CITY OF ALBUQUERQUE

May 4, 2016

Nevin K. Harwick, P.E.
Harwick Transportation Group, Inc.
1440 Camino Cerrito SE
Albuquerque, NM 87123

Re: Legacy NAA Developments
North East Corner of Alameda and San Pedro
Traffic Impact Study
Engineer's Stamp dated 04-19-16 (C18-D064B)

Dear Mr. Harwick,

The subject Traffic Impact Study received on April 19, 2016 has been reviewed and approved by the Transportation Development Section. All comments have been adequately addressed.

The final Traffic Impact Study shall be valid for a period of three years. Should significant modifications to the approved development proposal occur, the approved study shall be revised to incorporate the changes.

If you have any questions, please feel free to contact me at (505) 924-3991.

Sincerely,

Racquel M. Michel, P.E.
Traffic Engineer, Planning Dept.
Development Review Services

via: email
C: Applicant, File

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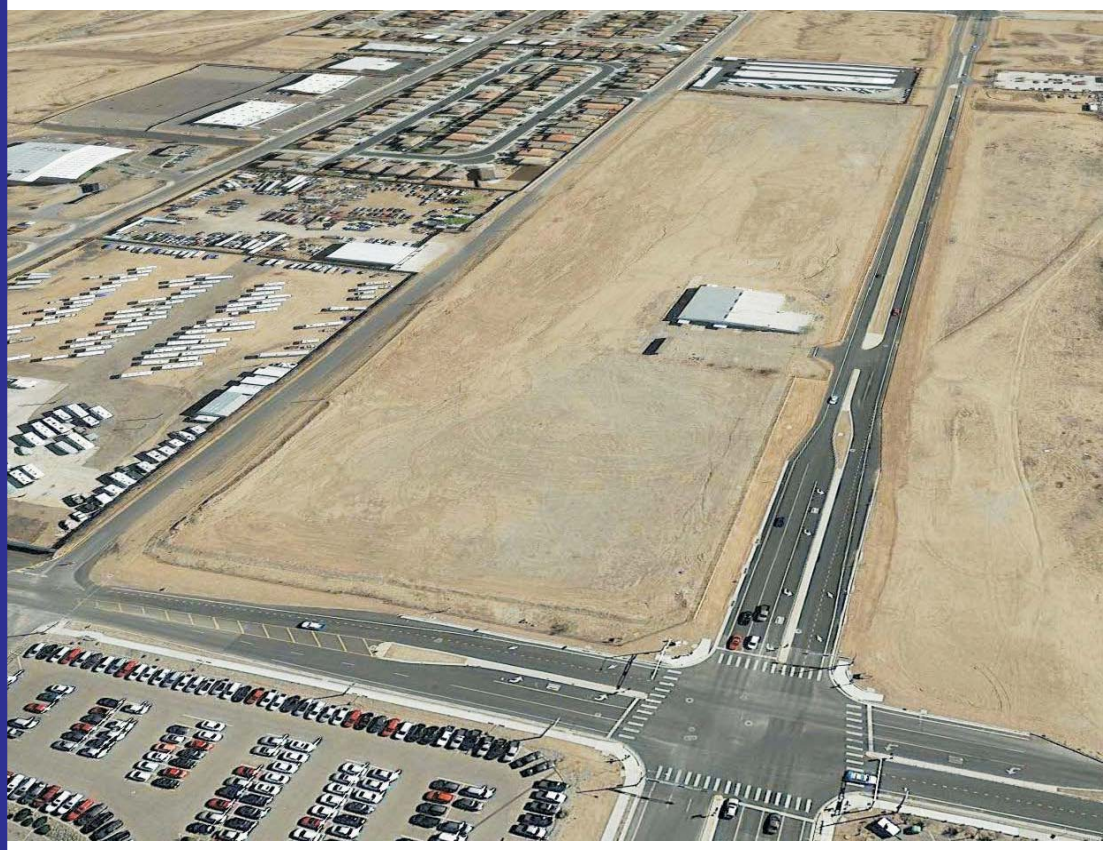
Legacy NAA Developments

Traffic Impact Study



April 15, 2016

Traffic Impact Study

Legacy NAA Developments

Prepared For:

City of Albuquerque

Study Prepared By:

Harwick Transportation Group, Inc.
1440 Camino Cerrito SE
Albuquerque, NM 87123

April 15, 2016

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Acronyms

AASHTO	American Association of State Highway and Transportation Officials
AADT	Annual Average Daily Traffic
AAWDT	Annual Average Weekday Traffic
g/C	Green time per signal Cycle length
HCM	Highway Capacity Manual
HTG	Harwick Transportation Group
ITE	Institute of Transportation Engineers
MRCOG	Mid-Region Council of Governments
mph	Miles per Hour
MTP	Metropolitan Transportation Plan (current document for year 2025)
MUTCD	Manual on Uniform Traffic Control Devices
NMDOT	New Mexico Department of Transportation
pcphpl	Passenger cars per hour per lane
PHF	Peak Hour Factor
v/c	Volume to Capacity ratio
vpd	Vehicles per Day
vph	Vehicles per Hour

1.0 INTRODUCTION

This traffic impact study has been prepared for the proposed Legacy NAA Retail and Apartment Developments located in the northeast quadrant of the San Pedro Blvd-Alameda Blvd intersection in the City of Albuquerque (see the Vicinity Map in Appendix A). The 15.86 acre development will include independent apartment and retail land uses. The apartment complex will include 232 multifamily units. The retail development proposes 30,250 SF, with 25,250 SF of general retail, a high turnover restaurant and a service station with convenience market.

The purpose of the study is to identify any impacts that the development will have on the surrounding roadway network and to develop mitigation recommendations for those impacts. The study has been conducted in accordance with the City of Albuquerque Traffic Impact Study standards. A scoping meeting was held with City transportation development staff on August 17, 2015 and a follow up meeting held on November 23, 2015. A summary of the meeting highlights include:

1. The trip generation for the site will use ITE Trip Generation, 9th edition. Retail trips will be reduced for distribution to study area intersections based upon the ITE *Trip Generation Handbook*. The percentages will be those percentages from ITE rounded down to the nearest 10%. No pass-by reduction will be applied to residential trips and no pass-by percentage will be applied to site driveways.
2. The existing study area intersections to evaluate include:
    1. Alameda Blvd @ I-25 SB Ramp
    2. Alameda Blvd @ I-25 NB Ramp
    3. Alameda Blvd @ San Pedro Dr
    4. Alameda Blvd @ Louisiana Blvd
    5. Paseo del Norte @ San Pedro Dr
    6. Oakland Ave @ San Pedro Dr
    7. Oakland Ave @ Louisiana Blvd
    8. Eagle Rock Ave @ San Pedro Dr
3. All site driveways will be evaluated.
4. The trip distribution boundaries were determined to be the entire AMPA for residential trips and a 3+-mile radius for retail trips.
5. The basis of the trip distribution is the approved MRCOG 2040 MTP land use. The site traffic assignment is based upon independent distributions for retail and residential trips, logically assigned by trip distribution subarea.
6. The City furnished a site plan for the Sevano subdivision to be used as additional area development. Trips were generated and assigned for this development using the Legacy NAA apartment distribution.
7. Traffic analyses will be conducted for the existing condition (2015), and year 2019 Baseline condition, and a year 2019 Build condition. All analyses will be conducted using Synchro 9.0.
8. The background traffic growth was based upon trend line growth from MRCOG traffic flow maps. Five years of data were used resulting in a negligible growth rate. A background growth rate of 0.5% was used from 2015 to 2019.

9. No planed or programmed improvements are proposed for the study area.

1.1 ROADWAY NETWORK

The Legacy NAA developments will be located in the northeast quadrant of the San Pedro Blvd-Alameda Blvd intersection (see Appendix A). The analysis assumed that one site accesses will be provided to San Pedro Blvd, two to Alameda Blvd, and two to Oakland Ave. Full access is anticipated along Alameda Blvd provided that the spacing between accesses is minimally 400'.

Alameda Blvd is classified as an urban collector east of I-25. Currently, the roadway has one travel lane in each direction with 12' lanes, a raised median and 6' wide paved shoulders. The existing speed limit at the site is 35 mph. The roadway is proposed as a 4/5 lane facility with 4-12' lanes and a raised median within a 124' right-of-way. Alameda Blvd has no identified access restrictions per the MRCOG *Roadway Access Modification Policies* document (updated August 2015). The 2040 Metropolitan Transportation Plan (MTP) identifies that the improvements to Alameda Blvd are to be provided by private, not public, sources. Future bicycle lanes are identified along Alameda Blvd.

San Pedro Blvd is classified as a collector roadway south of Alameda Blvd and a local street to the north with a posted speed limit of 35 mph. The existing roadway has one travel lane in each direction along the site frontage, with widening at the Alameda Blvd intersection. The existing right-of-way appears to be 60', and the proposed is 80'. Future bike lanes are identified for San Pedro Blvd.

Oakland Ave is a local street with a posted speed limit of 30 mph. Along the Legacy NAA frontage, Oakland Ave is constructed along the north side of the street and must be completed along the south side. The assumed right-of-way is 60'.

1.2 ROADWAY IMPROVEMENTS

No specific roadway improvements are programmed by the City of Albuquerque for either San Pedro Blvd or Alameda Blvd within the study area. Construction of a second westbound lane will be required as part of this development along its frontage and completion of the additional lanes in the area are anticipated as development occurs. Similarly, San Pedro Blvd has experienced improvements south of Alameda Blvd, near Paseo del Norte, with new development providing the improvements.

The 2040 MTP has identified that Alameda Blvd will be widened from 4-lanes to 6-lanes from 4th St to I-25 in the future, though no specific time frame has been established. This widening is currently being studied.

1.3 TRANSIT SERVICE

The study area is served by one transit line, #98, an AM and PM commute period bus from the Northwest Transit Center to Kirtland Air Force Base. The route utilizes Alameda Blvd and Wyoming Blvd for its two AM and two PM runs. No additional daily routes serve the site or this section of Alameda Blvd.

2.0 TRAFFIC ANALYSIS METHODOLOGY

The *Highway Capacity Manual* (HCM 2010) defines operational measures of effectiveness for all types of roadways and junctions in terms of qualitative levels of service. This study is concerned with levels of service for both signalized and unsignalized intersections, and the barometer for each intersection type is measured in terms of average vehicle delay. Signalized intersections consider the average control delay for each approaching vehicle. Control delay is the sum of the deceleration, queue, stop, and acceleration delay, computed for each approach movement. The signalized intersection level of service criteria and a brief definition are contained in Table 1.

Table 1
Signalized Intersection Levels of Service

Level of Service	Average Control Delay per Vehicle	Definition
A	≤ 10.0 sec	Very low delay - Free flow
B	10.1 sec to 20.0 sec	Minimal stops, good progression
C	20.1 sec to 35.0 sec	Moderate number of stops
D	35.1 sec to 55.0 sec	Significant stops, some cycle failures
E	55.1 sec to 80.0 sec	High delay, approaching capacity
F	> 80.0 sec	Approach over saturation, excessive delay

The signalized intersection analyses were calculated using Synchro 9.0. This software calculates the level of service for each approach, and may provide optimization for each individual movement. It also provides excellent analyses for signal progression, where required. Synchro 9.0 can produce reports in either Synchro format or *Highway Capacity Manual* (HCM) format. Synchro's standard operational analyses for signalized intersections deviates slightly from the *Highway Capacity Manual* methodology, however, only for very congested intersections do the results diverge. Synchro can calculate both algorithms; and for this project the Synchro signalized level of service worksheets were used.

Unsignalized intersections also utilize control delay; however, its definition differs because of the type of traffic control. Stop controlled intersections may be two-way stop controlled, all-way stop controlled, or roundabouts (yield controlled). Each unsignalized intersection considered herein was two-way stop control, meaning that main street through-movements are not considered in the analyses because they should experience no intersection related delay. Unsignalized intersection levels of service are a function of the side street approaches and main street turning movement levels of service. For this reason, an overall intersection level of service is not calculated for unsignalized intersections. Table 2 contains brief definitions of unsignalized intersection LOS and the control delay values.

Table 2
Unsignalized Intersection Levels of Service

Level of Service	Average Control Delay per Vehicle	Definition
A	≤ 10.0 sec	Little or no delay
B	10.1 sec to 15.0 sec	Short traffic delays
C	15.1 sec to 25.0 sec	Average traffic delays
D	25.1 sec to 35.0 sec	Long traffic delays
E	35.1 sec to 50.0 sec	Very long traffic delays, approaching capacity
F	> 50.0 sec	Over capacity, excessive delay

The unsignalized intersection analyses were evaluated using Synchro 9.0. While this program is primarily a signalized intersection tool, it also performs unsignalized intersection analyses that are consistent with the *Highway Capacity Manual* methodology and the output results match those produced by the McTrans Highway Capacity Software.

Urban areas typically assign an overall level of service (LOS) D as the desirable base condition for signalized intersections. LOS E of F may be acceptable for certain low volume approaches or movements, especially where a higher level of service may significantly degrade a major movement or where the default is LOS E based upon the intersection cycle length or low approach volumes. LOS D is also the desired approach level of service for urban unsignalized intersections; however, lower service levels are frequently acceptable for low volume approaches.

A series of assumptions must be made for all level of service analyses. For this study, the following analysis assumptions were made, and they apply to existing and forecast analyses:

- Lane Width - Measured in Field (nominally 12 feet)
- Truck Percentage - Assumed 2%
- Existing Peak Hour Factors - Measured in field, applied by approach average
- Forecast Peak Hour Factors:

App. Vol. < 200 vph	0.75
App. Vol. 200 to 500 vph	0.80
App. Vol. 500 to 1000 vph	0.85
App. Vol. 1000 to 1500 vph	0.90
App. Vol. > 1500 vph	0.95

- Saturation Flow Rate - 1900 pcphpl
- Roadway Grades - All analyses assume flat grades
- Change Intervals - 4 seconds amber, 2 second all red
- Cycle Lengths - Existing cycles, vary from 80 to 140 seconds based upon counts.
- Signalized Operations - Actuated-Coordinated is assumed along Alameda Blvd west of San Pedro Blvd; uncoordinated at San Pedro Dr and Louisiana Blvd
- Arrival Type - Random on each roadway
- Right-turn-on-Red - Estimated
- Conflicting Pedestrians - Minimal
- Area Type - Non CBD

3.0 TRAFFIC VOLUMES

Daily traffic volumes for study area roadways were obtained from the Mid-Region Council of Governments (MRCOG) 2014 Traffic Flow Map. The 2014 average daily traffic flows on study area roadways are summarized in Table 3.

Table 3
Average Daily Traffic Flows for Study Area Roadways

Roadway Segment	Average Daily Traffic
Alameda Blvd	
West of I-25	30,410
San Pedro to Louisiana	8,640
Louisiana to Wyoming	7,110
San Pedro Blvd	
South of Alameda Blvd	16,750
North of Alameda Blvd	4,760

Turning movement counts were collected in November 2015 for each of the eight (8) existing study area intersections. The data were collected from 7:00 to 9:00 a.m. and from 4:00 to 6:00 p.m. The existing AM and PM peak hour turning movement volumes are contained in Table 4. The actual peak hours varied slightly from intersection to intersection. See the summary sheets in Appendix B.

Table 4
Existing (2015) AM and PM Peak Hour Turning Movement Volumes

Intersection	Eastbound			Westbound			Northbound			Southbound		
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT
AM Peak Hour												
Alameda @ I-25 SB Ramps		584	476	461	1649					137	88	165
Alameda @ I-25 NB Ramps	152	573			1072	128	878	80	132			
Alameda @ San Pedro	71	348	277	25	705	10	343	55	16	3	34	217
Alameda @ Louisiana	30	241	49	34	423	17	103	49	21	2	95	70
Paseo del Norte @ San Pedro	261	1407	223	107	1713	244	195	182	57	82	188	150
Oakland @ San Pedro			2	73		11	6	110	8	2	182	1
Eagle Rock @ San Pedro		17	15	166	47	9	33	25	33		10	2
Oakland @ Louisiana		5	17	20	40	2	13	69	12	1	133	13
PM Peak Hour												
Alameda @ I-25 SB Ramps		895	698	284	1226					474	460	98
Alameda @ I-25 NB Ramps	307	1048			685	179	830	121	387			
Alameda @ San Pedro	114	849	442	24	411	11	254	50	31	6	44	148
Alameda @ Louisiana	90	568	107	24	347	14	74	88	28	20	97	38
Paseo del Norte @ San Pedro	305	1863	132	123	1302	174	176	186	96	240	237	273
Oakland @ San Pedro	2		5	21		3	10	126	51	9	152	4
Eagle Rock @ San Pedro	1	66	43	77	17	5	13	26	86	4	40	4
Oakland @ Louisiana	10	30	20	20	15		19	151	19		114	10

Baseline forecast volumes for the year 2019 were generated using an annual background growth rate of 0.5%, based on historical growth trends for study area roadways. A summary

sheet of the annual traffic volumes for six area roadway segments on San Pedro Blvd and Alameda Blvd is provided in Appendix B. It is noted that the historical count data are not always consistent. This results from two principal causes: 1) use of average growth factors for the majority of years when actual counts are not collected, and 2) travel pattern shifts due to growth and/or roadway construction. The resultant 0.5% rate is based upon the cumulative growth from six roadway segments, in an effort to minimize travel pattern shifts within the area. Individual roadway segment rates, averaged over 5 years, varied from -4.4% to +7.0%. It is acknowledged that reliability of the data could be higher; however, given that growth is anticipated for 4 years from 2015 to 2019, the resultant error should not significantly impact results.

The Baseline volumes also included the Sevano subdivision added to the background traffic to determine the 2019 Baseline volumes. These additional development trips were added to the factored 2019 base volumes to develop the year 2019 Baseline forecast volumes. Site trips for each development are shown in Appendix B. The 2019 Baseline (No-Build) AM and PM peak hour turning movement volumes are contained in Table 5. Note that the forecast volumes were rounded to the nearest 10 vehicles except for volumes less than 5 vehicles per hour.

Table 5
2019 AM and PM Peak Hour Baseline Turning Movement Volumes

Intersection	Eastbound			Westbound			Northbound			Southbound		
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT
AM Peak Hour												
Alameda @ I-25 SB Ramps		600	490	470	1690					140	90	170
Alameda @ I-25 NB Ramps	160	590			1100	130	900	80	130			
Alameda @ San Pedro	70	360	280	30	730	10	350	60	20	3	30	220
Alameda @ Louisiana	30	250	50	30	430	20	110	50	20	2	100	70
Paseo del Norte @ San Pedro	270	1440	230	110	1760	250	200	190	60	80	190	150
Oakland @ San Pedro			2	70		10	10	110	10	2	190	1
Eagle Rock @ San Pedro		20	20	170	50	10	30	30	30		10	2
Oakland @ Louisiana		5	20	20	40	2	10	70	10	1	140	10
PM Peak Hour												
Alameda @ I-25 SB Ramps		920	710	290	1250					480	470	100
Alameda @ I-25 NB Ramps	310	1080			700	180	850	120	390			
Alameda @ San Pedro	120	870	450	20	420	10	260	50	30	10	40	150
Alameda @ Louisiana	90	580	120	20	350	10	80	90	30	20	100	40
Paseo del Norte @ San Pedro	310	1920	130	130	1340	180	180	190	100	240	240	280
Oakland @ San Pedro	2		5	20		3	10	130	50	10	160	4
Eagle Rock @ San Pedro	1	70	40	80	20	5	10	30	90	4	40	4
Oakland @ Louisiana	10	30	20	20	20		20	150	20		120	10

The existing traffic volumes and turning movement count sheets are contained in Appendix B. Appendix B includes the turning movement count peak period summaries, the peak hour count/forecast summaries, and the study area volume summaries. Graphics showing the turning movement volumes are provided in Appendix C.

4.0 TRIP GENERATION, DISTRIBUTION AND ASSIGNMENT

4.1 TRIP GENERATION

Project trips were generated using the Institute of Transportation Engineers (ITE) *Trip Generation*, 9th Edition, and the trip generation data are summarized in Table 6. Trips were generated based upon a series of land use categories. No specific tenants or tenant types for the commercial (shopping center) land use are known or assumed at this time. Should specific tenants generate trips differently than a generic shopping center, a reevaluation of the trip generation may be required. The data worksheet is contained in Appendix D.

Table 6
Trip Generation - Proposed Land Use

LU Code	Development	Units	Daily	AM In	AM Out	PM In	PM Out
220	Apartment	232 DU	1529	23	94	94	51
820	Shopping Center	25,250 SF	1078	15	9	45	49
934	High Turnover Restaurant	5,000 SF	1250	58	56	43	39
934	Gasoline Station w/ Convenience Store	16 pumps	26040	82	81	108	108
	Subtotal		6461	178	240	290	247
	Pass-By Trips (see breakout in App D.)		-	- 41	- 41	- 85	- 85
	Site Access Total		6461	178	240	290	247
	Roadway Network Total		***6461***	***137***	***199***	***205***	***162***

The pass-by trip reduction for retail trips was applied based upon agreement with City of Albuquerque staff. The ITE *Trip Generation Handbook* recommends pass-by reductions varying from 34% to 62% for the land uses listed. The gasoline station (#945) was rounded down to 50%, the high turnover restaurant (#932) to 40% and the retail (#820) has rounded down to 30% trips. The estimated pass-by trips are considered conservative.

4.2 TRIP DISTRIBUTION

The trip distribution from the site was generated using the Mid-Region Council of Governments (MRCOG) 2040 model year land use. The databank is consistent with the 2040 MTP travel demand model. Two trip distributions were developed for the site, one for retail trips and one for residential trips. The retail distribution area was determined based upon the population from data analysis subzones (DASZ) that fall within an approximate 3-mile radius of the site. The residential distribution area was the subzones within the AMPA, west of the Sandia Mountains and north of Valencia County. The residential trips were based upon employment within the subzones evaluated. Table 7 contains subarea routing descriptions to the site and O-D percentages for trips entering and exiting DASZ #7202 for the buildout year. Appendix D contains drawings of the distribution subarea boundaries and distribution percentage graphics. The residential and retail distributions are shown graphically in Figures D-1 and D-2, respectively.

Table 7
Trip Distribution Routing Percentages

No.	Description	Residential	Retail
1	Site Subarea	0.1%	1.3%
2	Near Northeast – via San Pedro north and Alameda east	0.3%	8.3%
3	Near Southeast – via Alameda east to Wyoming south	1.6%	28.6%
4	Near East – via Alameda east	0.3%	19.7%
5	Near South – via San Pedro south	1.5%	18.8%
6	Near West – via Alameda west	6.5%	22.0%
7	Sandia–North – via Alameda west and I-25 north	0.6%	1.2%
8	Far Southeast – via Alameda east	3.1%	-
9	Far South – via Alameda east to Wyoming south	13.0%	-
10	Far South-Southwest – via Alameda west to I-25 south	52.5%	-
11	Far West – via I-25 south to Paseo del Norte west	5.8%	-
12	Far Northwest – via Alameda west	10.9%	-
13	Far North – via Alameda west to I-25 north	3.8%	-

4.3 TRIP ASSIGNMENT

The trip assignment is listed below in Table 8 and is based upon the contributing origin-destination percentages from Table 7. The AM and PM trip assignments are shown graphically in Figures D-3 and D-4, respectively. Be sure to note that the site driveways include all of the site trips while the intersection trips are reduced by the pass-by trip percentages.

Table 8
Site Trip Assignment

Intersection	Eastbound			Westbound			Northbound			Southbound		
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT
AM Peak Hour												
Alameda @ I-25 SB Ramps		29		55	39					2		
Alameda @ I-25 NB Ramps		31			94	5			14			
Alameda @ San Pedro	21	24		1	57			21		20	21	44
Alameda @ Louisiana		40	21		44		13	2		7	7	5
Paseo del Norte @ San Pedro								17			17	
Oakland @ San Pedro				31					7			
Eagle Rock @ San Pedro												
Oakland @ Louisiana	12		17				2	4			5	7
San Pedro @ Dwy Com 1				73				7	48		31	
Alameda @ Dwy Com 2	17	31			45	85				35		16
Alameda @ Dwy Apt 1	11	61			66	3				11		45
Oakland @ Dwy Com 3		8		7	30				16			
Oakland @ Dwy Apt 2		20	4	1	20		15		3			
Oakland @ Dwy Apt 3		19	4	1	6		15		3			

Table 8 (Continued)
Site Trip Assignment

Intersection	Eastbound			Westbound			Northbound			Southbound		
	LT	Th	RT	LT	Th	RT	LT	Th	RT	LT	Th	RT
PM Peak Hour												
Alameda @ I-25 SB Ramps		40		30	33					5		
Alameda @ I-25 NB Ramps		46			63	3			55			
Alameda @ San Pedro	45	57			37			22	1	21	21	31
Alameda @ Louisiana		44	16		43		21	7		8	4	4
Paseo del Norte @ San Pedro								18			18	
Oakland @ San Pedro				17					31			
Eagle Rock @ San Pedro												
Oakland @ Louisiana	16		18				7	4			4	8
San Pedro @ Dwy Com 1				98				31	61		17	
Alameda @ Dwy Com 2	22	66			25	114				47		22
Alameda @ Dwy Apt 1	45	64			64	11				6		25
Oakland @ Dwy Com 3		30		8	16				29			
Oakland @ Dwy Apt 2		32	15	3	13		8		2			
Oakland @ Dwy Apt 3		19	15	3	8		8		2			

5.0 TRAFFIC ANALYSES

Traffic analyses were performed for the existing conditions (2015) and the project implementation year (2019) Baseline and Build scenarios. The existing level of service worksheets may be found in Appendix E, the 2019 Baseline worksheets in Appendix F and the 2019 Build worksheets in Appendix G.

One intersection, San Pedro Dr @ Eagle Rock Rd will not be affected by the proposed development and no development trips were assigned to that intersection (see Table 8.). While the analyses were conducted for each scenario, only the existing condition is included in the summaries in this chapter.

Level of service analyses assess the traffic operations at an intersection in terms of vehicle throughput, however, they do not adequately assess the impacts associated with the physical dimensions of turn lanes and the blocking of accesses or upstream intersections by queued vehicles. Queuing analyses were performed for each of the movements at signalized intersections and queue lengths were determined for the 95th percentile value. The queue analyses were evaluated using Synchro 9.0 and the 95th percentile queue length was selected as the design value. Synchro uses the 95th percentile value under a normal curve assuming an infinite number of vehicles with random arrival.

Unsignalized intersections with 2-way stop control were assessed for queue length using the methodology described in the Highway Capacity Manual (HCM2010), Chapter 19. The analysis uses HCM Equation 19-68, with the methodology described on page 19-30. The Synchro program utilizes this equation to generate 95th percentile queue lengths for each unsignalized approach, and these results have been included with the level of service results.

All design queue lengths are rounded up to the nearest 25' and are in units of feet.

5.1 EXISTING CONDITIONS

Traffic analyses were performed for the existing AM and PM peak hour conditions to establish a baseline for comparison with the implementation year (2010) Baseline and Build conditions. As stated in Section 2, all analyses were conducted using Synchro 9.0 and the results produced using the *Highway Capacity Manual* methodology. Table 9 contains the signalized intersection measures of effectiveness (MOEs) including the level of service [LOS], average control delay by approach [Delay], the approach volume to capacity (v/c) ratio [Ave v/c], and the design queue [Design Queue] for each approach. The existing storage lane lengths are in parenthesis, with dual left-turn lanes designated with a -D. The existing conditions analyses utilized the following signal timing assumptions:

1.	Alameda Blvd @ I-25 SB Ramp	130 sec.	Actuated-Coordinated
2.	Alameda Blvd @ I-25 NB Ramp	130 sec.	Actuated-Coordinated
3.	Alameda Blvd @ San Pedro Dr	80 sec.	Actuated-Uncoordinated
4.	Alameda Blvd @ Louisiana Blvd	..80 sec.	Actuated-Free
5.	Paseo del Norte @ San Pedro Dr	140 sec	Actuated-Coordinated

The existing level of service worksheets may be found in Appendix E.

Table 9
Existing Signalized Intersection Measures of Effectiveness

Intersection/Approach		AM Peak Hour				PM Peak Hour			
		LOS	Delay (sec)	Ave v/c	Design Queue	LOS	Delay (sec)	Ave v/c	Design Queue
Alameda @ I-25 SB Ramp		*B*	*18 s*			*C*	*30 s*		
	EB Th	C	23 s	0.38	225’	C	21 s	0.52	350’
	EB RT	B	16 s	0.59	300’	D	37 s	0.87	800’
(225’- D)	WB LT	D	38 s	0.65	**275’**	E	55 s	0.82	225’
	WB Th	A	5 s	0.72	150’	A	5 s	0.57	125’
	SB LT	D	50 s	0.33	125’	E	57 s	0.74	375’
	SB Th	D	48 s	0.30	100’	E	59 s	0.88	425’
(150’)	SB RT	D	37 s	0.58	**175**’	B	16 s	0.24	75’
Alameda @ I-25 NB Ramp		*C*	*30 s*			*C*	*32 s*		‘
(200’)	EB LT	E	59 s	0.67	**200’**	D	50 s	0.82	**300’**
	EB TH	A	9 s	0.35	150’	B	14 s	0.64	225’
	WB Th-RT	D	38 s	0.71	425’	D	42 s	0.67	325’
	NB LT	D	38 s	0.72	525’	D	42 s	0.78	475’
	NB Th	C	27 s	0.42	250’	C	29 s	0.50	250’
	NB RT	A	4 s	0.19	50’	C	32 s	0.69	350’
Alameda @ San Pedro		*C*	*23 s*			*B*	*20 s*		
(150’)	EB LT	C	25 s	0.45	75’	B	18 s	0.38	75’
	EB Th	C	22 s	0.36	125’	C	28 s	0.79	325’
	EB RT	A	5 s	0.45	75’	A	5 s	0.57	75’
(250’)	WB LT	B	16 s	0.08	25’	B	15 s	0.15	25’
	WB Th-RT	D	37 s	0.83	275’	C	26 s	0.52	150’
(110’)	NB LT	C	24 s	0.73	**200’**	C	21 s	0.58	**175’**
	NB Th-RT	B	12 s	0.06	25’	B	12 s	0.07	50’
(110’)	SB LT	B	14 s	0.01	25’	B	15 s	0.02	25’
	SB Th-RT	B	12 s	0.37	50’	A	9 s	0.31	50’
Alameda @ Louisiana		*B*	*20 s*			*B*	*19 s*		
(200’)	EB LT	B	15 s	0.11	25’	B	14 s	0.28	50’
	EB Th-RT	C	22 s	0.43	100’	C	20 s	0.64	200’
(200’)	WB LT	B	15 s	0.11	50’	B	12 s	0.13	25’
	WB Th-RT	C	24 s	0.55	150’	C	22 s	0.47	125’
(200’)	NB LT	B	13 s	0.22	75’	B	16 s	0.18	75’
	NB Th-RT	B	11 s	0.05	25’	B	16 s	0.11	50’
(200’)	SB LT	B	13 s	0.00	25’	B	16 s	0.06	25’
	SB Th-RT	B	13 s	0.16	50’	B	17 s	0.18	50’

Table 9 (Continued)
Existing Signalized Intersection Measures of Effectiveness

Intersection/Approach		AM Peak Hour				PM Peak Hour			
		LOS	Delay (sec)	Ave v/c	Design Queue	LOS	Delay (sec)	Ave v/c	Design Queue
Paseo del Norte @ San Pedro		*D*	*36 s*			*D*	*40 s*		
(350' - D)	EB LT	E	72 s	0.74	200'	E	64 s	0.66	200'
	EB Th	C	25 s	0.59	425'	D	36 s	0.82	650'
(600')	EB RT	A	3 s	0.26	50'	A	2 s	0.17	25'
(350' - D)	WB LT	E	75 s	0.58	100'	E	77 s	0.63	100'
	WB Th	D	36 s	0.82	600'	D	38 s	0.71	450'
(400')	WB RT	A	3 s	0.31	50'	A	5 s	0.26	50'
(250' - D)	NB LT	E	77 s	0.75	150'	E	76 s	0.69	150'
	NB Th	E	58 s	0.58	250'	E	62 s	0.61	275'
(250')	NB RT	A	1 s	0.15	0'	A	2 s	0.25	25'
(200' - D)	SB LT	E	76 s	0.51	75'	E	69 s	0.68	175'
	SB Th	E	68 s	0.68	275'	E	61 s	0.67	325'
(200')	SB RT	B	10 s	0.41	75'	B	11 s	0.54	125'

Overall signalized operations are adequate at the existing intersections and queue deficiencies are identified in bold text. Observation of traffic at the interchange ramps indicates that the westbound left-turn lanes at the southbound ramp experience cycle failures during the peak hours. The westbound left-turn frequently queue blocks through traffic. The northbound ramp intersection also has a queue deficiency on the eastbound left-turn. This deficiency degrades operations by queue blocking through traffic. Mitigation for the Alameda Blvd eastbound and westbound left turns is problematic based upon the cross section and intersection spacing.

There is also a queuing deficiency in the northbound left-turn lane at San Pedro Dr and Alameda Blvd. The existing left-turn lane is 110' in length and peak hour traffic frequently queues out of the lane and blocks the northbound through traffic. The reason for the short lane is the lack of right-of-way on the east side of the road and the provision of full access to businesses on the east and west side of San Pedro. When San Pedro is constructed to full width in the future, this lane should be extended to serve the northbound left-turning traffic. The median extension will relegate a number of existing driveways to right-in, right-out south of Alameda Blvd.

The Paseo del Norte-San Pedro Dr intersection operates more poorly than desired as a function of the cycle length. The 140 second cycle guarantees that the left turns will operate at LOS E or F because they operate 'protected only' and it is over 120 seconds between green time actuations. This is a systemic problem which cannot be mitigated given the high traffic volumes on Paseo del Norte. Queuing is adequate for the dual left-turn lanes; therefore, no queue blocking of through traffic occurs. No mitigation is proposed for the poor operations.

Table 10 contains the MOEs for the unsignalized intersections within the study area. Unsignalized intersections have the critical approaches assessed for level of service [LOS], average control delay [Delay], and the estimated 95th percentile queue length [Queue]. Each of the study area intersections has 2-way stop control.

Table 10
Existing Unsignalized Intersection Levels of Service

Intersection	AM Peak			PM Peak		
	LOS	Delay (sec)	Queue (ft)	LOS	Delay (sec)	Queue (ft)
Oakland @ San Pedro						
WB Approach	B	11 s	25’	B	11 s	25’
NB Approach	A	0 s	0’	A	0 s	0’
SB Approach	A	0 s	0’	A	0 s	0’
Oakland @ Louisiana						
EB Approach	A	10 s	25’	B	11 s	25’
WB Approach	B	12 s	25’	B	12 s	25’
NB Left Turn	A	8 s	0’	A	8 s	0’
SB Left Turn	A	7 s	0’	A	0 s	0’
Eagle Rock @ San Pedro						
EB Approach	A	10 s	25’	B	11 s	25’
WB Approach	B	13 s	50’	B	12 s	25’
NB Approach	A	3 s	25’	A	3 s	0’
SB Approach	A	0 s	0’	A	0 s	0’

The analyses indicate excellent operations at the unsignalized intersections. No mitigation is proposed. As noted above, the Eagle Rock Ave/San Pedro Dr intersection will not be included in future year operations because no site trips are anticipated to pass through that intersection and existing operations are excellent.

5.2 YEAR 2019 BASELINE (NO-BUILD)

The 2019 Baseline condition is a No-Build assessment of traffic within the study area. This scenario assumes no modifications to the existing roadway network (discussed in Section 1.2). Baseline forecast volumes for the year 2019 were generated using an annual background growth rate of 0.5% and included the proposed Sevano subdivision within the study area (see Section 3.0). The signalized intersection level of service analyses were optimized to determine the best operations by 2019 using the existing cycle lengths. The AM and PM peak hours utilized signal cycles ranging from 80 seconds to 140 seconds. The measures of effectiveness for signalized intersections are the same as those described in Section 5.1. The 2019 Baseline MOEs are contained in Tables 11 and 12 and the level of service worksheets may be found in Appendix F.

Table 11
2019 Baseline Signalized Intersection Measures of Effectiveness

Intersection/Approach	AM Peak Hour				PM Peak Hour			
	LOS	Delay (sec)	Ave v/c	Design Queue	LOS	Delay (sec)	Ave v/c	Design Queue
Alameda @ I-25 SB Ramp	*C*	*20 s*			*C*	*32s*		
EB Th	C	21 s	0.37	250’	C	22 s	0.54	350’
EB RT	B	15 s	0.58	300’	D	38 s	0.89	800’
(225’- D) WB LT	D	53 s	0.77	**250’**	E	75 s	0.84	**225’**
WB Th	A	7 s	0.75	150’	A	7 s	0.58	300’
SB LT	D	49 s	0.32	125’	E	57 s	0.75	400’
SB Th	D	47 s	0.29	125’	E	60 s	0.89	450’
(150’) SB RT	D	37 s	0.57	**175’**	B	16 s	0.25	75’
Alameda @ I-25 NB Ramp	*C*	*31 s*			*C*	*35 s*		‘
(200’) EB LT	D	41 s	0.62	175’	D	52 s	0.84	**350’**
EB TH	A	9 s	0.36	175’	C	23 s	0.67	425’
WB Th-RT	D	42 s	0.78	425’	D	44 s	0.70	325’
NB LT	D	39 s	0.74	550’	D	42 s	0.78	500’
NB Th	C	27 s	0.43	250’	C	29 s	0.50	250’
NB RT	A	4 s	0.19	50’	C	31 s	0.69	350’
Alameda @ San Pedro	*C*	*25 s*			*B*	*19 s*		
(150’) EB LT	C	25 s	0.44	75’	B	17 s	0.40	75’
EB Th	C	23 s	0.38	150’	C	27 s	0.79	325’
EB RT	A	6 s	0.45	75’	A	5 s	0.57	75’
(250’) WB LT	B	17 s	0.10	50’	B	14 s	0.12	25’
WB Th-RT	D	42 s	0.89	325’	C	25 s	0.51	150’
(110’) NB LT	C	23 s	0.73	**200’**	C	23 s	0.61	**175’**
NB Th-RT	B	11 s	0.06	25’	B	12 s	0.07	50’
(110’) SB LT	B	13 s	0.01	25’	B	16 s	0.04	25’
SB Th-RT	B	12 s	0.37	25’	A	8 s	0.30	25’
Alameda @ Louisiana	*B*	*20 s*			*B*	*19 s*		
(200’) EB LT	B	15 s	0.12	25’	B	14 s	0.28	50’
EB Th-RT	C	21 s	0.41	100’	C	20 s	0.66	225’
(200’) WB LT	B	15 s	0.10	25’	B	12 s	0.11	25’
WB Th-RT	C	25 s	0.60	150’	C	21 s	0.46	125’
(200’) NB LT	B	12 s	0.23	75’	B	17 s	0.20	75’
NB Th-RT	B	11 s	0.05	25’	B	16 s	0.11	50’
(200’) SB LT	B	13 s	0.00	25’	B	16 s	0.06	25’
SB Th-RT	B	13 s	0.16	50’	B	18 s	0.19	50’

Table 11 (Continued)
2019 Baseline Signalized Intersection Measures of Effectiveness

Intersection/Approach		AM Peak Hour				PM Peak Hour			
		LOS	Delay (sec)	Ave v/c	Design Queue	LOS	Delay (sec)	Ave v/c	Design Queue
Paseo del Norte @ San Pedro		*D*	*36 s*			*D*	*41 s*		
(350' - D)	EB LT	E	70 s	0.72	200'	E	65 s	0.67	225'
	EB Th	C	24 s	0.60	425'	C	35 s	0.83	650'
(600')	EB RT	A	3 s	0.27	50'	A	2 s	0.16	25'
(350' - D)	WB LT	E	76 s	0.59	100'	F	85 s	0.72	125'
	WB Th	D	38 s	0.85	625'	D	38 s	0.72	475'
(400')	WB RT	A	3 s	0.32	50'	A	4 s	0.26	50'
(250' - D)	NB LT	E	79 s	0.76	150'	F	81 s	0.75	150'
	NB Th	E	61 s	0.62	275'	E	63 s	0.63	275'
(250')	NB RT	A	1 s	0.16	0'	A	3 s	0.26	25'
(200' - D)	SB LT	E	75 s	0.50	75'	E	73 s	0.73	175'
	SB Th	E	72 s	0.72	300'	E	62 s	0.69	350'
(200')	SB RT	B	11 s	0.42	75'	B	12 s	0.56	125'

Overall signalized operations should be adequate at the intersections in 2019. The deficiencies identified in the existing conditions will continue. Mitigation within the interchange area is infeasible without either widening Alameda Blvd under I-25 or reducing lane widths. There is approximately 86' of roadway width on Alameda Blvd and a total of 8 lanes are required. This would require narrowing each lane to less than 11' which may be problematic given the frequency of large trucks. The alternative is to rebuild the I-25 bridge to provide additional width on Alameda Blvd or eliminate sidewalk along one side of the road to widen the cross section. Sidewalk elimination should only be considered as a temporary measure.

Table 12 contains the MOEs for the unsignalized intersections within the study area. Unsignalized intersections have the critical approaches assessed for level of service [LOS], average control delay [Delay], and the estimated 95th percentile queue length [Queue]. Each of the study area intersections has 2-way stop control.

