s)		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Detector 1 Delay (s)		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Detector 2 Position(ft)		94			94						94	
Detector 2 Size(ft)		6			6						6	
Detector 2 Type		Cl+Ex			Cl+Ex						Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0						0.0	
Turn Type		NA	Perm	Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases			2							4		4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		2	2	1	6					4	4	4
Switch Phase												
Minimum Initial (s)		5.0	5.0	5.0	7.0					5.0	5.0	5.0
Minimum Split (s)		20.1	20.1	9.7	18.1					34.1	34.1	34.1
Total Split (s)		41.0	41.0	25.0	66.0					44.0	44.0	44.0
Total Split (%)		37.3%	37.3%	22.7%	60.0%					40.0%	40.0%	40.0%
Maximum Green (s)		35.9	35.9	20.3	60.9					38.9	38.9	38.9
Yellow Time (s)		4.1	4.1	3.7	4.1					4.1	4.1	4.1
All-Red Time (s)		1.0	1.0	1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		2.0	2.0	2.0	2.0					2.0	2.0	2.0
Total Lost Time (s)		7.1	7.1	6.7	7.1					7.1	7.1	7.1
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Vehicle Extension (s)		3.0	3.0	3.0	3.0					3.0	3.0	3.0
Recall Mode		C-Min	C-Min	None	C-Min					None	None	None
Walk Time (s)		7.0	7.0	1.0	7.0					7.0	7.0	7.0
Flash Dont Walk (s)		8.0	8.0	1.0	6.0					22.0	22.0	22.0
Pedestrian Calls (#/hr)		0	0	0	0					0	0	0
Act Effct Green (s)		39.9	39.9	16.1	62.7					33.1	33.1	33.1
Actuated g/C Ratio		0.36	0.36	0.15	0.57					0.30	0.30	0.30
v/c Ratio		0.63	0.65	0.85	0.43					0.72	0.72	0.90
Control Delay		54.3	27.2	57.2	17.2					42.3	42.4	46.2
Queue Delay		0.0	0.0	0.0	0.5					0.0	0.0	0.0
Total Delay		54.3	27.2	57.2	17.7					42.3	42.4	46.2
LOS		D	C	E	B					D	D	D
Approach Delay		42.2			30.8						44.0	
Approach LOS		D			C						D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 96 (87%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 39.1		Intersection LOS: D	
Intersection Capacity Utilization 144.5%		ICU Level of Service H	
Analysis Period (min) 15			

Splits and Phases: 2: I-805 SB On-Ramp/I-805 SB Off-Ramp & E Plaza Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	782	626	415	833	0	0	0	0	702	2	493
Future Volume (veh/h)	0	782	626	415	833	0	0	0	0	702	2	493
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	806	645	428	859	0				725	0	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1628	726	449	2307	0				790	0	
Arrive On Green	0.00	0.15	0.15	0.04	0.21	0.00				0.22	0.00	0.00
Sat Flow, veh/h	0	3647	1585	3456	3647	0				3563	0	1585
Grp Volume(v), veh/h	0	806	645	428	859	0				725	0	0
Grp Sat Flow(s),veh/h/ln	0	1777	1585	1728	1777	0				1781	0	1585
Q Serve(g_s), s	0.0	22.9	43.9	13.6	22.7	0.0				21.9	0.0	0.0
Cycle Q Clear(g_c), s	0.0	22.9	43.9	13.6	22.7	0.0				21.9	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1628	726	449	2307	0				790	0	
V/C Ratio(X)	0.00	0.50	0.89	0.95	0.37	0.00				0.92	0.00	
Avail Cap(c_a), veh/h	0	1628	726	575	2307	0				1195	0	
HCM Platoon Ratio	1.00	0.33	0.33	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.81	0.81	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	35.0	43.9	52.3	24.1	0.0				41.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.1	15.1	20.1	0.4	0.0				8.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	11.1	21.6	7.6	10.9	0.0				10.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	36.1	59.1	72.5	24.5	0.0				49.8	0.0	0.0
LnGrp LOS	A	D	E	E	C	A				D	A	
Approach Vol, veh/h		1451			1287						725	A
Approach Delay, s/veh		46.3			40.4						49.8	
Approach LOS		D			D						D	

Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	21.0	57.5		31.5		78.5						
Change Period (Y+Rc), s	* 4.7	5.1		5.1		5.1						
Max Green Setting (Gmax), s	* 20	35.9		38.9		60.9						
Max Q Clear Time (g_c+I1), s	15.6	45.9		23.9		24.7						
Green Ext Time (p_c), s	0.7	0.0		2.5		6.9						

Intersection Summary												
HCM 6th Ctrl Delay			44.8									
HCM 6th LOS			D									

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

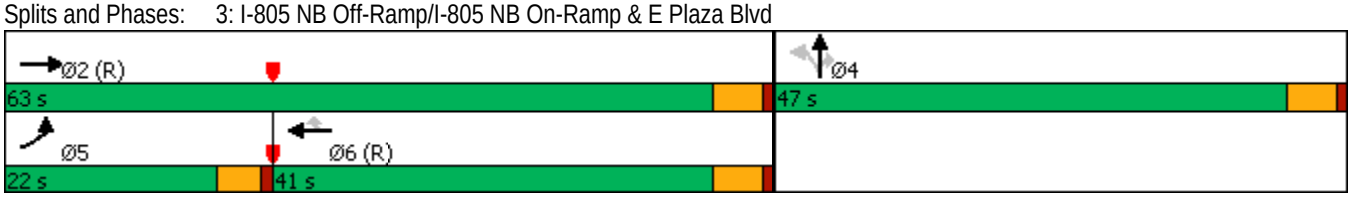
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	355	1126	0	0	743	578	507	2	470	0	0	0
Future Volume (vph)	355	1126	0	0	743	578	507	2	470	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	188		0	0		0	970		110	0		0
Storage Lanes	2		0	0		1	1		1	0		0
Taper Length (ft)	25			25			0			25		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt						0.850			0.850			
Flt Protected	0.950						0.950	0.953				
Satd. Flow (prot)	3433	3539	0	0	3539	1583	1681	1686	1583	0	0	0
Flt Permitted	0.950						0.950	0.953				
Satd. Flow (perm)	3433	3539	0	0	3539	1583	1681	1686	1583	0	0	0
Right Turn on Red			No			Yes			Yes			No
Satd. Flow (RTOR)						590			67			
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		411			388			1009			530	
Travel Time (s)		8.0			7.6			22.9			12.0	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	362	1149	0	0	758	590	517	2	480	0	0	0
Shared Lane Traffic (%)							50%					
Lane Group Flow (vph)	362	1149	0	0	758	590	258	261	480	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		0			0			8			8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2	1	1	2	1			
Detector Template	Left	Thru			Thru	Right	Left	Thru	Right			
Leading Detector (ft)	20	100			100	20	20	100	20			
Trailing Detector (ft)	0	0			0	0	0	0	0			
Detector 1 Position(ft)	0	0			0	0	0	0	0			
Detector 1 Size(ft)	20	6			6	20	20	6	20			
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			
Detector 1 Queue (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			
Detector 1 Delay (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	5	2			6			4				
Permitted Phases						6	4		4			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2			6	6	4	4	4			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0	5.0	5.0	5.0	5.0			
Minimum Split (s)	9.7	18.1			19.1	19.1	34.1	34.1	34.1			
Total Split (s)	22.0	63.0			41.0	41.0	47.0	47.0	47.0			
Total Split (%)	20.0%	57.3%			37.3%	37.3%	42.7%	42.7%	42.7%			
Maximum Green (s)	17.3	57.9			35.9	35.9	41.9	41.9	41.9			
Yellow Time (s)	3.7	4.1			4.1	4.1	4.1	4.1	4.1			
All-Red Time (s)	1.0	1.0			1.0	1.0	1.0	1.0	1.0			
Lost Time Adjust (s)	2.0	2.0			2.0	2.0	2.0	2.0	2.0			
Total Lost Time (s)	6.7	7.1			7.1	7.1	7.1	7.1	7.1			
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			
Recall Mode	None	C-Min			C-Min	C-Min	None	None	None			
Walk Time (s)	1.0	7.0			7.0	7.0	7.0	7.0	7.0			
Flash Dont Walk (s)	1.0	6.0			7.0	7.0	22.0	22.0	22.0			
Pedestrian Calls (#/hr)	0	0			0	0	0	0	0			
Act Effct Green (s)	13.9	61.5			40.9	40.9	34.3	34.3	34.3			
Actuated g/C Ratio	0.13	0.56			0.37	0.37	0.31	0.31	0.31			
v/c Ratio	0.84	0.58			0.58	0.62	0.49	0.50	0.89			
Control Delay	55.0	9.0			31.5	5.6	33.1	33.2	49.7			
Queue Delay	0.0	0.5			0.9	0.3	0.0	0.0	0.0			
Total Delay	55.0	9.5			32.4	5.9	33.1	33.2	49.7			
LOS	E	A			C	A	C	C	D			
Approach Delay		20.4			20.8			41.1				
Approach LOS		C			C			D				

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 34 (31%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.89			
Intersection Signal Delay: 25.9		Intersection LOS: C	
Intersection Capacity Utilization 144.5%		ICU Level of Service H	
Analysis Period (min) 15			

Splits and Phases: 3: I-805 NB Off-Ramp/I-805 NB On-Ramp & E Plaza Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	355	1126	0	0	743	578	507	2	470	0	0	0
Future Volume (veh/h)	355	1126	0	0	743	578	507	2	470	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	362	1149	0	0	758	0	518	0	0			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	377	2525	0	0	1922		571	0				
Arrive On Green	0.04	0.23	0.00	0.00	0.54	0.00	0.16	0.00	0.00			
Sat Flow, veh/h	3456	3647	0	0	3647	1585	3563	0	1585			
Grp Volume(v), veh/h	362	1149	0	0	758	0	518	0	0			
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1585	1781	0	1585			
Q Serve(g_s), s	11.5	30.5	0.0	0.0	13.7	0.0	15.7	0.0	0.0			
Cycle Q Clear(g_c), s	11.5	30.5	0.0	0.0	13.7	0.0	15.7	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	377	2525	0	0	1922		571	0				
V/C Ratio(X)	0.96	0.45	0.00	0.00	0.39		0.91	0.00				
Avail Cap(c_a), veh/h	481	2525	0	0	1922		1292	0				
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.71	0.71	0.00	0.00	0.93	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	52.8	23.8	0.0	0.0	14.7	0.0	45.4	0.0	0.0			
Incr Delay (d2), s/veh	22.5	0.4	0.0	0.0	0.6	0.0	5.8	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	6.5	14.6	0.0	0.0	5.4	0.0	7.4	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.3	24.3	0.0	0.0	15.3	0.0	51.2	0.0	0.0			
LnGrp LOS	E	C	A	A	B		D	A				
Approach Vol, veh/h		1511			758	A		518	A			
Approach Delay, s/veh		36.5			15.3			51.2				
Approach LOS		D			B			D				

Timer - Assigned Phs		2		4	5	6						
Phs Duration (G+Y+Rc), s		85.3		24.7	18.7	66.6						
Change Period (Y+Rc), s		5.1		5.1	* 4.7	5.1						
Max Green Setting (Gmax), s		57.9		41.9	* 17	35.9						
Max Q Clear Time (g_c+I1), s		32.5		17.7	13.5	15.7						
Green Ext Time (p_c), s		9.2		1.9	0.5	5.1						

Intersection Summary												
HCM 6th Ctrl Delay			33.5									
HCM 6th LOS			C									

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

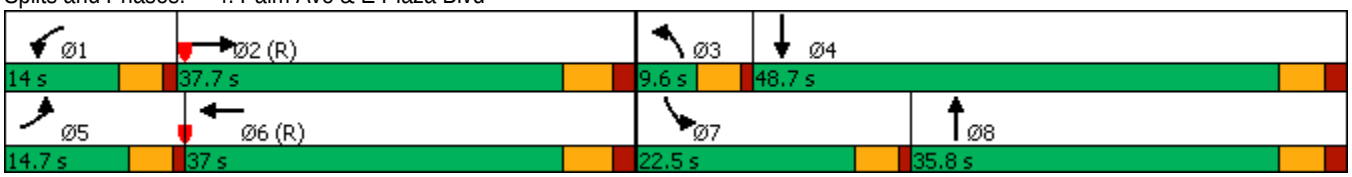
Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

