URBAN CROSSROADS

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May 9, 2016

Mr. Jesus "Freddie" Olmos
ECORP CONSULTING, INC.
215 North 5th Street
Redlands, CA 92374

SUBJECT: EMERALD NECKLACE IMPLEMENTATION PLAN PHASE 1 TRAFFIC ASSESSMENT

Dear Mr. Jesus "Freddie" Olmos:

The firm of Urban Crossroads, Inc. is pleased to submit this Traffic Assessment for the Emerald Necklace Implementation Plan Phase 1 (referred to as "Project"), which is located beside two waterways, the San Gabriel and the Rio Honda. The Project is proposed to include the development of a 17-mile loop of bicycle and multi-use trails which link parks and open spaces through multiple jurisdictions.

SUMMARY OF FINDINGS

As the proposed Project is not expected to result in a significant increase to vehicular traffic, the primary focus of this traffic assessment was to evaluate potential operational and safety impacts to the following intersection locations:

- Peck Road at Foothill Transit Driveway
- Durfee Avenue/San Gabriel Avenue at Rosemead Boulevard
- San Gabriel Avenue at Lincoln Avenue

The Project proposes to provide a new at-grade trail crossing at each location. The crossings on Peck Road at Foothill Transit, San Gabriel Avenue/Durfee Avenue at Rosemead Boulevard and San Gabriel Avenue at Lincoln Avenue are proposed at existing signalized intersections with pedestrian crosswalks. Signal modifications may be required to add pedestrian, bicycle detection and to comply with Americans with Disabilities Act (ADA) requirements, and intersection warning signs may be used on a path in advance of the intersection to indicate the presence of the crossing and the possibility of turning or entering traffic.

Based on the results of this analysis, the increased pedestrian, cyclist and/or equestrian activity is not anticipated to significantly impact current intersection operations. The study area intersections are anticipated to continue to operate at an acceptable LOS with the proposed Project.

The Project also proposes a mid-bock crossing along Rosemead Boulevard for the SCE easement trail. It is suggested that the crossing utilize the more visible “piano key” configuration of longitudinal stripes. This is consistent with guidance in the 2014 California Manual on Uniform Traffic Control Devices (2014 CA MUTCD), which states that this type of marking should be used at locations where a crosswalk might not be expected. The vehicular volumes on Rosemead Boulevard and the potential pedestrian and bicycle activity indicates that a pedestrian traffic signal would be warranted at the mid-block crossing.

Finally, in addition to traffic operations, potential impacts to existing on-street parking were also reviewed. The Project proposes to eliminate on-street parking along Clark Street in the vicinity of Varus Street to Durfee Avenue. A parking survey conducted over weekend conditions indicates a maximum of 69 vehicles were parked on Clark Street in the vicinity of the Project. During the same interval, the maximum number of observed vehicles parked on Clark Street between Varus Street and Durfee Avenue was 14. Elimination of on-street parking in this area would potentially result in a significant impact as there is limited opportunity to provide for alternative parking locations in the vicinity.

PROJECT DESCRIPTION

The Project is proposed to include the development of a 17-mile loop of bicycle and multi-use trails which link parks and open spaces through multiple jurisdictions as shown on Exhibit 1. Phase I includes 16 projects which are designed to close gaps in the existing regional recreational trails network. However, for the purposes of this analysis, project number four of 16 will be analyzed separately from this Phase I program-level analysis. The 15 projects within Phase I development analyzed in this analysis are provided on Table 1.

EXHIBIT 1: LOCATION MAP

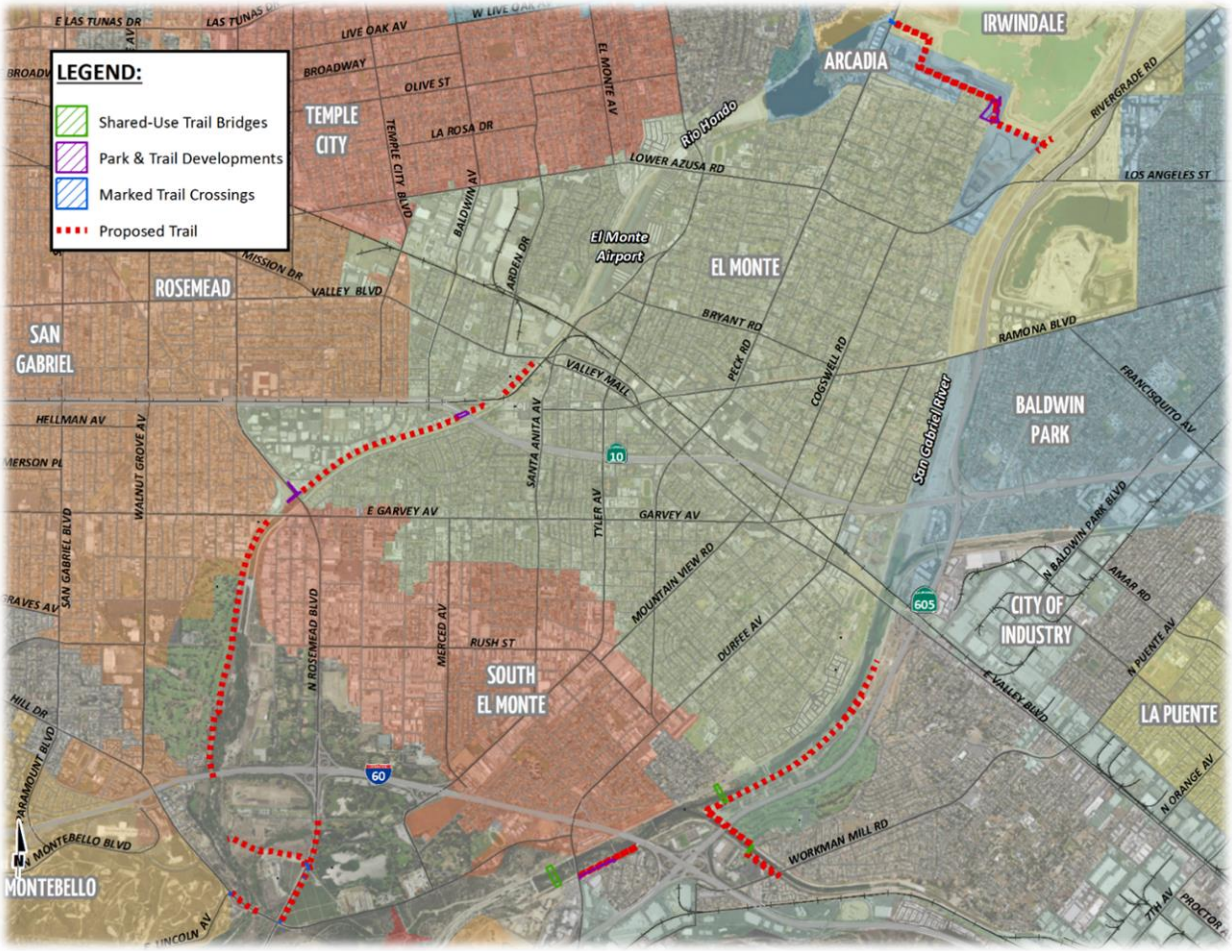


TABLE 1: PHASE I PROJECT DESCRIPTIONS

Chapter	Title
1	Quarry Clasp Park Development
2	Quarry Clasp Multi-Use Trail
3	Quarry Clasp Peck Road Signalized Crossing
5	Rosemead Bike Path
6	Whittier North San Gabriel Bike Path
7	Whittier SCE Easement Bike Path
8	Whittier North Pellissier Multi-Use Trail
9	Whittier North Pellissier Bridge

10	San Jose Creek Trails and Bridges
11	San Jose Eastside Trail
12	West Alhambra to Garvey
13	West Side Rosemead Access Ramp
14	West Site Rosemead Underpass
15	West Side Rosemead to Valley
16	West 10 Underpass

EXISTING CIRCULATION NETWORK

The following three study area intersections adjacent to crossings of the bicycle and multi-use trails across public streets and one future mid-block crossing location shown on Exhibit 2 and listed in Table 2 were selected for this TIA.

TABLE 2: INTERSECTION ANALYSIS LOCATIONS

ID	Intersection Location	Jurisdiction
1	E. Lincoln Avenue / San Gabriel Boulevard	County of Los Angeles, Montebello
2	Rosemead Boulevard / San Gabriel Boulevard	County of Los Angeles, Caltrans
3	Rosemead Boulevard / SCE Easement – Future Crossing	County of Los Angeles, Caltrans
4	Peck Road / Foothill Transit Driveway	City of Arcadia

Exhibit 2 illustrates the study area and identifies the number of through traffic lanes for existing roadways and intersection traffic controls.

EXISTING (2016) TRAFFIC VOLUMES

Peak hour turning movement counts were conducted at the study area intersections in April 2016. Given the uses of trails, weekday PM peak hour (4-6PM) and Saturday morning peak (7-9AM) turning movement counts were collected. Existing (2016) AM and PM peak hour intersection volumes are shown on Exhibit 3. The raw manual peak hour turning movement traffic count data sheets are included in Attachment “A”.

In addition, 24 hour directional volume counts were collected on Rosemead Boulevard near the proposed mid-block crossing near SCE easement. The 24 hour counts showed an average daily count (ADT) of 27, 071 on a weekday and 24,603 on a Saturday. The weekday peak hour volume on Rosemead Boulevard is 2,273 vehicles per hour (vph) and the Saturday peak hour volume is 1,782 vph. The 24 hour count data are also included in Attachment “A”.

PROJECT TRIP GENERATION

Trip generation represents the amount of traffic which is both attracted to and produced by a development. The proposed Project site will consist of approximately 24.33 acre Passive Park and Trails. Although only a 5 acre park is proposed in the Project, the total area of all the proposed multi-use trails have been added for the purposes of trip generation calculation to provide a conservative estimate. Traffic generation rates for the proposed Project have been derived from (Not So) Brief Guide of Vehicular Traffic General Rates for the San Diego Region (April 2002) published by San Diego association of Governments (SANDAG). The trip generation rates used for this analysis are shown in Table 3. The rates published by SANDAG are more conservative compared to rates in ITE Trip Generation manual. As such, trip generation rates published by SANDAG have been used to provide a conservative estimate for Project trips.

A summary of the proposed Project's trip generation is also shown on Table 3. The Project is anticipated to generate a total of 487 trips per day with approximately 19 AM peak hour trips and 39 PM peak hour trips.

The estimated peak hour vehicular Project trips on study area roadways and intersections are nominal. Therefore, the focus of this traffic analysis is to evaluate the existing operations. Addition of Project trips is not expected to have significant impacts on study area roadways and intersections.

INTERSECTION CAPACITY ANALYSIS

The definitions of LOS for interrupted traffic flow (flow restrained by the existence of traffic signals and other traffic control devices) differ slightly depending on the type of traffic control. The LOS is typically dependent on the quality of traffic flow at the intersections along a roadway. The 2010 Highway Capacity Manual (HCM) methodology was used for the study intersections. Intersection LOS operations are based on an intersection's average control delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. For signalized intersections LOS is directly related to the average control delay per vehicle and is correlated to a LOS designation as described in Table 4.

TABLE 4: SIGNALIZED INTERSECTION HCM 2010 LOS THRESHOLDS

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0	Level of Service, V/C > 1.0
Operations with very low delay occurring with favorable progression and/or short cycle length.	0 to 10.00	A	F
Operations with low delay occurring with good progression and/or short cycle lengths.	10.01 to 20.00	B	F
Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to	20.01 to 35.00	C	F

appear.			
Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.01 to 55.00	D	F
Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.01 to 80.00	E	F
Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths	80.01 and up	F	F

Source: HCM 2010, Chapter 18

The definition of an intersection deficiency has been obtained from each of the applicable surrounding jurisdictions. The City of Arcadia, City of Montebello, County of Los Angeles and Caltrans have set the goal for acceptable LOS as LOS "D" or better, for study area intersections.

Existing (2016) peak hour traffic operations have been evaluated for the study area intersections based on HCM 2010 methodology. The intersection operations analysis results are summarized in Table 5 which indicates that the existing study area intersections are currently operating at acceptable LOS (i.e., LOS "D" or better) during the peak hours.

The intersection operations analysis worksheets are included in Attachment "B".

PROJECT IMPACTS

As discussed previously, vehicular Project trips on study area roadways and intersections are nominal. The potential increase in number of pedestrian and bicycle crossings at the crosswalks at study area intersections is unknown. However, based on review of existing delay and LOS at the study area intersections, it appears the potential increase in pedestrian and bicycle crossings will not have a significant impact on delay and LOS with the completion of the Project. The study area intersections are anticipated to continue to operate at acceptable LOS with Project.

TRAIL CROSSING EVALUATION

The Project proposes at-grade pedestrian, bicycle and/or equestrian crossings at the following locations.

- Peck Road at Foothill Transit Driveway
- Durfee Avenue/San Gabriel Avenue at Rosemead Boulevard
- San Gabriel Avenue at Lincoln Avenue
- Rosemead Boulevard at SCE Easement trail

Based on information provided from the Federal Highway Administration (FHWA) Safety Program marked crosswalks serve two purposes: they tell the pedestrian the best place to cross; and they clarify that a legal crosswalk exists at a particular location. Marked crosswalks are one tool to get pedestrians safely across the street. When considering marked crosswalks at uncontrolled locations, the question should not simply be: "Should I provide a marked crosswalk or not?" Instead, the question should be: "Is this an appropriate tool for getting pedestrians across the street?" Regardless of whether marked crosswalks are used, there remains the fundamental objective of getting pedestrians safely across the street. Marked crosswalks should not be installed in close proximity to traffic signals or stop signs, since pedestrians should be encouraged to cross at the intersection in most situations.

The objective of adding a marked crosswalk is to channel pedestrians and bicyclists to safer crossing points. It should be understood, however, that pedestrian crossing behavior may be difficult to control merely by the addition of marked crosswalks. On many roadways, particularly multilane and high-speed crossing location, more substantial improvements are often needed for safer pedestrian crossings. Marked crosswalk alone are not recommended at uncontrolled crossing locations on multilane roads. At uncontrolled pedestrian crossing locations, installing marked crosswalks should not be regarded as a magic cure for pedestrian safety problems. However, marked crosswalks also should not be considered as a negative measure that will necessarily increase pedestrian crashes.

Crossings within 350 feet of an existing signalized intersection with pedestrian crosswalks are typically diverted to the signalized intersection for safety purposes. The crossings on Peck Road at Foothill Transit, San Gabriel Avenue/Durfee Avenue at Rosemead Boulevard and San Gabriel Avenue at Lincoln Avenue are proposed at existing signalized intersections with pedestrian crosswalks. Signal modifications may be required to add pedestrian, bicycle detection and to comply with Americans with Disabilities Act (ADA) requirements. Intersection Warning signs may be used on a path in advance of the intersection to indicate the presence of the crossing and the possibility of turning or entering traffic.

ROSEMEAD BOULEVARD MID-BLOCK CROSSWALK

The mid-block crosswalk on Rosemead Boulevard at SCE easement trail shall utilize the more visible "piano key" configuration of longitudinal stripes. This is consistent with guidance in the 2014 California Manual on Uniform Traffic Control Devices (2014 CA MUTCD), which states that this type of marking should be used at locations where a crosswalk might not be expected. The 2014 CA MUTCD states that safety must be considered when evaluating whether to install a mid-block pedestrian crossing. Recognizing the safety concerns associated with mid-block pedestrian crossings, the mid-block crosswalk design concept is supplemented with local and advance warning systems and signage such as the mid-block pedestrian / bicycle signal, pedestrian actuated pedestrian hybrid beacon or rectangular rapid flash beacon (RRFB),

flashing beacons, and speed feedback sign consistent with the 2014 CA MUTCD criteria shown on Table 1.

The 2014 CA MUTCD criteria are based on peak hour traffic volumes and also take the volume of pedestrians / cyclists using the crossing into consideration, as well as the length of the crossing. The warrants for pedestrian traffic signal was evaluated based on Figure 4C-8 from 2014 CA MUTCD and warrants for pedestrian hybrid beacon was evaluated based on Figure 4F-2 from 2014 CA MUTCD. The vehicular volumes on Rosemead Boulevard (2,273 vph on weekday and 1,782 vph on Saturday) result in the warrants being satisfied based on the minimum threshold crossing volumes of 20 pedestrians / cyclists for a Pedestrian Hybrid Beacon or 93 pedestrians / cyclists for a mid-block pedestrian signal. The warrant sheets are provided in Attachment “C” of this report.