Table 12
2019 Baseline Unsignalized Intersection Levels of Service

Intersection	AM Peak			PM Peak		
	LOS	Delay (sec)	Queue (ft)	LOS	Delay (sec)	Queue (ft)
Oakland @ San Pedro						
WB Approach	B	12 s	25'	B	11 s	25'
NB Approach	A	0 s	0'	A	0 s	0'
SB Approach	A	0 s	0'	A	1 s	0'
Oakland @ Louisiana						
EB Approach	A	9 s	25'	B	11 s	25'
WB Approach	B	12 s	25'	B	12 s	25'
NB Left Turn	A	8 s	0'	A	8 s	0'
SB Left Turn	A	7 s	0'	A	0 s	0'

The analyses indicate excellent operations at the unsignalized intersections. No mitigation is required or proposed.

5.3 YEAR 2019 WITH SITE (BUILD)

The 2019 Build condition includes site traffic from the proposed Legacy NAA developments added to the study area. This scenario assumes that no changes are made to the study area roadways or intersections as discussed in Section 1.2, except for frontage improvements along the Legacy NAA site. Those improvements, operationally, are assumed to include the addition of a second westbound lane on Alameda Blvd, providing storage for left-turns into each site driveway, and completing a second northbound lane on San Pedro Dr to Oakland Ave. The signalized intersection level of service analyses were optimized to determine the best operations by 2019 utilizing the existing cycle lengths at each intersection. The measures of effectiveness for the signalized intersections are the same as those described in Section 5.1 and the results are contained in Table 13. The level of service worksheets for the 2019 Build scenario may be found in Appendix G.

Table 13
2019 Build Signalized Intersection Measures of Effectiveness

Intersection/Approach	AM Peak Hour				PM Peak Hour			
	LOS	**Delay (sec)**	**Ave v/c**	**Design Queue**	**LOS**	**Delay (sec)**	**Ave v/c**	**Design Queue**
Alameda @ I-25 SB Ramp	*C*	*21 s*			*C*	*33 s*		
EB Th	C	23 s	0.40	275’	C	23 s	0.57	375’
EB RT	B	17 s	0.61	325’	D	41 s	0.90	825’
(225’- D) WB LT	D	52 s	0.79	**300’**	E	74 s	0.86	**225’**
WB Th	A	7 s	0.76	200’	A	8 s	0.59	325’
SB LT	D	50 s	0.33	150’	E	58 s	0.77	400’
SB Th	D	48 s	0.31	125’	E	61 s	0.90	450’
(150’) SB RT	D	38 s	0.59	**175’**	B	16 s	0.25	75’
Alameda @ I-25 NB Ramp	*C*	*31 s*			*D*	*36 s*		
(200’) EB LT	D	43 s	0.66	175’	D	54 s	0.86	**350’**
EB TH	A	7 s	0.38	75’	C	23 s	0.69	425’
WB Th-RT	D	41 s	0.80	475’	D	44 s	0.73	350’
NB LT	D	41 s	0.75	550’	D	43 s	0.80	500’
NB Th	C	28 s	0.44	250’	C	29 s	0.50	250’
NB RT	A	4 s	0.21	50’	D	39 s	0.81	425’
Alameda @ San Pedro	*C*	*27 s*			*C*	*21 s*		
(150’) EB LT	C	30 s	0.54	75’	B	19 s	0.53	100’
EB Th	C	25 s	0.40	150’	C	27 s	0.78	375’
EB RT	A	5 s	0.45	75’	A	5 s	0.55	75’
(250’) WB LT	B	18 s	0.10	50’	B	14 s	0.12	25’
WB Th-RT	D	41 s	0.87	350’	C	30 s	0.66	175’
(110’) NB LT	C	27 s	0.77	**225’**	C	27 s	0.69	**200’**
NB Th-RT	B	14 s	0.08	50’	B	16 s	0.10	50’
(110’) SB LT	B	16 s	0.07	25’	B	16 s	0.11	50’
SB Th-RT	C	20 s	0.50	100’	A	10 s	0.38	50’

Table 13 (Continued)
2019 Build Signalized Intersection Measures of Effectiveness

Intersection/Approach		AM Peak Hour				PM Peak Hour			
		LOS	Delay (sec)	Ave v/c	Design Queue	LOS	Delay (sec)	Ave v/c	Design Queue
Alameda @ Louisiana		*B*	*19 s*			*C*	*20 s*		
(200')	EB LT	B	16 s	0.14	25'	B	14 s	0.29	50'
	EB Th-RT	C	20 s	0.46	125'	C	21 s	0.69	250'
(200')	WB LT	B	15 s	0.11	25'	B	13 s	0.12	25'
	WB Th-RT	C	24 s	0.61	175'	C	23 s	0.51	125'
(200')	NB LT	B	12 s	0.25	75'	B	18 s	0.25	75'
	NB Th-RT	B	11 s	0.05	25'	B	17 s	0.12	50'
(200')	SB LT	B	13 s	0.00	25'	B	16 s	0.06	25'
	SB Th-RT	B	13 s	0.19	50'	B	18 s	0.19	50'
Paseo del Norte @ San Pedro		*D*	*38s*			*D*	*41 s*		
(350' - D)	EB LT	E	74s	0.77	200'	E	65 s	0.67	225'
	EB Th	C	26 s	0.62	425'	C	35 s	0.83	650'
(600')	EB RT	A	3 s	0.27	50'	A	2 s	0.16	25'
(350' - D)	WB LT	E	76 s	0.59	100'	F	85 s	0.72	125'
	WB Th	D	39 s	0.86	650'	D	38 s	0.72	475'
(400')	WB RT	A	3 s	0.32	50'	A	4 s	0.26	50'
(250' - D)	NB LT	E	79 s	0.76	150'	F	81 s	0.75	150'
	NB Th	E	59 s	0.64	300'	E	66 s	0.70	300'
(250')	NB RT	A	1 s	0.16	0'	A	3 s	0.26	25'
(200' - D)	SB LT	E	75 s	0.50	75'	E	73 s	0.73	175'
	SB Th	E	70 s	0.73	325'	E	65 s	0.74	375'
(200')	SB RT	A	10 s	0.40	75'	B	12 s	0.56	125'

The operations at the signalized intersections will not be significantly impacted by the developed condition. The overall intersection levels of service may be slightly reduced at three of the intersections, but no intersection average delay will increase by more 2 seconds. Also, each intersection will remain operating at LOS D or better during each peak hour. No significant degradation was identified in the analyses.

Queues will remain longer than the storage lanes on the previously identified deficient approaches. The greatest impact may be on the northbound left turn at the San Pedro Dr-Alameda Blvd intersection where the deficient storage is anticipated to extend an additional 25'. This growth in the queue will occur without additional site traffic (which will not utilize the approach). The queue deficiency may be partially mitigated by extending the base cycle length to more than the current 80 seconds, but future widening should extend the lane once right-of-way is available.

As with the Baseline condition, no improvements are anticipated at the unsignalized intersections except that the second northbound lane on San Pedro Dr should terminate as a trap lane (right-turn only) at Oakland Ave and the south side of Oakland Ave will be constructed along the site frontage. A series of six (6) site driveways were evaluated, two along Alameda Blvd, one along San Pedro Dr, and three on Oakland Ave. All driveways are anticipated to be full access intersections. Based upon the recent Alameda reconstruction by the City of

Albuquerque, median openings will be provided to facilitate left-turns into and out of the site. Table 14 contains the unsignalized intersection results, including the site access driveways.

Table 14
2019 Build Unsignalized Intersection Levels of Service

Intersection	AM Peak			PM Peak		
	LOS	Delay (sec)	Queue (ft)	LOS	Delay (sec)	Queue (ft)
Oakland @ San Pedro						
WB Approach	B	12 s	25'	B	11 s	25'
NB Approach	A	0 s	0'	A	0 s	0'
SB Approach	A	8 s	0'	A	8 s	0'
Oakland @ Louisiana						
EB Approach	B	10 s	25'	B	12 s	25'
WB Approach	B	12 s	25'	B	12 s	25'
NB Left Turn	A	8 s	0'	A	8 s	25'
SB Left Turn	A	7 s	0'	A	0 s	0'
San Pedro @ Com 1						
WB Approach	B	12 s	25'	B	14 s	25'
NB Approach	A	0 s	0'	A	0 s	0'
SB Left Turn	A	0 s	0'	A	0 s	0'
Alameda @ Com 2						
EB Left Turn	B	11 s	25'	A	9 s	25'
WB Approach	A	0 s	0'	A	0 s	0'
SB Approach	D	34 s	50'	E	36 s	75'
Oakland @ Com 3						
EB Approach	A	0 s	0'	A	0 s	0'
WB Approach	A	7 s	0'	A	7 s	0'
NB Approach	A	9 s	25'	A	9 s	0'
Alameda @ Apt 1						
EB Left Turn	A	10 s	25'	A	9 s	25'
WB Approach	A	0 s	0'	A	0 s	0'
SB Approach	C	21 s	25'	C	21 s	25'
Oakland @ Apt 2 (W)						
EB Approach	A	0 s	0'	A	0 s	0'
WB Approach	A	7 s	0'	A	8 s	0'
NB Approach	A	9 s	25'	A	10 s	0'
Oakland @ Apt 3 (E)						
EB Approach	A	0 s	0'	A	0 s	0'
WB Approach	A	7 s	0'	A	8 s	0'
NB Approach	A	9 s	25'	A	9 s	25'

Operations will be good at the unsignalized intersections and at 4 of the 5 site driveways. The only deficiency was identified at the commercial access with Alameda Blvd which is anticipated to operate at LOS E during the PM peak period. While this is below the desired level of service, it is not unexpected for minor accesses to operate poorly intersecting major roadways. A key consideration is the queuing for these accesses and the availability of a median to facilitate a two-stage left turn. The access will have available queuing of

approximately 125 and the maximum queue demand is 75', less than the available distance. The nominal 17' wide median will permit two-stage left turns, and in conjunction with the signal at San Pedro Dr, adequate gaps should be available for the proposed 47 peak hour left turns. In addition, if this access becomes queue blocked, it is anticipated that the patrons will use the other two driveways for egress. To this end, 15% of the egress trips were assigned to the Oakland Ave access for travel to destinations east of the site. The San Pedro Dr/Alameda Blvd signal is underutilized, and the trips that exit on San Pedro and turn left on Alameda will not affect intersection operations. While the unsignalized operations at the Alameda Blvd commercial access are less than desired, no safety or operations problems are anticipated.

5.4 NON-MOTORIZED TRANSPORTATION

Alameda Blvd and San Pedro Dr are identified as future bike lane facilities. A future trail is also identified along Alameda Blvd. The shoulders constructed during the recent Alameda widening project are nominal bike lanes within the study area, though they are not signed and marked as such. These lanes may also require different intersection treatments to insure bicyclist safety, and that was not incorporated into the design.

Sidewalks will be constructed along the site frontage for pedestrians. The sidewalks should match existing area facilities per city of Albuquerque standards.

6.0 FINDINGS AND RECOMMENDATIONS

6.1 FINDINGS AND CONSIDERATIONS

The construction of the Legacy NAA developments will have a minimal impact on the study area intersections when fully constructed by 2019. All signalized intersections will operate at LOS D or better under the Build condition and will result in additional average intersection delay of 2 seconds or less compared to the Baseline scenario. Unsignalized intersections will not be negatively impacted by the developments.

The site plan proposes that two driveways be constructed along Alameda Blvd approximately 400' and 1100' east of San Pedro Dr. Each will be full access driveways with median openings in the 17' wide median. The new opening for the apartments should include a 150' left-turn lane.

The commercial driveway median opening on Alameda Blvd is currently 500' east of San Pedro Dr. The site will require relocation of that opening to approximately 400' east of San Pedro Dr. This will require reduction of the westbound left-turn lane length, currently 250'. The 2019 Buildout volumes for that movement are 30 AM and 20 PM left turns, less than one left turn per signal cycle. This lane can be reduced to a length of 150', with an R=150' reverse curve entry taper based upon the traffic volumes, 35 mph speed limit and collector classification of Alameda Blvd. This will permit back-to back left turns with a small buffer, and allow relocation of the median opening to align with the proposed commercial driveway.

Two driveways will serve the apartment complex on Oakland Ave with minimal impact to this low volume road. A driveway to Oakland Ave is also proposed for the commercial site, though utilization will be low. San Pedro Dr will have a single driveway, and it is proposed to stripe a short left-turn lane to serve the commercial site.

The only access which will experience some peak hour congestion is the commercial driveway to Alameda Blvd which is anticipated to operate at LOS D/E. This level of service is not uncommon for minor intersections or driveways along major roads, and will be systemic based upon the main street volumes. The presence of the traffic signals along Alameda Blvd, the unimpeded sight distance, and the ability to make two-stage left turns minimizes the operational deficiency, though left turns from the site may experience greater delay than desired during the peak hours.

Frontage improvements are typically required for new developments within the City of Albuquerque. This will likely require that the development construct, along its frontage, the remaining westbound lane and bicycle lane on Alameda Blvd, frontage improvements on San Pedro Dr, and the remaining portion of Oakland Ave. These improvements may be required in accordance with the City of Albuquerque DPM and should match existing infrastructure in the area. Pedestrian facilities may also be required.

The I-25 interchange area has existing deficiencies with the eastbound and westbound left-turn lanes – each queue blocks the through lane during the peak periods. The roadway cross section has been built out to its maximum under I-25 which limits potential capacity. One consideration would be to eliminate the raised median and narrow the lanes. The current face-to-face width of the road is approximately 86', and to accommodate the needed 8 lanes, each lane would be slightly under 11'. There is an eastbound lane that is stripped out, and its

utilization and creation of a dual eastbound left-turn lane would benefit that left turn. A second alternative to gain additional width could be to eliminate sidewalk along one side of the road. There are currently 6' sidewalks along each side of Alameda Blvd through the interchange, and one could be eliminated to provide a total driving width of 92'. Whatever solutions are considered, they should be a systematic solution that considers the entire interchange area and the proposed widening of Alameda Blvd to the west of I-25.

6.2 RECOMMENDATIONS

No mitigation is recommended for off-site intersections based upon the analyses results. The project will have minimal impacts on off-site intersections and signal timing should be reviewed after buildout as part of the City of Albuquerque's standard signal timing review process.

The roadways adjacent to the site should be constructed per City of Albuquerque standards. This includes the adjacent portions of Alameda Blvd, San Pedro Dr and Oakland Ave. Given the existing right-of-way north of Oakland Ave, San Pedro Dr should have the outside northbound lane stripped as a right-turn only trap lane at Oakland Ave (where the lane will terminate). This could be restriped to a northbound through-right lane in the future if the property north of Oakland Ave redevelops or San Pedro is widened in front of that property.

The site proposes the construction of six driveways, two to Alameda Blvd, one to San Pedro Dr and three to Oakland Ave. Each site driveway is proposed as a full access driveway. The driveway recommendations are as follows:

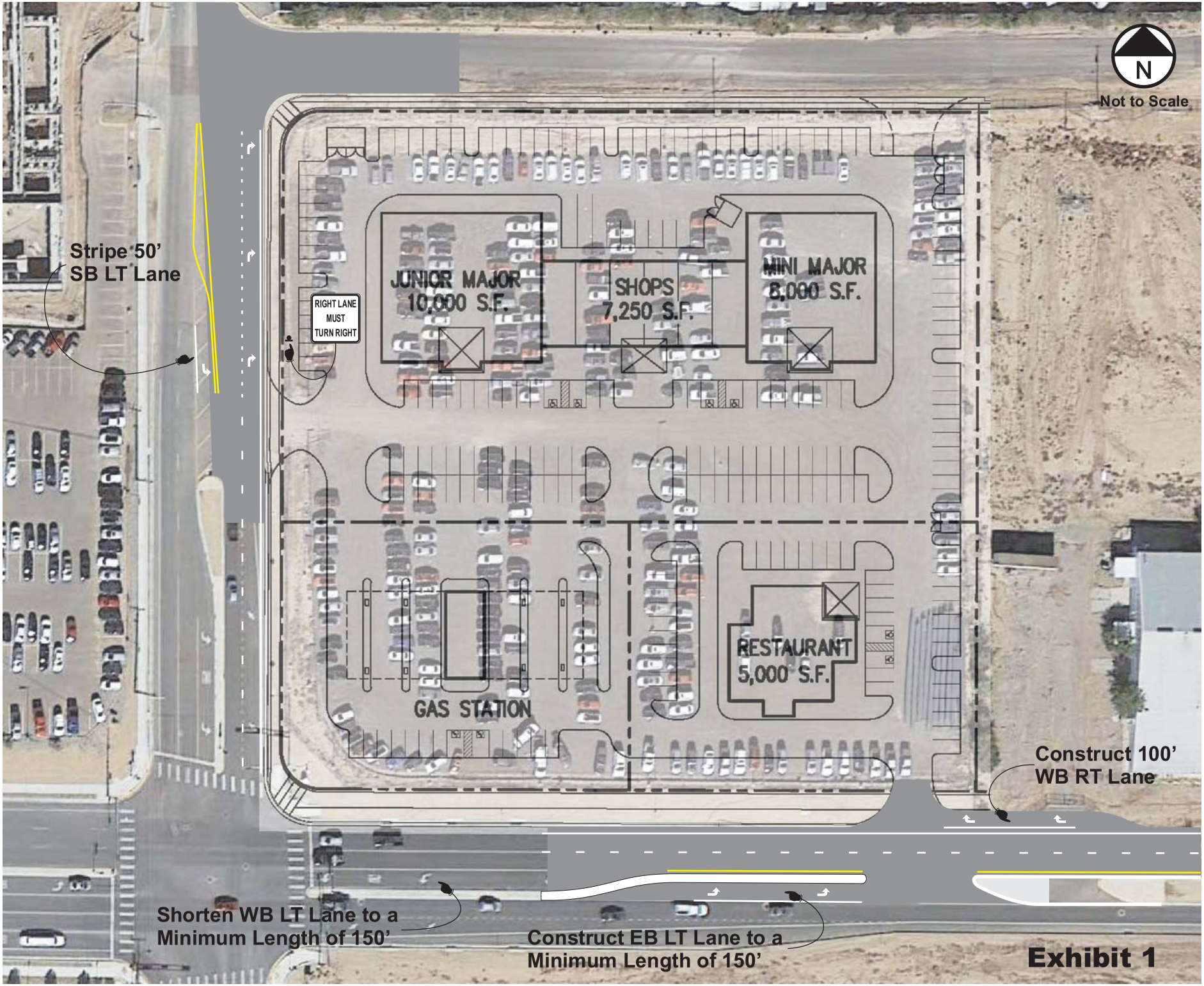
1. Commercial Driveway 2 (C2) on Alameda Blvd should have one ingress and one egress lane. The driveway width should be at least 30' wide. The driveway should have return radii of at least 20' at the flowline with a marked stop bar and stop sign. All required signing and markings shall be per City of Albuquerque and MUTCD standards. Per DPM standard 23-6-B-13, a 100' westbound right-turn deceleration lane will be required with an R=150' reverse curve entry taper.

   The location of this driveway (C2) will require modification to the westbound left-turn lane at San Pedro Dr. The lane should be shortened from 250' to 150' with a reverse curve entry taper of R=150'. [The design queue form this lane is 50' during the AM peak hour.] The relocated median left-turn lane to access C2 should have the same design parameters with a 150' left-turn lane and an R=150' reverse curve entry taper. A short buffer between the back-to-back left-turn lanes may be available. Each left-turn lane shall be striped in accordance with the City of Albuquerque and MUTCD standards. See Exhibit 1 following the text.

2. Apartment Driveway 1 on Alameda Blvd should have one ingress and at least one egress lane. The plans indicate that the travel directions will be separated by a median, and if included the median should be at least 4' wide. The entry and exit lanes should be at least 14' in width, for a minimum opening width of 32'. The driveway should have return radii of at least 25' at the flowline. The egress should include a stop bar and stop sign. The driveway should be delineated with standard roadway markings per the City of Albuquerque and MUTCD standards as appropriate.

A westbound left-turn deceleration lane and entry taper will be required for Apartment Driveway 1. The lane should be least 150' in length and the entry taper should be designed using an R=150' reverse curve. The median opening width shall permit storage of one left-turning vehicle exiting from the site. The design and markings shall be in accordance with the City of Albuquerque and MUTCD standards.

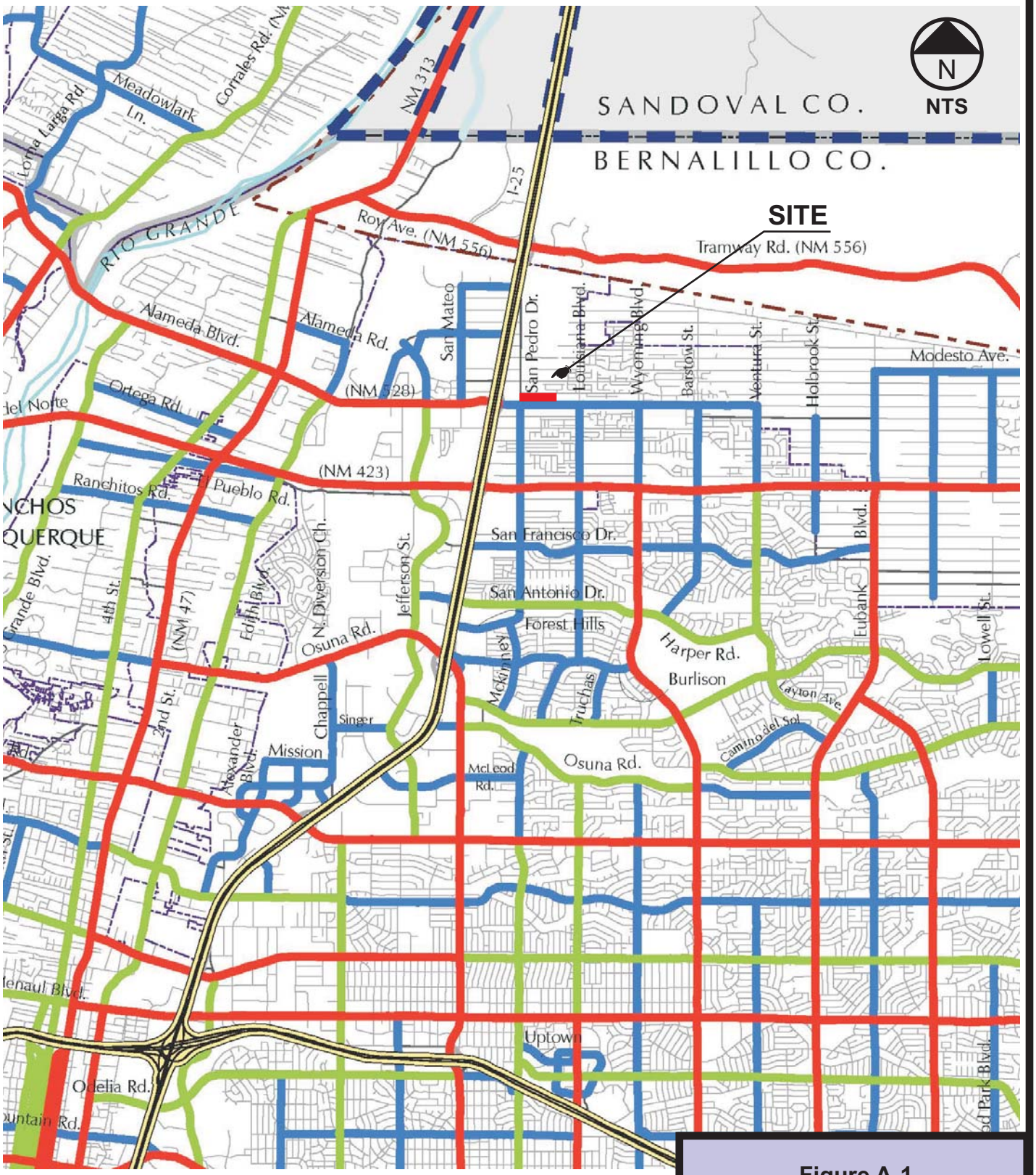
3. Commercial Driveway 1 (C1) on San Pedro Dr should have one ingress and egress lane. The driveway width should minimally be 30' wide with an R=20' or larger return radius. The driveway should have a stop bar for the egress lane, with a stop sign in line with the stop bar. The egress lane should be delineated with standard roadway markings per the City of Albuquerque and MUTCD standards.
4. San Pedro Dr should be modified to provide two northbound lanes between Alameda Blvd and Oakland Ave. The right lane will provide access to C1 and continue north as a right turn only lane drop at Oakland Ave. The striped median area should be restriped to provide a 50', minimum length, southbound left-turn lane for access into C1. See Exhibit 1 on the following page.
5. Apartment Driveways 2 and 3 may be designed as either curb cuts or radiused driveways. These openings should be approximately 30' in width and if radiused and the minimum radius should be R=20'. The design and markings shall be in accordance with the City of Albuquerque and MUTCD standards.
6. Commercial Driveways 3 may be designed as either a curb cut or radiused driveway. These openings should be approximately 30' in width and if radiused and the minimum radius should be R=20'. If a curb cut is used, it may be as narrow as 25' per the DPM. The design and markings shall be in accordance with the City of Albuquerque and MUTCD standards.


N
Not to Scale
Stripe 50'
SB LT Lane
RIGHT LANE
MUST
TURN RIGHT
JUNIOR MAJOR
10,000 S.F.
SHOPS
7,250 S.F.
MINI MAJOR
8,000 S.F.
GAS STATION
RESTAURANT
5,000 S.F.
Construct 100'
WB RT Lane
Shorten WB LT Lane to a
Minimum Length of 150'
Construct EB LT Lane to a
Minimum Length of 150'
Exhibit 1

Appendices

Appendix A

Vicinity Maps and Site Drawing



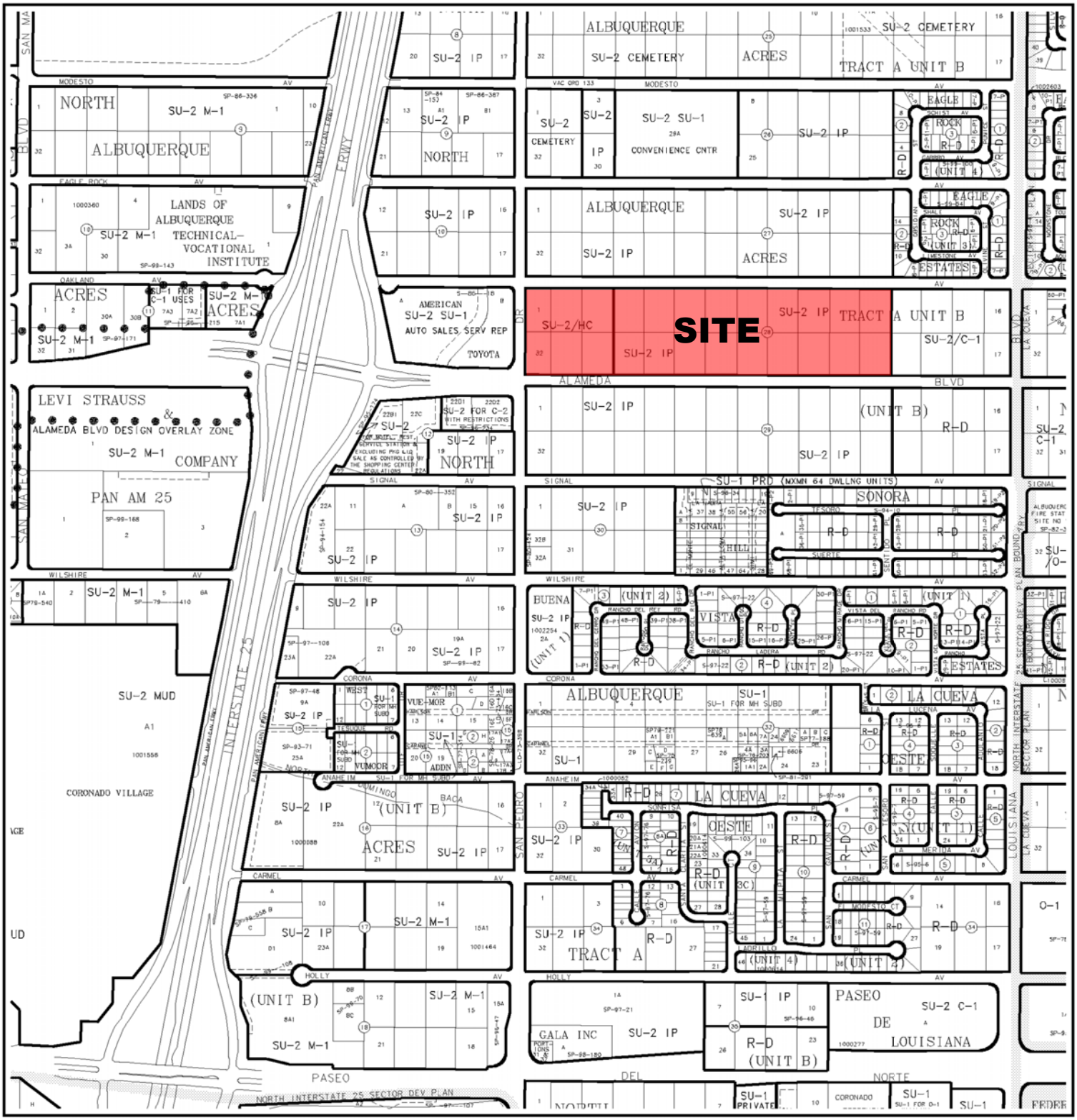
Existing Proposed

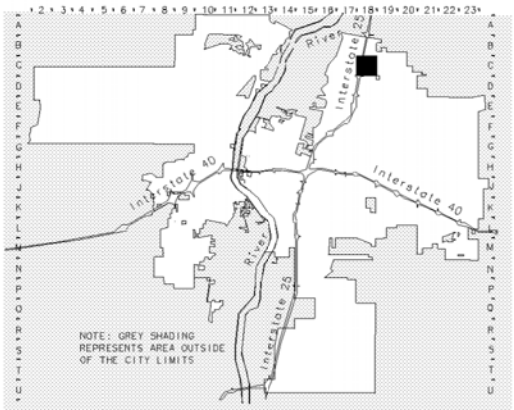
- Interstate (includes frontage)
- Other Freeway
- Principal Arterial
- Minor Arterial
- Collector

This map was excerpted from the MRCOG Current Roadway Functional Classification System map dated 3/25/2010.

Figure A-1

Vicinity and Functional Classification Map





GRAPHIC SCALE IN FEET

250 0 750 1000

Albuquerque Geographic Information System

PLANNING DEPARTMENT

Zone Atlas Page

C-18-Z

Map Amended through November 01, 2003

Figure A-3

Site Plans

DEVELOPMENT DATA

NET SITE AREA :

11.6221 ACRES (506,259 S.F.)

ZONING :

BUILDING HEIGHT :

DENSITY :

PROPOSED: 19.96 DU/ACRE

SETBACKS PROVIDED :

	REAR (N)	SIDE (W)	FRONT (S)	SIDE (E)
BUILDINGS	15'	59'	15'	59'
PARKING	22'	5'	15'	5'

UNIT MIX							
	UNIT TYPE						
	A1	A2	B1	C1	UNITS/ BLDG	NO. BLDGS	TOTAL UNITS
LIVABLE	719	874	1,033	1,220			
STORAGE	28		19	24			
PAT/BAL	65	35	67	57			
BLDG TYPE 1	12		8		20	2	40
BLDG TYPE 2	10		6		16	6	96
BLDG TYPE 3			12	8	20	3	60
BLDG TYPE 4			8	8	18	2	32
BLDG TYPE 5		2			2	2	4
TOTAL	84	4	104	40		15	232

MINIMUM ON-LOT USABLE OPEN SPACE REQUIRED AND PROVIDED				
	SF REQ. PER DU	# OF DU's	TOTAL SF REQUIRED	TOTAL SF PROVIDED
1 BEDROOM	400	88	35,200	
2 BEDROOM	500	104	52,000	
3 BEDROOM	600	40	24,000	
PROVIDED SITE OPEN SPACE				224,907
PROVIDED BALCONY PRIVATE OPEN SPACE				14,848
TOTAL (excess of 128,555 SF)		232	111,200	239,755

PARKING SPACE REQUIREMENTS		
	PARKING RATIO REQUIRED	PARKING SPACES
UNIT A1, A2 < 1,000 SF 84 – 1 BR / 1 BATH	1.5 / 1	132
UNIT B1 > 1,000 SF 104 – 2 BR / 2 BATH	2 / 2	208
UNIT C1 > 1,000 SF 40 – 3 BR / 2 BATH	2 / 2	80
Total Parking Spaces Required		420
OPEN PARKING PROVIDED		189
CARPORT PARKING PROVIDED		157
GARAGE PARKING PROVIDED		75
Total Parking Provided		421
Accessible Parking Required		12
OPEN ACCESSIBLE PARKING PROVIDED		7
CARPORT ACCESSIBLE PARKING PROVIDED		3
GARAGE ACCESSIBLE PARKING PROVIDED		2
Total Accessible Parking Provided		12
Bicycle Parking Required (1 SPACE FOR EVERY 2 DWELLING UNITS)		116
GARAGE		75
BICYCLE RACK		42
Total Bicycle Parking Provided		117

VICINITY MAP

NOT TO SCALE

PROJECT NUMBER:
Application Number:

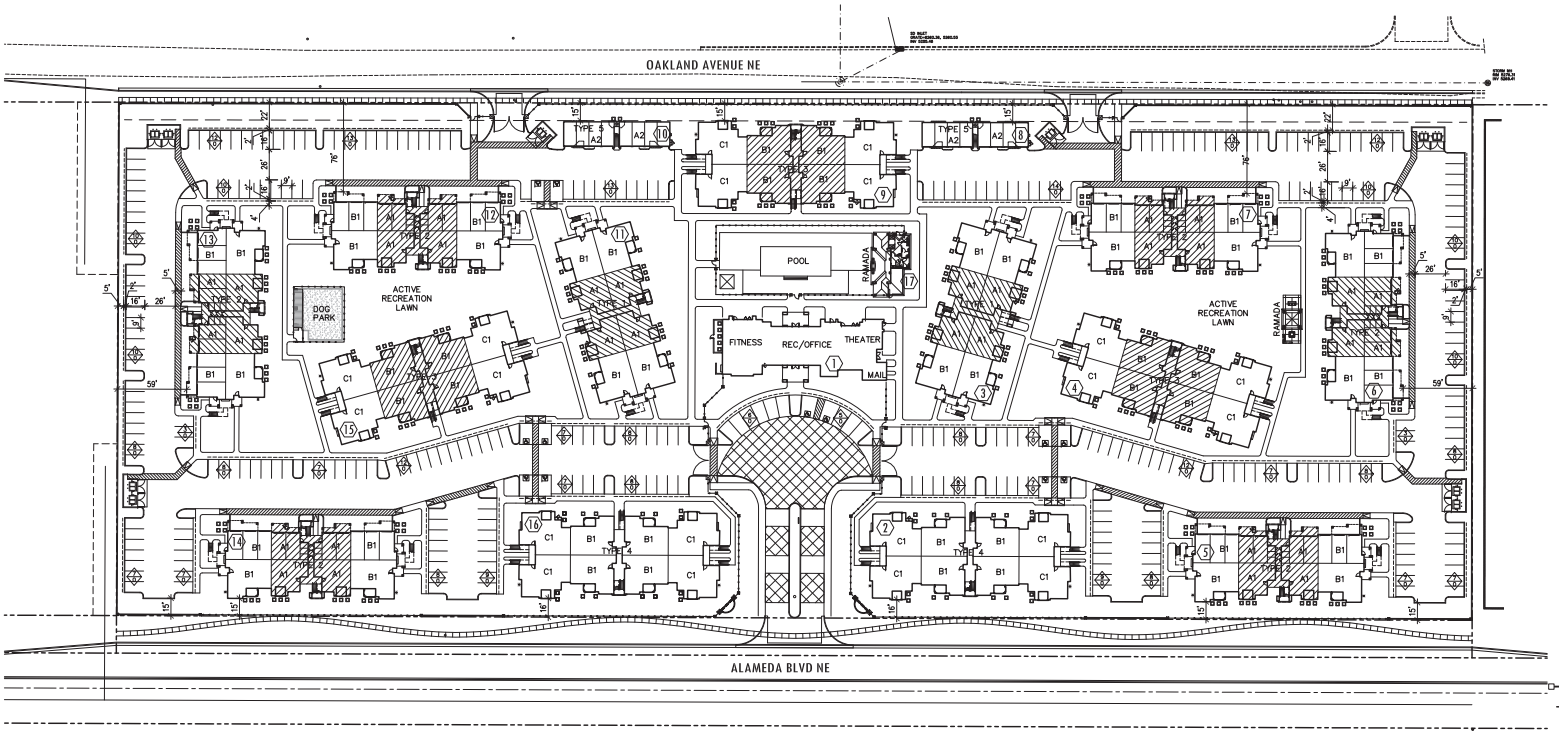
This Plan is consistent with the specific Site Development Plan approved by the Environmental Planning Commission (EPC), dated _____ and the Findings and Conditions in the Official Notification of Decision are satisfied.

Is an Infrastructure List required? ( ) Yes ( ) No If yes, then a set of approved DRC plans with a work order is required for any construction within Public Right-of-Way or for construction of public improvements.