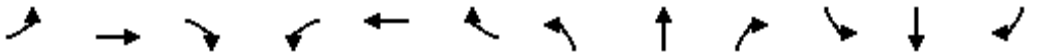
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	112	970	24	195	788	152	32	124	130	183	149	142
Future Volume (vph)	112	970	24	195	788	152	32	124	130	183	149	142
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		0	235		0	200		0	215		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	120			120			60			45		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996			0.976			0.923			0.927	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	5065	0	1770	4963	0	1770	1719	0	1770	1727	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	5065	0	1770	4963	0	1770	1719	0	1770	1727	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			35			46			49	
Link Speed (mph)		35			30			30			30	
Link Distance (ft)		865			935			561			541	
Travel Time (s)		16.9			21.3			12.8			12.3	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	115	1000	25	201	812	157	33	128	134	189	154	146
Shared Lane Traffic (%)												
Lane Group Flow (vph)	115	1025	0	201	969	0	33	262	0	189	300	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		8			8			8			8	
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	6.0		7.0	6.0		5.0	6.0		5.0	6.0	
Minimum Split (s)	9.6	37.1		11.6	34.1		9.6	34.1		9.6	48.7	
Total Split (s)	14.7	37.7		14.0	37.0		9.6	35.8		22.5	48.7	
Total Split (%)	13.4%	34.3%		12.7%	33.6%		8.7%	32.5%		20.5%	44.3%	
Maximum Green (s)	10.1	31.6		9.4	30.9		5.0	30.1		17.9	43.0	
Yellow Time (s)	3.6	4.1		3.6	4.1		3.6	3.7		3.6	3.7	
All-Red Time (s)	1.0	2.0		1.0	2.0		1.0	2.0		1.0	2.0	
Lost Time Adjust (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Total Lost Time (s)	6.6	8.1		6.6	8.1		6.6	7.7		6.6	7.7	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Walk Time (s)		7.0			7.0						7.0	
Flash Dont Walk (s)		24.0			21.0						36.0	
Pedestrian Calls (#/hr)		0			0						0	
Act Effct Green (s)	10.9	28.4		21.2	38.7		3.9	17.5		13.9	29.6	
Actuated g/C Ratio	0.10	0.26		0.19	0.35		0.04	0.16		0.13	0.27	
v/c Ratio	0.66	0.78		0.59	0.55		0.53	0.84		0.85	0.60	
Control Delay	65.5	42.6		56.2	19.1		83.0	59.3		78.0	33.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	65.5	42.6		56.2	19.1		83.0	59.3		78.0	33.5	
LOS	E	D		E	B		F	E		E	C	
Approach Delay		44.9			25.5			62.0			50.7	
Approach LOS		D			C			E			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 110			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 40.1		Intersection LOS: D	
Intersection Capacity Utilization 78.9%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 4: Palm Ave & E Plaza Blvd





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	970	24	195	788	152	32	124	130	183	149	142
Future Volume (veh/h)	112	970	24	195	788	152	32	124	130	183	149	142
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	115	1000	25	201	812	157	33	128	134	189	154	146
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	71	2059	51	116	1838	353	19	135	142	191	228	216
Arrive On Green	0.04	0.40	0.40	0.13	0.85	0.85	0.01	0.16	0.16	0.11	0.26	0.26
Sat Flow, veh/h	1781	5123	128	1781	4300	826	1781	837	876	1781	883	837
Grp Volume(v), veh/h	115	664	361	201	642	327	33	0	262	189	0	300
Grp Sat Flow(s),veh/h/ln	1781	1702	1847	1781	1702	1722	1781	0	1713	1781	0	1720
Q Serve(g_s), s	4.4	16.0	16.0	7.2	4.8	4.9	1.2	0.0	16.6	11.7	0.0	17.2
Cycle Q Clear(g_c), s	4.4	16.0	16.0	7.2	4.8	4.9	1.2	0.0	16.6	11.7	0.0	17.2
Prop In Lane	1.00		0.07	1.00		0.48	1.00		0.51	1.00		0.49
Lane Grp Cap(c), veh/h	71	1368	742	116	1455	736	19	0	277	191	0	445
V/C Ratio(X)	1.63	0.49	0.49	1.73	0.44	0.44	1.73	0.00	0.94	0.99	0.00	0.67
Avail Cap(c_a), veh/h	131	1368	742	120	1455	736	49	0	438	257	0	641
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	52.8	24.5	24.5	47.8	4.9	4.9	54.4	0.0	45.6	49.0	0.0	36.6
Incr Delay (d2), s/veh	328.8	1.2	2.3	360.6	1.0	1.9	417.6	0.0	21.9	47.0	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.4	6.5	7.3	14.6	1.4	1.7	2.7	0.0	8.7	7.6	0.0	7.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	381.6	25.7	26.7	408.5	5.9	6.9	472.0	0.0	67.5	96.0	0.0	38.4
LnGrp LOS	F	C	C	F	A	A	F	A	E	F	A	D
Approach Vol, veh/h		1140			1170			295			489	
Approach Delay, s/veh		61.9			75.3			112.8			60.7	
Approach LOS		E			E			F			E	

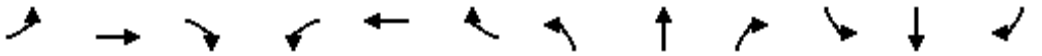
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.8	52.3	7.8	36.1	10.9	55.2	18.4	25.5
Change Period (Y+Rc), s	4.6	6.1	4.6	* 5.7	4.6	6.1	4.6	* 5.7
Max Green Setting (Gmax), s	9.4	31.6	5.0	* 43	10.1	30.9	17.9	* 30
Max Q Clear Time (g_c+I1), s	9.2	18.0	3.2	19.2	6.4	6.9	13.7	18.6
Green Ext Time (p_c), s	0.0	5.5	0.0	1.9	0.1	7.1	0.2	1.2

Intersection Summary	
HCM 6th Ctrl Delay	71.6
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Existing Plus Project
With Median Extension to Palm



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	1315	225	0	1272	6	0	0	143	0	0	1
Future Volume (vph)	6	1315	225	0	1272	6	0	0	143	0	0	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	500		0	130		0	0		0	0		0
Storage Lanes	1		0	0		0	0		1	0		1
Taper Length (ft)	50			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.978			0.999				0.865			0.865
Flt Protected	0.950											
Satd. Flow (prot)	1770	4973	0	0	3536	0	0	0	1611	0	0	1611
Flt Permitted	0.950											
Satd. Flow (perm)	1770	4973	0	0	3536	0	0	0	1611	0	0	1611
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		903			338			232			171	
Travel Time (s)		17.6			6.6			6.3			4.7	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	6	1328	227	0	1285	6	0	0	144	0	0	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	6	1555	0	0	1291	0	0	0	144	0	0	1
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		0			0			0			0	
Two way Left Turn Lane		Yes										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 49.3%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	1315	225	0	1272	6	0	0	143	0	0	1
Future Vol, veh/h	6	1315	225	0	1272	6	0	0	143	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	500	-	-	-	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	99	99	99	99	99	99	99	99	99	99	99	99
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	1328	227	0	1285	6	0	0	144	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1291	0	0	-	-	0	-	-	778	-	-	646
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	4.14	-	-	-	-	-	-	-	7.14	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	2.22	-	-	-	-	-	-	-	3.92	-	-	3.32
Pot Cap-1 Maneuver	533	-	-	0	-	-	0	0	291	0	0	414
Stage 1	-	-	-	0	-	-	0	0	-	0	0	-
Stage 2	-	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	533	-	-	-	-	-	-	-	291	-	-	414
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	29	13.7
HCM LOS			D	B

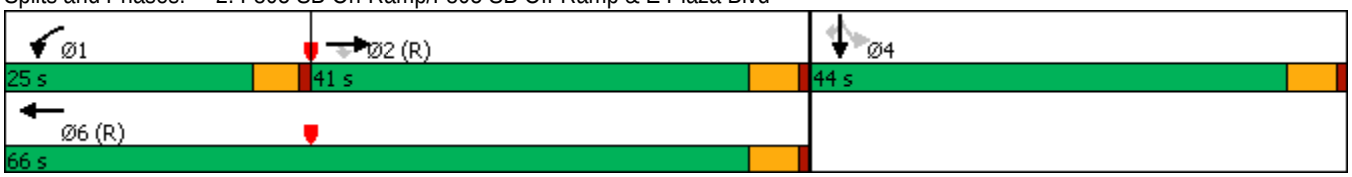
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	291	533	-	-	-	-	414
HCM Lane V/C Ratio	0.496	0.011	-	-	-	-	0.002
HCM Control Delay (s)	29	11.8	-	-	-	-	13.7
HCM Lane LOS	D	B	-	-	-	-	B
HCM 95th %tile Q(veh)	2.6	0	-	-	-	-	0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	782	626	415	833	0	0	0	0	702	2	493
Future Volume (vph)	0	782	626	415	833	0	0	0	0	702	2	493
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		250	188		0	0		0	700		230
Storage Lanes	0		0	2		0	0		0	1		1
Taper Length (ft)	25			25			25			0		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Frt			0.850									0.850
Flt Protected				0.950						0.950	0.953	
Satd. Flow (prot)	0	3539	1583	3433	3539	0	0	0	0	1681	1686	1583
Flt Permitted				0.950						0.950	0.953	
Satd. Flow (perm)	0	3539	1583	3433	3539	0	0	0	0	1681	1686	1583
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)			645									131
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		338			410			923			716	
Travel Time (s)		6.6			8.0			21.0			16.3	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	806	645	428	859	0	0	0	0	724	2	508
Shared Lane Traffic (%)										50%		
Lane Group Flow (vph)	0	806	645	428	859	0	0	0	0	362	364	508
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		0			0			8			8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2	1	1	2					1	2	1
Detector Template		Thru	Right	Left	Thru					Left	Thru	Right
Leading Detector (ft)		100	20	20	100					20	100	20
Trailing Detector (ft)		0	0	0	0					0	0	0
Detector 1 Position(ft)		0	0	0	0					0	0	0
Detector 1 Size(ft)		6	20	20	6					20	6	20
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Detector 1 Queue (s)		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Detector 1 Delay (s)		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Detector 2 Position(ft)		94			94						94	
Detector 2 Size(ft)		6			6						6	
Detector 2 Type		Cl+Ex			Cl+Ex						Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0						0.0	
Turn Type		NA	Perm	Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases			2							4		4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		2	2	1	6					4	4	4
Switch Phase												
Minimum Initial (s)		5.0	5.0	5.0	7.0					5.0	5.0	5.0
Minimum Split (s)		20.1	20.1	9.7	18.1					34.1	34.1	34.1
Total Split (s)		41.0	41.0	25.0	66.0					44.0	44.0	44.0
Total Split (%)		37.3%	37.3%	22.7%	60.0%					40.0%	40.0%	40.0%
Maximum Green (s)		35.9	35.9	20.3	60.9					38.9	38.9	38.9
Yellow Time (s)		4.1	4.1	3.7	4.1					4.1	4.1	4.1
All-Red Time (s)		1.0	1.0	1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		2.0	2.0	2.0	2.0					2.0	2.0	2.0
Total Lost Time (s)		7.1	7.1	6.7	7.1					7.1	7.1	7.1
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Vehicle Extension (s)		3.0	3.0	3.0	3.0					3.0	3.0	3.0
Recall Mode		C-Min	C-Min	None	C-Min					None	None	None
Walk Time (s)		7.0	7.0	1.0	7.0					7.0	7.0	7.0
Flash Dont Walk (s)		8.0	8.0	1.0	6.0					22.0	22.0	22.0
Pedestrian Calls (#/hr)		0	0	0	0					0	0	0
Act Effct Green (s)		39.9	39.9	16.1	62.7					33.1	33.1	33.1
Actuated g/C Ratio		0.36	0.36	0.15	0.57					0.30	0.30	0.30
v/c Ratio		0.63	0.65	0.85	0.43					0.72	0.72	0.90
Control Delay		51.7	25.1	57.2	17.2					42.3	42.4	46.2
Queue Delay		0.0	0.0	0.0	0.5					0.0	0.0	0.0
Total Delay		51.7	25.1	57.2	17.7					42.3	42.4	46.2
LOS		D	C	E	B					D	D	D
Approach Delay		39.9			30.8						44.0	
Approach LOS		D			C						D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 96 (87%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 38.2		Intersection LOS: D	
Intersection Capacity Utilization 144.5%		ICU Level of Service H	
Analysis Period (min) 15			