No explicit projections of the number of pedestrians / cyclists that will use each crossing are available (and as the crossings do not exist, it is not possible to collect existing counts). However, existing pedestrian and bicycle counts at the intersection of Rosemead Boulevard and San Gabriel Avenue / Durfee Avenue shows approximately 26 pedestrians and 79 bicyclists crossing Rosemead Boulevard during Saturday AM peak period, which indicates mid-block pedestrian/bicycle signal warrant threshold would be satisfied.

TABLE 6
PEDESTRIAN CROSSING DEVICES EVALUATION PARAMETERS

Criteria	TYPE OF CROSSING			
	Mid-Block Pedestrian / Bike Signal	Pedestrian Hybrid Beacon	Flashing Beacon	In-Roadway Flashing Lights
2014 CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES				
Roadway Vehicular Traffic	Per Figure 4C-6 (4 hours) or Figure 4C-8 (1 hour) of MUTCD[1]	Per Figure 4F-1[1]. May also determine if gaps in traffic are not adequate to allow pedestrian crossing without control	N/A	N/A
Crossing Traffic	Per Figure 4C-6 (4 hours) or Figure 4C-8 (1 hour) of MUTCD[1]	Per Figure 4F-2	N/A	N/A
Speed	Determines which warrant to use	May be used to determine if a pedestrian Hybrid beacon is appropriate	N/A	N/A
Safety	Safety must be considered in engineering study	N/A	Used to provide warning.	Used to provide warning.
Other	At least 100 feet from adjacent driveways or streets; at least 300 feet from nearest signal (or STOP sign) control on the street being crossed. Parking should be prohibited 100' before and 20' beyond crosswalk.	Parking should be prohibited 100' before and 20' beyond crosswalk. Should be coordinated with nearby signals.	Typical Applications include mid-block crosswalks	Not for use at crosswalks controlled by Yield, STOP, or Signals. Often have maintenance issues.

[1] Figures referenced based on 85th percentile speed > 35 mph.(See Attachment "C")

QUARRY CLASP PARK AND CLARK STREET PARKING EVALUATION

The Quarry Clasp Park project consists of the acquisition of land for the development of a 5 acre public park at the intersection of Durfee Avenue and Clark Street within the City of Arcadia. With the acquisition of land, a conceptual park design that features equestrian amenities such

as trailer parking, picnic areas, restroom facilities, a potable water source, trail maps, native plantings and interpretive signage will be developed. A concept plan is shown on Exhibit 4.

EXHIBIT 4: QUARRY CLASP CONCEPT PLAN

The County of Los Angeles Code Chapter 22.52, General Regulations, Part 11, Vehicle Parking Space, requires one automobile parking space for each one-half acre of developed park area up to 15 acres. For a 5-acre park, 10 automobile parking spaces would be required per code. The park will include parking space for approximately five horse trailers and five cars.

The Quarry Clasp multi-use trail and bicycle path is intended to connect both a multi-use trail and a combination of Class I bicycle path and Class IV bikeway from the Foothill Transit parking lot on Peck Road to the existing Class I bicycle path on the San Gabriel River. These trails will connect to the extension of the Rio Hondo Class I bicycle path in the Peck Road Water Conservation Park at an existing traffic light on Peck Road at the Foothill Transit Driveway. As shown on Exhibit 5, trail alignment follows the southern edge of the Hanson Quarry, turning south behind the Transit Center and then east to parallel Clark Street. Approximately mid-way towards the San Gabriel River, industrial building development at the quarry edge forces the trails into Clark Street right-of-way. The trail alignments continue on Clark Street through the intersection of Clark Street and Durfee Avenue.

EXHIBIT 5: QUARRY CLASP MULTI-USE TRAIL AND BICYCLE PATH

On-street parking will be eliminated in the section of Clark Street that will accommodate the two trails. Parking survey was conducted on Clark Street from 7 AM to 7 PM on a weekday and Saturday to determine the impact of elimination of on-street parking on Clark Street. Summary of on-street parking utilization for weekday and Saturday are shown on Tables 7 and 8, respectively. The parking survey data is included in Attachment “D”.

The removal of on-street parking will have more impact on Saturday (weekend) where a maximum of 69 vehicles were parked on both sides of Clark Street. However majority of the vehicles are parked between Foothill Transit Driveway / Kardashian Avenue and Varus Street. The elimination of on-street parking would be needed approximately mid-way towards the San Gabriel River, industrial building development at the quarry edge forces the trails into Clark Street right-of-way, i.e., between Varus Street and Durfee Avenue. A maximum of 14 vehicles were parked on both sides of the Clark Street in the section between Varus Street and Durfee Avenue.

Elimination of on-street parking would create a significant parking impact for the vehicles currently being parked in this section of Clark Street.

TABLE 7: ON-STREET PARKING ON CLARK STREET, TUESDAY, APRIL 12, 2016

		7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00
Clark Street Foothill Transit DW to Varus	North Side	0	0	0	0	0	0	0	1	0	0	0	0	0
	South Side	0	0	0	1	0	0	0	1	0	0	0	2	0
Clark Street Varus to Cogswell	North Side	0	0	0	0	0	0	0	0	0	0	0	0	0
	South Side	0	0	0	0	0	0	0	0	0	0	1	0	0
Clark Street Cogswell to Durfee	North Side	2	2	4	5	5	3	6	5	5	5	3	1	1
	South Side	12	8	10	7	6	6	6	6	7	10	9	9	11
TOTALS	**North Side**	**2**	**2**	**4**	**5**	**5**	**3**	**6**	**6**	**5**	**5**	**3**	**1**	**1**
	South Side	**12**	**8**	**10**	**8**	**6**	**6**	**6**	**7**	**7**	**10**	**10**	**11**	**11**
	TOTAL	**14**	**10**	**14**	**13**	**11**	**9**	**12**	**13**	**12**	**15**	**13**	**12**	**12**

TABLE 8: ON-STREET PARKING ON CLARK STREET, SATURDAY, APRIL 12, 2016

		7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00
Clark Street Foothill Transit DW to Varus	North Side	21	24	27	27	29	34	31	26	23	0	0	0	0
	South Side	14	17	18	20	23	24	21	21	20	2	0	0	0
Clark Street Varus to Cogswell	North Side	0	0	0	1	0	0	0	0	0	0	0	0	0
	South Side	0	0	0	0	0	0	1	0	0	0	0	0	0
Clark Street Cogswell to Durfee	North Side	3	4	4	2	3	2	3	4	2	3	4	7	6
	South Side	14	13	12	8	11	9	8	8	6	10	9	9	11
TOTALS	**North Side**	**24**	**28**	**31**	**30**	**32**	**36**	**34**	**30**	**25**	**3**	**4**	**7**	**6**
	South Side	**28**	**30**	**30**	**28**	**34**	**33**	**30**	**29**	**26**	**12**	**9**	**9**	**11**
	TOTAL	**52**	**58**	**61**	**58**	**66**	**69**	**64**	**59**	**51**	**15**	**13**	**16**	**17**

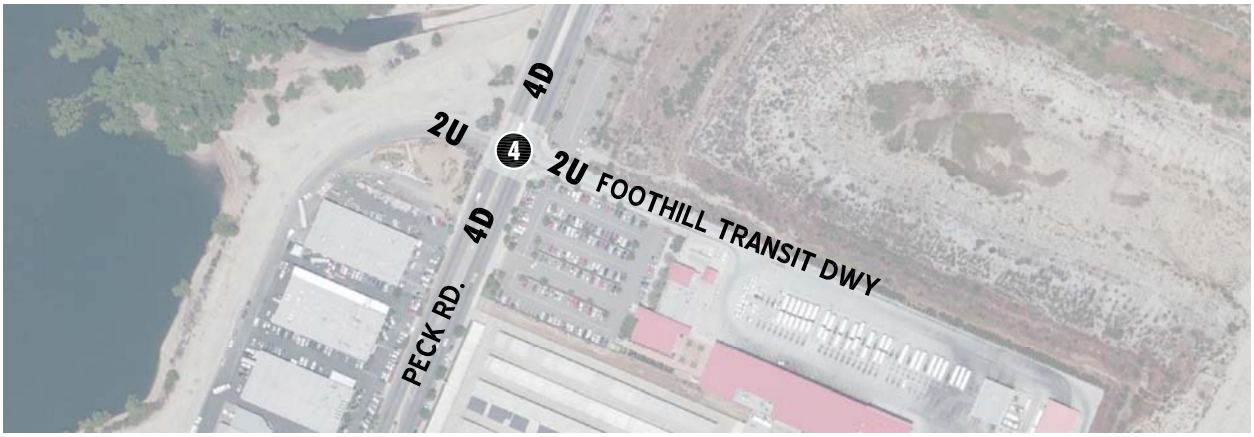
If you have any questions, please contact me directly at (949) 660-1994, extension 205.

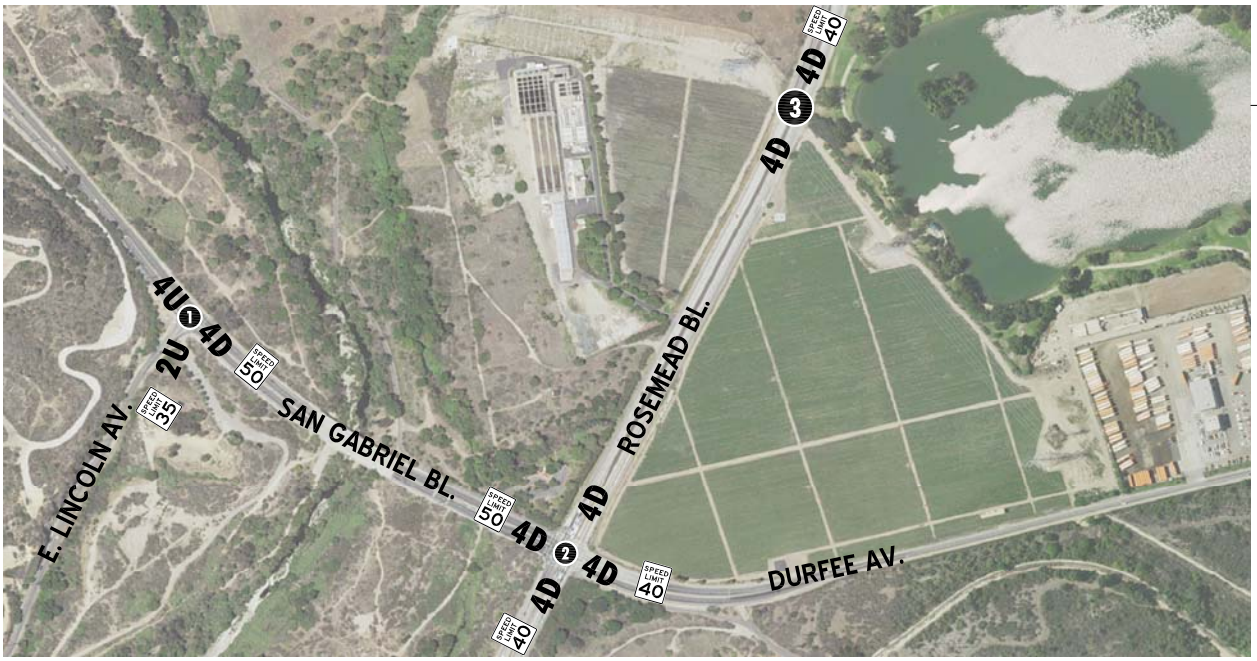
Respectfully submitted,

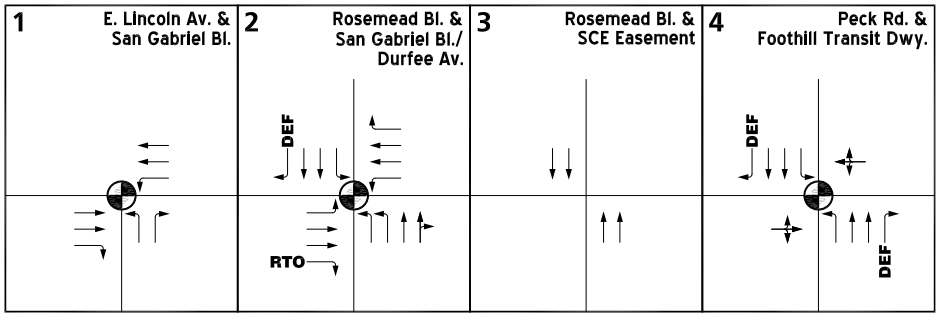
URBAN CROSSROADS, INC.

Pranesh Tarikere, PE
Senior Engineer

EXHIBIT 2: EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS





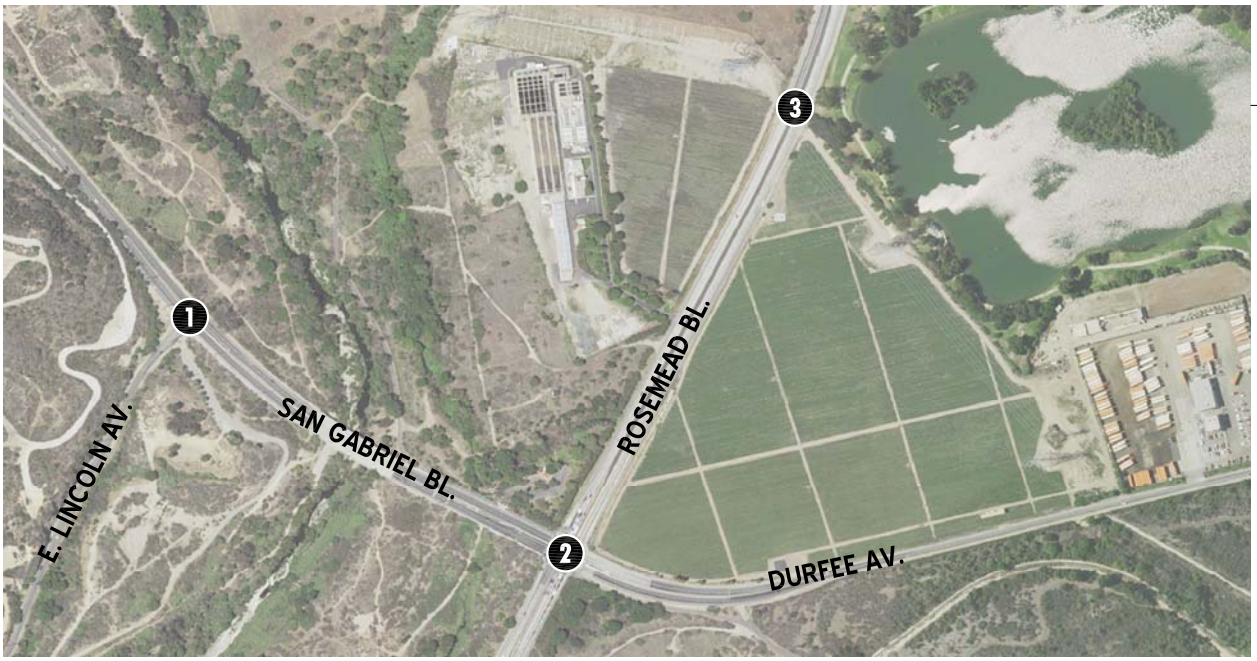


LEGEND:

- = TRAFFIC SIGNAL
- 4 = NUMBER OF LANES
- D = DIVIDED
- U = UNDIVIDED
- RTO = RIGHT TURN OVERLAP
- DEF = DEFACTO RIGHT TURN
- SPEED LIMIT 25 = SPEED LIMIT (MPH)

N

EXHIBIT 3: EXISTING TRAFFIC VOLUMES



1 E. Lincoln Av. & San Gabriel Bl.	2 Rosemead Bl. & San Gabriel Bl./ Durfee Av.	3 Rosemead Bl. & SCE Easement	4 Peck Rd. & Foothill Transit Dwy.
530/255 174/59 1344/287 153/48 80/71 309/97	109/44 1110/377 76/29 32/32 177/77 210/106 135/80 729/97 789/207 418/193 903/554 309/121	Future Intersection	5/1 915/382 14/10 13/8 0/0 13/6 17/0 0/0 13/2 1/3 994/563 10/9

LEGEND:

10(10) ▪ **WEEKDAY/SATURDAY PEAK HOUR INTERSECTION VOLUMES**

N

Project Trip Generation Summary

Land Use	ITE LU Code	Units[1]	AM Peak Hour			PM Peak Hour			Weekday Daily
			In	Out	Total	In	Out	Total	
Project Trip Generation Rates									
Passive Park[2]	AC	--	0.40	0.40	0.80	0.80	0.80	1.60	20.00

Land Use	Quantity	Units[2]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Project Trip Generation Summary									
Park	24.33	AC	10	10	19	19	19	39	487

[1] AC = Acres

[2] Trip Generation Source: (Not So) Brief Guide of Vehicular Traffic Generation Rates, April 2002 for Regional Park (Developed).

