

APPENDIX 1.1:

APPROVED TRAFFIC STUDY SCOPING AGREEMENT

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EXHIBIT B

SCOPING AGREEMENT FOR TRAFFIC IMPACT STUDY

This letter acknowledges the Riverside County Transportation Department requirements for traffic impact analysis of the following project. The analysis must follow the Riverside County Transportation Department Traffic Study Guidelines dated April 2008.

Case No. PAR180050

Related Cases-

 SP No. _____

 EIR No. _____

 GPA No. _____

 CZ No. _____

Project Name: Barker Logistics

Project Address: Northeast corner of Patterson Avenue and Placentia Avenue

Project Description: 699,630 square feet of high-cube fulfillment warehouse

	<u>Consultant</u>	<u>Developer - Representative</u>
Name:	<u>Urban Crossroads Inc. - Charlene So</u>	<u>Barker Logistics</u>
Address:	<u>260 E. Baker Street, Suite 200</u> <u>Costa Mesa, CA 92626</u>	<u>280 Newport Center Drive, Suite 240</u> <u>Newport Beach, CA 92660</u>
Telephone:	<u>(949) 336-5982</u>	_____
Fax:	_____	_____

A. Trip Generation Source: DRAFT TUMF High-Cube Warehouse Trip Generation Study, WSP, November 6, 2018

Current GP Land Use	<u>Light Industrial</u>	Proposed Land Use	<u>Light Industrial</u>
Current Zoning	<u>Light Industrial</u>	Proposed Zoning	<u>Light Industrial</u>

	<u>Current Trip Generation</u>			<u>Proposed Trip Generation</u>		
	<u>In</u>	<u>Out</u>	<u>Total</u>	<u>In</u>	<u>Out</u>	<u>Total</u>
AM Trips	_____	_____	_____	86	26	112
PM Trips	_____	_____	_____	39	103	142

Internal Trip Allowance	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	(<u>0</u> % Trip Discount)
Pass-By Trip Allowance	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	(<u>0</u> % Trip Discount)

A passby trip discount of 25% is allowed for appropriate land uses. The passby trips at adjacent study area intersections and project driveways shall be indicated on a report figure.

B. Trip Geographic Distribution: (see distribution exhibits - varies)

N varies % S varies % E varies % W varies %

C. Background Traffic

Project Build-out Year: 2021 Annual Ambient Growth Rate: 2 %

Phase Year(s) N/A

Other area Projects to be analyzed: County to provide updated list; list obtained from Perris/Moreno Valley

Model/Forecast Methodology: Not Applicable



D. Study Intersections: (NOTE: Subject to revision after other projects, trip generation and distribution are determined, or comments form other agencies). (See Exhibit 1)

- | | |
|--|--|
| 1. <u>Patterson Av. & Walnut St./Driveway 1</u> | 13. <u>I-215 NB Ramps & Ramona Expressway</u> |
| 2. <u>Patterson Av. & Placentia Av.</u> | 14. <u>I-215 NB Ramps & Placentia Av. - Future</u> |
| 3. <u>Driveway 2/Tobacco Rd. & Placentia Av.</u> | 15. <u>I-215 NB Ramps & Nuevo Rd.</u> |
| 4. <u>Driveway 3 & Placentia Av. - Future</u> | 16. <u>Add Patterson Av. at Rider St.</u> |
| 5. <u>Harvill Av. & Cajalco Expressway</u> | 17. _____ |
| 6. <u>Harvill Av. & Rider St.</u> | 18. _____ |
| 7. <u>Harvill Av. & Placentia Av.</u> | 19. _____ |
| 8. <u>Harvill Av. & Orange St.</u> | 20. _____ |
| 9. <u>Harvill Av. & A St.</u> | 21. _____ |
| 10. <u>I-215 SB Ramps & Ramona Expressway</u> | 22. _____ |
| 11. <u>I-215 SB Ramps & Placentia Av. - Future</u> | 23. _____ |
| 12. <u>I-215 SB Ramps & Nuevo Rd.</u> | 24. _____ |

E. Study Roadway Segments: (NOTE: Subject to revision after other projects, trip generation and distribution are determined, or comments form other agencies).

1. _____ 2. _____

F. Other Jurisdictional Impacts

Is this project within a City's Sphere of influence or one mile radius of City boundaries? Yes No

If so, name of City jurisdiction: City of Perris

G. Site Plan (please attach reduced copy)

H. Specific issues to be addressed in the Study (in addition to the standard analysis described in the Guideline) (To be filled out by Transportation Department)

(NOTE: If the traffic study states that "a traffic signal is warranted" (or "a traffic signal appears to be warranted", or similar statement) at an existing unsignalized intersection under existing conditions, 8-hour approach traffic volume information must be submitted in addition to the peak hourly turning movement counts for that intersection.

I. Existing Conditions

Traffic count data must be new or recent. Provide traffic count dates if using other than new counts.

Date of counts: traffic counts will be conducted once scoping agreement has been approved

***NOTE* Traffic Study Submittal Form and appropriate fee must be submitted with, or prior to submittal of this form. Transportation Department staff will not process the Scoping Agreement prior to receipt of the fee.**

Recommended by:

Charlene S 1/15/2019
Consultant's Representative Date

Approved Scoping Agreement:

K.S 02/04/2019
Riverside County Transportation Department Date

January 15, 2019

Mr. Kevin Tsang
County of Riverside, Transportation Department
4080 Lemon Street, 8th Floor
Riverside, CA 92501

SUBJECT: BARKER LOGISTICS TRAFFIC IMPACT ANALYSIS SCOPING AGREEMENT

Dear Mr. Kevin Tsang:

The firm of Urban Crossroads, Inc. is pleased to submit this scoping letter regarding the traffic impact analysis for Barker Logistics development (“Project”), which is located on the northeast corner of Patterson Avenue and Placentia Avenue in the County of Riverside. This letter describes the proposed Project trip generation, trip distribution, and analysis methodology, which have been used to establish the draft proposed Project study area and analysis locations.

PROJECT DESCRIPTION

A preliminary site use plan for the proposed Project is shown on Exhibit 1. Exhibit 2 depicts the location of the proposed project in relation to the existing roadway network. The Project is anticipated to have an Opening Year of 2021. Access to the Project site will be provided via Patterson Avenue and Placentia Avenue. It is our understanding that the Project is in the process of attempting to acquire the right-of-way to align Driveway 1 with Walnut Street to the west on Patterson Avenue. If the right-of-way cannot be acquired, the Project Applicant will need to work with County staff in order to develop an interim design for Driveway 1. The proposed Project consists of 699,630 square feet of high-cube fulfillment center use.

TRIP GENERATION

Trip generation represents the amount of traffic that is attracted and produced by a development, and is based upon the specific land uses planned for a given project. In order to develop the traffic characteristics of the proposed project, trip-generation statistics published in the DRAFT TUMF High-Cube Warehouse Trip Generation Study (WSP, November 6, 2018) which was commissioned by Western Riverside Council of Governments (WRCOG) in support of the TUMF update. However, the WSP study does not include a vehicle split, as such, the vehicle splits per the Institute of Transportation Engineers (ITE) High-Cube Warehouse Vehicle Trip Generation Analysis (October 2016) have been utilized. Trip generation rates for the Project are shown in Table 1 for both passenger car equivalent (PCE) and actual vehicles. The trip generation summary illustrating daily and peak hour trip generation estimates for the proposed Project in actual vehicles and PCE are shown in Table 2.

Finally, PCE factors were applied to the trip generation rates for heavy trucks (large 2-axles, 3-axles, 4+ axles). PCEs allow the typical “real-world” mix of vehicle types to be represented as a single, standardized unit, such as the passenger car, to be used for the purposes of capacity and level of service analyses. The PCE factors are consistent with the recommended PCE factors in Appendix B of the San Bernardino County Congestion Management Program (CMP) (2016 Update), as these factors are more conservative than Riverside County’s PCE factor of 2.0 for heavy trucks.

As shown on Table 2, the proposed Project is anticipated to generate a net total of 1,548 actual vehicle trip-ends per day with 88 AM peak hour trips and 120 PM peak hour trips. In comparison, the proposed Project is anticipated to generate a net total of 1,980 PCE trip-ends per day, 112 PCE AM peak hour trips and 142 PCE PM peak hour trips (see Table 2).

TRIP DISTRIBUTION

The Project trip distribution represents the directional orientation of traffic to and from the Project site. Trip distribution is the process of identifying the probable destinations, directions or traffic routes that will be utilized by Project traffic. The potential interaction between the planned land uses and surrounding regional access routes are considered, to identify the route where the Project traffic would distribute. Exhibit 3 illustrates the passenger car trip distribution patterns for the Project and Exhibit 4 illustrates the truck trip distribution patterns without the I-215/Placentia Avenue interchange.

The Project is anticipated to be fully constructed and operational by Year 2021 and the I-215/Placentia Avenue interchange is anticipated to be completed by 2022. As such, Project traffic would use both the Cajalco Expressway/Ramona Expressway and Nuevo Road interchanges in the interim, until the I-215 Freeway at Placentia Avenue interchange is completed. Based on the location of the Project and its proximity to the proposed I-215 Freeway and Placentia Avenue interchange, it is likely that Project traffic would utilize the new interchange once completed. The distributions for passenger cars and trucks are shown on Exhibits 5 and 6 with the I-215/Placentia Avenue interchange.

ANALYSIS SCENARIOS

Consistent with the County’s TIA guidelines, intersection analysis will be provided for the following analysis scenarios:

- Existing (2019) Conditions
- Existing plus Project (E+P) Conditions (without I-215/Placentia Interchange only)
- Existing plus Ambient Growth plus Project (EAP) Conditions (without and with I-215/Placentia Interchange)
- Existing plus Ambient Growth plus Project plus Cumulative (EAPC) Conditions (without and with I-215/Placentia Interchange)

Mr. Kevin Tsang
County of Riverside, Transportation Department
January 15, 2019
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All study area intersections will be evaluated using the Highway Capacity Manual (HCM) 6th Edition analysis methodology.

CUMULATIVE PROJECTS

It is requested that County staff provide an updated list of cumulative projects for inclusion in the traffic study. A current list of cumulative projects has already been obtained from the City of Perris. A preliminary list of cumulative projects is provided in Table 3 and are shown on Exhibit 7.

TRAFFIC COUNTS

Traffic counts (classified by vehicle type) will be conducted once the scoping agreement has been approved during a typical Tuesday, Wednesday, or Thursday when local schools are in session and operating on a typical bell schedule.

CONCLUSION

Urban Crossroads, Inc. is pleased to submit this letter documenting the Project trip generation, trip distribution, and the recommended intersection analysis locations for the Barker Logistics Traffic Impact Study. We will continue to move forward towards completing the traffic study after receiving jurisdiction approval or comments finalizing the study area.

If you have any questions, please contact me directly at (949) 336-5982.

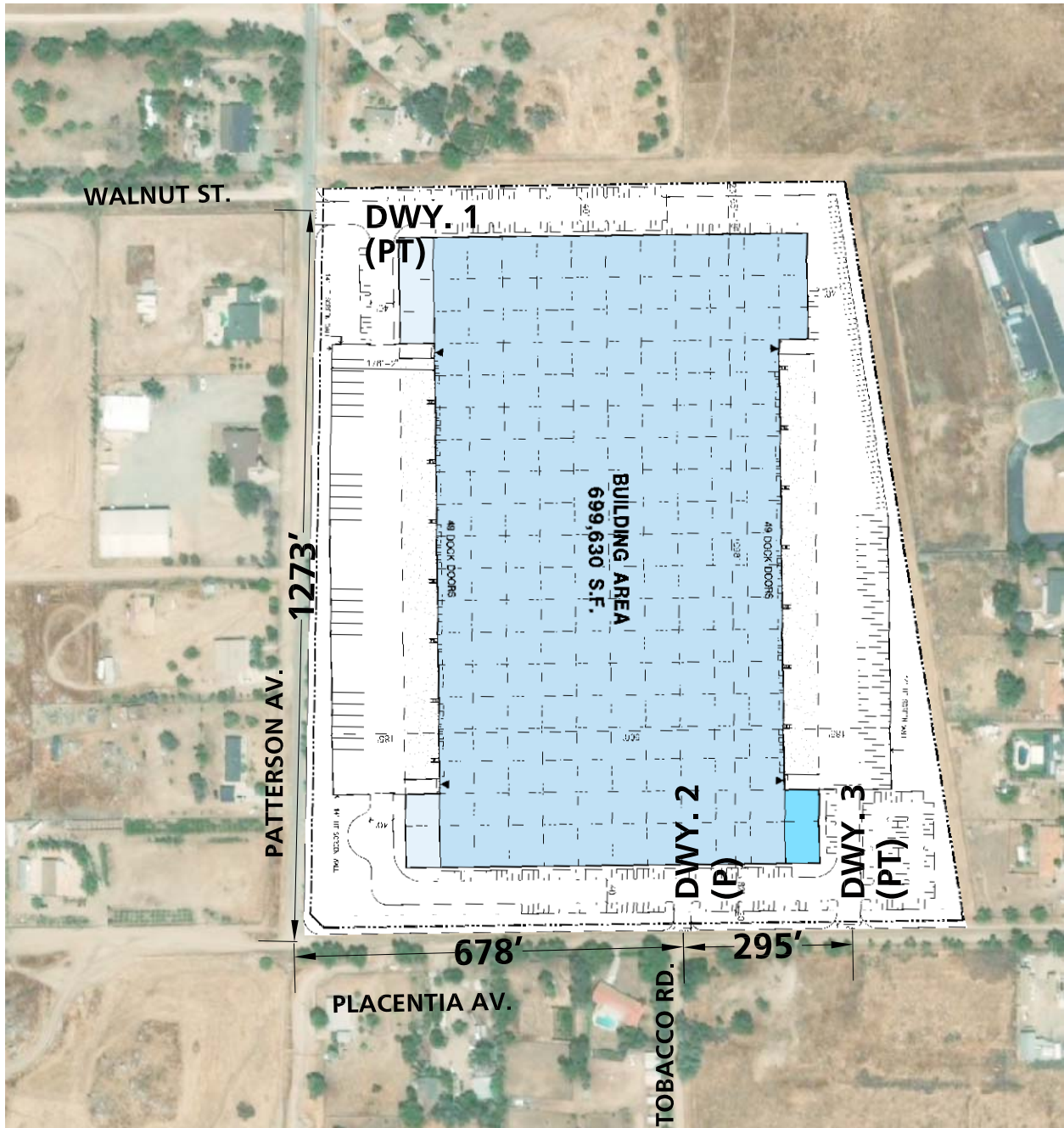
Respectfully submitted,

URBAN CROSSROADS, INC.



Charlene So, PE
Senior Associate

EXHIBIT 1: PRELIMINARY SITE PLAN

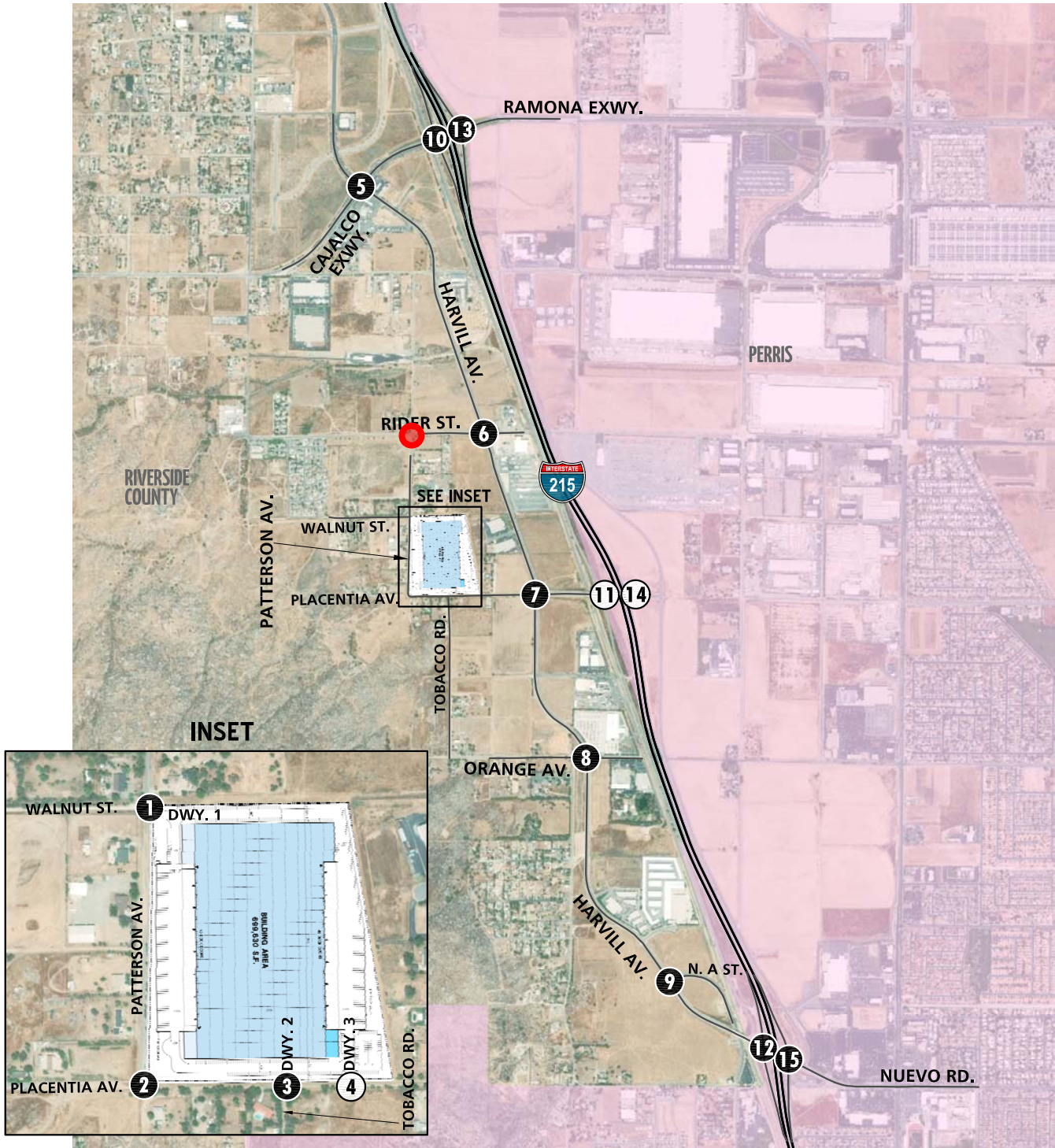


LEGEND:

- P = PASSENGER CARS ONLY
- T = TRUCKS ONLY
- PT = PASSENGER CARS AND TRUCKS



EXHIBIT 2: LOCATION MAP



LEGEND:

- ① - EXISTING INTERSECTION ANALYSIS LOCATION
- ② - FUTURE INTERSECTION ANALYSIS LOCATION



EXHIBIT 3: PROJECT (PASSENGER CAR WITHOUT I-215 / PLACENTIA INTERCHANGE) TRIP DISTRIBUTION

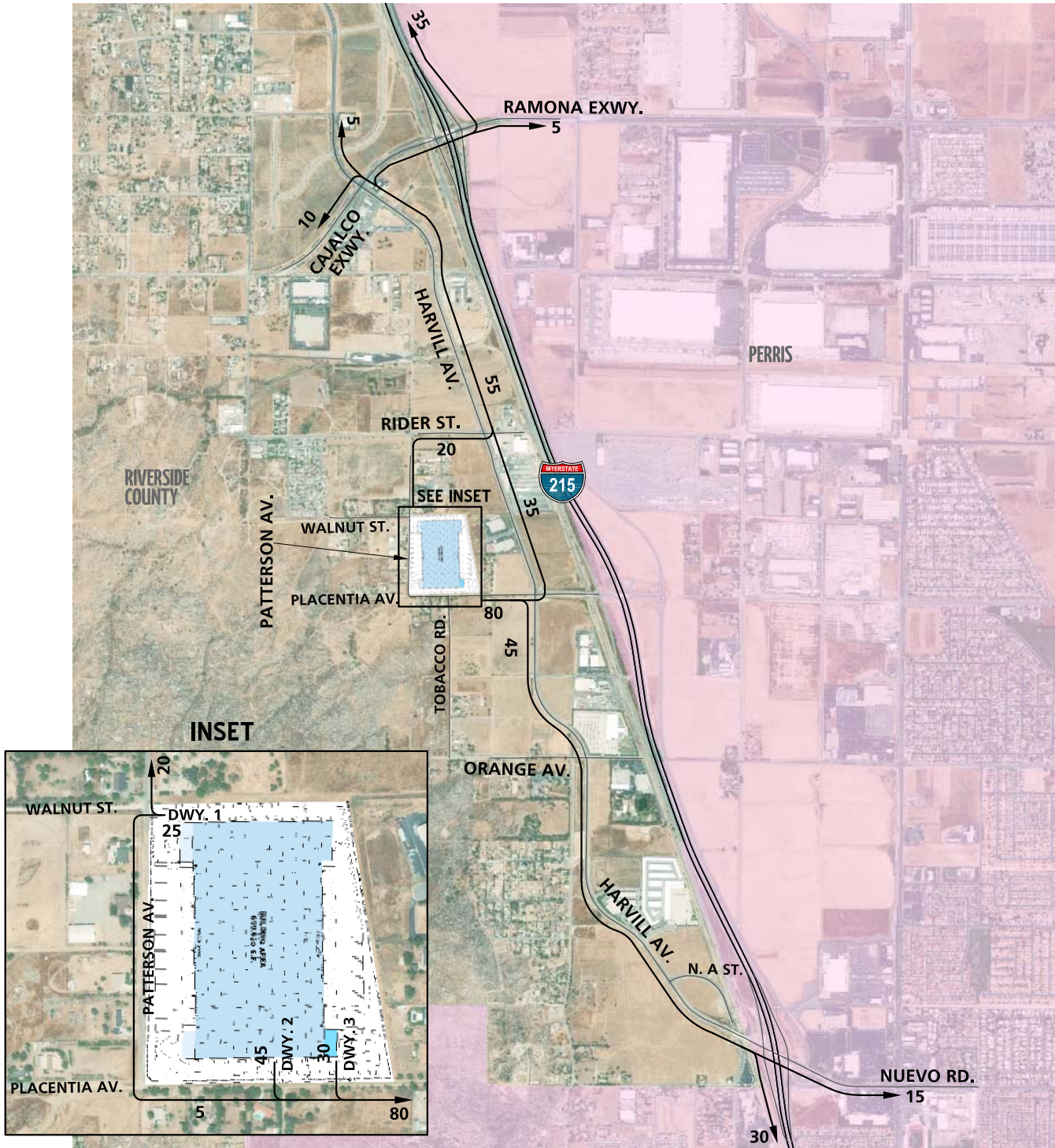
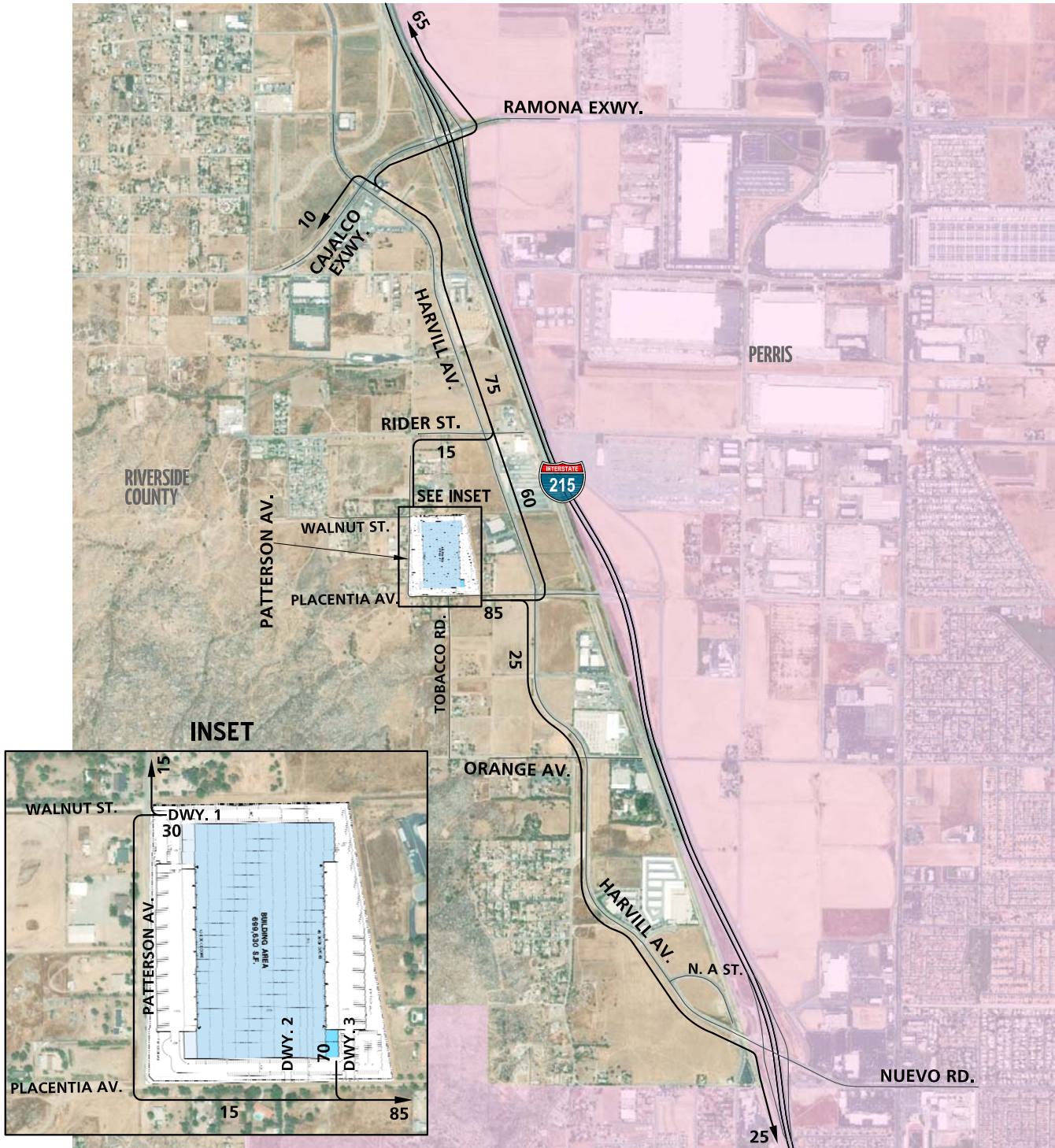


EXHIBIT 4: PROJECT (TRUCK WITHOUT I-215 / PLACENTIA INTERCHANGE) TRIP DISTRIBUTION

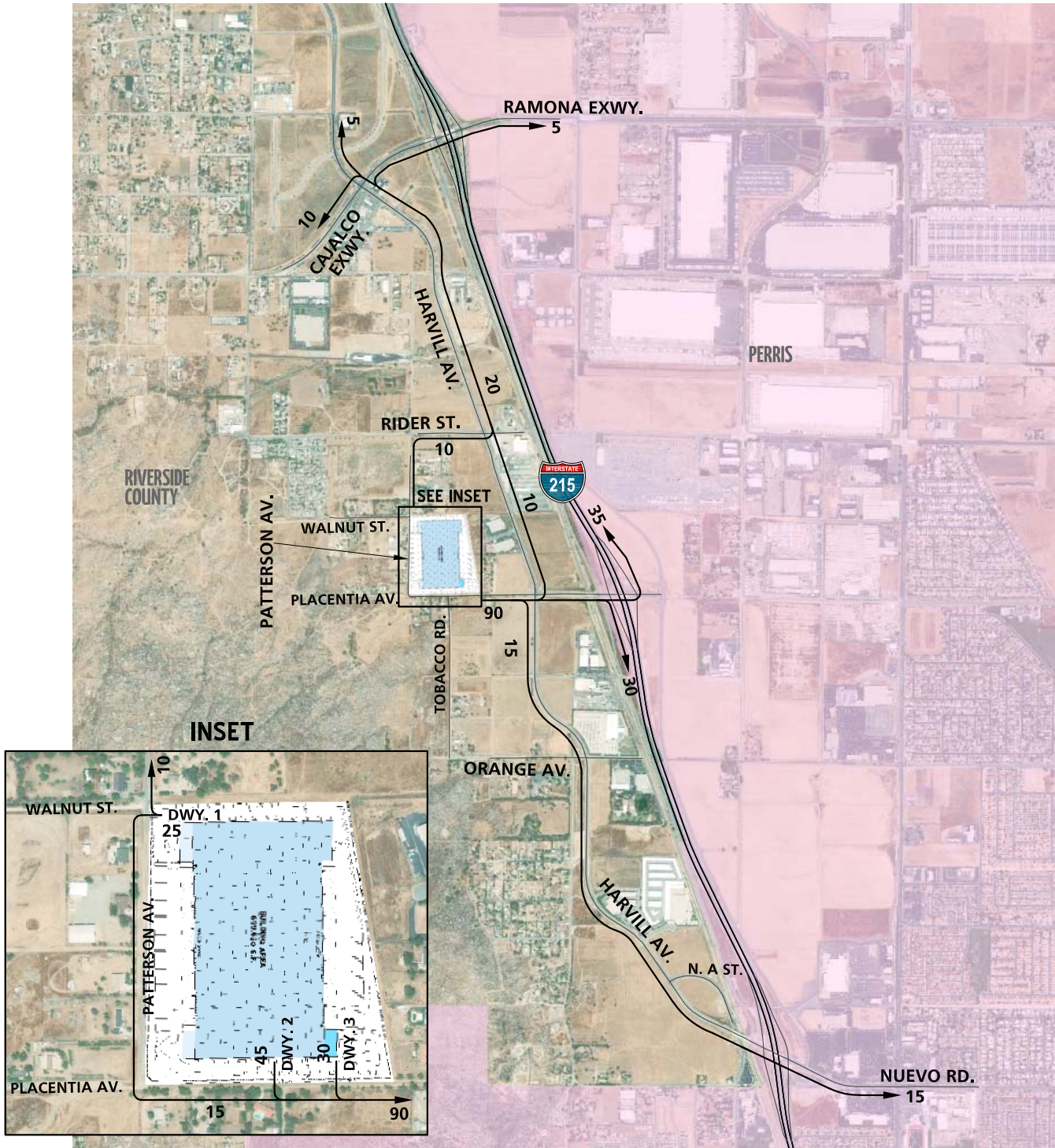


LEGEND:

10 = PERCENT TO/FROM PROJECT



EXHIBIT 5: PROJECT (PASSENGER CAR WITH I-215 / PLACENTIA INTERCHANGE) TRIP DISTRIBUTION

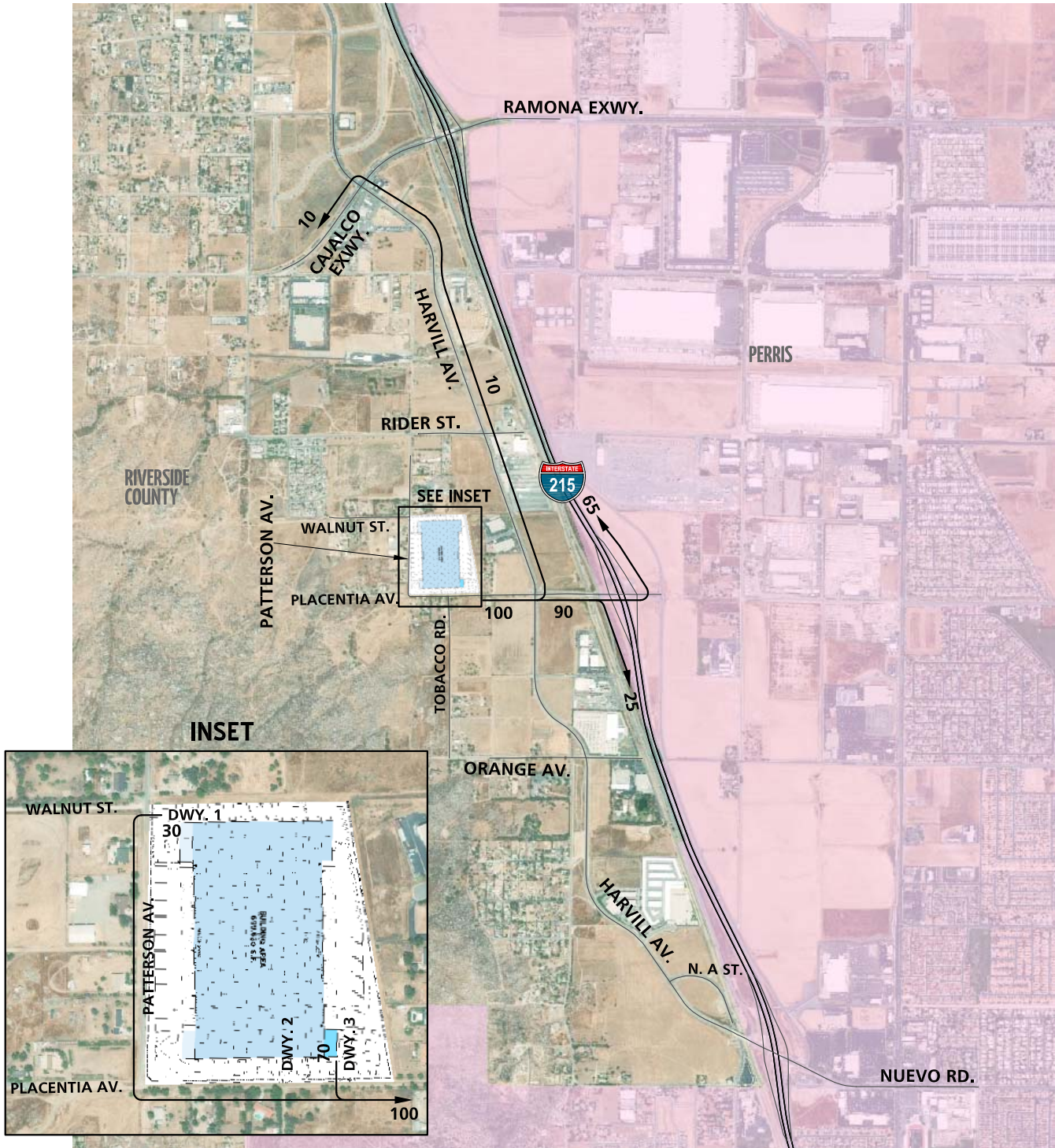


LEGEND:

10 = PERCENT TO/FROM PROJECT



EXHIBIT 6: PROJECT (TRUCK WITH I-215 / PLACENTIA INTERCHANGE) TRIP DISTRIBUTION



LEGEND:

10 = PERCENT TO/FROM PROJECT



EXHIBIT 7: CUMULATIVE DEVELOPMENT LOCATION MAP

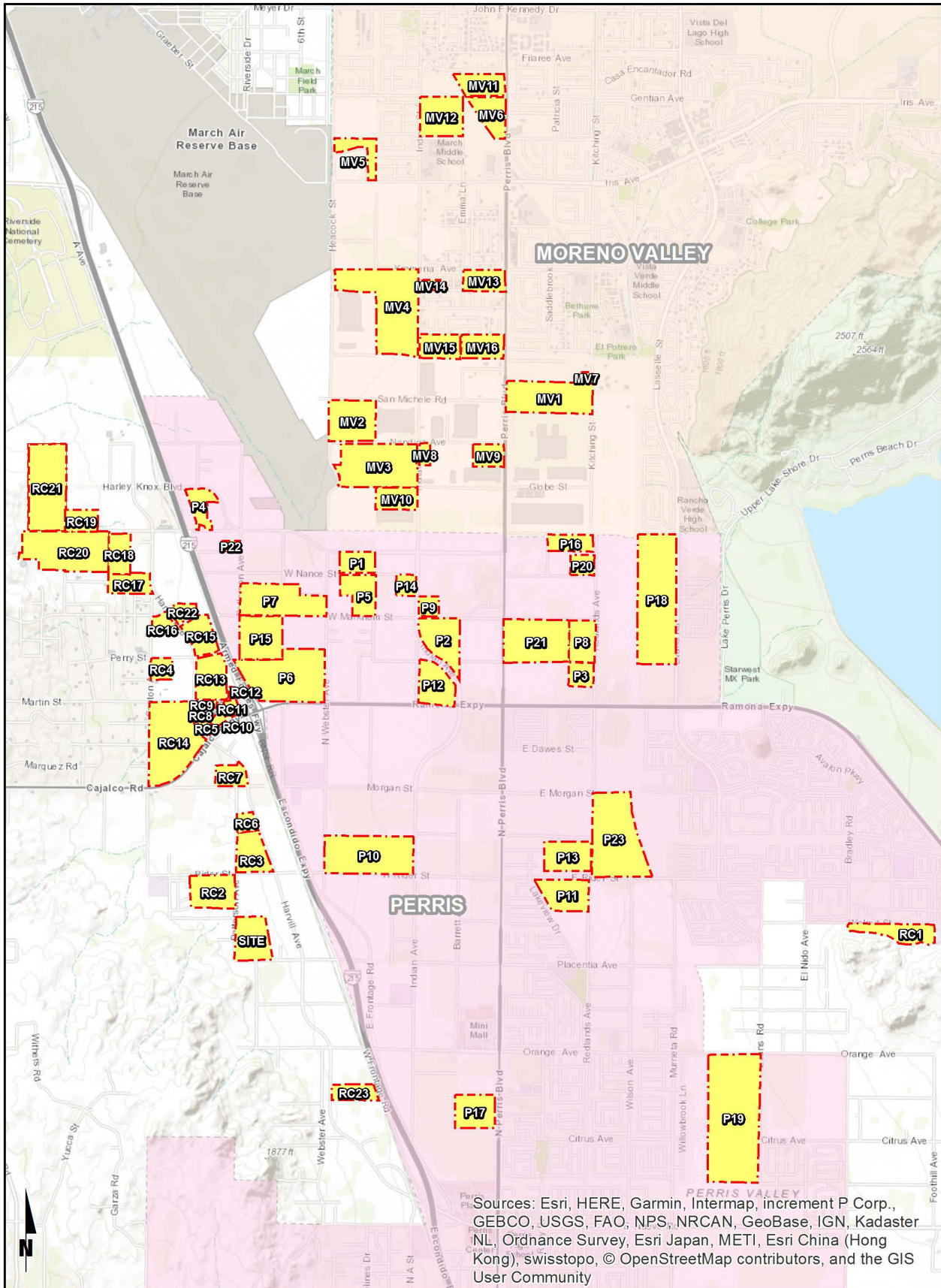


Table 1

Project Trip Generation Rates

Land Use ¹	Units ²	ITE LU Code	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Actual Vehicle Trip Generation Rates									
High-Cube Fulfillment Center Warehouse	TSF	--	0.098	0.029	0.127	0.048	0.123	0.171	2.209
		Passenger Cars	0.082	0.025	0.107	0.042	0.107	0.149	1.816
		2-4 Axle Trucks	0.006	0.002	0.008	0.003	0.008	0.011	0.168
		5+-Axle Trucks	0.009	0.003	0.012	0.003	0.008	0.011	0.225
Passenger Car Equivalent (PCE) Trip Generation Rates³									
High-Cube Fulfillment Center Warehouse	TSF	--	0.454	0.136	0.590	0.384	0.986	1.370	8.180
		Passenger Cars	0.082	0.025	0.107	0.042	0.107	0.149	1.816
		2-4 Axle Trucks (PCE = 2.0)	0.012	0.004	0.016	0.006	0.016	0.022	0.336
		5+-Axle Trucks (PCE = 3.0)	0.028	0.008	0.036	0.009	0.024	0.033	0.675

¹ Vehicle Mix Source: [DRAFT TUMF High Cube Warehouse Trip Generation Study](#), WSP, November 6, 2018.

² Inbound and outbound split source: [High Cube Warehouse Vehicle Trip Generation Analysis](#) October 2016, ITE.

² TSF = thousand square feet

³ PCE rates are per SBCTA.

Table 2

Project Trip Generation Summary

Land Use	Quantity	Units ¹	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Actual Vehicles									
High-Cube Fulfillment Center Warehouse	699.630	TSF							
Passenger Cars:			58	17	75	29	75	104	1,272
Truck Trips:									
2-4 axle:			4	1	5	2	6	8	118
5+-axle:			6	2	8	2	6	8	158
- Net Truck Trips			10	3	13	4	12	16	276
FULFILLMENT CENTER TOTAL NET TRIPS (Actual Vehicles)²			68	20	88	33	87	120	1,548
Passenger Car Equivalent (PCE)									
High-Cube Fulfillment Center Warehouse	699.630	TSF							
Passenger Cars:			58	17	75	29	75	104	1,272
Truck Trips:									
2-4 axle:			9	3	12	4	11	15	236
5+-axle:			19	6	25	6	17	23	472
- Net Truck Trips			28	9	37	10	28	38	708
FULFILLMENT CENTER TOTAL NET TRIPS (PCE)²			86	26	112	39	103	142	1,980

¹ TSF = thousand square feet

² TOTAL NET TRIPS = Passenger Cars + Net Truck Trips.

Table 3
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Cumulative Development Land Use Summary

No.	Project Name / Case Number	Land Use ¹	Quantity	Units ²	Location
Riverside County					
RC1	McCanna Hills / TTM 33978	SFDR	63	DU	SWC OF SHERMAN AVE. & WALNUT AVE.
RC2	PP26293	High-Cube Warehouse	612.481	TSF	SWC OF PATTERSON AVE. & RIDER ST.
RC3	PPT180025: Rider Commerce Center	Warehousing	204.330	TSF	NWC OF PATTERSON AVE. & RIDER ST.
RC4	Seaton Commerce Center	High-Cube Warehouse	210.800	TSF	SEC OF SEATON AV. & PERRY ST.
RC5	Farmer Boys/Retail Shop	Retail	16.306	TSF	NEC OF HARVILL AVE. & CAJALCO RD.
		Fast-Food with Drive Thru	3.252	TSF	
RC6	PP26173	High-Cube Warehouse	423.665	TSF	SWC OF HARVILL AVE. & RIDER ST.
RC7	Val Verde Logistics Center	High-Cube Warehouse	280.308	TSF	NWC OF HARVILLA AVE. & OLD CAJALCO RD.
RC8	Majestic Freeway Business Center - Building 5	Warehousing	40.000	TSF	NEC OF HARVILL AVE. & MESSENA LN.
RC9	Majestic Freeway Business Center - Building 6	Warehousing	72.000	TSF	NORTH OF MESSENA LN., EAST OF HARVILL AVE.
RC10	Majestic Freeway Business Center - Building 7	Warehousing	80.000	TSF	NORTH OF CAJALCO EXWY., EAST OF HARVILL AVE.
RC11	Majestic Freeway Business Center - Building 8	Warehousing	110.000	TSF	NORTH OF CAJALCO EXWY., EAST OF HARVILL AVE.
RC12	Majestic Freeway Business Center - Building 9	Warehousing	45.000	TSF	EAST OF MESSENA LN., NORTH OF HARVILL AVE.
RC13	Majestic Freeway Business Center - Building 10	High-Cube Warehouse	600.000	TSF	SEC OF HARVILL AVE. & PERRY ST.
RC14	Majestic Freeway Business Center - Buildings 1, 3 & 4	Warehousing	48.930	TSF	NWC OF HARVILL AVE. & CAJALCO RD.
		High-Cube Warehouse	1195.740	TSF	
RC15	Majestic Freeway Business Center - Building 11	High-Cube Warehouse	391.045	TSF	NEC OF HARVILL AVE. & PERRY ST.
RC16	Majestic Freeway Business Center - Building 15	Warehousing	90.279	TSF	NWC OF HARVILL AVE. & COMMERCE CENTER DR.
RC17	Majestic Freeway Business Center - Building 19	Warehousing	364.560	TSF	SWC OF HARVILL AVE. & OLD OLEANDER AVE.
RC18	Majestic Freeway Business Center - Building 20	Warehousing	425.830	TSF	SWC OF HARVILL AVE. & OLD OLEANDER AVE.
RC19	Majestic Freeway Business Center - Building 21,22	Warehousing	241.059	TSF	NEC OF DECKER RD. & OLD OLEANDER AVE.
RC20	Knox Logistics Center	High-Cube Warehouse	1259.410	TSF	NWC OF DECKER RD. & OLD OLEANDER AVE.
RC21	Oleander Business Park	High-Cube Warehouse	680.000	TSF	NWC OF DECKER RD. & HARLEY KNOX BLVD.
RC22	Majestic Freeway Business Center - Building 12	Warehousing	154.751	TSF	NEC OF HARVILL AVE. & COMMERCE CENTER DR.
RC23	Harvill Distribution Center	High-Cube Warehouse	345.103	TSF	EAST OF HARVILL AVE. SOUTH OF ORANGE ST.
City of Perris					
P1	Bargemann / DPR 07-09-0018	Warehousing	173.000	TSF	NEC OF WEBSTER & NANCE
P2	Duke 2 / DPR 16-00008	High-Cube Warehouse	669.000	TSF	NEC OF INDIAN & MARKHAM
P3	First Perry / DPR 16-00013	High-Cube Warehouse	240.000	TSF	SWC OF REDLANDS AVE. & PERRY ST.
P4	Gateway / DPR 16-00003	High-Cube Warehouse	400.000	TSF	SOUTH OF HARLEY KNOX BLVD. EAST OF HWY. 215
P5	Integra / DPR 14-02-0014	High-Cube Warehouse	864.000	TSF	EAST OF WEBSTER AVE. SOUTH OF NANCE ST.
P6	OLC 1 / DPR 12-10-0005	High-Cube Warehouse	1,455.000	TSF	WEST OF WEBSTER AVE. NORTH OF RAMONA Exwy.
P7	OLC2 / DPR 14-01-0015	High-Cube Warehouse	1,037.000	TSF	WEST OF WEBSTER AVE. NORTH OF MARKHAM ST.
P8	Markham East / DPR 05-0477	High-Cube Warehouse	460.000	TSF	SWC OF REDLANDS AVE. & MARKHAM ST.
P9	Markham Industrial / DPR 16-00015	Warehousing	170.000	TSF	NEC OF INDIAN AVE. & MARKHAM ST.

Table 3
Page 2 of 2

Cumulative Development Land Use Summary

No.	Project Name / Case Number	Land Use ¹	Quantity	Units ²	Location
P10	Rados / DPR 07-0119	High-Cube Warehouse	1,200.000	TSF	NWC OF INDIAN AVE. & RIDER ST.
P11	Rider 1 / DPR 16-0365	High-Cube Warehouse	350.000	TSF	SWC OF REDLANDS AVE. & RIDER ST.
P12	Indian/Ramona Warehouse	High-Cube Warehouse	428.730	TSF	NORTH OF RAMONA EXWY. WEST OF INDIAN AVE.
P13	Rider 3 / DPR 06-0432	High-Cube Warehouse	640.000	TSF	NORTH OF RIDER ST. WEST OF REDLANDS
P14	Westcoast Textile / DPR 16-00001	Warehousing	180.000	TSF	SWC OF INDIAN ST. & NANCE ST.
P15	Duke at Patterson / DPR 17-00001	High-Cube Warehouse	811.000	TSF	SEC OF PATTERSON AVE. & MARKHAM ST.
P16	Harley Knox Commerce Park / DPR 16-004	High-Cube Warehouse	386.278	TSF	NWC OF HARLEY KNOX BLVD. & REDLANDS AVE.
P17	Perris Marketplace / DPR 05-0341	Commercial Retail	520.000	TSF	WEST OF PERRIS BLVD. AT AVOCADO AVE.
P18	Stratford Ranch Residential / TTM 36648	SFDR	270	DU	WEST OF EVANS RD. AT MARKHAM ST.
P19	Pulte Residential / TTM 30850	SFDR	496	DU	WEST OF EVANS RD. AT CITRUS AVE.
P20	Perris Circle 3	Warehousing	210.900	TSF	NWC OF REDLANDS AVE. AND NANCE AVE.
P21	Duke Realty - Perris & Markham	High-Cube Warehouse	1,189.860	TSF	SEC OF PERRIS BL. AND MARKHAM ST.
P22	Canyon Steel	Manufacturing	28.124	TSF	NWC OF PATTERSON AVE. & CALIFORNIA AVE.
City of Moreno Valley					
MV1	Kearney	High-Cube Warehouse	1100.000	TSF	EAST OF PERRIS BLVD. AT SAN MICHEL RD.
MV2	IDS	High-Cube Warehouse	701.000	TSF	SEC OF HEACOCK ST. & SAN MICHELE RD.
MV3	First Industrial	High-Cube Warehouse	1380.000	TSF	SWC OF INDIAN AVE. & NANDINA AVE.
MV4	Prologis 1	High-Cube Warehouse	1000.000	TSF	NEC OF INDIAN AVE. & MARIPOSA AVE.
MV5	Moreno Valley Industrial Park	High-Cube Warehouse	207.684	TSF	NEC OF HEACOCK ST. & IRIS AVE.
MV6	Moreno Valley Walmart	Retail	193.000	TSF	SWC OF PERRIS BLVD. & GENTIAN AVE.
MV7	Moreno Valley Utility Substation	High-Cube Warehouse	PUBLIC	TSF	NWC OF EDWIN RD. & KITCHING ST.
MV8	Phelan Development	High-Cube Warehouse	98.210	TSF	SEC OF INDIAN ST. & NANDINA AVE.
MV9	Nandina Industrial Center	High-Cube Warehouse	335.966	TSF	SOUTH OF NANDINA AVE. WEST OF PERRIS BLVD.
MV10	Indian Street Commerce Center	High-Cube Warehouse	433.918	TSF	SWC OF INDIAN ST. & GROVEVIEW RD.
MV11	Tract 22180	SFDR	140	DU	NORTH OF GENTIAN AVE. EAST OF INDIAN ST.
MV12	Tract 36760	SFDR	221	DU	SEC OF INDIAN ST. & GENTIAN AVE.
MV13	PEN18-0042	SFDR	2	DU	SEC OF INDIAN ST. & KRAMERIA AVE.
MV14	Tract 33024	SFDR	8	DU	SEC OF INDIAN ST. & KRAMERIA AVE.
MV15	Tract 32716	SFDR	57	DU	NEC OF INDIAN ST. & MARIPOSA AVE.
MV16	Tract 31442	SFDR	63	DU	NWC OF PERRIS BLVD. & MARIPOSA AVE.

¹ SFDR = Single Family Detached Residential

² DU = Dwelling Units; TSF = Thousand Square Feet

APPENDIX 1.2:
SITE ADJACENT QUEUES

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Intersection: 2: Patterson Av. & Walnut St./Driveway 1

Movement	EB	WB
Directions Served	LTR	LTR
Maximum Queue (ft)	19	31
Average Queue (ft)	3	7
95th Queue (ft)	17	27
Link Distance (ft)	797	364
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Placentia St. & Patterson Av.

Movement	SB
Directions Served	LR
Maximum Queue (ft)	31
Average Queue (ft)	10
95th Queue (ft)	33
Link Distance (ft)	1236
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: Tobacco Rd./Driveway 2 & Placentia St.

Movement	NB	SB
Directions Served	LTR	LTR
Maximum Queue (ft)	31	29
Average Queue (ft)	8	6
95th Queue (ft)	30	24
Link Distance (ft)	911	87
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Placentia St. & Driveway 3

Movement	SB
Directions Served	LR
Maximum Queue (ft)	31
Average Queue (ft)	10
95th Queue (ft)	34
Link Distance (ft)	245
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Zone Summary

Zone wide Queuing Penalty: 0

Intersection: 2: Patterson Av. & Walnut St./Driveway 1

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	25	36	6
Average Queue (ft)	2	20	0
95th Queue (ft)	14	44	4
Link Distance (ft)	797	364	1291
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Placentia St. & Patterson Av.

Movement	SB
Directions Served	LR
Maximum Queue (ft)	45
Average Queue (ft)	15
95th Queue (ft)	41
Link Distance (ft)	1236
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: Tobacco Rd./Driveway 2 & Placentia St.

Movement	NB	SB
Directions Served	LTR	LTR
Maximum Queue (ft)	30	45
Average Queue (ft)	6	20
95th Queue (ft)	25	44
Link Distance (ft)	911	87
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Placentia St. & Driveway 3

Movement	SB
Directions Served	LR
Maximum Queue (ft)	49
Average Queue (ft)	24
95th Queue (ft)	49
Link Distance (ft)	245
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Zone Summary

Zone wide Queuing Penalty: 0

Intersection: 2: Patterson Av. & Walnut St./Driveway 1

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	31	36	12
Average Queue (ft)	4	10	0
95th Queue (ft)	22	35	6
Link Distance (ft)	797	364	1291
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Placentia St. & Patterson Av.

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	12	36
Average Queue (ft)	0	18
95th Queue (ft)	6	43
Link Distance (ft)	826	1236
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 4: Tobacco Rd./Driveway 2 & Placentia St.

Movement	NB	SB
Directions Served	LTR	LTR
Maximum Queue (ft)	31	39
Average Queue (ft)	8	14
95th Queue (ft)	30	39
Link Distance (ft)	911	87
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Placentia St. & Driveway 3

Movement	SB
Directions Served	LR
Maximum Queue (ft)	36
Average Queue (ft)	15
95th Queue (ft)	40
Link Distance (ft)	245
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Zone Summary

Zone wide Queuing Penalty: 0

Intersection: 2: Patterson Av. & Walnut St./Driveway 1

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (ft)	6	55	6
Average Queue (ft)	1	29	0
95th Queue (ft)	8	48	4
Link Distance (ft)	797	364	1291
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Placentia St. & Patterson Av.

Movement	SB
Directions Served	LR
Maximum Queue (ft)	45
Average Queue (ft)	26
95th Queue (ft)	46
Link Distance (ft)	1236
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 4: Tobacco Rd./Driveway 2 & Placentia St.

Movement	NB	SB
Directions Served	LTR	LTR
Maximum Queue (ft)	31	51
Average Queue (ft)	5	29
95th Queue (ft)	24	50
Link Distance (ft)	911	87
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Placentia St. & Driveway 3

Movement	SB
Directions Served	LR
Maximum Queue (ft)	56
Average Queue (ft)	35
95th Queue (ft)	52
Link Distance (ft)	245
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Zone Summary

Zone wide Queuing Penalty: 0

APPENDIX 3.1:

EXISTING TRAFFIC COUNTS – FEBRUARY 2019

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Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
Site Code: 051-19093

City of Perris
Cajalco Expressway
E/ Harvill Avenue
24 Hour Directional Classification Count
Eastbound

email: counts@countsunlimited.com

Start Time	Bikes		Cars & Trailers		2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
	2	86	37	86												
02/12/19 01:00	5	37	1	0	16	0	5	10	0	0	2	2	0	0	0	75
02:00	9	55	1	1	15	1	7	12	0	2	7	2	0	0	0	110
03:00	7	99	1	1	31	1	14	10	0	2	4	0	3	1	0	172
04:00	10	254	5	5	99	5	40	15	0	2	8	0	1	1	0	435
05:00	13	353	7	7	148	7	70	21	0	4	17	0	0	0	0	633
06:00	17	364	12	12	154	12	108	22	0	22	16	0	2	0	0	717
07:00	10	563	10	10	227	10	110	13	0	19	19	0	2	0	0	973
08:00	12	434	12	12	172	12	92	21	2	8	29	0	0	0	0	782
09:00	9	343	6	6	179	6	98	21	2	15	19	0	3	0	0	695
10:00	7	364	7	7	150	7	66	13	1	8	22	0	4	0	0	642
11:00	8	337	7	7	147	7	69	14	0	13	20	1	5	0	0	631
12 PM	8	403	8	8	178	8	84	20	2	8	23	2	11	2	0	751
13:00	4	490	10	10	179	10	75	6	2	21	20	0	4	0	0	811
14:00	7	629	7	7	225	7	89	15	0	14	16	0	0	0	0	1002
15:00	10	643	7	7	253	7	90	14	1	12	13	0	0	0	0	1043
16:00	13	702	3	3	248	3	132	16	1	14	9	0	0	0	0	1138
17:00	5	719	8	8	259	8	111	11	0	13	4	1	2	0	0	1133
18:00	6	664	2	2	256	2	95	13	0	11	7	0	0	1	0	1055
19:00	6	417	4	4	144	4	57	8	0	5	3	1	3	0	0	648
20:00	4	326	1	1	106	1	44	8	0	2	4	0	9	0	0	504
21:00	3	253	1	1	48	1	22	2	0	1	8	0	5	0	0	343
22:00	4	205	2	2	49	2	19	6	0	0	3	0	5	0	0	293
23:00	3	138	0	0	39	0	12	4	0	0	4	0	3	0	0	203
Total	182	8878	134	134	3343	134	1518	297	11	196	277	7	63	5	0	14911
Percent	1.2%	59.5%	0.9%	0.9%	22.4%	0.9%	10.2%	2.0%	0.1%	1.3%	1.9%	0.0%	0.4%	0.0%	0.0%	
AM Peak	06:00	07:00	11:00	11:00	07:00	11:00	07:00	06:00	08:00	06:00	08:00	02:00	11:00	03:00		07:00
Vol.	17	563	17	17	227	17	110	22	2	22	29	2	5	1		973
PM Peak	16:00	17:00	12:00	12:00	17:00	12:00	16:00	12:00	12:00	13:00	12:00	12:00	12:00	12:00		16:00
Vol.	13	719	10	10	259	10	132	20	2	21	23	2	11	2		1138
Grand Total	182	8878	134	134	3343	134	1518	297	11	196	277	7	63	5	0	14911
Percent	1.2%	59.5%	0.9%	0.9%	22.4%	0.9%	10.2%	2.0%	0.1%	1.3%	1.9%	0.0%	0.4%	0.0%	0.0%	

Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
Site Code: 051-19093

City of Perris
Cajalco Expressway
E/ Harvill Avenue
24 Hour Directional Classification Count
email: counts@countsunlimited.com

Westbound

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
02/12/19	2	84	19	0	3	2	0	3	0	0	0	0	0	113
01:00	2	56	17	0	2	2	0	0	1	0	0	0	0	80
02:00	4	72	14	2	5	0	0	0	2	1	1	0	0	106
03:00	7	178	54	2	15	9	0	0	1	0	1	0	0	267
04:00	7	354	110	0	68	9	0	3	13	0	2	0	1	567
05:00	4	553	183	6	89	9	0	9	10	0	0	0	0	863
06:00	9	566	201	5	76	17	0	20	11	1	3	0	0	909
07:00	9	685	202	7	88	17	0	14	19	0	1	1	0	1043
08:00	12	608	193	14	71	20	0	15	19	0	2	0	0	954
09:00	6	447	161	9	72	17	0	10	22	0	4	1	0	749
10:00	9	404	149	11	66	20	0	11	31	0	1	2	0	704
11:00	15	444	147	13	74	25	0	10	20	2	7	0	0	757
12 PM	12	465	154	9	62	19	0	14	19	0	1	1	0	756
13:00	13	693	235	12	86	22	0	14	19	0	2	0	0	1096
14:00	14	575	195	7	72	22	0	9	26	1	1	0	0	922
15:00	7	549	219	19	112	15	0	17	26	0	1	0	0	965
16:00	3	543	239	8	86	2	3	13	29	0	0	0	1	927
17:00	10	528	220	3	81	16	0	15	6	1	0	0	0	880
18:00	9	475	158	4	48	17	0	8	8	0	1	1	0	729
19:00	7	313	125	0	52	13	0	8	4	0	4	0	0	526
20:00	6	316	101	1	25	4	0	2	5	0	4	0	0	464
21:00	6	289	69	1	21	10	0	1	4	0	6	0	0	407
22:00	5	187	65	2	14	10	0	2	11	0	1	0	0	297
23:00	3	137	30	0	10	4	0	3	2	0	5	0	0	194
Total	181	9521	3260	135	1298	306	3	201	308	6	48	6	2	15275
Percent	1.2%	62.3%	21.3%	0.9%	8.5%	2.0%	0.0%	1.3%	2.0%	0.0%	0.3%	0.0%	0.0%	
AM Peak	11:00	07:00	07:00	08:00	05:00	11:00	16:00	06:00	10:00	11:00	11:00	10:00	04:00	07:00
Vol.	15	685	202	14	89	25	20	20	31	2	7	2	1	1043
PM Peak	14:00	13:00	16:00	15:00	15:00	13:00	16:00	15:00	16:00	14:00	21:00	12:00	16:00	13:00
Vol.	14	693	239	19	112	22	3	17	29	1	6	1	1	1096
Grand Total	181	9521	3260	135	1298	306	3	201	308	6	48	6	2	15275
Percent	1.2%	62.3%	21.3%	0.9%	8.5%	2.0%	0.0%	1.3%	2.0%	0.0%	0.3%	0.0%	0.0%	

Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
Site Code: 051-19093

City of Perris
Cajalco Expressway
E/ Harvill Avenue
24 Hour Directional Classification Count
Eastbound, Westbound
email: counts@countsunlimited.com

Start Time	Cats & Trailers		2 Axle Long	Buses	2 Axle 6 Tire	3 Axle		4 Axle		<5 Axl		5 Axle		>6 Axl		6 Axle		>6 Axl		Total
	Bikes	Trailers				Single	Double	Single	Double	Single	Double	Multi	Multi	Multi	Multi	Multi	Multi	Multi	Multi	
02/12/19	4	170	40	1	12	4	0	3	0	0	0	0	0	1	0	0	0	0	0	235
01:00	7	93	33	0	7	12	0	0	3	0	0	0	0	0	0	0	0	0	0	155
02:00	13	127	29	3	12	17	0	2	9	3	1	0	0	1	0	0	0	0	0	216
03:00	14	277	85	3	29	19	0	2	5	0	4	0	0	4	1	0	0	0	0	439
04:00	17	608	209	5	108	24	0	5	21	0	3	0	0	3	1	1	0	0	0	1002
05:00	17	906	331	13	159	30	0	13	27	0	0	0	0	0	0	0	0	0	0	1496
06:00	26	930	355	17	184	39	0	42	27	1	5	0	0	5	0	0	0	0	0	1626
07:00	19	1248	429	17	198	30	0	33	38	0	3	0	0	3	1	0	0	0	0	2016
08:00	24	1042	365	26	163	41	2	23	48	0	2	0	0	2	0	0	0	0	0	1736
09:00	15	790	340	15	170	38	2	25	41	0	7	1	0	7	1	0	0	0	0	1444
10:00	16	768	299	18	132	33	1	19	53	0	5	0	0	5	2	0	0	0	0	1346
11:00	23	781	294	30	143	39	0	23	40	3	12	0	0	12	0	0	0	0	0	1388
12 PM	20	868	332	19	146	39	2	22	42	2	12	2	0	12	3	0	0	0	0	1507
13:00	17	1183	414	22	161	28	2	35	39	0	6	0	0	6	0	0	0	0	0	1907
14:00	21	1204	420	14	161	37	0	23	42	1	1	0	0	1	0	0	0	0	0	1924
15:00	17	1192	472	26	202	29	1	29	39	0	1	0	0	1	0	0	0	0	0	2008
16:00	16	1245	487	11	218	18	4	27	38	0	0	0	0	0	0	0	0	0	1	2065
17:00	15	1247	479	11	192	27	0	28	10	2	2	0	0	2	0	0	0	0	0	2013
18:00	15	1139	414	6	143	30	0	19	15	0	1	0	0	1	2	0	0	0	0	1784
19:00	13	730	269	4	109	21	0	13	7	1	7	0	0	7	0	0	0	0	0	1174
20:00	10	642	207	2	69	12	0	4	9	0	13	0	0	13	0	0	0	0	0	968
21:00	9	542	117	2	43	12	0	2	12	0	11	0	0	11	0	0	0	0	0	750
22:00	9	392	114	4	33	16	0	2	14	0	6	0	0	6	0	0	0	0	0	590
23:00	6	275	69	0	22	8	0	3	6	0	8	0	0	8	0	0	0	0	0	397
Total	363	18399	6603	269	2816	603	14	397	585	13	111	11	11	111	11	2	0.0%	0.0%	0.0%	30186
Percent	1.2%	61.0%	21.9%	0.9%	9.3%	2.0%	0.0%	1.3%	1.9%	0.0%	0.4%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	06:00	07:00	07:00	11:00	07:00	08:00	08:00	06:00	10:00	02:00	11:00	10:00	10:00	11:00	10:00	04:00	04:00	04:00	04:00	07:00
Vol.	26	1248	429	30	198	41	2	42	53	3	12	2	2	12	2	1				2016
PM Peak	14:00	17:00	16:00	15:00	16:00	12:00	16:00	13:00	12:00	12:00	20:00	12:00	12:00	20:00	12:00	16:00	16:00	16:00	16:00	16:00
Vol.	21	1247	487	26	218	39	4	35	42	2	13	3	3	13	3	1				2065
Grand Total	363	18399	6603	269	2816	603	14	397	585	13	111	11	11	111	11	2	0.0%	0.0%	0.0%	30186
Percent	1.2%	61.0%	21.9%	0.9%	9.3%	2.0%	0.0%	1.3%	1.9%	0.0%	0.4%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	

Counts Unlimited, Inc.

PO Box 1178
 Corona, CA 92878
 Phone: (951) 268-6268
 email: counts@countsunlimited.com

City of Perris
 Placentia Avenue
 W/ Harvill Avenue
 24 Hour Directional Classification Count
 Eastbound

PER002
 Site Code: 051-19093

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
02/12/19	0	0	0	0	1	0	0	0	0	0	0	0	0	1
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	5	0	0	0	0	0	0	0	0	0	0	0	5
05:00	0	1	0	0	1	0	0	0	0	0	0	0	0	2
06:00	0	3	2	0	1	0	0	0	0	0	0	0	0	6
07:00	0	7	8	0	2	0	0	0	0	0	0	0	0	17
08:00	0	7	3	0	0	0	0	0	0	0	0	0	0	10
09:00	0	10	3	0	1	0	0	0	0	0	0	0	0	14
10:00	0	6	6	0	1	0	0	0	0	0	0	0	0	13
11:00	0	6	5	0	0	1	0	0	0	0	0	0	0	12
12 PM	0	10	3	0	2	0	0	0	1	0	0	0	0	16
13:00	0	8	3	0	2	0	0	1	0	0	0	0	0	14
14:00	0	7	1	0	1	0	0	0	0	0	0	0	0	9
15:00	0	9	6	0	1	0	0	0	0	0	0	0	0	16
16:00	0	7	4	0	0	0	0	0	0	0	0	0	0	11
17:00	0	5	4	0	1	0	0	0	0	0	0	0	0	10
18:00	0	4	2	0	0	0	0	0	0	0	0	0	0	6
19:00	0	6	0	0	0	0	0	0	0	0	0	0	0	6
20:00	0	7	2	0	1	0	0	0	0	0	0	0	0	10
21:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
22:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
23:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Total	0	113	52	0	16	1	0	1	1	0	0	0	0	184
Percent	0.0%	61.4%	28.3%	0.0%	8.7%	0.5%	0.0%	0.5%	0.5%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	07:00	07:00	07:00	07:00	11:00								07:00
Vol.	10	8	8	2	2	1								17
PM Peak	12:00	15:00	15:00	12:00	12:00	13:00	12:00	12:00	12:00	12:00				12:00
Vol.	10	6	6	2	2	1	1	1	1	1				16
Grand Total	0	113	52	0	16	1	0	1	1	0	0	0	0	184
Percent	0.0%	61.4%	28.3%	0.0%	8.7%	0.5%	0.0%	0.5%	0.5%	0.0%	0.0%	0.0%	0.0%	

Counts Unlimited, Inc.

PO Box 1178
 Corona, CA 92878
 Phone: (951) 268-6268
 Site Code: 051-19093

City of Perris
 Placentia Avenue
 W/ Harvill Avenue
 24 Hour Directional Classification Count
 email: counts@countsunlimited.com

Westbound

Start Time	Cars & Trailers		2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
	Bikes	Trailers												
02/12/19	0	0	2	0	0	0	0	0	0	0	0	0	0	2
01:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	2	0	0	1	0	0	0	0	0	0	0	0	3
07:00	0	8	5	0	0	0	0	0	0	0	0	0	0	13
08:00	0	5	5	0	0	0	0	0	0	0	0	0	0	10
09:00	0	12	5	0	0	0	0	0	0	0	0	0	0	17
10:00	0	8	4	0	0	0	0	0	0	0	0	0	0	12
11:00	0	9	3	0	0	0	0	0	0	0	0	0	0	14
12 PM	1	7	5	0	0	1	0	0	0	0	0	0	0	15
13:00	0	7	2	0	0	0	0	0	0	0	0	0	0	11
14:00	0	9	2	0	0	1	0	0	0	0	0	0	0	12
15:00	0	18	5	0	0	0	0	0	0	0	0	0	0	23
16:00	0	9	4	0	0	0	0	0	0	0	0	0	0	13
17:00	0	6	3	0	0	0	0	0	0	0	0	0	0	9
18:00	0	8	2	0	0	0	0	0	0	0	0	0	0	10
19:00	0	7	4	0	0	0	0	0	0	0	0	0	0	11
20:00	0	8	0	0	0	0	0	0	0	0	0	0	0	8
21:00	0	7	1	0	0	0	0	0	0	0	0	0	0	8
22:00	0	3	0	0	0	0	0	0	0	0	0	0	0	3
23:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Total	1	135	52	0	7	2	0	0	0	0	0	0	0	197
Percent	0.5%	68.5%	26.4%	0.0%	3.6%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	09:00	07:00		11:00									09:00
Vol.	12	12	5		2									17
PM Peak	12:00	15:00	12:00		13:00	12:00								15:00
Vol.	1	18	5		2	1								23
Grand Total	1	135	52	0	7	2	0	0	0	0	0	0	0	197
Percent	0.5%	68.5%	26.4%	0.0%	3.6%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Counts Unlimited, Inc.

PO Box 1178
Corona, CA 92878
Phone: (951) 268-6268
Site Code: 051-19093

City of Perris
Placentia Avenue
W/ Harvill Avenue
24 Hour Directional Classification Count
Eastbound, Westbound
email: counts@countsunlimited.com

Start Time	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
02/12/19	0	2	0	1	0	0	0	0	0	0	0	0	3
01:00	0	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	1	0	0	0	0	0	0	0	0	6
05:00	0	0	0	1	0	0	0	0	0	0	0	0	2
06:00	0	2	0	2	0	0	0	0	0	0	0	0	9
07:00	0	13	0	2	0	0	0	0	0	0	0	0	30
08:00	0	8	0	0	0	0	0	0	0	0	0	0	20
09:00	0	22	0	1	0	0	0	0	0	0	0	0	31
10:00	0	10	0	1	0	0	0	0	0	0	0	0	25
11:00	0	8	0	2	1	0	0	0	0	0	0	0	26
12 PM	1	8	0	3	1	0	0	1	0	0	0	0	31
13:00	0	5	0	4	0	0	1	0	0	0	0	0	25
14:00	0	3	0	1	1	0	0	0	0	0	0	0	21
15:00	0	11	0	1	0	0	0	0	0	0	0	0	39
16:00	0	8	0	0	0	0	0	0	0	0	0	0	24
17:00	0	7	0	1	0	0	0	0	0	0	0	0	19
18:00	0	4	0	0	0	0	0	0	0	0	0	0	16
19:00	0	4	0	0	0	0	0	0	0	0	0	0	17
20:00	0	2	0	1	0	0	0	0	0	0	0	0	18
21:00	0	1	0	0	0	0	0	0	0	0	0	0	10
22:00	0	0	0	0	0	0	0	0	0	0	0	0	6
23:00	0	0	0	1	0	0	0	0	0	0	0	0	2
Total	1	104	0	23	3	0	1	1	0	0	0	0	381
Percent	0.3%	27.3%	0.0%	6.0%	0.8%	0.0%	0.3%	0.3%	0.0%	0.0%	0.0%	0.0%	
AM Peak	09:00	07:00		06:00	11:00								09:00
Vol.	22	13		2	1								31
PM Peak	12:00	15:00		13:00	12:00		13:00	12:00					15:00
Vol.	1	11		4	1		1	1					39
Grand Total	1	104	0	23	3	0	1	1	0	0	0	0	381
Percent	0.3%	27.3%	0.0%	6.0%	0.8%	0.0%	0.3%	0.3%	0.0%	0.0%	0.0%	0.0%	

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email: counts@countsunlimited.com

City of Perris
Harvill Avenue
S/ North A Street
24 Hour Directional Classification Count

Northbound

Start Time	Cars & Trailers	Bikes	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
02/12/19	30	0	5	0	0	0	0	0	0	0	0	0	0	35
01:00	11	0	7	0	1	0	0	0	0	0	0	0	0	19
02:00	7	0	3	0	0	0	0	1	0	0	0	0	0	11
03:00	21	0	4	0	0	0	0	0	0	0	0	0	0	25
04:00	37	0	14	0	9	0	0	0	1	0	0	0	0	61
05:00	72	0	45	2	19	1	0	3	1	1	0	0	0	144
06:00	219	2	67	1	31	1	0	7	0	0	0	0	0	328
07:00	543	2	165	5	44	3	0	15	0	2	0	0	0	779
08:00	179	0	77	4	33	0	0	2	3	0	0	0	0	298
09:00	140	1	51	2	18	1	0	4	4	0	0	0	0	221
10:00	159	2	51	3	23	1	0	4	2	0	0	0	0	245
11:00	168	3	71	3	25	5	0	2	3	0	1	0	0	281
12 PM	195	1	61	2	30	2	0	3	2	1	0	0	1	298
13:00	222	2	77	2	32	1	0	3	3	0	1	0	0	343
14:00	283	1	101	2	32	6	0	5	1	0	0	0	0	431
15:00	418	2	175	5	36	2	0	7	2	1	0	0	0	649
16:00	308	2	123	6	31	0	0	2	2	1	0	0	0	475
17:00	278	1	85	1	32	1	0	3	2	0	0	0	0	403
18:00	239	1	74	3	20	1	0	2	0	0	0	0	0	340
19:00	158	1	46	1	20	0	0	0	0	0	0	0	0	226
20:00	112	0	34	0	13	1	0	0	0	0	0	0	0	160
21:00	101	0	27	0	3	0	0	2	0	0	0	0	0	133
22:00	63	0	14	0	7	0	0	0	0	0	0	0	0	84
23:00	36	0	10	0	2	0	0	0	0	0	0	0	0	48
Total	21	3999	1387	42	461	26	0	65	26	6	2	1	1	6037
Percent	0.3%	66.2%	23.0%	0.7%	7.6%	0.4%	0.0%	1.1%	0.4%	0.1%	0.0%	0.0%	0.0%	
AM Peak	11:00	07:00	07:00	07:00	07:00	11:00	07:00	07:00	09:00	07:00	11:00	15:00	12:00	07:00
Vol.	3	543	165	5	44	5	15	15	4	2	1	1	1	779
PM Peak	13:00	15:00	15:00	16:00	15:00	14:00	15:00	13:00	13:00	12:00	13:00	15:00	12:00	15:00
Vol.	2	418	175	6	36	6	7	3	3	1	1	1	1	649
Grand Total	21	3999	1387	42	461	26	0	65	26	6	2	1	1	6037
Percent	0.3%	66.2%	23.0%	0.7%	7.6%	0.4%	0.0%	1.1%	0.4%	0.1%	0.0%	0.0%	0.0%	

Counts Unlimited, Inc.

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City of Perris
Harvill Avenue
S/ North A Street
24 Hour Directional Classification Count
Southbound

PER003
Site Code: 051-19093

Start Time	Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
02/12/19	1	20	4	0	1	2	0	0	0	0	0	0	0	28
01:00	0	7	1	0	0	0	0	0	0	0	0	0	0	8
02:00	0	7	1	0	0	0	0	0	0	0	0	0	0	8
03:00	0	13	2	2	0	0	0	0	0	0	0	0	0	17
04:00	0	42	7	0	4	0	0	0	1	0	0	0	0	54
05:00	1	65	15	0	9	1	0	0	1	0	0	0	0	92
06:00	2	80	35	4	16	4	0	4	3	0	0	0	0	148
07:00	3	404	112	2	18	1	1	6	1	0	0	1	0	549
08:00	0	250	63	4	15	0	0	1	0	0	0	0	0	333
09:00	0	158	45	1	10	0	0	0	3	0	0	0	0	217
10:00	0	159	56	2	10	1	0	4	1	0	0	0	0	233
11:00	2	190	67	4	19	2	0	2	2	1	0	0	0	289
12 PM	1	183	54	1	22	2	0	1	2	1	0	1	0	268
13:00	1	227	65	2	20	1	1	5	1	0	0	0	0	323
14:00	8	290	76	4	26	6	0	3	2	0	0	0	0	415
15:00	8	514	149	3	38	4	0	10	1	0	0	0	0	727
16:00	4	454	148	3	35	1	0	4	0	0	1	0	0	650
17:00	3	339	110	3	15	0	0	2	1	0	0	0	0	473
18:00	1	243	68	0	17	1	0	0	0	0	0	0	0	330
19:00	1	155	45	0	13	0	0	0	0	0	0	0	0	214
20:00	1	112	28	0	8	1	0	1	0	0	0	0	0	151
21:00	0	46	14	0	1	0	0	0	0	0	0	0	0	61
22:00	0	41	7	0	0	0	0	0	1	0	0	0	0	49
23:00	0	20	5	0	1	0	0	0	0	0	0	0	0	26
Total	37	4019	1177	35	298	27	2	43	20	2	1	2	0	5663
Percent	0.7%	71.0%	20.8%	0.6%	5.3%	0.5%	0.0%	0.8%	0.4%	0.0%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	06:00	11:00	06:00	07:00	07:00	06:00	11:00	07:00	07:00	07:00	07:00
Vol.	3	404	112	4	19	4	1	6	3	1	1	1	1	549
PM Peak	14:00	15:00	15:00	14:00	15:00	14:00	13:00	15:00	12:00	12:00	16:00	12:00	12:00	15:00
Vol.	8	514	149	4	38	6	1	10	2	1	1	1	1	727
Grand Total	37	4019	1177	35	298	27	2	43	20	2	1	2	0	5663
Percent	0.7%	71.0%	20.8%	0.6%	5.3%	0.5%	0.0%	0.8%	0.4%	0.0%	0.0%	0.0%	0.0%	

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City of Perris
Harvill Avenue
S/ North A Street
24 Hour Directional Classification Count

PER003
Site Code: 051-19093

Northbound, Southbound

Start Time	Cats & Trailers		2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axl Double	5 Axle Double	>6 Axl Double	<6 Axl Multi	6 Axle Multi	>6 Axl Multi	Total
	Bikes	Trailers												
02/12/19	1	50	9	0	1	2	0	0	0	0	0	0	0	63
01:00	0	18	8	0	1	0	0	0	0	0	0	0	0	27
02:00	0	14	4	0	0	0	0	1	0	0	0	0	0	19
03:00	0	34	6	2	0	0	0	0	0	0	0	0	0	42
04:00	0	79	21	0	13	0	0	0	2	0	0	0	0	115
05:00	1	137	60	2	28	2	0	3	2	1	0	0	0	236
06:00	4	299	102	5	47	5	0	11	3	0	0	0	0	476
07:00	5	947	277	7	62	4	1	21	1	2	0	1	0	1328
08:00	0	429	140	8	48	0	0	3	3	0	0	0	0	631
09:00	1	298	96	3	28	1	0	4	7	0	0	0	0	438
10:00	2	318	107	5	33	2	0	8	3	0	0	0	0	478
11:00	5	358	138	7	44	7	0	4	5	1	1	0	0	570
12 PM	2	378	115	3	52	4	0	4	4	2	0	1	0	566
13:00	3	449	142	4	52	2	1	8	4	0	1	0	0	666
14:00	9	573	177	6	58	12	0	8	3	0	1	0	0	846
15:00	10	932	324	8	74	6	0	17	3	1	0	1	0	1376
16:00	6	762	271	9	66	1	0	6	2	1	1	0	0	1125
17:00	4	617	195	4	47	1	0	5	3	0	0	0	0	876
18:00	2	482	142	3	37	2	0	2	0	0	0	0	0	670
19:00	2	313	91	1	33	0	0	0	0	0	0	0	0	440
20:00	1	224	62	0	21	2	0	1	0	0	0	0	0	311
21:00	0	147	41	0	4	0	0	2	0	0	0	0	0	194
22:00	0	104	21	0	7	0	0	0	1	0	0	0	0	133
23:00	0	56	15	0	3	0	0	0	0	0	0	0	0	74
Total	58	8018	2564	77	759	53	2	108	46	8	3	3	1	11700
Percent	0.5%	68.5%	21.9%	0.7%	6.5%	0.5%	0.0%	0.9%	0.4%	0.1%	0.0%	0.0%	0.0%	
AM Peak	07:00	07:00	07:00	08:00	07:00	11:00	07:00	07:00	09:00	07:00	11:00	07:00	07:00	07:00
Vol.	5	947	277	8	62	7	1	21	7	2	1	1	1	1328
PM Peak	15:00	15:00	15:00	16:00	15:00	14:00	13:00	15:00	12:00	12:00	13:00	12:00	12:00	15:00
Vol.	10	932	324	9	74	12	1	17	4	2	1	1	1	1376
Grand Total	58	8018	2564	77	759	53	2	108	46	8	3	3	1	11700
Percent	0.5%	68.5%	21.9%	0.7%	6.5%	0.5%	0.0%	0.9%	0.4%	0.1%	0.0%	0.0%	0.0%	

County of Riverside
 N/S: Patterson Avenue
 E/W: Rider Street
 Weather: Clear

File Name : 16_CRVPARIAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

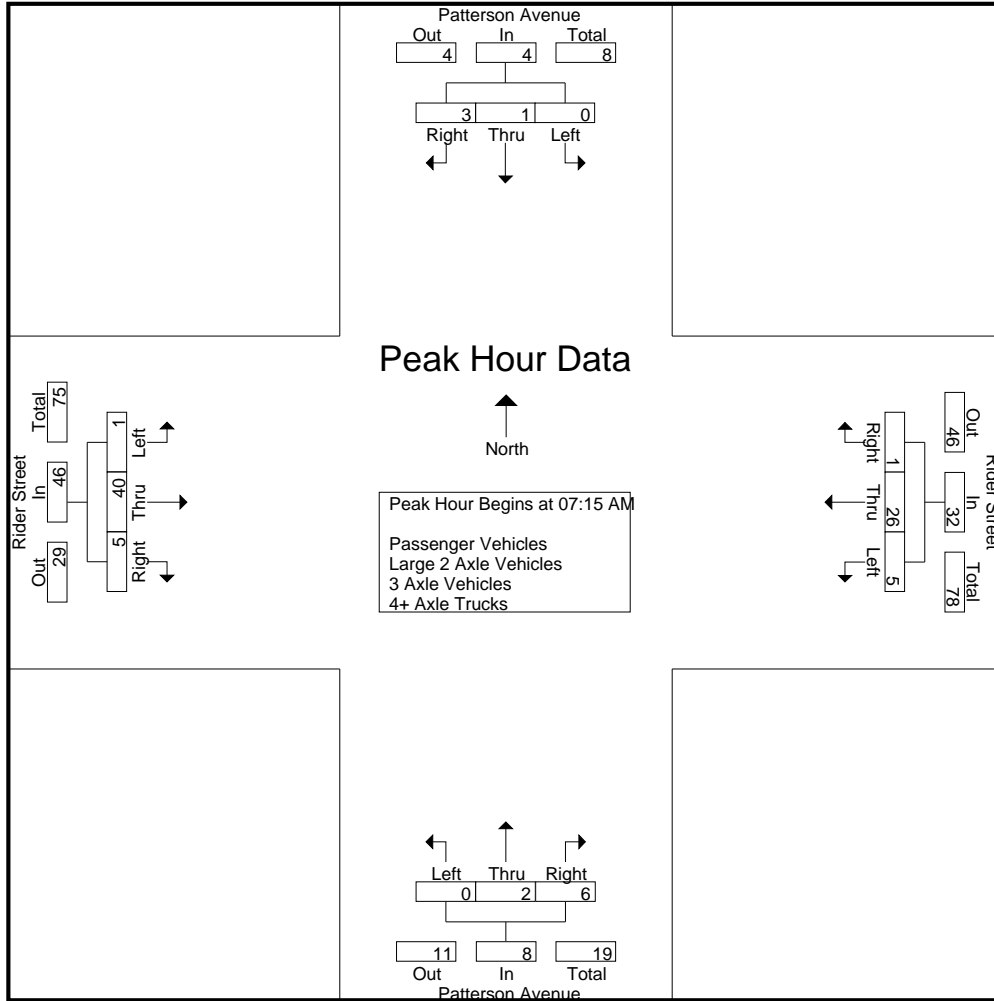
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Patterson Avenue Southbound				Rider Street Westbound				Patterson Avenue Northbound				Rider Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	2	3	0	5	0	0	1	1	1	13	0	14	20
07:15 AM	0	0	0	0	0	7	1	8	0	0	2	2	0	11	1	12	22
07:30 AM	0	1	0	1	2	7	0	9	0	1	3	4	0	11	0	11	25
07:45 AM	0	0	1	1	2	4	0	6	0	1	1	2	1	10	2	13	22
Total	0	1	1	2	6	21	1	28	0	2	7	9	2	45	3	50	89
08:00 AM	0	0	2	2	1	8	0	9	0	0	0	0	0	8	2	10	21
08:15 AM	0	0	1	1	1	6	1	8	0	0	1	1	1	9	0	10	20
08:30 AM	0	0	1	1	2	6	0	8	1	0	0	1	0	10	1	11	21
08:45 AM	0	0	0	0	3	4	0	7	1	0	2	3	0	11	0	11	21
Total	0	0	4	4	7	24	1	32	2	0	3	5	1	38	3	42	83
Grand Total	0	1	5	6	13	45	2	60	2	2	10	14	3	83	6	92	172
Apprch %	0	16.7	83.3		21.7	75	3.3		14.3	14.3	71.4		3.3	90.2	6.5		
Total %	0	0.6	2.9	3.5	7.6	26.2	1.2	34.9	1.2	1.2	5.8	8.1	1.7	48.3	3.5	53.5	
Passenger Vehicles	0	1	2	3	13	45	1	59	2	0	10	12	3	79	6	88	162
% Passenger Vehicles	0	100	40	50	100	100	50	98.3	100	0	100	85.7	100	95.2	100	95.7	94.2
Large 2 Axle Vehicles	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	1	2
% Large 2 Axle Vehicles	0	0	0	0	0	0	50	1.7	0	0	0	0	0	1.2	0	1.1	1.2
3 Axle Vehicles	0	0	3	3	0	0	0	0	0	2	0	2	0	0	0	0	5
% 3 Axle Vehicles	0	0	60	50	0	0	0	0	0	100	0	14.3	0	0	0	0	2.9
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	3
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	3.6	0	3.3	1.7

Start Time	Patterson Avenue Southbound				Rider Street Westbound				Patterson Avenue Northbound				Rider Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	7	1	8	0	0	2	2	0	11	1	12	22
07:30 AM	0	1	0	1	2	7	0	9	0	1	3	4	0	11	0	11	25
07:45 AM	0	0	1	1	2	4	0	6	0	1	1	2	1	10	2	13	22
08:00 AM	0	0	2	2	1	8	0	9	0	0	0	0	0	8	2	10	21
Total Volume	0	1	3	4	5	26	1	32	0	2	6	8	1	40	5	46	90
% App. Total	0	25	75		15.6	81.2	3.1		0	25	75		2.2	87	10.9		
PHF	.000	.250	.375	.500	.625	.813	.250	.889	.000	.500	.500	.500	.250	.909	.625	.885	.900

County of Riverside
 N/S: Patterson Avenue
 E/W: Rider Street
 Weather: Clear

File Name : 16_CRVPARIAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM				07:15 AM				07:00 AM				07:00 AM			
+0 mins.	0	1	0	1	0	7	1	8	0	0	1	1	1	13	0	14
+15 mins.	0	0	1	1	2	7	0	9	0	0	2	2	0	11	1	12
+30 mins.	0	0	2	2	2	4	0	6	0	1	3	4	0	11	0	11
+45 mins.	0	0	1	1	1	8	0	9	0	1	1	2	1	10	2	13
Total Volume	0	1	4	5	5	26	1	32	0	2	7	9	2	45	3	50
% App. Total	0	20	80		15.6	81.2	3.1		0	22.2	77.8		4	90	6	
PHF	.000	.250	.500	.625	.625	.813	.250	.889	.000	.500	.583	.563	.500	.865	.375	.893

County of Riverside
 N/S: Patterson Avenue
 E/W: Rider Street
 Weather: Clear

File Name : 16_CRVPARIAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

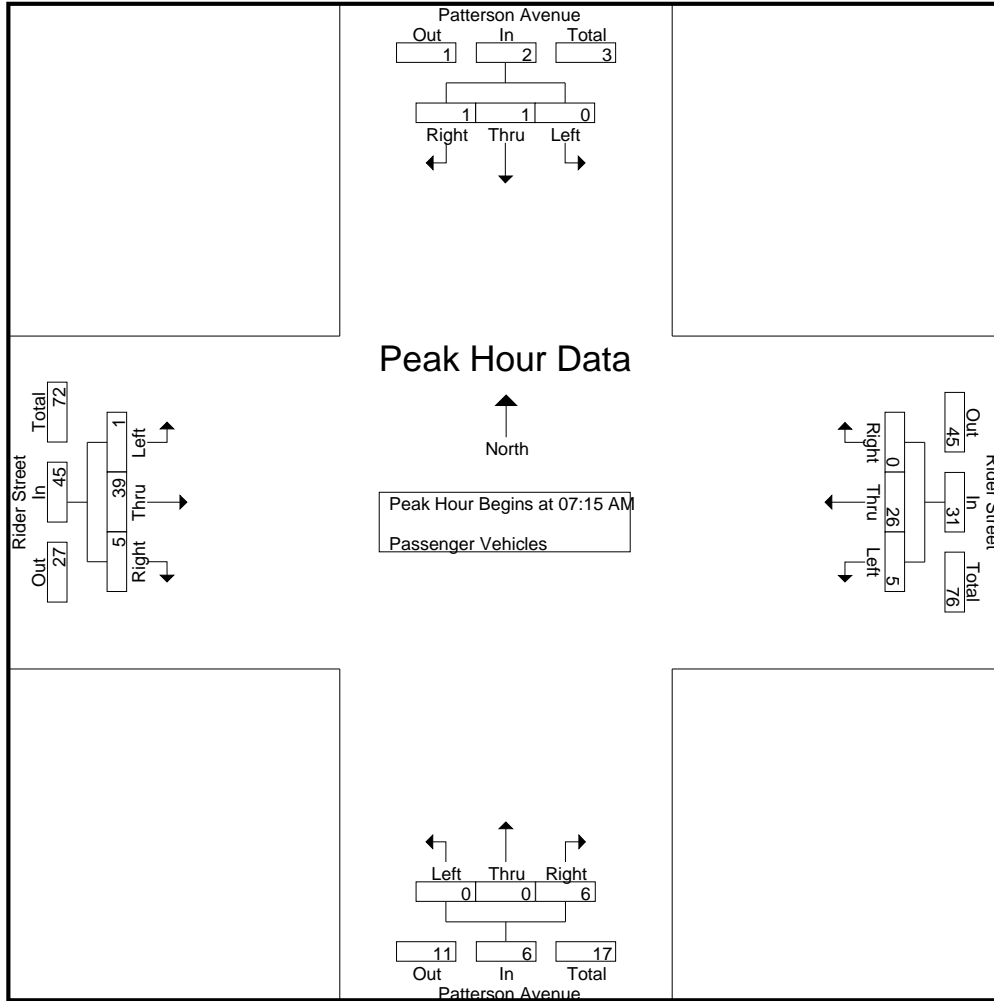
Groups Printed- Passenger Vehicles

Start Time	Patterson Avenue Southbound				Rider Street Westbound				Patterson Avenue Northbound				Rider Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	2	3	0	5	0	0	1	1	1	13	0	14	20
07:15 AM	0	0	0	0	0	7	0	7	0	0	2	2	0	11	1	12	21
07:30 AM	0	1	0	1	2	7	0	9	0	0	3	3	0	11	0	11	24
07:45 AM	0	0	0	0	2	4	0	6	0	0	1	1	1	9	2	12	19
Total	0	1	0	1	6	21	0	27	0	0	7	7	2	44	3	49	84
08:00 AM	0	0	1	1	1	8	0	9	0	0	0	0	0	8	2	10	20
08:15 AM	0	0	0	0	1	6	1	8	0	0	1	1	1	8	0	9	18
08:30 AM	0	0	1	1	2	6	0	8	1	0	0	1	0	9	1	10	20
08:45 AM	0	0	0	0	3	4	0	7	1	0	2	3	0	10	0	10	20
Total	0	0	2	2	7	24	1	32	2	0	3	5	1	35	3	39	78
Grand Total	0	1	2	3	13	45	1	59	2	0	10	12	3	79	6	88	162
Apprch %	0	33.3	66.7		22	76.3	1.7		16.7	0	83.3		3.4	89.8	6.8		
Total %	0	0.6	1.2	1.9	8	27.8	0.6	36.4	1.2	0	6.2	7.4	1.9	48.8	3.7	54.3	

Start Time	Patterson Avenue Southbound				Rider Street Westbound				Patterson Avenue Northbound				Rider Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	7	0	7	0	0	2	2	0	11	1	12	21
07:30 AM	0	1	0	1	2	7	0	9	0	0	3	3	0	11	0	11	24
07:45 AM	0	0	0	0	2	4	0	6	0	0	1	1	1	9	2	12	19
08:00 AM	0	0	1	1	1	8	0	9	0	0	0	0	0	8	2	10	20
Total Volume	0	1	1	2	5	26	0	31	0	0	6	6	1	39	5	45	84
% App. Total	0	50	50		16.1	83.9	0		0	0	100		2.2	86.7	11.1		
PHF	.000	.250	.250	.500	.625	.813	.000	.861	.000	.000	.500	.500	.250	.886	.625	.938	.875

County of Riverside
 N/S: Patterson Avenue
 E/W: Rider Street
 Weather: Clear

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Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	0	0	0	7	0	7	0	0	2	2	0	11	1	12
+15 mins.	0	1	0	1	2	7	0	9	0	0	3	3	0	11	0	11
+30 mins.	0	0	0	0	2	4	0	6	0	0	1	1	1	9	2	12
+45 mins.	0	0	1	1	1	8	0	9	0	0	0	0	0	8	2	10
Total Volume	0	1	1	2	5	26	0	31	0	0	6	6	1	39	5	45
% App. Total	0	50	50		16.1	83.9	0		0	0	100		2.2	86.7	11.1	
PHF	.000	.250	.250	.500	.625	.813	.000	.861	.000	.000	.500	.500	.250	.886	.625	.938

County of Riverside
 N/S: Patterson Avenue
 E/W: Rider Street
 Weather: Clear

File Name : 16_CRVPARIAM
 Site Code : 05119093
 Start Date : 2/12/2019
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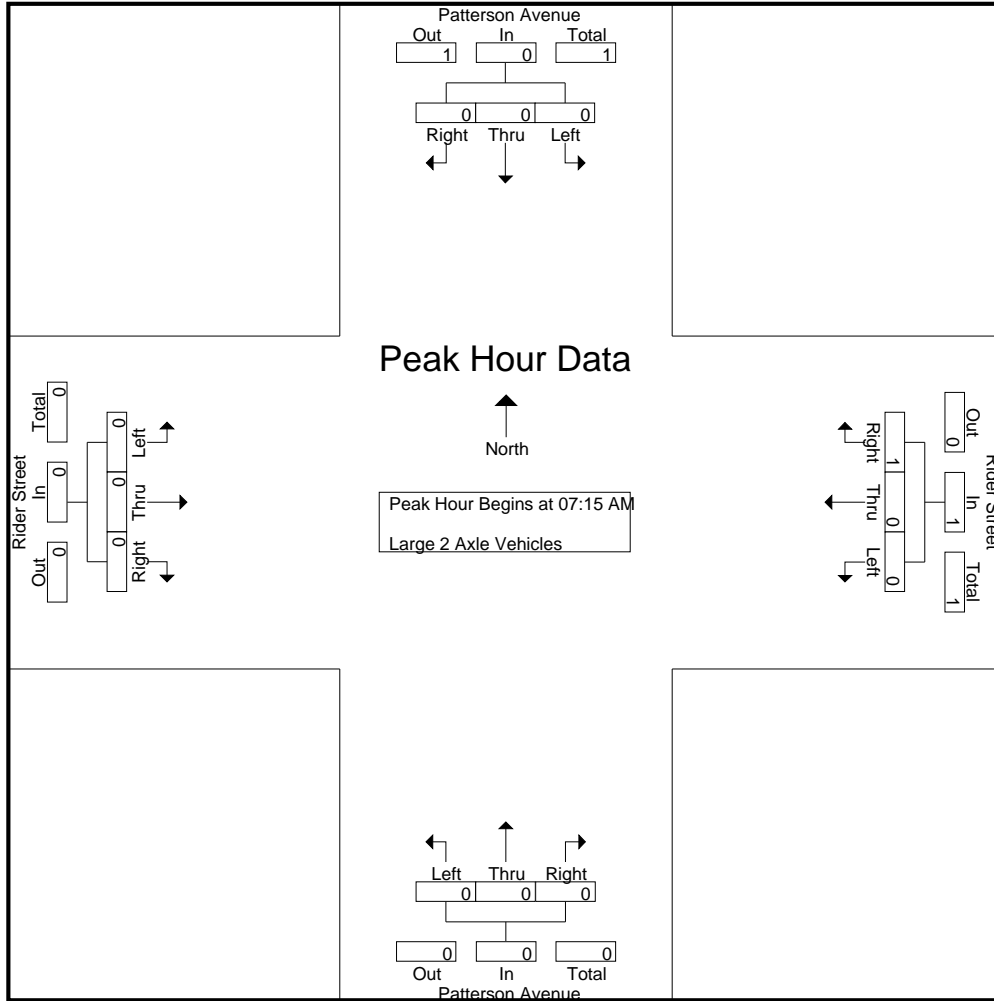
Groups Printed- Large 2 Axle Vehicles

Start Time	Patterson Avenue Southbound				Rider Street Westbound				Patterson Avenue Northbound				Rider Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Grand Total	0	0	0	0	0	0	1	1	0	0	0	0	0	1	0	1	2
Apprch %	0	0	0		0	0	100		0	0	0		0	100	0		
Total %	0	0	0		0	0	50	50	0	0	0		0	50	0	50	

Start Time	Patterson Avenue Southbound				Rider Street Westbound				Patterson Avenue Northbound				Rider Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
% App. Total	0	0	0		0	0	100		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.000	.000	.000	.000	.000	.000	.250

County of Riverside
 N/S: Patterson Avenue
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 Weather: Clear

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Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	100	100	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.250	.250	.000	.000	.000	.000	.000	.000	.000	.000

County of Riverside
 N/S: Patterson Avenue
 E/W: Rider Street
 Weather: Clear

File Name : 16_CRVPARIAM
 Site Code : 05119093
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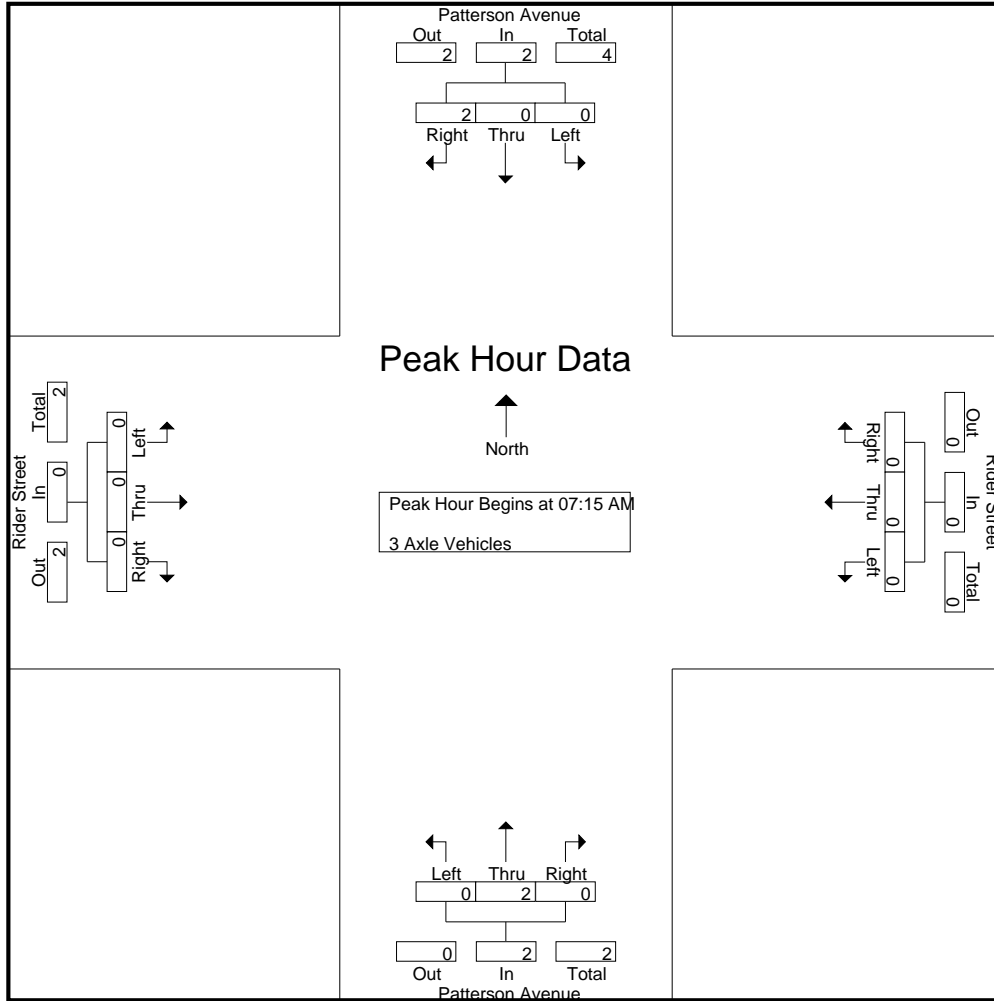
Groups Printed- 3 Axle Vehicles

Start Time	Patterson Avenue Southbound				Rider Street Westbound				Patterson Avenue Northbound				Rider Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
07:45 AM	0	0	1	1	0	0	0	0	0	1	0	1	0	0	0	0	2
Total	0	0	1	1	0	0	0	0	0	2	0	2	0	0	0	0	3
08:00 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:15 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	2
Grand Total	0	0	3	3	0	0	0	0	0	2	0	2	0	0	0	0	5
Apprch %	0	0	100		0	0	0		0	100	0		0	0	0		
Total %	0	0	60	60	0	0	0	0	0	40	0	40	0	0	0	0	

Start Time	Patterson Avenue Southbound				Rider Street Westbound				Patterson Avenue Northbound				Rider Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
07:45 AM	0	0	1	1	0	0	0	0	0	1	0	1	0	0	0	0	2
08:00 AM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	2	2	0	0	0	0	0	2	0	2	0	0	0	0	4
% App. Total	0	0	100		0	0	0		0	100	0		0	0	0		
PHF	.000	.000	.500	.500	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	.500

County of Riverside
 N/S: Patterson Avenue
 E/W: Rider Street
 Weather: Clear

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Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
+30 mins.	0	0	1	1	0	0	0	0	0	1	0	1	0	0	0	0
+45 mins.	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	2	2	0	0	0	0	0	2	0	2	0	0	0	0
% App. Total	0	0	100		0	0	0		0	100	0		0	0	0	
PHF	.000	.000	.500	.500	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000

County of Riverside
 N/S: Patterson Avenue
 E/W: Rider Street
 Weather: Clear

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 Site Code : 05119093
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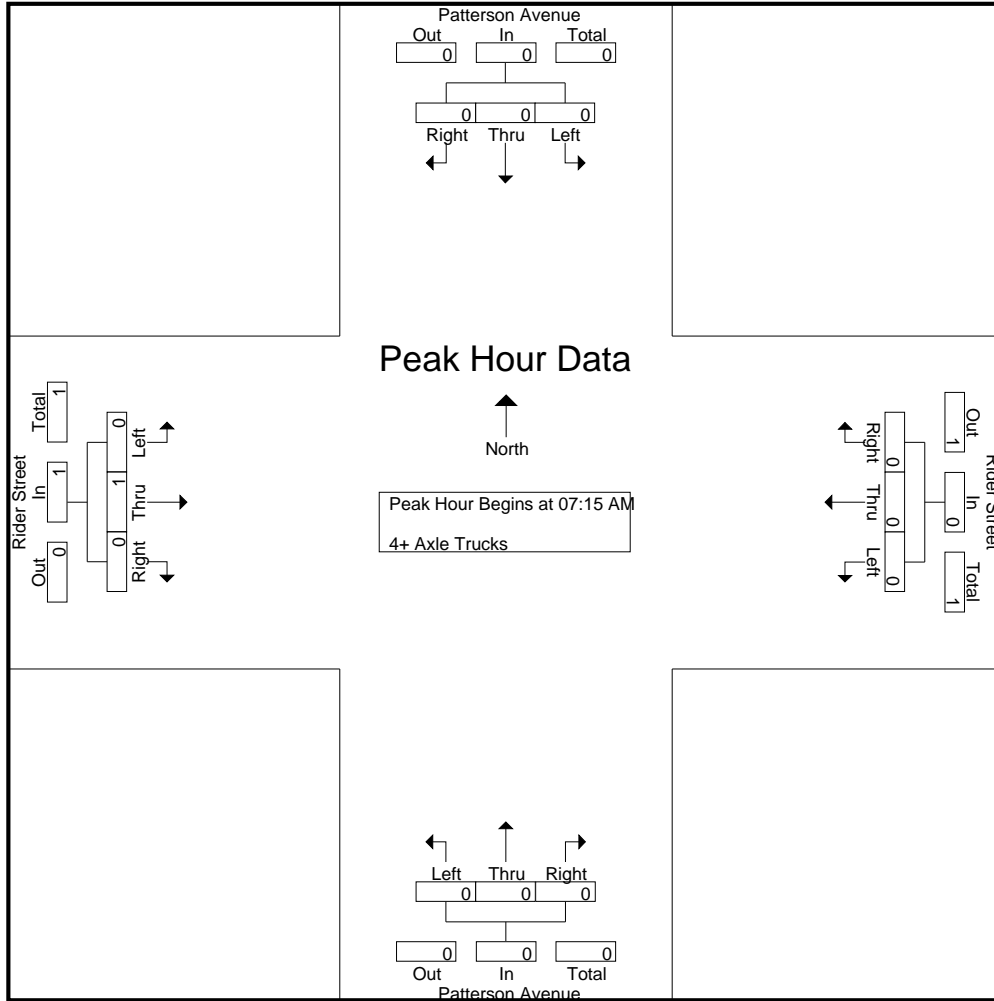
Groups Printed- 4+ Axle Trucks

Start Time	Patterson Avenue Southbound				Rider Street Westbound				Patterson Avenue Northbound				Rider Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	3
Apprch %	0	0	0		0	0	0		0	0	0		0	100	0		
Total %	0	0	0		0	0	0		0	0	0		0	100	0	100	

Start Time	Patterson Avenue Southbound				Rider Street Westbound				Patterson Avenue Northbound				Rider Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
% App. Total	0	0	0		0	0	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.250

County of Riverside
 N/S: Patterson Avenue
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Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:15 AM				07:15 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	100
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250

County of Riverside
 N/S: Patterson Avenue
 E/W: Rider Street
 Weather: Clear

File Name : 16_CRVPARIPM
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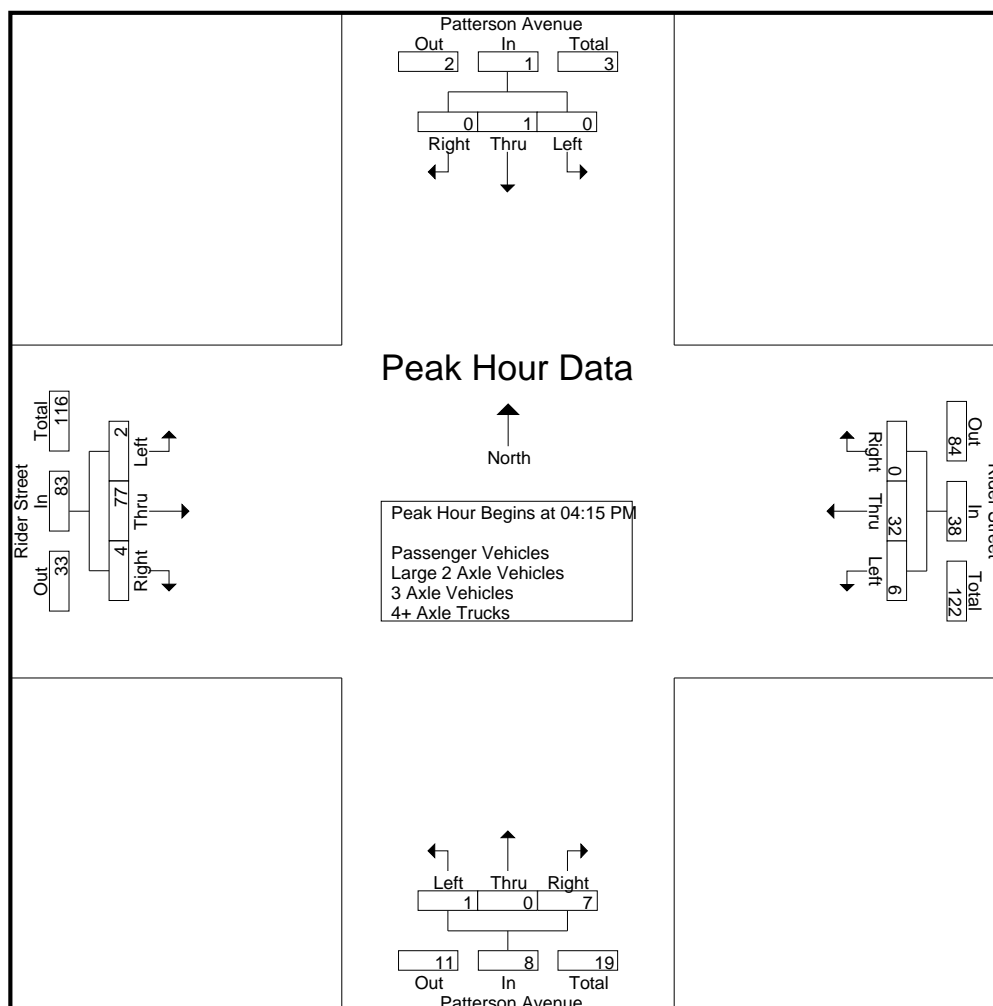
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Patterson Avenue Southbound				Rider Street Westbound				Patterson Avenue Northbound				Rider Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	1	1	2	1	5	0	6	0	0	2	2	0	16	1	17	27
04:15 PM	0	1	0	1	2	6	0	8	0	0	3	3	1	21	1	23	35
04:30 PM	0	0	0	0	2	9	0	11	1	0	3	4	1	17	0	18	33
04:45 PM	0	0	0	0	0	7	0	7	0	0	0	0	0	19	3	22	29
Total	0	2	1	3	5	27	0	32	1	0	8	9	2	73	5	80	124
05:00 PM	0	0	0	0	2	10	0	12	0	0	1	1	0	20	0	20	33
05:15 PM	0	1	0	1	1	7	0	8	0	0	3	3	0	15	1	16	28
05:30 PM	0	0	0	0	0	8	0	8	2	0	1	3	0	12	1	13	24
05:45 PM	0	1	0	1	4	4	0	8	1	0	3	4	0	12	3	15	28
Total	0	2	0	2	7	29	0	36	3	0	8	11	0	59	5	64	113
Grand Total	0	4	1	5	12	56	0	68	4	0	16	20	2	132	10	144	237
Apprch %	0	80	20		17.6	82.4	0		20	0	80		1.4	91.7	6.9		
Total %	0	1.7	0.4	2.1	5.1	23.6	0	28.7	1.7	0	6.8	8.4	0.8	55.7	4.2	60.8	
Passenger Vehicles	0	4	1	5	12	55	0	67	4	0	16	20	2	128	10	140	232
% Passenger Vehicles	0	100	100	100	100	98.2	0	98.5	100	0	100	100	100	97	100	97.2	97.9
Large 2 Axle Vehicles	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
% Large 2 Axle Vehicles	0	0	0	0	0	1.8	0	1.5	0	0	0	0	0	0	0	0	0.4
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	4
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	2.8	1.7

Start Time	Patterson Avenue Southbound				Rider Street Westbound				Patterson Avenue Northbound				Rider Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	1	0	1	2	6	0	8	0	0	3	3	1	21	1	23	35
04:30 PM	0	0	0	0	2	9	0	11	1	0	3	4	1	17	0	18	33
04:45 PM	0	0	0	0	0	7	0	7	0	0	0	0	0	19	3	22	29
05:00 PM	0	0	0	0	2	10	0	12	0	0	1	1	0	20	0	20	33
Total Volume	0	1	0	1	6	32	0	38	1	0	7	8	2	77	4	83	130
% App. Total	0	100	0		15.8	84.2	0		12.5	0	87.5		2.4	92.8	4.8		
PHF	.000	.250	.000	.250	.750	.800	.000	.792	.250	.000	.583	.500	.500	.917	.333	.902	.929

County of Riverside
 N/S: Patterson Avenue
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:15 PM				05:00 PM				04:15 PM			
+0 mins.	0	1	1	2	2	6	0	8	0	0	1	1	1	21	1	23
+15 mins.	0	1	0	1	2	9	0	11	0	0	3	3	1	17	0	18
+30 mins.	0	0	0	0	0	7	0	7	2	0	1	3	0	19	3	22
+45 mins.	0	0	0	0	2	10	0	12	1	0	3	4	0	20	0	20
Total Volume	0	2	1	3	6	32	0	38	3	0	8	11	2	77	4	83
% App. Total	0	66.7	33.3		15.8	84.2	0		27.3	0	72.7		2.4	92.8	4.8	
PHF	.000	.500	.250	.375	.750	.800	.000	.792	.375	.000	.667	.688	.500	.917	.333	.902

County of Riverside
 N/S: Patterson Avenue
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 Weather: Clear

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 Start Date : 2/12/2019
 Page No : 1

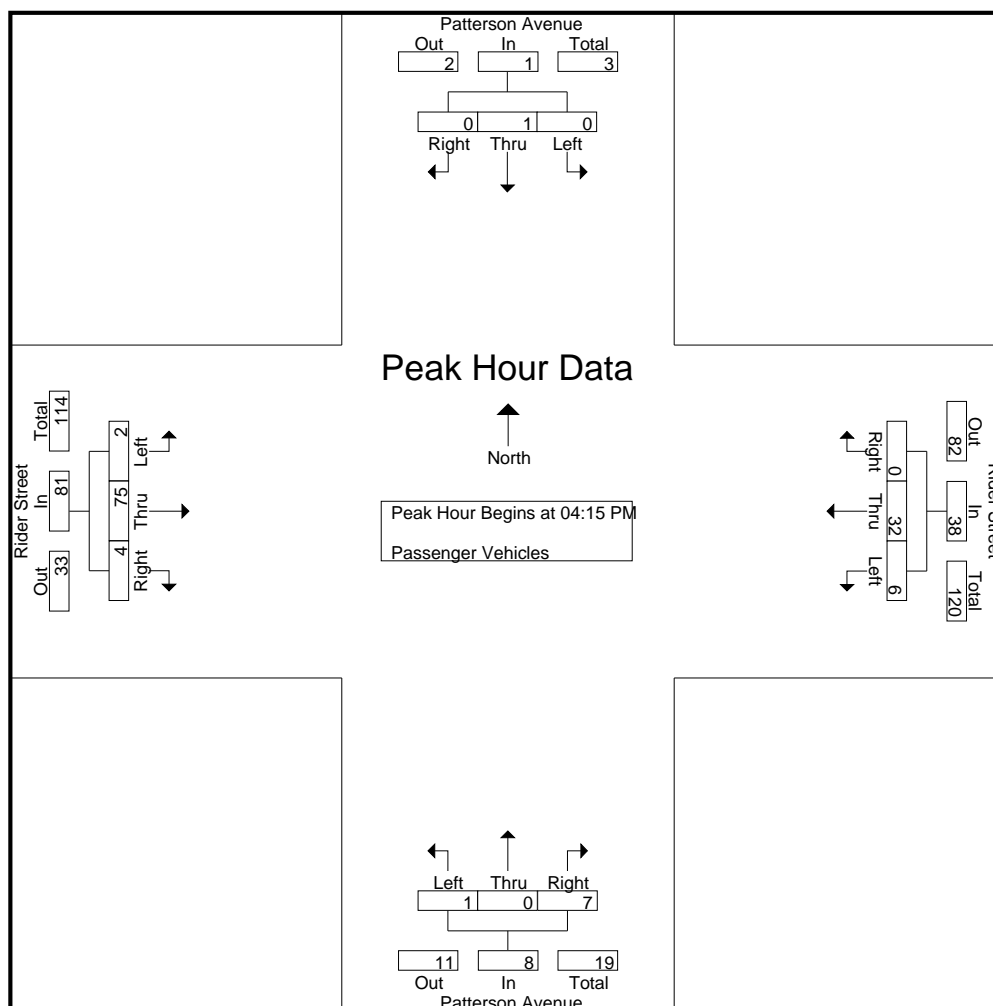
Groups Printed- Passenger Vehicles

Start Time	Patterson Avenue Southbound				Rider Street Westbound				Patterson Avenue Northbound				Rider Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	1	1	2	1	5	0	6	0	0	2	2	0	15	1	16	26
04:15 PM	0	1	0	1	2	6	0	8	0	0	3	3	1	21	1	23	35
04:30 PM	0	0	0	0	2	9	0	11	1	0	3	4	1	15	0	16	31
04:45 PM	0	0	0	0	0	7	0	7	0	0	0	0	0	19	3	22	29
Total	0	2	1	3	5	27	0	32	1	0	8	9	2	70	5	77	121
05:00 PM	0	0	0	0	2	10	0	12	0	0	1	1	0	20	0	20	33
05:15 PM	0	1	0	1	1	7	0	8	0	0	3	3	0	15	1	16	28
05:30 PM	0	0	0	0	0	8	0	8	2	0	1	3	0	12	1	13	24
05:45 PM	0	1	0	1	4	3	0	7	1	0	3	4	0	11	3	14	26
Total	0	2	0	2	7	28	0	35	3	0	8	11	0	58	5	63	111
Grand Total	0	4	1	5	12	55	0	67	4	0	16	20	2	128	10	140	232
Apprch %	0	80	20		17.9	82.1	0		20	0	80		1.4	91.4	7.1		
Total %	0	1.7	0.4	2.2	5.2	23.7	0	28.9	1.7	0	6.9	8.6	0.9	55.2	4.3	60.3	

Start Time	Patterson Avenue Southbound				Rider Street Westbound				Patterson Avenue Northbound				Rider Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	1	0	1	2	6	0	8	0	0	3	3	1	21	1	23	35
04:30 PM	0	0	0	0	2	9	0	11	1	0	3	4	1	15	0	16	31
04:45 PM	0	0	0	0	0	7	0	7	0	0	0	0	0	19	3	22	29
05:00 PM	0	0	0	0	2	10	0	12	0	0	1	1	0	20	0	20	33
Total Volume	0	1	0	1	6	32	0	38	1	0	7	8	2	75	4	81	128
% App. Total	0	100	0		15.8	84.2	0		12.5	0	87.5		2.5	92.6	4.9		
PHF	.000	.250	.000	.250	.750	.800	.000	.792	.250	.000	.583	.500	.500	.893	.333	.880	.914

County of Riverside
 N/S: Patterson Avenue
 E/W: Rider Street
 Weather: Clear

File Name : 16_CRVPARIPM
 Site Code : 05119093
 Start Date : 2/12/2019
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Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:15 PM				04:15 PM				04:15 PM				04:15 PM			
+0 mins.	0	1	0	1	2	6	0	8	0	0	3	3	1	21	1	23
+15 mins.	0	0	0	0	2	9	0	11	1	0	3	4	1	15	0	16
+30 mins.	0	0	0	0	0	7	0	7	0	0	0	0	0	19	3	22
+45 mins.	0	0	0	0	2	10	0	12	0	0	1	1	0	20	0	20
Total Volume	0	1	0	1	6	32	0	38	1	0	7	8	2	75	4	81
% App. Total	0	100	0		15.8	84.2	0		12.5	0	87.5		2.5	92.6	4.9	
PHF	.000	.250	.000	.250	.750	.800	.000	.792	.250	.000	.583	.500	.500	.893	.333	.880

County of Riverside
 N/S: Patterson Avenue
 E/W: Rider Street
 Weather: Clear

File Name : 16_CRVPARIPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

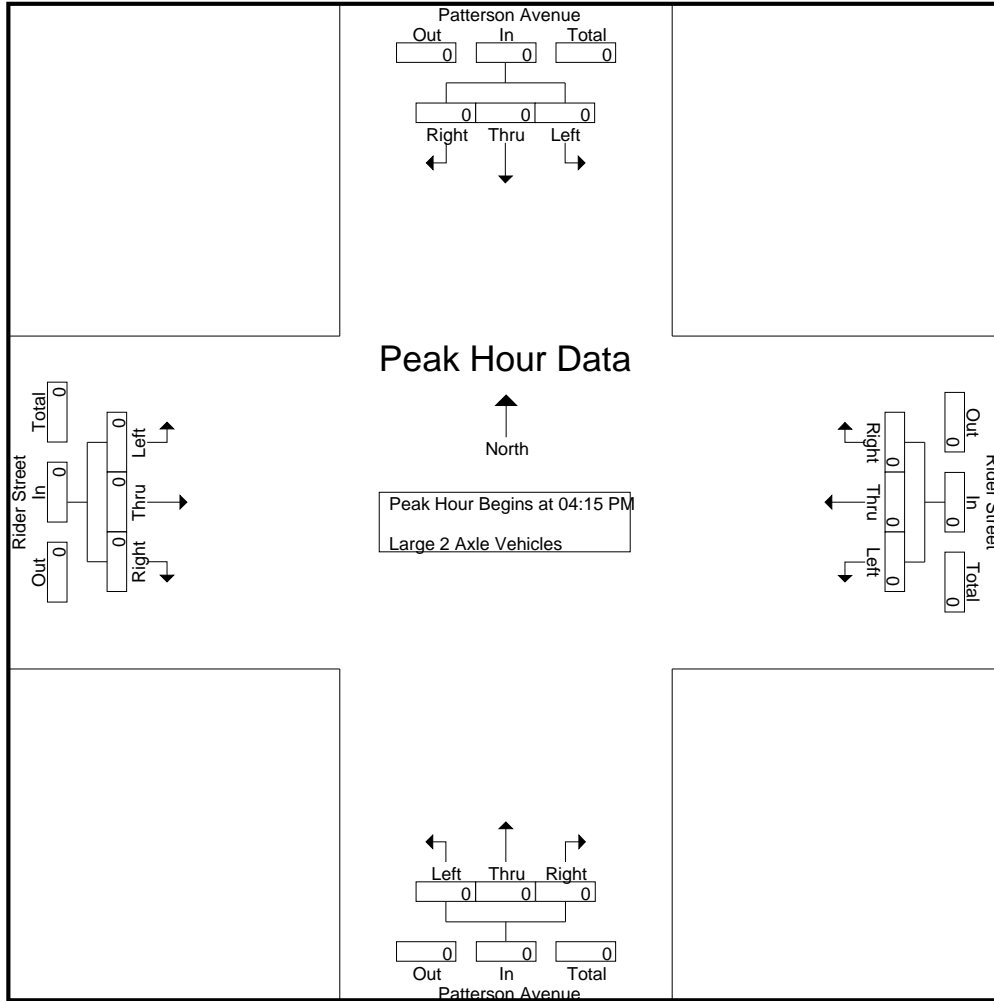
Groups Printed- Large 2 Axle Vehicles

Start Time	Patterson Avenue Southbound				Rider Street Westbound				Patterson Avenue Northbound				Rider Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Grand Total	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
Apprch %	0	0	0		0	100	0		0	0	0		0	0	0		
Total %	0	0	0		0	100	0	100	0	0	0		0	0	0		

Start Time	Patterson Avenue Southbound				Rider Street Westbound				Patterson Avenue Northbound				Rider Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

County of Riverside
 N/S: Patterson Avenue
 E/W: Rider Street
 Weather: Clear

File Name : 16_CRVPARIPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:15 PM				04:15 PM				04:15 PM				04:15 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

County of Riverside
 N/S: Patterson Avenue
 E/W: Rider Street
 Weather: Clear

File Name : 16_CRVPARIPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

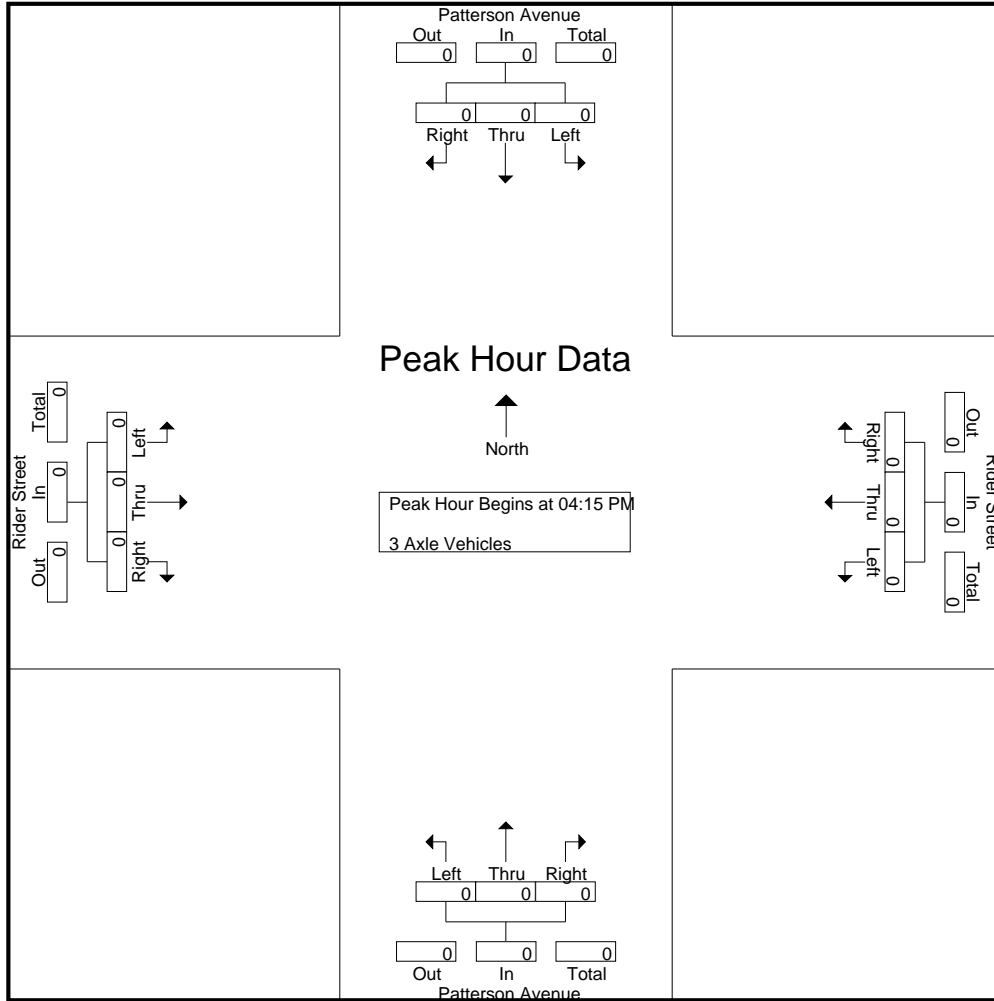
Groups Printed- 3 Axle Vehicles

Start Time	Patterson Avenue Southbound				Rider Street Westbound				Patterson Avenue Northbound				Rider Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

Start Time	Patterson Avenue Southbound				Rider Street Westbound				Patterson Avenue Northbound				Rider Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

County of Riverside
 N/S: Patterson Avenue
 E/W: Rider Street
 Weather: Clear

File Name : 16_CRVPARIPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:15 PM				04:15 PM				04:15 PM				04:15 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

County of Riverside
 N/S: Patterson Avenue
 E/W: Rider Street
 Weather: Clear

File Name : 16_CRVPARIPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

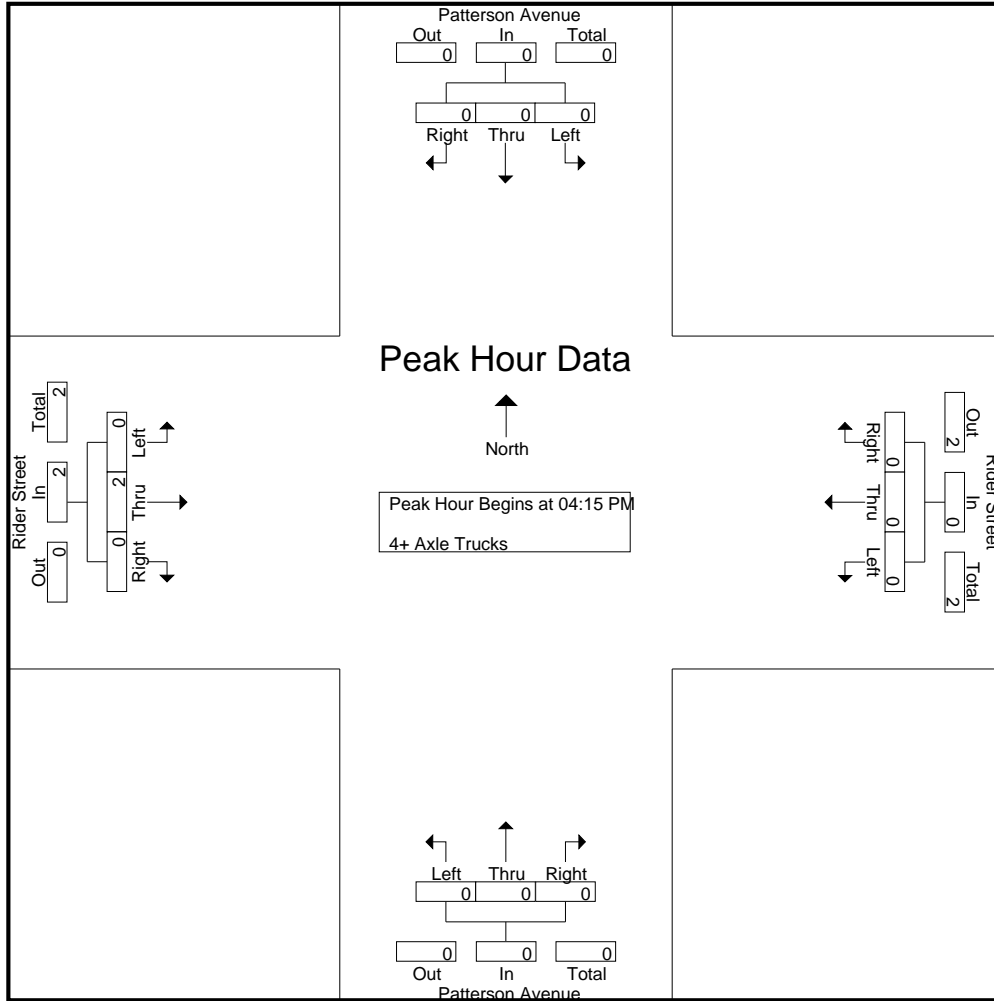
Groups Printed- 4+ Axle Trucks

Start Time	Patterson Avenue Southbound				Rider Street Westbound				Patterson Avenue Northbound				Rider Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	3
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	4	4
Apprch %	0	0	0		0	0	0		0	0	0		0	100	0		
Total %	0	0	0		0	0	0		0	0	0		0	100	0	100	

Start Time	Patterson Avenue Southbound				Rider Street Westbound				Patterson Avenue Northbound				Rider Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
% App. Total	0	0	0		0	0	0		0	0	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.250

County of Riverside
 N/S: Patterson Avenue
 E/W: Rider Street
 Weather: Clear

File Name : 16_CRVPARIPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:15 PM				04:15 PM				04:15 PM				04:15 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250

Location: County of Riverside
 N/S: Patterson Avenue
 E/W: Rider Street



Date: 2/12/2019
 Day: Tuesday

PEDESTRIANS

	North Leg Patterson Avenue	East Leg Rider Street	South Leg Patterson Avenue	West Leg Rider Street	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	1	0	0	1
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	1	0	0	1

	North Leg Patterson Avenue	East Leg Rider Street	South Leg Patterson Avenue	West Leg Rider Street	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: County of Riverside
 N/S: Patterson Avenue
 E/W: Rider Street



Date: 2/12/2019
 Day: Tuesday

BICYCLES

	Southbound Patterson Avenue			Westbound Rider Street			Northbound Patterson Avenue			Eastbound Rider Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound Patterson Avenue			Westbound Rider Street			Northbound Patterson Avenue			Eastbound Rider Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

County of Riverside
 N/S: Patterson Avenue
 E/W: Walnut Street / Driveway 1
 Weather: Clear

File Name : 01_CRVPAWAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

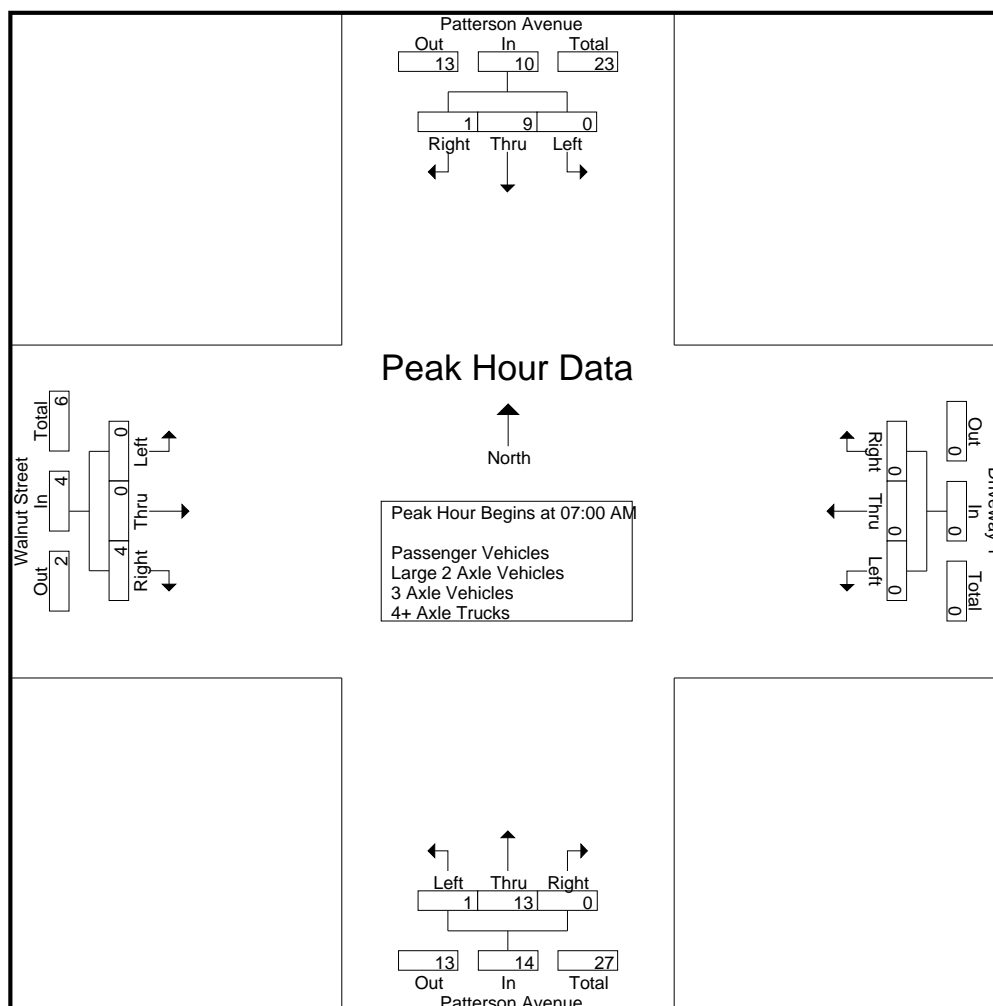
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Patterson Avenue Southbound				Driveway 1 Westbound				Patterson Avenue Northbound				Walnut Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	3	0	3	0	0	0	0	0	4	0	4	0	0	0	0	7
07:15 AM	0	2	1	3	0	0	0	0	0	7	0	7	0	0	3	3	13
07:30 AM	0	3	0	3	0	0	0	0	1	0	0	1	0	0	1	1	5
07:45 AM	0	1	0	1	0	0	0	0	0	2	0	2	0	0	0	0	3
Total	0	9	1	10	0	0	0	0	1	13	0	14	0	0	4	4	28
08:00 AM	0	0	0	0	0	0	0	0	1	2	0	3	0	0	0	0	3
08:15 AM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	0	0	1	3	0	4	0	0	0	0	5
Grand Total	0	10	1	11	0	0	0	0	2	16	0	18	0	0	4	4	33
Apprch %	0	90.9	9.1		0	0	0		11.1	88.9	0		0	0	100		
Total %	0	30.3	3	33.3	0	0	0	0	6.1	48.5	0	54.5	0	0	12.1	12.1	
Passenger Vehicles	0	10	1	11	0	0	0	0	2	13	0	15	0	0	4	4	30
% Passenger Vehicles	0	100	100	100	0	0	0	0	100	81.2	0	83.3	0	0	100	100	90.9
Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
% Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	6.2	0	5.6	0	0	0	0	3
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	12.5	0	11.1	0	0	0	0	6.1
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Start Time	Patterson Avenue Southbound				Driveway 1 Westbound				Patterson Avenue Northbound				Walnut Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	3	0	3	0	0	0	0	0	4	0	4	0	0	0	0	7
07:15 AM	0	2	1	3	0	0	0	0	0	7	0	7	0	0	3	3	13
07:30 AM	0	3	0	3	0	0	0	0	1	0	0	1	0	0	1	1	5
07:45 AM	0	1	0	1	0	0	0	0	0	2	0	2	0	0	0	0	3
Total Volume	0	9	1	10	0	0	0	0	1	13	0	14	0	0	4	4	28
% App. Total	0	90	10		0	0	0		7.1	92.9	0		0	0	100		
PHF	.000	.750	.250	.833	.000	.000	.000	.000	.250	.464	.000	.500	.000	.000	.333	.333	.538

County of Riverside
 N/S: Patterson Avenue
 E/W: Walnut Street / Driveway 1
 Weather: Clear

File Name : 01_CRVPAWAAM
 Site Code : 05119093
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Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	3	0	3	0	0	0	0	0	4	0	4	0	0	0	0
+15 mins.	0	2	1	3	0	0	0	0	0	7	0	7	0	0	3	3
+30 mins.	0	3	0	3	0	0	0	0	1	0	0	1	0	0	1	1
+45 mins.	0	1	0	1	0	0	0	0	0	2	0	2	0	0	0	0
Total Volume	0	9	1	10	0	0	0	0	1	13	0	14	0	0	4	4
% App. Total	0	90	10		0	0	0		7.1	92.9	0		0	0	100	
PHF	.000	.750	.250	.833	.000	.000	.000	.000	.250	.464	.000	.500	.000	.000	.333	.333

County of Riverside
 N/S: Patterson Avenue
 E/W: Walnut Street / Driveway 1
 Weather: Clear