Splits and Phases: 2: I-805 SB On-Ramp/I-805 SB Off-Ramp & E Plaza Blvd



HCM 6th Signalized Intersection Summary
2: I-805 SB On-Ramp/I-805 SB Off-Ramp & E Plaza Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	782	626	415	833	0	0	0	0	702	2	493
Future Volume (veh/h)	0	782	626	415	833	0	0	0	0	702	2	493
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	806	645	428	859	0				725	0	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1628	726	449	2307	0				790	0	
Arrive On Green	0.00	0.15	0.15	0.04	0.21	0.00				0.22	0.00	0.00
Sat Flow, veh/h	0	3647	1585	3456	3647	0				3563	0	1585
Grp Volume(v), veh/h	0	806	645	428	859	0				725	0	0
Grp Sat Flow(s),veh/h/ln	0	1777	1585	1728	1777	0				1781	0	1585
Q Serve(g_s), s	0.0	22.9	43.9	13.6	22.7	0.0				21.9	0.0	0.0
Cycle Q Clear(g_c), s	0.0	22.9	43.9	13.6	22.7	0.0				21.9	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1628	726	449	2307	0				790	0	
V/C Ratio(X)	0.00	0.50	0.89	0.95	0.37	0.00				0.92	0.00	
Avail Cap(c_a), veh/h	0	1628	726	575	2307	0				1195	0	
HCM Platoon Ratio	1.00	0.33	0.33	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.81	0.81	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	35.0	43.9	52.3	24.1	0.0				41.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.1	15.1	20.1	0.4	0.0				8.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	11.1	21.6	7.6	10.9	0.0				10.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	36.1	59.1	72.5	24.5	0.0				49.8	0.0	0.0
LnGrp LOS	A	D	E	E	C	A				D	A	
Approach Vol, veh/h		1451			1287						725	A
Approach Delay, s/veh		46.3			40.4						49.8	
Approach LOS		D			D						D	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	21.0	57.5		31.5		78.5
Change Period (Y+Rc), s *	4.7	5.1		5.1		5.1
Max Green Setting (Gmax), s	16.3	35.9		38.9		60.9
Max Q Clear Time (g_c+I1), s	15.6	45.9		23.9		24.7
Green Ext Time (p_c), s	0.7	0.0		2.5		6.9

Intersection Summary	
HCM 6th Ctrl Delay	44.8
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

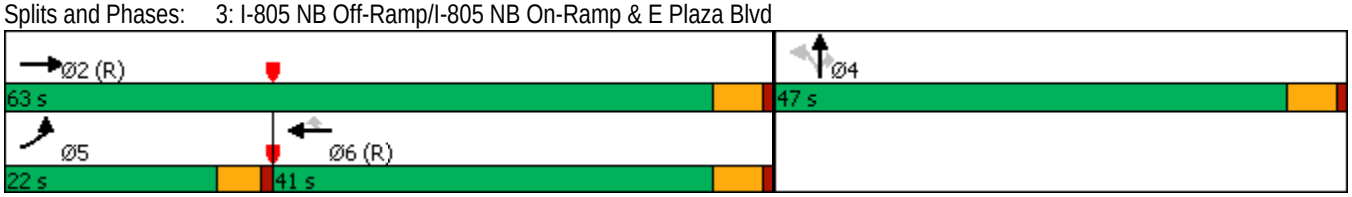
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	355	1126	0	0	743	578	507	2	470	0	0	0
Future Volume (vph)	355	1126	0	0	743	578	507	2	470	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	188		0	0		0	970		110	0		0
Storage Lanes	2		0	0		1	1		1	0		0
Taper Length (ft)	25			25			0			25		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt						0.850			0.850			
Flt Protected	0.950						0.950	0.953				
Satd. Flow (prot)	3433	3539	0	0	3539	1583	1681	1686	1583	0	0	0
Flt Permitted	0.950						0.950	0.953				
Satd. Flow (perm)	3433	3539	0	0	3539	1583	1681	1686	1583	0	0	0
Right Turn on Red			No			Yes			Yes			No
Satd. Flow (RTOR)						590			67			
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		410			388			1009			530	
Travel Time (s)		8.0			7.6			22.9			12.0	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	362	1149	0	0	758	590	517	2	480	0	0	0
Shared Lane Traffic (%)							50%					
Lane Group Flow (vph)	362	1149	0	0	758	590	258	261	480	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		0			0			8			8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2	1	1	2	1			
Detector Template	Left	Thru			Thru	Right	Left	Thru	Right			
Leading Detector (ft)	20	100			100	20	20	100	20			
Trailing Detector (ft)	0	0			0	0	0	0	0			
Detector 1 Position(ft)	0	0			0	0	0	0	0			
Detector 1 Size(ft)	20	6			6	20	20	6	20			
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			
Detector 1 Queue (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			
Detector 1 Delay (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	5	2			6			4				
Permitted Phases						6	4		4			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2			6	6	4	4	4			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0	5.0	5.0	5.0	5.0			
Minimum Split (s)	9.7	18.1			19.1	19.1	34.1	34.1	34.1			
Total Split (s)	22.0	63.0			41.0	41.0	47.0	47.0	47.0			
Total Split (%)	20.0%	57.3%			37.3%	37.3%	42.7%	42.7%	42.7%			
Maximum Green (s)	17.3	57.9			35.9	35.9	41.9	41.9	41.9			
Yellow Time (s)	3.7	4.1			4.1	4.1	4.1	4.1	4.1			
All-Red Time (s)	1.0	1.0			1.0	1.0	1.0	1.0	1.0			
Lost Time Adjust (s)	2.0	2.0			2.0	2.0	2.0	2.0	2.0			
Total Lost Time (s)	6.7	7.1			7.1	7.1	7.1	7.1	7.1			
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			
Recall Mode	None	C-Min			C-Min	C-Min	None	None	None			
Walk Time (s)	1.0	7.0			7.0	7.0	7.0	7.0	7.0			
Flash Dont Walk (s)	1.0	6.0			7.0	7.0	22.0	22.0	22.0			
Pedestrian Calls (#/hr)	0	0			0	0	0	0	0			
Act Effct Green (s)	13.9	61.5			40.9	40.9	34.3	34.3	34.3			
Actuated g/C Ratio	0.13	0.56			0.37	0.37	0.31	0.31	0.31			
v/c Ratio	0.84	0.58			0.58	0.62	0.49	0.50	0.89			
Control Delay	55.2	9.0			31.5	5.6	33.1	33.2	49.7			
Queue Delay	0.0	0.5			0.9	0.3	0.0	0.0	0.0			
Total Delay	55.2	9.4			32.4	5.9	33.1	33.2	49.7			
LOS	E	A			C	A	C	C	D			
Approach Delay		20.4			20.8			41.1				
Approach LOS		C			C			D				

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 34 (31%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.89			
Intersection Signal Delay: 25.9		Intersection LOS: C	
Intersection Capacity Utilization 144.5%		ICU Level of Service H	
Analysis Period (min) 15			

Splits and Phases: 3: I-805 NB Off-Ramp/I-805 NB On-Ramp & E Plaza Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	355	1126	0	0	743	578	507	2	470	0	0	0
Future Volume (veh/h)	355	1126	0	0	743	578	507	2	470	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	362	1149	0	0	758	0	518	0	0			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	377	2525	0	0	1922		571	0				
Arrive On Green	0.04	0.23	0.00	0.00	0.54	0.00	0.16	0.00	0.00			
Sat Flow, veh/h	3456	3647	0	0	3647	1585	3563	0	1585			
Grp Volume(v), veh/h	362	1149	0	0	758	0	518	0	0			
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1585	1781	0	1585			
Q Serve(g_s), s	11.5	30.5	0.0	0.0	13.7	0.0	15.7	0.0	0.0			
Cycle Q Clear(g_c), s	11.5	30.5	0.0	0.0	13.7	0.0	15.7	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	377	2525	0	0	1922		571	0				
V/C Ratio(X)	0.96	0.45	0.00	0.00	0.39		0.91	0.00				
Avail Cap(c_a), veh/h	481	2525	0	0	1922		1292	0				
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.71	0.71	0.00	0.00	0.93	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	52.8	23.8	0.0	0.0	14.7	0.0	45.4	0.0	0.0			
Incr Delay (d2), s/veh	22.5	0.4	0.0	0.0	0.6	0.0	5.8	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	6.5	14.6	0.0	0.0	5.4	0.0	7.4	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.3	24.3	0.0	0.0	15.3	0.0	51.2	0.0	0.0			
LnGrp LOS	E	C	A	A	B		D	A				
Approach Vol, veh/h		1511			758	A		518	A			
Approach Delay, s/veh		36.5			15.3			51.2				
Approach LOS		D			B			D				

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	85.3	24.7	18.7	66.6
Change Period (Y+Rc), s	5.1	5.1	* 4.7	5.1
Max Green Setting (Gmax), s	57.9	41.9	* 17	35.9
Max Q Clear Time (g_c+I1), s	32.5	17.7	13.5	15.7
Green Ext Time (p_c), s	9.2	1.9	0.5	5.1

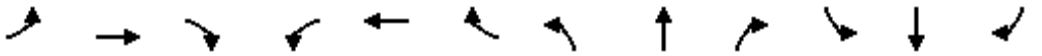
Intersection Summary	
HCM 6th Ctrl Delay	33.5
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