APPENDIX G
Table 4

Intersection Analysis for Existing (2016) Conditions

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (secs.)		Level of Service		Acceptable LOS
			Northbound			Southbound			Eastbound			Westbound							
			L	T	R	L	T	R	L	T	R	L	T	R	PM	Sat	PM	Sat	
1	E. Lincoln Av. / San Gabriel Bl.	TS	1	0	1	0	0	0	0	2	1	1	2	0	12.4	6.5	B	A	D
2	Rosemead Bl. / San Gabriel Bl./Durfee Av.	TS	2	2	0	1	2	d	1	2	1>	1	2	1	49.1	38.3	D	D	D
4	Peck Rd. / Foothill Transit Dwy.	TS	1	2	d	1	2	d	0	1	0	0	1	0	8.4	3.4	A	A	D

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

L = Left; T = Through; R = Right; > = Right-Turn Overlap Phasing; d= Defacto Right Turn Lane

[2] Per the 2010 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] TS = Traffic Signal

ATTACHMENT A

TRAFFIC COUNTS (2016)

APPENDIX G

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268
counts@countsunlimited.com

Location: El Monte
N/S: Lincoln Avenue
E/W: San Gabriel Blvd

Date: 4/12/2016
Day: TUESDAY
Project # 051-16206

TURNING MOVEMENT COUNT

	Lincoln Avenue Northbound				Lincoln Avenue Southbound				San Gabriel Blvd Eastbound				San Gabriel Blvd Westbound				
	NL	NT	NR	RTOR	SL	ST	SR	RTOR	EL	ET	ER	RTOR	WL	WT	WR	RTOR	TOTAL
4:00 PM	8	0	69	36	0	0	0	0	0	261	21	5	22	91	0	0	472
4:15 PM	19	0	74	35	0	0	0	0	0	315	34	8	31	115	0	0	588
4:30 PM	12	0	75	27	0	0	0	0	0	326	33	7	36	89	0	0	571
4:45 PM	14	0	84	36	0	0	0	0	0	346	37	1	54	129	0	0	664
5:00 PM	18	0	84	39	0	0	0	0	0	308	33	1	32	104	0	0	579
5:15 PM	21	0	80	22	0	0	0	0	0	353	45	7	39	136	0	0	674
5:30 PM	27	0	61	34	0	0	0	0	0	337	38	2	49	161	0	0	673
5:45 PM	21	0	72	35	0	0	0	0	0	336	28	5	31	125	0	0	613
TOTAL VOLUMES:	140	0	599	264	0	0	0	0	0	2582	269	36	294	950	0	0	4834

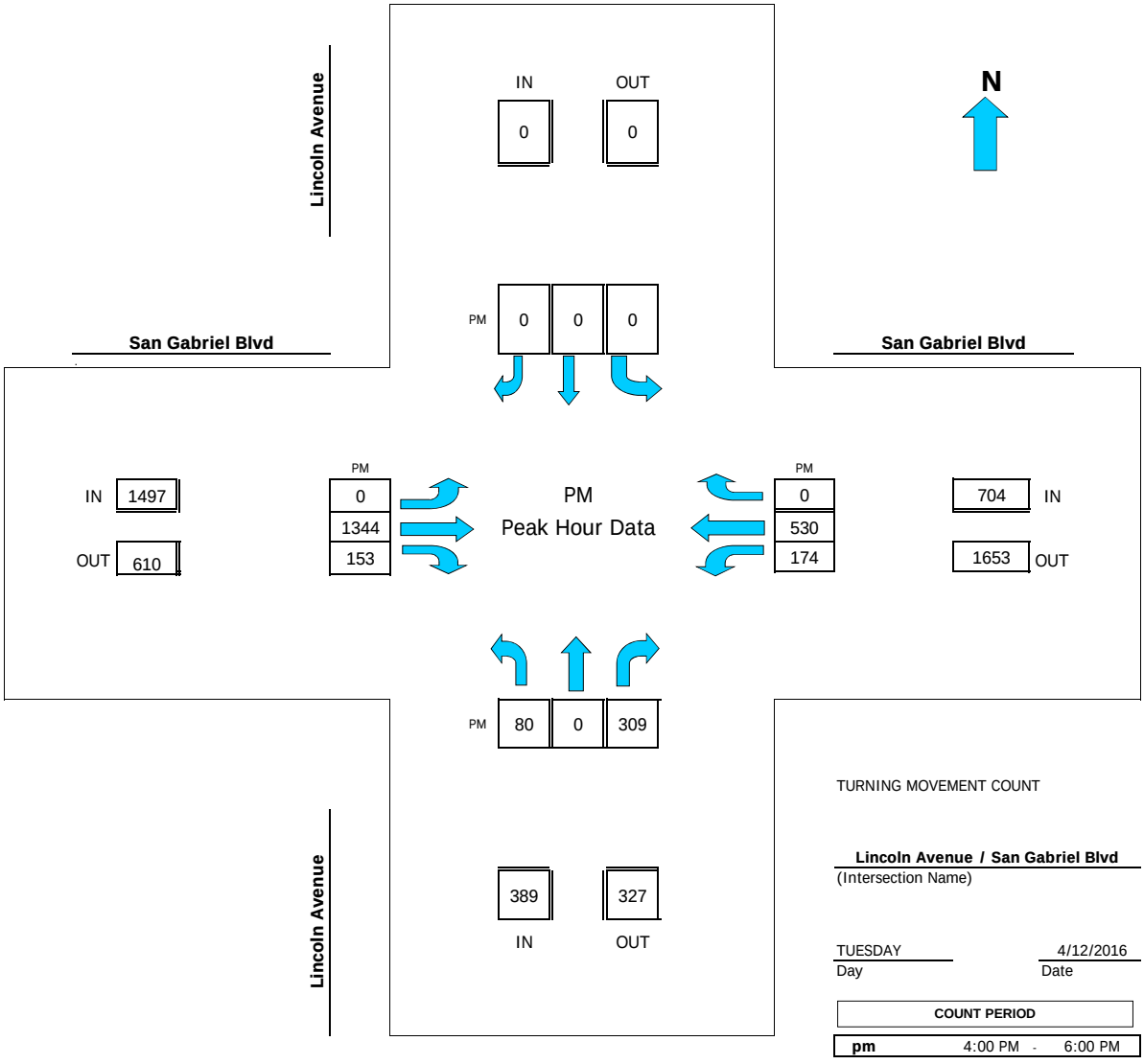
PM Peak Hr Begins at: 445 PM

	NL	NT	NR	RTOR	SL	ST	SR	RTOR	EL	ET	ER	RTOR	WL	WT	WR	RTOR	TOTAL
PEAK VOLUMES:	80	0	309	131	0	0	0	0	0	1344	153	11	174	530	0	0	2732

PEAK HR FACTOR:	0.953	0.000	0.940	0.838	0.961

APPENDIX G

Location:	El Monte	Date:	4/12/2016
N/S:	Lincoln Avenue	Day:	TUESDAY
E/W:	San Gabriel Blvd	Job #	051-16206



TURNING MOVEMENT COUNT

Lincoln Avenue / San Gabriel Blvd
(Intersection Name)

TUESDAY — Day
4/12/2016 — Date

COUNT PERIOD			
pm	4:00 PM	-	6:00 PM

PM PEAK HOUR 445 PM

APPENDIX G

Location: El Monte
N/S: Lincoln Avenue
E/W: San Gabriel Blvd

Date: 4/12/2016
Day: TUESDAY
Project # 051-16206

PEDESTRIANS

	East Leg Lincoln Avenue	West Leg San Gabriel Blvd	South Leg Lincoln Avenue	North Leg San Gabriel Blvd	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Peak Hr	445	0	0	0	0	0

APPENDIX G

Location: El Monte
N/S: Lincoln Avenue
E/W: San Gabriel Blvd

Date: 4/12/2016
Day: TUESDAY
Project # 051-16206

BICYCLES

	East Leg Lincoln Avenue	West Leg San Gabriel Blvd	South Leg Lincoln Avenue	North Leg San Gabriel Blvd	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	1	0	1	0	2
4:30 PM	1	0	1	0	2
4:45 PM	1	0	0	0	1
5:00 PM	1	0	1	0	2
5:15 PM	0	0	1	0	1
5:30 PM	5	0	1	0	6
5:45 PM	2	0	0	0	2
TOTAL VOLUMES:	11	0	5	0	16

Peak Hr	445	7	0	3	0	10

APPENDIX G

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268
counts@countsunlimited.com

Location: El Monte
N/S: Rosemead Boulevard
E/W: San Gabriel Blvd / Durfee

Date: 4/12/2016
Day: TUESDAY
Project # 051-16206

TURNING MOVEMENT COUNT

	Rosemead Boulevard Northbound				Rosemead Boulevard Southbound				San Gabriel Blvd / Durfee Ave Eastbound				San Gabriel Blvd / Durfee Ave Westbound				
	NL	NT	NR	RTOR	SL	ST	SR	RTOR	EL	ET	ER	RTOR	WL	WT	WR	RTOR	TOTAL
4:00 PM	63	204	71	15	9	216	22	14	32	124	174	60	47	24	8	7	994
4:15 PM	93	246	81	23	11	252	24	12	27	151	203	72	39	19	10	5	1156
4:30 PM	73	224	72	35	12	254	26	13	34	145	203	71	47	32	9	7	1131
4:45 PM	93	202	68	17	12	231	35	20	44	187	216	71	57	46	5	2	1196
5:00 PM	81	233	72	21	15	302	23	10	36	166	182	70	50	35	6	4	1201
5:15 PM	124	218	71	24	22	252	29	19	31	178	203	81	51	44	9	6	1232
5:30 PM	112	261	87	17	17	303	30	11	27	169	203	89	57	35	6	6	1307
5:45 PM	101	191	79	34	22	253	27	14	41	196	201	69	52	37	11	5	1211
TOTAL VOLUMES:	740	1779	601	186	120	2063	216	113	272	1316	1585	583	400	272	64	42	9428

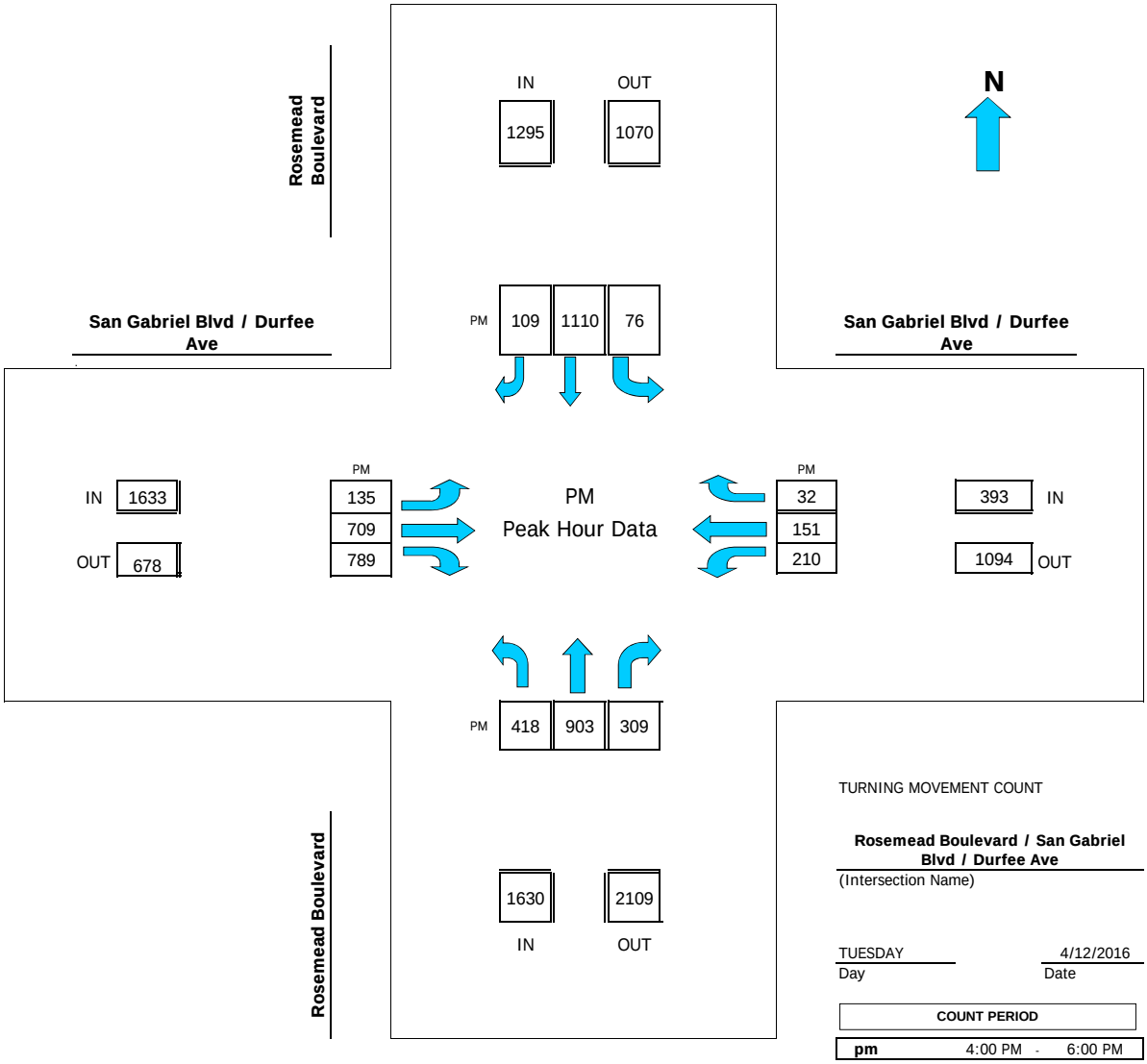
PM Peak Hr Begins at: 500 PM

	NL	NT	NR	RTOR	SL	ST	SR	RTOR	EL	ET	ER	RTOR	WL	WT	WR	RTOR	TOTAL
PEAK VOLUMES:	418	903	309	96	76	1110	109	54	135	709	789	309	210	151	32	21	5431

PEAK HR FACTOR:	0.886	0.925	0.932	0.945	0.947

APPENDIX G

Location:	El Monte	Date:	4/12/2016
N/S:	Rosemead Boulevard	Day:	TUESDAY
E/W:	San Gabriel Blvd / Durfee A	Job #	051-16206



TURNING MOVEMENT COUNT

Rosemead Boulevard / San Gabriel Blvd / Durfee Ave
(Intersection Name)

TUESDAY — Day
4/12/2016 — Date

COUNT PERIOD			
pm	4:00 PM	-	6:00 PM

PM PEAK HOUR 500 PM

APPENDIX G

Location: El Monte
N/S: Rosemead Boulevard
E/W: San Gabriel Blvd / Durfee Ave

Date: 4/12/2016
Day: TUESDAY
Project # 051-16206

PEDESTRIANS

	East Leg Rosemead Boulevard	West Leg San Gabriel Blvd / Durfee Ave	South Leg Rosemead Boulevard	North Leg San Gabriel Blvd / Durfee Ave	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	1	0	0	1
5:00 PM	0	0	0	0	0
5:15 PM	0	1	0	0	1
5:30 PM	0	0	0	0	0
5:45 PM	1	0	0	0	1
TOTAL VOLUMES:	1	2	0	0	3

Peak Hr	500	1	1	0	0	2

APPENDIX G

Location: El Monte
N/S: Rosemead Boulevard
E/W: San Gabriel Blvd / Durfee Ave

Date: 4/12/2016
Day: TUESDAY
Project # 051-16206

BICYCLES

	East Leg Rosemead Boulevard	West Leg San Gabriel Blvd / Durfee Ave	South Leg Rosemead Boulevard	North Leg San Gabriel Blvd / Durfee Ave	TOTAL
4:00 PM	2	2	2	1	7
4:15 PM	4	2	0	1	7
4:30 PM	1	2	4	1	8
4:45 PM	0	0	0	2	2
5:00 PM	1	0	2	0	3
5:15 PM	3	3	4	3	13
5:30 PM	4	3	1	1	9
5:45 PM	0	1	3	0	4
TOTAL VOLUMES:	15	13	16	9	53