File Name : 01_CRVPAWAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

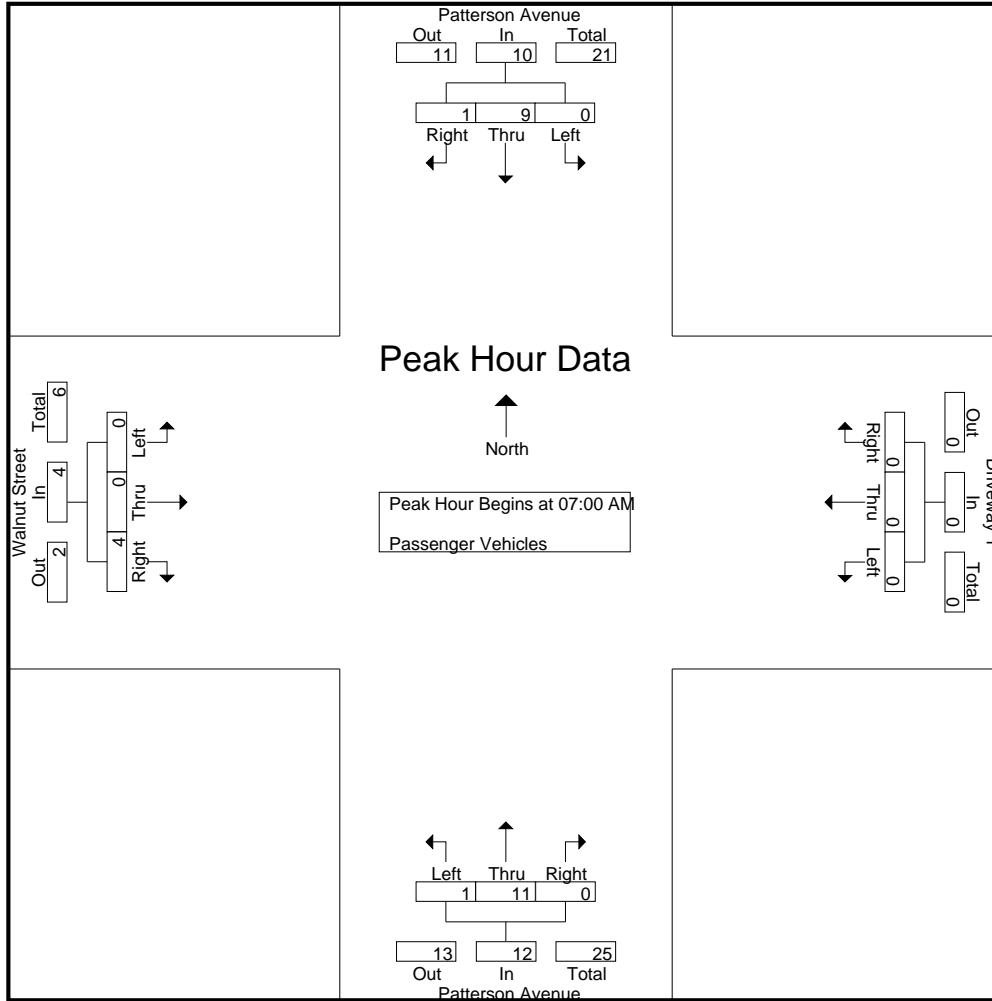
Groups Printed- Passenger Vehicles

Start Time	Patterson Avenue Southbound				Driveway 1 Westbound				Patterson Avenue Northbound				Walnut Street Eastbound				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
07:00 AM	0	3	0	3	0	0	0	0	0	4	0	4	0	0	0	0	7	
07:15 AM	0	2	1	3	0	0	0	0	0	6	0	6	0	0	3	3	12	
07:30 AM	0	3	0	3	0	0	0	0	0	1	0	1	0	0	1	1	5	
07:45 AM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2	
Total	0	9	1	10	0	0	0	0	0	1	11	0	12	0	0	4	4	26
08:00 AM	0	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	2
08:15 AM	0	1	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	2
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	0	0	0	1	2	0	3	0	0	0	0	4
Grand Total	0	10	1	11	0	0	0	0	0	2	13	0	15	0	0	4	4	30
Apprch %	0	90.9	9.1		0	0	0			13.3	86.7	0		0	0	100		
Total %	0	33.3	3.3	36.7	0	0	0	0	0	6.7	43.3	0	50	0	0	13.3	13.3	

Start Time	Patterson Avenue Southbound				Driveway 1 Westbound				Patterson Avenue Northbound				Walnut Street Eastbound				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:00 AM																		
07:00 AM	0	3	0	3	0	0	0	0	0	4	0	4	0	0	0	0	7	
07:15 AM	0	2	1	3	0	0	0	0	0	6	0	6	0	0	3	3	12	
07:30 AM	0	3	0	3	0	0	0	0	0	1	0	1	0	0	1	1	5	
07:45 AM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2	
Total Volume	0	9	1	10	0	0	0	0	0	1	11	0	12	0	0	4	4	26
% App. Total	0	90	10		0	0	0			8.3	91.7	0		0	0	100		
PHF	.000	.750	.250	.833	.000	.000	.000	.000	.000	.250	.458	.000	.500	.000	.000	.333	.333	.542

County of Riverside
 N/S: Patterson Avenue
 E/W: Walnut Street / Driveway 1
 Weather: Clear

File Name : 01_CRVPAWAAM
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	3	0	3	0	0	0	0	0	4	0	4	0	0	0	0
+15 mins.	0	2	1	3	0	0	0	0	0	6	0	6	0	0	3	3
+30 mins.	0	3	0	3	0	0	0	0	1	0	0	1	0	0	1	1
+45 mins.	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0
Total Volume	0	9	1	10	0	0	0	0	1	11	0	12	0	0	4	4
% App. Total	0	90	10		0	0	0		8.3	91.7	0		0	0	100	
PHF	.000	.750	.250	.833	.000	.000	.000	.000	.250	.458	.000	.500	.000	.000	.333	.333

County of Riverside
 N/S: Patterson Avenue
 E/W: Walnut Street / Driveway 1
 Weather: Clear

File Name : 01_CRVPAWAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

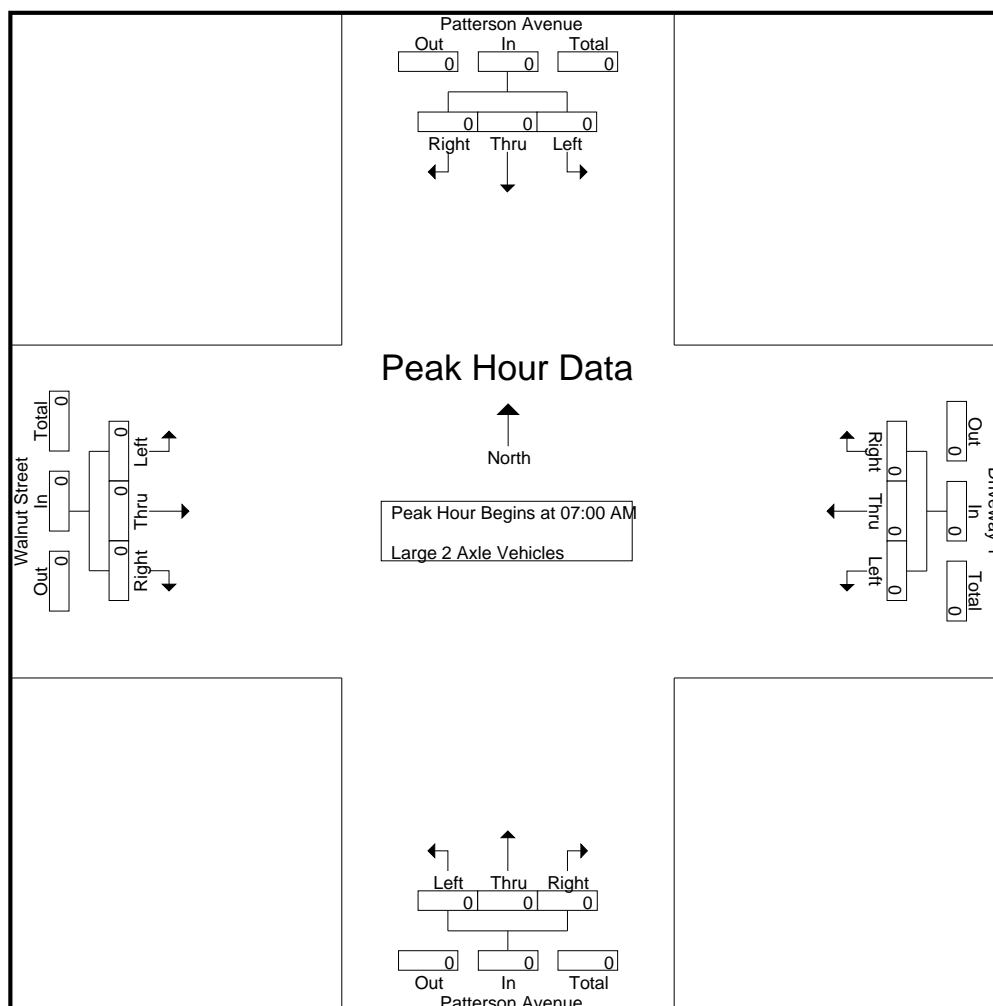
Groups Printed- Large 2 Axle Vehicles

Start Time	Patterson Avenue Southbound				Driveway 1 Westbound				Patterson Avenue Northbound				Walnut Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Grand Total	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Apprch %	0	0	0		0	0	0		0	100	0		0	0	0		
Total %	0	0	0		0	0	0		0	100	0	100	0	0	0		

Start Time	Patterson Avenue Southbound				Driveway 1 Westbound				Patterson Avenue Northbound				Walnut Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

County of Riverside
 N/S: Patterson Avenue
 E/W: Walnut Street / Driveway 1
 Weather: Clear

File Name : 01_CRVPAWAAM
 Site Code : 05119093
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

County of Riverside
 N/S: Patterson Avenue
 E/W: Walnut Street / Driveway 1
 Weather: Clear

File Name : 01_CRVPAWAAM
 Site Code : 05119093
 Start Date : 2/12/2019
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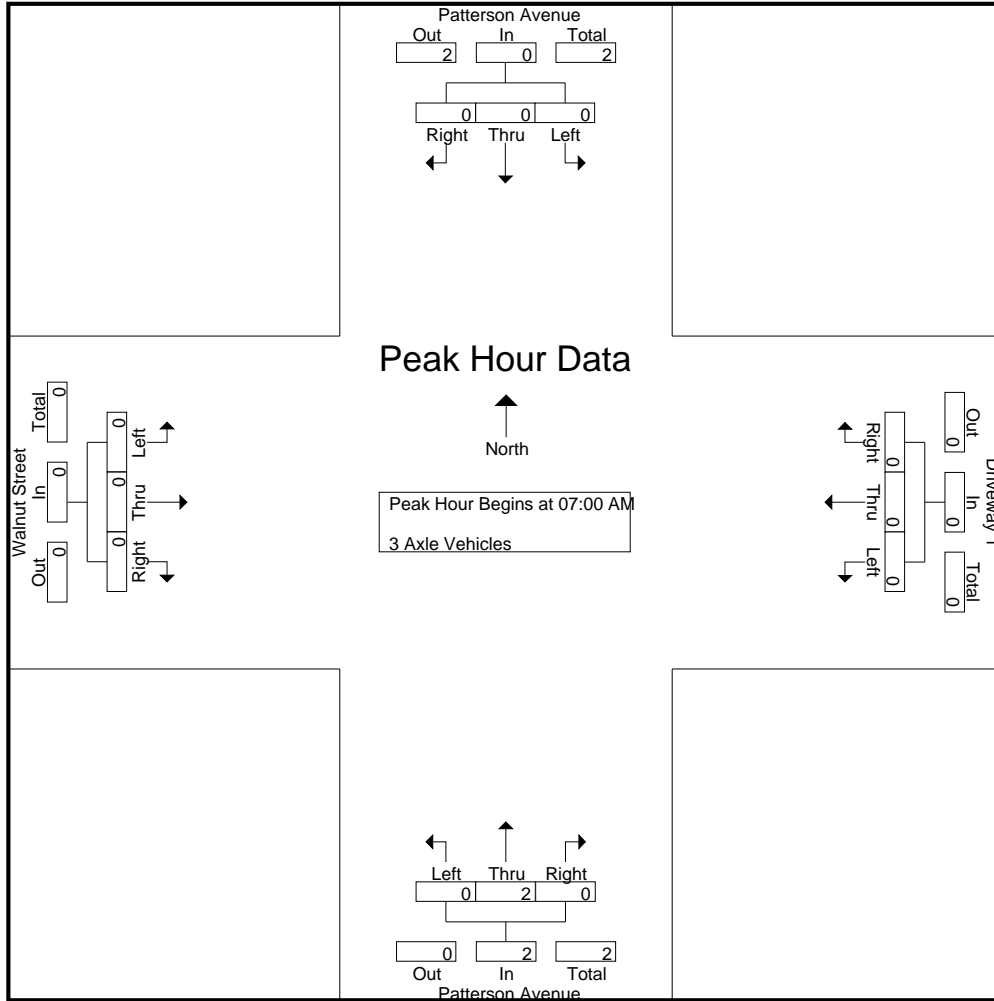
Groups Printed- 3 Axle Vehicles

Start Time	Patterson Avenue Southbound				Driveway 1 Westbound				Patterson Avenue Northbound				Walnut Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
Apprch %	0	0	0		0	0	0		0	100	0		0	0	0		
Total %	0	0	0		0	0	0		0	100	0	100	0	0	0		

Start Time	Patterson Avenue Southbound				Driveway 1 Westbound				Patterson Avenue Northbound				Walnut Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
% App. Total	0	0	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000	.500

County of Riverside
 N/S: Patterson Avenue
 E/W: Walnut Street / Driveway 1
 Weather: Clear

File Name : 01_CRVPAWAAM
 Site Code : 05119093
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.000	.000

County of Riverside
 N/S: Patterson Avenue
 E/W: Walnut Street / Driveway 1
 Weather: Clear

File Name : 01_CRVPAWAAM
 Site Code : 05119093
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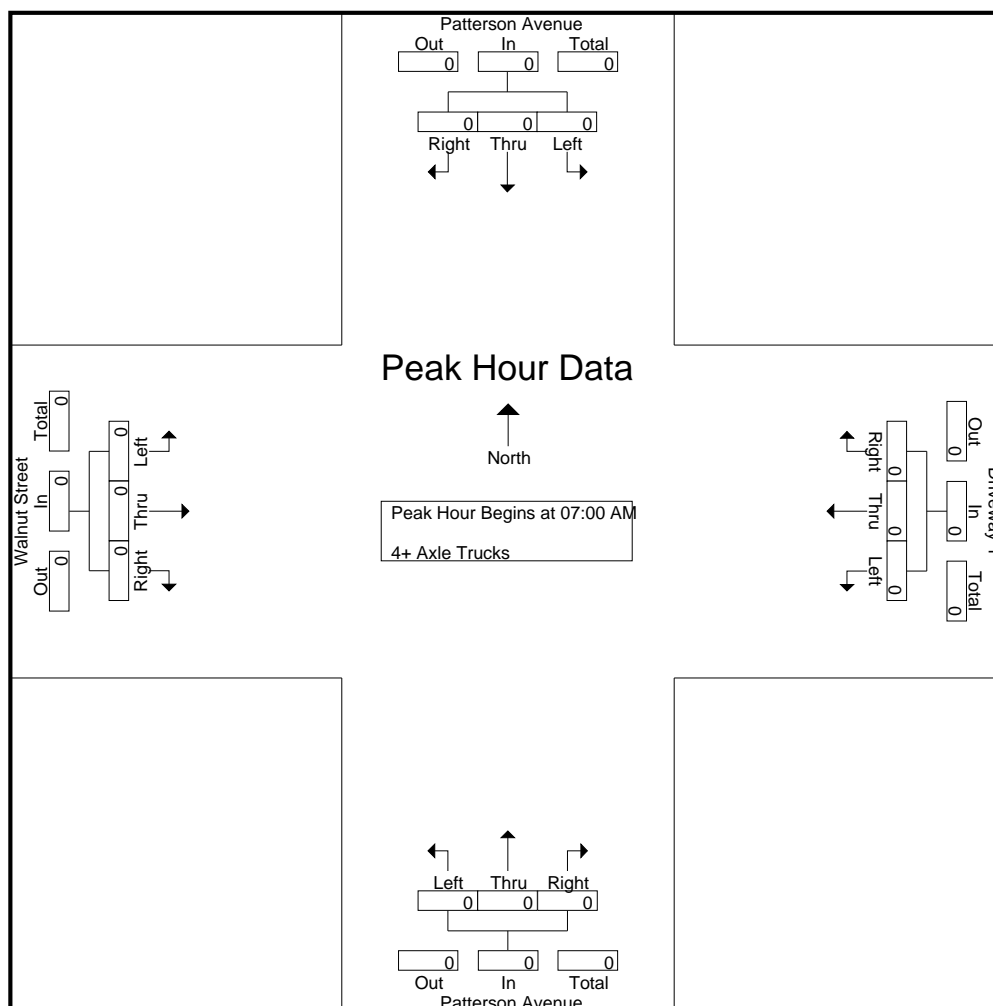
Groups Printed- 4+ Axle Trucks

Start Time	Patterson Avenue Southbound				Driveway 1 Westbound				Patterson Avenue Northbound				Walnut Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

Start Time	Patterson Avenue Southbound				Driveway 1 Westbound				Patterson Avenue Northbound				Walnut Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

County of Riverside
 N/S: Patterson Avenue
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 Weather: Clear

File Name : 01_CRVPAWAAM
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

County of Riverside
 N/S: Patterson Avenue
 E/W: Walnut Street / Driveway 1
 Weather: Clear

File Name : 01_CRVPAWAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

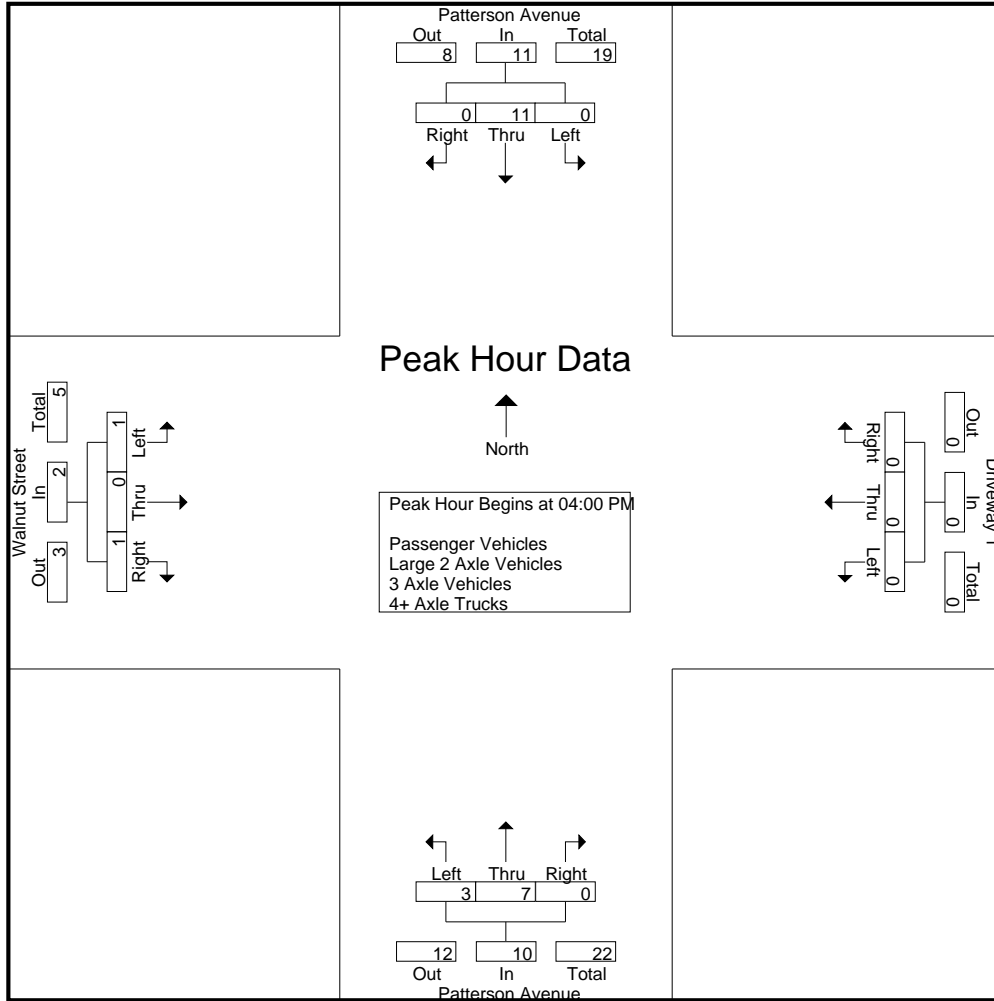
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Patterson Avenue Southbound				Driveway 1 Westbound				Patterson Avenue Northbound				Walnut Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	2	0	2	0	0	0	0	1	1	0	2	1	0	1	2	6
04:15 PM	0	1	0	1	0	0	0	0	0	4	0	4	0	0	0	0	5
04:30 PM	0	2	0	2	0	0	0	0	1	1	0	2	0	0	0	0	4
04:45 PM	0	6	0	6	0	0	0	0	1	1	0	2	0	0	0	0	8
Total	0	11	0	11	0	0	0	0	3	7	0	10	1	0	1	2	23
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	3
05:30 PM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	3
05:45 PM	0	5	0	5	0	0	0	0	0	1	0	1	0	0	1	1	7
Total	0	7	1	8	0	0	0	0	0	4	0	4	0	0	1	1	13
Grand Total	0	18	1	19	0	0	0	0	3	11	0	14	1	0	2	3	36
Apprch %	0	94.7	5.3		0	0	0		21.4	78.6	0		33.3	0	66.7		
Total %	0	50	2.8	52.8	0	0	0	0	8.3	30.6	0	38.9	2.8	0	5.6	8.3	
Passenger Vehicles	0	18	1	19	0	0	0	0	3	11	0	14	1	0	2	3	36
% Passenger Vehicles	0	100	100	100	0	0	0	0	100	100	0	100	100	0	100	100	100
Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Start Time	Patterson Avenue Southbound				Driveway 1 Westbound				Patterson Avenue Northbound				Walnut Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	2	0	2	0	0	0	0	1	1	0	2	1	0	1	2	6
04:15 PM	0	1	0	1	0	0	0	0	0	4	0	4	0	0	0	0	5
04:30 PM	0	2	0	2	0	0	0	0	1	1	0	2	0	0	0	0	4
04:45 PM	0	6	0	6	0	0	0	0	1	1	0	2	0	0	0	0	8
Total Volume	0	11	0	11	0	0	0	0	3	7	0	10	1	0	1	2	23
% App. Total	0	100	0		0	0	0		30	70	0		50	0	50		
PHF	.000	.458	.000	.458	.000	.000	.000	.000	.750	.438	.000	.625	.250	.000	.250	.250	.719

County of Riverside
 N/S: Patterson Avenue
 E/W: Walnut Street / Driveway 1
 Weather: Clear

File Name : 01_CRVPAWAPM
 Site Code : 05119093
 Start Date : 2/12/2019
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	2	0	2	0	0	0	0	1	1	0	2	1	0	1	2
+15 mins.	0	1	0	1	0	0	0	0	0	4	0	4	0	0	0	0
+30 mins.	0	2	0	2	0	0	0	0	1	1	0	2	0	0	0	0
+45 mins.	0	6	0	6	0	0	0	0	1	1	0	2	0	0	0	0
Total Volume	0	11	0	11	0	0	0	0	3	7	0	10	1	0	1	2
% App. Total	0	100	0		0	0	0		30	70	0		50	0	50	
PHF	.000	.458	.000	.458	.000	.000	.000	.000	.750	.438	.000	.625	.250	.000	.250	.250

County of Riverside
 N/S: Patterson Avenue
 E/W: Walnut Street / Driveway 1
 Weather: Clear

File Name : 01_CRVPAWAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

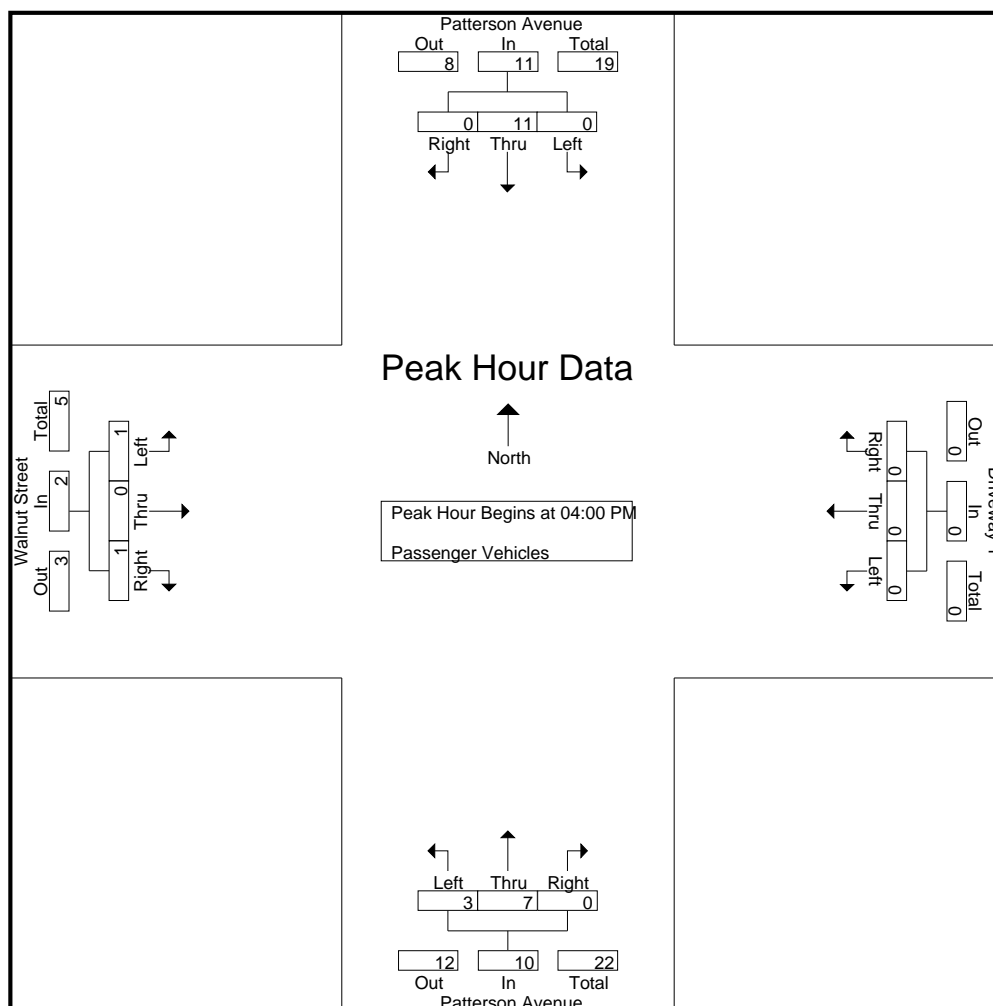
Groups Printed- Passenger Vehicles

Start Time	Patterson Avenue Southbound				Driveway 1 Westbound				Patterson Avenue Northbound				Walnut Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	2	0	2	0	0	0	0	1	1	0	2	1	0	1	2	6
04:15 PM	0	1	0	1	0	0	0	0	0	4	0	4	0	0	0	0	5
04:30 PM	0	2	0	2	0	0	0	0	1	1	0	2	0	0	0	0	4
04:45 PM	0	6	0	6	0	0	0	0	1	1	0	2	0	0	0	0	8
Total	0	11	0	11	0	0	0	0	3	7	0	10	1	0	1	2	23
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	3
05:30 PM	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	3
05:45 PM	0	5	0	5	0	0	0	0	0	1	0	1	0	0	1	1	7
Total	0	7	1	8	0	0	0	0	0	4	0	4	0	0	1	1	13
Grand Total	0	18	1	19	0	0	0	0	3	11	0	14	1	0	2	3	36
Apprch %	0	94.7	5.3		0	0	0		21.4	78.6	0		33.3	0	66.7		
Total %	0	50	2.8	52.8	0	0	0	0	8.3	30.6	0	38.9	2.8	0	5.6	8.3	

Start Time	Patterson Avenue Southbound				Driveway 1 Westbound				Patterson Avenue Northbound				Walnut Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	2	0	2	0	0	0	0	1	1	0	2	1	0	1	2	6
04:15 PM	0	1	0	1	0	0	0	0	0	4	0	4	0	0	0	0	5
04:30 PM	0	2	0	2	0	0	0	0	1	1	0	2	0	0	0	0	4
04:45 PM	0	6	0	6	0	0	0	0	1	1	0	2	0	0	0	0	8
Total Volume	0	11	0	11	0	0	0	0	3	7	0	10	1	0	1	2	23
% App. Total	0	100	0		0	0	0		30	70	0		50	0	50		
PHF	.000	.458	.000	.458	.000	.000	.000	.000	.750	.438	.000	.625	.250	.000	.250	.250	.719

County of Riverside
 N/S: Patterson Avenue
 E/W: Walnut Street / Driveway 1
 Weather: Clear

File Name : 01_CRVPAWAPM
 Site Code : 05119093
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 Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	2	0	2	0	0	0	0	1	1	0	2	1	0	1	2
+15 mins.	0	1	0	1	0	0	0	0	0	4	0	4	0	0	0	0
+30 mins.	0	2	0	2	0	0	0	0	1	1	0	2	0	0	0	0
+45 mins.	0	6	0	6	0	0	0	0	1	1	0	2	0	0	0	0
Total Volume	0	11	0	11	0	0	0	0	3	7	0	10	1	0	1	2
% App. Total	0	100	0		0	0	0		30	70	0		50	0	50	
PHF	.000	.458	.000	.458	.000	.000	.000	.000	.750	.438	.000	.625	.250	.000	.250	.250

County of Riverside
 N/S: Patterson Avenue
 E/W: Walnut Street / Driveway 1
 Weather: Clear

File Name : 01_CRVPAWAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

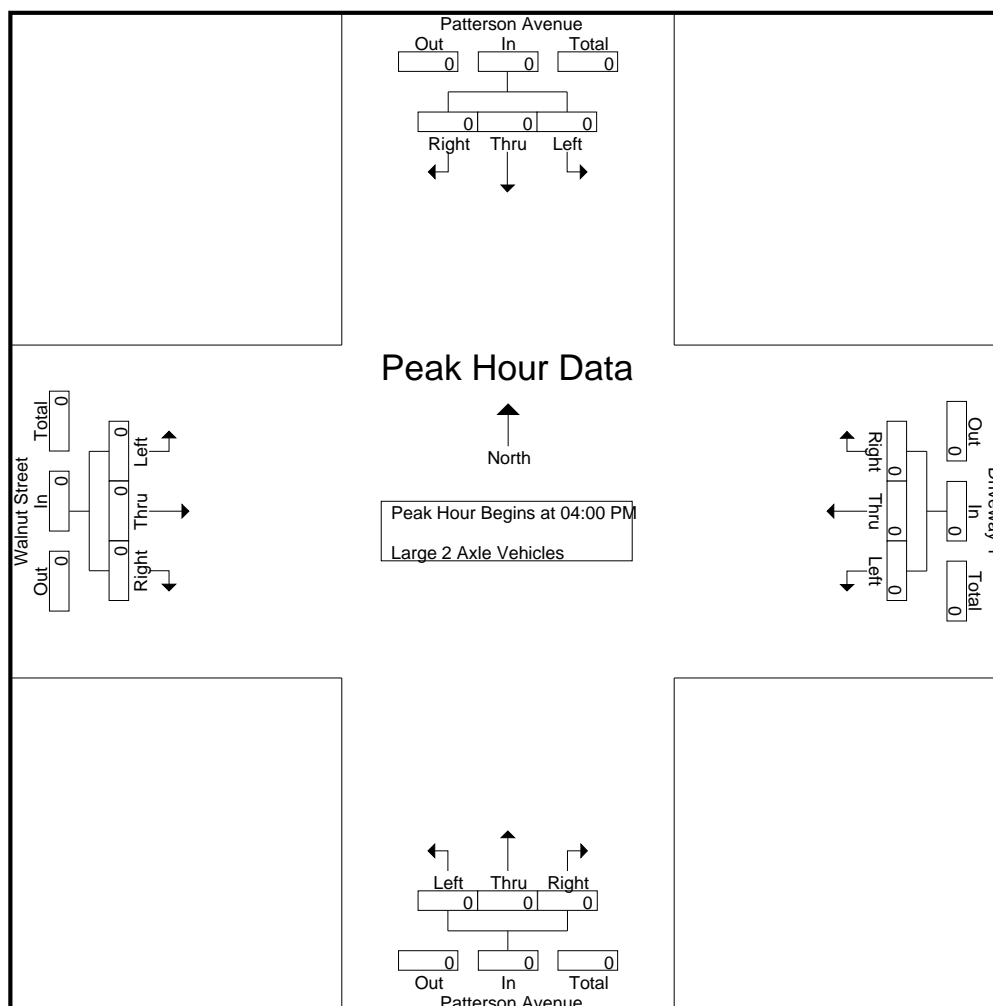
Groups Printed- Large 2 Axle Vehicles

Start Time	Patterson Avenue Southbound				Driveway 1 Westbound				Patterson Avenue Northbound				Walnut Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

Start Time	Patterson Avenue Southbound				Driveway 1 Westbound				Patterson Avenue Northbound				Walnut Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

County of Riverside
 N/S: Patterson Avenue
 E/W: Walnut Street / Driveway 1
 Weather: Clear

File Name : 01_CRVPAWAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

County of Riverside
 N/S: Patterson Avenue
 E/W: Walnut Street / Driveway 1
 Weather: Clear

File Name : 01_CRVPAWAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

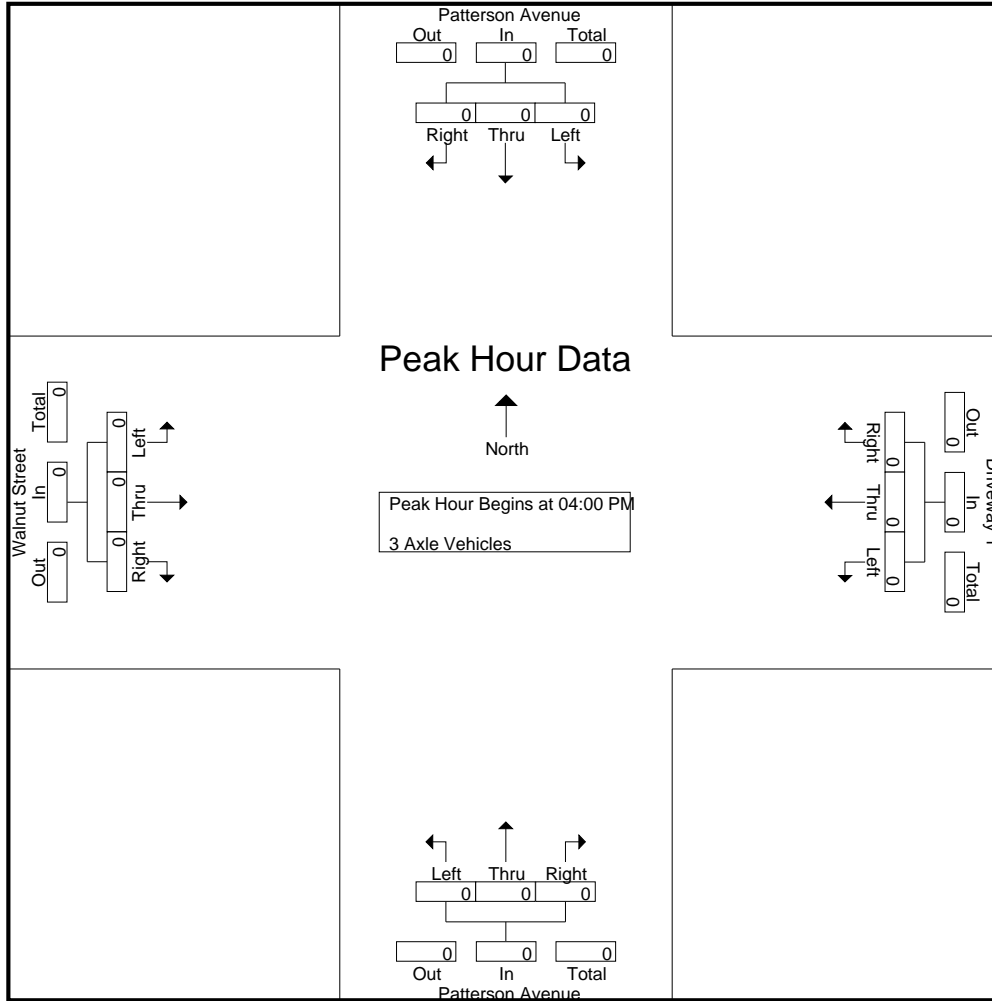
Groups Printed- 3 Axle Vehicles

Start Time	Patterson Avenue Southbound				Driveway 1 Westbound				Patterson Avenue Northbound				Walnut Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

Start Time	Patterson Avenue Southbound				Driveway 1 Westbound				Patterson Avenue Northbound				Walnut Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

County of Riverside
 N/S: Patterson Avenue
 E/W: Walnut Street / Driveway 1
 Weather: Clear

File Name : 01_CRVPAWAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

County of Riverside
 N/S: Patterson Avenue
 E/W: Walnut Street / Driveway 1
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File Name : 01_CRVPAWAPM
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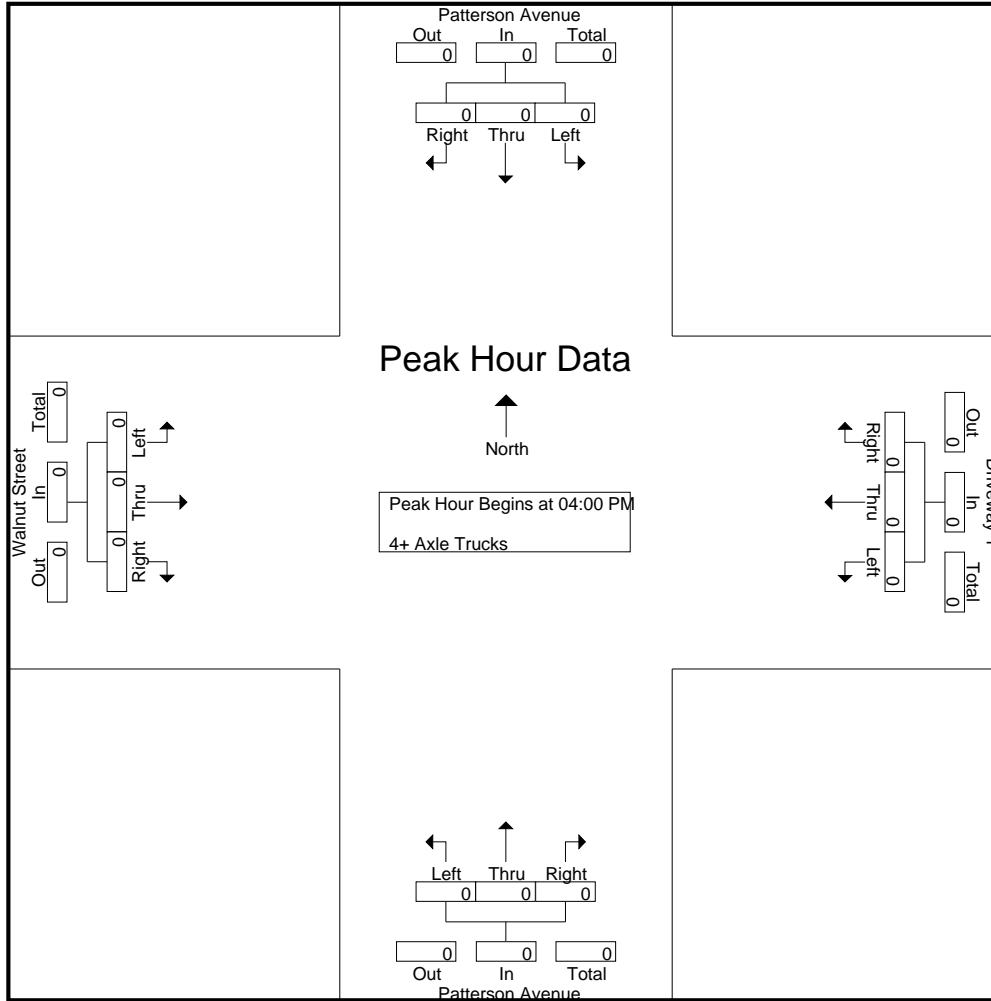
Groups Printed- 4+ Axle Trucks

Start Time	Patterson Avenue Southbound				Driveway 1 Westbound				Patterson Avenue Northbound				Walnut Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

Start Time	Patterson Avenue Southbound				Driveway 1 Westbound				Patterson Avenue Northbound				Walnut Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

County of Riverside
 N/S: Patterson Avenue
 E/W: Walnut Street / Driveway 1
 Weather: Clear

File Name : 01_CRVPAWAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Location: County of Riverside
 N/S: Patterson Avenue
 E/W: Walnut Street



Date: 2/12/2019
 Day: Tuesday

PEDESTRIANS

	North Leg Patterson Avenue Pedestrians	East Leg Driveway 1 Pedestrians	South Leg Patterson Avenue Pedestrians	West Leg Walnut Street Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Patterson Avenue Pedestrians	East Leg Driveway 1 Pedestrians	South Leg Patterson Avenue Pedestrians	West Leg Walnut Street Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: County of Riverside
 N/S: Patterson Avenue
 E/W: Walnut Street



Date: 2/12/2019
 Day: Tuesday

BICYCLES

	Southbound Patterson Avenue			Westbound Driveway 1			Northbound Patterson Avenue			Eastbound Walnut Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound Patterson Avenue			Westbound Driveway 1			Northbound Patterson Avenue			Eastbound Walnut Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

County of Riverside
 N/S: Patterson Avenue
 E/W: Placentia Avenue
 Weather: Clear

File Name : 02_CRVPAPLAM
 Site Code : 05119093
 Start Date : 2/12/2019
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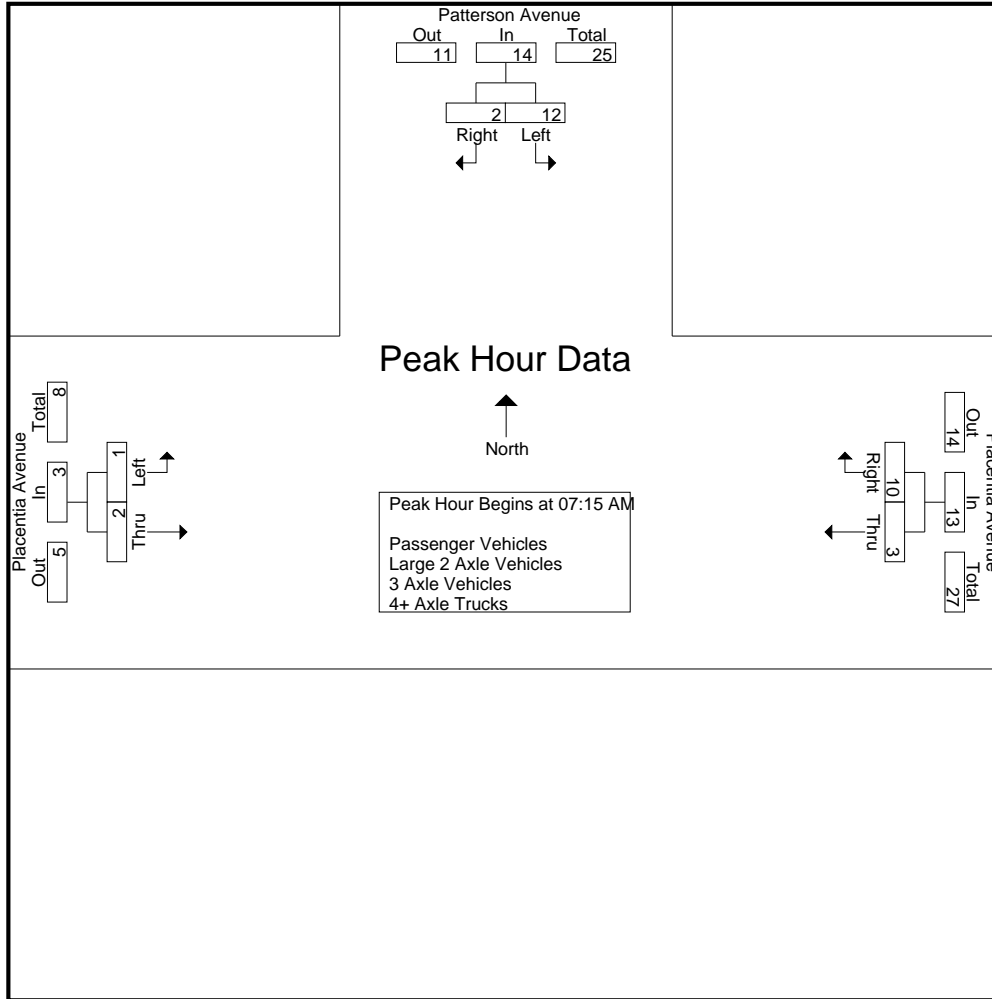
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Patterson Avenue Southbound			Placentia Avenue Westbound			Placentia Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:00 AM	2	0	2	0	0	0	0	1	1	3
07:15 AM	3	1	4	1	3	4	1	1	2	10
07:30 AM	5	0	5	1	4	5	0	0	0	10
07:45 AM	2	1	3	0	2	2	0	0	0	5
Total	12	2	14	2	9	11	1	2	3	28
08:00 AM	2	0	2	1	1	2	0	1	1	5
08:15 AM	0	0	0	1	3	4	1	2	3	7
08:30 AM	1	0	1	0	1	1	0	1	1	3
08:45 AM	1	0	1	1	0	1	0	0	0	2
Total	4	0	4	3	5	8	1	4	5	17
Grand Total	16	2	18	5	14	19	2	6	8	45
Apprch %	88.9	11.1		26.3	73.7		25	75		
Total %	35.6	4.4	40	11.1	31.1	42.2	4.4	13.3	17.8	
Passenger Vehicles	16	2	18	4	13	17	1	6	7	42
% Passenger Vehicles	100	100	100	80	92.9	89.5	50	100	87.5	93.3
Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
% Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
3 Axle Vehicles	0	0	0	1	1	2	1	0	1	3
% 3 Axle Vehicles	0	0	0	20	7.1	10.5	50	0	12.5	6.7
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0

Start Time	Patterson Avenue Southbound			Placentia Avenue Westbound			Placentia Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	3	1	4	1	3	4	1	1	2	10
07:30 AM	5	0	5	1	4	5	0	0	0	10
07:45 AM	2	1	3	0	2	2	0	0	0	5
08:00 AM	2	0	2	1	1	2	0	1	1	5
Total Volume	12	2	14	3	10	13	1	2	3	30
% App. Total	85.7	14.3		23.1	76.9		33.3	66.7		
PHF	.600	.500	.700	.750	.625	.650	.250	.500	.375	.750

County of Riverside
 N/S: Patterson Avenue
 E/W: Placentia Avenue
 Weather: Clear

File Name : 02_CRVPAPLAM
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Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:15 AM			07:15 AM			07:15 AM		
+0 mins.	3	1	4	1	3	4	1	1	2
+15 mins.	5	0	5	1	4	5	0	0	0
+30 mins.	2	1	3	0	2	2	0	0	0
+45 mins.	2	0	2	1	1	2	0	1	1
Total Volume	12	2	14	3	10	13	1	2	3
% App. Total	85.7	14.3		23.1	76.9		33.3	66.7	
PHF	.600	.500	.700	.750	.625	.650	.250	.500	.375

County of Riverside
 N/S: Patterson Avenue
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Groups Printed- Passenger Vehicles

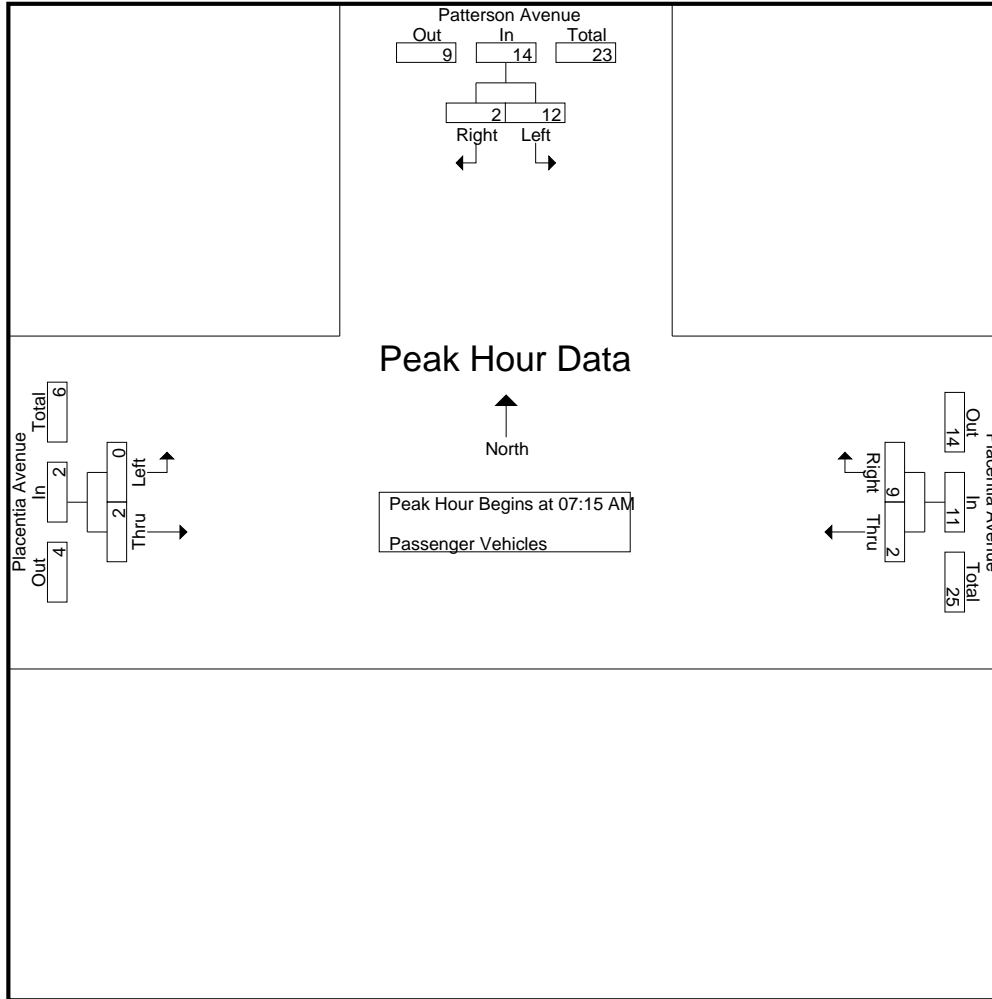
Start Time	Patterson Avenue Southbound			Placentia Avenue Westbound			Placentia Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:00 AM	2	0	2	0	0	0	0	1	1	3
07:15 AM	3	1	4	0	3	3	0	1	1	8
07:30 AM	5	0	5	1	4	5	0	0	0	10
07:45 AM	2	1	3	0	1	1	0	0	0	4
Total	12	2	14	1	8	9	0	2	2	25
08:00 AM	2	0	2	1	1	2	0	1	1	5
08:15 AM	0	0	0	1	3	4	1	2	3	7
08:30 AM	1	0	1	0	1	1	0	1	1	3
08:45 AM	1	0	1	1	0	1	0	0	0	2
Total	4	0	4	3	5	8	1	4	5	17
Grand Total	16	2	18	4	13	17	1	6	7	42
Apprch %	88.9	11.1		23.5	76.5		14.3	85.7		
Total %	38.1	4.8	42.9	9.5	31	40.5	2.4	14.3	16.7	

Start Time	Patterson Avenue Southbound			Placentia Avenue Westbound			Placentia Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:15 AM	3	1	4	0	3	3	0	1	1	8
07:30 AM	5	0	5	1	4	5	0	0	0	10
07:45 AM	2	1	3	0	1	1	0	0	0	4
08:00 AM	2	0	2	1	1	2	0	1	1	5
Total Volume	12	2	14	2	9	11	0	2	2	27
% App. Total	85.7	14.3		18.2	81.8		0	100		
PHF	.600	.500	.700	.500	.563	.550	.000	.500	.500	.675

Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 07:15 AM

County of Riverside
 N/S: Patterson Avenue
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 Weather: Clear

File Name : 02_CRVPAPLAM
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Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:15 AM			07:15 AM			07:15 AM		
+0 mins.	3	1	4	0	3	3	0	1	1
+15 mins.	5	0	5	1	4	5	0	0	0
+30 mins.	2	1	3	0	1	1	0	0	0
+45 mins.	2	0	2	1	1	2	0	1	1
Total Volume	12	2	14	2	9	11	0	2	2
% App. Total	85.7	14.3		18.2	81.8		0	100	
PHF	.600	.500	.700	.500	.563	.550	.000	.500	.500

County of Riverside
 N/S: Patterson Avenue
 E/W: Placentia Avenue
 Weather: Clear

File Name : 02_CRVPAPLAM
 Site Code : 05119093
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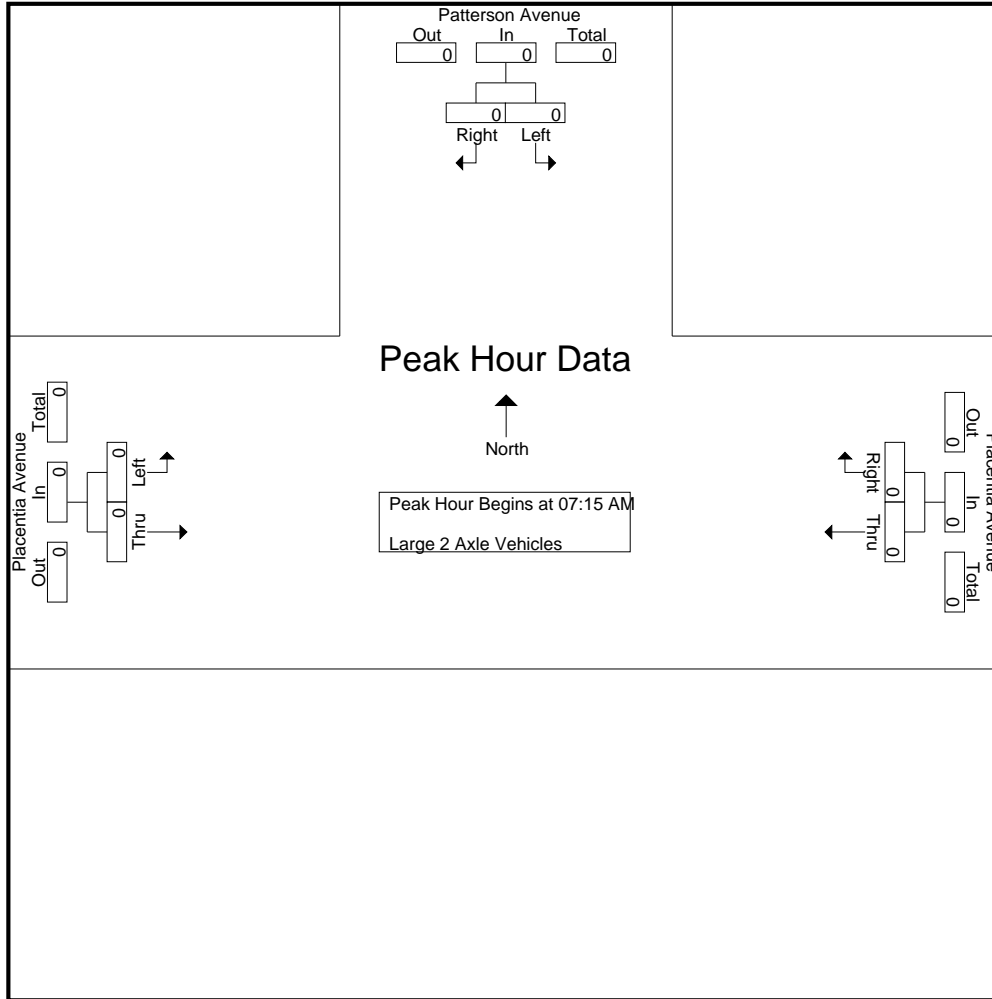
Groups Printed- Large 2 Axle Vehicles

Start Time	Patterson Avenue Southbound			Placentia Avenue Westbound			Placentia Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

Start Time	Patterson Avenue Southbound			Placentia Avenue Westbound			Placentia Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

County of Riverside
 N/S: Patterson Avenue
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 Weather: Clear

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Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:15 AM			07:15 AM			07:15 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

County of Riverside
 N/S: Patterson Avenue
 E/W: Placentia Avenue
 Weather: Clear

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Groups Printed- 3 Axle Vehicles

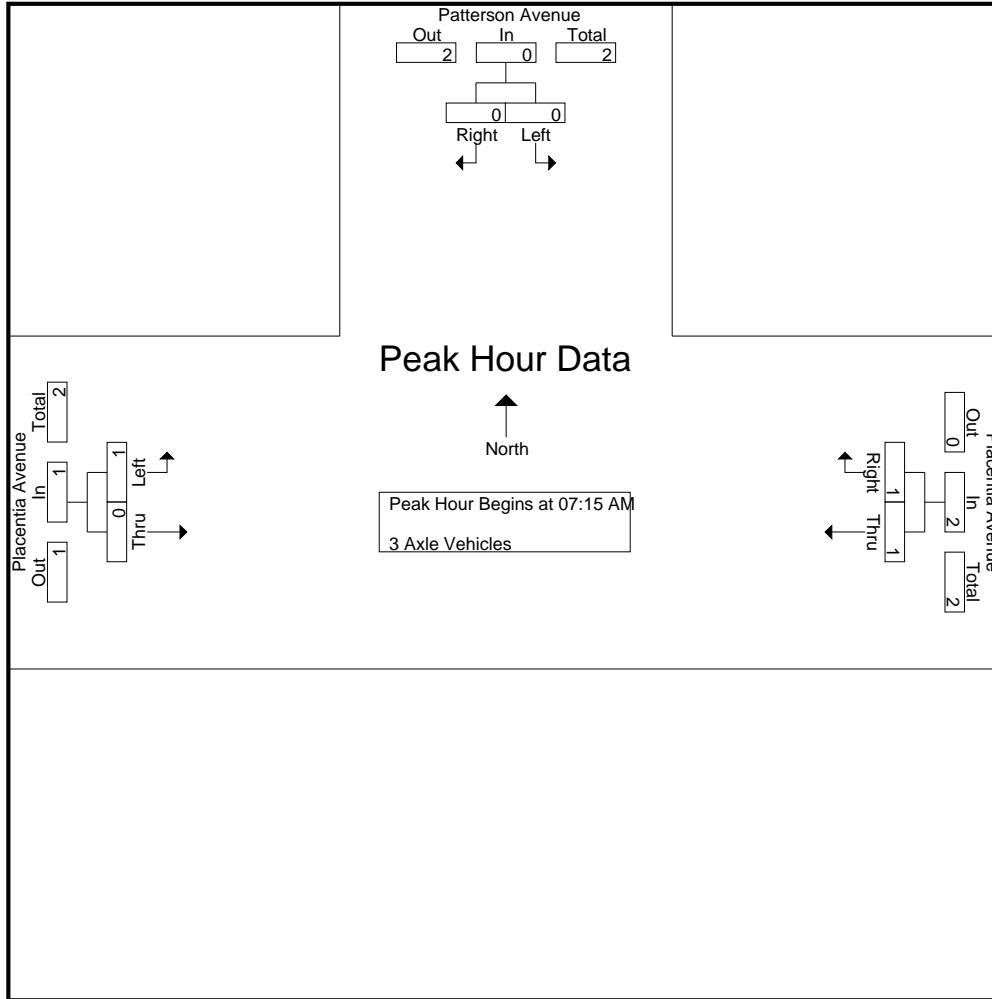
Start Time	Patterson Avenue Southbound			Placentia Avenue Westbound			Placentia Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	1	0	1	1	0	1	2
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	1	1	0	0	0	1
Total	0	0	0	1	1	2	1	0	1	3
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	1	1	2	1	0	1	3
Apprch %	0	0		50	50		100	0		
Total %	0	0		33.3	33.3	66.7	33.3	0	33.3	

Start Time	Patterson Avenue Southbound			Placentia Avenue Westbound			Placentia Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:15 AM	0	0	0	1	0	1	1	0	1	2
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	1	1	0	0	0	1
08:00 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	1	1	2	1	0	1	3
% App. Total	0	0		50	50		100	0		
PHF	.000	.000	.000	.250	.250	.500	.250	.000	.250	.375

Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 07:15 AM

County of Riverside
 N/S: Patterson Avenue
 E/W: Placentia Avenue
 Weather: Clear

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Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:15 AM			07:15 AM			07:15 AM		
+0 mins.	0	0	0	1	0	1	1	0	1
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	1	1	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	1	1	2	1	0	1
% App. Total	0	0	0	50	50		100	0	
PHF	.000	.000	.000	.250	.250	.500	.250	.000	.250

County of Riverside
 N/S: Patterson Avenue
 E/W: Placentia Avenue
 Weather: Clear

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 Site Code : 05119093
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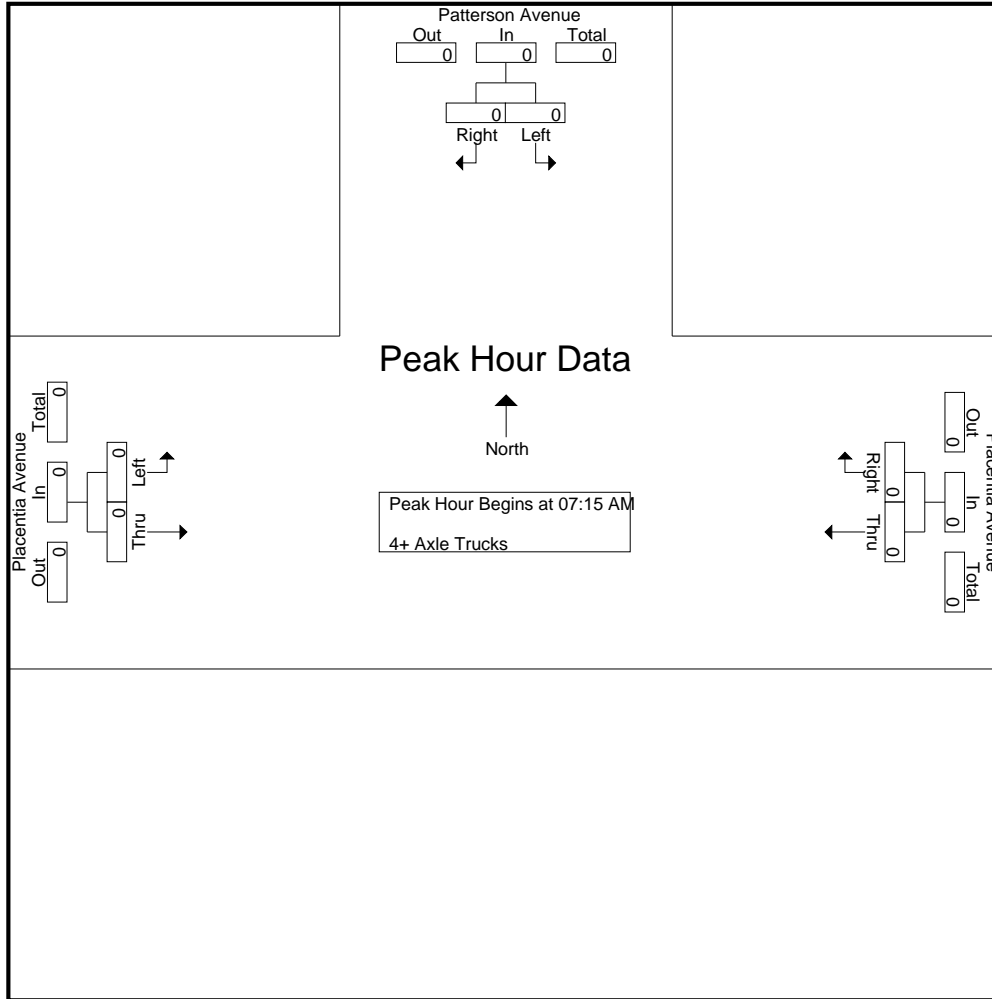
Groups Printed- 4+ Axle Trucks

Start Time	Patterson Avenue Southbound			Placentia Avenue Westbound			Placentia Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

Start Time	Patterson Avenue Southbound			Placentia Avenue Westbound			Placentia Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

County of Riverside
 N/S: Patterson Avenue
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 Weather: Clear

File Name : 02_CRVPAPLAM
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Peak Hour Analysis From 07:15 AM to 08:00 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:15 AM			07:15 AM			07:15 AM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

County of Riverside
 N/S: Patterson Avenue
 E/W: Placentia Avenue
 Weather: Clear

File Name : 02_CRVPAPLPM
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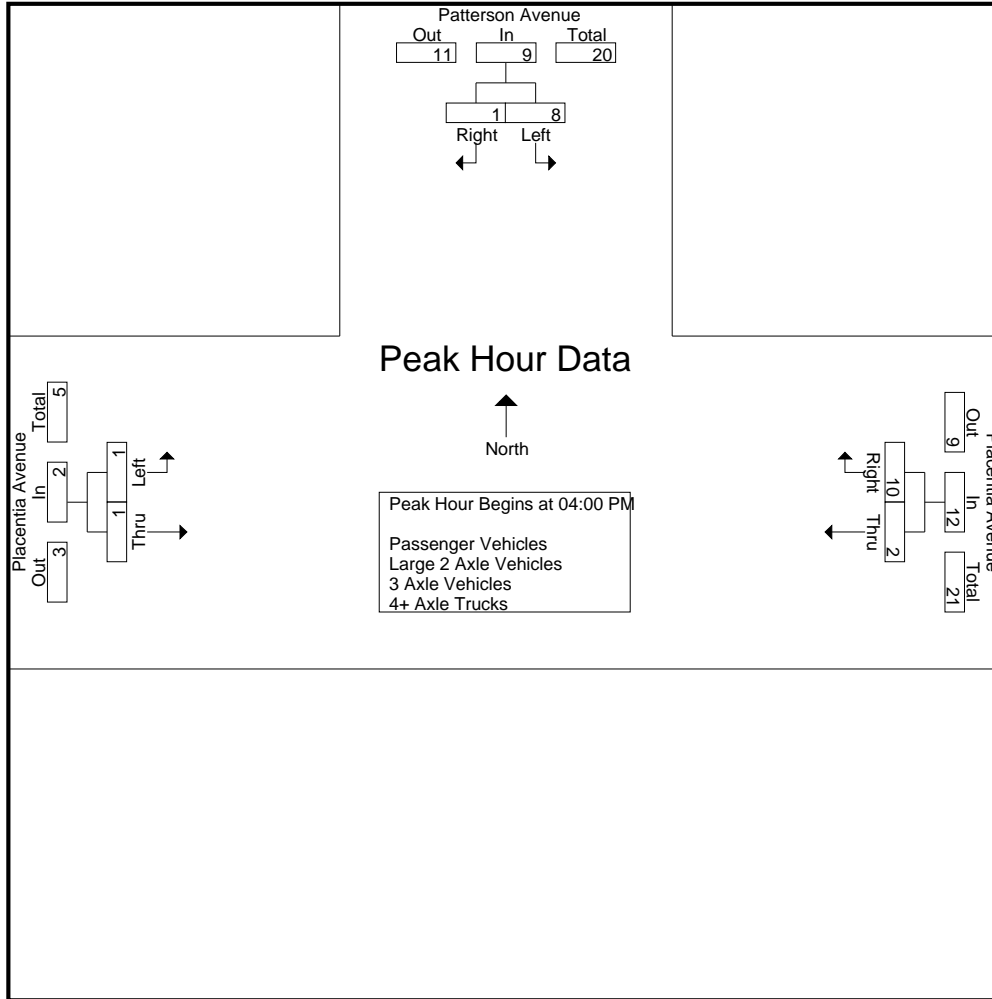
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Patterson Avenue Southbound			Placentia Avenue Westbound			Placentia Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:00 PM	3	0	3	1	3	4	0	1	1	8
04:15 PM	1	0	1	0	3	3	1	0	1	5
04:30 PM	1	1	2	1	2	3	0	0	0	5
04:45 PM	3	0	3	0	2	2	0	0	0	5
Total	8	1	9	2	10	12	1	1	2	23
05:00 PM	2	1	3	0	0	0	0	0	0	3
05:15 PM	3	0	3	1	1	2	0	0	0	5
05:30 PM	0	0	0	0	2	2	0	0	0	2
05:45 PM	3	0	3	0	0	0	0	0	0	3
Total	8	1	9	1	3	4	0	0	0	13
Grand Total	16	2	18	3	13	16	1	1	2	36
Apprch %	88.9	11.1		18.8	81.2		50	50		
Total %	44.4	5.6	50	8.3	36.1	44.4	2.8	2.8	5.6	
Passenger Vehicles	16	2	18	3	13	16	1	1	2	36
% Passenger Vehicles	100	100	100	100	100	100	100	100	100	100
Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
% Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0

Start Time	Patterson Avenue Southbound			Placentia Avenue Westbound			Placentia Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	3	0	3	1	3	4	0	1	1	8
04:15 PM	1	0	1	0	3	3	1	0	1	5
04:30 PM	1	1	2	1	2	3	0	0	0	5
04:45 PM	3	0	3	0	2	2	0	0	0	5
Total Volume	8	1	9	2	10	12	1	1	2	23
% App. Total	88.9	11.1		16.7	83.3		50	50		
PHF	.667	.250	.750	.500	.833	.750	.250	.250	.500	.719

County of Riverside
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 E/W: Placentia Avenue
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:30 PM			04:00 PM			04:00 PM		
+0 mins.	1	1	2	1	3	4	0	1	1
+15 mins.	3	0	3	0	3	3	1	0	1
+30 mins.	2	1	3	1	2	3	0	0	0
+45 mins.	3	0	3	0	2	2	0	0	0
Total Volume	9	2	11	2	10	12	1	1	2
% App. Total	81.8	18.2		16.7	83.3		50	50	
PHF	.750	.500	.917	.500	.833	.750	.250	.250	.500

County of Riverside
 N/S: Patterson Avenue
 E/W: Placentia Avenue
 Weather: Clear

File Name : 02_CRVPAPLPM
 Site Code : 05119093
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Groups Printed- Passenger Vehicles

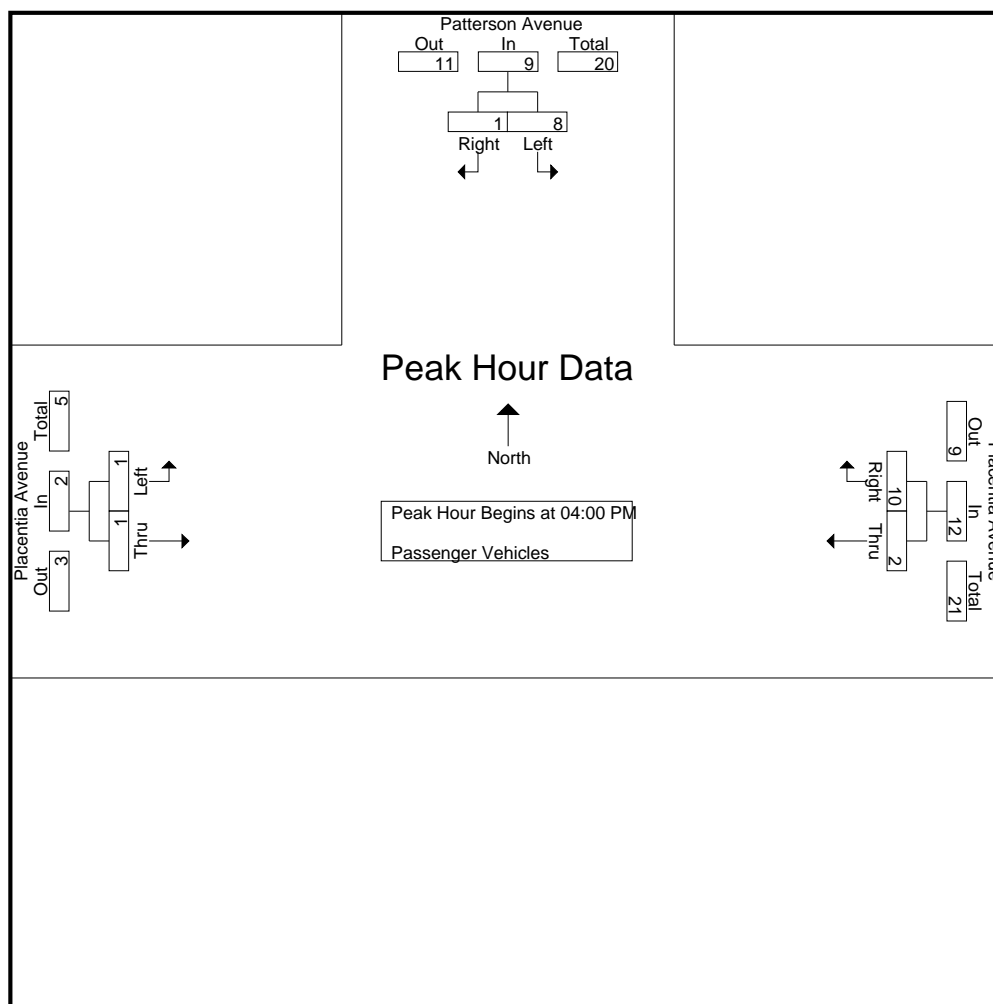
Start Time	Patterson Avenue Southbound			Placentia Avenue Westbound			Placentia Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:00 PM	3	0	3	1	3	4	0	1	1	8
04:15 PM	1	0	1	0	3	3	1	0	1	5
04:30 PM	1	1	2	1	2	3	0	0	0	5
04:45 PM	3	0	3	0	2	2	0	0	0	5
Total	8	1	9	2	10	12	1	1	2	23
05:00 PM	2	1	3	0	0	0	0	0	0	3
05:15 PM	3	0	3	1	1	2	0	0	0	5
05:30 PM	0	0	0	0	2	2	0	0	0	2
05:45 PM	3	0	3	0	0	0	0	0	0	3
Total	8	1	9	1	3	4	0	0	0	13
Grand Total	16	2	18	3	13	16	1	1	2	36
Apprch %	88.9	11.1		18.8	81.2		50	50		
Total %	44.4	5.6	50	8.3	36.1	44.4	2.8	2.8	5.6	

Start Time	Patterson Avenue Southbound			Placentia Avenue Westbound			Placentia Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:00 PM	3	0	3	1	3	4	0	1	1	8
04:15 PM	1	0	1	0	3	3	1	0	1	5
04:30 PM	1	1	2	1	2	3	0	0	0	5
04:45 PM	3	0	3	0	2	2	0	0	0	5
Total Volume	8	1	9	2	10	12	1	1	2	23
% App. Total	88.9	11.1		16.7	83.3		50	50		
PHF	.667	.250	.750	.500	.833	.750	.250	.250	.500	.719

Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 04:00 PM

County of Riverside
 N/S: Patterson Avenue
 E/W: Placentia Avenue
 Weather: Clear

File Name : 02_CRVPAPLPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	3	0	3	1	3	4	0	1	1
+15 mins.	1	0	1	0	3	3	1	0	1
+30 mins.	1	1	2	1	2	3	0	0	0
+45 mins.	3	0	3	0	2	2	0	0	0
Total Volume	8	1	9	2	10	12	1	1	2
% App. Total	88.9	11.1		16.7	83.3		50	50	
PHF	.667	.250	.750	.500	.833	.750	.250	.250	.500

County of Riverside
 N/S: Patterson Avenue
 E/W: Placentia Avenue
 Weather: Clear

File Name : 02_CRVPAPLPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

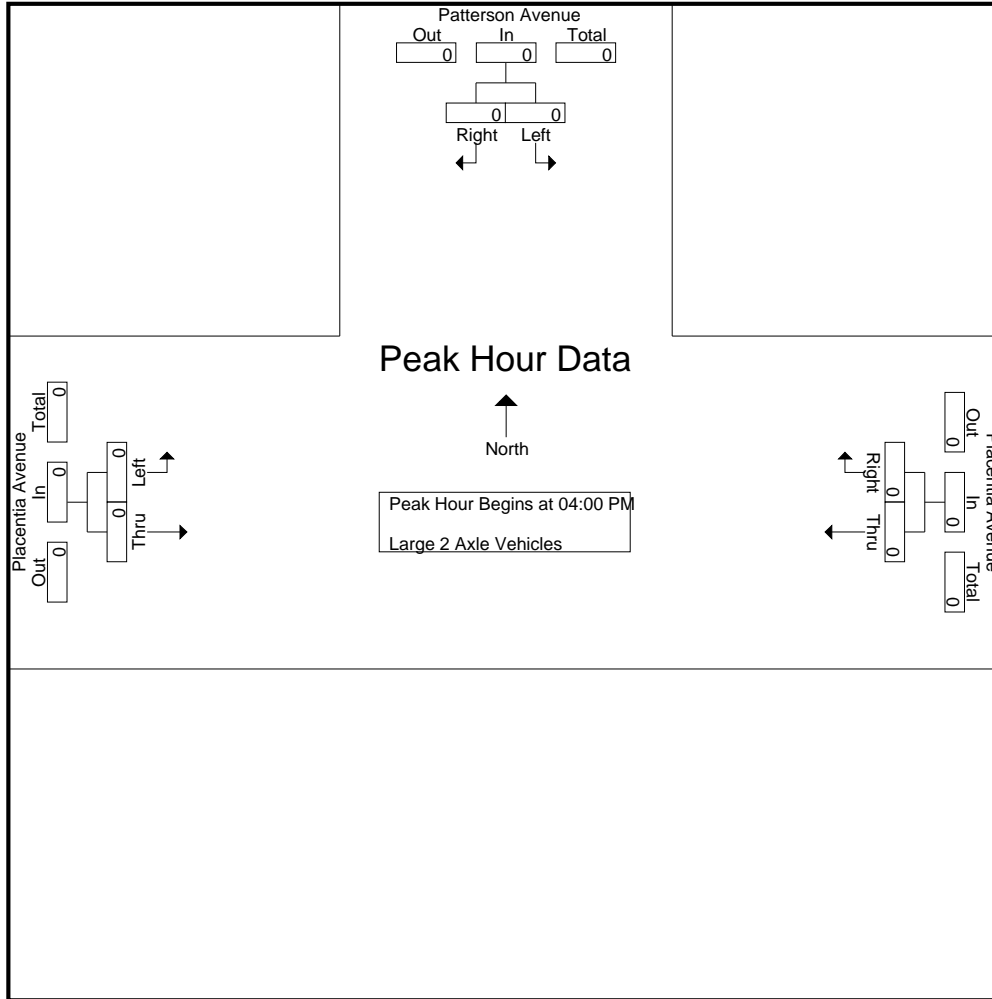
Groups Printed- Large 2 Axle Vehicles

Start Time	Patterson Avenue Southbound			Placentia Avenue Westbound			Placentia Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

Start Time	Patterson Avenue Southbound			Placentia Avenue Westbound			Placentia Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

County of Riverside
 N/S: Patterson Avenue
 E/W: Placentia Avenue
 Weather: Clear

File Name : 02_CRVPAPLPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

County of Riverside
 N/S: Patterson Avenue
 E/W: Placentia Avenue
 Weather: Clear

File Name : 02_CRVPAPLPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

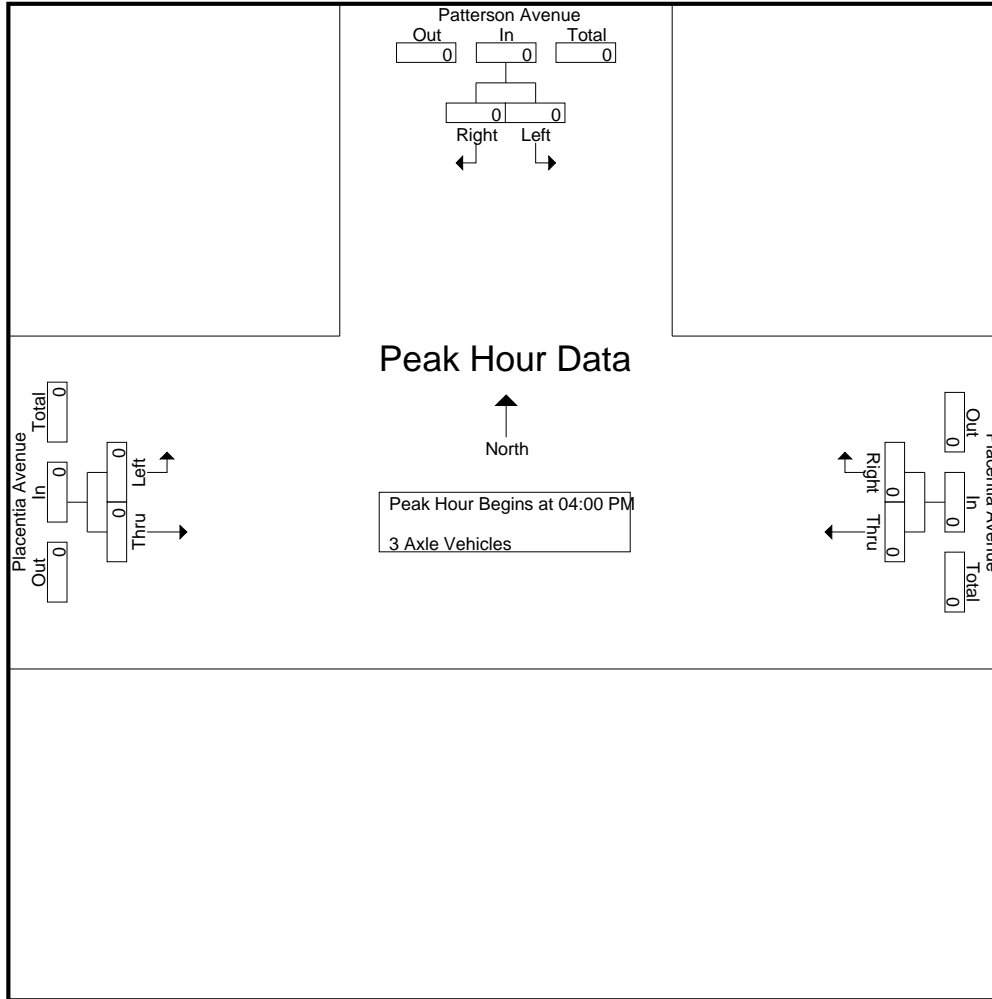
Groups Printed- 3 Axle Vehicles

Start Time	Patterson Avenue Southbound			Placentia Avenue Westbound			Placentia Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

Start Time	Patterson Avenue Southbound			Placentia Avenue Westbound			Placentia Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

County of Riverside
 N/S: Patterson Avenue
 E/W: Placentia Avenue
 Weather: Clear

File Name : 02_CRVPAPLPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

County of Riverside
 N/S: Patterson Avenue
 E/W: Placentia Avenue
 Weather: Clear

File Name : 02_CRVPAPLPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

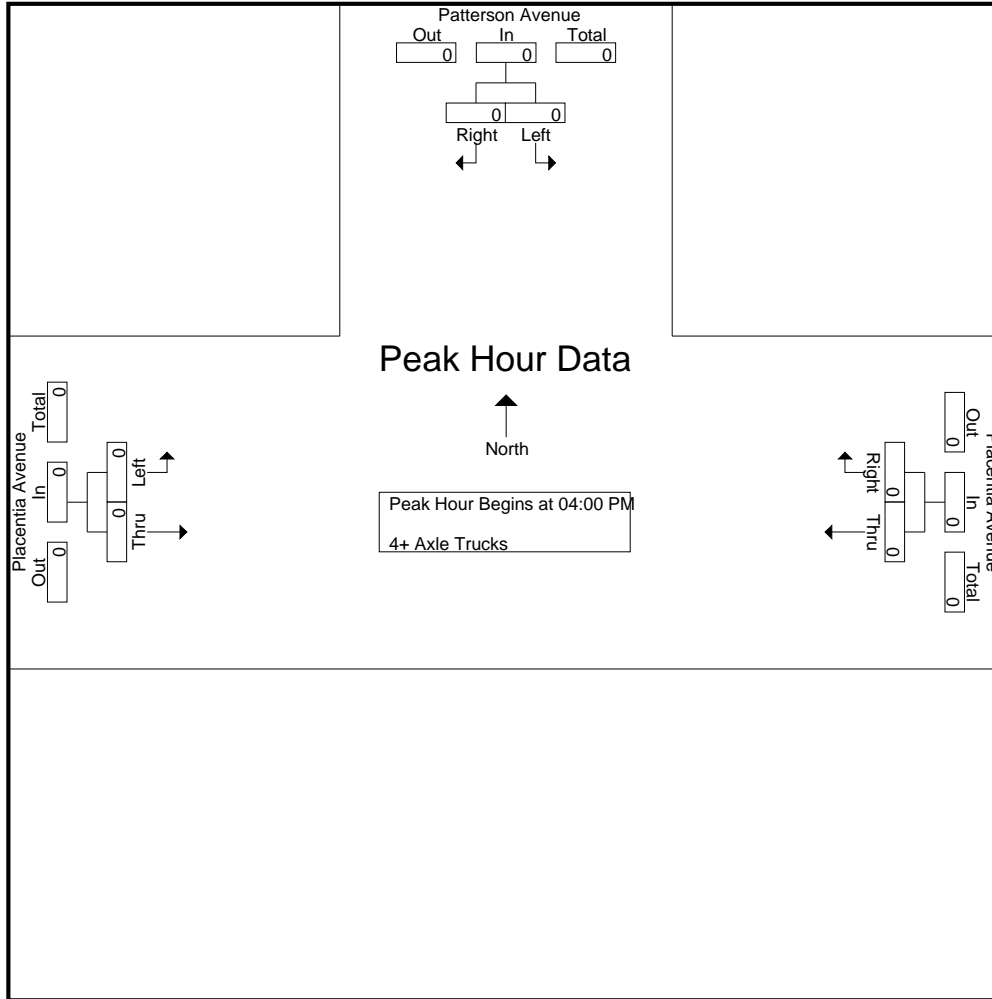
Groups Printed- 4+ Axle Trucks

Start Time	Patterson Avenue Southbound			Placentia Avenue Westbound			Placentia Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0		0	0		0	0		
Total %										

Start Time	Patterson Avenue Southbound			Placentia Avenue Westbound			Placentia Avenue Eastbound			Int. Total
	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0		0	0		0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

County of Riverside
 N/S: Patterson Avenue
 E/W: Placentia Avenue
 Weather: Clear

File Name : 02_CRVPAPLPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM			04:00 PM			04:00 PM		
+0 mins.	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000

Location: County of Riverside
 N/S: Patterson Avenue
 E/W: Placentia Avenue



Date: 2/12/2019
 Day: Tuesday

PEDESTRIANS

	North Leg Patterson Avenue Pedestrians	East Leg Placentia Avenue Pedestrians	South Leg Patterson Avenue Pedestrians	West Leg Placentia Avenue Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Patterson Avenue Pedestrians	East Leg Placentia Avenue Pedestrians	South Leg Patterson Avenue Pedestrians	West Leg Placentia Avenue Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: County of Riverside
 N/S: Patterson Avenue
 E/W: Placentia Avenue



Date: 2/12/2019
 Day: Tuesday

BICYCLES

	Southbound Patterson Avenue			Westbound Placentia Avenue			Northbound Patterson Avenue			Eastbound Placentia Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound Patterson Avenue			Westbound Placentia Avenue			Northbound Patterson Avenue			Eastbound Placentia Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	1	0	0	0	0	0	0	0	0	0	1

County of Riverside
 N/S: Driveway 2 / Tobacco Road
 E/W: Placentia Avenue
 Weather: Clear

File Name : 03_CRVD2PLAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

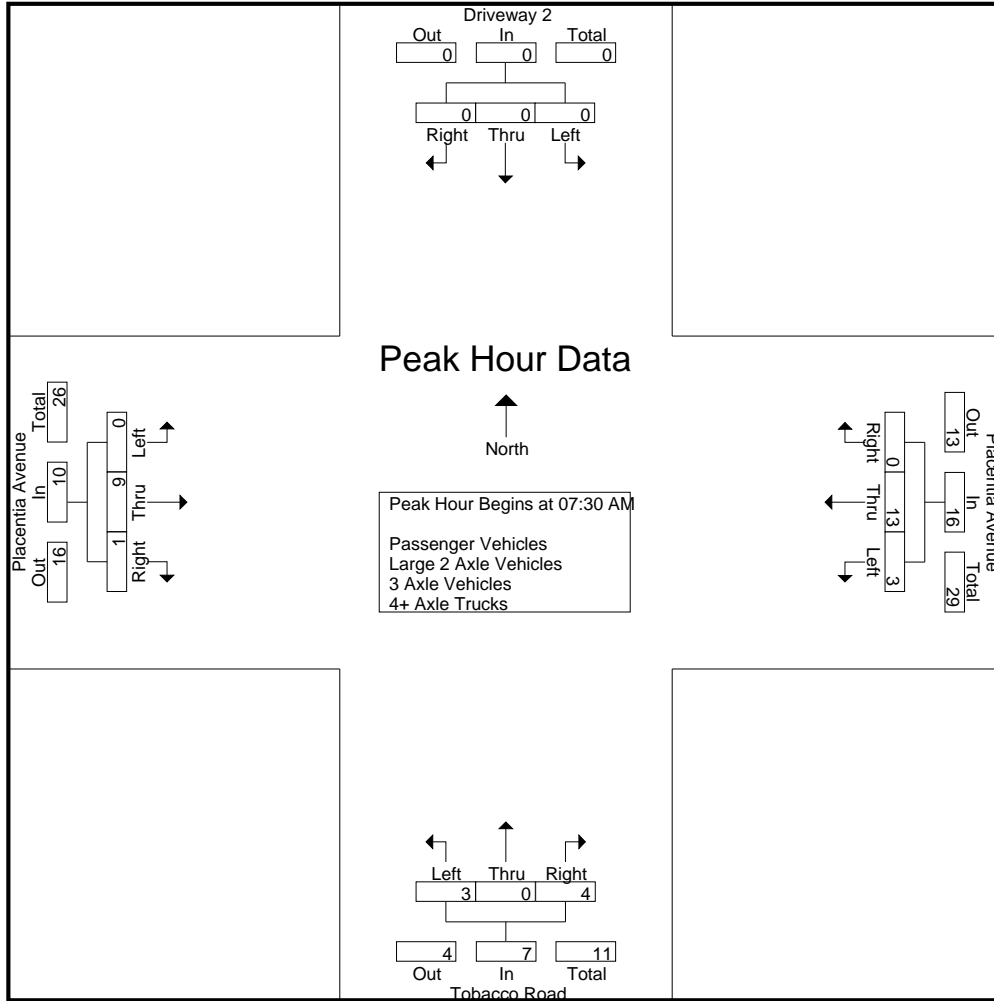
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Driveway 2 Southbound				Placentia Avenue Westbound				Tobacco Road Northbound				Placentia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	4	1	5	6
07:15 AM	0	0	0	0	0	1	0	1	0	0	2	2	0	3	0	3	6
07:30 AM	0	0	0	0	0	6	0	6	1	0	2	3	0	2	1	3	12
07:45 AM	0	0	0	0	2	3	0	5	0	0	0	0	0	3	0	3	8
Total	0	0	0	0	2	10	0	12	1	0	5	6	0	12	2	14	32
08:00 AM	0	0	0	0	1	3	0	4	0	0	1	1	0	1	0	1	6
08:15 AM	0	0	0	0	0	1	0	1	2	0	1	3	0	3	0	3	7
08:30 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	2	0	2	5
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
Total	0	0	0	0	1	7	0	8	2	0	2	4	0	8	0	8	20
Grand Total	0	0	0	0	3	17	0	20	3	0	7	10	0	20	2	22	52
Apprch %	0	0	0		15	85	0		30	0	70		0	90.9	9.1		
Total %	0	0	0	0	5.8	32.7	0	38.5	5.8	0	13.5	19.2	0	38.5	3.8	42.3	
Passenger Vehicles	0	0	0	0	3	15	0	18	3	0	5	8	0	20	1	21	47
% Passenger Vehicles	0	0	0	0	100	88.2	0	90	100	0	71.4	80	0	100	50	95.5	90.4
Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Axle Vehicles	0	0	0	0	0	2	0	2	0	0	2	2	0	0	1	1	5
% 3 Axle Vehicles	0	0	0	0	0	11.8	0	10	0	0	28.6	20	0	0	50	4.5	9.6
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Start Time	Driveway 2 Southbound				Placentia Avenue Westbound				Tobacco Road Northbound				Placentia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	0	6	0	6	1	0	2	3	0	2	1	3	12
07:45 AM	0	0	0	0	2	3	0	5	0	0	0	0	0	3	0	3	8
08:00 AM	0	0	0	0	1	3	0	4	0	0	1	1	0	1	0	1	6
08:15 AM	0	0	0	0	0	1	0	1	2	0	1	3	0	3	0	3	7
Total Volume	0	0	0	0	3	13	0	16	3	0	4	7	0	9	1	10	33
% App. Total	0	0	0	0	18.8	81.2	0		42.9	0	57.1		0	90	10		
PHF	.000	.000	.000	.000	.375	.542	.000	.667	.375	.000	.500	.583	.000	.750	.250	.833	.688

County of Riverside
 N/S: Driveway 2 / Tobacco Road
 E/W: Placentia Avenue
 Weather: Clear

File Name : 03_CRVD2PLAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:15 AM				07:30 AM				07:00 AM			
+0 mins.	0	0	0	0	0	1	0	1	1	0	2	3	0	4	1	5
+15 mins.	0	0	0	0	0	6	0	6	0	0	0	0	0	3	0	3
+30 mins.	0	0	0	0	2	3	0	5	0	0	1	1	0	2	1	3
+45 mins.	0	0	0	0	1	3	0	4	2	0	1	3	0	3	0	3
Total Volume	0	0	0	0	3	13	0	16	3	0	4	7	0	12	2	14
% App. Total	0	0	0	0	18.8	81.2	0	16	42.9	0	57.1	7	0	85.7	14.3	14
PHF	.000	.000	.000	.000	.375	.542	.000	.667	.375	.000	.500	.583	.000	.750	.500	.700

County of Riverside
 N/S: Driveway 2 / Tobacco Road
 E/W: Placentia Avenue
 Weather: Clear

File Name : 03_CRVD2PLAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

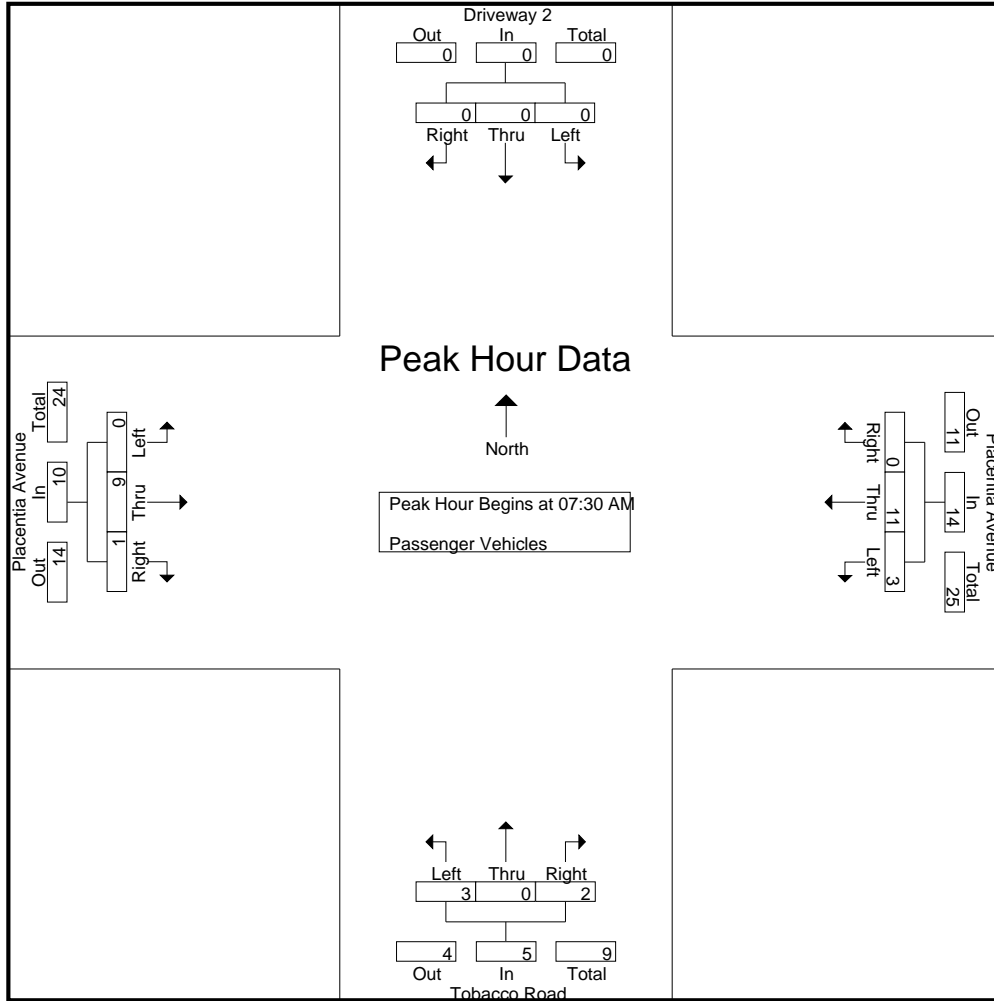
Groups Printed- Passenger Vehicles

Start Time	Driveway 2 Southbound				Placentia Avenue Westbound				Tobacco Road Northbound				Placentia Avenue Eastbound				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	4	0	4	5
07:15 AM	0	0	0	0	0	1	0	1	0	0	2	2	0	3	0	3	3	6
07:30 AM	0	0	0	0	0	5	0	5	1	0	1	2	0	2	1	3	3	10
07:45 AM	0	0	0	0	2	3	0	5	0	0	0	0	0	3	0	3	3	8
Total	0	0	0	0	2	9	0	11	1	0	4	5	0	12	1	13	29	
08:00 AM	0	0	0	0	1	2	0	3	0	0	0	0	0	1	0	1	1	4
08:15 AM	0	0	0	0	0	1	0	1	2	0	1	3	0	3	0	3	3	7
08:30 AM	0	0	0	0	0	3	0	3	0	0	0	0	0	2	0	2	2	5
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2	2
Total	0	0	0	0	1	6	0	7	2	0	1	3	0	8	0	8	8	18
Grand Total	0	0	0	0	3	15	0	18	3	0	5	8	0	20	1	21	21	47
Apprch %	0	0	0		16.7	83.3	0		37.5	0	62.5		0	95.2	4.8			
Total %	0	0	0		6.4	31.9	0	38.3	6.4	0	10.6	17	0	42.6	2.1	44.7		

Start Time	Driveway 2 Southbound				Placentia Avenue Westbound				Tobacco Road Northbound				Placentia Avenue Eastbound				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:30 AM																		
07:30 AM	0	0	0	0	0	5	0	5	1	0	1	2	0	2	1	3	3	10
07:45 AM	0	0	0	0	2	3	0	5	0	0	0	0	0	3	0	3	3	8
08:00 AM	0	0	0	0	1	2	0	3	0	0	0	0	0	1	0	1	1	4
08:15 AM	0	0	0	0	0	1	0	1	2	0	1	3	0	3	0	3	3	7
Total Volume	0	0	0	0	3	11	0	14	3	0	2	5	0	9	1	10	10	29
% App. Total	0	0	0		21.4	78.6	0		60	0	40		0	90	10			
PHF	.000	.000	.000	.000	.375	.550	.000	.700	.375	.000	.500	.417	.000	.750	.250	.833	.725	

County of Riverside
 N/S: Driveway 2 / Tobacco Road
 E/W: Placentia Avenue
 Weather: Clear

File Name : 03_CRVD2PLAM
 Site Code : 05119093
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Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	0	0	0	0	0	5	0	5	1	0	1	2	0	2	1	3
+15 mins.	0	0	0	0	2	3	0	5	0	0	0	0	0	3	0	3
+30 mins.	0	0	0	0	1	2	0	3	0	0	0	0	0	1	0	1
+45 mins.	0	0	0	0	0	1	0	1	2	0	1	3	0	3	0	3
Total Volume	0	0	0	0	3	11	0	14	3	0	2	5	0	9	1	10
% App. Total	0	0	0	0	21.4	78.6	0	14	60	0	40	5	0	90	10	10
PHF	.000	.000	.000	.000	.375	.550	.000	.700	.375	.000	.500	.417	.000	.750	.250	.833

County of Riverside
 N/S: Driveway 2 / Tobacco Road
 E/W: Placentia Avenue
 Weather: Clear

File Name : 03_CRVD2PLAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

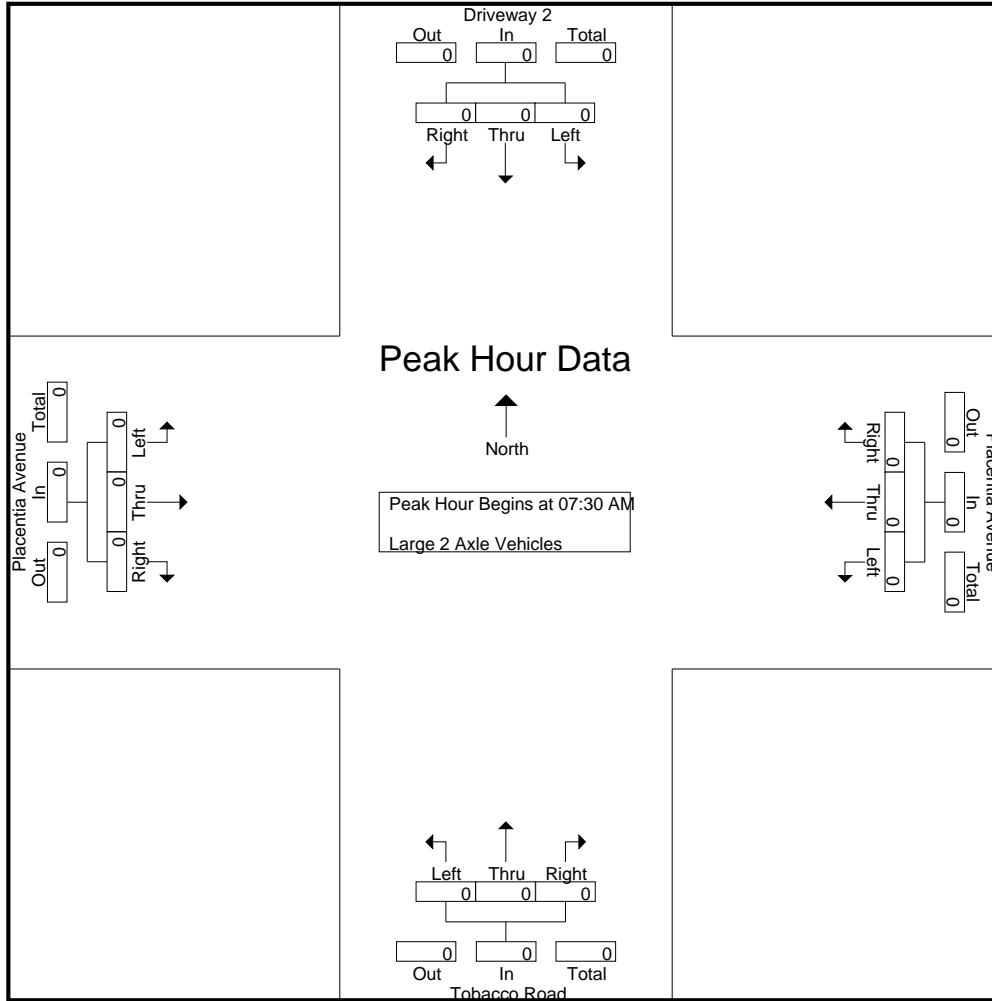
Groups Printed- Large 2 Axle Vehicles

Start Time	Driveway 2 Southbound				Placentia Avenue Westbound				Tobacco Road Northbound				Placentia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

Start Time	Driveway 2 Southbound				Placentia Avenue Westbound				Tobacco Road Northbound				Placentia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

County of Riverside
 N/S: Driveway 2 / Tobacco Road
 E/W: Placentia Avenue
 Weather: Clear

File Name : 03_CRVD2PLAM
 Site Code : 05119093
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Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

County of Riverside
 N/S: Driveway 2 / Tobacco Road
 E/W: Placentia Avenue
 Weather: Clear

File Name : 03_CRVD2PLAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

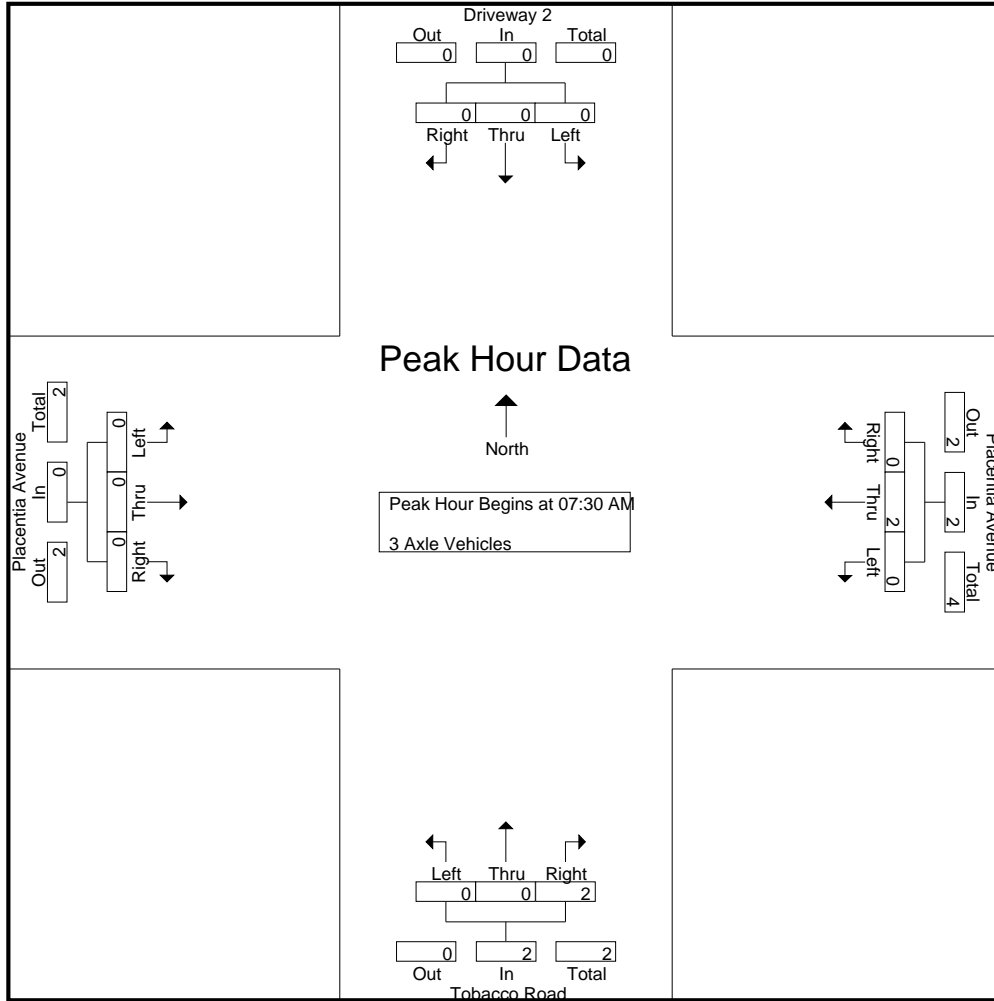
Groups Printed- 3 Axle Vehicles

Start Time	Driveway 2 Southbound				Placentia Avenue Westbound				Tobacco Road Northbound				Placentia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0	2
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	1	0	0	1	1	0	0	1	1	3
08:00 AM	0	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0	2
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0	2
Grand Total	0	0	0	0	0	2	0	2	0	0	2	2	0	0	1	1	5
Apprch %	0	0	0		0	100	0		0	0	100		0	0	100		
Total %	0	0	0	0	0	40	0	40	0	0	40	40	0	0	20	20	

Start Time	Driveway 2 Southbound				Placentia Avenue Westbound				Tobacco Road Northbound				Placentia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0	2
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0	2
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	2	0	2	0	0	2	2	0	0	0	0	4
% App. Total	0	0	0		0	100	0		0	0	100		0	0	0		
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.500	.500	.000	.000	.000	.000	.500

County of Riverside
 N/S: Driveway 2 / Tobacco Road
 E/W: Placentia Avenue
 Weather: Clear

File Name : 03_CRVD2PLAM
 Site Code : 05119093
 Start Date : 2/12/2019
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Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	0	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	1	0	1	0	0	1	1	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	2	0	2	0	0	2	2	0	0	0	0
% App. Total	0	0	0	0	0	100	0	0	0	0	100	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.500	.500	.000	.000	.000	.000

County of Riverside
 N/S: Driveway 2 / Tobacco Road
 E/W: Placentia Avenue
 Weather: Clear

File Name : 03_CRVD2PLAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

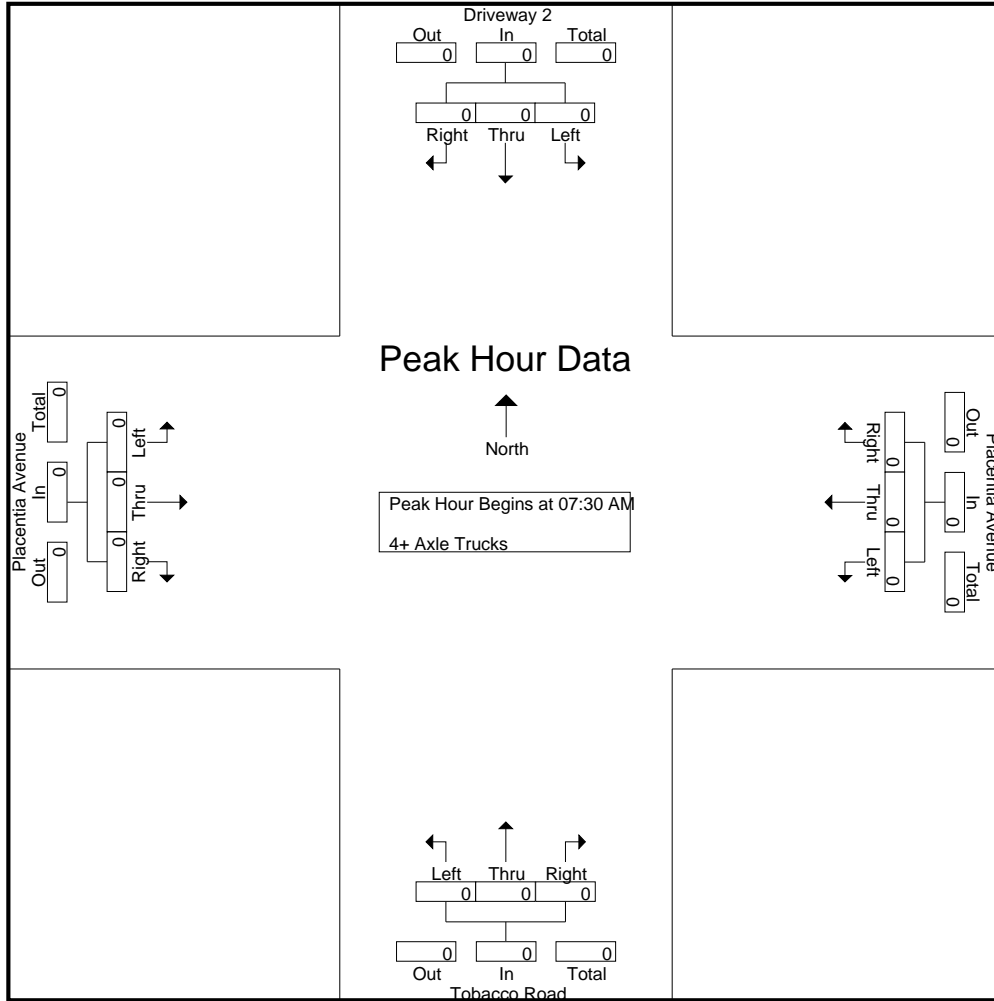
Groups Printed- 4+ Axle Trucks

Start Time	Driveway 2 Southbound				Placentia Avenue Westbound				Tobacco Road Northbound				Placentia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

Start Time	Driveway 2 Southbound				Placentia Avenue Westbound				Tobacco Road Northbound				Placentia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

County of Riverside
 N/S: Driveway 2 / Tobacco Road
 E/W: Placentia Avenue
 Weather: Clear

File Name : 03_CRVD2PLAM
 Site Code : 05119093
 Start Date : 2/12/2019
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Peak Hour Analysis From 07:30 AM to 08:15 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:30 AM				07:30 AM				07:30 AM				07:30 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

County of Riverside
 N/S: Driveway 2 / Tobacco Road
 E/W: Placentia Avenue
 Weather: Clear

File Name : 03_CRVD2PLPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

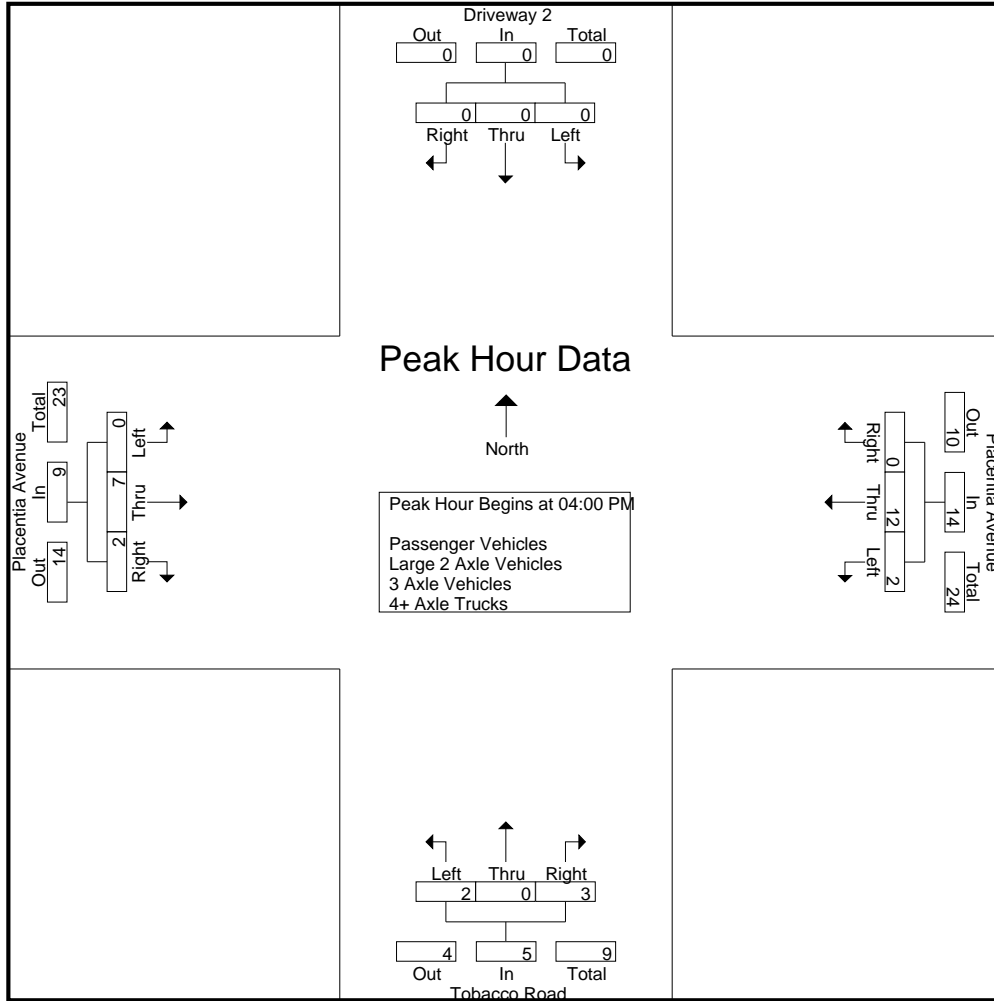
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Driveway 2 Southbound				Placentia Avenue Westbound				Tobacco Road Northbound				Placentia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	1	3	0	4	1	0	1	2	0	1	2	3	9
04:15 PM	0	0	0	0	0	2	0	2	0	0	2	2	0	2	0	2	6
04:30 PM	0	0	0	0	1	4	0	5	1	0	0	1	0	1	0	1	7
04:45 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	3	0	3	6
Total	0	0	0	0	2	12	0	14	2	0	3	5	0	7	2	9	28
05:00 PM	0	0	0	0	5	0	0	5	0	0	0	0	0	1	0	1	6
05:15 PM	0	0	0	0	0	1	0	1	0	0	2	2	0	2	0	2	5
05:30 PM	0	0	0	0	0	2	0	2	1	0	0	1	0	2	0	2	5
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	3
Total	0	0	0	0	5	3	0	8	1	0	2	3	0	7	1	8	19
Grand Total	0	0	0	0	7	15	0	22	3	0	5	8	0	14	3	17	47
Apprch %	0	0	0		31.8	68.2	0		37.5	0	62.5		0	82.4	17.6		
Total %	0	0	0	0	14.9	31.9	0	46.8	6.4	0	10.6	17	0	29.8	6.4	36.2	
Passenger Vehicles	0	0	0	0	7	15	0	22	3	0	5	8	0	14	3	17	47
% Passenger Vehicles	0	0	0	0	100	100	0	100	100	0	100	100	0	100	100	100	100
Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Large 2 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Start Time	Driveway 2 Southbound				Placentia Avenue Westbound				Tobacco Road Northbound				Placentia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	1	3	0	4	1	0	1	2	0	1	2	3	9
04:15 PM	0	0	0	0	0	2	0	2	0	0	2	2	0	2	0	2	6
04:30 PM	0	0	0	0	1	4	0	5	1	0	0	1	0	1	0	1	7
04:45 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	3	0	3	6
Total Volume	0	0	0	0	2	12	0	14	2	0	3	5	0	7	2	9	28
% App. Total	0	0	0	0	14.3	85.7	0		40	0	60		0	77.8	22.2		
PHF	.000	.000	.000	.000	.500	.750	.000	.700	.500	.000	.375	.625	.000	.583	.250	.750	.778

County of Riverside
 N/S: Driveway 2 / Tobacco Road
 E/W: Placentia Avenue
 Weather: Clear

File Name : 03_CRVD2PLPM
 Site Code : 05119093
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Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:15 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	2	0	2	1	0	1	2	0	1	2	3
+15 mins.	0	0	0	0	1	4	0	5	0	0	2	2	0	2	0	2
+30 mins.	0	0	0	0	0	3	0	3	1	0	0	1	0	1	0	1
+45 mins.	0	0	0	0	5	0	0	5	0	0	0	0	0	3	0	3
Total Volume	0	0	0	0	6	9	0	15	2	0	3	5	0	7	2	9
% App. Total	0	0	0	0	40	60	0	.750	40	0	60	.625	0	77.8	22.2	.750
PHF	.000	.000	.000	.000	.300	.563	.000	.750	.500	.000	.375	.625	.000	.583	.250	.750

County of Riverside
 N/S: Driveway 2 / Tobacco Road
 E/W: Placentia Avenue
 Weather: Clear

File Name : 03_CRVD2PLPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

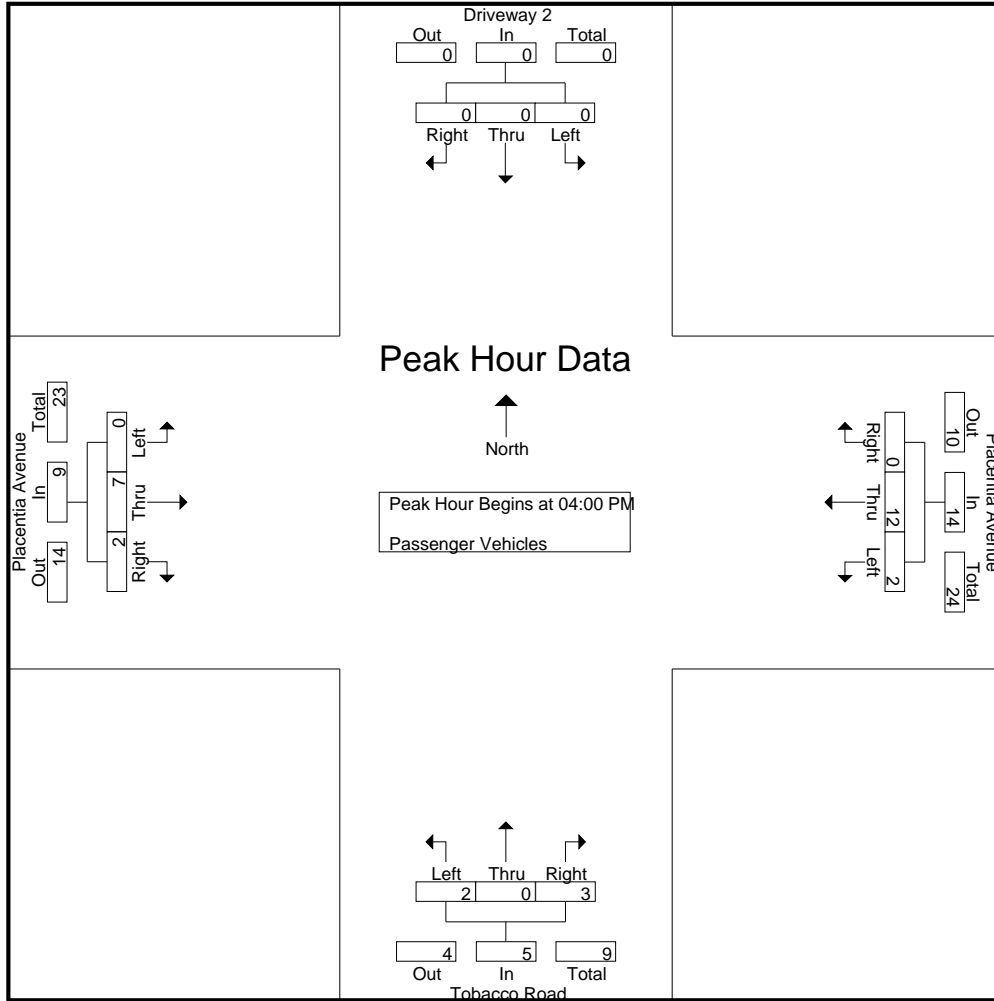
Groups Printed- Passenger Vehicles

Start Time	Driveway 2 Southbound				Placentia Avenue Westbound				Tobacco Road Northbound				Placentia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	1	3	0	4	1	0	1	2	0	1	2	3	9
04:15 PM	0	0	0	0	0	2	0	2	0	0	2	2	0	2	0	2	6
04:30 PM	0	0	0	0	1	4	0	5	1	0	0	1	0	1	0	1	7
04:45 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	3	0	3	6
Total	0	0	0	0	2	12	0	14	2	0	3	5	0	7	2	9	28
05:00 PM	0	0	0	0	5	0	0	5	0	0	0	0	0	1	0	1	6
05:15 PM	0	0	0	0	0	1	0	1	0	0	2	2	0	2	0	2	5
05:30 PM	0	0	0	0	0	2	0	2	1	0	0	1	0	2	0	2	5
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	3	3
Total	0	0	0	0	5	3	0	8	1	0	2	3	0	7	1	8	19
Grand Total	0	0	0	0	7	15	0	22	3	0	5	8	0	14	3	17	47
Apprch %	0	0	0		31.8	68.2	0		37.5	0	62.5		0	82.4	17.6		
Total %	0	0	0		14.9	31.9	0	46.8	6.4	0	10.6	17	0	29.8	6.4	36.2	

Start Time	Driveway 2 Southbound				Placentia Avenue Westbound				Tobacco Road Northbound				Placentia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	1	3	0	4	1	0	1	2	0	1	2	3	9
04:15 PM	0	0	0	0	0	2	0	2	0	0	2	2	0	2	0	2	6
04:30 PM	0	0	0	0	1	4	0	5	1	0	0	1	0	1	0	1	7
04:45 PM	0	0	0	0	0	3	0	3	0	0	0	0	0	3	0	3	6
Total Volume	0	0	0	0	2	12	0	14	2	0	3	5	0	7	2	9	28
% App. Total	0	0	0		14.3	85.7	0		40	0	60		0	77.8	22.2		
PHF	.000	.000	.000	.000	.500	.750	.000	.700	.500	.000	.375	.625	.000	.583	.250	.750	.778

County of Riverside
 N/S: Driveway 2 / Tobacco Road
 E/W: Placentia Avenue
 Weather: Clear

File Name : 03_CRVD2PLPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	1	3	0	4	1	0	1	2	0	1	2	3
+15 mins.	0	0	0	0	0	2	0	2	0	0	2	2	0	2	0	2
+30 mins.	0	0	0	0	1	4	0	5	1	0	0	1	0	1	0	1
+45 mins.	0	0	0	0	0	3	0	3	0	0	0	0	0	3	0	3
Total Volume	0	0	0	0	2	12	0	14	2	0	3	5	0	7	2	9
% App. Total	0	0	0	0	14.3	85.7	0		40	0	60		0	77.8	22.2	
PHF	.000	.000	.000	.000	.500	.750	.000	.700	.500	.000	.375	.625	.000	.583	.250	.750

County of Riverside
 N/S: Driveway 2 / Tobacco Road
 E/W: Placentia Avenue
 Weather: Clear

File Name : 03_CRVD2PLPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

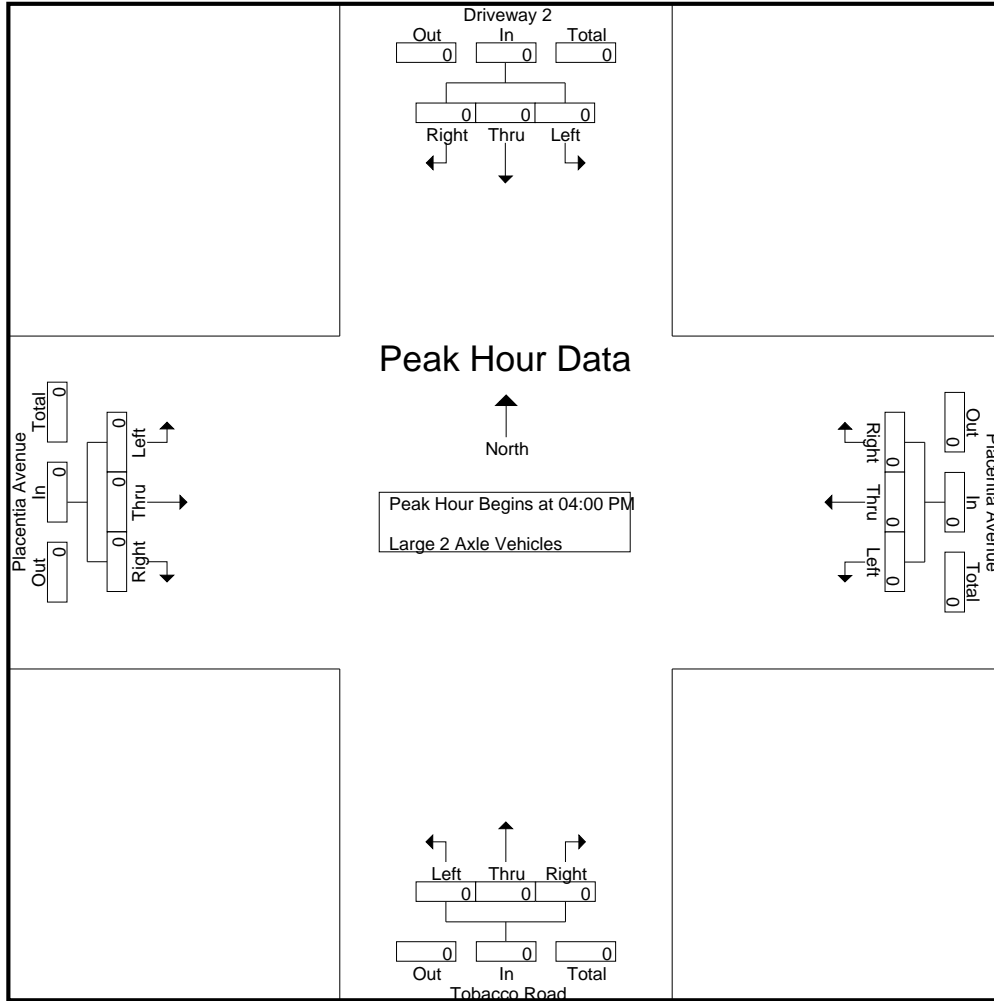
Groups Printed- Large 2 Axle Vehicles

Start Time	Driveway 2 Southbound				Placentia Avenue Westbound				Tobacco Road Northbound				Placentia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

Start Time	Driveway 2 Southbound				Placentia Avenue Westbound				Tobacco Road Northbound				Placentia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

County of Riverside
 N/S: Driveway 2 / Tobacco Road
 E/W: Placentia Avenue
 Weather: Clear

File Name : 03_CRVD2PLPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



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

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

County of Riverside
 N/S: Driveway 2 / Tobacco Road
 E/W: Placentia Avenue
 Weather: Clear

File Name : 03_CRVD2PLPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

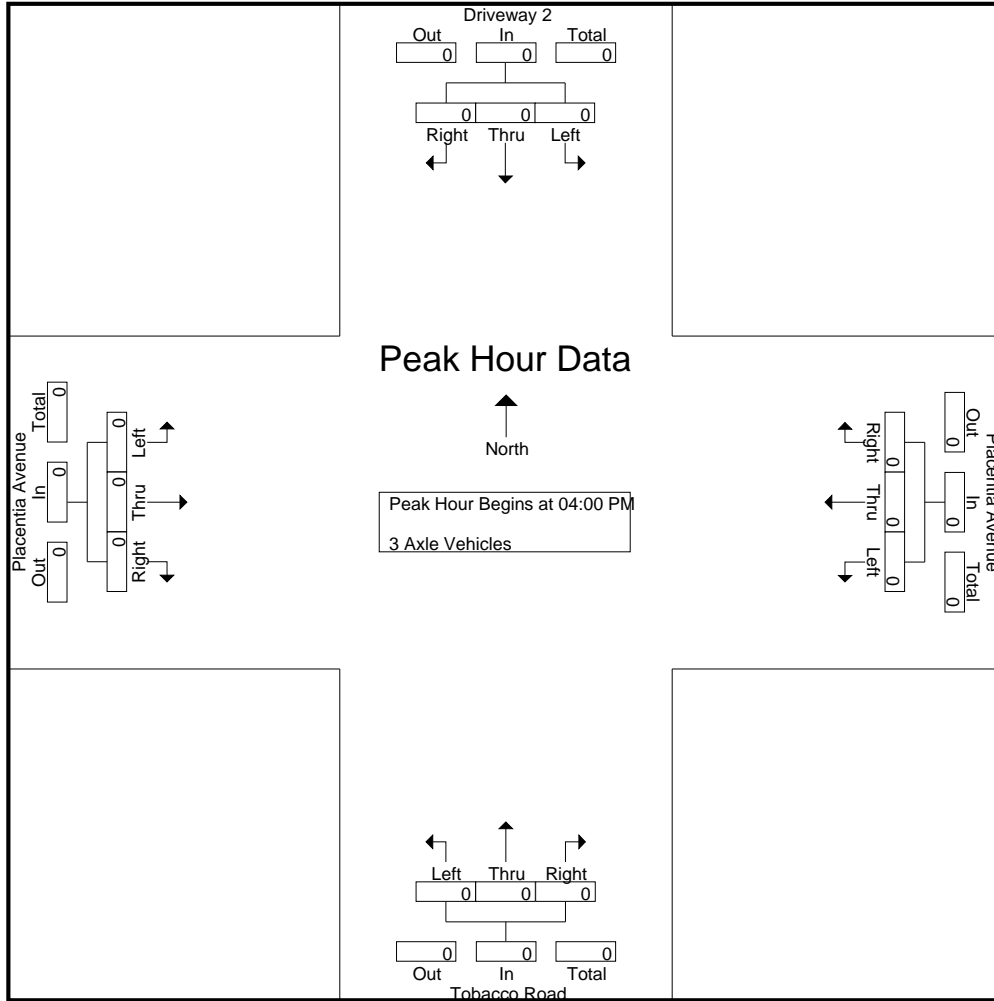
Groups Printed- 3 Axle Vehicles

Start Time	Driveway 2 Southbound				Placentia Avenue Westbound				Tobacco Road Northbound				Placentia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

Start Time	Driveway 2 Southbound				Placentia Avenue Westbound				Tobacco Road Northbound				Placentia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

County of Riverside
 N/S: Driveway 2 / Tobacco Road
 E/W: Placentia Avenue
 Weather: Clear

File Name : 03_CRVD2PLPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



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

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

County of Riverside
 N/S: Driveway 2 / Tobacco Road
 E/W: Placentia Avenue
 Weather: Clear

File Name : 03_CRVD2PLPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

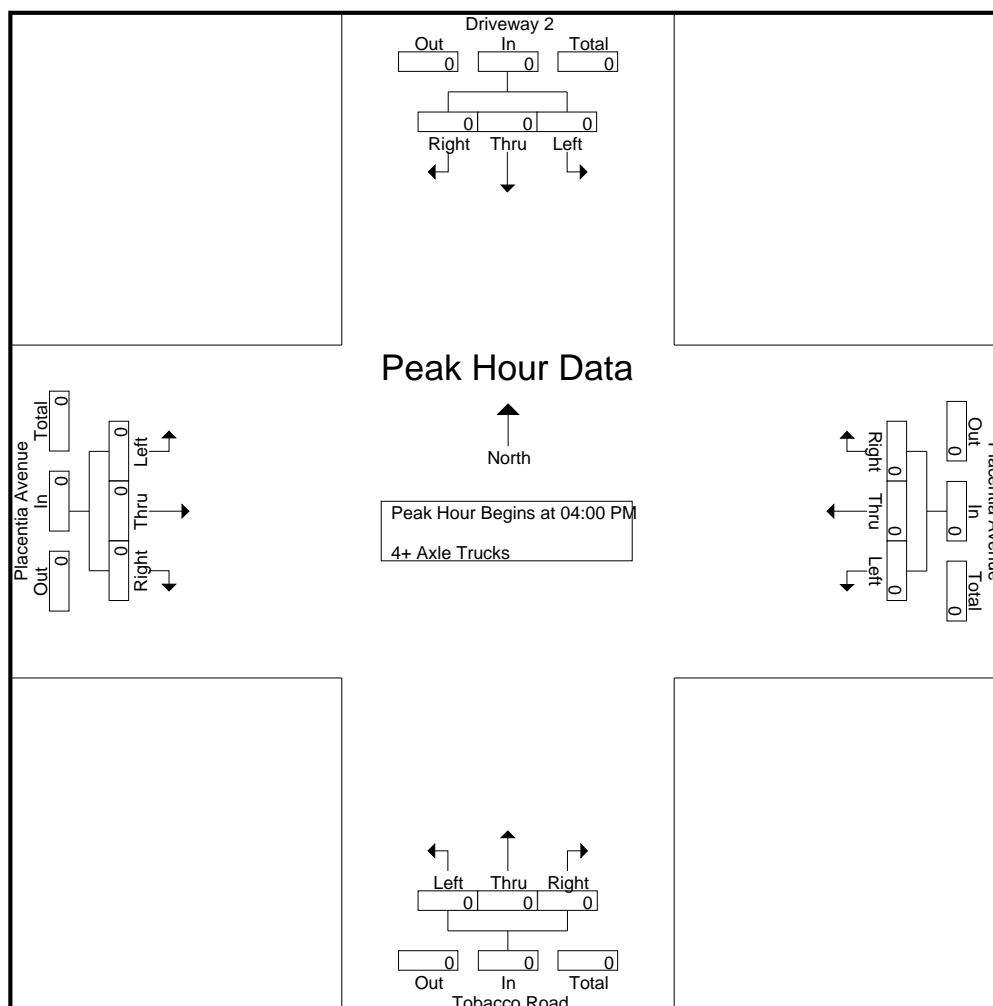
Groups Printed- 4+ Axle Trucks

Start Time	Driveway 2 Southbound				Placentia Avenue Westbound				Tobacco Road Northbound				Placentia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Apprch %	0	0	0		0	0	0		0	0	0		0	0	0		
Total %																	

Start Time	Driveway 2 Southbound				Placentia Avenue Westbound				Tobacco Road Northbound				Placentia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

County of Riverside
 N/S: Driveway 2 / Tobacco Road
 E/W: Placentia Avenue
 Weather: Clear

File Name : 03_CRVD2PLPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Location: County of Riverside
 N/S: Driveway 2
 E/W: Placentia Avenue



Date: 2/12/2019
 Day: Tuesday

PEDESTRIANS

	North Leg Driveway 2	East Leg Placentia Avenue	South Leg Tobacco Road	West Leg Placentia Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Driveway 2	East Leg Placentia Avenue	South Leg Tobacco Road	West Leg Placentia Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: County of Riverside
 N/S: Driveway 2
 E/W: Placentia Avenue



Date: 2/12/2019
 Day: Tuesday

BICYCLES

	Southbound Driveway 2			Westbound Placentia Avenue			Northbound Tobacco Road			Eastbound Placentia Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound Driveway 2			Westbound Placentia Avenue			Northbound Tobacco Road			Eastbound Placentia Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	1	0	0	0	0	0	1

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: Harvill Avenue
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 05_CRVHACAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Harvill Avenue Southbound					Cajalco Expressway Westbound					Harvill Avenue Northbound					Cajalco Expressway Eastbound					Inclu. Total	Int. Total	
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total			Exclu. Total
07:00 AM	33	20	2	2	55	36	175	52	20	263	110	105	40	12	255	7	117	29	6	153	40	726	766
07:15 AM	50	35	2	1	87	28	190	55	30	273	76	67	23	7	166	4	151	28	8	183	46	709	755
07:30 AM	42	35	2	0	79	33	161	30	14	224	91	81	31	8	203	7	163	41	17	211	39	717	756
07:45 AM	53	38	0	0	91	39	185	33	12	257	63	45	23	10	131	3	186	35	19	224	41	703	744
Total	178	128	6	3	312	136	711	170	76	1017	340	298	117	37	755	21	617	133	50	771	166	2855	3021
08:00 AM	39	29	1	1	69	28	200	27	14	255	62	29	16	10	107	5	137	30	10	172	35	603	638
08:15 AM	27	19	2	1	48	33	201	21	5	255	54	24	23	15	101	1	124	22	8	147	29	551	580
08:30 AM	30	20	4	1	54	34	168	15	6	217	39	22	21	14	82	3	129	14	5	146	26	499	525
08:45 AM	28	26	3	0	57	27	151	12	4	190	39	17	18	13	74	3	121	37	5	161	22	482	504
Total	124	94	10	3	228	122	720	75	29	917	194	92	78	52	364	12	511	103	28	626	112	2135	2247
Grand Total	302	222	16	6	540	258	1431	245	105	1934	534	390	195	89	1119	33	1128	236	78	1397	278	4990	5268
Approach %	55.9	41.1	3			13.3	74	12.7			47.7	34.9	17.4			2.4	80.7	16.9					
Total %	6.1	4.4	0.3		10.8	5.2	28.7	4.9		38.8	10.7	7.8	3.9		22.4	0.7	22.6	4.7		28	5.3	94.7	
Passenger Vehicles	283	190	10		487	196	1340	221		1851	512	372	157		1112	27	1034	229		1368	0	0	4818
% Large 2 Axle Vehicles	93.7	85.6	62.5	66.7	89.2	76	93.6	90.2	89.5	90.8	95.9	95.4	80.5	79.8	92.1	81.8	91.7	97	100	92.7	0	0	91.5
% 3 Axle Vehicles	11	22	2		36	21	52	16		97	14	13	11		45	2	37	5		44	0	0	222
% 4+ Axle Trucks	3.6	9.9	12.5	16.7	6.6	8.1	3.6	6.5	7.6	4.8	2.6	3.3	5.6	7.9	3.7	6.1	3.3	2.1	0	3	0	0	4.2
3 Axle Vehicles	4	7	0		11	9	7	2		19	1	3	6		14	2	11	1		14	0	0	58
% 3 Axle Vehicles	1.3	3.2	0	0	2	3.5	0.5	0.8	1	0.9	0.2	0.8	3.1	4.5	1.2	6.1	1	0.4	0	0.9	0	0	1.1
4+ Axle Trucks	4	3	4		12	32	32	6		72	7	2	21		37	2	46	1		49	0	0	170
% 4+ Axle Trucks	1.3	1.4	25	16.7	2.2	12.4	2.2	2.4	1.9	3.5	1.3	0.5	10.8	7.9	3.1	6.1	4.1	0.4	0	3.3	0	0	3.2