DRB SITE DEVELOPMENT PLAN SIGNOFF APPROVAL:

Traffic Engineering, Transportation Division	Date
ABCWUA	Date
Parks and Recreation Department	Date
City Engineer	Date
Solid Waste Management	Date
DRB Chairperson, Planning Department	Date

KEYNOTES ①



LEGEND

- — — — DENOTES PROPERTY LINE
- ① BUILDING NUMBER
- TYPE 2 BUILDING TYPE
- 10 / 8 NO. OF PARKING SPACES / NO. OF COVERED SPACES
- DENOTES ACCESSIBLE PARKING AND ANSI TYPE 'A' DWELLING UNIT

PRELIMINARY SITE PLAN

SCALE: 1" = 50'-0"

LEGACY NAA APARTMENTS

SAN PEDRO AND ALAMEDA
Albuquerque, New Mexico

Office of Rich Barber Architecture, LLC
ORB
WorldHQ@ORBArch.com

STATE OF NEW MEXICO
RICH BARBER
NO. 2295
REGISTERED ARCHITECT

PRELIMINARY
NOT FOR CONSTRUCTION

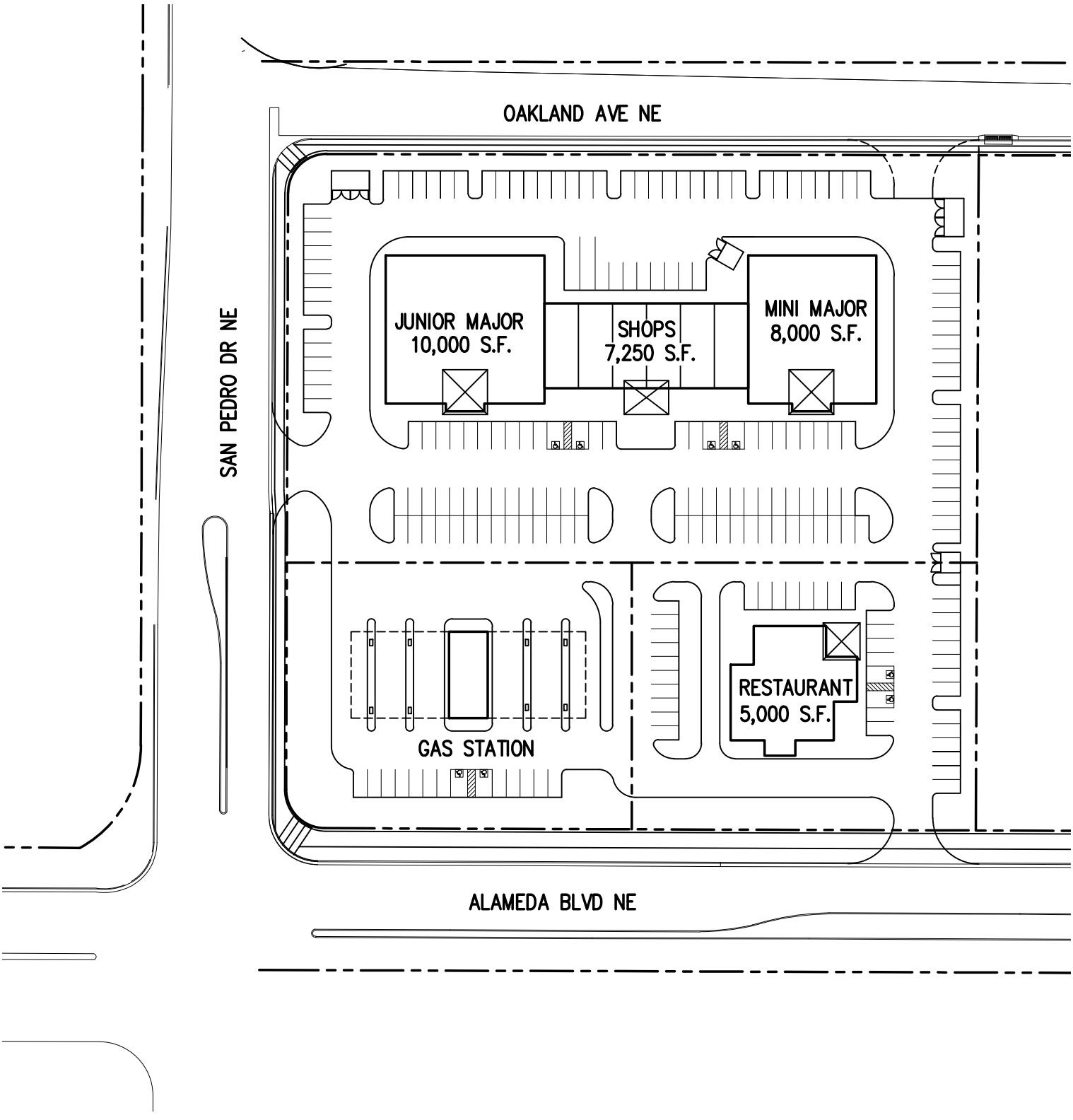
LHI
LEGACY HOSPITALITY

DATE: JANUARY 8, 2016 ORB # 15-218

A1.10

SITE PLAN
PRELIMINARY

SITE PLAN B


OAKLAND AVE NE
SAN PEDRO DR NE
JUNIOR MAJOR
10,000 S.F.
SHOPS
7,250 S.F.
MINI MAJOR
8,000 S.F.
GAS STATION
RESTAURANT
5,000 S.F.
ALAMEDA BLVD NE

Appendix B

Traffic Volume Summary Sheets

Legacy NAA Developments- Existing Vols

AM Peak	**Eastbound**			**Westbound**			**Northbound**			**Southbound**			
Intersection	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**Sum**
Alameda @ SB I-25 Ramps		584	476	461	1649					137	88	165	**3560**
Alameda @ NB I-25 Ramps	152	573			1072	128	878	80	132				**3015**
Alameda @ San Pedro	71	348	277	25	705	10	343	55	16	3	34	217	**2104**
Alameda @ Louisiana	30	241	49	34	423	17	103	49	21	2	95	70	**1134**
Paseo del Norte @ San Pedro	261	1407	223	107	1713	244	195	182	57	82	188	150	**4809**
Oakland @ San Pedro				73		11		110	8	2	182		**386**
Eagle Rock @ San Pedro		17	15	166	47	9	33	25	33		10	2	**357**
Oakland @ Louisiana		5	17	20	40	2	13	69	12	1	133	13	**325**
San Pedro @ C1								136			254		**390**
Alameda @ C2		367			740								**1107**
Alameda @ A1		367			740								**1107**
Oakland @ C3		10			84								**94**
Oakland @ A-W		10			84								**94**
Oakland @ A-E		10			84								**94**

PM Peak	**Eastbound**			**Westbound**			**Northbound**			**Southbound**			
Intersection	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**Sum**
Alameda @ SB I-25 Ramps		895	698	284	1226					474	460	98	**4135**
Alameda @ NB I-25 Ramps	307	1048			685	179	830	121	387				**3557**
Alameda @ San Pedro	114	849	442	24	411	11	254	50	31	6	44	148	**2384**
Alameda @ Louisiana	90	568	107	24	347	14	74	88	28	20	97	38	**1495**
Paseo del Norte @ San Pedro	305	1863	132	123	1302	174	176	186	96	240	237	273	**5107**
Oakland @ San Pedro				21		3		126	51	9	152		**362**
Eagle Rock @ San Pedro	1	66	43	77	17	5	13	26	86	4	40	4	**382**
Oakland @ Louisiana	10	30	20	20	15		19	151	19		114	10	**408**
San Pedro @ C1								175			198		**373**
Alameda @ C2		886			446								**1332**
Alameda @ A1		886			446								**1332**
Oakland @ C3		60			24								**84**
Oakland @ A-W		60			24								**84**
Oakland @ A-E		60			24								**84**

Legacy NAA Developments- 2019 No Build Vols

AM Peak	**Eastbound**			**Westbound**			**Northbound**			**Southbound**			
Intersection	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**Sum**
Alameda @ SB I-25 Ramps		600	490	470	1690					140	90	170	**3650**
Alameda @ NB I-25 Ramps	160	590			1100	130	900	80	130				**3090**
Alameda @ San Pedro	70	360	280	30	730	10	350	60	20	3	30	220	**2163**
Alameda @ Louisiana	30	250	50	30	430	20	110	50	20	2	100	70	**1162**
Paseo del Norte @ San Pedro	270	1440	230	110	1760	250	200	190	60	80	190	150	**4930**
Oakland @ San Pedro				70		10		110	10	2	190		**392**
Eagle Rock @ San Pedro		20	20	170	50	10	30	30	30		10	2	**372**
Oakland @ Louisiana		5	20	20	40	2	10	70	10	1	140	10	**328**
San Pedro @ C1								140			260		**400**
Alameda @ C2		380			760								**1140**
Alameda @ A1		380			760								**1140**
Oakland @ C3		10			90								**100**
Oakland @ A-W		10			90								**100**
Oakland @ A-E		10			90								**100**

PM Peak	**Eastbound**			**Westbound**			**Northbound**			**Southbound**			
Intersection	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**Sum**
Alameda @ SB I-25 Ramps		920	710	290	1250					480	470	100	**4220**
Alameda @ NB I-25 Ramps	310	1080			700	180	850	120	390				**3630**
Alameda @ San Pedro	120	870	450	20	420	10	260	50	30	10	40	150	**2430**
Alameda @ Louisiana	90	580	120	20	350	10	80	90	30	20	100	40	**1530**
Paseo del Norte @ San Pedro	310	1920	130	130	1340	180	180	190	100	240	240	280	**5240**
Oakland @ San Pedro				20		3		130	50	10	160		**373**
Eagle Rock @ San Pedro	1	70	40	80	20	5	10	30	90	4	40	4	**394**
Oakland @ Louisiana	10	30	20	20	20		20	150	20		120	10	**420**
San Pedro @ C1								180			200		**380**
Alameda @ C2		910			460								**1370**
Alameda @ A1		910			460								**1370**
Oakland @ C3		60			20								**80**
Oakland @ A-W		60			20								**80**
Oakland @ A-E		60			20								**80**

Annual Growth Rate: 0.5%
Growth Years 4

Legacy NAA Developments- 2019 Build Vols

AM Peak	**Eastbound**			**Westbound**			**Northbound**			**Southbound**			
Intersection	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**Sum**
Alameda @ SB I-25 Ramps		630	490	530	1730					140	90	170	**3780**
Alameda @ NB I-25 Ramps	160	620			1190	140	900	80	140				**3230**
Alameda @ San Pedro	90	380	280	30	790	10	350	80	20	20	50	260	**2360**
Alameda @ Louisiana	30	290	70	30	470	20	120	50	20	2	110	80	**1292**
Paseo del Norte @ San Pedro	270	1440	230	110	1760	250	200	210	60	80	210	150	**4970**
Oakland @ San Pedro				100		10		110	20	2	190		**432**
Eagle Rock @ San Pedro		20	20	170	50	10	30	30	30		10	2	**372**
Oakland @ Louisiana	10	10	30	20	40	2	10	70	10	1	150	20	**373**
San Pedro @ C1				73				147	48		291		**559**
Alameda @ C2	17	411			805	85				35		16	**1369**
Alameda @ A1	11	441			826	3				11		45	**1337**
Oakland @ C3		18		7	120				22				**167**
Oakland @ A-W		30	4	1	110		15		3				**163**
Oakland @ A-E		29	4	1	96		15		3				**148**

PM Peak	**Eastbound**			**Westbound**			**Northbound**			**Southbound**			
Intersection	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**Sum**
Alameda @ SB I-25 Ramps		960	710	320	1280					490	470	100	**4330**
Alameda @ NB I-25 Ramps	310	1130			760	180	850	120	450				**3800**
Alameda @ San Pedro	170	930	450	20	460	10	260	70	30	30	60	180	**2670**
Alameda @ Louisiana	90	620	140	20	390	10	100	100	30	30	100	40	**1670**
Paseo del Norte @ San Pedro	310	1920	130	130	1340	180	180	210	100	240	260	280	**5280**
Oakland @ San Pedro				40		3		130	80	10	160		**423**
Eagle Rock @ San Pedro	1	70	40	80	20	10	10	30	90	4	40	4	**399**
Oakland @ Louisiana	20	30	30	20	20		30	150	20		120	20	**460**
San Pedro @ C1				98				211	61		217		**587**
Alameda @ C2	22	976			485	114				47		22	**1666**
Alameda @ A1	45	974			524	11				6		25	**1585**
Oakland @ C3		90		8	36				29				**163**
Oakland @ A-W		92	15	3	33		8		2				**153**
Oakland @ A-E		79	15	3	28		8		2				**135**

Annual Growth Rate 0.5%

Harwick Transportation Group, Inc.

1440 Camino Cerrito SE
Albuquerque, NM 87123

Counter: R.C.

File Name : I-25 SB Ramp - Alameda
Site Code : 11192015
Start Date : 11/19/2015
Page No : 1

Groups Printed- Cars - Trucks - Buses

	Alameda Eastbound				Alameda Westbound				I-25 ramp Northbound				I-25 ramp Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	110	150	260	89	288	0	377	0	0	0	0	23	11	30	64	701
07:15 AM	0	140	152	292	132	356	0	488	0	0	0	0	38	7	38	83	863
07:30 AM	0	140	134	274	107	397	0	504	0	0	0	0	37	26	39	102	880
07:45 AM	0	153	90	243	114	500	0	614	0	0	0	0	32	28	59	119	976
Total	0	543	526	1069	442	1541	0	1983	0	0	0	0	130	72	166	368	3420
08:00 AM	0	151	100	251	108	396	0	504	0	0	0	0	30	27	29	86	841
08:15 AM	0	140	98	238	85	350	0	435	0	0	0	0	32	22	38	92	765
08:30 AM	0	130	142	272	103	310	0	413	0	0	0	0	28	21	19	68	753
08:45 AM	0	136	131	267	75	323	0	398	0	0	0	0	32	23	33	88	753
Total	0	557	471	1028	371	1379	0	1750	0	0	0	0	122	93	119	334	3112
*** BREAK ***																	
04:00 PM	0	205	181	386	87	315	0	402	0	0	0	0	93	106	36	235	1023
04:15 PM	0	195	172	367	55	293	0	348	0	0	0	0	97	82	46	225	940
04:30 PM	0	237	185	422	72	304	0	376	0	0	0	0	116	102	24	242	1040
04:45 PM	0	209	152	361	66	256	0	322	0	0	0	0	104	110	23	237	920
Total	0	846	690	1536	280	1168	0	1448	0	0	0	0	410	400	129	939	3923
05:00 PM	0	237	198	435	86	328	0	414	0	0	0	0	120	149	24	293	1142
05:15 PM	0	212	163	375	60	338	0	398	0	0	0	0	134	99	27	260	1033
05:30 PM	0	174	150	324	73	305	0	378	0	0	0	0	136	100	34	270	972
05:45 PM	0	169	134	303	64	255	0	319	0	0	0	0	135	91	24	250	872
Total	0	792	645	1437	283	1226	0	1509	0	0	0	0	525	439	109	1073	4019
Grand Total	0	2738	2332	5070	1376	5314	0	6690	0	0	0	0	1187	1004	523	2714	14474
Apprch %	0	54	46		20.6	79.4	0		0	0	0		43.7	37	19.3		
Total %	0	18.9	16.1	35	9.5	36.7	0	46.2	0	0	0	0	8.2	6.9	3.6	18.8	
Cars	0	2650	2244	4894	1351	5211	0	6562	0	0	0	0	1179	990	507	2676	14132
% Cars	0	96.8	96.2	96.5	98.2	98.1	0	98.1	0	0	0	0	99.3	98.6	96.9	98.6	97.6
Trucks	0	39	72	111	8	41	0	49	0	0	0	0	2	7	9	18	178
% Trucks	0	1.4	3.1	2.2	0.6	0.8	0	0.7	0	0	0	0	0.2	0.7	1.7	0.7	1.2
Buses	0	49	16	65	17	62	0	79	0	0	0	0	6	7	7	20	164
% Buses	0	1.8	0.7	1.3	1.2	1.2	0	1.2	0	0	0	0	0.5	0.7	1.3	0.7	1.1

Harwick Transportation Group, Inc.

1440 Camino Cerrito SE
Albuquerque, NM 87123

Counter: R.C.

File Name : I-25 SB Ramp - Alameda
Site Code : 11192015
Start Date : 11/19/2015

	Alameda Eastbound				Alameda Westbound				I-25 ramp Northbound				I-25 ramp Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	140	152	292	132	356	0	488	0	0	0	0	38	7	38	83	863
07:30 AM	0	140	134	274	107	397	0	504	0	0	0	0	37	26	39	102	880
07:45 AM	0	153	90	243	114	500	0	614	0	0	0	0	32	28	59	119	976
08:00 AM	0	151	100	251	108	396	0	504	0	0	0	0	30	27	29	86	841
Total Volume	0	584	476	1060	461	1649	0	2110	0	0	0	0	137	88	165	390	3560
% App. Total	0	55.1	44.9		21.8	78.2	0		0	0	0		35.1	22.6	42.3		
PHF	.000	.954	.783	.908	.873	.825	.000	.859	.000	.000	.000	.000	.901	.786	.699	.819	.912
Cars	0	563	455	1018	451	1622	0	2073	0	0	0	0	136	85	165	386	3477
% Cars	0	96.4	95.6	96.0	97.8	98.4	0	98.2	0	0	0	0	99.3	96.6	100	99.0	97.7
Trucks	0	9	16	25	4	16	0	20	0	0	0	0	0	0	0	0	45
% Trucks	0	1.5	3.4	2.4	0.9	1.0	0	0.9	0	0	0	0	0	0	0	0	1.3
Buses	0	12	5	17	6	11	0	17	0	0	0	0	1	3	0	4	38
% Buses	0	2.1	1.1	1.6	1.3	0.7	0	0.8	0	0	0	0	0.7	3.4	0	1.0	1.1
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	237	185	422	72	304	0	376	0	0	0	0	116	102	24	242	1040
04:45 PM	0	209	152	361	66	256	0	322	0	0	0	0	104	110	23	237	920
05:00 PM	0	237	198	435	86	328	0	414	0	0	0	0	120	149	24	293	1142
05:15 PM	0	212	163	375	60	338	0	398	0	0	0	0	134	99	27	260	1033
Total Volume	0	895	698	1593	284	1226	0	1510	0	0	0	0	474	460	98	1032	4135
% App. Total	0	56.2	43.8		18.8	81.2	0		0	0	0		45.9	44.6	9.5		
PHF	.000	.944	.881	.916	.826	.907	.000	.912	.000	.000	.000	.000	.884	.772	.907	.881	.905
Cars	0	884	680	1564	281	1209	0	1490	0	0	0	0	472	458	95	1025	4079
% Cars	0	98.8	97.4	98.2	98.9	98.6	0	98.7	0	0	0	0	99.6	99.6	96.9	99.3	98.6
Trucks	0	2	15	17	1	6	0	7	0	0	0	0	0	2	1	3	27
% Trucks	0	0.2	2.1	1.1	0.4	0.5	0	0.5	0	0	0	0	0	0.4	1.0	0.3	0.7
Buses	0	9	3	12	2	11	0	13	0	0	0	0	2	0	2	4	29
% Buses	0	1.0	0.4	0.8	0.7	0.9	0	0.9	0	0	0	0	0.4	0	2.0	0.4	0.7

Harwick Transportation Group, Inc.

1440 Camino Cerrito SE
Albuquerque, NM 87123

Counter: R.C.

File Name : I-25 NB Ramp - Alameda
Site Code : 11182015
Start Date : 11/18/2015
Page No : 1

Groups Printed- Cars - Trucks - Buses

	Alameda Eastbound				Alameda Westbound				I-25 Ramp Northbound				I-25 Ramp Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	26	125	0	151	0	176	27	203	164	15	46	225	0	0	0	0	579
07:15 AM	33	156	0	189	0	258	33	291	196	25	28	249	0	0	0	0	729
07:30 AM	27	145	0	172	0	277	38	315	226	19	28	273	0	0	0	0	760
07:45 AM	49	151	0	200	0	301	27	328	251	13	41	305	0	0	0	0	833
Total	135	577	0	712	0	1012	125	1137	837	72	143	1052	0	0	0	0	2901
08:00 AM	43	121	0	164	0	236	30	266	205	23	35	263	0	0	0	0	693
08:15 AM	34	137	0	171	0	248	36	284	194	17	30	241	0	0	0	0	696
08:30 AM	41	96	0	137	0	213	32	245	167	13	33	213	0	0	0	0	595
08:45 AM	31	117	0	148	0	208	26	234	171	25	45	241	0	0	0	0	623
Total	149	471	0	620	0	905	124	1029	737	78	143	958	0	0	0	0	2607
*** BREAK ***																	
04:00 PM	66	238	0	304	0	208	53	261	172	21	57	250	0	0	0	0	815
04:15 PM	58	199	0	257	0	163	43	206	172	26	56	254	0	0	0	0	717
04:30 PM	77	264	0	341	0	188	51	239	150	27	60	237	0	0	0	0	817
04:45 PM	85	245	0	330	0	161	43	204	129	27	81	237	0	0	0	0	771
Total	286	946	0	1232	0	720	190	910	623	101	254	978	0	0	0	0	3120
05:00 PM	78	296	0	374	0	195	48	243	230	28	95	353	0	0	0	0	970
05:15 PM	76	277	0	353	0	175	56	231	200	32	90	322	0	0	0	0	906
05:30 PM	68	230	0	298	0	154	32	186	271	34	121	426	0	0	0	0	910
05:45 PM	57	195	0	252	0	133	55	188	216	25	78	319	0	0	0	0	759
Total	279	998	0	1277	0	657	191	848	917	119	384	1420	0	0	0	0	3545
Grand Total	849	2992	0	3841	0	3294	630	3924	3114	370	924	4408	0	0	0	0	12173
Apprch %	22.1	77.9	0		0	83.9	16.1		70.6	8.4	21		0	0	0		
Total %	7	24.6	0	31.6	0	27.1	5.2	32.2	25.6	3	7.6	36.2	0	0	0	0	
Cars	832	2942	0	3774	0	3205	619	3824	3041	356	909	4306	0	0	0	0	11904
% Cars	98	98.3	0	98.3	0	97.3	98.3	97.5	97.7	96.2	98.4	97.7	0	0	0	0	97.8
Trucks	7	8	0	15	0	31	6	37	41	6	4	51	0	0	0	0	103
% Trucks	0.8	0.3	0	0.4	0	0.9	1	0.9	1.3	1.6	0.4	1.2	0	0	0	0	0.8
Buses	10	42	0	52	0	58	5	63	32	8	11	51	0	0	0	0	166
% Buses	1.2	1.4	0	1.4	0	1.8	0.8	1.6	1	2.2	1.2	1.2	0	0	0	0	1.4

Harwick Transportation Group, Inc.

1440 Camino Cerrito SE
Albuquerque, NM 87123

Counter: R.C.

File Name : I-25 NB Ramp - Alameda
Site Code : 11182015
Start Date : 11/18/2015

	Alameda Eastbound				Alameda Westbound				I-25 Ramp Northbound				I-25 Ramp Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	33	**156**	0	189	0	258	33	291	196	**25**	28	249	0	0	0	0	729
07:30 AM	27	145	0	172	0	277	**38**	315	226	19	28	273	0	0	0	0	760
07:45 AM	**49**	151	0	**200**	0	**301**	27	**328**	**251**	13	**41**	**305**	0	0	0	0	**833**
08:00 AM	43	121	0	164	0	236	30	266	205	23	35	263	0	0	0	0	693
Total Volume	152	573	0	725	0	1072	128	1200	878	80	132	1090	0	0	0	0	3015
% App. Total	21	79	0		0	89.3	10.7		80.6	7.3	12.1		0	0	0		
PHF	.776	.918	.000	.906	.000	.890	.842	.915	.875	.800	.805	.893	.000	.000	.000	.000	.905
Cars	142	552	0	694	0	1048	124	1172	857	76	128	1061	0	0	0	0	2927
% Cars	93.4	96.3	0	95.7	0	97.8	96.9	97.7	97.6	95.0	97.0	97.3	0	0	0	0	97.1
Trucks	4	3	0	7	0	12	3	15	14	2	0	16	0	0	0	0	38
% Trucks	2.6	0.5	0	1.0	0	1.1	2.3	1.3	1.6	2.5	0	1.5	0	0	0	0	1.3
Buses	6	18	0	24	0	12	1	13	7	2	4	13	0	0	0	0	50
% Buses	3.9	3.1	0	3.3	0	1.1	0.8	1.1	0.8	2.5	3.0	1.2	0	0	0	0	1.7
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	**85**	245	0	330	0	161	43	204	129	27	81	237	0	0	0	0	771
05:00 PM	78	**296**	0	**374**	0	**195**	48	**243**	230	28	95	353	0	0	0	0	**970**
05:15 PM	76	277	0	353	0	175	**56**	231	200	32	90	322	0	0	0	0	906
05:30 PM	68	230	0	298	0	154	32	186	**271**	**34**	**121**	**426**	0	0	0	0	910
Total Volume	307	1048	0	1355	0	685	179	864	830	121	387	1338	0	0	0	0	3557
% App. Total	22.7	77.3	0		0	79.3	20.7		62	9	28.9		0	0	0		
PHF	.903	.885	.000	.906	.000	.878	.799	.889	.766	.890	.800	.785	.000	.000	.000	.000	.917
Cars	304	1041	0	1345	0	668	176	844	822	117	384	1323	0	0	0	0	3512
% Cars	99.0	99.3	0	99.3	0	97.5	98.3	97.7	99.0	96.7	99.2	98.9	0	0	0	0	98.7
Trucks	0	2	0	2	0	5	1	6	3	2	0	5	0	0	0	0	13
% Trucks	0	0.2	0	0.1	0	0.7	0.6	0.7	0.4	1.7	0	0.4	0	0	0	0	0.4
Buses	3	5	0	8	0	12	2	14	5	2	3	10	0	0	0	0	32
% Buses	1.0	0.5	0	0.6	0	1.8	1.1	1.6	0.6	1.7	0.8	0.7	0	0	0	0	0.9

Harwick Transportation Group, Inc.
1440 Camino Cerrito SE
Albuquerque, NM 87123
505-228-9776

Counter: NH

File Name : Alameda-SanPedro
Site Code : 11101511
Start Date : 11/10/2015
Page No : 1

Groups Printed- Cars - Trucks - Buses

	Alameda Blvd Eastbound				Alameda Blvd Westbound				San Pedro Dr Northbound				San Pedro Dr Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	14	89	53	156	4	125	3	132	60	3	5	68	1	3	57	61	417
07:15 AM	23	79	71	173	10	181	5	196	77	16	3	96	1	10	66	77	542
07:30 AM	12	80	69	161	7	151	3	161	74	11	2	87	0	6	66	72	481
07:45 AM	25	94	78	197	3	191	1	195	112	12	3	127	1	7	46	54	573
Total	74	342	271	687	24	648	12	684	323	42	13	378	3	26	235	264	2013
08:00 AM	11	95	59	165	5	182	1	188	80	16	8	104	1	11	39	51	508
08:15 AM	18	98	58	174	4	146	6	156	93	19	2	114	1	4	39	44	488
08:30 AM	12	73	51	136	6	132	2	140	56	14	6	76	0	8	42	50	402
08:45 AM	18	63	57	138	3	113	3	119	72	21	4	97	1	7	53	61	415
Total	59	329	225	613	18	573	12	603	301	70	20	391	3	30	173	206	1813
*** BREAK ***																	
04:00 PM	24	166	128	318	7	111	2	120	59	7	4	70	5	12	30	47	555
04:15 PM	19	177	96	292	9	137	1	147	64	9	6	79	2	16	25	43	561
04:30 PM	26	214	112	352	8	86	4	98	64	10	6	80	3	13	41	57	587
04:45 PM	29	189	89	307	4	110	3	117	72	14	9	95	0	8	31	39	558
Total	98	746	425	1269	28	444	10	482	259	40	25	324	10	49	127	186	2261
05:00 PM	24	213	119	356	5	118	3	126	63	16	5	84	3	17	48	68	634
05:15 PM	35	233	122	390	7	97	1	105	55	10	11	76	0	6	28	34	605
05:30 PM	25	181	95	301	3	111	2	116	54	16	16	86	1	12	31	44	547
05:45 PM	30	175	94	299	4	101	2	107	45	9	10	64	3	6	35	44	514
Total	114	802	430	1346	19	427	8	454	217	51	42	310	7	41	142	190	2300
Grand Total	345	2219	1351	3915	89	2092	42	2223	1100	203	100	1403	23	146	677	846	8387
Apprch %	8.8	56.7	34.5		4	94.1	1.9		78.4	14.5	7.1		2.7	17.3	80		
Total %	4.1	26.5	16.1	46.7	1.1	24.9	0.5	26.5	13.1	2.4	1.2	16.7	0.3	1.7	8.1	10.1	
Cars	335	2195	1339	3869	89	2068	41	2198	1092	195	99	1386	22	141	657	820	8273
% Cars	97.1	98.9	99.1	98.8	100	98.9	97.6	98.9	99.3	96.1	99	98.8	95.7	96.6	97	96.9	98.6
Trucks	2	15	6	23	0	11	1	12	5	3	0	8	0	1	8	9	52
% Trucks	0.6	0.7	0.4	0.6	0	0.5	2.4	0.5	0.5	1.5	0	0.6	0	0.7	1.2	1.1	0.6
Buses	8	9	6	23	0	13	0	13	3	5	1	9	1	4	12	17	62
% Buses	2.3	0.4	0.4	0.6	0	0.6	0	0.6	0.3	2.5	1	0.6	4.3	2.7	1.8	2	0.7

Harwick Transportation Group, Inc.
1440 Camino Cerrito SE
Albuquerque, NM 87123
505-228-9776

File Name : Alameda-SanPedro
Site Code : 11101511
Start Date : 11/10/2015
Page No : 2

	Alameda Blvd Eastbound				Alameda Blvd Westbound				San Pedro Dr Northbound				San Pedro Dr Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	23	79	71	173	10	181	5	196	77	16	3	96	1	10	66	77	542
07:30 AM	12	80	69	161	7	151	3	161	74	11	2	87	0	6	66	72	481
07:45 AM	25	94	78	197	3	191	1	195	112	12	3	127	1	7	46	54	573
08:00 AM	11	95	59	165	5	182	1	188	80	16	8	104	1	11	39	51	508
Total Volume	71	348	277	696	25	705	10	740	343	55	16	414	3	34	217	254	2104
% App. Total	10.2	50	39.8		3.4	95.3	1.4		82.9	13.3	3.9		1.2	13.4	85.4		
PHF	.710	.916	.888	.883	.625	.923	.500	.944	.766	.859	.500	.815	.750	.773	.822	.825	.918
Cars	66	341	274	681	25	696	10	731	339	54	16	409	2	32	210	244	2065
% Cars	93.0	98.0	98.9	97.8	100	98.7	100	98.8	98.8	98.2	100	98.8	66.7	94.1	96.8	96.1	98.1
Trucks	2	6	2	10	0	5	0	5	3	0	0	3	0	0	4	4	22
% Trucks	2.8	1.7	0.7	1.4	0	0.7	0	0.7	0.9	0	0	0.7	0	0	1.8	1.6	1.0
Buses	3	1	1	5	0	4	0	4	1	1	0	2	1	2	3	6	17
% Buses	4.2	0.3	0.4	0.7	0	0.6	0	0.5	0.3	1.8	0	0.5	33.3	5.9	1.4	2.4	0.8
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	26	214	112	352	8	86	4	98	64	10	6	80	3	13	41	57	587
04:45 PM	29	189	89	307	4	110	3	117	72	14	9	95	0	8	31	39	558
05:00 PM	24	213	119	356	5	118	3	126	63	16	5	84	3	17	48	68	634
05:15 PM	35	233	122	390	7	97	1	105	55	10	11	76	0	6	28	34	605
Total Volume	114	849	442	1405	24	411	11	446	254	50	31	335	6	44	148	198	2384
% App. Total	8.1	60.4	31.5		5.4	92.2	2.5		75.8	14.9	9.3		3	22.2	74.7		
PHF	.814	.911	.906	.901	.750	.871	.688	.885	.882	.781	.705	.882	.500	.647	.771	.728	.940
Cars	113	848	439	1400	24	406	11	441	252	50	31	333	6	44	143	193	2367
% Cars	99.1	99.9	99.3	99.6	100	98.8	100	98.9	99.2	100	100	99.4	100	100	96.6	97.5	99.3
Trucks	0	1	0	1	0	2	0	2	1	0	0	1	0	0	0	0	4
% Trucks	0	0.1	0	0.1	0	0.5	0	0.4	0.4	0	0	0.3	0	0	0	0	0.2
Buses	1	0	3	4	0	3	0	3	1	0	0	1	0	0	5	5	13
% Buses	0.9	0	0.7	0.3	0	0.7	0	0.7	0.4	0	0	0.3	0	0	3.4	2.5	0.5

Harwick Transportation Group, Inc.

1440 Camino Cerrito SE
Albuquerque, NM 87123

Counter: R.C.

File Name : Louisiana and Alameda RC
Site Code : 11112015
Start Date : 11/11/2015
Page No : 1

Groups Printed- Cars - Trucks - Buses

	Alameda Eastbound				Alameda Westbound				Louisiana Northbound				Louisiana Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	3	35	11	49	3	73	1	77	17	5	0	22	1	19	20	40	188
07:15 AM	4	56	14	74	5	89	1	95	23	17	3	43	3	33	16	52	264
07:30 AM	4	49	18	71	7	95	1	103	30	14	2	46	1	18	11	30	250
07:45 AM	8	66	11	85	9	119	5	133	31	12	8	51	0	33	11	44	313
Total	19	206	54	279	24	376	8	408	101	48	13	162	5	103	58	166	1015
08:00 AM	11	54	17	82	9	86	6	101	31	14	4	49	2	21	19	42	274
08:15 AM	7	77	8	92	11	98	4	113	16	12	6	34	0	25	20	45	284
08:30 AM	4	44	13	61	5	120	2	127	25	11	3	39	0	16	20	36	263
08:45 AM	7	50	12	69	5	71	6	82	20	10	4	34	1	23	21	45	230
Total	29	225	50	304	30	375	18	423	92	47	17	156	3	85	80	168	1051
*** BREAK ***																	
04:00 PM	24	97	31	152	7	71	3	81	16	15	11	42	1	22	8	31	306
04:15 PM	17	123	22	162	2	85	4	91	16	26	3	45	2	22	16	40	338
04:30 PM	20	141	27	188	3	82	3	88	12	25	6	43	4	17	12	33	352
04:45 PM	22	124	27	173	6	78	3	87	28	18	8	54	4	22	7	33	347
Total	83	485	107	675	18	316	13	347	72	84	28	184	11	83	43	137	1343
05:00 PM	19	138	23	180	7	90	2	99	7	29	5	41	3	33	14	50	370
05:15 PM	23	162	36	221	7	108	4	119	19	22	10	51	4	21	8	33	424
05:30 PM	26	144	21	191	4	71	5	80	20	19	5	44	9	21	9	39	354
05:45 PM	20	95	16	131	4	78	1	83	16	24	12	52	5	25	10	40	306
Total	88	539	96	723	22	347	12	381	62	94	32	188	21	100	41	162	1454
Grand Total	219	1455	307	1981	94	1414	51	1559	327	273	90	690	40	371	222	633	4863
Apprch %	11.1	73.4	15.5		6	90.7	3.3		47.4	39.6	13		6.3	58.6	35.1		
Total %	4.5	29.9	6.3	40.7	1.9	29.1	1	32.1	6.7	5.6	1.9	14.2	0.8	7.6	4.6	13	
Cars	213	1429	307	1949	93	1390	51	1534	324	271	89	684	38	361	219	618	4785
% Cars	97.3	98.2	100	98.4	98.9	98.3	100	98.4	99.1	99.3	98.9	99.1	95	97.3	98.6	97.6	98.4
Trucks	1	12	0	13	0	8	0	8	0	0	0	0	1	3	1	5	26
% Trucks	0.5	0.8	0	0.7	0	0.6	0	0.5	0	0	0	0	2.5	0.8	0.5	0.8	0.5
Buses	5	14	0	19	1	16	0	17	3	2	1	6	1	7	2	10	52
% Buses	2.3	1	0	1	1.1	1.1	0	1.1	0.9	0.7	1.1	0.9	2.5	1.9	0.9	1.6	1.1

Harwick Transportation Group, Inc.

1440 Camino Cerrito SE
Albuquerque, NM 87123

Counter: R.C.

File Name : Louisiana and Alameda RC
Site Code : 11112015
Start Date : 11/11/2015

	Alameda Eastbound				Alameda Westbound				Louisiana Northbound				Louisiana Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	8	66	11	85	9	119	5	**133**	**31**	12	**8**	**51**	0	**33**	11	44	**313**
08:00 AM	**11**	54	**17**	82	9	86	**6**	101	31	**14**	4	49	**2**	21	19	42	274
08:15 AM	7	**77**	8	**92**	**11**	98	4	113	16	12	6	34	0	25	**20**	**45**	284
08:30 AM	4	44	13	61	5	**120**	2	127	25	11	3	39	0	16	20	36	263
Total Volume	30	241	49	320	34	423	17	474	103	49	21	173	2	95	70	167	1134
% App. Total	9.4	75.3	15.3		7.2	89.2	3.6		59.5	28.3	12.1		1.2	56.9	41.9		
PHF	.682	.782	.721	.870	.773	.881	.708	.891	.831	.875	.656	.848	.250	.720	.875	.928	.906
Cars	27	234	49	310	33	415	17	465	103	49	21	173	1	89	70	160	1108
% Cars	90.0	97.1	100	96.9	97.1	98.1	100	98.1	100	100	100	100	50.0	93.7	100	95.8	97.7
Trucks	0	3	0	3	0	4	0	4	0	0	0	0	1	3	0	4	11
% Trucks	0	1.2	0	0.9	0	0.9	0	0.8	0	0	0	0	50.0	3.2	0	2.4	1.0
Buses	3	4	0	7	1	4	0	5	0	0	0	0	0	3	0	3	15
% Buses	10.0	1.7	0	2.2	2.9	0.9	0	1.1	0	0	0	0	0	3.2	0	1.8	1.3
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	22	124	27	173	6	78	3	87	**28**	18	8	**54**	4	22	7	33	347
05:00 PM	19	138	23	180	**7**	90	2	99	7	**29**	5	41	3	**33**	**14**	**50**	370
05:15 PM	23	**162**	**36**	**221**	7	**108**	4	**119**	19	22	**10**	51	4	21	8	33	**424**
05:30 PM	**26**	144	21	191	4	71	**5**	80	20	19	5	44	**9**	21	9	39	354
Total Volume	90	568	107	765	24	347	14	385	74	88	28	190	20	97	38	155	1495
% App. Total	11.8	74.2	14		6.2	90.1	3.6		38.9	46.3	14.7		12.9	62.6	24.5		
PHF	.865	.877	.743	.865	.857	.803	.700	.809	.661	.759	.700	.880	.556	.735	.679	.775	.881
Cars	90	565	107	762	24	341	14	379	74	87	28	189	19	96	36	151	1481
% Cars	100	99.5	100	99.6	100	98.3	100	98.4	100	98.9	100	99.5	95.0	99.0	94.7	97.4	99.1
Trucks	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	1	2
% Trucks	0	0	0	0	0	0.3	0	0.3	0	0	0	0	0	0	2.6	0.6	0.1
Buses	0	3	0	3	0	5	0	5	0	1	0	1	1	1	1	3	12
% Buses	0	0.5	0	0.4	0	1.4	0	1.3	0	1.1	0	0.5	5.0	1.0	2.6	1.9	0.8

Harwick Transportation Group, Inc.

1440 Camino Cerrito SE
Albuquerque, NM 87123

Counter: R.C.

File Name : San Pedro-PDN
Site Code : 11172015
Start Date : 11/17/2015
Page No : 1

Groups Printed- Cars - Trucks - Buses

	Paseo Del Norte Eastbound				Paseo Del Norte Westbound				San Pedro Northbound				San Pedro Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	59	298	40	397	11	337	39	387	23	17	0	40	17	29	32	78	902
07:15 AM	56	309	65	430	20	400	58	478	42	24	7	73	23	47	36	106	1087
07:30 AM	58	401	65	524	26	509	55	590	35	37	21	93	15	53	36	104	1311
07:45 AM	83	337	45	465	34	436	82	552	54	64	20	138	23	49	37	109	1264
Total	256	1345	215	1816	91	1682	234	2007	154	142	48	344	78	178	141	397	4564
08:00 AM	64	360	48	472	27	368	49	444	64	57	9	130	21	39	41	101	1147
08:15 AM	85	296	33	414	18	359	54	431	68	53	20	141	26	25	40	91	1077
08:30 AM	66	258	23	347	28	316	49	393	25	44	5	74	22	34	48	104	918
08:45 AM	59	354	23	436	33	230	69	332	29	27	14	70	28	34	19	81	919
Total	274	1268	127	1669	106	1273	221	1600	186	181	48	415	97	132	148	377	4061
*** BREAK ***																	
04:00 PM	73	389	34	496	37	263	43	343	73	55	32	160	46	49	40	135	1134
04:15 PM	57	358	27	442	61	325	53	439	44	52	32	128	55	54	57	166	1175
04:30 PM	78	475	32	585	33	312	39	384	48	50	24	122	62	44	57	163	1254
04:45 PM	73	401	40	514	36	298	40	374	45	39	35	119	55	55	60	170	1177
Total	281	1623	133	2037	167	1198	175	1540	210	196	123	529	218	202	214	634	4740
05:00 PM	75	506	33	614	35	357	44	436	42	55	21	118	75	61	72	208	1376
05:15 PM	80	478	33	591	26	297	39	362	51	54	21	126	61	72	71	204	1283
05:30 PM	77	478	26	581	26	350	51	427	38	38	19	95	49	49	70	168	1271
05:45 PM	80	404	33	517	38	282	54	374	45	46	26	117	38	48	63	149	1157
Total	312	1866	125	2303	125	1286	188	1599	176	193	87	456	223	230	276	729	5087
*** BREAK ***																	
Grand Total	1123	6102	600	7825	489	5439	818	6746	726	712	306	1744	616	742	779	2137	18452
Apprch %	14.4	78	7.7		7.2	80.6	12.1		41.6	40.8	17.5		28.8	34.7	36.5		
Total %	6.1	33.1	3.3	42.4	2.7	29.5	4.4	36.6	3.9	3.9	1.7	9.5	3.3	4	4.2	11.6	
Cars	1108	6013	585	7706	486	5416	815	6717	713	700	302	1715	610	738	779	2127	18265
% Cars	98.7	98.5	97.5	98.5	99.4	99.6	99.6	99.6	98.2	98.3	98.7	98.3	99	99.5	100	99.5	99
Trucks	10	52	10	72	1	7	0	8	8	8	3	19	1	0	0	1	100
% Trucks	0.9	0.9	1.7	0.9	0.2	0.1	0	0.1	1.1	1.1	1	1.1	0.2	0	0	0	0.5
Buses	5	37	5	47	2	16	3	21	5	4	1	10	5	4	0	9	87
% Buses	0.4	0.6	0.8	0.6	0.4	0.3	0.4	0.3	0.7	0.6	0.3	0.6	0.8	0.5	0	0.4	0.5

Harwick Transportation Group, Inc.

1440 Camino Cerrito SE
Albuquerque, NM 87123

Counter: R.C.

File Name : San Pedro-PDN
Site Code : 11172015
Start Date : 11/17/2015
Page No : 2

	Paseo Del Norte Eastbound				Paseo Del Norte Westbound				San Pedro Northbound				San Pedro Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	56	309	65	430	20	400	58	478	42	24	7	73	23	47	36	106	1087
07:30 AM	58	401	65	524	26	509	55	590	35	37	21	93	15	53	36	104	1311
07:45 AM	83	337	45	465	34	436	82	552	54	64	20	138	23	49	37	109	1264
08:00 AM	64	360	48	472	27	368	49	444	64	57	9	130	21	39	41	101	1147
Total Volume	261	1407	223	1891	107	1713	244	2064	195	182	57	434	82	188	150	420	4809
% App. Total	13.8	74.4	11.8		5.2	83	11.8		44.9	41.9	13.1		19.5	44.8	35.7		
PHF	.786	.877	.858	.902	.787	.841	.744	.875	.762	.711	.679	.786	.891	.887	.915	.963	.917
Cars	257	1373	217	1847	107	1707	243	2057	187	174	56	417	80	186	150	416	4737
% Cars	98.5	97.6	97.3	97.7	100	99.6	99.6	99.7	95.9	95.6	98.2	96.1	97.6	98.9	100	99.0	98.5
Trucks	3	19	3	25	0	1	0	1	5	6	0	11	1	0	0	1	38
% Trucks	1.1	1.4	1.3	1.3	0	0.1	0	0.0	2.6	3.3	0	2.5	1.2	0	0	0.2	0.8
Buses	1	15	3	19	0	5	1	6	3	2	1	6	1	2	0	3	34
% Buses	0.4	1.1	1.3	1.0	0	0.3	0.4	0.3	1.5	1.1	1.8	1.4	1.2	1.1	0	0.7	0.7
Peak Hour Analysis From 12:00 PM to 06:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	73	401	40	514	36	298	40	374	45	39	35	119	55	55	60	170	1177
05:00 PM	75	506	33	614	35	357	44	436	42	55	21	118	75	61	72	208	1376
05:15 PM	80	478	33	591	26	297	39	362	51	54	21	126	61	72	71	204	1283
05:30 PM	77	478	26	581	26	350	51	427	38	38	19	95	49	49	70	168	1271
Total Volume	305	1863	132	2300	123	1302	174	1599	176	186	96	458	240	237	273	750	5107
% App. Total	13.3	81	5.7		7.7	81.4	10.9		38.4	40.6	21		32	31.6	36.4		
PHF	.953	.920	.825	.936	.854	.912	.853	.917	.863	.845	.686	.909	.800	.823	.948	.901	.928
Cars	304	1853	130	2287	123	1296	174	1593	175	186	96	457	240	237	273	750	5087
% Cars	99.7	99.5	98.5	99.4	100	99.5	100	99.6	99.4	100	100	99.8	100	100	100	100	99.6
Trucks	0	7	2	9	0	0	0	0	1	0	0	1	0	0	0	0	10
% Trucks	0	0.4	1.5	0.4	0	0	0	0	0.6	0	0	0.2	0	0	0	0	0.2
Buses	1	3	0	4	0	6	0	6	0	0	0	0	0	0	0	0	10
% Buses	0.3	0.2	0	0.2	0	0.5	0	0.4	0	0	0	0	0	0	0	0	0.2

Harwick Transportation Group, Inc.