Peak Hr	500	8	7	10	4	29

APPENDIX G

Counts Unlimited, Inc
PO Box 1178
Corona, CA 92878
Phone: 951-268-6268
email: counts@countsunlimited.com

City of El Monte
Peck Road
N/ Foothill Transit Driveway
24 Hour Directional Volume Count

ELMPENFO
Site Code: 051-16206

Start Time	4/12/2016 Tue	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		24	168			33	169				
12:15		20	181			21	143				
12:30		18	163			36	153				
12:45		14	171	76	683	11	183	101	648	177	1331
01:00		18	180			8	168				
01:15		9	190			7	198				
01:30		13	205			13	160				
01:45		3	213	43	788	9	177	37	703	80	1491
02:00		14	158			8	163				
02:15		13	175			10	191				
02:30		8	219			14	192				
02:45		2	223	37	775	13	**237**	45	783	82	1558
03:00		10	238			12	**208**				
03:15		8	220			9	**190**				
03:30		12	221			16	**243**				
03:45		17	219	47	898	10	222	47	863	94	1761
04:00		19	222			10	188				
04:15		24	**226**			27	224				
04:30		44	**268**			34	198				
04:45		58	**215**	145	931	39	164	110	774	255	1705
05:00		58	**279**			47	4				
05:15		51	224			40	0				
05:30		100	247			58	201				
05:45		97	227	306	977	63	231	208	436	514	1413
06:00		107	227			68	200				
06:15		108	209			90	193				
06:30		161	229			124	203				
06:45		174	151	550	816	126	170	408	766	958	1582
07:00		166	169			129	138				
07:15		**217**	153			173	145				
07:30		**274**	151			**227**	125				
07:45		**330**	142	987	615	**234**	153	763	561	1750	1176
08:00		**228**	127			**201**	128				
08:15		168	92			**234**	120				
08:30		178	84			183	131				
08:45		162	91	736	394	173	103	791	482	1527	876
09:00		151	87			151	118				
09:15		182	86			153	95				
09:30		164	62			126	104				
09:45		146	75	643	310	155	93	585	410	1228	720
10:00		150	61			137	77				
10:15		156	47			138	65				
10:30		138	44			143	64				
10:45		160	29	604	181	169	53	587	259	1191	440
11:00		150	34			133	56				
11:15		126	38			133	51				
11:30		174	32			151	38				
11:45		142	25	592	129	170	24	587	169	1179	298
Total		4766	7497	4766	7497	4269	6854	4269	6854	9035	14351
Combined Total		12263		12263		11123		11123		23386	
AM Peak	-	07:15	-	-	-	07:30	-	-	-	-	-
Vol.	-	1049	-	-	-	896	-	-	-	-	-
P.H.F.		0.795				0.957					
PM Peak	-	-	04:15	-	-	-	02:45	-	-	-	-
Vol.	-	-	988	-	-	-	878	-	-	-	-
P.H.F.			0.885				0.903				
Percentage		38.9%	61.1%			38.4%	61.6%				
ADT/AADT		ADT 23,386		AADT 23,386							

APPENDIX G

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268
counts@countsunlimited.com

Location: El Monte
N/S: Lincoln Avenue
E/W: San Gabriel Blvd

Date: 4/16/2016
Day: SATURDAY
Project # 051-16206

TURNING MOVEMENT COUNT

	Lincoln Avenue Northbound				Lincoln Avenue Southbound				San Gabriel Blvd Eastbound				San Gabriel Blvd Westbound				
	NL	NT	NR	RTOR	SL	ST	SR	RTOR	EL	ET	ER	RTOR	WL	WT	WR	RTOR	TOTAL
7:00 AM	9	0	12	11	0	0	0	0	0	39	6	2	8	31	0	0	105
7:15 AM	5	0	17	12	0	0	0	0	0	51	4	1	13	50	0	0	140
7:30 AM	12	0	18	14	0	0	0	0	0	43	5	1	12	43	0	0	133
7:45 AM	17	0	16	15	0	0	0	0	0	63	9	2	15	53	0	0	173
8:00 AM	18	0	19	14	0	0	0	0	0	52	10	1	10	49	0	0	158
8:15 AM	16	0	21	18	0	0	0	0	0	73	13	7	11	77	0	0	211
8:30 AM	24	0	28	25	0	0	0	0	0	81	12	1	19	57	0	0	221
8:45 AM	13	0	29	22	0	0	0	0	0	81	13	3	19	70	0	0	225
TOTAL VOLUMES:	114	0	160	131	0	0	0	0	0	483	72	18	107	430	0	0	1366

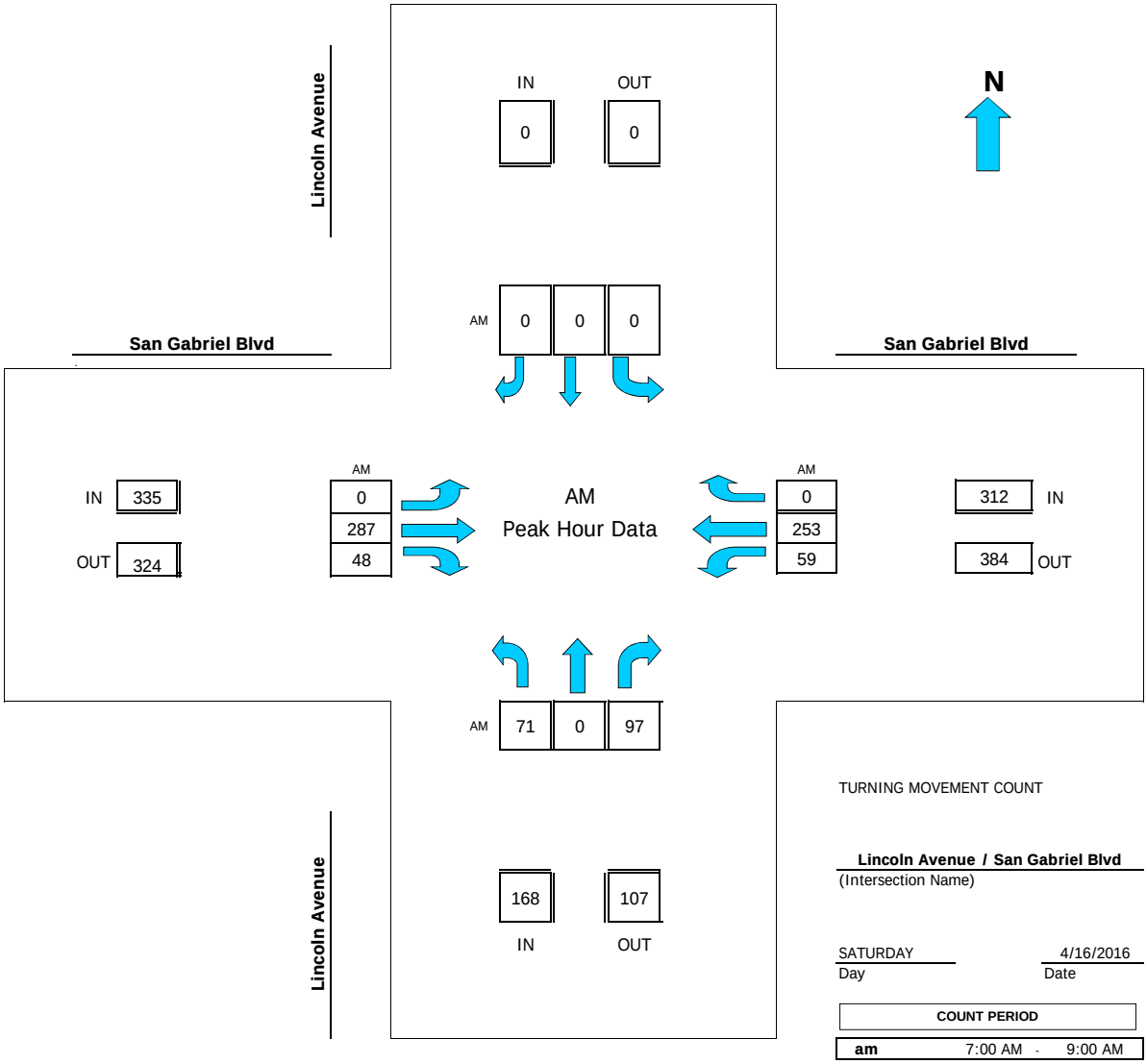
AM Peak Hr Begins at: 800 AM

	NL	NT	NR	RTOR	SL	ST	SR	RTOR	EL	ET	ER	RTOR	WL	WT	WR	RTOR	TOTAL
PEAK VOLUMES:	71	0	97	79	0	0	0	0	0	287	48	12	59	253	0	0	906

PEAK HR FACTOR:	0.808	0.000	0.891	0.876	0.906

APPENDIX G

Location:	El Monte	Date:	4/16/2016
N/S:	Lincoln Avenue	Day:	SATURDAY
E/W:	San Gabriel Blvd	Job #	051-16206



TURNING MOVEMENT COUNT

Lincoln Avenue / San Gabriel Blvd
(Intersection Name)

SATURDAY — Day
4/16/2016 — Date

COUNT PERIOD			
am	7:00 AM	-	9:00 AM

AM PEAK HOUR 800 AM

APPENDIX G

Location: El Monte
N/S: Lincoln Avenue
E/W: San Gabriel Blvd

Date: 4/16/2016
Day: SATURDAY
Project # 051-16206

PEDESTRIANS

	East Leg Lincoln Avenue	West Leg San Gabriel Blvd	South Leg Lincoln Avenue	North Leg San Gabriel Blvd	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	1	0	0	0	1
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	1	0	0	0	1

Peak Hr	800	0	0	0	0	0

APPENDIX G

Location: El Monte
N/S: Lincoln Avenue
E/W: San Gabriel Blvd

Date: 4/16/2016
Day: SATURDAY
Project # 051-16206

BICYCLES

	East Leg Lincoln Avenue	West Leg San Gabriel Blvd	South Leg Lincoln Avenue	North Leg San Gabriel Blvd	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	2	0	2
7:45 AM	0	0	0	0	0
8:00 AM	3	0	0	0	3
8:15 AM	0	0	0	0	0
8:30 AM	6	0	2	0	8
8:45 AM	15	0	0	0	15
TOTAL VOLUMES:	24	0	4	0	28

Peak Hr	800	24	0	2	0	26

APPENDIX G

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268
counts@countsunlimited.com

Location: El Monte
N/S: Rosemead Boulevard
E/W: San Gabriel Blvd / Durfee

Date: 4/16/2016
Day: SATURDAY
Project # 051-16206

TURNING MOVEMENT COUNT

	Rosemead Boulevard Northbound				Rosemead Boulevard Southbound				San Gabriel Blvd / Durfee Ave Eastbound				San Gabriel Blvd / Durfee Ave Westbound				
	NL	NT	NR	RTOR	SL	ST	SR	RTOR	EL	ET	ER	RTOR	WL	WT	WR	RTOR	TOTAL
7:00 AM	22	90	16	7	6	53	4	2	6	7	37	20	10	13	1	1	265
7:15 AM	34	109	16	6	5	70	8	4	9	15	41	25	14	17	6	3	344
7:30 AM	33	114	25	11	6	73	7	5	18	13	29	20	18	17	5	4	358
7:45 AM	48	130	21	13	6	96	9	4	10	20	49	38	29	12	5	3	435
8:00 AM	44	131	28	10	9	78	5	3	15	13	40	30	30	14	5	3	412
8:15 AM	54	134	30	8	7	96	11	3	12	28	53	40	24	18	9	9	476
8:30 AM	39	153	25	13	9	101	11	6	23	21	56	32	18	26	7	3	489
8:45 AM	56	136	38	17	4	102	17	9	30	24	58	30	34	19	11	7	529
TOTAL VOLUMES:	330	997	199	85	52	669	72	36	123	141	363	235	177	136	49	33	3308

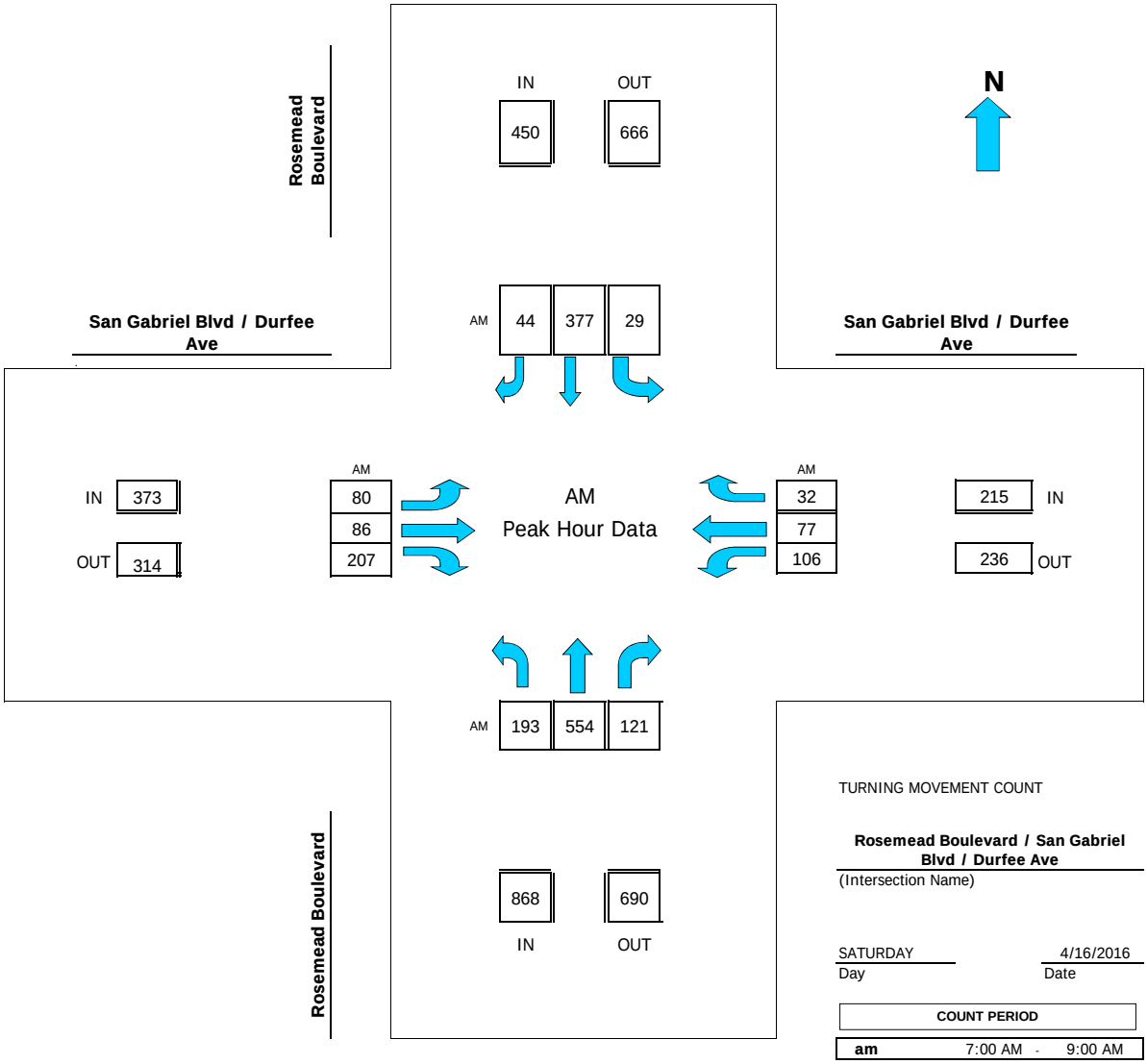
AM Peak Hr Begins at: 800 AM

	NL	NT	NR	RTOR	SL	ST	SR	RTOR	EL	ET	ER	RTOR	WL	WT	WR	RTOR	TOTAL
PEAK VOLUMES:	193	554	121	31	29	377	44	12	80	86	207	102	106	77	32	15	2066

PEAK HR FACTOR:	0.943	0.915	0.833	0.840	0.901

APPENDIX G

Location:	El Monte	Date:	4/16/2016
N/S:	Rosemead Boulevard	Day:	SATURDAY
E/W:	San Gabriel Blvd / Durfee A	Job #	051-16206