3-1-98

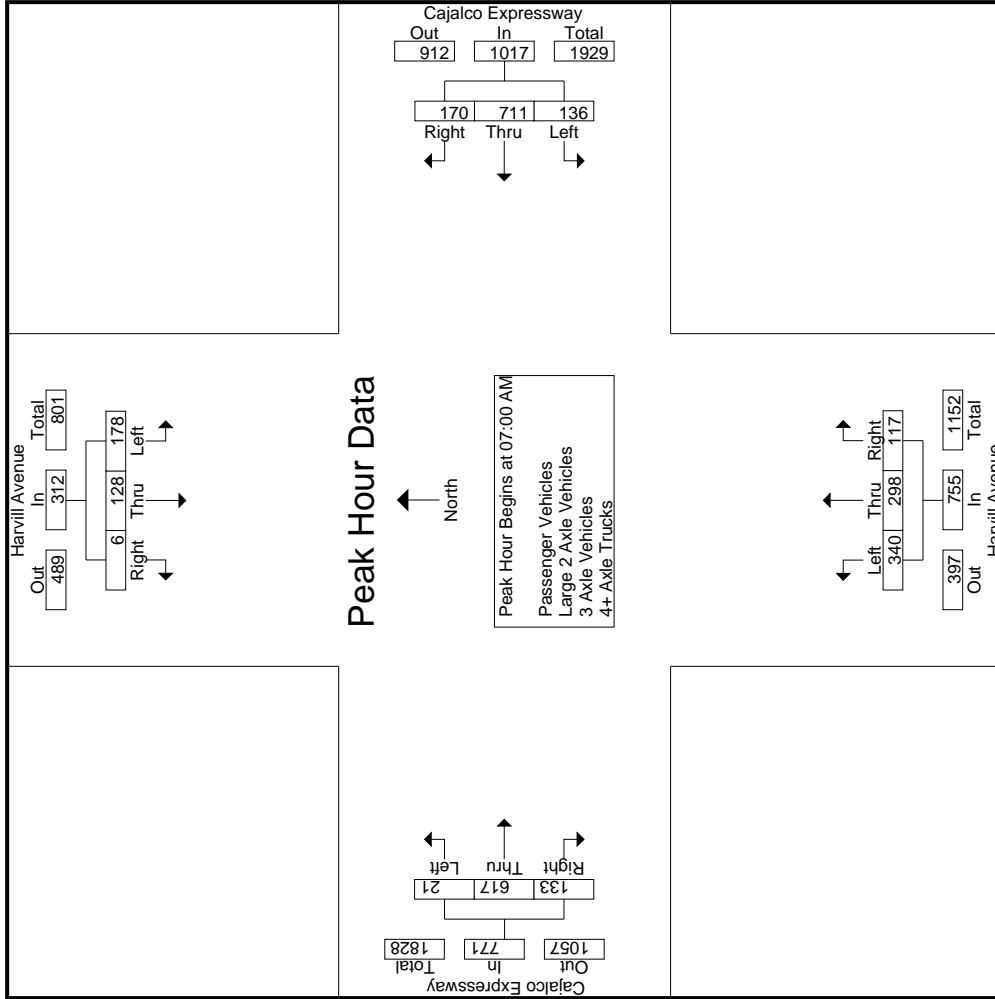
Start Time	Harvill Avenue Southbound					Cajalco Expressway Westbound					Harvill Avenue Northbound					Cajalco Expressway Eastbound											
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Int. Total	
07:00 AM	33	20	2		55	36	175	52		263	110	105	40		255	7	117	29		153	40	726					
07:15 AM	50	35	2		87	28	190	55		273	76	67	23		166	4	151	28		183	46	709					
07:30 AM	42	35	2		79	33	161	30		224	91	81	31		203	7	163	41		211	39	717					
07:45 AM	53	38	0		91	39	185	33		257	63	45	23		131	3	186	35		224	41	703					
Total Volume	178	128	6		312	136	711	170		1017	340	298	117		755	21	617	133		771	166	2855					
% App. Total	57.1	41			1.9	13.4	69.9	16.7		16.7	39.5	39.5	15.5		15.5	2.7	80	17.3		17.3	8.1	860					
PHF	.840	.842			.750	.857	.872	.936		.773	.710	.731	.740		.829	.750	.829	.811		.860		.983					

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

Counts Unlimited
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County of Riverside
 N/S: Harvill Avenue
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 05_CRVHACAAM
 Site Code : 05119093
 Start Date : 2/12/2019
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Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: Harvill Avenue
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 05_CRVHACAAM
 Site Code : 05119093
 Start Date : 2/12/2019
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Start Time	Harvill Avenue Southbound			Cajalco Expressway Westbound			Harvill Avenue Northbound			Cajalco Expressway Eastbound			App. Total	Int. Total	
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right			
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1															
Peak Hour for Each Approach Begins at:															
	07:15 AM			07:00 AM			07:00 AM			07:15 AM					
+0 mins.	50	35	2	36	175	52	263	110	105	40	255	4	151	28	183
+15 mins.	42	35	2	28	190	55	273	76	67	23	166	7	163	41	211
+30 mins.	53	38	0	33	161	30	224	91	81	31	203	3	186	35	224
+45 mins.	39	29	1	39	185	33	257	63	45	23	131	5	137	30	172
Total Volume	184	137	5	136	711	170	1017	340	298	117	755	19	637	134	790
% App. Total	56.4	42	1.5	13.4	69.9	16.7	45	39.5	15.5	15.5	2.4	80.6	17	17	882
PHF	.868	.901	.625	.872	.936	.773	.931	.773	.710	.731	.740	.679	.856	.817	.882

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: Harvill Avenue
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 05_CRVHACAAM
 Site Code : 05119093
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Groups Printed- Passenger Vehicles

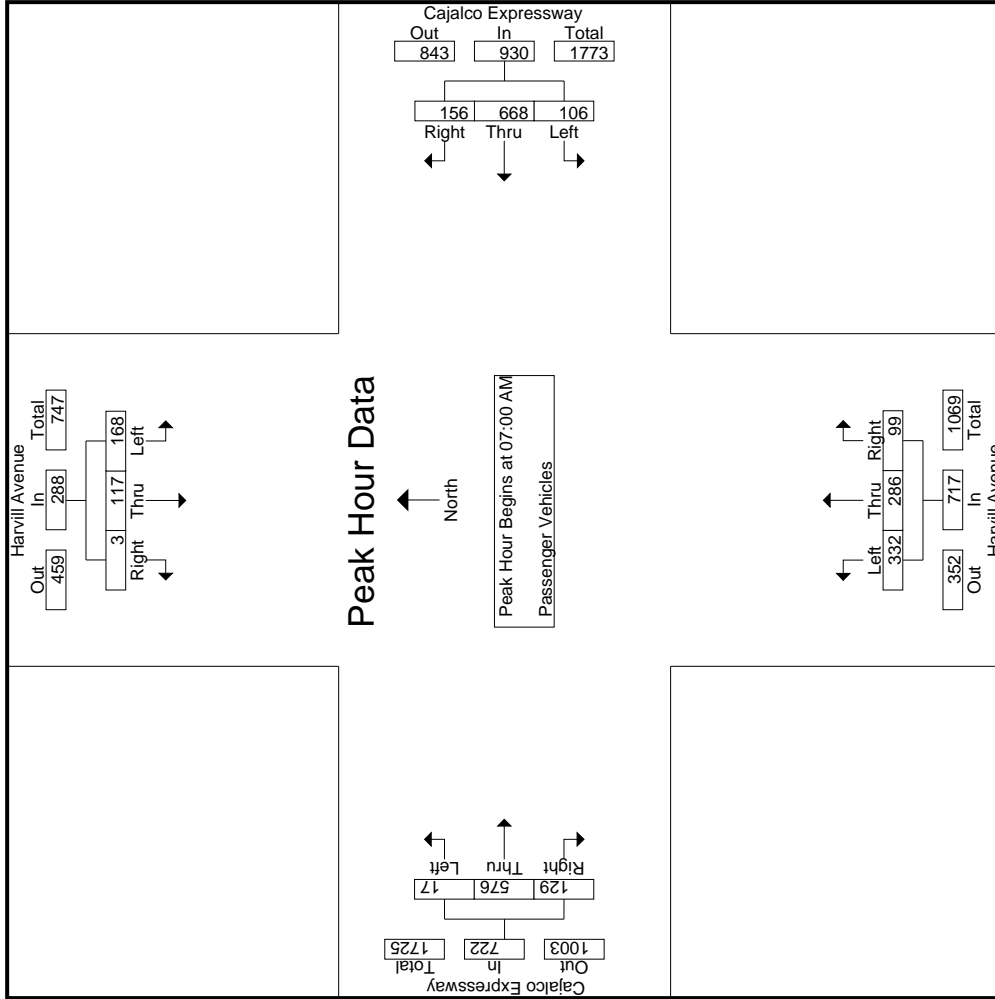
Start Time	Harvill Avenue Southbound			Cajalco Expressway Westbound			Harvill Avenue Northbound			Cajalco Expressway Eastbound			Exclu. Total	Inclu. Total	Int. Total							
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right										
	RTOR	App. Total	RTOR	App. Total	RTOR	App. Total	RTOR	App. Total	RTOR	App. Total	RTOR	App. Total										
07:00 AM	29	16	2	47	33	169	49	18	251	109	103	37	10	249	4	107	28	6	139	36	686	722
07:15 AM	46	32	0	78	21	184	51	28	256	73	61	17	5	151	4	142	27	8	173	41	658	699
07:30 AM	42	33	1	76	25	143	27	13	195	88	80	27	6	195	7	155	39	17	201	38	667	703
07:45 AM	51	36	0	87	27	172	29	10	228	62	42	18	9	122	2	172	35	19	209	38	646	684
Total	168	117	3	288	106	668	156	69	930	332	286	99	30	717	17	576	129	50	722	151	2657	2808
08:00 AM	36	24	1	61	24	188	23	11	235	59	26	13	8	98	5	126	28	10	159	30	553	583
08:15 AM	22	13	1	36	25	187	17	4	229	50	24	20	13	94	0	115	22	8	137	25	496	521
08:30 AM	29	15	2	46	24	152	14	6	190	34	21	12	9	67	2	111	14	5	127	21	430	451
08:45 AM	28	21	3	52	17	145	11	4	173	37	15	13	11	65	3	106	36	5	145	20	435	455
Total	115	73	7	195	90	672	65	25	827	180	86	58	41	324	10	458	100	28	568	96	1914	2010
Grand Total	283	190	10	483	196	1340	221	94	1757	512	372	157	71	1041	27	1034	229	78	1290	247	4571	4818
Approach %	58.6	39.3	2.1	10.6	11.2	76.3	12.6	4.8	38.4	49.2	35.7	15.1	3.4	22.8	2.1	80.2	17.8	5	28.2	5.1	94.9	
Total %	6.2	4.2	0.2		4.3	29.3	4.8			11.2	8.1				0.6	22.6						

Start Time	Harvill Avenue Southbound			Cajalco Expressway Westbound			Harvill Avenue Northbound			Cajalco Expressway Eastbound												
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right										
	App. Total	App. Total	App. Total	App. Total	App. Total	App. Total	App. Total	App. Total	App. Total	App. Total	App. Total	App. Total										
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																						
Peak Hour for Entire Intersection Begins at 07:00 AM																						
07:00 AM	29	16	2	47	33	169	49	18	251	109	103	37	10	249	4	107	28	6	139	36	686	722
07:15 AM	46	32	0	78	21	184	51	28	256	73	61	17	5	151	4	142	27	8	173	41	658	699
07:30 AM	42	33	1	76	25	143	27	13	195	88	80	27	6	195	7	155	39	17	201	38	667	703
07:45 AM	51	36	0	87	27	172	29	10	228	62	42	18	9	122	2	172	35	19	209	38	646	684
Total Volume	168	117	3	288	106	668	156	69	930	332	286	99	30	717	17	576	129	50	722	151	2657	2808
% App. Total	58.3	40.6	1	10.6	11.4	71.8	16.8	4.8	38.4	49.2	35.7	15.1	3.4	22.8	2.1	80.2	17.8	5	28.2	5.1	94.9	
PHF	.824	.813	.375	.828	.803	.908	.765	.908	.908	.761	.694	.669	.720	.669	.607	.837	.827	.864	.968			

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County of Riverside
 N/S: Harvill Avenue
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 05_CRVHACAAM
 Site Code : 05119093
 Start Date : 2/12/2019
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Counts Unlimited
 PO Box 1178
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 951-268-6268

County of Riverside
 N/S: Harvill Avenue
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File Name : 05_CRVHACAAM
 Site Code : 05119093
 Start Date : 2/12/2019
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Start Time	Harvill Avenue Southbound			Cajalco Expressway Westbound			Harvill Avenue Northbound			Cajalco Expressway Eastbound			App. Total	Int. Total	
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right			
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1															
Peak Hour for Each Approach Begins at:															
	07:00 AM			07:00 AM			07:00 AM			07:00 AM			07:00 AM		
+0 mins.	29	16	2	33	169	49	251	109	103	37	249	4	107	28	139
+15 mins.	46	32	0	21	184	51	256	73	61	17	151	4	142	27	173
+30 mins.	42	33	1	25	143	27	195	88	80	27	195	7	155	39	201
+45 mins.	51	36	0	27	172	29	228	62	42	18	122	2	172	35	209
Total Volume	168	117	3	106	668	156	930	332	286	99	717	17	576	129	722
% App. Total	58.3	40.6	1	11.4	71.8	16.8	908	46.3	39.9	13.8	720	2.4	79.8	17.9	864
PHF	.824	.813	.375	.828	.908	.765	.908	.761	.694	.669	.720	.607	.837	.827	.864

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County of Riverside
 N/S: Harvill Avenue
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 05_CRVHACAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

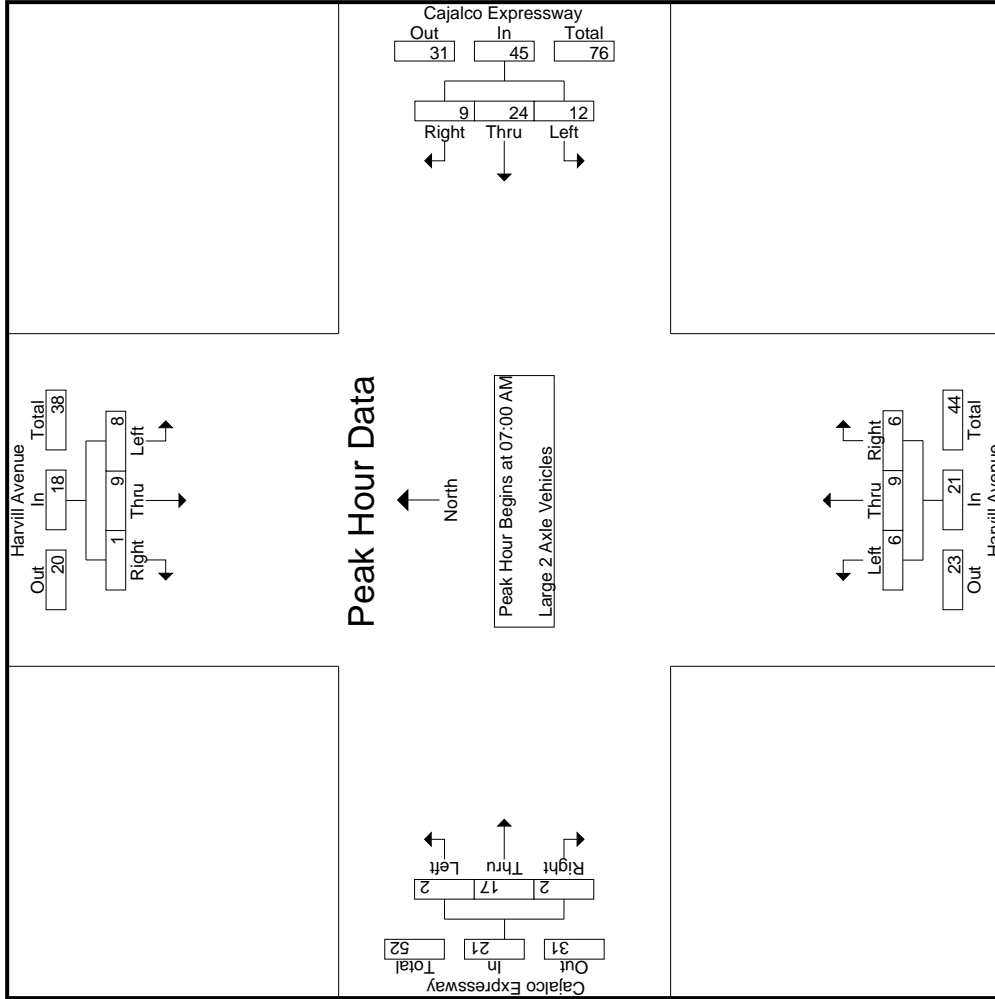
Start Time	Harvill Avenue Southbound			Cajalco Expressway Westbound			Harvill Avenue Northbound			Cajalco Expressway Eastbound			Inclu. Total	Int. Total			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right			Exclu. Total		
07:00 AM	3	2	0	1	1	3	2	5	2	2	2	4	0	6	4	21	25
07:15 AM	4	3	1	3	4	2	0	9	2	4	1	7	0	5	0	29	29
07:30 AM	0	2	0	4	10	2	1	16	2	1	2	5	0	3	2	26	28
07:45 AM	1	2	0	3	4	9	2	15	1	2	1	4	0	7	2	29	31
Total	8	9	1	12	24	9	5	45	6	9	6	21	2	17	2	105	113
08:00 AM	2	3	0	1	8	3	2	12	0	2	1	3	0	6	2	3	31
08:15 AM	0	3	1	4	12	3	1	19	3	0	1	4	0	0	0	3	30
08:30 AM	1	3	0	3	4	1	0	8	4	1	2	7	0	8	2	27	29
08:45 AM	0	4	0	4	4	0	0	5	1	1	1	3	0	7	0	19	19
Total	3	13	1	9	28	7	3	44	8	4	5	17	0	20	3	8	109
Grand Total	11	22	2	21	52	16	8	89	14	13	11	38	2	37	5	16	222
Approach %	31.4	62.9	5.7	23.6	58.4	18		43.2	36.8	34.2	28.9	18.4	4.5	84.1	11.4	21.4	
Total %	5.3	10.7	1	10.2	25.2	7.8			6.8	6.3	5.3		1	18	2.4	7.2	92.8

Start Time	Harvill Avenue Southbound			Cajalco Expressway Westbound			Harvill Avenue Northbound			Cajalco Expressway Eastbound			Inclu. Total	Int. Total			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right			App. Total		
07:00 AM	3	2	0	1	1	3	2	5	2	2	2	4	0	6	4	21	25
07:15 AM	4	3	1	3	4	2	0	9	2	4	1	7	0	5	0	29	29
07:30 AM	0	2	0	4	10	2	1	16	2	1	2	5	0	3	2	26	28
07:45 AM	1	2	0	3	4	9	2	15	1	2	1	4	0	7	2	29	31
Total	8	9	1	12	24	9	5	45	6	9	6	21	2	17	2	105	113
08:00 AM	2	3	0	1	8	3	2	12	0	2	1	3	0	6	2	3	31
08:15 AM	0	3	1	4	12	3	1	19	3	0	1	4	0	0	0	3	30
08:30 AM	1	3	0	3	4	1	0	8	4	1	2	7	0	8	2	27	29
08:45 AM	0	4	0	4	4	0	0	5	1	1	1	3	0	7	0	19	19
Total	3	13	1	9	28	7	3	44	8	4	5	17	0	20	3	8	109
Grand Total	11	22	2	21	52	16	8	89	14	13	11	38	2	37	5	16	222
Approach %	31.4	62.9	5.7	23.6	58.4	18		43.2	36.8	34.2	28.9	18.4	4.5	84.1	11.4	21.4	
Total %	5.3	10.7	1	10.2	25.2	7.8			6.8	6.3	5.3		1	18	2.4	7.2	92.8

Counts Unlimited
 PO Box 1178
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County of Riverside
 N/S: Harvill Avenue
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 05_CRVHACAAM
 Site Code : 05119093
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County of Riverside
 N/S: Harvill Avenue
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 05_CRVHACAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

Start Time	Harvill Avenue Southbound			Cajalco Expressway Westbound			Harvill Avenue Northbound			Cajalco Expressway Eastbound			App. Total	Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1														
Peak Hour for Each Approach Begins at:														
	07:00 AM													
+0 mins.	3	2	0	1	1	3	5	2	2	2	2	4	0	6
+15 mins.	4	3	1	3	4	2	9	4	4	1	7	5	0	5
+30 mins.	0	2	0	4	10	2	16	2	1	2	5	1	2	3
+45 mins.	1	2	0	4	9	2	15	1	2	1	4	7	0	7
Total Volume	8	9	1	12	24	9	45	6	9	6	21	17	2	21
% App. Total	44.4	50	5.6	26.7	53.3	20	28.6	42.9	28.6	28.6	9.5	81	9.5	9.5
PHF	.500	.750	.250	.750	.600	.750	.703	.750	.563	.750	.750	.607	.250	.750

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County of Riverside
 N/S: Harvill Avenue
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 05_CRVHACAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

Groups Printed- 3 Axle Vehicles

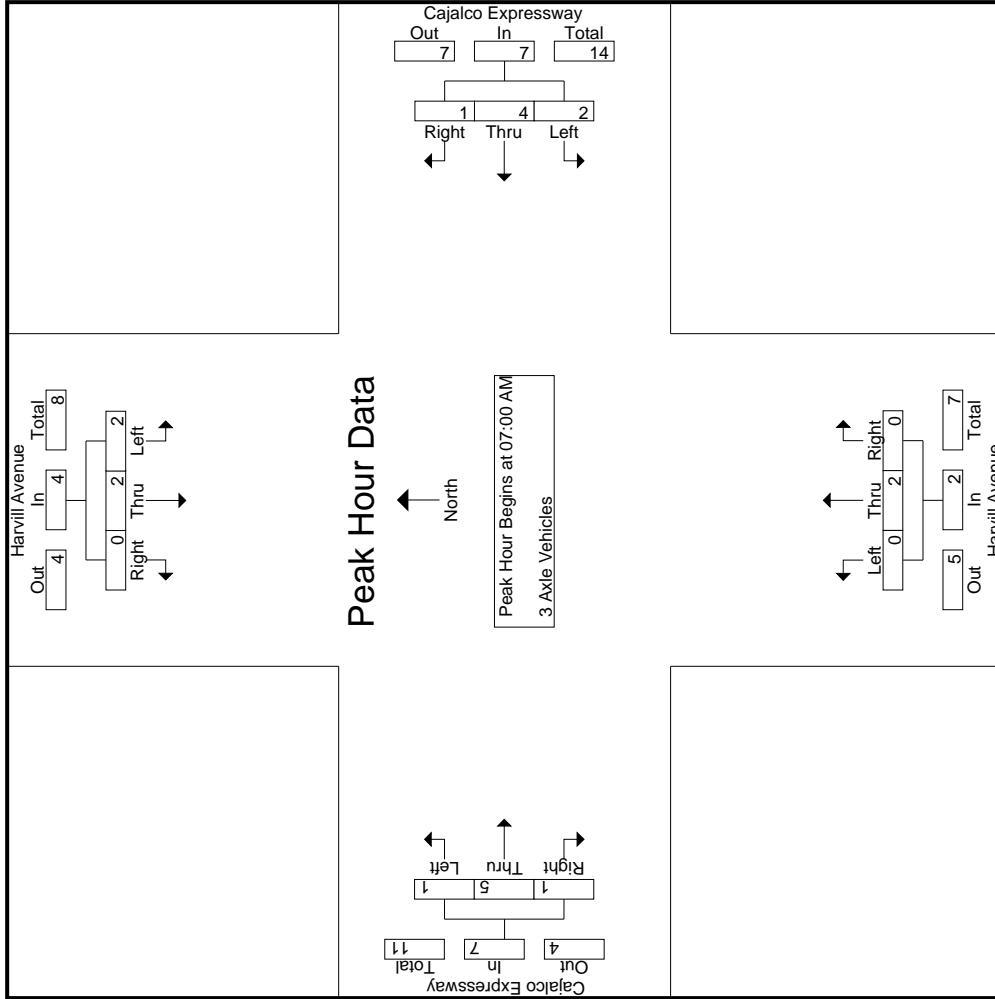
Start Time	Harvill Avenue Southbound				Cajalco Expressway Westbound				Harvill Avenue Northbound				Cajalco Expressway Eastbound				Exclu. Total	Inclu. Total	Int. Total		
	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR				App. Total	
07:00 AM	1	2	0	0	1	1	0	0	2	0	0	0	0	0	0	0	0	0	5	5	
07:15 AM	0	0	0	0	1	0	0	0	1	0	2	0	2	0	1	1	0	2	0	5	5
07:30 AM	0	0	0	0	0	3	0	0	3	0	0	0	0	0	2	0	0	2	0	5	5
07:45 AM	1	0	0	0	0	0	1	0	1	0	0	0	0	1	2	0	0	3	0	5	5
Total	2	2	0	0	2	4	1	0	7	0	2	0	2	1	5	1	0	7	0	20	20
08:00 AM	1	1	0	0	1	0	1	1	2	1	0	2	1	0	1	0	0	1	2	8	10
08:15 AM	1	2	0	0	1	0	0	0	1	0	0	1	1	1	2	0	0	3	1	8	9
08:30 AM	0	1	0	0	2	0	0	0	4	0	0	1	1	0	0	0	0	0	1	6	7
08:45 AM	0	1	0	0	3	1	0	0	4	0	1	2	1	3	0	0	3	3	1	11	12
Total	2	5	0	0	7	3	1	1	11	1	1	6	4	8	1	6	0	7	5	33	38
Grand Total	4	7	0	0	9	7	2	1	18	1	3	6	4	10	2	11	1	0	5	53	58
Approach %	36.4	63.6	0	0	50	38.9	11.1			10	30	60		18.9	14.3	78.6	7.1			8.6	91.4
Total %	7.5	13.2	0	0	17	13.2	3.8		34	1.9	5.7	11.3			3.8	20.8	1.9				

Start Time	Harvill Avenue Southbound				Cajalco Expressway Westbound				Harvill Avenue Northbound				Cajalco Expressway Eastbound				Exclu. Total	Inclu. Total	Int. Total				
	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR				App. Total			
07:00 AM	1	2	0	0	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	5	5
07:15 AM	0	0	0	0	1	0	0	0	1	0	2	0	2	0	1	1	0	2	0	5	5	5	5
07:30 AM	0	0	0	0	0	3	0	0	3	0	0	0	0	0	2	0	0	2	0	5	5	5	5
07:45 AM	1	0	0	0	0	0	1	0	1	0	0	0	0	1	2	0	0	3	0	5	5	5	5
Total	2	2	0	0	2	4	1	0	7	0	2	0	2	1	5	1	0	7	0	20	20	20	20
08:00 AM	1	1	0	0	1	0	1	1	2	1	0	2	1	3	0	1	0	0	1	8	10	10	10
08:15 AM	1	2	0	0	1	0	0	0	1	0	0	1	1	1	2	0	0	3	1	8	9	9	9
08:30 AM	0	1	0	0	2	0	0	0	4	0	0	1	1	0	0	0	0	0	1	6	7	7	7
08:45 AM	0	1	0	0	3	1	0	0	4	0	1	2	1	3	0	0	3	3	1	11	12	12	12
Total	2	5	0	0	7	3	1	1	11	1	1	6	4	8	1	6	0	7	5	33	38	38	38
Grand Total	4	7	0	0	9	7	2	1	18	1	3	6	4	10	2	11	1	0	5	53	58	58	58
Approach %	36.4	63.6	0	0	50	38.9	11.1			10	30	60		18.9	14.3	78.6	7.1			8.6	91.4	91.4	91.4
Total %	7.5	13.2	0	0	17	13.2	3.8		34	1.9	5.7	11.3			3.8	20.8	1.9						

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County of Riverside
 N/S: Harvill Avenue
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 05_CRVHACAAM
 Site Code : 05119093
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File Name : 05_CRVHACAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

County of Riverside
 N/S: Harvill Avenue
 E/W: Cajalco Expressway
 Weather: Clear

Start Time	Harvill Avenue Southbound			Cajalco Expressway Westbound			Harvill Avenue Northbound			Cajalco Expressway Eastbound			App. Total	Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1														
Peak Hour for Each Approach Begins at:														
	07:00 AM													
+0 mins.	1	2	0	3	1	0	0	2	0	0	0	0	0	0
+15 mins.	0	0	0	0	1	0	0	1	2	0	0	1	1	2
+30 mins.	0	0	0	0	0	3	0	3	0	0	0	2	0	2
+45 mins.	1	0	0	1	0	0	1	1	0	0	0	2	0	3
Total Volume	2	2	0	4	2	4	1	7	2	2	0	5	1	7
% App. Total	50	50	0	100	28.6	57.1	14.3	14.3	14.3	0	100	71.4	14.3	100
PHF	.500	.250	.000	.333	.500	.333	.250	.583	.250	.000	.250	.625	.250	.583

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 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: Harvill Avenue
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 05_CRVHACAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

Groups Printed- 4+ Axle Trucks

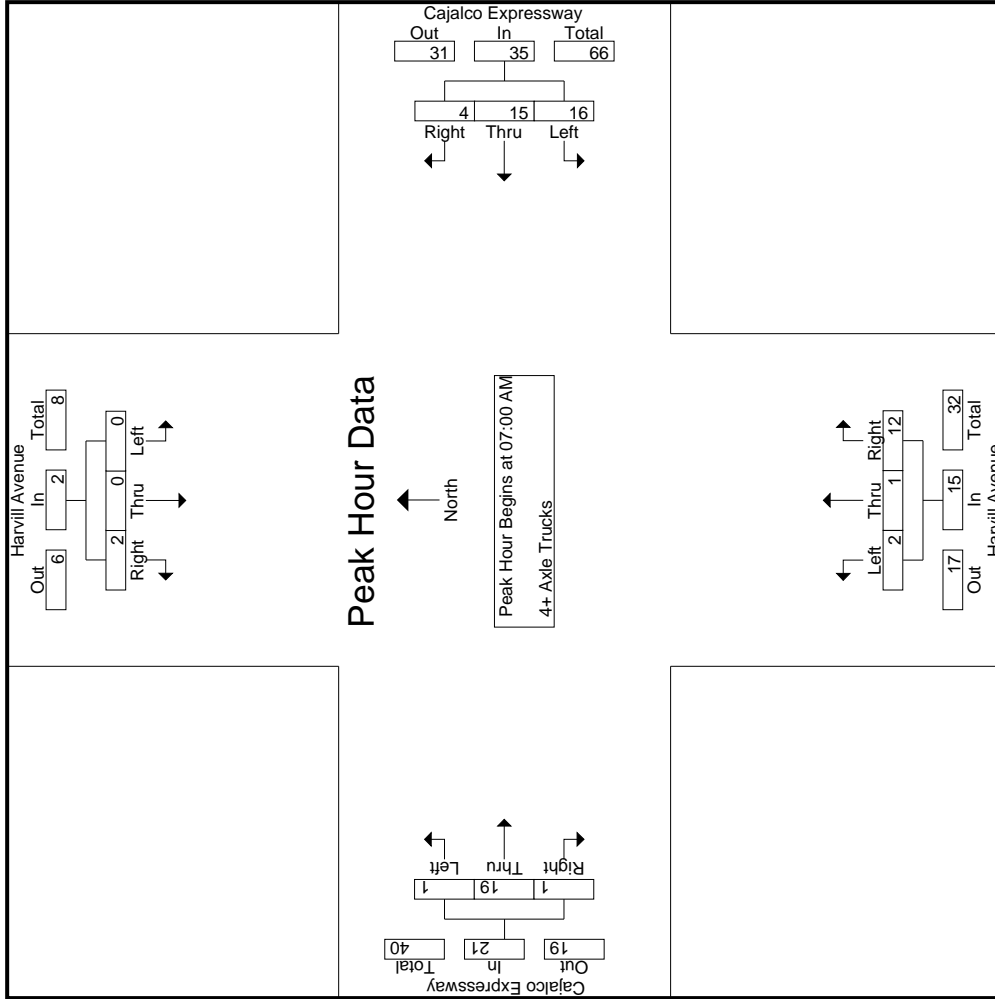
Start Time	Harvill Avenue Southbound				Cajalco Expressway Westbound				Harvill Avenue Northbound				Cajalco Expressway Eastbound				Inclu. Total	Int. Total			
	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR			App. Total	Exclu. Total	
07:00 AM	0	0	0	0	1	4	0	0	5	0	0	1	0	1	6	1	0	8	0	14	14
07:15 AM	0	0	1	1	3	2	2	2	7	1	0	5	2	6	0	3	0	3	5	17	22
07:30 AM	0	0	1	0	4	5	1	0	10	1	0	2	1	3	0	5	0	5	1	19	20
07:45 AM	0	0	0	0	8	4	1	0	13	0	1	4	1	5	0	5	0	5	1	23	24
Total	0	0	2	1	16	15	4	2	35	2	1	12	4	15	1	19	1	21	7	73	80
08:00 AM	0	1	0	0	2	4	0	0	6	2	1	0	0	3	0	4	0	4	0	14	14
08:15 AM	4	1	0	0	3	2	1	0	6	1	0	1	0	2	0	7	0	7	0	20	20
08:30 AM	0	1	2	0	3	5	0	0	15	1	0	6	2	7	1	10	0	11	2	36	38
08:45 AM	0	0	0	0	6	1	1	0	8	1	0	2	1	3	0	6	0	6	1	17	18
Total	4	3	2	0	16	17	2	0	35	5	1	9	3	15	1	27	0	28	3	87	90
Grand Total	4	3	4	1	32	32	6	2	70	7	2	21	7	30	2	46	1	0	10	160	170
Approach %	36.4	27.3	36.4		45.7	45.7	8.6		43.8	23.3	6.7	70		18.8	4.1	93.9	2		30.6	5.9	94.1
Total %	2.5	1.9	2.5		20	20	3.8		43.8	4.4	1.2	13.1		18.8	1.2	28.8	0.6		30.6	5.9	94.1

Start Time	Harvill Avenue Southbound				Cajalco Expressway Westbound				Harvill Avenue Northbound				Cajalco Expressway Eastbound				Inclu. Total	Int. Total			
	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR			App. Total	Exclu. Total	
07:00 AM	0	0	0	0	1	4	0	0	5	0	0	1	0	1	6	1	0	8	0	14	14
07:15 AM	0	0	1	1	3	2	2	2	7	1	0	5	2	6	0	3	0	3	5	17	22
07:30 AM	0	0	1	0	4	5	1	0	10	1	0	2	1	3	0	5	0	5	1	19	20
07:45 AM	0	0	0	0	8	4	1	0	13	0	1	4	1	5	0	5	0	5	1	23	24
Total	0	0	2	1	16	15	4	2	35	2	1	12	4	15	1	19	1	21	7	73	80
08:00 AM	0	1	0	0	2	4	0	0	6	2	1	0	0	3	0	4	0	4	0	14	14
08:15 AM	4	1	0	0	3	2	1	0	6	1	0	1	0	2	0	7	0	7	0	20	20
08:30 AM	0	1	2	0	3	5	0	0	15	1	0	6	2	7	1	10	0	11	2	36	38
08:45 AM	0	0	0	0	6	1	1	0	8	1	0	2	1	3	0	6	0	6	1	17	18
Total	4	3	2	0	16	17	2	0	35	5	1	9	3	15	1	27	0	28	3	87	90
Grand Total	4	3	4	1	32	32	6	2	70	7	2	21	7	30	2	46	1	0	10	160	170
Approach %	36.4	27.3	36.4		45.7	45.7	8.6		43.8	23.3	6.7	70		18.8	4.1	93.9	2		30.6	5.9	94.1
Total %	2.5	1.9	2.5		20	20	3.8		43.8	4.4	1.2	13.1		18.8	1.2	28.8	0.6		30.6	5.9	94.1

Counts Unlimited
 PO Box 1178
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County of Riverside
 N/S: Harvill Avenue
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 05_CRVHACAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



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County of Riverside
 N/S: Harvill Avenue
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File Name : 05_CRVHACAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

Start Time	Harvill Avenue Southbound			Cajalco Expressway Westbound			Harvill Avenue Northbound			Cajalco Expressway Eastbound			App. Total	Int. Total		
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total				
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																
Peak Hour for Each Approach Begins at:																
	07:00 AM			07:00 AM			07:00 AM			07:00 AM			07:00 AM			
+0 mins.	0	0	0	0	1	4	0	0	0	0	1	1	1	6	1	8
+15 mins.	0	0	1	1	3	2	2	0	0	5	6	0	3	0	0	3
+30 mins.	0	0	1	1	4	5	1	0	0	2	3	0	5	0	0	5
+45 mins.	0	0	0	0	8	4	1	1	1	4	5	0	5	0	0	5
Total Volume	0	0	2	2	16	15	4	2	1	12	15	1	19	1	1	21
% App. Total	0	0	100	45.7	42.9	11.4	13.3	6.7	80	4.8	90.5	4.8	90.5	4.8	4.8	21
PHF	.000	.000	.500	.500	.750	.500	.500	.250	.600	.250	.625	.250	.792	.250	.250	.656

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County of Riverside
 N/S: Harvill Avenue
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File Name : 05_CRVHACAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Harvill Avenue Southbound					Cajalco Expressway Westbound					Harvill Avenue Northbound					Cajalco Expressway Eastbound							
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total			
	Exclu. Total	Inclu. Total	Int. Total			Exclu. Total	Inclu. Total	Int. Total			Exclu. Total	Inclu. Total	Int. Total			Exclu. Total	Inclu. Total	Int. Total					
04:00 PM	46	43	3	2	92	36	168	24	7	228	82	29	22	8	133	4	194	69	19	267	36	720	756
04:15 PM	39	44	8	5	91	34	165	44	14	243	70	39	26	17	135	7	171	77	20	255	56	724	780
04:30 PM	38	45	1	0	84	28	181	32	11	241	77	24	35	22	136	6	204	54	13	264	46	725	771
04:45 PM	44	44	3	1	91	32	157	30	9	219	48	34	27	17	109	6	220	63	19	289	46	708	754
Total	167	176	15	8	358	130	671	130	41	931	277	126	110	64	513	23	789	263	71	1075	184	2877	3061
05:00 PM	51	42	4	1	97	23	176	26	5	225	67	31	22	5	120	0	192	62	15	254	26	696	722
05:15 PM	32	47	4	0	83	28	163	29	7	220	51	23	17	10	91	1	203	61	25	265	42	659	701
05:30 PM	56	41	1	0	98	33	144	30	11	207	48	27	24	13	99	4	242	54	22	300	46	704	750
05:45 PM	29	44	2	0	75	35	142	33	16	210	46	29	18	13	93	4	185	57	17	246	46	624	670
Total	168	174	11	1	353	119	625	118	39	862	212	110	81	41	403	9	822	234	79	1065	160	2683	2843
Grand Total	335	350	26	9	711	249	1296	248	80	1793	489	236	191	105	916	32	1611	497	150	2140	344	5560	5904
Approach %	47.1	49.2	3.7			13.9	72.3	13.8			53.4	25.8	20.9			1.5	75.3	23.2					
Total %	6	6.3	0.5			4.5	23.3	4.5			8.8	4.2	3.4			0.6	29	8.9			5.8	94.2	
Passenger Vehicles	331	340	26		706	204	1236	235		1752	475	230	180		989	29	1541	485		2200	0	0	5647
% Passenger Vehicles	98.8	97.1	100		98.1	81.9	95.4	94.8		96.2	97.1	97.5	94.2		99	90.6	95.7	97.6		96.1	0	0	95.6
Large 2 Axle Vehicles	3	5	0		8	6	36	8		51	8	5	1		14	0	38	9		51	0	0	124
% Large 2 Axle Vehicles	0.9	1.4	0		1.1	2.4	2.8	3.2		2.7	1.6	2.1	0.5		0	0	2.4	1.8		2.2	0	0	2.1
3 Axle Vehicles	0	0	0		0	3	9	1		13	2	1	1		4	2	7	1		10	0	0	27
% 3 Axle Vehicles	0	0	0		0	1.2	0.7	0.4		0.7	0.4	0.4	0.5		0	6.2	0.4	0.2		0	0	0	0.5
4+ Axle Trucks	1	5	0		6	36	15	4		57	4	0	9		14	1	25	2		29	0	0	106
% 4+ Axle Trucks	0.3	1.4	0		0.8	14.5	1.2	1.6		3	0.8	0	4.7		1	3.1	1.6	0.4		1.3	0	0	1.8

Start Time	Harvill Avenue Southbound					Cajalco Expressway Westbound					Harvill Avenue Northbound					Cajalco Expressway Eastbound							
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total			
	Exclu. Total	Inclu. Total	Int. Total			Exclu. Total	Inclu. Total	Int. Total			Exclu. Total	Inclu. Total	Int. Total			Exclu. Total	Inclu. Total	Int. Total					
04:00 PM	46	43	3		92	36	168	24		228	82	29	22		133	4	194	69		267	36	720	756
04:15 PM	39	44	8		91	34	165	44		243	70	39	26		135	7	171	77		255	56	724	780
04:30 PM	38	45	1		84	28	181	32		241	77	24	35		136	6	204	54		264	46	725	771
04:45 PM	44	44	3		91	32	157	30		219	48	34	27		109	6	220	63		289	46	708	754
Total	167	176	15		358	130	671	130		931	277	126	110		513	23	789	263		1075	184	2877	3061
PHF	.908	.978	.469		.973	.903	.927	.739		.958	.845	.808	.786		.943	.821	.897	.854		.930			.992

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

Counts Unlimited
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County of Riverside
N/S: Harvill Avenue
E/W: Cajalco Expressway
Weather: Clear

File Name : 05_CRVHACAPM
Site Code : 05119093
Start Date : 2/12/2019
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County of Riverside
 N/S: Harvill Avenue
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File Name : 05_CRVHACAPM
 Site Code : 05119093
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 Page No : 3

Start Time	Harvill Avenue Southbound			Cajalco Expressway Westbound			Harvill Avenue Northbound			Cajalco Expressway Eastbound			App. Total	Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1														
Peak Hour for Each Approach Begins at:														
	04:45 PM			04:00 PM			04:00 PM			04:45 PM				
+0 mins.	44	44	3	36	168	24	82	29	22	6	220	63	289	
+15 mins.	51	42	4	34	165	44	70	39	26	0	192	62	254	
+30 mins.	32	47	4	28	181	32	77	24	35	1	203	61	265	
+45 mins.	56	41	1	32	157	30	48	34	27	4	242	54	300	
Total Volume	183	174	12	130	671	130	277	126	110	11	857	240	1108	
% App. Total	49.6	47.2	3.3	14	72.1	14	54	24.6	21.4	1	77.3	21.7		
PHF	.817	.926	.750	.903	.927	.739	.845	.808	.786	.458	.885	.952	.923	

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County of Riverside
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 E/W: Cajalco Expressway
 Weather: Clear

File Name : 05_CRVHACAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

Groups Printed- Passenger Vehicles

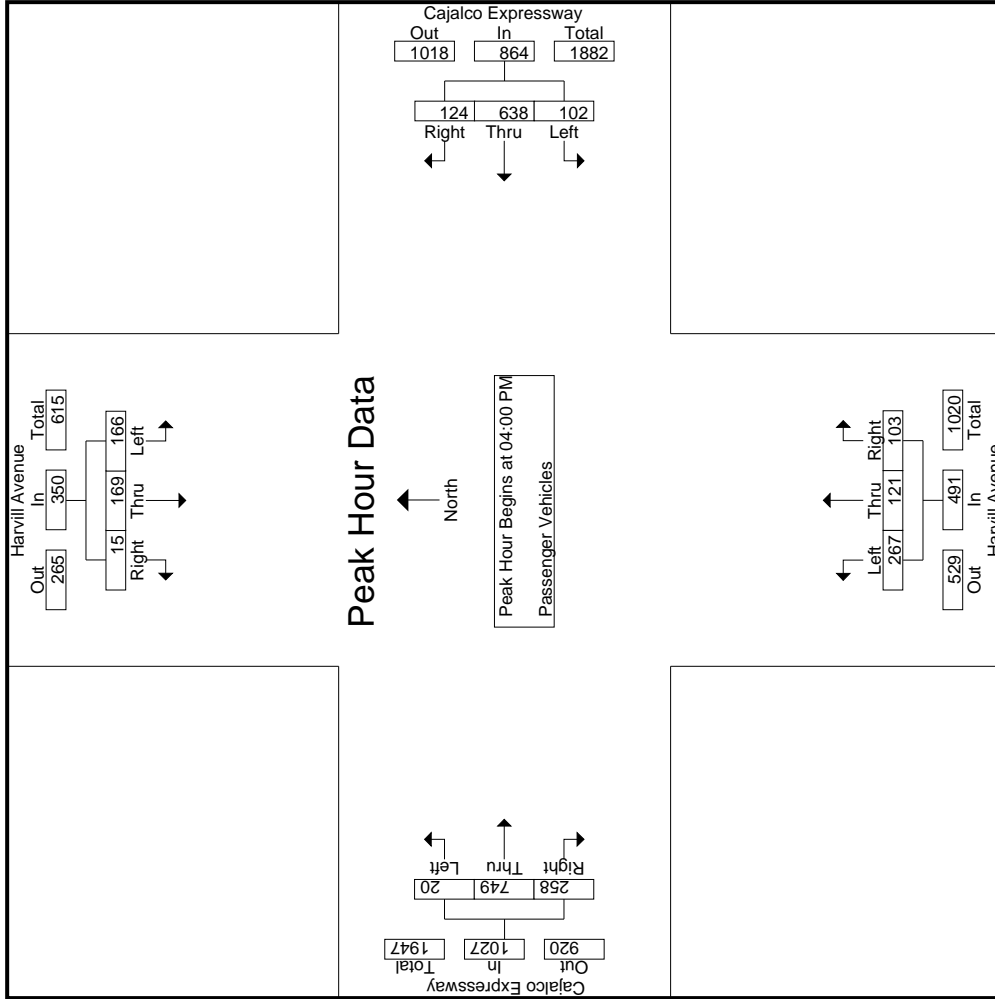
Start Time	Harvill Avenue Southbound			Cajalco Expressway Westbound			Harvill Avenue Northbound			Cajalco Expressway Eastbound			Exclu. Total	Inclu. Total	Int. Total								
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right											
	RTOR	App. Total	RTOR	App. Total	RTOR	App. Total	RTOR	App. Total	RTOR	App. Total	RTOR	App. Total											
04:00 PM	46	39	3	2	88	30	160	23	7	213	80	29	19	7	128	4	182	69	19	255	35	684	719
04:15 PM	39	43	8	5	90	25	149	43	14	217	65	35	26	17	126	6	161	75	19	242	55	675	730
04:30 PM	37	44	1	0	82	21	175	32	11	228	76	23	31	22	130	5	196	53	13	254	46	694	740
04:45 PM	44	43	3	1	90	26	154	26	8	206	46	34	27	17	107	5	210	61	18	276	44	679	723
Total	166	169	15	8	350	102	638	124	40	864	267	121	103	63	491	20	749	258	69	1027	180	2732	2912
05:00 PM	51	41	4	1	96	19	168	26	5	213	64	31	20	5	115	0	190	57	13	247	24	671	695
05:15 PM	32	45	4	0	81	21	158	29	7	208	51	22	17	10	90	1	190	61	25	252	42	631	673
05:30 PM	54	41	1	0	96	30	136	27	10	193	48	27	24	13	99	4	235	53	21	292	44	680	724
05:45 PM	28	44	2	0	74	32	136	29	15	197	45	29	16	13	90	4	177	56	17	237	45	598	643
Total	165	171	11	1	347	102	598	111	37	811	208	109	77	41	394	9	792	227	76	1028	155	2580	2735
Grand Total	331	340	26	9	697	204	1236	235	77	1675	475	230	180	104	885	29	1541	485	145	2055	335	5312	5647
Approach %	47.5	48.8	3.7			12.2	73.8	14			53.7	26	20.3		16.7	1.4	75	23.6					
Total %	6.2	6.4	0.5		13.1	3.8	23.3	4.4		31.5	8.9	4.3	3.4			0.5	29	9.1		38.7	5.9	94.1	

Start Time	Harvill Avenue Southbound			Cajalco Expressway Westbound			Harvill Avenue Northbound			Cajalco Expressway Eastbound			Exclu. Total	Inclu. Total	Int. Total							
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right										
	RTOR	App. Total	RTOR	App. Total	RTOR	App. Total	RTOR	App. Total	RTOR	App. Total	RTOR	App. Total										
04:00 PM	46	39	3	30	160	23	7	213	80	29	19	7	128	4	182	69	19	255	35	684	719	
04:15 PM	39	43	8	25	149	43	14	217	65	35	26	17	126	6	161	75	19	242	55	675	730	
04:30 PM	37	44	1	21	175	32	11	228	76	23	31	22	130	5	196	53	13	254	46	694	740	
04:45 PM	44	43	3	26	154	26	8	206	46	34	27	17	107	5	210	61	18	276	44	679	723	
Total	166	169	15	102	638	124	40	864	267	121	103	63	491	20	749	258	69	1027	180	2732	2912	
05:00 PM	51	41	4	19	168	26	5	213	64	31	20	5	115	0	190	57	13	247	24	671	695	
05:15 PM	32	45	4	21	158	29	7	208	51	22	17	10	90	1	190	61	25	252	42	631	673	
05:30 PM	54	41	1	30	136	27	10	193	48	27	24	13	99	4	235	53	21	292	44	680	724	
05:45 PM	28	44	2	32	136	29	15	197	45	29	16	13	90	4	177	56	17	237	45	598	643	
Total	165	171	11	102	598	111	37	811	208	109	77	41	394	9	792	227	76	1028	155	2580	2735	
Grand Total	331	340	26	204	1236	235	77	1675	475	230	180	104	885	29	1541	485	145	2055	335	5312	5647	
Approach %	47.5	48.8	3.7	12.2	73.8	14			53.7	26	20.3		16.7	1.4	75	23.6						
Total %	6.2	6.4	0.5	3.8	23.3	4.4		31.5	8.9	4.3	3.4			0.5	29	9.1		38.7	5.9	94.1		

Counts Unlimited
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County of Riverside
 N/S: Harvill Avenue
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 Weather: Clear

File Name : 05_CRVHACAPM
 Site Code : 05119093
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County of Riverside
 N/S: Harvill Avenue
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File Name : 05_CRVHACAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

Start Time	Harvill Avenue Southbound			Cajalco Expressway Westbound			Harvill Avenue Northbound			Cajalco Expressway Eastbound			App. Total	Int. Total	
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right			
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1															
Peak Hour for Each Approach Begins at:															
	04:00 PM														
+0 mins.	46	39	3	30	160	23	213	80	29	19	128	4	182	69	255
+15 mins.	39	43	8	25	149	43	217	65	35	26	126	6	161	75	242
+30 mins.	37	44	1	21	175	32	228	76	23	31	130	5	196	53	254
+45 mins.	44	43	3	26	154	26	206	46	34	27	107	5	210	61	276
Total Volume	166	169	15	102	638	124	864	267	121	103	491	20	749	258	1027
% App. Total	47.4	48.3	4.3	11.8	73.8	14.4	94.7	54.4	24.6	21	831	1.9	72.9	25.1	930
PHF	.902	.960	.469	.850	.911	.721	.947	.834	.864	.831	.944	.833	.892	.860	.930

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 Site Code : 05119093
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 Page No : 1

County of Riverside
 N/S: Harvill Avenue
 E/W: Cajalco Expressway
 Weather: Clear

Groups Printed- Large 2 Axle Vehicles

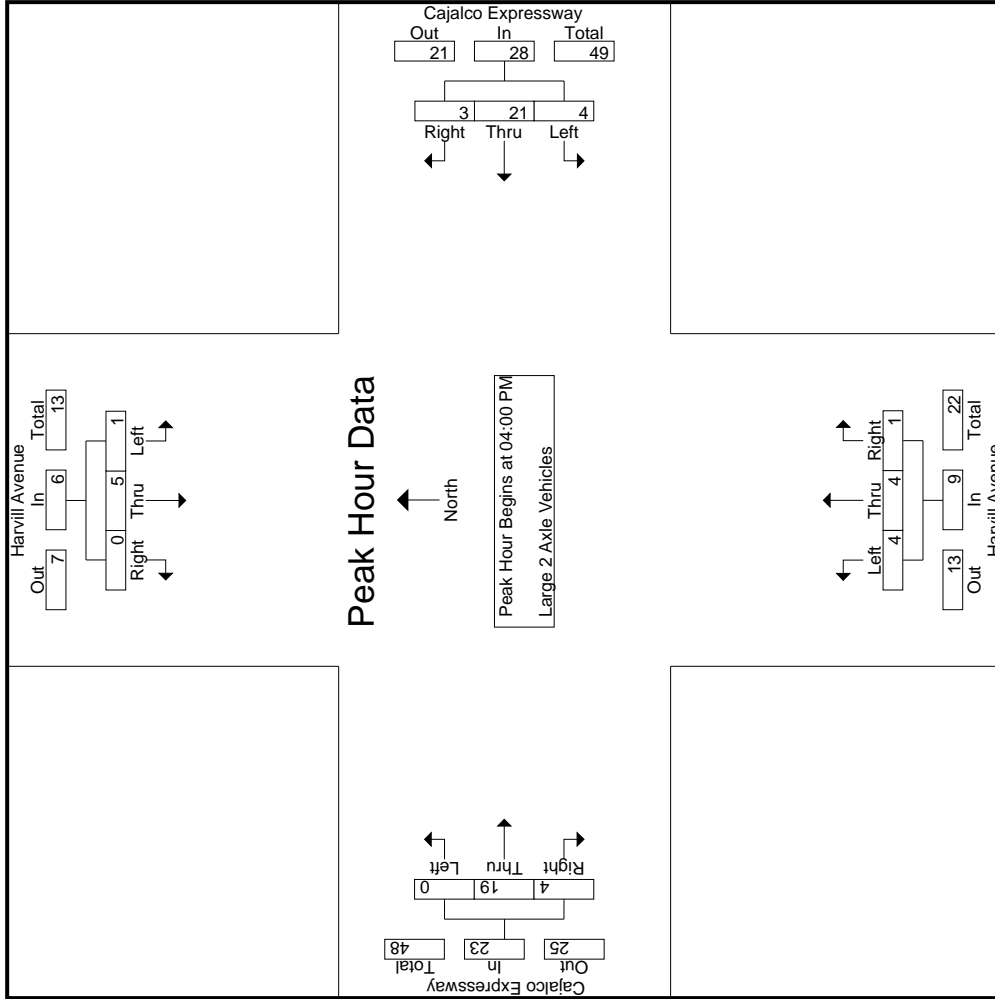
Start Time	Harvill Avenue Southbound				Cajalco Expressway Westbound				Harvill Avenue Northbound				Cajalco Expressway Eastbound				Inclu. Total	Int. Total	
	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR			App. Total
04:00 PM	0	3	0	0	0	2	0	0	0	0	0	0	0	5	0	0	5	0	10
04:15 PM	0	0	0	0	3	13	1	0	17	2	3	0	0	5	1	5	5	1	27
04:30 PM	1	1	0	0	1	4	0	0	5	1	1	0	3	6	0	6	6	0	16
04:45 PM	0	1	0	0	0	2	2	0	4	1	0	0	0	7	1	7	7	1	13
Total	1	5	0	0	4	21	3	0	28	4	4	1	0	9	0	23	2	66	68
05:00 PM	0	0	0	0	1	5	0	0	6	3	0	0	3	6	2	6	6	2	15
05:15 PM	0	0	0	0	0	1	0	0	1	0	1	0	1	11	0	11	0	13	13
05:30 PM	2	0	0	0	2	4	3	1	8	0	0	0	0	5	0	5	5	1	15
05:45 PM	0	0	0	0	0	5	2	0	7	1	0	0	1	2	0	2	2	0	10
Total	2	0	0	0	2	15	5	1	22	4	1	0	5	24	3	24	3	53	56
Grand Total	3	5	0	0	6	36	8	1	50	8	5	1	0	47	5	47	5	119	124
Approach %	37.5	62.5	0	0	12	72	16		57.1	35.7	7.1	0	14	80.9	19.1	39.5			
Total %	2.5	4.2	0	0	6.7	30.3	6.7		42	6.7	4.2	0.8	11.8	31.9	7.6				

Start Time	Harvill Avenue Southbound				Cajalco Expressway Westbound				Harvill Avenue Northbound				Cajalco Expressway Eastbound				Inclu. Total	Int. Total	
	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR			App. Total
04:00 PM	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	5
04:15 PM	0	0	0	0	3	13	1	0	17	2	3	0	0	5	1	5	5	1	27
04:30 PM	1	1	0	0	1	4	0	0	5	1	1	0	3	6	0	6	6	0	16
04:45 PM	0	1	0	0	0	2	2	0	4	1	0	0	0	7	1	7	7	1	13
Total	1	5	0	0	4	21	3	0	28	4	4	1	0	9	0	23	2	66	68
05:00 PM	0	0	0	0	1	5	0	0	6	3	0	0	3	6	2	6	6	2	15
05:15 PM	0	0	0	0	0	1	0	0	1	0	1	0	1	11	0	11	0	13	13
05:30 PM	2	0	0	0	2	4	3	1	8	0	0	0	0	5	0	5	5	1	15
05:45 PM	0	0	0	0	0	5	2	0	7	1	0	0	1	2	0	2	2	0	10
Total	2	0	0	0	2	15	5	1	22	4	1	0	5	24	3	24	3	53	56
Grand Total	3	5	0	0	6	36	8	1	50	8	5	1	0	47	5	47	5	119	124
Approach %	37.5	62.5	0	0	12	72	16		57.1	35.7	7.1	0	14	80.9	19.1	39.5			
Total %	2.5	4.2	0	0	6.7	30.3	6.7		42	6.7	4.2	0.8	11.8	31.9	7.6				

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: Harvill Avenue
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 05_CRVHACAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: Harvill Avenue
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 05_CRVHACAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

Start Time	Harvill Avenue Southbound			Cajalco Expressway Westbound			Harvill Avenue Northbound			Cajalco Expressway Eastbound			App. Total	Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1														
Peak Hour for Each Approach Begins at:														
	04:00 PM													
+0 mins.	0	3	0	0	2	0	0	0	0	0	0	5	0	5
+15 mins.	0	0	0	3	13	1	3	0	0	0	3	2	3	5
+30 mins.	1	1	0	1	4	0	1	1	1	1	5	1	1	6
+45 mins.	0	1	0	0	2	2	0	0	0	0	6	1	1	7
Total Volume	1	5	0	4	21	3	4	4	4	1	19	4	4	23
% App. Total	16.7	83.3	0	14.3	75	10.7	44.4	44.4	11.1	0	82.6	17.4	0	82.6
PHF	.250	.417	.000	.333	.404	.375	.500	.333	.250	.000	.792	.500	.000	.821

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: Harvill Avenue
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 05_CRVHACAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

Groups Printed- 3 Axle Vehicles

Start Time	Harvill Avenue Southbound			Cajalco Expressway Westbound			Harvill Avenue Northbound			Cajalco Expressway Eastbound			Exclu. Total	Inclu. Total	Int. Total	
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right				App. Total
04:00 PM	0	0	0	0	1	0	2	0	1	0	3	0	1	0	0	5
04:15 PM	0	0	0	0	1	0	0	1	0	0	1	1	1	0	0	4
04:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	4
Total	0	0	0	0	3	1	2	1	1	0	4	2	3	1	0	14
05:00 PM	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3
05:15 PM	0	0	0	2	2	0	0	0	0	0	0	0	1	0	0	5
05:30 PM	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	2
05:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	3
Total	0	0	0	3	6	0	0	0	0	0	0	0	4	0	0	13
Grand Total	0	0	0	3	9	1	2	1	1	0	4	2	7	1	0	27
Approch %	0	0	0	23.1	69.2	7.7	50	25	25		14.8	20	70	10		0
Total %	0	0	0	11.1	33.3	3.7	7.4	3.7	3.7			7.4	25.9	3.7		100

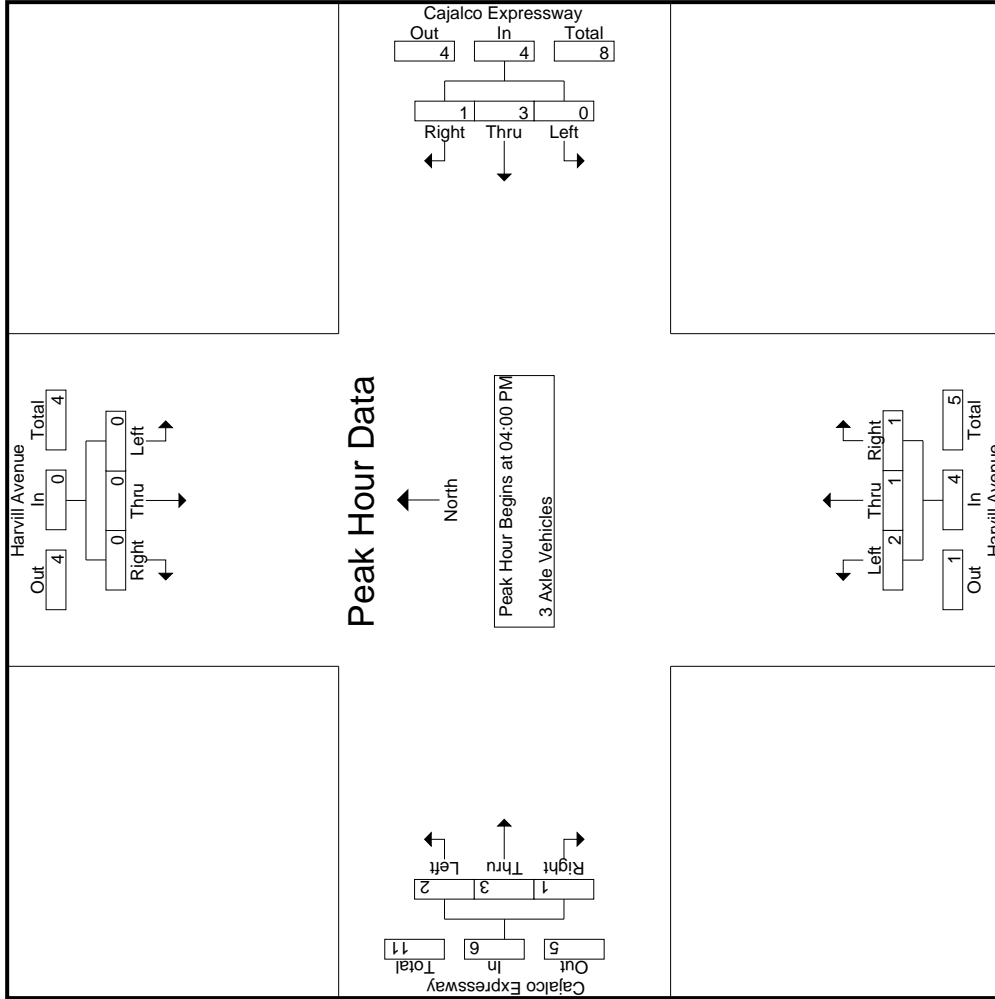
Start Time	Harvill Avenue Southbound			Cajalco Expressway Westbound			Harvill Avenue Northbound			Cajalco Expressway Eastbound			Exclu. Total	Inclu. Total	Int. Total	
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right				App. Total
04:00 PM	0	0	0	0	1	0	2	0	1	0	3	0	1	0	0	5
04:15 PM	0	0	0	0	1	0	0	1	0	0	1	1	1	0	0	4
04:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	1	0	0	0	0	0	1	1	1	0	4
Total Volume	0	0	0	0	3	1	2	1	1	0	4	2	3	1	0	14
% App. Total	0	0	0	0	75	25	50	25	25		100	33.3	50	16.7		70
PHF	.000	.000	.000	.000	.750	.250	.500	.250	.250		.333	.500	.750	.250		.700

Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 04:00 PM

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: Harvill Avenue
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 05_CRVHACAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: Harvill Avenue
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 05_CRVHACAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

Start Time	Harvill Avenue Southbound			Cajalco Expressway Westbound			Harvill Avenue Northbound			Cajalco Expressway Eastbound			App. Total	Int. Total	
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right			
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1															
Peak Hour for Each Approach Begins at:															
+0 mins.	04:00 PM			04:00 PM			04:00 PM			04:00 PM					
	0	0	0	0	0	0	2	0	1	0	0	1	0	0	1
+15 mins.	0	0	0	0	0	0	0	1	0	1	0	0	1	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0
Total Volume	0	0	0	0	0	1	2	1	1	2	1	1	2	3	1
% App. Total	0	0	0	0	0	25	50	25	25	50	25	25	33.3	50	16.7
PHF	.000	.000	.000	.000	.000	.250	.250	.250	.250	.250	.250	.250	.500	.750	.250
						1.000			.333						.500

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: Harvill Avenue
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 05_CRVHACAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

Groups Printed- 4+ Axle Trucks

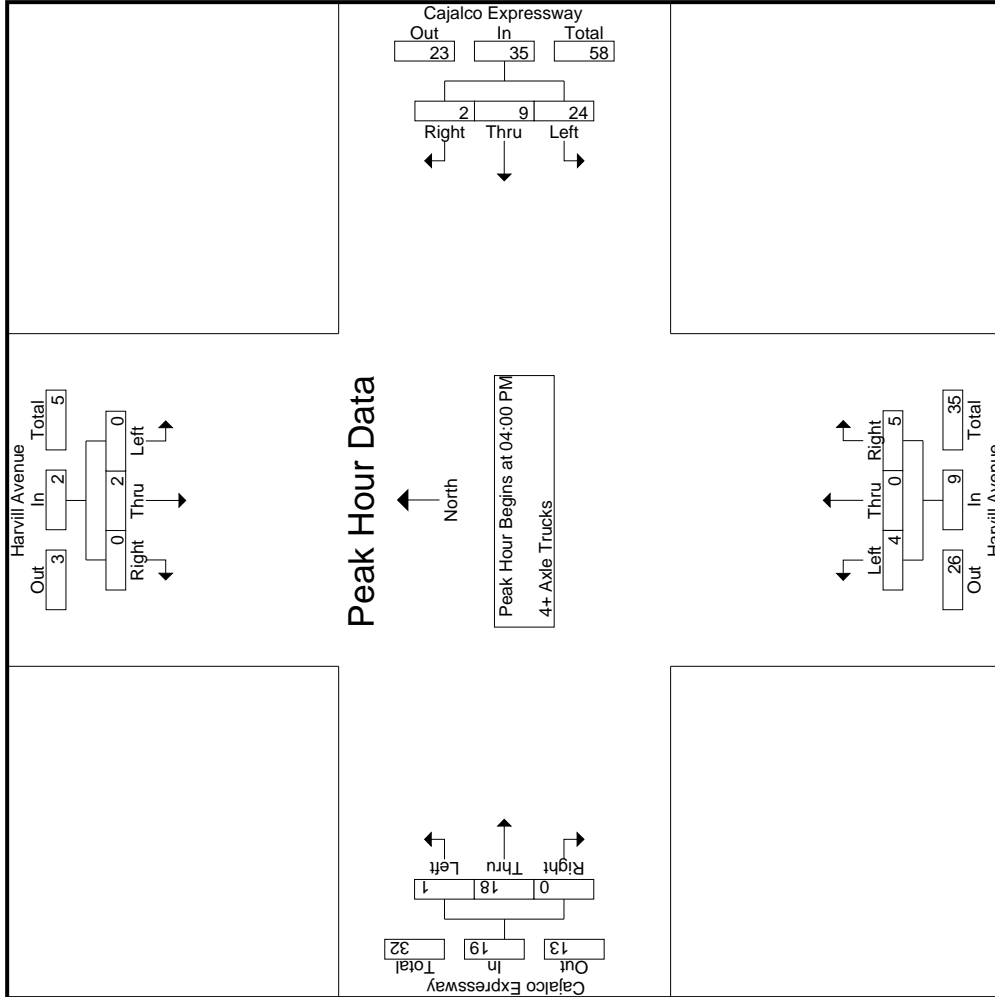
Start Time	Harvill Avenue Southbound			Cajalco Expressway Westbound			Harvill Avenue Northbound			Cajalco Expressway Eastbound			Exclu. Total	Inclu. Total	Int. Total					
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right				App. Total	RTOR	App. Total		
04:00 PM	0	1	0	6	5	1	0	12	0	0	2	1	2	0	6	0	6	1	21	22
04:15 PM	0	1	0	6	2	0	0	8	3	0	0	0	3	0	6	0	6	0	18	18
04:30 PM	0	0	0	6	1	0	0	7	0	0	3	0	3	1	3	0	4	0	14	14
04:45 PM	0	0	0	6	1	1	1	8	1	0	0	0	1	0	3	0	3	1	12	13
Total	0	2	0	24	9	2	1	35	4	0	5	1	9	1	18	0	19	2	65	67
05:00 PM	0	1	0	3	0	0	0	3	0	0	2	0	2	0	1	0	1	0	7	7
05:15 PM	0	2	0	5	2	0	0	7	0	0	0	0	0	0	1	0	1	0	10	10
05:30 PM	0	0	0	1	4	0	0	5	0	0	0	0	0	0	1	1	2	1	7	8
05:45 PM	1	0	0	3	0	2	1	5	0	0	2	0	2	0	4	1	5	1	13	14
Total	1	3	0	12	6	2	1	20	0	0	4	0	4	0	7	2	9	2	37	39
Grand Total	1	5	0	36	15	4	2	55	4	0	9	1	13	1	25	2	28	4	102	106
Approch %	16.7	83.3	0	65.5	27.3	7.3		30.8	0	69.2			12.7	3.6	89.3	7.1	27.5	3.8	96.2	
Total %	1	4.9	0	35.3	14.7	3.9		53.9	3.9	0	8.8			1	24.5	2				

Start Time	Harvill Avenue Southbound			Cajalco Expressway Westbound			Harvill Avenue Northbound			Cajalco Expressway Eastbound			Exclu. Total	Inclu. Total	Int. Total					
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right				App. Total	RTOR	App. Total		
04:00 PM	0	1	0	6	5	1	0	12	0	0	2	1	2	0	6	0	6	1	21	22
04:15 PM	0	1	0	6	2	0	0	8	3	0	0	0	3	0	6	0	6	0	18	18
04:30 PM	0	0	0	6	1	0	0	7	0	0	3	0	3	1	3	0	4	0	14	14
04:45 PM	0	0	0	6	1	1	1	8	1	0	0	0	1	0	3	0	3	1	12	13
Total	0	2	0	24	9	2	1	35	4	0	5	1	9	1	18	0	19	2	65	67
05:00 PM	0	1	0	3	0	0	0	3	0	0	2	0	2	0	1	0	1	0	7	7
05:15 PM	0	2	0	5	2	0	0	7	0	0	0	0	0	0	1	0	1	0	10	10
05:30 PM	0	0	0	1	4	0	0	5	0	0	0	0	0	0	1	1	2	1	7	8
05:45 PM	1	0	0	3	0	2	1	5	0	0	2	0	2	0	4	1	5	1	13	14
Total	1	3	0	12	6	2	1	20	0	0	4	0	4	0	7	2	9	2	37	39
Grand Total	1	5	0	36	15	4	2	55	4	0	9	1	13	1	25	2	28	4	102	106
Approch %	16.7	83.3	0	65.5	27.3	7.3		30.8	0	69.2			12.7	3.6	89.3	7.1	27.5	3.8	96.2	
Total %	1	4.9	0	35.3	14.7	3.9		53.9	3.9	0	8.8			1	24.5	2				

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: Harvill Avenue
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 05_CRVHACAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: Harvill Avenue
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 05_CRVHACAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

Start Time	Harvill Avenue Southbound			Cajalco Expressway Westbound			Harvill Avenue Northbound			Cajalco Expressway Eastbound			App. Total	Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1														
Peak Hour for Each Approach Begins at:														
	04:00 PM			04:00 PM			04:00 PM			04:00 PM				
+0 mins.	0	1	0	1	5	1	12	0	0	2	0	6	0	6
+15 mins.	0	1	0	6	2	0	8	3	0	0	0	6	0	6
+30 mins.	0	0	0	6	1	0	7	0	0	3	0	3	0	4
+45 mins.	0	0	0	6	1	1	8	1	0	0	0	3	0	3
Total Volume	0	2	0	24	9	2	35	4	0	5	1	18	0	19
% App. Total	0	100	0	68.6	25.7	5.7	44.4	0	0	55.6	5.3	94.7	0	0
PHF	.000	.500	.000	1.000	.450	.500	.729	.333	.000	.417	.250	.750	.000	.792

Location: County of Riverside
 N/S: Harvill Avenue
 E/W: Cajalco Expy



Date: 2/12/2018
 Day: Tuesday

PEDESTRIANS

	North Leg Harvill Avenue	East Leg Cajalco Expy	South Leg Harvill Avenue	West Leg Cajalco Expy	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	1	0	1
7:30 AM	0	0	2	2	4
7:45 AM	1	1	0	0	2
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	1	1	3	2	7

	North Leg Harvill Avenue	East Leg Cajalco Expy	South Leg Harvill Avenue	West Leg Cajalco Expy	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	2	0	2
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	1	0	0	1
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	1	2	0	3

Location: County of Riverside
 N/S: Harvill Avenue
 E/W: Cajalco Expy



Date: 2/12/2018
 Day: Tuesday

BICYCLES

	Southbound Harvill Avenue			Westbound Cajalco Expy			Northbound Harvill Avenue			Eastbound Cajalco Expy			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound Harvill Avenue			Westbound Cajalco Expy			Northbound Harvill Avenue			Eastbound Cajalco Expy			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

County of Riverside
 N/S: Harvill Avenue
 E/W: Rider Street
 Weather: Clear

File Name : 06_CRVHARIAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

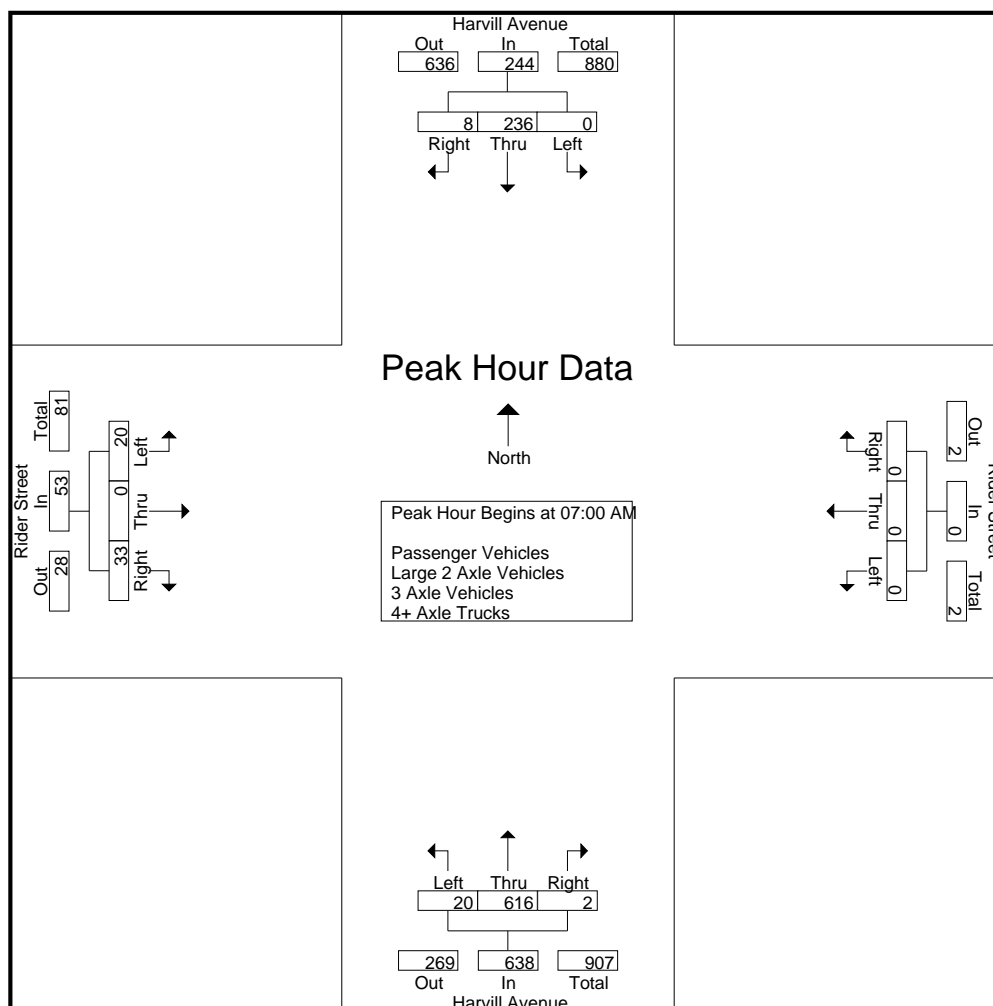
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Harvill Avenue Southbound				Rider Street Westbound				Harvill Avenue Northbound				Rider Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	40	1	41	0	0	0	0	2	179	0	181	7	0	7	14	236
07:15 AM	0	51	4	55	0	0	0	0	6	159	0	165	4	0	9	13	233
07:30 AM	0	67	2	69	0	0	0	0	7	163	0	170	6	0	8	14	253
07:45 AM	0	78	1	79	0	0	0	0	5	115	2	122	3	0	9	12	213
Total	0	236	8	244	0	0	0	0	20	616	2	638	20	0	33	53	935
08:00 AM	0	51	2	53	0	0	1	1	7	79	0	86	1	0	5	6	146
08:15 AM	0	37	2	39	0	0	0	0	5	70	0	75	3	0	7	10	124
08:30 AM	0	35	4	39	0	0	1	1	8	51	1	60	3	0	10	13	113
08:45 AM	0	57	3	60	0	0	0	0	4	48	0	52	4	0	7	11	123
Total	0	180	11	191	0	0	2	2	24	248	1	273	11	0	29	40	506
Grand Total	0	416	19	435	0	0	2	2	44	864	3	911	31	0	62	93	1441
Apprch %	0	95.6	4.4		0	0	100		4.8	94.8	0.3		33.3	0	66.7		
Total %	0	28.9	1.3	30.2	0	0	0.1	0.1	3.1	60	0.2	63.2	2.2	0	4.3	6.5	
Passenger Vehicles	0	387	18	405	0	0	1	1	42	826	2	870	28	0	60	88	1364
% Passenger Vehicles	0	93	94.7	93.1	0	0	50	50	95.5	95.6	66.7	95.5	90.3	0	96.8	94.6	94.7
Large 2 Axle Vehicles	0	22	1	23	0	0	1	1	2	28	1	31	0	0	2	2	57
% Large 2 Axle Vehicles	0	5.3	5.3	5.3	0	0	50	50	4.5	3.2	33.3	3.4	0	0	3.2	2.2	4
3 Axle Vehicles	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
% 3 Axle Vehicles	0	0.2	0	0.2	0	0	0	0	0	0.1	0	0.1	0	0	0	0	0.1
4+ Axle Trucks	0	6	0	6	0	0	0	0	0	9	0	9	3	0	0	3	18
% 4+ Axle Trucks	0	1.4	0	1.4	0	0	0	0	0	1	0	1	9.7	0	0	3.2	1.2

Start Time	Harvill Avenue Southbound				Rider Street Westbound				Harvill Avenue Northbound				Rider Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	40	1	41	0	0	0	0	2	179	0	181	7	0	7	14	236
07:15 AM	0	51	4	55	0	0	0	0	6	159	0	165	4	0	9	13	233
07:30 AM	0	67	2	69	0	0	0	0	7	163	0	170	6	0	8	14	253
07:45 AM	0	78	1	79	0	0	0	0	5	115	2	122	3	0	9	12	213
Total Volume	0	236	8	244	0	0	0	0	20	616	2	638	20	0	33	53	935
% App. Total	0	96.7	3.3		0	0	0		3.1	96.6	0.3		37.7	0	62.3		
PHF	.000	.756	.500	.772	.000	.000	.000	.000	.714	.860	.250	.881	.714	.000	.917	.946	.924

County of Riverside
 N/S: Harvill Avenue
 E/W: Rider Street
 Weather: Clear

File Name : 06_CRVHARIAM
 Site Code : 05119093
 Start Date : 2/12/2019
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	40	1	41	0	0	0	0	2	179	0	181	7	0	7	14
+15 mins.	0	51	4	55	0	0	0	0	6	159	0	165	4	0	9	13
+30 mins.	0	67	2	69	0	0	0	0	7	163	0	170	6	0	8	14
+45 mins.	0	78	1	79	0	0	0	0	5	115	2	122	3	0	9	12
Total Volume	0	236	8	244	0	0	0	0	20	616	2	638	20	0	33	53
% App. Total	0	96.7	3.3		0	0	0		3.1	96.6	0.3		37.7	0	62.3	
PHF	.000	.756	.500	.772	.000	.000	.000	.000	.714	.860	.250	.881	.714	.000	.917	.946

County of Riverside
 N/S: Harvill Avenue
 E/W: Rider Street
 Weather: Clear

File Name : 06_CRVHARIAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

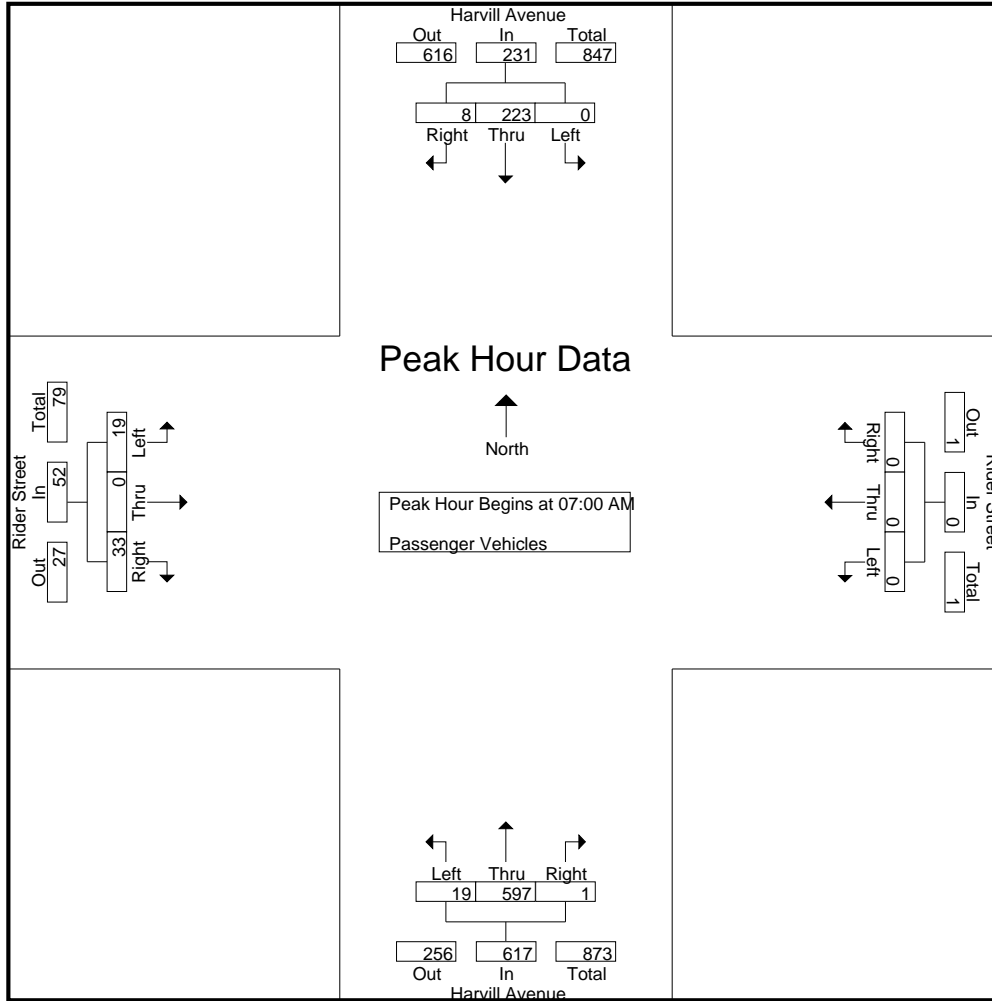
Groups Printed- Passenger Vehicles

Start Time	Harvill Avenue Southbound				Rider Street Westbound				Harvill Avenue Northbound				Rider Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	38	1	39	0	0	0	0	2	174	0	176	7	0	7	14	229
07:15 AM	0	50	4	54	0	0	0	0	5	152	0	157	4	0	9	13	224
07:30 AM	0	63	2	65	0	0	0	0	7	161	0	168	6	0	8	14	247
07:45 AM	0	72	1	73	0	0	0	0	5	110	1	116	2	0	9	11	200
Total	0	223	8	231	0	0	0	0	19	597	1	617	19	0	33	52	900
08:00 AM	0	48	2	50	0	0	0	0	7	75	0	82	1	0	5	6	138
08:15 AM	0	34	2	36	0	0	0	0	5	65	0	70	2	0	6	8	114
08:30 AM	0	32	4	36	0	0	1	1	7	46	1	54	3	0	9	12	103
08:45 AM	0	50	2	52	0	0	0	0	4	43	0	47	3	0	7	10	109
Total	0	164	10	174	0	0	1	1	23	229	1	253	9	0	27	36	464
Grand Total	0	387	18	405	0	0	1	1	42	826	2	870	28	0	60	88	1364
Apprch %	0	95.6	4.4		0	0	100		4.8	94.9	0.2		31.8	0	68.2		
Total %	0	28.4	1.3	29.7	0	0	0.1	0.1	3.1	60.6	0.1	63.8	2.1	0	4.4	6.5	

Start Time	Harvill Avenue Southbound				Rider Street Westbound				Harvill Avenue Northbound				Rider Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	38	1	39	0	0	0	0	2	174	0	176	7	0	7	14	229
07:15 AM	0	50	4	54	0	0	0	0	5	152	0	157	4	0	9	13	224
07:30 AM	0	63	2	65	0	0	0	0	7	161	0	168	6	0	8	14	247
07:45 AM	0	72	1	73	0	0	0	0	5	110	1	116	2	0	9	11	200
Total Volume	0	223	8	231	0	0	0	0	19	597	1	617	19	0	33	52	900
% App. Total	0	96.5	3.5		0	0	0		3.1	96.8	0.2		36.5	0	63.5		
PHF	.000	.774	.500	.791	.000	.000	.000	.000	.679	.858	.250	.876	.679	.000	.917	.929	.911

County of Riverside
 N/S: Harvill Avenue
 E/W: Rider Street
 Weather: Clear

File Name : 06_CRVHARIAM
 Site Code : 05119093
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM							
+0 mins.	0	38	1	39	0	0	0	0	2	174	0	176	7	0	7	14
+15 mins.	0	50	4	54	0	0	0	0	5	152	0	157	4	0	9	13
+30 mins.	0	63	2	65	0	0	0	0	7	161	0	168	6	0	8	14
+45 mins.	0	72	1	73	0	0	0	0	5	110	1	116	2	0	9	11
Total Volume	0	223	8	231	0	0	0	0	19	597	1	617	19	0	33	52
% App. Total	0	96.5	3.5		0	0	0		3.1	96.8	0.2		36.5	0	63.5	
PHF	.000	.774	.500	.791	.000	.000	.000	.000	.679	.858	.250	.876	.679	.000	.917	.929

County of Riverside
 N/S: Harvill Avenue
 E/W: Rider Street
 Weather: Clear

File Name : 06_CRVHARIAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

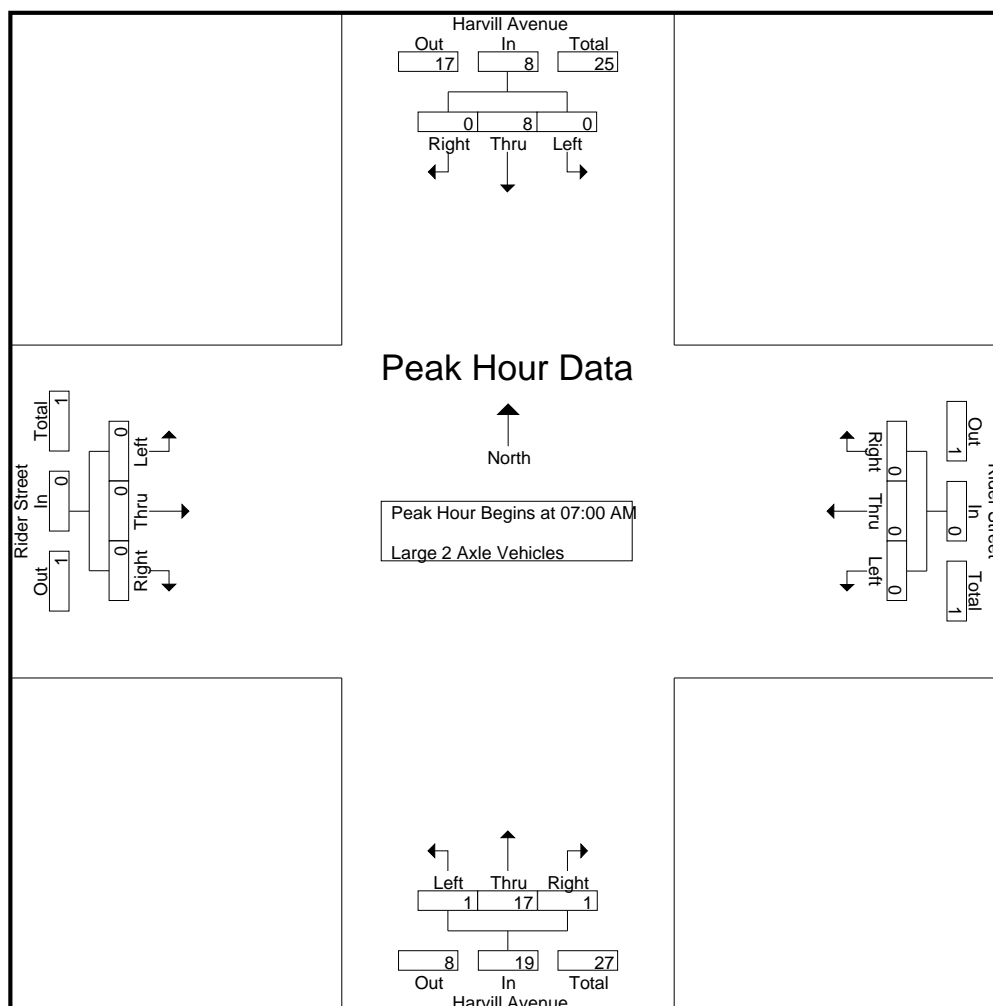
Groups Printed- Large 2 Axle Vehicles

Start Time	Harvill Avenue Southbound				Rider Street Westbound				Harvill Avenue Northbound				Rider Street Eastbound				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
07:00 AM	0	0	0	0	0	0	0	0	0	0	5	0	5	0	0	0	0	5
07:15 AM	0	1	0	1	0	0	0	0	0	1	6	0	7	0	0	0	0	8
07:30 AM	0	2	0	2	0	0	0	0	0	0	1	0	1	0	0	0	0	3
07:45 AM	0	5	0	5	0	0	0	0	0	0	5	1	6	0	0	0	0	11
Total	0	8	0	8	0	0	0	0	0	1	17	1	19	0	0	0	0	27
08:00 AM	0	3	0	3	0	0	1	1	0	1	0	1	0	0	0	0	0	5
08:15 AM	0	3	0	3	0	0	0	0	0	3	0	3	3	0	0	1	1	7
08:30 AM	0	3	0	3	0	0	0	0	0	1	3	0	4	0	0	1	1	8
08:45 AM	0	5	1	6	0	0	0	0	0	0	4	0	4	0	0	0	0	10
Total	0	14	1	15	0	0	1	1	1	1	11	0	12	0	0	2	2	30
Grand Total	0	22	1	23	0	0	1	1	2	28	1	31	0	0	2	2	57	
Apprch %	0	95.7	4.3		0	0	100		6.5	90.3	3.2		0	0	100			
Total %	0	38.6	1.8	40.4	0	0	1.8	1.8	3.5	49.1	1.8	54.4	0	0	3.5	3.5		

Start Time	Harvill Avenue Southbound				Rider Street Westbound				Harvill Avenue Northbound				Rider Street Eastbound				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:00 AM																		
07:00 AM	0	0	0	0	0	0	0	0	0	0	5	0	5	0	0	0	0	5
07:15 AM	0	1	0	1	0	0	0	0	0	1	6	0	7	0	0	0	0	8
07:30 AM	0	2	0	2	0	0	0	0	0	0	1	0	1	0	0	0	0	3
07:45 AM	0	5	0	5	0	0	0	0	0	0	5	1	6	0	0	0	0	11
Total Volume	0	8	0	8	0	0	0	0	0	1	17	1	19	0	0	0	0	27
% App. Total	0	100	0		0	0	0			5.3	89.5	5.3		0	0	0		
PHF	.000	.400	.000	.400	.000	.000	.000	.000	.000	.250	.708	.250	.679	.000	.000	.000	.000	.614

County of Riverside
 N/S: Harvill Avenue
 E/W: Rider Street
 Weather: Clear

File Name : 06_CRVHARIAM
 Site Code : 05119093
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	5	0	5	0	0	0	0
+15 mins.	0	1	0	1	0	0	0	0	1	6	0	7	0	0	0	0
+30 mins.	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0
+45 mins.	0	5	0	5	0	0	0	0	0	5	1	6	0	0	0	0
Total Volume	0	8	0	8	0	0	0	0	1	17	1	19	0	0	0	0
% App. Total	0	100	0		0	0	0		5.3	89.5	5.3		0	0	0	
PHF	.000	.400	.000	.400	.000	.000	.000	.000	.250	.708	.250	.679	.000	.000	.000	.000

County of Riverside
 N/S: Harvill Avenue
 E/W: Rider Street
 Weather: Clear

File Name : 06_CRVHARIAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

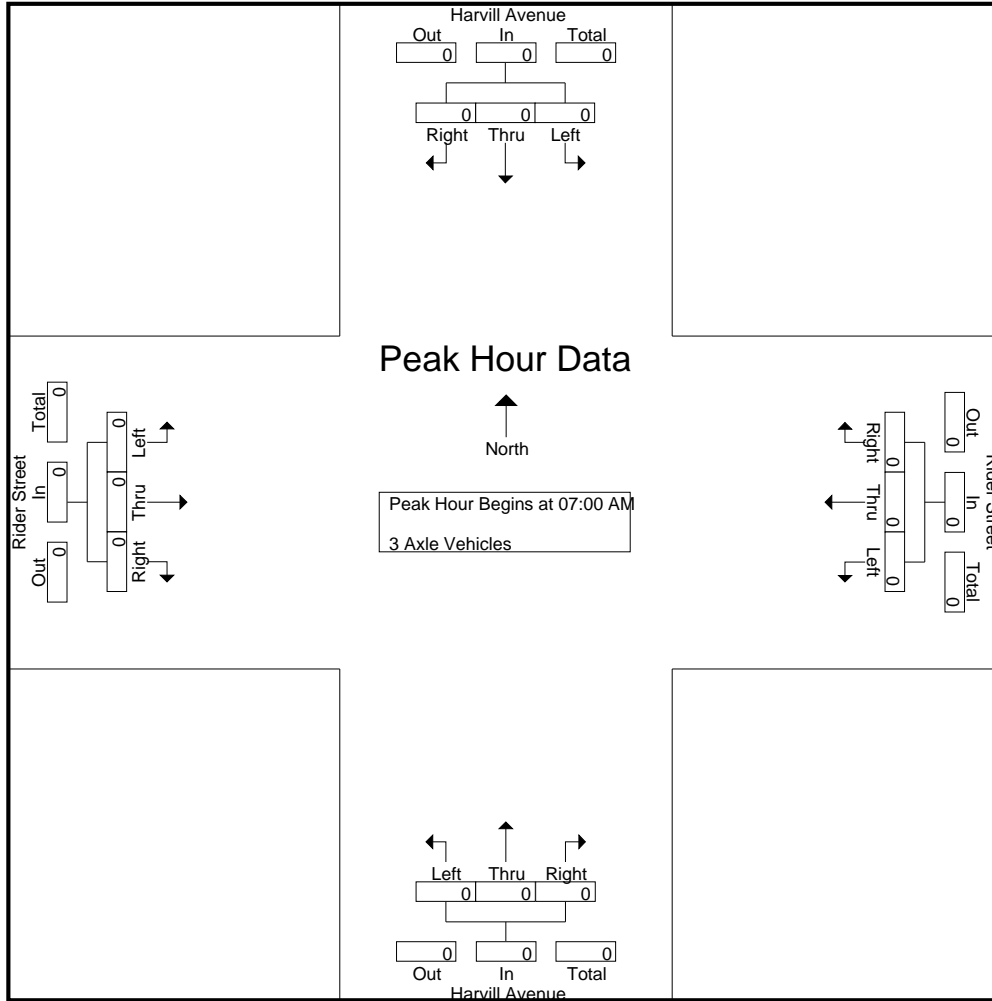
Groups Printed- 3 Axle Vehicles

Start Time	Harvill Avenue Southbound				Rider Street Westbound				Harvill Avenue Northbound				Rider Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
Grand Total	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
Apprch %	0	100	0		0	0	0		0	100	0		0	0	0		
Total %	0	50	0	50	0	0	0	0	0	50	0	50	0	0	0	0	

Start Time	Harvill Avenue Southbound				Rider Street Westbound				Harvill Avenue Northbound				Rider Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

County of Riverside
 N/S: Harvill Avenue
 E/W: Rider Street
 Weather: Clear

File Name : 06_CRVHARIAM
 Site Code : 05119093
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

County of Riverside
 N/S: Harvill Avenue
 E/W: Rider Street
 Weather: Clear

File Name : 06_CRVHARIAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

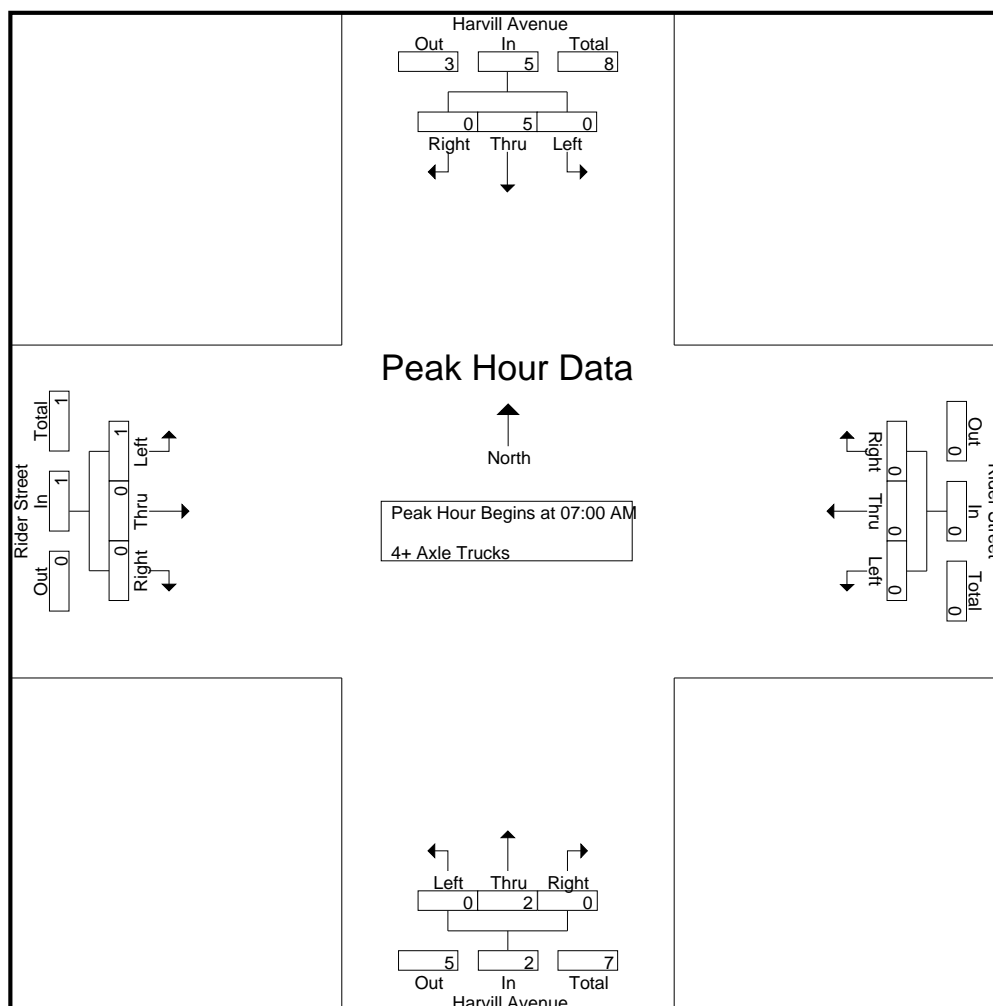
Groups Printed- 4+ Axle Trucks

Start Time	Harvill Avenue Southbound				Rider Street Westbound				Harvill Avenue Northbound				Rider Street Eastbound				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
07:00 AM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
07:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
07:30 AM	0	2	0	2	0	0	0	0	0	0	1	0	1	0	0	0	0	3
07:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	1	2
Total	0	5	0	5	0	0	0	0	0	0	2	0	2	1	0	0	1	8
08:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
08:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	2	1	0	0	1	3
08:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2
08:45 AM	0	1	0	1	0	0	0	0	0	0	1	0	1	1	0	0	1	3
Total	0	1	0	1	0	0	0	0	0	0	7	0	7	2	0	0	2	10
Grand Total	0	6	0	6	0	0	0	0	0	0	9	0	9	3	0	0	3	18
Apprch %	0	100	0		0	0	0		0	100	0		100	0	0			
Total %	0	33.3	0	33.3	0	0	0		0	50	0	50	16.7	0	0	16.7		

Start Time	Harvill Avenue Southbound				Rider Street Westbound				Harvill Avenue Northbound				Rider Street Eastbound				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:00 AM																		
07:00 AM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
07:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
07:30 AM	0	2	0	2	0	0	0	0	0	0	1	0	1	0	0	0	0	3
07:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	1	2
Total Volume	0	5	0	5	0	0	0	0	0	0	2	0	2	1	0	0	1	8
% App. Total	0	100	0		0	0	0		0	100	0		100	0	0			
PHF	.000	.625	.000	.625	.000	.000	.000	.000	.000	.000	.500	.000	.500	.250	.000	.000	.250	.667

County of Riverside
 N/S: Harvill Avenue
 E/W: Rider Street
 Weather: Clear

File Name : 06_CRVHARIAM
 Site Code : 05119093
 Start Date : 2/12/2019
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
+30 mins.	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0
+45 mins.	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	1
Total Volume	0	5	0	5	0	0	0	0	0	2	0	2	1	0	0	1
% App. Total	0	100	0		0	0	0		0	100	0		100	0	0	
PHF	.000	.625	.000	.625	.000	.000	.000	.000	.000	.500	.000	.500	.250	.000	.000	.250

County of Riverside
 N/S: Harvill Avenue
 E/W: Rider Street
 Weather: Clear

File Name : 06_CRVHARIPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

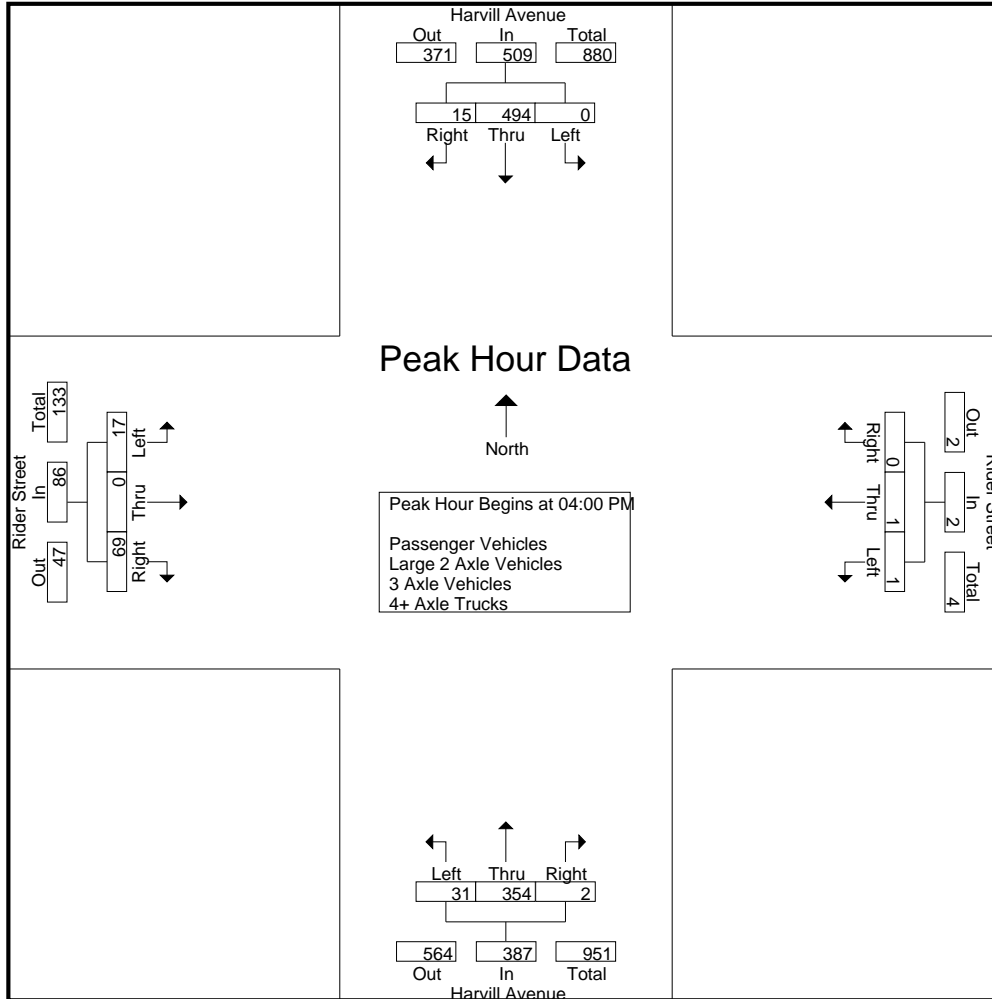
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Harvill Avenue Southbound				Rider Street Westbound				Harvill Avenue Northbound				Rider Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	135	6	141	0	0	0	0	8	92	1	101	4	0	20	24	266
04:15 PM	0	123	2	125	0	0	0	0	9	106	0	115	5	0	16	21	261
04:30 PM	0	119	5	124	1	0	0	1	10	93	0	103	6	0	16	22	250
04:45 PM	0	117	2	119	0	1	0	1	4	63	1	68	2	0	17	19	207
Total	0	494	15	509	1	1	0	2	31	354	2	387	17	0	69	86	984
05:00 PM	0	102	3	105	0	0	0	0	8	89	0	97	1	0	19	20	222
05:15 PM	0	106	6	112	0	0	0	0	2	71	1	74	3	0	15	18	204
05:30 PM	0	101	3	104	0	0	0	0	6	60	0	66	4	0	9	13	183
05:45 PM	0	107	3	110	0	0	0	0	5	68	0	73	3	1	13	17	200
Total	0	416	15	431	0	0	0	0	21	288	1	310	11	1	56	68	809
Grand Total	0	910	30	940	1	1	0	2	52	642	3	697	28	1	125	154	1793
Apprch %	0	96.8	3.2		50	50	0		7.5	92.1	0.4		18.2	0.6	81.2		
Total %	0	50.8	1.7	52.4	0.1	0.1	0	0.1	2.9	35.8	0.2	38.9	1.6	0.1	7	8.6	
Passenger Vehicles	0	883	27	910	1	1	0	2	52	624	3	679	25	1	124	150	1741
% Passenger Vehicles	0	97	90	96.8	100	100	0	100	100	97.2	100	97.4	89.3	100	99.2	97.4	97.1
Large 2 Axle Vehicles	0	21	3	24	0	0	0	0	0	15	0	15	0	0	1	1	40
% Large 2 Axle Vehicles	0	2.3	10	2.6	0	0	0	0	0	2.3	0	2.2	0	0	0.8	0.6	2.2
3 Axle Vehicles	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
% 3 Axle Vehicles	0	0.1	0	0.1	0	0	0	0	0	0.2	0	0.1	0	0	0	0	0.1
4+ Axle Trucks	0	5	0	5	0	0	0	0	0	2	0	2	3	0	0	3	10
% 4+ Axle Trucks	0	0.5	0	0.5	0	0	0	0	0	0.3	0	0.3	10.7	0	0	1.9	0.6

Start Time	Harvill Avenue Southbound				Rider Street Westbound				Harvill Avenue Northbound				Rider Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	135	6	141	0	0	0	0	8	92	1	101	4	0	20	24	266
04:15 PM	0	123	2	125	0	0	0	0	9	106	0	115	5	0	16	21	261
04:30 PM	0	119	5	124	1	0	0	1	10	93	0	103	6	0	16	22	250
04:45 PM	0	117	2	119	0	1	0	1	4	63	1	68	2	0	17	19	207
Total Volume	0	494	15	509	1	1	0	2	31	354	2	387	17	0	69	86	984
% App. Total	0	97.1	2.9		50	50	0		8	91.5	0.5		19.8	0	80.2		
PHF	.000	.915	.625	.902	.250	.250	.000	.500	.775	.835	.500	.841	.708	.000	.863	.896	.925

County of Riverside
 N/S: Harvill Avenue
 E/W: Rider Street
 Weather: Clear

File Name : 06_CRVHARIPM
 Site Code : 05119093
 Start Date : 2/12/2019
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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	135	6	141	0	0	0	0	8	92	1	101	4	0	20	24
+15 mins.	0	123	2	125	0	0	0	0	9	106	0	115	5	0	16	21
+30 mins.	0	119	5	124	1	0	0	1	10	93	0	103	6	0	16	22
+45 mins.	0	117	2	119	0	1	0	1	4	63	1	68	2	0	17	19
Total Volume	0	494	15	509	1	1	0	2	31	354	2	387	17	0	69	86
% App. Total	0	97.1	2.9		50	50	0		8	91.5	0.5		19.8	0	80.2	
PHF	.000	.915	.625	.902	.250	.250	.000	.500	.775	.835	.500	.841	.708	.000	.863	.896

County of Riverside
 N/S: Harvill Avenue
 E/W: Rider Street
 Weather: Clear

File Name : 06_CRVHARIPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

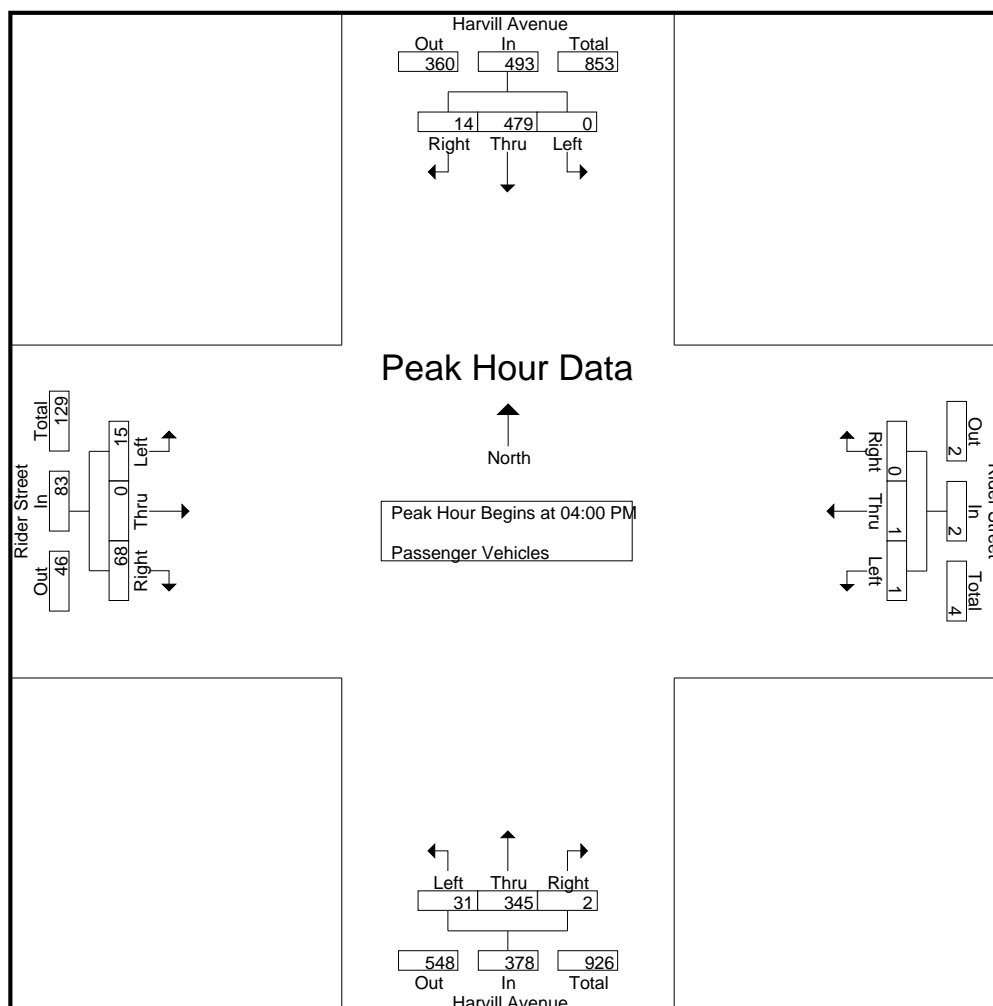
Groups Printed- Passenger Vehicles

Start Time	Harvill Avenue Southbound				Rider Street Westbound				Harvill Avenue Northbound				Rider Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	132	5	137	0	0	0	0	8	90	1	99	4	0	20	24	260
04:15 PM	0	120	2	122	0	0	0	0	9	101	0	110	5	0	16	21	253
04:30 PM	0	115	5	120	1	0	0	1	10	92	0	102	4	0	15	19	242
04:45 PM	0	112	2	114	0	1	0	1	4	62	1	67	2	0	17	19	201
Total	0	479	14	493	1	1	0	2	31	345	2	378	15	0	68	83	956
05:00 PM	0	95	3	98	0	0	0	0	8	84	0	92	1	0	19	20	210
05:15 PM	0	105	5	110	0	0	0	0	2	68	1	71	3	0	15	18	199
05:30 PM	0	99	2	101	0	0	0	0	6	60	0	66	4	0	9	13	180
05:45 PM	0	105	3	108	0	0	0	0	5	67	0	72	2	1	13	16	196
Total	0	404	13	417	0	0	0	0	21	279	1	301	10	1	56	67	785
Grand Total	0	883	27	910	1	1	0	2	52	624	3	679	25	1	124	150	1741
Apprch %	0	97	3		50	50	0		7.7	91.9	0.4		16.7	0.7	82.7		
Total %	0	50.7	1.6	52.3	0.1	0.1	0	0.1	3	35.8	0.2	39	1.4	0.1	7.1	8.6	

Start Time	Harvill Avenue Southbound				Rider Street Westbound				Harvill Avenue Northbound				Rider Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	132	5	137	0	0	0	0	8	90	1	99	4	0	20	24	260
04:15 PM	0	120	2	122	0	0	0	0	9	101	0	110	5	0	16	21	253
04:30 PM	0	115	5	120	1	0	0	1	10	92	0	102	4	0	15	19	242
04:45 PM	0	112	2	114	0	1	0	1	4	62	1	67	2	0	17	19	201
Total Volume	0	479	14	493	1	1	0	2	31	345	2	378	15	0	68	83	956
% App. Total	0	97.2	2.8		50	50	0		8.2	91.3	0.5		18.1	0	81.9		
PHF	.000	.907	.700	.900	.250	.250	.000	.500	.775	.854	.500	.859	.750	.000	.850	.865	.919

County of Riverside
 N/S: Harvill Avenue
 E/W: Rider Street
 Weather: Clear

File Name : 06_CRVHARIPM
 Site Code : 05119093
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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	132	5	137	0	0	0	0	8	90	1	99	4	0	20	24
+15 mins.	0	120	2	122	0	0	0	0	9	101	0	110	5	0	16	21
+30 mins.	0	115	5	120	1	0	0	1	10	92	0	102	4	0	15	19
+45 mins.	0	112	2	114	0	1	0	1	4	62	1	67	2	0	17	19
Total Volume	0	479	14	493	1	1	0	2	31	345	2	378	15	0	68	83
% App. Total	0	97.2	2.8		50	50	0		8.2	91.3	0.5		18.1	0	81.9	
PHF	.000	.907	.700	.900	.250	.250	.000	.500	.775	.854	.500	.859	.750	.000	.850	.865

County of Riverside
 N/S: Harvill Avenue
 E/W: Rider Street
 Weather: Clear

File Name : 06_CRVHARIPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

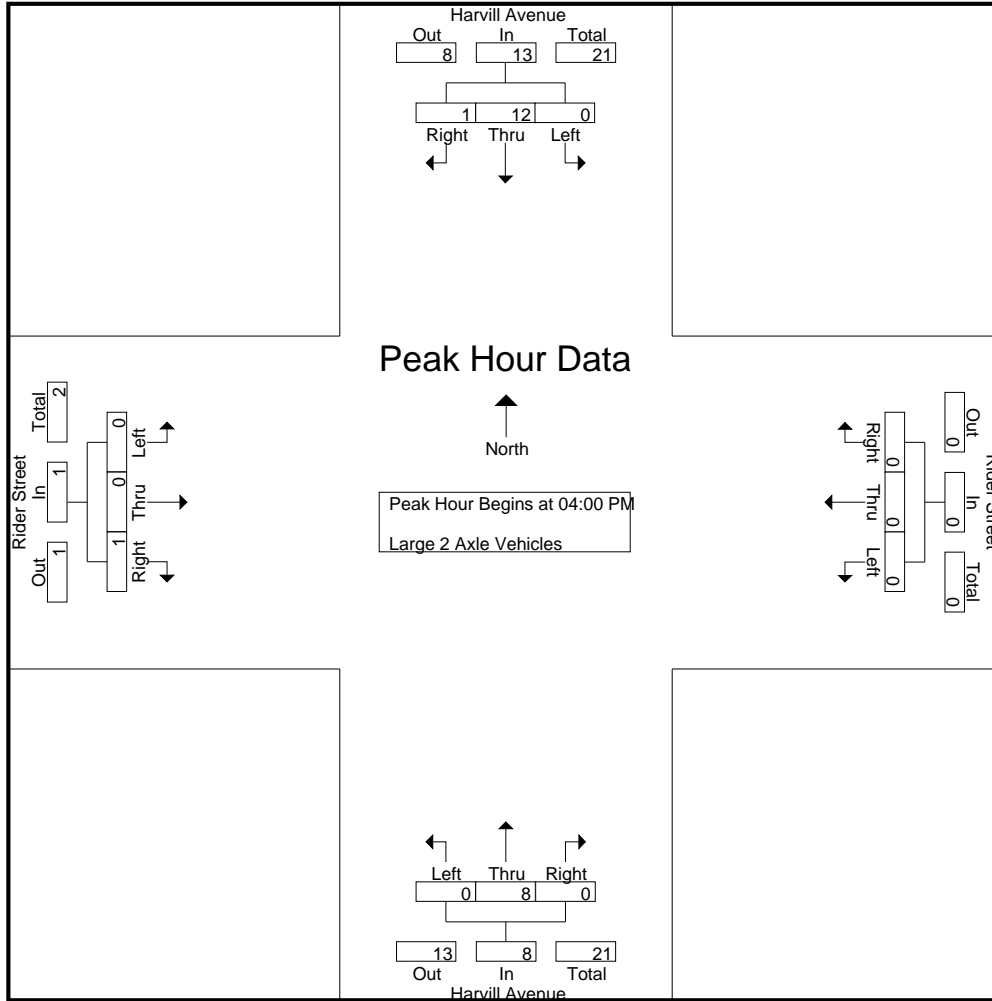
Groups Printed- Large 2 Axle Vehicles

Start Time	Harvill Avenue Southbound				Rider Street Westbound				Harvill Avenue Northbound				Rider Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	2	1	3	0	0	0	0	0	2	0	2	0	0	0	0	5
04:15 PM	0	3	0	3	0	0	0	0	0	4	0	4	0	0	0	0	7
04:30 PM	0	4	0	4	0	0	0	0	0	1	0	1	0	0	1	1	6
04:45 PM	0	3	0	3	0	0	0	0	0	1	0	1	0	0	0	0	4
Total	0	12	1	13	0	0	0	0	0	8	0	8	0	0	1	1	22
05:00 PM	0	6	0	6	0	0	0	0	0	3	0	3	0	0	0	0	9
05:15 PM	0	1	1	2	0	0	0	0	0	3	0	3	0	0	0	0	5
05:30 PM	0	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	3
05:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	0	9	2	11	0	0	0	0	0	7	0	7	0	0	0	0	18
Grand Total	0	21	3	24	0	0	0	0	0	15	0	15	0	0	1	1	40
Apprch %	0	87.5	12.5		0	0	0		0	100	0		0	0	100		
Total %	0	52.5	7.5	60	0	0	0	0	0	37.5	0	37.5	0	0	2.5	2.5	

Start Time	Harvill Avenue Southbound				Rider Street Westbound				Harvill Avenue Northbound				Rider Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	2	1	3	0	0	0	0	0	2	0	2	0	0	0	0	5
04:15 PM	0	3	0	3	0	0	0	0	0	4	0	4	0	0	0	0	7
04:30 PM	0	4	0	4	0	0	0	0	0	1	0	1	0	0	1	1	6
04:45 PM	0	3	0	3	0	0	0	0	0	1	0	1	0	0	0	0	4
Total Volume	0	12	1	13	0	0	0	0	0	8	0	8	0	0	1	1	22
% App. Total	0	92.3	7.7		0	0	0		0	100	0		0	0	100		
PHF	.000	.750	.250	.813	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.250	.250	.786

County of Riverside
 N/S: Harvill Avenue
 E/W: Rider Street
 Weather: Clear

File Name : 06_CRVHARIPM
 Site Code : 05119093
 Start Date : 2/12/2019
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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	2	1	3	0	0	0	0	0	2	0	2	0	0	0	0
+15 mins.	0	3	0	3	0	0	0	0	0	4	0	4	0	0	0	0
+30 mins.	0	4	0	4	0	0	0	0	0	1	0	1	0	0	1	1
+45 mins.	0	3	0	3	0	0	0	0	0	1	0	1	0	0	0	0
Total Volume	0	12	1	13	0	0	0	0	0	8	0	8	0	0	1	1
% App. Total	0	92.3	7.7		0	0	0	0	0	100	0		0	0	100	
PHF	.000	.750	.250	.813	.000	.000	.000	.000	.000	.500	.000	.500	.000	.000	.250	.250

County of Riverside
 N/S: Harvill Avenue
 E/W: Rider Street
 Weather: Clear

File Name : 06_CRVHARIPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

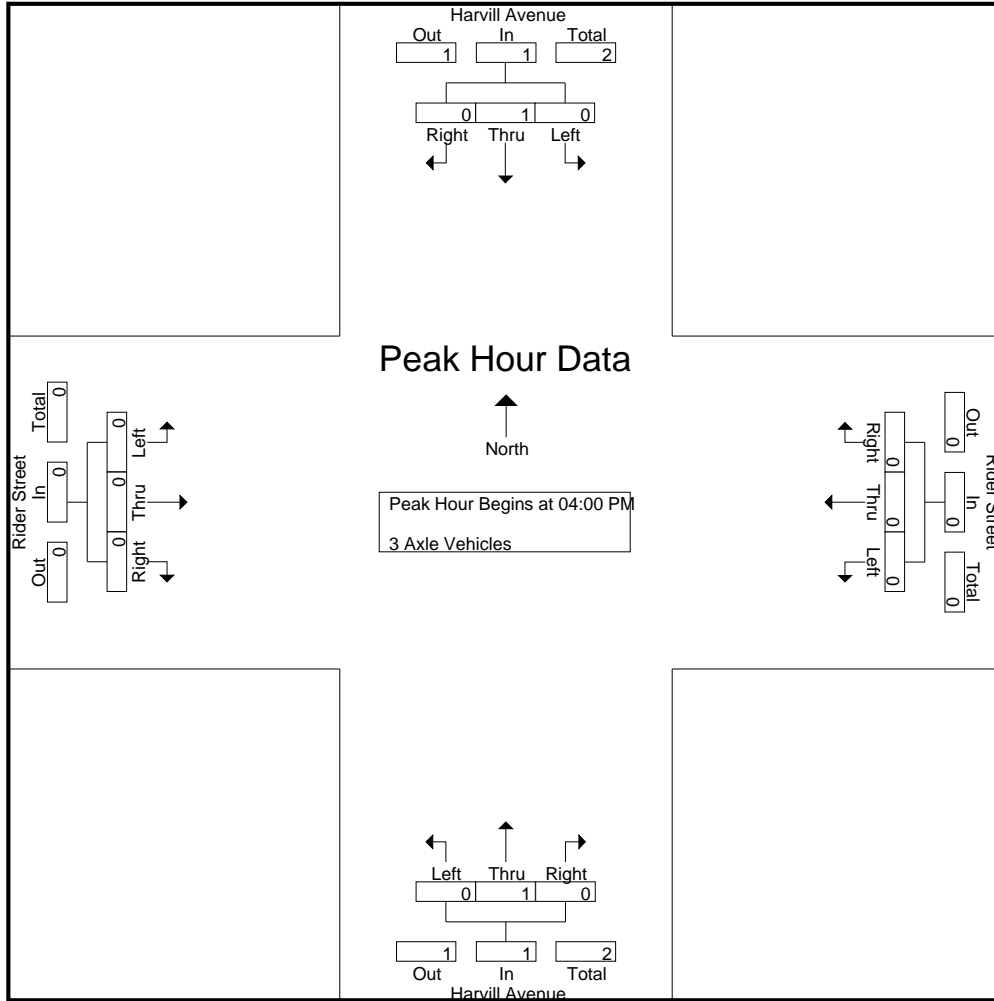
Groups Printed- 3 Axle Vehicles

Start Time	Harvill Avenue Southbound				Rider Street Westbound				Harvill Avenue Northbound				Rider Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
Apprch %	0	100	0		0	0	0		0	100	0		0	0	0		
Total %	0	50	0	50	0	0	0	0	0	50	0	50	0	0	0	0	

Start Time	Harvill Avenue Southbound				Rider Street Westbound				Harvill Avenue Northbound				Rider Street Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.500

County of Riverside
 N/S: Harvill Avenue
 E/W: Rider Street
 Weather: Clear

File Name : 06_CRVHARIPM
 Site Code : 05119093
 Start Date : 2/12/2019
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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0	
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000

County of Riverside
 N/S: Harvill Avenue
 E/W: Rider Street
 Weather: Clear

File Name : 06_CRVHARIPM
 Site Code : 05119093
 Start Date : 2/12/2019
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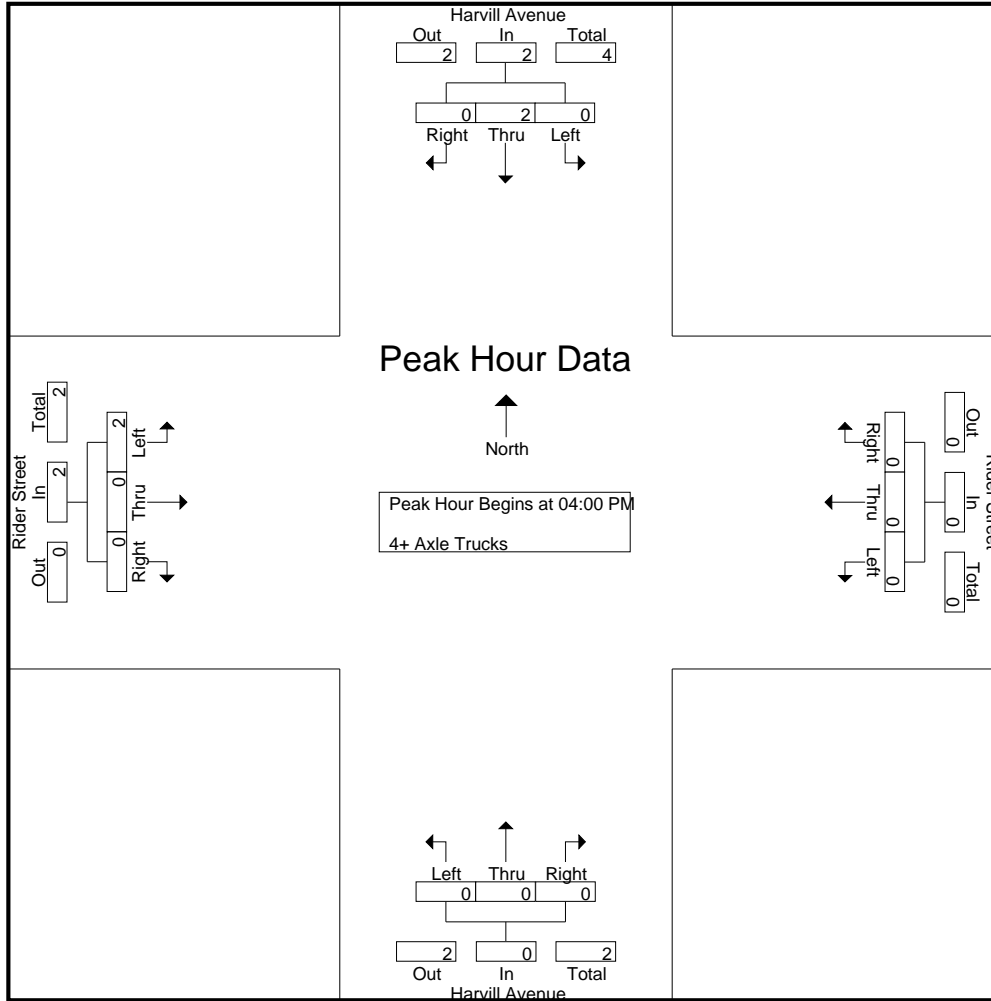
Groups Printed- 4+ Axle Trucks

Start Time	Harvill Avenue Southbound				Rider Street Westbound				Harvill Avenue Northbound				Rider Street Eastbound				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
04:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
04:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	2	0	2	0	0	0	0	0	0	0	0	2	0	0	2	2	4
05:00 PM	0	1	0	1	0	0	0	0	0	0	2	0	2	0	0	0	0	3
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	2	0	2	0	0	0	0	0	0	0	0	1	0	0	0	1	3
Total	0	3	0	3	0	0	0	0	0	0	2	0	2	1	0	0	1	6
Grand Total	0	5	0	5	0	0	0	0	0	0	2	0	2	3	0	0	3	10
Apprch %	0	100	0		0	0	0		0	100	0		100	0	0			
Total %	0	50	0	50	0	0	0	0	0	20	0	20	30	0	0	30		

Start Time	Harvill Avenue Southbound				Rider Street Westbound				Harvill Avenue Northbound				Rider Street Eastbound				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 04:00 PM																		
04:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	2	2
04:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	2	0	2	0	0	0	0	0	0	0	0	2	0	0	2	2	4
% App. Total	0	100	0		0	0	0		0	0	0		100	0	0			
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.500	

County of Riverside
 N/S: Harvill Avenue
 E/W: Rider Street
 Weather: Clear

File Name : 06_CRVHARIPM
 Site Code : 05119093
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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2
+45 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	2	0	2	0	0	0	0	0	0	0	0	2	0	0	2
% App. Total	0	100	0		0	0	0		0	0	0		100	0	0	
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250

Location: County of Riverside
 N/S: Harvill Avenue
 E/W: Rider Street



Date: 2/12/2019
 Day: Tuesday

PEDESTRIANS

	North Leg Harvill Avenue	East Leg Rider Street	South Leg Harvill Avenue	West Leg Rider Street	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Harvill Avenue	East Leg Rider Street	South Leg Harvill Avenue	West Leg Rider Street	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: County of Riverside
 N/S: Harvill Avenue
 E/W: Rider Street



Date: 2/12/2019
 Day: Tuesday

BICYCLES

	Southbound Harvill Avenue			Westbound Rider Street			Northbound Harvill Avenue			Eastbound Rider Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound Harvill Avenue			Westbound Rider Street			Northbound Harvill Avenue			Eastbound Rider Street			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

County of Riverside
 N/S: Harvill Avenue
 E/W: Placentia Avenue
 Weather: Clear

File Name : 07_CRVHAPLAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

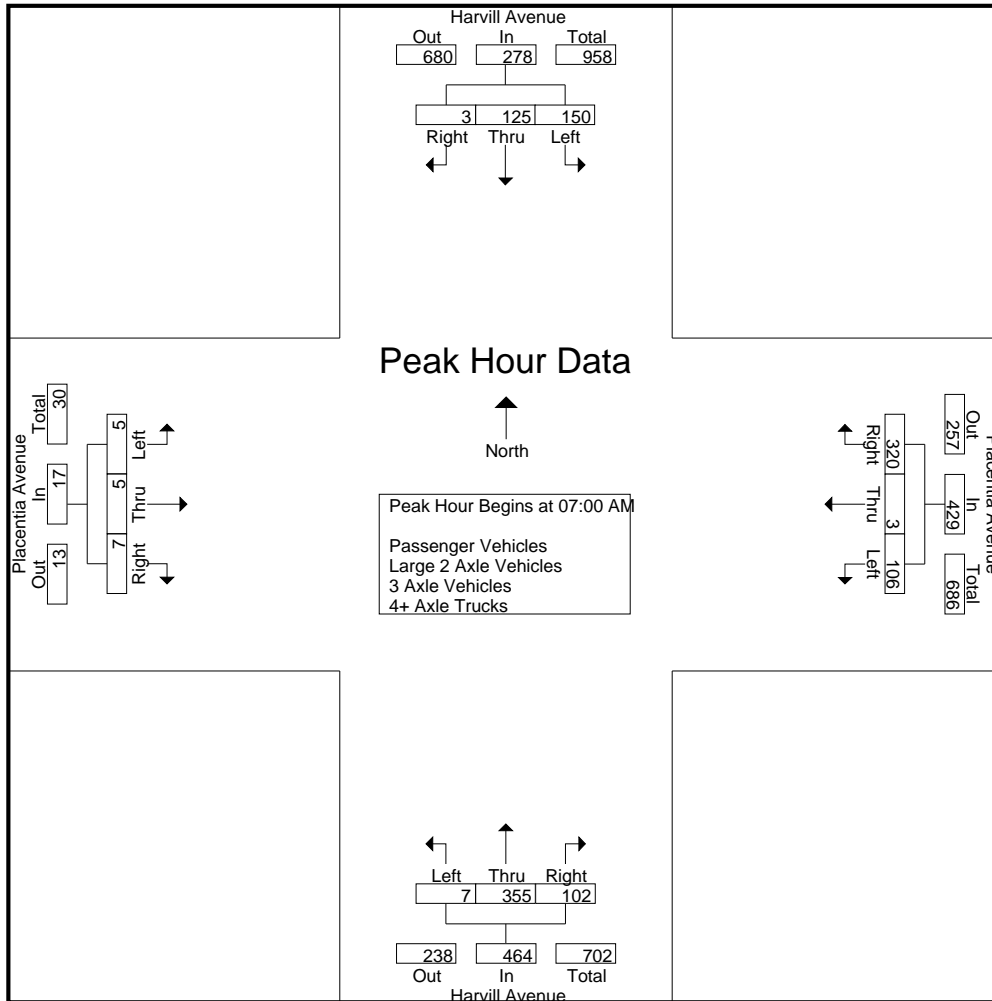
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Harvill Avenue Southbound				Placentia Avenue Westbound				Harvill Avenue Northbound				Placentia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	18	34	0	52	26	0	110	136	0	112	13	125	1	2	2	5	318
07:15 AM	31	28	0	59	36	0	82	118	3	82	36	121	2	0	3	5	303
07:30 AM	47	29	2	78	23	1	77	101	3	89	27	119	2	2	1	5	303
07:45 AM	54	34	1	89	21	2	51	74	1	72	26	99	0	1	1	2	264
Total	150	125	3	278	106	3	320	429	7	355	102	464	5	5	7	17	1188
08:00 AM	35	17	2	54	10	1	39	50	0	47	8	55	0	0	2	2	161
08:15 AM	27	17	1	45	10	1	35	46	0	36	5	41	1	0	2	3	135
08:30 AM	21	18	1	40	7	1	29	37	1	30	8	39	0	0	3	3	119
08:45 AM	29	37	2	68	6	0	30	36	1	30	5	36	0	1	1	2	142
Total	112	89	6	207	33	3	133	169	2	143	26	171	1	1	8	10	557
Grand Total	262	214	9	485	139	6	453	598	9	498	128	635	6	6	15	27	1745
Apprch %	54	44.1	1.9		23.2	1	75.8		1.4	78.4	20.2		22.2	22.2	55.6		
Total %	15	12.3	0.5	27.8	8	0.3	26	34.3	0.5	28.5	7.3	36.4	0.3	0.3	0.9	1.5	
Passenger Vehicles	255	190	8	453	125	6	443	574	8	473	123	604	6	6	14	26	1657
% Passenger Vehicles	97.3	88.8	88.9	93.4	89.9	100	97.8	96	88.9	95	96.1	95.1	100	100	93.3	96.3	95
Large 2 Axle Vehicles	7	16	1	24	13	0	8	21	1	16	3	20	0	0	1	1	66
% Large 2 Axle Vehicles	2.7	7.5	11.1	4.9	9.4	0	1.8	3.5	11.1	3.2	2.3	3.1	0	0	6.7	3.7	3.8
3 Axle Vehicles	0	0	0	0	1	0	0	1	0	1	1	2	0	0	0	0	3
% 3 Axle Vehicles	0	0	0	0	0.7	0	0	0.2	0	0.2	0.8	0.3	0	0	0	0	0.2
4+ Axle Trucks	0	8	0	8	0	0	2	2	0	8	1	9	0	0	0	0	19
% 4+ Axle Trucks	0	3.7	0	1.6	0	0	0.4	0.3	0	1.6	0.8	1.4	0	0	0	0	1.1

Start Time	Harvill Avenue Southbound				Placentia Avenue Westbound				Harvill Avenue Northbound				Placentia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	18	34	0	52	26	0	110	136	0	112	13	125	1	2	2	5	318
07:15 AM	31	28	0	59	36	0	82	118	3	82	36	121	2	0	3	5	303
07:30 AM	47	29	2	78	23	1	77	101	3	89	27	119	2	2	1	5	303
07:45 AM	54	34	1	89	21	2	51	74	1	72	26	99	0	1	1	2	264
Total Volume	150	125	3	278	106	3	320	429	7	355	102	464	5	5	7	17	1188
% App. Total	54	45	1.1		24.7	0.7	74.6		1.5	76.5	22		29.4	29.4	41.2		
PHF	.694	.919	.375	.781	.736	.375	.727	.789	.583	.792	.708	.928	.625	.625	.583	.850	.934

County of Riverside
 N/S: Harvill Avenue
 E/W: Placentia Avenue
 Weather: Clear

File Name : 07_CRVHAPLAM
 Site Code : 05119093
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	18	34	0	52	26	0	110	136	0	112	13	125	1	2	2	5
+15 mins.	31	28	0	59	36	0	82	118	3	82	36	121	2	0	3	5
+30 mins.	47	29	2	78	23	1	77	101	3	89	27	119	2	2	1	5
+45 mins.	54	34	1	89	21	2	51	74	1	72	26	99	0	1	1	2
Total Volume	150	125	3	278	106	3	320	429	7	355	102	464	5	5	7	17
% App. Total	54	45	1.1		24.7	0.7	74.6		1.5	76.5	22		29.4	29.4	41.2	
PHF	.694	.919	.375	.781	.736	.375	.727	.789	.583	.792	.708	.928	.625	.625	.583	.850