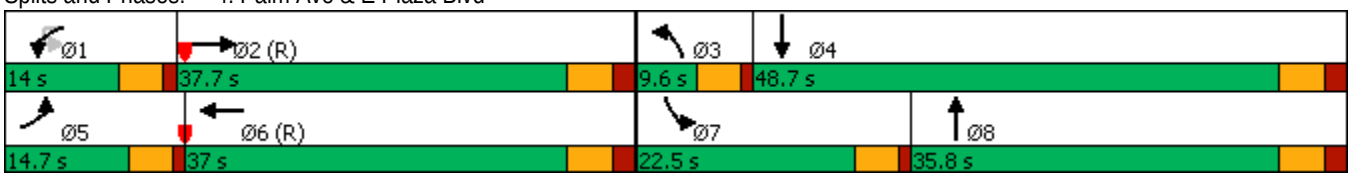


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	112	970	24	322	788	152	32	124	130	183	149	142
Future Volume (vph)	112	970	24	322	788	152	32	124	130	183	149	142
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		0	235		0	200		0	215		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	120			120			60			45		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996			0.976			0.923			0.927	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	5065	0	1770	4963	0	1770	1719	0	1770	1727	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	5065	0	1770	4963	0	1770	1719	0	1770	1727	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			35			46			49	
Link Speed (mph)		35			30			30			30	
Link Distance (ft)		530			903			561			541	
Travel Time (s)		10.3			20.5			12.8			12.3	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	115	1000	25	332	812	157	33	128	134	189	154	146
Shared Lane Traffic (%)												
Lane Group Flow (vph)	115	1025	0	332	969	0	33	262	0	189	300	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		8			8			8			8	
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	6.0		5.0	6.0		5.0	6.0		5.0	6.0	
Minimum Split (s)	9.6	48.7		9.6	34.1		9.6	34.1		9.6	48.7	
Total Split (s)	14.7	37.7		14.0	37.0		9.6	35.8		22.5	48.7	
Total Split (%)	13.4%	34.3%		12.7%	33.6%		8.7%	32.5%		20.5%	44.3%	
Maximum Green (s)	10.1	32.0		9.4	31.3		5.0	30.1		17.9	43.0	
Yellow Time (s)	3.6	3.7		3.6	3.7		3.6	3.7		3.6	3.7	
All-Red Time (s)	1.0	2.0		1.0	2.0		1.0	2.0		1.0	2.0	
Lost Time Adjust (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Total Lost Time (s)	6.6	7.7		6.6	7.7		6.6	7.7		6.6	7.7	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Min		None	C-Max		None	None		None	None	
Walk Time (s)		7.0			7.0						7.0	
Flash Dont Walk (s)		24.0			21.0						36.0	
Pedestrian Calls (#/hr)		0			0						0	
Act Effct Green (s)	10.9	30.0		20.0	39.1		3.0	17.5		13.9	30.3	
Actuated g/C Ratio	0.10	0.27		0.18	0.36		0.03	0.16		0.13	0.28	
v/c Ratio	0.66	0.74		1.03	0.54		0.69	0.84		0.85	0.59	
Control Delay	65.5	40.2		100.9	21.2		112.7	59.3		78.0	32.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	65.5	40.2		100.9	21.2		112.7	59.3		78.0	32.7	
LOS	E	D		F	C		F	E		E	C	
Approach Delay		42.8			41.6			65.3			50.2	
Approach LOS		D			D			E			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 140			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.03			
Intersection Signal Delay: 45.5		Intersection LOS: D	
Intersection Capacity Utilization 85.6%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 4: Palm Ave & E Plaza Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	970	24	322	788	152	32	124	130	183	149	142
Future Volume (veh/h)	112	970	24	322	788	152	32	124	130	183	149	142
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	115	1000	25	332	812	157	33	128	134	189	154	146
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	71	2067	52	120	1854	356	19	135	142	191	228	216
Arrive On Green	0.04	0.40	0.40	0.13	0.86	0.86	0.01	0.16	0.16	0.11	0.26	0.26
Sat Flow, veh/h	1781	5123	128	1781	4300	826	1781	837	876	1781	883	837
Grp Volume(v), veh/h	115	664	361	332	642	327	33	0	262	189	0	300
Grp Sat Flow(s),veh/h/ln	1781	1702	1847	1781	1702	1722	1781	0	1713	1781	0	1720
Q Serve(g_s), s	4.4	15.9	15.9	7.4	4.6	4.7	1.2	0.0	16.6	11.7	0.0	17.2
Cycle Q Clear(g_c), s	4.4	15.9	15.9	7.4	4.6	4.7	1.2	0.0	16.6	11.7	0.0	17.2
Prop In Lane	1.00		0.07	1.00		0.48	1.00		0.51	1.00		0.49
Lane Grp Cap(c), veh/h	71	1374	745	120	1468	742	19	0	277	191	0	445
V/C Ratio(X)	1.63	0.48	0.48	2.77	0.44	0.44	1.73	0.00	0.94	0.99	0.00	0.67
Avail Cap(c_a), veh/h	131	1374	745	120	1468	742	49	0	438	257	0	641
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	52.8	24.3	24.3	47.6	4.6	4.6	54.4	0.0	45.6	49.0	0.0	36.6
Incr Delay (d2), s/veh	328.8	1.2	2.2	820.0	0.9	1.9	417.6	0.0	21.9	47.0	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.4	6.5	7.3	30.3	1.4	1.6	2.7	0.0	8.7	7.6	0.0	7.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	381.6	25.5	26.6	867.6	5.6	6.5	472.0	0.0	67.5	96.0	0.0	38.4
LnGrp LOS	F	C	C	F	A	A	F	A	E	F	A	D
Approach Vol, veh/h		1140			1301			295			489	
Approach Delay, s/veh		61.8			225.8			112.8			60.7	
Approach LOS		E			F			F			E	

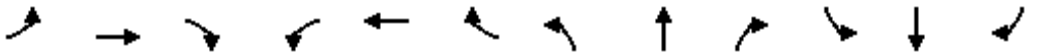
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.0	52.1	7.8	36.1	10.9	55.2	18.4	25.5
Change Period (Y+Rc), s	4.6	* 5.7	4.6	* 5.7	4.6	* 5.7	4.6	* 5.7
Max Green Setting (Gmax), s	9.4	* 32	5.0	* 43	10.1	* 31	17.9	* 30
Max Q Clear Time (g_c+I1), s	19.4	17.9	3.2	19.2	6.4	6.7	13.7	18.6
Green Ext Time (p_c), s	0.0	5.6	0.0	1.9	0.1	7.2	0.2	1.2

Intersection Summary	
HCM 6th Ctrl Delay	132.4
HCM 6th LOS	F

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Existing Plus Project
With Median Extension to Produce Store



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1321	225	0	1272	12	0	0	143	0	0	5
Future Volume (vph)	0	1321	225	0	1272	12	0	0	143	0	0	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	50		0	130		0	0		0	0		0
Storage Lanes	0		0	1		0	0		1	0		1
Taper Length (ft)	50			25			25			25		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.978			0.999				0.865			0.865
Flt Protected												
Satd. Flow (prot)	0	4973	0	0	5080	0	0	0	1611	0	0	1611
Flt Permitted												
Satd. Flow (perm)	0	4973	0	0	5080	0	0	0	1611	0	0	1611
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		189			338			232			171	
Travel Time (s)		3.7			6.6			6.3			4.7	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Heavy Vehicles (%)	2%	2%	2%	0%	2%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	0	1334	227	0	1285	12	0	0	144	0	0	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1561	0	0	1297	0	0	0	144	0	0	5
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Right	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		0			0			0			0	
Two way Left Turn Lane		Yes										
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 49.4%		ICU Level of Service A	
Analysis Period (min) 15			

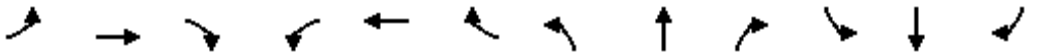
Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	1321	225	0	1272	12	0	0	143	0	0	5
Future Vol, veh/h	0	1321	225	0	1272	12	0	0	143	0	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	130	-	-	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	99	99	99	99	99	99	99	99	99	99	99	99
Heavy Vehicles, %	2	2	2	0	2	2	2	2	2	2	2	2
Mvmt Flow	0	1334	227	0	1285	12	0	0	144	0	0	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	0	-	-	781	-	-	649
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	-	-	-	7.14	-	-	7.14
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	-	-	-	3.92	-	-	3.92
Pot Cap-1 Maneuver	0	-	-	0	-	-	0	0	290	0	0	354
Stage 1	0	-	-	0	-	-	0	0	-	0	0	-
Stage 2	0	-	-	0	-	-	0	0	-	0	0	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	290	-	-	354
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	29.1	15.3
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT	WBR	SBLn1
Capacity (veh/h)	290	-	-	-	-	354
HCM Lane V/C Ratio	0.498	-	-	-	-	0.014
HCM Control Delay (s)	29.1	-	-	-	-	15.3
HCM Lane LOS	D	-	-	-	-	C
HCM 95th %tile Q(veh)	2.6	-	-	-	-	0

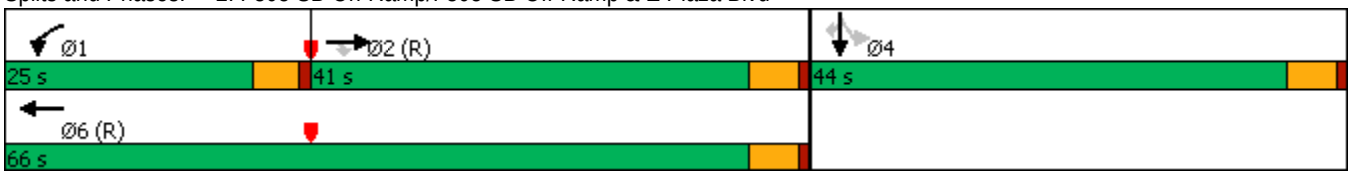


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	788	626	415	839	0	0	0	0	702	2	493
Future Volume (vph)	0	788	626	415	839	0	0	0	0	702	2	493
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		250	188		0	0		0	700		230
Storage Lanes	0		0	2		0	0		0	1		1
Taper Length (ft)	25			25			25			0		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Frt			0.850									0.850
Flt Protected				0.950						0.950	0.953	
Satd. Flow (prot)	0	3539	1583	3433	3539	0	0	0	0	1681	1686	1583
Flt Permitted				0.950						0.950	0.953	
Satd. Flow (perm)	0	3539	1583	3433	3539	0	0	0	0	1681	1686	1583
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)			645									129
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		338			410			923			716	
Travel Time (s)		6.6			8.0			21.0			16.3	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	812	645	428	865	0	0	0	0	724	2	508
Shared Lane Traffic (%)										50%		
Lane Group Flow (vph)	0	812	645	428	865	0	0	0	0	362	364	508
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	R NA	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		0			0			8			8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2	1	1	2					1	2	1
Detector Template		Thru	Right	Left	Thru					Left	Thru	Right
Leading Detector (ft)		100	20	20	100					20	100	20
Trailing Detector (ft)		0	0	0	0					0	0	0
Detector 1 Position(ft)		0	0	0	0					0	0	0
Detector 1 Size(ft)		6	20	20	6					20	6	20
Detector 1 Type		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Detector 1 Queue (s)		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Detector 1 Delay (s)		0.0	0.0	0.0	0.0					0.0	0.0	0.0
Detector 2 Position(ft)		94			94						94	
Detector 2 Size(ft)		6			6						6	
Detector 2 Type		Cl+Ex			Cl+Ex						Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0						0.0	
Turn Type		NA	Perm	Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases			2							4		4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase		2	2	1	6					4	4	4
Switch Phase												
Minimum Initial (s)		5.0	5.0	5.0	7.0					5.0	5.0	5.0
Minimum Split (s)		20.1	20.1	9.7	18.1					34.1	34.1	34.1
Total Split (s)		41.0	41.0	25.0	66.0					44.0	44.0	44.0
Total Split (%)		37.3%	37.3%	22.7%	60.0%					40.0%	40.0%	40.0%
Maximum Green (s)		35.9	35.9	20.3	60.9					38.9	38.9	38.9
Yellow Time (s)		4.1	4.1	3.7	4.1					4.1	4.1	4.1
All-Red Time (s)		1.0	1.0	1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		2.0	2.0	2.0	2.0					2.0	2.0	2.0
Total Lost Time (s)		7.1	7.1	6.7	7.1					7.1	7.1	7.1
Lead/Lag		Lag	Lag	Lead								
Lead-Lag Optimize?		Yes	Yes	Yes								
Vehicle Extension (s)		3.0	3.0	3.0	3.0					3.0	3.0	3.0
Recall Mode		C-Min	C-Min	None	C-Min					None	None	None
Walk Time (s)		7.0	7.0	1.0	7.0					7.0	7.0	7.0
Flash Dont Walk (s)		8.0	8.0	1.0	6.0					22.0	22.0	22.0
Pedestrian Calls (#/hr)		0	0	0	0					0	0	0
Act Effct Green (s)		39.8	39.8	16.1	62.6					33.2	33.2	33.2
Actuated g/C Ratio		0.36	0.36	0.15	0.57					0.30	0.30	0.30
v/c Ratio		0.63	0.66	0.85	0.43					0.72	0.72	0.90
Control Delay		53.5	25.6	57.3	17.3					42.2	42.3	46.5
Queue Delay		0.0	0.0	0.0	0.5					0.0	0.0	0.0
Total Delay		53.5	25.6	57.3	17.8					42.2	42.3	46.5
LOS		D	C	E	B					D	D	D
Approach Delay		41.1			30.9						44.0	
Approach LOS		D			C						D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 96 (87%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 38.7		Intersection LOS: D	
Intersection Capacity Utilization 144.5%		ICU Level of Service H	
Analysis Period (min) 15			

Splits and Phases: 2: I-805 SB On-Ramp/I-805 SB Off-Ramp & E Plaza Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	788	626	415	839	0	0	0	0	702	2	493
Future Volume (veh/h)	0	788	626	415	839	0	0	0	0	702	2	493
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	0				1870	1870	1870
Adj Flow Rate, veh/h	0	812	645	428	865	0				725	0	0
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	2	2	2	2	0				2	2	2
Cap, veh/h	0	1628	726	449	2307	0				790	0	
Arrive On Green	0.00	0.15	0.15	0.04	0.21	0.00				0.22	0.00	0.00
Sat Flow, veh/h	0	3647	1585	3456	3647	0				3563	0	1585
Grp Volume(v), veh/h	0	812	645	428	865	0				725	0	0
Grp Sat Flow(s),veh/h/ln	0	1777	1585	1728	1777	0				1781	0	1585
Q Serve(g_s), s	0.0	23.1	43.9	13.6	22.9	0.0				21.9	0.0	0.0
Cycle Q Clear(g_c), s	0.0	23.1	43.9	13.6	22.9	0.0				21.9	0.0	0.0
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1628	726	449	2307	0				790	0	
V/C Ratio(X)	0.00	0.50	0.89	0.95	0.38	0.00				0.92	0.00	
Avail Cap(c_a), veh/h	0	1628	726	575	2307	0				1195	0	
HCM Platoon Ratio	1.00	0.33	0.33	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.81	0.81	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	35.1	43.9	52.3	24.2	0.0				41.8	0.0	0.0
Incr Delay (d2), s/veh	0.0	1.1	15.1	20.1	0.4	0.0				8.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	11.2	21.6	7.6	11.0	0.0				10.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	36.2	59.1	72.5	24.5	0.0				49.8	0.0	0.0
LnGrp LOS	A	D	E	E	C	A				D	A	
Approach Vol, veh/h		1457			1293						725	A
Approach Delay, s/veh		46.3			40.4						49.8	
Approach LOS		D			D						D	

Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	21.0	57.5		31.5		78.5
Change Period (Y+Rc), s *	4.7	5.1		5.1		5.1
Max Green Setting (Gmax), s	16.3	35.9		38.9		60.9
Max Q Clear Time (g_c+I1), s	15.6	45.9		23.9		24.9
Green Ext Time (p_c), s	0.7	0.0		2.5		7.0

Intersection Summary	
HCM 6th Ctrl Delay	44.8
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

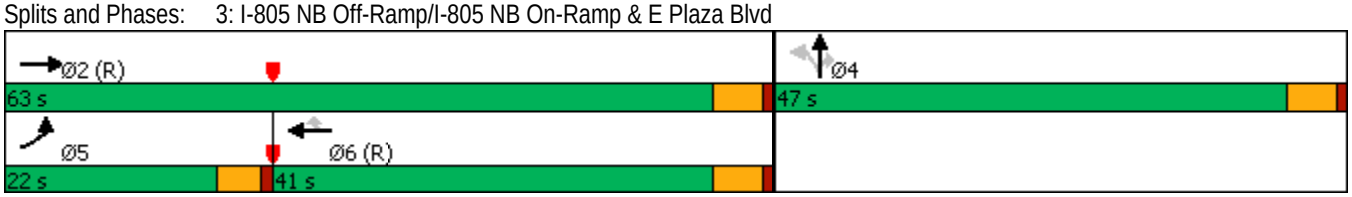
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	355	1132	0	0	749	578	507	2	470	0	0	0
Future Volume (vph)	355	1132	0	0	749	578	507	2	470	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	188		0	0		0	970		110	0		0
Storage Lanes	2		0	0		1	1		1	0		0
Taper Length (ft)	25			25			0			25		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00
Frt						0.850			0.850			
Flt Protected	0.950						0.950	0.953				
Satd. Flow (prot)	3433	3539	0	0	3539	1583	1681	1686	1583	0	0	0
Flt Permitted	0.950						0.950	0.953				
Satd. Flow (perm)	3433	3539	0	0	3539	1583	1681	1686	1583	0	0	0
Right Turn on Red			No			Yes			Yes			No
Satd. Flow (RTOR)						590			67			
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		410			388			1009			530	
Travel Time (s)		8.0			7.6			22.9			12.0	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	362	1155	0	0	764	590	517	2	480	0	0	0
Shared Lane Traffic (%)							50%					
Lane Group Flow (vph)	362	1155	0	0	764	590	258	261	480	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		24			24			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		0			0			8			8	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2	1	1	2	1			
Detector Template	Left	Thru			Thru	Right	Left	Thru	Right			
Leading Detector (ft)	20	100			100	20	20	100	20			
Trailing Detector (ft)	0	0			0	0	0	0	0			
Detector 1 Position(ft)	0	0			0	0	0	0	0			
Detector 1 Size(ft)	20	6			6	20	20	6	20			
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			
Detector 1 Queue (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			
Detector 1 Delay (s)	0.0	0.0			0.0	0.0	0.0	0.0	0.0			
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Prot	NA			NA	Perm	Perm	NA	Perm			
Protected Phases	5	2			6			4				
Permitted Phases						6	4		4			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2			6	6	4	4	4			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0	5.0	5.0	5.0	5.0			
Minimum Split (s)	9.7	18.1			19.1	19.1	34.1	34.1	34.1			
Total Split (s)	22.0	63.0			41.0	41.0	47.0	47.0	47.0			
Total Split (%)	20.0%	57.3%			37.3%	37.3%	42.7%	42.7%	42.7%			
Maximum Green (s)	17.3	57.9			35.9	35.9	41.9	41.9	41.9			
Yellow Time (s)	3.7	4.1			4.1	4.1	4.1	4.1	4.1			
All-Red Time (s)	1.0	1.0			1.0	1.0	1.0	1.0	1.0			
Lost Time Adjust (s)	2.0	2.0			2.0	2.0	2.0	2.0	2.0			
Total Lost Time (s)	6.7	7.1			7.1	7.1	7.1	7.1	7.1			
Lead/Lag	Lead				Lag	Lag						
Lead-Lag Optimize?	Yes				Yes	Yes						
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0	3.0			
Recall Mode	None	C-Min			C-Min	C-Min	None	None	None			
Walk Time (s)	1.0	7.0			7.0	7.0	7.0	7.0	7.0			
Flash Dont Walk (s)	1.0	6.0			7.0	7.0	22.0	22.0	22.0			
Pedestrian Calls (#/hr)	0	0			0	0	0	0	0			
Act Effct Green (s)	13.9	61.5			40.9	40.9	34.3	34.3	34.3			
Actuated g/C Ratio	0.13	0.56			0.37	0.37	0.31	0.31	0.31			
v/c Ratio	0.84	0.58			0.58	0.62	0.49	0.50	0.89			
Control Delay	55.3	9.1			31.6	5.6	33.1	33.2	49.7			
Queue Delay	0.0	0.4			0.9	0.3	0.0	0.0	0.0			
Total Delay	55.3	9.6			32.5	5.9	33.1	33.2	49.7			
LOS	E	A			C	A	C	C	D			
Approach Delay		20.5			20.9			41.1				
Approach LOS		C			C			D				

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 34 (31%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.89			
Intersection Signal Delay: 26.0		Intersection LOS: C	
Intersection Capacity Utilization 144.5%		ICU Level of Service H	
Analysis Period (min) 15			

Splits and Phases: 3: I-805 NB Off-Ramp/I-805 NB On-Ramp & E Plaza Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	355	1132	0	0	749	578	507	2	470	0	0	0
Future Volume (veh/h)	355	1132	0	0	749	578	507	2	470	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1870	1870	0	0	1870	1870	1870	1870	1870			
Adj Flow Rate, veh/h	362	1155	0	0	764	0	518	0	0			
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98			
Percent Heavy Veh, %	2	2	0	0	2	2	2	2	2			
Cap, veh/h	377	2525	0	0	1922		571	0				
Arrive On Green	0.04	0.23	0.00	0.00	0.54	0.00	0.16	0.00	0.00			
Sat Flow, veh/h	3456	3647	0	0	3647	1585	3563	0	1585			
Grp Volume(v), veh/h	362	1155	0	0	764	0	518	0	0			
Grp Sat Flow(s),veh/h/ln	1728	1777	0	0	1777	1585	1781	0	1585			
Q Serve(g_s), s	11.5	30.7	0.0	0.0	13.8	0.0	15.7	0.0	0.0			
Cycle Q Clear(g_c), s	11.5	30.7	0.0	0.0	13.8	0.0	15.7	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	377	2525	0	0	1922		571	0				
V/C Ratio(X)	0.96	0.46	0.00	0.00	0.40		0.91	0.00				
Avail Cap(c_a), veh/h	481	2525	0	0	1922		1292	0				
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.70	0.70	0.00	0.00	0.93	0.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	52.8	23.9	0.0	0.0	14.8	0.0	45.4	0.0	0.0			
Incr Delay (d2), s/veh	22.3	0.4	0.0	0.0	0.6	0.0	5.8	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	6.5	14.6	0.0	0.0	5.5	0.0	7.4	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	75.1	24.3	0.0	0.0	15.4	0.0	51.2	0.0	0.0			
LnGrp LOS	E	C	A	A	B		D	A				
Approach Vol, veh/h		1517			764	A		518	A			
Approach Delay, s/veh		36.4			15.4			51.2				
Approach LOS		D			B			D				

Timer - Assigned Phs	2	4	5	6
Phs Duration (G+Y+Rc), s	85.3	24.7	18.7	66.6
Change Period (Y+Rc), s	5.1	5.1	* 4.7	5.1
Max Green Setting (Gmax), s	57.9	41.9	* 17	35.9
Max Q Clear Time (g_c+I1), s	32.7	17.7	13.5	15.8
Green Ext Time (p_c), s	9.2	1.9	0.5	5.1

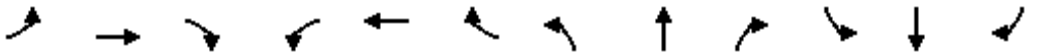
Intersection Summary	
HCM 6th Ctrl Delay	33.4
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