TURNING MOVEMENT COUNT

Rosemead Boulevard / San Gabriel Blvd / Durfee Ave
(Intersection Name)

SATURDAY — Day
4/16/2016 — Date

COUNT PERIOD			
am	7:00 AM	-	9:00 AM

AM PEAK HOUR 800 AM

APPENDIX G

Location: El Monte
N/S: Rosemead Boulevard
E/W: San Gabriel Blvd / Durfee Ave

Date: 4/16/2016
Day: SATURDAY
Project # 051-16206

PEDESTRIANS

	East Leg Rosemead Boulevard	West Leg San Gabriel Blvd / Durfee Ave	South Leg Rosemead Boulevard	North Leg San Gabriel Blvd / Durfee Ave	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	1	5	2	8
7:30 AM	0	0	0	12	12
7:45 AM	0	0	0	5	5
8:00 AM	0	0	0	2	2
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	5	0	0	5
TOTAL VOLUMES:	0	6	5	21	32

Peak Hr	800	0	5	0	2	7

APPENDIX G

Location: El Monte
N/S: Rosemead Boulevard
E/W: San Gabriel Blvd / Durfee Ave

Date: 4/16/2016
Day: SATURDAY
Project # 051-16206

BICYCLES

	East Leg Rosemead Boulevard	West Leg San Gabriel Blvd / Durfee Ave	South Leg Rosemead Boulevard	North Leg San Gabriel Blvd / Durfee Ave	TOTAL
7:00 AM	0	0	0	5	5
7:15 AM	2	2	6	1	11
7:30 AM	0	4	10	1	15
7:45 AM	0	1	3	5	9
8:00 AM	4	5	14	2	25
8:15 AM	1	2	11	9	23
8:30 AM	3	5	9	5	22
8:45 AM	7	2	5	24	38
TOTAL VOLUMES:	17	21	58	52	148

Peak Hr	800	15	14	39	40	108

APPENDIX G

Counts Unlimited, Inc
PO Box 1178
Corona, CA 92878
Phone: 951-268-6268
email: counts@countsunlimited.com

City of El Monte
Peck Road
N/ Foothill Transit Driveway
24 Hour Directional Volume Count

ELMPENFOSAT
Site Code: 051-16206

Start Time	4/16/2016 Sat	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		40	182			47	162				
12:15		33	194			24	175				
12:30		36	182			30	177				
12:45		27	173	136	731	44	165	145	679	281	1410
01:00		23	**227**			29	170				
01:15		24	**174**			22	146				
01:30		22	**202**			23	171				
01:45		27	**213**	96	816	20	165	94	652	190	1468
02:00		31	177			38	185				
02:15		23	179			19	157				
02:30		14	190			8	169				
02:45		14	197	82	743	11	138	76	649	158	1392
03:00		12	178			9	**180**				
03:15		8	178			8	**192**				
03:30		12	180			8	**182**				
03:45		15	168	47	704	8	**140**	33	694	80	1398
04:00		13	180			3	138				
04:15		16	157			12	165				
04:30		30	138			18	176				
04:45		18	160	77	635	23	155	56	634	133	1269
05:00		15	155			11	165				
05:15		31	164			24	138				
05:30		46	148			30	174				
05:45		45	141	137	608	42	156	107	633	244	1241
06:00		57	132			30	182				
06:15		77	140			39	165				
06:30		71	144			35	169				
06:45		84	144	289	560	49	133	153	649	442	1209
07:00		76	98			50	119				
07:15		101	111			53	145				
07:30		106	103			73	123				
07:45		137	124	420	436	98	130	274	517	694	953
08:00		128	101			98	125				
08:15		139	108			93	133				
08:30		147	96			82	139				
08:45		151	114	565	419	120	110	393	507	958	926
09:00		158	89			113	99				
09:15		151	88			124	87				
09:30		163	81			127	92				
09:45		173	83	645	341	131	95	495	373	1140	714
10:00		160	86			133	96				
10:15		171	66			145	70				
10:30		**182**	63			155	70				
10:45		**182**	56	695	271	**182**	67	615	303	1310	574
11:00		**171**	61			**166**	58				
11:15		**177**	48			**151**	69				
11:30		172	48			**158**	40				
11:45		190	37	710	194	178	48	653	215	1363	409
Total		3899	6458	3899	6458	3094	6505	3094	6505	6993	12963
Combined Total		10357		10357		9599		9599		19956	
AM Peak	-	10:30	-	-	-	10:45	-	-	-	-	-
Vol.	-	712	-	-	-	657	-	-	-	-	-
P.H.F.		0.978				0.902					
PM Peak	-	-	01:00	-	-	-	03:00	-	-	-	-
Vol.	-	-	816	-	-	-	694	-	-	-	-
P.H.F.			0.899				0.904				
Percentage		37.6%	62.4%			32.2%	67.8%				
ADT/AADT		ADT 19,956		AADT 19,956							

APPENDIX G

Counts Unlimited, Inc
PO Box 1178
Corona, CA 92878
Phone: 951-268-6268
email: counts@countsunlimited.com

City of El Monte
Rosemead Boulevard
At SCE Pathway
24 Hour Directional Volume Count

ELMROSCE
Site Code: 051-16206

Start Time	4/12/2016 Tue	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		30	168			26	176				
12:15		19	167			32	167				
12:30		20	175			20	146				
12:45		16	170	85	680	18	172	96	661	181	1341
01:00		21	210			8	167				
01:15		15	178			13	149				
01:30		16	208			15	174				
01:45		12	211	64	807	16	153	52	643	116	1450
02:00		10	229			14	184				
02:15		16	221			8	176				
02:30		13	244			9	185				
02:45		15	246	54	940	14	217	45	762	99	1702
03:00		11	222			9	238				
03:15		27	243			13	231				
03:30		27	259			22	274				
03:45		25	258	90	982	15	248	59	991	149	1973
04:00		38	249			21	296				
04:15		37	**266**			32	299				
04:30		61	**257**			42	**314**				
04:45		63	**278**	199	1050	39	**314**	134	1223	333	2273
05:00		73	**263**			40	**293**				
05:15		98	253			63	**308**				
05:30		145	253			76	310				
05:45		131	260	447	1029	101	281	280	1192	727	2221
06:00		169	253			113	257				
06:15		142	233			119	249				
06:30		210	192			156	193				
06:45		**300**	191	821	869	132	148	520	847	1341	1716
07:00		**280**	203			172	151				
07:15		**333**	138			**209**	165				
07:30		**326**	196			**201**	120				
07:45		271	148	1210	685	**176**	124	758	560	1968	1245
08:00		292	143			**187**	138				
08:15		269	145			166	103				
08:30		275	106			164	93				
08:45		226	98	1062	492	157	96	674	430	1736	922
09:00		192	127			159	70				
09:15		222	96			150	77				
09:30		185	91			137	80				
09:45		198	76	797	390	147	78	593	305	1390	695
10:00		177	70			144	63				
10:15		153	82			156	74				
10:30		158	55			150	99				
10:45		174	55	662	262	150	62	600	298	1262	560
11:00		172	50			150	74				
11:15		171	42			129	68				
11:30		161	39			190	44				
11:45		165	34	669	165	150	32	619	218	1288	383
Total		6160	8351	6160	8351	4430	8130	4430	8130	10590	16481
Combined Total		14511		14511		12560		12560		27071	
AM Peak	-	06:45	-	-	-	07:15	-	-	-	-	-
Vol.	-	1239	-	-	-	773	-	-	-	-	-
P.H.F.		0.930				0.925					
PM Peak	-	-	04:15	-	-	-	04:30	-	-	-	-
Vol.	-	-	1064	-	-	-	1229	-	-	-	-
P.H.F.			0.957				0.979				
Percentage		42.5%	57.5%			35.3%	64.7%				
ADT/AADT		ADT 27,071		AADT 27,071							

APPENDIX G

Counts Unlimited, Inc
PO Box 1178
Corona, CA 92878
Phone: 951-268-6268
email: counts@countsunlimited.com

City of El Monte
Rosemead Boulevard
At SCE Pathway
24 Hour Directional Volume Count

ELMROSCESAT
Site Code: 051-16206

Start Time	4/16/2016 Sat	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		54	193			58	174				
12:15		38	206			50	198				
12:30		48	**248**			51	200				
12:45		48	**266**	188	913	38	189	197	761	385	1674
01:00		41	**273**			26	208				
01:15		28	**260**			24	161				
01:30		30	237			24	179				
01:45		19	257	118	1027	29	207	103	755	221	1782
02:00		12	211			24	217				
02:15		31	200			22	200				
02:30		22	196			20	201				
02:45		15	211	80	818	15	**237**	81	855	161	1673
03:00		18	190			12	**200**				
03:15		20	256			25	**193**				
03:30		18	231			8	**229**				
03:45		23	254	79	931	15	194	60	816	139	1747
04:00		19	260			13	208				
04:15		20	268			23	189				
04:30		37	227			23	156				
04:45		24	249	100	1004	20	195	79	748	179	1752
05:00		35	225			27	174				
05:15		44	239			25	157				
05:30		57	217			36	180				
05:45		75	244	211	925	43	163	131	674	342	1599
06:00		63	220			37	182				
06:15		67	192			39	182				
06:30		96	192			51	207				
06:45		112	203	338	807	61	136	188	707	526	1514
07:00		102	165			74	128				
07:15		114	200			74	126				
07:30		150	163			96	116				
07:45		132	145	498	673	99	129	343	499	841	1172
08:00		145	172			90	149				
08:15		154	161			106	131				
08:30		189	133			124	124				
08:45		176	120	664	586	131	112	451	516	1115	1102
09:00		163	141			119	124				
09:15		174	130			178	102				
09:30		183	119			164	118				
09:45		165	108	685	498	158	115	619	459	1304	957
10:00		172	109			177	87				
10:15		182	102			184	104				
10:30		**233**	111			177	82				
10:45		**209**	83	796	405	156	108	694	381	1490	786
11:00		**197**	94			**185**	75				
11:15		**191**	76			**179**	82				
11:30		200	82			**174**	71				
11:45		197	80	785	332	**191**	68	729	296	1514	628
Total		4542	8919	4542	8919	3675	7467	3675	7467	8217	16386
Combined Total		13461		13461		11142		11142		24603	
AM Peak	-	10:30	-	-	-	11:00	-	-	-	-	-
Vol.	-	830	-	-	-	729	-	-	-	-	-
P.H.F.		0.891				0.954					
PM Peak	-	-	00:30	-	-	-	02:45	-	-	-	-
Vol.	-	-	1047	-	-	-	859	-	-	-	-
P.H.F.			0.959				0.906				
Percentage		33.7%	66.3%			33.0%	67.0%				
ADT/AADT		ADT 24,603		AADT 24,603							

APPENDIX G

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268
counts@countsunlimited.com

Location: El Monte
N/S: Peck Road
E/W: Foothill Transit Driveway

Date: 4/12/2016
Day: TUESDAY
Project # 051-16206

TURNING MOVEMENT COUNT

	Peck Road Northbound				Peck Road Southbound				Foothill Transit Driveway Eastbound				Foothill Transit Driveway Westbound				
	NL	NT	NR	RTOR	SL	ST	SR	RTOR	EL	ET	ER	RTOR	WL	WT	WR	RTOR	TOTAL
4:00 PM	1	203	3	0	3	208	1	0	4	0	3	2	2	0	6	5	434
4:15 PM	1	229	2	0	4	213	0	0	3	0	1	1	1	0	3	2	457
4:30 PM	0	261	3	0	4	210	2	0	8	0	7	1	6	0	4	2	505
4:45 PM	0	219	2	0	3	218	1	0	3	0	2	2	4	0	1	1	453
5:00 PM	0	270	2	0	5	249	1	0	5	0	2	1	1	0	4	3	539
5:15 PM	1	244	3	0	2	238	1	0	1	0	2	1	2	0	4	3	498
5:30 PM	1	237	4	0	5	201	1	0	5	0	12	7	5	0	3	1	474
5:45 PM	1	217	5	0	6	228	0	0	3	0	3	3	3	0	1	0	467
TOTAL VOLUMES:	5	1880	24	0	32	1765	7	0	32	0	32	18	24	0	26	17	3827

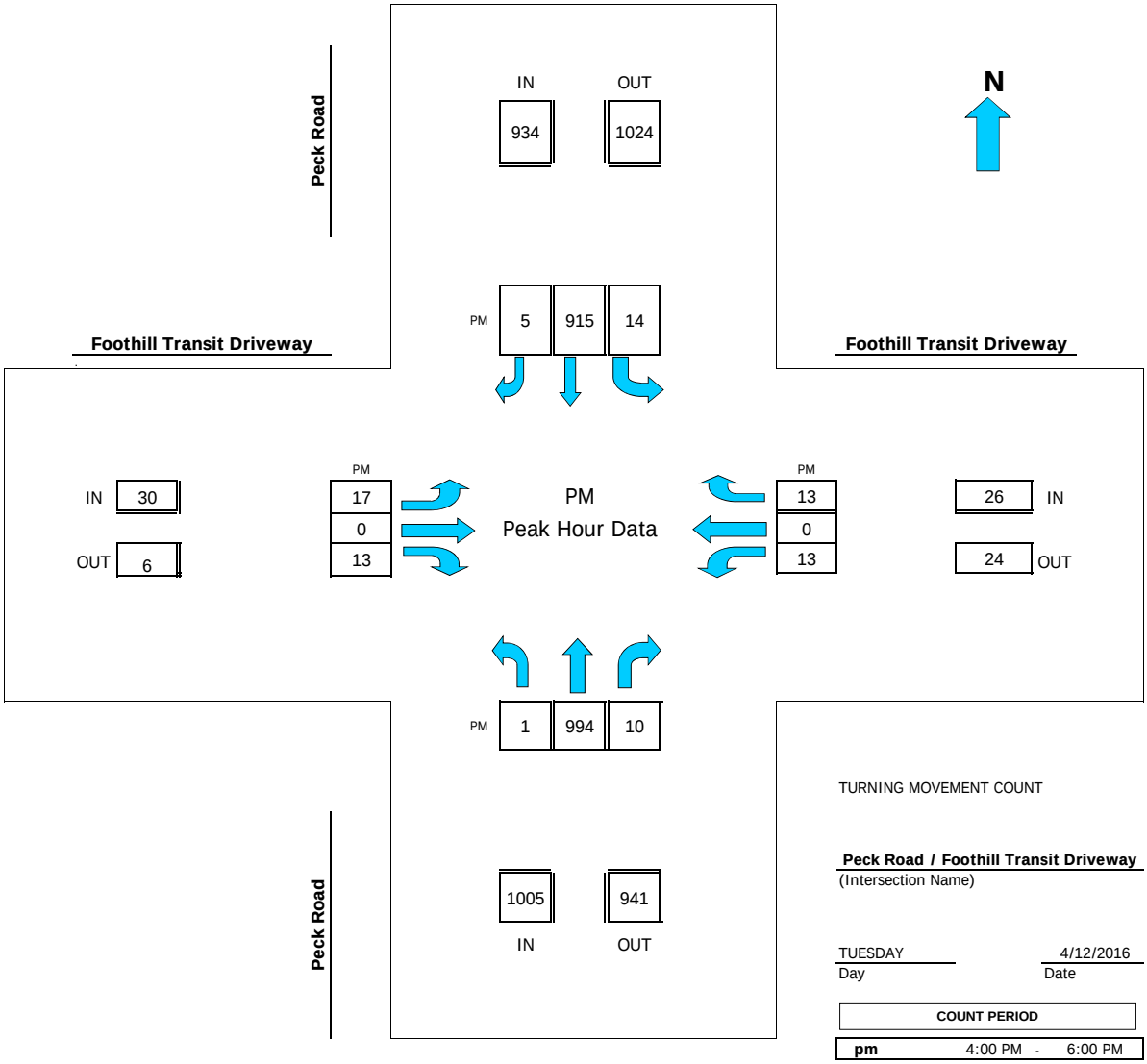
PM Peak Hr Begins at: 430 PM

	NL	NT	NR	RTOR	SL	ST	SR	RTOR	EL	ET	ER	RTOR	WL	WT	WR	RTOR	TOTAL
PEAK VOLUMES:	1	994	10	0	14	915	5	0	17	0	13	5	13	0	13	9	2009

PEAK HR FACTOR:	0.924	0.916	0.500	0.650	0.925

APPENDIX G

Location:	El Monte	Date:	4/12/2016
N/S:	Peck Road	Day:	TUESDAY
E/W:	Foothill Transit Driveway	Job #	051-16206