County of Riverside
 N/S: Harvill Avenue
 E/W: Placentia Avenue
 Weather: Clear

File Name : 07_CRVHAPLAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

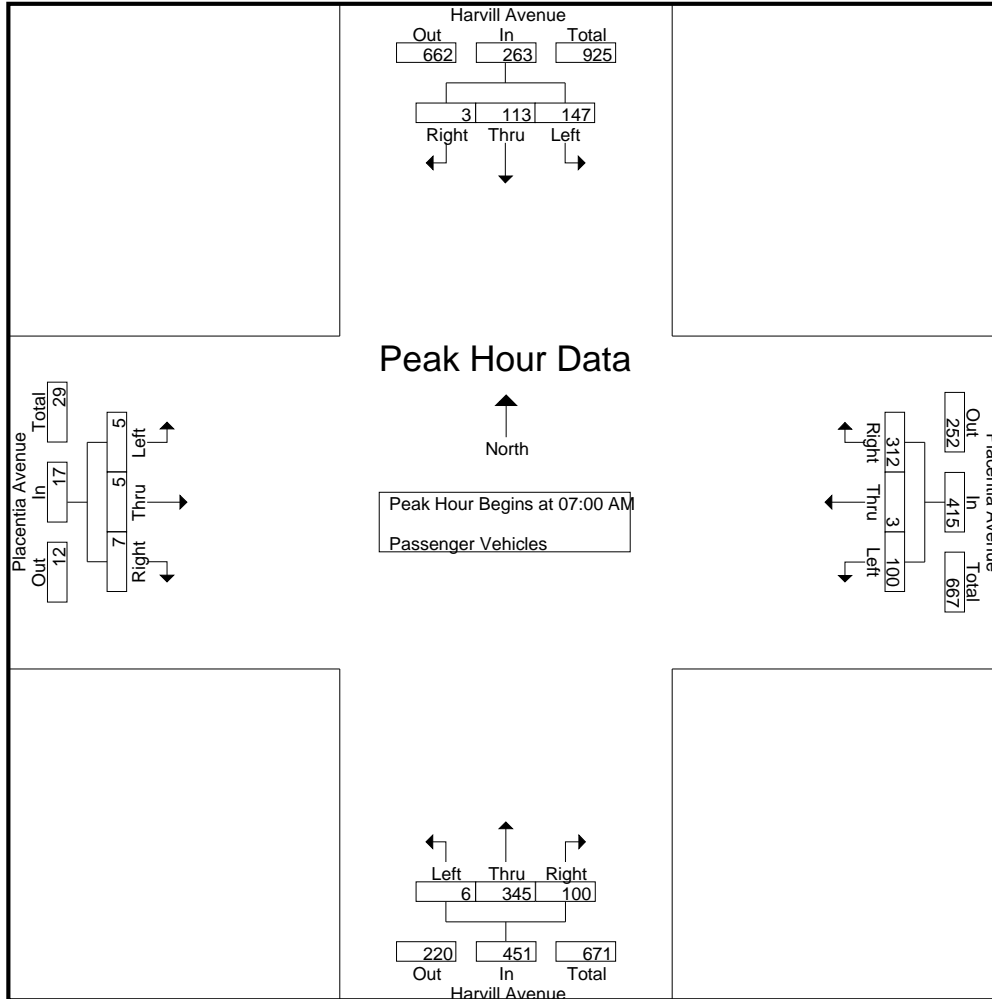
Groups Printed- Passenger Vehicles

Start Time	Harvill Avenue Southbound				Placentia Avenue Westbound				Harvill Avenue Northbound				Placentia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	18	30	0	48	24	0	109	133	0	109	13	122	1	2	2	5	308
07:15 AM	30	28	0	58	35	0	78	113	3	78	36	117	2	0	3	5	293
07:30 AM	46	25	2	73	22	1	75	98	3	89	26	118	2	2	1	5	294
07:45 AM	53	30	1	84	19	2	50	71	0	69	25	94	0	1	1	2	251
Total	147	113	3	263	100	3	312	415	6	345	100	451	5	5	7	17	1146
08:00 AM	34	15	2	51	10	1	39	50	0	43	7	50	0	0	2	2	153
08:15 AM	26	15	0	41	7	1	35	43	0	32	5	37	1	0	2	3	124
08:30 AM	20	16	1	37	4	1	28	33	1	26	7	34	0	0	2	2	106
08:45 AM	28	31	2	61	4	0	29	33	1	27	4	32	0	1	1	2	128
Total	108	77	5	190	25	3	131	159	2	128	23	153	1	1	7	9	511
Grand Total	255	190	8	453	125	6	443	574	8	473	123	604	6	6	14	26	1657
Apprch %	56.3	41.9	1.8		21.8	1	77.2		1.3	78.3	20.4		23.1	23.1	53.8		
Total %	15.4	11.5	0.5	27.3	7.5	0.4	26.7	34.6	0.5	28.5	7.4	36.5	0.4	0.4	0.8	1.6	

Start Time	Harvill Avenue Southbound				Placentia Avenue Westbound				Harvill Avenue Northbound				Placentia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	18	30	0	48	24	0	109	133	0	109	13	122	1	2	2	5	308
07:15 AM	30	28	0	58	35	0	78	113	3	78	36	117	2	0	3	5	293
07:30 AM	46	25	2	73	22	1	75	98	3	89	26	118	2	2	1	5	294
07:45 AM	53	30	1	84	19	2	50	71	0	69	25	94	0	1	1	2	251
Total Volume	147	113	3	263	100	3	312	415	6	345	100	451	5	5	7	17	1146
% App. Total	55.9	43	1.1		24.1	0.7	75.2		1.3	76.5	22.2		29.4	29.4	41.2		
PHF	.693	.942	.375	.783	.714	.375	.716	.780	.500	.791	.694	.924	.625	.625	.583	.850	.930

County of Riverside
 N/S: Harvill Avenue
 E/W: Placentia Avenue
 Weather: Clear

File Name : 07_CRVHAPLAM
 Site Code : 05119093
 Start Date : 2/12/2019
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	18	30	0	48	24	0	109	133	0	109	13	122	1	2	2	5
+15 mins.	30	28	0	58	35	0	78	113	3	78	36	117	2	0	3	5
+30 mins.	46	25	2	73	22	1	75	98	3	89	26	118	2	2	1	5
+45 mins.	53	30	1	84	19	2	50	71	0	69	25	94	0	1	1	2
Total Volume	147	113	3	263	100	3	312	415	6	345	100	451	5	5	7	17
% App. Total	55.9	43	1.1		24.1	0.7	75.2		1.3	76.5	22.2		29.4	29.4	41.2	
PHF	.693	.942	.375	.783	.714	.375	.716	.780	.500	.791	.694	.924	.625	.625	.583	.850

County of Riverside
 N/S: Harvill Avenue
 E/W: Placentia Avenue
 Weather: Clear

File Name : 07_CRVHAPLAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

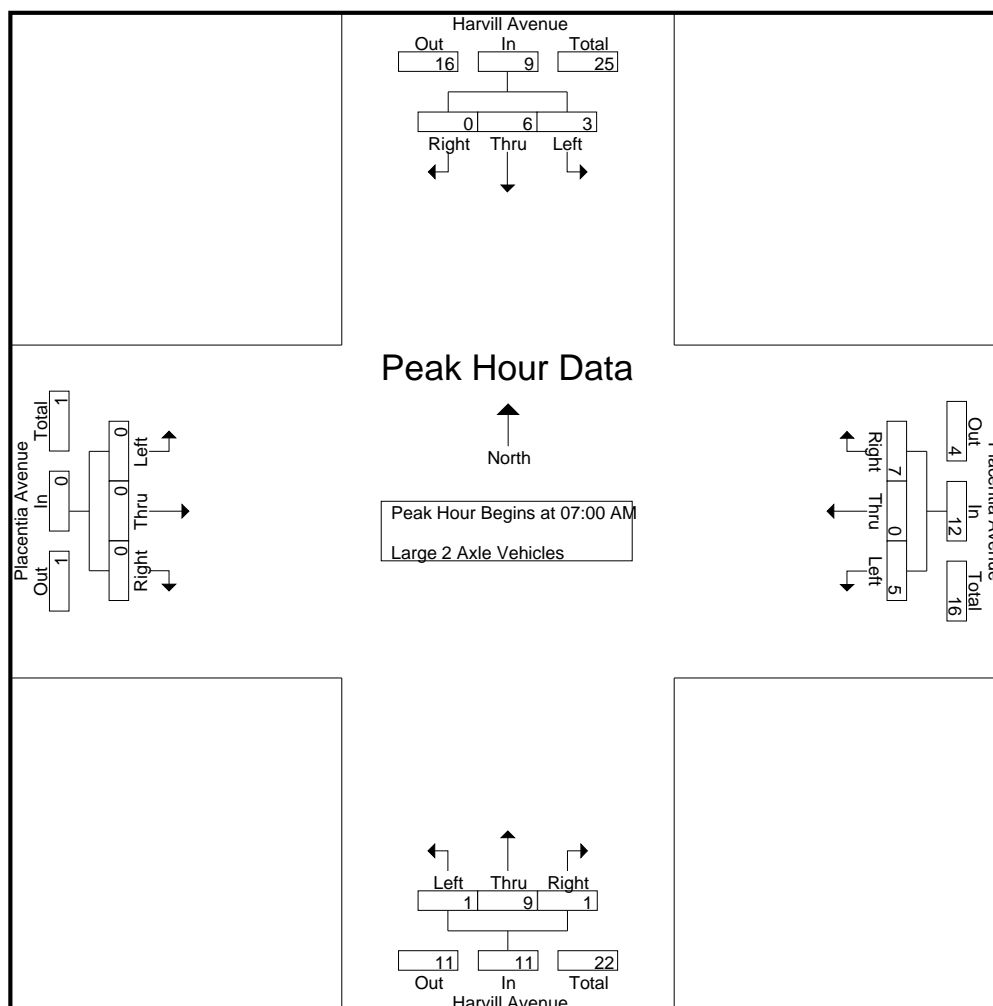
Groups Printed- Large 2 Axle Vehicles

Start Time	Harvill Avenue Southbound				Placentia Avenue Westbound				Harvill Avenue Northbound				Placentia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	1	0	1	2	0	1	3	0	3	0	3	0	0	0	0	7
07:15 AM	1	0	0	1	1	0	4	5	0	3	0	3	0	0	0	0	9
07:30 AM	1	2	0	3	1	0	1	2	0	0	0	0	0	0	0	0	5
07:45 AM	1	3	0	4	1	0	1	2	1	3	1	5	0	0	0	0	11
Total	3	6	0	9	5	0	7	12	1	9	1	11	0	0	0	0	32
08:00 AM	1	2	0	3	0	0	0	0	0	1	1	2	0	0	0	0	5
08:15 AM	1	2	1	4	3	0	0	3	0	2	0	2	0	0	0	0	9
08:30 AM	1	2	0	3	3	0	0	3	0	3	0	3	0	0	1	1	10
08:45 AM	1	4	0	5	2	0	1	3	0	1	1	2	0	0	0	0	10
Total	4	10	1	15	8	0	1	9	0	7	2	9	0	0	1	1	34
Grand Total	7	16	1	24	13	0	8	21	1	16	3	20	0	0	1	1	66
Apprch %	29.2	66.7	4.2		61.9	0	38.1		5	80	15		0	0	100		
Total %	10.6	24.2	1.5	36.4	19.7	0	12.1	31.8	1.5	24.2	4.5	30.3	0	0	1.5	1.5	

Start Time	Harvill Avenue Southbound				Placentia Avenue Westbound				Harvill Avenue Northbound				Placentia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	1	0	1	2	0	1	3	0	3	0	3	0	0	0	0	7
07:15 AM	1	0	0	1	1	0	4	5	0	3	0	3	0	0	0	0	9
07:30 AM	1	2	0	3	1	0	1	2	0	0	0	0	0	0	0	0	5
07:45 AM	1	3	0	4	1	0	1	2	1	3	1	5	0	0	0	0	11
Total Volume	3	6	0	9	5	0	7	12	1	9	1	11	0	0	0	0	32
% App. Total	33.3	66.7	0		41.7	0	58.3		9.1	81.8	9.1		0	0	0		
PHF	.750	.500	.000	.563	.625	.000	.438	.600	.250	.750	.250	.550	.000	.000	.000	.000	.727

County of Riverside
 N/S: Harvill Avenue
 E/W: Placentia Avenue
 Weather: Clear

File Name : 07_CRVHAPLAM
 Site Code : 05119093
 Start Date : 2/12/2019
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	1	0	1	2	0	1	3	0	3	0	3	0	0	0	0
+15 mins.	1	0	0	1	1	0	4	5	0	3	0	3	0	0	0	0
+30 mins.	1	2	0	3	1	0	1	2	0	0	0	0	0	0	0	0
+45 mins.	1	3	0	4	1	0	1	2	1	3	1	5	0	0	0	0
Total Volume	3	6	0	9	5	0	7	12	1	9	1	11	0	0	0	0
% App. Total	33.3	66.7	0		41.7	0	58.3		9.1	81.8	9.1		0	0	0	
PHF	.750	.500	.000	.563	.625	.000	.438	.600	.250	.750	.250	.550	.000	.000	.000	.000

County of Riverside
 N/S: Harvill Avenue
 E/W: Placentia Avenue
 Weather: Clear

File Name : 07_CRVHAPLAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

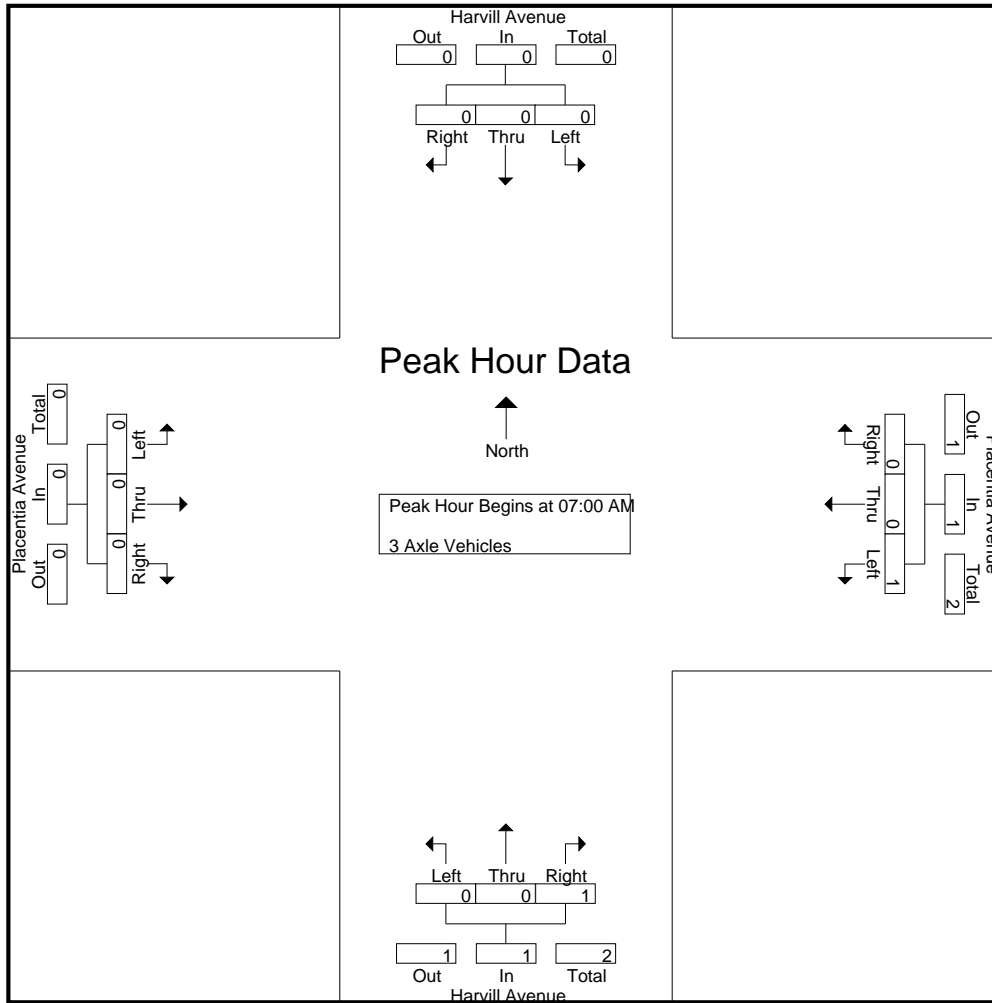
Groups Printed- 3 Axle Vehicles

Start Time	Harvill Avenue Southbound				Placentia Avenue Westbound				Harvill Avenue Northbound				Placentia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
07:45 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	1	0	0	1	0	0	1	1	0	0	0	0	2
08:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Grand Total	0	0	0	0	1	0	0	1	0	1	1	2	0	0	0	0	3
Apprch %	0	0	0		100	0	0		0	50	50		0	0	0		
Total %	0	0	0	0	33.3	0	0	33.3	0	33.3	33.3	66.7	0	0	0	0	

Start Time	Harvill Avenue Southbound				Placentia Avenue Westbound				Harvill Avenue Northbound				Placentia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
07:45 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	1	0	0	1	0	0	1	1	0	0	0	0	2
% App. Total	0	0	0		100	0	0		0	0	100		0	0	0		
PHF	.000	.000	.000	.000	.250	.000	.000	.250	.000	.000	.250	.250	.000	.000	.000	.000	.500

County of Riverside
 N/S: Harvill Avenue
 E/W: Placentia Avenue
 Weather: Clear

File Name : 07_CRVHAPLAM
 Site Code : 05119093
 Start Date : 2/12/2019
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
+45 mins.	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	1	0	0	1	0	0	1	1	0	0	0	0
% App. Total	0	0	0	0	100	0	0	100	0	0	100	100	0	0	0	0
PHF	.000	.000	.000	.000	.250	.000	.000	.250	.000	.000	.250	.250	.000	.000	.000	.000

County of Riverside
 N/S: Harvill Avenue
 E/W: Placentia Avenue
 Weather: Clear

File Name : 07_CRVHAPLAM
 Site Code : 05119093
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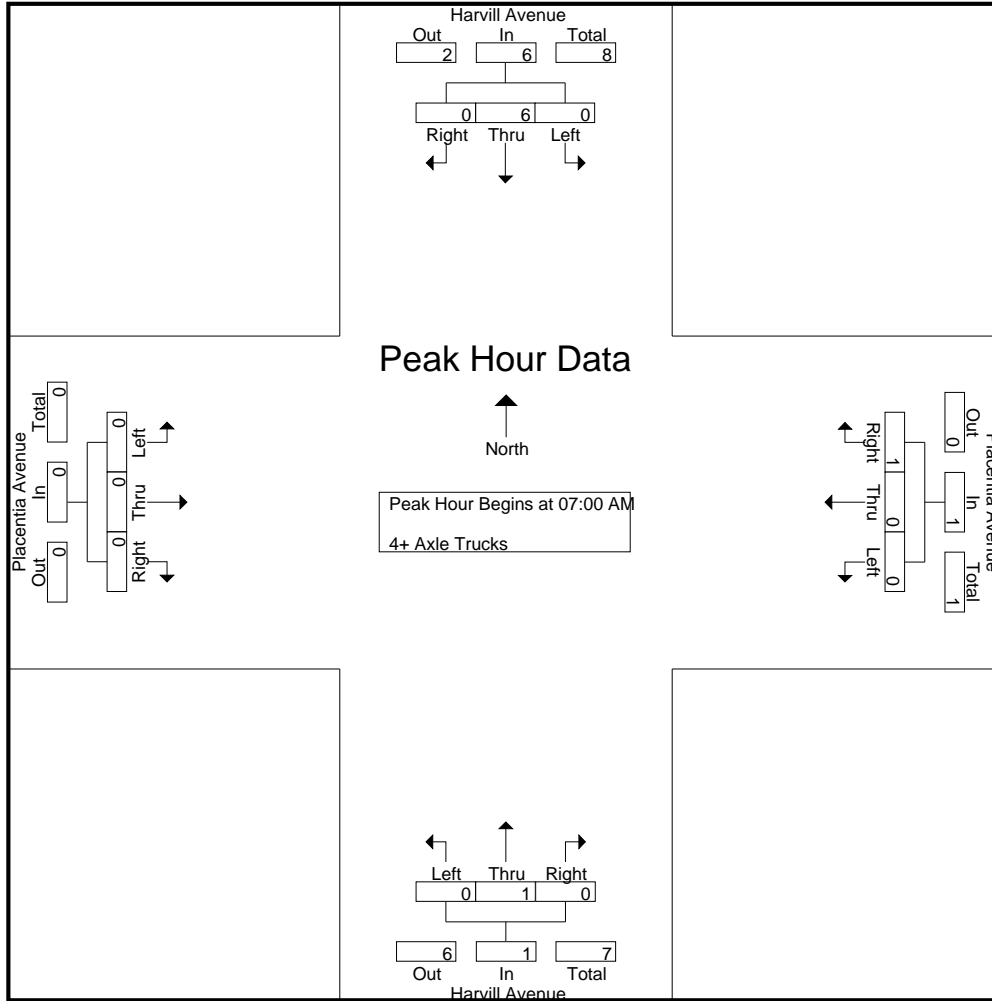
Groups Printed- 4+ Axle Trucks

Start Time	Harvill Avenue Southbound				Placentia Avenue Westbound				Harvill Avenue Northbound				Placentia Avenue Eastbound				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
07:00 AM	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
07:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
07:30 AM	0	2	0	2	0	0	1	1	0	0	0	0	0	0	0	0	0	3
07:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	6	0	6	0	0	1	1	0	1	0	1	0	0	0	0	0	8
08:00 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	2
08:15 AM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	2
08:30 AM	0	0	0	0	0	0	1	1	0	1	1	2	0	0	0	0	0	3
08:45 AM	0	2	0	2	0	0	0	0	0	2	0	2	0	0	0	0	0	4
Total	0	2	0	2	0	0	1	1	0	7	1	8	0	0	0	0	0	11
Grand Total	0	8	0	8	0	0	2	2	0	8	1	9	0	0	0	0	0	19
Apprch %	0	100	0		0	0	100		0	88.9	11.1		0	0	0			
Total %	0	42.1	0	42.1	0	0	10.5	10.5	0	42.1	5.3	47.4	0	0	0	0	0	

Start Time	Harvill Avenue Southbound				Placentia Avenue Westbound				Harvill Avenue Northbound				Placentia Avenue Eastbound				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:00 AM																		
07:00 AM	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3
07:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
07:30 AM	0	2	0	2	0	0	1	1	0	0	0	0	0	0	0	0	0	3
07:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	6	0	6	0	0	1	1	0	1	0	1	0	0	0	0	0	8
% App. Total	0	100	0		0	0	100		0	100	0		0	0	0			
PHF	.000	.500	.000	.500	.000	.000	.250	.250	.000	.250	.000	.250	.000	.000	.000	.000	.000	.667

County of Riverside
 N/S: Harvill Avenue
 E/W: Placentia Avenue
 Weather: Clear

File Name : 07_CRVHAPLAM
 Site Code : 05119093
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
+30 mins.	0	2	0	2	0	0	1	1	0	0	0	0	0	0	0	0
+45 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	6	0	6	0	0	1	1	0	1	0	1	0	0	0	0
% App. Total	0	100	0		0	0	100		0	100	0		0	0	0	
PHF	.000	.500	.000	.500	.000	.000	.250	.250	.000	.250	.000	.250	.000	.000	.000	.000

County of Riverside
 N/S: Harvill Avenue
 E/W: Placentia Avenue
 Weather: Clear

File Name : 07_CRVHAPLPM
 Site Code : 05119093
 Start Date : 2/12/2019
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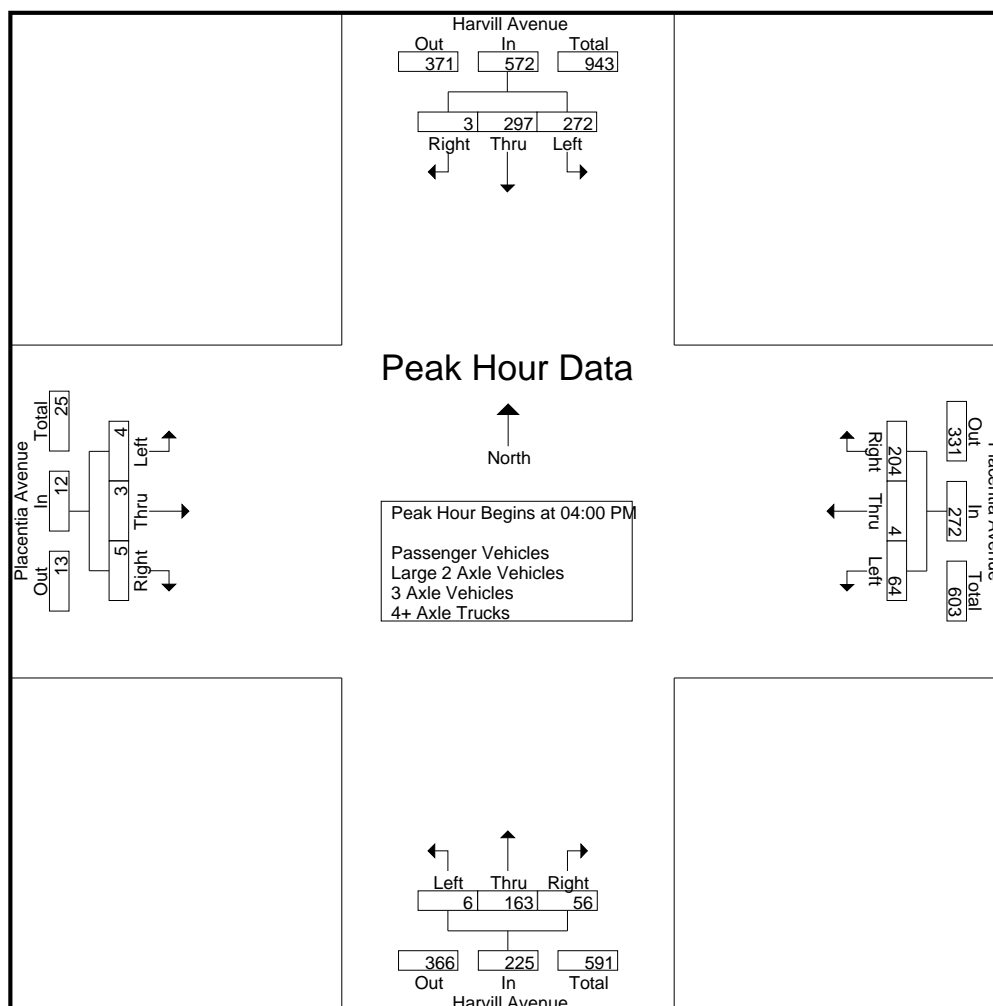
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Harvill Avenue Southbound				Placentia Avenue Westbound				Harvill Avenue Northbound				Placentia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	76	88	0	164	25	1	55	81	2	37	18	57	0	0	2	2	304
04:15 PM	63	72	2	137	9	1	64	74	1	53	14	68	3	1	2	6	285
04:30 PM	76	62	1	139	19	1	49	69	1	43	13	57	1	1	0	2	267
04:45 PM	57	75	0	132	11	1	36	48	2	30	11	43	0	1	1	2	225
Total	272	297	3	572	64	4	204	272	6	163	56	225	4	3	5	12	1081
05:00 PM	55	66	3	124	17	2	52	71	0	46	20	66	0	1	1	2	263
05:15 PM	64	56	0	120	12	0	42	54	2	27	9	38	2	2	2	6	218
05:30 PM	62	49	0	111	9	0	38	47	1	34	6	41	0	0	0	0	199
05:45 PM	56	64	0	120	10	0	37	47	0	30	19	49	0	2	0	2	218
Total	237	235	3	475	48	2	169	219	3	137	54	194	2	5	3	10	898
Grand Total	509	532	6	1047	112	6	373	491	9	300	110	419	6	8	8	22	1979
Apprch %	48.6	50.8	0.6		22.8	1.2	76		2.1	71.6	26.3		27.3	36.4	36.4		
Total %	25.7	26.9	0.3	52.9	5.7	0.3	18.8	24.8	0.5	15.2	5.6	21.2	0.3	0.4	0.4	1.1	
Passenger Vehicles	506	517	6	1029	108	6	369	483	9	290	109	408	6	8	8	22	1942
% Passenger Vehicles	99.4	97.2	100	98.3	96.4	100	98.9	98.4	100	96.7	99.1	97.4	100	100	100	100	98.1
Large 2 Axle Vehicles	2	10	0	12	4	0	3	7	0	7	0	7	0	0	0	0	26
% Large 2 Axle Vehicles	0.4	1.9	0	1.1	3.6	0	0.8	1.4	0	2.3	0	1.7	0	0	0	0	1.3
3 Axle Vehicles	1	0	0	1	0	0	1	1	0	1	0	1	0	0	0	0	3
% 3 Axle Vehicles	0.2	0	0	0.1	0	0	0.3	0.2	0	0.3	0	0.2	0	0	0	0	0.2
4+ Axle Trucks	0	5	0	5	0	0	0	0	0	2	1	3	0	0	0	0	8
% 4+ Axle Trucks	0	0.9	0	0.5	0	0	0	0	0	0.7	0.9	0.7	0	0	0	0	0.4

Start Time	Harvill Avenue Southbound				Placentia Avenue Westbound				Harvill Avenue Northbound				Placentia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	76	88	0	164	25	1	55	81	2	37	18	57	0	0	2	2	304
04:15 PM	63	72	2	137	9	1	64	74	1	53	14	68	3	1	2	6	285
04:30 PM	76	62	1	139	19	1	49	69	1	43	13	57	1	1	0	2	267
04:45 PM	57	75	0	132	11	1	36	48	2	30	11	43	0	1	1	2	225
Total Volume	272	297	3	572	64	4	204	272	6	163	56	225	4	3	5	12	1081
% App. Total	47.6	51.9	0.5		23.5	1.5	75		2.7	72.4	24.9		33.3	25	41.7		
PHF	.895	.844	.375	.872	.640	1.00	.797	.840	.750	.769	.778	.827	.333	.750	.625	.500	.889

County of Riverside
 N/S: Harvill Avenue
 E/W: Placentia Avenue
 Weather: Clear

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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM							
+0 mins.	76	88	0	164	25	1	55	81	2	37	18	57	0	0	2	2
+15 mins.	63	72	2	137	9	1	64	74	1	53	14	68	3	1	2	6
+30 mins.	76	62	1	139	19	1	49	69	1	43	13	57	1	1	0	2
+45 mins.	57	75	0	132	11	1	36	48	2	30	11	43	0	1	1	2
Total Volume	272	297	3	572	64	4	204	272	6	163	56	225	4	3	5	12
% App. Total	47.6	51.9	0.5		23.5	1.5	75		2.7	72.4	24.9		33.3	25	41.7	
PHF	.895	.844	.375	.872	.640	1.000	.797	.840	.750	.769	.778	.827	.333	.750	.625	.500

County of Riverside
 N/S: Harvill Avenue
 E/W: Placentia Avenue
 Weather: Clear

File Name : 07_CRVHAPLPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

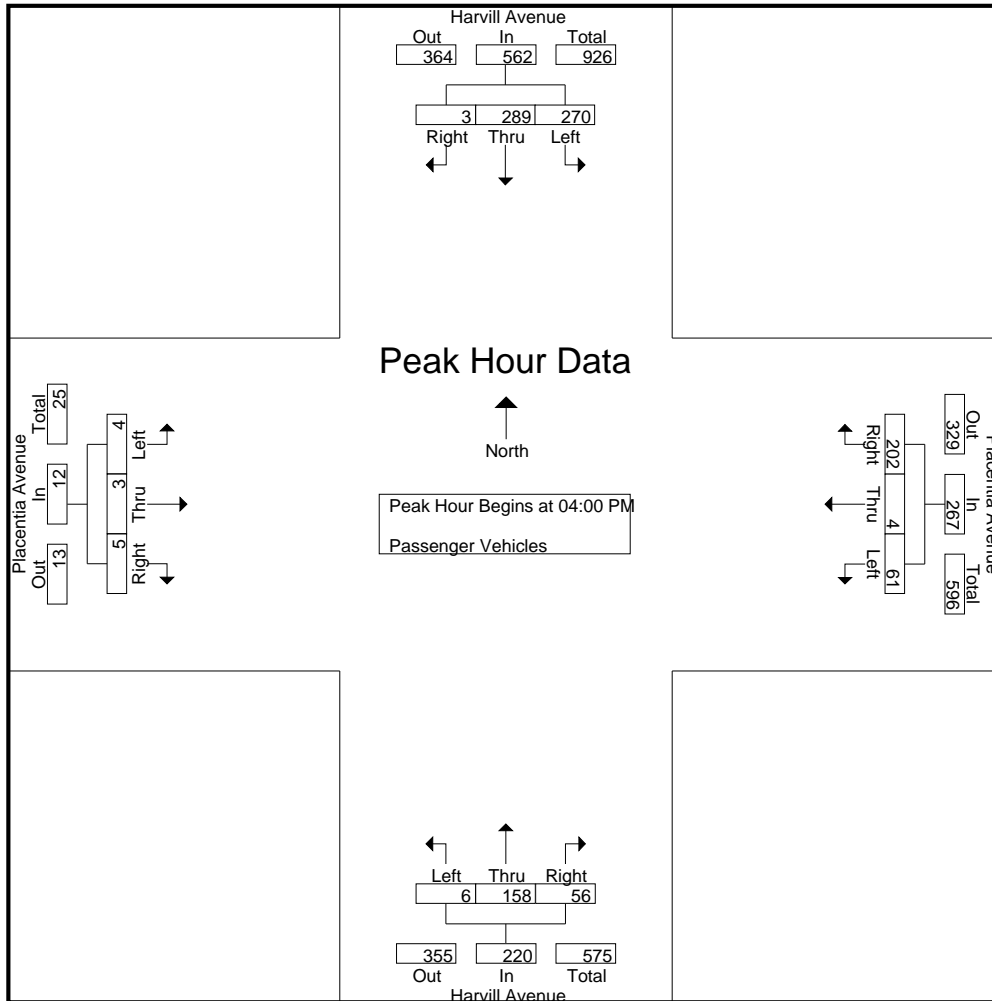
Groups Printed- Passenger Vehicles

Start Time	Harvill Avenue Southbound				Placentia Avenue Westbound				Harvill Avenue Northbound				Placentia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	76	85	0	161	23	1	54	78	2	37	18	57	0	0	2	2	298
04:15 PM	62	72	2	136	8	1	63	72	1	50	14	65	3	1	2	6	279
04:30 PM	76	61	1	138	19	1	49	69	1	42	13	56	1	1	0	2	265
04:45 PM	56	71	0	127	11	1	36	48	2	29	11	42	0	1	1	2	219
Total	270	289	3	562	61	4	202	267	6	158	56	220	4	3	5	12	1061
05:00 PM	54	61	3	118	16	2	50	68	0	43	20	63	0	1	1	2	251
05:15 PM	64	56	0	120	12	0	42	54	2	26	9	37	2	2	2	6	217
05:30 PM	62	49	0	111	9	0	38	47	1	34	5	40	0	0	0	0	198
05:45 PM	56	62	0	118	10	0	37	47	0	29	19	48	0	2	0	2	215
Total	236	228	3	467	47	2	167	216	3	132	53	188	2	5	3	10	881
Grand Total	506	517	6	1029	108	6	369	483	9	290	109	408	6	8	8	22	1942
Apprch %	49.2	50.2	0.6		22.4	1.2	76.4		2.2	71.1	26.7		27.3	36.4	36.4		
Total %	26.1	26.6	0.3	53	5.6	0.3	19	24.9	0.5	14.9	5.6	21	0.3	0.4	0.4	1.1	

Start Time	Harvill Avenue Southbound				Placentia Avenue Westbound				Harvill Avenue Northbound				Placentia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	76	85	0	161	23	1	54	78	2	37	18	57	0	0	2	2	298
04:15 PM	62	72	2	136	8	1	63	72	1	50	14	65	3	1	2	6	279
04:30 PM	76	61	1	138	19	1	49	69	1	42	13	56	1	1	0	2	265
04:45 PM	56	71	0	127	11	1	36	48	2	29	11	42	0	1	1	2	219
Total Volume	270	289	3	562	61	4	202	267	6	158	56	220	4	3	5	12	1061
% App. Total	48	51.4	0.5		22.8	1.5	75.7		2.7	71.8	25.5		33.3	25	41.7		
PHF	.888	.850	.375	.873	.663	1.00	.802	.856	.750	.790	.778	.846	.333	.750	.625	.500	.890

County of Riverside
 N/S: Harvill Avenue
 E/W: Placentia Avenue
 Weather: Clear

File Name : 07_CRVHAPLPM
 Site Code : 05119093
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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	76	85	0	161	23	1	54	78	2	37	18	57	0	0	2	2
+15 mins.	62	72	2	136	8	1	63	72	1	50	14	65	3	1	2	6
+30 mins.	76	61	1	138	19	1	49	69	1	42	13	56	1	1	0	2
+45 mins.	56	71	0	127	11	1	36	48	2	29	11	42	0	1	1	2
Total Volume	270	289	3	562	61	4	202	267	6	158	56	220	4	3	5	12
% App. Total	48	51.4	0.5		22.8	1.5	75.7		2.7	71.8	25.5		33.3	25	41.7	
PHF	.888	.850	.375	.873	.663	1.000	.802	.856	.750	.790	.778	.846	.333	.750	.625	.500

County of Riverside
 N/S: Harvill Avenue
 E/W: Placentia Avenue
 Weather: Clear

File Name : 07_CRVHAPLPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

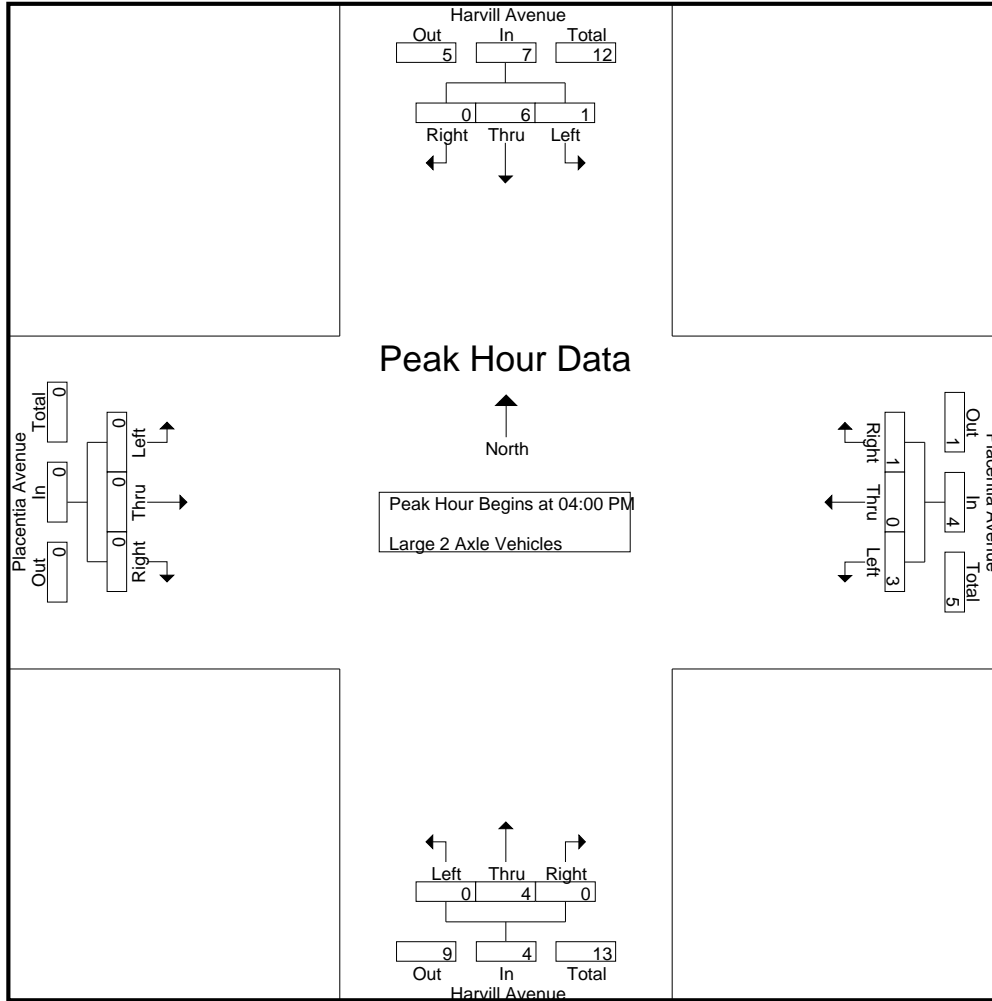
Groups Printed- Large 2 Axle Vehicles

Start Time	Harvill Avenue Southbound				Placentia Avenue Westbound				Harvill Avenue Northbound				Placentia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	2	0	2	2	0	0	2	0	0	0	0	0	0	0	0	4
04:15 PM	1	0	0	1	1	0	1	2	0	2	0	2	0	0	0	0	5
04:30 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
04:45 PM	0	3	0	3	0	0	0	0	0	1	0	1	0	0	0	0	4
Total	1	6	0	7	3	0	1	4	0	4	0	4	0	0	0	0	15
05:00 PM	1	4	0	5	1	0	2	3	0	1	0	1	0	0	0	0	9
05:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	1	4	0	5	1	0	2	3	0	3	0	3	0	0	0	0	11
Grand Total	2	10	0	12	4	0	3	7	0	7	0	7	0	0	0	0	26
Apprch %	16.7	83.3	0		57.1	0	42.9		0	100	0		0	0	0		
Total %	7.7	38.5	0	46.2	15.4	0	11.5	26.9	0	26.9	0	26.9	0	0	0	0	

Start Time	Harvill Avenue Southbound				Placentia Avenue Westbound				Harvill Avenue Northbound				Placentia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	2	0	2	2	0	0	2	0	0	0	0	0	0	0	0	4
04:15 PM	1	0	0	1	1	0	1	2	0	2	0	2	0	0	0	0	5
04:30 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
04:45 PM	0	3	0	3	0	0	0	0	0	1	0	1	0	0	0	0	4
Total Volume	1	6	0	7	3	0	1	4	0	4	0	4	0	0	0	0	15
% App. Total	14.3	85.7	0		75	0	25		0	100	0		0	0	0		
PHF	.250	.500	.000	.583	.375	.000	.250	.500	.000	.500	.000	.500	.000	.000	.000	.000	.750

County of Riverside
 N/S: Harvill Avenue
 E/W: Placentia Avenue
 Weather: Clear

File Name : 07_CRVHAPLPM
 Site Code : 05119093
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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	2	0	2	2	0	0	2	0	0	0	0	0	0	0	0
+15 mins.	1	0	0	1	1	0	1	2	0	2	0	2	0	0	0	0
+30 mins.	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0
+45 mins.	0	3	0	3	0	0	0	0	0	1	0	1	0	0	0	0
Total Volume	1	6	0	7	3	0	1	4	0	4	0	4	0	0	0	0
% App. Total	14.3	85.7	0		75	0	25		0	100	0		0	0	0	
PHF	.250	.500	.000	.583	.375	.000	.250	.500	.000	.500	.000	.500	.000	.000	.000	.000

County of Riverside
 N/S: Harvill Avenue
 E/W: Placentia Avenue
 Weather: Clear

File Name : 07_CRVHAPLPM
 Site Code : 05119093
 Start Date : 2/12/2019
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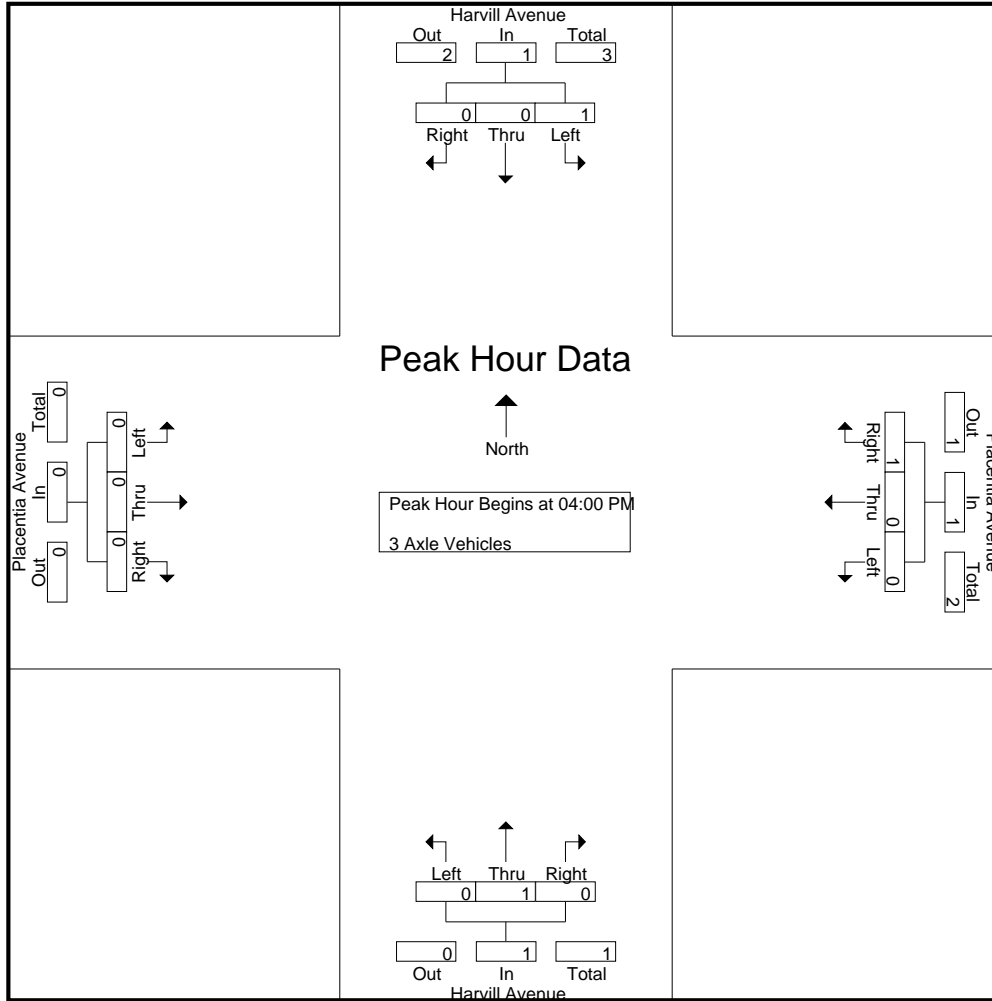
Groups Printed- 3 Axle Vehicles

Start Time	Harvill Avenue Southbound				Placentia Avenue Westbound				Harvill Avenue Northbound				Placentia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	1	0	0	1	0	0	1	1	0	1	0	1	0	0	0	0	3
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	1	0	0	1	0	0	1	1	0	1	0	1	0	0	0	0	3
Apprch %	100	0	0		0	0	100		0	100	0		0	0	0		
Total %	33.3	0	0	33.3	0	0	33.3	33.3	0	33.3	0	33.3	0	0	0	0	

Start Time	Harvill Avenue Southbound				Placentia Avenue Westbound				Harvill Avenue Northbound				Placentia Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	1	0	0	1	0	0	1	1	0	1	0	1	0	0	0	0	3
% App. Total	100	0	0		0	0	100		0	100	0		0	0	0		
PHF	.250	.000	.000	.250	.000	.000	.250	.250	.000	.250	.000	.250	.000	.000	.000	.000	.750

County of Riverside
 N/S: Harvill Avenue
 E/W: Placentia Avenue
 Weather: Clear

File Name : 07_CRVHAPLPM
 Site Code : 05119093
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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
 Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	0	1	0	0	1	1	0	1	0	1	0	0	0	0
% App. Total	100	0	0		0	0	100		0	100	0		0	0	0	
PHF	.250	.000	.000	.250	.000	.000	.250	.250	.000	.250	.000	.250	.000	.000	.000	.000

County of Riverside
 N/S: Harvill Avenue
 E/W: Placentia Avenue
 Weather: Clear

File Name : 07_CRVHAPLPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

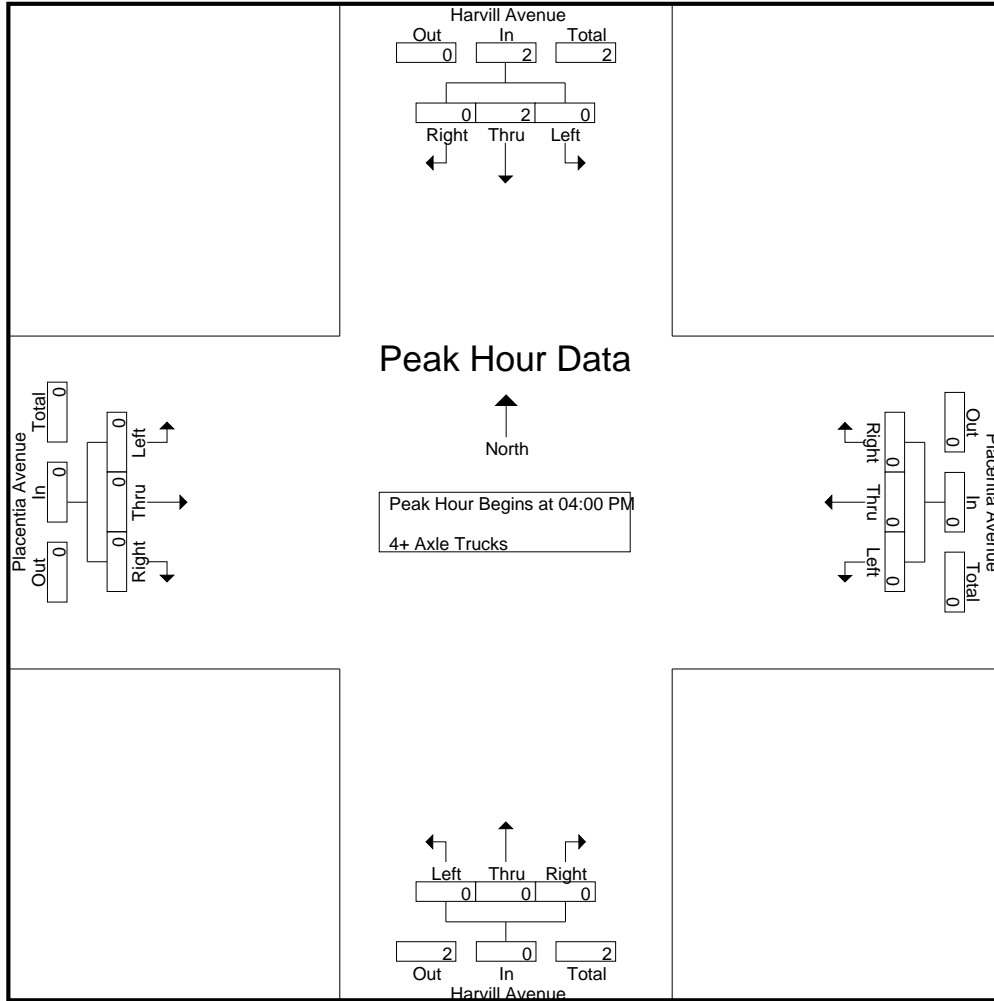
Groups Printed- 4+ Axle Trucks

Start Time	Harvill Avenue Southbound				Placentia Avenue Westbound				Harvill Avenue Northbound				Placentia Avenue Eastbound				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
04:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:00 PM	0	1	0	1	0	0	0	0	0	0	2	0	2	0	0	0	0	3
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
05:45 PM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	3	0	3	0	0	0	0	0	0	2	1	3	0	0	0	0	6
Grand Total	0	5	0	5	0	0	0	0	0	0	2	1	3	0	0	0	0	8
Apprch %	0	100	0		0	0	0		0	66.7	33.3			0	0	0		
Total %	0	62.5	0	62.5	0	0	0	0	0	0	25	12.5	37.5	0	0	0	0	

Start Time	Harvill Avenue Southbound				Placentia Avenue Westbound				Harvill Avenue Northbound				Placentia Avenue Eastbound				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 04:00 PM																		
04:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
% App. Total	0	100	0		0	0	0		0	0	0			0	0	0		
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500

County of Riverside
 N/S: Harvill Avenue
 E/W: Placentia Avenue
 Weather: Clear

File Name : 07_CRVHAPLPM
 Site Code : 05119093
 Start Date : 2/12/2019
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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	100	0		0	0	0	0	0	0	0	0	0	0	0	0
PHF	.000	.500	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Location: County of Riverside
 N/S: Harvill Avenue
 E/W: Placentia Avenue



Date: 2/12/2019
 Day: Tuesday

PEDESTRIANS

	North Leg Harvill Avenue	East Leg Placentia Avenue	South Leg Harvill Avenue	West Leg Placentia Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Harvill Avenue	East Leg Placentia Avenue	South Leg Harvill Avenue	West Leg Placentia Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: County of Riverside
 N/S: Harvill Avenue
 E/W: Placentia Avenue



Date: 2/12/2019
 Day: Tuesday

BICYCLES

	Southbound Harvill Avenue			Westbound Placentia Avenue			Northbound Harvill Avenue			Eastbound Placentia Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound Harvill Avenue			Westbound Placentia Avenue			Northbound Harvill Avenue			Eastbound Placentia Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

County of Riverside
 N/S: Harvill Avenue
 E/W: Orange Avenue
 Weather: Clear

File Name : 08_CRVHAORAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

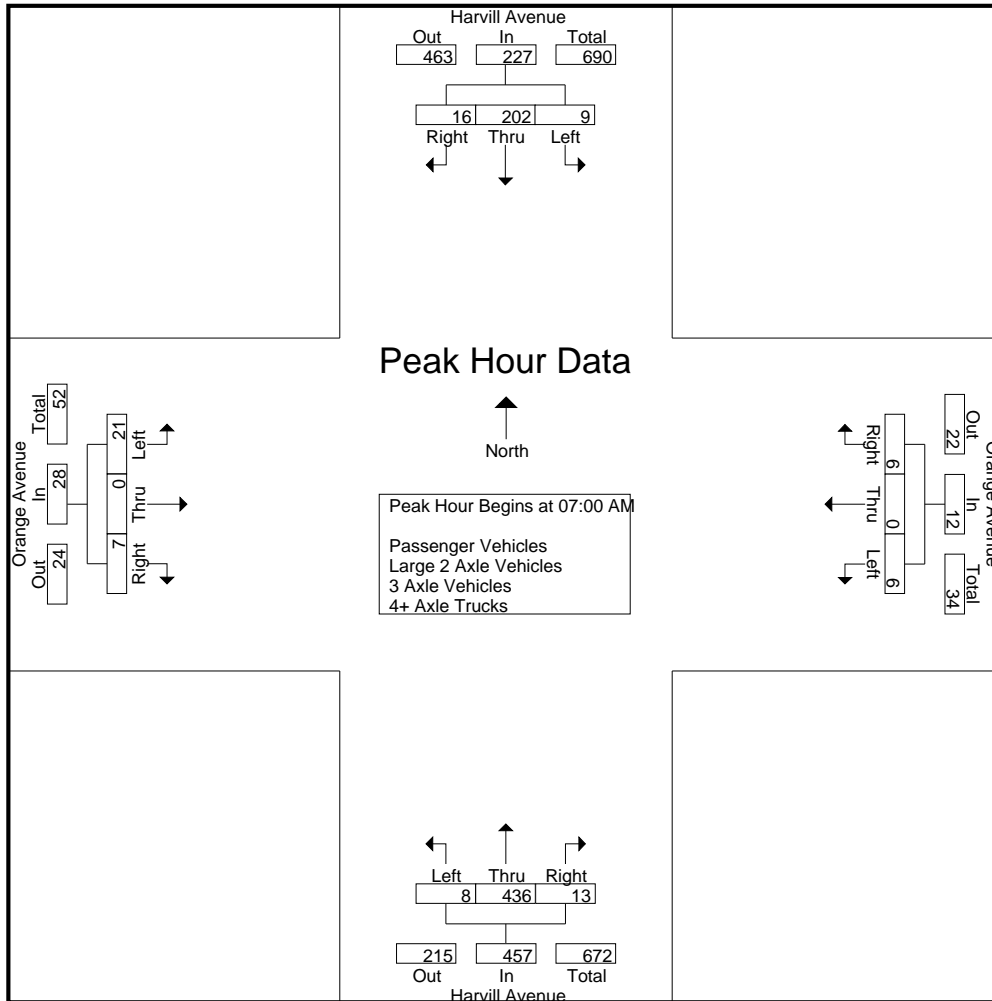
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Harvill Avenue Southbound				Orange Avenue Westbound				Harvill Avenue Northbound				Orange Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	3	54	2	59	0	0	3	3	3	111	3	117	10	0	0	10	189
07:15 AM	0	56	5	61	2	0	1	3	3	117	3	123	5	0	2	7	194
07:30 AM	2	46	4	52	0	0	0	0	0	118	0	118	5	0	3	8	178
07:45 AM	4	46	5	55	4	0	2	6	2	90	7	99	1	0	2	3	163
Total	9	202	16	227	6	0	6	12	8	436	13	457	21	0	7	28	724
08:00 AM	0	27	2	29	4	0	2	6	1	46	2	49	2	0	0	2	86
08:15 AM	1	24	1	26	0	1	3	4	1	32	3	36	7	0	2	9	75
08:30 AM	3	19	2	24	1	0	4	5	2	31	7	40	3	0	0	3	72
08:45 AM	4	37	3	44	0	0	2	2	1	31	4	36	3	0	3	6	88
Total	8	107	8	123	5	1	11	17	5	140	16	161	15	0	5	20	321
Grand Total	17	309	24	350	11	1	17	29	13	576	29	618	36	0	12	48	1045
Apprch %	4.9	88.3	6.9		37.9	3.4	58.6		2.1	93.2	4.7		75	0	25		
Total %	1.6	29.6	2.3	33.5	1.1	0.1	1.6	2.8	1.2	55.1	2.8	59.1	3.4	0	1.1	4.6	
Passenger Vehicles	12	283	23	318	4	1	6	11	12	563	22	597	35	0	11	46	972
% Passenger Vehicles	70.6	91.6	95.8	90.9	36.4	100	35.3	37.9	92.3	97.7	75.9	96.6	97.2	0	91.7	95.8	93
Large 2 Axle Vehicles	2	22	1	25	7	0	5	12	1	10	5	16	0	0	1	1	54
% Large 2 Axle Vehicles	11.8	7.1	4.2	7.1	63.6	0	29.4	41.4	7.7	1.7	17.2	2.6	0	0	8.3	2.1	5.2
3 Axle Vehicles	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	1	2
% 3 Axle Vehicles	0	0.3	0	0.3	0	0	0	0	0	0	0	0	2.8	0	0	2.1	0.2
4+ Axle Trucks	3	3	0	6	0	0	6	6	0	3	2	5	0	0	0	0	17
% 4+ Axle Trucks	17.6	1	0	1.7	0	0	35.3	20.7	0	0.5	6.9	0.8	0	0	0	0	1.6

Start Time	Harvill Avenue Southbound				Orange Avenue Westbound				Harvill Avenue Northbound				Orange Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	3	54	2	59	0	0	3	3	3	111	3	117	10	0	0	10	189
07:15 AM	0	56	5	61	2	0	1	3	3	117	3	123	5	0	2	7	194
07:30 AM	2	46	4	52	0	0	0	0	0	118	0	118	5	0	3	8	178
07:45 AM	4	46	5	55	4	0	2	6	2	90	7	99	1	0	2	3	163
Total Volume	9	202	16	227	6	0	6	12	8	436	13	457	21	0	7	28	724
% App. Total	4	89	7		50	0	50		1.8	95.4	2.8		75	0	25		
PHF	.563	.902	.800	.930	.375	.000	.500	.500	.667	.924	.464	.929	.525	.000	.583	.700	.933

County of Riverside
 N/S: Harvill Avenue
 E/W: Orange Avenue
 Weather: Clear

File Name : 08_CRVHAORAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	3	54	2	59	0	0	3	3	3	111	3	117	10	0	0	10
+15 mins.	0	56	5	61	2	0	1	3	3	117	3	123	5	0	2	7
+30 mins.	2	46	4	52	0	0	0	0	0	118	0	118	5	0	3	8
+45 mins.	4	46	5	55	4	0	2	6	2	90	7	99	1	0	2	3
Total Volume	9	202	16	227	6	0	6	12	8	436	13	457	21	0	7	28
% App. Total	4	89	7		50	0	50		1.8	95.4	2.8		75	0	25	
PHF	.563	.902	.800	.930	.375	.000	.500	.500	.667	.924	.464	.929	.525	.000	.583	.700

County of Riverside
 N/S: Harvill Avenue
 E/W: Orange Avenue
 Weather: Clear

File Name : 08_CRVHAORAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

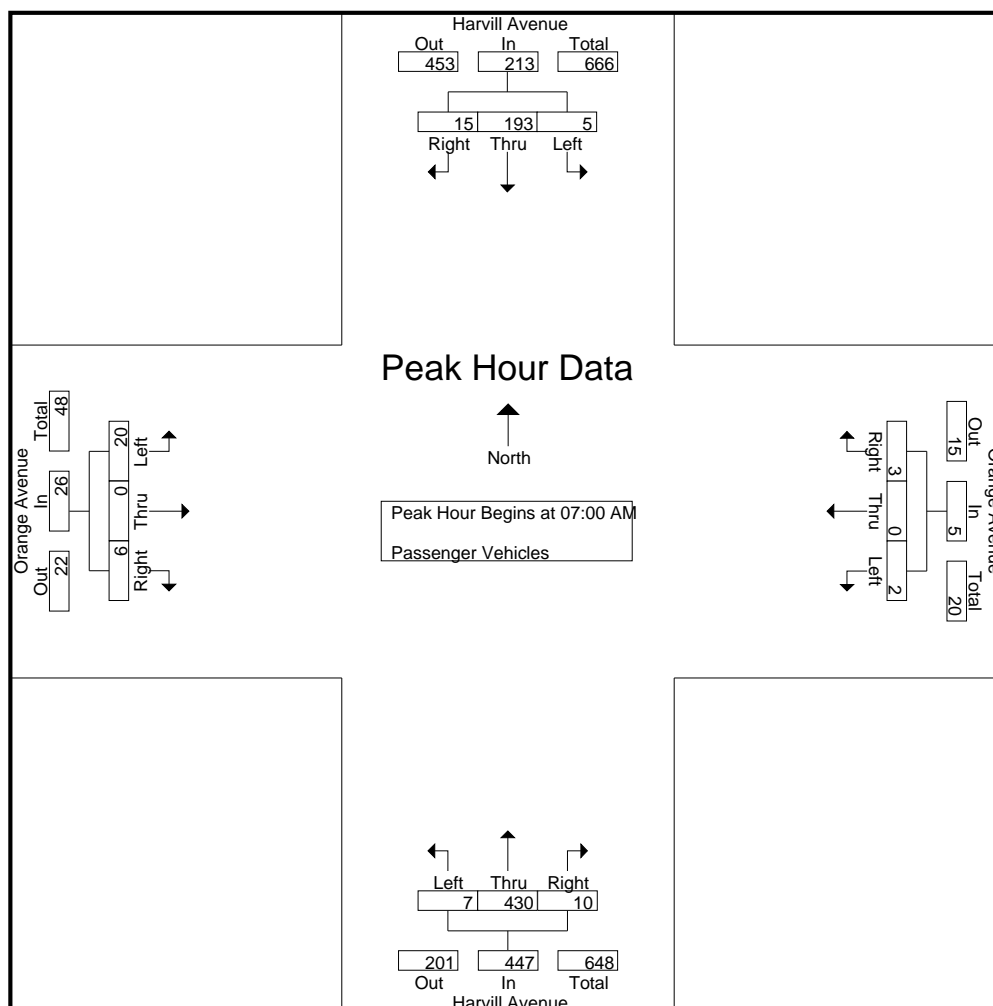
Groups Printed- Passenger Vehicles

Start Time	Harvill Avenue Southbound				Orange Avenue Westbound				Harvill Avenue Northbound				Orange Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	2	51	2	55	0	0	3	3	3	109	3	115	10	0	0	10	183
07:15 AM	0	56	5	61	1	0	0	1	2	115	2	119	5	0	2	7	188
07:30 AM	1	43	3	47	0	0	0	0	0	118	0	118	4	0	2	6	171
07:45 AM	2	43	5	50	1	0	0	1	2	88	5	95	1	0	2	3	149
Total	5	193	15	213	2	0	3	5	7	430	10	447	20	0	6	26	691
08:00 AM	0	25	2	27	1	0	0	1	1	46	1	48	2	0	0	2	78
08:15 AM	1	20	1	22	0	1	1	2	1	29	3	33	7	0	2	9	66
08:30 AM	3	14	2	19	1	0	2	3	2	30	6	38	3	0	0	3	63
08:45 AM	3	31	3	37	0	0	0	0	1	28	2	31	3	0	3	6	74
Total	7	90	8	105	2	1	3	6	5	133	12	150	15	0	5	20	281
Grand Total	12	283	23	318	4	1	6	11	12	563	22	597	35	0	11	46	972
Apprch %	3.8	89	7.2		36.4	9.1	54.5		2	94.3	3.7		76.1	0	23.9		
Total %	1.2	29.1	2.4	32.7	0.4	0.1	0.6	1.1	1.2	57.9	2.3	61.4	3.6	0	1.1	4.7	

Start Time	Harvill Avenue Southbound				Orange Avenue Westbound				Harvill Avenue Northbound				Orange Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	2	51	2	55	0	0	3	3	3	109	3	115	10	0	0	10	183
07:15 AM	0	56	5	61	1	0	0	1	2	115	2	119	5	0	2	7	188
07:30 AM	1	43	3	47	0	0	0	0	0	118	0	118	4	0	2	6	171
07:45 AM	2	43	5	50	1	0	0	1	2	88	5	95	1	0	2	3	149
Total Volume	5	193	15	213	2	0	3	5	7	430	10	447	20	0	6	26	691
% App. Total	2.3	90.6	7		40	0	60		1.6	96.2	2.2		76.9	0	23.1		
PHF	.625	.862	.750	.873	.500	.000	.250	.417	.583	.911	.500	.939	.500	.000	.750	.650	.919

County of Riverside
 N/S: Harvill Avenue
 E/W: Orange Avenue
 Weather: Clear

File Name : 08_CRVHAORAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	2	51	2	55	0	0	3	3	3	109	3	115	10	0	0	10
+15 mins.	0	56	5	61	1	0	0	1	2	115	2	119	5	0	2	7
+30 mins.	1	43	3	47	0	0	0	0	0	118	0	118	4	0	2	6
+45 mins.	2	43	5	50	1	0	0	1	2	88	5	95	1	0	2	3
Total Volume	5	193	15	213	2	0	3	5	7	430	10	447	20	0	6	26
% App. Total	2.3	90.6	7		40	0	60		1.6	96.2	2.2		76.9	0	23.1	
PHF	.625	.862	.750	.873	.500	.000	.250	.417	.583	.911	.500	.939	.500	.000	.750	.650

County of Riverside
 N/S: Harvill Avenue
 E/W: Orange Avenue
 Weather: Clear

File Name : 08_CRVHAORAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

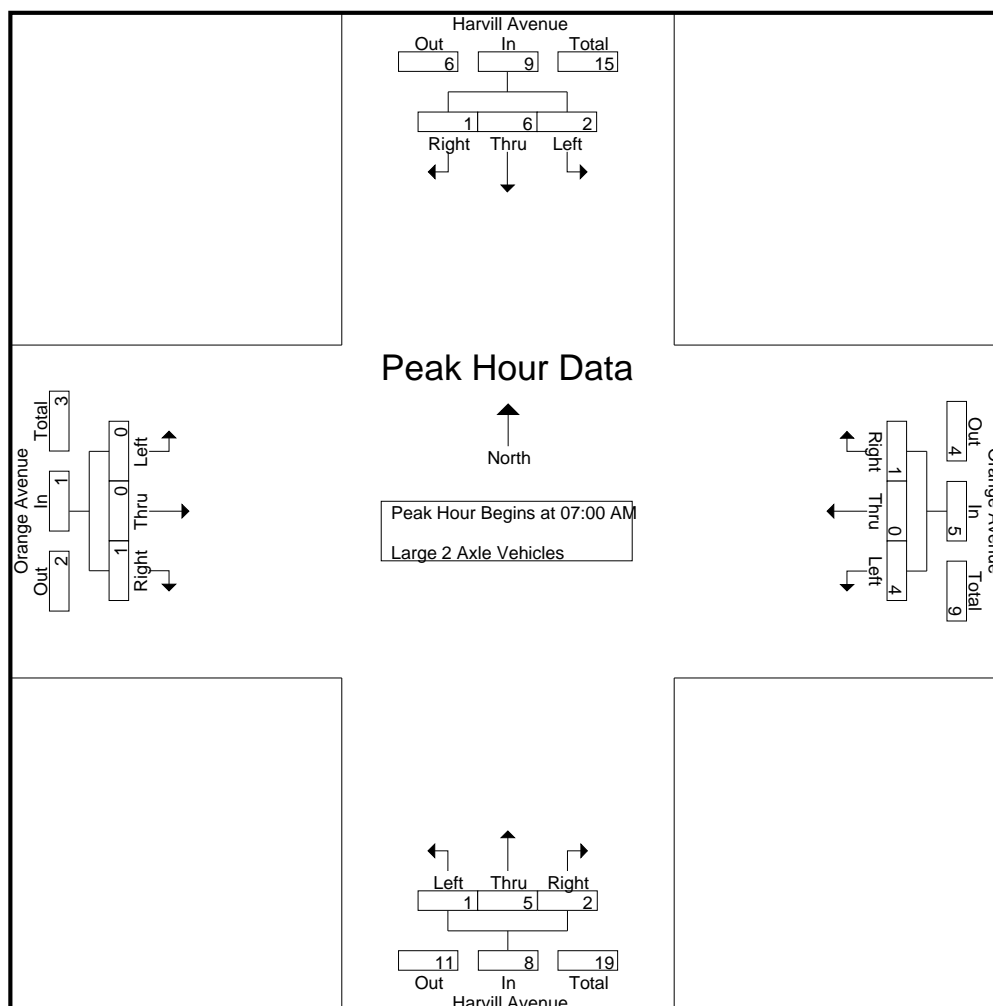
Groups Printed- Large 2 Axle Vehicles

Start Time	Harvill Avenue Southbound				Orange Avenue Westbound				Harvill Avenue Northbound				Orange Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	1	1	0	2	0	0	0	0	0	2	0	2	0	0	0	0	4
07:15 AM	0	0	0	0	1	0	0	1	1	2	1	4	0	0	0	0	5
07:30 AM	0	2	1	3	0	0	0	0	0	0	0	0	0	0	1	1	4
07:45 AM	1	3	0	4	3	0	1	4	0	1	1	2	0	0	0	0	10
Total	2	6	1	9	4	0	1	5	1	5	2	8	0	0	1	1	23
08:00 AM	0	2	0	2	3	0	2	5	0	0	1	1	0	0	0	0	8
08:15 AM	0	4	0	4	0	0	0	0	0	2	0	2	0	0	0	0	6
08:30 AM	0	5	0	5	0	0	2	2	0	1	0	1	0	0	0	0	8
08:45 AM	0	5	0	5	0	0	0	0	0	2	2	4	0	0	0	0	9
Total	0	16	0	16	3	0	4	7	0	5	3	8	0	0	0	0	31
Grand Total	2	22	1	25	7	0	5	12	1	10	5	16	0	0	1	1	54
Apprch %	8	88	4		58.3	0	41.7		6.2	62.5	31.2		0	0	100		
Total %	3.7	40.7	1.9	46.3	13	0	9.3	22.2	1.9	18.5	9.3	29.6	0	0	1.9	1.9	

Start Time	Harvill Avenue Southbound				Orange Avenue Westbound				Harvill Avenue Northbound				Orange Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	1	1	0	2	0	0	0	0	0	2	0	2	0	0	0	0	4
07:15 AM	0	0	0	0	1	0	0	1	1	2	1	4	0	0	0	0	5
07:30 AM	0	2	1	3	0	0	0	0	0	0	0	0	0	0	1	1	4
07:45 AM	1	3	0	4	3	0	1	4	0	1	1	2	0	0	0	0	10
Total Volume	2	6	1	9	4	0	1	5	1	5	2	8	0	0	1	1	23
% App. Total	22.2	66.7	11.1		80	0	20		12.5	62.5	25		0	0	100		
PHF	.500	.500	.250	.563	.333	.000	.250	.313	.250	.625	.500	.500	.000	.000	.250	.250	.575

County of Riverside
 N/S: Harvill Avenue
 E/W: Orange Avenue
 Weather: Clear

File Name : 08_CRVHAORAM
 Site Code : 05119093
 Start Date : 2/12/2019
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	1	1	0	2	0	0	0	0	0	2	0	2	0	0	0	0
+15 mins.	0	0	0	0	1	0	0	1	1	2	1	4	0	0	0	0
+30 mins.	0	2	1	3	0	0	0	0	0	0	0	0	0	0	1	1
+45 mins.	1	3	0	4	3	0	1	4	0	1	1	2	0	0	0	0
Total Volume	2	6	1	9	4	0	1	5	1	5	2	8	0	0	1	1
% App. Total	22.2	66.7	11.1		80	0	20		12.5	62.5	25		0	0	100	
PHF	.500	.500	.250	.563	.333	.000	.250	.313	.250	.625	.500	.500	.000	.000	.250	.250

County of Riverside
 N/S: Harvill Avenue
 E/W: Orange Avenue
 Weather: Clear

File Name : 08_CRVHAORAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

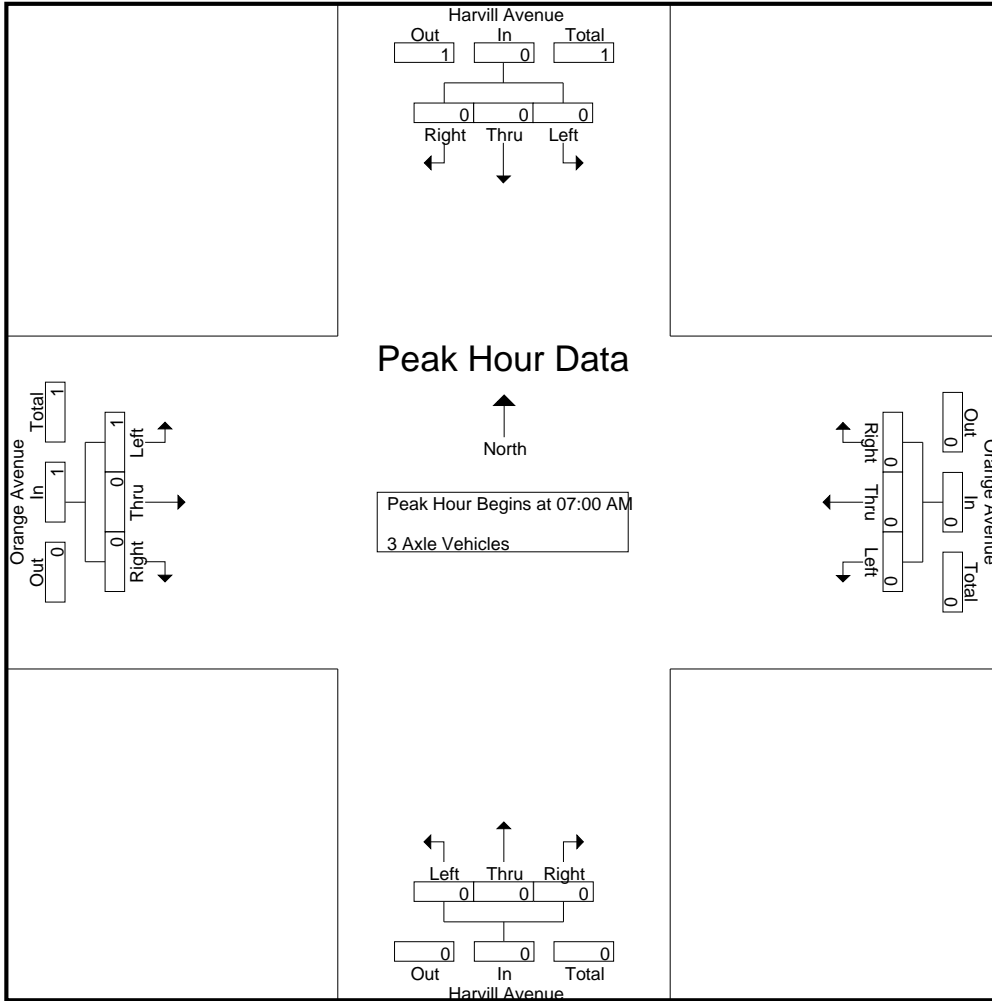
Groups Printed- 3 Axle Vehicles

Start Time	Harvill Avenue Southbound				Orange Avenue Westbound				Harvill Avenue Northbound				Orange Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	1	2
Apprch %	0	100	0		0	0	0		0	0	0		100	0	0		
Total %	0	50	0	50	0	0	0	0	0	0	0	0	50	0	0	50	

Start Time	Harvill Avenue Southbound				Orange Avenue Westbound				Harvill Avenue Northbound				Orange Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
% App. Total	0	0	0		0	0	0		0	0	0		100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.250

County of Riverside
 N/S: Harvill Avenue
 E/W: Orange Avenue
 Weather: Clear

File Name : 08_CRVHAORAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	100
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250

County of Riverside
 N/S: Harvill Avenue
 E/W: Orange Avenue
 Weather: Clear

File Name : 08_CRVHAORAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

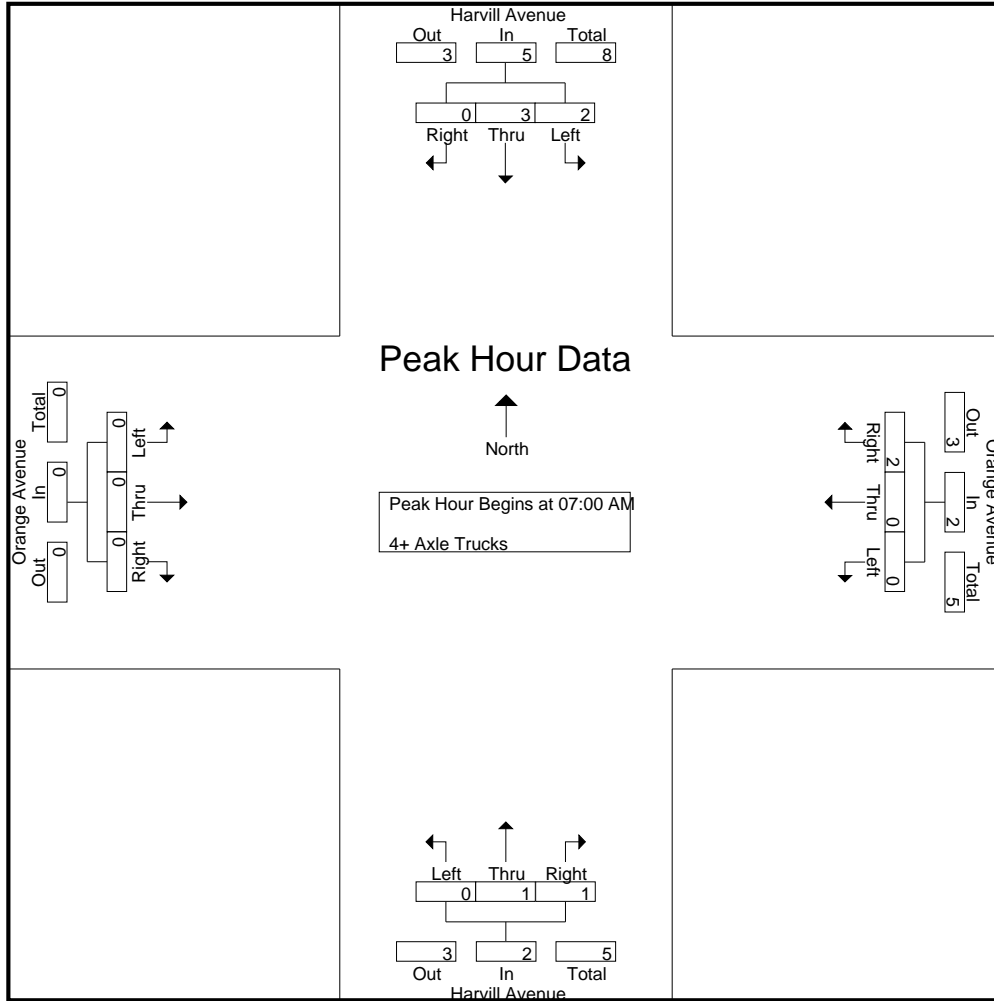
Groups Printed- 4+ Axle Trucks

Start Time	Harvill Avenue Southbound				Orange Avenue Westbound				Harvill Avenue Northbound				Orange Avenue Eastbound				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
07:00 AM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
07:15 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1
07:30 AM	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
07:45 AM	1	0	0	1	0	0	1	1	0	1	1	2	0	0	0	0	0	4
Total	2	3	0	5	0	0	2	2	0	1	1	2	0	0	0	0	0	9
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	2	2	0	1	0	1	0	0	0	0	0	3
08:30 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
08:45 AM	1	0	0	1	0	0	2	2	0	1	0	1	0	0	0	0	0	4
Total	1	0	0	1	0	0	4	4	0	2	1	3	0	0	0	0	0	8
Grand Total	3	3	0	6	0	0	6	6	0	3	2	5	0	0	0	0	0	17
Apprch %	50	50	0		0	0	100		0	60	40		0	0	0			
Total %	17.6	17.6	0	35.3	0	0	35.3	35.3	0	17.6	11.8	29.4	0	0	0	0	0	

Start Time	Harvill Avenue Southbound				Orange Avenue Westbound				Harvill Avenue Northbound				Orange Avenue Eastbound				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:00 AM																		
07:00 AM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
07:15 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1
07:30 AM	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
07:45 AM	1	0	0	1	0	0	1	1	0	1	1	2	0	0	0	0	0	4
Total Volume	2	3	0	5	0	0	2	2	0	1	1	2	0	0	0	0	0	9
% App. Total	40	60	0		0	0	100		0	50	50		0	0	0			
PHF	.500	.375	.000	.625	.000	.000	.500	.500	.000	.250	.250	.250	.000	.000	.000	.000	.000	.563

County of Riverside
 N/S: Harvill Avenue
 E/W: Orange Avenue
 Weather: Clear

File Name : 08_CRVHAORAM
 Site Code : 05119093
 Start Date : 2/12/2019
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
+30 mins.	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	1	0	0	1	0	0	1	1	0	1	1	2	0	0	0	0
Total Volume	2	3	0	5	0	0	2	2	0	1	1	2	0	0	0	0
% App. Total	40	60	0		0	0	100		0	50	50		0	0	0	
PHF	.500	.375	.000	.625	.000	.000	.500	.500	.000	.250	.250	.250	.000	.000	.000	.000

County of Riverside
 N/S: Harvill Avenue
 E/W: Orange Avenue
 Weather: Clear

File Name : 08_CRVHAORPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

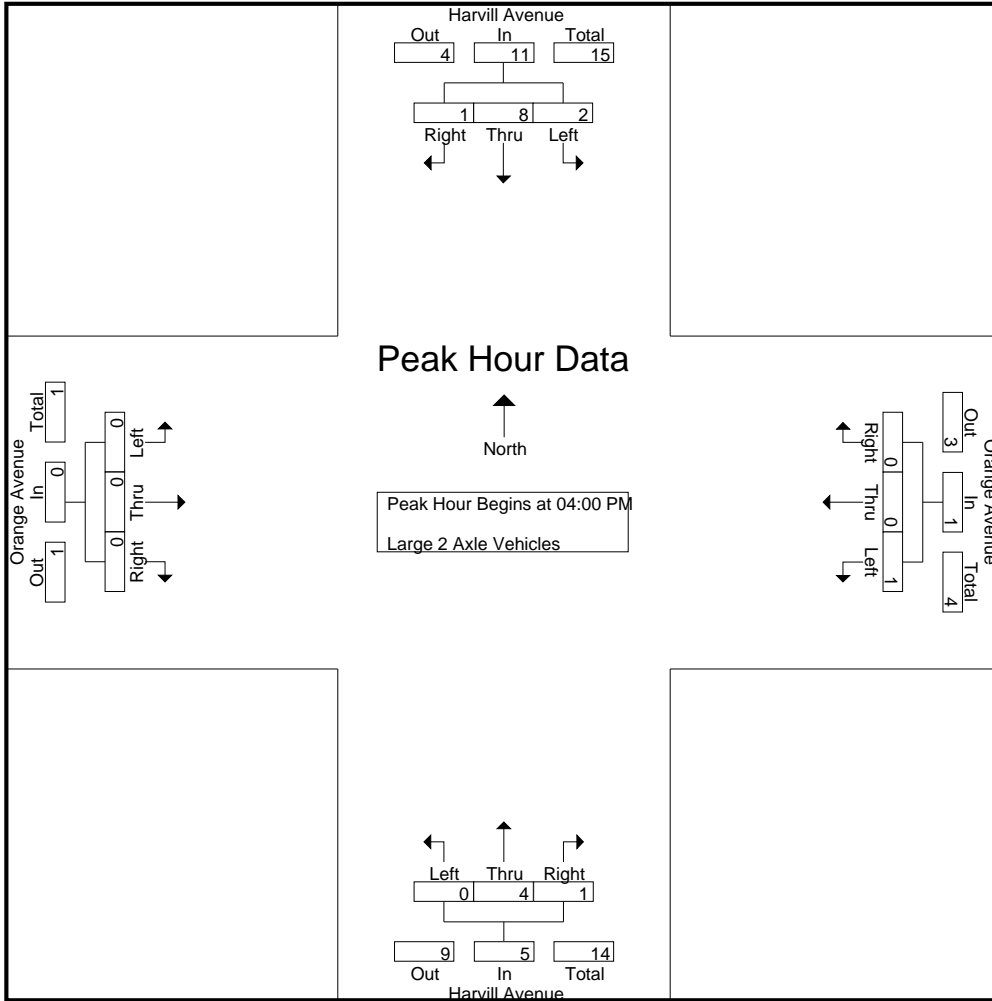
Groups Printed- Large 2 Axle Vehicles

Start Time	Harvill Avenue Southbound				Orange Avenue Westbound				Harvill Avenue Northbound				Orange Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	2	4	0	6	1	0	0	1	0	1	1	2	0	0	0	0	9
04:15 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
04:30 PM	0	0	1	1	0	0	0	0	0	1	0	1	0	0	0	0	2
04:45 PM	0	3	0	3	0	0	0	0	0	1	0	1	0	0	0	0	4
Total	2	8	1	11	1	0	0	1	0	4	1	5	0	0	0	0	17
05:00 PM	0	5	0	5	0	0	0	0	0	1	0	1	0	0	0	0	6
05:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
05:30 PM	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	7	0	7	0	0	0	0	0	2	0	2	0	0	0	0	9
Grand Total	2	15	1	18	1	0	0	1	0	6	1	7	0	0	0	0	26
Apprch %	11.1	83.3	5.6		100	0	0		0	85.7	14.3		0	0	0		
Total %	7.7	57.7	3.8	69.2	3.8	0	0	3.8	0	23.1	3.8	26.9	0	0	0	0	

Start Time	Harvill Avenue Southbound				Orange Avenue Westbound				Harvill Avenue Northbound				Orange Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	2	4	0	6	1	0	0	1	0	1	1	2	0	0	0	0	9
04:15 PM	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0	2
04:30 PM	0	0	1	1	0	0	0	0	0	1	0	1	0	0	0	0	2
04:45 PM	0	3	0	3	0	0	0	0	0	1	0	1	0	0	0	0	4
Total Volume	2	8	1	11	1	0	0	1	0	4	1	5	0	0	0	0	17
% App. Total	18.2	72.7	9.1		100	0	0		0	80	20		0	0	0		
PHF	.250	.500	.250	.458	.250	.000	.000	.250	.000	1.00	.250	.625	.000	.000	.000	.000	.472

County of Riverside
 N/S: Harvill Avenue
 E/W: Orange Avenue
 Weather: Clear

File Name : 08_CRVHAORPM
 Site Code : 05119093
 Start Date : 2/12/2019
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Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	2	4	0	6	1	0	0	1	0	1	1	2	0	0	0	0
+15 mins.	0	1	0	1	0	0	0	0	0	1	0	1	0	0	0	0
+30 mins.	0	0	1	1	0	0	0	0	0	1	0	1	0	0	0	0
+45 mins.	0	3	0	3	0	0	0	0	0	1	0	1	0	0	0	0
Total Volume	2	8	1	11	1	0	0	1	0	4	1	5	0	0	0	0
% App. Total	18.2	72.7	9.1		100	0	0		0	80	20		0	0	0	
PHF	.250	.500	.250	.458	.250	.000	.000	.250	.000	1.000	.250	.625	.000	.000	.000	.000

County of Riverside
 N/S: Harvill Avenue
 E/W: Orange Avenue
 Weather: Clear

File Name : 08_CRVHAORPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

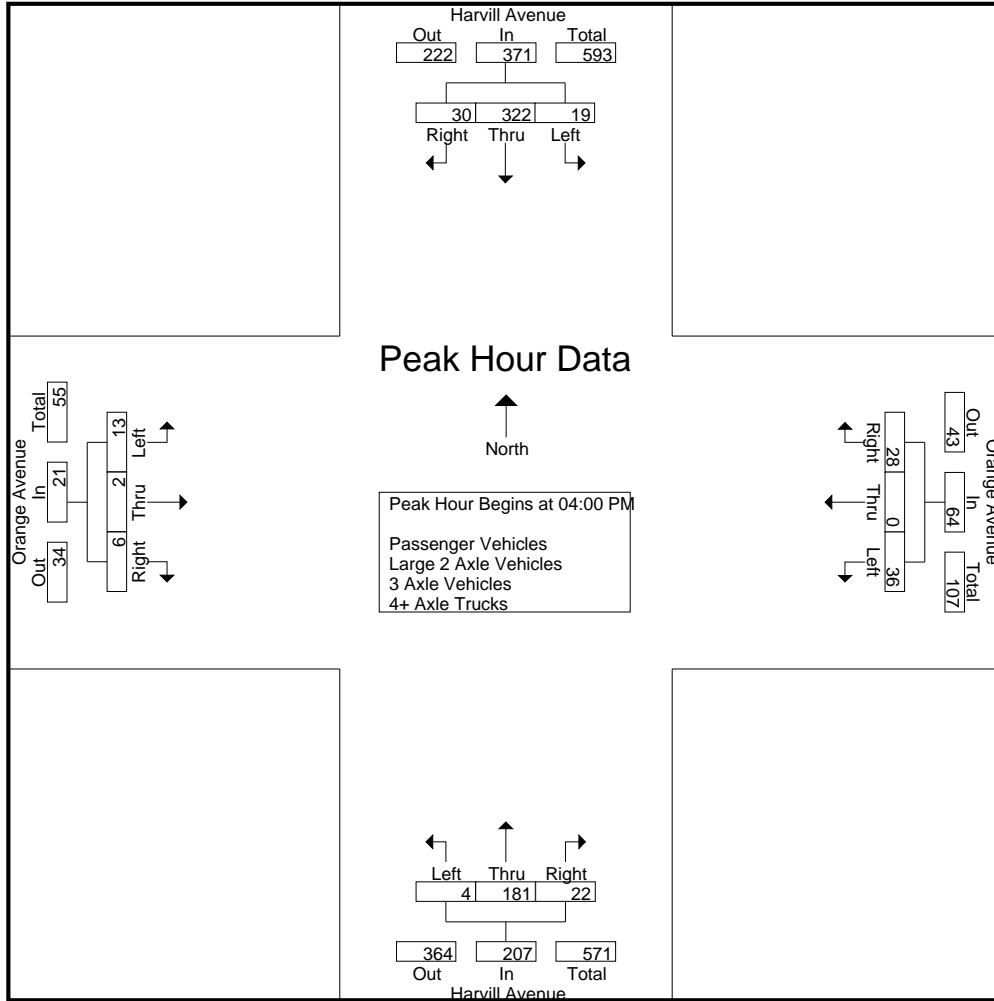
Start Time	Harvill Avenue Southbound				Orange Avenue Westbound				Harvill Avenue Northbound				Orange Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	10	99	7	116	11	0	7	18	0	46	5	51	3	2	3	8	193
04:15 PM	4	72	8	84	10	0	10	20	1	51	6	58	4	0	1	5	167
04:30 PM	4	70	8	82	8	0	5	13	3	47	8	58	5	0	2	7	160
04:45 PM	1	81	7	89	7	0	6	13	0	37	3	40	1	0	0	1	143
Total	19	322	30	371	36	0	28	64	4	181	22	207	13	2	6	21	663
05:00 PM	2	78	5	85	5	0	5	10	1	51	2	54	5	0	4	9	158
05:15 PM	0	67	2	69	4	0	2	6	2	34	4	40	1	0	2	3	118
05:30 PM	0	52	7	59	6	0	0	6	1	43	4	48	0	0	2	2	115
05:45 PM	4	65	6	75	7	0	4	11	2	39	3	44	0	0	0	0	130
Total	6	262	20	288	22	0	11	33	6	167	13	186	6	0	8	14	521
Grand Total	25	584	50	659	58	0	39	97	10	348	35	393	19	2	14	35	1184
Apprch %	3.8	88.6	7.6		59.8	0	40.2		2.5	88.5	8.9		54.3	5.7	40		
Total %	2.1	49.3	4.2	55.7	4.9	0	3.3	8.2	0.8	29.4	3	33.2	1.6	0.2	1.2	3	
Passenger Vehicles	22	563	49	634	57	0	38	95	10	337	33	380	19	2	14	35	1144
% Passenger Vehicles	88	96.4	98	96.2	98.3	0	97.4	97.9	100	96.8	94.3	96.7	100	100	100	100	96.6
Large 2 Axle Vehicles	2	15	1	18	1	0	0	1	0	6	1	7	0	0	0	0	26
% Large 2 Axle Vehicles	8	2.6	2	2.7	1.7	0	0	1	0	1.7	2.9	1.8	0	0	0	0	2.2
3 Axle Vehicles	0	1	0	1	0	0	1	1	0	1	1	2	0	0	0	0	4
% 3 Axle Vehicles	0	0.2	0	0.2	0	0	2.6	1	0	0.3	2.9	0.5	0	0	0	0	0.3
4+ Axle Trucks	1	5	0	6	0	0	0	0	0	4	0	4	0	0	0	0	10
% 4+ Axle Trucks	4	0.9	0	0.9	0	0	0	0	0	1.1	0	1	0	0	0	0	0.8

Start Time	Harvill Avenue Southbound				Orange Avenue Westbound				Harvill Avenue Northbound				Orange Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	10	99	7	116	11	0	7	18	0	46	5	51	3	2	3	8	193
04:15 PM	4	72	8	84	10	0	10	20	1	51	6	58	4	0	1	5	167
04:30 PM	4	70	8	82	8	0	5	13	3	47	8	58	5	0	2	7	160
04:45 PM	1	81	7	89	7	0	6	13	0	37	3	40	1	0	0	1	143
Total Volume	19	322	30	371	36	0	28	64	4	181	22	207	13	2	6	21	663
% App. Total	5.1	86.8	8.1		56.2	0	43.8		1.9	87.4	10.6		61.9	9.5	28.6		
PHF	.475	.813	.938	.800	.818	.000	.700	.800	.333	.887	.688	.892	.650	.250	.500	.656	.859

Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 04:00 PM

County of Riverside
 N/S: Harvill Avenue
 E/W: Orange Avenue
 Weather: Clear

File Name : 08_CRVHAORPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	10	99	7	116	11	0	7	18	0	46	5	51	3	2	3	8
+15 mins.	4	72	8	84	10	0	10	20	1	51	6	58	4	0	1	5
+30 mins.	4	70	8	82	8	0	5	13	3	47	8	58	5	0	2	7
+45 mins.	1	81	7	89	7	0	6	13	0	37	3	40	1	0	0	1
Total Volume	19	322	30	371	36	0	28	64	4	181	22	207	13	2	6	21
% App. Total	5.1	86.8	8.1		56.2	0	43.8		1.9	87.4	10.6		61.9	9.5	28.6	
PHF	.475	.813	.938	.800	.818	.000	.700	.800	.333	.887	.688	.892	.650	.250	.500	.656

County of Riverside
 N/S: Harvill Avenue
 E/W: Orange Avenue
 Weather: Clear

File Name : 08_CRVHAORPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

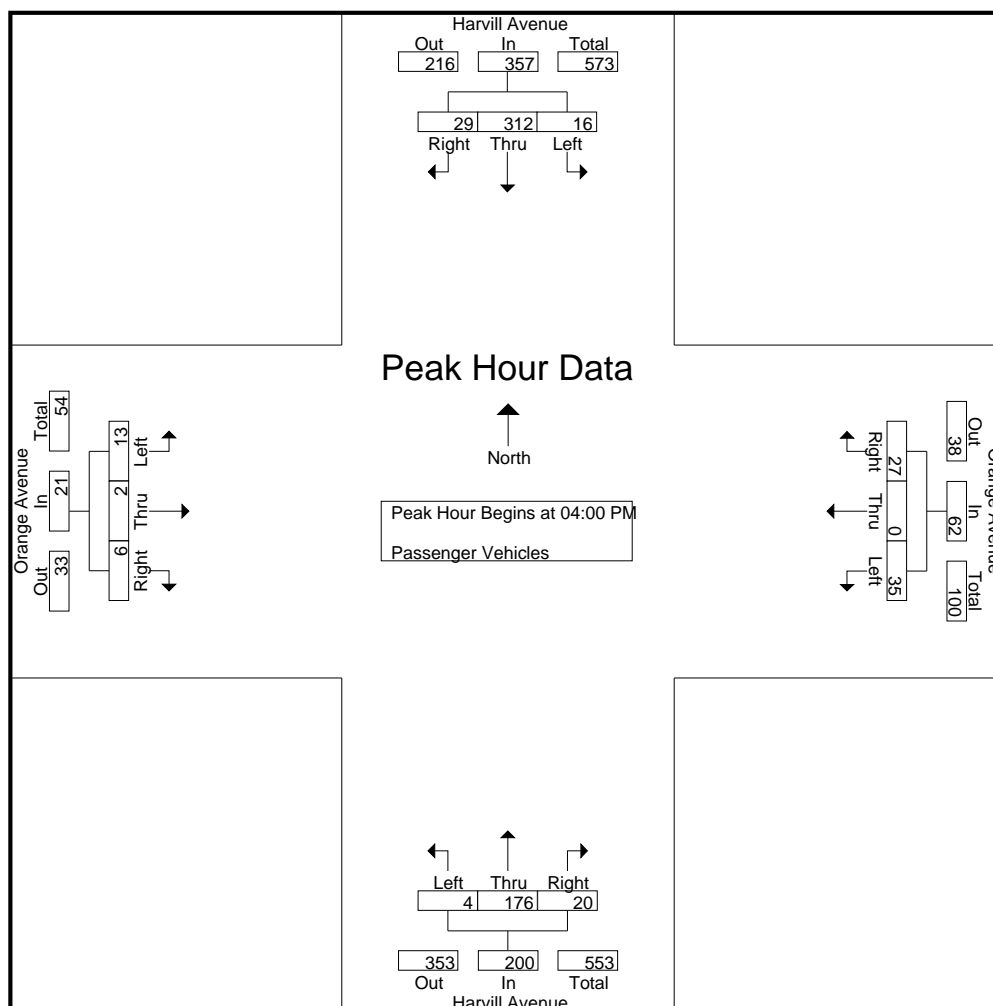
Groups Printed- Passenger Vehicles

Start Time	Harvill Avenue Southbound				Orange Avenue Westbound				Harvill Avenue Northbound				Orange Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	8	95	7	110	10	0	6	16	0	45	3	48	3	2	3	8	182
04:15 PM	3	71	8	82	10	0	10	20	1	49	6	56	4	0	1	5	163
04:30 PM	4	69	7	80	8	0	5	13	3	46	8	57	5	0	2	7	157
04:45 PM	1	77	7	85	7	0	6	13	0	36	3	39	1	0	0	1	138
Total	16	312	29	357	35	0	27	62	4	176	20	200	13	2	6	21	640
05:00 PM	2	70	5	77	5	0	5	10	1	48	2	51	5	0	4	9	147
05:15 PM	0	67	2	69	4	0	2	6	2	32	4	38	1	0	2	3	116
05:30 PM	0	50	7	57	6	0	0	6	1	42	4	47	0	0	2	2	112
05:45 PM	4	64	6	74	7	0	4	11	2	39	3	44	0	0	0	0	129
Total	6	251	20	277	22	0	11	33	6	161	13	180	6	0	8	14	504
Grand Total	22	563	49	634	57	0	38	95	10	337	33	380	19	2	14	35	1144
Apprch %	3.5	88.8	7.7		60	0	40		2.6	88.7	8.7		54.3	5.7	40		
Total %	1.9	49.2	4.3	55.4	5	0	3.3	8.3	0.9	29.5	2.9	33.2	1.7	0.2	1.2	3.1	

Start Time	Harvill Avenue Southbound				Orange Avenue Westbound				Harvill Avenue Northbound				Orange Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	8	95	7	110	10	0	6	16	0	45	3	48	3	2	3	8	182
04:15 PM	3	71	8	82	10	0	10	20	1	49	6	56	4	0	1	5	163
04:30 PM	4	69	7	80	8	0	5	13	3	46	8	57	5	0	2	7	157
04:45 PM	1	77	7	85	7	0	6	13	0	36	3	39	1	0	0	1	138
Total Volume	16	312	29	357	35	0	27	62	4	176	20	200	13	2	6	21	640
% App. Total	4.5	87.4	8.1		56.5	0	43.5		2	88	10		61.9	9.5	28.6		
PHF	.500	.821	.906	.811	.875	.000	.675	.775	.333	.898	.625	.877	.650	.250	.500	.656	.879

County of Riverside
 N/S: Harvill Avenue
 E/W: Orange Avenue
 Weather: Clear

File Name : 08_CRVHAORPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	8	95	7	110	10	0	6	16	0	45	3	48	3	2	3	8
+15 mins.	3	71	8	82	10	0	10	20	1	49	6	56	4	0	1	5
+30 mins.	4	69	7	80	8	0	5	13	3	46	8	57	5	0	2	7
+45 mins.	1	77	7	85	7	0	6	13	0	36	3	39	1	0	0	1
Total Volume	16	312	29	357	35	0	27	62	4	176	20	200	13	2	6	21
% App. Total	4.5	87.4	8.1		56.5	0	43.5		2	88	10		61.9	9.5	28.6	
PHF	.500	.821	.906	.811	.875	.000	.675	.775	.333	.898	.625	.877	.650	.250	.500	.656

County of Riverside
 N/S: Harvill Avenue
 E/W: Orange Avenue
 Weather: Clear

File Name : 08_CRVHAORPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

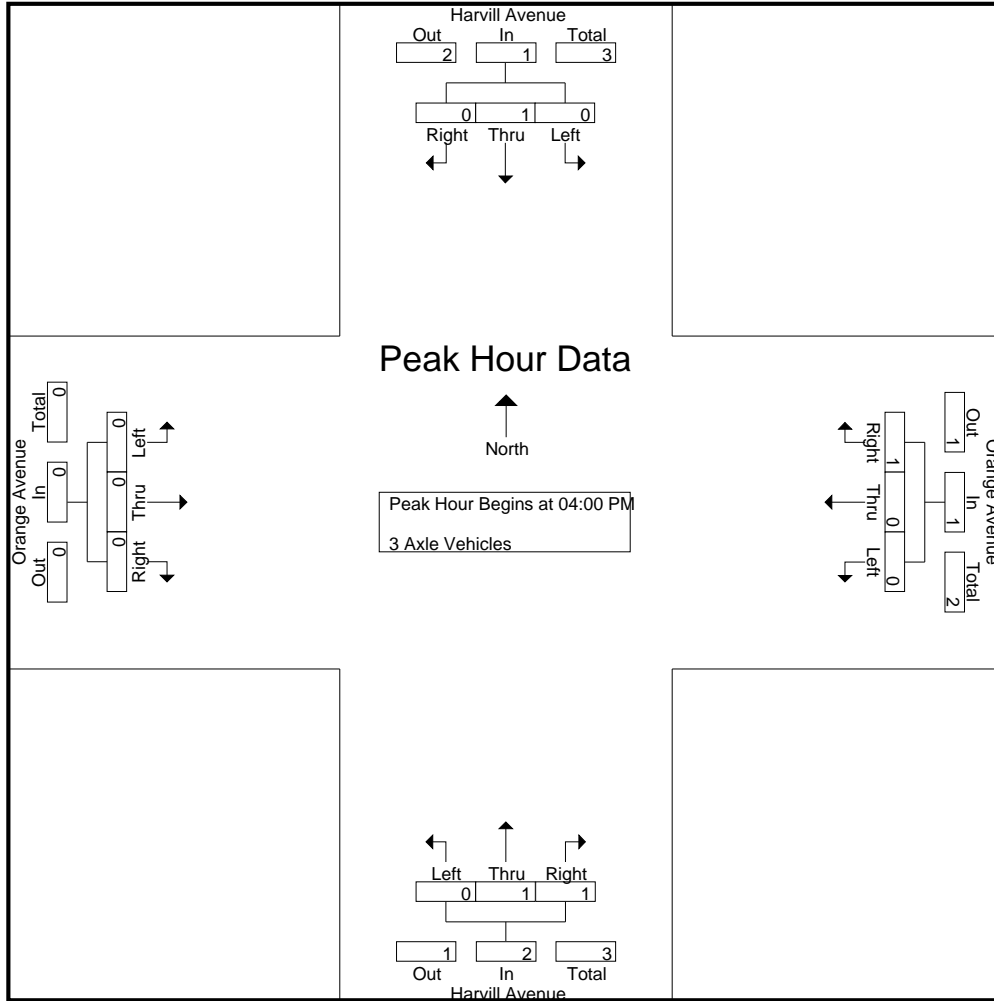
Groups Printed- 3 Axle Vehicles

Start Time	Harvill Avenue Southbound				Orange Avenue Westbound				Harvill Avenue Northbound				Orange Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	1	1	0	0	1	1	0	0	0	0	2
04:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	1	0	0	1	1	0	1	1	2	0	0	0	0	4
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	1	0	1	0	0	1	1	0	1	1	2	0	0	0	0	4
Apprch %	0	100	0		0	0	100		0	50	50		0	0	0		
Total %	0	25	0	25	0	0	25	25	0	25	25	50	0	0	0	0	

Start Time	Harvill Avenue Southbound				Orange Avenue Westbound				Harvill Avenue Northbound				Orange Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	1	1	0	0	1	1	0	0	0	0	2
04:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	1	0	1	0	0	1	1	0	1	1	2	0	0	0	0	4
% App. Total	0	100	0		0	0	100		0	50	50		0	0	0		
PHF	.000	.250	.000	.250	.000	.000	.250	.250	.000	.250	.250	.500	.000	.000	.000	.000	.500

County of Riverside
 N/S: Harvill Avenue
 E/W: Orange Avenue
 Weather: Clear

File Name : 08_CRVHAORPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	1	1	0	0	1	1	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	0	1	1	0	1	1	2	0	0	0	0
% App. Total	0	100	0		0	0	100		0	50	50		0	0	0	
PHF	.000	.250	.000	.250	.000	.000	.250	.250	.000	.250	.250	.500	.000	.000	.000	.000

County of Riverside
 N/S: Harvill Avenue
 E/W: Orange Avenue
 Weather: Clear

File Name : 08_CRVHAORPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

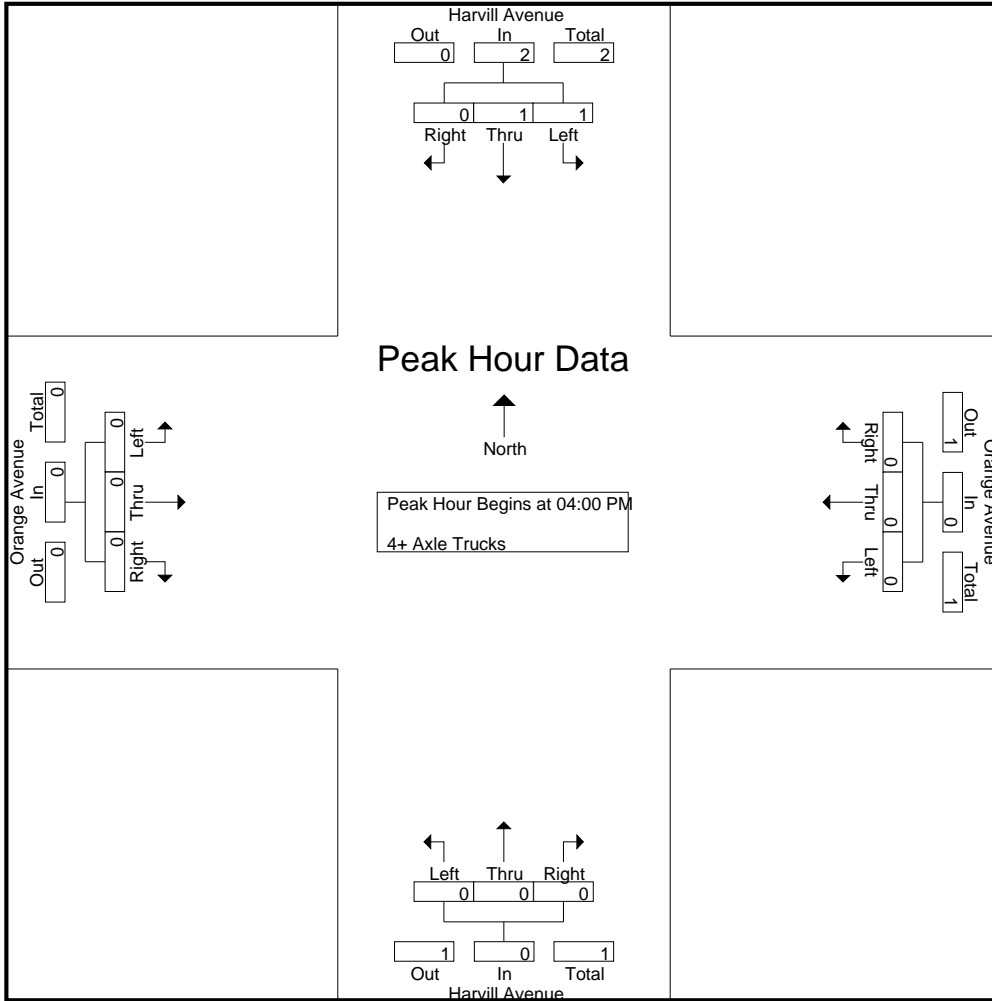
Groups Printed- 4+ Axle Trucks

Start Time	Harvill Avenue Southbound				Orange Avenue Westbound				Harvill Avenue Northbound				Orange Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
05:00 PM	0	3	0	3	0	0	0	0	0	2	0	2	0	0	0	0	5
05:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
05:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	4	0	4	0	0	0	0	0	4	0	4	0	0	0	0	8
Grand Total	1	5	0	6	0	0	0	0	0	4	0	4	0	0	0	0	10
Apprch %	16.7	83.3	0		0	0	0		0	100	0		0	0	0		
Total %	10	50	0	60	0	0	0	0	0	40	0	40	0	0	0	0	

Start Time	Harvill Avenue Southbound				Orange Avenue Westbound				Harvill Avenue Northbound				Orange Avenue Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2
% App. Total	50	50	0		0	0	0		0	0	0		0	0	0		
PHF	.250	.250	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.500

County of Riverside
 N/S: Harvill Avenue
 E/W: Orange Avenue
 Weather: Clear

File Name : 08_CRVHAORPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



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

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	50	50	0		0	0	0		0	0	0		0	0	0	
PHF	.250	.250	.000	.500	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Location: County of Riverside
 N/S: Harvill Avenue
 E/W: Orange Avenue



Date: 2/12/2019
 Day: Tuesday

PEDESTRIANS

	North Leg Harvill Avenue	East Leg Orange Avenue	South Leg Harvill Avenue	West Leg Orange Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Harvill Avenue	East Leg Orange Avenue	South Leg Harvill Avenue	West Leg Orange Avenue	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: County of Riverside
 N/S: Harvill Avenue
 E/W: Orange Avenue



Date: 2/12/2019
 Day: Tuesday

BICYCLES

	Southbound Harvill Avenue			Westbound Orange Avenue			Northbound Harvill Avenue			Eastbound Orange Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	1	0	0	0	0	0	0	0	0	1

	Southbound Harvill Avenue			Westbound Orange Avenue			Northbound Harvill Avenue			Eastbound Orange Avenue			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

County of Riverside
 N/S: Harvill Avenue
 E/W: N A Street / Construction Entrance
 Weather: Clear

File Name : 09_CRVHAAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

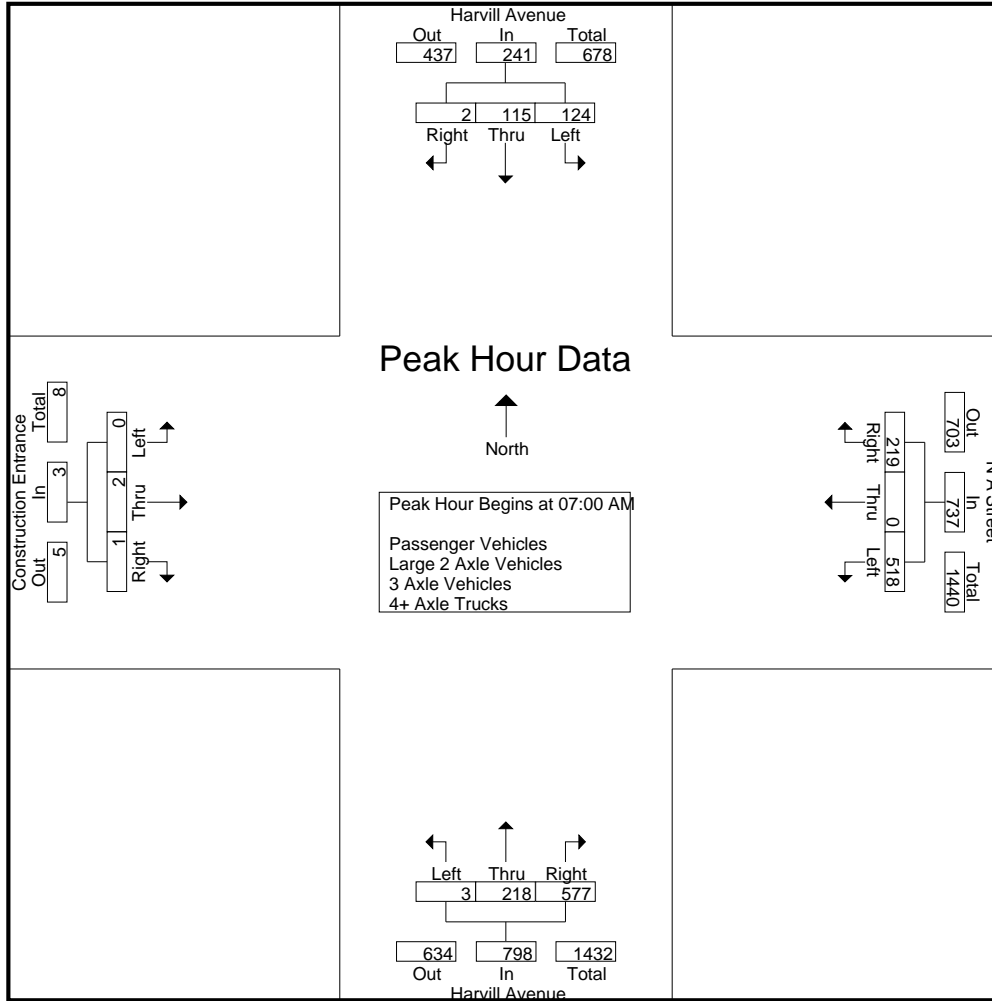
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Harvill Avenue Southbound				N A Street Westbound				Harvill Avenue Northbound				Construction Entrance Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	32	25	0	57	77	0	58	135	1	60	121	182	0	0	0	0	374
07:15 AM	43	27	0	70	136	0	51	187	0	56	149	205	0	0	0	0	462
07:30 AM	23	35	1	59	157	0	62	219	1	49	164	214	0	1	0	1	493
07:45 AM	26	28	1	55	148	0	48	196	1	53	143	197	0	1	1	2	450
Total	124	115	2	241	518	0	219	737	3	218	577	798	0	2	1	3	1779
08:00 AM	20	21	1	42	61	1	21	83	2	34	52	88	0	1	2	3	216
08:15 AM	11	17	0	28	40	2	15	57	0	25	20	45	0	1	1	2	132
08:30 AM	10	19	0	29	31	1	12	44	0	33	32	65	0	2	0	2	140
08:45 AM	16	25	0	41	25	1	13	39	0	36	19	55	0	1	1	2	137
Total	57	82	1	140	157	5	61	223	2	128	123	253	0	5	4	9	625
Grand Total	181	197	3	381	675	5	280	960	5	346	700	1051	0	7	5	12	2404
Apprch %	47.5	51.7	0.8		70.3	0.5	29.2		0.5	32.9	66.6		0	58.3	41.7		
Total %	7.5	8.2	0.1	15.8	28.1	0.2	11.6	39.9	0.2	14.4	29.1	43.7	0	0.3	0.2	0.5	
Passenger Vehicles	163	181	2	346	664	0	276	940	3	327	681	1011	0	0	3	3	2300
% Passenger Vehicles	90.1	91.9	66.7	90.8	98.4	0	98.6	97.9	60	94.5	97.3	96.2	0	0	60	25	95.7
Large 2 Axle Vehicles	18	13	1	32	8	0	4	12	1	15	17	33	0	1	1	2	79
% Large 2 Axle Vehicles	9.9	6.6	33.3	8.4	1.2	0	1.4	1.2	20	4.3	2.4	3.1	0	14.3	20	16.7	3.3
3 Axle Vehicles	0	0	0	0	3	5	0	8	0	0	2	2	0	6	0	6	16
% 3 Axle Vehicles	0	0	0	0	0.4	100	0	0.8	0	0	0.3	0.2	0	85.7	0	50	0.7
4+ Axle Trucks	0	3	0	3	0	0	0	0	1	4	0	5	0	0	1	1	9
% 4+ Axle Trucks	0	1.5	0	0.8	0	0	0	0	20	1.2	0	0.5	0	0	20	8.3	0.4

Start Time	Harvill Avenue Southbound				N A Street Westbound				Harvill Avenue Northbound				Construction Entrance Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	32	25	0	57	77	0	58	135	1	60	121	182	0	0	0	0	374
07:15 AM	43	27	0	70	136	0	51	187	0	56	149	205	0	0	0	0	462
07:30 AM	23	35	1	59	157	0	62	219	1	49	164	214	0	1	0	1	493
07:45 AM	26	28	1	55	148	0	48	196	1	53	143	197	0	1	1	2	450
Total Volume	124	115	2	241	518	0	219	737	3	218	577	798	0	2	1	3	1779
% App. Total	51.5	47.7	0.8		70.3	0	29.7		0.4	27.3	72.3		0	66.7	33.3		
PHF	.721	.821	.500	.861	.825	.000	.883	.841	.750	.908	.880	.932	.000	.500	.250	.375	.902

County of Riverside
 N/S: Harvill Avenue
 E/W: N A Street / Construction Entrance
 Weather: Clear

File Name : 09_CRVHAAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	32	25	0	57	77	0	58	135	1	60	121	182	0	0	0	0
+15 mins.	43	27	0	70	136	0	51	187	0	56	149	205	0	0	0	0
+30 mins.	23	35	1	59	157	0	62	219	1	49	164	214	0	1	0	1
+45 mins.	26	28	1	55	148	0	48	196	1	53	143	197	0	1	1	2
Total Volume	124	115	2	241	518	0	219	737	3	218	577	798	0	2	1	3
% App. Total	51.5	47.7	0.8		70.3	0	29.7		0.4	27.3	72.3		0	66.7	33.3	
PHF	.721	.821	.500	.861	.825	.000	.883	.841	.750	.908	.880	.932	.000	.500	.250	.375

County of Riverside
 N/S: Harvill Avenue
 E/W: N A Street / Construction Entrance
 Weather: Clear

File Name : 09_CRVHAAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

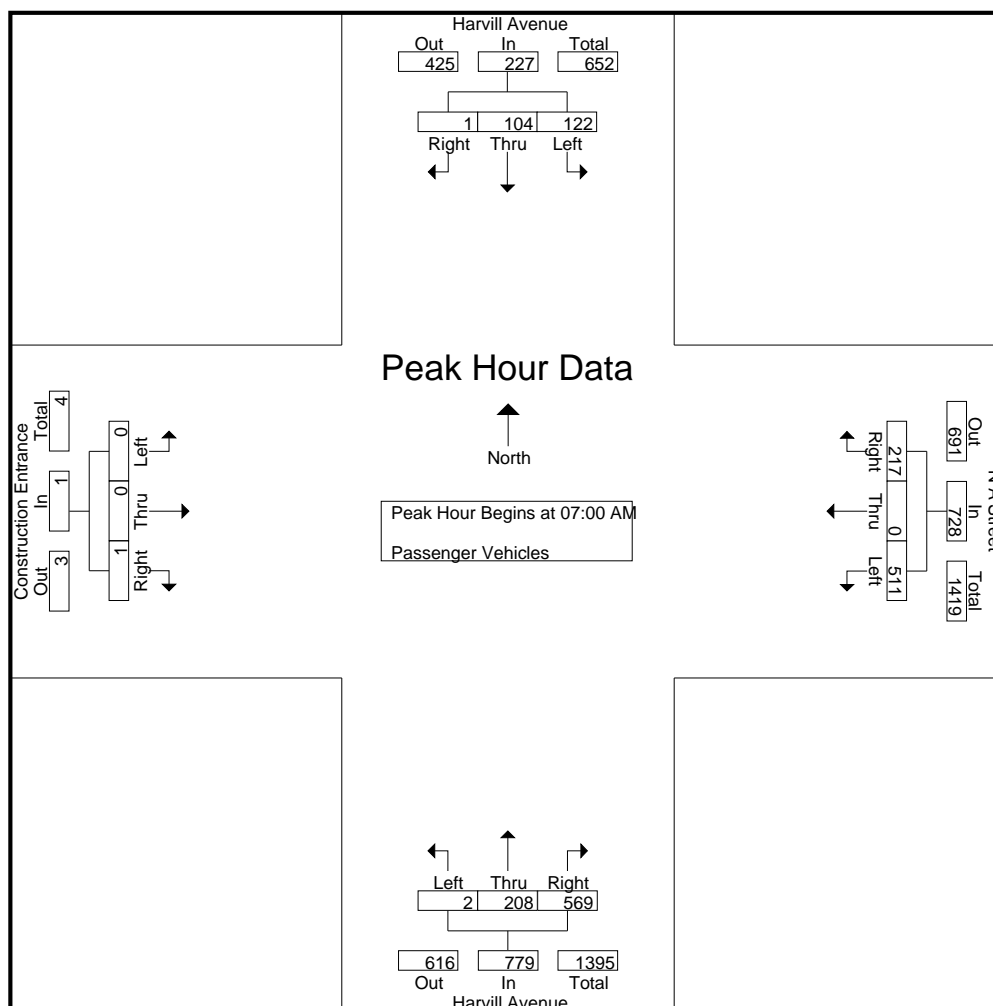
Groups Printed- Passenger Vehicles

Start Time	Harvill Avenue Southbound				N A Street Westbound				Harvill Avenue Northbound				Construction Entrance Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	31	23	0	54	77	0	58	135	1	57	116	174	0	0	0	0	363
07:15 AM	43	26	0	69	132	0	51	183	0	53	146	199	0	0	0	0	451
07:30 AM	23	33	0	56	156	0	61	217	1	48	164	213	0	0	0	0	486
07:45 AM	25	22	1	48	146	0	47	193	0	50	143	193	0	0	1	1	435
Total	122	104	1	227	511	0	217	728	2	208	569	779	0	0	1	1	1735
08:00 AM	16	20	1	37	59	0	21	80	1	33	48	82	0	0	1	1	200
08:15 AM	9	15	0	24	39	0	14	53	0	23	19	42	0	0	1	1	120
08:30 AM	8	17	0	25	31	0	12	43	0	31	28	59	0	0	0	0	127
08:45 AM	8	25	0	33	24	0	12	36	0	32	17	49	0	0	0	0	118
Total	41	77	1	119	153	0	59	212	1	119	112	232	0	0	2	2	565
Grand Total	163	181	2	346	664	0	276	940	3	327	681	1011	0	0	3	3	2300
Apprch %	47.1	52.3	0.6		70.6	0	29.4		0.3	32.3	67.4		0	0	100		
Total %	7.1	7.9	0.1	15	28.9	0	12	40.9	0.1	14.2	29.6	44	0	0	0.1	0.1	

Start Time	Harvill Avenue Southbound				N A Street Westbound				Harvill Avenue Northbound				Construction Entrance Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	31	23	0	54	77	0	58	135	1	57	116	174	0	0	0	0	363
07:15 AM	43	26	0	69	132	0	51	183	0	53	146	199	0	0	0	0	451
07:30 AM	23	33	0	56	156	0	61	217	1	48	164	213	0	0	0	0	486
07:45 AM	25	22	1	48	146	0	47	193	0	50	143	193	0	0	1	1	435
Total Volume	122	104	1	227	511	0	217	728	2	208	569	779	0	0	1	1	1735
% App. Total	53.7	45.8	0.4		70.2	0	29.8		0.3	26.7	73		0	0	100		
PHF	.709	.788	.250	.822	.819	.000	.889	.839	.500	.912	.867	.914	.000	.000	.250	.250	.892

County of Riverside
 N/S: Harvill Avenue
 E/W: N A Street / Construction Entrance
 Weather: Clear

File Name : 09_CRVHAAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	31	23	0	54	77	0	58	135	1	57	116	174	0	0	0	0
+15 mins.	43	26	0	69	132	0	51	183	0	53	146	199	0	0	0	0
+30 mins.	23	33	0	56	156	0	61	217	1	48	164	213	0	0	0	0
+45 mins.	25	22	1	48	146	0	47	193	0	50	143	193	0	0	0	1
Total Volume	122	104	1	227	511	0	217	728	2	208	569	779	0	0	1	1
% App. Total	53.7	45.8	0.4		70.2	0	29.8		0.3	26.7	73		0	0	100	
PHF	.709	.788	.250	.822	.819	.000	.889	.839	.500	.912	.867	.914	.000	.000	.250	.250

County of Riverside
 N/S: Harvill Avenue
 E/W: N A Street / Construction Entrance
 Weather: Clear

File Name : 09_CRVHAAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

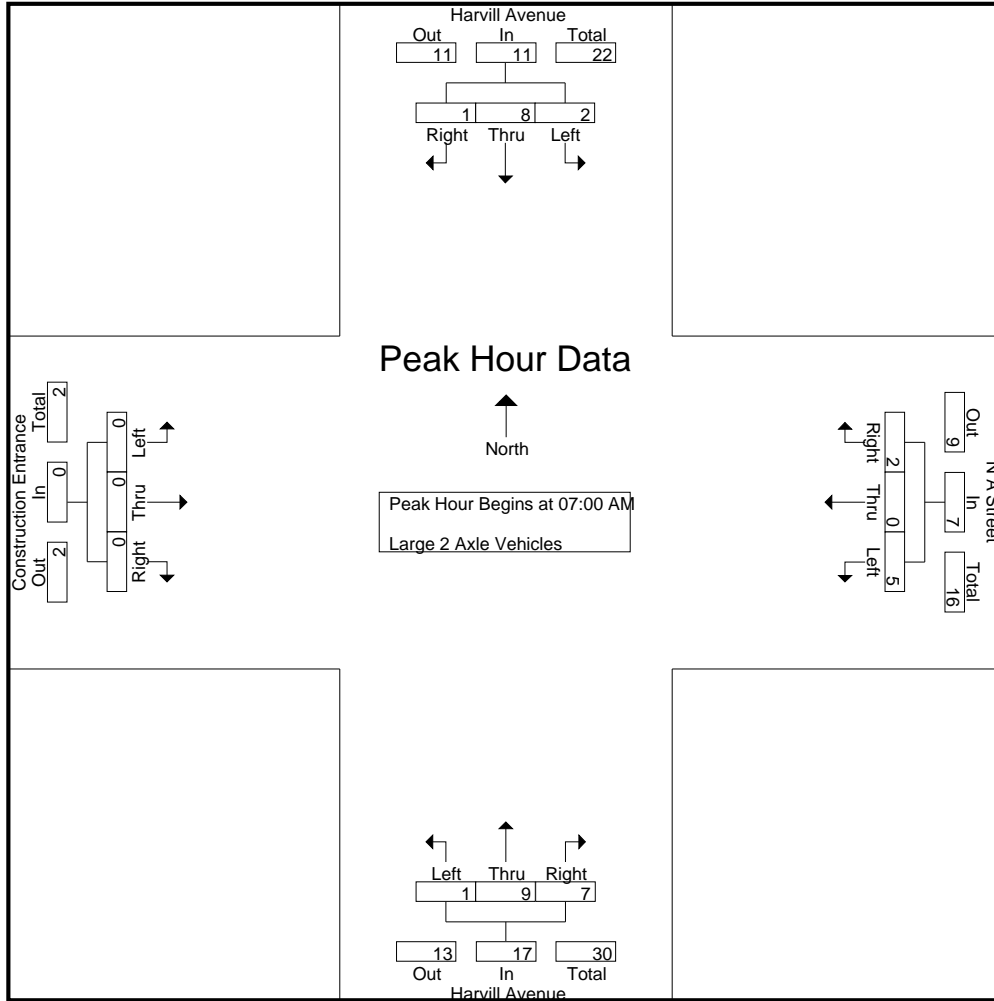
Groups Printed- Large 2 Axle Vehicles

Start Time	Harvill Avenue Southbound				N A Street Westbound				Harvill Avenue Northbound				Construction Entrance Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	1	1	0	2	0	0	0	0	0	3	5	8	0	0	0	0	10
07:15 AM	0	1	0	1	4	0	0	4	0	3	2	5	0	0	0	0	10
07:30 AM	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	2
07:45 AM	1	6	0	7	1	0	1	2	1	3	0	4	0	0	0	0	13
Total	2	8	1	11	5	0	2	7	1	9	7	17	0	0	0	0	35
08:00 AM	4	1	0	5	1	0	0	1	0	1	4	5	0	0	1	1	12
08:15 AM	2	2	0	4	1	0	1	2	0	1	1	2	0	0	0	0	8
08:30 AM	2	2	0	4	0	0	0	0	0	1	3	4	0	1	0	1	9
08:45 AM	8	0	0	8	1	0	1	2	0	3	2	5	0	0	0	0	15
Total	16	5	0	21	3	0	2	5	0	6	10	16	0	1	1	2	44
Grand Total	18	13	1	32	8	0	4	12	1	15	17	33	0	1	1	2	79
Apprch %	56.2	40.6	3.1		66.7	0	33.3		3	45.5	51.5		0	50	50		
Total %	22.8	16.5	1.3	40.5	10.1	0	5.1	15.2	1.3	19	21.5	41.8	0	1.3	1.3	2.5	

Start Time	Harvill Avenue Southbound				N A Street Westbound				Harvill Avenue Northbound				Construction Entrance Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	1	1	0	2	0	0	0	0	0	3	5	8	0	0	0	0	10
07:15 AM	0	1	0	1	4	0	0	4	0	3	2	5	0	0	0	0	10
07:30 AM	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	2
07:45 AM	1	6	0	7	1	0	1	2	1	3	0	4	0	0	0	0	13
Total Volume	2	8	1	11	5	0	2	7	1	9	7	17	0	0	0	0	35
% App. Total	18.2	72.7	9.1		71.4	0	28.6		5.9	52.9	41.2		0	0	0		
PHF	.500	.333	.250	.393	.313	.000	.500	.438	.250	.750	.350	.531	.000	.000	.000	.000	.673

County of Riverside
 N/S: Harvill Avenue
 E/W: N A Street / Construction Entrance
 Weather: Clear

File Name : 09_CRVHAAAM
 Site Code : 05119093
 Start Date : 2/12/2019
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Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	1	1	0	2	0	0	0	0	0	3	5	8	0	0	0	0
+15 mins.	0	1	0	1	4	0	0	4	0	3	2	5	0	0	0	0
+30 mins.	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0
+45 mins.	1	6	0	7	1	0	1	2	1	3	0	4	0	0	0	0
Total Volume	2	8	1	11	5	0	2	7	1	9	7	17	0	0	0	0
% App. Total	18.2	72.7	9.1		71.4	0	28.6		5.9	52.9	41.2		0	0	0	
PHF	.500	.333	.250	.393	.313	.000	.500	.438	.250	.750	.350	.531	.000	.000	.000	.000

County of Riverside
 N/S: Harvill Avenue
 E/W: N A Street / Construction Entrance
 Weather: Clear

File Name : 09_CRVHAAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

Groups Printed- 3 Axle Vehicles

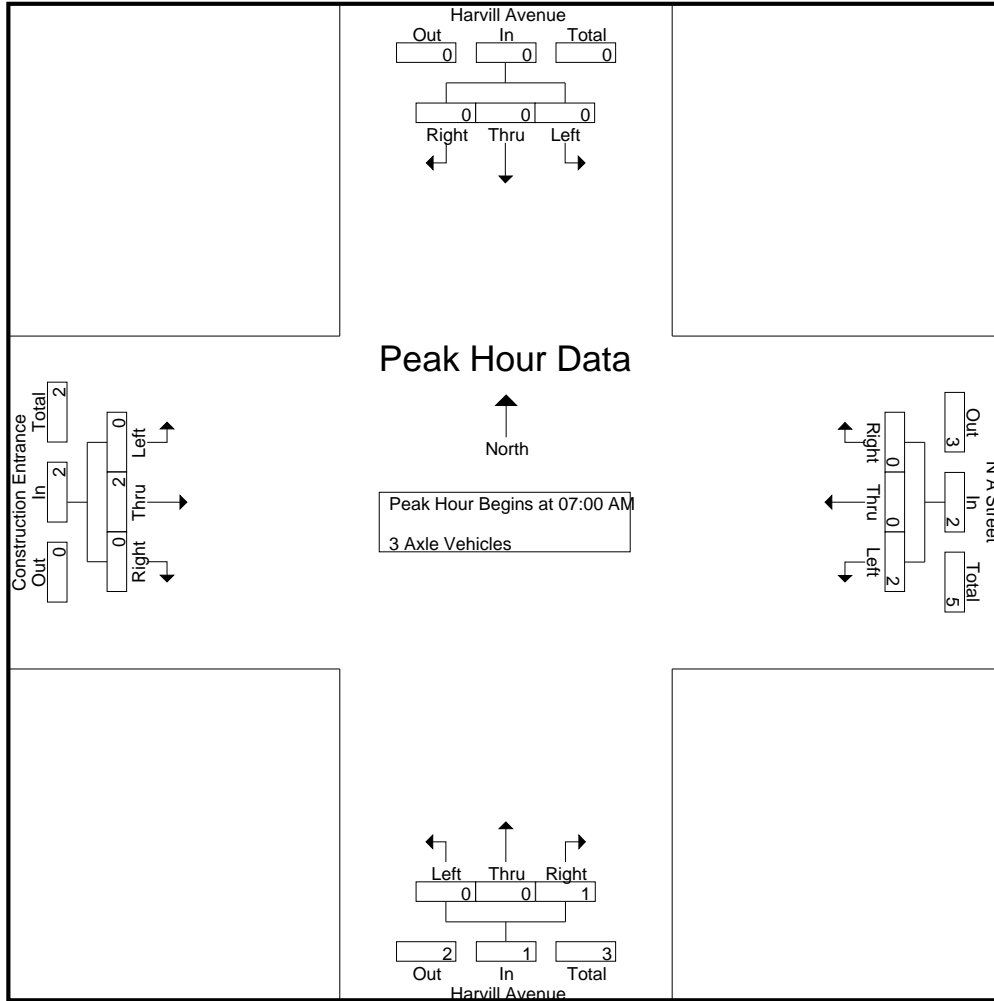
Start Time	Harvill Avenue Southbound				N A Street Westbound				Harvill Avenue Northbound				Construction Entrance Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
07:30 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	1	2
07:45 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	1	2
Total	0	0	0	0	2	0	0	2	0	0	1	1	0	2	0	2	5
08:00 AM	0	0	0	0	1	1	0	2	0	0	0	0	0	1	0	1	3
08:15 AM	0	0	0	0	0	2	0	2	0	0	0	0	0	1	0	1	3
08:30 AM	0	0	0	0	0	1	0	1	0	0	1	1	0	1	0	1	3
08:45 AM	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	1	2
Total	0	0	0	0	1	5	0	6	0	0	1	1	0	4	0	4	11
Grand Total	0	0	0	0	3	5	0	8	0	0	2	2	0	6	0	6	16
Apprch %	0	0	0		37.5	62.5	0		0	0	100		0	100	0		
Total %	0	0	0		18.8	31.2	0	50	0	0	12.5	12.5	0	37.5	0	37.5	

Start Time	Harvill Avenue Southbound				N A Street Westbound				Harvill Avenue Northbound				Construction Entrance Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1
07:30 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	1	2
07:45 AM	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	1	2
Total Volume	0	0	0	0	2	0	0	2	0	0	1	1	0	2	0	2	5
% App. Total	0	0	0		100	0	0		0	0	100		0	100	0		
PHF	.000	.000	.000	.000	.500	.000	.000	.500	.000	.000	.250	.250	.000	.500	.000	.500	.625

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 07:00 AM

County of Riverside
 N/S: Harvill Avenue
 E/W: N A Street / Construction Entrance
 Weather: Clear

File Name : 09_CRVHAAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
+30 mins.	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	1
+45 mins.	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	1
Total Volume	0	0	0	0	2	0	0	2	0	0	1	1	0	2	0	2
% App. Total	0	0	0	0	100	0	0	100	0	0	100	100	0	100	0	100
PHF	.000	.000	.000	.000	.500	.000	.000	.500	.000	.000	.250	.250	.000	.500	.000	.500

County of Riverside
 N/S: Harvill Avenue
 E/W: N A Street / Construction Entrance
 Weather: Clear

File Name : 09_CRVHAAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

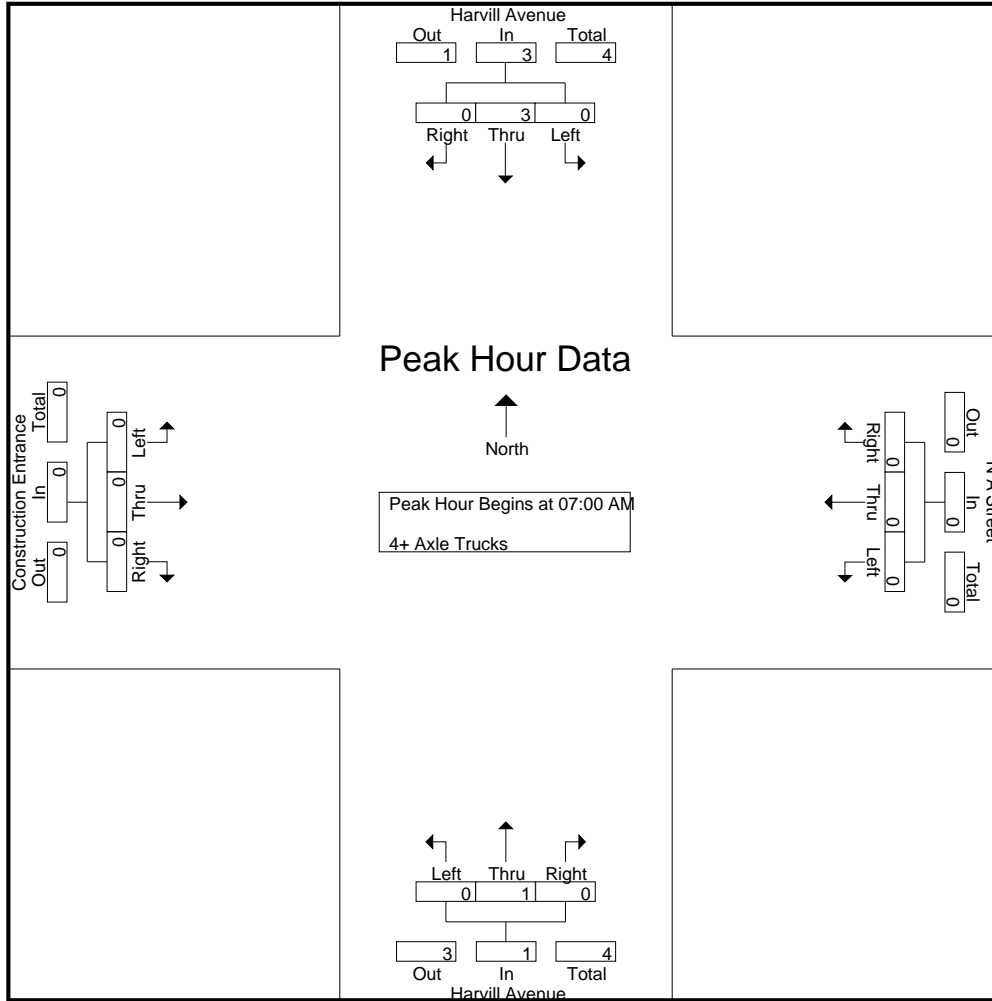
Groups Printed- 4+ Axle Trucks

Start Time	Harvill Avenue Southbound				N A Street Westbound				Harvill Avenue Northbound				Construction Entrance Eastbound				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
07:00 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	2	0	2	0	0	0	0	0	0	1	0	1	0	0	0	0	3
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	3	0	3	0	0	0	0	0	0	1	0	1	0	0	0	0	4
08:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1
08:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
08:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
08:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1	2
Total	0	0	0	0	0	0	0	0	0	1	3	0	4	0	0	1	1	5
Grand Total	0	3	0	3	0	0	0	0	0	1	4	0	5	0	0	1	1	9
Apprch %	0	100	0		0	0	0			20	80	0		0	0	100		
Total %	0	33.3	0	33.3	0	0	0	0	0	11.1	44.4	0	55.6	0	0	11.1	11.1	