1440 Camino Cerrito SE
Albuquerque, NM 87123

Counter: R.C.

File Name : San Pedro and Oakland JB
Site Code : 11102015
Start Date : 11/10/2015
Page No : 1

Groups Printed- Cars - Trucks - Buses

	Oakland Eastbound				Oakland Westbound				San Pedro Northbound				San Pedro Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	2	2	13	0	0	13	2	11	2	15	0	48	0	48	78
07:15 AM	0	0	0	0	23	0	0	23	2	35	2	39	0	54	0	54	116
07:30 AM	0	0	1	1	20	0	6	26	0	17	1	18	1	50	0	51	96
07:45 AM	0	0	1	1	18	0	3	21	3	33	3	39	0	41	1	42	103
Total	0	0	4	4	74	0	9	83	7	96	8	111	1	193	1	195	393
08:00 AM	0	0	0	0	12	0	2	14	1	25	2	28	1	37	0	38	80
08:15 AM	1	0	1	2	14	0	2	16	4	37	2	43	0	27	0	27	88
08:30 AM	0	0	0	0	13	0	0	13	0	21	3	24	0	45	2	47	84
08:45 AM	0	0	1	1	15	0	2	17	0	36	3	39	1	40	2	43	100
Total	1	0	2	3	54	0	6	60	5	119	10	134	2	149	4	155	352
*** BREAK ***																	
04:00 PM	0	0	0	0	5	0	0	5	0	26	8	34	3	45	1	49	88
04:15 PM	1	0	1	2	5	0	0	5	3	22	7	32	0	35	0	35	74
04:30 PM	0	0	1	1	4	0	1	5	4	30	12	46	0	43	1	44	96
04:45 PM	1	0	2	3	4	0	1	5	3	36	12	51	2	34	1	37	96
Total	2	0	4	6	18	0	2	20	10	114	39	163	5	157	3	165	354
05:00 PM	0	0	0	0	7	0	0	7	1	28	14	43	3	48	2	53	103
05:15 PM	1	0	2	3	6	0	1	7	2	32	13	47	4	27	0	31	88
05:30 PM	1	1	7	9	6	1	1	8	2	31	13	46	0	31	0	31	94
05:45 PM	0	1	0	1	8	0	0	8	0	27	15	42	0	33	0	33	84
Total	2	2	9	13	27	1	2	30	5	118	55	178	7	139	2	148	369
Grand Total	5	2	19	26	173	1	19	193	27	447	112	586	15	638	10	663	1468
Apprch %	19.2	7.7	73.1		89.6	0.5	9.8		4.6	76.3	19.1		2.3	96.2	1.5		
Total %	0.3	0.1	1.3	1.8	11.8	0.1	1.3	13.1	1.8	30.4	7.6	39.9	1	43.5	0.7	45.2	
Cars	5	2	19	26	171	1	19	191	27	424	108	559	13	596	10	619	1395
% Cars	100	100	100	100	98.8	100	100	99	100	94.9	96.4	95.4	86.7	93.4	100	93.4	95
Trucks	0	0	0	0	0	0	0	0	0	9	2	11	1	16	0	17	28
% Trucks	0	0	0	0	0	0	0	0	0	2	1.8	1.9	6.7	2.5	0	2.6	1.9
Buses	0	0	0	0	2	0	0	2	0	14	2	16	1	26	0	27	45
% Buses	0	0	0	0	1.2	0	0	1	0	3.1	1.8	2.7	6.7	4.1	0	4.1	3.1

Harwick Transportation Group, Inc.

1440 Camino Cerrito SE
Albuquerque, NM 87123

Counter: R.C.

File Name : San Pedro and Oakland JB
Site Code : 11102015
Start Date : 11/10/2015
Page No : 2

	Oakland Eastbound				Oakland Westbound				San Pedro Northbound				San Pedro Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	**23**	0	0	23	2	**35**	2	**39**	0	**54**	0	**54**	**116**
07:30 AM	0	0	**1**	**1**	20	0	**6**	**26**	0	17	1	18	**1**	50	0	51	96
07:45 AM	0	0	1	1	18	0	3	21	**3**	33	**3**	39	0	41	**1**	42	103
08:00 AM	0	0	0	0	12	0	2	14	1	25	2	28	1	37	0	38	80
Total Volume	0	0	2	2	73	0	11	84	6	110	8	124	2	182	1	185	395
% App. Total	0	0	100		86.9	0	13.1		4.8	88.7	6.5		1.1	98.4	0.5		
PHF	.000	.000	.500	.500	.793	.000	.458	.808	.500	.786	.667	.795	.500	.843	.250	.856	.851
Cars	0	0	2	2	72	0	11	83	6	105	6	117	1	167	1	169	371
% Cars	0	0	100	100	98.6	0	100	98.8	100	95.5	75.0	94.4	50.0	91.8	100	91.4	93.9
Trucks	0	0	0	0	0	0	0	0	0	2	0	2	0	4	0	4	6
% Trucks	0	0	0	0	0	0	0	0	0	1.8	0	1.6	0	2.2	0	2.2	1.5
Buses	0	0	0	0	1	0	0	1	0	3	2	5	1	11	0	12	18
% Buses	0	0	0	0	1.4	0	0	1.2	0	2.7	25.0	4.0	50.0	6.0	0	6.5	4.6
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	1	1	4	0	**1**	5	**4**	30	12	46	0	43	1	44	96
04:45 PM	**1**	0	**2**	**3**	4	0	1	5	3	**36**	12	**51**	2	34	1	37	96
05:00 PM	0	0	0	0	**7**	0	0	**7**	1	28	**14**	43	3	**48**	**2**	**53**	**103**
05:15 PM	1	0	2	3	6	0	1	7	2	32	13	47	**4**	27	0	31	88
Total Volume	2	0	5	7	21	0	3	24	10	126	51	187	9	152	4	165	383
% App. Total	28.6	0	71.4		87.5	0	12.5		5.3	67.4	27.3		5.5	92.1	2.4		
PHF	.500	.000	.625	.583	.750	.000	.750	.857	.625	.875	.911	.917	.563	.792	.500	.778	.930
Cars	2	0	5	7	20	0	3	23	10	123	51	184	8	144	4	156	370
% Cars	100	0	100	100	95.2	0	100	95.8	100	97.6	100	98.4	88.9	94.7	100	94.5	96.6
Trucks	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	3	3
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0	11.1	1.3	0	1.8	0.8
Buses	0	0	0	0	1	0	0	1	0	3	0	3	0	6	0	6	10
% Buses	0	0	0	0	4.8	0	0	4.2	0	2.4	0	1.6	0	3.9	0	3.6	2.6

Harwick Transportation Group, Inc.

1440 Camino Cerrito SE
Albuquerque, NM 87123

Counter: R.C.

File Name : San Pedro and Eagle Rock RC
Site Code : 11102015
Start Date : 11/10/2015

Groups Printed- Cars - Trucks - Buses

	Eagle Rock Eastbound				Eagle Rock Westbound				San Pedro Northbound				San Pedro Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	5	3	8	46	5	1	52	2	1	5	8	0	0	0	0	68
07:15 AM	0	1	2	3	46	15	3	64	12	10	9	31	0	5	1	6	104
07:30 AM	0	5	5	10	40	10	2	52	12	3	5	20	0	3	1	4	86
07:45 AM	0	6	5	11	34	17	3	54	7	11	14	32	0	2	0	2	99
Total	0	17	15	32	166	47	9	222	33	25	33	91	0	10	2	12	357
08:00 AM	1	0	5	6	21	10	1	32	6	8	8	22	1	4	3	8	68
08:15 AM	0	4	4	8	21	10	1	32	10	7	20	37	0	3	0	3	80
08:30 AM	0	0	7	7	31	6	0	37	8	2	7	17	0	7	1	8	69
08:45 AM	0	6	8	14	27	4	0	31	6	9	16	31	0	3	1	4	80
Total	1	10	24	35	100	30	2	132	30	26	51	107	1	17	5	23	297
*** BREAK ***																	
04:00 PM	1	12	6	19	16	2	2	20	2	4	21	27	0	16	2	18	84
04:15 PM	0	12	10	22	12	6	0	18	3	4	16	23	1	10	0	11	74
04:30 PM	0	14	18	32	16	3	1	20	5	6	17	28	1	8	0	9	89
04:45 PM	1	11	10	22	17	6	2	25	2	6	26	34	2	8	1	11	92
Total	2	49	44	95	61	17	5	83	12	20	80	112	4	42	3	49	339
05:00 PM	0	24	9	33	27	3	1	31	4	9	17	30	1	15	1	17	111
05:15 PM	0	17	6	23	17	5	1	23	2	5	26	33	0	9	2	11	90
05:30 PM	0	16	11	27	18	3	0	21	3	8	23	34	2	3	1	6	88
05:45 PM	1	10	9	20	16	7	0	23	1	1	22	24	0	5	1	6	73
Total	1	67	35	103	78	18	2	98	10	23	88	121	3	32	5	40	362
Grand Total	4	143	118	265	405	112	18	535	85	94	252	431	8	101	15	124	1355
Apprch %	1.5	54	44.5		75.7	20.9	3.4		19.7	21.8	58.5		6.5	81.5	12.1		
Total %	0.3	10.6	8.7	19.6	29.9	8.3	1.3	39.5	6.3	6.9	18.6	31.8	0.6	7.5	1.1	9.2	
Cars	4	140	115	259	384	112	18	514	82	92	238	412	7	95	15	117	1302
% Cars	100	97.9	97.5	97.7	94.8	100	100	96.1	96.5	97.9	94.4	95.6	87.5	94.1	100	94.4	96.1
Trucks	0	2	2	4	3	0	0	3	3	0	0	3	1	0	0	1	11
% Trucks	0	1.4	1.7	1.5	0.7	0	0	0.6	3.5	0	0	0.7	12.5	0	0	0.8	0.8
Buses	0	1	1	2	18	0	0	18	0	2	14	16	0	6	0	6	42
% Buses	0	0.7	0.8	0.8	4.4	0	0	3.4	0	2.1	5.6	3.7	0	5.9	0	4.8	3.1

Harwick Transportation Group, Inc.

1440 Camino Cerrito SE
Albuquerque, NM 87123

Counter: R.C.

File Name : San Pedro and Eagle Rock RC
Site Code : 11102015
Start Date : 11/10/2015

	Eagle Rock Eastbound				Eagle Rock Westbound				San Pedro Northbound				San Pedro Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	5	3	8	**46**	5	1	52	2	1	5	8	0	0	0	0	68
07:15 AM	0	1	2	3	46	15	**3**	**64**	**12**	10	9	31	0	**5**	**1**	**6**	**104**
07:30 AM	0	5	**5**	10	40	10	2	52	12	3	5	20	0	3	1	4	86
07:45 AM	0	**6**	5	**11**	34	**17**	3	54	7	**11**	**14**	**32**	0	2	0	2	99
Total Volume	0	17	15	32	166	47	9	222	33	25	33	91	0	10	2	12	357
% App. Total	0	53.1	46.9		74.8	21.2	4.1		36.3	27.5	36.3		0	83.3	16.7		
PHF	.000	.708	.750	.727	.902	.691	.750	.867	.688	.568	.589	.711	.000	.500	.500	.500	.858
Cars	0	17	14	31	164	47	9	220	32	25	31	88	0	7	2	9	348
% Cars	0	100	93.3	96.9	98.8	100	100	99.1	97.0	100	93.9	96.7	0	70.0	100	75.0	97.5
Trucks	0	0	1	1	1	0	0	1	1	0	0	1	0	0	0	0	3
% Trucks	0	0	6.7	3.1	0.6	0	0	0.5	3.0	0	0	1.1	0	0	0	0	0.8
Buses	0	0	0	0	1	0	0	1	0	0	2	2	0	3	0	3	6
% Buses	0	0	0	0	0.6	0	0	0.5	0	0	6.1	2.2	0	30.0	0	25.0	1.7
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	14	**18**	32	16	3	1	20	**5**	6	17	28	1	8	0	9	89
04:45 PM	**1**	11	10	22	17	**6**	**2**	25	2	6	**26**	**34**	**2**	8	1	11	92
05:00 PM	0	**24**	9	**33**	**27**	3	1	**31**	4	**9**	17	30	1	**15**	1	**17**	**111**
05:15 PM	0	17	6	23	17	5	1	23	2	5	26	33	0	9	**2**	11	90
Total Volume	1	66	43	110	77	17	5	99	13	26	86	125	4	40	4	48	382
% App. Total	0.9	60	39.1		77.8	17.2	5.1		10.4	20.8	68.8		8.3	83.3	8.3		
PHF	.250	.688	.597	.833	.713	.708	.625	.798	.650	.722	.827	.919	.500	.667	.500	.706	.860
Cars	1	64	43	108	71	17	5	93	13	25	84	122	4	39	4	47	370
% Cars	100	97.0	100	98.2	92.2	100	100	93.9	100	96.2	97.7	97.6	100	97.5	100	97.9	96.9
Trucks	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
% Trucks	0	1.5	0	0.9	0	0	0	0	0	0	0	0	0	0	0	0	0.3
Buses	0	1	0	1	6	0	0	6	0	1	2	3	0	1	0	1	11
% Buses	0	1.5	0	0.9	7.8	0	0	6.1	0	3.8	2.3	2.4	0	2.5	0	2.1	2.9

Harwick Transportation Group, Inc.

1440 Camino Cerrito SE
Albuquerque, NM 87123

Counter: R.C.

File Name : Louisiana and Oakland JB
Site Code : 11112015
Start Date : 11/11/2015
Page No : 1

Groups Printed- Cars - Trucks - Buses

	Oakland Eastbound				Oakland Westbound				Louisiana Northbound				Louisiana Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	1	1	4	6	3	6	1	10	3	5	0	8	0	35	2	37	61
07:15 AM	0	0	9	9	5	6	0	11	1	19	1	21	0	37	3	40	81
07:30 AM	0	2	1	3	6	15	0	21	3	12	1	16	0	21	2	23	63
07:45 AM	0	1	4	5	5	13	2	20	5	19	3	27	1	36	4	41	93
Total	1	4	18	23	19	40	3	62	12	55	5	72	1	129	11	141	298
08:00 AM	0	2	3	5	4	6	0	10	4	19	7	30	0	39	4	43	88
08:15 AM	1	3	5	9	3	3	0	6	5	19	1	25	0	34	4	38	78
08:30 AM	0	0	2	2	2	6	1	9	0	17	0	17	0	33	4	37	65
08:45 AM	0	3	8	11	10	3	1	14	4	15	4	23	0	26	1	27	75
Total	1	8	18	27	19	18	2	39	13	70	12	95	0	132	13	145	306
*** BREAK ***																	
04:00 PM	3	6	5	14	3	2	0	5	1	38	3	42	0	23	2	25	86
04:15 PM	2	8	3	13	6	4	3	13	4	39	7	50	0	30	1	31	107
04:30 PM	1	8	5	14	5	2	0	7	2	44	3	49	0	26	2	28	98
04:45 PM	0	3	6	9	4	2	1	7	8	28	5	41	0	23	3	26	83
Total	6	25	19	50	18	10	4	32	15	149	18	182	0	102	8	110	374
05:00 PM	0	10	11	21	7	3	0	10	4	41	5	50	0	31	5	36	117
05:15 PM	1	11	4	16	7	3	0	10	7	36	4	47	0	22	1	23	96
05:30 PM	5	6	1	12	2	5	0	7	6	40	4	50	0	31	3	34	103
05:45 PM	4	3	4	11	4	4	0	8	2	34	6	42	0	30	1	31	92
Total	10	30	20	60	20	15	0	35	19	151	19	189	0	114	10	124	408
Grand Total	18	67	75	160	76	83	9	168	59	425	54	538	1	477	42	520	1386
Apprch %	11.2	41.9	46.9		45.2	49.4	5.4		11	79	10		0.2	91.7	8.1		
Total %	1.3	4.8	5.4	11.5	5.5	6	0.6	12.1	4.3	30.7	3.9	38.8	0.1	34.4	3	37.5	
Cars	18	67	72	157	74	83	9	166	57	417	52	526	1	462	41	504	1353
% Cars	100	100	96	98.1	97.4	100	100	98.8	96.6	98.1	96.3	97.8	100	96.9	97.6	96.9	97.6
Trucks	0	0	3	3	1	0	0	1	1	4	0	5	0	6	0	6	15
% Trucks	0	0	4	1.9	1.3	0	0	0.6	1.7	0.9	0	0.9	0	1.3	0	1.2	1.1
Buses	0	0	0	0	1	0	0	1	1	4	2	7	0	9	1	10	18
% Buses	0	0	0	0	1.3	0	0	0.6	1.7	0.9	3.7	1.3	0	1.9	2.4	1.9	1.3

Harwick Transportation Group, Inc.

1440 Camino Cerrito SE
Albuquerque, NM 87123

Counter: R.C.

File Name : Louisiana and Oakland JB
Site Code : 11112015
Start Date : 11/11/2015
Page No : 2

	Oakland Eastbound				Oakland Westbound				Louisiana Northbound				Louisiana Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	**9**	**9**	5	6	0	11	1	**19**	1	21	0	37	3	40	81
07:30 AM	0	**2**	1	3	**6**	**15**	0	**21**	3	12	1	16	0	21	2	23	63
07:45 AM	0	1	4	5	5	13	**2**	20	**5**	19	3	27	**1**	36	**4**	41	**93**
08:00 AM	0	2	3	5	4	6	0	10	4	19	**7**	**30**	0	**39**	4	**43**	88
Total Volume	0	5	17	22	20	40	2	62	13	69	12	94	1	133	13	147	325
% App. Total	0	22.7	77.3		32.3	64.5	3.2		13.8	73.4	12.8		0.7	90.5	8.8		
PHF	.000	.625	.472	.611	.833	.667	.250	.738	.650	.908	.429	.783	.250	.853	.813	.855	.874
Cars	0	5	16	21	19	40	2	61	13	66	11	90	1	131	13	145	317
% Cars	0	100	94.1	95.5	95.0	100	100	98.4	100	95.7	91.7	95.7	100	98.5	100	98.6	97.5
Trucks	0	0	1	1	1	0	0	1	0	1	0	1	0	2	0	2	5
% Trucks	0	0	5.9	4.5	5.0	0	0	1.6	0	1.4	0	1.1	0	1.5	0	1.4	1.5
Buses	0	0	0	0	0	0	0	0	0	2	1	3	0	0	0	0	3
% Buses	0	0	0	0	0	0	0	0	0	2.9	8.3	3.2	0	0	0	0	0.9
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	10	**11**	**21**	**7**	3	0	**10**	4	**41**	5	**50**	0	**31**	**5**	**36**	**117**
05:15 PM	1	**11**	4	16	7	3	0	10	**7**	36	4	47	0	22	1	23	96
05:30 PM	**5**	6	1	12	2	**5**	0	7	6	40	4	50	0	31	3	34	103
05:45 PM	4	3	4	11	4	4	0	8	2	34	**6**	42	0	30	1	31	92
Total Volume	10	30	20	60	20	15	0	35	19	151	19	189	0	114	10	124	408
% App. Total	16.7	50	33.3		57.1	42.9	0		10.1	79.9	10.1		0	91.9	8.1		
PHF	.500	.682	.455	.714	.714	.750	.000	.875	.679	.921	.792	.945	.000	.919	.500	.861	.872
Cars	10	30	18	58	20	15	0	35	18	149	19	186	0	109	10	119	398
% Cars	100	100	90.0	96.7	100	100	0	100	94.7	98.7	100	98.4	0	95.6	100	96.0	97.5
Trucks	0	0	2	2	0	0	0	0	0	1	0	1	0	3	0	3	6
% Trucks	0	0	10.0	3.3	0	0	0	0	0	0.7	0	0.5	0	2.6	0	2.4	1.5
Buses	0	0	0	0	0	0	0	0	1	1	0	2	0	2	0	2	4
% Buses	0	0	0	0	0	0	0	0	5.3	0.7	0	1.1	0	1.8	0	1.6	1.0

2010-2014 Growth Rates

		1	2	3	4	5				
No.	**Roadway Segments**	**2010**	**2011**	**2012**	**2013**	**2014**	**m**	**b**	**R2**	**Annual Rate**
1	Alameda W of I-25	31000	30800	32900	35400	30410	342	31076	0.07	-0.4%
2	San Pedro N of Alameda	3400	3600	3600	3600	4760	272	2976	0.62	7.0%
3	San Pedro S of Alameda	13700	13400	16900	16900	16750	960	12650	0.70	4.1%
4	San Pedro S of PdN	11900	11700	13300	13300	9510	-318	12896	0.10	-4.4%
5	Alameda E of San Pedro	9400	9200	9500	8700	8640	-202	9694	0.65	-1.7%
6	Alameda E of Louisiana	7700	7600	7200	7200	7110	-158	7836	0.87	-1.6%
	Summary	**77100**	**76300**	**83400**	**85100**	**77180**	**896**	**77128**	**0.12**	**0.0%**

Based on roadways in the area of the site located on Alameda Blvd between San Pedro and Louisiana.

Appendix C

Traffic Volume Summary Graphics

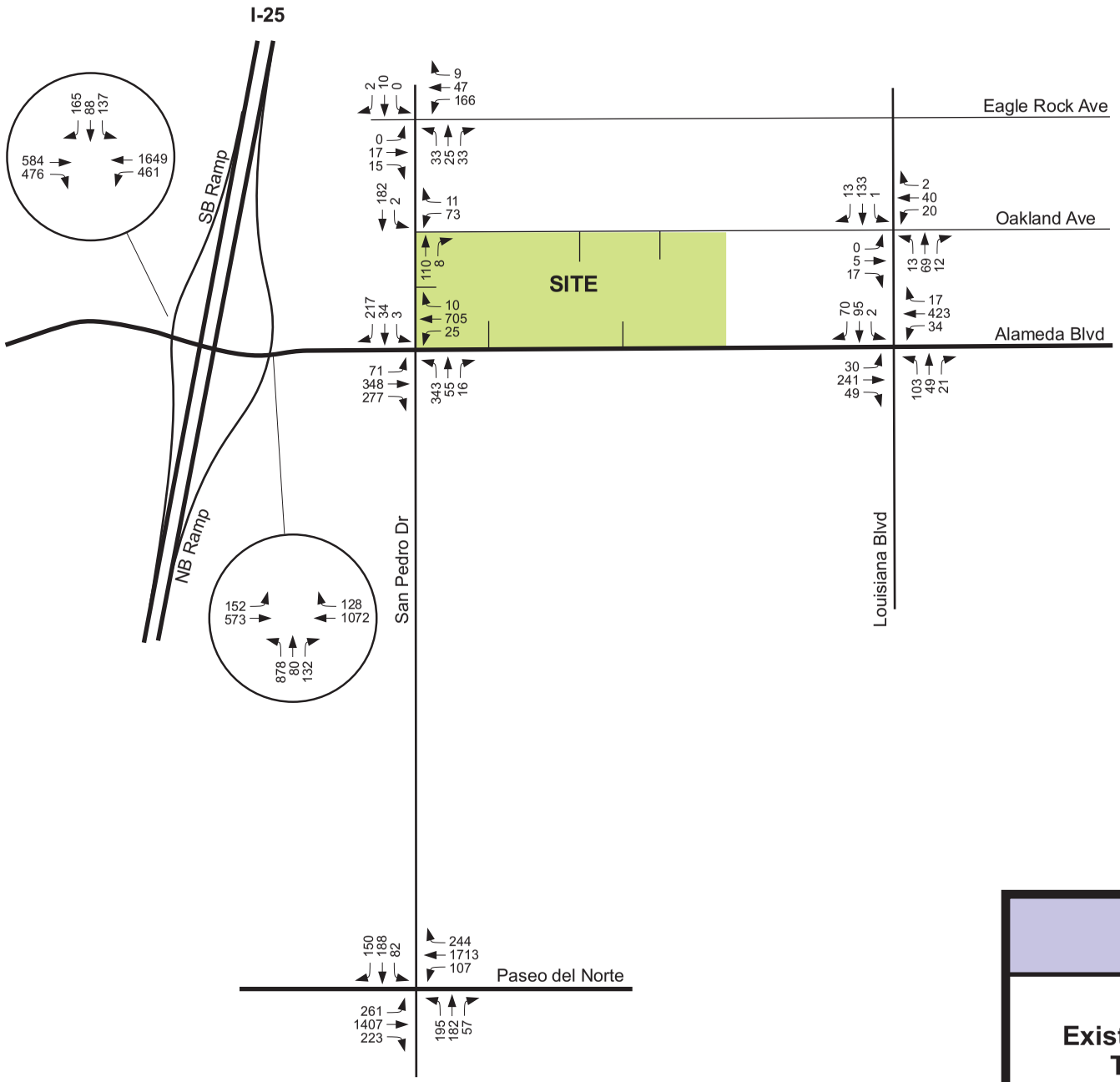


Figure C-1

Existing AM Peak Hour Traffic Volumes

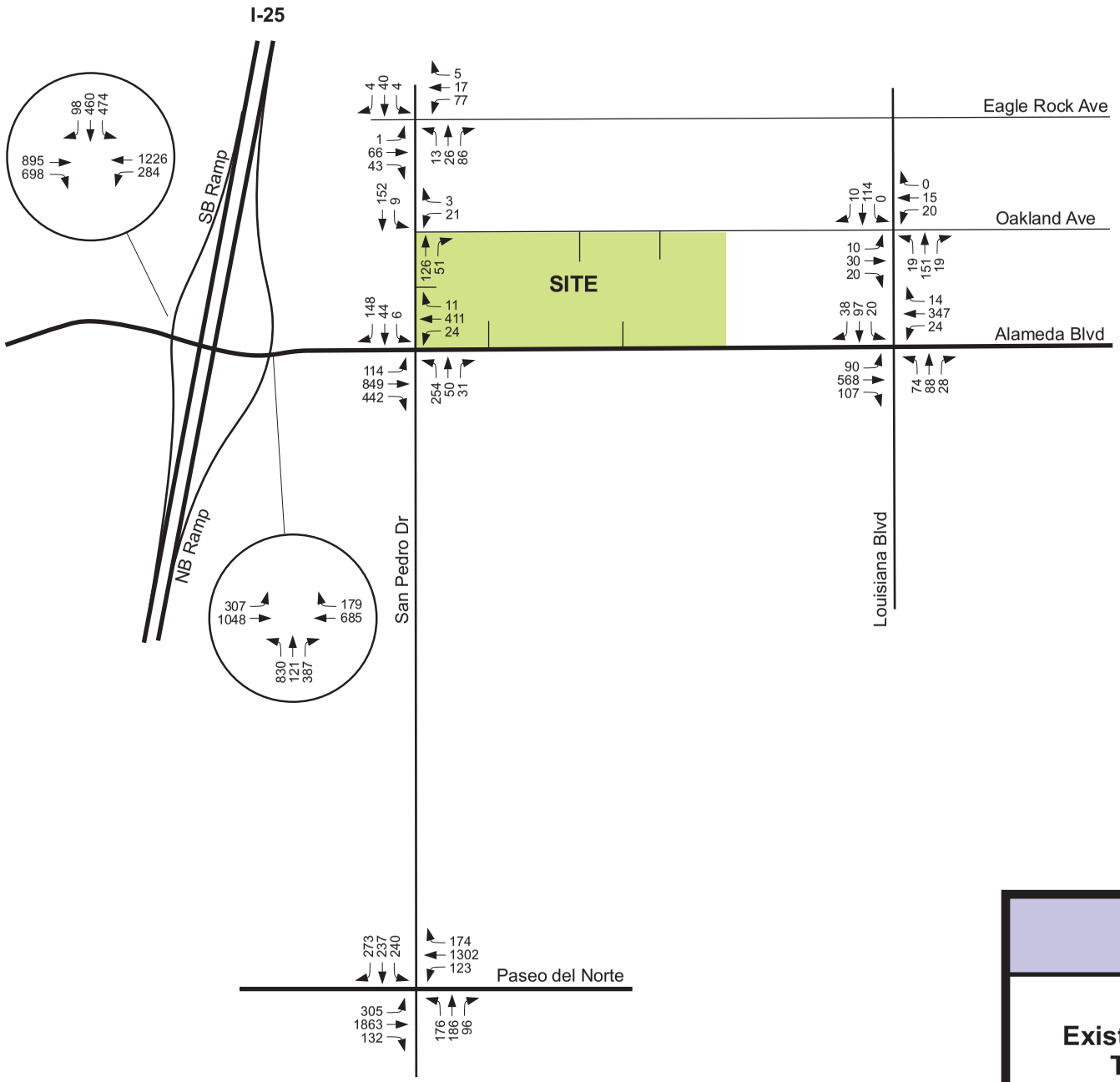


Figure C-2

Existing PM Peak Hour Traffic Volumes

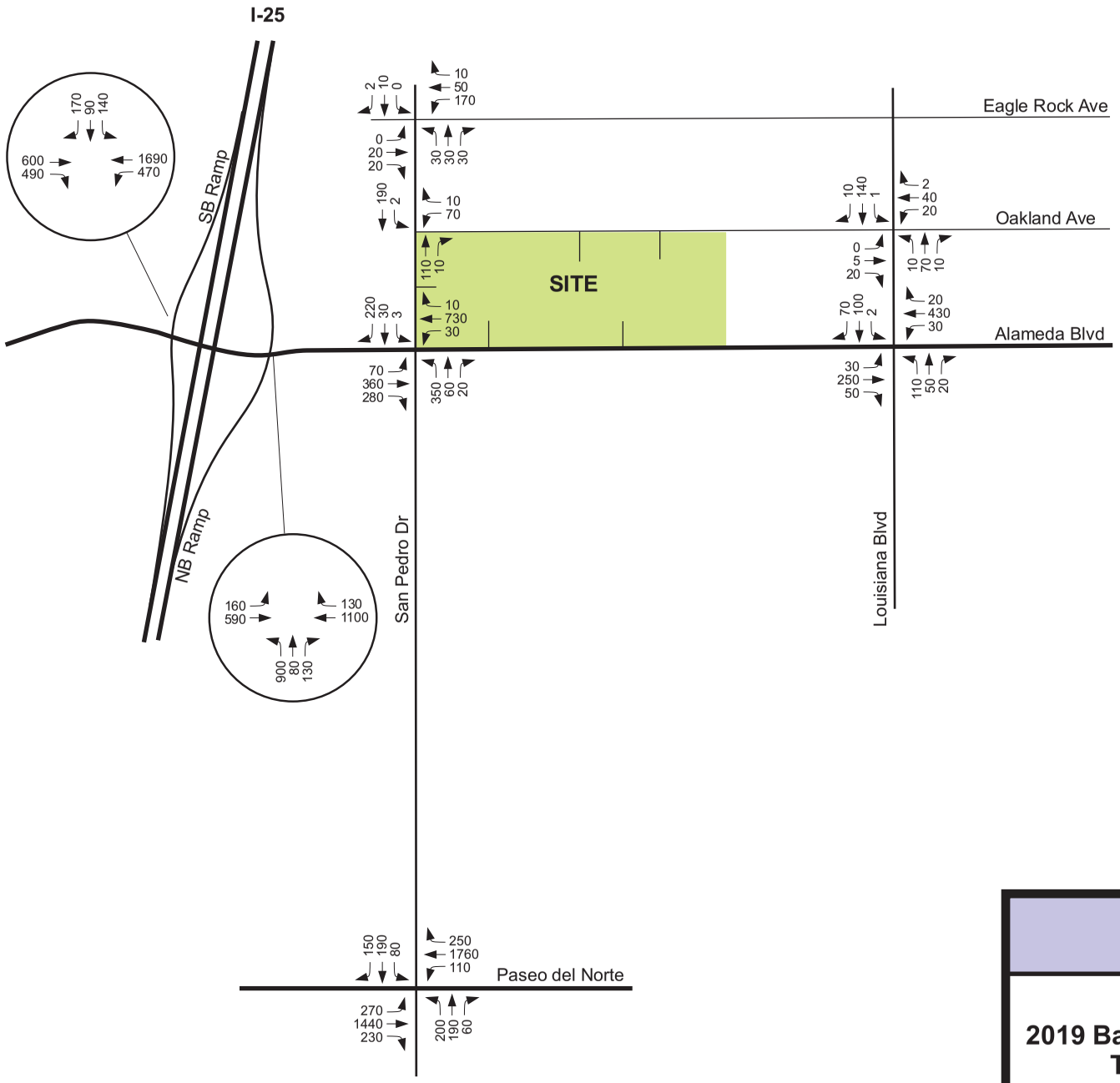


Figure C-3

2019 Baseline AM Peak Hour Traffic Volumes

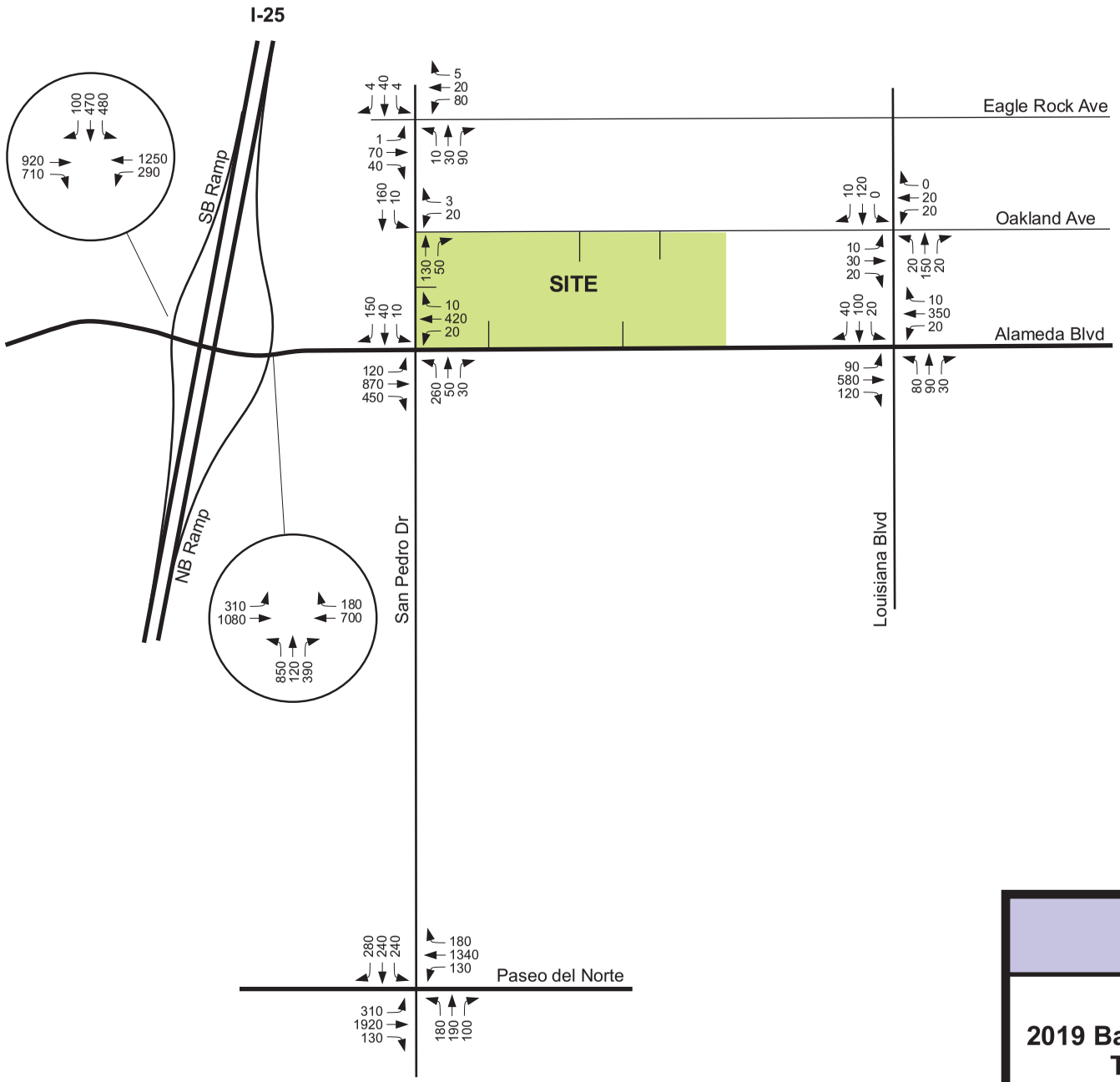


Figure C-4

2019 Baseline PM Peak Hour Traffic Volumes

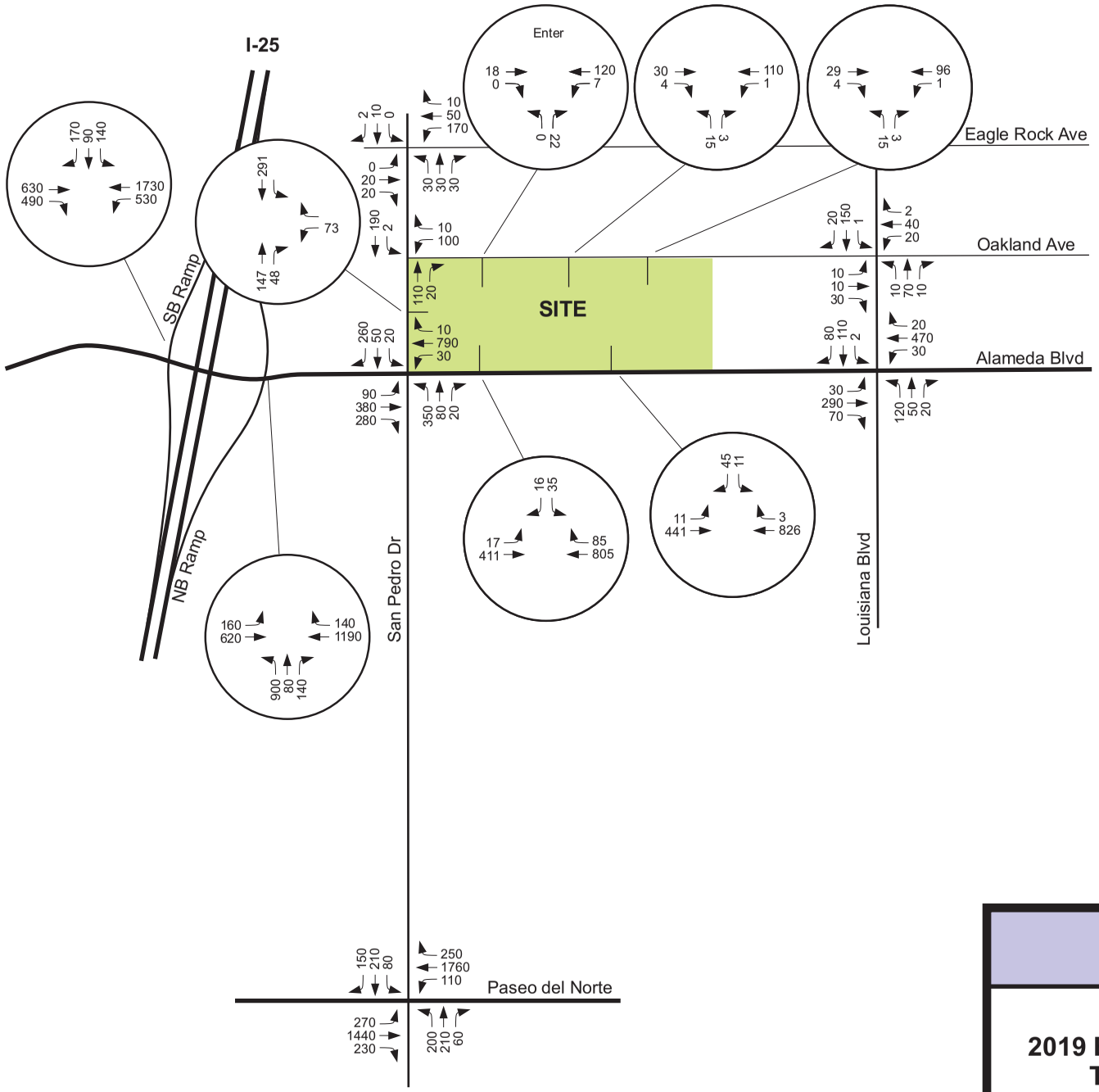


Figure C-5

2019 Build AM Peak Hour Traffic Volumes

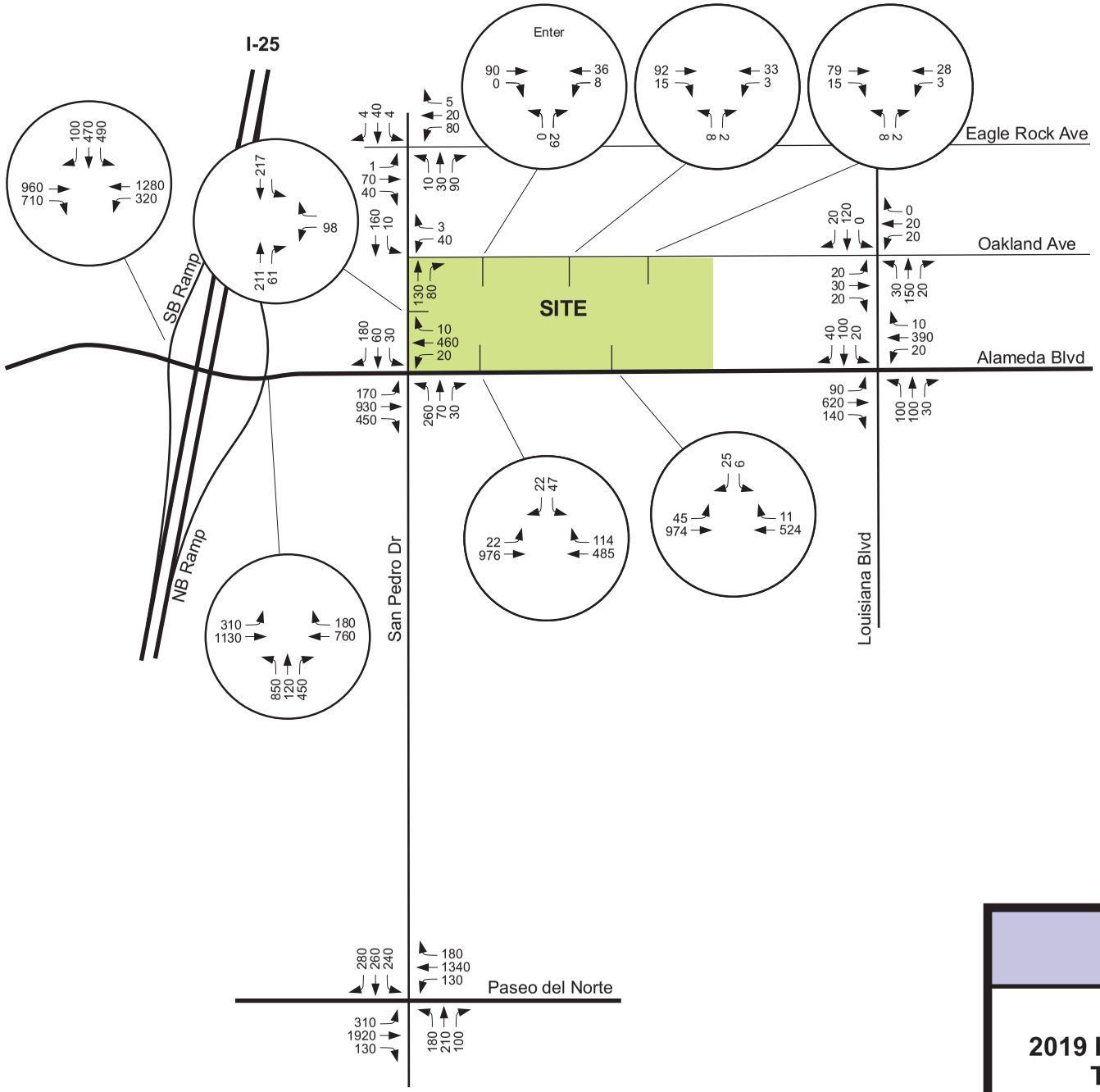


Figure C-6

2019 Build PM Peak Hour Traffic Volumes

Appendix D

Trip Generation, Distribution and Assignments

Trip Generation Summary
Trip Generation Worksheets
Trip Distribution Subareas
Trip Distribution Worksheet
Trip Distribution and Assignment Worksheets
Figure D-1 – Residential Trip Distribution
Figure D-2 – Retail Trip Distribution
Figure D-3 – AM Peak Traffic Assignment
Figure D-4 – PM Peak Trip Assignment

Tract	Land Use	Units	DU/SF	ITE LU	Daily	Daily In	Daily Out	AM In	AM Out	PM In	PM Out
1	Apartments	DU	232	220	1529	765	765	23	94	94	51
2	Retail	SF	25250	820	1078	539	539	15	9	45	49
3											
4	Restaurant	SF	5000	932	1250	625	625	58	56	43	39
5	Gas Station	Pumps	16	945	2604	1302	1302	82	81	108	108
	Total				**6461**	**3231**	**3231**	**178**	**240**	**290**	**247**
	Retail Trip Total				4932	2466	2466	155	146	196	196
	Pass-By Trips:										
	Restaurant	-0.4								-17	-16
	Gas Station	-0.5						-41	-41	-54	-54
	General Retail Space	-0.3								-14	-15
	Adjusted Retail Trips				4932	2466	2466	114	105	111	111
	Network Site Trips				**6461**	**3231**	**3231**	**137**	**199**	**205**	**162**

Pass-by trip reduction based upon ITE *Trip Generation Handbook,* rounded down to the nearest 10%.