TURNING MOVEMENT COUNT

Peck Road / Foothill Transit Driveway
(Intersection Name)

TUESDAY — Day
4/12/2016 — Date

COUNT PERIOD			
pm	4:00 PM	-	6:00 PM

PM PEAK HOUR 430 PM

APPENDIX G

Location: El Monte
N/S: Peck Road
E/W: Foothill Transit Driveway

Date: 4/12/2016
Day: TUESDAY
Project # 051-16206

PEDESTRIANS

	East Leg Peck Road	West Leg Foothill Transit Driveway	South Leg Peck Road	North Leg Foothill Transit Driveway	TOTAL
4:00 PM	0	0	0	0	0
4:15 PM	1	2	0	0	3
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	1	1	0	0	2
5:30 PM	0	1	1	0	2
5:45 PM	1	1	0	1	3
TOTAL VOLUMES:	3	5	1	1	10

Peak Hr	430	1	1	0	0	2

APPENDIX G

Location: El Monte
N/S: Peck Road
E/W: Foothill Transit Driveway

Date: 4/12/2016
Day: TUESDAY
Project # 051-16206

BICYCLES

	East Leg Peck Road	West Leg Foothill Transit Driveway	South Leg Peck Road	North Leg Foothill Transit Driveway	TOTAL
4:00 PM	2	4	0	0	6
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	1	0	0	0	1
5:00 PM	0	1	0	0	1
5:15 PM	1	1	0	0	2
5:30 PM	2	0	0	0	2
5:45 PM	1	0	0	0	1
TOTAL VOLUMES:	7	6	0	0	13

Peak Hr	430	2	2	0	0	4

APPENDIX G

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
951-268-6268
counts@countsunlimited.com

Location: El Monte
N/S: Peck Road
E/W: Foothill Transit Driveway

Date: 4/16/2016
Day: SATURDAY
Project # 051-16206

TURNING MOVEMENT COUNT

	Peck Road Northbound				Peck Road Southbound				Foothill Transit Driveway Eastbound				Foothill Transit Driveway Westbound				
	NL	NT	NR	RTOR	SL	ST	SR	RTOR	EL	ET	ER	RTOR	WL	WT	WR	RTOR	TOTAL
7:00 AM	0	74	1	0	1	51	0	0	0	0	0	0	0	0	2	0	129
7:15 AM	0	96	0	0	3	50	0	0	0	0	0	0	0	0	3	3	152
7:30 AM	0	99	3	2	0	67	0	0	0	0	1	0	2	0	2	2	174
7:45 AM	0	134	2	0	2	102	0	0	0	0	0	0	2	0	2	2	244
8:00 AM	2	126	2	0	3	95	0	0	0	0	2	2	1	0	0	0	231
8:15 AM	1	141	3	0	5	86	0	0	0	0	0	0	2	0	2	0	240
8:30 AM	0	141	2	0	1	85	0	0	0	0	0	0	1	0	2	0	232
8:45 AM	0	155	2	0	1	116	1	0	0	0	0	0	2	0	4	4	281
TOTAL VOLUMES:	3	966	15	2	16	652	1	0	0	0	3	2	10	0	17	11	1683

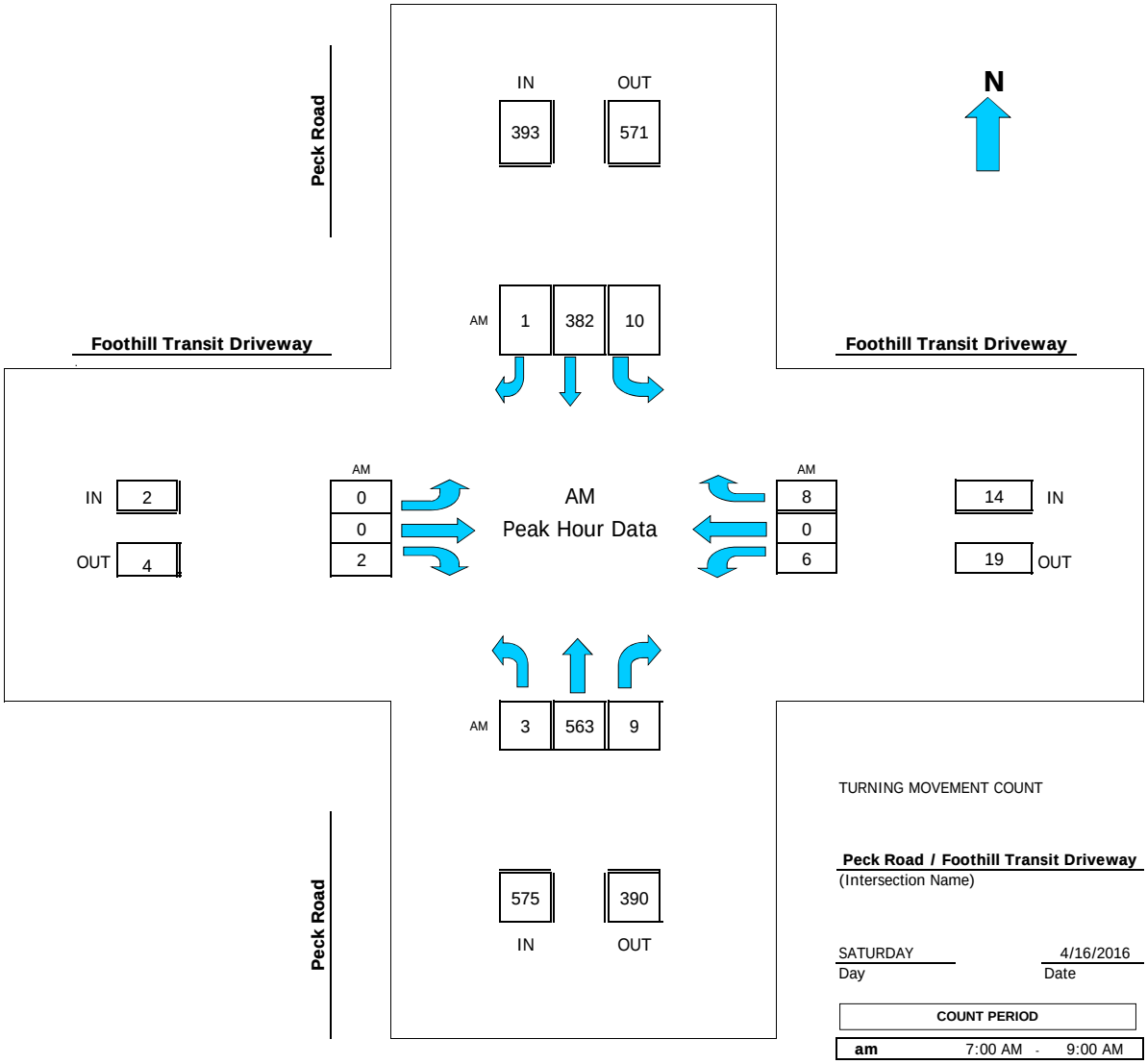
AM Peak Hr Begins at: 800 AM

	NL	NT	NR	RTOR	SL	ST	SR	RTOR	EL	ET	ER	RTOR	WL	WT	WR	RTOR	TOTAL
PEAK VOLUMES:	3	563	9	0	10	382	1	0	0	0	2	2	6	0	8	4	990

PEAK HR FACTOR:	0.916	0.833	0.250	0.583	0.875

APPENDIX G

Location:	El Monte	Date:	4/16/2016
N/S:	Peck Road	Day:	SATURDAY
E/W:	Foothill Transit Driveway	Job #	051-16206



TURNING MOVEMENT COUNT

Peck Road / Foothill Transit Driveway
(Intersection Name)

SATURDAY — Day
4/16/2016 — Date

COUNT PERIOD			
am	7:00 AM	-	9:00 AM

AM PEAK HOUR 800 AM

APPENDIX G

Location: El Monte
N/S: Peck Road
E/W: Foothill Transit Driveway

Date: 4/16/2016
Day: SATURDAY
Project # 051-16206

PEDESTRIANS

	East Leg Peck Road	West Leg Foothill Transit Driveway	South Leg Peck Road	North Leg Foothill Transit Driveway	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	1	0	0	1	2
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	1	0	0	1	2

Peak Hr	800	1	0	0	1	2

APPENDIX G

Location: El Monte
N/S: Peck Road
E/W: Foothill Transit Driveway

Date: 4/16/2016
Day: SATURDAY
Project # 051-16206

BICYCLES

	East Leg Peck Road	West Leg Foothill Transit Driveway	South Leg Peck Road	North Leg Foothill Transit Driveway	TOTAL
7:00 AM	0	0	0	0	0
7:15 AM	1	0	0	0	1
7:30 AM	0	1	0	0	1
7:45 AM	0	0	0	0	0
8:00 AM	1	0	0	0	1
8:15 AM	1	8	0	0	9
8:30 AM	1	0	0	0	1
8:45 AM	5	0	0	0	5
TOTAL VOLUMES:	9	9	0	0	18

Peak Hr	800	8	8	0	0	16

ATTACHMENT B

EXISTING (2016) INTERSECTION ANALYSIS WORKSHEETS

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1344	153	174	530	80	309
Future Volume (vph)	1344	153	174	530	80	309
Turn Type	NA	Perm	Perm	NA	Prot	Perm
Protected Phases	2			6	8	
Permitted Phases		2	6			8
Detector Phase	2	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	29.2	29.2	16.2	16.2	16.2	16.2
Total Split (s)	68.4	68.4	68.4	68.4	21.6	21.6
Total Split (%)	76.0%	76.0%	76.0%	76.0%	24.0%	24.0%
Yellow Time (s)	5.2	5.2	5.2	5.2	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	6.2	6.2	6.2	6.2	6.2
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	62.2	62.2	62.2	62.2	15.4	15.4
Actuated g/C Ratio	0.69	0.69	0.69	0.69	0.17	0.17
v/c Ratio	0.57	0.14	0.93	0.23	0.27	0.99
Control Delay	8.2	1.1	66.4	5.4	35.3	78.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.2	1.1	66.4	5.4	35.3	78.8
LOS	A	A	E	A	D	E
Approach Delay	7.5			20.4	69.9	
Approach LOS	A			C	E	

Intersection Summary	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay: 20.4	Intersection LOS: C
Intersection Capacity Utilization 70.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: E. Lincoln Av. & San Gabriel Bl.

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	1344	153	174	530	80	309
Future Volume (veh/h)	1344	153	174	530	80	309
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	1400	148	181	552	83	186
Adj No. of Lanes	2	1	1	2	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2554	1118	259	2554	249	223
Arrive On Green	0.72	0.72	0.72	0.72	0.14	0.14
Sat Flow, veh/h	3632	1549	333	3632	1774	1583
Grp Volume(v), veh/h	1400	148	181	552	83	186
Grp Sat Flow(s),veh/h/ln	1770	1549	333	1770	1774	1583
Q Serve(g_s), s	16.4	2.6	48.5	4.6	3.8	10.3
Cycle Q Clear(g_c), s	16.4	2.6	64.9	4.6	3.8	10.3
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2554	1118	259	2554	249	223
V/C Ratio(X)	0.55	0.13	0.70	0.22	0.33	0.84
Avail Cap(c_a), veh/h	2554	1118	259	2554	304	271
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.83	0.83	1.00	1.00
Uniform Delay (d), s/veh	5.8	3.9	20.9	4.1	34.9	37.7
Incr Delay (d2), s/veh	0.9	0.2	12.1	0.2	1.1	18.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	1.2	5.3	2.3	1.9	5.6
LnGrp Delay(d),s/veh	6.6	4.1	33.1	4.3	36.0	56.2
LnGrp LOS	A	A	C	A	D	E
Approach Vol, veh/h	1548			733	269	
Approach Delay, s/veh	6.4			11.4	50.0	
Approach LOS	A			B	D	

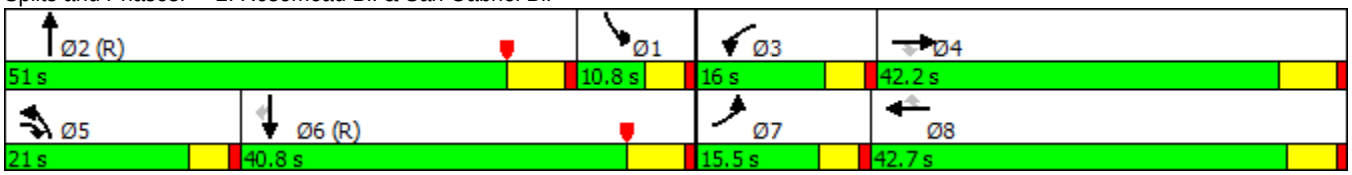
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		71.1				71.1		18.9
Change Period (Y+Rc), s		6.2				6.2		6.2
Max Green Setting (Gmax), s		62.2				62.2		15.4
Max Q Clear Time (g_c+I1), s		18.4				66.9		12.3
Green Ext Time (p_c), s		34.4				0.0		0.4

Intersection Summary	
HCM 2010 Ctrl Delay	12.4
HCM 2010 LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	135	709	789	210	151	32	418	903	76	1110	109
Future Volume (vph)	135	709	789	210	151	32	418	903	76	1110	109
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2	1	6	
Permitted Phases			4			8					6
Detector Phase	7	4	5	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	42.2	9.6	9.6	41.5	41.5	9.6	35.2	9.6	35.2	35.2
Total Split (s)	15.5	42.2	21.0	16.0	42.7	42.7	21.0	51.0	10.8	40.8	40.8
Total Split (%)	12.9%	35.2%	17.5%	13.3%	35.6%	35.6%	17.5%	42.5%	9.0%	34.0%	34.0%
Yellow Time (s)	3.6	5.2	3.6	3.6	4.5	4.5	3.6	5.2	3.6	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	4.6	4.6	5.5	5.5	4.6	6.2	4.6	6.2	6.2
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	10.8	32.1	54.0	11.4	33.4	33.4	20.3	48.7	6.2	34.6	34.6
Actuated g/C Ratio	0.09	0.27	0.45	0.10	0.28	0.28	0.17	0.41	0.05	0.29	0.29
v/c Ratio	0.89	0.79	1.07	1.32	0.16	0.06	0.76	0.91	0.88	1.15	0.22
Control Delay	102.3	47.1	79.9	220.0	32.3	0.2	57.8	43.8	122.4	116.3	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	102.3	47.1	79.9	220.0	32.3	0.2	57.8	43.8	122.4	116.3	7.1
LOS	F	D	E	F	C	A	E	D	F	F	A
Approach Delay		67.5			129.9			47.4		107.4	
Approach LOS		E			F			D		F	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 21.6 (18%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.32	
Intersection Signal Delay: 76.3	Intersection LOS: E
Intersection Capacity Utilization 104.0%	ICU Level of Service G
Analysis Period (min) 15	

Splits and Phases: 2: Rosemead Bl. & San Gabriel Bl.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	135	709	789	210	151	32	418	903	309	76	1110	109
Future Volume (veh/h)	135	709	789	210	151	32	418	903	309	76	1110	109
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.99	1.00		0.98	1.00		0.98
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	142	746	506	221	159	12	440	951	224	80	1168	58
Adj No. of Lanes	1	2	1	1	2	1	2	2	0	1	2	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	161	1055	679	169	1070	471	470	1058	249	602	2086	919
Arrive On Green	0.09	0.30	0.30	0.09	0.30	0.30	0.14	0.37	0.37	0.34	0.59	0.59
Sat Flow, veh/h	1774	3539	1553	1774	3539	1560	3442	2834	666	1774	3539	1559
Grp Volume(v), veh/h	142	746	506	221	159	12	440	593	582	80	1168	58
Grp Sat Flow(s),veh/h/ln	1774	1770	1553	1774	1770	1560	1721	1770	1731	1774	1770	1559
Q Serve(g_s), s	9.5	22.5	32.8	11.4	3.9	0.5	15.2	37.9	38.1	3.7	24.3	1.9
Cycle Q Clear(g_c), s	9.5	22.5	32.8	11.4	3.9	0.5	15.2	37.9	38.1	3.7	24.3	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.38	1.00		1.00
Lane Grp Cap(c), veh/h	161	1055	679	169	1070	471	470	661	646	602	2086	919
V/C Ratio(X)	0.88	0.71	0.75	1.31	0.15	0.03	0.94	0.90	0.90	0.13	0.56	0.06
Avail Cap(c_a), veh/h	161	1062	682	169	1097	483	470	661	646	602	2086	919
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.71	0.71	0.71	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.9	37.5	28.4	54.3	30.6	18.6	51.3	35.4	35.5	27.4	15.1	10.5
Incr Delay (d2), s/veh	29.7	1.7	3.4	175.9	0.1	0.0	25.9	17.4	18.0	0.0	1.1	0.1
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	6.0	11.2	14.7	13.8	1.9	0.2	8.9	21.6	21.3	1.8	12.2	0.8
LnGrp Delay(d),s/veh	83.6	39.2	31.9	230.2	30.7	18.6	77.1	52.8	53.5	27.4	16.2	10.6
LnGrp LOS	F	D	C	F	C	B	E	D	D	C	B	B
Approach Vol, veh/h		1394			392			1615			1306	
Approach Delay, s/veh		41.0			142.8			59.7			16.6	
Approach LOS		D			F			E			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	47.4	51.0	16.0	42.0	21.0	77.4	15.5	42.5
Change Period (Y+Rc), s	6.2	* 6.2	4.6	6.2	4.6	6.2	4.6	* 6.2
Max Green Setting (Gmax), s	6.2	* 45	11.4	36.0	16.4	34.6	10.9	* 37
Max Q Clear Time (g_c+I1), s	5.7	40.1	13.4	34.8	17.2	26.3	11.5	5.9
Green Ext Time (p_c), s	0.0	3.3	0.0	1.0	0.0	5.6	0.0	13.4