Start Time	Harvill Avenue Southbound				N A Street Westbound				Harvill Avenue Northbound				Construction Entrance Eastbound				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:00 AM																		
07:00 AM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	2	0	2	0	0	0	0	0	0	1	0	1	0	0	0	0	3
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	3	0	3	0	0	0	0	0	0	1	0	1	0	0	0	0	4
% App. Total	0	100	0		0	0	0			0	100	0		0	0	0		
PHF	.000	.375	.000	.375	.000	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000	.333

County of Riverside
 N/S: Harvill Avenue
 E/W: N A Street / Construction Entrance
 Weather: Clear

File Name : 09_CRVHAAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	2	0	2	0	0	0	0	0	1	0	1	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	3	0	3	0	0	0	0	0	1	0	1	0	0	0	0
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0	
PHF	.000	.375	.000	.375	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.000	.000

County of Riverside
 N/S: Harvill Avenue
 E/W: N A Street / Construction Entrance
 Weather: Clear

File Name : 09_CRVHAAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

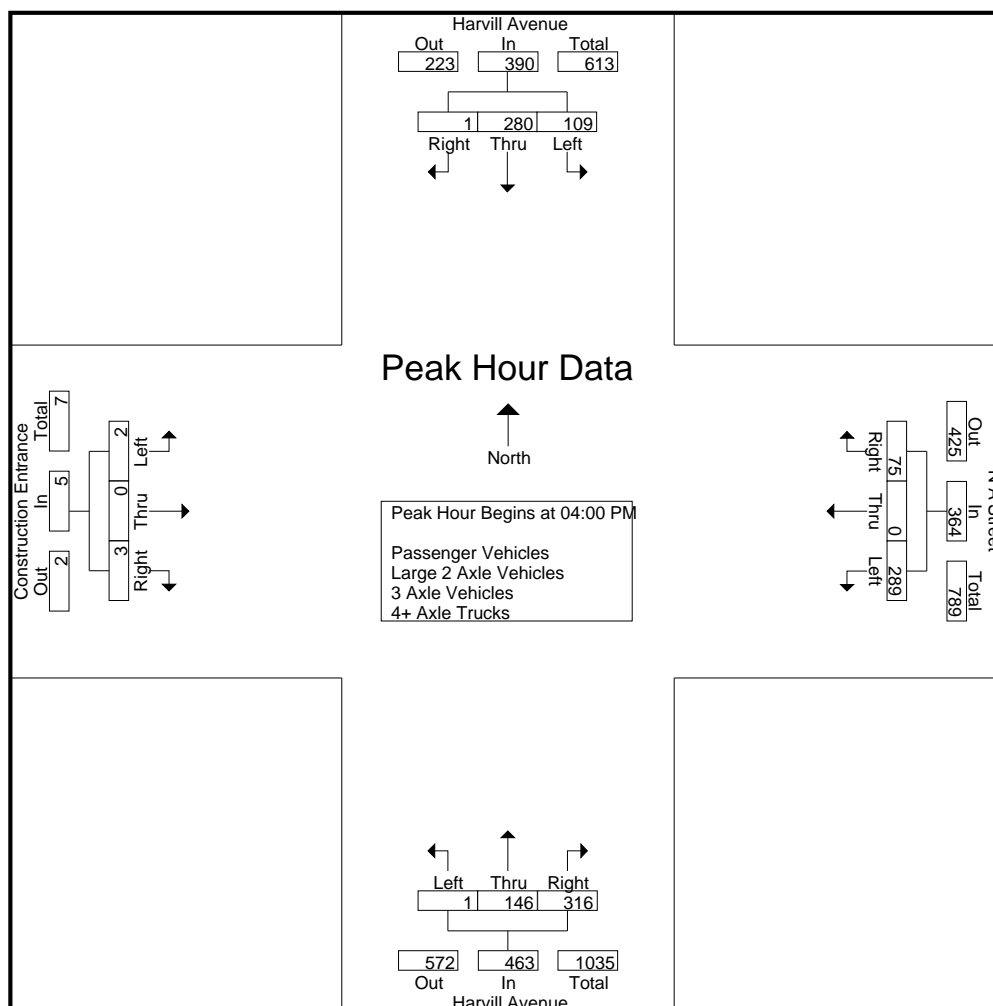
Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	Harvill Avenue Southbound				N A Street Westbound				Harvill Avenue Northbound				Construction Entrance Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	27	91	1	119	82	0	18	100	0	35	66	101	0	0	2	2	322
04:15 PM	27	75	0	102	53	0	22	75	0	41	80	121	1	0	1	2	300
04:30 PM	23	59	0	82	84	0	18	102	1	42	84	127	0	0	0	0	311
04:45 PM	32	55	0	87	70	0	17	87	0	28	86	114	1	0	0	1	289
Total	109	280	1	390	289	0	75	364	1	146	316	463	2	0	3	5	1222
05:00 PM	32	62	0	94	81	0	18	99	0	27	66	93	0	0	0	0	286
05:15 PM	26	55	0	81	47	0	16	63	1	31	78	110	0	0	0	0	254
05:30 PM	22	40	0	62	48	0	13	61	4	34	82	120	0	0	0	0	243
05:45 PM	19	63	0	82	66	0	21	87	0	18	60	78	0	0	0	0	247
Total	99	220	0	319	242	0	68	310	5	110	286	401	0	0	0	0	1030
Grand Total	208	500	1	709	531	0	143	674	6	256	602	864	2	0	3	5	2252
Apprch %	29.3	70.5	0.1		78.8	0	21.2		0.7	29.6	69.7		40	0	60		
Total %	9.2	22.2	0	31.5	23.6	0	6.3	29.9	0.3	11.4	26.7	38.4	0.1	0	0.1	0.2	
Passenger Vehicles	200	486	1	687	525	0	140	665	6	244	586	836	2	0	1	3	2191
% Passenger Vehicles	96.2	97.2	100	96.9	98.9	0	97.9	98.7	100	95.3	97.3	96.8	100	0	33.3	60	97.3
Large 2 Axle Vehicles	7	11	0	18	6	0	2	8	0	9	15	24	0	0	1	1	51
% Large 2 Axle Vehicles	3.4	2.2	0	2.5	1.1	0	1.4	1.2	0	3.5	2.5	2.8	0	0	33.3	20	2.3
3 Axle Vehicles	0	1	0	1	0	0	0	0	0	1	0	1	0	0	1	1	3
% 3 Axle Vehicles	0	0.2	0	0.1	0	0	0	0	0	0.4	0	0.1	0	0	33.3	20	0.1
4+ Axle Trucks	1	2	0	3	0	0	1	1	0	2	1	3	0	0	0	0	7
% 4+ Axle Trucks	0.5	0.4	0	0.4	0	0	0.7	0.1	0	0.8	0.2	0.3	0	0	0	0	0.3

Start Time	Harvill Avenue Southbound				N A Street Westbound				Harvill Avenue Northbound				Construction Entrance Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	27	91	1	119	82	0	18	100	0	35	66	101	0	0	2	2	322
04:15 PM	27	75	0	102	53	0	22	75	0	41	80	121	1	0	1	2	300
04:30 PM	23	59	0	82	84	0	18	102	1	42	84	127	0	0	0	0	311
04:45 PM	32	55	0	87	70	0	17	87	0	28	86	114	1	0	0	1	289
Total Volume	109	280	1	390	289	0	75	364	1	146	316	463	2	0	3	5	1222
% App. Total	27.9	71.8	0.3		79.4	0	20.6		0.2	31.5	68.3		40	0	60		
PHF	.852	.769	.250	.819	.860	.000	.852	.892	.250	.869	.919	.911	.500	.000	.375	.625	.949

County of Riverside
 N/S: Harvill Avenue
 E/W: N A Street / Construction Entrance
 Weather: Clear

File Name : 09_CRVHAAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	27	91	1	119	82	0	18	100	0	35	66	101	0	0	2	2
+15 mins.	27	75	0	102	53	0	22	75	0	41	80	121	1	0	1	2
+30 mins.	23	59	0	82	84	0	18	102	1	42	84	127	0	0	0	0
+45 mins.	32	55	0	87	70	0	17	87	0	28	86	114	1	0	0	1
Total Volume	109	280	1	390	289	0	75	364	1	146	316	463	2	0	3	5
% App. Total	27.9	71.8	0.3		79.4	0	20.6		0.2	31.5	68.3		40	0	60	
PHF	.852	.769	.250	.819	.860	.000	.852	.892	.250	.869	.919	.911	.500	.000	.375	.625

County of Riverside
 N/S: Harvill Avenue
 E/W: N A Street / Construction Entrance
 Weather: Clear

File Name : 09_CRVHAAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

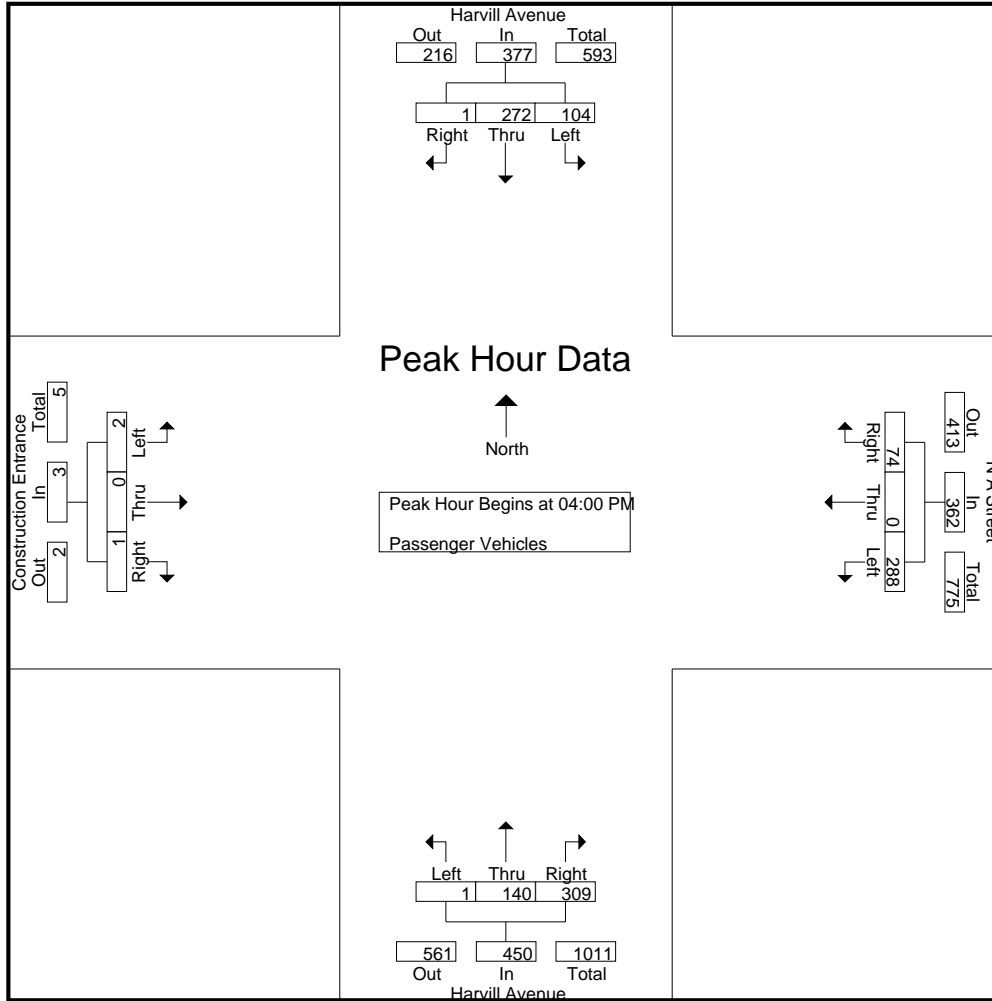
Groups Printed- Passenger Vehicles

Start Time	Harvill Avenue Southbound				N A Street Westbound				Harvill Avenue Northbound				Construction Entrance Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	25	88	1	114	81	0	17	98	0	34	64	98	0	0	1	1	311
04:15 PM	26	73	0	99	53	0	22	75	0	38	79	117	1	0	0	1	292
04:30 PM	23	57	0	80	84	0	18	102	1	41	81	123	0	0	0	0	305
04:45 PM	30	54	0	84	70	0	17	87	0	27	85	112	1	0	0	1	284
Total	104	272	1	377	288	0	74	362	1	140	309	450	2	0	1	3	1192
05:00 PM	29	58	0	87	81	0	18	99	0	24	63	87	0	0	0	0	273
05:15 PM	26	55	0	81	45	0	15	60	1	30	75	106	0	0	0	0	247
05:30 PM	22	39	0	61	47	0	12	59	4	32	79	115	0	0	0	0	235
05:45 PM	19	62	0	81	64	0	21	85	0	18	60	78	0	0	0	0	244
Total	96	214	0	310	237	0	66	303	5	104	277	386	0	0	0	0	999
Grand Total	200	486	1	687	525	0	140	665	6	244	586	836	2	0	1	3	2191
Apprch %	29.1	70.7	0.1		78.9	0	21.1		0.7	29.2	70.1		66.7	0	33.3		
Total %	9.1	22.2	0	31.4	24	0	6.4	30.4	0.3	11.1	26.7	38.2	0.1	0	0	0.1	

Start Time	Harvill Avenue Southbound				N A Street Westbound				Harvill Avenue Northbound				Construction Entrance Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	25	88	1	114	81	0	17	98	0	34	64	98	0	0	1	1	311
04:15 PM	26	73	0	99	53	0	22	75	0	38	79	117	1	0	0	1	292
04:30 PM	23	57	0	80	84	0	18	102	1	41	81	123	0	0	0	0	305
04:45 PM	30	54	0	84	70	0	17	87	0	27	85	112	1	0	0	1	284
Total Volume	104	272	1	377	288	0	74	362	1	140	309	450	2	0	1	3	1192
% App. Total	27.6	72.1	0.3		79.6	0	20.4		0.2	31.1	68.7		66.7	0	33.3		
PHF	.867	.773	.250	.827	.857	.000	.841	.887	.250	.854	.909	.915	.500	.000	.250	.750	.958

County of Riverside
 N/S: Harvill Avenue
 E/W: N A Street / Construction Entrance
 Weather: Clear

File Name : 09_CRVHAAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	25	88	1	114	81	0	17	98	0	34	64	98	0	0	1	1
+15 mins.	26	73	0	99	53	0	22	75	0	38	79	117	1	0	0	1
+30 mins.	23	57	0	80	84	0	18	102	1	41	81	123	0	0	0	0
+45 mins.	30	54	0	84	70	0	17	87	0	27	85	112	1	0	0	1
Total Volume	104	272	1	377	288	0	74	362	1	140	309	450	2	0	1	3
% App. Total	27.6	72.1	0.3		79.6	0	20.4		0.2	31.1	68.7		66.7	0	33.3	
PHF	.867	.773	.250	.827	.857	.000	.841	.887	.250	.854	.909	.915	.500	.000	.250	.750

County of Riverside
 N/S: Harvill Avenue
 E/W: N A Street / Construction Entrance
 Weather: Clear

File Name : 09_CRVHAAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

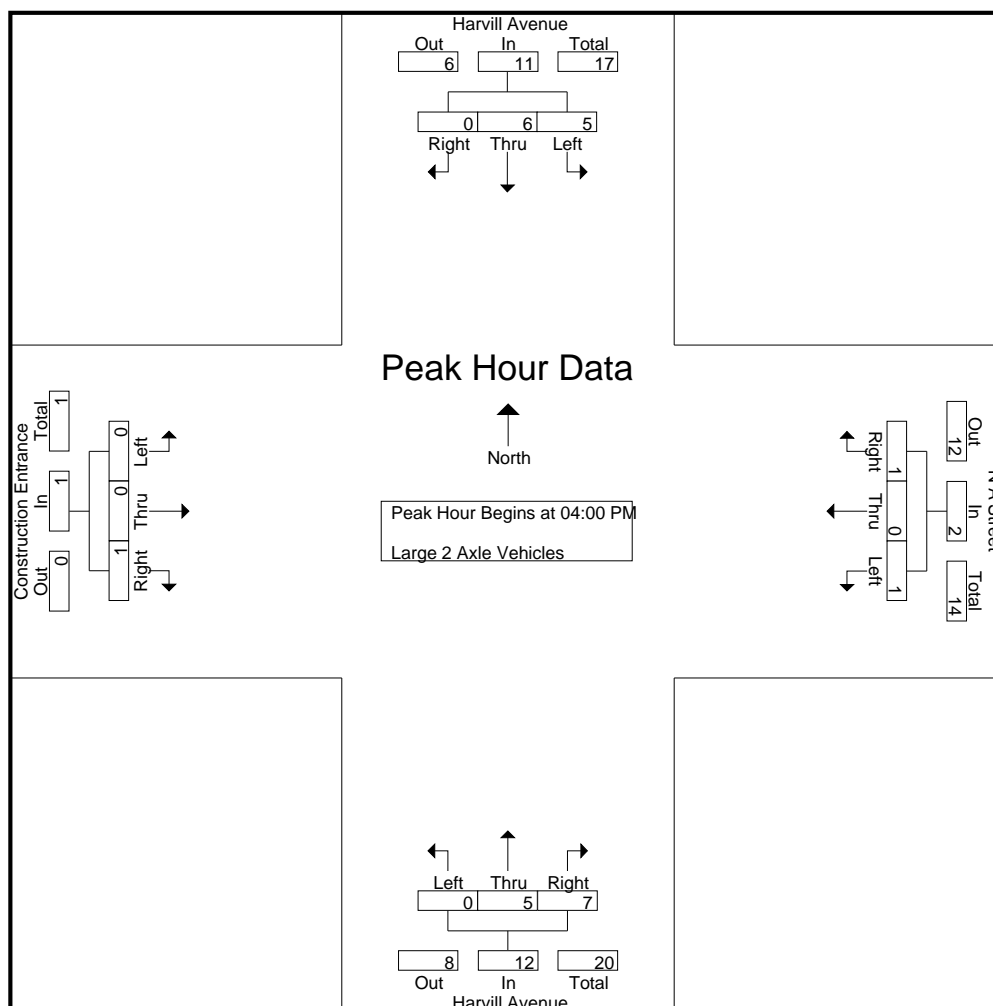
Groups Printed- Large 2 Axle Vehicles

Start Time	Harvill Avenue Southbound				N A Street Westbound				Harvill Avenue Northbound				Construction Entrance Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	2	3	0	5	1	0	1	2	0	1	2	3	0	0	1	1	11
04:15 PM	1	2	0	3	0	0	0	0	0	2	1	3	0	0	0	0	6
04:30 PM	0	1	0	1	0	0	0	0	0	1	3	4	0	0	0	0	5
04:45 PM	2	0	0	2	0	0	0	0	0	1	1	2	0	0	0	0	4
Total	5	6	0	11	1	0	1	2	0	5	7	12	0	0	1	1	26
05:00 PM	2	3	0	5	0	0	0	0	0	1	2	3	0	0	0	0	8
05:15 PM	0	0	0	0	2	0	1	3	0	1	3	4	0	0	0	0	7
05:30 PM	0	1	0	1	1	0	0	1	0	2	3	5	0	0	0	0	7
05:45 PM	0	1	0	1	2	0	0	2	0	0	0	0	0	0	0	0	3
Total	2	5	0	7	5	0	1	6	0	4	8	12	0	0	0	0	25
Grand Total	7	11	0	18	6	0	2	8	0	9	15	24	0	0	1	1	51
Apprch %	38.9	61.1	0		75	0	25		0	37.5	62.5		0	0	100		
Total %	13.7	21.6	0	35.3	11.8	0	3.9	15.7	0	17.6	29.4	47.1	0	0	2	2	

Start Time	Harvill Avenue Southbound				N A Street Westbound				Harvill Avenue Northbound				Construction Entrance Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	2	3	0	5	1	0	1	2	0	1	2	3	0	0	1	1	11
04:15 PM	1	2	0	3	0	0	0	0	0	2	1	3	0	0	0	0	6
04:30 PM	0	1	0	1	0	0	0	0	0	1	3	4	0	0	0	0	5
04:45 PM	2	0	0	2	0	0	0	0	0	1	1	2	0	0	0	0	4
Total Volume	5	6	0	11	1	0	1	2	0	5	7	12	0	0	1	1	26
% App. Total	45.5	54.5	0		50	0	50		0	41.7	58.3		0	0	100		
PHF	.625	.500	.000	.550	.250	.000	.250	.250	.000	.625	.583	.750	.000	.000	.250	.250	.591

County of Riverside
 N/S: Harvill Avenue
 E/W: N A Street / Construction Entrance
 Weather: Clear

File Name : 09_CRVHAAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	2	3	0	5	1	0	1	2	0	1	2	3	0	0	1	1
+15 mins.	1	2	0	3	0	0	0	0	0	2	1	3	0	0	0	0
+30 mins.	0	1	0	1	0	0	0	0	0	1	3	4	0	0	0	0
+45 mins.	2	0	0	2	0	0	0	0	0	1	1	2	0	0	0	0
Total Volume	5	6	0	11	1	0	1	2	0	5	7	12	0	0	1	1
% App. Total	45.5	54.5	0		50	0	50		0	41.7	58.3		0	0	100	
PHF	.625	.500	.000	.550	.250	.000	.250	.250	.000	.625	.583	.750	.000	.000	.250	.250

County of Riverside
 N/S: Harvill Avenue
 E/W: N A Street / Construction Entrance
 Weather: Clear

File Name : 09_CRVHAAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

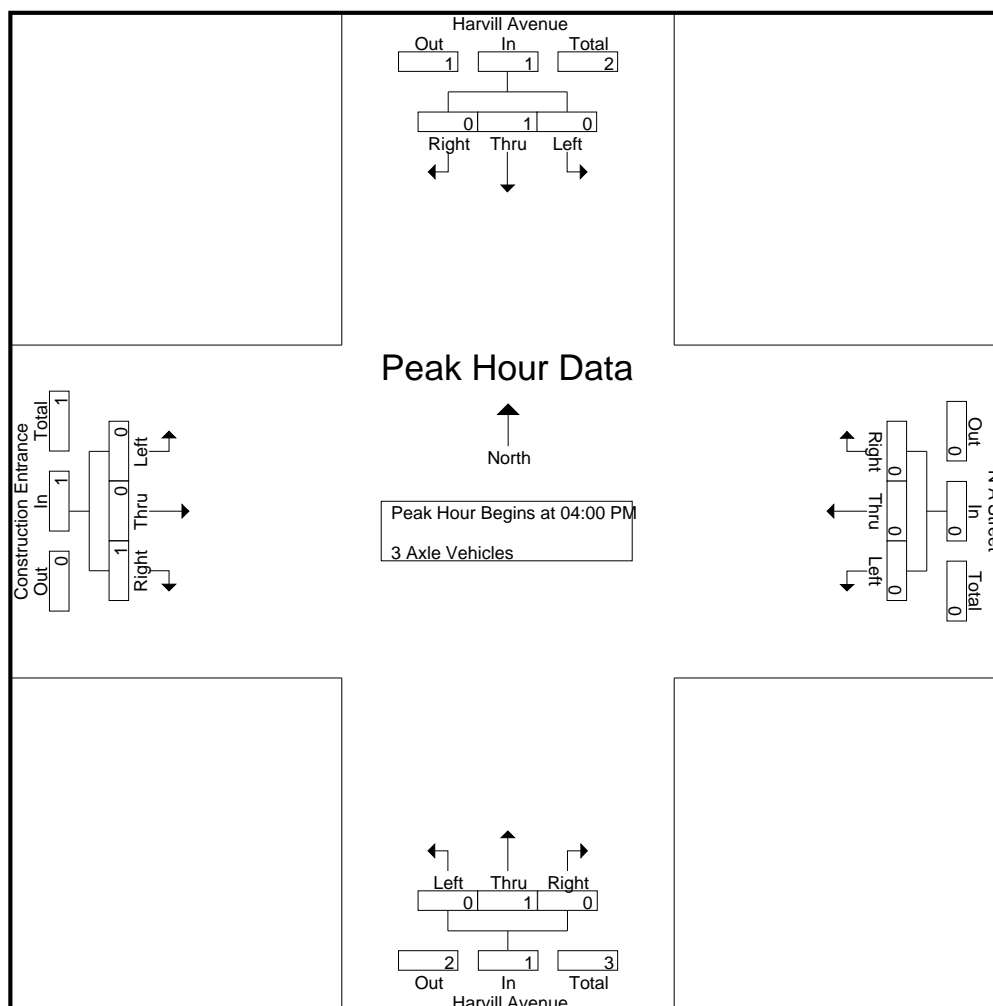
Groups Printed- 3 Axle Vehicles

Start Time	Harvill Avenue Southbound				N A Street Westbound				Harvill Avenue Northbound				Construction Entrance Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1	2
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	1	0	0	0	0	0	1	0	1	0	0	1	1	3
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	1	0	1	0	0	0	0	0	1	0	1	0	0	1	1	3
Apprch %	0	100	0		0	0	0		0	100	0		0	0	100		
Total %	0	33.3	0	33.3	0	0	0	0	0	33.3	0	33.3	0	0	33.3	33.3	

Start Time	Harvill Avenue Southbound				N A Street Westbound				Harvill Avenue Northbound				Construction Entrance Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1	2
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	1	0	1	0	0	0	0	0	1	0	1	0	0	1	1	3
% App. Total	0	100	0		0	0	0		0	100	0		0	0	100		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.250	.250	.375

County of Riverside
 N/S: Harvill Avenue
 E/W: N A Street / Construction Entrance
 Weather: Clear

File Name : 09_CRVHAAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	1	0	1	0	0	1	1
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	0	1	0	1	0	0	1	1
% App. Total	0	100	0		0	0	0		0	100	0		0	0	100	
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.250	.000	.250	.000	.000	.250	.250

County of Riverside
 N/S: Harvill Avenue
 E/W: N A Street / Construction Entrance
 Weather: Clear

File Name : 09_CRVHAAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

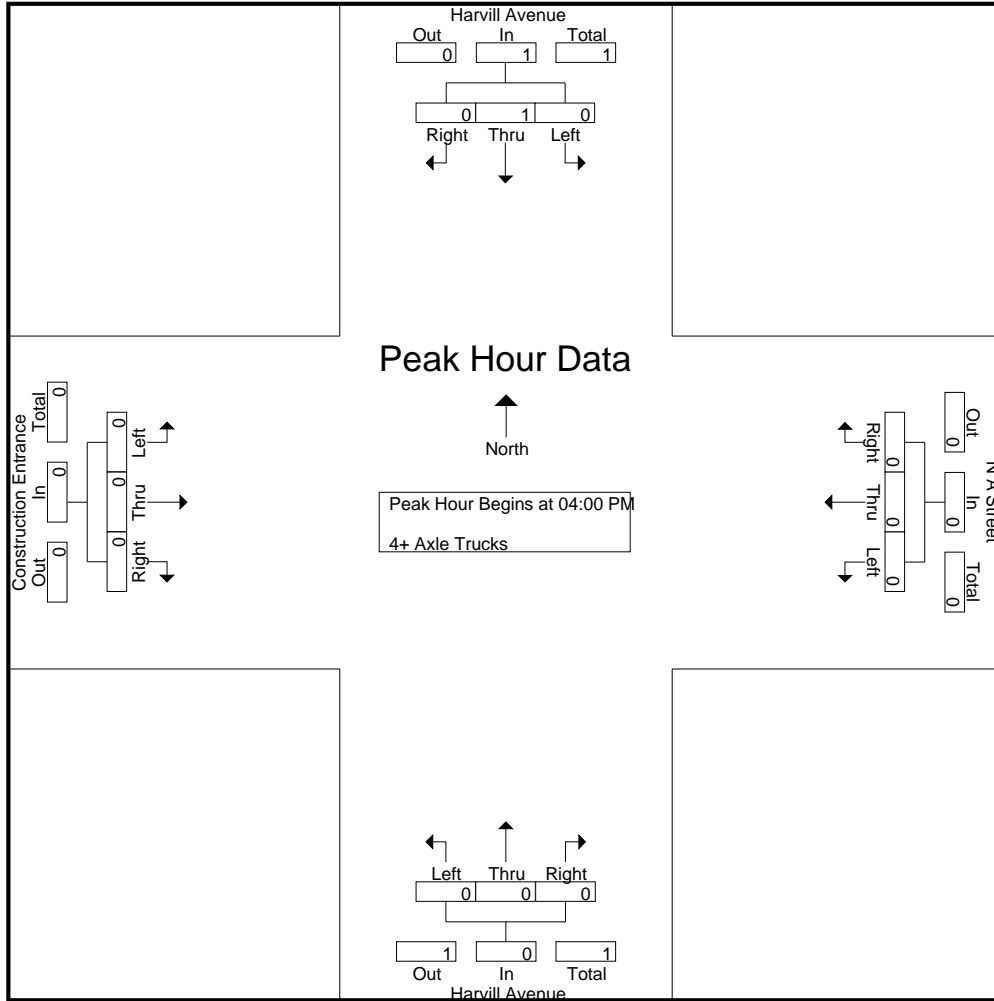
Groups Printed- 4+ Axle Trucks

Start Time	Harvill Avenue Southbound				N A Street Westbound				Harvill Avenue Northbound				Construction Entrance Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:00 PM	1	1	0	2	0	0	0	0	0	2	1	3	0	0	0	0	5
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	1	0	2	0	0	1	1	0	2	1	3	0	0	0	0	6
Grand Total	1	2	0	3	0	0	1	1	0	2	1	3	0	0	0	0	7
Apprch %	33.3	66.7	0		0	0	100		0	66.7	33.3		0	0	0		
Total %	14.3	28.6	0	42.9	0	0	14.3	14.3	0	28.6	14.3	42.9	0	0	0	0	

Start Time	Harvill Avenue Southbound				N A Street Westbound				Harvill Avenue Northbound				Construction Entrance Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
% App. Total	0	100	0		0	0	0		0	0	0		0	0	0		
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250

County of Riverside
 N/S: Harvill Avenue
 E/W: N A Street / Construction Entrance
 Weather: Clear

File Name : 09_CRVHAAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



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

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	100	0		0	0	0		0	0	0		0	0	0	
PHF	.000	.250	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

Location: County of Riverside
 N/S: Harvill Avenue
 E/W: N A Street



Date: 2/12/2019
 Day: Tuesday

PEDESTRIANS

	North Leg Harvill Avenue	East Leg N A Street	South Leg Harvill Avenue	West Leg Construction Entrance	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg Harvill Avenue	East Leg N A Street	South Leg Harvill Avenue	West Leg Construction Entrance	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	1	0	0	1
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	1	0	0	1

Location: County of Riverside
 N/S: Harvill Avenue
 E/W: N A Street



Date: 2/12/2019
 Day: Tuesday

BICYCLES

	Southbound Harvill Avenue			Westbound N A Street			Northbound Harvill Avenue			Eastbound Construction Entrance			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	1	0	0	0	0	0	0	0	0	0	0	1

	Southbound Harvill Avenue			Westbound N A Street			Northbound Harvill Avenue			Eastbound Construction Entrance			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

File Name : 10_CRV215SCAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

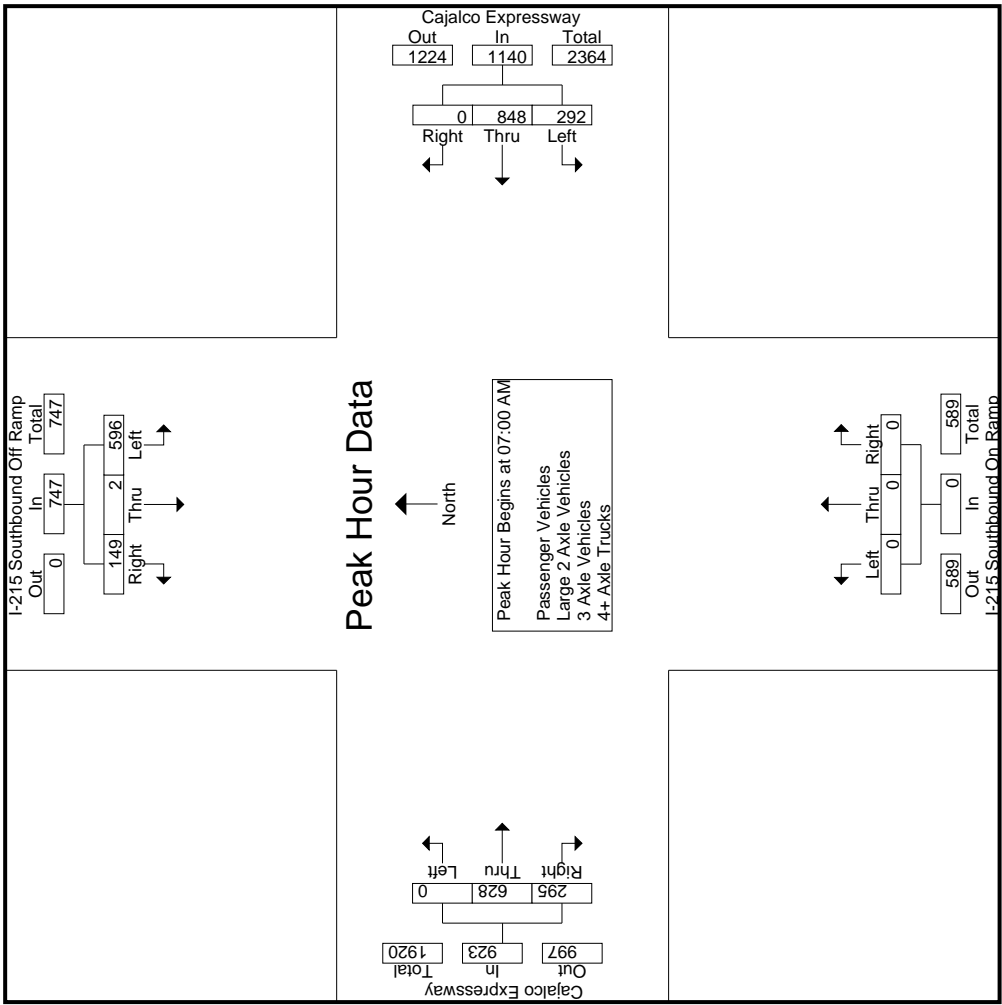
Start Time	I-215 Southbound Off Ramp						Cajalco Expressway Westbound						I-215 Southbound On Ramp						Cajalco Expressway Eastbound							
	Southbound			Southbound			Westbound			Westbound			Northbound			Northbound			Eastbound			Eastbound				
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Exclu. Total	Inclu. Total
07:00 AM	157	0	31	19	188	0	0	302	0	0	0	0	0	0	0	148	64	19	212	38	702	740				
07:15 AM	153	2	48	13	203	0	0	296	0	0	0	0	0	0	0	137	86	33	223	46	722	768				
07:30 AM	159	0	29	13	188	0	0	259	0	0	0	0	0	0	0	154	71	25	225	38	672	710				
07:45 AM	127	0	41	17	168	0	0	283	0	0	0	0	0	0	0	189	74	29	263	46	714	760				
Total	596	2	149	62	747	0	0	1140	0	0	0	0	0	0	0	628	295	106	923	168	2810	2978				
08:00 AM	106	0	31	19	137	0	0	282	0	0	0	0	0	0	0	153	70	20	223	39	642	681				
08:15 AM	120	0	37	21	157	0	0	274	0	0	0	0	0	0	0	106	70	25	176	46	607	653				
08:30 AM	119	0	50	33	169	0	0	209	0	0	0	0	0	0	0	108	61	22	169	55	547	602				
08:45 AM	104	1	40	23	145	0	0	195	0	0	0	0	0	0	0	124	56	22	180	45	520	565				
Total	449	1	158	96	608	0	0	960	0	0	0	0	0	0	0	491	257	89	748	185	2316	2501				
Grand Total	1045	3	307	158	1355	0	0	2100	0	0	0	0	0	0	0	1119	552	195	1671	353	5126	5479				
Approach %	77.1	0.2	22.7																							
Total %	20.4	0.1	6					41															6.4	93.6		
Passenger Vehicles	878	2	253					1938																		
% Large 2 Axle Vehicles	84	66.7	82.4	82.9	83.5	91.4	92.6	0	0	0	0	0	0	0	0	89.4	90.4	91.3	89.9	0	0	0	0	0	89	
% 3 Axle Vehicles	40	1	16					95																		
% 4+ Axle Trucks	3.8	33.3	5.2	5.7	4.4	4.8	4.4	0	4.5	0	0	0	0	0	0	4.1	3.8	4.1	4	0	0	0	0	0	236	
3 Axle Vehicles	36	0	6					11																	4.3	
4+ Axle Trucks	3.4	0	2	2.5	3	0.4	0.6	0	0.5	0	0	0	0	0	0	1.8	1.3	1	1.6	0	0	0	0	0	86	
% 4+ Axle Trucks	91	0	32					56																	1.6	
% 4+ Axle Trucks	8.7	0	10.4	8.9	9.1	3.4	2.4	0	2.7	0	0	0	0	0	0	4.7	4.5	3.6	4.6	0	0	0	0	0	278	
% 4+ Axle Trucks																									5.1	

Start Time	I-215 Southbound Off Ramp						Cajalco Expressway Westbound						I-215 Southbound On Ramp						Cajalco Expressway Eastbound							
	Southbound			Southbound			Westbound			Westbound			Northbound			Northbound			Eastbound			Eastbound				
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Exclu. Total	Inclu. Total
07:00 AM	157	0	31	19	188	0	0	302	0	0	0	0	0	0	0	148	64	19	212	38	702	740				
07:15 AM	153	2	48	13	203	0	0	296	0	0	0	0	0	0	0	137	86	33	223	46	722	768				
07:30 AM	159	0	29	13	188	0	0	259	0	0	0	0	0	0	0	154	71	25	225	38	672	710				
07:45 AM	127	0	41	17	168	0	0	283	0	0	0	0	0	0	0	189	74	29	263	46	714	760				
Total	596	2	149	62	747	0	0	1140	0	0	0	0	0	0	0	628	295	106	923	168	2810	2978				
08:00 AM	106	0	31	19	137	0	0	282	0	0	0	0	0	0	0	153	70	20	223	39	642	681				
08:15 AM	120	0	37	21	157	0	0	274	0	0	0	0	0	0	0	106	70	25	176	46	607	653				
08:30 AM	119	0	50	33	169	0	0	209	0	0	0	0	0	0	0	108	61	22	169	55	547	602				
08:45 AM	104	1	40	23	145	0	0	195	0	0	0	0	0	0	0	124	56	22	180	45	520	565				
Total	449	1	158	96	608	0	0	960	0	0	0	0	0	0	0	491	257	89	748	185	2316	2501				
Grand Total	1045	3	307	158	1355	0	0	2100	0	0	0	0	0	0	0	1119	552	195	1671	353	5126	5479				
Approach %	77.1	0.2	22.7																							
Total %	20.4	0.1	6					41															6.4	93.6		
Passenger Vehicles	878	2	253					1938																		
% Large 2 Axle Vehicles	84	66.7	82.4	82.9	83.5	91.4	92.6	0	0	0	0	0	0	0	0	89.4	90.4	91.3	89.9	0	0	0	0	0	89	
% 3 Axle Vehicles	40	1	16					95																		
% 4+ Axle Trucks	3.8	33.3	5.2	5.7	4.4	4.8	4.4	0	4.5	0	0	0	0	0	0	4.1	3.8	4.1	4	0	0	0	0	0	236	
3 Axle Vehicles	36	0	6					11																	4.3	
4+ Axle Trucks	3.4	0	2	2.5	3	0.4	0.6	0	0.5	0	0	0	0	0	0	1.8	1.3	1	1.6	0	0	0	0	0	86	
% 4+ Axle Trucks	91	0	32					56																	1.6	
% 4+ Axle Trucks	8.7	0	10.4	8.9	9.1	3.4	2.4	0	2.7	0	0	0	0	0	0	4.7	4.5	3.6	4.6	0	0	0	0	0	278	
% 4+ Axle Trucks																									5.1	

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 10_CRV215SCAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Counts Unlimited
 PO Box 1178
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 951-268-6268

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 10_CRV215SCAAM
 Site Code : 05119093
 Start Date : 2/12/2019
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Start Time	I-215 Southbound Off Ramp Southbound			Cajalco Expressway Westbound			I-215 Southbound On Ramp Northbound			Cajalco Expressway Eastbound			App. Total	Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1	Peak Hour for Each Approach Begins at:													
	07:00 AM													
+0 mins.	157	0	31	71	231	0	302	0	0	0	0	137	86	223
+15 mins.	153	2	48	78	218	0	296	0	0	0	0	154	71	225
+30 mins.	159	0	29	68	191	0	259	0	0	0	0	189	74	263
+45 mins.	127	0	41	75	208	0	283	0	0	0	0	153	70	223
Total Volume	596	2	149	292	848	0	1140	0	0	0	0	633	301	934
% App. Total	79.8	0.3	19.9	25.6	74.4	0	944	0	0	0	0	67.8	32.2	888
PHF	.937	.250	.776	.936	.918	.000	.944	.000	.000	.000	.000	.837	.875	.888

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County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 10_CRV215SCAAM
 Site Code : 05119093
 Start Date : 2/12/2019
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Groups Printed- Passenger Vehicles

Start Time	I-215 Southbound Off Ramp Southbound					Cajalco Expressway Westbound					I-215 Southbound On Ramp Northbound					Cajalco Expressway Eastbound							
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	137	0	29	18	166	59	221	0	0	280	0	0	0	0	0	0	134	57	17	191	35	637	672
07:15 AM	134	1	41	12	176	69	207	0	0	276	0	0	0	0	0	0	124	78	31	202	43	654	697
07:30 AM	139	0	23	9	162	62	171	0	0	233	0	0	0	0	0	0	147	64	23	211	32	606	638
07:45 AM	106	0	30	13	136	71	191	0	0	262	0	0	0	0	0	0	174	67	26	241	39	639	678
Total	516	1	123	52	640	261	790	0	0	1051	0	0	0	0	0	0	579	266	97	845	149	2536	2685
08:00 AM	84	0	26	16	110	60	204	0	0	264	0	0	0	0	0	0	137	67	20	204	36	578	614
08:15 AM	101	0	29	16	130	59	193	0	0	252	0	0	0	0	0	0	91	63	22	154	38	536	574
08:30 AM	99	0	39	26	138	53	137	0	0	190	0	0	0	0	0	0	93	52	19	145	45	473	518
08:45 AM	78	1	36	21	115	45	136	0	0	181	0	0	0	0	0	0	100	51	20	151	41	447	488
Total	362	1	130	79	493	217	670	0	0	887	0	0	0	0	0	0	421	233	81	654	160	2034	2194
Grand Total	878	2	253	131	1133	478	1460	0	0	1938	0	0	0	0	0	0	1000	499	178	1499	309	4570	4879
Approach %	77.5	0.2	22.3			24.7	75.3	0		42.4	0	0	0			0	66.7	33.3		32.8	6.3	93.7	
Total %	19.2	0	5.5			10.5	31.9	0			0	0	0			0	21.9	10.9					

3.1-221

Start Time	I-215 Southbound Off Ramp Southbound					Cajalco Expressway Westbound					I-215 Southbound On Ramp Northbound					Cajalco Expressway Eastbound							
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	137	0	29	18	166	59	221	0	0	280	0	0	0	0	0	0	134	57	17	191	35	637	672
07:15 AM	134	1	41	12	176	69	207	0	0	276	0	0	0	0	0	0	124	78	31	202	43	654	697
07:30 AM	139	0	23	9	162	62	171	0	0	233	0	0	0	0	0	0	147	64	23	211	32	606	638
07:45 AM	106	0	30	13	136	71	191	0	0	262	0	0	0	0	0	0	174	67	26	241	39	639	678
Total	516	1	123	52	640	261	790	0	0	1051	0	0	0	0	0	0	579	266	97	845	149	2536	2685
08:00 AM	84	0	26	16	110	60	204	0	0	264	0	0	0	0	0	0	137	67	20	204	36	578	614
08:15 AM	101	0	29	16	130	59	193	0	0	252	0	0	0	0	0	0	91	63	22	154	38	536	574
08:30 AM	99	0	39	26	138	53	137	0	0	190	0	0	0	0	0	0	93	52	19	145	45	473	518
08:45 AM	78	1	36	21	115	45	136	0	0	181	0	0	0	0	0	0	100	51	20	151	41	447	488
Total	362	1	130	79	493	217	670	0	0	887	0	0	0	0	0	0	421	233	81	654	160	2034	2194
Grand Total	878	2	253	131	1133	478	1460	0	0	1938	0	0	0	0	0	0	1000	499	178	1499	309	4570	4879
Approach %	77.5	0.2	22.3			24.7	75.3	0		42.4	0	0	0			0	66.7	33.3		32.8	6.3	93.7	
Total %	19.2	0	5.5			10.5	31.9	0			0	0	0			0	21.9	10.9					

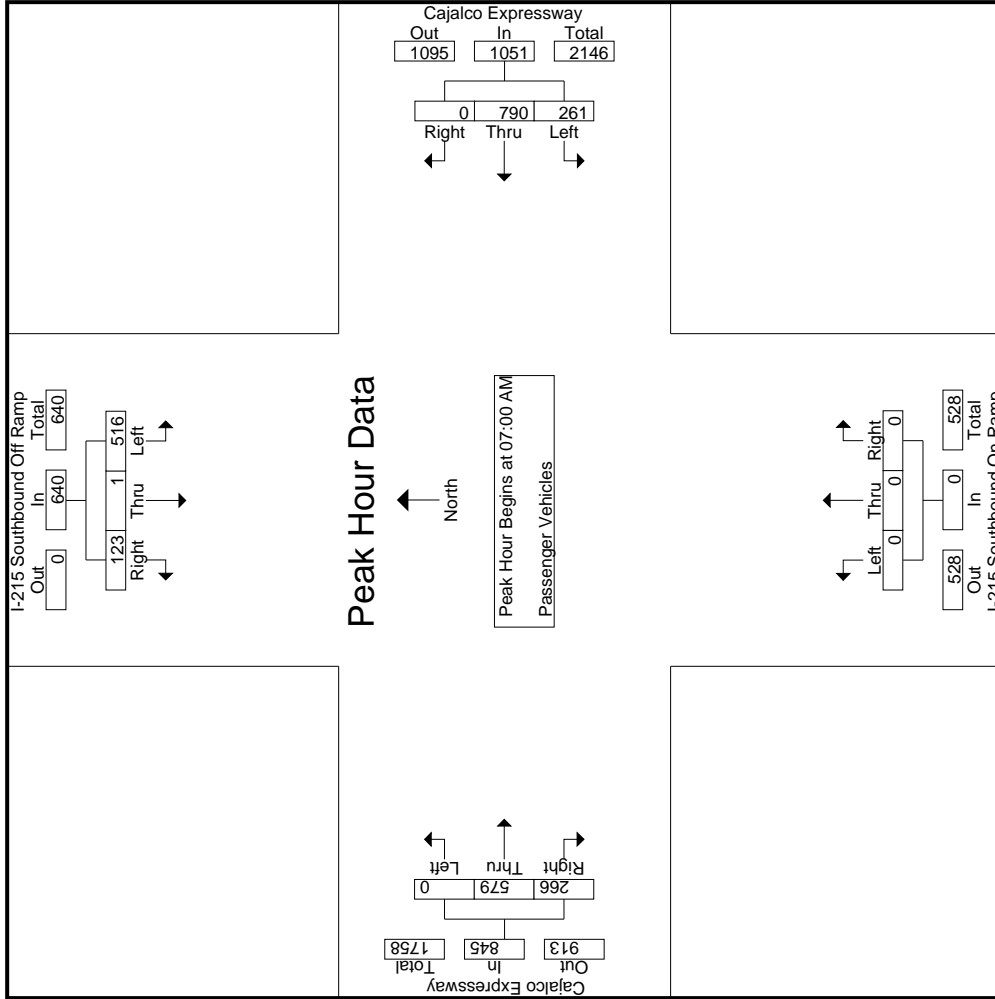
Start Time	I-215 Southbound Off Ramp Southbound					Cajalco Expressway Westbound					I-215 Southbound On Ramp Northbound					Cajalco Expressway Eastbound							
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	137	0	29	18	166	59	221	0	0	280	0	0	0	0	0	0	134	57	17	191	35	637	672
07:15 AM	134	1	41	12	176	69	207	0	0	276	0	0	0	0	0	0	124	78	31	202	43	654	697
07:30 AM	139	0	23	9	162	62	171	0	0	233	0	0	0	0	0	0	147	64	23	211	32	606	638
07:45 AM	106	0	30	13	136	71	191	0	0	262	0	0	0	0	0	0	174	67	26	241	39	639	678
Total	516	1	123	52	640	261	790	0	0	1051	0	0	0	0	0	0	579	266	97	845	149	2536	2685
% App. Total	80.6	0.2	19.2			24.8	75.2	0			0	0	0			0	68.5	31.5					
PHF	.928	.250	.750		.909	.919	.894	.000		.938	.000	.000	.000		.000	.000	.832	.853		.877		.969	

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 07:00 AM

Counts Unlimited
 PO Box 1178
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County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 10_CRV215SCAAM
 Site Code : 05119093
 Start Date : 2/12/2019
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Counts Unlimited
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 951-268-6268

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 10_CRV215SCAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

Start Time	I-215 Southbound Off Ramp Southbound				Cajalco Expressway Westbound				I-215 Southbound On Ramp Northbound				Cajalco Expressway Eastbound			
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																
Peak Hour for Each Approach Begins at:																
+0 mins.	137	0	29	166	59	221	0	280	0	0	0	0	0	134	57	191
+15 mins.	134	1	41	176	69	207	0	276	0	0	0	0	0	124	78	202
+30 mins.	139	0	23	162	62	171	0	233	0	0	0	0	0	147	64	211
+45 mins.	106	0	30	136	71	191	0	262	0	0	0	0	0	174	67	241
Total Volume	516	1	123	640	261	790	0	1051	0	0	0	0	0	579	266	845
% App. Total	80.6	0.2	19.2		24.8	75.2	0		0	0	0	0	0	68.5	31.5	
PHF	.928	.250	.750	.909	.919	.894	.000	.938	.000	.000	.000	.000	.000	.832	.853	.877

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 10_CRV215SCAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

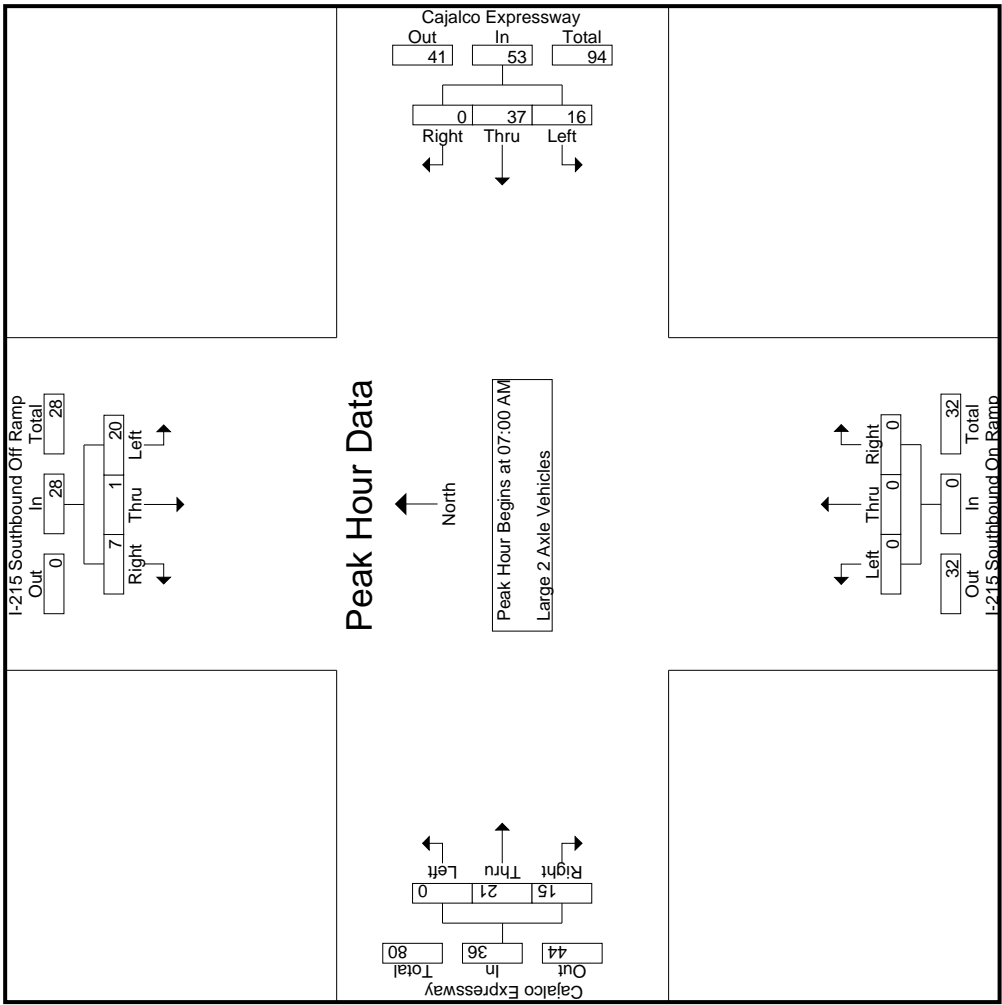
Start Time	I-215 Southbound Off Ramp Southbound				Cajalco Expressway Westbound				I-215 Southbound On Ramp Northbound				Cajalco Expressway Eastbound				Inclu. Total	Int. Total	
	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR			App. Total
07:00 AM	5	0	0	0	5	5	0	0	10	0	0	0	0	6	5	1	11	1	26
07:15 AM	6	1	3	0	10	8	0	0	13	0	0	0	0	5	4	2	9	2	32
07:30 AM	6	0	3	1	9	2	11	0	13	0	0	0	0	4	2	1	6	2	28
07:45 AM	3	0	1	1	4	4	13	0	17	0	0	0	0	6	4	2	10	3	31
Total	20	1	7	2	28	16	37	0	53	0	0	0	0	21	15	6	36	8	117
08:00 AM	5	0	2	1	7	2	9	0	11	0	0	0	0	9	1	0	10	1	28
08:15 AM	4	0	5	4	9	3	14	0	17	0	0	0	0	1	0	0	1	4	27
08:30 AM	6	0	2	2	8	3	6	0	9	0	0	0	0	6	3	2	9	4	26
08:45 AM	5	0	0	0	5	1	4	0	5	0	0	0	0	9	2	0	11	0	21
Total	20	0	9	7	29	9	33	0	42	0	0	0	0	25	6	2	31	9	102
Grand Total	40	1	16	9	57	25	70	0	95	0	0	0	0	46	21	8	67	17	219
Approach %	70.2	1.8	28.1		26.3	73.7	0		43.4	0	0	0	0	68.7	31.3		30.6		
Total %	18.3	0.5	7.3		11.4	32	0			0	0	0	0	21	9.6			7.2	92.8

Start Time	I-215 Southbound Off Ramp Southbound				Cajalco Expressway Westbound				I-215 Southbound On Ramp Northbound				Cajalco Expressway Eastbound				Inclu. Total	Int. Total	
	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR			App. Total
07:00 AM	5	0	0	0	5	5	0	0	10	0	0	0	0	6	5	1	11	1	26
07:15 AM	6	1	3	0	10	8	0	0	13	0	0	0	0	5	4	2	9	2	32
07:30 AM	6	0	3	1	9	2	11	0	13	0	0	0	0	4	2	1	6	2	28
07:45 AM	3	0	1	1	4	4	13	0	17	0	0	0	0	6	4	2	10	3	31
Total	20	1	7	2	28	16	37	0	53	0	0	0	0	21	15	6	36	8	117
08:00 AM	5	0	2	1	7	2	9	0	11	0	0	0	0	9	1	0	10	1	28
08:15 AM	4	0	5	4	9	3	14	0	17	0	0	0	0	1	0	0	1	4	27
08:30 AM	6	0	2	2	8	3	6	0	9	0	0	0	0	6	3	2	9	4	26
08:45 AM	5	0	0	0	5	1	4	0	5	0	0	0	0	9	2	0	11	0	21
Total	20	0	9	7	29	9	33	0	42	0	0	0	0	25	6	2	31	9	102
Grand Total	40	1	16	9	57	25	70	0	95	0	0	0	0	46	21	8	67	17	219
Approach %	70.2	1.8	28.1		26.3	73.7	0		43.4	0	0	0	0	68.7	31.3		30.6		
Total %	18.3	0.5	7.3		11.4	32	0			0	0	0	0	21	9.6			7.2	92.8

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 10_CRV215SCAAM
 Site Code : 05119093
 Start Date : 2/12/2019
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County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 10_CRV215SCAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

Start Time	I-215 Southbound Off Ramp Southbound			Cajalco Expressway Westbound			I-215 Southbound On Ramp Northbound			Cajalco Expressway Eastbound			App. Total	Int. Total	
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right			
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1															
Peak Hour for Each Approach Begins at:															
+0 mins.	5	0	0	5	5	0	0	0	0	0	0	0	0	0	0
+15 mins.	6	1	3	5	8	0	0	0	0	0	0	0	0	0	0
+30 mins.	6	0	3	2	11	0	0	0	0	0	0	0	0	0	0
+45 mins.	3	0	1	4	13	0	0	0	0	0	0	0	0	0	0
Total Volume	20	1	7	16	37	0	0	0	0	0	0	0	0	21	15
% App. Total	71.4	3.6	25	30.2	69.8	0	0	0	0	0	0	0	0	58.3	41.7
PHF	.833	.250	.583	.800	.712	.000	.000	.000	.000	.000	.875	.750	.000	.875	.818

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 10_CRV215SCAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

Groups Printed- 3 Axle Vehicles

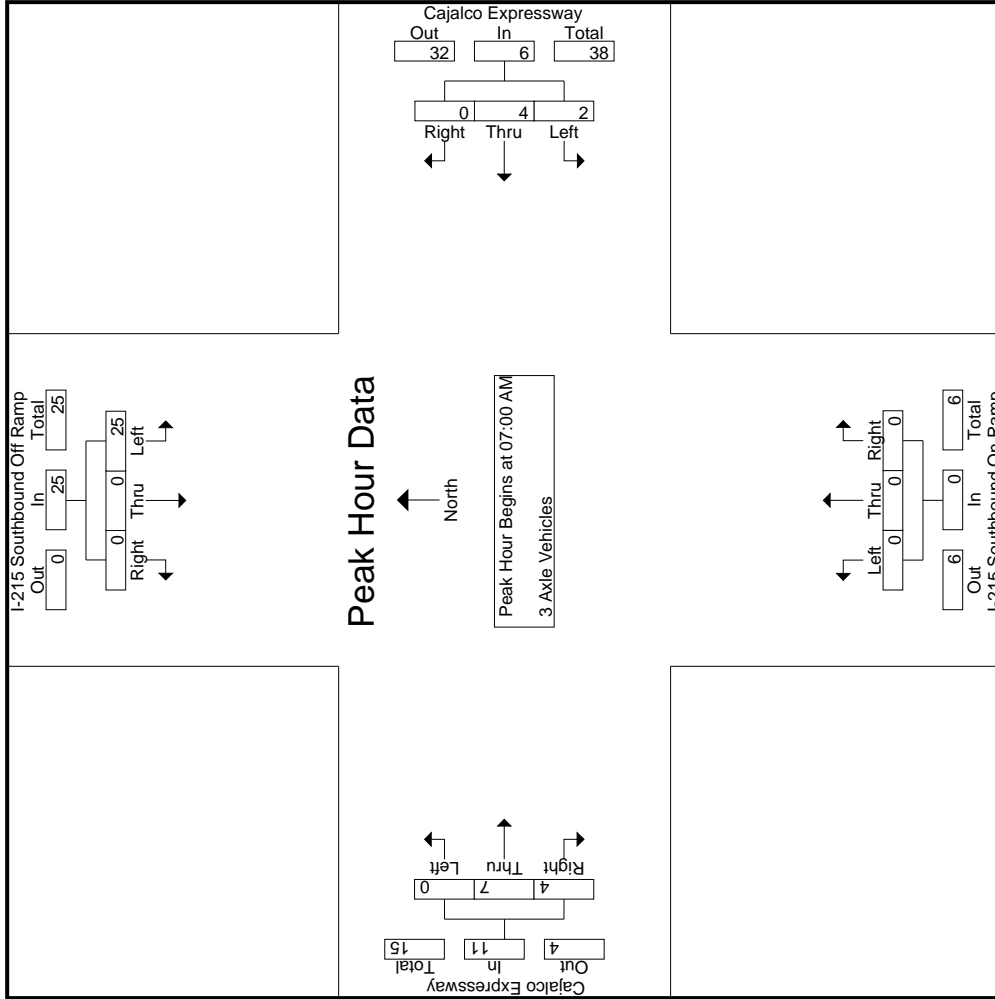
Start Time	I-215 Southbound Off Ramp Southbound				Cajalco Expressway Westbound				I-215 Southbound On Ramp Northbound				Cajalco Expressway Eastbound				Inclu. Total	Int. Total
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total		
07:00 AM	5	0	0	0	5	1	1	0	0	2	0	0	0	0	3	1	10	
07:15 AM	5	0	0	0	5	1	0	0	0	1	0	0	0	0	2	0	8	
07:30 AM	5	0	0	0	5	0	3	0	0	3	0	0	0	0	2	0	10	
07:45 AM	10	0	0	0	10	0	0	0	0	0	0	0	0	4	0	14		
Total	25	0	0	0	25	2	4	0	0	6	0	0	0	11	1	42		
08:00 AM	6	0	1	1	7	0	1	0	0	1	0	0	0	4	1	12		
08:15 AM	1	0	1	0	2	0	0	0	0	0	0	0	0	4	0	6		
08:30 AM	2	0	3	3	5	0	1	0	0	1	0	0	1	2	3	8		
08:45 AM	2	0	1	0	3	0	3	0	0	3	0	0	2	1	1	12		
Total	11	0	6	4	17	0	5	0	0	5	0	0	3	16	5	38		
Grand Total	36	0	6	4	42	2	9	0	0	11	0	0	0	27	6	86		
Approch %	85.7	0	14.3		18.2	81.8	0			13.8	0	0	0	33.8	7	93		
Total %	45	0	7.5		2.5	11.2	0			0	0	0	0	25	8.8			

Start Time	I-215 Southbound Off Ramp Southbound				Cajalco Expressway Westbound				I-215 Southbound On Ramp Northbound				Cajalco Expressway Eastbound			
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total
07:00 AM	5	0	0	0	5	1	1	0	0	2	0	0	0	0	3	1
07:15 AM	5	0	0	0	5	1	0	0	0	1	0	0	0	2	0	8
07:30 AM	5	0	0	0	5	0	3	0	0	3	0	0	0	2	0	10
07:45 AM	10	0	0	0	10	0	0	0	0	0	0	0	0	4	0	14
Total Volume	25	0	0	0	25	2	4	0	0	6	0	0	0	11	1	42
% App. Total	100	0	0	0	100	33.3	66.7	0	0	100	0	0	0	63.6	36.4	100
PHF	.625	.000	.000	.000	.625	.500	.333	.000	.000	.500	.000	.000	.000	.583	.500	.750

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 10_CRV215SCAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 10_CRV215SCAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

Start Time	I-215 Southbound Off Ramp Southbound			Cajalco Expressway Westbound			I-215 Southbound On Ramp Northbound			Cajalco Expressway Eastbound			App. Total	Int. Total	
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right			
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1															
Peak Hour for Each Approach Begins at:															
+0 mins.	5	0	0	1	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	5	0	0	1	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	5	0	0	0	3	0	0	0	0	0	0	0	0	0	0
+45 mins.	10	0	0	0	0	0	0	0	0	0	0	0	0	3	1
Total Volume	25	0	0	2	4	0	0	0	0	0	0	0	0	7	4
% App. Total	100	0	0	33.3	66.7	0	0	0	0	0	0	0	0	63.6	36.4
PHF	.625	.000	.000	.500	.333	.000	.000	.000	.000	.000	.583	.500	.000	.688	.688

Counts Unlimited
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County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 10_CRV215SCAAM
 Site Code : 05119093
 Start Date : 2/12/2019
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Groups Printed- 4+ Axle Trucks

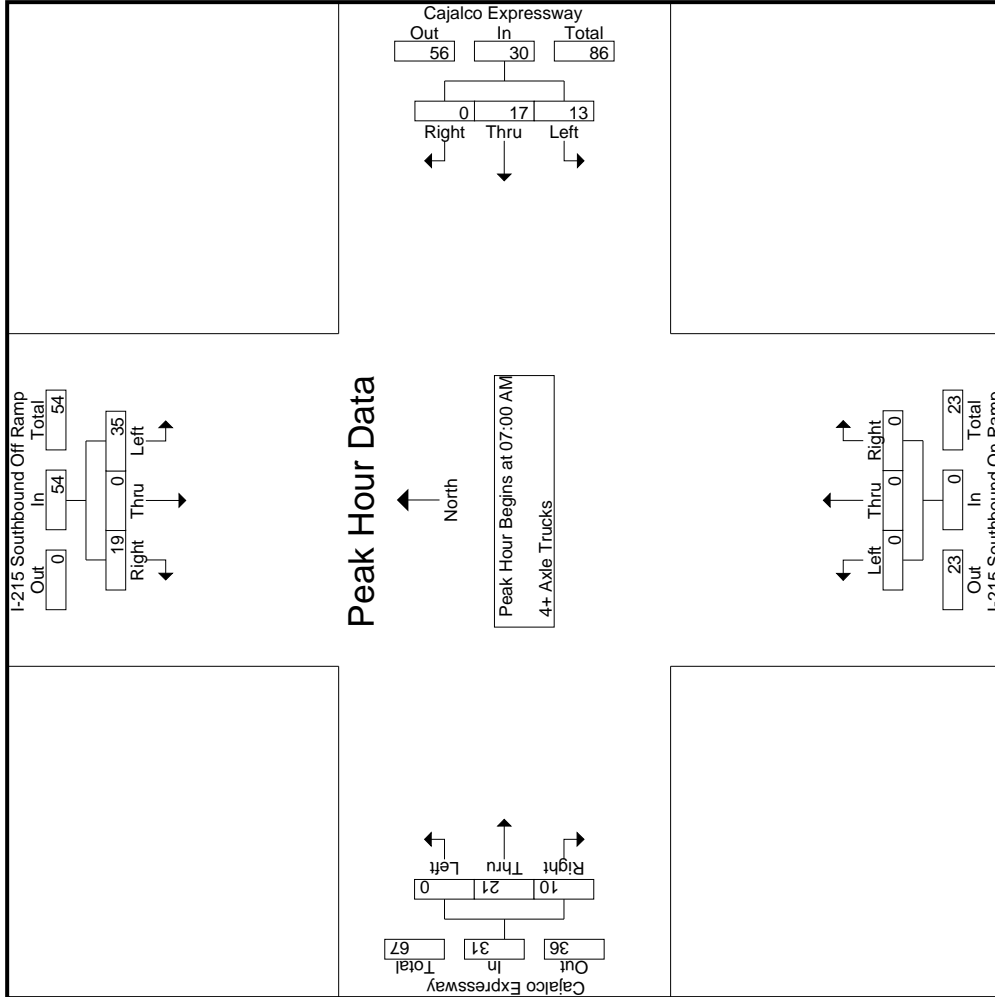
Start Time	I-215 Southbound Off Ramp Southbound					Cajalco Expressway Westbound					I-215 Southbound On Ramp Northbound					Cajalco Expressway Eastbound							
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	10	0	2	1	12	6	4	0	0	10	0	0	0	0	0	0	6	1	0	7	1	29	30
07:15 AM	8	0	4	1	12	3	3	0	0	6	0	0	0	0	0	0	6	4	0	10	1	28	29
07:30 AM	9	0	3	3	12	4	6	0	0	10	0	0	0	0	0	0	3	3	1	6	4	28	32
07:45 AM	8	0	10	3	18	0	4	0	0	4	0	0	0	0	0	0	6	2	1	8	4	30	34
Total	35	0	19	8	54	13	17	0	0	30	0	0	0	0	0	0	21	10	2	31	10	115	125
08:00 AM	11	0	2	1	13	2	4	0	0	6	0	0	0	0	0	0	3	2	0	5	1	24	25
08:15 AM	14	0	2	1	16	1	4	0	0	5	0	0	0	0	0	0	10	7	3	17	4	38	42
08:30 AM	12	0	6	2	18	1	8	0	0	9	0	0	0	0	0	0	8	5	1	13	3	40	43
08:45 AM	19	0	3	2	22	1	5	0	0	6	0	0	0	0	0	0	11	1	1	12	3	40	43
Total	56	0	13	6	69	5	21	0	0	26	0	0	0	0	0	0	32	15	5	47	11	142	153
Grand Total	91	0	32	14	123	18	38	0	0	56	0	0	0	0	0	0	53	25	7	78	21	257	278
Approach %	74	0	26		32.1	67.9	0			21.8	0	0	0			67.9	32.1		30.4	7.6	92.4		
Total %	35.4	0	12.5		47.9	7	14.8	0			0	0	0			20.6	9.7						

Start Time	I-215 Southbound Off Ramp Southbound					Cajalco Expressway Westbound					I-215 Southbound On Ramp Northbound					Cajalco Expressway Eastbound							
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	10	0	2	1	12	6	4	0	0	10	0	0	0	0	0	0	6	1	0	7	1	29	30
07:15 AM	8	0	4	1	12	3	3	0	0	6	0	0	0	0	0	0	6	4	0	10	1	28	29
07:30 AM	9	0	3	3	12	4	6	0	0	10	0	0	0	0	0	0	3	3	1	6	4	28	32
07:45 AM	8	0	10	3	18	0	4	0	0	4	0	0	0	0	0	0	6	2	1	8	4	30	34
Total	35	0	19	8	54	13	17	0	0	30	0	0	0	0	0	0	21	10	2	31	10	115	125
08:00 AM	11	0	2	1	13	2	4	0	0	6	0	0	0	0	0	0	3	2	0	5	1	24	25
08:15 AM	14	0	2	1	16	1	4	0	0	5	0	0	0	0	0	0	10	7	3	17	4	38	42
08:30 AM	12	0	6	2	18	1	8	0	0	9	0	0	0	0	0	0	8	5	1	13	3	40	43
08:45 AM	19	0	3	2	22	1	5	0	0	6	0	0	0	0	0	0	11	1	1	12	3	40	43
Total	56	0	13	6	69	5	21	0	0	26	0	0	0	0	0	0	32	15	5	47	11	142	153
Grand Total	91	0	32	14	123	18	38	0	0	56	0	0	0	0	0	0	53	25	7	78	21	257	278
Approach %	74	0	26		32.1	67.9	0			21.8	0	0	0			67.9	32.1		30.4	7.6	92.4		
Total %	35.4	0	12.5		47.9	7	14.8	0			0	0	0			20.6	9.7						

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 10_CRV215SCAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 10_CRV215SCAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

Start Time	I-215 Southbound Off Ramp Southbound			Cajalco Expressway Westbound			I-215 Southbound On Ramp Northbound			Cajalco Expressway Eastbound			App. Total	Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total			
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1															
Peak Hour for Each Approach Begins at:															
	07:00 AM														
+0 mins.	10	0	2	12	6	4	0	0	0	0	0	0	0	0	7
+15 mins.	8	0	4	12	3	3	0	0	0	0	0	0	0	6	10
+30 mins.	9	0	3	12	4	6	0	0	0	0	0	0	0	3	6
+45 mins.	8	0	10	18	0	4	0	0	0	0	0	0	0	6	8
Total Volume	35	0	19	54	13	17	0	0	0	0	0	0	0	21	31
% App. Total	64.8	0	35.2	43.3	56.7	56.7	0	0	0	0	0	0	0	67.7	32.3
PHF	.875	.000	.475	.750	.542	.708	.000	.000	.000	.000	.000	.000	.000	.875	.625
				.750	.000	.750	.000	.000	.000	.000	.000	.000	.000	.875	.775

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File Name : 10_CRV215SCAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	I-215 Southbound Off Ramp						Cajalco Expressway Westbound						I-215 Southbound On Ramp						Cajalco Expressway Eastbound																			
	Southbound			App. Total			Left		Thru		Right		RTOR		App. Total		Left		Thru		Right		RTOR		App. Total		Exclu. Total		Inclu. Total		Int. Total							
	Left	Thru	Right	RTOR	Thru	Right	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR				
04:00 PM	174	2	40	18	216	85	178	0	0	263	0	0	0	0	0	182	83	39	265	57	744	801	0	0	0	0	0	0	0	0	0	0	0	0	0			
04:15 PM	185	1	51	26	237	77	191	0	0	268	0	0	0	0	0	173	73	28	246	54	751	805	0	0	0	0	0	0	0	0	0	0	0	0	0			
04:30 PM	164	0	30	20	194	100	199	0	0	299	0	0	0	0	0	222	79	20	301	40	794	834	0	0	0	0	0	0	0	0	0	0	0	0	0			
04:45 PM	153	1	34	21	188	96	186	0	0	282	0	0	0	0	0	206	75	25	281	46	751	797	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Total	676	4	155	85	835	358	754	0	0	1112	0	0	0	0	0	783	310	112	1093	197	3040	3237	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
05:00 PM	198	0	33	16	231	95	188	0	0	283	0	0	0	0	0	199	93	32	292	48	806	854	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
05:15 PM	182	1	25	16	208	105	201	0	0	306	0	0	0	0	0	177	68	32	245	48	759	807	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:30 PM	191	2	32	18	225	97	170	0	0	267	0	0	0	0	0	217	87	21	304	39	796	835	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:45 PM	192	0	30	14	222	78	159	0	0	237	0	0	0	0	0	191	67	19	258	33	717	750	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total	763	3	120	64	886	375	718	0	0	1093	0	0	0	0	0	784	315	104	1099	168	3078	3246	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Grand Total	1439	7	275	149	1721	733	1472	0	0	2205	0	0	0	0	0	1567	625	216	2192	365	6118	6483	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Approach %	83.6	0.4	16			33.2	66.8	0			0	0	0	0	0	71.5	28.5			0	94.4		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total %	23.5	0.1	4.5			12	24.1	0		36	0	0	0	0	0	25.6	10.2			5.6	94.4		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Passenger Vehicles	93.8	85.7	90.2	89.9	92.9	97.4	94.1	0	0	95.2	0	0	0	0	0	94.7	97.9	98.6	95.9	0	94.8		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Passenger Vehicles	19	1	5			9	42	0		51	0	0	0	0	0	41	8		51	0	130		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Large 2 Axle Vehicles	1.3	14.3	1.8	2	1.5	1.2	2.9	0	0	2.3	0	0	0	0	0	2.6	1.3	0.9	2.1	0	2		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% Large 2 Axle Vehicles	8	0	3			5	10	0		15	0	0	0	0	0	5	3		9	0	38		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3 Axle Vehicles	0.6	0	1.1	2	0.7	0.7	0.7	0	0	0.7	0	0	0	0	0	0.3	0.5	0.5	0.4	0	0.6		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	62	0	19			5	35	0		40	0	0	0	0	0	37	2		39	0	169		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
4+ Axle Trucks	4.3	0	6.9	6	4.8	0.7	2.4	0	0	1.8	0	0	0	0	0	2.4	0.3	0	1.6	0	2.6		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
% 4+ Axle Trucks																																						

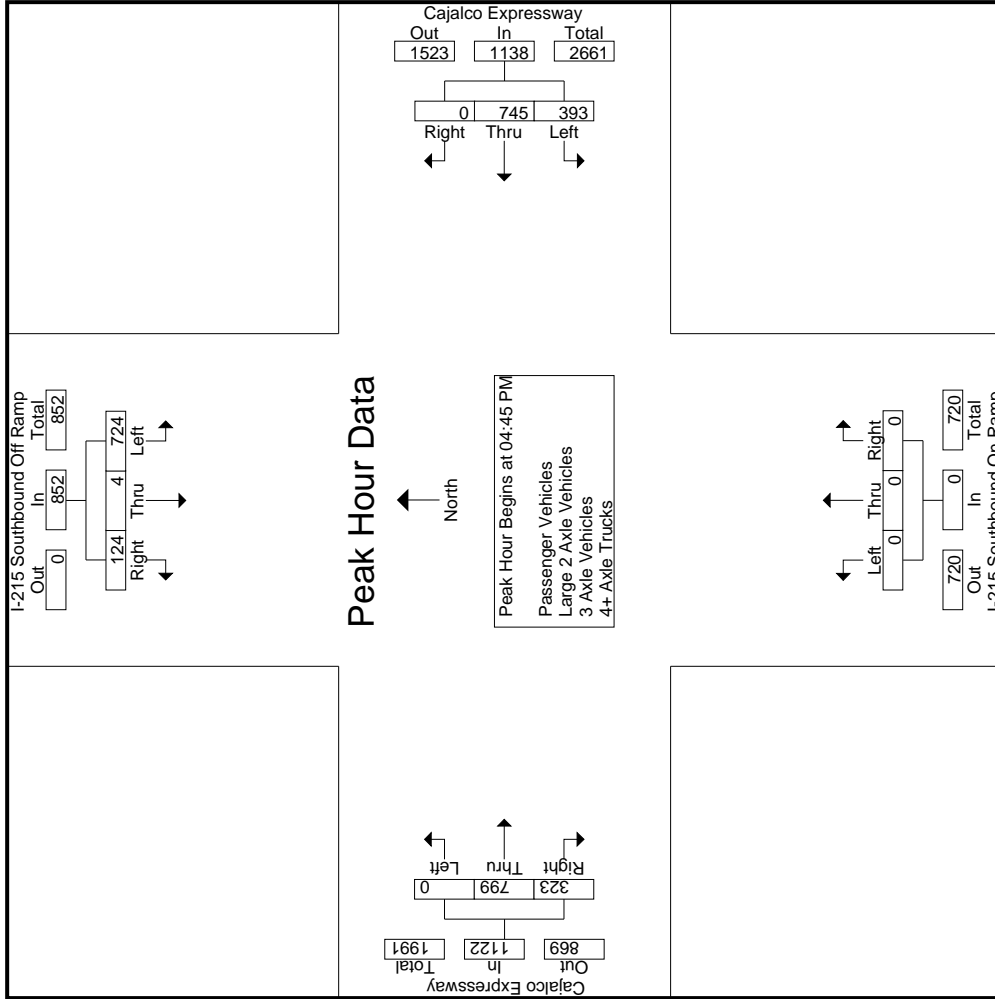
Start Time	I-215 Southbound Off Ramp						Cajalco Expressway Westbound						I-215 Southbound On Ramp						Cajalco Expressway Eastbound																			
	Southbound			App. Total			Left		Thru		Right		RTOR		App. Total		Left		Thru		Right		RTOR		App. Total		Exclu. Total		Inclu. Total		Int. Total							
	Left	Thru	Right	RTOR	Thru	Right	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR
04:45 PM	153	1	34			188	96	186	0	282	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	198	0	33			231	95	188	0	283	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	182	1	25			208	105	201	0	306	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	191	2	32			225	97	170	0	267	0	0	0	0	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 Volume	724	4	124			852	393	745	0	1138	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	85	0.5	14.6			92.2	34.5	65.5	0	930	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PHF	.914	.500	.912			.922	.936	.927	.000	.930	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	

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

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 10_CRV215SCAPM
 Site Code : 05119093
 Start Date : 2/12/2019
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Counts Unlimited
 PO Box 1178
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 951-268-6268

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 10_CRV215SCAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

Start Time	I-215 Southbound Off Ramp Southbound			Cajalco Expressway Westbound			I-215 Southbound On Ramp Northbound			Cajalco Expressway Eastbound			App. Total	Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1														
Peak Hour for Each Approach Begins at:														
+0 mins.	198	0	33	100	199	0	04:30 PM	04:00 PM	04:45 PM	0	206	75	0	281
+15 mins.	182	1	25	96	186	0	0	0	0	0	199	93	0	292
+30 mins.	191	2	32	95	188	0	0	0	0	0	177	68	0	245
+45 mins.	192	0	30	105	201	0	0	0	0	0	217	87	0	304
Total Volume	763	3	120	396	774	0	0	0	0	0	799	323	0	1122
% App. Total	86.1	0.3	13.5	33.8	66.2	0	0	0	0	0	71.2	28.8	0	.923
PHF	.963	.375	.909	.943	.963	.000	.000	.000	.000	.000	.921	.868	.000	.923

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

File Name : 10_CRV215SCAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

Groups Printed- Passenger Vehicles

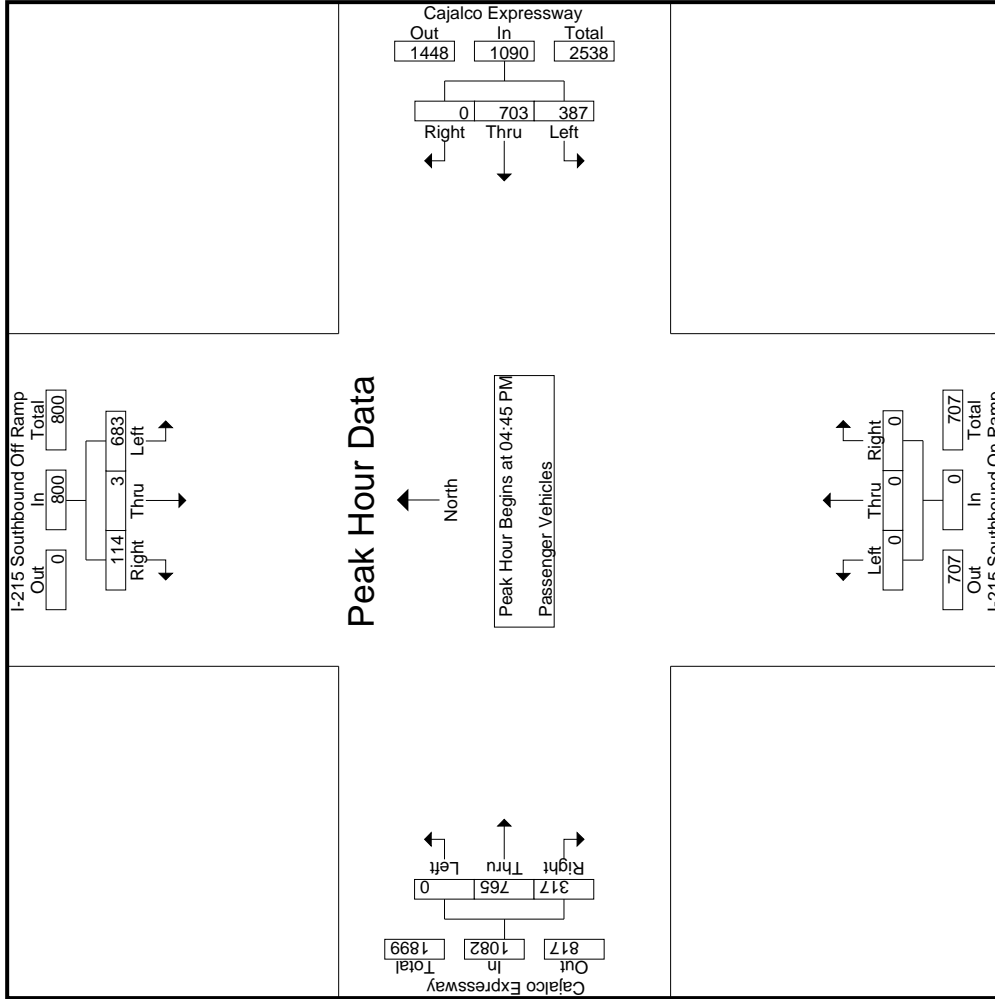
Start Time	I-215 Southbound Off Ramp Southbound					Cajalco Expressway Westbound					I-215 Southbound On Ramp Northbound					Cajalco Expressway Eastbound							
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	161	2	34	15	197	80	169	0	0	249	0	0	0	0	0	0	167	81	38	248	53	694	747
04:15 PM	170	1	46	23	217	72	173	0	0	245	0	0	0	0	0	0	163	70	27	233	50	695	745
04:30 PM	157	0	27	18	184	97	189	0	0	286	0	0	0	0	0	0	209	78	20	287	38	757	795
04:45 PM	141	1	32	21	174	95	175	0	0	270	0	0	0	0	0	0	193	73	25	266	46	710	756
Total	629	4	139	77	772	344	706	0	0	1050	0	0	0	0	0	0	732	302	110	1034	187	2856	3043
05:00 PM	187	0	31	15	218	93	177	0	0	270	0	0	0	0	0	0	194	93	32	287	47	775	822
05:15 PM	173	1	23	14	197	104	191	0	0	295	0	0	0	0	0	0	169	65	31	234	45	726	771
05:30 PM	182	1	28	15	211	95	160	0	0	295	0	0	0	0	0	0	209	86	21	295	36	761	797
05:45 PM	179	0	27	13	206	78	151	0	0	229	0	0	0	0	0	0	180	66	19	246	32	681	713
Total	721	2	109	57	832	370	679	0	0	1049	0	0	0	0	0	0	752	310	103	1062	160	2943	3103
Grand Total	1350	6	248	134	1604	714	1385	0	0	2099	0	0	0	0	0	0	1484	612	213	2096	347	5799	6146
Approach %	84.2	0.4	15.5			34	66	0		36.2	0	0	0			0	70.8	29.2		36.1			
Total %	23.3	0.1	4.3			12.3	23.9	0			0	0	0			0	25.6	10.6			5.6	94.4	

Start Time	I-215 Southbound Off Ramp Southbound					Cajalco Expressway Westbound					I-215 Southbound On Ramp Northbound					Cajalco Expressway Eastbound							
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:45 PM	141	1	32	21	174	95	175	0	0	270	0	0	0	0	0	0	193	73	25	266			
05:00 PM	187	0	31	15	218	93	177	0	0	270	0	0	0	0	0	0	194	93	32	287			
05:15 PM	173	1	23	14	197	104	191	0	0	295	0	0	0	0	0	0	169	65	31	234			
05:30 PM	182	1	28	15	211	95	160	0	0	295	0	0	0	0	0	0	209	86	21	295			
Total Volume	683	3	114	60	800	387	703	0	0	1090	0	0	0	0	0	0	765	317	103	1082			
% App. Total	85.4	0.4	14.2			35.5	64.5	0			0	0	0			0	70.7	29.3					
PHF	.913	.750	.891		.917	.930	.920	.000		.924	.000	.000	.000		.000	.000	.915	.852		.917			.959

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 10_CRV215SCAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 10_CRV215SCAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

Start Time	I-215 Southbound Off Ramp Southbound			Cajalco Expressway Westbound			I-215 Southbound On Ramp Northbound			Cajalco Expressway Eastbound				
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
				App. Total			App. Total			App. Total			App. Total	
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1														
Peak Hour for Each Approach Begins at:														
	04:45 PM			04:45 PM			04:45 PM			04:45 PM				
+0 mins.	141	1	32	174	95	175	0	270	0	0	0	193	73	266
+15 mins.	187	0	31	218	93	177	0	270	0	0	0	194	93	287
+30 mins.	173	1	23	197	104	191	0	295	0	0	0	169	65	234
+45 mins.	182	1	28	211	95	160	0	255	0	0	0	209	86	295
Total Volume	683	3	114	800	387	703	0	1090	0	0	0	765	317	1082
% App. Total	85.4	0.4	14.2	91.7	35.5	64.5	0	92.4	0	0	0	70.7	29.3	91.7
PHF	.913	.750	.891	.917	.930	.920	.000	.924	.000	.000	.000	.915	.852	.917

Groups Printed- Large 2 Axle Vehicles

Start Time	I-215 Southbound Off Ramp Southbound					Cajalco Expressway Westbound					I-215 Southbound On Ramp Northbound					Cajalco Expressway Eastbound							
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	1	0	0	0	1	3	2	0	0	5	0	0	0	0	0	0	7	0	0	0	0	0	13
04:15 PM	3	0	2	2	5	1	14	0	0	15	0	0	0	0	0	0	2	3	1	5	3	25	28
04:30 PM	1	0	1	0	2	2	3	0	0	5	0	0	0	0	0	0	9	0	8	0	0	16	16
04:45 PM	0	0	0	0	0	4	4	0	0	4	0	0	0	0	0	0	6	2	0	9	0	12	12
Total	5	0	3	2	8	6	23	0	0	29	0	0	0	0	0	0	24	5	1	29	3	66	69
05:00 PM	1	0	1	0	2	0	6	0	0	6	0	0	0	0	0	0	3	0	0	3	0	11	11
05:15 PM	1	0	0	0	1	1	1	0	0	2	0	0	0	0	0	0	6	2	1	8	1	11	12
05:30 PM	6	1	1	1	8	2	7	0	0	9	0	0	0	0	0	0	5	1	0	6	1	23	24
05:45 PM	6	0	0	0	6	0	5	0	0	5	0	0	0	0	0	0	3	0	0	3	0	14	14
Total	14	1	2	1	17	3	19	0	0	22	0	0	0	0	0	0	17	3	1	20	2	59	61
Grand Total	19	1	5	3	25	9	42	0	0	51	0	0	0	0	0	0	41	8	2	49	5	125	130
Approch %	76	4	20		17.6	82.4	0		0	40.8	0		0		0	83.7	16.3		39.2				
Total %	15.2	0.8	4		7.2	33.6	0		0	0	0		0		0	32.8	6.4		0		3.8	96.2	

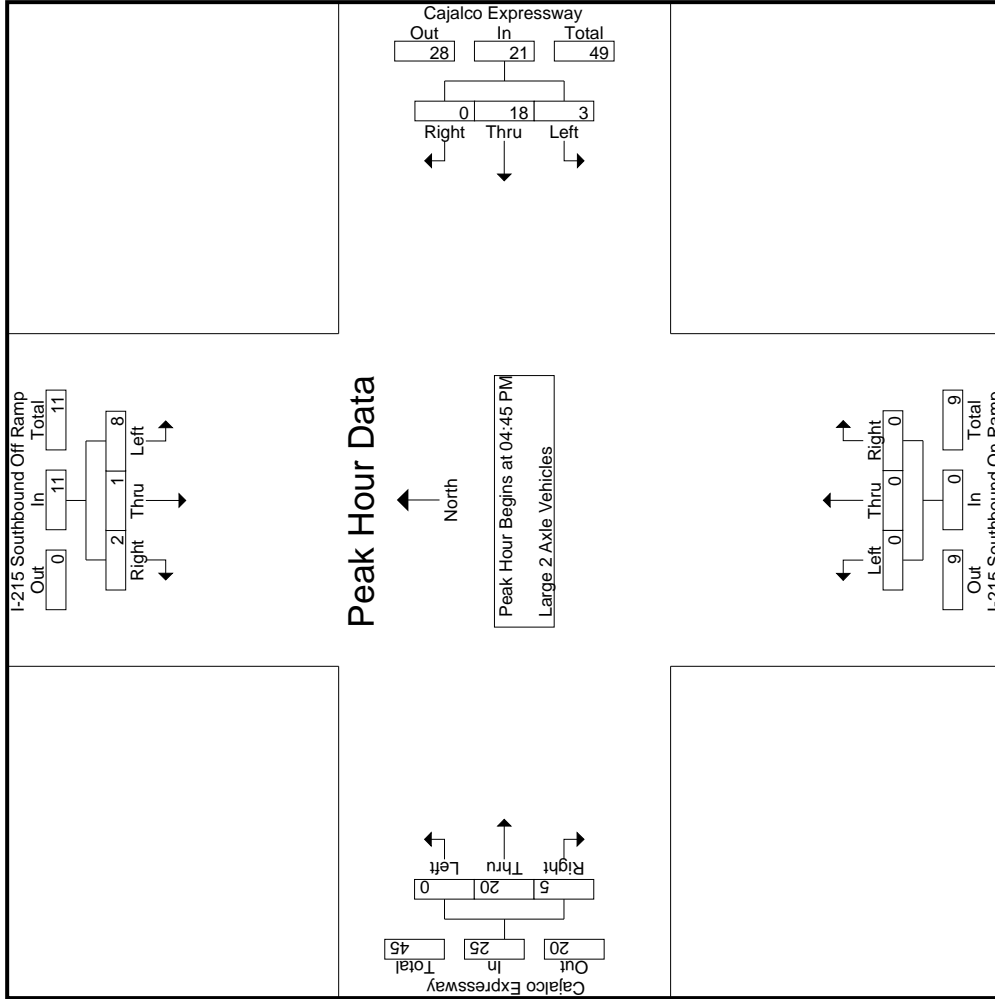
Start Time	I-215 Southbound Off Ramp Southbound					Cajalco Expressway Westbound					I-215 Southbound On Ramp Northbound					Cajalco Expressway Eastbound							
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:45 PM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	8	12
05:00 PM	1	0	1	1	2	0	6	0	0	6	0	0	0	0	0	0	3	0	0	3	0	3	11
05:15 PM	1	0	0	0	1	1	1	0	0	2	0	0	0	0	0	0	6	2	0	6	2	8	11
05:30 PM	6	1	1	1	8	2	7	0	0	9	0	0	0	0	0	0	5	1	0	6	1	23	24
05:45 PM	6	0	0	0	6	0	5	0	0	5	0	0	0	0	0	0	3	0	0	3	0	14	14
Total	8	1	2	1	11	3	18	0	0	21	0	0	0	0	0	0	20	5	0	25	5	57	57
% App. Total	72.7	9.1	18.2		14.3	85.7	0		0	0	0		0		0	80	20		0		0	100	
PHF	.333	.250	.500		.344	.375	.643		.583	.000	.000		.000		.000	.833	.625		.781			.620	

Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 04:45 PM

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 10_CRV215SCAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

File Name : 10_CRV215SCAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

Start Time	I-215 Southbound Off Ramp Southbound			Cajalco Expressway Westbound			I-215 Southbound On Ramp Northbound			Cajalco Expressway Eastbound			App. Total	Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1														
Peak Hour for Each Approach Begins at:														
+0 mins.	0	0	0	0	4	0	0	0	0	0	0	0	0	0
+15 mins.	1	0	1	0	6	0	0	0	0	0	0	0	0	0
+30 mins.	1	0	0	1	1	0	0	0	0	0	0	0	0	0
+45 mins.	6	1	1	2	7	0	0	0	0	0	0	0	0	0
Total Volume	8	1	2	3	18	0	0	0	0	0	0	0	0	0
% App. Total	72.7	9.1	18.2	14.3	85.7	0	0	0	0	0	0	0	0	0
PHF	.333	.250	.500	.375	.643	.000	.583	.000	.000	.000	.833	.625	.000	.781

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 10_CRV215SCAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

Groups Printed- 3 Axle Vehicles

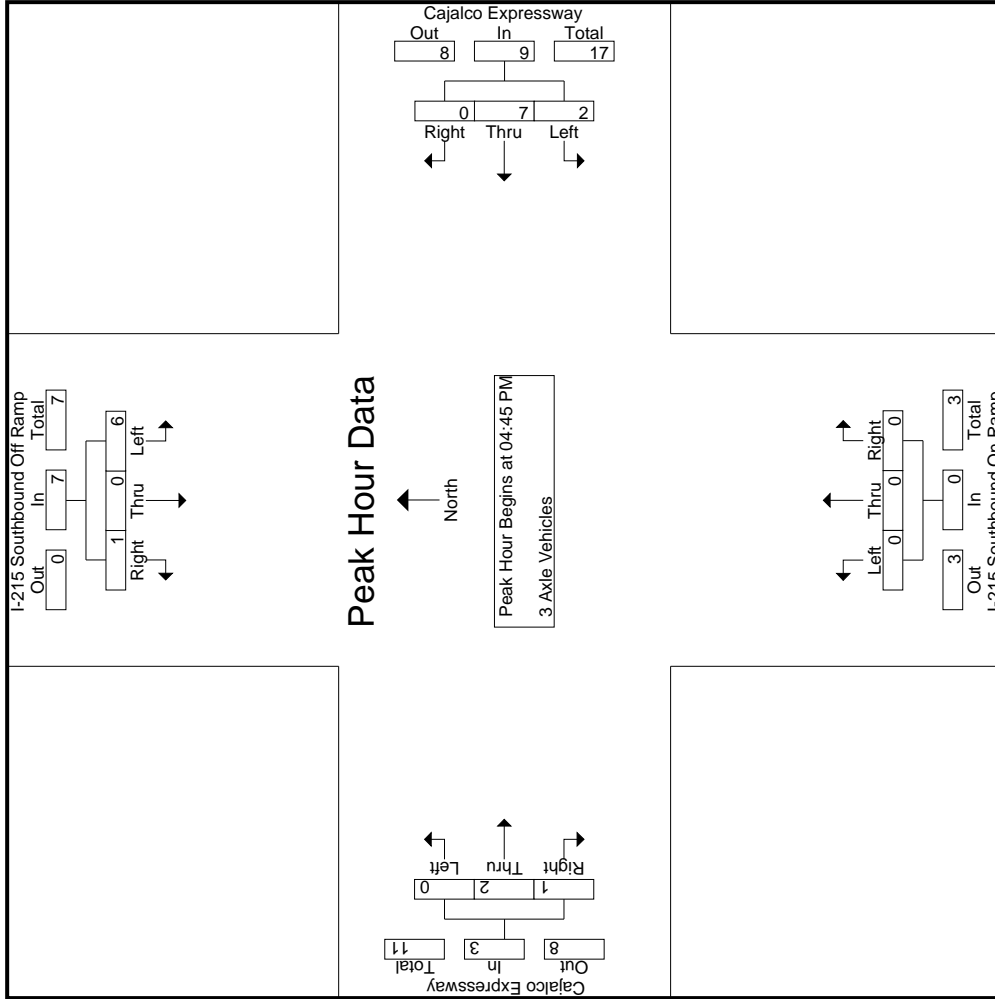
Start Time	I-215 Southbound Off Ramp Southbound				Cajalco Expressway Westbound				I-215 Southbound On Ramp Northbound				Cajalco Expressway Eastbound				Inclu. Total	Int. Total
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total		
04:00 PM	2	0	0	0	2	1	1	0	0	2	0	0	0	0	1	1	5	6
04:15 PM	0	0	0	0	0	2	1	0	0	3	0	0	0	0	1	0	4	4
04:30 PM	0	0	1	1	1	0	1	0	0	1	0	0	0	0	1	0	4	4
04:45 PM	4	0	0	0	4	1	0	0	0	1	0	0	0	0	1	0	6	6
Total	6	0	1	1	7	4	3	0	0	7	0	0	0	1	4	2	18	20
05:00 PM	0	0	1	1	1	1	2	0	0	3	0	0	0	0	0	1	4	5
05:15 PM	2	0	0	0	2	0	4	0	0	4	0	0	0	1	0	0	7	7
05:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	2	2
05:45 PM	0	0	1	1	1	0	0	0	0	0	0	0	0	1	0	1	3	4
Total	2	0	2	2	4	1	7	0	0	8	0	0	0	2	2	2	16	18
Grand Total	8	0	3	3	11	5	10	0	0	15	0	0	0	5	3	4	34	38
Approch %	72.7	0	27.3		33.3	66.7	0			44.1	0	0	0	62.5	37.5	23.5	10.5	89.5
Total %	23.5	0	8.8		32.4	14.7	29.4	0		44.1	0	0	0	14.7	8.8	23.5	10.5	89.5

Start Time	I-215 Southbound Off Ramp Southbound				Cajalco Expressway Westbound				I-215 Southbound On Ramp Northbound				Cajalco Expressway Eastbound					
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Int. Total	
04:45 PM	4	0	0	0	4	1	0	0	0	1	0	0	0	0	0	0	1	6
05:00 PM	0	0	1	1	1	1	2	0	0	3	0	0	0	0	0	0	0	4
05:15 PM	2	0	0	0	2	0	4	0	0	4	0	0	0	0	0	1	1	7
05:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	2
Total Volume	6	0	1	1	7	2	7	0	0	9	0	0	0	0	2	1	3	19
% App. Total	85.7	0	14.3		22.2	77.8	0			43.8	0	0	0	66.7	33.3	33.3	10.5	89.5
PHF	.375	.000	.250		.438	.500	.438	.000	.563	.000	.000	.000	.000	.500	.250	.750	.679	

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 10_CRV215SCAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

File Name : 10_CRV215SCAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

Start Time	I-215 Southbound Off Ramp Southbound			Cajalco Expressway Westbound			I-215 Southbound On Ramp Northbound			Cajalco Expressway Eastbound			App. Total	Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total			
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1															
Peak Hour for Each Approach Begins at:															
+0 mins.	04:45 PM			04:45 PM			04:45 PM			04:45 PM					
	4	0	0	4	1	0	0	0	0	0	0	0	1	0	1
+15 mins.	0	0	1	1	1	2	0	0	0	0	0	0	0	0	0
+30 mins.	2	0	0	2	0	4	0	0	0	0	0	0	0	0	1
+45 mins.	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
Total Volume	6	0	1	7	2	7	0	0	0	0	0	0	2	1	3
% App. Total	85.7	0	14.3	77.8	22.2	77.8	0	0	0	0	0	0	66.7	33.3	0
PHF	.375	.000	.250	.438	.500	.438	.000	.563	.000	.000	.000	.000	.500	.250	.750

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 10_CRV215SCAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

Groups Printed- 4+ Axle Trucks

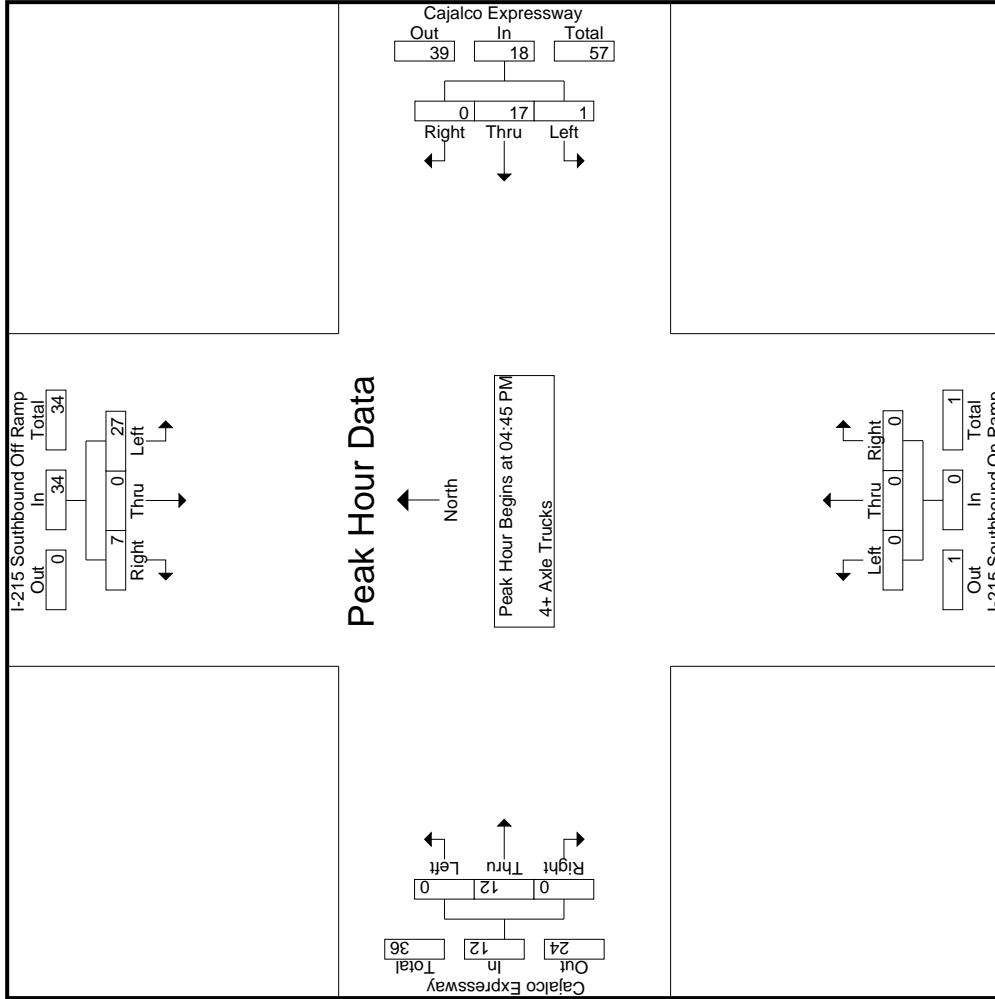
Start Time	I-215 Southbound Off Ramp Southbound					Cajalco Expressway Westbound					I-215 Southbound On Ramp Northbound					Cajalco Expressway Eastbound							
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	10	0	6	3	16	1	6	0	0	7	0	0	0	0	0	0	8	1	0	9	3	32	35
04:15 PM	12	0	3	1	15	2	3	0	0	5	0	0	0	0	0	0	7	0	0	7	1	27	28
04:30 PM	6	0	1	1	7	1	6	0	0	7	0	0	0	0	0	0	3	1	0	4	1	18	19
04:45 PM	8	0	2	0	10	0	7	0	0	7	0	0	0	0	0	0	6	0	0	6	0	23	23
Total	36	0	12	5	48	4	22	0	0	26	0	0	0	0	0	0	24	2	0	26	5	100	105
05:00 PM	10	0	0	0	10	1	3	0	0	4	0	0	0	0	0	0	2	0	0	2	0	16	16
05:15 PM	6	0	2	2	8	0	5	0	0	5	0	0	0	0	0	0	2	0	0	2	2	15	17
05:30 PM	3	0	3	2	6	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	2	10	12
05:45 PM	7	0	2	0	9	0	3	0	0	3	0	0	0	0	0	0	7	0	0	7	0	19	19
Total	26	0	7	4	33	1	13	0	0	14	0	0	0	0	0	0	13	0	0	13	4	60	64
Grand Total	62	0	19	9	81	5	35	0	0	40	0	0	0	0	0	0	37	2	0	39	9	160	169
Approch %	76.5	0	23.5		12.5	87.5	0			25	0	0	0			94.9	5.1		24.4		5.3	94.7	
Total %	38.8	0	11.9		50.6	3.1	21.9	0		25	0	0	0			23.1	1.2						

Start Time	I-215 Southbound Off Ramp Southbound					Cajalco Expressway Westbound					I-215 Southbound On Ramp Northbound					Cajalco Expressway Eastbound							
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:45 PM	8	0	2		10	0	7	0		7	0	0		0	0	0	0		0	0	0	6	23
05:00 PM	10	0	0		10	1	3	0		4	0	0		0	0	0	0		0	0	0	2	16
05:15 PM	6	0	2		8	0	5	0		5	0	0		0	0	0	0		0	0	0	2	15
05:30 PM	3	0	3		6	0	2	0		2	0	0		0	0	0	0		0	0	0	2	10
Total Volume	27	0	7		34	1	17	0		18	0	0		0	0	0	12		0	0	12	12	64
% App. Total	79.4	0	20.6		20.6	5.6	94.4	0		44.4	0	0		0	0	0	100		0	0	100	0	.696
PHF	.675	.000	.583		.850	.250	.607	.000		.643	.000	.000		.000	.000	.000	.500		.000	.000	.500	.696	

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 10_CRV215SCAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 10_CRV215SCAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

Start Time	I-215 Southbound Off Ramp Southbound			Cajalco Expressway Westbound			I-215 Southbound On Ramp Northbound			Cajalco Expressway Eastbound			App. Total	Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
Peak Hour Analysis From 04:45 PM to 05:30 PM - Peak 1 of 1														
Peak Hour for Each Approach Begins at:														
+0 mins.	8	0	2	0	7	0	0	0	0	0	6	0	0	6
+15 mins.	10	0	0	1	3	0	0	0	0	0	2	0	0	2
+30 mins.	6	0	2	0	5	0	0	0	0	0	2	0	0	2
+45 mins.	3	0	3	0	2	0	0	0	0	0	2	0	0	2
Total Volume	27	0	7	1	17	0	0	0	0	0	12	0	0	12
% App. Total	79.4	0	20.6	5.6	94.4	0	0	0	0	0	100	0	0	100
PHF	.675	.000	.583	.250	.607	.000	.000	.000	.000	.000	.500	.000	.000	.500

Location: County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Cajalco Expy



Date: 2/12/2018
 Day: Tuesday

PEDESTRIANS

	North Leg I-215 Southbound Ramps	East Leg Cajalco Expy	South Leg I-215 Southbound Ramps	West Leg Cajalco Expy	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	1	0	1
7:45 AM	0	0	1	0	1
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	2	0	2

	North Leg I-215 Southbound Ramps	East Leg Cajalco Expy	South Leg I-215 Southbound Ramps	West Leg Cajalco Expy	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	1	0	0	0	1
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	1	0	0	0	1

Location: County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Cajalco Expy



Date: 2/12/2018
 Day: Tuesday

BICYCLES

	Southbound I-215 Southbound Ramps			Westbound Cajalco Expy			Northbound I-215 Southbound Ramps			Eastbound Cajalco Expy			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound I-215 Southbound Ramps			Westbound Cajalco Expy			Northbound I-215 Southbound Ramps			Eastbound Cajalco Expy			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

File Name : 12_PER215SNUAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Nuevo Road
 Weather: Clear

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

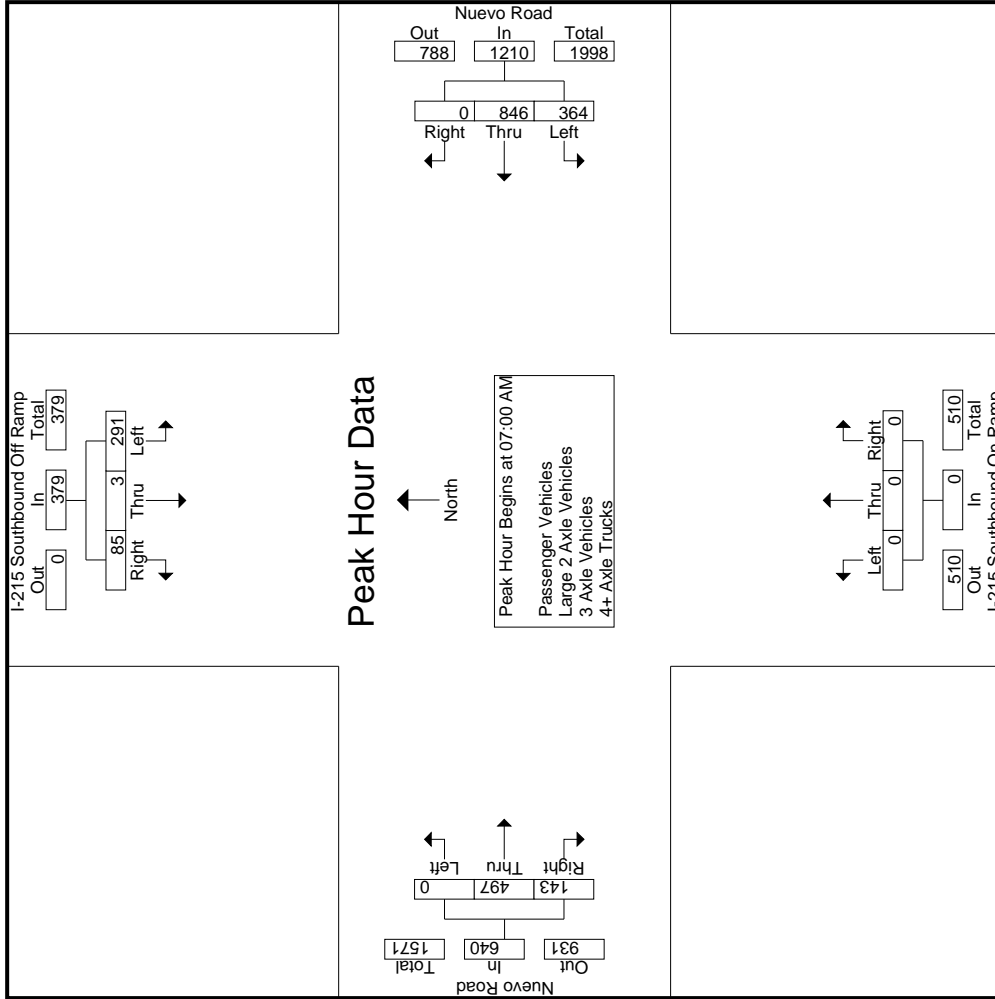
Start Time	I-215 Southbound Off Ramp						Nuevo Road Westbound						I-215 Southbound On Ramp						Nuevo Road Eastbound							
	Southbound			Southbound			Westbound			Westbound			Northbound			Northbound			Eastbound			Eastbound				
	Left	Thru	Right	RTOR	App. Total	App. Total	Left	Thru	Right	RTOR	App. Total	App. Total	Left	Thru	Right	RTOR	App. Total	App. Total	Left	Thru	Right	RTOR	App. Total	App. Total	Exclu. Total	Inclu. Total
07:00 AM	65	0	29	22	94	58	191	0	0	249	0	0	0	0	0	0	0	0	0	70	22	8	92	30	435	465
07:15 AM	77	0	20	16	97	83	225	0	0	308	0	0	0	0	0	0	0	0	0	131	35	9	166	25	571	596
07:30 AM	76	1	22	18	99	100	227	0	0	327	0	0	0	0	0	0	0	0	0	158	49	12	207	30	633	663
07:45 AM	73	2	14	8	89	123	203	0	0	326	0	0	0	0	0	0	0	0	0	138	37	6	175	14	590	604
Total	291	3	85	64	379	364	846	0	0	1210	0	0	0	0	0	0	0	0	0	497	143	35	640	99	2229	2328
08:00 AM	38	0	12	9	50	95	92	0	0	187	0	0	0	0	0	0	0	0	0	72	23	3	95	12	332	344
08:15 AM	51	0	8	8	59	77	44	0	0	121	0	0	0	0	0	0	0	0	0	43	13	5	56	13	236	249
08:30 AM	74	0	10	4	84	61	62	0	0	123	0	0	0	0	0	0	0	0	0	38	13	9	51	13	258	271
08:45 AM	60	0	8	3	68	72	53	0	0	125	0	0	0	0	0	0	0	0	0	37	15	3	52	6	245	251
Total	223	0	38	24	261	305	251	0	0	556	0	0	0	0	0	0	0	0	0	190	64	20	254	44	1071	1115
Grand Total	514	3	123	88	640	669	1097	0	0	1766	0	0	0	0	0	0	0	0	0	687	207	55	894	143	3300	3443
Approach %	80.3	0.5	19.2			37.9	62.1	0	0		0	0	0	0	0	0	0	0	0	76.8	23.2					
Total %	15.6	0.1	3.7		19.4	20.3	33.2	0	0	53.5	0	0	0	0	0	0	0	0	0	20.8	6.3		27.1	4.2	95.8	
% Passenger Vehicles	498	3	112		694	644	1070	0	0	1714	0	0	0	0	0	0	0	0	0	678	192		923	0	0	3331
% Large 2 Axle Vehicles	12	0	9		27	14	20	0	0	34	0	0	0	0	0	0	0	0	0	9	12		23	0	0	84
% 3 Axle Vehicles	2.3	0	7.3		3.7	2.1	1.8	0	0	1.9	0	0	0	0	0	0	0	0	0	1.3	5.8		2.4	0	0	2.4
% 4+ Axle Trucks	0.2	0	0		0.1	0.9	0.3	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0		0	0	0	
% 4+ Axle Trucks	0.6	0	1.6		1.1	0.7	0.4	0	0	0.5	0	0	0	0	0	0	0	0	0	0	1.4		0.3	0	0	0.5

Start Time	I-215 Southbound Off Ramp						Nuevo Road Westbound						I-215 Southbound On Ramp						Nuevo Road Eastbound							
	Southbound			Southbound			Westbound			Westbound			Northbound			Northbound			Eastbound			Eastbound				
	Left	Thru	Right	RTOR	App. Total	App. Total	Left	Thru	Right	RTOR	App. Total	App. Total	Left	Thru	Right	RTOR	App. Total	App. Total	Left	Thru	Right	RTOR	App. Total	App. Total	Exclu. Total	Inclu. Total
07:00 AM	65	0	29	22	94	58	191	0	0	249	0	0	0	0	0	0	0	0	0	70	22	8	92	30	435	465
07:15 AM	77	0	20	16	97	83	225	0	0	308	0	0	0	0	0	0	0	0	0	131	35	9	166	25	571	596
07:30 AM	76	1	22	18	99	100	227	0	0	327	0	0	0	0	0	0	0	0	0	158	49	12	207	30	633	663
07:45 AM	73	2	14	8	89	123	203	0	0	326	0	0	0	0	0	0	0	0	0	138	37	6	175	14	590	604
Total	291	3	85	64	379	364	846	0	0	1210	0	0	0	0	0	0	0	0	0	497	143	35	640	99	2229	2328
08:00 AM	38	0	12	9	50	95	92	0	0	187	0	0	0	0	0	0	0	0	0	72	23	3	95	12	332	344
08:15 AM	51	0	8	8	59	77	44	0	0	121	0	0	0	0	0	0	0	0	0	43	13	5	56	13	236	249
08:30 AM	74	0	10	4	84	61	62	0	0	123	0	0	0	0	0	0	0	0	0	38	13	9	51	13	258	271
08:45 AM	60	0	8	3	68	72	53	0	0	125	0	0	0	0	0	0	0	0	0	37	15	3	52	6	245	251
Total	223	0	38	24	261	305	251	0	0	556	0	0	0	0	0	0	0	0	0	190	64	20	254	44	1071	1115
Grand Total	514	3	123	88	640	669	1097	0	0	1766	0	0	0	0	0	0	0	0	0	687	207	55	894	143	3300	3443
Approach %	80.3	0.5	19.2			37.9	62.1	0	0		0	0	0	0	0	0	0	0	0	76.8	23.2					
Total %	15.6	0.1	3.7		19.4	20.3	33.2	0	0	53.5	0	0	0	0	0	0	0	0	0	20.8	6.3		27.1	4.2	95.8	
% Passenger Vehicles	498	3	112		694	644	1070	0	0	1714	0	0	0	0	0	0	0	0	0	678	192		923	0	0	3331
% Large 2 Axle Vehicles	12	0	9		27	14	20	0	0	34	0	0	0	0	0	0	0	0	0	9	12		23	0	0	84
% 3 Axle Vehicles	2.3	0	7.3		3.7	2.1	1.8	0	0	1.9	0	0	0	0	0	0	0	0	0	1.3	5.8		2.4	0	0	2.4
% 4+ Axle Trucks	0.2	0	0		0.1	0.9	0.3	0	0	0.5	0	0	0	0	0	0	0	0	0	0	0		0	0	0	
% 4+ Axle Trucks	0.6	0	1.6		1.1	0.7	0.4	0	0	0.5	0	0	0	0	0	0	0	0	0	0	1.4		0.3	0	0	0.5

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 12_PER215SNUAM
 Site Code : 05119093
 Start Date : 2/12/2019
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County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 12_PER215SNUAM
 Site Code : 05119093
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Start Time	I-215 Southbound Off Ramp Southbound			Nuevo Road Westbound			I-215 Southbound On Ramp Northbound			Nuevo Road Eastbound						
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total			
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																
Peak Hour for Each Approach Begins at:																
	07:00 AM				07:00 AM				07:00 AM				07:15 AM			
+0 mins.	65	0	29	94	58	191	0	249	0	0	0	0	0	131	35	166
+15 mins.	77	0	20	97	83	225	0	308	0	0	0	0	0	158	49	207
+30 mins.	76	1	22	99	100	227	0	327	0	0	0	0	0	138	37	175
+45 mins.	73	2	14	89	123	203	0	326	0	0	0	0	0	72	23	95
Total Volume	291	3	85	379	364	846	0	1210	0	0	0	0	0	499	144	643
% App. Total	76.8	0.8	22.4	95.7	30.1	69.9	0	92.5	0	0	0	0	0	77.6	22.4	77.7
PHF	.945	.375	.733	.957	.740	.932	.000	.925	.000	.000	.000	.000	.000	.790	.735	.777

Counts Unlimited
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County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 12_PER215SNUAM
 Site Code : 05119093
 Start Date : 2/12/2019
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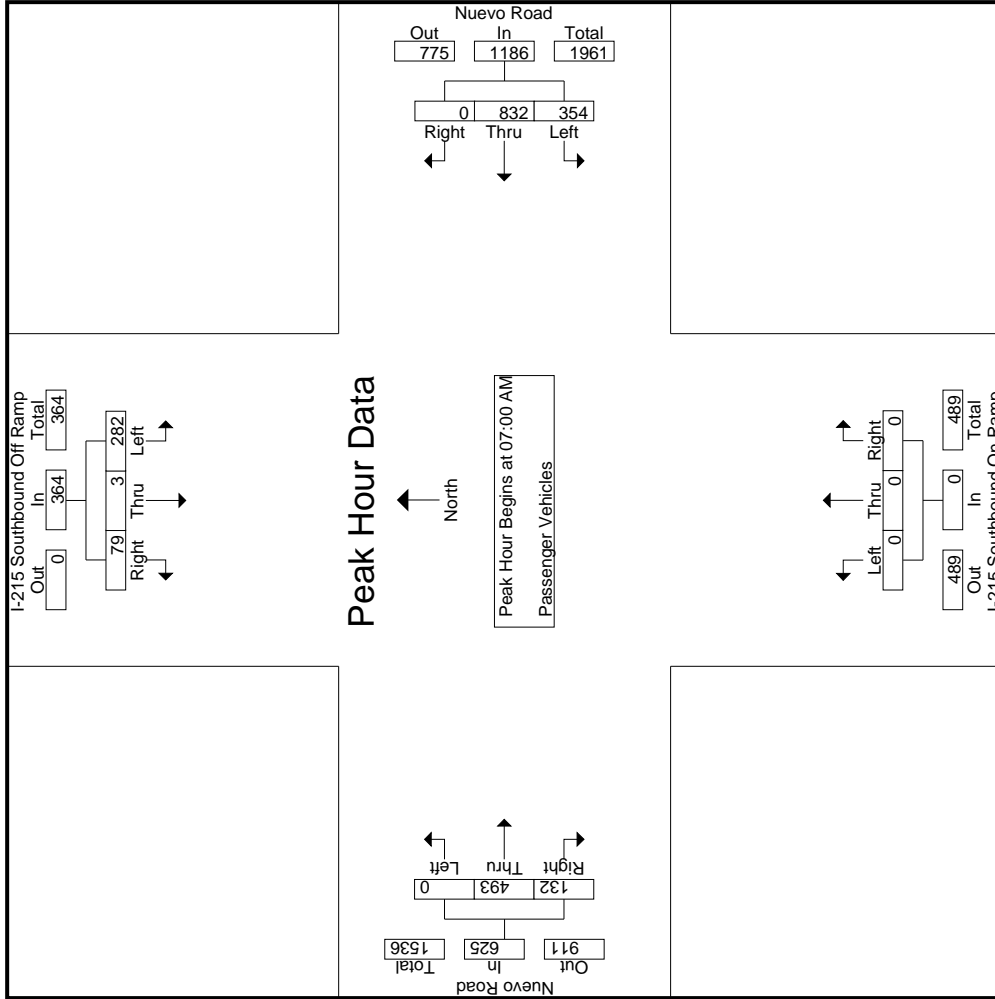
Groups Printed- Passenger Vehicles																									
		I-215 Southbound Off Ramp Southbound						Nuevo Road Westbound						I-215 Southbound On Ramp Northbound						Nuevo Road Eastbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total		
07:00 AM	62	0	25	19	87	53	187	0	0	240	0	0	0	0	0	0	69	20	8	89	27	416	443		
07:15 AM	76	0	20	16	96	81	219	0	0	300	0	0	0	0	0	0	130	33	9	163	25	559	584		
07:30 AM	73	1	21	17	95	99	226	0	0	325	0	0	0	0	0	0	158	47	12	205	29	625	654		
07:45 AM	71	2	13	7	86	121	200	0	0	321	0	0	0	0	0	0	136	32	5	168	12	575	587		
Total	282	3	79	59	364	354	832	0	0	1186	0	0	0	0	0	0	493	132	34	625	93	2175	2268		
08:00 AM	38	0	12	9	50	89	87	0	0	176	0	0	0	0	0	0	69	22	3	91	12	317	329		
08:15 AM	50	0	7	7	57	74	42	0	0	116	0	0	0	0	0	0	41	13	5	54	12	227	239		
08:30 AM	71	0	8	4	79	57	58	0	0	115	0	0	0	0	0	0	38	12	8	50	12	244	256		
08:45 AM	57	0	6	2	63	70	51	0	0	121	0	0	0	0	0	0	37	13	3	50	5	234	239		
Total	216	0	33	22	249	290	238	0	0	528	0	0	0	0	0	0	185	60	19	245	41	1022	1063		
Grand Total	498	3	112	81	613	644	1070	0	0	1714	0	0	0	0	0	0	678	192	53	870	134	3197	3331		
Approach %	81.2	0.5	18.3			37.6	62.4	0	0	53.6	0	0	0	0	0	0	77.9	22.1		27.2	4	96			
Total %	15.6	0.1	3.5			20.1	33.5	0	0		0	0	0	0	0	0	21.2	6							

		I-215 Southbound Off Ramp Southbound						Nuevo Road Westbound						I-215 Southbound On Ramp Northbound						Nuevo Road Eastbound					
Start Time	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total		
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1	62	0	25	19	87	53	187	0	0	240	0	0	0	0	0	0	69	20	8	89	27	416	443		
Peak Hour for Entire Intersection Begins at 07:00 AM	76	0	20	16	96	81	219	0	0	300	0	0	0	0	0	0	130	33	9	163	25	559	584		
07:00 AM	62	0	25	19	87	53	187	0	0	240	0	0	0	0	0	0	69	20	8	89	27	416	443		
07:15 AM	76	0	20	16	96	81	219	0	0	300	0	0	0	0	0	0	130	33	9	163	25	559	584		
07:30 AM	73	1	21	17	95	99	226	0	0	325	0	0	0	0	0	0	158	47	12	205	29	625	654		
07:45 AM	71	2	13	7	86	121	200	0	0	321	0	0	0	0	0	0	136	32	5	168	12	575	587		
Total Volume	282	3	79	59	364	354	832	0	0	1186	0	0	0	0	0	0	493	132	34	625	93	2175	2268		
% App. Total	77.5	0.8	21.7			29.8	70.2	0	0	53.6	0	0	0	0	0	0	78.9	21.1		27.2	4	96			
PHF	.928	.375	.790			.731	.920	.000	.912	.000	.000	.000	.000	.000	.000	.000	.780	.702		.870					

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 12_PER215SNUAM
 Site Code : 05119093
 Start Date : 2/12/2019
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Counts Unlimited
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County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 12_PER215SNUAM
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Start Time	I-215 Southbound Off Ramp Southbound				Nuevo Road Westbound				I-215 Southbound On Ramp Northbound				Nuevo Road Eastbound			
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																
Peak Hour for Each Approach Begins at:																
	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	62	0	25	87	53	187	0	240	0	0	0	0	0	69	20	89
+15 mins.	76	0	20	96	81	219	0	300	0	0	0	0	0	130	33	163
+30 mins.	73	1	21	95	99	226	0	325	0	0	0	0	0	158	47	205
+45 mins.	71	2	13	86	121	200	0	321	0	0	0	0	0	136	32	168
Total Volume	282	3	79	364	354	832	0	1186	0	0	0	0	0	493	132	625
% App. Total	77.5	0.8	21.7	94.8	29.8	70.2	0	912	0	0	0	0	0	78.9	21.1	762
PHF	.928	.375	.790	.948	.731	.920	.000	.912	.000	.000	.000	.000	.000	.780	.702	.762

Counts Unlimited
 PO Box 1178
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County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 12_PER215SNUAM
 Site Code : 05119093
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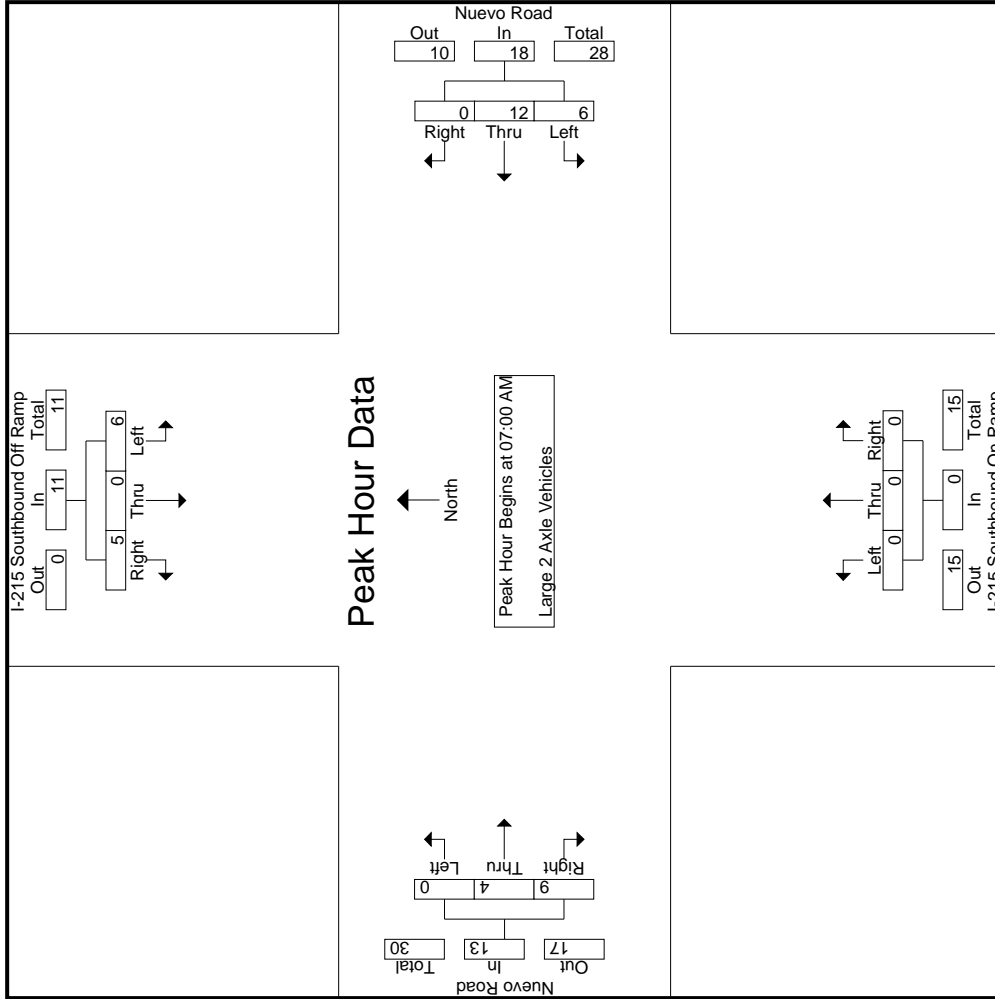
Groups Printed- Large 2 Axle Vehicles

Start Time	I-215 Southbound Off Ramp Southbound				Nuevo Road Westbound				I-215 Southbound On Ramp Northbound				Nuevo Road Eastbound										
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	1	0	4	3	5	4	4	0	0	8	0	0	0	0	0	0	1	1	0	2	3	15	18
07:15 AM	1	0	0	0	1	1	5	0	0	6	0	0	0	0	0	0	1	2	0	3	0	10	10
07:30 AM	3	0	0	0	3	0	1	0	0	1	0	0	0	0	0	0	0	1	0	1	0	5	5
07:45 AM	1	0	1	1	2	1	2	0	0	3	0	0	0	0	0	2	5	1	7	2	2	12	14
Total	6	0	5	4	11	6	12	0	0	18	0	0	0	0	0	4	9	1	13	5	5	42	47
08:00 AM	0	0	0	0	0	4	4	0	0	8	0	0	0	0	0	0	3	1	0	4	0	12	12
08:15 AM	0	0	1	1	1	1	1	0	0	2	0	0	0	0	0	0	2	0	2	2	1	5	6
08:30 AM	3	0	2	0	5	2	1	0	0	3	0	0	0	0	0	0	0	1	1	1	1	9	10
08:45 AM	3	0	1	1	4	1	2	0	0	3	0	0	0	0	0	0	0	1	0	1	1	8	9
Total	6	0	4	2	10	8	8	0	0	16	0	0	0	0	0	0	5	3	1	8	3	34	37
Grand Total	12	0	9	6	21	14	20	0	0	34	0	0	0	0	0	0	9	12	2	21	8	76	84
Approach %	57.1	0	42.9			41.2	58.8	0			0	0	0			42.9	57.1			27.6	9.5	90.5	
Total %	15.8	0	11.8			18.4	26.3	0		44.7	0	0	0			11.8	15.8						
Peak Hour for Entire Intersection Begins at 07:00 AM																							
Start Time	I-215 Southbound Off Ramp Southbound				Nuevo Road Westbound				I-215 Southbound On Ramp Northbound				Nuevo Road Eastbound										
07:00 AM	1	0	4	3	5	4	4	0	0	8	0	0	0	0	0	0	1	1	0	2	3	15	18
07:15 AM	1	0	0	0	1	1	5	0	0	6	0	0	0	0	0	0	1	2	0	3	0	10	10
07:30 AM	3	0	0	0	3	0	1	0	0	1	0	0	0	0	0	0	0	1	0	1	0	5	5
07:45 AM	1	0	1	1	2	1	2	0	0	3	0	0	0	0	0	2	5	1	7	2	2	12	14
Total Volume	6	0	5	4	11	6	12	0	0	18	0	0	0	0	0	4	9	1	13	5	5	42	47
% App. Total	54.5	0	45.5			33.3	66.7	0			0	0	0			30.8	69.2			27.6	9.5	90.5	
PHF	.500	.000	.313		.550	.375	.600	.000		.563	.000	.000	.000		.500	.450	.464						

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 12_PER215SNUAM
 Site Code : 05119093
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 PO Box 1178
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County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 12_PER215SNUAM
 Site Code : 05119093
 Start Date : 2/12/2019
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Start Time	I-215 Southbound Off Ramp Southbound			Nuevo Road Westbound			I-215 Southbound On Ramp Northbound			Nuevo Road Eastbound				
	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 07:45 AM - Peak 1 of 1														
Peak Hour for Each Approach Begins at:														
	07:00 AM													
+0 mins.	1	0	4	5	4	4	0	8	0	0	0	0	0	2
+15 mins.	1	0	0	1	5	0	0	6	0	0	0	0	1	3
+30 mins.	3	0	0	3	1	0	0	1	0	0	0	0	0	1
+45 mins.	1	0	1	2	2	0	0	3	0	0	0	0	2	7
Total Volume	6	0	5	11	12	0	0	18	0	0	0	0	4	13
% App. Total	54.5	0	45.5	11	66.7	0	0	18	0	0	0	0	30.8	69.2
PHF	.500	.000	.313	.550	.375	.600	.000	.563	.000	.000	.000	.000	.500	.464

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 12_PER215SNUAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

Groups Printed- 3 Axle Vehicles

Start Time	I-215 Southbound Off Ramp Southbound				Nuevo Road Westbound				I-215 Southbound On Ramp Northbound				Nuevo Road Eastbound					
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	1
07:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	1
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	1
Total	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	0	3	3
08:00 AM	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	2	2
08:15 AM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	2	2
08:30 AM	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	0	3	3
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	0	1	5	1	0	0	6	0	0	0	0	0	0	7	7
Grand Total	1	0	0	0	1	6	3	0	0	9	0	0	0	0	0	0	10	10
Approch %	100	0	0	0	66.7	33.3	0	0	0	90	0	0	0	0	0	0	100	100
Total %	10	0	0	0	60	30	0	0	0	90	0	0	0	0	0	0	100	100

3.1-259

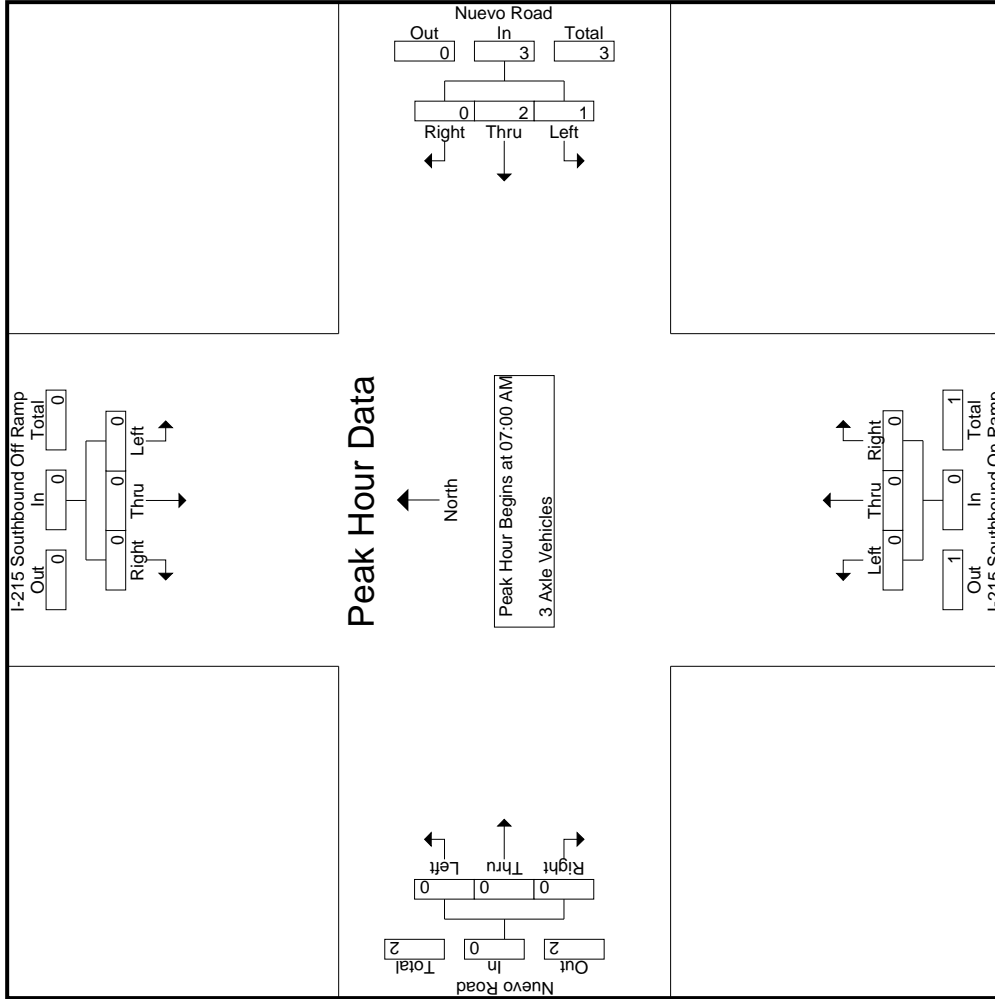
Start Time	I-215 Southbound Off Ramp Southbound				Nuevo Road Westbound				I-215 Southbound On Ramp Northbound				Nuevo Road Eastbound					
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	33.3	66.7	0	0	100	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.250	.500	.000	.000	.750	.000	.000	.000	.000	.000	.000	.000	.750

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 07:00 AM

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 12_PER215SNUAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

File Name : 12_PER215SNUAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Nuevo Road
 Weather: Clear

Start Time	I-215 Southbound Off Ramp Southbound			Nuevo Road Westbound			I-215 Southbound On Ramp Northbound			Nuevo Road Eastbound			
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1													
Peak Hour for Each Approach Begins at:													
+0 mins.	0	0	0	0	07:00 AM	1	0	0	1	07:00 AM	0	0	0
+15 mins.	0	0	0	0	07:00 AM	0	1	0	1	07:00 AM	0	0	0
+30 mins.	0	0	0	0	07:00 AM	0	0	0	0	07:00 AM	0	0	0
+45 mins.	0	0	0	0	07:00 AM	0	1	0	1	07:00 AM	0	0	0
Total Volume	0	0	0	0	07:00 AM	1	2	0	3	07:00 AM	0	0	0
% App. Total	0	0	0	0	33.3	66.7	0	0	75.0	0	0	0	0
PHF	.000	.000	.000	.000	.250	.500	.000	.750	.000	.000	.000	.000	.000

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 12_PER215SNUAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