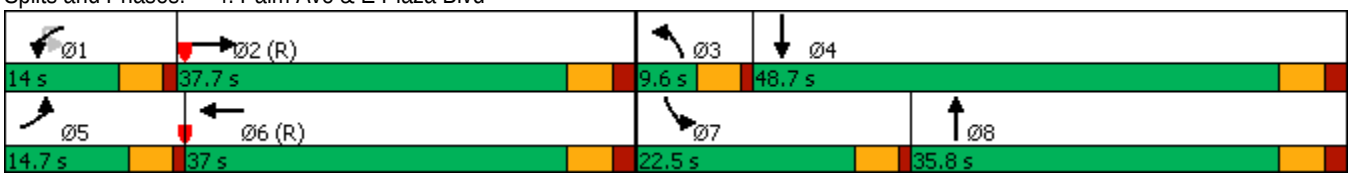


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	112	970	24	195	788	152	32	124	130	183	149	142
Future Volume (vph)	112	970	24	195	788	152	32	124	130	183	149	142
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	180		0	235		425	200		0	215		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	120			120			60			45		
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996			0.976			0.923			0.927	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	5065	0	1770	4963	0	1770	1719	0	1770	1727	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	5065	0	1770	4963	0	1770	1719	0	1770	1727	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			35			46			49	
Link Speed (mph)		35			30			30			30	
Link Distance (ft)		530			712			561			541	
Travel Time (s)		10.3			16.2			12.8			12.3	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	115	1000	25	201	812	157	33	128	134	189	154	146
Shared Lane Traffic (%)												
Lane Group Flow (vph)	115	1025	0	201	969	0	33	262	0	189	300	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		8			8			8			8	
Two way Left Turn Lane					Yes							
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	6.0		5.0	6.0		5.0	6.0		5.0	6.0	
Minimum Split (s)	9.6	36.7		9.6	34.1		9.6	34.1		9.6	48.7	
Total Split (s)	14.7	37.7		14.0	37.0		9.6	35.8		22.5	48.7	
Total Split (%)	13.4%	34.3%		12.7%	33.6%		8.7%	32.5%		20.5%	44.3%	
Maximum Green (s)	10.1	32.0		9.4	31.3		5.0	30.1		17.9	43.0	
Yellow Time (s)	3.6	3.7		3.6	3.7		3.6	3.7		3.6	3.7	
All-Red Time (s)	1.0	2.0		1.0	2.0		1.0	2.0		1.0	2.0	
Lost Time Adjust (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Total Lost Time (s)	6.6	7.7		6.6	7.7		6.6	7.7		6.6	7.7	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	C-Min		None	C-Min		None	None		None	None	
Walk Time (s)		7.0			7.0						7.0	
Flash Dont Walk (s)		24.0			21.0						36.0	
Pedestrian Calls (#/hr)		0			0						0	
Act Effct Green (s)	10.9	28.8		21.3	39.1		3.9	17.5		13.9	29.6	
Actuated g/C Ratio	0.10	0.26		0.19	0.36		0.04	0.16		0.13	0.27	
v/c Ratio	0.66	0.77		0.59	0.54		0.52	0.84		0.85	0.60	
Control Delay	65.5	42.0		55.7	19.9		81.7	59.3		78.0	33.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	65.5	42.0		55.7	19.9		81.7	59.3		78.0	33.6	
LOS	E	D		E	B		F	E		E	C	
Approach Delay		44.4			26.0			61.8			50.8	
Approach LOS		D			C			E			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 110			
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green			
Natural Cycle: 115			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 40.1		Intersection LOS: D	
Intersection Capacity Utilization 78.5%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 4: Palm Ave & E Plaza Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	970	24	195	788	152	32	124	130	183	149	142
Future Volume (veh/h)	112	970	24	195	788	152	32	124	130	183	149	142
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	115	1000	25	201	812	157	33	128	134	189	154	146
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	71	2077	52	116	1854	356	19	135	142	191	228	216
Arrive On Green	0.04	0.41	0.41	0.13	0.86	0.86	0.01	0.16	0.16	0.11	0.26	0.26
Sat Flow, veh/h	1781	5123	128	1781	4300	826	1781	837	876	1781	883	837
Grp Volume(v), veh/h	115	664	361	201	642	327	33	0	262	189	0	300
Grp Sat Flow(s),veh/h/ln	1781	1702	1847	1781	1702	1722	1781	0	1713	1781	0	1720
Q Serve(g_s), s	4.4	15.9	15.9	7.2	4.6	4.7	1.2	0.0	16.6	11.7	0.0	17.2
Cycle Q Clear(g_c), s	4.4	15.9	15.9	7.2	4.6	4.7	1.2	0.0	16.6	11.7	0.0	17.2
Prop In Lane	1.00		0.07	1.00		0.48	1.00		0.51	1.00		0.49
Lane Grp Cap(c), veh/h	71	1380	749	116	1468	742	19	0	277	191	0	445
V/C Ratio(X)	1.63	0.48	0.48	1.73	0.44	0.44	1.73	0.00	0.94	0.99	0.00	0.67
Avail Cap(c_a), veh/h	131	1380	749	120	1468	742	49	0	438	257	0	641
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	52.8	24.2	24.2	47.8	4.6	4.6	54.4	0.0	45.6	49.0	0.0	36.6
Incr Delay (d2), s/veh	328.8	1.2	2.2	360.6	0.9	1.9	417.6	0.0	21.9	47.0	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.4	6.4	7.2	14.6	1.4	1.6	2.7	0.0	8.7	7.6	0.0	7.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	381.6	25.4	26.4	408.5	5.6	6.5	472.0	0.0	67.5	96.0	0.0	38.4
LnGrp LOS	F	C	C	F	A	A	F	A	E	F	A	D
Approach Vol, veh/h		1140			1170			295			489	
Approach Delay, s/veh		61.6			75.1			112.8			60.7	
Approach LOS		E			E			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.8	52.3	7.8	36.1	10.9	55.2	18.4	25.5
Change Period (Y+Rc), s	4.6	* 5.7	4.6	* 5.7	4.6	* 5.7	4.6	* 5.7
Max Green Setting (Gmax), s	9.4	* 32	5.0	* 43	10.1	* 31	17.9	* 30
Max Q Clear Time (g_c+I1), s	19.2	17.9	3.2	19.2	6.4	6.7	13.7	18.6
Green Ext Time (p_c), s	0.0	5.6	0.0	1.9	0.1	7.2	0.2	1.2

Intersection Summary	
HCM 6th Ctrl Delay	71.4
HCM 6th LOS	E

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Lane Group	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations		↑↑↑		⇂		↑↑				↱		
Traffic Volume (vph)	0	1419	0	127	0	1146	0	0	0	5	0	0
Future Volume (vph)	0	1419	0	127	0	1146	0	0	0	5	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0		150		0	0		0	0	
Storage Lanes	0		0		0		0	0		1	0	
Taper Length (ft)	25				25			25			25	
Lane Util. Factor	1.00	0.91	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt										0.865		
Flt Protected				0.950								
Satd. Flow (prot)	0	5085	0	1805	0	3539	0	0	0	1611	0	0
Flt Permitted				0.950								
Satd. Flow (perm)	0	5085	0	1805	0	3539	0	0	0	1611	0	0
Link Speed (mph)		35				30			30			30
Link Distance (ft)		712				189			84			108
Travel Time (s)		13.9				4.3			1.9			2.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	0%	2%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	0	1542	0	138	0	1246	0	0	0	5	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1542	0	138	0	1246	0	0	0	5	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	L NA	Left	Left	Right	Left	Left	Right	Left	Left
Median Width(ft)		12				12			0			0
Link Offset(ft)		0				0			0			0
Crosswalk Width(ft)		8				8			8			8
Two way Left Turn Lane		Yes				Yes						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	9	15		9	15		9	15	
Sign Control		Free				Free			Stop			Stop

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 52.8%		ICU Level of Service A	
Analysis Period (min) 15			

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	0
Future Volume (vph)	0
Ideal Flow (vphpl)	1900
Storage Length (ft)	0
Storage Lanes	0
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	
Flt Protected	
Satd. Flow (prot)	0
Flt Permitted	
Satd. Flow (perm)	0
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.92
Heavy Vehicles (%)	2%
Adj. Flow (vph)	0
Shared Lane Traffic (%)	
Lane Group Flow (vph)	0
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Sign Control	

Intersection Summary

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑		↓		↑↑				↱			
Traffic Vol, veh/h	0	1419	0	127	0	1146	0	0	0	5	0	0	0
Future Vol, veh/h	0	1419	0	127	0	1146	0	0	0	5	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	-	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	0	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1542	0	138	0	1246	0	0	0	5	0	0	0

Major/Minor	Major1			Major2			Minor1						
Conflicting Flow All	-	0	-	1126	-	-	0	-	-	771			
Stage 1	-	-	-	-	-	-	-	-	-	-			
Stage 2	-	-	-	-	-	-	-	-	-	-			
Critical Hdwy	-	-	-	5.6	-	-	-	-	-	7.14			
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-			
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-			
Follow-up Hdwy	-	-	-	2.3	-	-	-	-	-	3.92			
Pot Cap-1 Maneuver	0	-	0	381	0	-	0	0	0	294			
Stage 1	0	-	0	-	0	-	0	0	0	-			
Stage 2	0	-	0	-	0	-	0	0	0	-			
Platoon blocked, %		-				-							
Mov Cap-1 Maneuver	-	-	-	375	-	-	-	-	0	294			
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	0	-			
Stage 1	-	-	-	-	-	-	-	-	0	-			
Stage 2	-	-	-	-	-	-	-	-	0	-			

Approach	EB	WB	NB
HCM Control Delay, s	0	2	17.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	WBU	WBT
Capacity (veh/h)	294	-	375	-
HCM Lane V/C Ratio	0.018	-	0.368	-
HCM Control Delay (s)	17.5	-	20.1	-
HCM Lane LOS	C	-	C	-
HCM 95th %tile Q(veh)	0.1	-	1.7	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑		↓		↑↑				↱			
Traffic Vol, veh/h	0	1419	0	127	0	1146	0	0	0	5	0	0	0
Future Vol, veh/h	0	1419	0	127	0	1146	0	0	0	5	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	-	0	-	-	0	-	-	16983	-
Grade, %	-	0	-	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	0	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1542	0	138	0	1246	0	0	0	5	0	0	0

Major/Minor	Major1			Major2			Minor1						
Conflicting Flow All	-	0	-	1126	-	-	0	-	-	771			
Stage 1	-	-	-	-	-	-	-	-	-	-			
Stage 2	-	-	-	-	-	-	-	-	-	-			
Critical Hdwy	-	-	-	5.6	-	-	-	-	-	7.14			
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-			
Critical Hdwy Stg 2	-	-	-	-	-	-	-	-	-	-			
Follow-up Hdwy	-	-	-	2.3	-	-	-	-	-	3.92			
Pot Cap-1 Maneuver	0	-	0	381	0	-	0	0	0	294			
Stage 1	0	-	0	-	0	-	0	0	0	-			
Stage 2	0	-	0	-	0	-	0	0	0	-			
Platoon blocked, %		-				-							
Mov Cap-1 Maneuver	-	-	-	375	-	-	-	-	0	294			
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	0	-			
Stage 1	-	-	-	-	-	-	-	-	0	-			
Stage 2	-	-	-	-	-	-	-	-	0	-			

Approach	EB	WB	NB
HCM Control Delay, s	0	2	17.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	WBU	WBT
Capacity (veh/h)	294	-	375	-
HCM Lane V/C Ratio	0.018	-	0.368	-
HCM Control Delay (s)	17.5	-	20.1	-
HCM Lane LOS	C	-	C	-
HCM 95th %tile Q(veh)	0.1	-	1.7	-

APPENDIX E

SIMTRAFFIC/SIMULATION QUEUING ANALYSIS REPORTS

Summary of All Intervals

Run Number	1	2	3	Avg
Start Time	3:50	3:50	3:50	3:50
End Time	5:00	5:00	5:00	5:00
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	5478	5490	5570	5512
Vehs Exited	5479	5498	5576	5518
Starting Vehs	161	174	177	171
Ending Vehs	160	166	171	162
Travel Distance (mi)	2310	2331	2374	2338
Travel Time (hr)	180.4	178.7	181.2	180.1
Total Delay (hr)	100.1	97.8	99.0	99.0
Total Stops	7898	7840	8052	7927
Fuel Used (gal)	111.2	111.5	112.4	111.7

Interval #0 Information Seeding

Start Time	3:50
End Time	4:00
Total Time (min)	10

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	4:00
End Time	4:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	Avg
Vehs Entered	1396	1408	1379	1395
Vehs Exited	1401	1385	1361	1382
Starting Vehs	161	174	177	171
Ending Vehs	156	197	195	182
Travel Distance (mi)	582	606	578	589
Travel Time (hr)	47.0	47.7	44.2	46.3
Total Delay (hr)	26.7	26.8	24.0	25.8
Total Stops	2083	2077	1953	2040
Fuel Used (gal)	28.6	29.4	27.7	28.6

Interval #2 Information Recording

Start Time	4:15
End Time	4:30
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	Avg
Vehs Entered	1386	1367	1410	1386
Vehs Exited	1369	1410	1394	1391
Starting Vehs	156	197	195	182
Ending Vehs	173	154	211	181
Travel Distance (mi)	573	576	584	578
Travel Time (hr)	45.5	43.3	44.7	44.5
Total Delay (hr)	25.4	23.3	24.4	24.4
Total Stops	2016	1909	1993	1973
Fuel Used (gal)	27.7	27.5	27.6	27.6

Interval #3 Information Recording

Start Time	4:30
End Time	4:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	Avg
Vehs Entered	1349	1315	1420	1360
Vehs Exited	1340	1301	1416	1353
Starting Vehs	173	154	211	181
Ending Vehs	182	168	215	187
Travel Distance (mi)	574	560	618	584
Travel Time (hr)	43.5	40.8	47.9	44.1
Total Delay (hr)	23.7	21.4	26.5	23.9
Total Stops	1850	1778	2207	1945
Fuel Used (gal)	27.5	25.9	29.4	27.6

Interval #4 Information Recording

Start Time	4:45
End Time	5:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	Avg
Vehs Entered	1347	1400	1361	1368
Vehs Exited	1369	1402	1405	1392
Starting Vehs	182	168	215	187
Ending Vehs	160	166	171	162
Travel Distance (mi)	580	589	593	588
Travel Time (hr)	44.4	46.8	44.5	45.3
Total Delay (hr)	24.4	26.3	24.0	24.9
Total Stops	1949	2076	1899	1974
Fuel Used (gal)	27.3	28.7	27.7	27.9

Intersection: 1: Project Dwy/Bistro City Dwy & E Plaza Blvd

Movement	EB	EB	EB	EB	WB	NB	SB
Directions Served	L	T	T	TR	L	LTR	LTR
Maximum Queue (ft)	30	52	105	183	82	94	36
Average Queue (ft)	3	3	2	21	26	31	9
95th Queue (ft)	17	20	18	99	58	74	33
Link Distance (ft)		835	835	835		190	123
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	500				130		
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 2: I-805 SB On-Ramp/I-805 SB Off-Ramp & E Plaza Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB	SB
Directions Served	T	T	R	L	L	T	T	L	LT	R
Maximum Queue (ft)	314	316	321	200	212	373	356	435	369	289
Average Queue (ft)	229	221	234	144	170	172	138	267	208	44
95th Queue (ft)	320	314	348	217	236	341	280	377	331	190
Link Distance (ft)	300	300	300			400	400		672	
Upstream Blk Time (%)	3	3	4			1	0			
Queuing Penalty (veh)	13	11	19			3	1			
Storage Bay Dist (ft)				188	188			700		230
Storage Blk Time (%)				1	5	3			2	1
Queuing Penalty (veh)				4	18	12			13	6