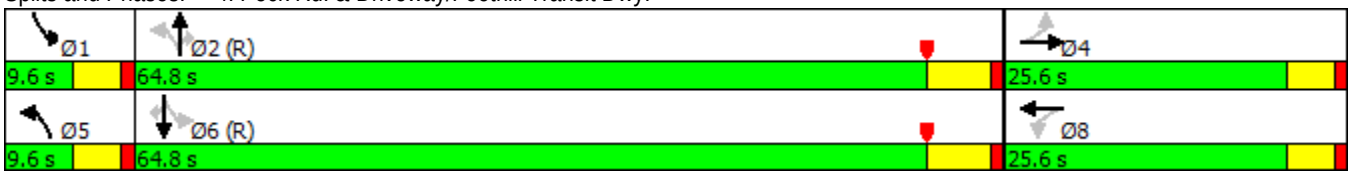
Intersection Summary	
HCM 2010 Ctrl Delay	49.1
HCM 2010 LOS	D

Notes

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	17	0	13	0	1	1994	10	14	915	5
Future Volume (vph)	17	0	13	0	1	1994	10	14	915	5
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4		8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	4	4	8	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	25.6	25.6	14.6	14.6	9.6	22.8	22.8	9.6	22.8	22.8
Total Split (s)	25.6	25.6	25.6	25.6	9.6	64.8	64.8	9.6	64.8	64.8
Total Split (%)	25.6%	25.6%	25.6%	25.6%	9.6%	64.8%	64.8%	9.6%	64.8%	64.8%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6		4.6	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag					Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)		12.2		12.2	82.6	81.7	81.7	83.5	83.6	83.6
Actuated g/C Ratio		0.12		0.12	0.83	0.82	0.82	0.84	0.84	0.84
v/c Ratio		0.13		0.11	0.00	0.74	0.01	0.09	0.33	0.00
Control Delay		1.1		0.9	4.0	11.8	0.0	4.4	4.7	0.0
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		1.1		0.9	4.0	11.8	0.0	4.4	4.7	0.0
LOS		A		A	A	B	A	A	A	A
Approach Delay		1.1		0.9		11.8			4.7	
Approach LOS		A		A		B			A	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 9.4	Intersection LOS: A
Intersection Capacity Utilization 72.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 4: Peck Rd. & Driveway/Foothill Transit Dwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	0	13	13	0	13	1	1994	10	14	915	5
Future Volume (veh/h)	17	0	13	13	0	13	1	1994	10	14	915	5
Number	7	4	14	3	8	18	5	2	12	1	6	16
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		0.98	1.00		0.98
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
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	18	0	9	14	0	4	1	2144	11	15	984	5
Adj No. of Lanes	0	1	0	0	1	0	1	2	1	1	2	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	120	11	36	140	8	24	466	2696	1180	175	2751	1204
Arrive On Green	0.07	0.00	0.07	0.07	0.00	0.07	0.00	0.76	0.76	0.02	0.78	0.78
Sat Flow, veh/h	840	161	501	1067	111	336	1774	3539	1549	1774	3539	1549
Grp Volume(v), veh/h	27	0	0	18	0	0	1	2144	11	15	984	5
Grp Sat Flow(s),veh/h/ln	1502	0	0	1514	0	0	1774	1770	1549	1774	1770	1549
Q Serve(g_s), s	0.6	0.0	0.0	0.0	0.0	0.0	0.0	36.6	0.2	0.2	8.6	0.1
Cycle Q Clear(g_c), s	1.5	0.0	0.0	0.9	0.0	0.0	0.0	36.6	0.2	0.2	8.6	0.1
Prop In Lane	0.67		0.33	0.78		0.22	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	167	0	0	172	0	0	466	2696	1180	175	2751	1204
V/C Ratio(X)	0.16	0.00	0.00	0.10	0.00	0.00	0.00	0.80	0.01	0.09	0.36	0.00
Avail Cap(c_a), veh/h	370	0	0	371	0	0	553	2696	1180	233	2751	1204
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.8	0.0	0.0	43.6	0.0	0.0	3.1	7.2	2.9	9.8	3.4	2.5
Incr Delay (d2), s/veh	0.2	0.0	0.0	0.1	0.0	0.0	0.0	2.5	0.0	0.1	0.4	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.0	0.0	0.5	0.0	0.0	0.0	18.5	0.1	0.2	4.2	0.0
LnGrp Delay(d),s/veh	44.0	0.0	0.0	43.7	0.0	0.0	3.1	9.7	2.9	9.9	3.8	2.5
LnGrp LOS	D			D			A	A	A	A	A	A
Approach Vol, veh/h		27			18			2156			1004	
Approach Delay, s/veh		44.0			43.7			9.7			3.9	
Approach LOS		D			D			A			A	

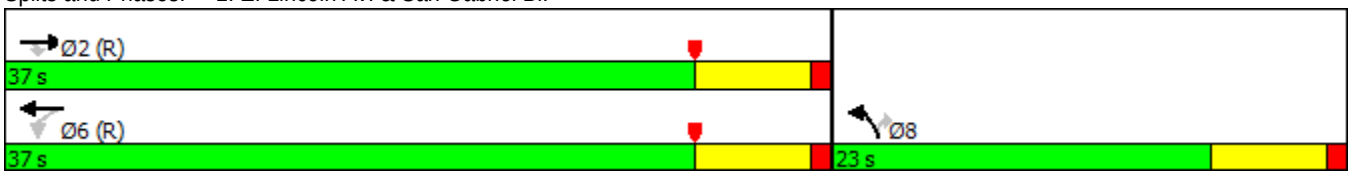
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	6.3	82.0		11.7	4.7	83.5		11.7
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6
Max Green Setting (Gmax), s	5.0	59.0		21.0	5.0	59.0		21.0
Max Q Clear Time (g_c+I1), s	2.2	38.6		3.5	2.0	10.6		2.9
Green Ext Time (p_c), s	0.0	19.7		0.1	0.0	45.2		0.1

Intersection Summary	
HCM 2010 Ctrl Delay	8.4
HCM 2010 LOS	A

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	287	48	59	255	71	97
Future Volume (vph)	287	48	59	255	71	97
Turn Type	NA	Perm	Perm	NA	Prot	Perm
Protected Phases	2			6	8	
Permitted Phases		2	6			8
Detector Phase	2	2	6	6	8	8
Switch Phase						
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	29.2	29.2	16.2	16.2	16.2	16.2
Total Split (s)	37.0	37.0	37.0	37.0	23.0	23.0
Total Split (%)	61.7%	61.7%	61.7%	61.7%	38.3%	38.3%
Yellow Time (s)	5.2	5.2	5.2	5.2	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	6.2	6.2	6.2	6.2	6.2
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	C-Max	C-Max	C-Max	C-Max	None	None
Act Effct Green (s)	41.7	41.7	41.7	41.7	10.4	10.4
Actuated g/C Ratio	0.70	0.70	0.70	0.70	0.17	0.17
v/c Ratio	0.13	0.05	0.09	0.11	0.25	0.30
Control Delay	4.6	1.8	5.3	4.6	23.7	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.6	1.8	5.3	4.6	23.7	7.9
LOS	A	A	A	A	C	A
Approach Delay	4.2			4.7	14.5	
Approach LOS	A			A	B	

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.30	
Intersection Signal Delay: 6.5	Intersection LOS: A
Intersection Capacity Utilization 40.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 1: E. Lincoln Av. & San Gabriel Bl.



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	287	48	59	255	71	97
Future Volume (veh/h)	287	48	59	255	71	97
Number	2	12	1	6	3	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		0.98	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	315	40	65	280	78	20
Adj No. of Lanes	2	1	1	2	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2333	1022	760	2333	238	212
Arrive On Green	0.66	0.66	0.66	0.66	0.13	0.13
Sat Flow, veh/h	3632	1550	1022	3632	1774	1583
Grp Volume(v), veh/h	315	40	65	280	78	20
Grp Sat Flow(s),veh/h/ln	1770	1550	1022	1770	1774	1583
Q Serve(g_s), s	2.0	0.5	1.5	1.8	2.4	0.7
Cycle Q Clear(g_c), s	2.0	0.5	3.5	1.8	2.4	0.7
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	2333	1022	760	2333	238	212
V/C Ratio(X)	0.14	0.04	0.09	0.12	0.33	0.09
Avail Cap(c_a), veh/h	2333	1022	760	2333	497	443
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.92	0.92	1.00	1.00
Uniform Delay (d), s/veh	3.8	3.6	4.5	3.8	23.5	22.8
Incr Delay (d2), s/veh	0.1	0.1	0.2	0.1	1.1	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.3	0.5	0.9	1.2	0.3
LnGrp Delay(d),s/veh	3.9	3.6	4.7	3.9	24.7	23.1
LnGrp LOS	A	A	A	A	C	C
Approach Vol, veh/h	355			345	98	
Approach Delay, s/veh	3.9			4.0	24.3	
Approach LOS	A			A	C	

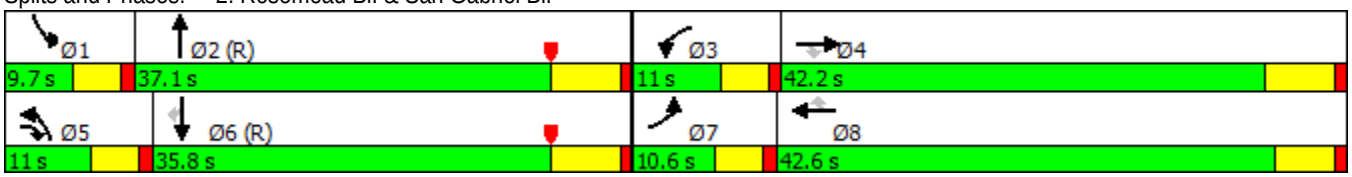
Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		45.8				45.8		14.2
Change Period (Y+Rc), s		6.2				6.2		6.2
Max Green Setting (Gmax), s		30.8				30.8		16.8
Max Q Clear Time (g_c+I1), s		4.0				5.5		4.4
Green Ext Time (p_c), s		5.8				5.7		0.3

Intersection Summary	
HCM 2010 Ctrl Delay	6.5
HCM 2010 LOS	A

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	80	97	207	106	77	32	193	554	29	377	44
Future Volume (vph)	80	97	207	106	77	32	193	554	29	377	44
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	Prot	NA	Perm
Protected Phases	7	4	5	3	8		5	2	1	6	
Permitted Phases			4			8					6
Detector Phase	7	4	5	3	8	8	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	10.0	5.0	5.0	10.0	10.0	5.0	10.0	5.0	10.0	10.0
Minimum Split (s)	9.6	42.2	9.6	9.6	41.5	41.5	9.6	35.2	9.6	35.2	35.2
Total Split (s)	10.6	42.2	11.0	11.0	42.6	42.6	11.0	37.1	9.7	35.8	35.8
Total Split (%)	10.6%	42.2%	11.0%	11.0%	42.6%	42.6%	11.0%	37.1%	9.7%	35.8%	35.8%
Yellow Time (s)	3.6	5.2	3.6	3.6	4.5	4.5	3.6	5.2	3.6	5.2	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	4.6	4.6	5.5	5.5	4.6	6.2	4.6	6.2	6.2
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	C-Max	C-Max
Act Effct Green (s)	9.3	15.3	27.3	6.4	16.1	16.1	10.5	54.9	5.7	46.3	46.3
Actuated g/C Ratio	0.09	0.15	0.27	0.06	0.16	0.16	0.10	0.55	0.06	0.46	0.46
v/c Ratio	0.54	0.20	0.43	1.04	0.15	0.10	0.60	0.40	0.32	0.26	0.06
Control Delay	60.2	35.5	10.9	144.5	33.8	0.6	51.5	16.2	53.7	18.6	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.2	35.5	10.9	144.5	33.8	0.6	51.5	16.2	53.7	18.6	0.2
LOS	E	D	B	F	C	A	D	B	D	B	A
Approach Delay		27.4			83.2			24.0		19.1	
Approach LOS		C			F			C		B	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.04	
Intersection Signal Delay: 30.2	Intersection LOS: C
Intersection Capacity Utilization 56.9%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 2: Rosemead Bl. & San Gabriel Bl.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	97	207	106	77	32	193	554	121	29	377	44
Future Volume (veh/h)	80	97	207	106	77	32	193	554	121	29	377	44
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	1.00		0.91	1.00		0.98	1.00		0.98
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
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1863	1863	1863	1863	1900	1863	1863	1863
Adj Flow Rate, veh/h	89	108	117	118	86	19	214	616	100	32	419	36
Adj No. of Lanes	1	2	1	1	2	1	2	2	0	1	2	1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	106	430	278	114	444	181	220	1731	280	52	1892	829
Arrive On Green	0.06	0.12	0.12	0.06	0.13	0.13	0.06	0.57	0.57	0.03	0.53	0.53
Sat Flow, veh/h	1774	3539	1451	1774	3539	1446	3442	3042	493	1774	3539	1551
Grp Volume(v), veh/h	89	108	117	118	86	19	214	358	358	32	419	36
Grp Sat Flow(s),veh/h/ln	1774	1770	1451	1774	1770	1446	1721	1770	1765	1774	1770	1551
Q Serve(g_s), s	5.0	2.8	7.1	6.4	2.2	1.2	6.2	10.9	11.0	1.8	6.3	1.1
Cycle Q Clear(g_c), s	5.0	2.8	7.1	6.4	2.2	1.2	6.2	10.9	11.0	1.8	6.3	1.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.28	1.00		1.00
Lane Grp Cap(c), veh/h	106	430	278	114	444	181	220	1007	1005	52	1892	829
V/C Ratio(X)	0.84	0.25	0.42	1.04	0.19	0.10	0.97	0.36	0.36	0.61	0.22	0.04
Avail Cap(c_a), veh/h	106	1274	624	114	1313	536	220	1007	1005	90	1892	829
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.5	39.8	36.1	46.8	39.2	38.7	46.7	11.6	11.6	48.0	12.3	11.1
Incr Delay (d2), s/veh	39.1	0.4	1.4	95.4	0.3	0.4	52.1	1.0	1.0	4.3	0.3	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.6	1.4	3.0	6.1	1.1	0.5	4.5	5.5	5.5	0.9	3.1	0.5
LnGrp Delay(d),s/veh	85.6	40.2	37.5	142.8	39.5	39.1	98.8	12.6	12.6	52.2	12.6	11.2
LnGrp LOS	F	D	D	F	D	D	F	B	B	D	B	B
Approach Vol, veh/h		314			223			930			487	
Approach Delay, s/veh		52.1			94.1			32.5			15.1	
Approach LOS		D			F			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.5	63.1	11.0	18.3	11.0	59.7	10.6	18.7
Change Period (Y+Rc), s	4.6	6.2	4.6	6.2	4.6	6.2	4.6	* 6.2
Max Green Setting (Gmax), s	5.1	30.9	6.4	36.0	6.4	29.6	6.0	* 37
Max Q Clear Time (g_c+I1), s	3.8	13.0	8.4	9.1	8.2	8.3	7.0	4.2
Green Ext Time (p_c), s	0.0	8.6	0.0	2.3	0.0	9.4	0.0	2.4