Groups Printed- 4+ Axle Trucks

Start Time	I-215 Southbound Off Ramp Southbound				Nuevo Road Westbound				I-215 Southbound On Ramp Northbound				Nuevo Road Eastbound					
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	1	0	3	3
07:15 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	1
07:30 AM	0	0	1	1	1	1	0	0	0	1	0	0	0	0	1	1	3	4
07:45 AM	1	0	0	1	1	1	0	0	0	1	0	0	0	0	0	0	2	2
Total	3	0	1	1	4	3	0	0	0	3	0	0	0	0	2	1	9	10
08:00 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	1
08:15 AM	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	2	2
08:30 AM	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	2	2
08:45 AM	0	0	1	0	1	1	0	0	0	1	0	0	0	1	0	0	3	3
Total	0	0	1	0	1	2	4	0	0	6	0	0	0	0	1	0	8	8
Grand Total	3	0	2	1	5	5	4	0	0	9	0	0	0	0	3	1	17	18
Approach %	60	0	40		55.6	44.4	0			52.9	0	0	0	0	17.6	5.6	94.4	
Total %	17.6	0	11.8		29.4	23.5	0				0	0	0	0	17.6	5.6	94.4	

Start Time	I-215 Southbound Off Ramp Southbound				Nuevo Road Westbound				I-215 Southbound On Ramp Northbound				Nuevo Road Eastbound					
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0
07:30 AM	0	0	1	1	1	1	0	0	0	1	0	0	0	0	1	1	3	4
07:45 AM	1	0	0	1	1	1	0	0	0	1	0	0	0	0	0	0	2	2
Total	3	0	1	1	4	3	0	0	0	3	0	0	0	0	2	1	9	10
08:00 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	1
08:15 AM	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	2	2
08:30 AM	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	2	2
08:45 AM	0	0	1	0	1	1	0	0	0	1	0	0	0	1	0	0	3	3
Total	0	0	1	0	1	2	4	0	0	6	0	0	0	0	1	0	8	8
Grand Total	3	0	2	1	5	5	4	0	0	9	0	0	0	0	3	1	17	18
Approach %	60	0	40		55.6	44.4	0			52.9	0	0	0	0	17.6	5.6	94.4	
Total %	17.6	0	11.8		29.4	23.5	0				0	0	0	0	17.6	5.6	94.4	

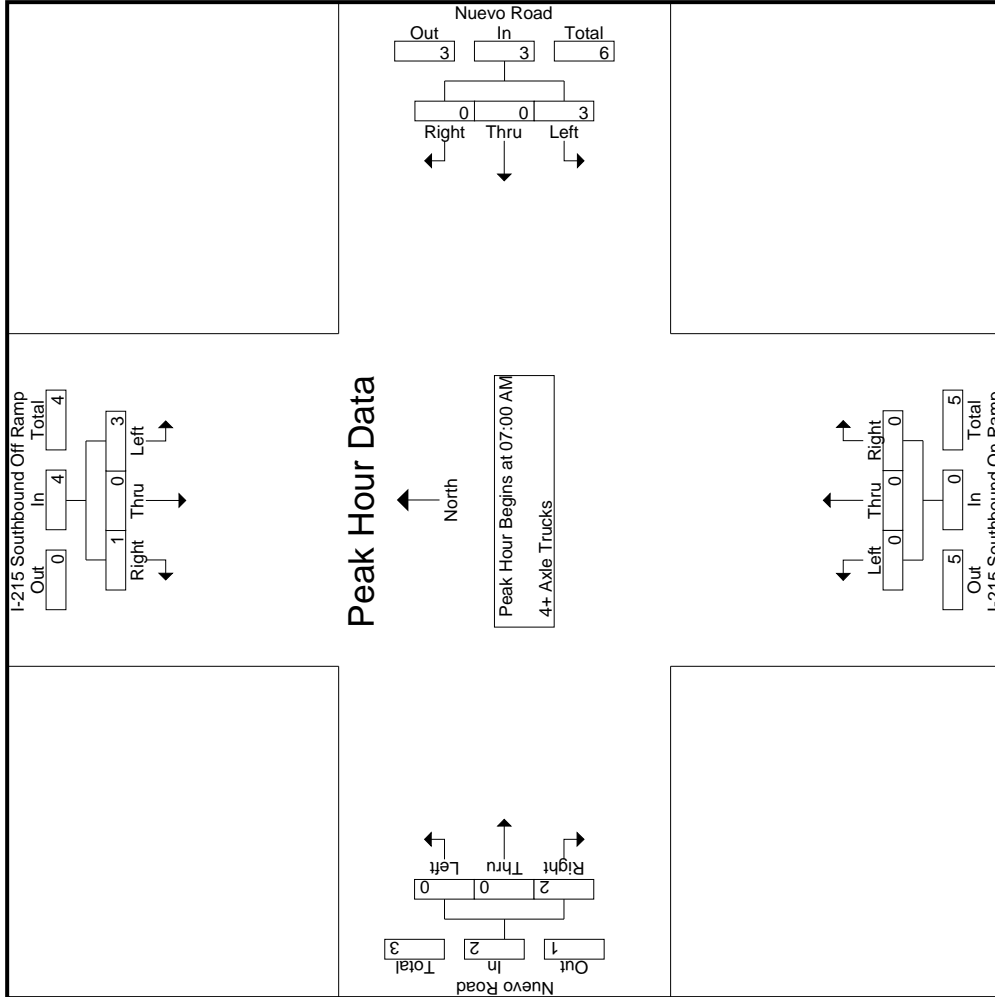
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 07:00 AM

Start Time	I-215 Southbound Off Ramp Southbound				Nuevo Road Westbound				I-215 Southbound On Ramp Northbound				Nuevo Road Eastbound					
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0
07:30 AM	0	0	1	1	1	1	0	0	0	1	0	0	0	0	1	1	3	4
07:45 AM	1	0	0	1	1	1	0	0	0	1	0	0	0	0	0	0	2	2
Total	3	0	1	1	4	3	0	0	0	3	0	0	0	0	2	1	9	10
% App. Total	.75	0	.25		.500	.750	.000	.000	.000	.000	.000	.000	.000	.000	.500	.500	.750	
PHF	.375	.000	.250		.500	.750	.000	.000	.000	.000	.000	.000	.000	.000	.500	.500	.750	

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 12_PER215SNUAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 12_PER215SNUAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

Start Time	I-215 Southbound Off Ramp Southbound			Nuevo Road Westbound			I-215 Southbound On Ramp Northbound			Nuevo Road Eastbound			
	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 07:45 AM - Peak 1 of 1													
Peak Hour for Each Approach Begins at:													
	07:00 AM				07:00 AM				07:00 AM				
+0 mins.	2	0	0	2	0	0	0	0	0	0	0	0	1
+15 mins.	0	0	0	0	1	0	0	0	0	0	0	0	0
+30 mins.	0	0	1	1	1	0	0	0	0	0	0	0	1
+45 mins.	1	0	0	1	1	0	0	0	0	0	0	0	0
Total Volume	3	0	1	4	3	0	0	0	0	0	0	0	2
% App. Total	75	0	25	100	75	0	0	0	0	0	0	100	2
PHF	.375	.000	.250	.500	.750	.000	.000	.000	.000	.000	.000	.500	.500

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

File Name : 12_PER215SNUPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Nuevo Road
 Weather: Clear

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

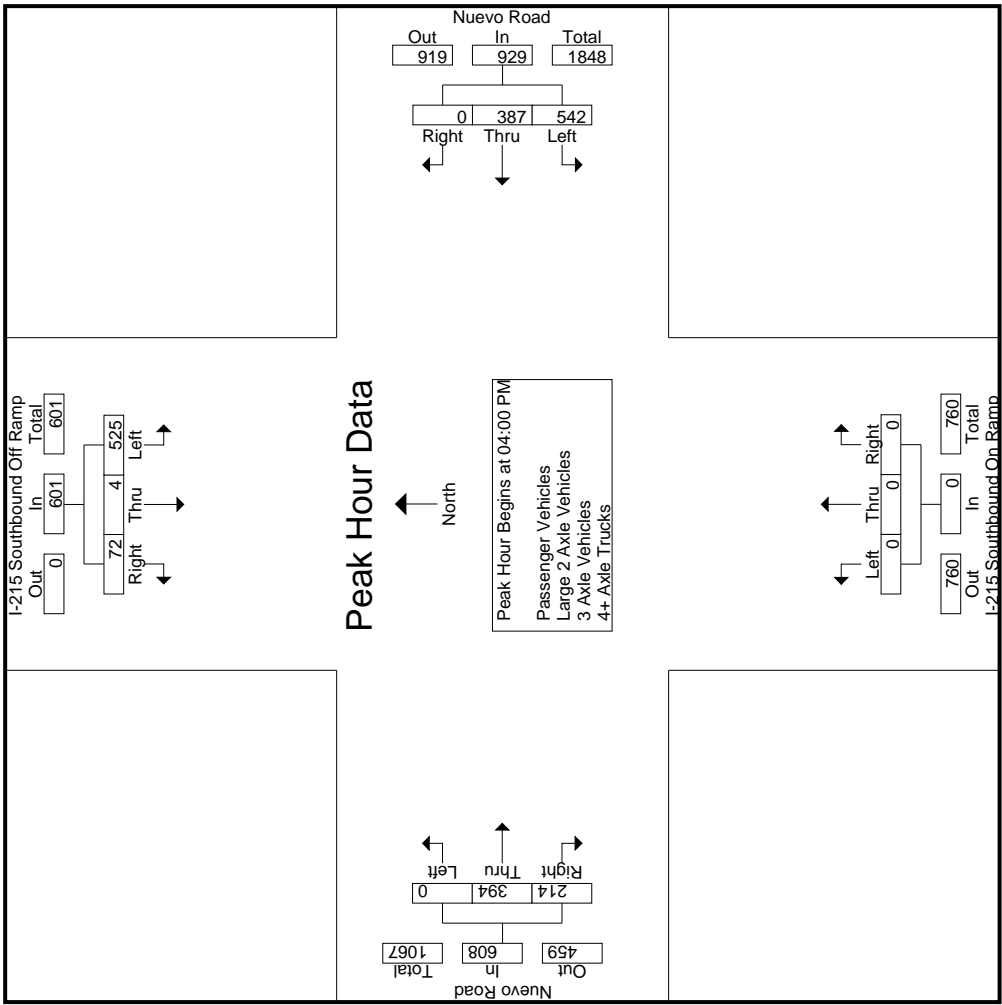
Start Time	I-215 Southbound Off Ramp						Nuevo Road Westbound						I-215 Southbound On Ramp						Nuevo Road Eastbound									
	Southbound			Westbound			Southbound			Westbound			Northbound			Eastbound			Northbound			Eastbound						
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	148	2	11	9	161	125	81	0	0	206	0	0	0	0	0	0	98	73	17	171	0	0	0	0	0	26	538	564
04:15 PM	122	0	21	13	143	116	104	0	0	220	0	0	0	0	0	0	99	47	13	146	0	0	0	0	0	26	509	535
04:30 PM	127	0	21	13	148	142	115	0	0	257	0	0	0	0	0	0	103	57	13	160	0	0	0	0	0	26	565	591
04:45 PM	128	2	19	11	149	159	87	0	0	246	0	0	0	0	0	0	94	37	11	131	0	0	0	0	0	22	526	548
Total	525	4	72	46	601	542	387	0	0	929	0	0	0	0	0	0	394	214	54	608	0	0	0	0	0	100	2138	2238
05:00 PM	142	0	15	10	157	121	85	0	0	206	0	0	0	0	0	0	112	42	19	154	0	0	0	0	0	29	517	546
05:15 PM	140	3	15	8	158	138	91	0	0	229	0	0	0	0	0	0	78	37	13	115	0	0	0	0	0	21	502	523
05:30 PM	138	0	14	8	152	112	109	0	0	221	0	0	0	0	0	0	85	18	7	103	0	0	0	0	0	15	476	491
05:45 PM	116	0	13	9	129	98	63	0	0	161	0	0	0	0	0	0	88	27	10	115	0	0	0	0	0	19	405	424
Total	536	3	57	35	596	469	348	0	0	817	0	0	0	0	0	0	363	124	49	487	0	0	0	0	0	84	1900	1984
Grand Total	1061	7	129	81	1197	1011	735	0	0	1746	0	0	0	0	0	0	757	338	103	1095	0	0	0	0	0	184	4038	4222
Approach %	88.6	0.6	10.8			57.9	42.1	0			0	0	0			0	69.1	30.9			0	0	0	0	0	4.4	95.6	
Total %	26.3	0.2	3.2			29.6	18.2	0		43.2	0	0	0			0	18.7	8.4		27.1	0	0	0	0	0	4.4	95.6	
Passenger Vehicles	1046	7	123		1253	998	715	0		1713	0	0	0			0	749	329		1178	0	0	0	0	0	0	0	4144
% Passenger Vehicles	98.6	100	95.3	95.1	98	98.7	97.3	0		98.1	0	0	0			0	98.9	97.3	97.1	98.3	0	0	0	0	0	0	0	98.2
Large 2 Axle Vehicles	13	0	5		21	10	17	0		27	0	0	0			0	7	6		15	0	0	0	0	0	0	0	63
% Large 2 Axle Vehicles	1.2	0	3.9	3.7	1.6	1	2.3	0		1.5	0	0	0			0	0.9	1.8	1.9	1.3	0	0	0	0	0	0	0	1.5
3 Axle Vehicles	1	0	0		1	2	1	0		3	0	0	0			0	1	1		2	0	0	0	0	0	0	0	6
% 3 Axle Vehicles	0.1	0	0	0	0.1	0.2	0.1	0		0.2	0	0	0			0	0.1	0.3	0	0.2	0	0	0	0	0	0	0	0.1
4+ Axle Trucks	1	0	1		3	1	2	0		3	0	0	0			0	0	2		3	0	0	0	0	0	0	0	9
% 4+ Axle Trucks	0.1	0	0.8	1.2	0.2	0.1	0.3	0		0.2	0	0	0			0	0	0.6	1	0.3	0	0	0	0	0	0	0	0.2

Start Time	I-215 Southbound Off Ramp						Nuevo Road Westbound						I-215 Southbound On Ramp						Nuevo Road Eastbound										
	Southbound			Westbound			Southbound			Westbound			Northbound			Eastbound			Northbound			Eastbound							
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total	
04:00 PM	148	2	11	9	161	125	81	0	0	206	0	0	0	0	0	0	98	73	17	171	0	0	0	0	0	26	538	564	
04:15 PM	122	0	21	13	143	116	104	0	0	220	0	0	0	0	0	0	99	47	13	146	0	0	0	0	0	26	509	535	
04:30 PM	127	0	21	13	148	142	115	0	0	257	0	0	0	0	0	0	103	57	13	160	0	0	0	0	0	26	565	591	
04:45 PM	128	2	19	11	149	159	87	0	0	246	0	0	0	0	0	0	94	37	11	131	0	0	0	0	0	22	526	548	
Total	525	4	72	46	601	542	387	0	0	929	0	0	0	0	0	0	394	214	54	608	0	0	0	0	0	100	2138	2238	
PHF	.887	.500	.857	.933	.852	.841	.904	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.946

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 12_PER215SNUPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 12_PER215SNUPM
 Site Code : 05119093
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Start Time	I-215 Southbound Off Ramp Southbound			Nuevo Road Westbound			I-215 Southbound On Ramp Northbound			Nuevo Road Eastbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
				App. Total			App. Total			App. Total			App. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Each Approach Begins at:													
	04:45 PM			04:30 PM			04:00 PM			04:00 PM			
+0 mins.	128	2	19	142	115	0	257	0	0	0	98	73	171
+15 mins.	142	0	15	159	87	0	246	0	0	0	99	47	146
+30 mins.	140	3	15	158	85	0	206	0	0	0	103	57	160
+45 mins.	138	0	14	138	91	0	229	0	0	0	94	37	131
Total Volume	548	5	63	560	378	0	938	0	0	0	394	214	608
% App. Total	89	0.8	10.2	59.7	40.3	0	40.3	0	0	0	64.8	35.2	88.9
PHF	.965	.417	.829	.881	.822	.000	.912	.000	.000	.000	.956	.733	.889

Counts Unlimited
PO Box 1178
Corona, CA 92878
951-268-6268

County of Riverside
N/S: I-215 Southbound Ramps
E/W: Nuevo Road
Weather: Clear

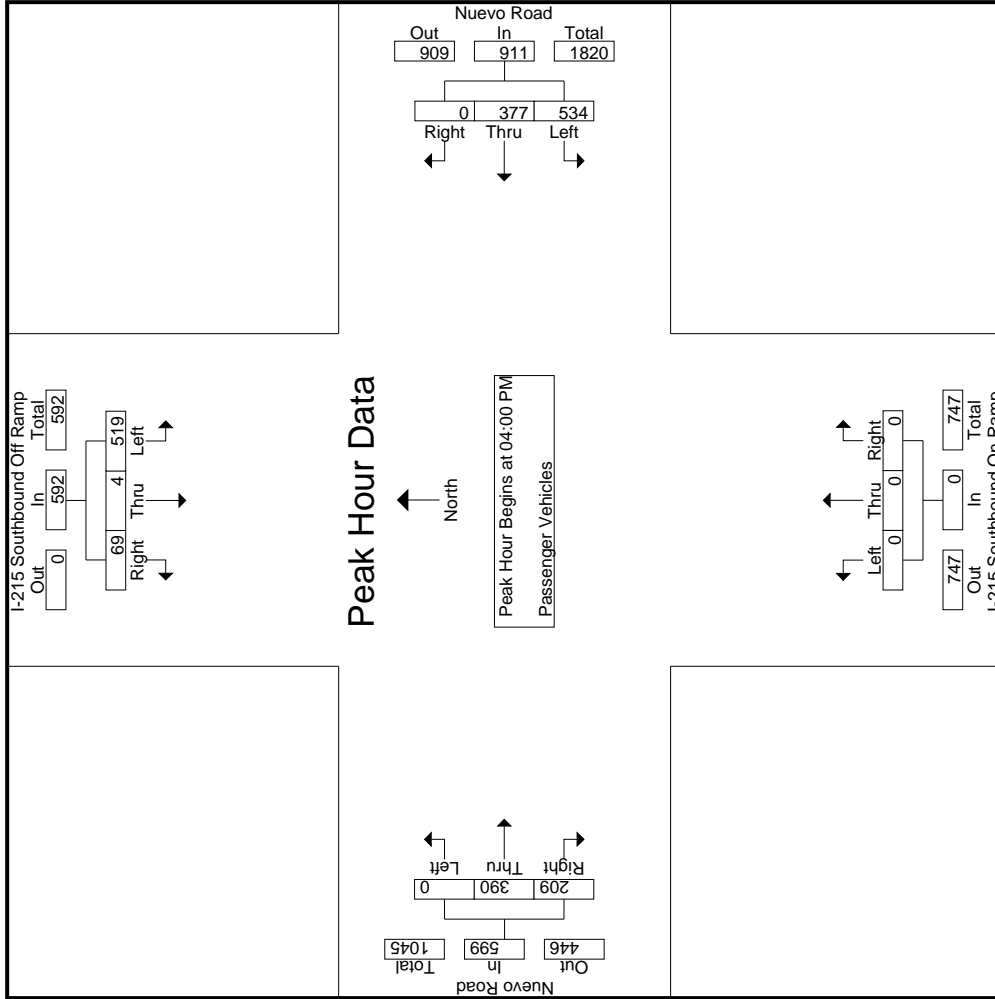
File Name : 12_PER215SNUPM
Site Code : 05119093
Start Date : 2/12/2019
Page No : 1

Groups Printed- Passenger Vehicles																			
Start Time	I-215 Southbound Off Ramp				Nuevo Road Westbound				I-215 Southbound On Ramp Northbound				Nuevo Road Eastbound				Inclu. Total	Int. Total	
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total			
04:00 PM	147	2	10	8	159	121	79	0	0	200	0	0	0	0	166	24	525	549	
04:15 PM	121	0	21	13	142	114	100	0	0	214	0	0	0	0	145	26	501	527	
04:30 PM	125	0	19	13	144	141	112	0	0	253	0	0	0	0	158	25	555	580	
04:45 PM	126	2	19	11	147	158	86	0	0	244	0	0	0	0	130	22	521	543	
Total	519	4	69	45	592	534	377	0	0	911	0	0	0	0	599	97	2102	2199	
05:00 PM	140	0	14	9	154	120	80	0	0	200	0	0	0	0	151	27	505	532	
05:15 PM	135	3	15	8	153	136	89	0	0	225	0	0	0	0	113	21	491	512	
05:30 PM	137	0	12	6	149	112	106	0	0	218	0	0	0	0	101	13	468	481	
05:45 PM	115	0	13	9	128	96	63	0	0	159	0	0	0	0	114	19	401	420	
Total	527	3	54	32	584	464	338	0	0	802	0	0	0	0	479	80	1865	1945	
Grand Total	1046	7	123	77	1176	998	715	0	0	1713	0	0	0	0	1078	177	3967	4144	
Approach %	88.9	0.6	10.5		58.3	41.7	0			43.2	0	0	0		27.2	4.3	95.7		
Total %	26.4	0.2	3.1		25.2	18	0			0	0	0	0		8.3				
Start Time	I-215 Southbound Off Ramp				Nuevo Road Westbound				I-215 Southbound On Ramp Northbound				Nuevo Road Eastbound				Inclu. Total	Int. Total	
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total			
04:00 PM	147	2	10	8	159	121	79	0	0	200	0	0	0	0	166	24	525	549	
04:15 PM	121	0	21	13	142	114	100	0	0	214	0	0	0	0	145	26	501	527	
04:30 PM	125	0	19	13	144	141	112	0	0	253	0	0	0	0	158	25	555	580	
04:45 PM	126	2	19	11	147	158	86	0	0	244	0	0	0	0	130	22	521	543	
Total	519	4	69	45	592	534	377	0	0	911	0	0	0	0	599	97	2102	2199	
05:00 PM	140	0	14	9	154	120	80	0	0	200	0	0	0	0	151	27	505	532	
05:15 PM	135	3	15	8	153	136	89	0	0	225	0	0	0	0	113	21	491	512	
05:30 PM	137	0	12	6	149	112	106	0	0	218	0	0	0	0	101	13	468	481	
05:45 PM	115	0	13	9	128	96	63	0	0	159	0	0	0	0	114	19	401	420	
Total	527	3	54	32	584	464	338	0	0	802	0	0	0	0	479	80	1865	1945	
Grand Total	1046	7	123	77	1176	998	715	0	0	1713	0	0	0	0	1078	177	3967	4144	
Approach %	88.9	0.6	10.5		58.3	41.7	0			43.2	0	0	0		27.2	4.3	95.7		
Total %	26.4	0.2	3.1		25.2	18	0			0	0	0	0		8.3				
Start Time	I-215 Southbound Off Ramp				Nuevo Road Westbound				I-215 Southbound On Ramp Northbound				Nuevo Road Eastbound				Inclu. Total	Int. Total	
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total			
04:00 PM	147	2	10	8	159	121	79	0	0	200	0	0	0	0	166	24	525	549	
04:15 PM	121	0	21	13	142	114	100	0	0	214	0	0	0	0	145	26	501	527	
04:30 PM	125	0	19	13	144	141	112	0	0	253	0	0	0	0	158	25	555	580	
04:45 PM	126	2	19	11	147	158	86	0	0	244	0	0	0	0	130	22	521	543	
Total	519	4	69	45	592	534	377	0	0	911	0	0	0	0	599	97	2102	2199	
05:00 PM	140	0	14	9	154	120	80	0	0	200	0	0	0	0	151	27	505	532	
05:15 PM	135	3	15	8	153	136	89	0	0	225	0	0	0	0	113	21	491	512	
05:30 PM	137	0	12	6	149	112	106	0	0	218	0	0	0	0	101	13	468	481	
05:45 PM	115	0	13	9	128	96	63	0	0	159	0	0	0	0	114	19	401	420	
Total	527	3	54	32	584	464	338	0	0	802	0	0	0	0	479	80	1865	1945	
Grand Total	1046	7	123	77	1176	998	715	0	0	1713	0	0	0	0	1078	177	3967	4144	
Approach %	88.9	0.6	10.5		58.3	41.7	0			43.2	0	0	0		27.2	4.3	95.7		
Total %	26.4	0.2	3.1		25.2	18	0			0	0	0	0		8.3				
Start Time	I-215 Southbound Off Ramp				Nuevo Road Westbound				I-215 Southbound On Ramp Northbound				Nuevo Road Eastbound				Inclu. Total	Int. Total	
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total			
04:00 PM	147	2	10	8	159	121	79	0	0	200	0	0	0	0	166	24	525	549	
04:15 PM	121	0	21	13	142	114	100	0	0	214	0	0	0	0	145	26	501	527	
04:30 PM	125	0	19	13	144	141	112	0	0	253	0	0	0	0	158	25	555	580	
04:45 PM	126	2	19	11	147	158	86	0	0	244	0	0	0	0	130	22	521	543	
Total	519	4	69	45	592	534	377	0	0	911	0	0	0	0	599	97	2102	2199	
05:00 PM	140	0	14	9	154	120	80	0	0	200	0	0	0	0	151	27	505	532	
05:15 PM	135	3	15	8	153	136	89	0	0	225	0	0	0	0	113	21	491	512	
05:30 PM	137	0	12	6	149	112	106	0	0	218	0	0	0	0	101	13	468	481	
05:45 PM	115	0	13	9	128	96	63	0	0	159	0	0	0	0	114	19	401	420	
Total	527	3	54	32	584	464	338	0	0	802	0	0	0	0	479	80	1865	1945	
Grand Total	1046	7	123	77	1176	998	715	0	0	1713	0	0	0	0	1078	177	3967	4144	
Approach %	88.9	0.6	10.5		58.3	41.7	0			43.2	0	0	0		27.2	4.3	95.7		
Total %	26.4	0.2	3.1		25.2	18	0			0	0	0	0		8.3				
Start Time	I-215 Southbound Off Ramp				Nuevo Road Westbound				I-215 Southbound On Ramp Northbound				Nuevo Road Eastbound				Inclu. Total	Int. Total	
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total			
04:00 PM	147	2	10	8	159	121	79	0	0	200	0	0	0	0	166	24	525	549	
04:15 PM	121	0	21	13	142	114	100	0	0	214	0	0	0	0	145	26	501	527	
04:30 PM	125	0	19	13	144	141	112	0	0	253	0	0	0	0	158	25	555	580	
04:45 PM	126	2	19	11	147	158	86	0	0	244	0	0	0	0	130	22	521	543	
Total	519	4	69	45	592	534	377	0	0	911	0	0	0	0	599	97	2102	2199	
05:00 PM	140	0	14	9	154	120	80	0	0	200	0	0	0	0	151	27	505	532	
05:15 PM	135	3	15	8	153	136	89	0	0	225	0	0	0	0	113	21	491	512	
05:30 PM	137	0	12	6	149	112	106	0	0	218	0	0	0	0	101	13	468	481	
05:45 PM	115	0	13	9	128	96	63	0	0	159	0	0	0	0	114	19	401	420	
Total	527	3	54	32	584	464	338	0	0	802	0	0	0	0	479	80	1865	1945	
Grand Total	1046	7	123	77	1176	998	715	0	0	1713	0	0	0	0	1078	177	3967	4144	
Approach %	88.9	0.6	10.5		58.3	41.7	0			43.2	0	0	0		27.2	4.3	95.7		
Total %	26.4	0.2	3.1		25.2	18	0			0	0	0	0		8.3				

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 12_PER215SNUPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 12_PER215SNUPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

Start Time	I-215 Southbound Off Ramp Southbound				Nuevo Road Westbound				I-215 Southbound On Ramp Northbound				Nuevo Road Eastbound			
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																
Peak Hour for Each Approach Begins at:																
	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	147	2	10	159	121	79	0	200	0	0	0	0	0	95	71	166
+15 mins.	121	0	21	142	114	100	0	214	0	0	0	0	0	99	46	145
+30 mins.	125	0	19	144	141	112	0	253	0	0	0	0	0	103	55	158
+45 mins.	126	2	19	147	158	86	0	244	0	0	0	0	0	93	37	130
Total Volume	519	4	69	592	534	377	0	911	0	0	0	0	0	390	209	599
% App. Total	87.7	0.7	11.7	93.1	58.6	41.4	0	900	0	0	0	0	0	65.1	34.9	902
PHF	.883	.500	.821	.931	.845	.842	.000	.900	.000	.000	.000	.000	.000	.947	.736	.902

Counts Unlimited
PO Box 1178
Corona, CA 92878
951-268-6268

County of Riverside
N/S: I-215 Southbound Ramps
E/W: Nuevo Road
Weather: Clear

File Name : 12_PER215SNUPM
Site Code : 05119093
Start Date : 2/12/2019
Page No : 1

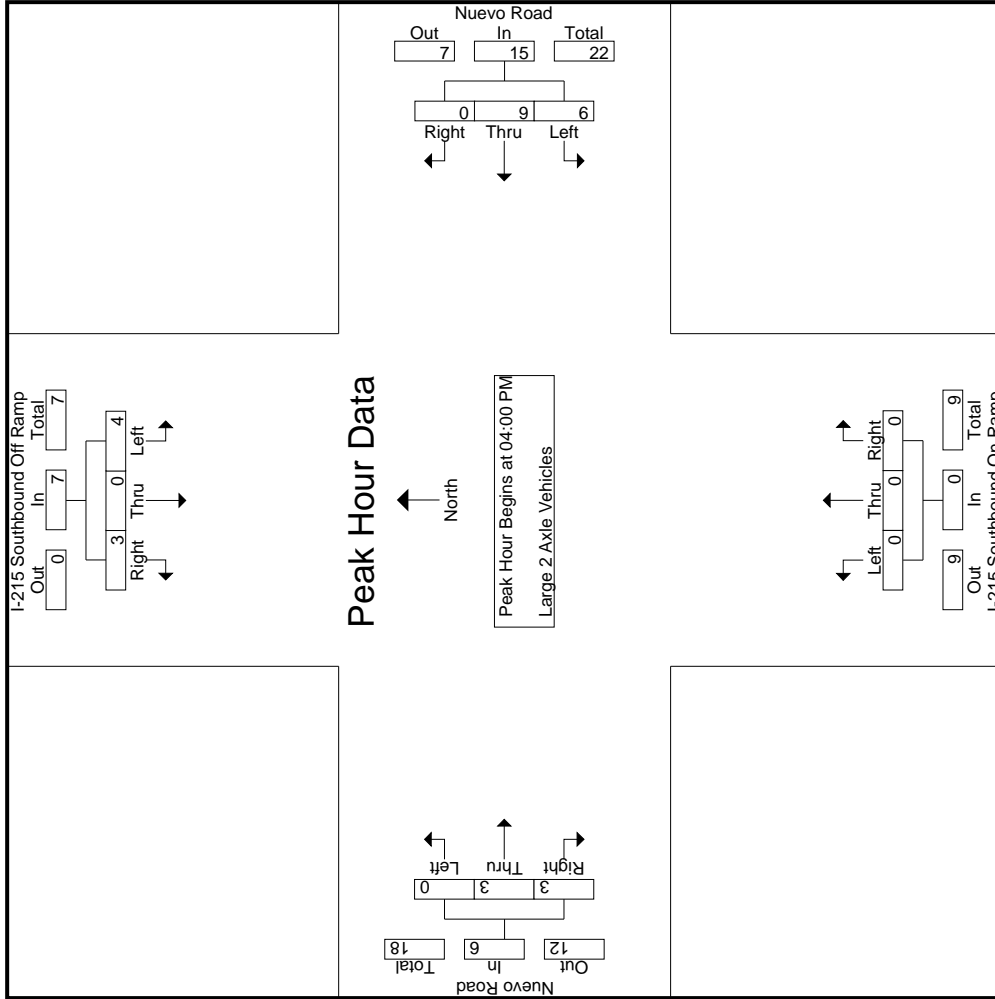
Groups Printed- Large 2 Axle Vehicles

Start Time	I-215 Southbound Off Ramp					Nuevo Road Westbound					I-215 Southbound On Ramp					Nuevo Road Eastbound							
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	1	1	1	4	2	0	0	6	0	0	0	0	0	0	3	2	1	5	2	12	14
04:15 PM	1	0	0	0	1	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	4	4
04:30 PM	2	0	2	0	4	1	3	0	0	4	0	0	0	0	0	0	0	1	1	1	1	9	10
04:45 PM	1	0	0	0	1	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	3	3
Total	4	0	3	1	7	6	9	0	0	15	0	0	0	0	0	0	3	2	6	6	3	28	31
05:00 PM	2	0	0	0	2	1	3	0	0	4	0	0	0	0	0	0	2	0	0	2	0	8	8
05:15 PM	5	0	0	0	5	2	2	0	0	4	0	0	0	0	0	0	1	1	0	2	0	11	11
05:30 PM	1	0	2	2	3	0	3	0	0	3	0	0	0	0	0	0	1	1	0	2	2	8	10
05:45 PM	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	1	0	1	0	3	3
Total	9	0	2	2	11	4	8	0	0	12	0	0	0	0	0	0	4	3	0	7	2	30	32
Grand Total	13	0	5	3	18	10	17	0	0	27	0	0	0	0	0	0	7	6	2	13	5	58	63
Approch %	72.2	0	27.8		37	17.2	29.3	0		46.6	0	0				53.8	46.2		22.4	7.9	92.1		
Total %	22.4	0	8.6		31	17.2	29.3	0		46.6	0	0				12.1	10.3		22.4	7.9	92.1		
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																							
Peak Hour for Entire Intersection Begins at 04:00 PM																							
Start Time	I-215 Southbound Off Ramp					Nuevo Road Westbound					I-215 Southbound On Ramp					Nuevo Road Eastbound							
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	1	1	4	2	0	0	6	0	0	0	0	0	0	3	2	1	5	2	12	14
04:15 PM	1	0	0	0	1	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	4	4
04:30 PM	2	0	2	0	4	1	3	0	0	4	0	0	0	0	0	0	0	1	1	1	1	9	10
04:45 PM	1	0	0	0	1	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	3	3
Total Volume	4	0	2	1	7	6	9	0	0	15	0	0	0	0	0	0	3	2	6	6	3	28	31
% App. Total	57.1	0	42.9		438	37.5	60	0		750	0	0				50	50		375	50	300	.583	
PHF	.500	.000	.375		.438	.375	.750	.000		.625	.000	.000				.000	.250	.375	.300	.300	.300	.583	

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 12_PER215SNUPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

File Name : 12_PER215SNUPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Nuevo Road
 Weather: Clear

Start Time	I-215 Southbound Off Ramp				Nuevo Road Westbound				I-215 Southbound On Ramp				Nuevo Road Eastbound			
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																
Peak Hour for Each Approach Begins at:																
	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	0	1	1	4	2	0	6	0	0	0	0	0	3	2	5
+15 mins.	1	0	0	1	0	3	0	3	0	0	0	0	0	0	0	0
+30 mins.	2	0	2	4	1	3	0	4	0	0	0	0	0	0	1	1
+45 mins.	1	0	0	1	1	1	0	2	0	0	0	0	0	0	0	0
Total Volume	4	0	3	7	6	9	0	15	0	0	0	0	0	3	3	6
% App. Total	57.1	0	42.9	7	40	60	0	15	0	0	0	0	0	50	50	6
PHF	.500	.000	.375	.438	.375	.750	.000	.625	.000	.000	.000	.000	.000	.250	.375	.300

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 12_PER215SNUPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

Groups Printed- 3 Axle Vehicles

Start Time	I-215 Southbound Off Ramp Southbound				Nuevo Road Westbound				I-215 Southbound On Ramp Northbound				Nuevo Road Eastbound					
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
04:15 PM	0	0	0	0	0	1	1	0	0	2	0	0	0	0	1	0	3	3
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	1	0	0	0	1	1	1	0	0	2	0	0	0	1	2	0	5	5
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	1
Total	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	1
Grand Total	1	0	0	0	1	2	1	0	0	3	0	0	0	0	2	0	6	6
Approch %	100	0	0	0	66.7	33.3	33.3	16.7	0	50	0	0	16.7	16.7	33.3	0	100	100
Total %	0	0	0	0	16.7	33.3	16.7	0	0	50	0	0	16.7	16.7	33.3	0	100	100

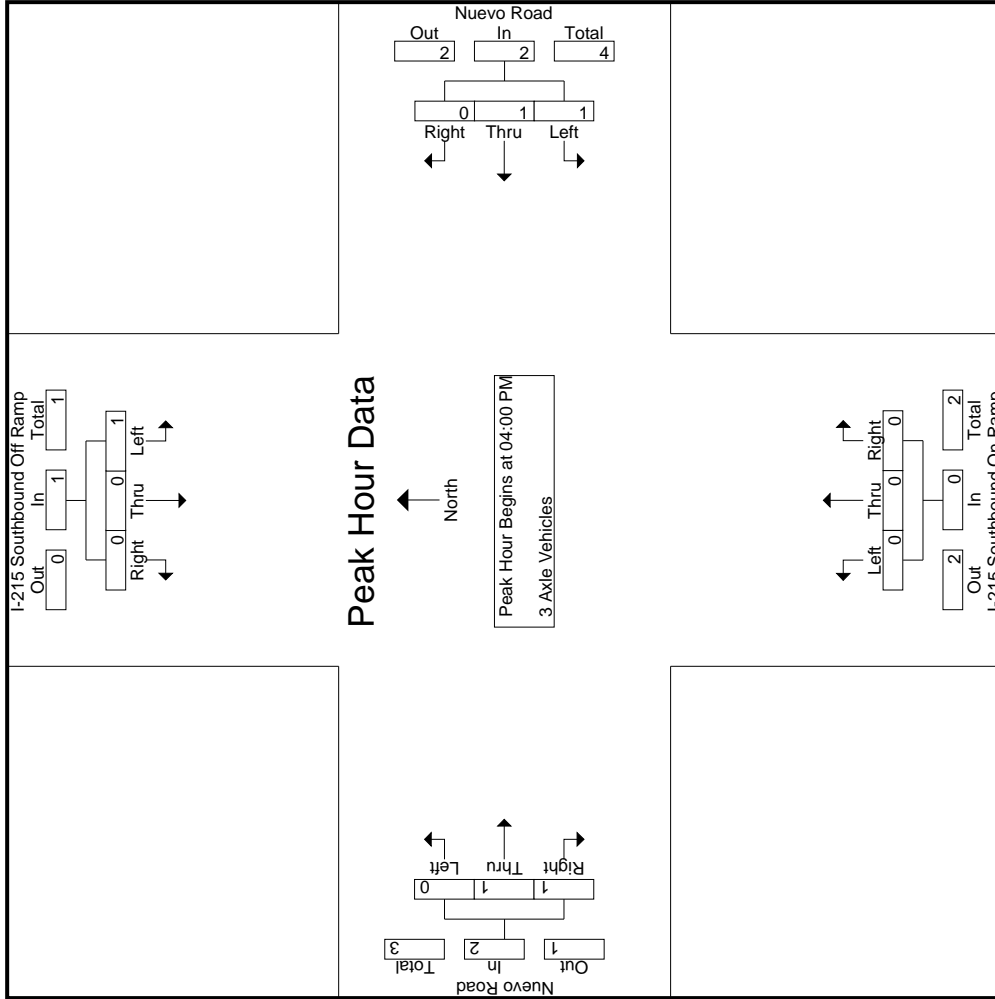
Start Time	I-215 Southbound Off Ramp Southbound				Nuevo Road Westbound				I-215 Southbound On Ramp Northbound				Nuevo Road Eastbound					
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	0	1	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	1	0	0	0	1	1	1	0	0	2	0	0	0	0	0	0	1	1
% App. Total	100	0	0	0	.250	.50	.50	0	0	.000	.000	.000	.000	.000	.250	.50	.50	.250
PHF	.250	.000	.000	.000	.250	.250	.250	.000	.000	.000	.000	.000	.000	.000	.250	.250	.500	.417

Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 04:00 PM

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 12_PER215SNUPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 12_PER215SNUPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

Start Time	I-215 Southbound Off Ramp Southbound				Nuevo Road Westbound				I-215 Southbound On Ramp Northbound				Nuevo Road Eastbound			
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1																
Peak Hour for Each Approach Begins at:																
	04:00 PM															
+0 mins.	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	1	0	0	2	0	0	0	0	0	0	1	1
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Total Volume	1	0	0	1	1	1	0	2	0	0	0	0	0	1	1	2
% App. Total	100	0	0	100	50	50	0	100	0	0	0	0	0	50	50	100
PHF	.250	.000	.000	.250	.250	.250	.000	.250	.000	.000	.000	.000	.000	.250	.250	.500

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 12_PER215SNUPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

Groups Printed- 4+ Axle Trucks

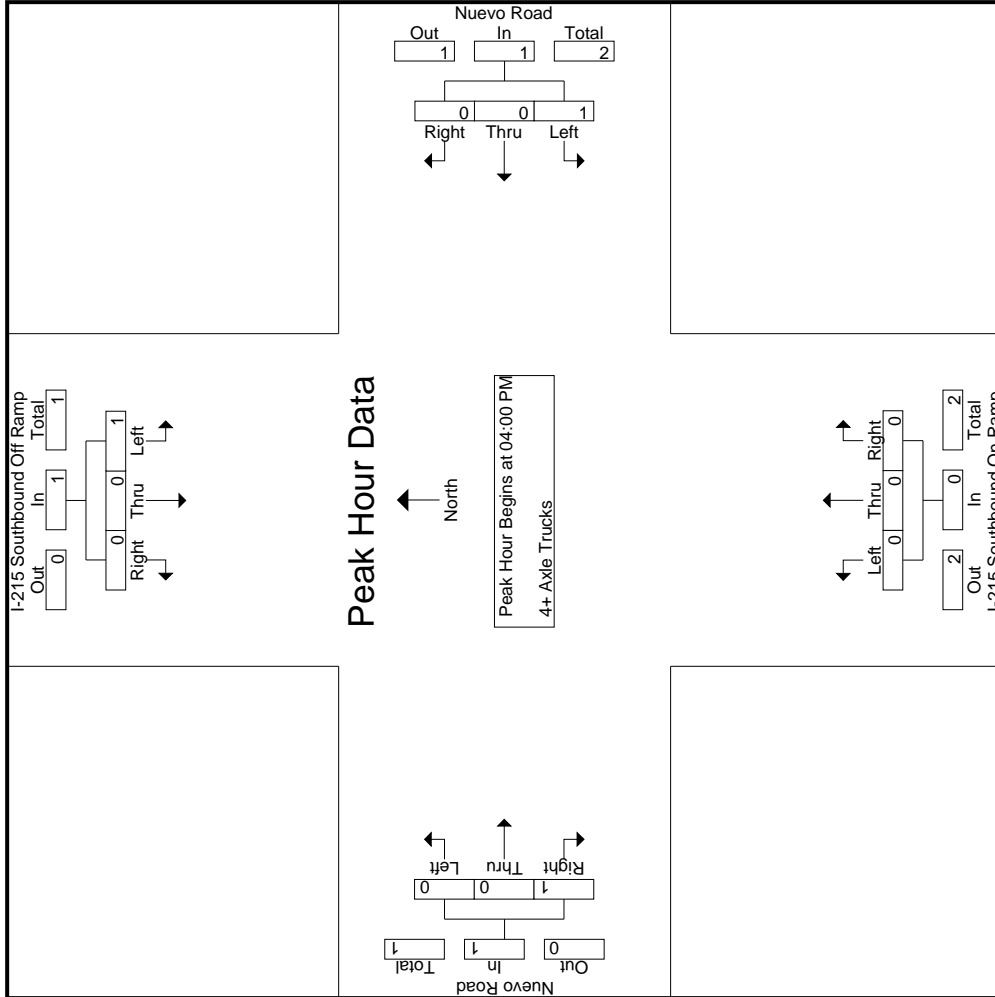
Start Time	I-215 Southbound Off Ramp Southbound				Nuevo Road Westbound				I-215 Southbound On Ramp Northbound				Nuevo Road Eastbound					
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
04:45 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	1	0	0	0	1	1	0	0	0	1	0	0	0	0	1	0	3	3
05:00 PM	0	0	1	1	1	0	2	0	0	2	0	0	0	1	1	2	4	6
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	1	1	1	0	2	0	0	2	0	0	0	1	1	2	4	6
Grand Total	1	0	1	1	2	1	2	0	0	3	0	0	0	0	2	2	7	9
Approch %	50	0	50		33.3	66.7	0			42.9	0	0	100	28.6	28.6	22.2	77.8	
Total %	14.3	0	14.3		28.6	14.3	28.6	0		42.9	0	0	28.6	28.6	28.6	22.2	77.8	

Start Time	I-215 Southbound Off Ramp Southbound				Nuevo Road Westbound				I-215 Southbound On Ramp Northbound				Nuevo Road Eastbound					
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
04:45 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total Volume	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	1	3
% App. Total	100	0	0	0	100	.250	0	0	0	.250	.000	.000	.000	.000	.250	.250	.750	
PHF	.250	.000	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.250	.750	

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 12_PER215SNUPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

File Name : 12_PER215SNUPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Nuevo Road
 Weather: Clear

Start Time	I-215 Southbound Off Ramp Southbound			Nuevo Road Westbound			I-215 Southbound On Ramp Northbound			Nuevo Road Eastbound			
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1													
Peak Hour for Each Approach Begins at:													
	04:00 PM												
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	1	0	0	1	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1
+45 mins.	1	0	0	1	0	0	0	0	0	0	0	0	0
Total Volume	1	0	0	1	1	0	0	1	0	0	0	1	1
% App. Total	100	0	0	100	0	0	0	100	0	0	0	100	100
PHF	.250	.000	.000	.250	.250	.000	.000	.250	.000	.000	.000	.250	.250

Location: County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Nuevo Road



Date: 2/12/2018
 Day: Tuesday

PEDESTRIANS

	North Leg I-215 Southbound Ramps	East Leg Nuevo Road	South Leg I-215 Southbound Ramps	West Leg Nuevo Road	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

	North Leg I-215 Southbound Ramps	East Leg Nuevo Road	South Leg I-215 Southbound Ramps	West Leg Nuevo Road	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	1	0	0	0	1
4:30 PM	2	0	0	0	2
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	2	0	2
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	3	0	2	0	5

Location: County of Riverside
 N/S: I-215 Southbound Ramps
 E/W: Nuevo Road



Date: 2/12/2018
 Day: Tuesday

BICYCLES

	Southbound I-215 Southbound Ramps			Westbound Nuevo Road			Northbound I-215 Southbound Ramps			Eastbound Nuevo Road			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound I-215 Southbound Ramps			Westbound Nuevo Road			Northbound I-215 Southbound Ramps			Eastbound Nuevo Road			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

File Name : 13_CRV215NRAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	I-215 Northbound On Ramp Southbound						Cajalco Expressway Westbound						I-215 Northbound Off Ramp Northbound						Cajalco Expressway Eastbound						
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		
	RTOR	App. Total	RTOR	App. Total	RTOR	App. Total	RTOR	App. Total	RTOR	App. Total	RTOR	App. Total	RTOR	App. Total	RTOR	App. Total	RTOR	App. Total	RTOR	App. Total	RTOR	App. Total	RTOR	App. Total	
07:00 AM	0	0	0	0	0	233	216	78	449	0	65	24	121	52	249	0	0	301	102	871	0	0	0	0	973
07:15 AM	0	0	0	0	0	228	219	73	447	55	1	104	160	40	262	0	0	302	111	909	0	0	0	0	1020
07:30 AM	0	0	0	0	0	201	190	53	391	61	0	116	177	36	270	0	0	306	99	874	0	0	0	0	973
07:45 AM	0	0	0	0	0	201	205	70	406	55	0	92	147	25	291	0	0	316	109	869	0	0	0	0	978
Total	0	0	0	0	0	863	830	274	1693	227	1	377	605	153	1072	0	0	1225	421	3523	0	0	0	0	3944
08:00 AM	0	0	0	0	0	207	213	48	420	68	2	68	138	42	202	0	0	244	81	802	0	0	0	0	883
08:15 AM	0	0	0	0	0	188	178	51	366	86	0	81	167	33	185	0	0	218	83	751	0	0	0	0	834
08:30 AM	0	0	0	0	0	151	155	63	306	65	0	60	125	56	185	0	0	241	90	672	0	0	0	0	762
08:45 AM	0	0	0	0	0	131	156	55	287	70	0	78	148	55	175	0	0	230	96	665	0	0	0	0	761
Total	0	0	0	0	0	677	702	217	1379	289	2	287	578	186	747	0	0	933	350	2890	0	0	0	0	3240
Grand Total	0	0	0	0	0	1540	1532	491	3072	516	3	664	1183	339	1819	0	0	2158	771	6413	0	0	0	0	7184
Approach %	0	0	0	0	0	50.1	49.9			43.6	0.3	56.1		15.7	84.3	0	0				0	0	0	0	
Total %	0	0	0	0	0	24	23.9		47.9	8	0	10.4		5.3	28.4	0	0	33.7	10.7	89.3	0	0	0	0	
% Passenger Vehicles	0	0	0	0	0	1408	1338		3188	452	1	604		276	1582	0	0	1858	0	0	0	0	0	0	6362
% Large 2 Axle Vehicles	0	0	0	0	0	91.4	87.3		89.5	87.6	33.3	91		81.4	87	0	0	86.1	0	0	0	0	0	0	88.6
% 3 Axle Vehicles	0	0	0	0	0	78	58		149	43	1	39		21	81	0	0	102	0	0	0	0	0	0	347
% 4+ Axle Trucks	0	0	0	0	0	5.1	3.8		2.6	8.3	33.3	5.9		6.2	4.5	0	0	4.7	0	0	0	0	0	0	4.8
Total %	0	0	0	0	0	14	48		72	2	0	6		6	55	0	0	61	0	0	0	0	0	0	143
% 3 Axle Vehicles	0	0	0	0	0	0.9	3.1		2	0.4	0	0.9		1.8	3	0	0	2.8	0	0	0	0	0	0	2
% 4+ Axle Trucks	0	0	0	0	0	40	88		154	19	1	15		36	101	0	0	137	0	0	0	0	0	0	332
% 4+ Axle Trucks	0	0	0	0	0	2.6	5.7		4.3	3.7	33.3	2.3		10.6	5.6	0	0	6.3	0	0	0	0	0	0	4.6

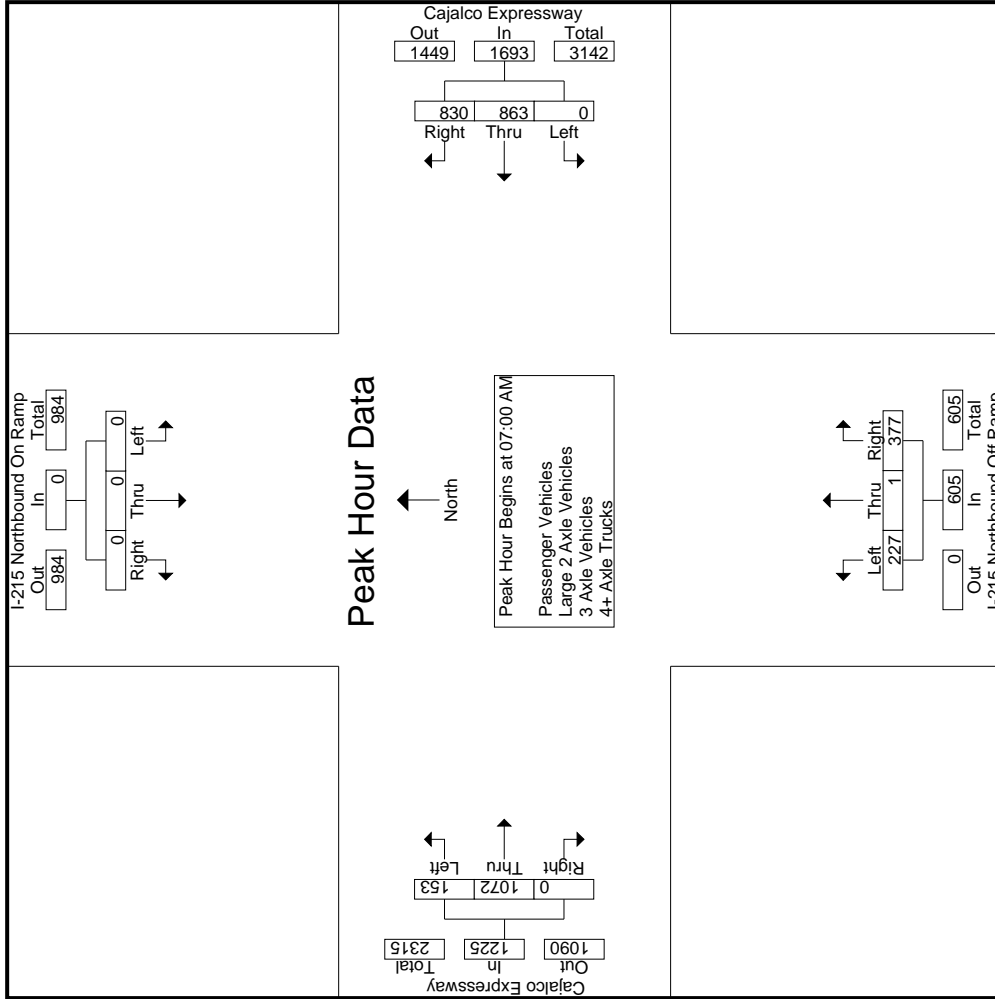
Start Time	I-215 Northbound On Ramp Southbound						Cajalco Expressway Westbound						I-215 Northbound Off Ramp Northbound						Cajalco Expressway Eastbound						
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		
	RTOR	App. Total	RTOR	App. Total	RTOR	App. Total	RTOR	App. Total	RTOR	App. Total	RTOR	App. Total	RTOR	App. Total	RTOR	App. Total	RTOR	App. Total	RTOR	App. Total	RTOR	App. Total	RTOR	App. Total	
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	56	0	65	0	0	121	52	249	0	0	0	0	301
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	55	1	104	1	160	40	262	0	0	0	0	302	
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	61	0	116	0	177	36	270	0	0	0	0	306	
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	55	0	92	0	147	25	291	0	0	0	0	316	
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	227	1	377	1	605	153	1072	0	0	0	0	1225	
% App. Total	0	0	0	0	0	0	0	0	0	0	0	0	37.5	0.2	62.3	0.2	87.5	12.5	87.5	0	0	0	0	0	
PHF	.000	.000	.000	.000	.000	.000	.943		.947	.930	.250	.813		.855	.921	.000	.969	.969	.969	.969	.969	.969	.969	.969	

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

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 13_CRV215NRAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

File Name : 13_CRV215NRAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

Start Time	I-215 Northbound On Ramp Southbound			Cajalco Expressway Westbound			I-215 Northbound Off Ramp Northbound			Cajalco Expressway Eastbound				
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1														
Peak Hour for Each Approach Begins at:														
+0 mins.	0	0	0	0	0	0	61	0	0	52	249	0	301	
+15 mins.	0	0	0	0	228	219	55	0	92	40	262	0	302	
+30 mins.	0	0	0	0	201	190	68	2	68	36	270	0	306	
+45 mins.	0	0	0	0	201	205	86	0	81	25	291	0	316	
Total Volume	0	0	0	0	863	830	270	2	357	153	1072	0	1225	
% App. Total	.000	.000	.000	.000	.926	.947	.785	.250	.769	.125	.875	.000	.969	
PHF	.000	.000	.000	.000	.926	.947	.785	.250	.769	.125	.875	.000	.969	

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 13_CRV215NRAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

Groups Printed- Passenger Vehicles

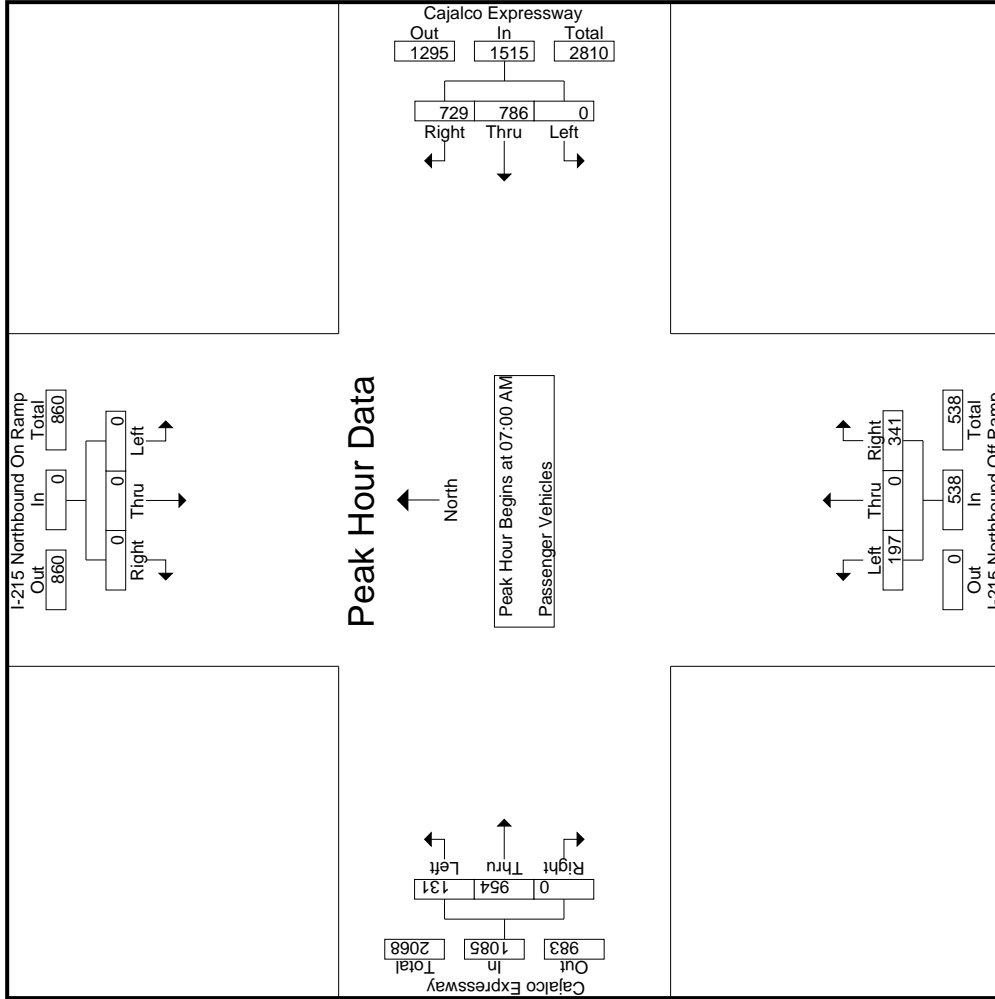
Start Time	I-215 Northbound On Ramp Southbound					Cajalco Expressway Westbound					I-215 Northbound Off Ramp Northbound					Cajalco Expressway Eastbound					Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total			
07:00 AM	0	0	0	0	0	0	213	200	74	413	50	0	56	21	106	45	222	0	0	267	95	786	881
07:15 AM	0	0	0	0	0	0	208	191	64	399	52	0	93	35	145	32	233	0	0	265	99	809	908
07:30 AM	0	0	0	0	0	0	177	164	45	341	51	0	106	42	157	34	244	0	0	278	87	776	863
07:45 AM	0	0	0	0	0	0	188	174	62	362	44	0	86	37	130	20	255	0	0	275	99	767	866
Total	0	0	0	0	0	0	786	729	245	1515	197	0	341	135	538	131	954	0	0	1085	380	3138	3518
08:00 AM	0	0	0	0	0	0	192	189	46	381	63	1	63	30	127	32	175	0	0	207	76	715	791
08:15 AM	0	0	0	0	0	0	172	147	46	319	74	0	75	31	149	26	158	0	0	184	77	652	729
08:30 AM	0	0	0	0	0	0	138	138	57	276	58	0	51	25	109	47	154	0	0	201	82	586	668
08:45 AM	0	0	0	0	0	0	120	135	48	255	60	0	74	38	134	40	141	0	0	181	86	570	656
Total	0	0	0	0	0	0	622	609	197	1231	255	1	263	124	519	145	628	0	0	773	321	2523	2844
Grand Total	0	0	0	0	0	0	1408	1338	442	2746	452	1	604	259	1057	276	1582	0	0	1858	701	5661	6362
Approach %	0	0	0	0	0	0	51.3	48.7		42.8	0.1	57.1		18.7	14.9	85.1	0	0	32.8		11	89	
Total %	0	0	0	0	0	0	24.9	23.6		48.5	8	0	10.7		4.9	27.9	0	0					

Start Time	I-215 Northbound On Ramp Southbound					Cajalco Expressway Westbound					I-215 Northbound Off Ramp Northbound					Cajalco Expressway Eastbound							
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total			
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour for Entire Intersection Begins at 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM	0	0	0	0	0	0	213	200	74	413	50	0	56	21	106	45	222	0	0	267	95	786	881
07:15 AM	0	0	0	0	0	0	208	191	64	399	52	0	93	35	145	32	233	0	0	265	99	809	908
07:30 AM	0	0	0	0	0	0	177	164	45	341	51	0	106	42	157	34	244	0	0	278	87	776	863
07:45 AM	0	0	0	0	0	0	188	174	62	362	44	0	86	37	130	20	255	0	0	275	99	767	866
Total Volume	0	0	0	0	0	0	786	729	245	1515	197	0	341	135	538	131	954	0	0	1085	380	3138	3518
% App. Total	0	0	0	0	0	0	51.9	48.1		42.8	0.1	57.1		18.7	14.9	85.1	0	0	32.8		11	89	
PHF	.000	.000	.000	.000	.000	.000	.923	.911		.917	.947	.000	.804		.857	.728	.935	.000		.976		.970	

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

File Name : 13_CRV215NRAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear



Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

File Name : 13_CRV215NRAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

Start Time	I-215 Northbound On Ramp Southbound			Cajalco Expressway Westbound			I-215 Northbound Off Ramp Northbound			Cajalco Expressway Eastbound			App. Total	Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1														
Peak Hour for Each Approach Begins at:														
+0 mins.	0	0	0	0	0	0	50	0	56	07:00 AM	45	222	0	267
+15 mins.	0	0	0	208	191	399	52	0	93	07:00 AM	32	233	0	265
+30 mins.	0	0	0	177	164	341	51	0	106	07:00 AM	34	244	0	278
+45 mins.	0	0	0	188	174	362	44	0	86	07:00 AM	20	255	0	275
Total Volume	0	0	0	786	729	1515	197	0	341	07:00 AM	131	954	0	1085
% App. Total	0	0	0	51.9	48.1	91.7	36.6	0	63.4	07:00 AM	12.1	87.9	0	976
PHF	.000	.000	.000	.923	.911	.917	.947	.000	.804	07:00 AM	.728	.935	.000	.976

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County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 13_CRV215NRAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

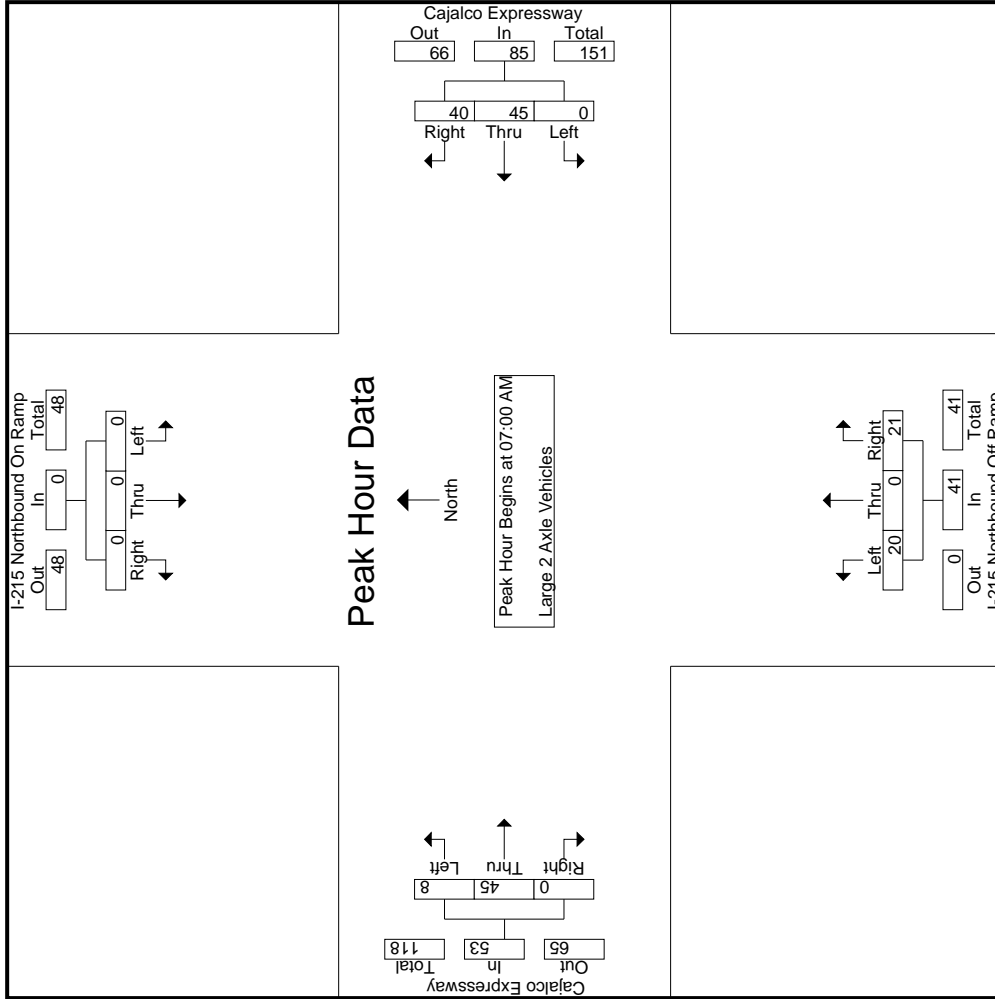
Start Time	I-215 Northbound On Ramp Southbound				Cajalco Expressway Westbound				I-215 Northbound Off Ramp Northbound				Cajalco Expressway Eastbound				Inclu. Total	Int. Total			
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total					
07:00 AM	0	0	0	0	0	10	7	1	17	4	0	5	1	9	3	10	0	13	2	39	41
07:15 AM	0	0	0	0	0	12	11	4	23	2	0	6	1	8	2	14	0	16	5	47	52
07:30 AM	0	0	0	0	0	13	10	3	23	7	0	6	3	13	2	9	0	11	6	47	53
07:45 AM	0	0	0	0	0	10	12	3	22	7	0	4	2	11	1	12	0	13	5	46	51
Total	0	0	0	0	0	45	40	11	85	20	0	21	7	41	8	45	0	53	18	179	197
08:00 AM	0	0	0	0	0	10	6	0	16	5	1	4	2	10	5	8	0	13	2	39	41
08:15 AM	0	0	0	0	0	11	5	1	16	11	0	5	0	16	0	7	0	7	1	39	40
08:30 AM	0	0	0	0	0	7	2	0	9	2	0	7	2	9	3	13	0	16	2	34	36
08:45 AM	0	0	0	0	0	5	5	1	10	5	0	2	2	7	5	8	0	13	3	30	33
Total	0	0	0	0	0	33	18	2	51	23	1	18	6	42	13	36	0	49	8	142	150
Grand Total	0	0	0	0	0	78	58	13	136	43	1	39	13	83	21	81	0	102	26	321	347
Approch %	0	0	0	0	0	57.4	42.6			51.8	1.2	47		25.9	20.6	79.4	0	31.8	7.5	92.5	
Total %	0	0	0	0	0	24.3	18.1			13.4	0.3	12.1			6.5	25.2	0				

Start Time	I-215 Northbound On Ramp Southbound				Cajalco Expressway Westbound				I-215 Northbound Off Ramp Northbound				Cajalco Expressway Eastbound				Inclu. Total	Int. Total			
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total					
07:00 AM	0	0	0	0	0	10	7	1	17	4	0	5	1	9	3	10	0	13	2	39	41
07:15 AM	0	0	0	0	0	12	11	4	23	2	0	6	1	8	2	14	0	16	5	47	52
07:30 AM	0	0	0	0	0	13	10	3	23	7	0	6	3	13	2	9	0	11	6	47	53
07:45 AM	0	0	0	0	0	10	12	3	22	7	0	4	2	11	1	12	0	13	5	46	51
Total	0	0	0	0	0	45	40	11	85	20	0	21	7	41	8	45	0	53	18	179	197
08:00 AM	0	0	0	0	0	10	6	0	16	5	1	4	2	10	5	8	0	13	2	39	41
08:15 AM	0	0	0	0	0	11	5	1	16	11	0	5	0	16	0	7	0	7	1	39	40
08:30 AM	0	0	0	0	0	7	2	0	9	2	0	7	2	9	3	13	0	16	2	34	36
08:45 AM	0	0	0	0	0	5	5	1	10	5	0	2	2	7	5	8	0	13	3	30	33
Total	0	0	0	0	0	33	18	2	51	23	1	18	6	42	13	36	0	49	8	142	150
Grand Total	0	0	0	0	0	78	58	13	136	43	1	39	13	83	21	81	0	102	26	321	347
Approch %	0	0	0	0	0	57.4	42.6			51.8	1.2	47		25.9	20.6	79.4	0	31.8	7.5	92.5	
Total %	0	0	0	0	0	24.3	18.1			13.4	0.3	12.1			6.5	25.2	0				

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 13_CRV215NRAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

File Name : 13_CRV215NRAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

Start Time	I-215 Northbound On Ramp Southbound			Cajalco Expressway Westbound			I-215 Northbound Off Ramp Northbound			Cajalco Expressway Eastbound			App. Total	Int. Total			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right					
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
+0 mins.	0	0	0	0	0	7	0	0	0	0	0	0	3	10	0	9	13
+15 mins.	0	0	0	0	0	11	0	0	0	2	0	6	2	14	0	8	16
+30 mins.	0	0	0	0	0	10	0	0	0	7	0	6	2	9	0	13	11
+45 mins.	0	0	0	0	0	12	0	0	0	7	0	4	1	12	0	11	13
Total Volume	0	0	0	0	0	40	0	0	0	20	0	21	8	45	0	41	53
% App. Total	0	0	0	0	0	47.1	0	0	0	48.8	0	51.2	15.1	84.9	0	788	828
PHF	.000	.000	.000	.000	.000	.833	.000	.000	.000	.714	.000	.875	.667	.804	.000	.924	.828

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

File Name : 13_CRV215NRAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

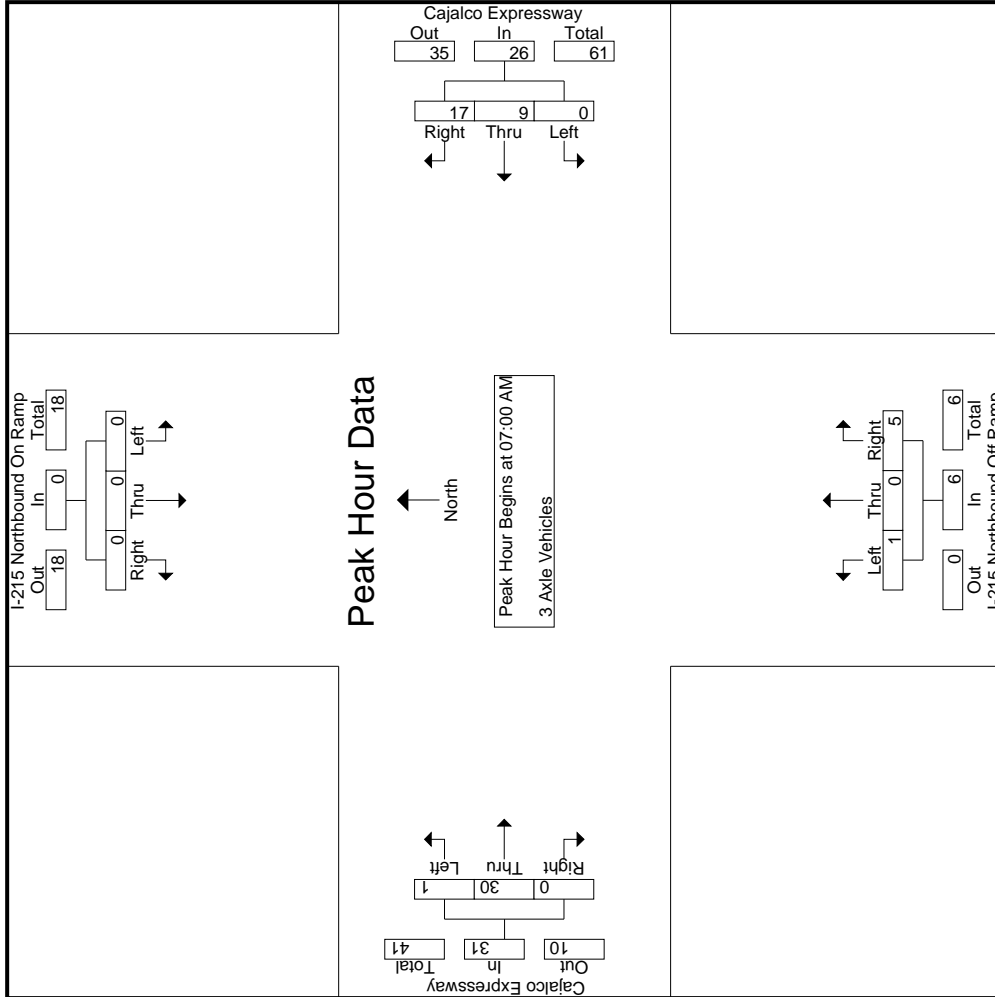
Groups Printed- 3 Axle Vehicles

Start Time	I-215 Northbound On Ramp Southbound				Cajalco Expressway Westbound				I-215 Northbound Off Ramp Northbound				Cajalco Expressway Eastbound						
	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	App. Total	Exclu. Total	
07:00 AM	0	0	0	0	0	2	2	0	4	0	0	2	2	0	5	0	2	11	13
07:15 AM	0	0	0	0	0	3	6	0	9	0	0	2	0	0	8	0	0	19	19
07:30 AM	0	0	0	0	0	3	5	2	8	1	0	1	0	0	5	2	0	15	17
07:45 AM	0	0	0	0	0	1	4	3	5	0	0	0	0	0	13	3	3	18	21
Total	0	0	0	0	0	9	17	5	26	1	0	5	2	6	31	7	63	70	70
08:00 AM	0	0	0	0	0	1	6	0	7	0	0	0	0	0	10	0	0	17	17
08:15 AM	0	0	0	0	0	0	16	1	16	0	0	0	0	0	8	1	24	25	25
08:30 AM	0	0	0	0	0	1	7	3	8	0	0	1	0	1	4	3	13	16	16
08:45 AM	0	0	0	0	0	3	2	1	5	1	0	0	0	1	8	1	14	15	15
Total	0	0	0	0	0	5	31	5	36	1	0	1	0	2	30	5	68	73	73
Grand Total	0	0	0	0	0	14	48	10	62	2	0	6	2	8	61	12	131	143	143
Approach %	0	0	0	0	0	22.6	77.4		47.3	25	0	75	6.1	90.2	46.6	8.4	91.6		
Total %	0	0	0	0	0	10.7	36.6		47.3	1.5	0	4.6	6.1	42	0	8.4	91.6		
Start Time	I-215 Northbound On Ramp Southbound				Cajalco Expressway Westbound				I-215 Northbound Off Ramp Northbound				Cajalco Expressway Eastbound						
	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	App. Total	Exclu. Total	
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour for Entire Intersection Begins at 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM	0	0	0	0	0	2	2	0	4	0	0	0	2	0	5	0	5	5	11
07:15 AM	0	0	0	0	0	3	6	0	9	0	0	2	0	2	7	0	8	8	19
07:30 AM	0	0	0	0	0	3	5	2	8	1	0	1	0	2	5	0	5	5	15
07:45 AM	0	0	0	0	0	1	4	3	5	0	0	0	0	0	13	0	13	13	18
Total Volume	0	0	0	0	0	9	17	5	26	1	0	5	6	6	30	0	31	31	63
% App. Total	0	0	0	0	0	34.6	65.4		65.4	16.7	0	83.3	3.2	96.8	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.750	.708		.722	.250	.000	.625	.250	.577	.000	.596	.829		

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 13_CRV215NRAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

File Name : 13_CRV215NRAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

Start Time	I-215 Northbound On Ramp Southbound			Cajalco Expressway Westbound			I-215 Northbound Off Ramp Northbound			Cajalco Expressway Eastbound			App. Total	Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1														
Peak Hour for Each Approach Begins at:														
+0 mins.	0	0	0	0	0	2	0	0	0	0	0	5	0	5
+15 mins.	0	0	0	0	3	6	0	0	0	1	7	0	0	8
+30 mins.	0	0	0	0	3	5	1	0	1	0	5	0	0	5
+45 mins.	0	0	0	0	1	4	0	0	0	0	13	0	0	13
Total Volume	0	0	0	0	9	17	1	0	5	1	30	0	0	31
% App. Total	0	0	0	0	34.6	65.4	16.7	0	83.3	3.2	96.8	0	0	0
PHF	.000	.000	.000	.000	.750	.708	.250	.000	.625	.250	.577	.000	.750	.596

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 13_CRV215NRAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

Groups Printed- 4+ Axle Trucks

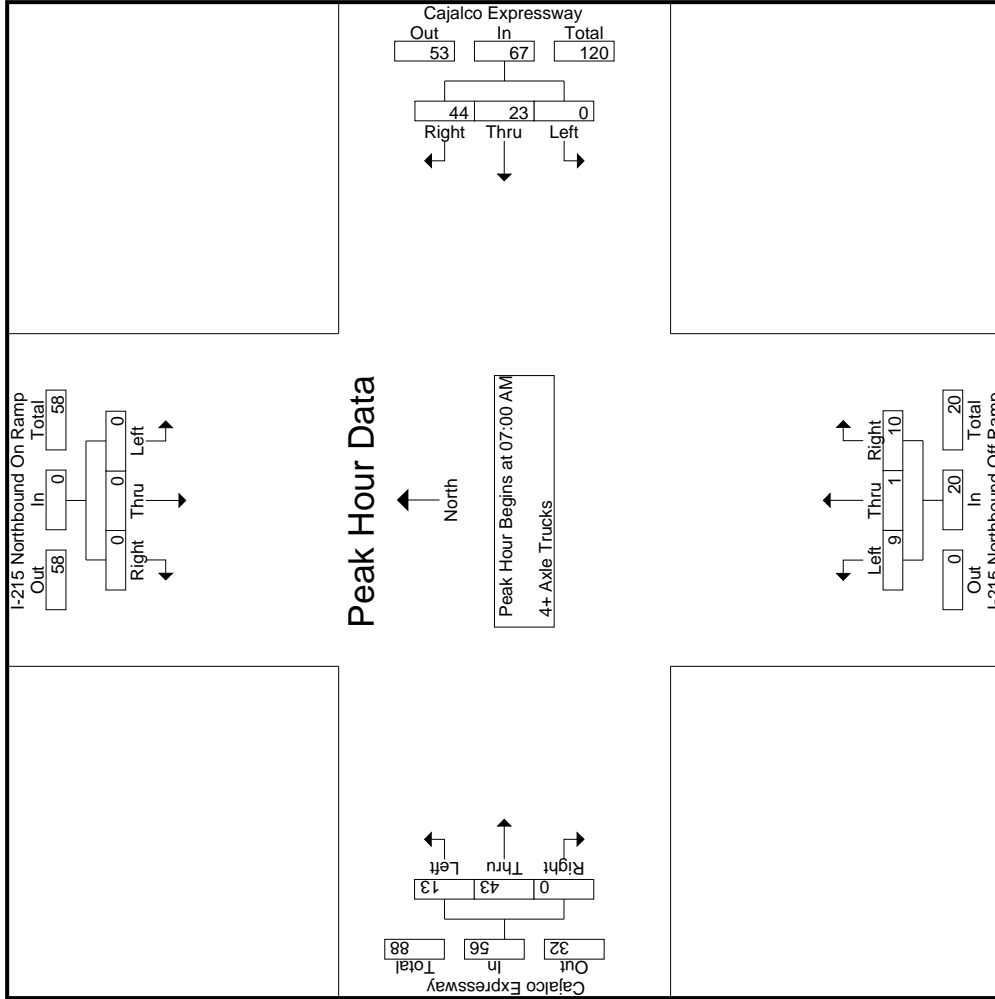
Start Time	I-215 Northbound On Ramp Southbound				Cajalco Expressway Westbound				I-215 Northbound Off Ramp Northbound				Cajalco Expressway Eastbound				Inclu. Total	Int. Total	
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total			
07:00 AM	0	0	0	0	0	8	7	3	15	2	0	2	0	4	16	3	35	38	
07:15 AM	0	0	0	0	0	5	11	5	16	1	1	3	2	5	13	7	34	41	
07:30 AM	0	0	0	0	0	8	11	3	19	2	0	3	1	5	12	4	36	40	
07:45 AM	0	0	0	0	0	2	15	2	17	4	0	2	0	6	15	2	38	40	
Total	0	0	0	0	0	23	44	13	67	9	1	10	3	20	56	16	143	159	
08:00 AM	0	0	0	0	0	4	12	2	16	0	0	1	1	1	14	3	31	34	
08:15 AM	0	0	0	0	0	5	10	3	15	1	0	1	1	2	19	4	36	40	
08:30 AM	0	0	0	0	0	5	8	3	13	5	0	1	0	6	20	3	39	42	
08:45 AM	0	0	0	0	0	3	14	5	17	4	0	2	1	6	28	6	51	57	
Total	0	0	0	0	0	17	44	13	61	10	0	5	3	15	81	16	157	173	
Grand Total	0	0	0	0	0	40	88	26	128	19	1	15	6	35	137	32	300	332	
Approach %	0	0	0	0	0	31.2	68.8		42.7	54.3	2.9	42.9		11.7	26.3	73.7			
Total %	0	0	0	0	0	13.3	29.3		42.7	6.3	0.3	5		11.7	12	33.7		45.7	90.4

Start Time	I-215 Northbound On Ramp Southbound				Cajalco Expressway Westbound				I-215 Northbound Off Ramp Northbound				Cajalco Expressway Eastbound				Inclu. Total	Int. Total	
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total			
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total %	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 13_CRV215NRAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 13_CRV215NRAAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

Start Time	I-215 Northbound On Ramp Southbound			Cajalco Expressway Westbound			I-215 Northbound Off Ramp Northbound			Cajalco Expressway Eastbound			App. Total	Int. Total	
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right			
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1															
Peak Hour for Each Approach Begins at:															
+0 mins.	0	0	0	0	0	7	07:00 AM	2	0	2	07:00 AM	4	12	0	16
+15 mins.	0	0	0	0	5	11	07:00 AM	1	1	3	07:00 AM	5	8	0	13
+30 mins.	0	0	0	0	8	11	07:00 AM	2	0	3	07:00 AM	0	12	0	12
+45 mins.	0	0	0	0	2	15	07:00 AM	4	0	2	07:00 AM	4	11	0	15
Total Volume	0	0	0	0	23	44	07:00 AM	9	1	10	07:00 AM	13	43	0	56
% App. Total	0	0	0	0	34.3	65.7	07:00 AM	45	5	50	07:00 AM	23.2	76.8	0	56
PHF	.000	.000	.000	.000	.719	.733	07:00 AM	.563	.250	.833	07:00 AM	.650	.896	.000	.875

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

File Name : 13_CRV215NRAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	I-215 Northbound On Ramp Southbound						Cajalco Expressway Westbound						I-215 Northbound Off Ramp Northbound						Cajalco Expressway Eastbound								
	Left	Thru	Right	RTOR	App. Total		Left	Thru	Right	RTOR	App. Total		Left	Thru	Right	RTOR	App. Total		Left	Thru	Right	RTOR	App. Total				
04:00 PM	0	0	0	0	0		0	186	131	32	317		81	1	83	28	165		52	305	0	0	357		60	839	899
04:15 PM	0	0	0	0	0		0	171	158	47	329		92	1	102	26	195		48	285	0	0	333		73	857	930
04:30 PM	0	0	0	0	0		0	223	166	48	389		75	0	90	26	165		50	334	0	0	384		74	938	1012
04:45 PM	0	0	0	0	0		0	222	142	40	364		63	1	106	40	170		47	321	0	0	368		80	902	982
Total	0	0	0	0	0		0	802	597	167	1399		311	3	381	120	695		197	1245	0	0	1442		287	3536	3823
05:00 PM	0	0	0	0	0		0	206	167	54	373		86	0	81	23	167		43	379	0	0	422		77	962	1039
05:15 PM	0	0	0	0	0		0	204	113	48	317		90	0	78	27	168		37	291	0	0	328		75	813	888
05:30 PM	0	0	0	0	0		0	199	114	37	313		64	0	111	19	175		28	378	0	0	406		56	894	950
05:45 PM	0	0	0	0	0		0	172	122	41	294		77	1	103	23	181		40	338	0	0	378		64	853	917
Total	0	0	0	0	0		0	781	516	180	1297		317	1	373	92	691		148	1386	0	0	1534		272	3522	3794
Grand Total	0	0	0	0	0		0	1583	1113	347	2696		628	4	754	212	1386		345	2631	0	0	2976		559	7058	7617
Approach %	0	0	0	0	0		0	58.7	41.3				45.3	0.3	54.4				11.6	88.4	0	0			7.3	92.7	
Total %	0	0	0	0	0		0	22.4	15.8		38.2		8.9	0.1	10.7		19.6		4.9	37.3	0	0	42.2		0	0	0
Passenger Vehicles	0	0	0	0	0		0	1517	1011		2849		585	3	716		1506		318	2487	0	0	2805		0	0	7160
% Large 2 Axle Vehicles	0	0	0	0	0		0	95.8	90.8		92.5		93.2	75	95		95.3		92.2	94.5	0	0	94.3		0	0	94
% 3 Axle Vehicles	0	0	0	0	0		0	29	15		48		25	1	21		53		5	54	0	0	59		0	0	160
% 4+ Axle Trucks	0	0	0	0	0		0	1.8	1.3		1.2		4	25	2.8		3.3		1.4	2.1	0	0	2		0	0	2.1
3 Axle Vehicles	0	0	0	0	0		0	10	14		28		5	0	12		18		3	10	0	0	13		0	0	59
% 3 Axle Vehicles	0	0	0	0	0		0	0.6	1.3		1.2		0.8	0	1.6		1.1		0.9	0.4	0	0	0.4		0	0	0.8
4+ Axle Trucks	0	0	0	0	0		0	27	73		118		13	0	5		21		19	80	0	0	99		0	0	238
% 4+ Axle Trucks	0	0	0	0	0		0	1.7	6.6		5.2		2.1	0	0.7		1.4		5.5	3	0	0	3.3		0	0	3.1

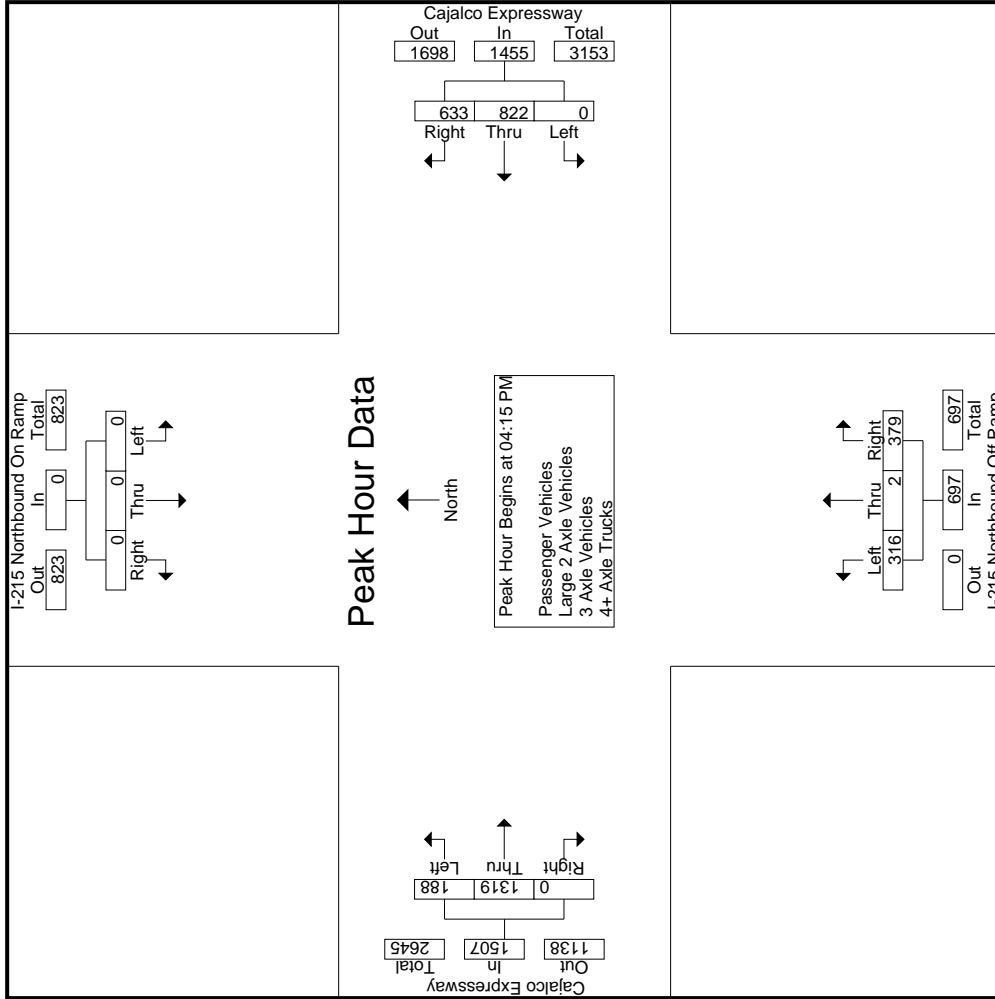
Start Time	I-215 Northbound On Ramp Southbound						Cajalco Expressway Westbound						I-215 Northbound Off Ramp Northbound						Cajalco Expressway Eastbound								
	Left	Thru	Right	RTOR	App. Total		Left	Thru	Right	RTOR	App. Total		Left	Thru	Right	RTOR	App. Total		Left	Thru	Right	RTOR	App. Total				
04:15 PM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
04:30 PM	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0
04:45 PM	0	0	0	0	0		0	222	142	0	364		63	1	106	0	170		47	321	0	0	368		0	0	902
05:00 PM	0	0	0	0	0		0	206	167	0	373		86	0	81	0	167		43	379	0	0	422		0	0	962
Total Volume	0	0	0	0	0		0	822	633	0	1455		316	2	379	0	697		188	1319	0	0	1507		0	0	3659
% App. Total	0	0	0	0	0		0	56.5	43.5		43.5		45.3	0.3	54.4		54.4		12.5	87.5	0	0	87.5		0	0	951
PHF	.000	.000	.000	.000	.000		.000	.922	.948		.935		.859	.500	.894		.894		.940	.870	.000	.000	.893		.000	.000	.951

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 04:15 PM

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 13_CRV215NRAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

File Name : 13_CRV/215NRAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

Start Time	I-215 Northbound On Ramp Southbound			Cajalco Expressway Westbound			I-215 Northbound Off Ramp Northbound			Cajalco Expressway Eastbound				
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1														
Peak Hour for Each Approach Begins at:														
+0 mins.	0	0	0	0	0	0	0	1	102	43	379	0	195	422
+15 mins.	0	0	0	0	171	158	75	0	90	37	291	0	165	328
+30 mins.	0	0	0	0	223	166	63	1	106	28	378	0	170	406
+45 mins.	0	0	0	0	206	167	86	0	81	40	338	0	167	378
Total Volume	0	0	0	0	822	633	316	2	379	148	1386	0	697	1534
% App. Total	.000	.000	.000	.000	.922	.948	.453	0.3	.894	.860	.914	.000	.894	.909
PHF														

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 13_CRV215NRAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

Groups Printed- Passenger Vehicles

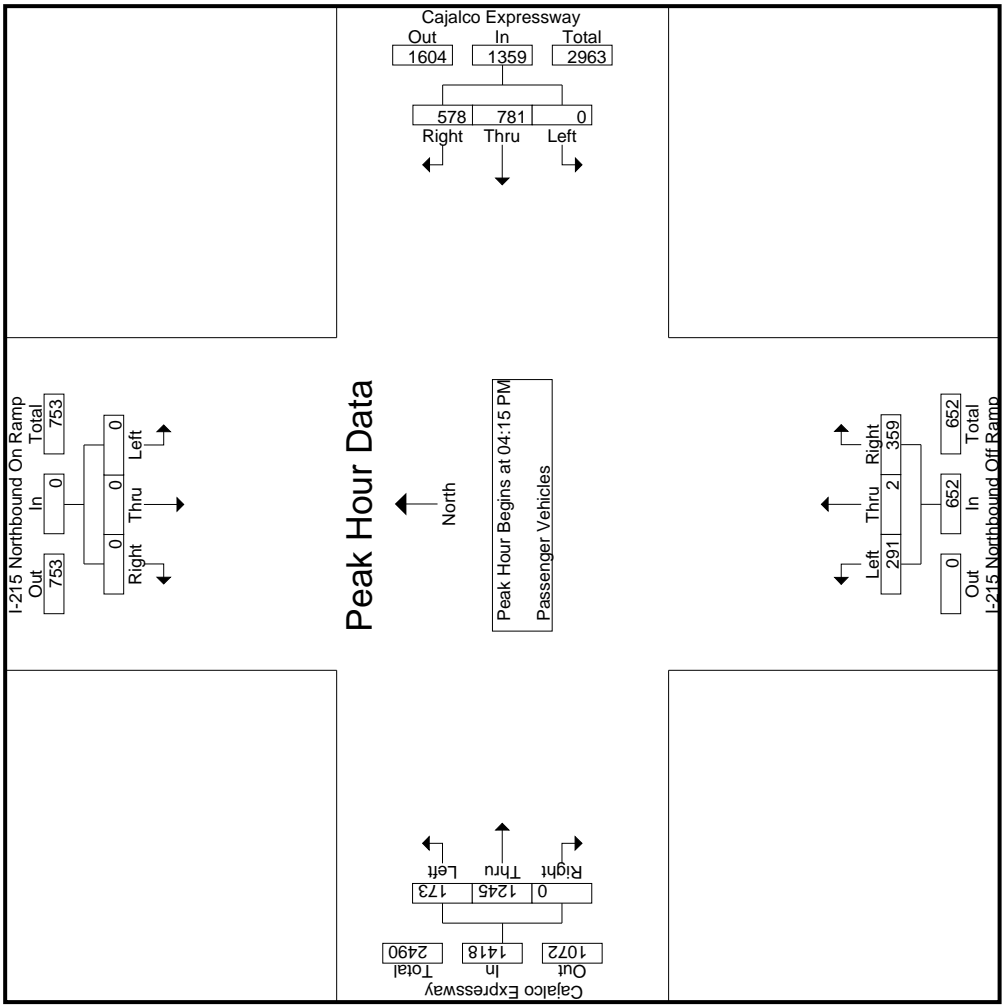
Start Time	I-215 Northbound On Ramp Southbound					Cajalco Expressway Westbound					I-215 Northbound Off Ramp Northbound					Cajalco Expressway Eastbound					Inclu. Total	Int. Total	
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total			Exclu. Total
04:00 PM	0	0	0	0	0	0	176	115	28	291	76	1	76	24	153	46	285	0	0	331	52	775	827
04:15 PM	0	0	0	0	0	0	159	140	43	299	80	1	97	26	178	43	264	0	0	307	69	784	853
04:30 PM	0	0	0	0	0	0	208	152	45	360	74	0	83	24	157	48	316	0	0	364	69	881	950
04:45 PM	0	0	0	0	0	0	217	131	37	348	56	1	100	37	157	41	302	0	0	343	74	848	922
Total	0	0	0	0	0	0	760	538	153	1298	286	3	356	111	645	178	1167	0	0	1345	264	3288	3552
05:00 PM	0	0	0	0	0	0	197	155	50	352	81	0	79	22	160	41	363	0	0	404	72	916	988
05:15 PM	0	0	0	0	0	0	199	105	44	304	86	0	74	27	160	35	277	0	0	312	71	776	847
05:30 PM	0	0	0	0	0	0	191	106	37	297	61	0	105	19	166	26	363	0	0	389	56	852	908
05:45 PM	0	0	0	0	0	0	170	107	37	277	71	0	102	23	173	38	317	0	0	355	60	805	865
Total	0	0	0	0	0	0	757	473	168	1230	299	0	360	91	659	140	1320	0	0	1460	259	3349	3608
Grand Total	0	0	0	0	0	0	1517	1011	321	2528	585	3	716	202	1304	318	2487	0	0	2805	523	6637	7160
Approach %	0	0	0	0	0	0	60	40			44.9	0.2	54.9		19.6	11.3	88.7	0	0	42.3	7.3	92.7	
Total %	0	0	0	0	0	0	22.9	15.2		38.1	8.8	0	10.8			4.8	37.5	0	0				

Start Time	I-215 Northbound On Ramp Southbound					Cajalco Expressway Westbound					I-215 Northbound Off Ramp Northbound					Cajalco Expressway Eastbound									
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total
04:15 PM	0	0	0	0	0	0	159	140		140	299	80	1	97	178	43	264	0	0	307	0	0	0	0	307
04:30 PM	0	0	0	0	0	0	208	152		152	360	74	0	83	157	48	316	0	0	364	0	0	0	0	364
04:45 PM	0	0	0	0	0	0	217	131		131	348	56	1	100	157	41	302	0	0	343	0	0	0	0	343
05:00 PM	0	0	0	0	0	0	197	155		155	352	81	0	79	160	41	363	0	0	404	0	0	0	0	404
Total Volume	0	0	0	0	0	0	781	578		578	1359	291	2	359	652	173	1245	0	0	1418	0	0	0	0	1418
% App. Total	0	0	0	0	0	0	57.5	42.5		42.5	55.1	44.6	0.3	55.1	12.2	87.8	0	0	0	87.8	0	0	0	0	87.8
PHF	.000	.000	.000	.000	.000	.000	.900	.932		.944	.898	.898	.500	.898	.916	.901	.857	.000	.000	.877	.000	.000	.000	.000	.936

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 13_CRV215NRAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

File Name : 13_CRV215NRAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

Start Time	I-215 Northbound On Ramp Southbound			Cajalco Expressway Westbound			I-215 Northbound Off Ramp Northbound			Cajalco Expressway Eastbound			App. Total	Int. Total	
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right			
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1															
Peak Hour for Each Approach Begins at:															
+0 mins.	0	0	0	0	159	140	80	1	97	43	264	0	178	307	
+15 mins.	0	0	0	0	208	152	74	0	83	48	316	0	157	364	
+30 mins.	0	0	0	0	217	131	56	1	100	41	302	0	157	343	
+45 mins.	0	0	0	0	197	155	81	0	79	41	363	0	160	404	
Total Volume	0	0	0	0	781	578	291	2	359	173	1245	0	652	1418	
% App. Total	0	0	0	0	57.5	42.5	44.6	0.3	55.1	12.2	87.8	0	91.6	.877	
PHF	.000	.000	.000	.000	.900	.932	.898	.500	.898	.901	.857	.000	.916	.877	

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 13_CRV215NRAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

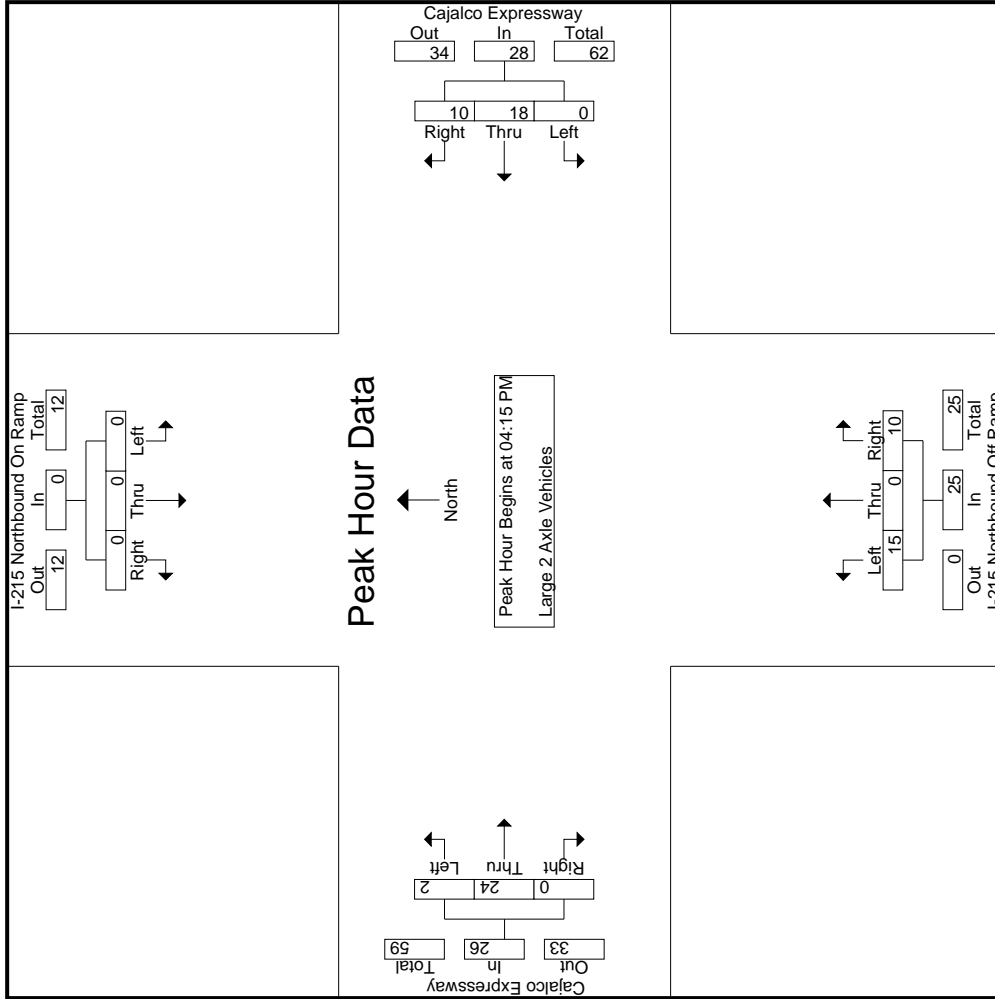
Start Time	I-215 Northbound On Ramp Southbound				Cajalco Expressway Westbound				I-215 Northbound Off Ramp Northbound				Cajalco Expressway Eastbound				Inclu. Total	Int. Total	
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total			
04:00 PM	0	0	0	0	0	3	2	0	5	3	0	4	3	7	6	3	18	21	
04:15 PM	0	0	0	0	0	6	7	1	13	10	0	4	0	14	6	1	33	34	
04:30 PM	0	0	0	0	0	7	2	1	9	0	0	2	1	2	9	2	20	22	
04:45 PM	0	0	0	0	0	2	0	0	2	3	0	2	1	5	6	1	13	14	
Total	0	0	0	0	0	18	11	2	29	16	0	12	5	28	27	7	84	91	
05:00 PM	0	0	0	0	0	3	1	0	4	2	0	2	1	4	5	1	13	14	
05:15 PM	0	0	0	0	0	1	2	2	3	1	0	4	0	5	7	2	15	17	
05:30 PM	0	0	0	0	0	6	0	0	6	2	0	2	0	4	11	0	21	21	
05:45 PM	0	0	0	0	0	1	1	0	2	4	1	1	0	6	9	0	17	17	
Total	0	0	0	0	0	11	4	2	15	9	1	9	1	19	32	3	66	69	
Grand Total	0	0	0	0	0	29	15	4	44	25	1	21	6	47	59	10	150	160	
Approch %	0	0	0	0	0	65.9	34.1			53.2	2.1	44.7		31.3	8.5	91.5			
Total %	0	0	0	0	0	19.3	10		29.3	16.7	0.7	14			3.3	36		6.2	93.8

Start Time	I-215 Northbound On Ramp Southbound				Cajalco Expressway Westbound				I-215 Northbound Off Ramp Northbound				Cajalco Expressway Eastbound									
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Int. Total
04:15 PM	0	0	0	0	0	0	6	7	13	10	0	0	4	14	1	5	0	6	33			
04:30 PM	0	0	0	0	0	0	7	2	9	0	0	0	2	2	1	8	0	9	20			
04:45 PM	0	0	0	0	0	0	2	0	2	3	0	0	2	5	0	6	0	6	13			
05:00 PM	0	0	0	0	0	0	3	1	4	2	0	2	2	4	0	5	0	5	13			
Total Volume	0	0	0	0	0	0	18	10	28	15	0	10	10	25	2	24	0	26	79			
% App. Total	0	0	0	0	0	0	64.3	35.7		60	0	40			7.7	92.3	0					
PHF	.000	.000	.000	.000	.000	.000	.643	.357		.538	.375	.000	.625		.500	.750	.000	.722				

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 13_CRV215NRAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 13_CRV215NRAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

Start Time	I-215 Northbound On Ramp Southbound			Cajalco Expressway Westbound			I-215 Northbound Off Ramp Northbound			Cajalco Expressway Eastbound			App. Total	Int. Total			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right					
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
+0 mins.	0	0	0	0	0	0	10	0	4	0	0	0	1	5	0	14	6
+15 mins.	0	0	0	0	0	0	0	0	2	0	0	0	1	8	0	2	9
+30 mins.	0	0	0	0	0	0	3	0	2	0	0	0	0	6	0	5	6
+45 mins.	0	0	0	0	0	0	2	0	2	0	0	0	0	5	0	4	5
Total Volume	0	0	0	0	18	10	15	0	10	0	10	0	2	24	0	25	26
% App. Total	0	0	0	0	64.3	35.7	60	0	40	0	40	0	7.7	92.3	0	7.7	92.3
PHF	.000	.000	.000	.000	.643	.357	.375	.000	.625	.000	.625	.000	.500	.750	.000	.446	.722

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 13_CRV215NRAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

Groups Printed- 3 Axle Vehicles

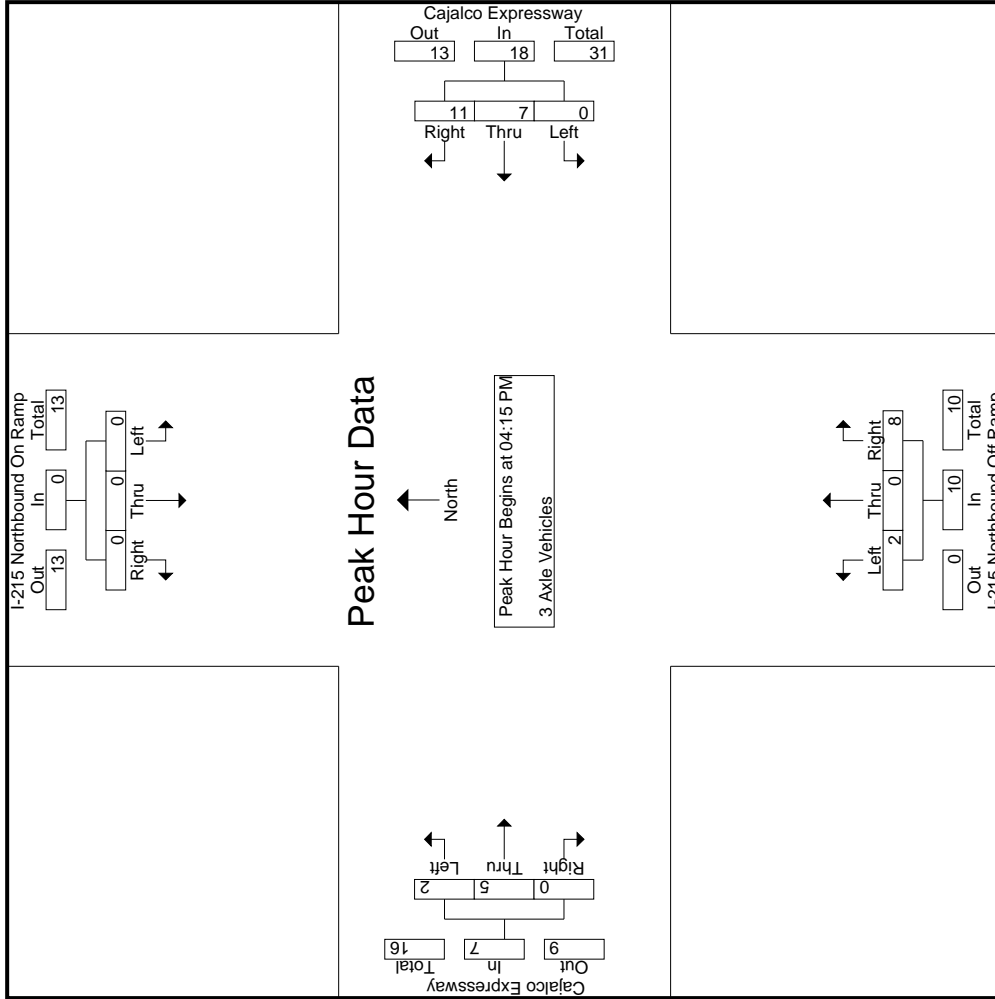
Start Time	I-215 Northbound On Ramp Southbound				Cajalco Expressway Westbound				I-215 Northbound Off Ramp Northbound				Cajalco Expressway Eastbound				Inclu. Total	Int. Total	
	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR			
04:00 PM	0	0	0	0	0	1	0	2	1	0	1	0	2	0	2	0	0	6	6
04:15 PM	0	0	0	0	0	3	5	2	8	0	0	1	0	1	0	0	1	2	10
04:30 PM	0	0	0	0	0	1	3	0	4	0	0	4	0	1	0	0	1	0	9
04:45 PM	0	0	0	0	0	1	0	0	1	0	0	3	1	4	0	0	5	1	10
Total	0	0	0	0	0	6	9	2	15	1	0	9	1	10	7	0	9	3	34
05:00 PM	0	0	0	0	0	2	3	2	5	2	0	0	2	0	0	0	0	2	7
05:15 PM	0	0	0	0	0	2	1	0	3	1	0	0	1	0	2	0	2	0	6
05:30 PM	0	0	0	0	0	0	0	0	0	1	0	3	0	4	1	0	1	0	5
05:45 PM	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	0	2	2
Total	0	0	0	0	0	4	5	2	9	4	0	3	0	7	3	0	4	2	20
Grand Total	0	0	0	0	0	10	14	4	24	5	0	12	1	17	3	10	0	13	54
Approch %	0	0	0	0	0	41.7	58.3		29.4	0	70.6		31.5	23.1	76.9	0	24.1	8.5	91.5
Total %	0	0	0	0	0	18.5	25.9		44.4	9.3	0	22.2		5.6	18.5	0	24.1	8.5	91.5

Start Time	I-215 Northbound On Ramp Southbound				Cajalco Expressway Westbound				I-215 Northbound Off Ramp Northbound				Cajalco Expressway Eastbound				Inclu. Total	Int. Total	
	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR			
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1
04:30 PM	0	0	0	0	0	0	1	3	4	0	0	0	4	0	1	0	0	1	1
04:45 PM	0	0	0	0	0	0	1	0	1	0	0	0	3	1	4	0	0	5	9
05:00 PM	0	0	0	0	0	0	2	3	5	2	0	0	2	0	0	0	0	0	7
Total Volume	0	0	0	0	0	7	11	18	37	2	0	8	10	2	5	0	7	35	
% App. Total	0	0	0	0	0	38.9	61.1		61.1	20	0	80		28.6	71.4	0	24.1	8.5	91.5
PHF	.000	.000	.000	.000	.000	.583	.550		.563	.250	.000	.500		.500	.313	.000	.350	.875	

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 13_CRV215NRAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

File Name : 13_CRV215NRAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

Start Time	I-215 Northbound On Ramp Southbound			Cajalco Expressway Westbound			I-215 Northbound Off Ramp Northbound			Cajalco Expressway Eastbound			App. Total	Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1														
Peak Hour for Each Approach Begins at:														
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	1
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	5
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	11	18	2	0	8	10	2	5	0
% App. Total	0	0	0	0	0	38.9	61.1	20	0	80	28.6	71.4	0	7
PHF	.000	.000	.000	.000	.000	.583	.550	.250	.000	.500	.625	.500	.313	.000

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 13_CRV215NRAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

Groups Printed- 4+ Axle Trucks

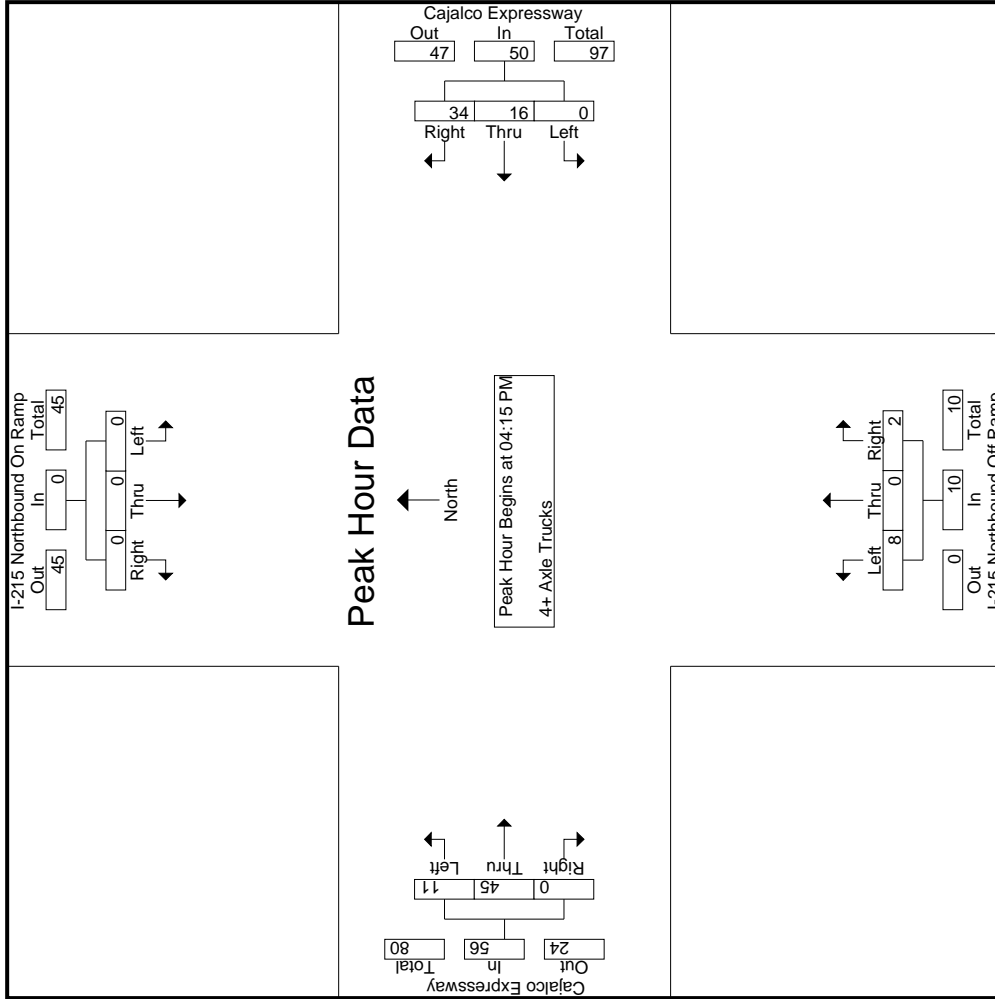
Start Time	I-215 Northbound On Ramp Southbound				Cajalco Expressway Westbound				I-215 Northbound Off Ramp Northbound				Cajalco Expressway Eastbound				Inclu. Total	Int. Total			
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total					
04:00 PM	0	0	0	0	0	6	13	4	19	1	0	2	1	3	5	13	0	18	5	40	45
04:15 PM	0	0	0	0	0	3	6	1	9	2	0	0	0	2	3	16	0	19	1	30	31
04:30 PM	0	0	0	0	0	7	9	2	16	1	0	1	1	2	1	9	0	10	3	28	31
04:45 PM	0	0	0	0	0	2	11	3	13	4	0	1	1	5	5	9	0	14	4	32	36
Total	0	0	0	0	0	18	39	10	57	8	0	4	3	12	14	47	0	61	13	130	143
05:00 PM	0	0	0	0	0	4	8	2	12	1	0	0	0	1	2	11	0	13	2	26	28
05:15 PM	0	0	0	0	0	2	5	2	7	2	0	0	0	2	1	6	0	7	2	16	18
05:30 PM	0	0	0	0	0	2	8	0	10	0	0	1	0	1	0	5	0	5	0	16	16
05:45 PM	0	0	0	0	0	1	13	4	14	2	0	0	0	2	2	11	0	13	4	29	33
Total	0	0	0	0	0	9	34	8	43	5	0	1	0	6	5	33	0	38	8	87	95
Grand Total	0	0	0	0	0	27	73	18	100	13	0	5	3	18	19	80	0	99	21	217	238
Approch %	0	0	0	0	0	27	73		46.1	72.2	0	27.8		8.3	19.2	80.8		45.6	8.8	91.2	
Total %	0	0	0	0	0	12.4	33.6		46.1	6	0	2.3		8.3	8.8	36.9		0	8.8	91.2	

Start Time	I-215 Northbound On Ramp Southbound				Cajalco Expressway Westbound				I-215 Northbound Off Ramp Northbound				Cajalco Expressway Eastbound				Inclu. Total	Int. Total				
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total						
04:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0	19	30
04:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	1	2	1	9	0	0	0	10	28
04:45 PM	0	0	0	0	0	0	0	0	0	4	0	0	1	1	5	9	0	0	0	0	14	32
05:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	11	0	0	0	0	13	26
Total Volume	0	0	0	0	0	0	0	0	0	8	0	0	2	10	11	45	0	0	0	0	56	116
% App. Total	0	0	0	0	0	0	0	0	0	80	0	20		19.6	80.4	0						
PHF	.000	.000	.000	.000	.000	.000	.571	.773	.781	.500	.000	.500		.500	.550	.703		.000	.000	.737	.906	

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

File Name : 13_CRV215NRAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Counts Unlimited
 PO Box 1178
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 951-268-6268

File Name : 13_CRV215NRAPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Cajalco Expressway
 Weather: Clear

Start Time	I-215 Northbound On Ramp Southbound			Cajalco Expressway Westbound			I-215 Northbound Off Ramp Northbound			Cajalco Expressway Eastbound			App. Total	Int. Total			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right					
Peak Hour Analysis From 04:15 PM to 05:00 PM - Peak 1 of 1																	
Peak Hour for Each Approach Begins at:																	
+0 mins.	0	0	0	0	0	0	2	0	0	0	0	0	3	16	0	2	19
+15 mins.	0	0	0	0	0	0	1	0	0	0	1	0	1	9	0	2	10
+30 mins.	0	0	0	0	0	0	4	0	0	0	4	0	5	9	0	5	14
+45 mins.	0	0	0	0	0	0	1	0	0	0	1	0	2	11	0	1	13
Total Volume	0	0	0	0	16	34	8	0	2	8	2	2	11	45	0	10	56
% App. Total	0	0	0	0	32	68	80	0	20	50	20	50	19.6	80.4	0	.550	.737
PHF	.000	.000	.000	.000	.571	.773	.500	.000	.500	.781	.500	.500	.550	.703	.000	.500	.737

Location: County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Ramona Expy



Date: 2/12/2018
 Day: Tuesday

PEDESTRIANS

	North Leg I-215 Northbound Ramps	East Leg Ramona Expy	South Leg I-215 Northbound Ramps	West Leg Ramona Expy	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	1	0	1
7:15 AM	0	0	0	0	0
7:30 AM	0	0	1	0	1
7:45 AM	0	0	1	0	1
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	3	0	3

	North Leg I-215 Northbound Ramps	East Leg Ramona Expy	South Leg I-215 Northbound Ramps	West Leg Ramona Expy	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0

Location: County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Ramona Expy



Date: 2/12/2018
 Day: Tuesday

BICYCLES

	Southbound I-215 Northbound Ramps			Westbound Ramona Expy			Northbound I-215 Northbound Ramps				Eastbound Ramona Expy			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound I-215 Northbound Ramps			Westbound Ramona Expy			Northbound I-215 Northbound Ramps				Eastbound Ramona Expy			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

File Name : 15_PER215NNUAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Nuevo Road
 Weather: Clear

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

Start Time	I-215 Northbound On Ramp						Nuevo Road Westbound						I-215 Northbound Off Ramp						Nuevo Road Eastbound											
	Southbound			Westbound			Southbound			Westbound			Northbound			Eastbound			Northbound			Eastbound								
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	175	103	6	278	0	0	124	51	195	3	122	0	0	125	57	598	655	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	233	83	27	316	0	0	131	76	203	12	195	0	0	207	103	726	829	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	261	70	30	331	0	0	152	90	218	12	191	0	0	203	120	752	872	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	246	114	40	360	0	2	137	77	201	11	198	0	0	209	117	770	887	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	915	370	103	1285	0	2	544	294	817	38	706	0	0	744	397	2846	3243	0	0	0	0	0	0	0	0	0
08:00 AM	0	0	0	0	139	109	33	248	0	0	95	73	134	8	109	0	0	117	106	499	605	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	102	105	13	207	0	0	92	71	108	9	82	0	0	91	84	406	490	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	91	84	24	175	0	0	61	47	85	3	115	0	0	118	71	378	449	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	105	84	30	189	0	0	77	72	99	12	79	0	0	91	102	379	481	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	437	382	100	819	0	0	325	263	426	32	385	0	0	417	363	1662	2025	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	1352	752	203	2104	0	2	869	557	1243	70	1091	0	0	1161	760	4508	5268	0	0	0	0	0	0	0	0	0
Approach %	0	0	0	0	64.3	35.7		46.7		0.2	69.9		27.6	6	94			25.8	14.4	85.6										
Total %	0	0	0	0	30	16.7		46.7		19.3	19.3		27.6	1.6	24.2			25.8	14.4	85.6										
Passenger Vehicles	0	0	0	0	1311	733	2238	2238	0	0	862	97.3	1762	69	1063	0	0	1132	0	0	0	0	0	0	0	0	0	0	0	0
% Large 2 Axle Vehicles	0	0	0	0	97	97.5	95.6	97	0	0	99.2	97.3	97.9	98.6	97.4	0	0	97.5	0	0	0	0	0	0	0	0	0	0	0	0
Large 2 Axle Vehicles	0	0	0	0	30	14	52	52	0	0	7	29	29	1	25	0	0	26	0	0	0	0	0	0	0	0	0	0	0	0
% Large 3 Axle Vehicles	0	0	0	0	2.2	1.9	3.9	2.3	0	0.8	2.3	1.6	1.6	1.4	2.3	0	0	2.2	0	0	0	0	0	0	0	0	0	0	0	0
3 Axle Vehicles	0	0	0	0	6	1	7	7	0	0	0	5	5	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
% 3 Axle Vehicles	0	0	0	0	0.4	0.1	0	0.3	0	0.2	0.2	0.3	0.3	0	0.1	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0
4+ Axle Trucks	0	0	0	0	5	4	10	10	0	0	0	4	4	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
% 4+ Axle Trucks	0	0	0	0	0.4	0.5	0.5	0.4	0	0	0	0.2	0.2	0	0.2	0	0	0.2	0	0	0	0	0	0	0	0	0	0	0	0

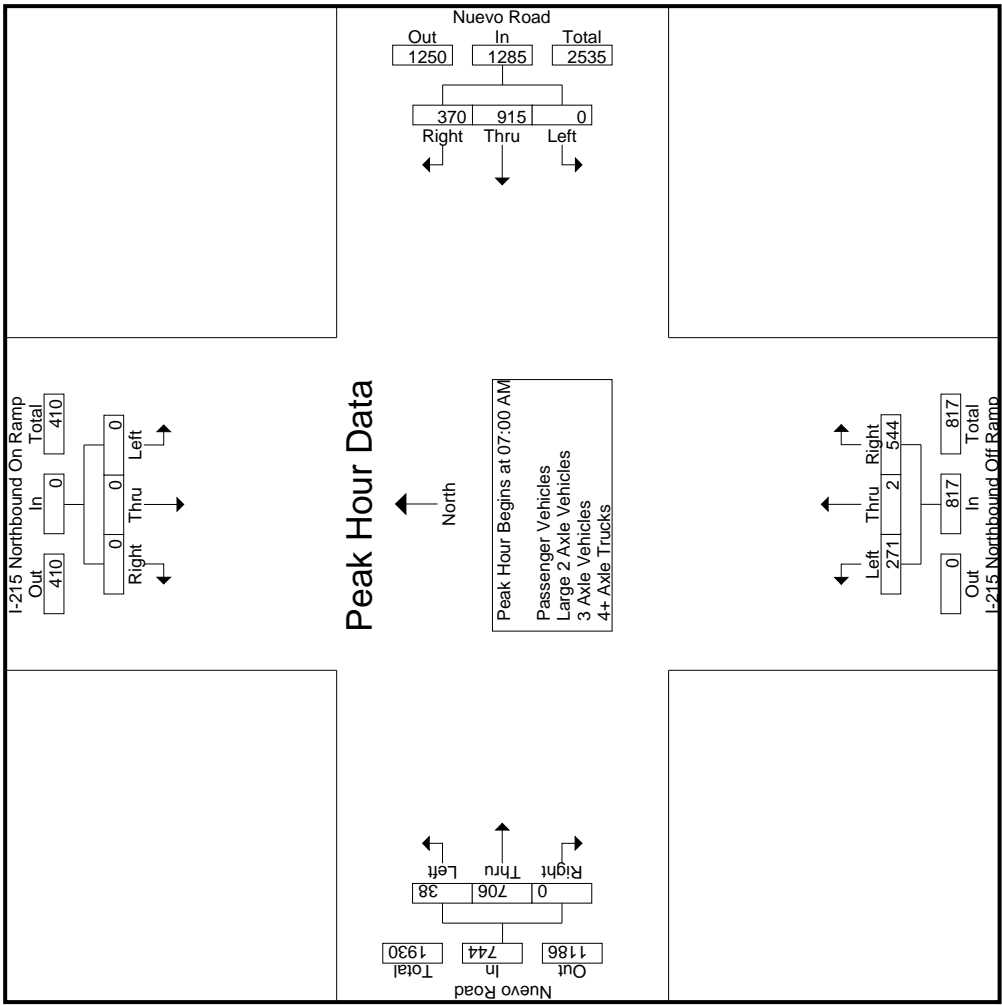
Start Time	I-215 Northbound On Ramp						Nuevo Road Westbound						I-215 Northbound Off Ramp						Nuevo Road Eastbound											
	Southbound			Westbound			Southbound			Westbound			Northbound			Eastbound			Northbound			Eastbound								
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	175	103	6	278	0	0	124	51	195	3	122	0	0	125	57	598	655	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	233	83	27	316	0	0	131	76	203	12	195	0	0	207	103	726	829	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	261	70	30	331	0	0	152	90	218	12	191	0	0	203	120	752	872	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	246	114	40	360	0	2	137	77	201	11	198	0	0	209	117	770	887	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	915	370	103	1285	0	2	544	294	817	38	706	0	0	744	397	2846	3243	0	0	0	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.876	.811		.892		.250	.895		.937	.792	.891			.000	.890	.924										

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

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

File Name : 15_PER215NNUAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Nuevo Road
 Weather: Clear



Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

File Name : 15_PER215NNUAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Nuevo Road
 Weather: Clear

Start Time	I-215 Northbound On Ramp Southbound				Nuevo Road Westbound				I-215 Northbound Off Ramp Northbound				Nuevo Road Eastbound			
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																
Peak Hour for Each Approach Begins at:																
	07:00 AM				07:00 AM				07:00 AM				07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	915	370	1285	271	2	544	817	38	706	0	744
% App. Total	0	0	0	0	0	71.2	28.8	33.2	0.2	66.6	5.1	94.9	5.1	94.9	0	0
PHF	.000	.000	.000	.000	.000	.876	.811	.892	.941	.250	.895	.937	.792	.891	.000	.890

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 15_PER215NNUAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

Groups Printed- Passenger Vehicles

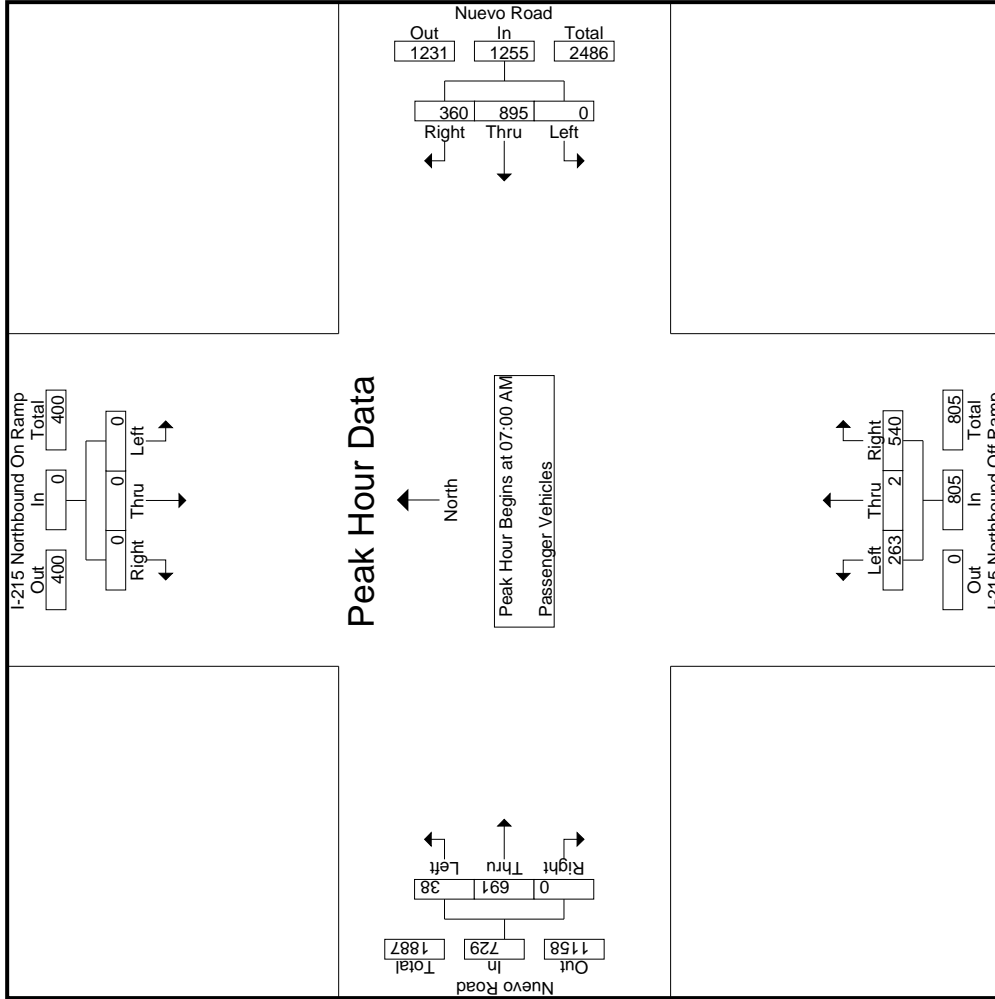
Start Time	I-215 Northbound On Ramp Southbound					Nuevo Road Westbound					I-215 Northbound Off Ramp Northbound					Nuevo Road Eastbound							
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
07:00 AM	0	0	0	0	0	0	165	99	6	264	71	0	122	49	193	3	117	0	0	120	55	577	632
07:15 AM	0	0	0	0	0	0	229	81	24	310	67	0	130	75	197	12	194	0	0	206	99	713	812
07:30 AM	0	0	0	0	0	0	259	69	29	328	65	0	151	86	216	12	186	0	0	198	115	742	857
07:45 AM	0	0	0	0	0	0	242	111	37	353	60	2	137	76	199	11	194	0	0	205	113	757	870
Total	0	0	0	0	0	0	895	360	96	1255	263	2	540	286	805	38	691	0	0	729	382	2789	3171
08:00 AM	0	0	0	0	0	0	131	107	32	238	36	0	95	71	131	7	108	0	0	115	103	484	587
08:15 AM	0	0	0	0	0	0	97	102	12	199	14	0	91	68	105	9	77	0	0	86	80	390	470
08:30 AM	0	0	0	0	0	0	85	81	24	166	22	0	60	46	82	3	112	0	0	115	70	363	433
08:45 AM	0	0	0	0	0	0	103	83	30	186	21	0	76	71	97	12	75	0	0	87	101	370	471
Total	0	0	0	0	0	0	416	373	98	789	93	0	322	256	415	31	372	0	0	403	354	1607	1961
Grand Total	0	0	0	0	0	0	1311	733	194	2044	356	2	862	542	1220	69	1063	0	0	1132	736	4396	5132
Approach %	0	0	0	0	0	0	64.1	35.9		46.5	29.2	0.2	70.7		27.8	6.1	93.9	0	0	25.8	14.3	85.7	
Total %	0	0	0	0	0	0	29.8	16.7		46.5	8.1	0	19.6		27.8	1.6	24.2	0	0	25.8	14.3	85.7	

Start Time	I-215 Northbound On Ramp Southbound					Nuevo Road Westbound					I-215 Northbound Off Ramp Northbound					Nuevo Road Eastbound								
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total	
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour for Entire Intersection Begins at 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM	0	0	0	0	0	0	165	99	6	264	71	0	122	49	193	3	117	0	0	120	55	577	632	
07:15 AM	0	0	0	0	0	0	229	81	24	310	67	0	130	75	197	12	194	0	0	206	99	713	812	
07:30 AM	0	0	0	0	0	0	259	69	29	328	65	0	151	86	216	12	186	0	0	198	115	742	857	
07:45 AM	0	0	0	0	0	0	242	111	37	353	60	2	137	76	199	11	194	0	0	205	113	757	870	
Total Volume	0	0	0	0	0	0	895	360	96	1255	263	2	540	286	805	38	691	0	0	729	382	2789	3171	
% App. Total	0	0	0	0	0	0	71.3	28.7		46.5	29.2	0.2	70.7		27.8	6.1	93.9	0	0	25.8	14.3	85.7		
PHF	.000	.000	.000	.000	.000	.000	.864	.811		.889	.926	.250	.894		.932	.792	.890	.000	.000	.885	.000	.885	.921	

Counts Unlimited
 PO Box 1178
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 951-268-6268

File Name : 15_PER215NNUAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Nuevo Road
 Weather: Clear



Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

File Name : 15_PER215NNUAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Nuevo Road
 Weather: Clear

Start Time	I-215 Northbound On Ramp Southbound			Nuevo Road Westbound			I-215 Northbound Off Ramp Northbound			Nuevo Road Eastbound					
	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 07:45 AM - Peak 1 of 1															
Peak Hour for Each Approach Begins at:															
	07:00 AM			07:00 AM			07:00 AM			07:00 AM					
+0 mins.	0	0	0	0	165	99	264	71	0	122	193	3	117	0	120
+15 mins.	0	0	0	0	229	81	310	67	0	130	197	12	194	0	206
+30 mins.	0	0	0	0	259	69	328	65	0	151	216	12	186	0	198
+45 mins.	0	0	0	0	242	111	353	60	2	137	199	11	194	0	205
Total Volume	0	0	0	0	895	360	1255	263	2	540	805	38	691	0	729
% App. Total	0	0	0	0	71.3	28.7	88.9	32.7	0.2	67.1	93.2	5.2	94.8	0	88.5
PHF	.000	.000	.000	.000	.864	.811	.889	.926	.250	.894	.932	.792	.890	.000	.885

Counts Unlimited
 PO Box 1178
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 951-268-6268

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 15_PER215NNUAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

Start Time	I-215 Northbound On Ramp Southbound				Nuevo Road Westbound				I-215 Northbound Off Ramp Northbound				Nuevo Road Eastbound			
	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR
07:00 AM	0	0	0	0	0	7	3	0	0	0	2	2	0	0	3	0
07:15 AM	0	0	0	0	0	3	2	3	2	0	1	0	0	1	0	0
07:30 AM	0	0	0	0	0	2	1	1	1	0	1	4	0	5	0	0
07:45 AM	0	0	0	0	0	2	2	3	4	1	0	1	0	3	0	0
Total	0	0	0	0	0	14	8	7	22	4	0	4	7	8	12	0
08:00 AM	0	0	0	0	0	6	2	1	8	2	0	0	1	1	0	0
08:15 AM	0	0	0	0	0	3	3	0	6	2	0	1	3	0	5	0
08:30 AM	0	0	0	0	0	5	1	0	6	0	0	1	1	0	3	0
08:45 AM	0	0	0	0	0	2	0	0	2	1	0	1	2	0	4	0
Total	0	0	0	0	0	16	6	1	22	5	0	3	6	8	13	0
Grand Total	0	0	0	0	0	30	14	8	44	9	0	7	13	16	25	0
Approach %	0	0	0	0	68.2	31.8			56.2	0	43.8		18.6	3.8	96.2	0
Total %	0	0	0	0	34.9	16.3			10.5	0	8.1		19.6	1.2	29.1	0

3.1-320

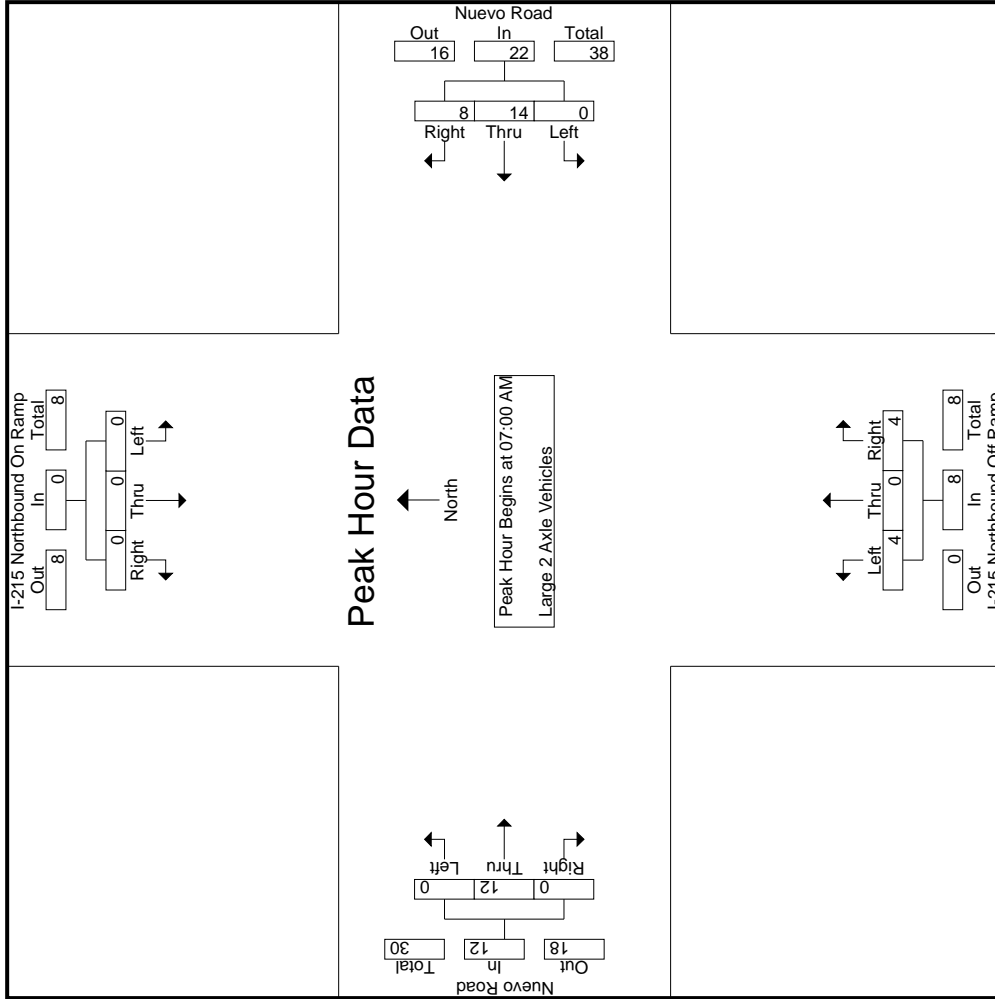
Start Time	I-215 Northbound On Ramp Southbound				Nuevo Road Westbound				I-215 Northbound Off Ramp Northbound				Nuevo Road Eastbound			
	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	14	8	8	22	4	0	4	4	8	0	12
% App. Total	0	0	0	0	0	63.6	36.4		36.4	50	0	50	0	100	0	0
PHF	.000	.000	.000	.000	.000	.500	.667		.550	.500	.000	.500	.667	.600	.000	.600

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 07:00 AM

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 15_PER215NNUAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

File Name : 15_PER215NNUAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Nuevo Road
 Weather: Clear