Intersection: 3: I-805 NB Off-Ramp/I-805 NB On-Ramp & E Plaza Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	T	T	R	L	LT	R
Maximum Queue (ft)	198	212	343	340	258	225	249	367	395	210
Average Queue (ft)	125	141	143	130	170	122	41	204	160	87
95th Queue (ft)	192	227	293	288	259	213	179	319	316	247
Link Distance (ft)			400	400	328	328	328		958	
Upstream Blk Time (%)			0	0	0					
Queuing Penalty (veh)			1	1	0					
Storage Bay Dist (ft)	188	188						970		110
Storage Blk Time (%)	1	2	4						6	7
Queuing Penalty (veh)	4	14	12						42	36

Intersection: 4: Palm Ave & E Plaza Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	L	TR	L	TR
Maximum Queue (ft)	189	287	248	260	238	204	158	221	131	261	238	350
Average Queue (ft)	73	157	147	175	120	49	66	89	18	139	126	150
95th Queue (ft)	141	250	234	260	223	127	134	182	70	231	212	248
Link Distance (ft)		828	828	828		835	835	835		470		484
Upstream Blk Time (%)												0
Queuing Penalty (veh)												0
Storage Bay Dist (ft)	180				235				200		215	
Storage Blk Time (%)		6			2					4	1	3
Queuing Penalty (veh)		7			5					1	3	5

Zone Summary

Zone wide Queuing Penalty: 229

Summary of All Intervals

Run Number	1	2	3	Avg
Start Time	3:50	3:50	3:50	3:50
End Time	5:00	5:00	5:00	5:00
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	5871	5875	5757	5837
Vehs Exited	5855	5857	5731	5813
Starting Vehs	198	155	181	176
Ending Vehs	214	173	207	194
Travel Distance (mi)	2423	2446	2386	2419
Travel Time (hr)	188.6	191.3	181.2	187.0
Total Delay (hr)	103.9	106.3	98.3	102.8
Total Stops	8341	8584	8079	8332
Fuel Used (gal)	116.0	117.8	113.2	115.6

Interval #0 Information Seeding

Start Time	3:50
End Time	4:00
Total Time (min)	10

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	4:00
End Time	4:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	Avg
Vehs Entered	1508	1484	1371	1452
Vehs Exited	1525	1405	1379	1436
Starting Vehs	198	155	181	176
Ending Vehs	181	234	173	193
Travel Distance (mi)	634	606	576	605
Travel Time (hr)	50.8	48.3	43.0	47.3
Total Delay (hr)	28.6	27.1	22.8	26.2
Total Stops	2276	2234	1893	2134
Fuel Used (gal)	30.7	29.4	27.1	29.1

Interval #2 Information Recording

Start Time	4:15
End Time	4:30
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	Avg
Vehs Entered	1490	1462	1460	1470
Vehs Exited	1489	1482	1450	1474
Starting Vehs	181	234	173	193
Ending Vehs	182	214	183	192
Travel Distance (mi)	603	615	603	607
Travel Time (hr)	45.7	47.3	45.7	46.3
Total Delay (hr)	24.7	26.0	24.7	25.1
Total Stops	2028	2089	2087	2065
Fuel Used (gal)	28.4	29.4	28.7	28.8

Interval #3 Information Recording

Start Time	4:30
End Time	4:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	Avg
Vehs Entered	1408	1431	1460	1430
Vehs Exited	1434	1456	1469	1454
Starting Vehs	182	214	183	192
Ending Vehs	156	189	174	170
Travel Distance (mi)	589	603	610	600
Travel Time (hr)	46.4	46.7	45.4	46.1
Total Delay (hr)	25.7	25.7	24.3	25.2
Total Stops	2052	2073	2009	2046
Fuel Used (gal)	28.6	28.9	28.7	28.7

Interval #4 Information Recording

Start Time	4:45
End Time	5:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	Avg
Vehs Entered	1465	1498	1466	1476
Vehs Exited	1407	1514	1433	1451
Starting Vehs	156	189	174	170
Ending Vehs	214	173	207	194
Travel Distance (mi)	597	622	597	605
Travel Time (hr)	45.7	49.1	47.1	47.3
Total Delay (hr)	24.9	27.6	26.4	26.3
Total Stops	1985	2188	2090	2092
Fuel Used (gal)	28.2	30.0	28.8	29.0

Intersection: 1: Project Dwy/Bistro City Dwy & E Plaza Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	NB	SB
Directions Served	L	T	T	TR	L	T	TR	R	LTR
Maximum Queue (ft)	24	36	34	126	126	156	56	151	42
Average Queue (ft)	4	2	3	16	49	7	2	65	9
95th Queue (ft)	18	19	24	78	93	57	32	120	32
Link Distance (ft)		835	835	835		300	300	190	123
Upstream Blk Time (%)								1	
Queuing Penalty (veh)								0	
Storage Bay Dist (ft)	500				130				
Storage Blk Time (%)					0	0			
Queuing Penalty (veh)					2	0			

Intersection: 2: I-805 SB On-Ramp/I-805 SB Off-Ramp & E Plaza Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB	SB
Directions Served	T	T	R	L	L	T	T	L	LT	R
Maximum Queue (ft)	312	315	325	199	212	404	401	412	375	282
Average Queue (ft)	216	219	229	145	176	205	166	272	210	50
95th Queue (ft)	316	322	339	214	245	384	321	368	313	208
Link Distance (ft)	300	300	300			400	400		672	
Upstream Blk Time (%)	2	1	3			0	0			
Queuing Penalty (veh)	8	7	13			2	0			
Storage Bay Dist (ft)				188	188			700		230
Storage Blk Time (%)				1	4	5			2	1
Queuing Penalty (veh)				4	15	21			13	9

Intersection: 3: I-805 NB Off-Ramp/I-805 NB On-Ramp & E Plaza Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	T	T	R	L	LT	R
Maximum Queue (ft)	197	213	409	352	276	221	237	349	354	210
Average Queue (ft)	126	143	138	121	186	136	30	204	172	82
95th Queue (ft)	187	228	290	260	255	218	149	305	323	240
Link Distance (ft)			400	400	328	328	328		958	
Upstream Blk Time (%)			0	0	0					
Queuing Penalty (veh)			1	0	0					
Storage Bay Dist (ft)	188	188						970		110
Storage Blk Time (%)	1	2	4						8	6
Queuing Penalty (veh)	6	13	13						58	28

Intersection: 4: Palm Ave & E Plaza Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	L	T	T	TR	L	TR	L	TR
Maximum Queue (ft)	175	264	274	338	235	161	173	201	184	321	249	412
Average Queue (ft)	74	154	162	191	113	52	62	91	25	140	126	159
95th Queue (ft)	138	237	251	290	202	121	142	183	106	251	219	317
Link Distance (ft)		828	828	828		835	835	835		470		484
Upstream Blk Time (%)												0
Queuing Penalty (veh)												0
Storage Bay Dist (ft)	180				235				200		215	
Storage Blk Time (%)	0	3			1					4	1	4
Queuing Penalty (veh)	2	4			2					1	3	8

Zone Summary

Zone wide Queuing Penalty: 235

Summary of All Intervals

Run Number	1	2	3	Avg
Start Time	3:50	3:50	3:50	3:50
End Time	5:00	5:00	5:00	5:00
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	5855	5827	5966	5879
Vehs Exited	5847	5888	5954	5896
Starting Vehs	167	220	206	197
Ending Vehs	175	159	218	182
Travel Distance (mi)	2269	2277	2317	2288
Travel Time (hr)	199.1	193.3	209.5	200.6
Total Delay (hr)	119.1	113.1	128.1	120.1
Total Stops	8710	8558	9147	8807
Fuel Used (gal)	115.8	115.1	120.2	117.1

Interval #0 Information Seeding

Start Time	3:50
End Time	4:00
Total Time (min)	10

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	4:00
End Time	4:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	Avg
Vehs Entered	1425	1460	1478	1453
Vehs Exited	1415	1472	1458	1449
Starting Vehs	167	220	206	197
Ending Vehs	177	208	226	205
Travel Distance (mi)	550	572	569	564
Travel Time (hr)	44.7	48.9	51.1	48.2
Total Delay (hr)	25.4	28.6	31.2	28.4
Total Stops	2073	2216	2238	2179
Fuel Used (gal)	27.5	29.2	29.7	28.8

Interval #2 Information Recording

Start Time	4:15
End Time	4:30
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	Avg
Vehs Entered	1530	1482	1494	1501
Vehs Exited	1497	1496	1494	1496
Starting Vehs	177	208	226	205
Ending Vehs	210	194	226	212
Travel Distance (mi)	587	579	579	581
Travel Time (hr)	51.6	51.7	51.4	51.6
Total Delay (hr)	30.9	31.4	31.0	31.1
Total Stops	2305	2203	2249	2251
Fuel Used (gal)	29.8	29.9	29.9	29.9

Interval #3 Information Recording

Start Time	4:30
End Time	4:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	Avg
Vehs Entered	1510	1421	1493	1473
Vehs Exited	1507	1471	1494	1491
Starting Vehs	210	194	226	212
Ending Vehs	213	144	225	194
Travel Distance (mi)	581	555	582	573
Travel Time (hr)	54.8	45.8	49.6	50.1
Total Delay (hr)	34.3	26.2	29.1	29.9
Total Stops	2309	2056	2186	2182
Fuel Used (gal)	30.5	27.5	29.3	29.1

Interval #4 Information Recording

Start Time	4:45
End Time	5:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	Avg
Vehs Entered	1390	1464	1501	1452
Vehs Exited	1428	1449	1508	1461
Starting Vehs	213	144	225	194
Ending Vehs	175	159	218	182
Travel Distance (mi)	551	572	587	570
Travel Time (hr)	48.0	46.9	57.4	50.8
Total Delay (hr)	28.6	26.9	36.8	30.7
Total Stops	2023	2083	2474	2194
Fuel Used (gal)	28.1	28.5	31.3	29.3

Intersection: 1: Project Dwy/Bistro City Dwy & E Plaza Blvd

Movement	EB	EB	EB	EB	WB	WB	NB	SB
Directions Served	L	T	T	TR	T	TR	R	R
Maximum Queue (ft)	27	64	29	302	158	159	148	18
Average Queue (ft)	5	8	2	41	19	14	66	1
95th Queue (ft)	22	38	14	178	111	96	115	9
Link Distance (ft)		817	817	817	297	297	187	129
Upstream Blk Time (%)					0	0	0	
Queuing Penalty (veh)					0	3	0	
Storage Bay Dist (ft)	500							
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 2: I-805 SB On-Ramp/I-805 SB Off-Ramp & E Plaza Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB	SB
Directions Served	T	T	R	L	L	T	T	L	LT	R
Maximum Queue (ft)	312	316	318	200	212	386	296	441	374	255
Average Queue (ft)	247	243	248	145	170	182	140	272	210	40
95th Queue (ft)	323	323	342	215	237	327	249	389	323	175
Link Distance (ft)	297	297	297			400	400		671	
Upstream Blk Time (%)	4	3	4			0				
Queuing Penalty (veh)	19	15	18			1				
Storage Bay Dist (ft)				188	188			700		230
Storage Blk Time (%)				1	4	3			1	1
Queuing Penalty (veh)				4	17	11			10	4

Intersection: 3: I-805 NB Off-Ramp/I-805 NB On-Ramp & E Plaza Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	T	T	R	L	LT	R
Maximum Queue (ft)	198	212	373	345	283	259	208	346	358	210
Average Queue (ft)	127	137	141	125	177	129	28	208	181	99
95th Queue (ft)	192	219	297	277	269	222	138	310	320	257
Link Distance (ft)			400	400	328	328	328		958	
Upstream Blk Time (%)			0	0	0					
Queuing Penalty (veh)			2	1	0					
Storage Bay Dist (ft)	188	188						970		110
Storage Blk Time (%)	2	2	3						10	5
Queuing Penalty (veh)	9	12	11						72	28