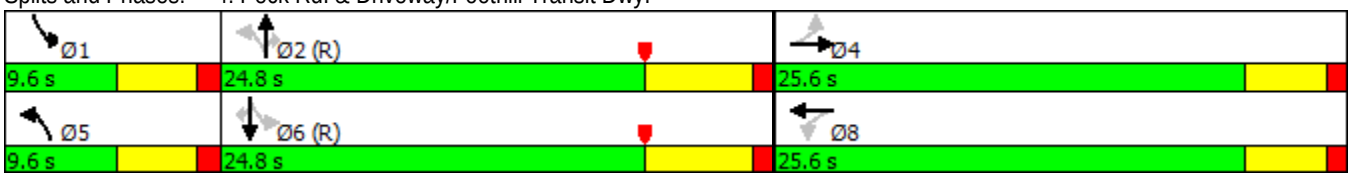
Intersection Summary	
HCM 2010 Ctrl Delay	38.3
HCM 2010 LOS	D

Notes

Lane Group	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	0	6	0	3	563	9	10	382	1
Future Volume (vph)	0	6	0	3	563	9	10	382	1
Turn Type	NA	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	4		8	5	2		1	6	
Permitted Phases		8		2		2	6		6
Detector Phase	4	8	8	5	2	2	1	6	6
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	25.6	14.6	14.6	9.6	22.8	22.8	9.6	22.8	22.8
Total Split (s)	25.6	25.6	25.6	9.6	24.8	24.8	9.6	24.8	24.8
Total Split (%)	42.7%	42.7%	42.7%	16.0%	41.3%	41.3%	16.0%	41.3%	41.3%
Yellow Time (s)	3.6	3.6	3.6	3.6	4.8	4.8	3.6	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6		4.6	4.6	5.8	5.8	4.6	5.8	5.8
Lead/Lag				Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?				Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	12.2		12.2	49.4	51.8	51.8	49.4	51.8	51.8
Actuated g/C Ratio	0.20		0.20	0.82	0.86	0.86	0.82	0.86	0.86
v/c Ratio	0.00		0.04	0.00	0.21	0.01	0.02	0.14	0.00
Control Delay	0.0		0.2	5.0	5.4	0.0	4.5	5.1	0.0
Queue Delay	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	0.0		0.2	5.0	5.4	0.0	4.5	5.1	0.0
LOS	A		A	A	A	A	A	A	A
Approach Delay	0.0		0.2		5.3			5.1	
Approach LOS	A		A		A			A	

Intersection Summary	
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.21	
Intersection Signal Delay: 5.1	Intersection LOS: A
Intersection Capacity Utilization 39.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 4: Peck Rd. & Driveway/Foothill Transit Dwy.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	2	6	0	8	3	563	9	10	382	1
Future Volume (veh/h)	0	0	2	6	0	8	3	563	9	10	382	1
Number	7	4	14	3	8	18	5	2	12	1	6	16
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		0.98	1.00		0.98
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
Adj Sat Flow, veh/h/ln	1900	1863	1900	1900	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	0	0	0	7	0	4	3	640	10	11	434	1
Adj No. of Lanes	0	1	0	0	1	0	1	2	1	1	2	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	52	0	124	0	15	772	2506	1093	646	2541	1109
Arrive On Green	0.00	0.00	0.00	0.03	0.00	0.03	0.00	0.71	0.71	0.01	0.72	0.72
Sat Flow, veh/h	0	1863	0	935	0	534	1774	3539	1544	1774	3539	1545
Grp Volume(v), veh/h	0	0	0	11	0	0	3	640	10	11	434	1
Grp Sat Flow(s),veh/h/ln	0	1863	0	1469	0	0	1774	1770	1544	1774	1770	1545
Q Serve(g_s), s	0.0	0.0	0.0	0.4	0.0	0.0	0.0	3.9	0.1	0.1	2.4	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.4	0.0	0.0	0.0	3.9	0.1	0.1	2.4	0.0
Prop In Lane	0.00		0.00	0.64		0.36	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	0	52	0	139	0	0	772	2506	1093	646	2541	1109
V/C Ratio(X)	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.26	0.01	0.02	0.17	0.00
Avail Cap(c_a), veh/h	0	652	0	612	0	0	912	2506	1093	769	2541	1109
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	28.6	0.0	0.0	2.5	3.1	2.6	2.5	2.7	2.4
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.0	0.1	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	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.2	0.0	0.0	0.0	2.0	0.1	0.0	1.2	0.0
LnGrp Delay(d),s/veh	0.0	0.0	0.0	28.7	0.0	0.0	2.5	3.4	2.6	2.5	2.9	2.4
LnGrp LOS				C			A	A	A	A	A	A
Approach Vol, veh/h		0			11			653			446	
Approach Delay, s/veh		0.0			28.7			3.4			2.9	
Approach LOS					C			A			A	

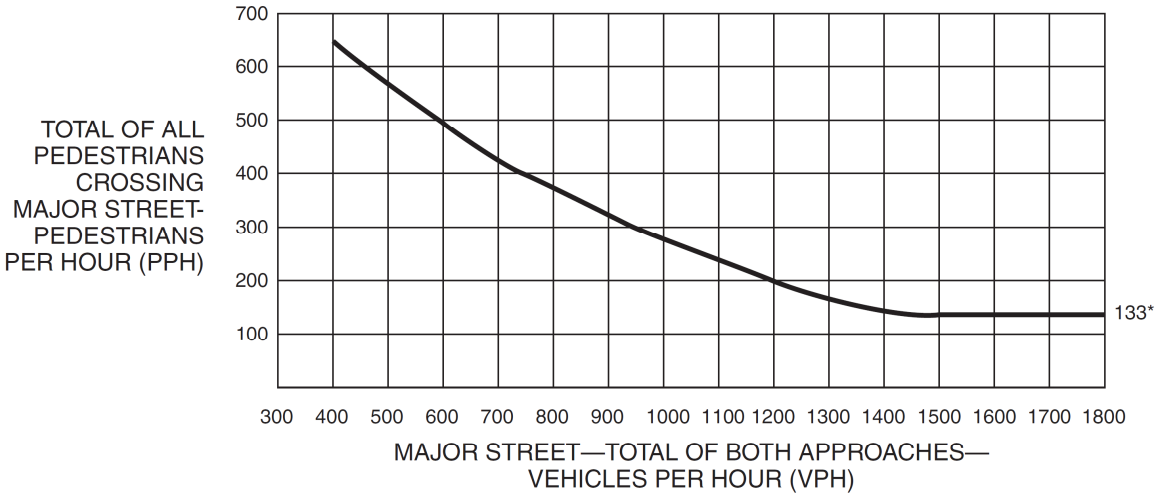
Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	5.4	48.3		6.3	4.8	48.9		6.3
Change Period (Y+Rc), s	4.6	5.8		4.6	4.6	5.8		4.6
Max Green Setting (Gmax), s	5.0	19.0		21.0	5.0	19.0		21.0
Max Q Clear Time (g_c+I1), s	2.1	5.9		0.0	2.0	4.4		2.4
Green Ext Time (p_c), s	0.0	7.0		0.0	0.0	7.5		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	3.4
HCM 2010 LOS	A

ATTACHMENT C

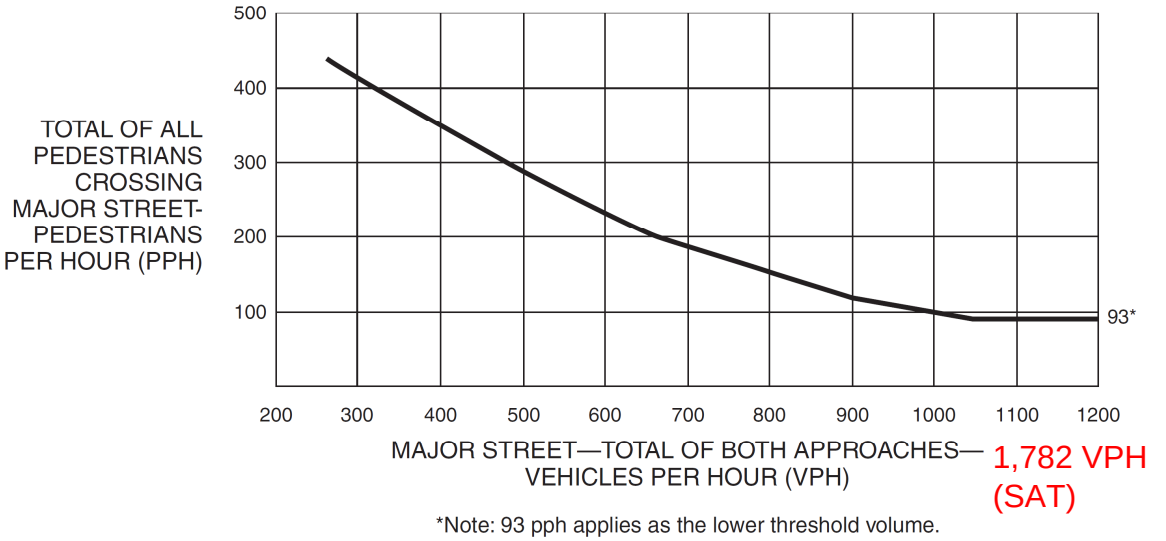
MID-BLOCK CROSSING TRAFFIC SIGNAL WARRANT WORKSHEETS

Figure 4C-7. Warrant 4, Pedestrian Peak Hour



*Note: 133 pph applies as the lower threshold volume.

Figure 4C-8. Warrant 4, Pedestrian Peak Hour (70% Factor)

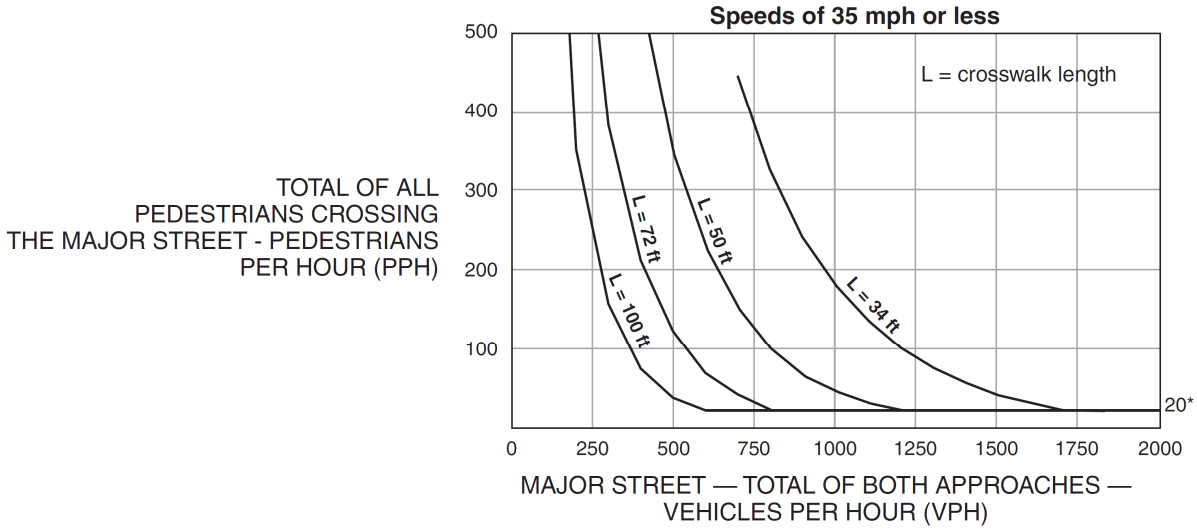


1,782 VPH (SAT)

*Note: 93 pph applies as the lower threshold volume.

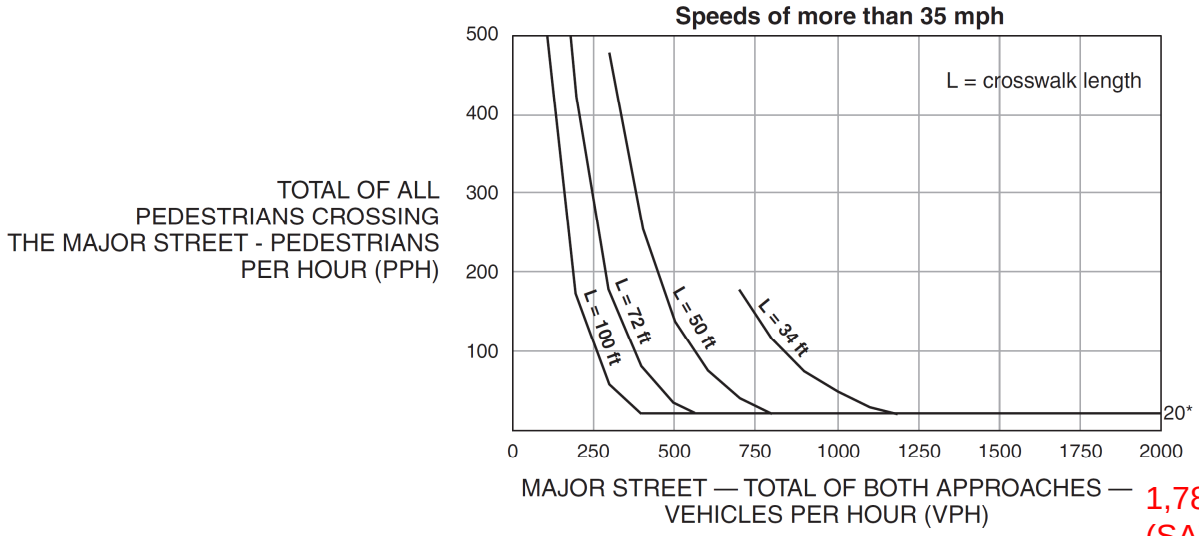
2,273 VPH (Weekday)

Figure 4F-1. Guidelines for the Installation of Pedestrian Hybrid Beacons on Low-Speed Roadways



* Note: 20 pph applies as the lower threshold volume

Figure 4F-2. Guidelines for the Installation of Pedestrian Hybrid Beacons on High-Speed Roadways



* Note: 20 pph applies as the lower threshold volume

1,782 VPH (SAT)

2,272 VPH (Weekday)

ATTACHMENT D

PARKING SURVEY DATA

APPENDIX G

Parking Survey

Location: Clark Street - El Monte, CA
Date: 4/12/2016

		7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00
Clark Street Foothill Transit DW to Varus	North Side	0	0	0	0	0	0	0	1	0	0	0	0	0
	South Side	0	0	0	1	0	0	0	1	0	0	0	2	0
Clark Street Varus to Cogswell	North Side	0	0	0	0	0	0	0	0	0	0	0	0	0
	South Side	0	0	0	0	0	0	0	0	0	0	1	0	0
Clark Street Cogswell to Durfee	North Side	2	2	4	5	5	3	6	5	5	5	3	1	1
	South Side	12	8	10	7	6	6	6	6	7	10	9	9	11
TOTALS	**North Side**	**2**	**2**	**4**	**5**	**5**	**3**	**6**	**6**	**5**	**5**	**3**	**1**	**1**
	South Side	**12**	**8**	**10**	**8**	**6**	**6**	**6**	**7**	**7**	**10**	**10**	**11**	**11**
	TOTAL	**14**	**10**	**14**	**13**	**11**	**9**	**12**	**13**	**12**	**15**	**13**	**12**	**12**

Location: Clark Street - El Monte, CA
Date: 4/16/2016

		7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00
Clark Street Foothill Transit DW to Varus	North Side	21	24	27	27	29	34	31	26	23	0	0	0	0
	South Side	14	17	18	20	23	24	21	21	20	2	0	0	0
Clark Street Varus to Cogswell	North Side	0	0	0	1	0	0	0	0	0	0	0	0	0
	South Side	0	0	0	0	0	0	1	0	0	0	0	0	0
Clark Street Cogswell to Durfee	North Side	3	4	4	2	3	2	3	4	2	3	4	7	6
	South Side	14	13	12	8	11	9	8	8	6	10	9	9	11
TOTALS	**North Side**	**24**	**28**	**31**	**30**	**32**	**36**	**34**	**30**	**25**	**3**	**4**	**7**	**6**
	South Side	**28**	**30**	**30**	**28**	**34**	**33**	**30**	**29**	**26**	**12**	**9**	**9**	**11**
	TOTAL	**52**	**58**	**61**	**58**	**66**	**69**	**64**	**59**	**51**	**15**	**13**	**16**	**17**