	Single Family (Additional Devel)	DU	41	210	462	231	231	10	28	30	17

Trip Generation Worksheet

Land Use:	**Apartment**	**220**	
Trip Generation Units:		1	Dwelling Unit
	Project Units:	232	

Trip Generation Equations:

Average Vehicle Trip End on a Weekday

T = 6.06 (X) + 123.56	
Enter	50%
Exit	50%

Peak Hour of Adjacent St, Traffic 7 to 9 AM

T = 0.49 (X) + 3.73	
Enter	20%
Exit	80%

Peak Hour of Adjacent St Traffic, 4 to 6 PM

T = 0.55 (X) + 17.65	
Enter	65%
Exit	35%

Daily Trips	**1529**
Enter	765
Exit	764
AM Peak Trips	**117**
Enter	23
Exit	94
PM Peak Trips	**145**
Enter	94
Exit	51

Trip Generation based upon ITE *Trip Generation* , 9th Edition.

Trip Generation Worksheet

Land Use:	**Shopping Center**	**820**	**Ave**
Trip Generation Units:		1000	SF GLA
	Project Units:	25.25	

Trip Generation Equations:

Average Vehicle Trip End on a Weekday

T = 42.70 (X)	
Enter	50%
Exit	50%

Average Vehicle Trip End on a Weekday, AM Peak Hour of Adj. Street Traffic

One Hour Between 7 and 9 AM	
T = 0.96 (X)	
Enter	62%
Exit	38%

Average Vehicle Trip End on a Weekday, PM Peak Hour of Adj. Street Traffic

One Hour Between 4 and 6 PM	
T = 3.71 (X)	
Enter	48%
Exit	52%

Daily Trips		**1078**
	Enter	539
	Exit	539
AM Peak Trips		**24**
	Enter	15
	Exit	9
PM Peak Trips		**94**
	Enter	45
	Exit	49

Trip Generation Worksheet

Land Use: **High-Turnover Resaurant** **932**

Trip Generation Units:	1000	SF Gross Floor Area
Project Units:	5	

Trip Generation Equations:

Average Vehicle Trip End on a Weekday

T = 127.15 (X)

Enter	50%
Exit	50%

Average Vehicle Trip End on a Weekday, AM Peak Hour of Adj. Street Traffic
One Hour Between 7 and 9 AM

T = 10.81 (X)

Enter	55%
Exit	45%

Average Vehicle Trip End on a Weekday, PM Peak Hour of Adj. Street Traffic
One Hour Between 4 and 6 PM

T = 9.85 (X)

Enter	60%
Exit	40%

Daily Trips	**636**
Enter	318
Exit	318
AM Peak Trips	**54**
Enter	30
Exit	24
PM Peak Trips	**49**
Enter	29
Exit	20

Trip Generation Worksheet

Land Use:	**Gasoline Station w/ Convenience Store**	**945**

Trip Generation Units:	1	Fueling Position
Project Units:	16	

Trip Generation Equations:

Average Vehicle Trip End on a Weekday

T = 162.78 (X)

Enter	50%
Exit	50%

Average Vehicle Trip End on a Weekday, AM Peak Hour of Adj. Street Traffic One Hour Between 7 and 9 AM

T = 10.16 (X)

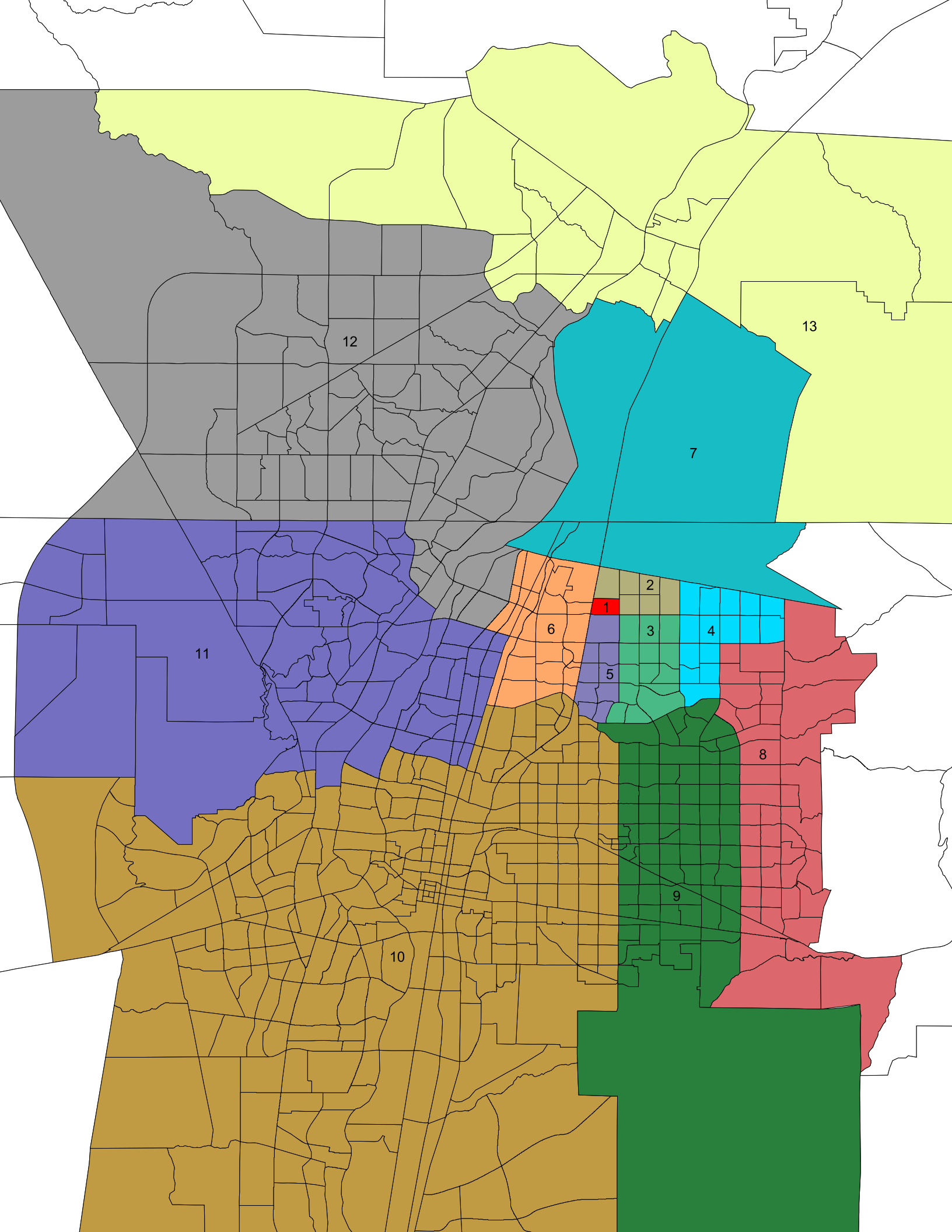
Enter	50%
Exit	50%

Average Vehicle Trip End on a Weekday, PM Peak Hour of Adj. Street Traffic One Hour Between 4 and 6 PM

T = 13.51 (X)

Enter	50%
Exit	50%

Daily Trips	**2604**
Enter	1302
Exit	1302
AM Peak Trips	**163**
Enter	82
Exit	81
PM Peak Trips	**216**
Enter	108
Exit	108


12
13
7
2
1
6
3
4
11
5
8
9
10

Subarea Summary - Residential

	1	2	3	4	5	6	7	8	9	10	11	12	13	SUM
Population	845	5429	18612	12831	12226	14341	791	90925	133068	505274	146769	152227	50766	**1144104**
Employment	709	1390	8448	1531	8096	34547	3473	16441	69338	281266	31164	58481	20380	**535264**
Emp %	0.1%	0.3%	1.6%	0.3%	1.5%	6.5%	0.6%	3.1%	13.0%	52.5%	5.8%	10.9%	3.8%	**100%**

Subareas:

1	Site	8	Far Southeast
2	Near Northeast	9	Far South
3	Near Southeast	10	Far South-Southwest
4	Near East	11	Far West
5	Near South	12	Far Northwest
6	Near West	13	Far North
7	Sandia-North		

Subarea Summary - Retail

	1	2	3	4	5	6	7	SUM
Population	845	5429	18612	12831	12226	14341	791	**65075**
Pop %	1.3%	8.3%	28.6%	19.7%	18.8%	22.0%	1.2%	**100%**
Employment	709	1390	8448	1531	8096	34547	3473	**58194**

Subareas:

1	Site
2	Near Northeast
3	Near Southeast
4	Near East
5	Near South
6	Near West
7	Sandia-North

Legacy NAA Developments- Trip Distribution Residential

AM Peak	**Eastbound**			**Westbound**			**Northbound**			**Southbound**			
Intersection	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**Sum**
Alameda @ SB I-25 Ramps		**0.167**		0.59	0.167					**0.044**			
Alameda @ NB I-25 Ramps		**0.211**			0.757	0.044			**0.59**				
Alameda @ San Pedro	**0.326**	**0.481**		0.009	0.481			**0.006**	**0.009**		0.006	0.326	
Alameda @ Louisiana	0.002	0.002	0.106		**0.002**		**0.106**					**0.002**	
Paseo del Norte @ San Pedro								**0.015**			0.015		
Oakland @ San Pedro				0.326					**0.326**				
Eagle Rock @ San Pedro													
Oakland @ Louisiana	0.001		0.073				**0.073**					**0.001**	
San Pedro @ C1								**0.326**			0.326		
Alameda @ C2		0.481			0.481								
Alameda @ A1	**0.481**					**0.119**				0.119		0.481	
Oakland @ C3		**0.326**			0.326								
Oakland @ A-W		**0.163**	**0.163**	**0.037**	0.163		0.163		0.037				
Oakland @ A-E		0.037	**0.163**	**0.037**	**0.037**		0.163		0.037				

PM Peak	**Eastbound**			**Westbound**			**Northbound**			**Southbound**			
Intersection	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**Sum**
Alameda @ SB I-25 Ramps		**0.167**		0.59	0.167					**0.044**			
Alameda @ NB I-25 Ramps		**0.211**			0.757	0.044			**0.59**				
Alameda @ San Pedro	**0.326**	**0.481**		0.009	0.481			**0.006**	**0.009**		0.006	0.326	
Alameda @ Louisiana	0.002	0.02	0.106		**0.002**		**0.106**					**0.002**	
Paseo del Norte @ San Pedro								**0.015**			0.015		
Oakland @ San Pedro				0.326					**0.326**				
Eagle Rock @ San Pedro													
Oakland @ Louisiana	0.001		0.073				**0.073**					**0.001**	
San Pedro @ C1								**0.326**			0.326		
Alameda @ C2		0.481			0.481								
Alameda @ A1	**0.481**					**0.119**				0.119		0.481	
Oakland @ C3		**0.326**			0.326								
Oakland @ A-W		**0.163**	**0.163**	**0.037**	0.163		0.163		0.037				
Oakland @ A-E		0.037	0.163	**0.037**	**0.037**		0.163		0.037				

Bold values are entering percentages

Legacy NAA Developments- Trip Assignment Residential

AM Peak	**Eastbound**			**Westbound**			**Northbound**			**Southbound**			
Intersection	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**Sum**
Alameda @ SB I-25 Ramps		**4**		55	16					**1**			**76**
Alameda @ NB I-25 Ramps		**5**			71	4			**14**				**94**
Alameda @ San Pedro	**7**	**11**		1	45						1	31	**96**
Alameda @ Louisiana			10				**2**	2			7		**21**
Paseo del Norte @ San Pedro											1		**1**
Oakland @ San Pedro				31					**7**				
Eagle Rock @ San Pedro													
Oakland @ Louisiana			7				**2**						
San Pedro @ C1								**7**			31		**38**
Alameda @ C2		11			45								**56**
Alameda @ A1	**11**					**3**				11		45	**70**
Oakland @ C3		**8**			30								
Oakland @ A-W		**4**	**4**	**1**	15		15		3				
Oakland @ A-E		3	**4**	**1**	**1**		15		3				**27**

PM Peak	**Eastbound**			**Westbound**			**Northbound**			**Southbound**			
Intersection	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**Sum**
Alameda @ SB I-25 Ramps		**16**		30	9					**4**			**59**
Alameda @ NB I-25 Ramps		**20**			39	2			**55**				**116**
Alameda @ San Pedro	**31**	**45**			25			**1**	**1**			17	**120**
Alameda @ Louisiana		1	5				**10**	7			4		**27**
Paseo del Norte @ San Pedro								**1**			1		**2**
Oakland @ San Pedro				17					**31**				
Eagle Rock @ San Pedro													
Oakland @ Louisiana			4				**7**						
San Pedro @ C1								**31**			17		**48**
Alameda @ C2		45			25								**70**
Alameda @ A1	**45**					**11**				6		25	**87**
Oakland @ C3		**30**			16								
Oakland @ A-W		**15**	**15**	**3**	8		8		2				
Oakland @ A-E		2	**15**	**3**	**3**		8		2				**33**

	Base Trips
AM In	23
AM Exit	94
PM In	94
PM Exit	51

Legacy NAA Developments- Trip Distribution Retail

AM Peak	**Eastbound**			**Westbound**			**Northbound**			**Southbound**			
Intersection	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**Sum**
Alameda @ SB I-25 Ramps		**0.22**			0.22					**0.012**			
Alameda @ NB I-25 Ramps		**0.232**			0.22	0.012							
Alameda @ San Pedro	**0.122**	**0.11**			0.11			**0.188**		0.19	0.188	0.122	
Alameda @ Louisiana		0.383	0.1		**0.383**		**0.1**			0.07		**0.04**	
Paseo del Norte @ San Pedro								**0.15**			0.15		
Oakland @ San Pedro													
Eagle Rock @ San Pedro													
Oakland @ Louisiana	0.083		0.07					0.04			**0.04**	**0.043**	
San Pedro @ C1				0.5					**0.31**				
Alameda @ C2	**0.11**	0.19				0.58				0.24		0.11	
Alameda @ A1		0.58			**0.58**								
Oakland @ C3				**0.043**					0.15				
Oakland @ A-W		0.15			**0.043**								
Oakland @ A-E		0.15			**0.043**								

PM Peak	**Eastbound**			**Westbound**			**Northbound**			**Southbound**			
Intersection	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**Sum**
Alameda @ SB I-25 Ramps		**0.22**			0.22					**0.012**			
Alameda @ NB I-25 Ramps		**0.232**			0.22	0.012							
Alameda @ San Pedro	**0.122**	**0.11**			0.11			**0.188**		0.19	0.188	0.122	
Alameda @ Louisiana		0.383	0.1		**0.383**		**0.1**			0.07		**0.04**	
Paseo del Norte @ San Pedro								**0.15**			0.15		
Oakland @ San Pedro													
Eagle Rock @ San Pedro													
Oakland @ Louisiana	0.083		0.07					0.04			**0.04**	**0.043**	
San Pedro @ C1				0.5					**0.31**				
Alameda @ C2	**0.11**	0.19				0.58				0.24		0.11	
Alameda @ A1		0.58			**0.58**								
Oakland @ C3				**0.043**					0.15				
Oakland @ A-W		0.15			**0.043**								
Oakland @ A-E		0.15			**0.043**								

Bold values are entering percentages

Legacy NAA Developments- Trip Assignment Retail

AM Peak	**Eastbound**			**Westbound**			**Northbound**			**Southbound**			
Intersection	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**Sum**
Alameda @ SB I-25 Ramps		**25**			23					**1**			**49**
Alameda @ NB I-25 Ramps		**26**			23	1							**50**
Alameda @ San Pedro	**14**	**13**			12			**21**		20	20	13	**113**
Alameda @ Louisiana		40	11		**44**		**11**			7		**5**	**118**
Paseo del Norte @ San Pedro								**17**			16		**33**
Oakland @ San Pedro													
Eagle Rock @ San Pedro													
Oakland @ Louisiana	9		7					4			**5**	**5**	**30**
San Pedro @ C1				73					**48**				**121**
Alameda @ C2	**17**	20				85				35		16	**173**
Alameda @ A1		61			**66**								**127**
Oakland @ C3				**7**					22				**29**
Oakland @ A-W		16			**5**								**21**
Oakland @ A-E		16			**5**								**21**

PM Peak	**Eastbound**			**Westbound**			**Northbound**			**Southbound**			
Intersection	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**Sum**
Alameda @ SB I-25 Ramps		**24**			24					**1**			**49**
Alameda @ NB I-25 Ramps		**26**			24	1							**51**
Alameda @ San Pedro	**14**	**12**			12			**21**		21	21	14	**115**
Alameda @ Louisiana		43	11		**43**		**11**			8		**4**	**120**
Paseo del Norte @ San Pedro								**17**			17		**34**
Oakland @ San Pedro													
Eagle Rock @ San Pedro													
Oakland @ Louisiana	9		8					4			**4**	**5**	**30**
San Pedro @ C1				98					**61**				**159**
Alameda @ C2	**22**	21				114				47		22	**226**
Alameda @ A1		64			**64**								**128**
Oakland @ C3				**8**					29				**37**
Oakland @ A-W		17			**5**								**22**
Oakland @ A-E		17			**5**								**22**

	Base Trips	**Adj Trips**
AM In	155	114
AM Exit	146	105
PM In	196	111
PM Exit	196	111

Adj Trips are adjusted for Pass-by trips.

Legacy NAA Developments- Site Volumes

AM Peak	**Eastbound**			**Westbound**			**Northbound**			**Southbound**			
Intersection	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**Sum**
Alameda @ SB I-25 Ramps		29		55	39					2			125
Alameda @ NB I-25 Ramps		31			94	5			14				144
Alameda @ San Pedro	21	24		1	57			21		20	21	44	209
Alameda @ Louisiana		40	21		44		13	2		7	7	5	139
Paseo del Norte @ San Pedro								17			17		34
Oakland @ San Pedro				31					7				38
Eagle Rock @ San Pedro													
Oakland @ Louisiana	9		14				2	4			5	5	39
San Pedro @ C1				73				7	48		31		159
Alameda @ C2	17	31			45	85				35		16	229
Alameda @ A1	11	61			66	3				11		45	197
Oakland @ C3		8		7	30				22				67
Oakland @ A-W		20	4	1	20		15		3				63
Oakland @ A-E		19	4	1	6		15		3				48

PM Peak	**Eastbound**			**Westbound**			**Northbound**			**Southbound**			
Intersection	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**Sum**
Alameda @ SB I-25 Ramps		40		30	33					5			108
Alameda @ NB I-25 Ramps		46			63	3			55				167
Alameda @ San Pedro	45	57			37			22	1	21	21	31	235
Alameda @ Louisiana		44	16		43		21	7		8	4	4	147
Paseo del Norte @ San Pedro								18			18		36
Oakland @ San Pedro				17					31				48
Eagle Rock @ San Pedro													
Oakland @ Louisiana	9		12				7	4			4	5	41
San Pedro @ C1				98				31	61		17		207
Alameda @ C2	22	66			25	114				47		22	296
Alameda @ A1	45	64			64	11				6		25	215
Oakland @ C3		30		8	16				29				83
Oakland @ A-W		32	15	3	13		8		2				73
Oakland @ A-E		19	15	3	8		8		2				55

Legacy NAA Developments- Additional Vols

AM Peak	**Eastbound**			**Westbound**			**Northbound**			**Southbound**			
Intersection	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**Sum**
Alameda @ SB I-25 Ramps		**2**			5					**0**			**7**
Alameda @ NB I-25 Ramps		**2**			5	1							**8**
Alameda @ San Pedro		**2**			6								**8**
Alameda @ Louisiana			**2**	**0**			6	0	0		**0**		**8**
Paseo del Norte @ San Pedro		**6**			16								**22**
Oakland @ San Pedro													**0**
Eagle Rock @ San Pedro													**0**
Oakland @ Louisiana								0			0		**0**
San Pedro @ C1													**0**
Alameda @ C2		**2**			6								**8**
Alameda @ A1		**2**			6								**8**

PM Peak	**Eastbound**			**Westbound**			**Northbound**			**Southbound**			
Intersection	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**LT**	**TH**	**RT**	**Sum**
Alameda @ SB I-25 Ramps		**5**			3					**1**			**9**
Alameda @ NB I-25 Ramps		**7**			3	1							**11**
Alameda @ San Pedro		**7**			4								**11**
Alameda @ Louisiana			**7**	**0**			4	0	0		**0**		**11**
Paseo del Norte @ San Pedro		**17**			10								**27**
Oakland @ San Pedro													**0**
Eagle Rock @ San Pedro													**0**
Oakland @ Louisiana								0			0		**0**
San Pedro @ C1													**0**
Alameda @ C2		**7**			4								**11**
Alameda @ A1		**7**			4								**11**

Additional Developments:
Sevano Residential

	Trips
AM In	10
AM Exit	28
PM In	30
PM Exit	17

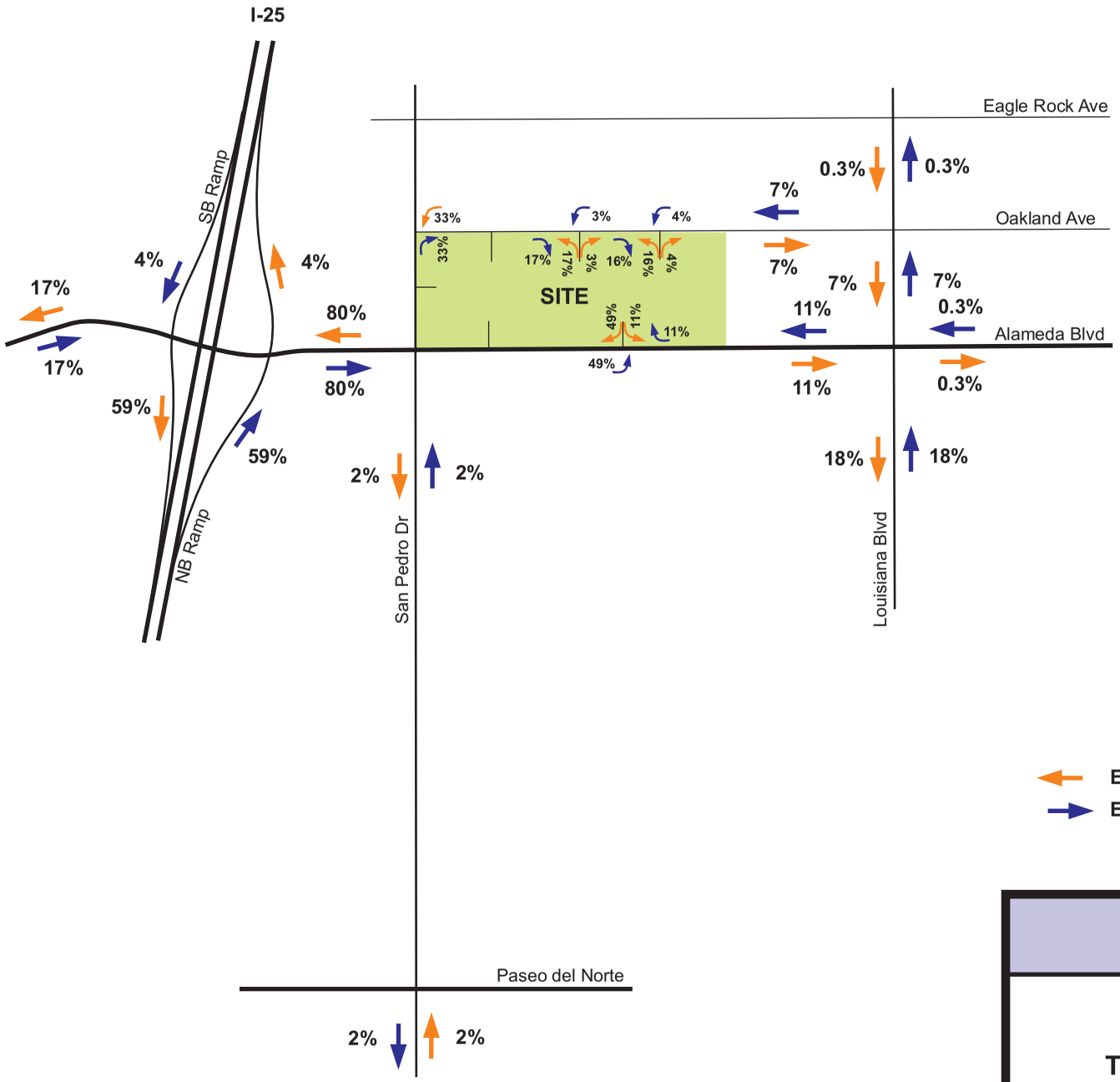


Figure D-1

Residential Trip Distribution

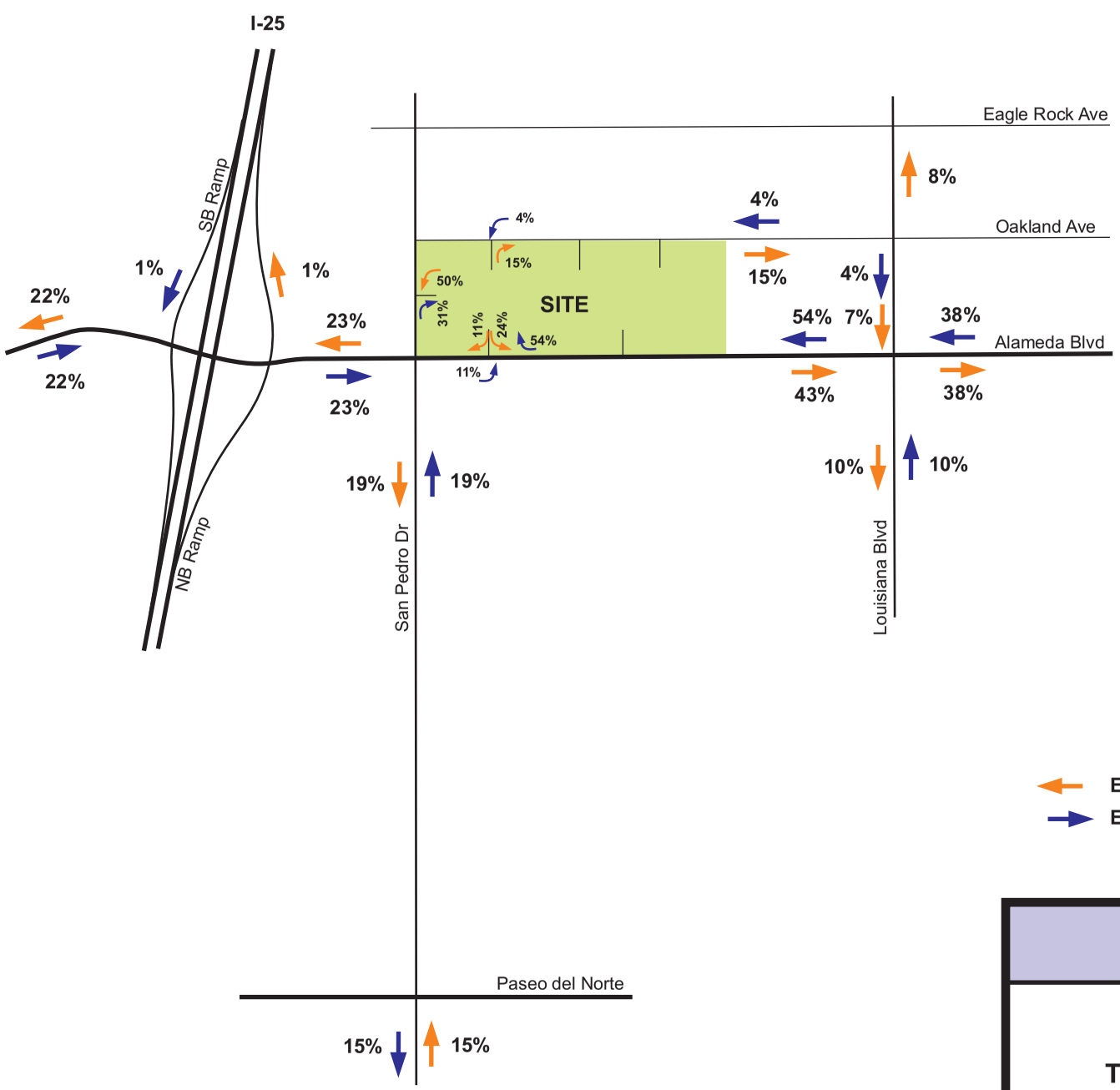


Figure D-2

Retail
Trip Distribution

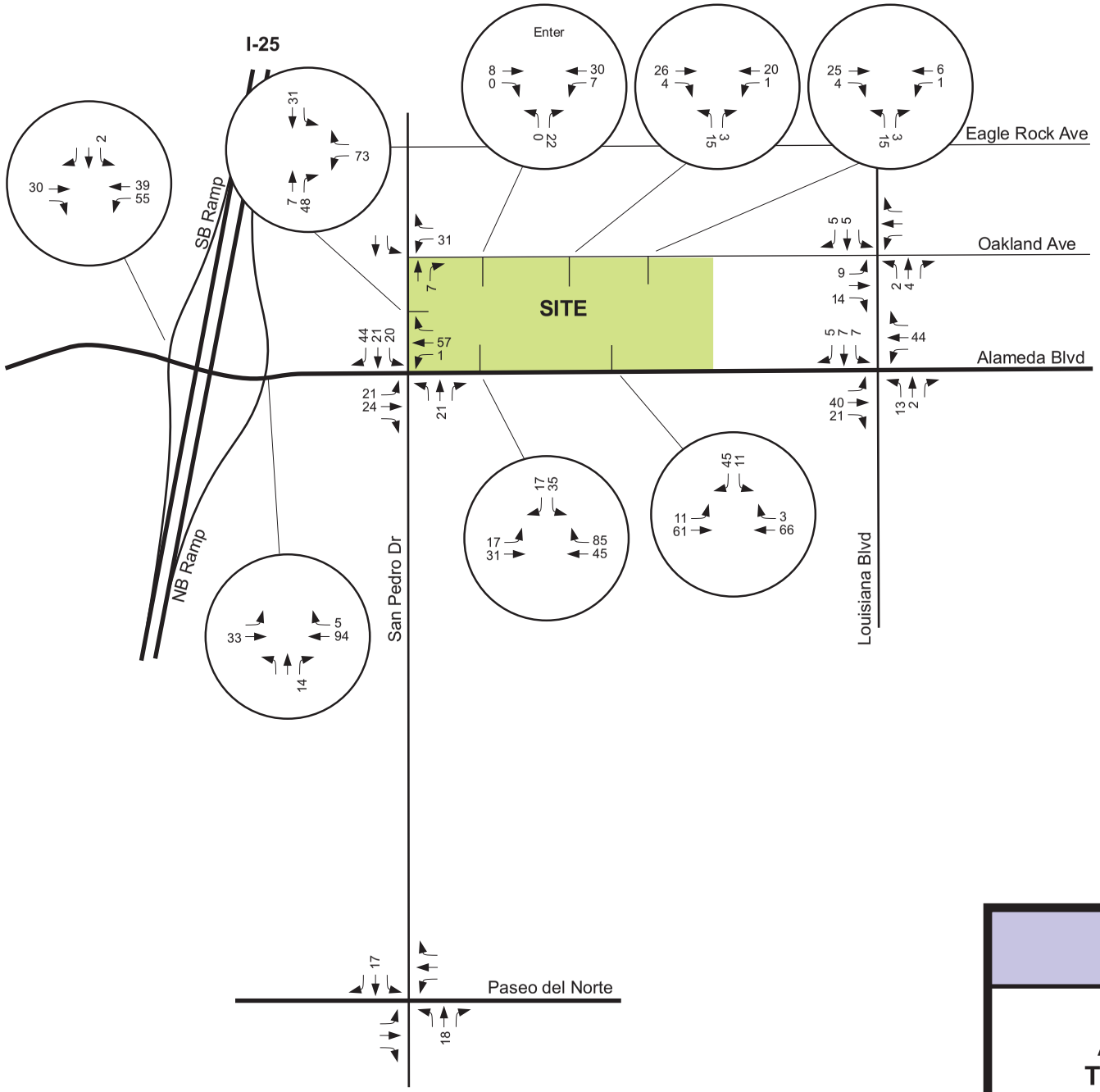


Figure D-3

AM Peak Hour Trip Assignment

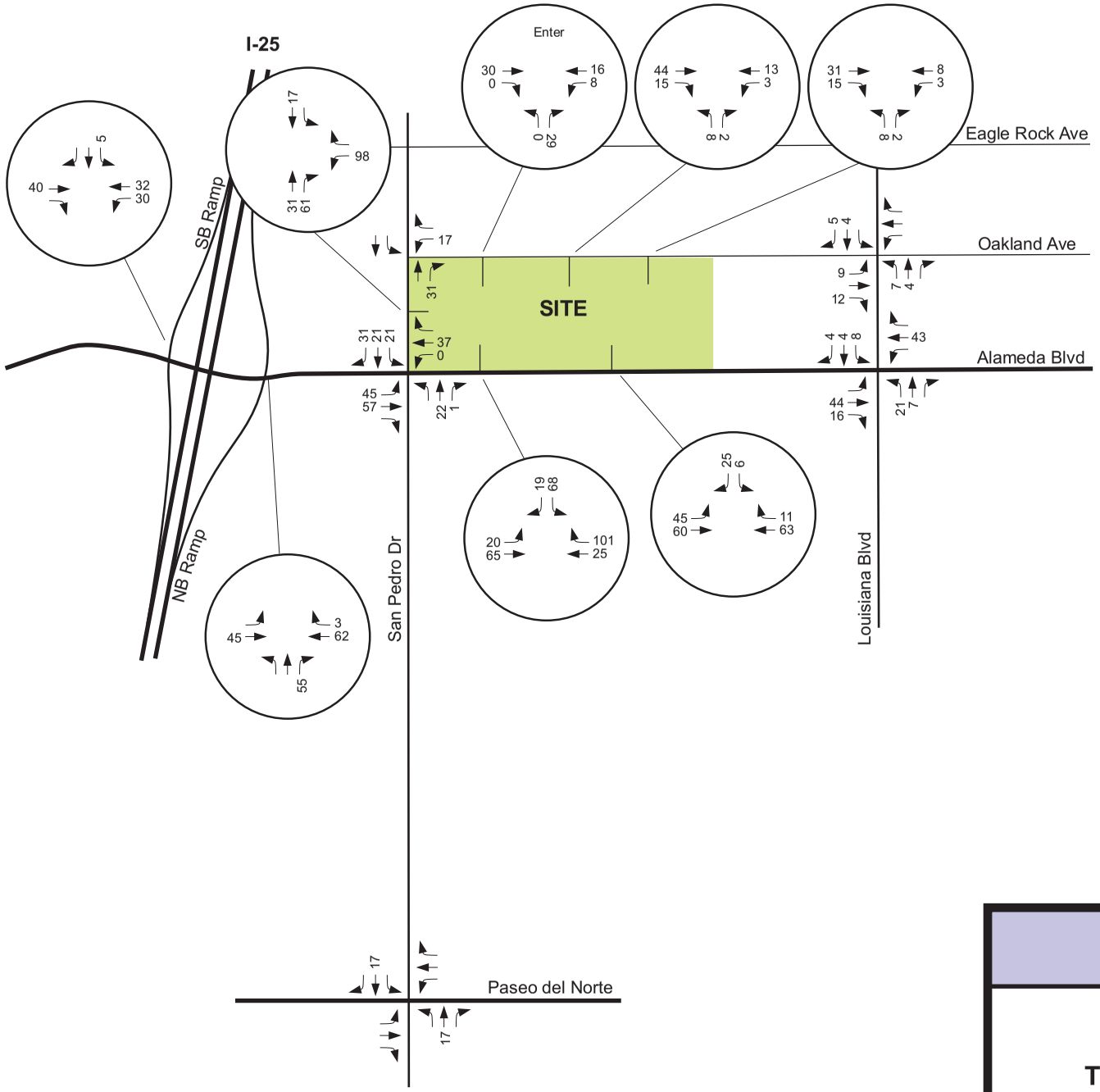


Figure D-4

PM Peak Hour Trip Assignment

Appendix E

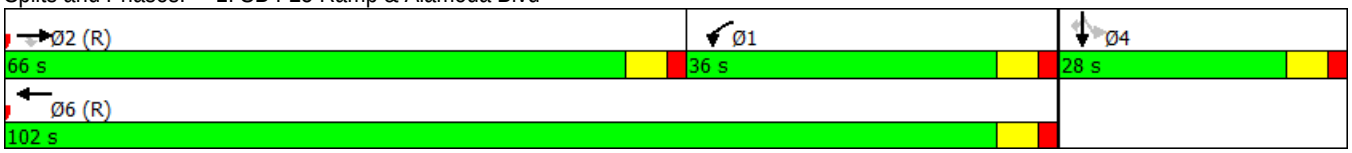
Existing Level of Service Analyses

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	584	476	461	1649	0	0	0	0	137	88	165
Future Volume (vph)	0	584	476	461	1649	0	0	0	0	137	88	165
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		150
Storage Lanes	0		1	2		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Frt			0.850									0.850
Flt Protected				0.950						0.950	0.980	
Satd. Flow (prot)	0	3539	1583	3433	3539	0	0	0	0	1610	3322	1583
Flt Permitted				0.950						0.950	0.980	
Satd. Flow (perm)	0	3539	1583	3433	3539	0	0	0	0	1610	3322	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			248									76
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		1148			590			779			1060	
Travel Time (s)		22.4			11.5			11.8			16.1	
Peak Hour Factor	0.91	0.91	0.91	0.86	0.86	0.86	0.89	0.89	0.89	0.82	0.82	0.82
Adj. Flow (vph)	0	642	523	536	1917	0	0	0	0	167	107	201
Shared Lane Traffic (%)										43%		
Lane Group Flow (vph)	0	642	523	536	1917	0	0	0	0	95	179	201
Turn Type		NA	Perm	Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases			2							4		4
Total Split (s)		66.0	66.0	36.0	102.0					28.0	28.0	28.0
Total Lost Time (s)		4.5	4.5	4.5	4.5					4.5	4.5	4.5
Act Effct Green (s)		61.5	61.5	31.5	97.5					23.5	23.5	23.5
Actuated g/C Ratio		0.47	0.47	0.24	0.75					0.18	0.18	0.18
v/c Ratio		0.38	0.59	0.65	0.72					0.33	0.30	0.58
Control Delay		22.9	15.5	38.3	4.8					50.0	47.7	37.2
Queue Delay		0.0	0.0	0.0	0.2					0.0	0.0	0.0
Total Delay		22.9	15.5	38.3	5.0					50.0	47.7	37.2
LOS		C	B	D	A					D	D	D
Approach Delay		19.6			12.3						43.7	
Approach LOS		B			B						D	
Queue Length 50th (ft)		178	163	202	94					76	72	96
Queue Length 95th (ft)		226	278	254	135					124	100	156
Internal Link Dist (ft)		1068			510			699			980	
Turn Bay Length (ft)				225								150
Base Capacity (vph)		1674	879	831	2654					291	600	348
Starvation Cap Reductn		0	0	0	194					0	0	0
Spillback Cap Reductn		0	0	0	0					0	0	0
Storage Cap Reductn		0	0	0	0					0	0	0
Reduced v/c Ratio		0.38	0.59	0.65	0.78					0.33	0.30	0.58