Start Time	I-215 Northbound On Ramp Southbound			Nuevo Road Westbound			I-215 Northbound Off Ramp Northbound			Nuevo Road Eastbound			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
				App. Total			App. Total			App. Total			App. Total
Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1													
Peak Hour for Each Approach Begins at:													
	07:00 AM			07:00 AM			07:00 AM			07:00 AM			
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0
+15 mins.	0	0	0	0	0	0	2	0	1	0	1	0	0
+30 mins.	0	0	0	0	0	1	1	0	1	0	5	0	1
+45 mins.	0	0	0	0	0	2	1	0	0	0	3	0	3
Total Volume	0	0	0	0	14	8	4	0	4	0	12	0	12
% App. Total	0	0	0	0	63.6	36.4	50	0	50	0	100	0	0
PHF	.000	.000	.000	.000	.500	.667	.500	.000	.500	.000	.600	.000	.600

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 15_PER215NNUAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

Groups Printed- 3 Axle Vehicles

Start Time	I-215 Northbound On Ramp Southbound				Nuevo Road Westbound				I-215 Northbound Off Ramp Northbound				Nuevo Road Eastbound			
	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR
07:00 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
07:15 AM	0	0	0	0	0	0	0	0	3	0	0	1	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0
Total	0	0	0	0	0	3	1	0	4	0	0	1	0	1	0	0
08:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	6	1	0	4	0	0	1	0	1	0	0
Approch %	0	0	0	0	0	85.7	14.3	0	100	0	0	0	0	100	0	0
Total %	0	0	0	0	0	50	8.3	58.3	33.3	0	0	33.3	0	8.3	0	8.3

3.1-323

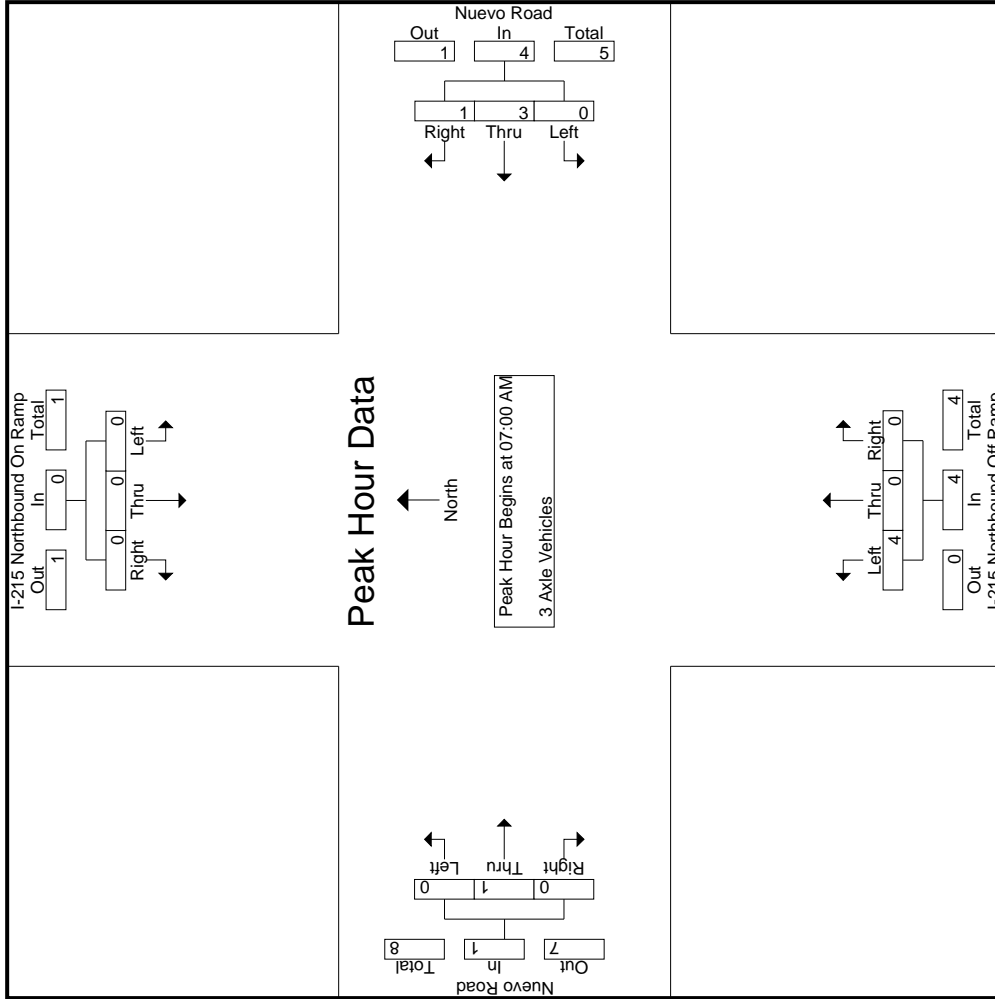
Start Time	I-215 Northbound On Ramp Southbound				Nuevo Road Westbound				I-215 Northbound Off Ramp Northbound				Nuevo Road Eastbound			
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total
07:00 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0
07:15 AM	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	1	1	2	1	0	0	1	0	0	0	0
Total Volume	0	0	0	0	0	3	1	4	4	0	0	4	0	1	0	1
% App. Total	0	0	0	0	0	.75	.25	.500	.333	.000	.000	.333	.000	.250	.000	.250
PHF	.000	.000	.000	.000	.000	.375	.250	.500	.000	.000	.000	.333	.000	.250	.000	.250

Peak Hour Analysis From 07:00 AM to 07:45 AM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 07:00 AM

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 15_PER215NNUAM
 Site Code : 05119093
 Start Date : 2/12/2019
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Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

File Name : 15_PER215NNUAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Nuevo Road
 Weather: Clear

Start Time	I-215 Northbound On Ramp Southbound			Nuevo Road Westbound			I-215 Northbound Off Ramp Northbound			Nuevo Road Eastbound			
	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 07:45 AM - Peak 1 of 1													
Peak Hour for Each Approach Begins at:													
+0 mins.	0	0	0	0	0	0	0	0	0	0	0	0	1
+15 mins.	0	0	0	0	2	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	3	0	0	0	0	0
+45 mins.	0	0	0	0	1	1	1	0	0	0	0	0	0
Total Volume	0	0	0	0	3	1	1	4	0	0	0	4	1
% App. Total	0	0	0	0	75	25	25	100	0	0	0	100	0
PHF	.000	.000	.000	.000	.375	.250	.250	.333	.000	.250	.000	.333	.250

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 15_PER215NNUAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

Groups Printed- 4+ Axle Trucks

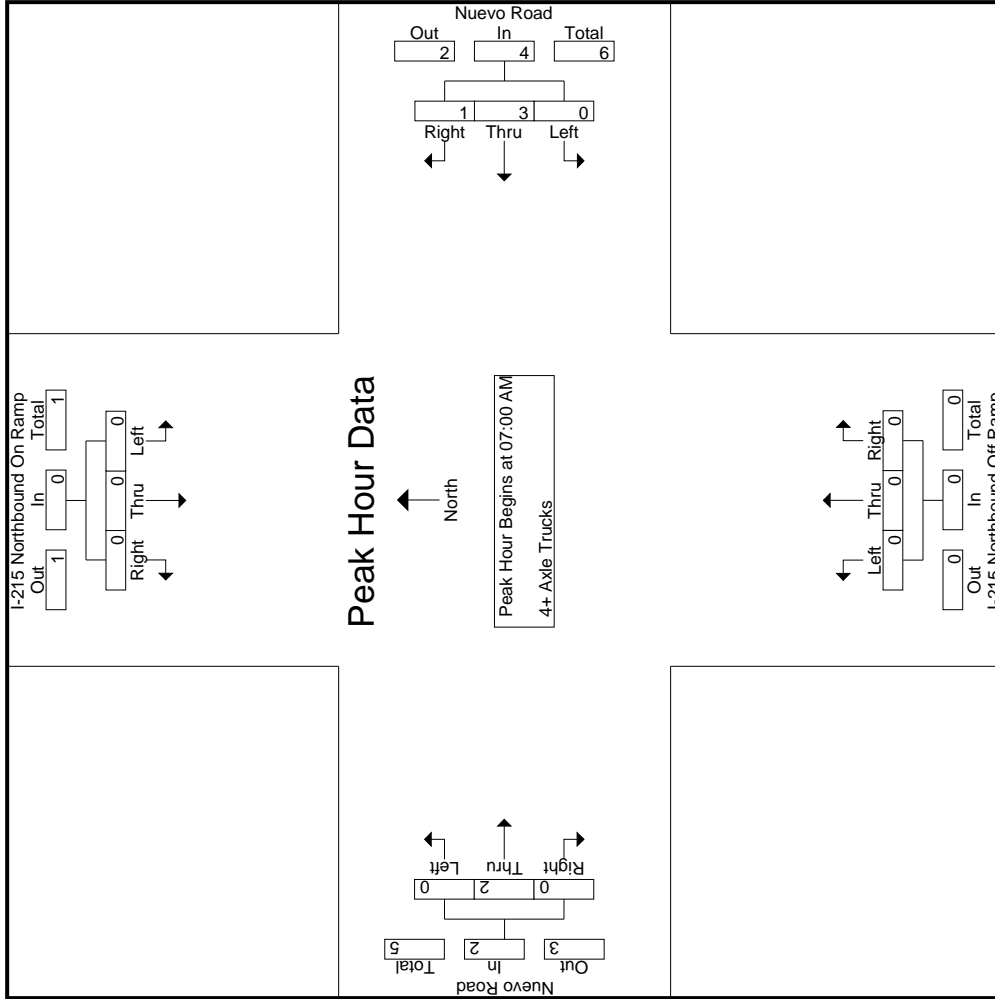
Start Time	I-215 Northbound On Ramp Southbound				Nuevo Road Westbound				I-215 Northbound Off Ramp Northbound				Nuevo Road Eastbound				
	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	
07:00 AM	0	0	0	0	0	1	0	0	2	0	0	0	0	1	0	0	1
07:15 AM	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1
Total	0	0	0	0	0	3	1	0	4	0	0	0	0	2	0	0	2
08:00 AM	0	0	0	0	0	1	0	0	1	1	0	0	1	0	0	0	0
08:15 AM	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0
08:30 AM	0	0	0	0	0	2	0	0	2	2	0	0	2	0	0	0	0
08:45 AM	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	2	3	1	5	3	0	0	1	3	0	0	0
Grand Total	0	0	0	0	0	5	4	1	9	3	0	0	1	3	0	2	0
Approach %	0	0	0	0	0	55.6	44.4			100	0	0		0	100	0	
Total %	0	0	0	0	0	35.7	28.6		64.3	21.4	0	0	21.4	0	14.3	0	14.3

Start Time	I-215 Northbound On Ramp Southbound				Nuevo Road Westbound				I-215 Northbound Off Ramp Northbound				Nuevo Road Eastbound				
	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	
07:00 AM	0	0	0	0	0	1	0	0	2	0	0	0	0	1	0	0	1
07:15 AM	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1
Total	0	0	0	0	0	3	1	0	4	0	0	0	0	2	0	0	2
% App. Total	0	0	0	0	0	75	25		.250	.500	0	0	.000	.500	0	0	.500
PHF	.000	.000	.000	.000	.000	.750	.250		.250	.500	.000	.000	.000	.500	.000	.000	.500

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 15_PER215NNUAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

File Name : 15_PER215NNUAM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Nuevo Road
 Weather: Clear

Start Time	I-215 Northbound On Ramp Southbound			Nuevo Road Westbound			I-215 Northbound Off Ramp Northbound			Nuevo Road Eastbound			
	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 07:45 AM - Peak 1 of 1													
Peak Hour for Each Approach Begins at:													
+0 mins.	07:00 AM			07:00 AM			07:00 AM			07:00 AM			
	0	0	0	0	1	1	0	2	0	0	0	0	1
+15 mins.	0	0	0	0	1	0	1	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	1	0	1	0	0	0	1	0	1
Total Volume	0	0	0	0	3	1	4	4	0	0	2	0	2
% App. Total	0	0	0	0	.75	.25	.50	.50	0	0	100	0	2
PHF	.000	.000	.000	.000	.750	.250	.500	.000	.000	.500	.000	.000	.500

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

File Name : 15_PER215NNUPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Nuevo Road
 Weather: Clear

Groups Printed- Passenger Vehicles - Large 2 Axle Vehicles - 3 Axle Vehicles - 4+ Axle Trucks

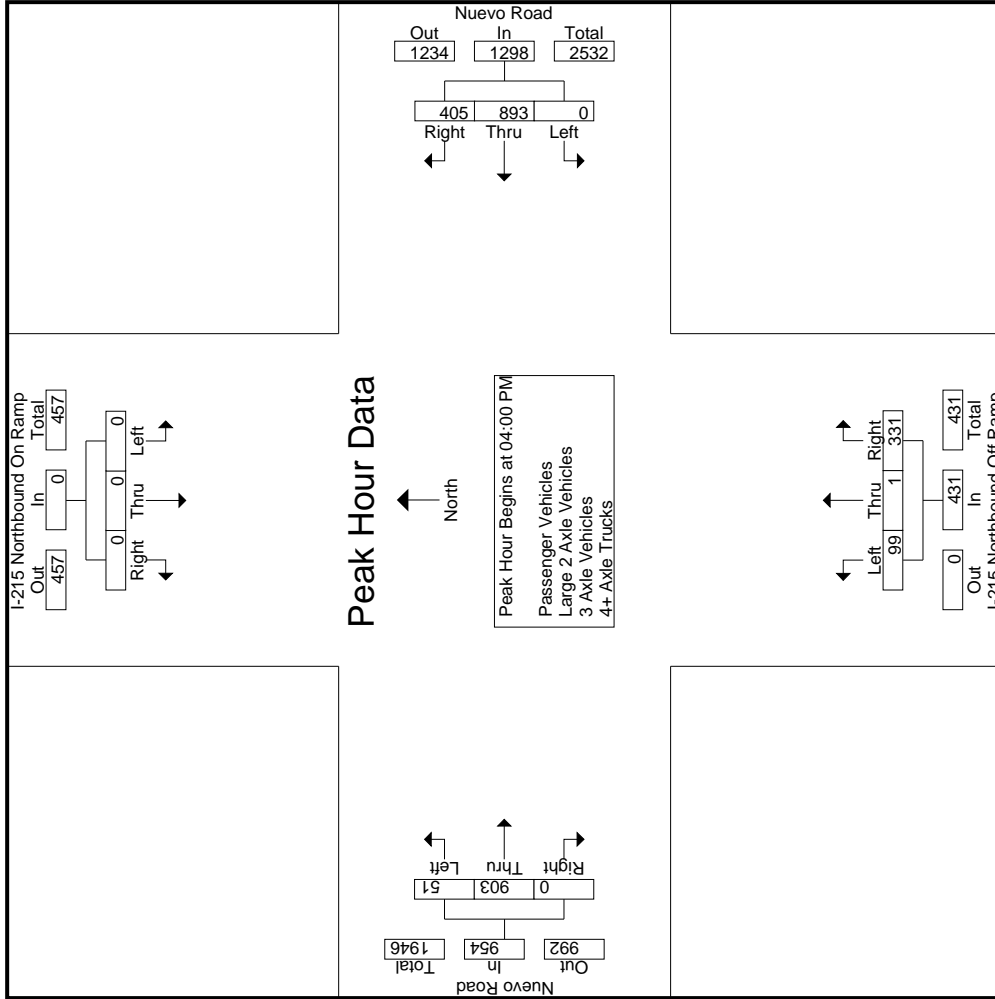
Start Time	I-215 Northbound On Ramp						Nuevo Road Westbound						I-215 Northbound Off Ramp						Nuevo Road Eastbound							
	Southbound			Northbound			Westbound			Northbound			Northbound			Eastbound			Eastbound							
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Exclu. Total	Inclu. Total
04:00 PM	0	0	0	0	0	0	0	230	86	20	316	31	0	15	117	46	164	0	0	180	137	542	679			
04:15 PM	0	0	0	0	175	111	38	286	21	0	93	61	114	114	223	214	0	0	223	99	623	722				
04:30 PM	0	0	0	0	223	98	15	321	23	1	95	78	119	243	234	0	0	243	93	683	776					
04:45 PM	0	0	0	0	265	110	33	375	24	0	128	107	152	17	291	0	0	308	140	835	975					
Total	0	0	0	0	893	405	106	1298	99	1	331	363	431	51	903	0	0	954	469	2683	3152					
05:00 PM	0	0	0	0	137	77	23	214	12	0	69	57	81	12	158	0	0	170	80	465	545					
05:15 PM	0	0	0	0	214	100	33	314	18	0	102	64	120	4	223	0	0	227	97	661	758					
05:30 PM	0	0	0	0	189	83	18	272	19	1	96	87	116	7	169	0	0	176	105	564	669					
05:45 PM	0	0	0	0	169	87	19	256	10	0	115	79	125	15	223	0	0	238	98	619	717					
Total	0	0	0	0	709	347	93	1056	59	1	382	287	442	38	773	0	0	811	380	2309	2689					
Grand Total	0	0	0	0	1602	752	199	2354	158	2	713	650	873	89	1676	0	0	1765	849	4992	5841					
Approach %	0	0	0	0	68.1	31.9			18.1	0.2	81.7			5	95	0	0	35.4	14.5	85.5						
Total %	0	0	0	0	32.1	15.1			3.2	0	14.3			1.8	33.6	0	0	17.5	0	0	0	0	0			
% Passenger Vehicles	0	0	0	0	1583	736			149	2	706			87	1657	0	0	1744	0	0	0	0	0			
% Large 2 Axle Vehicles	0	0	0	0	98.8	97.9			94.3	100	99			98.7	98.9	0	0	98.8	0	0	0	0	0			
% 3 Axle Vehicles	0	0	0	0	16	15			5	0	7			2	16	0	0	18	0	0	0	0	0			
% 4+ Axle Trucks	0	0	0	0	1	2			3.2	0	1			2.2	1	0	1	0	0	0	0	0	0			
% 3 Axle Vehicles	0	0	0	0	2	0			0	0	0			0	2	0	2	0	0	0	0	0	0			
% 4+ Axle Trucks	0	0	0	0	0.1	0			0	0	0			0	0.1	0	0	0.1	0	0	0	0	0			
% 4+ Axle Trucks	0	0	0	0	1	1			4	0	0			0	1	0	1	0	0	0	0	0	0			
% 4+ Axle Trucks	0	0	0	0	0.1	0.1			2.5	0	0			0	0.1	0	0.1	0	0	0	0	0	0			

Start Time	I-215 Northbound On Ramp						Nuevo Road Westbound						I-215 Northbound Off Ramp						Nuevo Road Eastbound							
	Southbound			Northbound			Westbound			Northbound			Northbound			Eastbound			Eastbound							
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Exclu. Total	Inclu. Total
04:00 PM	0	0	0	0	0	0	0	230	86	20	316	31	0	15	117	46	164	0	0	180	137	542	679			
04:15 PM	0	0	0	0	175	111	38	286	21	0	93	61	114	114	223	214	0	0	223	99	623	722				
04:30 PM	0	0	0	0	223	98	15	321	23	1	95	78	119	243	234	0	0	243	93	683	776					
04:45 PM	0	0	0	0	265	110	33	375	24	0	128	107	152	17	291	0	0	308	140	835	975					
Total	0	0	0	0	893	405	106	1298	99	1	331	363	431	51	903	0	0	954	469	2683	3152					
05:00 PM	0	0	0	0	137	77	23	214	12	0	69	57	81	12	158	0	0	170	80	465	545					
05:15 PM	0	0	0	0	214	100	33	314	18	0	102	64	120	4	223	0	0	227	97	661	758					
05:30 PM	0	0	0	0	189	83	18	272	19	1	96	87	116	7	169	0	0	176	105	564	669					
05:45 PM	0	0	0	0	169	87	19	256	10	0	115	79	125	15	223	0	0	238	98	619	717					
Total	0	0	0	0	709	347	93	1056	59	1	382	287	442	38	773	0	0	811	380	2309	2689					
Grand Total	0	0	0	0	1602	752	199	2354	158	2	713	650	873	89	1676	0	0	1765	849	4992	5841					
Approach %	0	0	0	0	68.1	31.9			18.1	0.2	81.7			5	95	0	0	35.4	14.5	85.5						
Total %	0	0	0	0	32.1	15.1			3.2	0	14.3			1.8	33.6	0	0	17.5	0	0	0	0	0			
% Passenger Vehicles	0	0	0	0	1583	736			149	2	706			87	1657	0	0	1744	0	0	0	0	0			
% Large 2 Axle Vehicles	0	0	0	0	98.8	97.9			94.3	100	99			98.7	98.9	0	0	98.8	0	0	0	0	0			
% 3 Axle Vehicles	0	0	0	0	16	15			5	0	7			2	16	0	0	18	0	0	0	0	0			
% 4+ Axle Trucks	0	0	0	0	1	2			3.2	0	1			2.2	1	0	1	0	0	0	0	0	0			
% 3 Axle Vehicles	0	0	0	0	2	0			0	0	0			0	2	0	2	0	0	0	0	0	0			
% 4+ Axle Trucks	0	0	0	0	0.1	0			0	0	0			0	0.1	0	0	0.1	0	0	0	0	0			
% 4+ Axle Trucks	0	0	0	0	1	1			4	0	0			0	1	0	1	0	0	0	0	0	0			
% 4+ Axle Trucks	0	0	0	0	0.1	0.1			2.5	0	0			0	0.1	0	0.1	0	0	0	0	0	0			

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 15_PER215NNUPM
 Site Code : 05119093
 Start Date : 2/12/2019
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Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 15_PER215NNUPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

Start Time	I-215 Northbound On Ramp Southbound			Nuevo Road Westbound			I-215 Northbound Off Ramp Northbound			Nuevo Road Eastbound				
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1														
Peak Hour for Each Approach Begins at:														
	04:00 PM			04:00 PM			04:30 PM			04:00 PM				
+0 mins.	0	0	0	0	230	86	23	1	95	16	164	0	180	
+15 mins.	0	0	0	0	175	111	24	0	128	9	214	0	223	
+30 mins.	0	0	0	0	223	98	12	0	69	9	234	0	243	
+45 mins.	0	0	0	0	265	110	18	0	102	17	291	0	308	
Total Volume	0	0	0	0	893	405	77	1	394	51	903	0	954	
% App. Total	0	0	0	0	68.8	31.2	16.3	0.2	83.5	5.3	94.7	0		
PHF	.000	.000	.000	.000	.842	.912	.802	.250	.770	.750	.776	.000	.774	

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Nuevo Road
 Weather: Clear

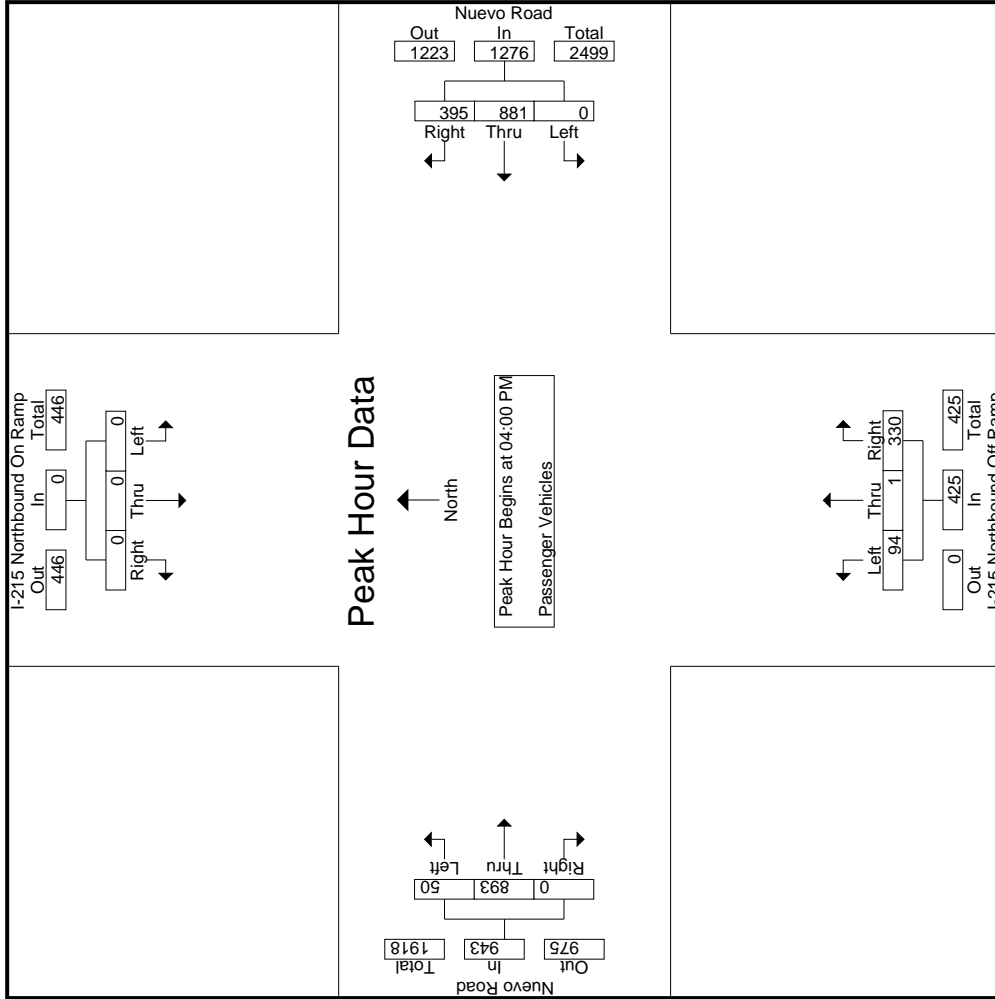
File Name : 15_PER215NNUPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

Groups Printed- Passenger Vehicles																																													
Start Time	I-215 Northbound On Ramp						Nuevo Road Westbound						I-215 Northbound Off Ramp						Nuevo Road Eastbound																										
	Southbound			App. Total			Left			Thru			Right			RTOR			App. Total			Left			Thru			Right			RTOR			App. Total			Exclu. Total			Inclu. Total			Int. Total		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right						
04:00 PM	0	0	0	0	0	0	0	226	82	20	308	28	0	15	115	43	15	160	0	0	175	0	0	0	135	526	661	0	0	0	0	175	135	526	661										
04:15 PM	0	0	0	0	175	111	38	286	21	0	93	61	114	114	114	114	9	214	0	0	223	0	0	0	99	623	722	0	0	0	0	223	99	623	722										
04:30 PM	0	0	0	0	220	95	14	315	23	1	95	78	119	119	119	119	9	232	0	0	241	0	0	0	92	675	767	0	0	0	0	241	92	675	767										
04:45 PM	0	0	0	0	260	107	31	367	22	0	127	107	149	149	149	149	17	287	0	0	304	0	0	0	138	820	958	0	0	0	0	304	138	820	958										
Total	0	0	0	0	881	395	103	1276	94	1	330	361	425	425	425	425	50	893	0	0	943	0	0	0	464	2644	3108	0	0	0	0	943	464	2644	3108										
05:00 PM	0	0	0	0	137	76	23	213	10	0	68	57	78	78	78	12	155	0	0	167	0	0	0	80	458	538	0	0	0	0	167	80	458	538											
05:15 PM	0	0	0	0	210	98	32	308	18	0	100	64	118	118	118	4	218	0	0	222	0	0	0	96	648	744	0	0	0	0	222	96	648	744											
05:30 PM	0	0	0	0	187	81	18	268	17	1	96	87	114	114	114	6	169	0	0	175	0	0	0	105	557	662	0	0	0	0	175	105	557	662											
05:45 PM	0	0	0	0	168	86	19	254	10	0	112	77	122	122	122	15	222	0	0	237	0	0	0	96	613	709	0	0	0	0	237	96	613	709											
Total	0	0	0	0	702	341	92	1043	55	1	376	285	432	432	432	37	764	0	0	801	0	0	0	377	2276	2653	0	0	0	0	801	377	2276	2653											
Grand Total	0	0	0	0	1583	736	195	2319	149	2	706	646	857	857	857	87	1657	0	0	1744	0	0	0	841	4920	5761	0	0	0	0	1744	841	4920	5761											
Approach %	0	0	0	0	68.3	31.7		47.1	17.4	0.2	82.4		17.4	17.4	3	0	14.3			35.4				14.6	85.4																				
Total %	0	0	0	0	32.2	15		47.1	17.4	0	14.3		17.4	17.4	1.8	33.7				35.4				14.6	85.4																				
Start Time	I-215 Northbound On Ramp						Nuevo Road Westbound						I-215 Northbound Off Ramp						Nuevo Road Eastbound																										
	Southbound			App. Total			Left			Thru			Right			RTOR			App. Total			Left			Thru			Right			RTOR			App. Total			Exclu. Total			Inclu. Total			Int. Total		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right						
04:00 PM	0	0	0	0	0	0	0	226	82	20	308	28	0	15	115	43	15	160	0	0	175	0	0	0	135	526	661	0	0	0	0	175	135	526	661										
04:15 PM	0	0	0	0	175	111	38	286	21	0	93	61	114	114	114	114	9	214	0	0	223	0	0	0	99	623	722	0	0	0	0	223	99	623	722										
04:30 PM	0	0	0	0	220	95	14	315	23	1	95	78	119	119	119	119	9	232	0	0	241	0	0	0	92	675	767	0	0	0	0	241	92	675	767										
04:45 PM	0	0	0	0	260	107	31	367	22	0	127	107	149	149	149	149	17	287	0	0	304	0	0	0	138	820	958	0	0	0	0	304	138	820	958										
Total	0	0	0	0	881	395	103	1276	94	1	330	361	425	425	425	425	50	893	0	0	943	0	0	0	464	2644	3108	0	0	0	0	943	464	2644	3108										
05:00 PM	0	0	0	0	137	76	23	213	10	0	68	57	78	78	78	12	155	0	0	167	0	0	0	80	458	538	0	0	0	0	167	80	458	538											
05:15 PM	0	0	0	0	210	98	32	308	18	0	100	64	118	118	118	4	218	0	0	222	0	0	0	96	648	744	0	0	0	0	222	96	648	744											
05:30 PM	0	0	0	0	187	81	18	268	17	1	96	87	114	114	114	6	169	0	0	175	0	0	0	105	557	662	0	0	0	0	175	105	557	662											
05:45 PM	0	0	0	0	168	86	19	254	10	0	112	77	122	122	122	15	222	0	0	237	0	0	0	96	613	709	0	0	0	0	237	96	613	709											
Total	0	0	0	0	702	341	92	1043	55	1	376	285	432	432	432	37	764	0	0	801	0	0	0	377	2276	2653	0	0	0	0	801	377	2276	2653											
Grand Total	0	0	0	0	1583	736	195	2319	149	2	706	646	857	857	857	87	1657	0	0	1744	0	0	0	841	4920	5761	0	0	0	0	1744	841	4920	5761											
Approach %	0	0	0	0	68.3	31.7		47.1	17.4	0.2	82.4		17.4	17.4	3	0	14.3			35.4				14.6	85.4																				
Total %	0	0	0	0	32.2	15		47.1	17.4	0	14.3		17.4	17.4	1.8	33.7				35.4				14.6	85.4																				

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

File Name : 15_PER215NNUPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Nuevo Road
 Weather: Clear



Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 15_PER215NNUPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

Start Time	I-215 Northbound On Ramp Southbound			Nuevo Road Westbound			I-215 Northbound Off Ramp Northbound			Nuevo Road Eastbound				
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1														
Peak Hour for Each Approach Begins at:														
	04:00 PM			04:00 PM			04:00 PM			04:00 PM				
+0 mins.	0	0	0	0	226	82	308	28	0	15	160	0	43	175
+15 mins.	0	0	0	0	175	111	286	21	0	93	214	0	114	223
+30 mins.	0	0	0	0	220	95	315	23	1	95	232	0	119	241
+45 mins.	0	0	0	0	260	107	367	22	0	127	287	0	149	304
Total Volume	0	0	0	0	881	395	1276	94	1	330	893	0	425	943
% App. Total	0.000	0.000	0.000	0.000	.847	.890	.869	.839	.250	.650	.778	.000	.713	.775
PHF														

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 15_PER215NNUPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

Groups Printed- Large 2 Axle Vehicles

Start Time	I-215 Northbound On Ramp Southbound				Nuevo Road Westbound				I-215 Northbound Off Ramp Northbound				Nuevo Road Eastbound				
	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	Left	Thru	Right	RTOR	
04:00 PM	0	0	0	0	0	3	3	0	6	1	0	0	1	1	2	0	3
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	3	3	1	6	0	0	0	0	0	2	0	2
04:45 PM	0	0	0	0	0	5	3	2	8	1	0	1	2	0	3	0	2
Total	0	0	0	0	0	11	9	3	20	2	0	1	3	1	7	0	8
05:00 PM	0	0	0	0	0	0	1	0	1	1	0	0	2	0	3	0	3
05:15 PM	0	0	0	0	0	4	2	1	6	0	0	2	2	0	5	0	5
05:30 PM	0	0	0	0	0	1	2	0	3	2	0	0	2	1	0	0	1
05:45 PM	0	0	0	0	0	0	1	0	1	0	0	3	2	0	1	0	1
Total	0	0	0	0	0	5	6	1	11	3	0	6	9	1	9	0	10
Grand Total	0	0	0	0	0	16	15	4	31	5	0	7	12	2	16	0	18
Approach %	0	0	0	0	0	51.6	48.4			41.7	0	58.3		11.1	88.9	0	29.5
Total %	0	0	0	0	0	26.2	24.6		50.8	8.2	0	11.5	19.7	3.3	26.2	0	9

3.1-335

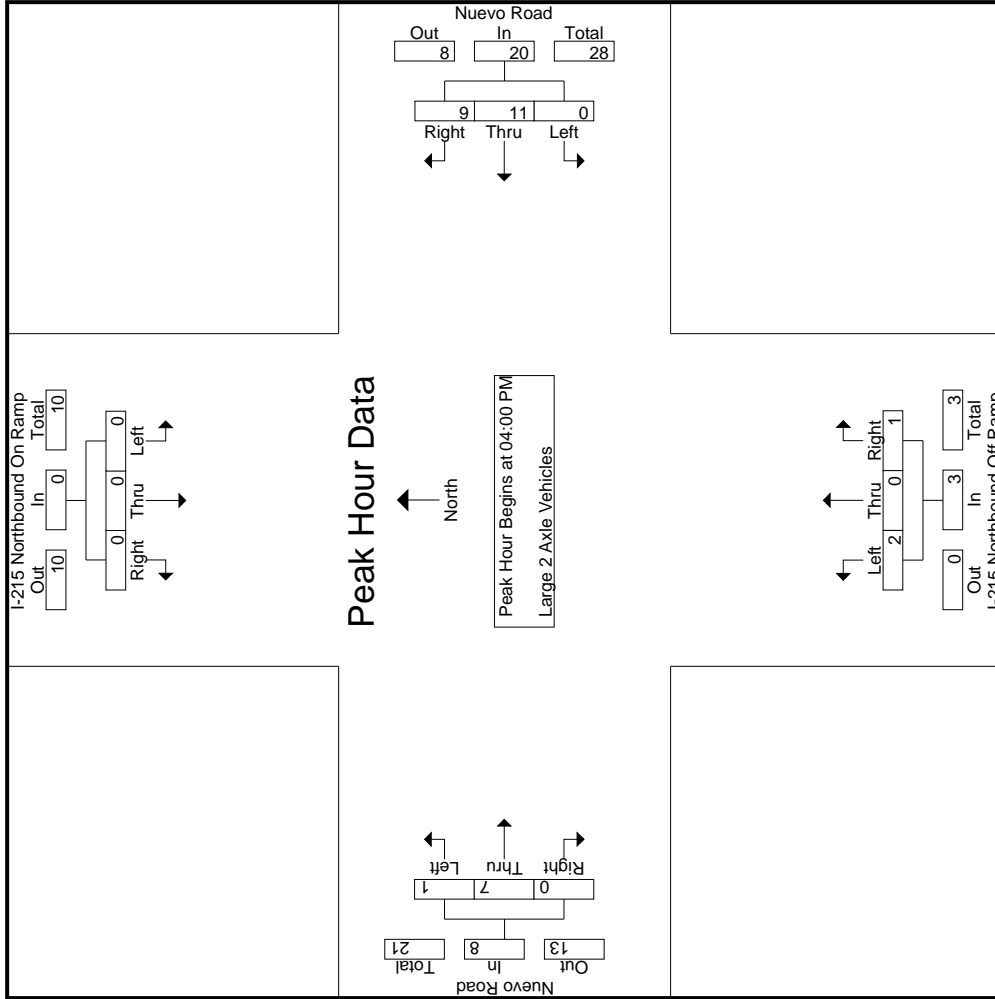
Start Time	I-215 Northbound On Ramp Southbound				Nuevo Road Westbound				I-215 Northbound Off Ramp Northbound				Nuevo Road Eastbound				
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
04:00 PM	0	0	0	0	0	0	0	0	6	1	0	0	1	1	2	0	3
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	3	3	0	6	0	0	0	0	0	2	0	2
04:45 PM	0	0	0	0	0	5	3	2	8	1	0	1	2	0	3	0	3
Total Volume	0	0	0	0	0	11	9	20	20	2	0	1	3	1	7	0	8
% App. Total	0	0	0	0	0	55	45		66.7	0	33.3		12.5	87.5	0	0	31
PHF	.000	.000	.000	.000	.000	.550	.750	.625	.625	.500	.000	.250	.375	.250	.583	.000	.667

Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 04:00 PM

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 15_PER215NNUPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 15_PER215NNUPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

Start Time	I-215 Northbound On Ramp Southbound			Nuevo Road Westbound			I-215 Northbound Off Ramp Northbound			Nuevo Road Eastbound				
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1														
Peak Hour for Each Approach Begins at:														
	04:00 PM			04:00 PM			04:00 PM			04:00 PM				
+0 mins.	0	0	0	0	0	3	1	0	0	0	2	0	1	3
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	3	3	0	0	0	0	2	0	0	2
+45 mins.	0	0	0	0	5	3	1	0	1	0	3	0	2	3
Total Volume	0	0	0	0	11	9	2	0	1	0	7	0	3	8
% App. Total	0	0	0	0	55	45	66.7	0	33.3	0	87.5	0	12.5	0
PHF	.000	.000	.000	.000	.550	.750	.500	.000	.250	.000	.583	.000	.250	.667

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 15_PER215NNUPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

Groups Printed- 3 Axle Vehicles

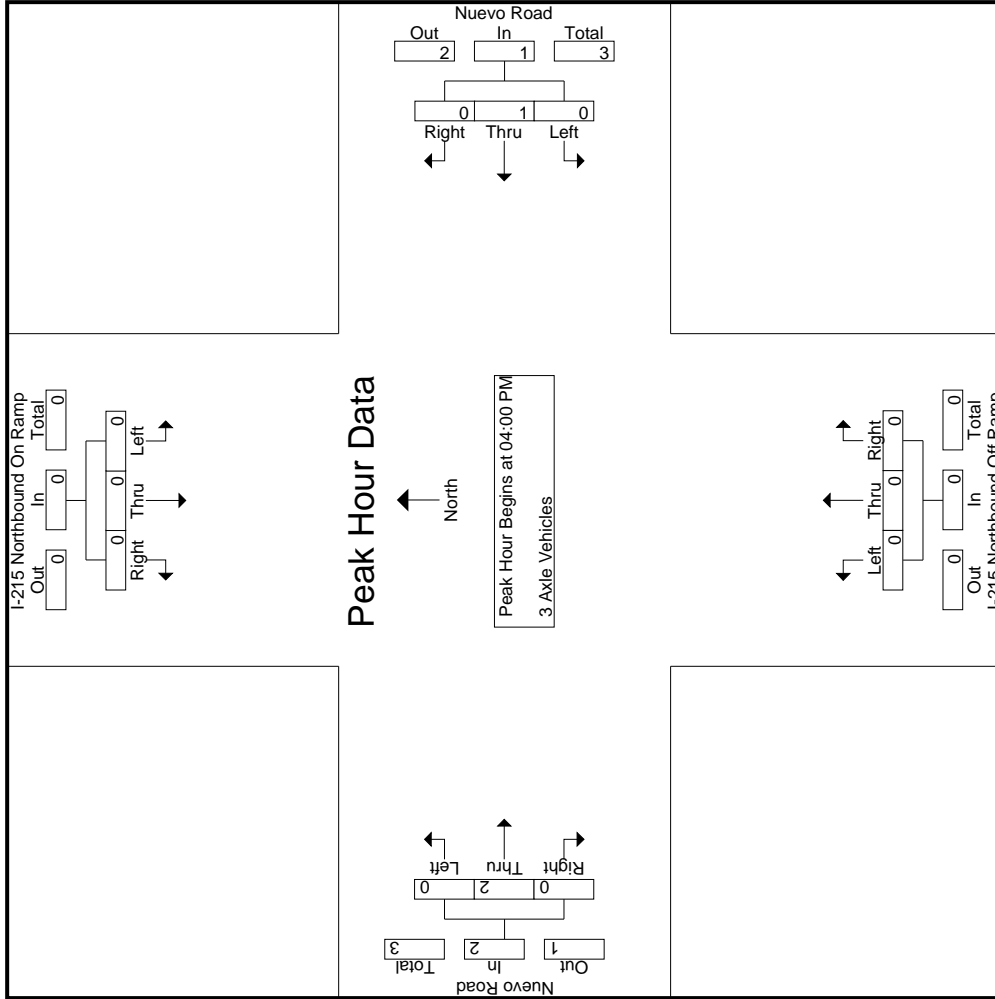
Start Time	I-215 Northbound On Ramp Southbound					Nuevo Road Westbound					I-215 Northbound Off Ramp Northbound					Nuevo Road Eastbound							
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	2	0	0	2	0	0	2	2	3	5
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	0	1	0	0	2	0	0	2	0	2	0	2	2	3	5
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1
Grand Total	0	0	0	0	0	0	2	0	0	2	0	0	2	0	0	2	0	2	0	2	2	4	6
Approch %	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	100	0	0	0	0	50	33.3	66.7
Total %	0	0	0	0	0	0	50	0	0	50	0	0	0	0	0	0	50	0	0	50	33.3	66.7	

Start Time	I-215 Northbound On Ramp Southbound					Nuevo Road Westbound					I-215 Northbound Off Ramp Northbound					Nuevo Road Eastbound							
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
% App. Total	0	0	0	0	0	0	100	0	0	0	0	0	0	0	0	0	100	0	0	0	0	0	0
PHF	.000	.000	.000	.000	.000	.000	.250	.000	.000	.000	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.000	.250	.250

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 15_PER215NNUPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 15_PER215NNUPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

Start Time	I-215 Northbound On Ramp Southbound			Nuevo Road Westbound			I-215 Northbound Off Ramp Northbound			Nuevo Road Eastbound		
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1												
Peak Hour for Each Approach Begins at:												
+0 mins.	04:00 PM			0	0	0	0	0	0	0	0	0
+15 mins.	04:00 PM			0	0	0	0	0	0	0	0	0
+30 mins.	04:00 PM			0	0	0	0	0	0	0	0	0
+45 mins.	04:00 PM			0	0	0	0	0	0	0	0	0
Total Volume	04:00 PM			0	0	0	0	0	0	0	0	0
% App. Total	04:00 PM			0	0	0	0	0	0	0	0	0
PHF	04:00 PM			.000	.000	.000	.000	.000	.000	.000	.000	.250

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 15_PER215NNUPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 1

Groups Printed- 4+ Axle Trucks

Start Time	I-215 Northbound On Ramp Southbound				Nuevo Road Westbound				I-215 Northbound Off Ramp Northbound				Nuevo Road Eastbound					
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	1	0	1	2	0	0	0	0	0	3	3
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	2
Total	0	0	0	0	0	0	0	1	0	1	3	0	0	0	1	0	5	5
05:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	1
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	2	2
Grand Total	0	0	0	0	0	1	1	0	0	2	4	0	0	0	1	0	7	7
Approch %	0	0	0	0	0	50	50			28.6	100	0	0	0	14.3	0	100	0
Total %	0	0	0	0	0	14.3	14.3			57.1	57.1	0	0	0	14.3	0	100	100

3.1-341

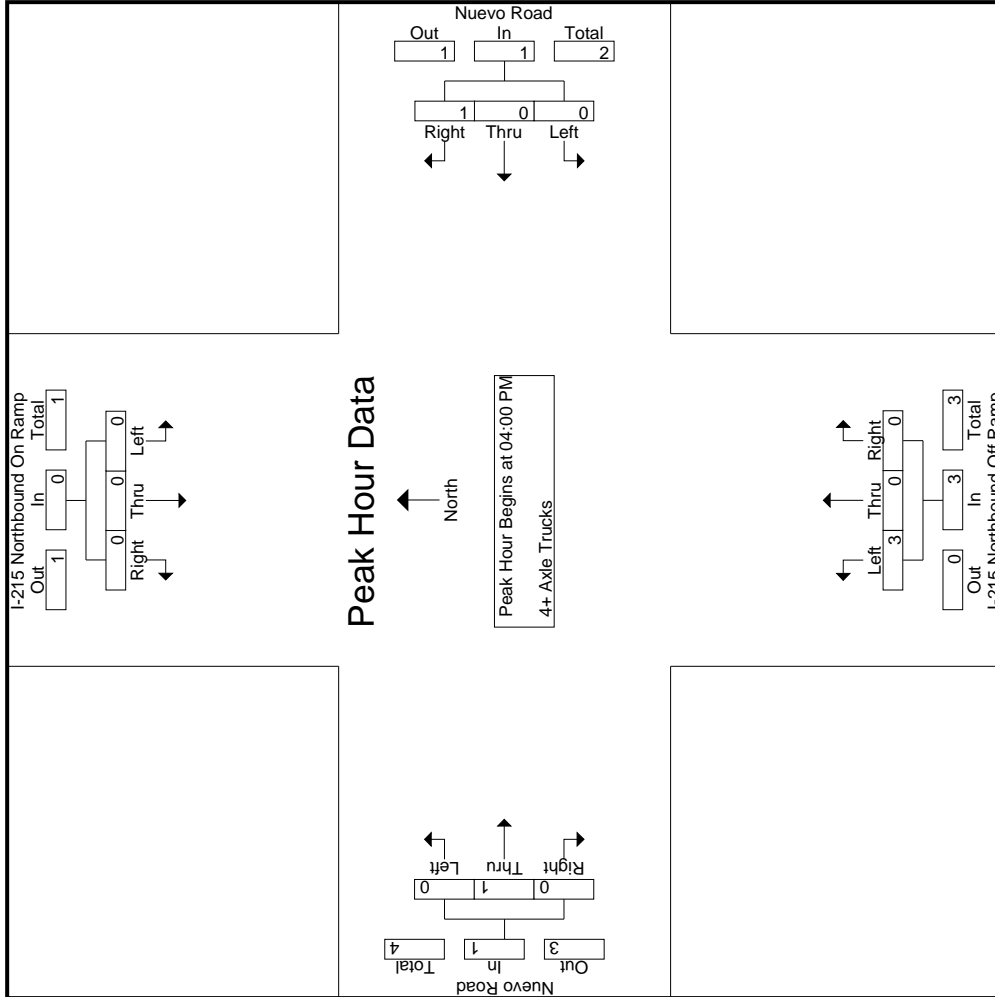
Start Time	I-215 Northbound On Ramp Southbound				Nuevo Road Westbound				I-215 Northbound Off Ramp Northbound				Nuevo Road Eastbound					
	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Left	Thru	Right	RTOR	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	2
Total Volume	0	0	0	0	0	0	0	1	0	1	3	0	0	0	3	0	1	5
% App. Total	0	0	0	0	0	0	0	100	0	100	100	0	0	0	100	0	100	100
PHF	.000	.000	.000	.000	.000	.000	.000	.250	.000	.250	.375	.000	.000	.000	.250	.000	.250	.417

Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1
 Peak Hour for Entire Intersection Begins at 04:00 PM

Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Nuevo Road
 Weather: Clear

File Name : 15_PER215NNUPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 2



Counts Unlimited
 PO Box 1178
 Corona, CA 92878
 951-268-6268

File Name : 15_PER215NNUPM
 Site Code : 05119093
 Start Date : 2/12/2019
 Page No : 3

County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Nuevo Road
 Weather: Clear

Start Time	I-215 Northbound On Ramp Southbound			Nuevo Road Westbound			I-215 Northbound Off Ramp Northbound			Nuevo Road Eastbound			
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 04:45 PM - Peak 1 of 1													
Peak Hour for Each Approach Begins at:													
	04:00 PM				04:00 PM				04:00 PM				
+0 mins.	0	0	0	0	0	0	1	1	2	0	0	0	0
+15 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0
+30 mins.	0	0	0	0	0	0	0	0	0	0	0	0	0
+45 mins.	0	0	0	0	0	0	0	0	1	0	0	1	1
Total Volume	0	0	0	0	0	0	1	1	3	0	0	1	1
% App. Total	0	0	0	0	0	0	100	100	100	0	0	100	0
PHF	.000	.000	.000	.000	.000	.000	.250	.250	.375	.000	.000	.250	.000
													.250

Location: County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Nuevo Road



Date: 2/12/2018
 Day: Tuesday

PEDESTRIANS

	North Leg I-215 Northbound Ramps	East Leg Nuevo Road	South Leg I-215 Northbound Ramps	West Leg Nuevo Road	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
7:00 AM	0	0	1	0	1
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	1	0	1
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
TOTAL VOLUMES:	0	0	2	0	2

	North Leg I-215 Northbound Ramps	East Leg Nuevo Road	South Leg I-215 Northbound Ramps	West Leg Nuevo Road	
	Pedestrians	Pedestrians	Pedestrians	Pedestrians	
4:00 PM	1	0	0	0	1
4:15 PM	0	0	0	0	0
4:30 PM	2	0	0	0	2
4:45 PM	1	0	1	0	2
5:00 PM	0	0	0	0	0
5:15 PM	0	0	2	0	2
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
TOTAL VOLUMES:	4	0	3	0	7

Location: County of Riverside
 N/S: I-215 Northbound Ramps
 E/W: Nuevo Road



Date: 2/12/2018
 Day: Tuesday

BICYCLES

	Southbound I-215 Northbound Ramps			Westbound Nuevo Road			Northbound I-215 Northbound Ramps			Eastbound Nuevo Road			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

	Southbound I-215 Northbound Ramps			Westbound Nuevo Road			Northbound I-215 Northbound Ramps			Eastbound Nuevo Road			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL VOLUMES:	0	0	0	0	0	0	0	0	0	0	0	0	0

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APPENDIX 3.2:

EXISTING (2019) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕	↗		↕			↕	
Traffic Vol, veh/h	1	42	5	5	26	2	0	4	6	0	1	5
Future Vol, veh/h	1	42	5	5	26	2	0	4	6	0	1	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	47	6	6	29	2	0	4	7	0	1	6

Major/Minor	Major1		Major2			Minor1			Minor2			
Conflicting Flow All	31	0	0	53	0	0	95	92	47	99	96	29
Stage 1	-	-	-	-	-	-	49	49	-	41	41	-
Stage 2	-	-	-	-	-	-	46	43	-	58	55	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1595	-	-	1566	-	-	893	802	1028	888	798	1052
Stage 1	-	-	-	-	-	-	969	858	-	979	865	-
Stage 2	-	-	-	-	-	-	973	863	-	959	853	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1595	-	-	1566	-	-	884	798	1028	876	794	1052
Mov Cap-2 Maneuver	-	-	-	-	-	-	884	798	-	876	794	-
Stage 1	-	-	-	-	-	-	968	857	-	978	862	-
Stage 2	-	-	-	-	-	-	963	860	-	947	852	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1.1	9	8.6
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	922	1595	-	-	1566	-	-	998
HCM Lane V/C Ratio	0.012	0.001	-	-	0.004	-	-	0.007
HCM Control Delay (s)	9	7.3	0	-	7.3	0	-	8.6
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Traffic Vol, veh/h	0	0	4	0	0	0	1	15	0	0	10	1
Future Vol, veh/h	0	0	4	0	0	0	1	15	0	0	10	1
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	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	54	54	54	54	54	54	54	54	54	54	54	54
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	7	0	0	0	2	28	0	0	19	2

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	52	52	20	21	0	-	-	-	0
Stage 1	20	20	-	-	-	-	-	-	-
Stage 2	32	32	-	-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.2	4.1	-	-	-	-	-
Critical Hdwy Stg 1	5.4	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	2.2	-	-	-	-	-
Pot Cap-1 Maneuver	962	843	1064	1608	-	0	0	-	-
Stage 1	1008	883	-	-	-	0	0	-	-
Stage 2	996	872	-	-	-	0	0	-	-
Platoon blocked, %									
Mov Cap-1 Maneuver	961	0	1064	1608	-	-	-	-	-
Mov Cap-2 Maneuver	961	0	-	-	-	-	-	-	-
Stage 1	1007	0	-	-	-	-	-	-	-
Stage 2	996	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.4	0.5	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1608	-	1064	-	-
HCM Lane V/C Ratio	0.001	-	0.007	-	-
HCM Control Delay (s)	7.2	0	8.4	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection						
Int Delay, s/veh	3.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	2	2	4	14	12	2
Future Vol, veh/h	2	2	4	14	12	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, %	0	0	0	0	0	0
Mvmt Flow	3	3	5	19	16	3

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	24	0	-	0	24
Stage 1	-	-	-	-	15
Stage 2	-	-	-	-	9
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	1604	-	-	-	997
Stage 1	-	-	-	-	1013
Stage 2	-	-	-	-	1019
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1604	-	-	-	995
Mov Cap-2 Maneuver	-	-	-	-	995
Stage 1	-	-	-	-	1011
Stage 2	-	-	-	-	1019

Approach	EB	WB	SB
HCM Control Delay, s	3.6	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1604	-	-	-	1005
HCM Lane V/C Ratio	0.002	-	-	-	0.019
HCM Control Delay (s)	7.2	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

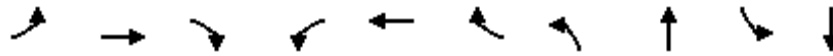
Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔				
Traffic Vol, veh/h	0	13	1	3	15	0	3	0	6	0	0	0
Future Vol, veh/h	0	13	1	3	15	0	3	0	6	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	19	1	4	22	0	4	0	9	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	-	0	0	20	0	0	50	50	20
Stage 1	-	-	-	-	-	-	20	20	-
Stage 2	-	-	-	-	-	-	30	30	-
Critical Hdwy	-	-	-	4.1	-	-	6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	-	-	-	2.2	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	0	-	-	1609	-	0	964	845	1064
Stage 1	0	-	-	-	-	0	1008	883	-
Stage 2	0	-	-	-	-	0	998	874	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	1609	-	-	961	0	1064
Mov Cap-2 Maneuver	-	-	-	-	-	-	961	0	-
Stage 1	-	-	-	-	-	-	1008	0	-
Stage 2	-	-	-	-	-	-	995	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.2	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1027	-	-	1609	-
HCM Lane V/C Ratio	0.013	-	-	0.003	-
HCM Control Delay (s)	8.6	-	-	7.2	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Timings
6: Harvill Av. & Cajalco Exwy./Ramona Exwy.

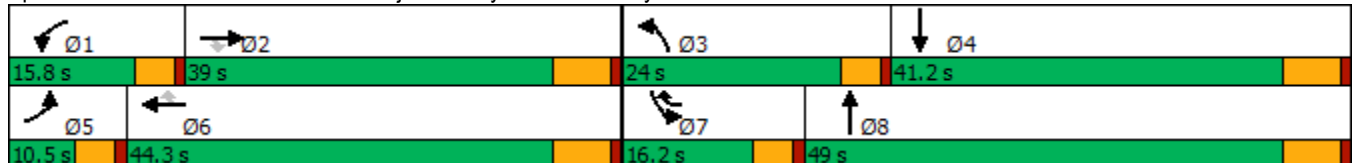


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations	↘	↑↑	↗	↘↗	↑↑	↗	↘↗	↑↘	↘↗	↑↘
Traffic Volume (vph)	25	669	137	176	759	184	347	307	184	135
Future Volume (vph)	25	669	137	176	759	184	347	307	184	135
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases	5	2		1	6	7	3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	7	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	36.2	36.2	9.6	34.2	9.6	9.6	16.2	9.6	41.2
Total Split (s)	10.5	39.0	39.0	15.8	44.3	16.2	24.0	49.0	16.2	41.2
Total Split (%)	8.8%	32.5%	32.5%	13.2%	36.9%	13.5%	20.0%	40.8%	13.5%	34.3%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	3.6	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	4.6	4.6	6.2	4.6	6.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	Max	None	None	None	None	None

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 93.3
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated

























Splits and Phases: 6: Harvill Av. & Cajalco Exwy./Ramona Exwy.



HCM 6th Signalized Intersection Summary
6: Harvill Av. & Cajalco Exwy./Ramona Exwy.

Barker Logistics (JN 12216)

02/21/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	669	137	176	759	184	347	307	144	184	135	11
Future Volume (veh/h)	25	669	137	176	759	184	347	307	144	184	135	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	26	683	89	180	774	110	354	313	109	188	138	8
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	49	1478	658	261	1648	859	447	476	163	270	452	26
Arrive On Green	0.03	0.41	0.41	0.07	0.46	0.46	0.13	0.18	0.18	0.08	0.13	0.13
Sat Flow, veh/h	1810	3610	1607	3510	3610	1609	3510	2639	902	3510	3468	200
Grp Volume(v), veh/h	26	683	89	180	774	110	354	212	210	188	71	75
Grp Sat Flow(s),veh/h/ln	1810	1805	1607	1755	1805	1609	1755	1805	1736	1755	1805	1863
Q Serve(g_s), s	1.2	11.5	2.9	4.2	12.4	2.9	8.2	9.1	9.4	4.4	3.0	3.0
Cycle Q Clear(g_c), s	1.2	11.5	2.9	4.2	12.4	2.9	8.2	9.1	9.4	4.4	3.0	3.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.52	1.00		0.11
Lane Grp Cap(c), veh/h	49	1478	658	261	1648	859	447	326	313	270	235	243
V/C Ratio(X)	0.53	0.46	0.14	0.69	0.47	0.13	0.79	0.65	0.67	0.70	0.30	0.31
Avail Cap(c_a), veh/h	128	1478	658	471	1648	859	816	926	890	488	757	781
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.1	18.0	15.4	37.7	15.7	9.7	35.3	31.8	31.9	37.6	32.9	32.9
Incr Delay (d2), s/veh	3.3	1.0	0.4	1.2	1.0	0.3	1.2	2.2	2.5	1.2	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	4.4	1.0	1.7	4.6	0.9	3.3	3.8	3.8	1.9	1.3	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.3	19.0	15.8	38.9	16.7	10.1	36.6	34.0	34.4	38.8	33.6	33.6
LnGrp LOS	D	B	B	D	B	B	D	C	C	D	C	C
Approach Vol, veh/h		798			1064			776			334	
Approach Delay, s/veh		19.4			19.7			35.3			36.5	
Approach LOS		B			B			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	10.8	40.4	15.2	17.1	6.9	44.3	11.0	21.3				
Change Period (Y+Rc), s	4.6	6.2	4.6	6.2	4.6	6.2	4.6	6.2				
Max Green Setting (Gmax), s	11.2	32.8	19.4	35.0	5.9	38.1	11.6	42.8				
Max Q Clear Time (g_c+I1), s	6.2	13.5	10.2	5.0	3.2	14.4	6.4	11.4				
Green Ext Time (p_c), s	0.1	4.2	0.5	0.8	0.0	5.3	0.2	2.3				
Intersection Summary												
HCM 6th Ctrl Delay			25.6									
HCM 6th LOS			C									

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↕↘		↙	↕	↗	↙	↕↘		↙	↕↘	
Traffic Vol, veh/h	22	0	33	0	0	0	21	629	3	0	250	8
Future Vol, veh/h	22	0	33	0	0	0	21	629	3	0	250	8
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	115	-	-	165	-	0	150	-	-	160	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	24	0	36	0	0	0	23	684	3	0	272	9

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	665	1010	141	868	1013	344	281	0	0	687	0	0
Stage 1	277	277	-	732	732	-	-	-	-	-	-	-
Stage 2	388	733	-	136	281	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	349	242	888	250	241	658	1293	-	-	916	-	-
Stage 1	712	685	-	383	430	-	-	-	-	-	-	-
Stage 2	613	429	-	859	682	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	344	238	888	237	237	658	1293	-	-	916	-	-
Mov Cap-2 Maneuver	450	336	-	318	334	-	-	-	-	-	-	-
Stage 1	699	685	-	376	422	-	-	-	-	-	-	-
Stage 2	602	421	-	824	682	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.9	0	0.3	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	1293	-	-	450	-	888	-	-	-	916	-	-
HCM Lane V/C Ratio	0.018	-	-	0.053	-	0.04	-	-	-	-	-	-
HCM Control Delay (s)	7.8	-	-	13.4	0	9.2	0	0	0	0	-	-
HCM Lane LOS	A	-	-	B	A	A	A	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	-	0.1	-	-	-	0	-	-

Intersection	
Intersection Delay, s/veh	16.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↗	↖	↕		↖	↕	
Traffic Vol, veh/h	5	5	7	110	3	326	8	362	104	152	140	3
Future Vol, veh/h	5	5	7	110	3	326	8	362	104	152	140	3
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	5	5	8	118	3	351	9	389	112	163	151	3
Number of Lanes	0	1	0	0	1	1	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	11.5	18.2	16.4	13.8
HCM LOS	B	C	C	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	29%	97%	0%	100%	0%	0%
Vol Thru, %	0%	100%	54%	29%	3%	0%	0%	100%	94%
Vol Right, %	0%	0%	46%	41%	0%	100%	0%	0%	6%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	8	241	225	17	113	326	152	93	50
LT Vol	8	0	0	5	110	0	152	0	0
Through Vol	0	241	121	5	3	0	0	93	47
RT Vol	0	0	104	7	0	326	0	0	3
Lane Flow Rate	9	259	242	18	122	351	163	100	53
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.018	0.521	0.462	0.043	0.261	0.636	0.368	0.212	0.112
Departure Headway (Hd)	7.733	7.221	6.889	8.382	7.725	6.533	8.107	7.594	7.551
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	463	501	524	427	465	554	445	473	475
Service Time	5.475	4.963	4.631	6.144	5.464	4.272	5.854	5.341	5.297
HCM Lane V/C Ratio	0.019	0.517	0.462	0.042	0.262	0.634	0.366	0.211	0.112
HCM Control Delay	10.6	17.6	15.4	11.5	13.2	20	15.5	12.4	11.3
HCM Lane LOS	B	C	C	B	B	C	C	B	B
HCM 95th-tile Q	0.1	3	2.4	0.1	1	4.4	1.7	0.8	0.4

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕		↕	↕	
Traffic Vol, veh/h	22	0	8	8	0	11	9	441	16	14	211	17
Future Vol, veh/h	22	0	8	8	0	11	9	441	16	14	211	17
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	-	-	-	-	-	0	160	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	24	0	9	9	0	12	10	474	17	15	227	18

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	523	777	123	647	778	246	245	0	0	491	0	0
Stage 1	266	266	-	503	503	-	-	-	-	-	-	-
Stage 2	257	511	-	144	275	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	441	330	911	360	330	760	1333	-	-	1083	-	-
Stage 1	722	692	-	524	545	-	-	-	-	-	-	-
Stage 2	731	540	-	850	686	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	427	323	911	351	323	760	1333	-	-	1083	-	-
Mov Cap-2 Maneuver	427	323	-	351	323	-	-	-	-	-	-	-
Stage 1	716	682	-	520	541	-	-	-	-	-	-	-
Stage 2	714	536	-	830	676	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	12.7		12.2		0.1		0.5	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1333	-	-	497	351	760	1083	-	-
HCM Lane V/C Ratio	0.007	-	-	0.065	0.025	0.016	0.014	-	-
HCM Control Delay (s)	7.7	-	-	12.7	15.5	9.8	8.4	-	-
HCM Lane LOS	A	-	-	B	C	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	0	-	-

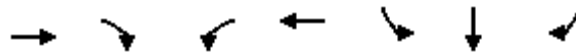
Intersection	
Intersection Delay, s/veh	124.6
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕		↕	↕		↕	↕	
Traffic Vol, veh/h	0	4	1	523	0	220	4	225	582	125	125	3
Future Vol, veh/h	0	4	1	523	0	220	4	225	582	125	125	3
Peak Hour Factor	0.92	0.92	0.92	0.90	0.92	0.90	0.92	0.90	0.90	0.90	0.90	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	4	1	581	0	244	4	250	647	139	139	3
Number of Lanes	0	1	0	1	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	13.8	55.6	222.1	16.8
HCM LOS	B	F	F	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	0%	100%	38%	100%	0%	0%
Vol Thru, %	0%	100%	11%	80%	0%	0%	0%	100%	93%
Vol Right, %	0%	0%	89%	20%	0%	62%	0%	0%	7%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	4	150	657	5	387	356	125	83	45
LT Vol	4	0	0	0	387	136	125	0	0
Through Vol	0	150	75	4	0	0	0	83	42
RT Vol	0	0	582	1	0	220	0	0	3
Lane Flow Rate	4	167	730	5	430	396	139	93	50
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.011	0.38	1.533	0.015	0.981	0.821	0.363	0.229	0.122
Departure Headway (Hd)	8.715	8.199	7.559	10.9	9.019	8.27	10.313	9.79	9.741
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	410	438	482	330	404	443	351	369	370
Service Time	6.488	5.972	5.332	8.6	6.719	5.97	8.013	7.49	7.441
HCM Lane V/C Ratio	0.01	0.381	1.515	0.015	1.064	0.894	0.396	0.252	0.135
HCM Control Delay	11.6	16	270.4	13.8	70.7	39.1	18.8	15.4	13.8
HCM Lane LOS	B	C	F	B	F	E	C	C	B
HCM 95th-tile Q	0	1.7	38.5	0	11.7	7.7	1.6	0.9	0.4

Timings
11: I-215 SB Ramps & Ramona Exwy.

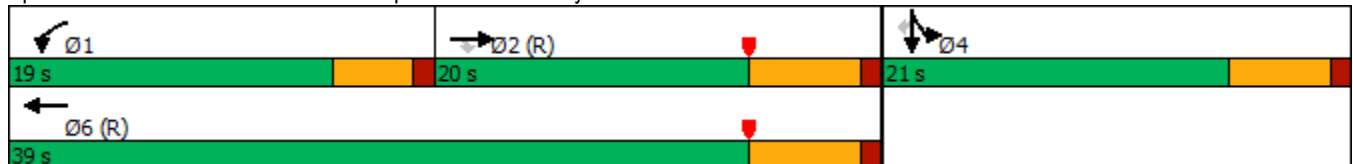


Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations	↑↑	↑	↘	↑↑	↘	↗	↗
Traffic Volume (vph)	692	327	339	925	704	3	194
Future Volume (vph)	692	327	339	925	704	3	194
Turn Type	NA	Perm	Prot	NA	Split	NA	Perm
Protected Phases	2		1	6	4	4	
Permitted Phases		2					4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	9.5	31.0	10.5	10.5	10.5
Total Split (s)	20.0	20.0	19.0	39.0	21.0	21.0	21.0
Total Split (%)	33.3%	33.3%	31.7%	65.0%	35.0%	35.0%	35.0%
Yellow Time (s)	5.0	5.0	3.5	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.5	6.0	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max	Max

Intersection Summary













Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 19 (32%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated

Splits and Phases: 11: I-215 SB Ramps & Ramona Exwy.



HCM 6th Signalized Intersection Summary
 11: I-215 SB Ramps & Ramona Exwy.

Barker Logistics (JN 12216)
 02/21/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑					↖	↗	↗
Traffic Volume (veh/h)	0	692	327	339	925	0	0	0	0	704	3	194
Future Volume (veh/h)	0	692	327	339	925	0	0	0	0	704	3	194
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	713	228	349	954	0				728	0	136
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	907	403	405	1986	0				935	0	416
Arrive On Green	0.00	0.25	0.25	0.13	0.33	0.00				0.26	0.00	0.26
Sat Flow, veh/h	0	3705	1606	1810	3705	0				3619	0	1610
Grp Volume(v), veh/h	0	713	228	349	954	0				728	0	136
Grp Sat Flow(s),veh/h/ln	0	1805	1606	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	11.1	7.4	11.3	12.6	0.0				11.2	0.0	4.1
Cycle Q Clear(g_c), s	0.0	11.1	7.4	11.3	12.6	0.0				11.2	0.0	4.1
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	907	403	405	1986	0				935	0	416
V/C Ratio(X)	0.00	0.79	0.57	0.86	0.48	0.00				0.78	0.00	0.33
Avail Cap(c_a), veh/h	0	907	403	437	1986	0				935	0	416
HCM Platoon Ratio	1.00	1.00	1.00	0.60	0.60	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.83	0.83	0.67	0.67	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	21.0	19.6	25.1	13.3	0.0				20.7	0.0	18.0
Incr Delay (d2), s/veh	0.0	5.7	4.7	10.8	0.6	0.0				6.4	0.0	2.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.6	2.8	5.8	4.5	0.0				4.8	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	26.7	24.3	35.9	13.8	0.0				27.0	0.0	20.1
LnGrp LOS	A	C	C	D	B	A				C	A	C
Approach Vol, veh/h		941			1303						864	
Approach Delay, s/veh		26.1			19.7						25.9	
Approach LOS		C			B						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	17.9	21.1		21.0		39.0						
Change Period (Y+Rc), s	4.5	6.0		5.5		6.0						
Max Green Setting (Gmax), s	14.5	14.0		15.5		33.0						
Max Q Clear Time (g_c+I1), s	13.3	13.1		13.2		14.6						
Green Ext Time (p_c), s	0.1	0.4		0.9		3.7						

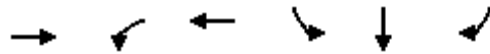
Intersection Summary

HCM 6th Ctrl Delay	23.4
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Timings
13: I-215 SB Ramps & Nuevo Rd.

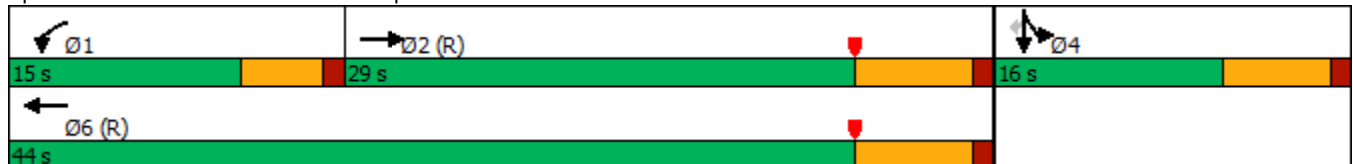


Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑	↑↑	↑	↑	↑
Traffic Volume (vph)	501	375	857	300	3	90
Future Volume (vph)	501	375	857	300	3	90
Turn Type	NA	Prot	NA	Split	NA	Perm
Protected Phases	2	1	6	4	4	
Permitted Phases						4
Detector Phase	2	1	6	4	4	4
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	28.2	9.6	28.2	15.8	15.8	15.8
Total Split (s)	29.0	15.0	44.0	16.0	16.0	16.0
Total Split (%)	48.3%	25.0%	73.3%	26.7%	26.7%	26.7%
Yellow Time (s)	5.2	3.6	5.2	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	4.6	6.2	5.8	5.8	5.8
Lead/Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes				
Recall Mode	C-Max	None	C-Max	Max	Max	Max

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 18.6 (31%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated

Splits and Phases: 13: I-215 SB Ramps & Nuevo Rd.



HCM 6th Signalized Intersection Summary
 13: I-215 SB Ramps & Nuevo Rd.

Barker Logistics (JN 12216)
 02/21/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑↑	↑↑					↑	↑	↑
Traffic Volume (veh/h)	0	501	152	375	857	0	0	0	0	300	3	90
Future Volume (veh/h)	0	501	152	375	857	0	0	0	0	300	3	90
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	569	133	426	974	0				343	0	29
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1160	270	541	2274	0				615	0	274
Arrive On Green	0.00	0.40	0.40	0.10	0.42	0.00				0.17	0.00	0.17
Sat Flow, veh/h	0	3001	677	3510	3705	0				3619	0	1610
Grp Volume(v), veh/h	0	353	349	426	974	0				343	0	29
Grp Sat Flow(s),veh/h/ln	0	1805	1778	1755	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	8.8	8.8	7.1	11.4	0.0				5.2	0.0	0.9
Cycle Q Clear(g_c), s	0.0	8.8	8.8	7.1	11.4	0.0				5.2	0.0	0.9
Prop In Lane	0.00		0.38	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	721	710	541	2274	0				615	0	274
V/C Ratio(X)	0.00	0.49	0.49	0.79	0.43	0.00				0.56	0.00	0.11
Avail Cap(c_a), veh/h	0	721	710	608	2274	0				615	0	274
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.78	0.78	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	13.5	13.5	25.9	9.7	0.0				22.8	0.0	21.0
Incr Delay (d2), s/veh	0.0	2.4	2.4	4.1	0.5	0.0				3.6	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.2	3.2	3.0	3.3	0.0				2.2	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	15.8	15.9	30.1	10.2	0.0				26.5	0.0	21.8
LnGrp LOS	A	B	B	C	B	A				C	A	C
Approach Vol, veh/h		702			1400						372	
Approach Delay, s/veh		15.9			16.2						26.1	
Approach LOS		B			B						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	13.8	30.2		16.0		44.0						
Change Period (Y+Rc), s	4.6	6.2		5.8		6.2						
Max Green Setting (Gmax), s	10.4	22.8		10.2		37.8						
Max Q Clear Time (g_c+I1), s	9.1	10.8		7.2		13.4						
Green Ext Time (p_c), s	0.1	3.0		0.4		6.5						

Intersection Summary

HCM 6th Ctrl Delay	17.6
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Timings
14: I-215 NB Ramps & Ramona Exwy.

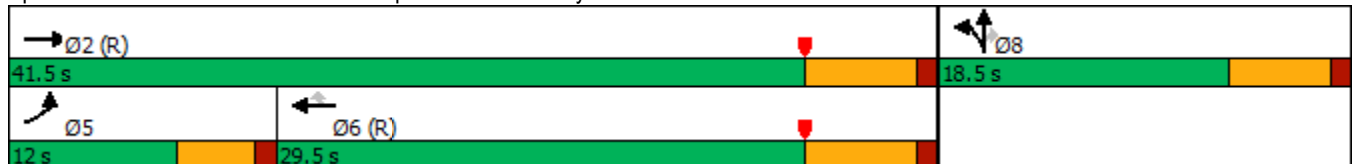


Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations	↶	↷	↷	↷	↶	↷	↷
Traffic Volume (vph)	184	1212	994	955	270	3	413
Future Volume (vph)	184	1212	994	955	270	3	413
Turn Type	Prot	NA	NA	Perm	Split	NA	Perm
Protected Phases	5	2	6		8	8	
Permitted Phases				6			8
Detector Phase	5	2	6	6	8	8	8
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	11.0	26.0	26.0	10.5	10.5	10.5
Total Split (s)	12.0	41.5	29.5	29.5	18.5	18.5	18.5
Total Split (%)	20.0%	69.2%	49.2%	49.2%	30.8%	30.8%	30.8%
Yellow Time (s)	3.5	5.0	5.0	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	6.0	5.5	5.5	5.5
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None

Intersection Summary




















Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 19 (32%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated

Splits and Phases: 14: I-215 NB Ramps & Ramona Exwy.

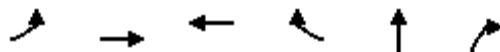


HCM 6th Signalized Intersection Summary
 14: I-215 NB Ramps & Ramona Exwy.

Barker Logistics (JN 12216)
 02/21/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	184	1212	0	0	994	955	270	3	413	0	0	0
Future Volume (veh/h)	184	1212	0	0	994	955	270	3	413	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	190	1249	0	0	1025	703	280	0	274			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	226	2190	0	0	1468	655	730	0	325			
Arrive On Green	0.25	1.00	0.00	0.00	0.41	0.41	0.20	0.00	0.20			
Sat Flow, veh/h	1810	3705	0	0	3705	1610	3619	0	1610			
Grp Volume(v), veh/h	190	1249	0	0	1025	703	280	0	274			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1610	1810	0	1610			
Q Serve(g_s), s	6.0	0.0	0.0	0.0	14.1	24.4	4.0	0.0	9.8			
Cycle Q Clear(g_c), s	6.0	0.0	0.0	0.0	14.1	24.4	4.0	0.0	9.8			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	226	2190	0	0	1468	655	730	0	325			
V/C Ratio(X)	0.84	0.57	0.00	0.00	0.70	1.07	0.38	0.00	0.84			
Avail Cap(c_a), veh/h	226	2190	0	0	1468	655	784	0	349			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.47	0.47	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	21.9	0.0	0.0	0.0	14.8	17.8	20.7	0.0	23.0			
Incr Delay (d2), s/veh	12.5	0.5	0.0	0.0	2.8	56.6	0.3	0.0	16.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.7	0.2	0.0	0.0	4.9	17.1	1.5	0.0	4.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.5	0.5	0.0	0.0	17.5	74.4	21.1	0.0	39.2			
LnGrp LOS	C	A	A	A	B	F	C	A	D			
Approach Vol, veh/h		1439			1728			554				
Approach Delay, s/veh		5.0			40.7			30.0				
Approach LOS		A			D			C				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		42.4			12.0	30.4		17.6				
Change Period (Y+Rc), s		6.0			4.5	6.0		5.5				
Max Green Setting (Gmax), s		35.5			7.5	23.5		13.0				
Max Q Clear Time (g_c+I1), s		2.0			8.0	26.4		11.8				
Green Ext Time (p_c), s		6.0			0.0	0.0		0.3				
Intersection Summary												
HCM 6th Ctrl Delay					25.3							
HCM 6th LOS					C							
Notes												
User approved volume balancing among the lanes for turning movement.												

Timings
16: I-215 NB Ramps & Nuevo Rd.

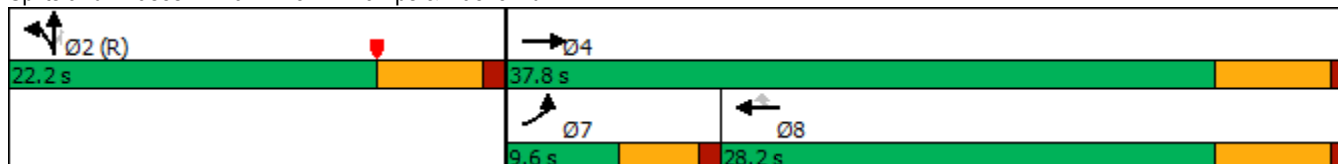


Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Configurations	↘	↑↑	↑↑↑	↗	↙	↗↗
Traffic Volume (vph)	40	761	950	377	2	546
Future Volume (vph)	40	761	950	377	2	546
Turn Type	Prot	NA	NA	Perm	NA	Perm
Protected Phases	7	4	8		2	
Permitted Phases				8		2
Detector Phase	7	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	28.2	28.2	28.2	15.8	15.8
Total Split (s)	9.6	37.8	28.2	28.2	22.2	22.2
Total Split (%)	16.0%	63.0%	47.0%	47.0%	37.0%	37.0%
Yellow Time (s)	3.6	5.2	5.2	5.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	6.2	5.8	5.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max

Intersection Summary























Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 16 (27%), Referenced to phase 2:NBT and 6:, Start of Yellow
 Natural Cycle: 55
 Control Type: Actuated-Coordinated

Splits and Phases: 16: I-215 NB Ramps & Nuevo Rd.



HCM 6th Signalized Intersection Summary
 16: I-215 NB Ramps & Nuevo Rd.

Barker Logistics (JN 12216)
 02/21/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			  				 			
Traffic Volume (veh/h)	40	761	0	0	950	377	282	2	546	0	0	0
Future Volume (veh/h)	40	761	0	0	950	377	282	2	546	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	43	827	0	0	1033	298	307	2	273			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	77	1485	0	0	1514	470	699	5	1102			
Arrive On Green	0.03	0.28	0.00	0.00	0.29	0.29	0.39	0.39	0.39			
Sat Flow, veh/h	1810	3705	0	0	5358	1610	1798	12	2834			
Grp Volume(v), veh/h	43	827	0	0	1033	298	309	0	273			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1729	1610	1810	0	1417			
Q Serve(g_s), s	1.4	11.8	0.0	0.0	10.6	9.6	7.5	0.0	3.9			
Cycle Q Clear(g_c), s	1.4	11.8	0.0	0.0	10.6	9.6	7.5	0.0	3.9			
Prop In Lane	1.00		0.00	0.00		1.00	0.99		1.00			
Lane Grp Cap(c), veh/h	77	1485	0	0	1514	470	704	0	1102			
V/C Ratio(X)	0.56	0.56	0.00	0.00	0.68	0.63	0.44	0.00	0.25			
Avail Cap(c_a), veh/h	151	1901	0	0	1902	590	704	0	1102			
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.82	0.82	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	28.6	17.1	0.0	0.0	18.8	18.5	13.5	0.0	12.4			
Incr Delay (d2), s/veh	1.9	0.3	0.0	0.0	0.7	1.5	2.0	0.0	0.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.6	4.3	0.0	0.0	3.5	3.1	2.9	0.0	1.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.5	17.3	0.0	0.0	19.5	19.9	15.5	0.0	12.9			
LnGrp LOS	C	B	A	A	B	B	B	A	B			
Approach Vol, veh/h		870			1331			582				
Approach Delay, s/veh		18.0			19.6			14.3				
Approach LOS		B			B			B				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		29.1		30.9			7.2	23.7				
Change Period (Y+Rc), s		5.8		6.2			4.6	6.2				
Max Green Setting (Gmax), s		16.4		31.6			5.0	22.0				
Max Q Clear Time (g_c+I1), s		9.5		13.8			3.4	12.6				
Green Ext Time (p_c), s		1.6		4.8			0.0	5.0				
Intersection Summary												
HCM 6th Ctrl Delay				18.0								
HCM 6th LOS				B								

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔		↔	↔		↔			↔	
Traffic Vol, veh/h	2	77	4	6	32	0	1	0	7	0	1	0
Future Vol, veh/h	2	77	4	6	32	0	1	0	7	0	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	83	4	6	34	0	1	0	8	0	1	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	34	0	0	87	0	0	134	133	83	139	137	34
Stage 1	-	-	-	-	-	-	87	87	-	46	46	-
Stage 2	-	-	-	-	-	-	47	46	-	93	91	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1591	-	-	1522	-	-	842	761	982	836	758	1045
Stage 1	-	-	-	-	-	-	926	827	-	973	861	-
Stage 2	-	-	-	-	-	-	972	861	-	919	823	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1591	-	-	1522	-	-	838	757	982	827	754	1045
Mov Cap-2 Maneuver	-	-	-	-	-	-	838	757	-	827	754	-
Stage 1	-	-	-	-	-	-	925	826	-	972	858	-
Stage 2	-	-	-	-	-	-	967	858	-	911	822	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1.2	8.8	9.8
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	961	1591	-	-	1522	-	-	754
HCM Lane V/C Ratio	0.009	0.001	-	-	0.004	-	-	0.001
HCM Control Delay (s)	8.8	7.3	0	-	7.4	0	-	9.8
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Traffic Vol, veh/h	1	0	1	0	0	0	3	8	0	0	11	0
Future Vol, veh/h	1	0	1	0	0	0	3	8	0	0	11	0
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	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	72	72	72	72	72	72	72	72	72	72	72	72
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	0	1	0	0	0	4	11	0	0	15	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	34	34	15	15	0	-	-	-	0
Stage 1	15	15	-	-	-	-	-	-	-
Stage 2	19	19	-	-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.2	4.1	-	-	-	-	-
Critical Hdwy Stg 1	5.4	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	2.2	-	-	-	-	-
Pot Cap-1 Maneuver	984	863	1070	1616	-	0	0	-	-
Stage 1	1013	887	-	-	-	0	0	-	-
Stage 2	1009	884	-	-	-	0	0	-	-
Platoon blocked, %									
Mov Cap-1 Maneuver	982	0	1070	1616	-	-	-	-	-
Mov Cap-2 Maneuver	982	0	-	-	-	-	-	-	-
Stage 1	1011	0	-	-	-	-	-	-	-
Stage 2	1009	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.5	2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1616	-	1024	-	-
HCM Lane V/C Ratio	0.003	-	0.003	-	-
HCM Control Delay (s)	7.2	0	8.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection						
Int Delay, s/veh	3.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	1	1	4	10	11	1
Future Vol, veh/h	1	1	4	10	11	1
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	72	72	72	72	72	72
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	1	6	14	15	1

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	20	0	-	0	16
Stage 1	-	-	-	-	13
Stage 2	-	-	-	-	3
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	1609	-	-	-	1008
Stage 1	-	-	-	-	1015
Stage 2	-	-	-	-	1025
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1609	-	-	-	1007
Mov Cap-2 Maneuver	-	-	-	-	1007
Stage 1	-	-	-	-	1014
Stage 2	-	-	-	-	1025

Approach	EB	WB	SB
HCM Control Delay, s	3.6	0	8.6
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1609	-	-	-	1012
HCM Lane V/C Ratio	0.001	-	-	-	0.016
HCM Control Delay (s)	7.2	0	-	-	8.6
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

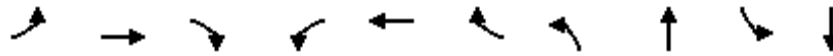
Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↻			↻			↻				
Traffic Vol, veh/h	0	10	2	2	12	0	2	0	3	0	0	0
Future Vol, veh/h	0	10	2	2	12	0	2	0	3	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	13	3	3	15	0	3	0	4	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	-	0	0	16	0	0	36	36	15
Stage 1	-	-	-	-	-	-	15	15	-
Stage 2	-	-	-	-	-	-	21	21	-
Critical Hdwy	-	-	-	4.1	-	-	6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	-	-	-	2.2	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	0	-	-	1615	-	0	982	860	1070
Stage 1	0	-	-	-	-	0	1013	887	-
Stage 2	0	-	-	-	-	0	1007	882	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	1615	-	-	980	0	1070
Mov Cap-2 Maneuver	-	-	-	-	-	-	980	0	-
Stage 1	-	-	-	-	-	-	1013	0	-
Stage 2	-	-	-	-	-	-	1005	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	8.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1032	-	-	1615	-
HCM Lane V/C Ratio	0.006	-	-	0.002	-
HCM Control Delay (s)	8.5	-	-	7.2	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Timings
6: Harvill Av. & Cajalco Exwy./Ramona Exwy.

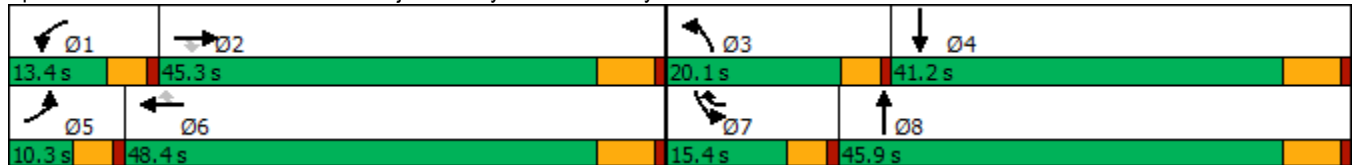


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations	↘	↑↑	↗	↘↗	↑↑	↗	↘↗	↑↑	↘↗	↑↑
Traffic Volume (vph)	23	789	263	130	671	130	277	126	167	176
Future Volume (vph)	23	789	263	130	671	130	277	126	167	176
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases	5	2		1	6	7	3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	7	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	36.2	36.2	9.6	34.2	9.6	9.6	16.2	9.6	41.2
Total Split (s)	10.3	45.3	45.3	13.4	48.4	15.4	20.1	45.9	15.4	41.2
Total Split (%)	8.6%	37.8%	37.8%	11.2%	40.3%	12.8%	16.8%	38.3%	12.8%	34.3%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	3.6	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	4.6	4.6	6.2	4.6	6.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	Max	None	None	None	None	None

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 95.4
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated

























Splits and Phases: 6: Harvill Av. & Cajalco Exwy./Ramona Exwy.



HCM 6th Signalized Intersection Summary
6: Harvill Av. & Cajalco Exwy./Ramona Exwy.

Barker Logistics (JN 12216)

02/21/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	789	263	130	671	130	277	126	110	167	176	15
Future Volume (veh/h)	23	789	263	130	671	130	277	126	110	167	176	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	23	797	194	131	678	90	280	127	46	169	178	7
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	45	1677	747	204	1798	916	367	399	139	248	418	16
Arrive On Green	0.02	0.46	0.46	0.06	0.50	0.50	0.10	0.15	0.15	0.07	0.12	0.12
Sat Flow, veh/h	1810	3610	1608	3510	3610	1610	3510	2627	913	3510	3541	139
Grp Volume(v), veh/h	23	797	194	131	678	90	280	86	87	169	90	95
Grp Sat Flow(s),veh/h/ln	1810	1805	1608	1755	1805	1610	1755	1805	1736	1755	1805	1875
Q Serve(g_s), s	1.1	12.9	6.2	3.1	9.8	2.2	6.6	3.6	3.8	4.0	3.9	4.0
Cycle Q Clear(g_c), s	1.1	12.9	6.2	3.1	9.8	2.2	6.6	3.6	3.8	4.0	3.9	4.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.53	1.00		0.07
Lane Grp Cap(c), veh/h	45	1677	747	204	1798	916	367	274	263	248	213	221
V/C Ratio(X)	0.52	0.48	0.26	0.64	0.38	0.10	0.76	0.31	0.33	0.68	0.42	0.43
Avail Cap(c_a), veh/h	122	1677	747	365	1798	916	642	846	813	447	745	774
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.8	15.6	13.8	39.1	13.1	8.4	36.9	32.0	32.1	38.4	34.7	34.7
Incr Delay (d2), s/veh	3.4	1.0	0.8	1.3	0.6	0.2	1.3	0.6	0.7	1.2	1.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	4.7	2.1	1.3	3.5	0.7	2.7	1.5	1.5	1.7	1.8	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.2	16.6	14.7	40.3	13.8	8.6	38.2	32.6	32.8	39.7	36.0	36.0
LnGrp LOS	D	B	B	D	B	A	D	C	C	D	D	D
Approach Vol, veh/h		1014			899			453			354	
Approach Delay, s/veh		16.8			17.1			36.1			37.8	
Approach LOS		B			B			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.5	45.6	13.5	16.2	6.7	48.4	10.6	19.1				
Change Period (Y+Rc), s	4.6	6.2	4.6	6.2	4.6	6.2	4.6	6.2				
Max Green Setting (Gmax), s	8.8	39.1	15.5	35.0	5.7	42.2	10.8	39.7				
Max Q Clear Time (g_c+I1), s	5.1	14.9	8.6	6.0	3.1	11.8	6.0	5.8				
Green Ext Time (p_c), s	0.1	5.8	0.3	1.0	0.0	4.7	0.1	0.9				
Intersection Summary												
HCM 6th Ctrl Delay				22.9								
HCM 6th LOS				C								

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖	↖	↖	↖↗		↖	↖↗	
Traffic Vol, veh/h	17	0	69	1	1	0	31	354	2	0	494	15
Future Vol, veh/h	17	0	69	1	1	0	31	354	2	0	494	15
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	115	-	-	165	-	0	150	-	-	160	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	18	0	74	1	1	0	33	381	2	0	531	16

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	796	988	274	714	995	192	547	0	0	383	0	0
Stage 1	539	539	-	448	448	-	-	-	-	-	-	-
Stage 2	257	449	-	266	547	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	281	249	730	322	247	823	1033	-	-	1187	-	-
Stage 1	499	525	-	565	576	-	-	-	-	-	-	-
Stage 2	731	576	-	722	521	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	273	241	730	282	239	823	1033	-	-	1187	-	-
Mov Cap-2 Maneuver	378	357	-	392	346	-	-	-	-	-	-	-
Stage 1	483	525	-	547	558	-	-	-	-	-	-	-
Stage 2	706	558	-	649	521	-	-	-	-	-	-	-

Approach	EB		WB			NB			SB		
HCM Control Delay, s	11.4		14.8			0.7			0		
HCM LOS	B		B								

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	1033	-	-	378	-	730	392	346	-	1187	-	-
HCM Lane V/C Ratio	0.032	-	-	0.048	-	0.102	0.003	0.003	-	-	-	-
HCM Control Delay (s)	8.6	-	-	15	0	10.5	14.2	15.4	0	0	-	-
HCM Lane LOS	A	-	-	C	A	B	B	C	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	-	0.3	0	0	-	0	-	-

Intersection	
Intersection Delay, s/veh	14
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↗	↖	↕		↖	↕	
Traffic Vol, veh/h	4	3	5	64	4	204	6	163	56	272	297	3
Future Vol, veh/h	4	3	5	64	4	204	6	163	56	272	297	3
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	4	3	6	72	4	229	7	183	63	306	334	3
Number of Lanes	0	1	0	0	1	1	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	10.8	13.1	11.9	15.3
HCM LOS	B	B	B	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	33%	94%	0%	100%	0%	0%
Vol Thru, %	0%	100%	49%	25%	6%	0%	0%	100%	97%
Vol Right, %	0%	0%	51%	42%	0%	100%	0%	0%	3%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	6	109	110	12	68	204	272	198	102
LT Vol	6	0	0	4	64	0	272	0	0
Through Vol	0	109	54	3	4	0	0	198	99
RT Vol	0	0	56	5	0	204	0	0	3
Lane Flow Rate	7	122	124	13	76	229	306	222	115
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.014	0.241	0.232	0.029	0.16	0.405	0.58	0.391	0.201
Departure Headway (Hd)	7.619	7.11	6.748	7.862	7.537	6.365	6.837	6.33	6.309
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	467	502	528	458	474	562	526	567	566
Service Time	5.405	4.896	4.534	5.562	5.317	4.144	4.603	4.095	4.074
HCM Lane V/C Ratio	0.015	0.243	0.235	0.028	0.16	0.407	0.582	0.392	0.203
HCM Control Delay	10.5	12.2	11.6	10.8	11.8	13.5	18.7	13.1	10.7
HCM Lane LOS	B	B	B	B	B	B	C	B	B
HCM 95th-tile Q	0	0.9	0.9	0.1	0.6	2	3.7	1.8	0.7

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕		↕	↕	
Traffic Vol, veh/h	13	2	6	36	0	28	4	181	22	19	322	30
Future Vol, veh/h	13	2	6	36	0	28	4	181	22	19	322	30
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	-	-	-	-	-	0	160	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	15	2	7	42	0	33	5	210	26	22	374	35

Major/Minor	Minor2		Minor1			Major1		Major2				
Conflicting Flow All	551	682	205	465	686	118	409	0	0	236	0	0
Stage 1	436	436	-	233	233	-	-	-	-	-	-	-
Stage 2	115	246	-	232	453	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	422	375	808	485	373	918	1161	-	-	1343	-	-
Stage 1	574	583	-	755	716	-	-	-	-	-	-	-
Stage 2	883	706	-	756	573	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	400	368	808	471	366	918	1161	-	-	1343	-	-
Mov Cap-2 Maneuver	400	368	-	471	366	-	-	-	-	-	-	-
Stage 1	572	574	-	752	713	-	-	-	-	-	-	-
Stage 2	848	703	-	734	564	-	-	-	-	-	-	-

Approach	EB		WB			NB		SB		
HCM Control Delay, s	13.2		11.5			0.2		0.4		
HCM LOS	B		B							

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1161	-	-	463	471	918	1343	-	-
HCM Lane V/C Ratio	0.004	-	-	0.053	0.089	0.035	0.016	-	-
HCM Control Delay (s)	8.1	-	-	13.2	13.4	9.1	7.7	-	-
HCM Lane LOS	A	-	-	B	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.3	0.1	0.1	-	-

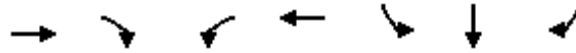
Intersection	
Intersection Delay, s/veh	16.7
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕		↕	↕		↕	↕	
Traffic Vol, veh/h	2	0	3	289	0	75	1	146	316	109	280	1
Future Vol, veh/h	2	0	3	289	0	75	1	146	316	109	280	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	0	3	304	0	79	1	154	333	115	295	1
Number of Lanes	0	1	0	1	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	11.2	15.4	20.5	13.6
HCM LOS	B	C	C	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	40%	100%	57%	100%	0%	0%
Vol Thru, %	0%	100%	13%	0%	0%	0%	0%	100%	99%
Vol Right, %	0%	0%	87%	60%	0%	43%	0%	0%	1%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	1	97	365	5	188	176	109	187	94
LT Vol	1	0	0	2	188	101	109	0	0
Through Vol	0	97	49	0	0	0	0	187	93
RT Vol	0	0	316	3	0	75	0	0	1
Lane Flow Rate	1	102	384	5	198	185	115	196	99
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.002	0.203	0.696	0.012	0.429	0.376	0.248	0.397	0.2
Departure Headway (Hd)	7.659	7.148	6.528	8.298	7.811	7.298	7.786	7.274	7.267
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	468	503	553	431	461	493	461	495	495
Service Time	5.392	4.881	4.262	6.055	5.548	5.035	5.525	5.013	5.005
HCM Lane V/C Ratio	0.002	0.203	0.694	0.012	0.43	0.375	0.249	0.396	0.2
HCM Control Delay	10.4	11.7	22.9	11.2	16.3	14.4	13.1	14.7	11.8
HCM Lane LOS	B	B	C	B	C	B	B	B	B
HCM 95th-tile Q	0	0.8	5.4	0	2.1	1.7	1	1.9	0.7

Timings
11: I-215 SB Ramps & Ramona Exwy.

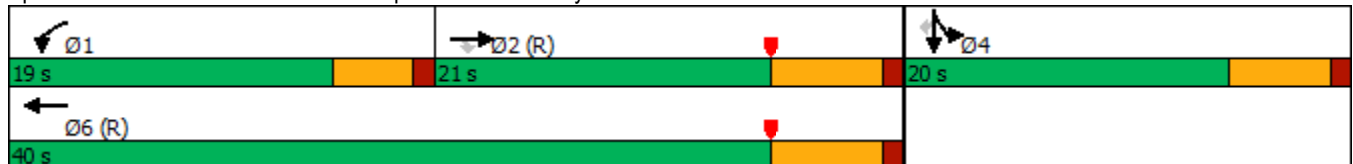


Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations	↑↑	↑	↙	↑↑	↙	↖	↙
Traffic Volume (vph)	799	323	393	798	724	4	133
Future Volume (vph)	799	323	393	798	724	4	133
Turn Type	NA	Perm	Prot	NA	Split	NA	Perm
Protected Phases	2		1	6	4	4	
Permitted Phases		2					4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	9.5	31.0	10.5	10.5	10.5
Total Split (s)	21.0	21.0	19.0	40.0	20.0	20.0	20.0
Total Split (%)	35.0%	35.0%	31.7%	66.7%	33.3%	33.3%	33.3%
Yellow Time (s)	5.0	5.0	3.5	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.5	6.0	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max	Max

Intersection Summary













Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 19 (32%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 75
 Control Type: Actuated-Coordinated

Splits and Phases: 11: I-215 SB Ramps & Ramona Exwy.

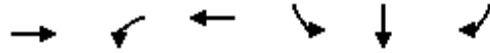


HCM 6th Signalized Intersection Summary
 11: I-215 SB Ramps & Ramona Exwy.

Barker Logistics (JN 12216)
 02/21/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑					↖	↗	↗
Traffic Volume (veh/h)	0	799	323	393	798	0	0	0	0	724	4	133
Future Volume (veh/h)	0	799	323	393	798	0	0	0	0	724	4	133
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	824	220	405	823	0				749	0	64
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	902	403	437	2046	0				875	0	389
Arrive On Green	0.00	0.25	0.25	0.15	0.34	0.00				0.24	0.00	0.24
Sat Flow, veh/h	0	3705	1610	1810	3705	0				3619	0	1610
Grp Volume(v), veh/h	0	824	220	405	823	0				749	0	64
Grp Sat Flow(s),veh/h/ln	0	1805	1610	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	13.3	7.1	13.3	10.5	0.0				11.9	0.0	1.9
Cycle Q Clear(g_c), s	0.0	13.3	7.1	13.3	10.5	0.0				11.9	0.0	1.9
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	903	403	437	2046	0				875	0	389
V/C Ratio(X)	0.00	0.91	0.55	0.93	0.40	0.00				0.86	0.00	0.16
Avail Cap(c_a), veh/h	0	903	403	437	2046	0				875	0	389
HCM Platoon Ratio	1.00	1.00	1.00	0.60	0.60	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.83	0.83	0.73	0.73	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	21.9	19.5	25.1	12.0	0.0				21.8	0.0	18.0
Incr Delay (d2), s/veh	0.0	13.0	4.4	20.6	0.4	0.0				10.6	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	6.3	2.7	7.9	3.4	0.0				5.6	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	34.9	23.9	45.7	12.5	0.0				32.3	0.0	18.9
LnGrp LOS	A	C	C	D	B	A				C	A	B
Approach Vol, veh/h		1044			1228						813	
Approach Delay, s/veh		32.6			23.4						31.2	
Approach LOS		C			C						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	19.0	21.0		20.0		40.0						
Change Period (Y+Rc), s	4.5	6.0		5.5		6.0						
Max Green Setting (Gmax), s	14.5	15.0		14.5		34.0						
Max Q Clear Time (g_c+I1), s	15.3	15.3		13.9		12.5						
Green Ext Time (p_c), s	0.0	0.0		0.2		3.2						
Intersection Summary												
HCM 6th Ctrl Delay				28.6								
HCM 6th LOS				C								
Notes												
User approved volume balancing among the lanes for turning movement.												

Timings
13: I-215 SB Ramps & Nuevo Rd.



Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑	↑↑	↑	↑	↑
Traffic Volume (vph)	409	578	414	545	4	72
Future Volume (vph)	409	578	414	545	4	72
Turn Type	NA	Prot	NA	Split	NA	Perm
Protected Phases	2	1	6	4	4	
Permitted Phases						4
Detector Phase	2	1	6	4	4	4
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	28.2	9.6	28.2	15.8	15.8	15.8
Total Split (s)	28.6	15.2	43.8	16.2	16.2	16.2
Total Split (%)	47.7%	25.3%	73.0%	27.0%	27.0%	27.0%
Yellow Time (s)	5.2	3.6	5.2	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	4.6	6.2	5.8	5.8	5.8
Lead/Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes				
Recall Mode	C-Max	None	C-Max	Max	Max	Max

Intersection Summary



















Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 18.6 (31%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated

Splits and Phases: 13: I-215 SB Ramps & Nuevo Rd.



HCM 6th Signalized Intersection Summary
 13: I-215 SB Ramps & Nuevo Rd.

Barker Logistics (JN 12216)
 02/21/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	409	214	578	414	0	0	0	0	545	4	72
Future Volume (veh/h)	0	409	214	578	414	0	0	0	0	545	4	72
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	431	168	608	436	0				577	0	28
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	950	367	620	2262	0				627	0	279
Arrive On Green	0.00	0.37	0.37	0.06	0.21	0.00				0.17	0.00	0.17
Sat Flow, veh/h	0	2641	983	3510	3705	0				3619	0	1610
Grp Volume(v), veh/h	0	304	295	608	436	0				577	0	28
Grp Sat Flow(s),veh/h/ln	0	1805	1723	1755	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	7.6	7.8	10.4	6.0	0.0				9.4	0.0	0.9
Cycle Q Clear(g_c), s	0.0	7.6	7.8	10.4	6.0	0.0				9.4	0.0	0.9
Prop In Lane	0.00		0.57	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	674	643	620	2262	0				627	0	279
V/C Ratio(X)	0.00	0.45	0.46	0.98	0.19	0.00				0.92	0.00	0.10
Avail Cap(c_a), veh/h	0	674	643	620	2262	0				627	0	279
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.80	0.80	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	14.2	14.2	28.1	11.3	0.0				24.4	0.0	20.9
Incr Delay (d2), s/veh	0.0	2.2	2.3	27.3	0.2	0.0				20.9	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.8	2.8	6.7	1.6	0.0				5.3	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	16.4	16.6	55.5	11.4	0.0				45.2	0.0	21.6
LnGrp LOS	A	B	B	E	B	A				D	A	C
Approach Vol, veh/h		599			1044						605	
Approach Delay, s/veh		16.5			37.1						44.2	
Approach LOS		B			D						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	15.2	28.6		16.2		43.8						
Change Period (Y+Rc), s	4.6	6.2		5.8		6.2						
Max Green Setting (Gmax), s	10.6	22.4		10.4		37.6						
Max Q Clear Time (g_c+I1), s	12.4	9.8		11.4		8.0						
Green Ext Time (p_c), s	0.0	2.6		0.0		2.6						

Intersection Summary

HCM 6th Ctrl Delay	33.5
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Timings
14: I-215 NB Ramps & Ramona Exwy.

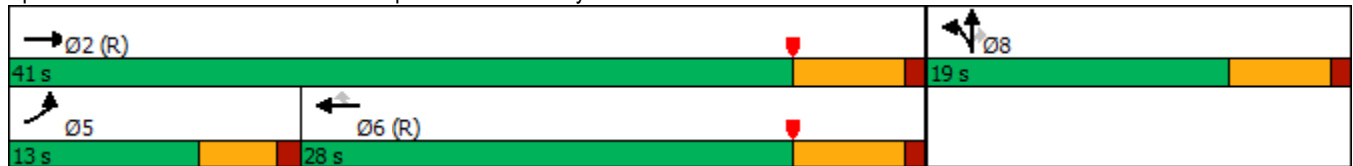


Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations	↙	↕↕	↕↕	↘	↙	↕	↘
Traffic Volume (vph)	190	1333	861	633	330	2	379
Future Volume (vph)	190	1333	861	633	330	2	379
Turn Type	Prot	NA	NA	Perm	Split	NA	Perm
Protected Phases	5	2	6		8	8	
Permitted Phases				6			8
Detector Phase	5	2	6	6	8	8	8
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	11.0	26.0	26.0	10.5	10.5	10.5
Total Split (s)	13.0	41.0	28.0	28.0	19.0	19.0	19.0
Total Split (%)	21.7%	68.3%	46.7%	46.7%	31.7%	31.7%	31.7%
Yellow Time (s)	3.5	5.0	5.0	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	6.0	5.5	5.5	5.5
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None

Intersection Summary




















Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 19 (32%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated

Splits and Phases: 14: I-215 NB Ramps & Ramona Exwy.

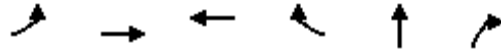


HCM 6th Signalized Intersection Summary
 14: I-215 NB Ramps & Ramona Exwy.

Barker Logistics (JN 12216)
 02/21/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	190	1333	0	0	861	633	330	2	379	0	0	0
Future Volume (veh/h)	190	1333	0	0	861	633	330	2	379	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	200	1403	0	0	906	490	348	0	273			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	240	2183	0	0	1433	639	737	0	328			
Arrive On Green	0.27	1.00	0.00	0.00	0.40	0.40	0.20	0.00	0.20			
Sat Flow, veh/h	1810	3705	0	0	3705	1610	3619	0	1610			
Grp Volume(v), veh/h	200	1403	0	0	906	490	348	0	273			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1610	1810	0	1610			
Q Serve(g_s), s	6.3	0.0	0.0	0.0	12.1	15.8	5.1	0.0	9.8			
Cycle Q Clear(g_c), s	6.3	0.0	0.0	0.0	12.1	15.8	5.1	0.0	9.8			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	240	2183	0	0	1433	639	737	0	328			
V/C Ratio(X)	0.83	0.64	0.00	0.00	0.63	0.77	0.47	0.00	0.83			
Avail Cap(c_a), veh/h	256	2183	0	0	1433	639	814	0	362			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.29	0.29	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	21.4	0.0	0.0	0.0	14.6	15.7	21.1	0.0	22.9			
Incr Delay (d2), s/veh	6.5	0.4	0.0	0.0	2.1	8.6	0.5	0.0	14.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.4	0.1	0.0	0.0	4.2	5.9	1.9	0.0	4.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.9	0.4	0.0	0.0	16.7	24.2	21.5	0.0	37.0			
LnGrp LOS	C	A	A	A	B	C	C	A	D			
Approach Vol, veh/h		1603			1396			621				
Approach Delay, s/veh		3.9			19.4			28.3				
Approach LOS		A			B			C				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		42.3			12.5	29.8		17.7				
Change Period (Y+Rc), s		6.0			4.5	6.0		5.5				
Max Green Setting (Gmax), s		35.0			8.5	22.0		13.5				
Max Q Clear Time (g_c+I1), s		2.0			8.3	17.8		11.8				
Green Ext Time (p_c), s		7.1			0.0	2.0		0.5				
Intersection Summary												
HCM 6th Ctrl Delay				14.0								
HCM 6th LOS				B								
Notes												
User approved volume balancing among the lanes for turning movement.												

Timings
16: I-215 NB Ramps & Nuevo Rd.

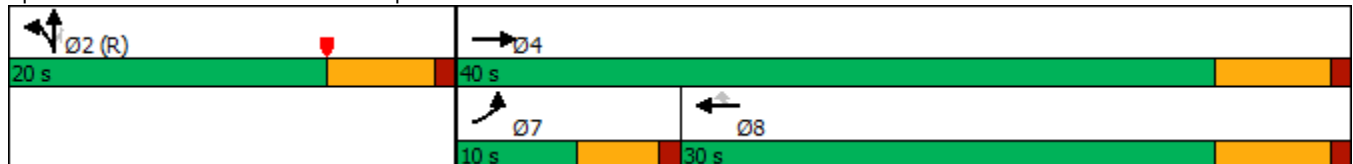


Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Configurations	↙	↑↑	↑↑↑	↗	↙	↗↗
Traffic Volume (vph)	51	903	893	405	1	331
Future Volume (vph)	51	903	893	405	1	331
Turn Type	Prot	NA	NA	Perm	NA	Perm
Protected Phases	7	4	8		2	
Permitted Phases				8		2
Detector Phase	7	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	28.2	28.2	28.2	15.8	15.8
Total Split (s)	10.0	40.0	30.0	30.0	20.0	20.0
Total Split (%)	16.7%	66.7%	50.0%	50.0%	33.3%	33.3%
Yellow Time (s)	3.6	5.2	5.2	5.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-2.2	-2.2	-2.2	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max

Intersection Summary



















Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 16 (27%), Referenced to phase 2:NBT and 6:, Start of Yellow
 Natural Cycle: 55
 Control Type: Actuated-Coordinated

Splits and Phases: 16: I-215 NB Ramps & Nuevo Rd.



HCM 6th Signalized Intersection Summary
 16: I-215 NB Ramps & Nuevo Rd.

Barker Logistics (JN 12216)
 03/11/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	903	0	0	893	405	99	1	331	0	0	0
Future Volume (veh/h)	51	903	0	0	893	405	99	1	331	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	64	1129	0	0	1116	374	124	1	0			
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	117	1778	0	0	1873	578	672	5	1060			
Arrive On Green	0.13	0.98	0.00	0.00	0.36	0.36	0.37	0.37	0.00			
Sat Flow, veh/h	1810	3705	0	0	5358	1601	1796	14	2834			
Grp Volume(v), veh/h	64	1129	0	0	1116	374	125	0	0			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1729	1601	1810	0	1417			
Q Serve(g_s), s	2.0	0.8	0.0	0.0	10.5	11.7	2.8	0.0	0.0			
Cycle Q Clear(g_c), s	2.0	0.8	0.0	0.0	10.5	11.7	2.8	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.99		1.00			
Lane Grp Cap(c), veh/h	117	1778	0	0	1873	578	677	0	1060			
V/C Ratio(X)	0.55	0.64	0.00	0.00	0.60	0.65	0.18	0.00	0.00			
Avail Cap(c_a), veh/h	181	2166	0	0	2248	694	677	0	1060			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.82	0.82	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	25.3	0.2	0.0	0.0	15.6	16.0	12.6	0.0	0.0			
Incr Delay (d2), s/veh	1.2	0.4	0.0	0.0	0.3	1.6	0.6	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.8	0.2	0.0	0.0	3.3	3.6	1.0	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.5	0.6	0.0	0.0	15.9	17.5	13.2	0.0	0.0			
LnGrp LOS	C	A	A	A	B	B	B	A	A			
Approach Vol, veh/h		1193			1490			125				
Approach Delay, s/veh		2.0			16.3			13.2				
Approach LOS		A			B			B				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		26.5		33.5			7.9	25.7				
Change Period (Y+Rc), s		5.8		6.2			4.6	6.2				
Max Green Setting (Gmax), s		14.2		33.8			5.4	23.8				
Max Q Clear Time (g_c+I1), s		4.8		2.8			4.0	13.7				
Green Ext Time (p_c), s		0.3		8.5			0.0	5.7				
Intersection Summary												
HCM 6th Ctrl Delay				10.1								
HCM 6th LOS				B								

APPENDIX 3.3:

EXISTING (2019) CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2019) Conditions - Weekday AM Peak Hour**

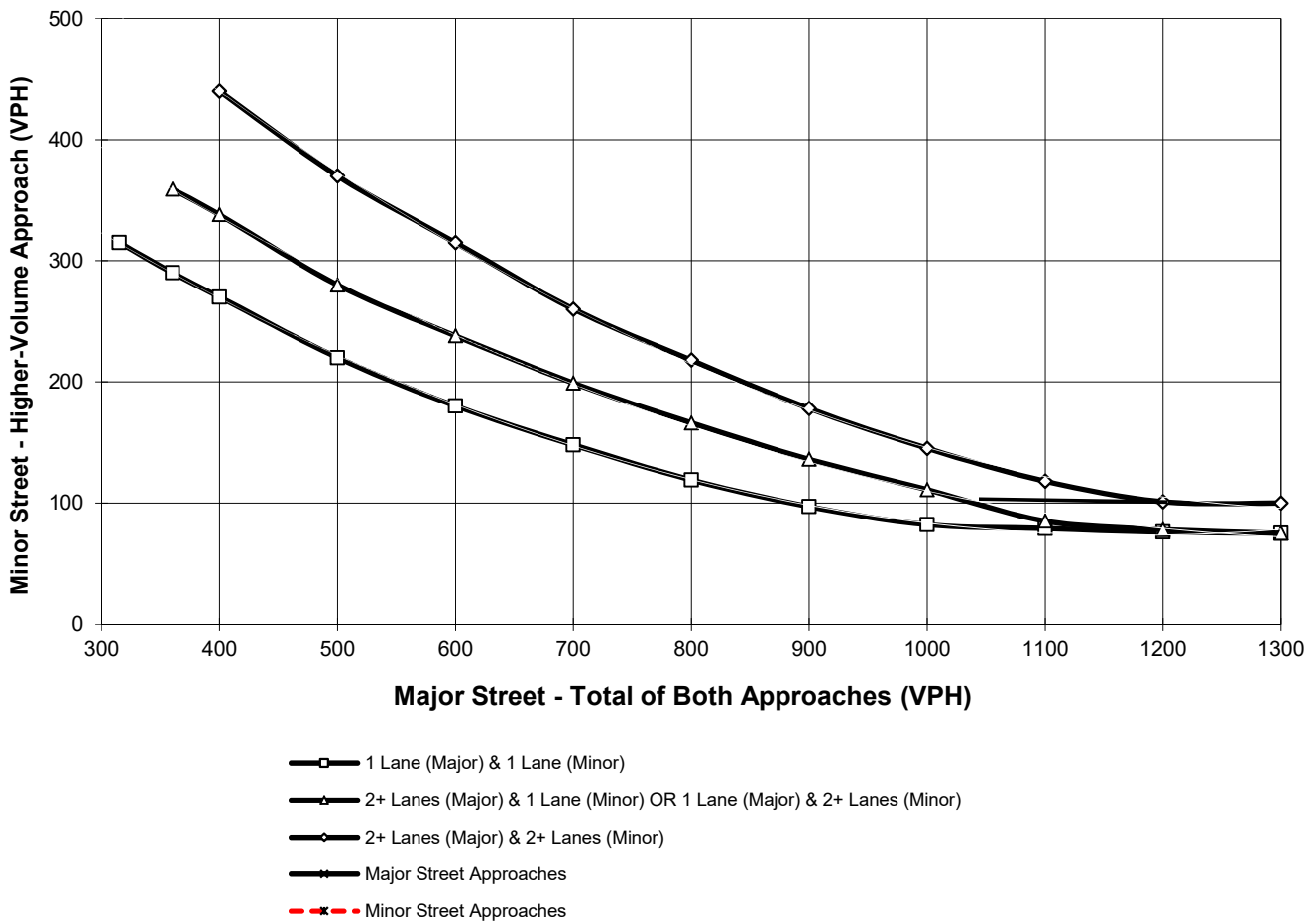
Major Street Name = **Rider Street**

Total of Both Approaches (VPH) = **81**
 Number of Approach Lanes Major Street = **1**

Minor Street Name = **Patterson Avenue**

High Volume Approach (VPH) = **10**
 Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

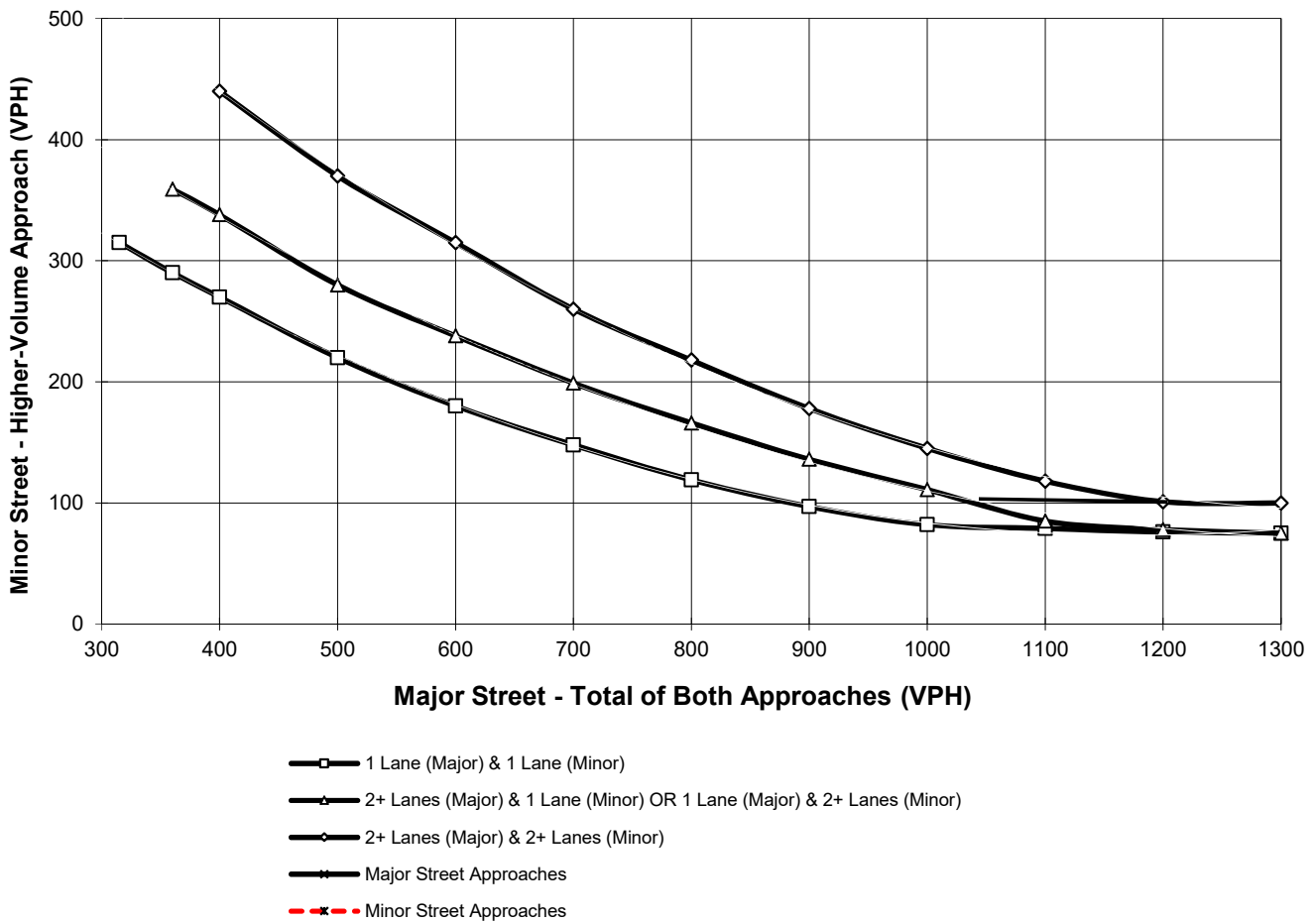
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2019) Conditions - Weekday AM Peak Hour**

Major Street Name = **Patterson Avenue** Total of Both Approaches (VPH) = **27**
 Number of Approach Lanes Major Street = **1**

Minor Street Name = **Walnut Street/Driveway 1** High Volume Approach (VPH) = **4**
 Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2019) Conditions - Weekday AM Peak Hour**

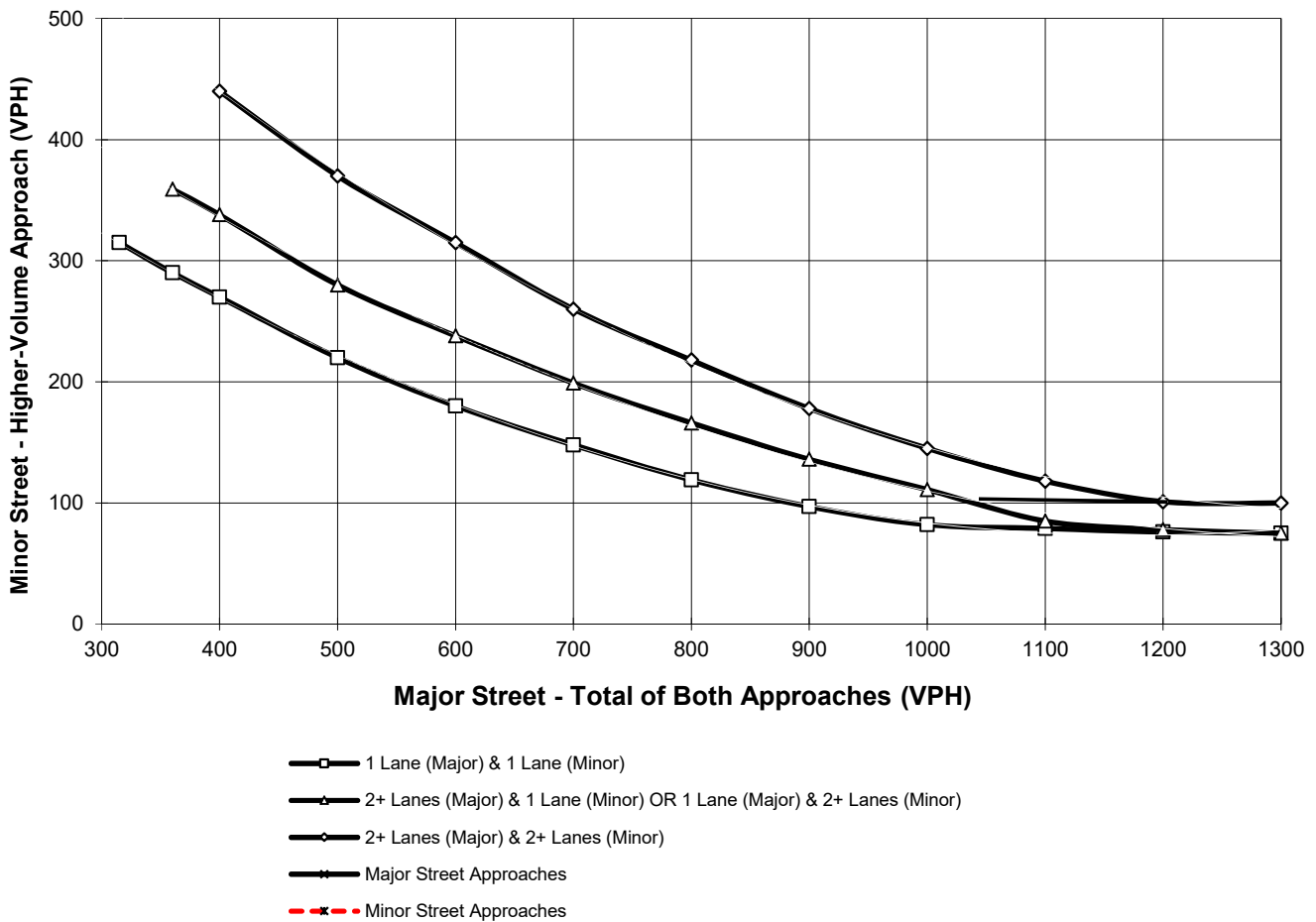
Major Street Name = **Placentia Street**

Total of Both Approaches (VPH) = **22**
 Number of Approach Lanes Major Street = **1**

Minor Street Name = **Patterson Avenue**

High Volume Approach (VPH) = **14**
 Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2019) Conditions - Weekday AM Peak Hour**

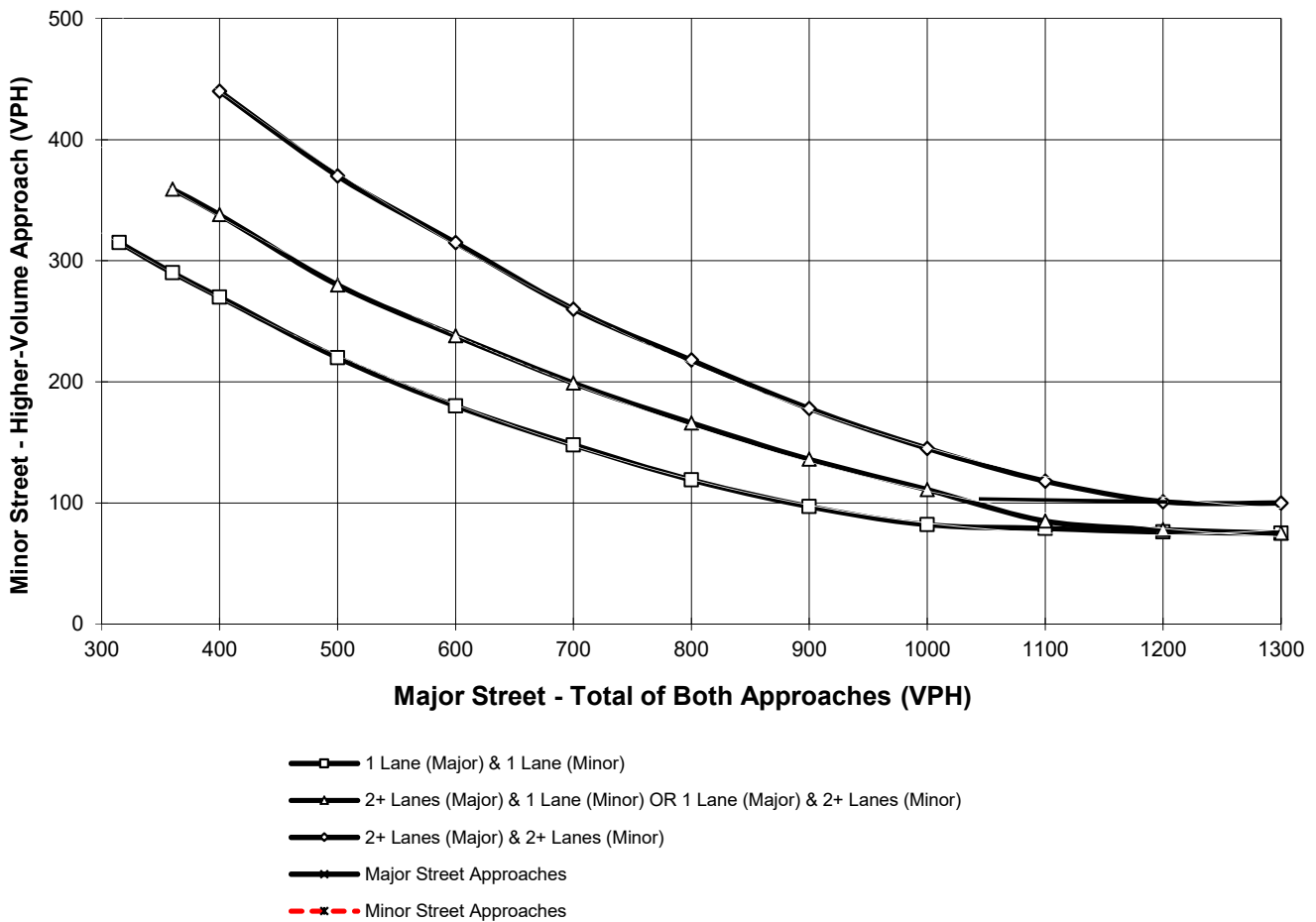
Major Street Name = **Placentia Street**

Total of Both Approaches (VPH) = **32**
 Number of Approach Lanes Major Street = **1**

Minor Street Name = **Driveway 2/Tobacco Road**

High Volume Approach (VPH) = **9**
 Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2019) Conditions - Weekday PM Peak Hour**

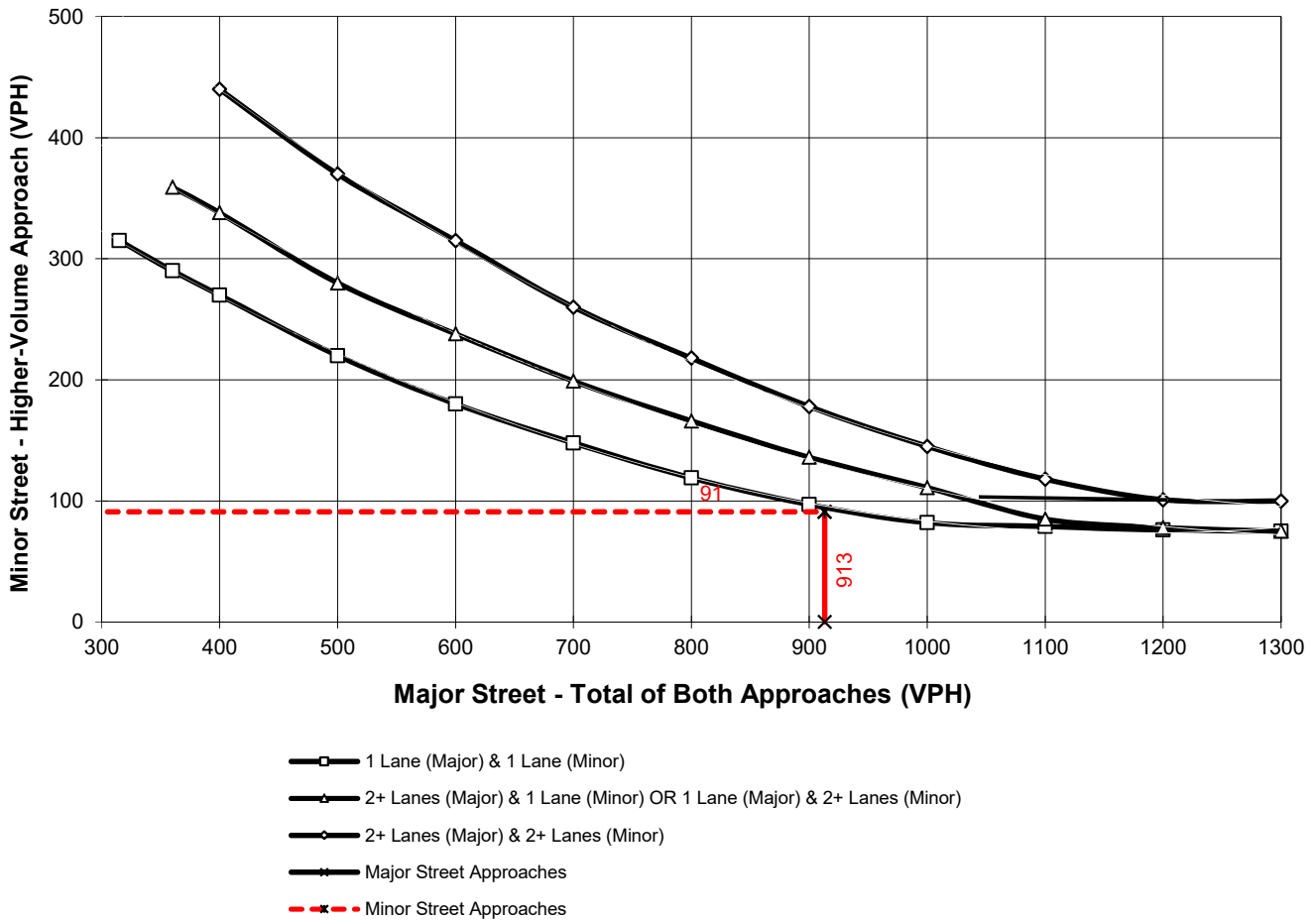
Major Street Name = **Harvill Avenue**

Total of Both Approaches (VPH) = **913**
 Number of Approach Lanes Major Street = **2**

Minor Street Name = **Rider Street**

High Volume Approach (VPH) = **91**
 Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane



Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2019) Conditions - Weekday AM Peak Hour**

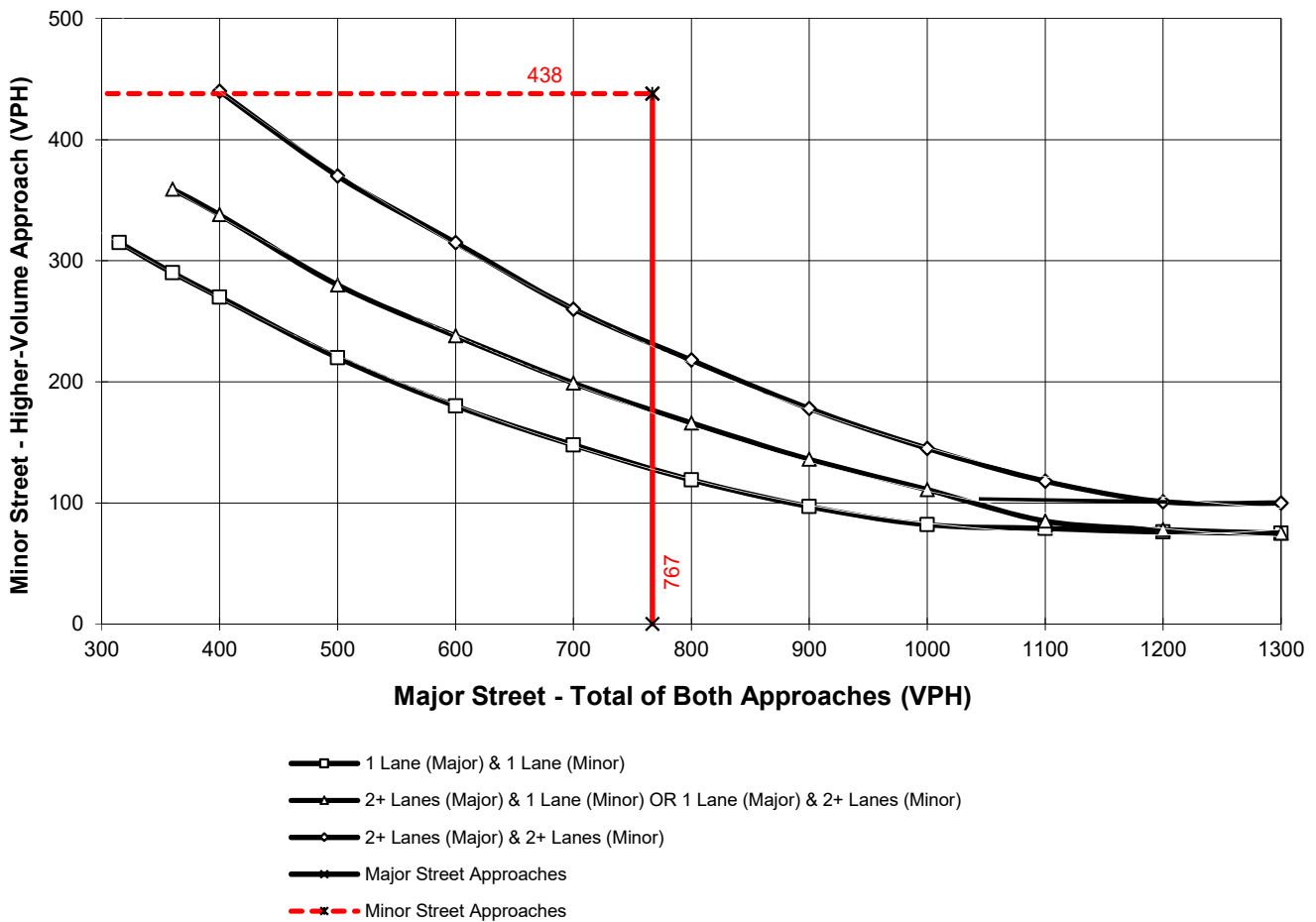
Major Street Name = **Harvill Avenue**

Total of Both Approaches (VPH) = **767**
 Number of Approach Lanes Major Street = **2**

Minor Street Name = **Placentia Street**

High Volume Approach (VPH) = **438**
 Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2019) Conditions - Weekday PM Peak Hour**

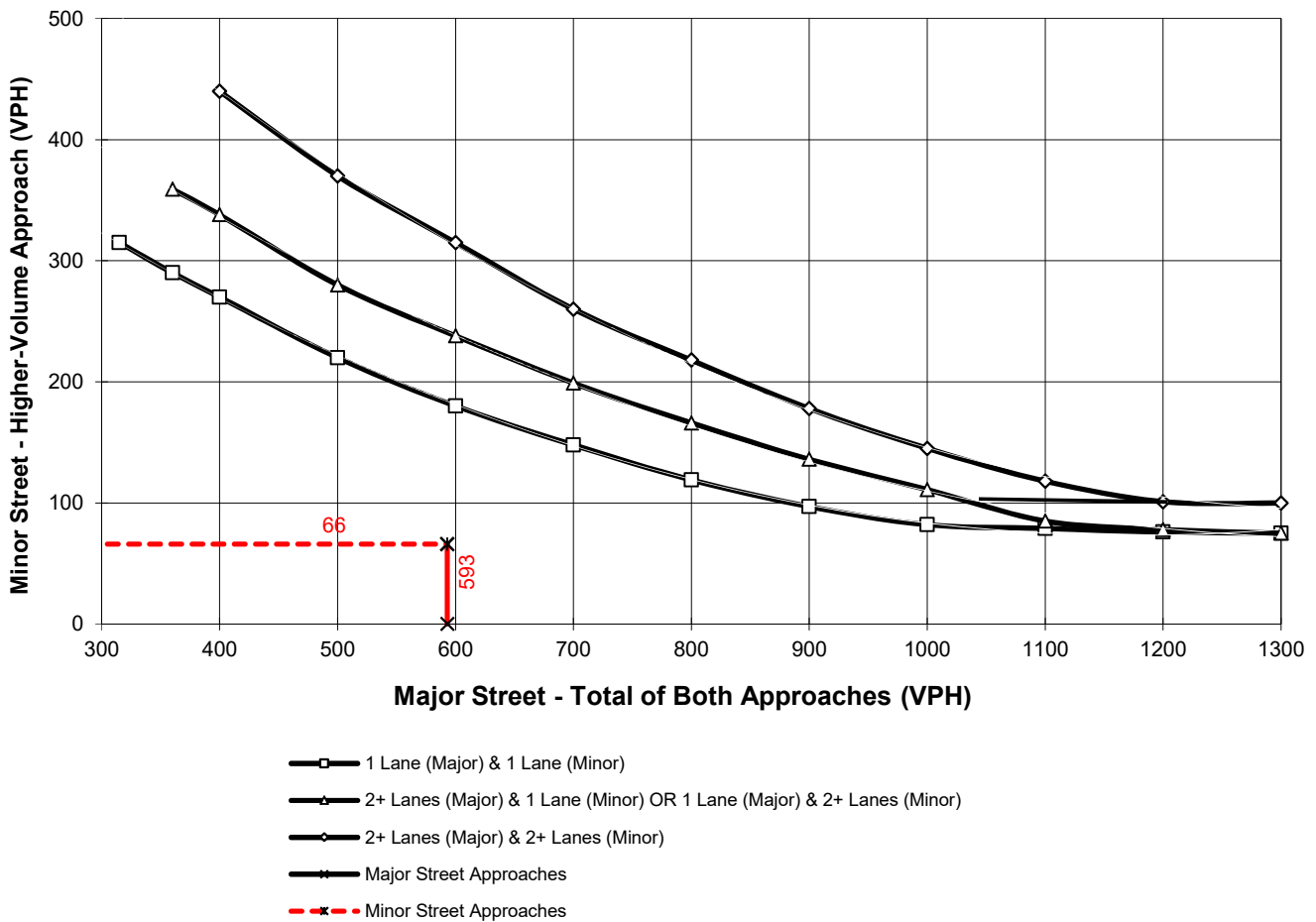
Major Street Name = **Harvill Avenue**

Total of Both Approaches (VPH) = **593**
 Number of Approach Lanes Major Street = **2**

Minor Street Name = **Orange Street**

High Volume Approach (VPH) = **66**
 Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **Existing (2019) Conditions - Weekday AM Peak Hour**

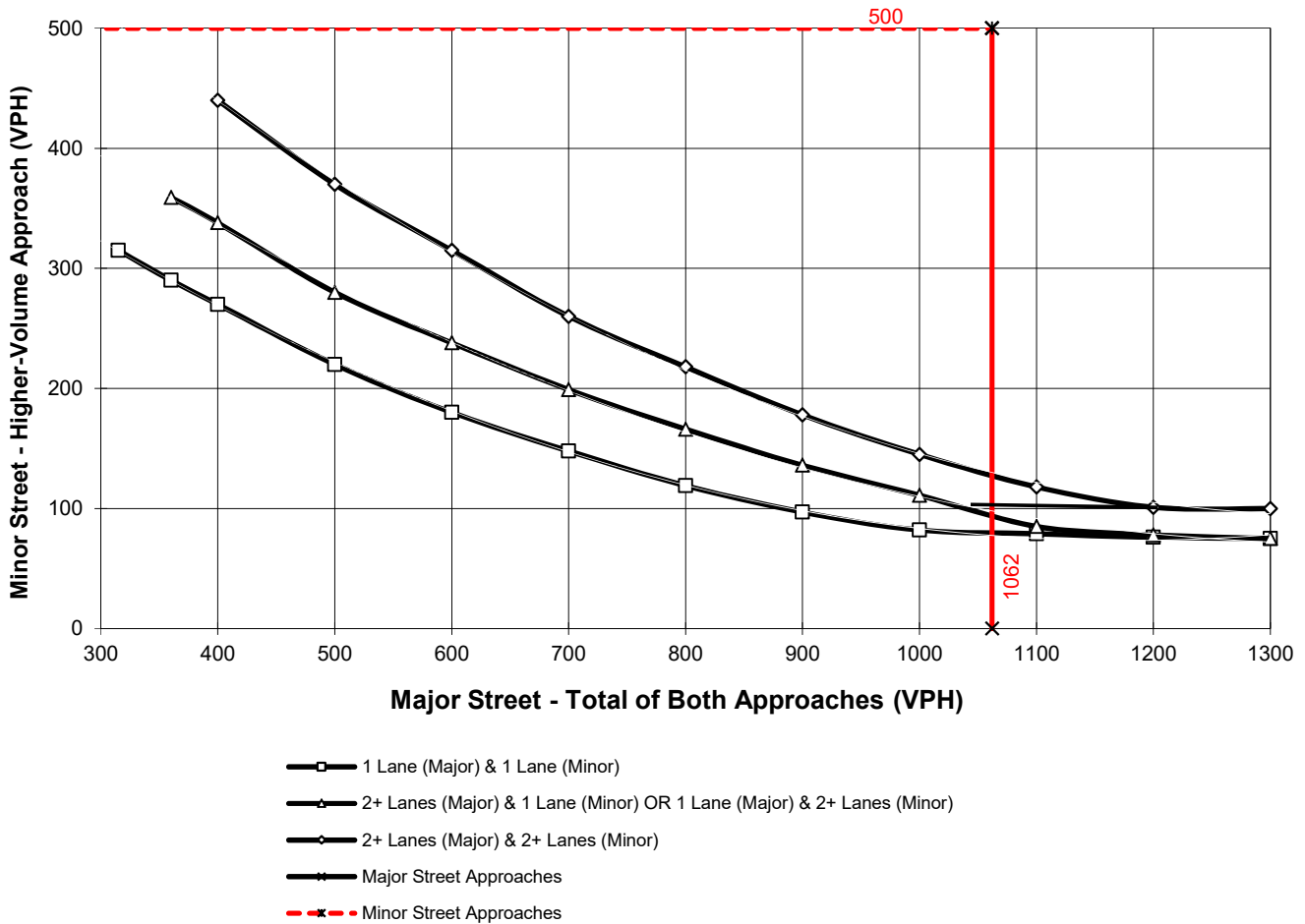
Major Street Name = **Harvill Avenue**

Total of Both Approaches (VPH) = **1062**
 Number of Approach Lanes Major Street = **2**

Minor Street Name = **A Street**

High Volume Approach (VPH) = **743**
 Number of Approach Lanes Minor Street = **2**

WARRANTED FOR A SIGNAL



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

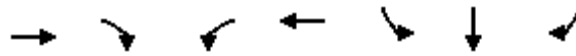
APPENDIX 3.4:

EXISTING (2019) CONDITIONS QUEUING ANALYSIS WORKSHEETS

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Queues

11: I-215 SB Ramps & Ramona Exwy.