Intersection: 4: Palm Ave & E Plaza Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	T	TR	UL	T	T	TR	L	TR	L	TR
Maximum Queue (ft)	119	240	256	369	355	790	747	229	145	280	259	404
Average Queue (ft)	47	143	130	185	318	456	358	107	27	147	139	172
95th Queue (ft)	99	212	220	296	444	911	832	203	84	243	241	323
Link Distance (ft)		467	467	467		817	817	817		479		463
Upstream Blk Time (%)						5	0					1
Queuing Penalty (veh)						22	1					0
Storage Bay Dist (ft)	180				235				200		215	
Storage Blk Time (%)		2			70	0				4	2	4
Queuing Penalty (veh)		3			186	0				1	6	8

Zone Summary

Zone wide Queuing Penalty: 464

Summary of All Intervals

Run Number	1	2	3	Avg
Start Time	3:50	3:50	3:50	3:50
End Time	5:00	5:00	5:00	5:00
Total Time (min)	70	70	70	70
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	5807	5750	5765	5774
Vehs Exited	5803	5759	5799	5788
Starting Vehs	191	175	187	183
Ending Vehs	195	166	153	169
Travel Distance (mi)	2254	2237	2231	2240
Travel Time (hr)	190.2	187.2	187.7	188.4
Total Delay (hr)	109.7	107.4	108.2	108.4
Total Stops	8668	8534	8470	8560
Fuel Used (gal)	113.8	112.7	112.1	112.9

Interval #0 Information Seeding

Start Time	3:50
End Time	4:00
Total Time (min)	10

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	4:00
End Time	4:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	Avg
Vehs Entered	1395	1412	1437	1414
Vehs Exited	1415	1365	1458	1413
Starting Vehs	191	175	187	183
Ending Vehs	171	222	166	183
Travel Distance (mi)	545	552	560	552
Travel Time (hr)	44.2	46.3	47.7	46.1
Total Delay (hr)	24.8	26.6	27.6	26.3
Total Stops	2021	2097	2190	2103
Fuel Used (gal)	27.0	27.7	28.2	27.6

Interval #2 Information Recording

Start Time	4:15
End Time	4:30
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	2	3	Avg
Vehs Entered	1579	1529	1507	1539
Vehs Exited	1567	1533	1449	1518
Starting Vehs	171	222	166	183
Ending Vehs	183	218	224	209
Travel Distance (mi)	609	587	558	585
Travel Time (hr)	52.6	48.2	47.5	49.4
Total Delay (hr)	30.9	27.3	27.7	28.6
Total Stops	2335	2202	2150	2227
Fuel Used (gal)	31.2	29.4	28.4	29.6

Interval #3 Information Recording

Start Time	4:30
End Time	4:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	Avg
Vehs Entered	1422	1365	1395	1394
Vehs Exited	1414	1444	1406	1421
Starting Vehs	183	218	224	209
Ending Vehs	191	139	213	182
Travel Distance (mi)	556	546	546	549
Travel Time (hr)	47.1	47.1	45.8	46.7
Total Delay (hr)	27.2	27.5	26.4	27.1
Total Stops	2167	2103	2051	2103
Fuel Used (gal)	28.2	28.0	27.5	27.9

Interval #4 Information Recording

Start Time	4:45
End Time	5:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	2	3	Avg
Vehs Entered	1411	1444	1426	1427
Vehs Exited	1407	1417	1486	1438
Starting Vehs	191	139	213	182
Ending Vehs	195	166	153	169
Travel Distance (mi)	544	551	567	554
Travel Time (hr)	46.3	45.6	46.7	46.2
Total Delay (hr)	26.7	26.0	26.5	26.4
Total Stops	2145	2132	2079	2120
Fuel Used (gal)	27.5	27.6	28.1	27.7

Intersection: 1: Project Dwy/Bistro City Dwy & E Plaza Blvd

Movement	EB	EB	EB	NB	SB
Directions Served	T	T	TR	R	R
Maximum Queue (ft)	81	86	131	194	29
Average Queue (ft)	9	6	29	95	5
95th Queue (ft)	43	38	100	184	23
Link Distance (ft)	119	119	119	178	113
Upstream Blk Time (%)	0	0	2	7	
Queuing Penalty (veh)	2	0	8	0	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 2: I-805 SB On-Ramp/I-805 SB Off-Ramp & E Plaza Blvd

Movement	EB	EB	EB	WB	WB	WB	WB	SB	SB	SB
Directions Served	T	T	R	L	L	T	T	L	LT	R
Maximum Queue (ft)	284	282	274	196	213	376	366	365	336	254
Average Queue (ft)	224	226	226	126	155	184	150	269	212	81
95th Queue (ft)	311	311	312	193	235	332	287	352	313	252
Link Distance (ft)	265	265	265			368	368		663	
Upstream Blk Time (%)	5	6	5			0	0			
Queuing Penalty (veh)	26	28	26			2	1			
Storage Bay Dist (ft)				188	188			700		230
Storage Blk Time (%)				0	2	5			1	1
Queuing Penalty (veh)				2	10	23			8	8

Intersection: 3: I-805 NB Off-Ramp/I-805 NB On-Ramp & E Plaza Blvd

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	T	T	T	T	R	L	LT	R
Maximum Queue (ft)	198	213	361	343	277	259	222	368	390	135
Average Queue (ft)	125	147	160	146	178	136	33	210	206	89
95th Queue (ft)	186	235	311	301	248	222	146	322	361	193
Link Distance (ft)			368	368	303	303	303		949	
Upstream Blk Time (%)			0	0	0	0				
Queuing Penalty (veh)			2	1	0	0				
Storage Bay Dist (ft)	188	188						970		110
Storage Blk Time (%)	1	1	6						7	5
Queuing Penalty (veh)	7	6	20						52	28

Intersection: 18: E Plaza Blvd & Mid-Block U-Turn

Movement	EB	EB	WB	NB
Directions Served	T	T	U	R
Maximum Queue (ft)	24	91	110	31
Average Queue (ft)	1	6	48	5
95th Queue (ft)	14	50	91	22
Link Distance (ft)	620	620	119	24
Upstream Blk Time (%)			0	5
Queuing Penalty (veh)			2	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Zone Summary

Zone wide Queuing Penalty: 262

APPENDIX F

TRIP GENERATION & DRIVE THROUGH QUEUE SURVEY WORKSHEETS FOR 4375 KEARNY MESA, SAN DIEGO

In-N-Out Kearny Mesa - Weekday

Location:	4375 Kearny Mesa Rd	Date:	5/12/2022
City:	San Diego	Day:	Thursday

Queue Study

Time	Max Queue
11:00 AM	15
11:15 AM	18
11:30 AM	19
11:45 AM	19
12:00 PM	18
12:15 PM	17
12:30 PM	9
12:45 PM	15
1:00 PM	17
1:15 PM	18
1:30 PM	23
1:45 PM	16
2:00 PM	17
2:15 PM	19
2:30 PM	16
2:45 PM	11
3:00 PM	16
3:15 PM	19
3:30 PM	14
3:45 PM	16
4:00 PM	19
4:15 PM	16
4:30 PM	16
4:45 PM	17
5:00 PM	17
5:15 PM	19
5:30 PM	15
5:45 PM	17
6:00 PM	19
6:15 PM	19
6:30 PM	15
6:45 PM	13
7:00 PM	16
7:15 PM	12
7:30 PM	15
7:45 PM	16
8:00 PM	18
8:15 PM	17
8:30 PM	15
8:45 PM	16
9:00 PM	19
9:15 PM	19
9:30 PM	20
9:45 PM	21
10:00 PM	20
10:15 PM	21
10:30 PM	20
10:45 PM	21
11:00 PM	21

In-N-Out Kearny Mesa - Saturday

Location:	4375 Kearny Mesa Rd	Date:	5/14/2022
City:	San Diego	Day:	Saturday

Queue Study

Time	Max Queue
11:00 AM	17
11:15 AM	19
11:30 AM	15
11:45 AM	19
12:00 PM	21
12:15 PM	18
12:30 PM	19
12:45 PM	17
1:00 PM	19
1:15 PM	20
1:30 PM	21
1:45 PM	13
2:00 PM	18
2:15 PM	19
2:30 PM	21
2:45 PM	19
3:00 PM	18
3:15 PM	17
3:30 PM	19
3:45 PM	18
4:00 PM	18
4:15 PM	20
4:30 PM	20
4:45 PM	19
5:00 PM	21
5:15 PM	16
5:30 PM	15
5:45 PM	18
6:00 PM	15
6:15 PM	17
6:30 PM	18
6:45 PM	16
7:00 PM	20
7:15 PM	20
7:30 PM	21
7:45 PM	18
8:00 PM	13
8:15 PM	14
8:30 PM	18
8:45 PM	13
9:00 PM	16
9:15 PM	21
9:30 PM	16
9:45 PM	17
10:00 PM	16
10:15 PM	17
10:30 PM	15
10:45 PM	17
11:00 PM	17

City:	San Diego
Location:	4375 Kearny Mesa Road
Location:	TOTAL
Date:	Thursday, May 12, 2022
Count Type:	Driveway

	Entering	Exiting	Total
0:00	15	8	23
0:15	10	11	21
0:30	8	13	21
0:45	7	12	19
1:00	1	11	12
1:15	0	1	1
1:30	0	1	1
1:45	0	0	0
2:00	0	1	1
2:15	0	6	6
2:30	0	0	0
2:45	0	0	0
3:00	1	0	1
3:15	0	0	0
3:30	0	0	0
3:45	0	0	0
4:00	0	0	0
4:15	1	0	1
4:30	0	1	1
4:45	1	0	1
5:00	1	0	1
5:15	0	0	0
5:30	0	0	0
5:45	0	0	0
6:00	0	0	0
6:15	0	0	0
6:30	1	0	1
6:45	0	0	0
7:00	0	0	0
7:15	1	0	1
7:30	0	0	0
7:45	2	0	2
8:00	0	1	1
8:15	1	0	1
8:30	2	0	2
8:45	1	2	3
9:00	2	3	5
9:15	1	1	2
9:30	2	1	3
9:45	8	4	12
10:00	9	3	12
10:15	12	7	19
10:30	13	11	24
10:45	24	17	41
11:00	19	14	33
11:15	21	18	39
11:30	19	21	40
11:45	19	29	48
12:00	29	23	52
12:15	31	38	69
12:30	23	24	47
12:45	29	28	57
13:00	38	38	76

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City:	San Diego
Location:	4375 Kearny Mesa Road
Location:	TOTAL
Date:	Thursday, May 12, 2022
Count Type:	Driveway

	Entering	Exiting	Total
13:15	32	28	60
13:30	28	33	61
13:45	23	25	48
14:00	29	22	51
14:15	18	31	49
14:30	18	23	41
14:45	20	26	46
15:00	23	26	49
15:15	19	21	40
15:30	16	23	39
15:45	20	22	42
16:00	17	26	43
16:15	24	22	46
16:30	23	28	51
16:45	23	24	47
17:00	20	21	41
17:15	18	23	41
17:30	18	26	44
17:45	24	20	44
18:00	20	26	46
18:15	23	23	46
18:30	27	22	49
18:45	27	26	53
19:00	20	29	49
19:15	29	23	52
19:30	17	22	39
19:45	13	24	37
20:00	22	21	43
20:15	26	23	49
20:30	19	18	37
20:45	12	16	28
21:00	21	20	41
21:15	18	14	32
21:30	19	18	37
21:45	18	14	32
22:00	15	18	33
22:15	20	19	39
22:30	15	15	30
22:45	21	17	38
23:00	22	0	22
23:15	26	1	27
23:30	23	0	23
23:45	19	1	20
TOTAL	**1257**	**1228**	**2485**

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951) 268-6268

City:	San Diego
Location:	4375 Kearny Mesa Road
Location:	TOTAL
Date:	Thursday, May 12, 2022
Count Type:	Driveway

	Entering	Exiting	Total
15:30	16	23	39
15:45	20	22	42
16:00	17	26	43
16:15	24	22	46
16:30	23	28	51
16:45	23	24	47
17:00	20	21	41
17:15	18	23	41
17:30	18	26	44
TOTAL	**1257**	**1228**	**2485**

	In	Out	Total	Hr Begin
	87	100	187	4:00 PM
	90	95	185	4:15 PM
	84	96	180	4:30 PM
	79	94	173	4:45 PM
	80	90	170	5:00 PM
Max			**187**	**4:00 PM**
PM Pk Hr	87	100	187	

TSF	3.180
Trip Rate, PM	58.81
Trip Rate, Daily	781.45