Intersection Summary	
Area Type:	Other
Cycle Length: 130	
Actuated Cycle Length: 130	

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green, Master Intersection	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 18.0	Intersection LOS: B
Intersection Capacity Utilization 63.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: SB I-25 Ramp & Alameda Blvd

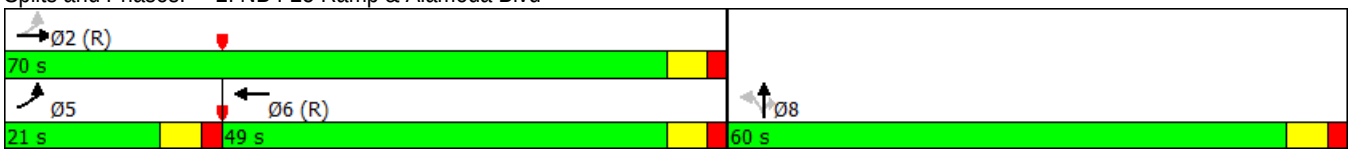


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	152	573	0	0	1072	128	878	80	132	0	0	0
Future Volume (vph)	152	573	0	0	1072	128	878	80	132	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	0		0	0		150	0		0
Storage Lanes	1		0	0		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	0.91	0.91	1.00	1.00	1.00	1.00
Frt					0.984				0.850			
Flt Protected	0.950						0.950	0.959				
Satd. Flow (prot)	1770	3539	0	0	5004	0	1610	3251	1583	0	0	0
Flt Permitted	0.084						0.950	0.959				
Satd. Flow (perm)	156	3539	0	0	5004	0	1610	3251	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					17				148			
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		590			773			1210			854	
Travel Time (s)		11.5			15.1			18.3			12.9	
Peak Hour Factor	0.91	0.91	0.91	0.92	0.92	0.92	0.89	0.89	0.89	0.85	0.85	0.85
Adj. Flow (vph)	167	630	0	0	1165	139	987	90	148	0	0	0
Shared Lane Traffic (%)							50%					
Lane Group Flow (vph)	167	630	0	0	1304	0	493	584	148	0	0	0
Turn Type	pm+pt	NA			NA		Perm	NA	Perm			
Protected Phases	5	2			6			8				
Permitted Phases	2						8		8			
Total Split (s)	21.0	70.0			49.0		60.0	60.0	60.0			
Total Lost Time (s)	4.5	4.5			4.5		4.5	4.5	4.5			
Act Effct Green (s)	65.5	65.5			47.1		55.5	55.5	55.5			
Actuated g/C Ratio	0.50	0.50			0.36		0.43	0.43	0.43			
v/c Ratio	0.67	0.35			0.71		0.72	0.42	0.19			
Control Delay	59.3	8.9			38.2		38.0	27.2	4.1			
Queue Delay	0.0	0.0			0.0		0.0	0.0	0.0			
Total Delay	59.3	8.9			38.2		38.0	27.2	4.1			
LOS	E	A			D		D	C	A			
Approach Delay		19.5			38.2			28.7				
Approach LOS		B			D			C				
Queue Length 50th (ft)	80	44			341		371	186	0			
Queue Length 95th (ft)	168	54			409		513	235	39			
Internal Link Dist (ft)		510			693			1130			774	
Turn Bay Length (ft)	200								150			
Base Capacity (vph)	283	1783			1825		687	1387	760			
Starvation Cap Reductn	0	0			0		0	0	0			
Spillback Cap Reductn	0	0			0		0	0	0			
Storage Cap Reductn	0	0			0		0	0	0			
Reduced v/c Ratio	0.59	0.35			0.71		0.72	0.42	0.19			

Intersection Summary	
Area Type:	Other
Cycle Length: 130	
Actuated Cycle Length: 130	

Offset: 4 (3%), Referenced to phase 2:EBTL and 6:WBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 30.2	Intersection LOS: C
Intersection Capacity Utilization 63.3%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 2: NB I-25 Ramp & Alameda Blvd



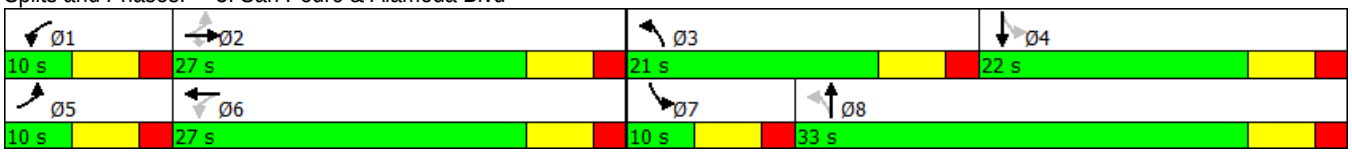
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	71	348	277	25	705	10	343	55	16	3	34	217
Future Volume (vph)	71	348	277	25	705	10	343	55	16	3	34	217
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	110		0	110		0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.998			0.966			0.870	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3532	0	1770	3419	0	1770	3079	0
Flt Permitted	0.172			0.508			0.441			0.698		
Satd. Flow (perm)	320	3539	1583	946	3532	0	821	3419	0	1300	3079	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			315		2			20			193	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		773			445			439			287	
Travel Time (s)		15.1			8.7			8.6			5.6	
Peak Hour Factor	0.88	0.88	0.88	0.94	0.94	0.94	0.82	0.82	0.82	0.83	0.83	0.83
Adj. Flow (vph)	81	395	315	27	750	11	418	67	20	4	41	261
Shared Lane Traffic (%)												
Lane Group Flow (vph)	81	395	315	27	761	0	418	87	0	4	302	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6			8			4		
Total Split (s)	10.0	27.0	27.0	10.0	27.0		21.0	33.0		10.0	22.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0		6.0	6.0		6.0	6.0	
Act Effct Green (s)	24.9	23.3	23.3	22.6	19.6		36.4	34.5		20.3	16.3	
Actuated g/C Ratio	0.33	0.31	0.31	0.30	0.26		0.48	0.46		0.27	0.22	
v/c Ratio	0.45	0.36	0.45	0.08	0.83		0.73	0.06		0.01	0.37	
Control Delay	24.6	22.4	5.4	16.2	36.5		24.1	11.9		13.7	12.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	24.6	22.4	5.4	16.2	36.5		24.1	11.9		13.7	12.1	
LOS	C	C	A	B	D		C	B		B	B	
Approach Delay		15.9			35.8			22.0			12.1	
Approach LOS		B			D			C			B	
Queue Length 50th (ft)	25	70	0	8	187		141	9		1	24	
Queue Length 95th (ft)	52	123	54	24	#275		193	24		6	49	
Internal Link Dist (ft)		693			365			359			207	
Turn Bay Length (ft)	150			250			110			110		
Base Capacity (vph)	182	1174	735	326	997		585	1568		374	813	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.45	0.34	0.43	0.08	0.76		0.71	0.06		0.01	0.37	

Intersection Summary	
Area Type:	Other
Cycle Length: 80	
Actuated Cycle Length: 75.7	

Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 23.2	Intersection LOS: C
Intersection Capacity Utilization 70.7%	ICU Level of Service C
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: San Pedro & Alameda Blvd

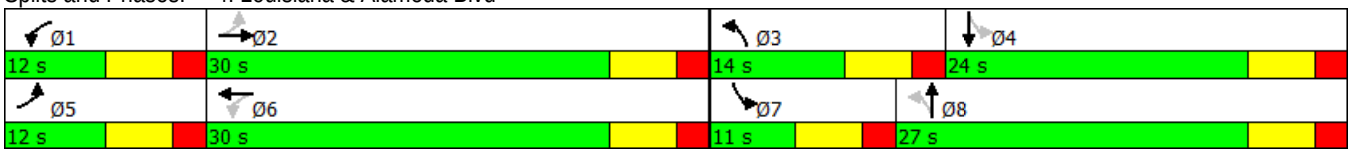


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	241	49	34	423	17	103	49	21	2	95	70
Future Volume (vph)	30	241	49	34	423	17	103	49	21	2	95	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	200		0	200		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.975			0.994			0.955			0.936	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3451	0	1770	3518	0	1770	3380	0	1770	3313	0
Flt Permitted	0.401			0.511			0.529			0.700		
Satd. Flow (perm)	747	3451	0	952	3518	0	985	3380	0	1304	3313	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		30			5			25			75	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		658			1348			1161			464	
Travel Time (s)		12.8			26.3			22.6			9.0	
Peak Hour Factor	0.87	0.87	0.87	0.89	0.89	0.89	0.85	0.85	0.85	0.93	0.93	0.93
Adj. Flow (vph)	34	277	56	38	475	19	121	58	25	2	102	75
Shared Lane Traffic (%)												
Lane Group Flow (vph)	34	333	0	38	494	0	121	83	0	2	177	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Total Split (s)	12.0	30.0		12.0	30.0		14.0	27.0		11.0	24.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Act Effct Green (s)	16.6	13.5		17.8	15.7		29.5	28.2		23.6	19.8	
Actuated g/C Ratio	0.27	0.22		0.29	0.25		0.47	0.45		0.38	0.32	
v/c Ratio	0.11	0.43		0.11	0.55		0.22	0.05		0.00	0.16	
Control Delay	14.9	22.3		14.8	23.8		12.8	11.4		13.0	13.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	14.9	22.3		14.8	23.8		12.8	11.4		13.0	13.4	
LOS	B	C		B	C		B	B		B	B	
Approach Delay		21.6			23.1			12.2			13.4	
Approach LOS		C			C			B			B	
Queue Length 50th (ft)	9	60		10	78		26	6		0	16	
Queue Length 95th (ft)	24	92		27	147		63	25		4	45	
Internal Link Dist (ft)		578			1268			1081			384	
Turn Bay Length (ft)	200			200			200			200		
Base Capacity (vph)	302	1413		353	1425		571	1542		531	1103	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.11	0.24		0.11	0.35		0.21	0.05		0.00	0.16	

Intersection Summary	
Area Type:	Other
Cycle Length: 80	
Actuated Cycle Length: 62.4	

Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.55	
Intersection Signal Delay: 19.6	Intersection LOS: B
Intersection Capacity Utilization 46.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 4: Louisiana & Alameda Blvd

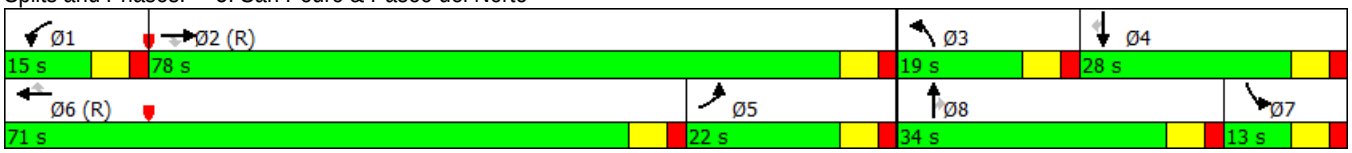


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	261	1407	223	107	1713	244	195	182	57	82	188	150
Future Volume (vph)	261	1407	223	107	1713	244	195	182	57	82	188	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		600	350		400	250		250	200		200
Storage Lanes	2		1	2		1	2		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	1.00	1.00	0.97	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	5085	1583	3433	5085	1583	3433	1863	1583	3433	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	5085	1583	3433	5085	1583	3433	1863	1583	3433	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			248			277			164			164
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		986			986			645			876	
Travel Time (s)		22.4			22.4			12.6			17.1	
Peak Hour Factor	0.90	0.90	0.90	0.88	0.88	0.88	0.85	0.85	0.85	0.93	0.93	0.93
Adj. Flow (vph)	290	1563	248	122	1947	277	229	214	67	88	202	161
Shared Lane Traffic (%)												
Lane Group Flow (vph)	290	1563	248	122	1947	277	229	214	67	88	202	161
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Total Split (s)	22.0	78.0	78.0	15.0	71.0	71.0	19.0	34.0	34.0	13.0	28.0	28.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Act Effct Green (s)	16.0	72.3	72.3	8.7	65.0	65.0	12.6	28.0	28.0	7.0	22.4	22.4
Actuated g/C Ratio	0.11	0.52	0.52	0.06	0.46	0.46	0.09	0.20	0.20	0.05	0.16	0.16
v/c Ratio	0.74	0.59	0.26	0.58	0.82	0.31	0.75	0.58	0.15	0.51	0.68	0.41
Control Delay	72.2	24.9	2.7	74.9	36.3	3.3	77.4	57.6	0.7	75.9	68.0	10.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.2	24.9	2.7	74.9	36.3	3.3	77.4	57.6	0.7	75.9	68.0	10.3
LOS	E	C	A	E	D	A	E	E	A	E	E	B
Approach Delay		28.8			34.4			59.0			48.9	
Approach LOS		C			C			E			D	
Queue Length 50th (ft)	134	356	0	56	553	0	106	178	0	41	176	0
Queue Length 95th (ft)	185	404	43	89	596	45	143	249	0	70	266	62
Internal Link Dist (ft)		906			906			565			796	
Turn Bay Length (ft)	350		600	350		400	250		250	200		200
Base Capacity (vph)	392	2627	937	220	2360	883	318	372	447	171	298	391
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.59	0.26	0.55	0.82	0.31	0.72	0.58	0.15	0.51	0.68	0.41

Intersection Summary	
Area Type:	Other
Cycle Length: 140	
Actuated Cycle Length: 140	

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 35.8	Intersection LOS: D
Intersection Capacity Utilization 76.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 5: San Pedro & Paseo del Norte

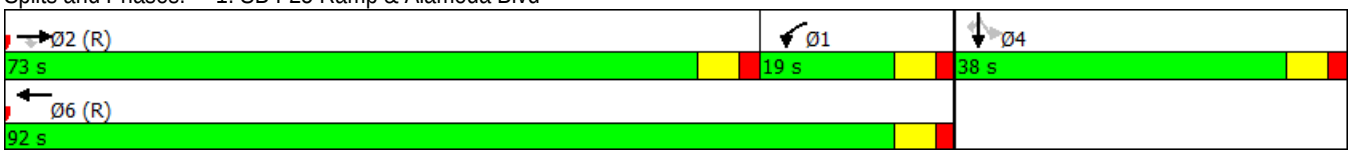


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	895	698	284	1226	0	0	0	0	474	460	98
Future Volume (vph)	0	895	698	284	1226	0	0	0	0	474	460	98
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		150
Storage Lanes	0		1	2		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Frt			0.850									0.850
Flt Protected				0.950						0.950	0.985	
Satd. Flow (prot)	0	3539	1583	3433	3539	0	0	0	0	1610	3339	1583
Flt Permitted				0.950						0.950	0.985	
Satd. Flow (perm)	0	3539	1583	3433	3539	0	0	0	0	1610	3339	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			76									76
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		1148			590			779			1060	
Travel Time (s)		22.4			11.5			11.8			16.1	
Peak Hour Factor	0.92	0.92	0.92	0.91	0.91	0.91	0.89	0.89	0.89	0.88	0.88	0.88
Adj. Flow (vph)	0	973	759	312	1347	0	0	0	0	539	523	111
Shared Lane Traffic (%)										43%		
Lane Group Flow (vph)	0	973	759	312	1347	0	0	0	0	307	755	111
Turn Type		NA	Perm	Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases			2							4		4
Total Split (s)		73.0	73.0	19.0	92.0					38.0	38.0	38.0
Total Lost Time (s)		4.5	4.5	4.5	4.5					4.5	4.5	4.5
Act Effct Green (s)		68.5	68.5	14.5	87.5					33.5	33.5	33.5
Actuated g/C Ratio		0.53	0.53	0.11	0.67					0.26	0.26	0.26
v/c Ratio		0.52	0.87	0.82	0.57					0.74	0.88	0.24
Control Delay		21.3	36.7	55.1	4.7					56.5	58.9	15.6
Queue Delay		0.0	0.0	0.0	0.2					0.0	0.0	0.0
Total Delay		21.3	36.7	55.1	4.9					56.5	58.9	15.6
LOS		C	D	E	A					E	E	B
Approach Delay		28.1			14.3						54.2	
Approach LOS		C			B						D	
Queue Length 50th (ft)		272	500	132	58					261	336	23
Queue Length 95th (ft)		332	#777	m#201	103					372	#417	69
Internal Link Dist (ft)		1068			510			699			980	
Turn Bay Length (ft)				225								150
Base Capacity (vph)		1864	870	382	2382					414	860	464
Starvation Cap Reductn		0	0	0	302					0	0	0
Spillback Cap Reductn		0	0	0	0					0	0	0
Storage Cap Reductn		0	0	0	0					0	0	0
Reduced v/c Ratio		0.52	0.87	0.82	0.65					0.74	0.88	0.24

Intersection Summary	
Area Type:	Other
Cycle Length: 130	
Actuated Cycle Length: 130	

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green, Master Intersection
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 29.8 Intersection LOS: C
Intersection Capacity Utilization 80.2% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: SB I-25 Ramp & Alameda Blvd

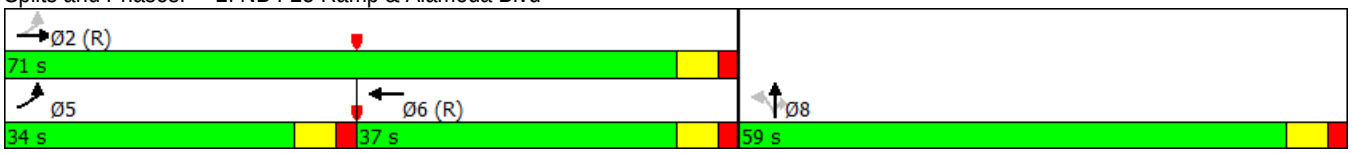


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	307	1048	0	0	685	179	830	121	387	0	0	0
Future Volume (vph)	307	1048	0	0	685	179	830	121	387	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	0		0	0		150	0		0
Storage Lanes	1		0	0		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	0.91	0.91	1.00	1.00	1.00	1.00
Frt					0.969				0.850			
Flt Protected	0.950						0.950	0.963				
Satd. Flow (prot)	1770	3539	0	0	4928	0	1610	3265	1583	0	0	0
Flt Permitted	0.128						0.950	0.963				
Satd. Flow (perm)	238	3539	0	0	4928	0	1610	3265	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					48				76			
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		590			773			1210			854	
Travel Time (s)		11.5			15.1			18.3			12.9	
Peak Hour Factor	0.91	0.91	0.91	0.89	0.89	0.89	0.79	0.79	0.79	0.85	0.85	0.85
Adj. Flow (vph)	337	1152	0	0	770	201	1051	153	490	0	0	0
Shared Lane Traffic (%)							50%					
Lane Group Flow (vph)	337	1152	0	0	971	0	525	679	490	0	0	0
Turn Type	pm+pt	NA			NA		Perm	NA	Perm			
Protected Phases	5	2			6			8				
Permitted Phases	2						8		8			
Total Split (s)	34.0	71.0			37.0		59.0	59.0	59.0			
Total Lost Time (s)	4.5	4.5			4.5		4.5	4.5	4.5			
Act Effct Green (s)	66.5	66.5			37.3		54.5	54.5	54.5			
Actuated g/C Ratio	0.51	0.51			0.29		0.42	0.42	0.42			
v/c Ratio	0.82	0.64			0.67		0.78	0.50	0.69			
Control Delay	50.2	13.7			42.3		42.1	29.2	31.9			
Queue Delay	0.0	0.3			0.0		0.0	0.0	0.0			
Total Delay	50.2	14.0			42.3		42.1	29.2	31.9			
LOS	D	B			D		D	C	C			
Approach Delay		22.2			42.3			34.0				
Approach LOS		C			D			C				
Queue Length 50th (ft)	170	120			256		413	227	285			
Queue Length 95th (ft)	m281	222			316		469	242	334			
Internal Link Dist (ft)		510			693			1130			774	
Turn Bay Length (ft)	200								150			
Base Capacity (vph)	469	1810			1449		674	1368	707			
Starvation Cap Reductn	0	207			0		0	0	0			
Spillback Cap Reductn	0	0			0		0	0	0			
Storage Cap Reductn	0	0			0		0	0	0			
Reduced v/c Ratio	0.72	0.72			0.67		0.78	0.50	0.69			

Intersection Summary	
Area Type:	Other
Cycle Length: 130	
Actuated Cycle Length: 130	

Offset: 3 (2%), Referenced to phase 2:EBTL and 6:WBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 31.7	Intersection LOS: C
Intersection Capacity Utilization 80.2%	ICU Level of Service D
Analysis Period (min) 15	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 2: NB I-25 Ramp & Alameda Blvd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	114	849	442	24	411	11	254	50	31	6	44	148
Future Volume (vph)	114	849	442	24	411	11	254	50	31	6	44	148
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	110		0	110		0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.996			0.943			0.884	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3525	0	1770	3337	0	1770	3129	0
Flt Permitted	0.348			0.189			0.459			0.694		
Satd. Flow (perm)	648	3539	1583	352	3525	0	855	3337	0	1293	3129	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			491		3			35			203	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		773			445			439			287	
Travel Time (s)		15.1			8.7			8.6			5.6	
Peak Hour Factor	0.90	0.90	0.90	0.89	0.89	0.89	0.88	0.88	0.88	0.73	0.73	0.73
Adj. Flow (vph)	127	943	491	27	462	12	289	57	35	8	60	203
Shared Lane Traffic (%)												
Lane Group Flow (vph)	127	943	491	27	474	0	289	92	0	8	263	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6			8			4		
Total Split (s)	12.0	32.0	32.0	10.0	30.0		16.0	28.0		10.0	22.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0		6.0	6.0		6.0	6.0	
Act Effct Green (s)	26.5	24.4	24.4	21.8	18.7		31.9	30.1		20.2	16.2	
Actuated g/C Ratio	0.37	0.34	0.34	0.30	0.26		0.44	0.42		0.28	0.22	
v/c Ratio	0.38	0.79	0.57	0.15	0.52		0.58	0.07		0.02	0.31	
Control Delay	17.5	28.0	5.1	15.0	25.5		20.5	11.7		15.0	8.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	17.5	28.0	5.1	15.0	25.5		20.5	11.7		15.0	8.6	
LOS	B	C	A	B	C		C	B		B	A	
Approach Delay		19.9			24.9			18.4			8.8	
Approach LOS		B			C			B			A	
Queue Length 50th (ft)	36	178	0	7	99		78	6		2	11	
Queue Length 95th (ft)	69	#302	64	21	141		161	27		8	26	
Internal Link Dist (ft)		693			365			359			207	
Turn Bay Length (ft)	150			250			110			110		
Base Capacity (vph)	333	1297	891	186	1189		507	1415		390	860	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.38	0.73	0.55	0.15	0.40		0.57	0.07		0.02	0.31	

Intersection Summary	
Area Type:	Other
Cycle Length: 80	
Actuated Cycle Length: 72	

Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 19.5	Intersection LOS: B
Intersection Capacity Utilization 66.9%	ICU Level of Service C
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

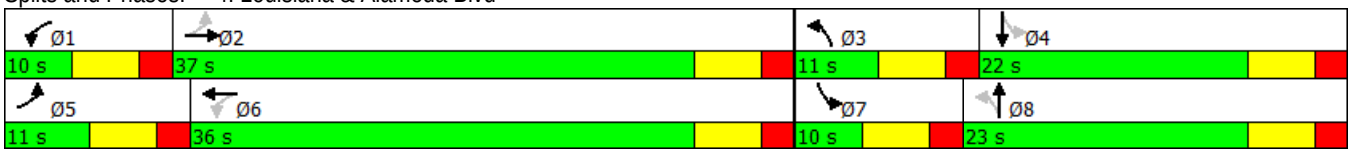
Splits and Phases: 3: San Pedro & Alameda Blvd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	90	568	107	24	347	14	74	88	28	20	97	38
Future Volume (vph)	90	568	107	24	347	14	74	88	28	20	97	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	200		0	200		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.976			0.994			0.964			0.958	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3454	0	1770	3518	0	1770	3412	0	1770	3391	0
Flt Permitted	0.402			0.248			0.572			0.668		
Satd. Flow (perm)	749	3454	0	462	3518	0	1065	3412	0	1244	3391	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		32			6			32			49	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		658			1348			1161			464	
Travel Time (s)		12.8			26.3			22.6			9.0	
Peak Hour Factor	0.87	0.87	0.87	0.81	0.81	0.81	0.88	0.88	0.88	0.78	0.78	0.78
Adj. Flow (vph)	103	653	123	30	428	17	84	100	32	26	124	49
Shared Lane Traffic (%)												
Lane Group Flow (vph)	103	776	0	30	445	0	84	132	0	26	173	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Total Split (s)	11.0	37.0		10.0	36.0		11.0	23.0		10.0	22.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Act Effct Green (s)	23.3	21.6		19.8	16.8		23.7	22.0		20.2	17.2	
Actuated g/C Ratio	0.37	0.34		0.31	0.27		0.38	0.35		0.32	0.27	
v/c Ratio	0.28	0.64		0.13	0.47		0.18	0.11		0.06	0.18	
Control Delay	13.8	20.1		12.4	21.5		16.0	15.9		15.6	17.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	13.8	20.1		12.4	21.5		16.0	15.9		15.6	17.3	
LOS	B	C		B	C		B	B		B	B	
Approach Delay		19.3			21.0			15.9			17.1	
Approach LOS		B			C			B			B	
Queue Length 50th (ft)	25	115		7	80		18	11		6	19	
Queue Length 95th (ft)	49	196		18	104		56	41		21	43	
Internal Link Dist (ft)		578			1268			1081			384	
Turn Bay Length (ft)	200			200			200			200		
Base Capacity (vph)	362	1809		232	1771		459	1212		433	961	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.28	0.43		0.13	0.25		0.18	0.11		0.06	0.18	

Intersection Summary	
Area Type:	Other
Cycle Length: 80	
Actuated Cycle Length: 63	

Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.64	
Intersection Signal Delay: 19.1	Intersection LOS: B
Intersection Capacity Utilization 50.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 4: Louisiana & Alameda Blvd

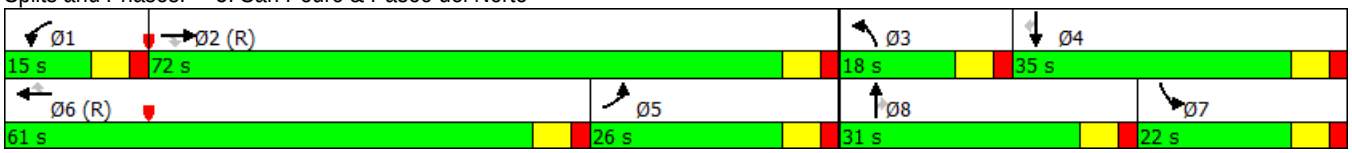


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	305	1863	132	123	1302	174	176	186	96	240	237	273
Future Volume (vph)	305	1863	132	123	1302	174	176	186	96	240	237	273
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		600	350		400	250		250	200		200
Storage Lanes	2		1	2		1	2		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	1.00	1.00	0.97	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	5085	1583	3433	5085	1583	3433	1863	1583	3433	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	5085	1583	3433	5085	1583	3433	1863	1583	3433	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			164			189			164			282
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		986			986			645			876	
Travel Time (s)		22.4			22.4			12.6			17.1	
Peak Hour Factor	0.94	0.94	0.94	0.92	0.92	0.92	0.91	0.91	0.91	0.90	0.90	0.90
Adj. Flow (vph)	324	1982	140	134	1415	189	193	204	105	267	263	303
Shared Lane Traffic (%)												
Lane Group Flow (vph)	324	1982	140	134	1415	189	193	204	105	267	263	303
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Total Split (s)	26.0	72.0	72.0	15.0	61.0	61.0	18.0	31.0	31.0	22.0	35.0	35.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Act Effct Green (s)	20.0	66.2	66.2	8.8	55.0	55.0	11.5	25.0	25.0	16.0	29.5	29.5
Actuated g/C Ratio	0.14	0.47	0.47	0.06	0.39	0.39	0.08	0.18	0.18	0.11	0.21	0.21
v/c Ratio	0.66	0.82	0.17	0.63	0.71	0.26	0.69	0.61	0.25	0.68	0.67	0.54
Control Delay	64.0	35.6	2.2	77.3	38.2	4.5	75.6	62.0	2.2	69.2	60.5	10.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.0	35.6	2.2	77.3	38.2	4.5	75.6	62.0	2.2	69.2	60.5	10.8
LOS	E	D	A	E	D	A	E	E	A	E	E	B
Approach Delay		37.4			37.5			54.7			45.2	
Approach LOS		D			D			D			D	
Queue Length 50th (ft)	145	561	0	62	394	0	89	174	0	122	223	16
Queue Length 95th (ft)	198	628	25	98	450	49	131	261	5	171	323	103
Internal Link Dist (ft)		906			906			565			796	
Turn Bay Length (ft)	350		600	350		400	250		250	200		200
Base Capacity (vph)	490	2406	835	220	1997	736	294	332	417	392	392	556
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.66	0.82	0.17	0.61	0.71	0.26	0.66	0.61	0.25	0.68	0.67	0.54

Intersection Summary	
Area Type:	Other
Cycle Length: 140	
Actuated Cycle Length: 140	

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 40.2	Intersection LOS: D
Intersection Capacity Utilization 77.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 5: San Pedro & Paseo del Norte



Intersection	
Int Delay, s/veh	2.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	73	11	110	8	2	182
Future Vol, veh/h	73	11	110	8	2	182
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	81	81	80	80	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	90	14	138	10	2	212

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	359	143	0	0	148	0
Stage 1	143	-	-	-	-	-
Stage 2	216	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	640	905	-	-	1434	-
Stage 1	884	-	-	-	-	-
Stage 2	820	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	639	905	-	-	1434	-
Mov Cap-2 Maneuver	639	-	-	-	-	-
Stage 1	884	-	-	-	-	-
Stage 2	818	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.4	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	665	1434	-
HCM Lane V/C Ratio	-	-	0.156	0.002	-
HCM Control Delay (s)	-	-	11.4	7.5	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0	-

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	5	17	20	40	2	13	69	12	1	133	13
Future Vol, veh/h	0	5	17	20	40	2	13	69	12	1	133	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	-	175	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	61	61	61	74	74	74	78	78	78	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	8	28	27	54	3	17	88	15	1	155	15

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	270	302	85	213	301	52	170	0	0	104	0	0
Stage 1	165	165	-	129	129	-	-	-	-	-	-	-
Stage 2	105	137	-	84	172	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	661	610	957	725	610	1005	1405	-	-	1485	-	-
Stage 1	821	761	-	861	788	-	-	-	-	-	-	-
Stage 2	889	782	-	915	755	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	608	602	957	690	602	1005	1405	-	-	1485	-	-
Mov Cap-2 Maneuver	608	602	-	690	602	-	-	-	-	-	-	-
Stage 1	811	760	-	851	778	-	-	-	-	-	-	-
Stage 2	815	773	-	878	754	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.5	11.5	1.1	0.1
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1405	-	-	844	636	1485	-	-
HCM Lane V/C Ratio	0.012	-	-	0.043	0.132	0.001	-	-
HCM Control Delay (s)	7.6	-	-	9.5	11.5	7.4	-	-
HCM Lane LOS	A	-	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.5	0	-	-

Intersection	
Int Delay, s/veh	8.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	17	15	166	47	9	33	25	33	0	10	2
Future Vol, veh/h	0	17	15	166	47	9	33	25	33	0	10	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	87	87	87	71	71	71	50	50	50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	23	21	191	54	10	46	35	46	0	20	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	206	197	22	195	175	58	24	0	0	82	0	0
Stage 1	22	22	-	151	151	-	-	-	-	-	-	-
Stage 2	184	175	-	44	24	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	752	699	1055	764	718	1008	1591	-	-	1515	-	-
Stage 1	996	877	-	851	772	-	-	-	-	-	-	-
Stage 2	818	754	-	970	875	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	684	678	1055	713	696	1008	1591	-	-	1515	-	-
Mov Cap-2 Maneuver	684	678	-	713	696	-	-	-	-	-	-	-
Stage 1	966	877	-	825	749	-	-	-	-	-	-	-
Stage 2	729	731	-	926	875	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.7	12.8	2.7	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1591	-	-	814	718	1515	-	-
HCM Lane V/C Ratio	0.029	-	-	0.054	0.355	-	-	-
HCM Control Delay (s)	7.3	0	-	9.7	12.8	0	-	-
HCM Lane LOS	A	A	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	1.6	0	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	21	3	126	51	9	152
Future Vol, veh/h	21	3	126	51	9	152
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	92	93	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	3	137	55	12	195

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	382	164	0	0	192	0
Stage 1	164	-	-	-	-	-
Stage 2	218	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	620	881	-	-	1381	-
Stage 1	865	-	-	-	-	-
Stage 2	818	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	614	881	-	-	1381	-
Mov Cap-2 Maneuver	614	-	-	-	-	-
Stage 1	865	-	-	-	-	-
Stage 2	810	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	638	1381	-
HCM Lane V/C Ratio	-	-	0.044	0.008	-
HCM Control Delay (s)	-	-	10.9	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	10	30	20	20	15	0	19	151	19	0	114	10
Future Vol, veh/h	10	30	20	20	15	0	19	151	19	0	114	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	-	175	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	71	71	71	88	88	88	95	95	95	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	42	28	23	17	0	20	159	20	0	133	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	266	357	72	296	353	89	144	0	0	179	0	0
Stage 1	138	138	-	209	209	-	-	-	-	-	-	-
Stage 2	128	219	-	87	144	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	665	568	975	634	571	951	1436	-	-	1394	-	-
Stage 1	851	781	-	774	728	-	-	-	-	-	-	-
Stage 2	862	721	-	911	777	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	643	560	975	574	563	951	1436	-	-	1394	-	-
Mov Cap-2 Maneuver	643	560	-	574	563	-	-	-	-	-	-	-
Stage 1	839	781	-	763	718	-	-	-	-	-	-	-
Stage 2	830	711	-	837	777	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.2	11.8	0.8	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1436	-	-	669	569	1394	-	-
HCM Lane V/C Ratio	0.014	-	-	0.126	0.07	-	-	-
HCM Control Delay (s)	7.5	-	-	11.2	11.8	0	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0.2	0	-	-

Intersection	
Int Delay, s/veh	6.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	1	66	43	77	17	5	13	26	86	4	40	4
Future Vol, veh/h	1	66	43	77	17	5	13	26	86	4	40	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	80	80	80	92	92	92	71	71	71
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	80	52	96	21	6	14	28	93	6	56	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	187	220	59	239	176	75	62	0	0	122	0	0
Stage 1	70	70	-	103	103	-	-	-	-	-	-	-
Stage 2	117	150	-	136	73	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	774	678	1007	715	717	986	1541	-	-	1465	-	-
Stage 1	940	837	-	903	810	-	-	-	-	-	-	-
Stage 2	888	773	-	867	834	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	743	669	1007	610	707	986	1541	-	-	1465	-	-
Mov Cap-2 Maneuver	743	669	-	610	707	-	-	-	-	-	-	-
Stage 1	931	834	-	894	802	-	-	-	-	-	-	-
Stage 2	850	765	-	741	831	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.6	12	0.8	0.6
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1541	-	-	771	637	1465	-	-
HCM Lane V/C Ratio	0.009	-	-	0.172	0.194	0.004	-	-
HCM Control Delay (s)	7.4	0	-	10.6	12	7.5	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.6	0.7	0	-	-

Appendix F

2019 Baseline Level of Service Analyses

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	600	490	470	1690	0	0	0	0	140	90	170
Future Volume (vph)	0	600	490	470	1690	0	0	0	0	140	90	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		150
Storage Lanes	0		1	2		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Frt			0.850									0.850
Flt Protected				0.950						0.950	0.980	
Satd. Flow (prot)	0	3539	1583	3433	3539	0	0	0	0	1610	3322	1583
Flt Permitted				0.950						0.950	0.980	
Satd. Flow (perm)	0	3539	1583	3433	3539	0	0	0	0	1610	3322	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			254									76
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		1148			590			779			1060	
Travel Time (s)		22.4			11.5			11.8			16.1	
Peak Hour Factor	0.91	0.91	0.91	0.86	0.86	0.86	0.89	0.89	0.89	0.82	0.82	0.82
Adj. Flow (vph)	0	659	538	547	1965	0	0	0	0	171	110	207
Shared Lane Traffic (%)										43%		
Lane Group Flow (vph)	0	659	538	547	1965	0	0	0	0	97	184	207
Turn Type		NA	Perm	Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases			2							4		4
Total Split (s)		66.0	66.0	35.0	101.0					29.0	29.0	29.0
Total Lost Time (s)		4.5	4.5	4.5	4.5					4.5	4.5	4.5
Act Effct Green (s)		65.2	65.2	26.8	96.5					24.5	24.5	24.5
Actuated g/C Ratio		0.50	0.50	0.21	0.74					0.19	0.19	0.19
v/c Ratio		0.37	0.58	0.77	0.75					0.32	0.29	0.57
Control Delay		21.1	14.6	53.3	6.2					49.0	46.8	37.0
Queue Delay		0.0	0.0	0.0	0.2					0.0	0.0	0.0
Total Delay		21.1	14.6	53.3	6.5					49.0	46.8	37.0
LOS		C	B	D	A					D	D	D
Approach Delay		18.2			16.7						43.1	
Approach LOS		B			B						D	
Queue Length 50th (ft)		175	161	204	85					78	74	101
Queue Length 95th (ft)		233	290	249	132					124	101	160
Internal Link Dist (ft)		1068			510			699			980	
Turn Bay Length (ft)				225								150
Base Capacity (vph)		1776	920	805	2627					303	626	360
Starvation Cap Reductn		0	0	0	154					0	0	0
Spillback Cap Reductn		0	0	0	0					0	0	0
Storage Cap Reductn		0	0	0	0					0	0	0
Reduced v/c Ratio		0.37	0.58	0.68	0.79					0.32	0.29	0.57

Intersection Summary	
Area Type:	Other
Cycle Length: 130	
Actuated Cycle Length: 130	

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green, Master Intersection	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 20.2	Intersection LOS: C
Intersection Capacity Utilization 64.7%	ICU Level of Service C
Analysis Period (min) 15	

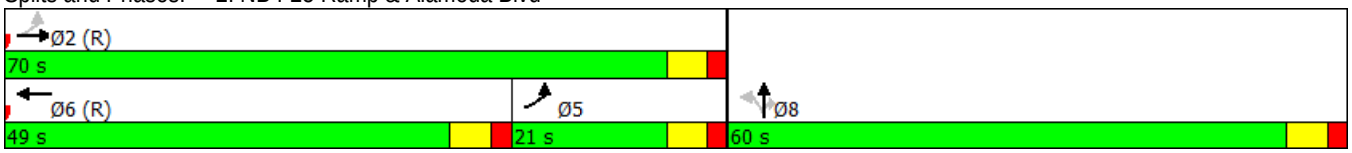
Splits and Phases: 1: SB I-25 Ramp & Alameda Blvd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	160	590	0	0	1100	130	900	80	130	0	0	0
Future Volume (vph)	160	590	0	0	1100	130	900	80	130	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	0		0	0		150	0		0
Storage Lanes	1		0	0		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	0.91	0.91	1.00	1.00	1.00	1.00
Frt					0.984				0.850			
Flt Protected	0.950						0.950	0.959				
Satd. Flow (prot)	1770	3539	0	0	5004	0	1610	3251	1583	0	0	0
Flt Permitted	0.085						0.950	0.959				
Satd. Flow (perm)	158	3539	0	0	5004	0	1610	3251	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					17				146			
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		590			773			1210			854	
Travel Time (s)		11.5			15.1			18.3			12.9	
Peak Hour Factor	0.91	0.91	0.91	0.92	0.92	0.92	0.89	0.89	0.89	0.85	0.85	0.85
Adj. Flow (vph)	176	648	0	0	1196	141	1011	90	146	0	0	0
Shared Lane Traffic (%)							50%					
Lane Group Flow (vph)	176	648	0	0	1337	0	505	596	146	0	0	0
Turn Type	pm+pt	NA			NA		Perm	NA	Perm			
Protected Phases	5	2			6			8				
Permitted Phases	2						8		8			
Total Split (s)	21.0	70.0			49.0		60.0	60.0	60.0			
Total Lost Time (s)	4.5	4.5			4.5		4.5	4.5	4.5			
Act Effct Green (s)	65.5	65.5			44.5		55.5	55.5	55.5			
Actuated g/C Ratio	0.50	0.50			0.34		0.43	0.43	0.43			
v/c Ratio	0.62	0.36			0.78		0.74	0.43	0.19			
Control Delay	40.8	9.0			41.5		38.9	27.4	4.1			
Queue Delay	0.0	0.0			0.0		0.1	0.0	0.0			
Total Delay	40.8	9.0			41.5		38.9	27.4	4.1			
LOS	D	A			D		D	C	A			
Approach Delay		15.8			41.5			29.3				
Approach LOS		B			D			C				
Queue Length 50th (ft)	79	166			363		384	190	0			
Queue Length 95th (ft)	159	171			423		531	241	39			
Internal Link Dist (ft)		510			693			1130			774	
Turn Bay Length (ft)	200								150			
Base Capacity (vph)	284	1783			1724		687	1387	759			
Starvation Cap Reductn	0	0			0		0	0	0			
Spillback Cap Reductn	0	0			0		6	6	0			
Storage Cap Reductn	0	0			0		0	0	0			
Reduced v/c Ratio	0.62	0.36			0.78		0.74	0.43	0.19			

Intersection Summary	
Area Type:	Other
Cycle Length: 130	
Actuated Cycle Length: 130	

Offset: 18 (14%), Referenced to phase 2:EBTL and 6:WBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 30.8	Intersection LOS: C
Intersection Capacity Utilization 64.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 2: NB I-25 Ramp & Alameda Blvd



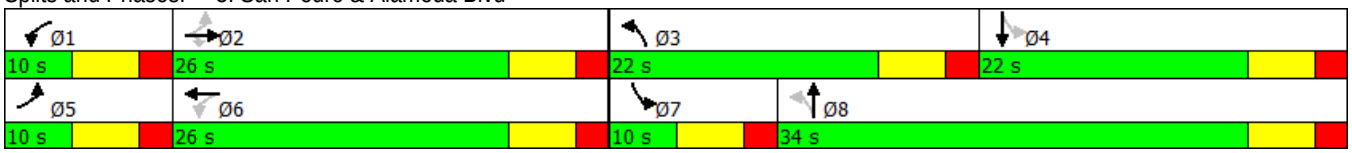
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	360	280	30	730	10	350	60	20	3	30	220
Future Volume (vph)	70	360	280	30	730	10	350	60	20	3	30	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	110		0	110		0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.998			0.963			0.868	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3532	0	1770	3408	0	1770	3072	0
Flt Permitted	0.175			0.491			0.441			0.691		
Satd. Flow (perm)	326	3539	1583	915	3532	0	821	3408	0	1287	3072	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			318		2			24			196	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		773			445			439			287	
Travel Time (s)		15.1			8.7			8.6			5.6	
Peak Hour Factor	0.88	0.88	0.88	0.94	0.94	0.94	0.82	0.82	0.82	0.83	0.83	0.83
Adj. Flow (vph)	80	409	318	32	777	11	427	73	24	4	36	265
Shared Lane Traffic (%)												
Lane Group Flow (vph)	80	409	318	32	788	0	427	97	0	4	301	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6			8			4		
Total Split (s)	10.0	26.0	26.0	10.0	26.0		22.0	34.0		10.0	22.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0		6.0	6.0		6.0	6.0	
Act Effct Green (s)	24.4	22.9	22.9	22.1	19.1		37.1	35.2		20.3	16.2	
Actuated g/C Ratio	0.32	0.30	0.30	0.29	0.25		0.49	0.46		0.27	0.21	
v/c Ratio	0.44	0.38	0.45	0.10	0.89		0.73	0.06		0.01	0.37	
Control Delay	25.2	23.3	5.6	17.0	41.7		23.0	11.2		13.3	11.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	25.2	23.3	5.6	17.0	41.7		23.0	11.2		13.3	11.8	
LOS	C	C	A	B	D		C	B		B	B	
Approach Delay		16.5			40.8			20.8			11.8	
Approach LOS		B			D			C			B	
Queue Length 50th (ft)	26	74	0	10	199		141	10		1	23	
Queue Length 95th (ft)	53	130	55	27	#304		193	25		6	48	
Internal Link Dist (ft)		693			365			359			207	
Turn Bay Length (ft)	150			250			110			110		
Base Capacity (vph)	182	1121	718	312	943		603	1592		368	810	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.44	0.36	0.44	0.10	0.84		0.71	0.06		0.01	0.37	

Intersection Summary	
Area Type:	Other
Cycle Length: 80	
Actuated Cycle Length: 76	

Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 24.9	Intersection LOS: C
Intersection Capacity Utilization 71.7%	ICU Level of Service C
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: San Pedro & Alameda Blvd

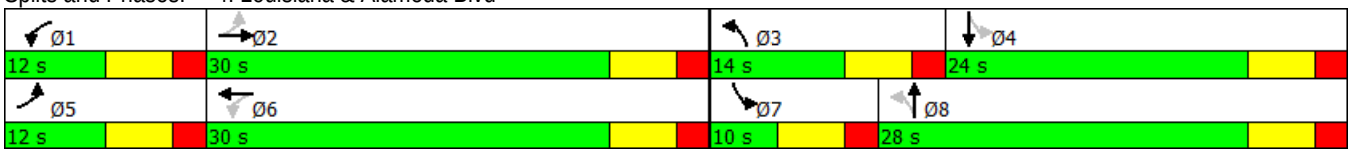


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	250	50	30	430	20	110	50	20	1	100	70
Future Volume (vph)	30	250	50	30	430	20	110	50	20	1	100	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	200		0	200		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.975			0.993			0.957			0.939	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3451	0	1770	3514	0	1770	3387	0	1770	3323	0
Flt Permitted	0.352			0.539			0.523			0.700		
Satd. Flow (perm)	656	3451	0	1004	3514	0	974	3387	0	1304	3323	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		30			6			24			75	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		658			1348			1161			464	
Travel Time (s)		12.8			26.3			22.6			9.0	
Peak Hour Factor	0.87	0.87	0.87	0.89	0.89	0.89	0.85	0.85	0.85	0.93	0.93	0.93
Adj. Flow (vph)	34	287	57	34	483	22	129	59	24	1	108	75
Shared Lane Traffic (%)												
Lane Group Flow (vph)	34	344	0	34	505	0	129	83	0	1	183	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Total Split (s)	12.0	30.0		12.0	30.0		14.0	28.0		10.0	24.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Act Effct Green (s)	16.4	14.5		16.4	14.5		29.9	28.6		23.0	20.0	
Actuated g/C Ratio	0.27	0.24		0.27	0.24		0.49	0.47		0.38	0.33	
v/c Ratio	0.12	0.41		0.10	0.60		0.23	0.05		0.00	0.16	
Control Delay	15.2	20.6		14.9	25.0		12.3	10.9		13.0	13.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	15.2	20.6		14.9	25.0		12.3	10.9		13.0	13.1	
LOS	B	C		B	C		B	B		B	B	
Approach Delay		20.1			24.3			11.7			13.1	
Approach LOS		C			C			B			B	
Queue Length 50th (ft)	9	47		9	80		20	4		0	14	
Queue Length 95th (ft)	24	95		25	151		67	24		3	46	
Internal Link Dist (ft)		578			1268			1081			384	
Turn Bay Length (ft)	200			200			200			200		
Base Capacity (vph)	290	1433		348	1444		584	1598		522	1134	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.12	0.24		0.10	0.35		0.22	0.05		0.00	0.16	

Intersection Summary	
Area Type:	Other
Cycle Length: 80	
Actuated Cycle Length: 61.2	

Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 19.5	Intersection LOS: B
Intersection Capacity Utilization 47.0%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 4: Louisiana & Alameda Blvd



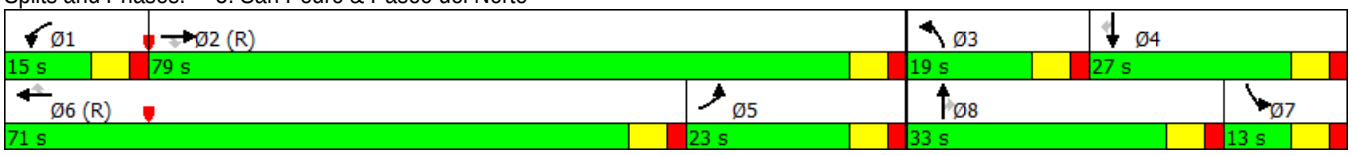
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	270	1440	230	110	1760	250	200	190	60	80	190	150
Future Volume (vph)	270	1440	230	110	1760	250	200	190	60	80	190	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		600	350		400	250		250	200		200
Storage Lanes	2		1	2		1	2		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	1.00	1.00	0.97	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	5085	1583	3433	5085	1583	3433	1863	1583	3433	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	5085	1583	3433	5085	1583	3433	1863	1583	3433	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			256			284			164			164
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		986			986			645			876	
Travel Time (s)		22.4			22.4			12.6			17.1	
Peak Hour Factor	0.90	0.90	0.90	0.88	0.88	0.88	0.85	0.85	0.85	0.93	0.93	0.93
Adj. Flow (vph)	300	1600	256	125	2000	284	235	224	71	86	204	161
Shared Lane Traffic (%)												
Lane Group Flow (vph)	300	1600	256	125	2000	284	235	224	71	86	204	161
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Total Split (s)	23.0	79.0	79.0	15.0	71.0	71.0	19.0	33.0	33.0	13.0	27.0	27.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Act Effct Green (s)	17.0	73.3	73.3	8.7	65.0	65.0	12.6	27.0	27.0	7.0	21.4	21.4
Actuated g/C Ratio	0.12	0.52	0.52	0.06	0.46	0.46	0.09	0.19	0.19	0.05	0.15	0.15
v/c Ratio	0.72	0.60	0.27	0.59	0.85	0.32	0.76	0.62	0.16	0.50	0.72	0.42
Control Delay	69.9	24.4	2.7	75.5	37.5	3.3	78.6	60.5	0.8	75.4	71.6	10.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.9	24.4	2.7	75.5	37.5	3.3	78.6	60.5	0.8	75.4	71.6	10.7
LOS	E	C	A	E	D	A	E	E	A	E	E	B
Approach Delay		28.2			35.4			60.5			50.6	
Approach LOS		C			D			E			D	
Queue Length 50th (ft)	137	362	0	58	578	0	109	189	0	40	180	0
Queue Length 95th (ft)	189	410	42	91	622	46	146	263	0	69	#286	63
Internal Link Dist (ft)		906			906			565			796	
Turn Bay Length (ft)	350		600	350		400	250		250	200		200
Base Capacity (vph)	416	2662	950	220	2360	887	318	359	437	171	284	380
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.60	0.27	0.57	0.85	0.32	0.74	0.62	0.16	0.50	0.72	0.42

Intersection Summary	
Area Type:	Other
Cycle Length: 140	
Actuated Cycle Length: 140	

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.85	
Intersection Signal Delay: 36.2	Intersection LOS: D
Intersection Capacity Utilization 77.4%	ICU Level of Service D
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: San Pedro & Paseo del Norte

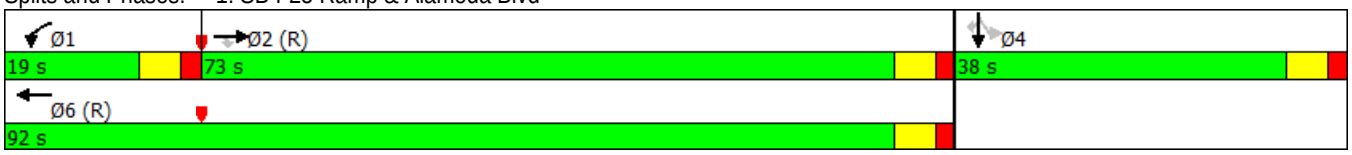


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	920	710	290	1250	0	0	0	0	480	470	100
Future Volume (vph)	0	920	710	290	1250	0	0	0	0	480	470	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		150
Storage Lanes	0		1	2		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Frt			0.850									0.850
Flt Protected				0.950						0.950	0.985	
Satd. Flow (prot)	0	3539	1583	3433	3539	0	0	0	0	1610	3339	1583
Flt Permitted				0.950						0.950	0.985	
Satd. Flow (perm)	0	3539	1583	3433	3539	0	0	0	0	1610	3339	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			76									76
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		1148			590			779			1060	
Travel Time (s)		22.4			11.5			11.8			16.1	
Peak Hour Factor	0.92	0.92	0.92	0.91	0.91	0.91	0.89	0.89	0.89	0.88	0.88	0.88
Adj. Flow (vph)	0	1000	772	319	1374	0	0	0	0	545	534	114
Shared Lane Traffic (%)										43%		
Lane Group Flow (vph)	0	1000	772	319	1374	0	0	0	0	311	768	114
Turn Type		NA	Perm	Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases			2							4		4
Total Split (s)		73.0	73.0	19.0	92.0					38.0	38.0	38.0
Total Lost Time (s)		4.5	4.5	4.5	4.5					4.5	4.5	4.5
Act Effct Green (s)		68.5	68.5	14.5	87.5					33.5	33.5	33.5
Actuated g/C Ratio		0.53	0.53	0.11	0.67					0.26	0.26	0.26
v/c Ratio		0.54	0.89	0.84	0.58					0.75	0.89	0.25
Control Delay		21.6	38.4	75.0	6.5					57.1	60.4	16.1
Queue Delay		0.0	0.0	0.0	0.3					0.0	0.0	0.0
Total Delay		21.6	38.4	75.0	6.8					57.1	60.4	16.1
LOS		C	D	E	A					E	E	B
Approach Delay		28.9			19.7						55.3	
Approach LOS		C			B						E	
Queue Length 50th (ft)		283	518	138	258					265	344	25
Queue Length 95th (ft)		344	#804	m#203	295					378	#439	71
Internal Link Dist (ft)		1068			510			699			980	
Turn Bay Length (ft)				225								150
Base Capacity (vph)		1864	870	382	2382					414	860	464
Starvation Cap Reductn		0	0	0	387					0	0	0
Spillback Cap Reductn		0	0	0	0					0	0	0
Storage Cap Reductn		0	0	0	0					0	0	0
Reduced v/c Ratio		0.54	0.89	0.84	0.69					0.75	0.89	0.25

Intersection Summary	
Area Type:	Other
Cycle Length: 130	
Actuated Cycle Length: 130	

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green, Master Intersection
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 32.3 Intersection LOS: C
Intersection Capacity Utilization 81.4% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: SB I-25 Ramp & Alameda Blvd

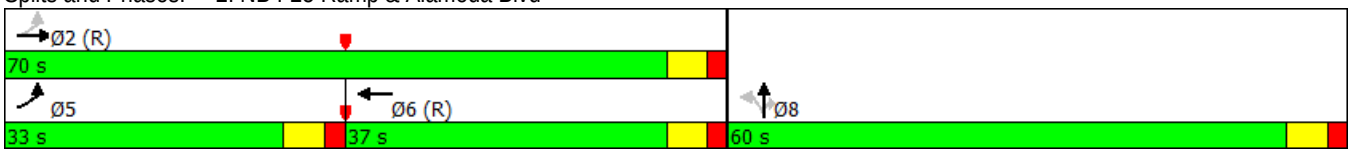


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	310	1080	0	0	700	180	850	120	390	0	0	0
Future Volume (vph)	310	1080	0	0	700	180	850	120	390	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	0		0	0		150	0		0
Storage Lanes	1		0	0		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	0.91	0.91	1.00	1.00	1.00	1.00
Frt					0.969				0.850			
Flt Protected	0.950						0.950	0.962				
Satd. Flow (prot)	1770	3539	0	0	4928	0	1610	3261	1583	0	0	0
Flt Permitted	0.116						0.950	0.962				
Satd. Flow (perm)	216	3539	0	0	4928	0	1610	3261	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					47				76			
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		590			773			1210			854	
Travel Time (s)		11.5			15.1			18.3			12.9	
Peak Hour Factor	0.91	0.91	0.91	0.89	0.89	0.89	0.79	0.79	0.79	0.85	0.85	0.85
Adj. Flow (vph)	341	1187	0	0	787	202	1076	152	494	0	0	0
Shared Lane Traffic (%)							50%					
Lane Group Flow (vph)	341	1187	0	0	989	0	538	690	494	0	0	0
Turn Type	pm+pt	NA			NA		Perm	NA	Perm			
Protected Phases	5	2			6			8				
Permitted Phases	2						8		8			
Total Split (s)	33.0	70.0			37.0		60.0	60.0	60.0			
Total Lost Time (s)	4.5	4.5			4.5		4.5	4.5	4.5			
Act Effct Green (s)	65.5	65.5			36.2		55.5	55.5	55.5			
Actuated g/C Ratio	0.50	0.50			0.28		0.43	0.43	0.43			
v/c Ratio	0.84	0.67			0.70		0.78	0.50	0.69			
Control Delay	52.3	22.2			43.9		41.7	28.6	31.1			
Queue Delay	0.0	0.9			0.0		0.0	0.0	0.0			
Total Delay	52.3	23.1			43.9		41.7	28.6	31.1			
LOS	D	C			D		D	C	C			
Approach Delay		29.6			43.9			33.4				
Approach LOS		C			D			C				
Queue Length 50th (ft)	236	348			268		421	228	284			
Queue Length 95th (ft)	m336	m405			323		479	243	332			
Internal Link Dist (ft)		510			693			1130			774	
Turn Bay Length (ft)	200								150			
Base Capacity (vph)	449	1783			1407		687	1392	719			
Starvation Cap Reductn	0	310			0		0	0	0			
Spillback Cap Reductn	0	0			0		0	0	0			
Storage Cap Reductn	0	0			0		0	0	0			
Reduced v/c Ratio	0.76	0.81			0.70		0.78	0.50	0.69			

Intersection Summary	
Area Type:	Other
Cycle Length: 130	
Actuated Cycle Length: 130	

Offset: 86 (66%), Referenced to phase 2:EBTL and 6:WBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 34.5	Intersection LOS: C
Intersection Capacity Utilization 81.4%	ICU Level of Service D
Analysis Period (min) 15	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 2: NB I-25 Ramp & Alameda Blvd



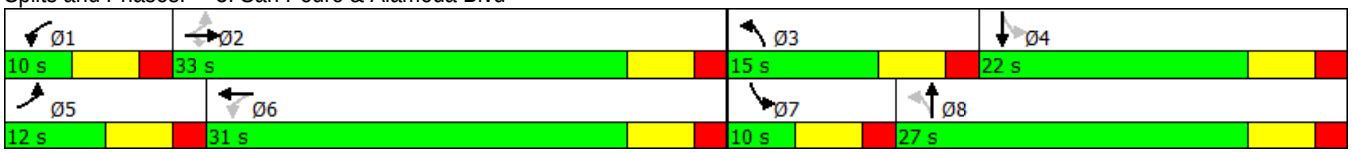
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	870	450	20	420	10	260	50	30	10	40	150
Future Volume (vph)	120	870	450	20	420	10	260	50	30	10	40	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	110		0	110		0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.997			0.944			0.882	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3529	0	1770	3341	0	1770	3122	0
Flt Permitted	0.343			0.185			0.460			0.695		
Satd. Flow (perm)	639	3539	1583	345	3529	0	857	3341	0	1295	3122	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			500		3			34			205	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		773			445			439			287	
Travel Time (s)		15.1			8.7			8.6			5.6	
Peak Hour Factor	0.90	0.90	0.90	0.89	0.89	0.89	0.88	0.88	0.88	0.73	0.73	0.73
Adj. Flow (vph)	133	967	500	22	472	11	295	57	34	14	55	205
Shared Lane Traffic (%)												
Lane Group Flow (vph)	133	967	500	22	483	0	295	91	0	14	260	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6			8			4		
Total Split (s)	12.0	33.0	33.0	10.0	31.0		15.0	27.0		10.0	22.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0		6.0	6.0		6.0	6.0	
Act Effct Green (s)	27.1	25.0	25.0	22.3	19.2		31.0	29.4		20.2	16.2	
Actuated g/C Ratio	0.38	0.35	0.35	0.31	0.27		0.43	0.41		0.28	0.23	
v/c Ratio	0.40	0.79	0.57	0.12	0.51		0.61	0.07		0.04	0.30	
Control Delay	17.2	27.3	5.0	13.9	24.7		22.8	12.2		15.6	8.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	17.2	27.3	5.0	13.9	24.7		22.8	12.2		15.6	8.3	
LOS	B	C	A	B	C		C	B		B	A	
Approach Delay		19.5			24.3			20.3			8.7	
Approach LOS		B			C			C			A	
Queue Length 50th (ft)	37	180	0	6	99		81	6		3	10	
Queue Length 95th (ft)	69	304	63	18	141		#170	27		12	25	
Internal Link Dist (ft)		693			365			359			207	
Turn Bay Length (ft)	150			250			110			110		
Base Capacity (vph)	336	1343	911	187	1242		485	1387		390	861	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.40	0.72	0.55	0.12	0.39		0.61	0.07		0.04	0.30	

Intersection Summary	
Area Type:	Other
Cycle Length: 80	
Actuated Cycle Length: 71.9	

Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 19.4	Intersection LOS: B
Intersection Capacity Utilization 67.7%	ICU Level of Service C
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: San Pedro & Alameda Blvd

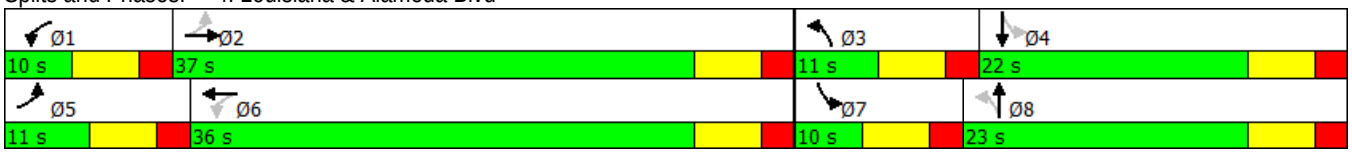


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	90	580	120	20	350	10	80	90	30	20	100	40
Future Volume (vph)	90	580	120	20	350	10	80	90	30	20	100	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	200		0	200		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.974			0.996			0.962			0.957	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3447	0	1770	3525	0	1770	3405	0	1770	3387	0
Flt Permitted	0.405			0.232			0.570			0.666		
Satd. Flow (perm)	754	3447	0	432	3525	0	1062	3405	0	1241	3387	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		35			4			34			51	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		658			1348			1161			464	
Travel Time (s)		12.8			26.3			22.6			9.0	
Peak Hour Factor	0.87	0.87	0.87	0.81	0.81	0.81	0.88	0.88	0.88	0.78	0.78	0.78
Adj. Flow (vph)	103	667	138	25	432	12	91	102	34	26	128	51
Shared Lane Traffic (%)												
Lane Group Flow (vph)	103	805	0	25	444	0	91	136	0	26	179	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Total Split (s)	11.0	37.0		10.0	36.0		11.0	23.0		10.0	22.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Act Effct Green (s)	23.9	22.2		20.3	17.4		23.7	22.1		20.2	17.2	
Actuated g/C Ratio	0.38	0.35		0.32	0.27		0.37	0.35		0.32	0.27	
v/c Ratio	0.28	0.66		0.11	0.46		0.20	0.11		0.06	0.19	
Control Delay	13.6	20.1		12.0	21.3		16.7	16.1		16.1	17.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	13.6	20.1		12.0	21.3		16.7	16.1		16.1	17.6	
LOS	B	C		B	C		B	B		B	B	
Approach Delay		19.4			20.8			16.4			17.4	
Approach LOS		B			C			B			B	
Queue Length 50th (ft)	25	120		6	81		20	11		6	20	
Queue Length 95th (ft)	48	205		16	103		62	43		22	45	
Internal Link Dist (ft)		578			1268			1081			384	
Turn Bay Length (ft)	200			200			200			200		
Base Capacity (vph)	367	1794		227	1760		455	1203		429	955	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.28	0.45		0.11	0.25		0.20	0.11		0.06	0.19	

Intersection Summary	
Area Type:	Other
Cycle Length: 80	
Actuated Cycle Length: 63.6	

Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.66	
Intersection Signal Delay: 19.2	Intersection LOS: B
Intersection Capacity Utilization 51.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 4: Louisiana & Alameda Blvd



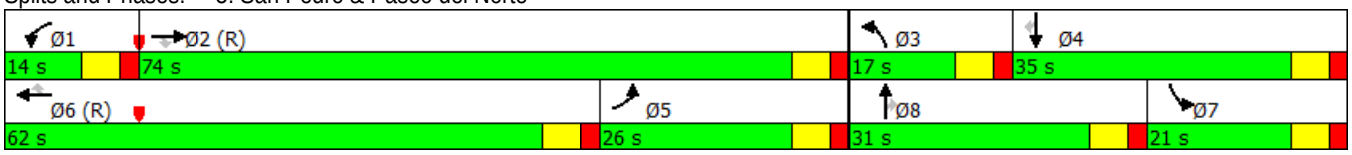
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	310	1920	130	130	1340	180	180	190	100	240	240	280
Future Volume (vph)	310	1920	130	130	1340	180	180	190	100	240	240	280
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		600	350		400	250		250	200		200
Storage Lanes	2		1	2		1	2		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	1.00	1.00	0.97	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	5085	1583	3433	5085	1583	3433	1863	1583	3433	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	5085	1583	3433	5085	1583	3433	1863	1583	3433	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			164			196			164			279
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		986			986			645			876	
Travel Time (s)		22.4			22.4			12.6			17.1	
Peak Hour Factor	0.94	0.94	0.94	0.92	0.92	0.92	0.91	0.91	0.91	0.90	0.90	0.90
Adj. Flow (vph)	330	2043	138	141	1457	196	198	209	110	267	267	311
Shared Lane Traffic (%)												
Lane Group Flow (vph)	330	2043	138	141	1457	196	198	209	110	267	267	311
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Total Split (s)	26.0	74.0	74.0	14.0	62.0	62.0	17.0	31.0	31.0	21.0	35.0	35.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Act Effct Green (s)	20.0	68.0	68.0	8.0	56.0	56.0	10.8	25.0	25.0	15.0	29.2	29.2
Actuated g/C Ratio	0.14	0.49	0.49	0.06	0.40	0.40	0.08	0.18	0.18	0.11	0.21	0.21
v/c Ratio	0.67	0.83	0.16	0.72	0.72	0.26	0.75	0.63	0.26	0.73	0.69	0.56
Control Delay	64.5	34.6	1.9	85.2	37.8	4.3	81.1	62.6	2.8	72.8	61.5	12.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.5	34.6	1.9	85.2	37.8	4.3	81.1	62.6	2.8	72.8	61.5	12.1
LOS	E	C	A	F	D	A	F	E	A	E	E	B
Approach Delay		36.8			37.9			57.0			46.9	
Approach LOS		D			D			E			D	
Queue Length 50th (ft)	148	573	0	66	405	0	92	178	0	123	227	24
Queue Length 95th (ft)	202	640	23	#114	462	49	#145	268	10	172	329	116
Internal Link Dist (ft)		906			906			565			796	
Turn Bay Length (ft)	350		600	350		400	250		250	200		200
Base Capacity (vph)	490	2469	853	196	2034	750	269	332	417	367	388	551
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.83	0.16	0.72	0.72	0.26	0.74	0.63	0.26	0.73	0.69	0.56

Intersection Summary	
Area Type:	Other
Cycle Length: 140	
Actuated Cycle Length: 140	

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 40.5	Intersection LOS: D
Intersection Capacity Utilization 78.6%	ICU Level of Service D
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: San Pedro & Paseo del Norte



Intersection	
Int Delay, s/veh	2.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	70	10	110	10	2	190
Future Vol, veh/h	70	10	110	10	2	190
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	81	81	80	80	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	86	12	138	13	2	221

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	370	144	0	0	150	0
Stage 1	144	-	-	-	-	-
Stage 2	226	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	630	903	-	-	1431	-
Stage 1	883	-	-	-	-	-
Stage 2	812	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	629	903	-	-	1431	-
Mov Cap-2 Maneuver	629	-	-	-	-	-
Stage 1	883	-	-	-	-	-
Stage 2	810	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.5	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	654	1431	-
HCM Lane V/C Ratio	-	-	0.151	0.002	-
HCM Control Delay (s)	-	-	11.5	7.5	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0	-

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	5	20	20	40	2	10	70	10	1	140	10
Future Vol, veh/h	0	5	20	20	40	2	10	70	10	1	140	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	-	175	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	61	61	61	74	74	74	78	78	78	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	8	33	27	54	3	13	90	13	1	163	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	269	299	87	210	299	51	174	0	0	103	0	0
Stage 1	171	171	-	122	122	-	-	-	-	-	-	-
Stage 2	98	128	-	88	177	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	662	612	954	729	612	1006	1400	-	-	1487	-	-
Stage 1	814	756	-	869	794	-	-	-	-	-	-	-
Stage 2	898	789	-	910	752	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	611	606	954	691	606	1006	1400	-	-	1487	-	-
Mov Cap-2 Maneuver	611	606	-	691	606	-	-	-	-	-	-	-
Stage 1	806	755	-	861	787	-	-	-	-	-	-	-
Stage 2	826	782	-	869	751	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.4	11.5	0.8	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1400	-	-	856	640	1487	-	-
HCM Lane V/C Ratio	0.009	-	-	0.048	0.131	0.001	-	-
HCM Control Delay (s)	7.6	-	-	9.4	11.5	7.4	-	-
HCM Lane LOS	A	-	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.4	0	-	-

Intersection	
Int Delay, s/veh	9.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	20	20	170	50	10	30	30	30	0	10	2
Future Vol, veh/h	0	20	20	170	50	10	30	30	30	0	10	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	87	87	87	71	71	71	50	50	50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	27	27	195	57	11	42	42	42	0	20	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	204	191	22	197	172	63	24	0	0	85	0	0
Stage 1	22	22	-	148	148	-	-	-	-	-	-	-
Stage 2	182	169	-	49	24	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	754	704	1055	762	721	1002	1591	-	-	1512	-	-
Stage 1	996	877	-	855	775	-	-	-	-	-	-	-
Stage 2	820	759	-	964	875	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	684	684	1055	704	701	1002	1591	-	-	1512	-	-
Mov Cap-2 Maneuver	684	684	-	704	701	-	-	-	-	-	-	-
Stage 1	968	877	-	831	753	-	-	-	-	-	-	-
Stage 2	728	738	-	910	875	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.6	13	2.4	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1591	-	-	830	713	1512	-	-
HCM Lane V/C Ratio	0.027	-	-	0.066	0.371	-	-	-
HCM Control Delay (s)	7.3	0	-	9.6	13	0	-	-
HCM Lane LOS	A	A	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	1.7	0	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	20	3	130	50	10	160
Future Vol, veh/h	20	3	130	50	10	160
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	92	93	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	3	141	54	13	205

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	399	168	0	0	195	0
Stage 1	168	-	-	-	-	-
Stage 2	231	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	607	876	-	-	1378	-
Stage 1	862	-	-	-	-	-
Stage 2	807	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	600	876	-	-	1378	-
Mov Cap-2 Maneuver	600	-	-	-	-	-
Stage 1	862	-	-	-	-	-
Stage 2	798	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	626	1378	-
HCM Lane V/C Ratio	-	-	0.043	0.009	-
HCM Control Delay (s)	-	-	11	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	10	30	20	20	20	0	20	150	20	0	120	10
Future Vol, veh/h	10	30	20	20	20	0	20	150	20	0	120	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	-	175	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	71	71	71	88	88	88	95	95	95	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	42	28	23	23	0	21	158	21	0	140	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	277	366	76	302	362	89	151	0	0	179	0	0
Stage 1	145	145	-	211	211	-	-	-	-	-	-	-
Stage 2	132	221	-	91	151	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	654	561	970	627	564	951	1428	-	-	1394	-	-
Stage 1	843	776	-	771	726	-	-	-	-	-	-	-
Stage 2	858	719	-	906	771	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	627	553	970	567	556	951	1428	-	-	1394	-	-
Mov Cap-2 Maneuver	627	553	-	567	556	-	-	-	-	-	-	-
Stage 1	831	776	-	760	715	-	-	-	-	-	-	-
Stage 2	819	708	-	832	771	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.2	12	0.8	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1428	-	-	661	561	1394	-	-
HCM Lane V/C Ratio	0.015	-	-	0.128	0.081	-	-	-
HCM Control Delay (s)	7.6	-	-	11.2	12	0	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0.3	0	-	-

Intersection	
Int Delay, s/veh	6.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	1	70	40	80	20	5	10	30	90	4	40	4
Future Vol, veh/h	1	70	40	80	20	5	10	30	90	4	40	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	80	80	80	92	92	92	71	71	71
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	84	48	100	25	6	11	33	98	6	56	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	189	222	59	240	176	82	62	0	0	130	0	0
Stage 1	70	70	-	103	103	-	-	-	-	-	-	-
Stage 2	119	152	-	137	73	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	771	677	1007	714	717	978	1541	-	-	1455	-	-
Stage 1	940	837	-	903	810	-	-	-	-	-	-	-
Stage 2	885	772	-	866	834	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	739	669	1007	609	708	978	1541	-	-	1455	-	-
Mov Cap-2 Maneuver	739	669	-	609	708	-	-	-	-	-	-	-
Stage 1	932	834	-	896	804	-	-	-	-	-	-	-
Stage 2	845	766	-	738	831	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.7	12.1	0.6	0.6
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1541	-	-	762	637	1455	-	-
HCM Lane V/C Ratio	0.007	-	-	0.176	0.206	0.004	-	-
HCM Control Delay (s)	7.4	0	-	10.7	12.1	7.5	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.6	0.8	0	-	-

Appendix G

2019 Build Level of Service Analyses

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	630	490	530	1730	0	0	0	0	140	90	170
Future Volume (vph)	0	630	490	530	1730	0	0	0	0	140	90	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		150
Storage Lanes	0		1	2		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Frt			0.850									0.850
Flt Protected				0.950						0.950	0.980	
Satd. Flow (prot)	0	3539	1583	3433	3539	0	0	0	0	1610	3322	1583
Flt Permitted				0.950						0.950	0.980	
Satd. Flow (perm)	0	3539	1583	3433	3539	0	0	0	0	1610	3322	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			229									76
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		1148			590			779			1060	
Travel Time (s)		22.4			11.5			11.8			16.1	
Peak Hour Factor	0.91	0.91	0.91	0.86	0.86	0.86	0.89	0.89	0.89	0.82	0.82	0.82
Adj. Flow (vph)	0	692	538	616	2012	0	0	0	0	171	110	207
Shared Lane Traffic (%)										43%		
Lane Group Flow (vph)	0	692	538	616	2012	0	0	0	0	97	184	207
Turn Type		NA	Perm	Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases			2							4		4
Total Split (s)		64.0	64.0	38.0	102.0					28.0	28.0	28.0
Total Lost Time (s)		4.5	4.5	4.5	4.5					4.5	4.5	4.5
Act Effct Green (s)		63.5	63.5	29.5	97.5					23.5	23.5	23.5
Actuated g/C Ratio		0.49	0.49	0.23	0.75					0.18	0.18	0.18
v/c Ratio		0.40	0.61	0.79	0.76					0.33	0.31	0.59
Control Delay		22.6	16.9	51.9	6.4					50.1	47.8	38.3
Queue Delay		0.0	0.0	0.0	0.3					0.0	0.0	0.0
Total Delay		22.6	16.9	51.9	6.7					50.1	47.8	38.3
LOS		C	B	D	A					D	D	D
Approach Delay		20.1			17.3						44.3	
Approach LOS		C			B						D	
Queue Length 50th (ft)		191	183	235	102					79	74	102
Queue Length 95th (ft)		254	320	280	187					126	102	162
Internal Link Dist (ft)		1068			510			699			980	
Turn Bay Length (ft)				225								150
Base Capacity (vph)		1727	889	884	2654					291	600	348
Starvation Cap Reductn		0	0	0	157					0	0	0
Spillback Cap Reductn		0	0	0	0					0	0	0
Storage Cap Reductn		0	0	0	0					0	0	0
Reduced v/c Ratio		0.40	0.61	0.70	0.81					0.33	0.31	0.59

Intersection Summary	
Area Type:	Other
Cycle Length: 130	
Actuated Cycle Length: 130	

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green, Master Intersection	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 21.1	Intersection LOS: C
Intersection Capacity Utilization 65.8%	ICU Level of Service C
Analysis Period (min) 15	

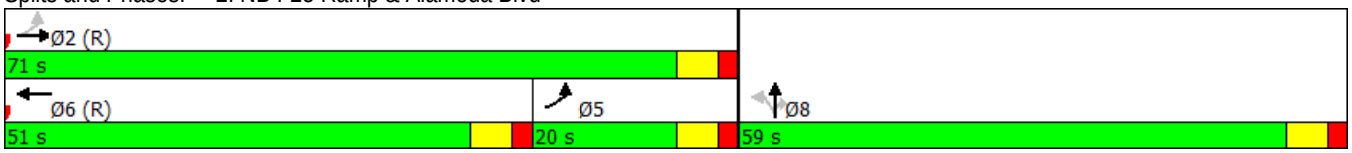
Splits and Phases: 1: SB I-25 Ramp & Alameda Blvd

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	160	620	0	0	1190	140	900	80	140	0	0	0
Future Volume (vph)	160	620	0	0	1190	140	900	80	140	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	0		0	0		150	0		0
Storage Lanes	1		0	0		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	0.91	0.91	1.00	1.00	1.00	1.00
Frt					0.984				0.850			
Flt Protected	0.950						0.950	0.959				
Satd. Flow (prot)	1770	3539	0	0	5004	0	1610	3251	1583	0	0	0
Flt Permitted	0.078						0.950	0.959				
Satd. Flow (perm)	145	3539	0	0	5004	0	1610	3251	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					17				157			
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		590			773			1210			854	
Travel Time (s)		11.5			15.1			18.3			12.9	
Peak Hour Factor	0.91	0.91	0.91	0.92	0.92	0.92	0.89	0.89	0.89	0.85	0.85	0.85
Adj. Flow (vph)	176	681	0	0	1293	152	1011	90	157	0	0	0
Shared Lane Traffic (%)							50%					
Lane Group Flow (vph)	176	681	0	0	1445	0	505	596	157	0	0	0
Turn Type	pm+pt	NA			NA		Perm	NA	Perm			
Protected Phases	5	2			6			8				
Permitted Phases	2						8		8			
Total Split (s)	20.0	71.0			51.0		59.0	59.0	59.0			
Total Lost Time (s)	4.5	4.5			4.5		4.5	4.5	4.5			
Act Effct Green (s)	66.5	66.5			46.5		54.5	54.5	54.5			
Actuated g/C Ratio	0.51	0.51			0.36		0.42	0.42	0.42			
v/c Ratio	0.66	0.38			0.80		0.75	0.44	0.21			
Control Delay	42.7	7.4			41.3		40.3	28.1	4.2			
Queue Delay	0.0	0.0			0.0		0.2	0.0	0.0			
Total Delay	42.7	7.4			41.3		40.5	28.1	4.2			
LOS	D	A			D		D	C	A			
Approach Delay		14.7			41.3			30.1				
Approach LOS		B			D			C				
Queue Length 50th (ft)	79	116			395		390	193	0			
Queue Length 95th (ft)	161	58			457		538	244	40			
Internal Link Dist (ft)		510			693			1130			774	
Turn Bay Length (ft)	200								150			
Base Capacity (vph)	267	1810			1800		674	1362	754			
Starvation Cap Reductn	0	0			0		0	0	0			
Spillback Cap Reductn	0	0			0		11	11	0			
Storage Cap Reductn	0	0			0		0	0	0			
Reduced v/c Ratio	0.66	0.38			0.80		0.76	0.44	0.21			

Intersection Summary	
Area Type:	Other
Cycle Length: 130	
Actuated Cycle Length: 130	

Offset: 15 (12%), Referenced to phase 2:EBTL and 6:WBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 30.9	Intersection LOS: C
Intersection Capacity Utilization 65.8%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 2: NB I-25 Ramp & Alameda Blvd



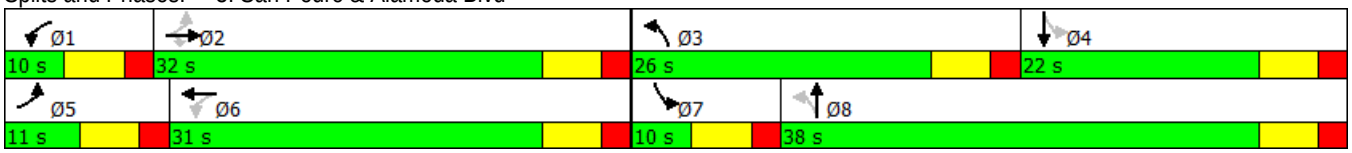
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	90	380	280	30	790	10	350	80	20	20	50	260
Future Volume (vph)	90	380	280	30	790	10	350	80	20	20	50	260
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	110		0	110		0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.998			0.970			0.874	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3532	0	1770	3433	0	1770	3093	0
Flt Permitted	0.154			0.464			0.358			0.675		
Satd. Flow (perm)	287	3539	1583	864	3532	0	667	3433	0	1257	3093	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			318		1			24			172	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		773			445			439			287	
Travel Time (s)		15.1			8.7			8.6			5.6	
Peak Hour Factor	0.88	0.88	0.88	0.94	0.94	0.94	0.82	0.82	0.82	0.83	0.83	0.83
Adj. Flow (vph)	102	432	318	32	840	11	427	98	24	24	60	313
Shared Lane Traffic (%)												
Lane Group Flow (vph)	102	432	318	32	851	0	427	122	0	24	373	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6			8			4		
Total Split (s)	11.0	32.0	32.0	10.0	31.0		26.0	38.0		10.0	22.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0		6.0	6.0		6.0	6.0	
Act Effct Green (s)	28.7	25.9	25.9	26.2	23.2		40.3	36.5		20.4	16.4	
Actuated g/C Ratio	0.34	0.31	0.31	0.31	0.28		0.48	0.43		0.24	0.20	
v/c Ratio	0.54	0.40	0.45	0.10	0.87		0.77	0.08		0.07	0.50	
Control Delay	29.7	25.2	5.4	17.6	41.0		27.4	14.3		16.4	20.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	29.7	25.2	5.4	17.6	41.0		27.4	14.3		16.4	20.1	
LOS	C	C	A	B	D		C	B		B	C	
Approach Delay		18.3			40.1			24.5			19.8	
Approach LOS		B			D			C			B	
Queue Length 50th (ft)	36	104	0	11	241		164	15		7	53	
Queue Length 95th (ft)	#68	144	55	29	#345		219	34		19	84	
Internal Link Dist (ft)		693			365			359			207	
Turn Bay Length (ft)	150			250			110			110		
Base Capacity (vph)	188	1199	746	313	1075		588	1507		331	740	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.54	0.36	0.43	0.10	0.79		0.73	0.08		0.07	0.50	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 84	

Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.87	
Intersection Signal Delay: 27.0	Intersection LOS: C
Intersection Capacity Utilization 76.3%	ICU Level of Service D
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: San Pedro & Alameda Blvd



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	30	290	70	30	470	20	120	50	20	1	110	80
Future Volume (vph)	30	290	70	30	470	20	120	50	20	1	110	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	200		0	200		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.971			0.994			0.957			0.937	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3437	0	1770	3518	0	1770	3387	0	1770	3316	0
Flt Permitted	0.321			0.463			0.500			0.700		
Satd. Flow (perm)	598	3437	0	862	3518	0	931	3387	0	1304	3316	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		39			5			24			86	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		658			1348			1161			464	
Travel Time (s)		12.8			26.3			22.6			9.0	
Peak Hour Factor	0.87	0.87	0.87	0.89	0.89	0.89	0.85	0.85	0.85	0.93	0.93	0.93
Adj. Flow (vph)	34	333	80	34	528	22	141	59	24	1	118	86
Shared Lane Traffic (%)												
Lane Group Flow (vph)	34	413	0	34	550	0	141	83	0	1	204	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Total Split (s)	10.0	32.0		10.0	32.0		15.0	28.0		10.0	23.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Act Effct Green (s)	16.8	15.5		16.8	15.5		29.7	28.2		22.1	19.1	
Actuated g/C Ratio	0.27	0.25		0.27	0.25		0.49	0.46		0.36	0.31	
v/c Ratio	0.14	0.46		0.11	0.61		0.25	0.05		0.00	0.19	
Control Delay	15.5	20.0		15.1	24.1		12.3	10.8		13.0	13.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	15.5	20.0		15.1	24.1		12.3	10.8		13.0	13.1	
LOS	B	C		B	C		B	B		B	B	
Approach Delay		19.7			23.6			11.8			13.1	
Approach LOS		B			C			B			B	
Queue Length 50th (ft)	9	56		9	86		23	4		0	15	
Queue Length 95th (ft)	24	107		25	159		71	24		3	50	
Internal Link Dist (ft)		578			1268			1081			384	
Turn Bay Length (ft)	200			200			200			200		
Base Capacity (vph)	244	1543		299	1559		580	1576		503	1093	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.14	0.27		0.11	0.35		0.24	0.05		0.00	0.19	

Intersection Summary	
Area Type:	Other
Cycle Length: 80	
Actuated Cycle Length: 61.1	

Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.61	
Intersection Signal Delay: 19.1	Intersection LOS: B
Intersection Capacity Utilization 49.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 4: Louisiana & Alameda Blvd

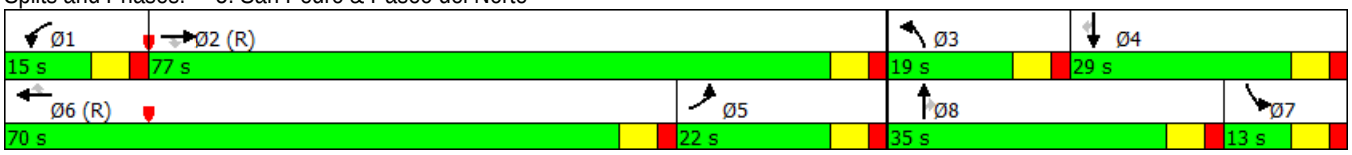
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	270	1440	230	110	1760	250	200	210	60	80	210	150
Future Volume (vph)	270	1440	230	110	1760	250	200	210	60	80	210	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		600	350		400	250		250	200		200
Storage Lanes	2		1	2		1	2		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	1.00	1.00	0.97	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	5085	1583	3433	5085	1583	3433	1863	1583	3433	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	5085	1583	3433	5085	1583	3433	1863	1583	3433	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			256			284			164			164
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		986			986			645			876	
Travel Time (s)		22.4			22.4			12.6			17.1	
Peak Hour Factor	0.90	0.90	0.90	0.88	0.88	0.88	0.85	0.85	0.85	0.93	0.93	0.93
Adj. Flow (vph)	300	1600	256	125	2000	284	235	247	71	86	226	161
Shared Lane Traffic (%)												
Lane Group Flow (vph)	300	1600	256	125	2000	284	235	247	71	86	226	161
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Total Split (s)	22.0	77.0	77.0	15.0	70.0	70.0	19.0	35.0	35.0	13.0	29.0	29.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Act Effct Green (s)	16.0	71.3	71.3	8.7	64.0	64.0	12.6	29.0	29.0	7.0	23.4	23.4
Actuated g/C Ratio	0.11	0.51	0.51	0.06	0.46	0.46	0.09	0.21	0.21	0.05	0.17	0.17
v/c Ratio	0.77	0.62	0.27	0.59	0.86	0.32	0.76	0.64	0.16	0.50	0.73	0.40
Control Delay	73.7	26.0	2.8	75.5	38.8	3.4	78.6	59.4	0.7	75.4	69.8	10.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.7	26.0	2.8	75.5	38.8	3.4	78.6	59.4	0.7	75.4	69.8	10.0
LOS	E	C	A	E	D	A	E	E	A	E	E	A
Approach Delay		29.9			36.5			60.0			50.4	
Approach LOS		C			D			E			D	
Queue Length 50th (ft)	138	374	0	58	586	0	109	208	0	40	198	0
Queue Length 95th (ft)	#198	424	44	91	631	46	146	283	0	69	#308	62
Internal Link Dist (ft)		906			906			565			796	
Turn Bay Length (ft)	350		600	350		400	250		250	200		200
Base Capacity (vph)	392	2589	931	220	2324	877	318	385	457	171	311	401
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.62	0.27	0.57	0.86	0.32	0.74	0.64	0.16	0.50	0.73	0.40

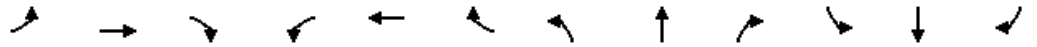
Intersection Summary	
Area Type:	Other
Cycle Length: 140	
Actuated Cycle Length: 140	

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 37.5	Intersection LOS: D
Intersection Capacity Utilization 78.5%	ICU Level of Service D
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: San Pedro & Paseo del Norte



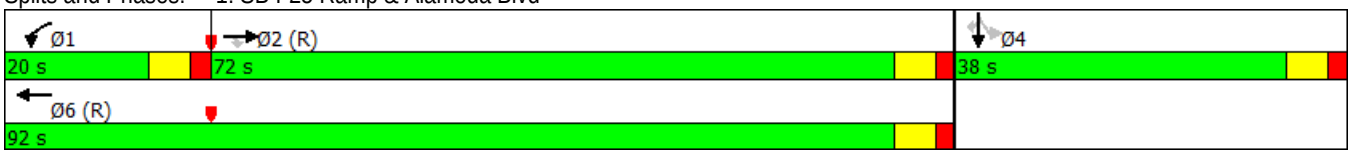


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	960	710	320	1280	0	0	0	0	490	470	100
Future Volume (vph)	0	960	710	320	1280	0	0	0	0	490	470	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	225		0	0		0	0		150
Storage Lanes	0		1	2		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	1.00	1.00	1.00	0.91	0.91	1.00
Frt			0.850									0.850
Flt Protected				0.950						0.950	0.985	
Satd. Flow (prot)	0	3539	1583	3433	3539	0	0	0	0	1610	3339	1583
Flt Permitted				0.950						0.950	0.985	
Satd. Flow (perm)	0	3539	1583	3433	3539	0	0	0	0	1610	3339	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			76									76
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		1148			590			779			1060	
Travel Time (s)		22.4			11.5			11.8			16.1	
Peak Hour Factor	0.92	0.92	0.92	0.91	0.91	0.91	0.89	0.89	0.89	0.88	0.88	0.88
Adj. Flow (vph)	0	1043	772	352	1407	0	0	0	0	557	534	114
Shared Lane Traffic (%)										43%		
Lane Group Flow (vph)	0	1043	772	352	1407	0	0	0	0	317	774	114
Turn Type		NA	Perm	Prot	NA					Perm	NA	Perm
Protected Phases		2		1	6						4	
Permitted Phases			2							4		4
Total Split (s)		72.0	72.0	20.0	92.0					38.0	38.0	38.0
Total Lost Time (s)		4.5	4.5	4.5	4.5					4.5	4.5	4.5
Act Effct Green (s)		67.5	67.5	15.5	87.5					33.5	33.5	33.5
Actuated g/C Ratio		0.52	0.52	0.12	0.67					0.26	0.26	0.26
v/c Ratio		0.57	0.90	0.86	0.59					0.77	0.90	0.25
Control Delay		22.8	40.5	74.4	7.4					58.1	61.2	16.1
Queue Delay		0.0	0.0	0.0	0.4					0.0	0.0	0.0
Total Delay		22.8	40.5	74.4	7.8					58.1	61.2	16.1
LOS		C	D	E	A					E	E	B
Approach Delay		30.3			21.1						56.1	
Approach LOS		C			C						E	
Queue Length 50th (ft)		305	527	153	282					272	348	25
Queue Length 95th (ft)		371	#814	m#224	322					385	#445	71
Internal Link Dist (ft)		1068			510			699			980	
Turn Bay Length (ft)				225								150
Base Capacity (vph)		1837	858	409	2382					414	860	464
Starvation Cap Reductn		0	0	0	417					0	0	0
Spillback Cap Reductn		0	0	0	0					0	0	0
Storage Cap Reductn		0	0	0	0					0	0	0
Reduced v/c Ratio		0.57	0.90	0.86	0.72					0.77	0.90	0.25

Intersection Summary	
Area Type:	Other
Cycle Length: 130	
Actuated Cycle Length: 130	

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green, Master Intersection
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.90
Intersection Signal Delay: 33.4 Intersection LOS: C
Intersection Capacity Utilization 82.5% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: SB I-25 Ramp & Alameda Blvd

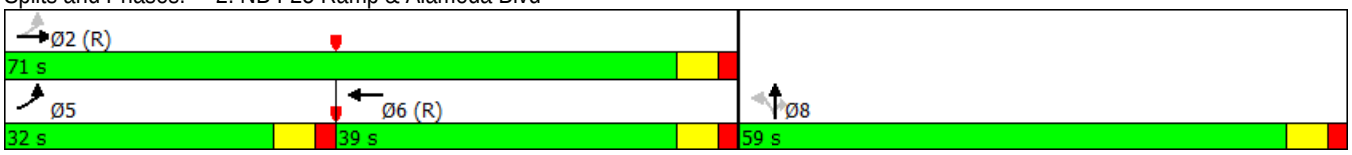


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	310	1130	0	0	760	180	850	120	450	0	0	0
Future Volume (vph)	310	1130	0	0	760	180	850	120	450	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	0		0	0		150	0		0
Storage Lanes	1		0	0		0	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	0.91	0.91	1.00	1.00	1.00	1.00
Frt					0.971				0.850			
Flt Protected	0.950						0.950	0.962				
Satd. Flow (prot)	1770	3539	0	0	4938	0	1610	3261	1583	0	0	0
Flt Permitted	0.102						0.950	0.962				
Satd. Flow (perm)	190	3539	0	0	4938	0	1610	3261	1583	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					41				76			
Link Speed (mph)		35			35			45			45	
Link Distance (ft)		590			773			1210			854	
Travel Time (s)		11.5			15.1			18.3			12.9	
Peak Hour Factor	0.91	0.91	0.91	0.89	0.89	0.89	0.79	0.79	0.79	0.85	0.85	0.85
Adj. Flow (vph)	341	1242	0	0	854	202	1076	152	570	0	0	0
Shared Lane Traffic (%)							50%					
Lane Group Flow (vph)	341	1242	0	0	1056	0	538	690	570	0	0	0
Turn Type	pm+pt	NA			NA		Perm	NA	Perm			
Protected Phases	5	2			6			8				
Permitted Phases	2						8		8			
Total Split (s)	32.0	71.0			39.0		59.0	59.0	59.0			
Total Lost Time (s)	4.5	4.5			4.5		4.5	4.5	4.5			
Act Effct Green (s)	66.5	66.5			37.4		54.5	54.5	54.5			
Actuated g/C Ratio	0.51	0.51			0.29		0.42	0.42	0.42			
v/c Ratio	0.86	0.69			0.73		0.80	0.50	0.81			
Control Delay	53.9	21.6			44.1		43.4	29.4	38.8			
Queue Delay	0.0	1.1			0.0		0.0	0.0	0.0			
Total Delay	53.9	22.7			44.1		43.4	29.4	38.8			
LOS	D	C			D		D	C	D			
Approach Delay		29.4			44.1			36.6				
Approach LOS		C			D			D				
Queue Length 50th (ft)	241	368			293		428	231	368			
Queue Length 95th (ft)	m#344	m427			343		485	246	419			
Internal Link Dist (ft)		510			693			1130			774	
Turn Bay Length (ft)	200								150			
Base Capacity (vph)	431	1810			1449		674	1367	707			
Starvation Cap Reductn	0	316			0		0	0	0			
Spillback Cap Reductn	0	0			0		0	0	0			
Storage Cap Reductn	0	0			0		0	0	0			
Reduced v/c Ratio	0.79	0.83			0.73		0.80	0.50	0.81			

Intersection Summary	
Area Type:	Other
Cycle Length: 130	
Actuated Cycle Length: 130	

Offset: 83 (64%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 35.8 Intersection LOS: D
Intersection Capacity Utilization 82.5% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: NB I-25 Ramp & Alameda Blvd



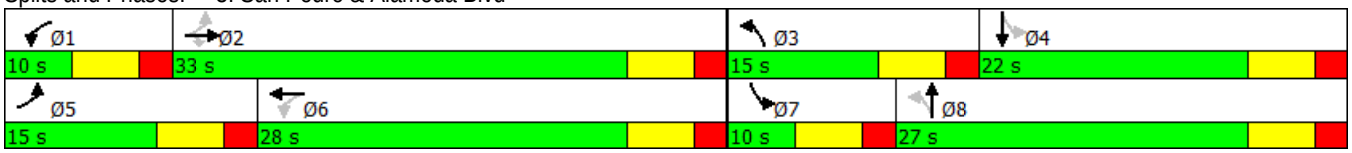
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	170	930	450	20	460	10	260	70	30	30	60	180
Future Volume (vph)	170	930	450	20	460	10	260	70	30	30	60	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150		0	250		0	110		0	110		0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.997			0.955			0.887	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3529	0	1770	3380	0	1770	3139	0
Flt Permitted	0.268			0.193			0.404			0.680		
Satd. Flow (perm)	499	3539	1583	360	3529	0	753	3380	0	1267	3139	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			500		3			34			237	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		773			445			439			287	
Travel Time (s)		15.1			8.7			8.6			5.6	
Peak Hour Factor	0.90	0.90	0.90	0.89	0.89	0.89	0.88	0.88	0.88	0.73	0.73	0.73
Adj. Flow (vph)	189	1033	500	22	517	11	295	80	34	41	82	247
Shared Lane Traffic (%)												
Lane Group Flow (vph)	189	1033	500	22	528	0	295	114	0	41	329	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6			8			4		
Total Split (s)	15.0	33.0	33.0	10.0	28.0		15.0	27.0		10.0	22.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0		6.0	6.0		6.0	6.0	
Act Effct Green (s)	31.3	27.9	27.9	21.0	16.9		30.5	25.4		20.1	16.1	
Actuated g/C Ratio	0.42	0.37	0.37	0.28	0.23		0.41	0.34		0.27	0.22	
v/c Ratio	0.53	0.78	0.55	0.12	0.66		0.69	0.10		0.11	0.38	
Control Delay	19.4	27.0	4.7	14.4	30.3		27.4	15.6		16.3	9.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	19.4	27.0	4.7	14.4	30.3		27.4	15.6		16.3	9.8	
LOS	B	C	A	B	C		C	B		B	A	
Approach Delay		19.7			29.6			24.1			10.5	
Approach LOS		B			C			C			B	
Queue Length 50th (ft)	54	197	0	6	117		91	14		11	17	
Queue Length 95th (ft)	96	#362	63	18	163		#187	34		26	33	
Internal Link Dist (ft)		693			365			359			207	
Turn Bay Length (ft)	150			250			110			110		
Base Capacity (vph)	362	1342	910	176	1043		430	1168		366	860	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.52	0.77	0.55	0.13	0.51		0.69	0.10		0.11	0.38	

Intersection Summary	
Area Type:	Other
Cycle Length: 80	
Actuated Cycle Length: 74.8	

Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 21.0	Intersection LOS: C
Intersection Capacity Utilization 70.9%	ICU Level of Service C
Analysis Period (min) 15	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: San Pedro & Alameda Blvd

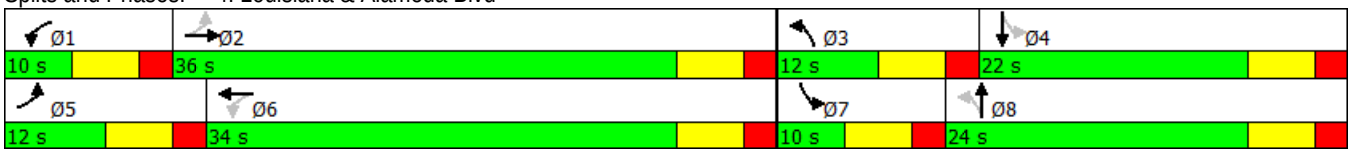


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	90	620	140	20	390	10	100	100	30	20	100	40
Future Volume (vph)	90	620	140	20	390	10	100	100	30	20	100	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	200		0	200		0	200		0	200		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.972			0.996			0.966			0.957	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3440	0	1770	3525	0	1770	3419	0	1770	3387	0
Flt Permitted	0.353			0.200			0.553			0.658		
Satd. Flow (perm)	658	3440	0	373	3525	0	1030	3419	0	1226	3387	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		39			3			34			51	
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		658			1348			1161			464	
Travel Time (s)		12.8			26.3			22.6			9.0	
Peak Hour Factor	0.87	0.87	0.87	0.81	0.81	0.81	0.88	0.88	0.88	0.78	0.78	0.78
Adj. Flow (vph)	103	713	161	25	481	12	114	114	34	26	128	51
Shared Lane Traffic (%)												
Lane Group Flow (vph)	103	874	0	25	493	0	114	148	0	26	179	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Total Split (s)	12.0	36.0		10.0	34.0		12.0	24.0		10.0	22.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0		6.0	6.0	
Act Effct Green (s)	25.8	23.7		21.2	18.2		25.0	23.0		20.4	17.5	
Actuated g/C Ratio	0.39	0.36		0.32	0.28		0.38	0.35		0.31	0.26	
v/c Ratio	0.29	0.69		0.12	0.51		0.25	0.12		0.06	0.19	
Control Delay	13.8	21.1		12.5	22.8		17.5	16.6		16.4	18.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	13.8	21.1		12.5	22.8		17.5	16.6		16.4	18.4	
LOS	B	C		B	C		B	B		B	B	
Approach Delay		20.4			22.3			17.0			18.2	
Approach LOS		C			C			B			B	
Queue Length 50th (ft)	26	138		6	95		27	14		6	21	
Queue Length 95th (ft)	49	231		16	120		74	46		21	46	
Internal Link Dist (ft)		578			1268			1081			384	
Turn Bay Length (ft)	200			200			200			200		
Base Capacity (vph)	362	1665		208	1574		460	1211		413	933	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.28	0.52		0.12	0.31		0.25	0.12		0.06	0.19	

Intersection Summary	
Area Type:	Other
Cycle Length: 80	
Actuated Cycle Length: 66.1	

Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.69	
Intersection Signal Delay: 20.2	Intersection LOS: C
Intersection Capacity Utilization 54.5%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 4: Louisiana & Alameda Blvd



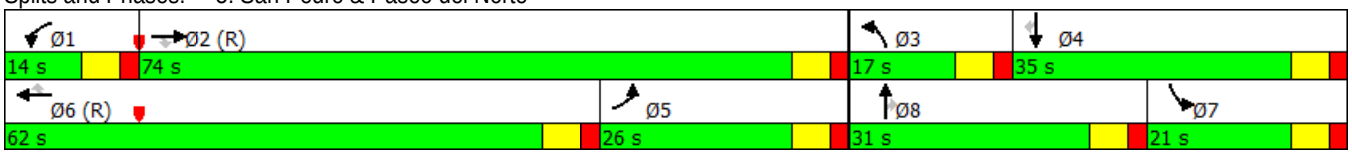
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	310	1920	130	130	1340	180	180	210	100	240	260	280
Future Volume (vph)	310	1920	130	130	1340	180	180	210	100	240	260	280
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	350		600	350		400	250		250	200		200
Storage Lanes	2		1	2		1	2		1	2		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.91	1.00	0.97	0.91	1.00	0.97	1.00	1.00	0.97	1.00	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3433	5085	1583	3433	5085	1583	3433	1863	1583	3433	1863	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3433	5085	1583	3433	5085	1583	3433	1863	1583	3433	1863	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			164			196			164			279
Link Speed (mph)		30			30			35			35	
Link Distance (ft)		986			986			645			876	
Travel Time (s)		22.4			22.4			12.6			17.1	
Peak Hour Factor	0.94	0.94	0.94	0.92	0.92	0.92	0.91	0.91	0.91	0.90	0.90	0.90
Adj. Flow (vph)	330	2043	138	141	1457	196	198	231	110	267	289	311
Shared Lane Traffic (%)												
Lane Group Flow (vph)	330	2043	138	141	1457	196	198	231	110	267	289	311
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			2			6			8			4
Total Split (s)	26.0	74.0	74.0	14.0	62.0	62.0	17.0	31.0	31.0	21.0	35.0	35.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Act Effct Green (s)	20.0	68.0	68.0	8.0	56.0	56.0	10.8	25.0	25.0	15.0	29.2	29.2
Actuated g/C Ratio	0.14	0.49	0.49	0.06	0.40	0.40	0.08	0.18	0.18	0.11	0.21	0.21
v/c Ratio	0.67	0.83	0.16	0.72	0.72	0.26	0.75	0.70	0.26	0.73	0.74	0.56
Control Delay	64.5	34.6	1.9	85.2	37.8	4.3	81.1	66.1	2.8	72.8	64.9	12.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.5	34.6	1.9	85.2	37.8	4.3	81.1	66.1	2.8	72.8	64.9	12.1
LOS	E	C	A	F	D	A	F	E	A	E	E	B
Approach Delay		36.8			37.9			58.7			48.4	
Approach LOS		D			D			E			D	
Queue Length 50th (ft)	148	573	0	66	405	0	92	200	0	123	249	24
Queue Length 95th (ft)	202	640	23	#114	462	49	#145	295	10	172	#360	116
Internal Link Dist (ft)		906			906			565			796	
Turn Bay Length (ft)	350		600	350		400	250		250	200		200
Base Capacity (vph)	490	2469	853	196	2034	750	269	332	417	367	388	551
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.83	0.16	0.72	0.72	0.26	0.74	0.70	0.26	0.73	0.74	0.56

Intersection Summary	
Area Type:	Other
Cycle Length: 140	
Actuated Cycle Length: 140	

Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 40.9	Intersection LOS: D
Intersection Capacity Utilization 79.6%	ICU Level of Service D
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: San Pedro & Paseo del Norte



Intersection	
Int Delay, s/veh	3.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	100	10	110	20	2	190
Future Vol, veh/h	100	10	110	20	2	190
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	81	81	80	80	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	123	12	138	25	2	221

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	364	138	0	0	138	0
Stage 1	138	-	-	-	-	-
Stage 2	226	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	635	910	-	-	1446	-
Stage 1	889	-	-	-	-	-
Stage 2	812	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	634	910	-	-	1446	-
Mov Cap-2 Maneuver	634	-	-	-	-	-
Stage 1	889	-	-	-	-	-
Stage 2	810	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	652	1446	-
HCM Lane V/C Ratio	-	-	0.208	0.002	-
HCM Control Delay (s)	-	-	12	7.5	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.8	0	-

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	10	10	30	20	40	2	10	70	10	1	150	20
Future Vol, veh/h	10	10	30	20	40	2	10	70	10	1	150	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	-	175	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	61	61	61	74	74	74	78	78	78	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	16	49	27	54	3	13	90	13	1	174	23

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	286	316	99	220	322	51	198	0	0	103	0	0
Stage 1	188	188	-	122	122	-	-	-	-	-	-	-
Stage 2	98	128	-	98	200	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	644	599	937	717	594	1006	1372	-	-	1487	-	-
Stage 1	796	743	-	869	794	-	-	-	-	-	-	-
Stage 2	898	789	-	898	735	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	593	593	937	660	588	1006	1372	-	-	1487	-	-
Mov Cap-2 Maneuver	593	593	-	660	588	-	-	-	-	-	-	-
Stage 1	788	743	-	861	786	-	-	-	-	-	-	-
Stage 2	826	782	-	832	735	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.3	11.7	0.8	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1372	-	-	761	618	1487	-	-
HCM Lane V/C Ratio	0.009	-	-	0.108	0.136	0.001	-	-
HCM Control Delay (s)	7.6	-	-	10.3	11.7	7.4	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0.5	0	-	-

Intersection	
Int Delay, s/veh	9.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	20	20	170	50	10	30	30	30	0	10	2
Future Vol, veh/h	0	20	20	170	50	10	30	30	30	0	10	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	73	73	73	87	87	87	71	71	71	50	50	50
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	27	27	195	57	11	42	42	42	0	20	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	204	191	22	197	172	63	24	0	0	85	0	0
Stage 1	22	22	-	148	148	-	-	-	-	-	-	-
Stage 2	182	169	-	49	24	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	754	704	1055	762	721	1002	1591	-	-	1512	-	-
Stage 1	996	877	-	855	775	-	-	-	-	-	-	-
Stage 2	820	759	-	964	875	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	684	684	1055	704	701	1002	1591	-	-	1512	-	-
Mov Cap-2 Maneuver	684	684	-	704	701	-	-	-	-	-	-	-
Stage 1	968	877	-	831	753	-	-	-	-	-	-	-
Stage 2	728	738	-	910	875	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.6	13	2.4	0
HCM LOS	A	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1591	-	-	830	713	1512	-	-
HCM Lane V/C Ratio	0.027	-	-	0.066	0.371	-	-	-
HCM Control Delay (s)	7.3	0	-	9.6	13	0	-	-
HCM Lane LOS	A	A	-	A	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	1.7	0	-	-

Intersection	
Int Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	73	0	147	48	0	291
Future Vol, veh/h	73	0	147	48	0	291
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	75	75	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	97	0	184	60	0	364

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	396	122	0	0	244	0
Stage 1	214	-	-	-	-	-
Stage 2	182	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	581	906	-	-	1319	-
Stage 1	801	-	-	-	-	-
Stage 2	831	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	581	906	-	-	1319	-
Mov Cap-2 Maneuver	581	-	-	-	-	-
Stage 1	801	-	-	-	-	-
Stage 2	831	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.4	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	581	1319	-
HCM Lane V/C Ratio	-	-	0.168	-	-
HCM Control Delay (s)	-	-	12.4	0	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.6	0	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	17	411	805	85	35	16
Future Vol, veh/h	17	411	805	85	35	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	80	80	85	85	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	21	514	947	100	47	21

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1047	0	-	0	1296	524
Stage 1	-	-	-	-	997	-
Stage 2	-	-	-	-	299	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	660	-	-	-	154	498
Stage 1	-	-	-	-	318	-
Stage 2	-	-	-	-	726	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	660	-	-	-	149	498
Mov Cap-2 Maneuver	-	-	-	-	149	-
Stage 1	-	-	-	-	318	-
Stage 2	-	-	-	-	703	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	33.9
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	660	-	-	-	191
HCM Lane V/C Ratio	0.032	-	-	-	0.356
HCM Control Delay (s)	10.6	-	-	-	33.9
HCM Lane LOS	B	-	-	-	D
HCM 95th %tile Q(veh)	0.1	-	-	-	1.5

Intersection	
Int Delay, s/veh	1.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	18	0	7	120	0	22
Future Vol, veh/h	18	0	7	120	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	21	0	8	141	0	26

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	21	0	179	21
Stage 1	-	-	-	-	21	-
Stage 2	-	-	-	-	158	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1595	-	811	1056
Stage 1	-	-	-	-	1002	-
Stage 2	-	-	-	-	871	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1595	-	807	1056
Mov Cap-2 Maneuver	-	-	-	-	807	-
Stage 1	-	-	-	-	1002	-
Stage 2	-	-	-	-	867	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	8.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1056	-	-	1595	-
HCM Lane V/C Ratio	0.025	-	-	0.005	-
HCM Control Delay (s)	8.5	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	11	441	826	3	11	45
Future Vol, veh/h	11	441	826	3	11	45
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	80	80	85	85	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	551	972	4	15	60

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	975	0	-	0	1553	488
Stage 1	-	-	-	-	974	-
Stage 2	-	-	-	-	579	-
Critical Hdwy	4.14	-	-	-	6.63	6.93
Critical Hdwy Stg 1	-	-	-	-	5.83	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.22	-	-	-	3.519	3.319
Pot Cap-1 Maneuver	703	-	-	-	114	526
Stage 1	-	-	-	-	328	-
Stage 2	-	-	-	-	559	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	703	-	-	-	112	526
Mov Cap-2 Maneuver	-	-	-	-	112	-
Stage 1	-	-	-	-	328	-
Stage 2	-	-	-	-	548	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	20.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	703	-	-	-	305
HCM Lane V/C Ratio	0.02	-	-	-	0.245
HCM Control Delay (s)	10.2	-	-	-	20.6
HCM Lane LOS	B	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.9

Intersection	
Int Delay, s/veh	1.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	30	4	1	110	15	3
Future Vol, veh/h	30	4	1	110	15	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	40	5	1	147	20	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	45	0	192	43
Stage 1	-	-	-	-	43	-
Stage 2	-	-	-	-	149	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1563	-	797	1027
Stage 1	-	-	-	-	979	-
Stage 2	-	-	-	-	879	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1563	-	796	1027
Mov Cap-2 Maneuver	-	-	-	-	796	-
Stage 1	-	-	-	-	979	-
Stage 2	-	-	-	-	878	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	9.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	827	-	-	1563	-
HCM Lane V/C Ratio	0.029	-	-	0.001	-
HCM Control Delay (s)	9.5	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	29	4	1	96	15	3
Future Vol, veh/h	29	4	1	96	15	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	5	1	128	20	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	44	0	172	41
Stage 1	-	-	-	-	41	-
Stage 2	-	-	-	-	131	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1564	-	818	1030
Stage 1	-	-	-	-	981	-
Stage 2	-	-	-	-	895	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1564	-	817	1030
Mov Cap-2 Maneuver	-	-	-	-	817	-
Stage 1	-	-	-	-	981	-
Stage 2	-	-	-	-	894	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	9.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	846	-	-	1564	-
HCM Lane V/C Ratio	0.028	-	-	0.001	-
HCM Control Delay (s)	9.4	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	40	3	130	80	10	160
Future Vol, veh/h	40	3	130	80	10	160
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	0	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	92	93	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	47	3	141	86	13	205

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	372	141	0	0	141	0
Stage 1	141	-	-	-	-	-
Stage 2	231	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	629	907	-	-	1442	-
Stage 1	886	-	-	-	-	-
Stage 2	807	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	623	907	-	-	1442	-
Mov Cap-2 Maneuver	623	-	-	-	-	-
Stage 1	886	-	-	-	-	-
Stage 2	799	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.1	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	637	1442	-
HCM Lane V/C Ratio	-	-	0.078	0.009	-
HCM Control Delay (s)	-	-	11.1	7.5	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	20	30	30	20	20	0	30	150	20	0	120	20
Future Vol, veh/h	20	30	30	20	20	0	30	150	20	0	120	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	150	-	-	175	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	71	71	71	88	88	88	95	95	95	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	28	42	42	23	23	0	32	158	21	0	140	23

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	304	393	81	323	395	89	163	0	0	179	0	0
Stage 1	151	151	-	232	232	-	-	-	-	-	-	-
Stage 2	153	242	-	91	163	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	625	542	963	606	540	951	1413	-	-	1394	-	-
Stage 1	836	771	-	750	711	-	-	-	-	-	-	-
Stage 2	834	704	-	906	762	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	594	530	963	535	528	951	1413	-	-	1394	-	-
Mov Cap-2 Maneuver	594	530	-	535	528	-	-	-	-	-	-	-
Stage 1	817	771	-	733	695	-	-	-	-	-	-	-
Stage 2	788	688	-	819	762	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.6	12.4	1.1	0
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1413	-	-	659	531	1394	-	-
HCM Lane V/C Ratio	0.022	-	-	0.171	0.086	-	-	-
HCM Control Delay (s)	7.6	-	-	11.6	12.4	0	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	0.3	0	-	-

Intersection	
Int Delay, s/veh	6.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	1	70	40	80	20	10	10	30	90	4	40	4
Future Vol, veh/h	1	70	40	80	20	10	10	30	90	4	40	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	80	80	80	92	92	92	71	71	71
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	84	48	100	25	13	11	33	98	6	56	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	192	222	59	240	176	82	62	0	0	130	0	0
Stage 1	70	70	-	103	103	-	-	-	-	-	-	-
Stage 2	122	152	-	137	73	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	768	677	1007	714	717	978	1541	-	-	1455	-	-
Stage 1	940	837	-	903	810	-	-	-	-	-	-	-
Stage 2	882	772	-	866	834	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	731	669	1007	609	708	978	1541	-	-	1455	-	-
Mov Cap-2 Maneuver	731	669	-	609	708	-	-	-	-	-	-	-
Stage 1	932	834	-	896	804	-	-	-	-	-	-	-
Stage 2	837	766	-	738	831	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.7	12	0.6	0.6
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1541	-	-	762	648	1455	-	-
HCM Lane V/C Ratio	0.007	-	-	0.176	0.212	0.004	-	-
HCM Control Delay (s)	7.4	0	-	10.7	12	7.5	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.6	0.8	0	-	-

Intersection	
Int Delay, s/veh	2.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	98	0	211	61	0	217
Future Vol, veh/h	98	0	211	61	0	217
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	75	75	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	131	0	264	76	0	271

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	438	170	0	0	340	0
Stage 1	302	-	-	-	-	-
Stage 2	136	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	547	844	-	-	1216	-
Stage 1	724	-	-	-	-	-
Stage 2	876	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	547	844	-	-	1216	-
Mov Cap-2 Maneuver	547	-	-	-	-	-
Stage 1	724	-	-	-	-	-
Stage 2	876	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	547	1216	-
HCM Lane V/C Ratio	-	-	0.239	-	-
HCM Control Delay (s)	-	-	13.6	0	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.9	0	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	22	976	485	114	47	22
Future Vol, veh/h	22	976	485	114	47	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	75	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	85	85	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	26	1148	571	134	63	29

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	705	0	-	0	1264	352
Stage 1	-	-	-	-	638	-
Stage 2	-	-	-	-	626	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	889	-	-	-	161	644
Stage 1	-	-	-	-	488	-
Stage 2	-	-	-	-	495	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	889	-	-	-	156	644
Mov Cap-2 Maneuver	-	-	-	-	156	-
Stage 1	-	-	-	-	488	-
Stage 2	-	-	-	-	481	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	35.9
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	889	-	-	-	206
HCM Lane V/C Ratio	0.029	-	-	-	0.447
HCM Control Delay (s)	9.2	-	-	-	35.9
HCM Lane LOS	A	-	-	-	E
HCM 95th %tile Q(veh)	0.1	-	-	-	2.1

Intersection	
Int Delay, s/veh	2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	90	0	8	36	0	29
Future Vol, veh/h	90	0	8	36	0	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	106	0	9	42	0	34

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	106	0	167	106
Stage 1	-	-	-	-	106	-
Stage 2	-	-	-	-	61	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1485	-	823	948
Stage 1	-	-	-	-	918	-
Stage 2	-	-	-	-	962	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1485	-	818	948
Mov Cap-2 Maneuver	-	-	-	-	818	-
Stage 1	-	-	-	-	918	-
Stage 2	-	-	-	-	956	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.4	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	948	-	-	1485	-
HCM Lane V/C Ratio	0.036	-	-	0.006	-
HCM Control Delay (s)	8.9	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	45	974	524	11	6	25
Future Vol, veh/h	45	974	524	11	6	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	85	85	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	50	1082	616	13	8	33

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	629	0	-	0	1805	315
Stage 1	-	-	-	-	623	-
Stage 2	-	-	-	-	1182	-
Critical Hdwy	4.14	-	-	-	6.63	6.93
Critical Hdwy Stg 1	-	-	-	-	5.83	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	2.22	-	-	-	3.519	3.319
Pot Cap-1 Maneuver	949	-	-	-	78	682
Stage 1	-	-	-	-	498	-
Stage 2	-	-	-	-	290	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	949	-	-	-	74	682
Mov Cap-2 Maneuver	-	-	-	-	74	-
Stage 1	-	-	-	-	498	-
Stage 2	-	-	-	-	275	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	21.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	949	-	-	-	263
HCM Lane V/C Ratio	0.053	-	-	-	0.157
HCM Control Delay (s)	9	-	-	-	21.2
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.5

Intersection	
Int Delay, s/veh	0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	92	15	3	33	8	2
Future Vol, veh/h	92	15	3	33	8	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	123	20	4	44	11	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	143	0	185	133
Stage 1	-	-	-	-	133	-
Stage 2	-	-	-	-	52	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1440	-	804	916
Stage 1	-	-	-	-	893	-
Stage 2	-	-	-	-	970	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1440	-	802	916
Mov Cap-2 Maneuver	-	-	-	-	802	-
Stage 1	-	-	-	-	893	-
Stage 2	-	-	-	-	967	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	9.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	822	-	-	1440	-
HCM Lane V/C Ratio	0.016	-	-	0.003	-
HCM Control Delay (s)	9.5	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	79	15	3	28	8	2
Future Vol, veh/h	79	15	3	28	8	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	105	20	4	37	11	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	125	0	160	115
Stage 1	-	-	-	-	115	-
Stage 2	-	-	-	-	45	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1462	-	831	937
Stage 1	-	-	-	-	910	-
Stage 2	-	-	-	-	977	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1462	-	829	937
Mov Cap-2 Maneuver	-	-	-	-	829	-
Stage 1	-	-	-	-	910	-
Stage 2	-	-	-	-	974	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	849	-	-	1462	-
HCM Lane V/C Ratio	0.016	-	-	0.003	-
HCM Control Delay (s)	9.3	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Traffic Impact Study

Legacy NAA Developments

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