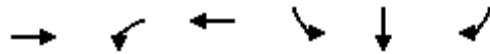
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	713	337	349	954	363	366	200
v/c Ratio	0.81	0.53	0.83	0.48	0.82	0.82	0.39
Control Delay	31.3	6.1	53.2	8.1	38.9	39.4	9.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.3	6.1	53.2	8.1	38.9	39.4	9.5
Queue Length 50th (ft)	130	0	145	80	129	130	18
Queue Length 95th (ft)	#215	55	m#215	131	#265	#267	63
Internal Link Dist (ft)	1278			472		973	
Turn Bay Length (ft)			100		510		510
Base Capacity (vph)	877	641	436	1985	443	444	518
Starvation Cap Reductn	0	0	0	0	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	0.81	0.53	0.80	0.48	0.82	0.82	0.39

Intersection Summary

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.



Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	742	426	974	170	174	102
v/c Ratio	0.53	0.74	0.43	0.58	0.60	0.26
Control Delay	14.4	23.5	7.2	32.3	32.9	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.4	23.5	7.2	32.3	32.9	4.2
Queue Length 50th (ft)	94	80	154	60	62	0
Queue Length 95th (ft)	136	56	15	#116	#121	19
Internal Link Dist (ft)	1873		381		1001	
Turn Bay Length (ft)		115				300
Base Capacity (vph)	1398	607	2274	291	292	392
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	0.53	0.70	0.43	0.58	0.60	0.26

Intersection Summary

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

Queues
14: I-215 NB Ramps & Ramona Exwy.



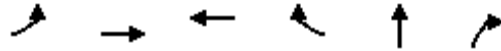
Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	190	1249	1025	985	142	139	426
v/c Ratio	0.84	0.58	0.73	0.91	0.38	0.37	0.94
Control Delay	50.7	13.4	19.2	20.0	23.7	23.5	48.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.7	13.4	19.2	20.0	23.7	23.5	48.4
Queue Length 50th (ft)	79	211	160	63	46	45	105
Queue Length 95th (ft)	m#101	m268	223	#370	93	91	#265
Internal Link Dist (ft)		472	1588			1153	
Turn Bay Length (ft)	105						500
Base Capacity (vph)	226	2137	1413	1078	371	372	456
Starvation Cap Reductn	0	0	0	0	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	0.84	0.58	0.73	0.91	0.38	0.37	0.93

Intersection Summary

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.



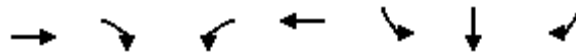
Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	43	827	1033	410	309	593
v/c Ratio	0.29	0.57	0.59	0.50	0.43	0.46
Control Delay	31.1	12.0	17.7	4.1	18.0	10.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.1	12.0	17.7	4.1	18.0	10.6
Queue Length 50th (ft)	16	107	103	0	74	44
Queue Length 95th (ft)	m31	142	141	48	171	110
Internal Link Dist (ft)		381	941		975	
Turn Bay Length (ft)	105					
Base Capacity (vph)	150	1901	1908	853	722	1278
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	0.29	0.44	0.54	0.48	0.43	0.46

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues

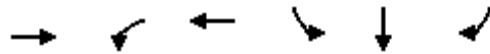
11: I-215 SB Ramps & Ramona Exwy.



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	824	333	405	823	373	377	137
v/c Ratio	0.91	0.51	0.93	0.40	0.90	0.91	0.28
Control Delay	39.1	5.8	64.3	8.3	51.0	52.1	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.1	5.8	64.3	8.3	51.0	52.1	5.8
Queue Length 50th (ft)	152	0	168	86	137	140	0
Queue Length 95th (ft)	#253	53	#309	133	#286	#290	36
Internal Link Dist (ft)	1278			472		973	
Turn Bay Length (ft)			100		510		510
Base Capacity (vph)	902	653	436	2045	414	415	494
Starvation Cap Reductn	0	0	0	0	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	0.91	0.51	0.93	0.40	0.90	0.91	0.28

Intersection Summary

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



Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	656	608	436	287	291	76
v/c Ratio	0.47	0.98	0.19	0.97	0.98	0.19
Control Delay	11.4	48.4	2.6	73.9	76.3	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.4	48.4	2.6	73.9	76.3	2.2
Queue Length 50th (ft)	63	33	0	109	111	0
Queue Length 95th (ft)	104	#186	1	#249	#252	8
Internal Link Dist (ft)	1873		381		1001	
Turn Bay Length (ft)		115				300
Base Capacity (vph)	1391	618	2262	297	298	397
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	0.47	0.98	0.19	0.97	0.98	0.19

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.



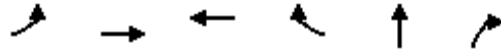
Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	200	1403	906	666	173	176	399
v/c Ratio	0.79	0.65	0.66	0.65	0.48	0.48	0.89
Control Delay	42.9	13.7	18.6	4.9	25.2	25.3	39.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.9	13.7	18.6	4.9	25.2	25.3	39.2
Queue Length 50th (ft)	79	225	141	0	56	57	91
Queue Length 95th (ft)	m85	m250	200	60	110	112	#235
Internal Link Dist (ft)		472	1588			1153	
Turn Bay Length (ft)	105						500
Base Capacity (vph)	255	2148	1369	1025	385	387	468
Starvation Cap Reductn	0	0	0	0	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	0.78	0.65	0.66	0.65	0.45	0.45	0.85

Intersection Summary

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.



Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	64	1129	1116	506	125	414
v/c Ratio	0.36	0.60	0.51	0.53	0.20	0.39
Control Delay	37.5	7.8	13.5	3.5	17.5	11.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.5	7.8	13.5	3.5	17.5	11.7
Queue Length 50th (ft)	24	84	101	0	35	42
Queue Length 95th (ft)	m42	100	115	27	64	65
Internal Link Dist (ft)		381	941		975	
Turn Bay Length (ft)	105					
Base Capacity (vph)	180	2166	2257	970	618	1074
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	0.36	0.52	0.49	0.52	0.20	0.39

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

APPENDIX 3.5:

EXISTING (2019) CONDITIONS FREEWAY FACILITY ANALYSIS WORKSHEETS

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HCS7 Freeway Facilities Report

Project Information

Analyst	CS	Date	2/22/2019
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2019)
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Barker Logistics (JN 12216)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	9
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-215 SB North of Ramona	5175	3
2	Diverge	Diverge	SB Off-Ramp at Ramona	1500	3
3	Basic	Basic	Between Ramona On and Off Ramps	1525	3
4	Merge	Merge	SB On-Ramp at Ramona	1500	3
5	Basic	Basic	Ramona to Nuevo	13515	3
6	Diverge	Diverge	SB Off-Ramp at Nuevo	1500	3
7	Basic	Basic	Between Nuevo On and Off Ramps	1500	3
8	Merge	Basic	SB On-Ramp at Nuevo	1500	3
9	Basic	Basic	S of Nuevo	2045	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	3892	7161	0.54	68.7	18.9	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.870	3892	937	7200	2100	0.54	0.45	63.4	59.3	20.5	27.1	C

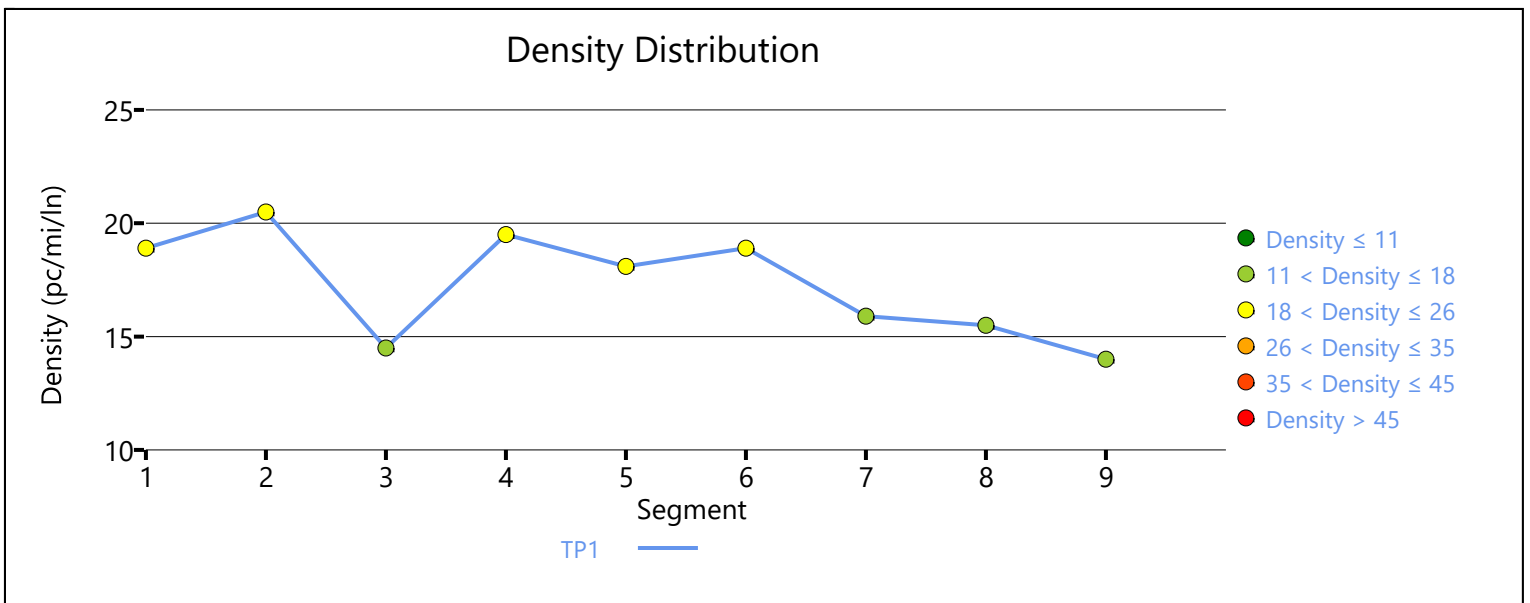
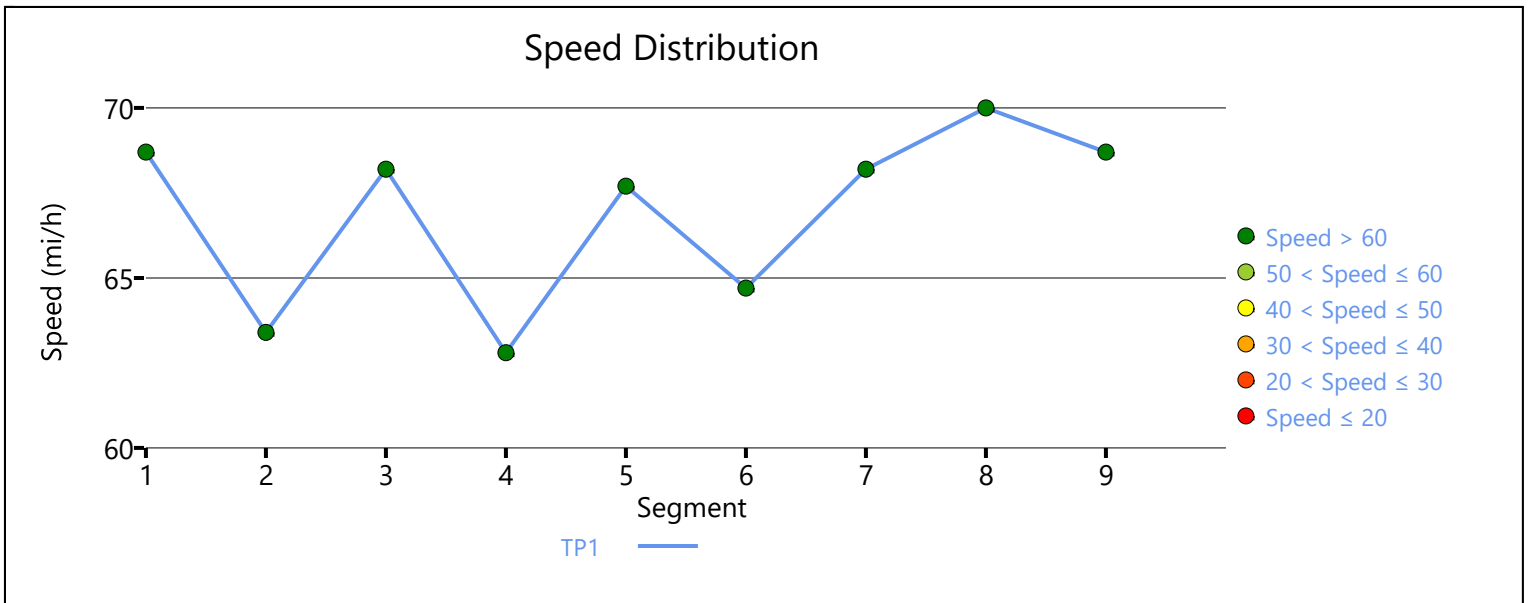
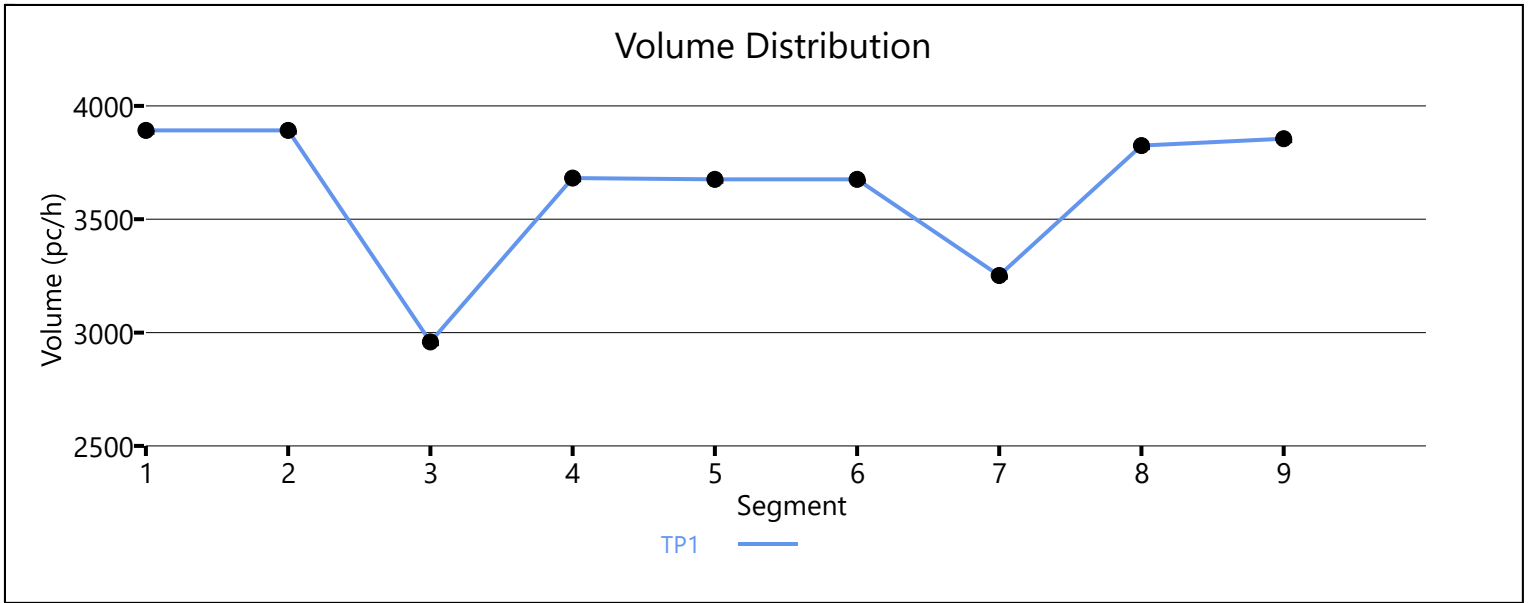
Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.990	2959	7146	0.41	68.2	14.5	B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.885	3682	723	7200	2100	0.51	0.34	62.8	60.8	19.5	21.8	C

Segment 5: Basic																
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS	
1	0.92		0.971		3676		7131		0.52		67.7		18.1		C	
Segment 6: Diverge																
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS	
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp		
1	0.92	0.92	0.971	0.962	3676	428	7200	2100	0.51	0.20	64.7	60.6	18.9	25.0	C	
Segment 7: Basic																
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS	
1	0.92		0.971		3252		7146		0.46		68.2		15.9		B	
Segment 8: Merge																
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS	
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp		
1	0.92	0.92	0.971	0.962	3825	573	7200	2100	0.45	0.27	70.0	-	15.5	-	B	
Segment 9: Basic																
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS	
1	0.92		0.962		3855		9548		0.40		68.7		14.0		B	
Facility Time Period Results																
T	Speed, mi/h				Density, pc/mi/ln				Density, veh/mi/ln				Travel Time, min		LOS	
1	67.4				17.7				17.2				5.0		B	
Facility Overall Results																
Space Mean Speed, mi/h					67.4				Density, veh/mi/ln				17.2			
Average Travel Time, min					5.0				Density, pc/mi/ln				17.7			



HCS7 Freeway Facilities Report

Project Information

Analyst	CS	Date	2/22/2019
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2019)
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Barker Logistics (JN 12216)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	9
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-215 NB S of Nuevo	1675	4
2	Diverge	Basic	NB Nuevo Off-Ramp	1500	4
3	Basic	Basic	Between Nuevo On and Off Ramps	1400	3
4	Merge	Merge	NB Nuevo On-Ramp	1500	3
5	Basic	Basic	Between Nuevo and Ramona	13735	3
6	Diverge	Diverge	NB Ramona Off-Ramp	1500	3
7	Basic	Basic	Between Ramona On and Off Ramps	1315	3
8	Merge	Merge	NB Ramona On-Ramp	1500	3
9	Basic	Basic	I-215 NB N of Ramona	5000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.943	5522	8800	0.63	43.7	31.6	D

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.943	0.990	5522	903	8800	2100	0.63	0.43	45.0	-	30.7	-	D

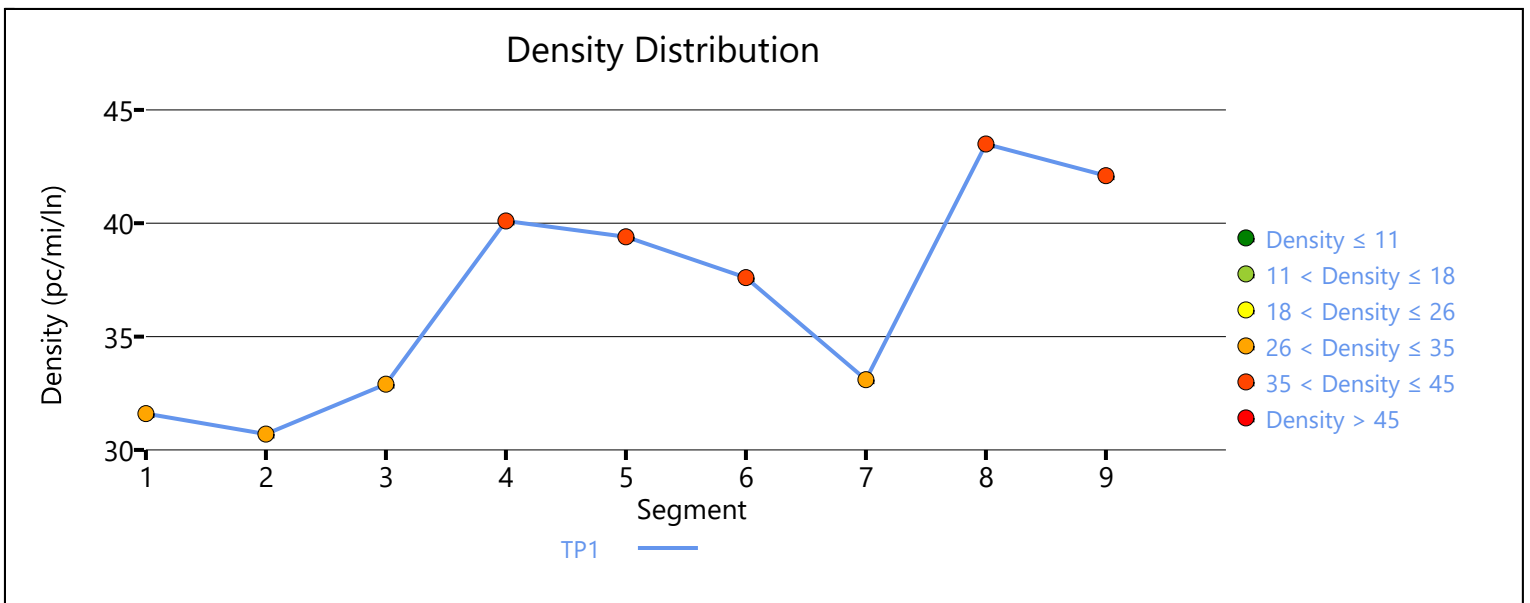
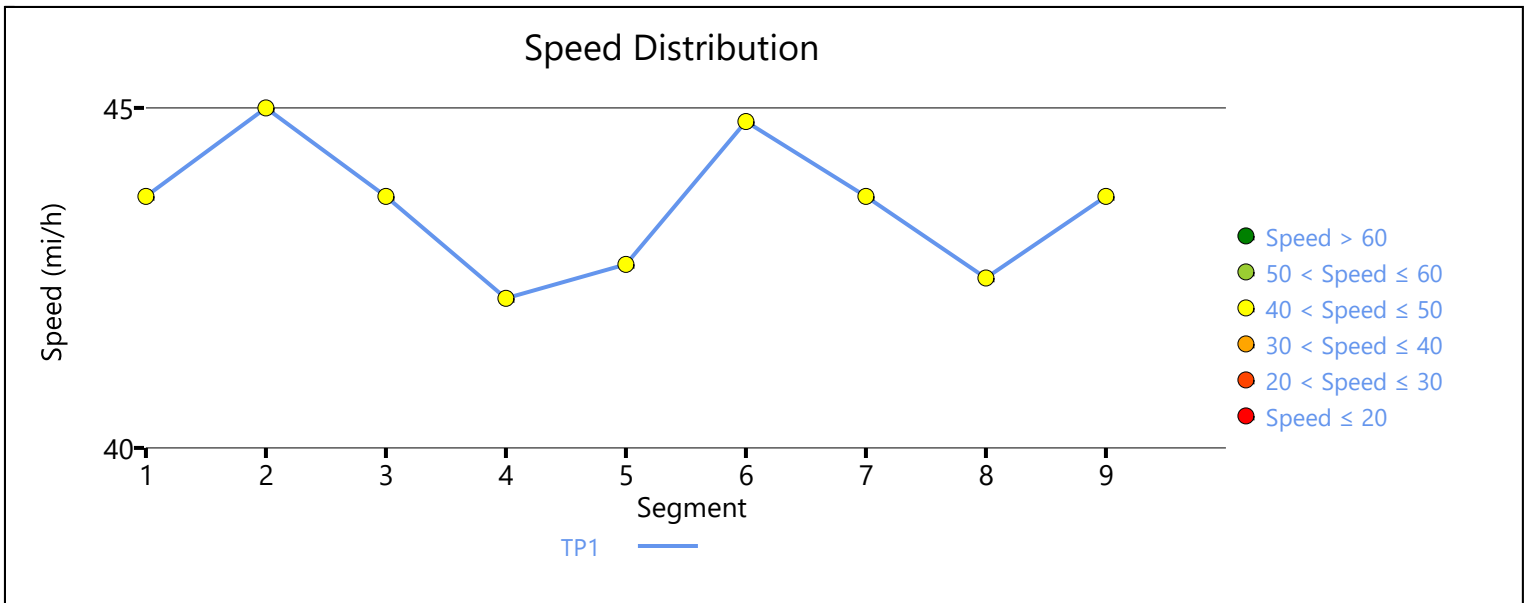
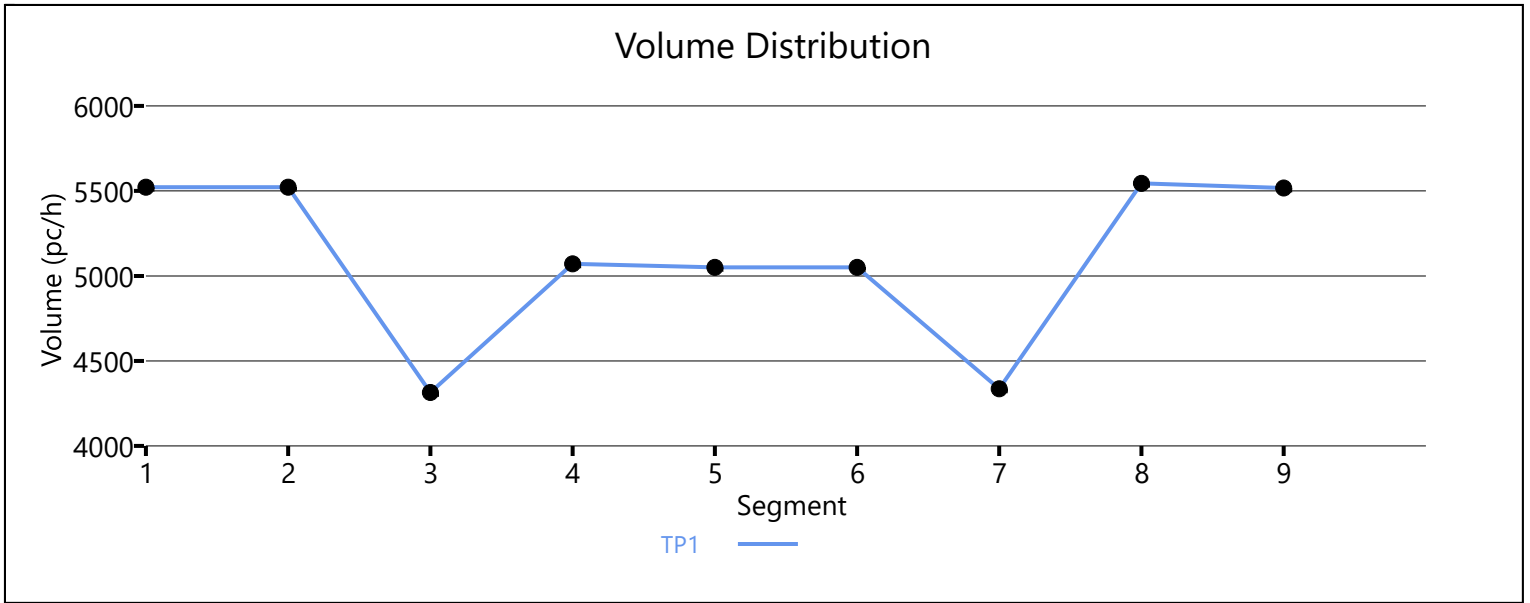
Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	1.000	4314	6600	0.65	43.7	32.9	D

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.935	0.980	5071	457	6750	2100	0.75	0.22	42.2	43.8	40.1	28.1	D

Segment 5: Basic																	
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS		
1	0.92		0.943		5050		6600		0.77		42.7		39.4		E		
Segment 6: Diverge																	
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS		
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp			
1	0.92	0.92	0.943	0.901	5050	747	6750	2100	0.75	0.36	44.8	43.9	37.6	31.6	D		
Segment 7: Basic																	
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS		
1	0.92		0.943		4336		6600		0.66		43.7		33.1		D		
Segment 8: Merge																	
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS		
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp			
1	0.92	0.92	0.943	0.885	5545	1209	6750	2100	0.82	0.58	42.5	43.6	43.5	31.7	D		
Segment 9: Basic																	
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS		
1	0.92		0.935		5517		6600		0.84		43.7		42.1		E		
Facility Time Period Results																	
T	Speed, mi/h				Density, pc/mi/ln				Density, veh/mi/ln				Travel Time, min				LOS
1	43.2				38.3				36.1				7.7				E
Facility Overall Results																	
Space Mean Speed, mi/h					43.2					Density, veh/mi/ln					36.1		
Average Travel Time, min					7.7					Density, pc/mi/ln					38.3		



HCS7 Freeway Facilities Report

Project Information

Analyst	CS	Date	2/22/2019
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2019)
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Barker Logistics (JN 12216)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	9
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-215 SB North of Ramona	5175	3
2	Diverge	Diverge	SB Off-Ramp at Ramona	1500	3
3	Basic	Basic	Between Ramona On and Off Ramps	1525	3
4	Merge	Merge	SB On-Ramp at Ramona	1500	3
5	Basic	Basic	Ramona to Nuevo	13515	3
6	Diverge	Diverge	SB Off-Ramp at Nuevo	1500	3
7	Basic	Basic	Between Nuevo On and Off Ramps	1500	3
8	Merge	Basic	SB On-Ramp at Nuevo	1500	3
9	Basic	Basic	S of Nuevo	2045	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	5423	7161	0.76	64.9	27.9	D

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.926	5423	1011	7200	2100	0.75	0.48	63.3	59.1	28.6	33.9	D

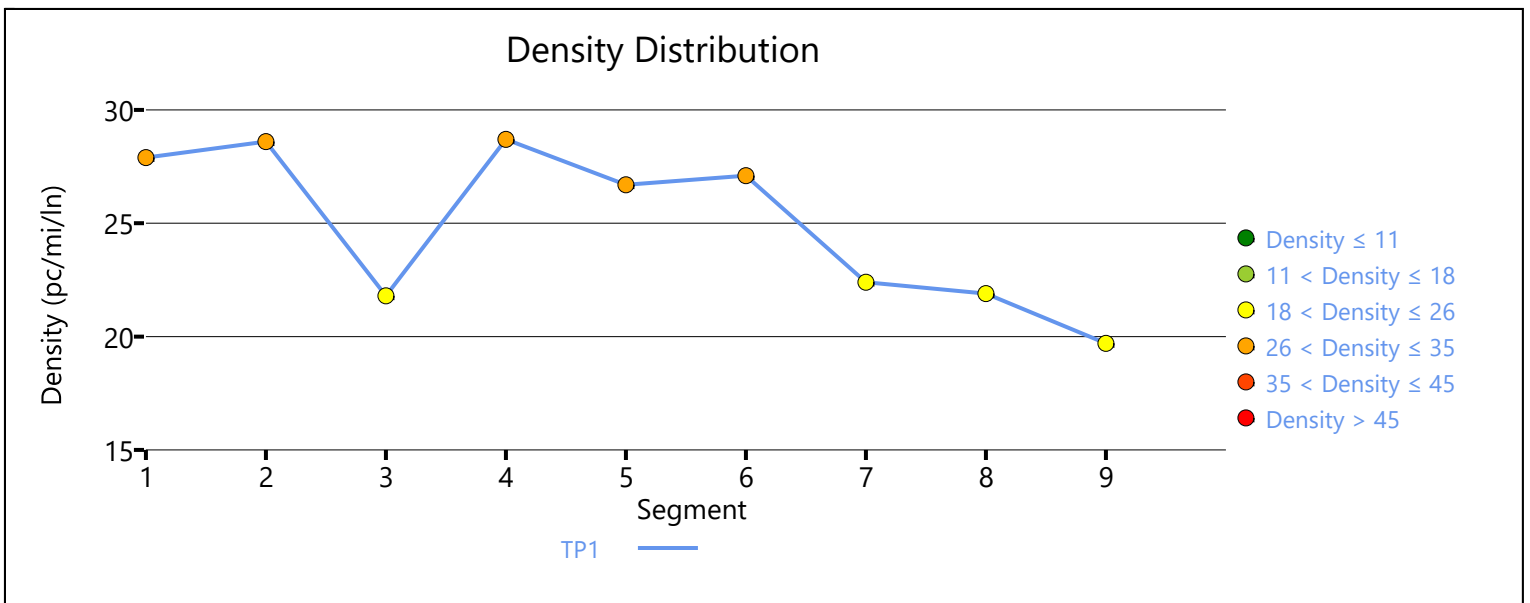
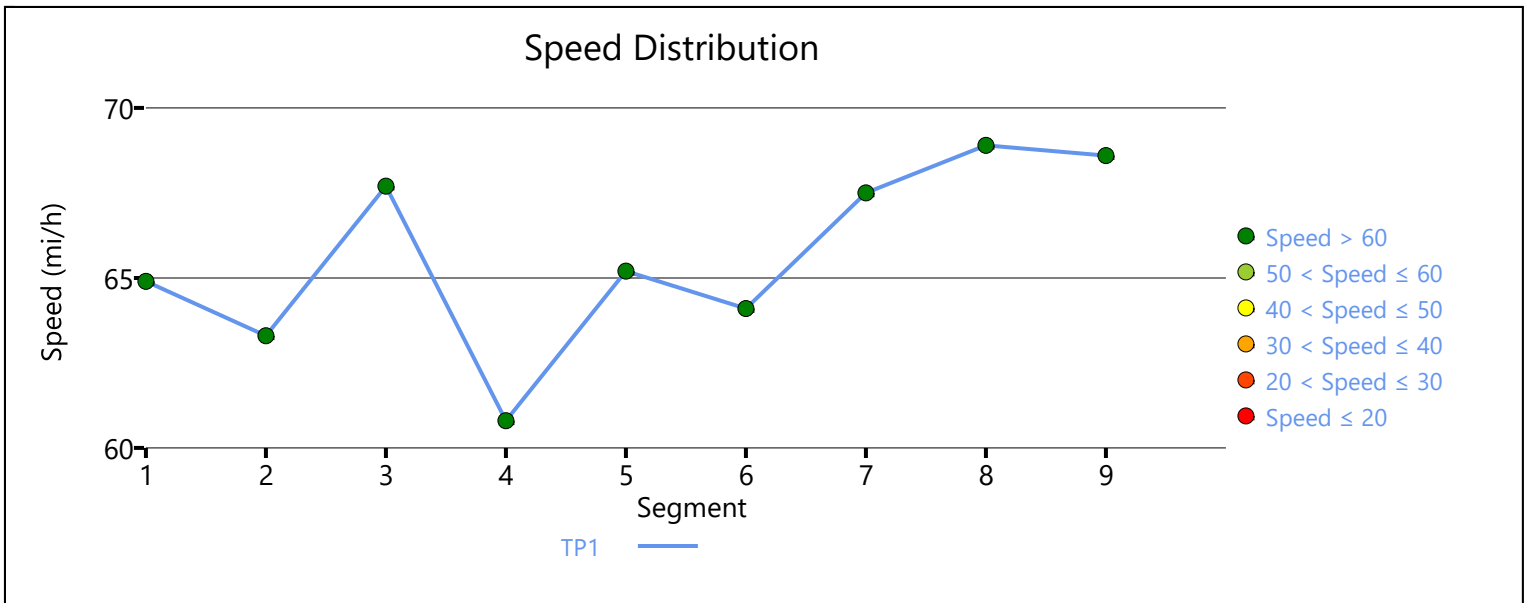
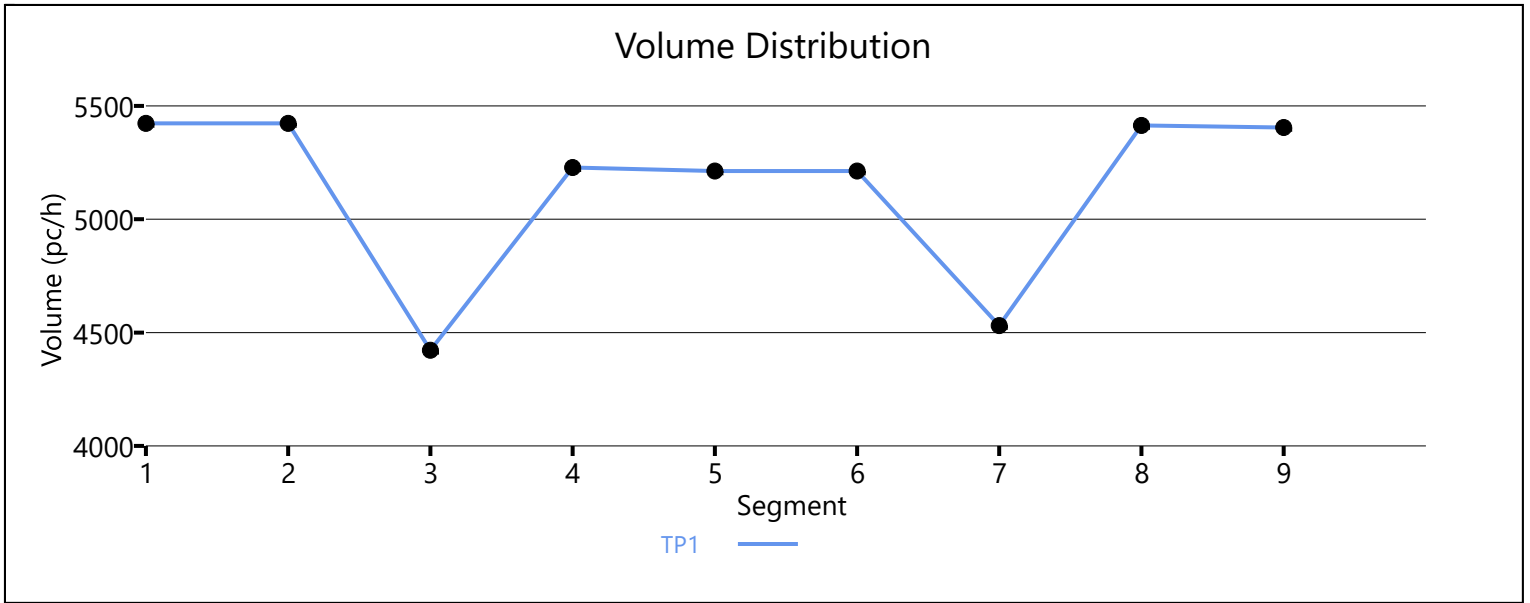
Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.990	4422	7146	0.62	67.7	21.8	C

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.971	5228	806	7200	2100	0.73	0.38	60.8	58.7	28.7	29.2	D

Segment 5: Basic																
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS	
1	0.92		0.990		5213		7131		0.73		65.2		26.7		D	
Segment 6: Diverge																
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS	
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp		
1	0.92	0.92	0.990	0.990	5213	682	7200	2100	0.72	0.32	64.1	59.9	27.1	32.4	D	
Segment 7: Basic																
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS	
1	0.92		0.990		4531		7146		0.63		67.5		22.4		C	
Segment 8: Merge																
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS	
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp		
1	0.92	0.92	0.990	0.980	5414	883	7200	2100	0.63	0.42	68.9	-	21.9	-	C	
Segment 9: Basic																
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS	
1	0.92		0.990		5405		9548		0.57		68.6		19.7		C	
Facility Time Period Results																
T	Speed, mi/h				Density, pc/mi/ln				Density, veh/mi/ln				Travel Time, min		LOS	
1	65.4				25.8				25.5				5.2		C	
Facility Overall Results																
Space Mean Speed, mi/h					65.4				Density, veh/mi/ln				25.5			
Average Travel Time, min					5.2				Density, pc/mi/ln				25.8			



HCS7 Freeway Facilities Report

Project Information

Analyst	CS	Date	2/22/2019
Agency	Urban Crossroads, Inc.	Analysis Year	Existing (2019)
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Barker Logistics (JN 12216)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	9
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-215 NB S of Nuevo	1675	4
2	Diverge	Basic	NB Nuevo Off-Ramp	1500	4
3	Basic	Basic	Between Nuevo On and Off Ramps	1400	3
4	Merge	Merge	NB Nuevo On-Ramp	1500	3
5	Basic	Basic	Between Nuevo and Ramona	13735	3
6	Diverge	Diverge	NB Ramona Off-Ramp	1500	3
7	Basic	Basic	Between Ramona On and Off Ramps	1315	3
8	Merge	Merge	NB Ramona On-Ramp	1500	3
9	Basic	Basic	I-215 NB N of Ramona	5000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	4303	9548	0.45	68.7	15.7	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.990	4303	473	9600	2100	0.45	0.23	70.0	-	15.4	-	B

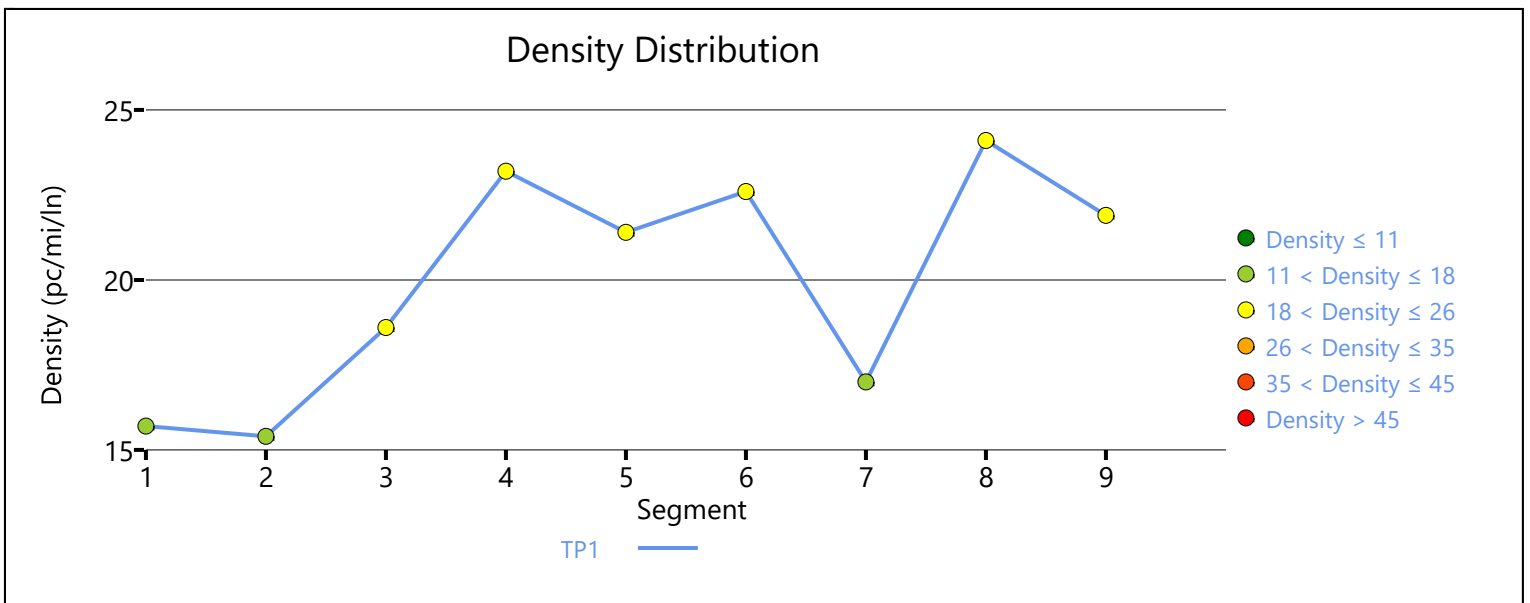
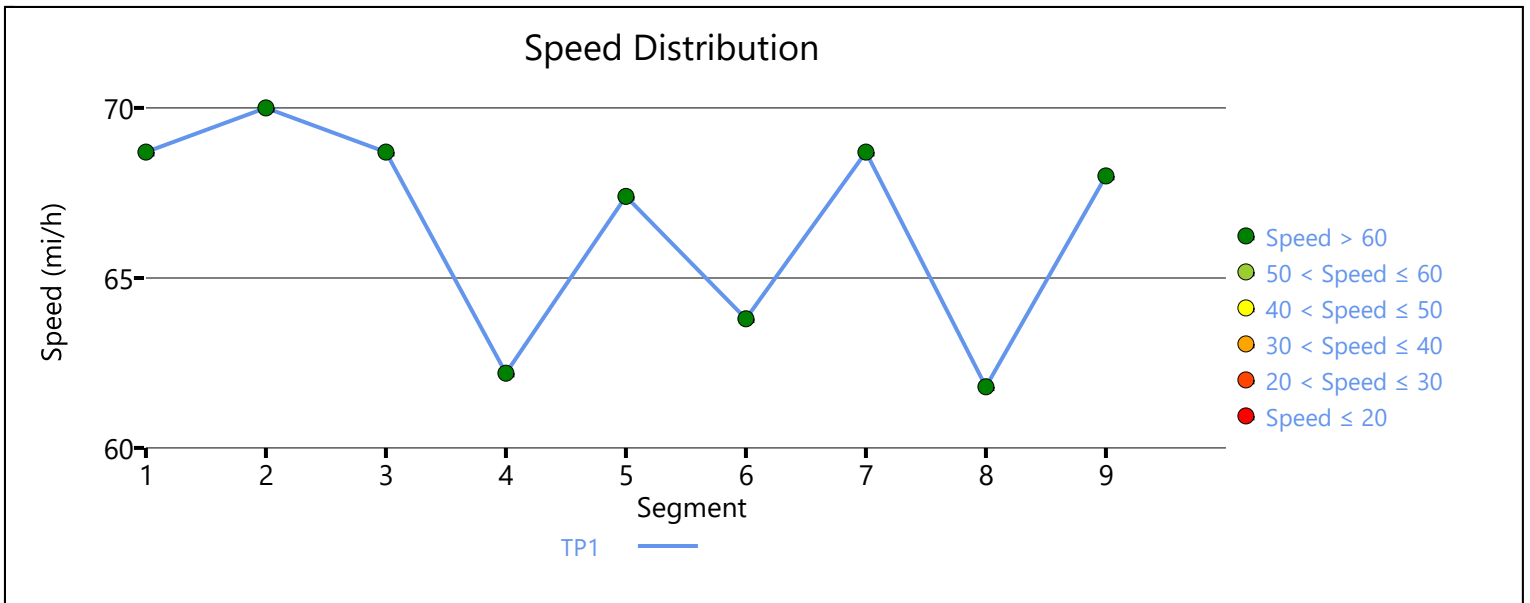
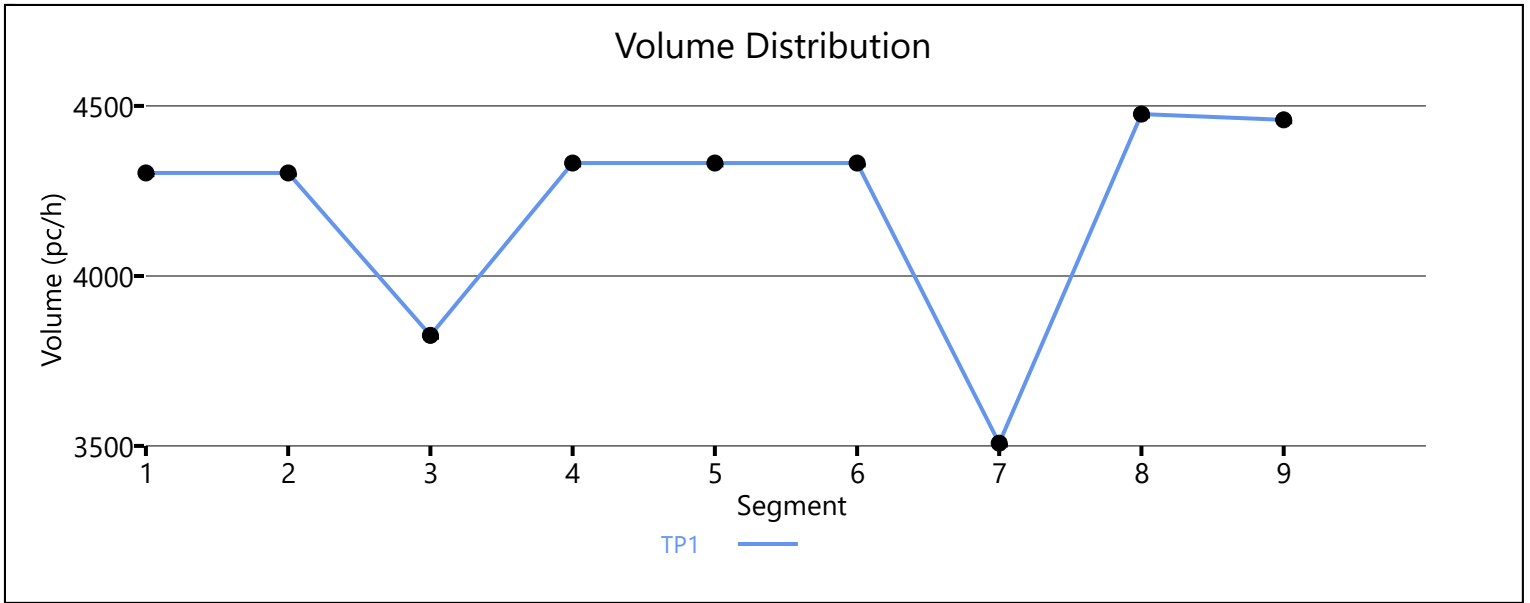
Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	3825	7161	0.53	68.7	18.6	C

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.980	4332	507	7200	2100	0.60	0.24	62.2	60.1	23.2	24.9	C

Segment 5: Basic																	
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS		
1	0.92		0.980		4332		7131		0.61		67.4		21.4		C		
Segment 6: Diverge																	
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS		
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp			
1	0.92	0.92	0.980	0.943	4332	820	7200	2100	0.60	0.39	63.8	59.6	22.6	28.6	D		
Segment 7: Basic																	
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS		
1	0.92		0.990		3508		7161		0.49		68.7		17.0		B		
Segment 8: Merge																	
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS		
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp			
1	0.92	0.92	0.990	0.926	4476	968	7200	2100	0.62	0.46	61.8	59.8	24.1	26.1	C		
Segment 9: Basic																	
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS		
1	0.92		0.980		4459		7161		0.62		68.0		21.9		C		
Facility Time Period Results																	
T	Speed, mi/h				Density, pc/mi/ln				Density, veh/mi/ln				Travel Time, min				LOS
1	67.0				20.6				20.3				4.9				C
Facility Overall Results																	
Space Mean Speed, mi/h					67.0					Density, veh/mi/ln					20.3		
Average Travel Time, min					4.9					Density, pc/mi/ln					20.6		



APPENDIX 3.6:

**EXISTING (2019) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS
WITH IMPROVEMENTS**

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Timings
10: Nuevo Rd./Harvill Av. & Driveway/N A St.

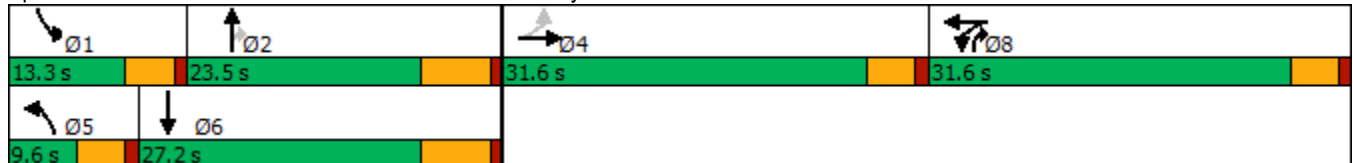


Lane Group	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↕	↗	↕	↖	↑↑	↗	↖	↑↑
Traffic Volume (vph)	4	523	0	4	225	582	125	125
Future Volume (vph)	4	523	0	4	225	582	125	125
Turn Type	NA	Split	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	4	8	8	5	2	8	1	6
Permitted Phases						2		
Detector Phase	4	8	8	5	2	8	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	31.6	9.6	23.2	31.6	9.6	23.2
Total Split (s)	31.6	31.6	31.6	9.6	23.5	31.6	13.3	27.2
Total Split (%)	31.6%	31.6%	31.6%	9.6%	23.5%	31.6%	13.3%	27.2%
Yellow Time (s)	3.6	3.6	3.6	3.6	5.2	3.6	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6	6.2	4.6	4.6	6.2
Lead/Lag				Lead	Lag		Lead	Lag
Lead-Lag Optimize?				Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	Min	None	None	Min

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 67.7
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated

Splits and Phases: 10: Nuevo Rd./Harvill Av. & Driveway/N A St.



HCM 6th Signalized Intersection Summary
 10: Nuevo Rd./Harvill Av. & Driveway/N A St.

Barker Logistics (JN 12216)
 03/11/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↗	↕		↖	↕	↗	↖	↕	↖
Traffic Volume (veh/h)	0	4	1	523	0	220	4	225	582	125	125	3
Future Volume (veh/h)	0	4	1	523	0	220	4	225	582	125	125	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	4	1	412	236	244	4	250	647	139	139	3
Peak Hour Factor	0.92	0.92	0.92	0.90	0.92	0.90	0.92	0.90	0.90	0.90	0.90	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	19	5	598	283	292	10	936	949	176	1270	27
Arrive On Green	0.00	0.01	0.01	0.33	0.33	0.33	0.01	0.26	0.26	0.10	0.35	0.35
Sat Flow, veh/h	0	1467	367	1810	856	885	1810	3610	1610	1810	3613	78
Grp Volume(v), veh/h	0	0	5	412	0	480	4	250	647	139	69	73
Grp Sat Flow(s),veh/h/ln	0	0	1834	1810	0	1741	1810	1805	1610	1810	1805	1886
Q Serve(g_s), s	0.0	0.0	0.2	13.2	0.0	17.0	0.1	3.7	17.3	5.0	1.7	1.7
Cycle Q Clear(g_c), s	0.0	0.0	0.2	13.2	0.0	17.0	0.1	3.7	17.3	5.0	1.7	1.7
Prop In Lane	0.00		0.20	1.00		0.51	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	0	0	24	598	0	575	10	936	949	176	634	663
V/C Ratio(X)	0.00	0.00	0.21	0.69	0.00	0.83	0.41	0.27	0.68	0.79	0.11	0.11
Avail Cap(c_a), veh/h	0	0	742	732	0	704	136	936	949	236	634	663
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	32.6	19.4	0.0	20.7	33.1	19.7	9.2	29.4	14.6	14.6
Incr Delay (d2), s/veh	0.0	0.0	4.1	2.1	0.0	7.2	10.1	0.2	2.0	8.5	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.1	5.5	0.0	7.6	0.1	1.4	10.0	2.4	0.6	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	36.7	21.4	0.0	27.9	43.2	19.8	11.2	38.0	14.7	14.7
LnGrp LOS	A	A	D	C	A	C	D	B	B	D	B	B
Approach Vol, veh/h		5			892			901				281
Approach Delay, s/veh		36.7			24.9			13.7				26.2
Approach LOS		D			C			B				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.1	23.5		5.5	5.0	29.6		26.6				
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		4.6				
Max Green Setting (Gmax), s	8.7	17.3		27.0	5.0	21.0		27.0				
Max Q Clear Time (g_c+I1), s	7.0	19.3		2.2	2.1	3.7		19.0				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	0.5		3.0				

Intersection Summary

HCM 6th Ctrl Delay	20.3
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Timings
10: Nuevo Rd./Harvill Av. & Driveway/N A St.

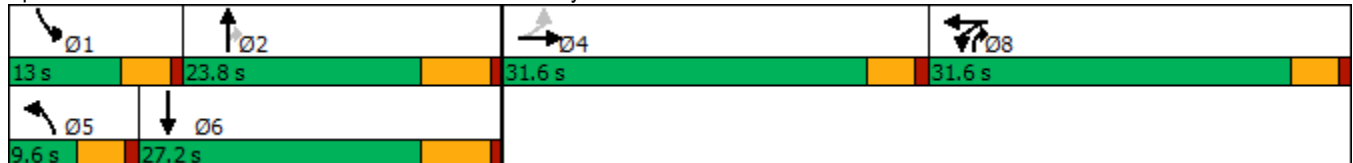


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations		↕	↗	↕	↗	↕	↗	↗	↕
Traffic Volume (vph)	2	0	289	0	1	146	316	109	280
Future Volume (vph)	2	0	289	0	1	146	316	109	280
Turn Type	Perm	NA	Split	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases		4	8	8	5	2	8	1	6
Permitted Phases	4						2		
Detector Phase	4	4	8	8	5	2	8	1	6
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	31.6	31.6	9.6	23.2	31.6	9.6	23.2
Total Split (s)	31.6	31.6	31.6	31.6	9.6	23.8	31.6	13.0	27.2
Total Split (%)	31.6%	31.6%	31.6%	31.6%	9.6%	23.8%	31.6%	13.0%	27.2%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	5.2	3.6	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6	4.6	4.6	4.6	6.2	4.6	4.6	6.2
Lead/Lag					Lead	Lag		Lead	Lag
Lead-Lag Optimize?					Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	None	Min

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 55.9
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated

Splits and Phases: 10: Nuevo Rd./Harvill Av. & Driveway/N A St.



HCM 6th Signalized Intersection Summary
 10: Nuevo Rd./Harvill Av. & Driveway/N A St.

Barker Logistics (JN 12216)
 03/11/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↗	↔		↖	↑↑	↗	↖	↔	
Traffic Volume (veh/h)	2	0	3	289	0	75	1	146	316	109	280	1
Future Volume (veh/h)	2	0	3	289	0	75	1	146	316	109	280	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	2	0	3	192	157	79	1	154	333	115	295	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	9	0	14	406	267	134	4	817	725	154	1145	4
Arrive On Green	0.01	0.00	0.01	0.22	0.22	0.22	0.00	0.23	0.23	0.09	0.31	0.31
Sat Flow, veh/h	674	0	1011	1810	1192	600	1810	3610	1607	1810	3690	13
Grp Volume(v), veh/h	5	0	0	192	0	236	1	154	333	115	144	152
Grp Sat Flow(s),veh/h/ln	1684	0	0	1810	0	1792	1810	1805	1607	1810	1805	1898
Q Serve(g_s), s	0.1	0.0	0.0	4.1	0.0	5.2	0.0	1.5	6.4	2.8	2.7	2.7
Cycle Q Clear(g_c), s	0.1	0.0	0.0	4.1	0.0	5.2	0.0	1.5	6.4	2.8	2.7	2.7
Prop In Lane	0.40		0.60	1.00		0.33	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	23	0	0	406	0	402	4	817	725	154	560	589
V/C Ratio(X)	0.22	0.00	0.00	0.47	0.00	0.59	0.25	0.19	0.46	0.74	0.26	0.26
Avail Cap(c_a), veh/h	1025	0	0	1101	0	1090	204	1432	998	343	854	898
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.7	0.0	0.0	14.9	0.0	15.4	22.1	13.9	8.5	19.8	11.5	11.5
Incr Delay (d2), s/veh	4.8	0.0	0.0	0.9	0.0	1.4	11.1	0.1	0.5	2.7	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	1.6	0.0	2.0	0.0	0.5	2.5	1.0	0.8	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.4	0.0	0.0	15.8	0.0	16.7	33.3	14.0	8.9	22.5	11.7	11.7
LnGrp LOS	C	A	A	B	A	B	C	B	A	C	B	B
Approach Vol, veh/h		5			428			488				411
Approach Delay, s/veh		26.4			16.3			10.6				14.7
Approach LOS		C			B			B				B
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.4	16.2		5.2	4.7	20.0		14.5				
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		4.6				
Max Green Setting (Gmax), s	8.4	17.6		27.0	5.0	21.0		27.0				
Max Q Clear Time (g_c+I1), s	4.8	8.4		2.1	2.0	4.7		7.2				
Green Ext Time (p_c), s	0.0	1.4		0.0	0.0	1.2		2.0				

Intersection Summary

HCM 6th Ctrl Delay	13.8
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

APPENDIX 5.1:

E+P CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Intersection												
Int Delay, s/veh	2.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕	↗		↕↗			↕↗	
Traffic Vol, veh/h	1	42	5	21	26	2	0	4	11	0	1	5
Future Vol, veh/h	1	42	5	21	26	2	0	4	11	0	1	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	47	6	23	29	2	0	4	12	0	1	6

Major/Minor	Major1		Major2			Minor1			Minor2			
Conflicting Flow All	31	0	0	53	0	0	129	126	47	135	130	29
Stage 1	-	-	-	-	-	-	49	49	-	75	75	-
Stage 2	-	-	-	-	-	-	80	77	-	60	55	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1595	-	-	1566	-	-	849	768	1028	841	764	1052
Stage 1	-	-	-	-	-	-	969	858	-	939	836	-
Stage 2	-	-	-	-	-	-	934	835	-	957	853	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1595	-	-	1566	-	-	833	756	1028	817	752	1052
Mov Cap-2 Maneuver	-	-	-	-	-	-	833	756	-	817	752	-
Stage 1	-	-	-	-	-	-	968	857	-	938	823	-
Stage 2	-	-	-	-	-	-	914	822	-	940	852	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	3.1	8.9	8.7
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	938	1595	-	-	1566	-	-	986
HCM Lane V/C Ratio	0.018	0.001	-	-	0.015	-	-	0.007
HCM Control Delay (s)	8.9	7.3	0	-	7.3	0	-	8.7
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	4	2	0	5	1	15	7	16	10	1
Future Vol, veh/h	0	0	4	2	0	5	1	15	7	16	10	1
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	54	54	54	54	54	54	54	54	54	54	54	54
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	7	4	0	9	2	28	13	30	19	2

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	123	125	20	123	120	35	21	0	0	41	0	0
Stage 1	80	80	-	39	39	-	-	-	-	-	-	-
Stage 2	43	45	-	84	81	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	856	769	1064	856	774	1044	1608	-	-	1581	-	-
Stage 1	934	832	-	981	866	-	-	-	-	-	-	-
Stage 2	976	861	-	929	832	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	835	754	1064	837	759	1044	1608	-	-	1581	-	-
Mov Cap-2 Maneuver	835	754	-	837	759	-	-	-	-	-	-	-
Stage 1	933	816	-	980	865	-	-	-	-	-	-	-
Stage 2	966	860	-	905	816	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.4	8.7	0.3	4.3
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1608	-	-	1064	975	1581	-	-
HCM Lane V/C Ratio	0.001	-	-	0.007	0.013	0.019	-	-
HCM Control Delay (s)	7.2	0	-	8.4	8.7	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0.1	-	-

Intersection						
Int Delay, s/veh	3.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	2	2	4	21	14	2
Future Vol, veh/h	2	2	4	21	14	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, %	0	0	0	0	0	0
Mvmt Flow	3	3	5	28	19	3

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	33	0	-	0	28 19
Stage 1	-	-	-	-	19 -
Stage 2	-	-	-	-	9 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1592	-	-	-	992 1065
Stage 1	-	-	-	-	1009 -
Stage 2	-	-	-	-	1019 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1592	-	-	-	990 1065
Mov Cap-2 Maneuver	-	-	-	-	990 -
Stage 1	-	-	-	-	1007 -
Stage 2	-	-	-	-	1019 -

Approach	EB	WB	SB
HCM Control Delay, s	3.6	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1592	-	-	-	999
HCM Lane V/C Ratio	0.002	-	-	-	0.021
HCM Control Delay (s)	7.3	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	15	1	3	22	26	3	0	6	8	0	0
Future Vol, veh/h	0	15	1	3	22	26	3	0	6	8	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	22	1	4	32	38	4	0	9	12	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	70	0	0	23	0	0	82	101	23	86	82	51
Stage 1	-	-	-	-	-	-	23	23	-	59	59	-
Stage 2	-	-	-	-	-	-	59	78	-	27	23	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1544	-	-	1605	-	-	910	793	1060	905	812	1023
Stage 1	-	-	-	-	-	-	1000	880	-	958	850	-
Stage 2	-	-	-	-	-	-	958	834	-	996	880	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1544	-	-	1605	-	-	908	791	1060	896	810	1023
Mov Cap-2 Maneuver	-	-	-	-	-	-	908	791	-	896	810	-
Stage 1	-	-	-	-	-	-	1000	880	-	958	847	-
Stage 2	-	-	-	-	-	-	955	831	-	988	880	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.4	8.6	9.1
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1004	1544	-	-	1605	-	-	896
HCM Lane V/C Ratio	0.013	-	-	-	0.003	-	-	0.013
HCM Control Delay (s)	8.6	0	-	-	7.2	0	-	9.1
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

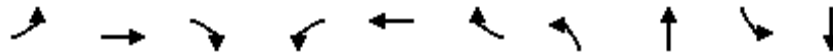
Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	0	29	51	37	11	0
Future Vol, veh/h	0	29	51	37	11	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	32	55	40	12	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	95	0	-	0	107 75
Stage 1	-	-	-	-	75 -
Stage 2	-	-	-	-	32 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1512	-	-	-	895 992
Stage 1	-	-	-	-	953 -
Stage 2	-	-	-	-	996 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1512	-	-	-	895 992
Mov Cap-2 Maneuver	-	-	-	-	895 -
Stage 1	-	-	-	-	953 -
Stage 2	-	-	-	-	996 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.1
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1512	-	-	-	895
HCM Lane V/C Ratio	-	-	-	-	0.013
HCM Control Delay (s)	0	-	-	-	9.1
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Timings
6: Harvill Av. & Cajalco Exwy./Ramona Exwy.

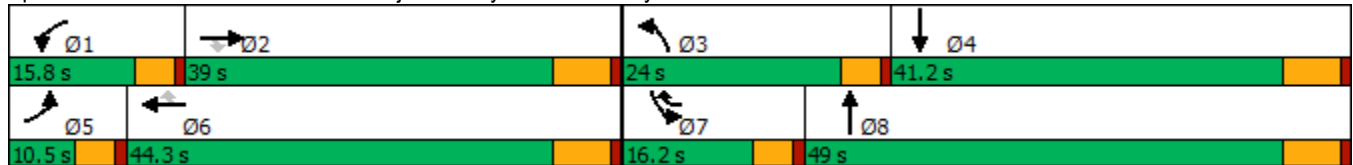


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations	↘	↑↑	↗	↘↗	↑↑	↗	↘↗	↑↑	↘↗	↑↑
Traffic Volume (vph)	25	669	146	217	759	184	350	308	184	138
Future Volume (vph)	25	669	146	217	759	184	350	308	184	138
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases	5	2		1	6	7	3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	7	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	36.2	36.2	9.6	34.2	9.6	9.6	16.2	9.6	41.2
Total Split (s)	10.5	39.0	39.0	15.8	44.3	16.2	24.0	49.0	16.2	41.2
Total Split (%)	8.8%	32.5%	32.5%	13.2%	36.9%	13.5%	20.0%	40.8%	13.5%	34.3%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	3.6	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	4.6	4.6	6.2	4.6	6.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	Max	None	None	None	None	None

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 94
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated

























Splits and Phases: 6: Harvill Av. & Cajalco Exwy./Ramona Exwy.



HCM 6th Signalized Intersection Summary
6: Harvill Av. & Cajalco Exwy./Ramona Exwy.

Barker Logistics (JN 12216)

02/21/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	669	146	217	759	184	350	308	157	184	138	11
Future Volume (veh/h)	25	669	146	217	759	184	350	308	157	184	138	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	26	683	98	221	774	110	357	314	122	188	141	8
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	49	1432	637	304	1646	858	450	463	176	270	452	25
Arrive On Green	0.03	0.40	0.40	0.09	0.46	0.46	0.13	0.18	0.18	0.08	0.13	0.13
Sat Flow, veh/h	1810	3610	1607	3510	3610	1609	3510	2555	973	3510	3473	196
Grp Volume(v), veh/h	26	683	98	221	774	110	357	220	216	188	73	76
Grp Sat Flow(s),veh/h/ln	1810	1805	1607	1755	1805	1609	1755	1805	1723	1755	1805	1864
Q Serve(g_s), s	1.2	11.8	3.3	5.1	12.4	2.9	8.2	9.5	9.8	4.4	3.1	3.1
Cycle Q Clear(g_c), s	1.2	11.8	3.3	5.1	12.4	2.9	8.2	9.5	9.8	4.4	3.1	3.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.56	1.00		0.10
Lane Grp Cap(c), veh/h	49	1432	637	304	1646	858	450	327	312	270	235	243
V/C Ratio(X)	0.53	0.48	0.15	0.73	0.47	0.13	0.79	0.67	0.69	0.70	0.31	0.31
Avail Cap(c_a), veh/h	128	1432	637	471	1646	858	815	925	883	487	756	781
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.1	18.8	16.2	37.2	15.7	9.8	35.3	31.9	32.0	37.6	32.9	33.0
Incr Delay (d2), s/veh	3.3	1.1	0.5	1.3	1.0	0.3	1.2	2.4	2.7	1.2	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	4.5	1.2	2.1	4.6	0.9	3.3	4.0	4.0	1.9	1.4	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.4	19.9	16.7	38.5	16.7	10.1	36.6	34.3	34.8	38.8	33.7	33.7
LnGrp LOS	D	B	B	D	B	B	D	C	C	D	C	C
Approach Vol, veh/h		807			1105			793			337	
Approach Delay, s/veh		20.3			20.4			35.4			36.5	
Approach LOS		C			C			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.8	39.3	15.3	17.1	6.9	44.3	11.0	21.3				
Change Period (Y+Rc), s	4.6	6.2	4.6	6.2	4.6	6.2	4.6	6.2				
Max Green Setting (Gmax), s	11.2	32.8	19.4	35.0	5.9	38.1	11.6	42.8				
Max Q Clear Time (g_c+I1), s	7.1	13.8	10.2	5.1	3.2	14.4	6.4	11.8				
Green Ext Time (p_c), s	0.1	4.2	0.5	0.8	0.0	5.3	0.2	2.4				
Intersection Summary												
HCM 6th Ctrl Delay			26.1									
HCM 6th LOS			C									

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖	↖	↖	↖↗		↖	↖↗	
Traffic Vol, veh/h	27	0	33	0	0	0	21	640	3	0	287	24
Future Vol, veh/h	27	0	33	0	0	0	21	640	3	0	287	24
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	115	-	-	165	-	0	150	-	-	160	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	29	0	36	0	0	0	23	696	3	0	312	26

Major/Minor	Minor2		Minor1			Major1		Major2				
Conflicting Flow All	719	1070	169	900	1082	350	338	0	0	699	0	0
Stage 1	325	325	-	744	744	-	-	-	-	-	-	-
Stage 2	394	745	-	156	338	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	320	223	852	237	219	652	1232	-	-	907	-	-
Stage 1	667	653	-	377	424	-	-	-	-	-	-	-
Stage 2	608	424	-	836	644	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	316	219	852	224	215	652	1232	-	-	907	-	-
Mov Cap-2 Maneuver	428	324	-	310	319	-	-	-	-	-	-	-
Stage 1	654	653	-	370	416	-	-	-	-	-	-	-
Stage 2	597	416	-	801	644	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.5	0	0.3	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	1232	-	-	428	-	852	-	-	-	907	-	-
HCM Lane V/C Ratio	0.019	-	-	0.069	-	0.042	-	-	-	-	-	-
HCM Control Delay (s)	8	-	-	14	0	9.4	0	0	0	0	-	-
HCM Lane LOS	A	-	-	B	A	A	A	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	-	0.1	-	-	-	0	-	-

Intersection	
Intersection Delay, s/veh	17.4
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↗	↖	↕		↖	↕	
Traffic Vol, veh/h	16	5	17	110	3	326	41	362	104	152	140	40
Future Vol, veh/h	16	5	17	110	3	326	41	362	104	152	140	40
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	17	5	18	118	3	351	44	389	112	163	151	43
Number of Lanes	0	1	0	0	1	1	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	12.5	20.4	17.3	14.3
HCM LOS	B	C	C	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	42%	97%	0%	100%	0%	0%
Vol Thru, %	0%	100%	54%	13%	3%	0%	0%	100%	54%
Vol Right, %	0%	0%	46%	45%	0%	100%	0%	0%	46%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	41	241	225	38	113	326	152	93	87
LT Vol	41	0	0	16	110	0	152	0	0
Through Vol	0	241	121	5	3	0	0	93	47
RT Vol	0	0	104	17	0	326	0	0	40
Lane Flow Rate	44	259	242	41	122	351	163	100	93
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.098	0.542	0.483	0.099	0.273	0.671	0.382	0.22	0.196
Departure Headway (Hd)	8.037	7.524	7.191	8.764	8.089	6.894	8.42	7.905	7.572
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	445	480	500	407	443	522	427	454	472
Service Time	5.794	5.28	4.947	6.546	5.842	4.646	6.184	5.668	5.335
HCM Lane V/C Ratio	0.099	0.54	0.484	0.101	0.275	0.672	0.382	0.22	0.197
HCM Control Delay	11.7	18.9	16.5	12.5	13.9	22.7	16.3	12.9	12.2
HCM Lane LOS	B	C	C	B	B	C	C	B	B
HCM 95th-tile Q	0.3	3.2	2.6	0.3	1.1	5	1.8	0.8	0.7

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕		↕	↕	
Traffic Vol, veh/h	22	0	8	8	0	11	9	474	16	14	221	17
Future Vol, veh/h	22	0	8	8	0	11	9	474	16	14	221	17
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	-	-	-	-	-	0	160	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	24	0	9	9	0	12	10	510	17	15	238	18

Major/Minor	Minor2		Minor1			Major1		Major2				
Conflicting Flow All	552	824	128	688	825	264	256	0	0	527	0	0
Stage 1	277	277	-	539	539	-	-	-	-	-	-	-
Stage 2	275	547	-	149	286	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	421	310	905	336	310	741	1321	-	-	1050	-	-
Stage 1	712	685	-	499	525	-	-	-	-	-	-	-
Stage 2	713	521	-	844	679	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	408	303	905	327	303	741	1321	-	-	1050	-	-
Mov Cap-2 Maneuver	408	303	-	327	303	-	-	-	-	-	-	-
Stage 1	706	675	-	495	521	-	-	-	-	-	-	-
Stage 2	696	517	-	824	669	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	13.1		12.6		0.1		0.5	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1321	-	-	478	327	741	1050	-	-
HCM Lane V/C Ratio	0.007	-	-	0.067	0.026	0.016	0.014	-	-
HCM Control Delay (s)	7.7	-	-	13.1	16.3	9.9	8.5	-	-
HCM Lane LOS	A	-	-	B	C	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	0	-	-

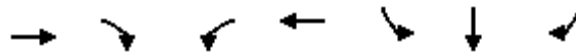
Intersection	
Intersection Delay, s/veh	130.5
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕		↕	↕		↕	↕	
Traffic Vol, veh/h	0	4	1	523	0	220	4	258	582	125	135	3
Future Vol, veh/h	0	4	1	523	0	220	4	258	582	125	135	3
Peak Hour Factor	0.92	0.92	0.92	0.90	0.92	0.90	0.92	0.90	0.90	0.90	0.90	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	4	1	581	0	244	4	287	647	139	150	3
Number of Lanes	0	1	0	1	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	13.9	57.4	230.8	17
HCM LOS	B	F	F	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	0%	100%	38%	100%	0%	0%
Vol Thru, %	0%	100%	13%	80%	0%	0%	0%	100%	94%
Vol Right, %	0%	0%	87%	20%	0%	62%	0%	0%	6%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	4	172	668	5	387	356	125	90	48
LT Vol	4	0	0	0	387	136	125	0	0
Through Vol	0	172	86	4	0	0	0	90	45
RT Vol	0	0	582	1	0	220	0	0	3
Lane Flow Rate	4	191	742	5	430	396	139	100	53
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.011	0.438	1.571	0.015	0.989	0.829	0.365	0.249	0.132
Departure Headway (Hd)	8.764	8.248	7.619	11.031	9.116	8.366	10.404	9.88	9.835
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	407	436	482	326	400	435	349	366	367
Service Time	6.543	6.027	5.397	8.731	6.816	6.066	8.104	7.58	7.535
HCM Lane V/C Ratio	0.01	0.438	1.539	0.015	1.075	0.91	0.398	0.273	0.144
HCM Control Delay	11.6	17.4	287	13.9	73.1	40.4	19	15.8	14
HCM Lane LOS	B	C	F	B	F	E	C	C	B
HCM 95th-tile Q	0	2.2	40.2	0	11.8	7.8	1.6	1	0.5

Timings
11: I-215 SB Ramps & Ramona Exwy.

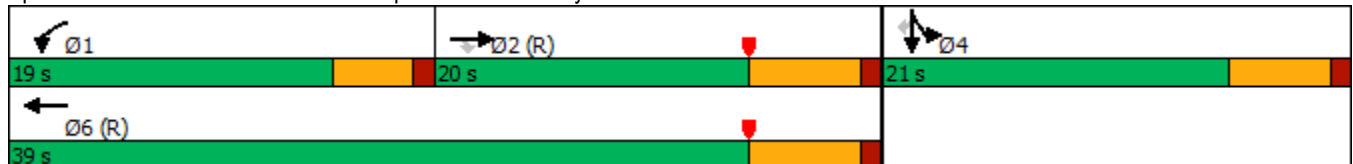


Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations	↑↑	↑	↘	↑↑	↘	↗	↗
Traffic Volume (vph)	705	327	339	928	704	3	233
Future Volume (vph)	705	327	339	928	704	3	233
Turn Type	NA	Perm	Prot	NA	Split	NA	Perm
Protected Phases	2		1	6	4	4	
Permitted Phases		2					4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	9.5	31.0	10.5	10.5	10.5
Total Split (s)	20.0	20.0	19.0	39.0	21.0	21.0	21.0
Total Split (%)	33.3%	33.3%	31.7%	65.0%	35.0%	35.0%	35.0%
Yellow Time (s)	5.0	5.0	3.5	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.5	6.0	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max	Max

Intersection Summary













Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 19 (32%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated

Splits and Phases: 11: I-215 SB Ramps & Ramona Exwy.

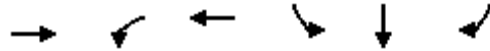


HCM 6th Signalized Intersection Summary
 11: I-215 SB Ramps & Ramona Exwy.

Barker Logistics (JN 12216)
 02/21/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑					↖	↗	↗
Traffic Volume (veh/h)	0	705	327	339	928	0	0	0	0	704	3	233
Future Volume (veh/h)	0	705	327	339	928	0	0	0	0	704	3	233
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	727	228	349	957	0				728	0	176
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	907	403	405	1986	0				935	0	416
Arrive On Green	0.00	0.25	0.25	0.13	0.33	0.00				0.26	0.00	0.26
Sat Flow, veh/h	0	3705	1606	1810	3705	0				3619	0	1610
Grp Volume(v), veh/h	0	727	228	349	957	0				728	0	176
Grp Sat Flow(s),veh/h/ln	0	1805	1606	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	11.3	7.4	11.3	12.7	0.0				11.2	0.0	5.5
Cycle Q Clear(g_c), s	0.0	11.3	7.4	11.3	12.7	0.0				11.2	0.0	5.5
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	907	403	405	1986	0				935	0	416
V/C Ratio(X)	0.00	0.80	0.57	0.86	0.48	0.00				0.78	0.00	0.42
Avail Cap(c_a), veh/h	0	907	403	437	1986	0				935	0	416
HCM Platoon Ratio	1.00	1.00	1.00	0.60	0.60	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.83	0.83	0.67	0.67	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	21.1	19.6	25.1	13.3	0.0				20.7	0.0	18.5
Incr Delay (d2), s/veh	0.0	6.2	4.7	10.8	0.6	0.0				6.4	0.0	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.7	2.8	5.8	4.5	0.0				4.8	0.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	27.3	24.3	35.9	13.9	0.0				27.0	0.0	21.7
LnGrp LOS	A	C	C	D	B	A				C	A	C
Approach Vol, veh/h		955			1306						904	
Approach Delay, s/veh		26.6			19.7						26.0	
Approach LOS		C			B						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	17.9	21.1		21.0		39.0						
Change Period (Y+Rc), s	4.5	6.0		5.5		6.0						
Max Green Setting (Gmax), s	14.5	14.0		15.5		33.0						
Max Q Clear Time (g_c+I1), s	13.3	13.3		13.2		14.7						
Green Ext Time (p_c), s	0.1	0.3		0.9		3.7						
Intersection Summary												
HCM 6th Ctrl Delay				23.6								
HCM 6th LOS				C								
Notes												
User approved volume balancing among the lanes for turning movement.												

Timings
13: I-215 SB Ramps & Nuevo Rd.

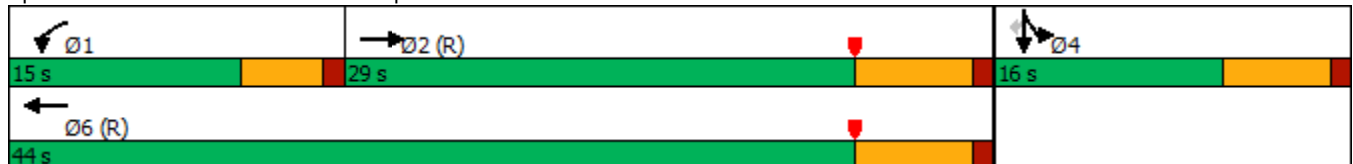


Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑	↑↑	↑	↑	↑
Traffic Volume (vph)	504	375	890	300	3	90
Future Volume (vph)	504	375	890	300	3	90
Turn Type	NA	Prot	NA	Split	NA	Perm
Protected Phases	2	1	6	4	4	
Permitted Phases						4
Detector Phase	2	1	6	4	4	4
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	28.2	9.6	28.2	15.8	15.8	15.8
Total Split (s)	29.0	15.0	44.0	16.0	16.0	16.0
Total Split (%)	48.3%	25.0%	73.3%	26.7%	26.7%	26.7%
Yellow Time (s)	5.2	3.6	5.2	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	4.6	6.2	5.8	5.8	5.8
Lead/Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes				
Recall Mode	C-Max	None	C-Max	Max	Max	Max

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 18.6 (31%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated

Splits and Phases: 13: I-215 SB Ramps & Nuevo Rd.



HCM 6th Signalized Intersection Summary
 13: I-215 SB Ramps & Nuevo Rd.

Barker Logistics (JN 12216)
 02/21/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑↑	↑↑					↑	↑	↑
Traffic Volume (veh/h)	0	504	159	375	890	0	0	0	0	300	3	90
Future Volume (veh/h)	0	504	159	375	890	0	0	0	0	300	3	90
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	573	141	426	1011	0				343	0	29
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1147	282	541	2274	0				615	0	274
Arrive On Green	0.00	0.40	0.40	0.10	0.42	0.00				0.17	0.00	0.17
Sat Flow, veh/h	0	2968	705	3510	3705	0				3619	0	1610
Grp Volume(v), veh/h	0	359	355	426	1011	0				343	0	29
Grp Sat Flow(s),veh/h/ln	0	1805	1773	1755	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	9.0	9.0	7.1	12.0	0.0				5.2	0.0	0.9
Cycle Q Clear(g_c), s	0.0	9.0	9.0	7.1	12.0	0.0				5.2	0.0	0.9
Prop In Lane	0.00		0.40	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	721	708	541	2274	0				615	0	274
V/C Ratio(X)	0.00	0.50	0.50	0.79	0.44	0.00				0.56	0.00	0.11
Avail Cap(c_a), veh/h	0	721	708	608	2274	0				615	0	274
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.77	0.77	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	13.5	13.5	25.9	9.9	0.0				22.8	0.0	21.0
Incr Delay (d2), s/veh	0.0	2.5	2.5	4.1	0.5	0.0				3.6	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.3	3.3	3.0	3.5	0.0				2.2	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	16.0	16.1	30.0	10.4	0.0				26.5	0.0	21.8
LnGrp LOS	A	B	B	C	B	A				C	A	C
Approach Vol, veh/h		714			1437						372	
Approach Delay, s/veh		16.0			16.2						26.1	
Approach LOS		B			B						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	13.8	30.2		16.0		44.0						
Change Period (Y+Rc), s	4.6	6.2		5.8		6.2						
Max Green Setting (Gmax), s	10.4	22.8		10.2		37.8						
Max Q Clear Time (g_c+I1), s	9.1	11.0		7.2		14.0						
Green Ext Time (p_c), s	0.1	3.1		0.4		6.8						

Intersection Summary

HCM 6th Ctrl Delay	17.6
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Timings
14: I-215 NB Ramps & Ramona Exwy.

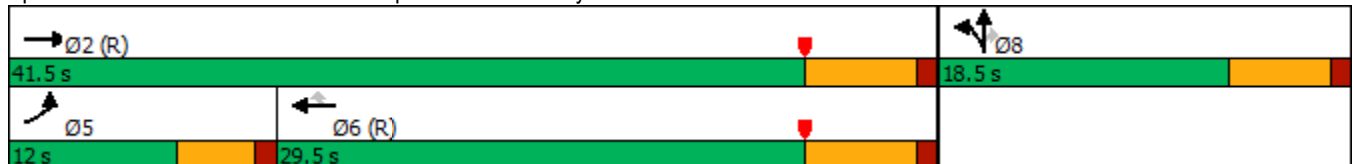


Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations	↶	↷	↷	↷	↶	↷	↷
Traffic Volume (vph)	196	1213	997	955	270	3	413
Future Volume (vph)	196	1213	997	955	270	3	413
Turn Type	Prot	NA	NA	Perm	Split	NA	Perm
Protected Phases	5	2	6		8	8	
Permitted Phases				6			8
Detector Phase	5	2	6	6	8	8	8
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	11.0	26.0	26.0	10.5	10.5	10.5
Total Split (s)	12.0	41.5	29.5	29.5	18.5	18.5	18.5
Total Split (%)	20.0%	69.2%	49.2%	49.2%	30.8%	30.8%	30.8%
Yellow Time (s)	3.5	5.0	5.0	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	6.0	5.5	5.5	5.5
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 19 (32%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated

Splits and Phases: 14: I-215 NB Ramps & Ramona Exwy.



HCM 6th Signalized Intersection Summary
 14: I-215 NB Ramps & Ramona Exwy.

Barker Logistics (JN 12216)
 02/21/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑	↗	↘	↗	↗			
Traffic Volume (veh/h)	196	1213	0	0	997	955	270	3	413	0	0	0
Future Volume (veh/h)	196	1213	0	0	997	955	270	3	413	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	202	1251	0	0	1028	703	280	0	274			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	226	2190	0	0	1468	655	730	0	325			
Arrive On Green	0.25	1.00	0.00	0.00	0.41	0.41	0.20	0.00	0.20			
Sat Flow, veh/h	1810	3705	0	0	3705	1610	3619	0	1610			
Grp Volume(v), veh/h	202	1251	0	0	1028	703	280	0	274			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1610	1810	0	1610			
Q Serve(g_s), s	6.5	0.0	0.0	0.0	14.2	24.4	4.0	0.0	9.8			
Cycle Q Clear(g_c), s	6.5	0.0	0.0	0.0	14.2	24.4	4.0	0.0	9.8			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	226	2190	0	0	1468	655	730	0	325			
V/C Ratio(X)	0.89	0.57	0.00	0.00	0.70	1.07	0.38	0.00	0.84			
Avail Cap(c_a), veh/h	226	2190	0	0	1468	655	784	0	349			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.46	0.46	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	22.1	0.0	0.0	0.0	14.8	17.8	20.7	0.0	23.0			
Incr Delay (d2), s/veh	18.4	0.5	0.0	0.0	2.8	56.6	0.3	0.0	16.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	3.2	0.2	0.0	0.0	5.0	17.1	1.5	0.0	4.7			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.5	0.5	0.0	0.0	17.6	74.4	21.1	0.0	39.2			
LnGrp LOS	D	A	A	A	B	F	C	A	D			
Approach Vol, veh/h		1453			1731			554				
Approach Delay, s/veh		6.1			40.7			30.0				
Approach LOS		A			D			C				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		42.4			12.0	30.4		17.6				
Change Period (Y+Rc), s		6.0			4.5	6.0		5.5				
Max Green Setting (Gmax), s		35.5			7.5	23.5		13.0				
Max Q Clear Time (g_c+I1), s		2.0			8.5	26.4		11.8				
Green Ext Time (p_c), s		6.0			0.0	0.0		0.3				

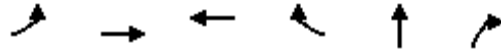
Intersection Summary

HCM 6th Ctrl Delay	25.6
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Timings
16: I-215 NB Ramps & Nuevo Rd.

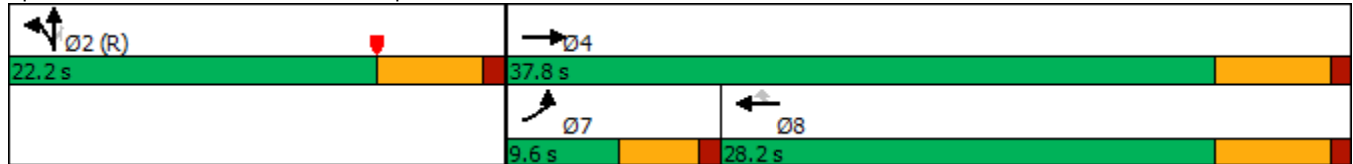


Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Configurations	↘	↑↑	↑↑↑	↗	↙	↗↗
Traffic Volume (vph)	40	764	959	377	2	546
Future Volume (vph)	40	764	959	377	2	546
Turn Type	Prot	NA	NA	Perm	NA	Perm
Protected Phases	7	4	8		2	
Permitted Phases				8		2
Detector Phase	7	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	28.2	28.2	28.2	15.8	15.8
Total Split (s)	9.6	37.8	28.2	28.2	22.2	22.2
Total Split (%)	16.0%	63.0%	47.0%	47.0%	37.0%	37.0%
Yellow Time (s)	3.6	5.2	5.2	5.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	6.2	5.8	5.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max

Intersection Summary























Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 16 (27%), Referenced to phase 2:NBT and 6:, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated

Splits and Phases: 16: I-215 NB Ramps & Nuevo Rd.



HCM 6th Signalized Intersection Summary
 16: I-215 NB Ramps & Nuevo Rd.

Barker Logistics (JN 12216)
 02/21/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			  				 			
Traffic Volume (veh/h)	40	764	0	0	959	377	306	2	546	0	0	0
Future Volume (veh/h)	40	764	0	0	959	377	306	2	546	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	43	830	0	0	1042	298	333	2	273			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	77	1490	0	0	1522	473	697	4	1097			
Arrive On Green	0.03	0.28	0.00	0.00	0.29	0.29	0.39	0.39	0.39			
Sat Flow, veh/h	1810	3705	0	0	5358	1610	1799	11	2834			
Grp Volume(v), veh/h	43	830	0	0	1042	298	335	0	273			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1729	1610	1810	0	1417			
Q Serve(g_s), s	1.4	11.8	0.0	0.0	10.7	9.6	8.4	0.0	3.9			
Cycle Q Clear(g_c), s	1.4	11.8	0.0	0.0	10.7	9.6	8.4	0.0	3.9			
Prop In Lane	1.00		0.00	0.00		1.00	0.99		1.00			
Lane Grp Cap(c), veh/h	77	1490	0	0	1522	473	701	0	1097			
V/C Ratio(X)	0.56	0.56	0.00	0.00	0.68	0.63	0.48	0.00	0.25			
Avail Cap(c_a), veh/h	151	1901	0	0	1902	590	701	0	1097			
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.82	0.82	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	28.6	17.0	0.0	0.0	18.7	18.4	13.8	0.0	12.5			
Incr Delay (d2), s/veh	1.9	0.3	0.0	0.0	0.7	1.4	2.3	0.0	0.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.6	4.3	0.0	0.0	3.6	3.1	3.2	0.0	1.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.5	17.3	0.0	0.0	19.5	19.8	16.2	0.0	13.0			
LnGrp LOS	C	B	A	A	B	B	B	A	B			
Approach Vol, veh/h		873			1340			608				
Approach Delay, s/veh		17.9			19.6			14.7				
Approach LOS		B			B			B				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		29.0		31.0			7.2	23.8				
Change Period (Y+Rc), s		5.8		6.2			4.6	6.2				
Max Green Setting (Gmax), s		16.4		31.6			5.0	22.0				
Max Q Clear Time (g_c+I1), s		10.4		13.8			3.4	12.7				
Green Ext Time (p_c), s		1.6		4.8			0.0	5.0				
Intersection Summary												
HCM 6th Ctrl Delay				18.0								
HCM 6th LOS				B								

Intersection												
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕	↕		↕			↕	
Traffic Vol, veh/h	2	81	4	13	32	0	1	0	26	0	1	0
Future Vol, veh/h	2	81	4	13	32	0	1	0	26	0	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	87	4	14	34	0	1	0	28	0	1	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	34	0	0	91	0	0	154	153	87	169	157	34
Stage 1	-	-	-	-	-	-	91	91	-	62	62	-
Stage 2	-	-	-	-	-	-	63	62	-	107	95	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1591	-	-	1517	-	-	817	742	977	799	739	1045
Stage 1	-	-	-	-	-	-	921	823	-	954	847	-
Stage 2	-	-	-	-	-	-	953	847	-	903	820	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1591	-	-	1517	-	-	810	735	977	770	732	1045
Mov Cap-2 Maneuver	-	-	-	-	-	-	810	735	-	770	732	-
Stage 1	-	-	-	-	-	-	920	822	-	953	839	-
Stage 2	-	-	-	-	-	-	943	839	-	876	819	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			2.1			8.8			9.9		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	970	1591	-	-	1517	-	-	732
HCM Lane V/C Ratio	0.03	0.001	-	-	0.009	-	-	0.001
HCM Control Delay (s)	8.8	7.3	0	-	7.4	0	-	9.9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection												
Int Delay, s/veh	5.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	1	8	0	19	3	8	3	7	11	0
Future Vol, veh/h	1	0	1	8	0	19	3	8	3	7	11	0
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	72	72	72	72	72	72	72	72	72	72	72	72
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	0	1	11	0	26	4	11	4	10	15	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	69	58	15	57	56	13	15	0	0	15	0	0
Stage 1	35	35	-	21	21	-	-	-	-	-	-	-
Stage 2	34	23	-	36	35	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	928	837	1070	945	839	1073	1616	-	-	1616	-	-
Stage 1	986	870	-	1003	882	-	-	-	-	-	-	-
Stage 2	987	880	-	985	870	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	899	830	1070	938	832	1073	1616	-	-	1616	-	-
Mov Cap-2 Maneuver	899	830	-	938	832	-	-	-	-	-	-	-
Stage 1	984	865	-	1001	880	-	-	-	-	-	-	-
Stage 2	961	878	-	978	865	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	8.7		8.6		1.5		2.8	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1616	-	-	977	1029	1616	-	-
HCM Lane V/C Ratio	0.003	-	-	0.003	0.036	0.006	-	-
HCM Control Delay (s)	7.2	0	-	8.7	8.6	7.2	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection						
Int Delay, s/veh	4.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	1	1	4	13	19	1
Future Vol, veh/h	1	1	4	13	19	1
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	72	72	72	72	72	72
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	1	6	18	26	1

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	24	0	-	0	18
Stage 1	-	-	-	-	15
Stage 2	-	-	-	-	3
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	1604	-	-	-	1005
Stage 1	-	-	-	-	1013
Stage 2	-	-	-	-	1025
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1604	-	-	-	1004
Mov Cap-2 Maneuver	-	-	-	-	1004
Stage 1	-	-	-	-	1012
Stage 2	-	-	-	-	1025

Approach	EB	WB	SB
HCM Control Delay, s	3.6	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1604	-	-	-	1007
HCM Lane V/C Ratio	0.001	-	-	-	0.028
HCM Control Delay (s)	7.2	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection												
Int Delay, s/veh	4.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	18	2	2	15	13	2	0	3	34	0	0
Future Vol, veh/h	0	18	2	2	15	13	2	0	3	34	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	23	3	3	19	17	3	0	4	44	0	0

Major/Minor	Major1		Major2		Minor1			Minor2				
Conflicting Flow All	36	0	0	26	0	0	59	67	25	61	60	28
Stage 1	-	-	-	-	-	-	25	25	-	34	34	-
Stage 2	-	-	-	-	-	-	34	42	-	27	26	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1588	-	-	1601	-	-	942	828	1057	939	835	1053
Stage 1	-	-	-	-	-	-	998	878	-	987	871	-
Stage 2	-	-	-	-	-	-	987	864	-	996	878	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1588	-	-	1601	-	-	940	826	1057	934	833	1053
Mov Cap-2 Maneuver	-	-	-	-	-	-	940	826	-	934	833	-
Stage 1	-	-	-	-	-	-	998	878	-	987	869	-
Stage 2	-	-	-	-	-	-	985	862	-	992	878	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.5	8.6	9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1007	1588	-	-	1601	-	-	934
HCM Lane V/C Ratio	0.006	-	-	-	0.002	-	-	0.047
HCM Control Delay (s)	8.6	0	-	-	7.3	0	-	9
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

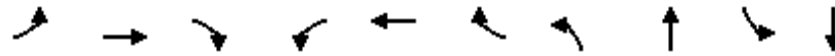
Intersection						
Int Delay, s/veh	2.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	0	55	30	16	42	0
Future Vol, veh/h	0	55	30	16	42	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	60	33	17	46	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	50	0	-	0	102 42
Stage 1	-	-	-	-	42 -
Stage 2	-	-	-	-	60 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1570	-	-	-	901 1034
Stage 1	-	-	-	-	986 -
Stage 2	-	-	-	-	968 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1570	-	-	-	901 1034
Mov Cap-2 Maneuver	-	-	-	-	901 -
Stage 1	-	-	-	-	986 -
Stage 2	-	-	-	-	968 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1570	-	-	-	901
HCM Lane V/C Ratio	-	-	-	-	0.051
HCM Control Delay (s)	0	-	-	-	9.2
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Timings
6: Harvill Av. & Cajalco Exwy./Ramona Exwy.

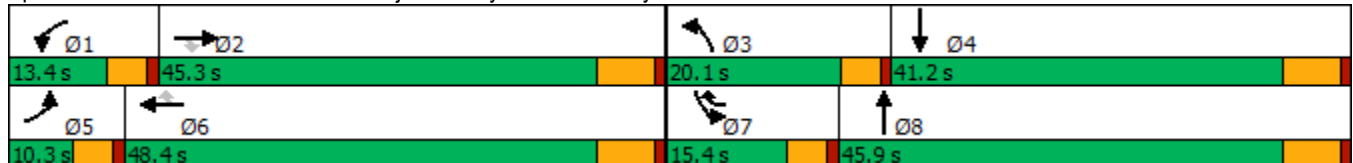


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations	↘	↑↑	↗	↘↗	↑↑	↗	↘↗	↑↑	↘↗	↑↑
Traffic Volume (vph)	27	838	270	198	707	137	299	133	168	184
Future Volume (vph)	27	838	270	198	707	137	299	133	168	184
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases	5	2		1	6	7	3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	7	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	36.2	36.2	9.6	34.2	9.6	9.6	16.2	9.6	41.2
Total Split (s)	10.3	45.3	45.3	13.4	48.4	15.4	20.1	45.9	15.4	41.2
Total Split (%)	8.6%	37.8%	37.8%	11.2%	40.3%	12.8%	16.8%	38.3%	12.8%	34.3%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	3.6	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-2.2	-2.2	-0.6	-2.2	-0.6	-0.6	-2.2	-0.6	-2.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	Max	None	None	None	None	None

Intersection Summary
























Cycle Length: 120
 Actuated Cycle Length: 96.8
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated

Splits and Phases: 6: Harvill Av. & Cajalco Exwy./Ramona Exwy.



HCM 6th Signalized Intersection Summary
6: Harvill Av. & Cajalco Exwy./Ramona Exwy.

Barker Logistics (JN 12216)
02/21/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	838	270	198	707	137	299	133	170	168	184	15
Future Volume (veh/h)	27	838	270	198	707	137	299	133	170	168	184	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	27	846	201	200	714	97	302	134	107	170	186	7
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	62	1713	763	299	1896	940	409	355	263	270	497	19
Arrive On Green	0.03	0.47	0.47	0.09	0.53	0.51	0.12	0.18	0.15	0.08	0.14	0.11
Sat Flow, veh/h	1810	3610	1608	3510	3610	1610	3510	1976	1465	3510	3548	133
Grp Volume(v), veh/h	27	846	201	200	714	97	302	121	120	170	94	99
Grp Sat Flow(s),veh/h/ln	1810	1805	1608	1755	1805	1610	1755	1805	1636	1755	1805	1876
Q Serve(g_s), s	1.3	14.0	6.5	4.8	10.2	2.3	7.2	5.2	5.7	4.1	4.1	4.2
Cycle Q Clear(g_c), s	1.3	14.0	6.5	4.8	10.2	2.3	7.2	5.2	5.7	4.1	4.1	4.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.90	1.00		0.07
Lane Grp Cap(c), veh/h	62	1713	763	299	1896	940	409	324	294	270	253	263
V/C Ratio(X)	0.43	0.49	0.26	0.67	0.38	0.10	0.74	0.37	0.41	0.63	0.37	0.38
Avail Cap(c_a), veh/h	131	1713	763	379	1896	940	649	869	788	460	771	802
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.2	15.7	13.7	38.6	12.2	8.0	37.2	31.4	32.5	39.0	34.0	34.0
Incr Delay (d2), s/veh	1.8	1.0	0.8	1.6	0.6	0.2	1.0	0.7	0.9	0.9	0.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	5.2	2.2	2.0	3.6	0.7	3.0	2.2	2.2	1.8	1.8	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.0	16.7	14.6	40.2	12.8	8.2	38.2	32.1	33.4	39.9	34.9	34.9
LnGrp LOS	D	B	B	D	B	A	D	C	C	D	C	C
Approach Vol, veh/h		1074			1011			543			363	
Approach Delay, s/veh		17.0			17.8			35.8			37.2	
Approach LOS		B			B			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.4	45.3	14.1	16.2	7.0	49.7	10.7	19.6				
Change Period (Y+Rc), s	4.6	6.2	4.6	6.2	4.6	6.2	4.6	6.2				
Max Green Setting (Gmax), s	8.8	39.1	15.5	35.0	5.7	42.2	10.8	39.7				
Max Q Clear Time (g_c+I1), s	6.8	16.0	9.2	6.2	3.3	12.2	6.1	7.7				
Green Ext Time (p_c), s	0.1	6.1	0.3	1.1	0.0	5.0	0.1	1.3				
Intersection Summary												
HCM 6th Ctrl Delay			23.1									
HCM 6th LOS			C									

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖	↖	↖	↖↗		↖	↖↗	
Traffic Vol, veh/h	40	0	70	1	1	0	31	402	2	0	521	23
Future Vol, veh/h	40	0	70	1	1	0	31	402	2	0	521	23
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	115	-	-	165	-	0	150	-	-	160	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	43	0	75	1	1	0	33	432	2	0	560	25

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	856	1073	293	779	1084	217	585	0	0	434	0	0
Stage 1	573	573	-	499	499	-	-	-	-	-	-	-
Stage 2	283	500	-	280	585	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	255	222	709	289	219	794	1000	-	-	1136	-	-
Stage 1	477	507	-	527	547	-	-	-	-	-	-	-
Stage 2	706	546	-	709	501	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	248	215	709	252	212	794	1000	-	-	1136	-	-
Mov Cap-2 Maneuver	357	334	-	365	323	-	-	-	-	-	-	-
Stage 1	461	507	-	510	529	-	-	-	-	-	-	-
Stage 2	681	528	-	634	501	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.8	15.6	0.6	0
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	1000	-	-	357	-	709	365	323	-	1136	-	-
HCM Lane V/C Ratio	0.033	-	-	0.12	-	0.106	0.003	0.003	-	-	-	-
HCM Control Delay (s)	8.7	-	-	16.5	0	10.7	14.9	16.2	0	0	-	-
HCM Lane LOS	A	-	-	C	A	B	B	C	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	-	0.4	0	0	-	0	-	-

Intersection	
Intersection Delay, s/veh	16.2
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕		↕	↕	
Traffic Vol, veh/h	47	3	46	66	4	206	22	166	56	274	304	19
Future Vol, veh/h	47	3	46	66	4	206	22	166	56	274	304	19
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	53	3	52	74	4	231	25	187	63	308	342	21
Number of Lanes	0	1	0	0	1	1	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	13.8	15.1	13.2	18.4
HCM LOS	B	C	B	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	49%	94%	0%	100%	0%	0%
Vol Thru, %	0%	100%	50%	3%	6%	0%	0%	100%	84%
Vol Right, %	0%	0%	50%	48%	0%	100%	0%	0%	16%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	22	111	111	96	70	206	274	203	120
LT Vol	22	0	0	47	66	0	274	0	0
Through Vol	0	111	55	3	4	0	0	203	101
RT Vol	0	0	56	46	0	206	0	0	19
Lane Flow Rate	25	124	125	108	79	231	308	228	135
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.058	0.274	0.263	0.249	0.182	0.459	0.648	0.447	0.261
Departure Headway (Hd)	8.456	7.942	7.579	8.313	8.327	7.144	7.577	7.065	6.952
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	423	451	473	431	430	502	477	510	516
Service Time	6.222	5.708	5.345	6.084	6.087	4.904	5.332	4.82	4.706
HCM Lane V/C Ratio	0.059	0.275	0.264	0.251	0.184	0.46	0.646	0.447	0.262
HCM Control Delay	11.7	13.7	13.1	13.8	12.9	15.9	23.3	15.4	12.2
HCM Lane LOS	B	B	B	B	B	C	C	C	B
HCM 95th-tile Q	0.2	1.1	1	1	0.7	2.4	4.5	2.3	1

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕		↕	↕	
Traffic Vol, veh/h	13	2	6	37	0	29	4	200	24	22	370	31
Future Vol, veh/h	13	2	6	37	0	29	4	200	24	22	370	31
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	-	-	-	-	-	0	160	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	15	2	7	43	0	34	5	233	28	26	430	36

Major/Minor	Minor2		Minor1			Major1		Major2				
Conflicting Flow All	627	771	233	525	775	131	466	0	0	261	0	0
Stage 1	500	500	-	257	257	-	-	-	-	-	-	-
Stage 2	127	271	-	268	518	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	372	333	775	440	331	901	1106	-	-	1315	-	-
Stage 1	527	546	-	731	699	-	-	-	-	-	-	-
Stage 2	869	689	-	720	536	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	352	325	775	425	323	901	1106	-	-	1315	-	-
Mov Cap-2 Maneuver	352	325	-	425	323	-	-	-	-	-	-	-
Stage 1	524	535	-	727	696	-	-	-	-	-	-	-
Stage 2	833	686	-	696	525	-	-	-	-	-	-	-

Approach	EB		WB			NB		SB		
HCM Control Delay, s	14.3		12.1			0.1		0.4		
HCM LOS	B		B							

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1106	-	-	413	425	901	1315	-	-
HCM Lane V/C Ratio	0.004	-	-	0.059	0.101	0.037	0.019	-	-
HCM Control Delay (s)	8.3	-	-	14.3	14.4	9.2	7.8	-	-
HCM Lane LOS	A	-	-	B	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.3	0.1	0.1	-	-

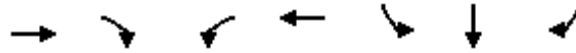
Intersection	
Intersection Delay, s/veh	18.3
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕		↕	↕		↕	↕	
Traffic Vol, veh/h	2	0	5	290	0	76	1	166	320	112	327	1
Future Vol, veh/h	2	0	5	290	0	76	1	166	320	112	327	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	0	5	305	0	80	1	175	337	118	344	1
Number of Lanes	0	1	0	1	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	11.4	16.2	23.2	14.8
HCM LOS	B	C	C	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	29%	100%	57%	100%	0%	0%
Vol Thru, %	0%	100%	15%	0%	0%	0%	0%	100%	99%
Vol Right, %	0%	0%	85%	71%	0%	43%	0%	0%	1%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	1	111	375	7	189	178	112	218	110
LT Vol	1	0	0	2	189	102	112	0	0
Through Vol	0	111	55	0	0	0	0	218	109
RT Vol	0	0	320	5	0	76	0	0	1
Lane Flow Rate	1	116	395	7	198	187	118	229	116
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.002	0.238	0.74	0.017	0.445	0.392	0.26	0.473	0.239
Departure Headway (Hd)	7.862	7.35	6.74	8.477	8.071	7.554	7.935	7.423	7.416
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	455	489	537	421	446	476	453	486	484
Service Time	5.604	5.092	4.482	6.247	5.816	5.299	5.68	5.168	5.161
HCM Lane V/C Ratio	0.002	0.237	0.736	0.017	0.444	0.393	0.26	0.471	0.24
HCM Control Delay	10.6	12.4	26.4	11.4	17.2	15.1	13.5	16.7	12.5
HCM Lane LOS	B	B	D	B	C	C	B	C	B
HCM 95th-tile Q	0	0.9	6.3	0.1	2.2	1.8	1	2.5	0.9

Timings
11: I-215 SB Ramps & Ramona Exwy.

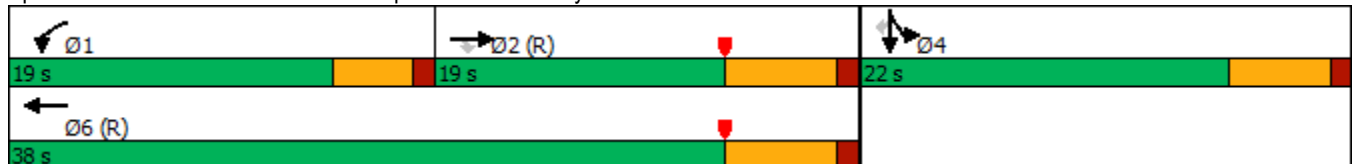


Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations	↑↑	↑	↵	↑↑	↵	↵	↵
Traffic Volume (vph)	893	327	401	869	812	5	173
Future Volume (vph)	893	327	401	869	812	5	173
Turn Type	NA	Perm	Prot	NA	Split	NA	Perm
Protected Phases	2		1	6	4	4	
Permitted Phases		2					4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	9.5	31.0	10.5	10.5	10.5
Total Split (s)	19.0	19.0	19.0	38.0	22.0	22.0	22.0
Total Split (%)	31.7%	31.7%	31.7%	63.3%	36.7%	36.7%	36.7%
Yellow Time (s)	5.0	5.0	3.5	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-2.0	-2.0	-0.5	-2.0	-1.5	-1.5	-1.5
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max	Max

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 19 (32%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated













Splits and Phases: 11: I-215 SB Ramps & Ramona Exwy.



HCM 6th Signalized Intersection Summary
 11: I-215 SB Ramps & Ramona Exwy.

Barker Logistics (JN 12216)

03/11/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑					↖	↗	↗
Traffic Volume (veh/h)	0	893	327	401	869	0	0	0	0	812	5	173
Future Volume (veh/h)	0	893	327	401	869	0	0	0	0	812	5	173
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	921	224	413	896	0				841	0	105
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	902	403	452	2046	0				1086	0	483
Arrive On Green	0.00	0.25	0.25	0.25	0.57	0.00				0.30	0.00	0.30
Sat Flow, veh/h	0	3705	1610	1810	3705	0				3619	0	1610
Grp Volume(v), veh/h	0	921	224	413	896	0				841	0	105
Grp Sat Flow(s),veh/h/ln	0	1805	1610	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	15.0	7.3	13.3	8.6	0.0				12.7	0.0	2.9
Cycle Q Clear(g_c), s	0.0	15.0	7.3	13.3	8.6	0.0				12.7	0.0	2.9
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	903	403	452	2046	0				1086	0	483
V/C Ratio(X)	0.00	1.02	0.56	0.91	0.44	0.00				0.77	0.00	0.22
Avail Cap(c_a), veh/h	0	903	403	452	2046	0				1086	0	483
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.83	0.83	0.73	0.73	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	22.5	19.6	21.9	7.5	0.0				19.2	0.0	15.7
Incr Delay (d2), s/veh	0.0	32.6	4.6	18.0	0.5	0.0				5.4	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	9.3	2.8	6.9	2.2	0.0				5.3	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	55.1	24.2	39.9	8.0	0.0				24.6	0.0	16.8
LnGrp LOS	A	F	C	D	A	A				C	A	B
Approach Vol, veh/h		1145			1309						946	
Approach Delay, s/veh		49.0			18.1						23.7	
Approach LOS		D			B						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	19.0	19.0		22.0		38.0						
Change Period (Y+Rc), s	4.5	6.0		5.5		6.0						
Max Green Setting (Gmax), s	14.5	13.0		16.5		32.0						
Max Q Clear Time (g_c+I1), s	15.3	17.0		14.7		10.6						
Green Ext Time (p_c), s	0.0	0.0		0.8		3.6						

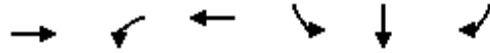
Intersection Summary

HCM 6th Ctrl Delay	30.1
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Timings
13: I-215 SB Ramps & Nuevo Rd.

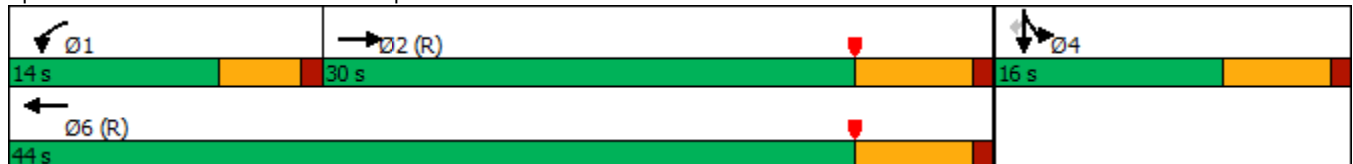


Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑	↑↑	↑	↑	↑
Traffic Volume (vph)	423	588	436	550	4	74
Future Volume (vph)	423	588	436	550	4	74
Turn Type	NA	Prot	NA	Split	NA	Perm
Protected Phases	2	1	6	4	4	
Permitted Phases						4
Detector Phase	2	1	6	4	4	4
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	28.2	9.6	28.2	15.8	15.8	15.8
Total Split (s)	30.0	14.0	44.0	16.0	16.0	16.0
Total Split (%)	50.0%	23.3%	73.3%	26.7%	26.7%	26.7%
Yellow Time (s)	5.2	3.6	5.2	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-2.2	-0.6	-2.2	-1.8	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes				
Recall Mode	C-Max	None	C-Max	Max	Max	Max

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 18.6 (31%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated

Splits and Phases: 13: I-215 SB Ramps & Nuevo Rd.



HCM 6th Signalized Intersection Summary
 13: I-215 SB Ramps & Nuevo Rd.

Barker Logistics (JN 12216)

03/11/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑↑	↑↑					↑	↑	↑
Traffic Volume (veh/h)	0	423	249	588	436	0	0	0	0	550	4	74
Future Volume (veh/h)	0	423	249	588	436	0	0	0	0	550	4	74
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	445	205	619	459	0				582	0	30
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1043	476	585	2407	0				724	0	322
Arrive On Green	0.00	0.43	0.40	0.06	0.22	0.00				0.20	0.00	0.20
Sat Flow, veh/h	0	2503	1100	3510	3705	0				3619	0	1610
Grp Volume(v), veh/h	0	333	317	619	459	0				582	0	30
Grp Sat Flow(s),veh/h/ln	0	1805	1702	1755	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	7.7	8.0	10.0	6.2	0.0				9.2	0.0	0.9
Cycle Q Clear(g_c), s	0.0	7.7	8.0	10.0	6.2	0.0				9.2	0.0	0.9
Prop In Lane	0.00		0.65	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	782	738	585	2407	0				724	0	322
V/C Ratio(X)	0.00	0.43	0.43	1.06	0.19	0.00				0.80	0.00	0.09
Avail Cap(c_a), veh/h	0	782	738	585	2407	0				724	0	322
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.84	0.84	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	11.8	12.4	28.3	10.2	0.0				22.9	0.0	19.6
Incr Delay (d2), s/veh	0.0	1.7	1.8	50.5	0.1	0.0				9.2	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.7	2.7	8.2	1.4	0.0				4.3	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	13.5	14.2	78.8	10.4	0.0				32.1	0.0	20.1
LnGrp LOS	A	B	B	F	B	A				C	A	C
Approach Vol, veh/h		650			1078						612	
Approach Delay, s/veh		13.9			49.7						31.5	
Approach LOS		B			D						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	14.0	30.0		16.0		44.0						
Change Period (Y+Rc), s	4.6	6.2		5.8		6.2						
Max Green Setting (Gmax), s	9.4	23.8		10.2		37.8						
Max Q Clear Time (g_c+I1), s	12.0	10.0		11.2		8.2						
Green Ext Time (p_c), s	0.0	3.0		0.0		2.8						

Intersection Summary

HCM 6th Ctrl Delay	35.0
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Timings
14: I-215 NB Ramps & Ramona Exwy.

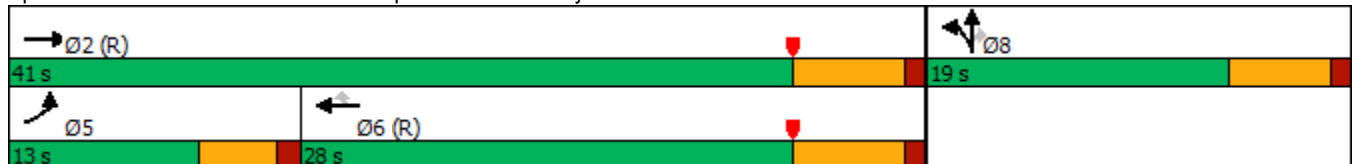


Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations	↶	↷	↷	↷	↶	↷	↷
Traffic Volume (vph)	259	1446	914	717	356	2	396
Future Volume (vph)	259	1446	914	717	356	2	396
Turn Type	Prot	NA	NA	Perm	Split	NA	Perm
Protected Phases	5	2	6		8	8	
Permitted Phases				6			8
Detector Phase	5	2	6	6	8	8	8
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	11.0	26.0	26.0	10.5	10.5	10.5
Total Split (s)	13.0	41.0	28.0	28.0	19.0	19.0	19.0
Total Split (%)	21.7%	68.3%	46.7%	46.7%	31.7%	31.7%	31.7%
Yellow Time (s)	3.5	5.0	5.0	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.5	-2.0	-2.0	-2.0	-1.5	-1.5	-1.5
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None

Intersection Summary




















Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 19 (32%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated

Splits and Phases: 14: I-215 NB Ramps & Ramona Exwy.



HCM 6th Signalized Intersection Summary
 14: I-215 NB Ramps & Ramona Exwy.

Barker Logistics (JN 12216)
 02/21/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	259	1446	0	0	914	717	356	2	396	0	0	0
Future Volume (veh/h)	259	1446	0	0	914	717	356	2	396	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	273	1522	0	0	962	579	376	0	291			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	271	2284	0	0	1502	670	847	0	377			
Arrive On Green	0.30	1.00	0.00	0.00	0.42	0.42	0.23	0.00	0.23			
Sat Flow, veh/h	1810	3705	0	0	3705	1610	3619	0	1610			
Grp Volume(v), veh/h	273	1522	0	0	962	579	376	0	291			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1610	1810	0	1610			
Q Serve(g_s), s	9.0	0.0	0.0	0.0	12.7	19.7	5.3	0.0	10.1			
Cycle Q Clear(g_c), s	9.0	0.0	0.0	0.0	12.7	19.7	5.3	0.0	10.1			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	271	2284	0	0	1502	670	847	0	377			
V/C Ratio(X)	1.01	0.67	0.00	0.00	0.64	0.86	0.44	0.00	0.77			
Avail Cap(c_a), veh/h	271	2284	0	0	1502	670	905	0	403			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.30	0.30	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	21.0	0.0	0.0	0.0	13.9	16.0	19.6	0.0	21.5			
Incr Delay (d2), s/veh	31.3	0.5	0.0	0.0	2.1	13.9	0.4	0.0	8.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.0	0.1	0.0	0.0	4.3	8.0	2.0	0.0	4.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.3	0.5	0.0	0.0	16.1	29.9	20.0	0.0	30.0			
LnGrp LOS	F	A	A	A	B	C	C	A	C			
Approach Vol, veh/h		1795			1541			667				
Approach Delay, s/veh		8.4			21.3			24.3				
Approach LOS		A			C			C				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		42.0			13.0	29.0		18.0				
Change Period (Y+Rc), s		6.0			4.5	6.0		5.5				
Max Green Setting (Gmax), s		35.0			8.5	22.0		13.5				
Max Q Clear Time (g_c+I1), s		2.0			11.0	21.7		12.1				
Green Ext Time (p_c), s		8.1			0.0	0.2		0.4				

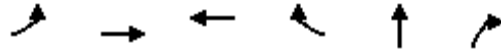
Intersection Summary

HCM 6th Ctrl Delay	16.0
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Timings
 16: I-215 NB Ramps & Nuevo Rd.

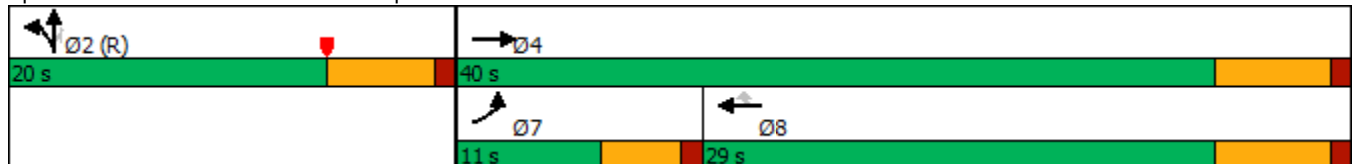


Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Configurations	↘	↑↑	↑↑↑	↗	↙	↗↗
Traffic Volume (vph)	52	922	906	412	1	332
Future Volume (vph)	52	922	906	412	1	332
Turn Type	Prot	NA	NA	Perm	NA	Perm
Protected Phases	7	4	8		2	
Permitted Phases				8		2
Detector Phase	7	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	28.2	28.2	28.2	15.8	15.8
Total Split (s)	11.0	40.0	29.0	29.0	20.0	20.0
Total Split (%)	18.3%	66.7%	48.3%	48.3%	33.3%	33.3%
Yellow Time (s)	3.6	5.2	5.2	5.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-2.2	-2.2	-2.2	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max

Intersection Summary



















Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 16 (27%), Referenced to phase 2:NBT and 6:, Start of Yellow
 Natural Cycle: 55
 Control Type: Actuated-Coordinated

Splits and Phases: 16: I-215 NB Ramps & Nuevo Rd.



HCM 6th Signalized Intersection Summary
 16: I-215 NB Ramps & Nuevo Rd.

Barker Logistics (JN 12216)
 02/21/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	922	0	0	906	412	117	1	332	0	0	0
Future Volume (veh/h)	52	922	0	0	906	412	117	1	332	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	65	1152	0	0	1132	383	146	1	1			
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	118	1774	0	0	1865	576	675	5	1064			
Arrive On Green	0.13	0.98	0.00	0.00	0.36	0.36	0.38	0.38	0.38			
Sat Flow, veh/h	1810	3705	0	0	5358	1601	1798	12	2834			
Grp Volume(v), veh/h	65	1152	0	0	1132	383	147	0	1			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1729	1601	1810	0	1417			
Q Serve(g_s), s	2.0	0.9	0.0	0.0	10.7	12.1	3.3	0.0	0.0			
Cycle Q Clear(g_c), s	2.0	0.9	0.0	0.0	10.7	12.1	3.3	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.99		1.00			
Lane Grp Cap(c), veh/h	118	1774	0	0	1865	576	679	0	1064			
V/C Ratio(X)	0.55	0.65	0.00	0.00	0.61	0.67	0.22	0.00	0.00			
Avail Cap(c_a), veh/h	211	2166	0	0	2161	667	679	0	1064			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.80	0.80	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	25.3	0.3	0.0	0.0	15.7	16.2	12.7	0.0	11.7			
Incr Delay (d2), s/veh	1.2	0.4	0.0	0.0	0.4	2.0	0.7	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.8	0.2	0.0	0.0	3.4	3.8	1.2	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.5	0.7	0.0	0.0	16.1	18.2	13.5	0.0	11.7			
LnGrp LOS	C	A	A	A	B	B	B	A	B			
Approach Vol, veh/h		1217			1515			148				
Approach Delay, s/veh		2.1			16.6			13.5				
Approach LOS		A			B			B				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		26.5		33.5			7.9	25.6				
Change Period (Y+Rc), s		5.8		6.2			4.6	6.2				
Max Green Setting (Gmax), s		14.2		33.8			6.4	22.8				
Max Q Clear Time (g_c+I1), s		5.3		2.9			4.0	14.1				
Green Ext Time (p_c), s		0.4		8.7			0.0	5.2				
Intersection Summary												
HCM 6th Ctrl Delay				10.3								
HCM 6th LOS				B								

APPENDIX 5.2:

E+P CONDITIONS TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P Conditions - Weekday PM Peak Hour**

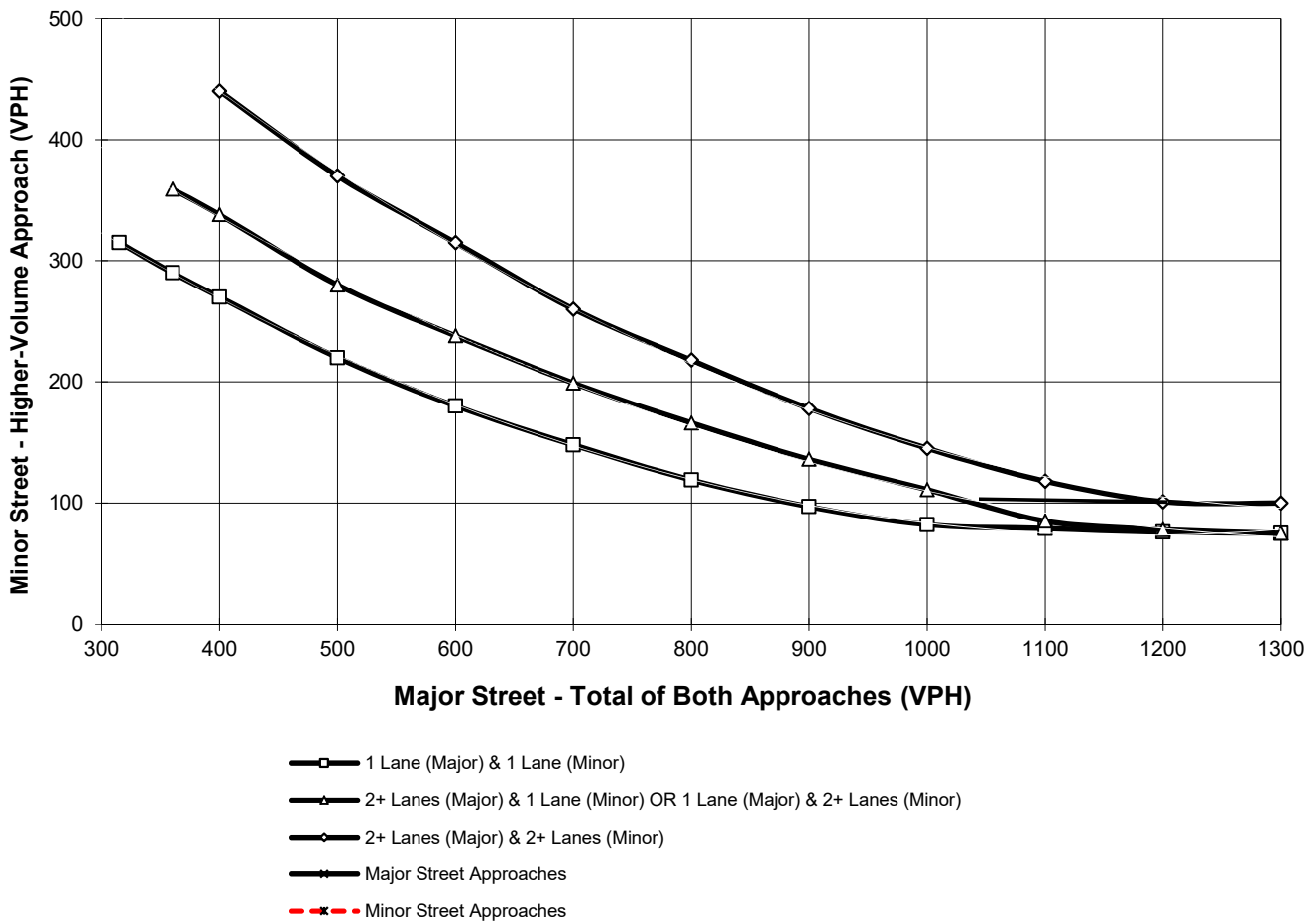
Major Street Name = **Rider Street**

Total of Both Approaches (VPH) = **132**
 Number of Approach Lanes Major Street = **1**

Minor Street Name = **Patterson Avenue**

High Volume Approach (VPH) = **27**
 Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P Conditions - Weekday PM Peak Hour**

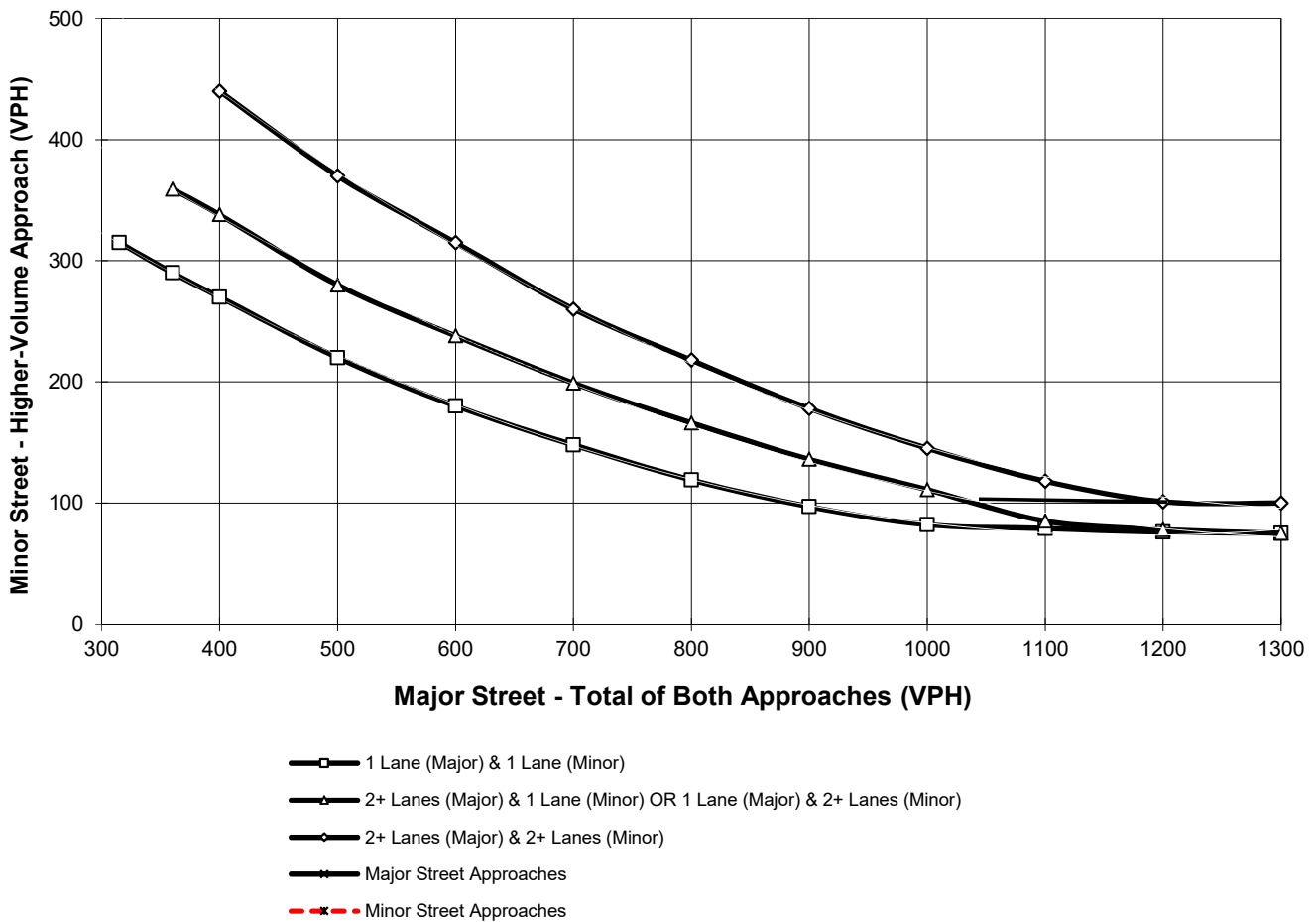
Major Street Name = **Patterson Avenue**

Total of Both Approaches (VPH) = **32**
 Number of Approach Lanes Major Street = **1**

Minor Street Name = **Walnut Street/Driveway 1**

High Volume Approach (VPH) = **27**
 Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P Conditions - Weekday PM Peak Hour**

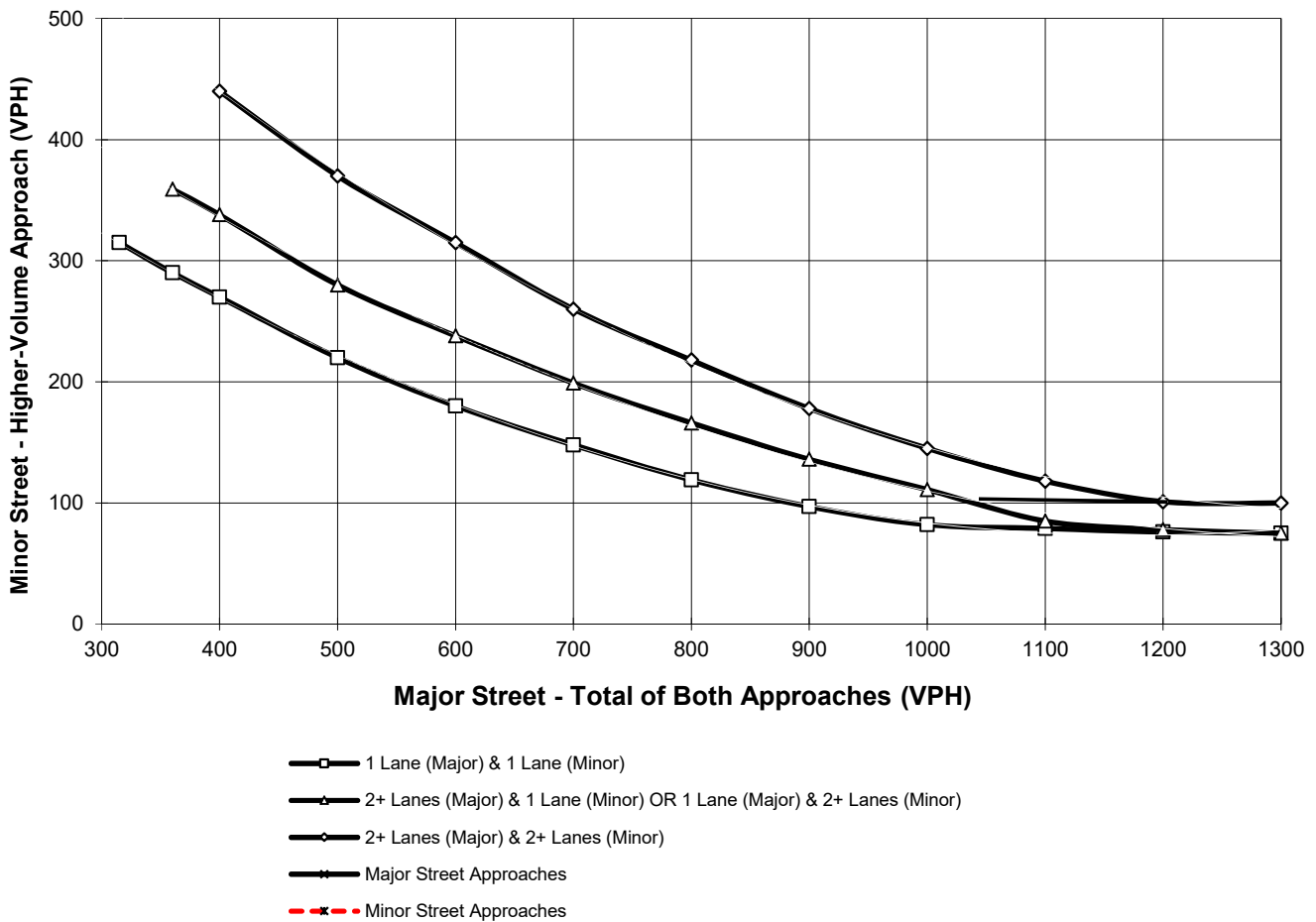
Major Street Name = **Placentia Street**

Total of Both Approaches (VPH) = **19**
 Number of Approach Lanes Major Street = **1**

Minor Street Name = **Patterson Avenue**

High Volume Approach (VPH) = **20**
 Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P Conditions - Weekday PM Peak Hour**

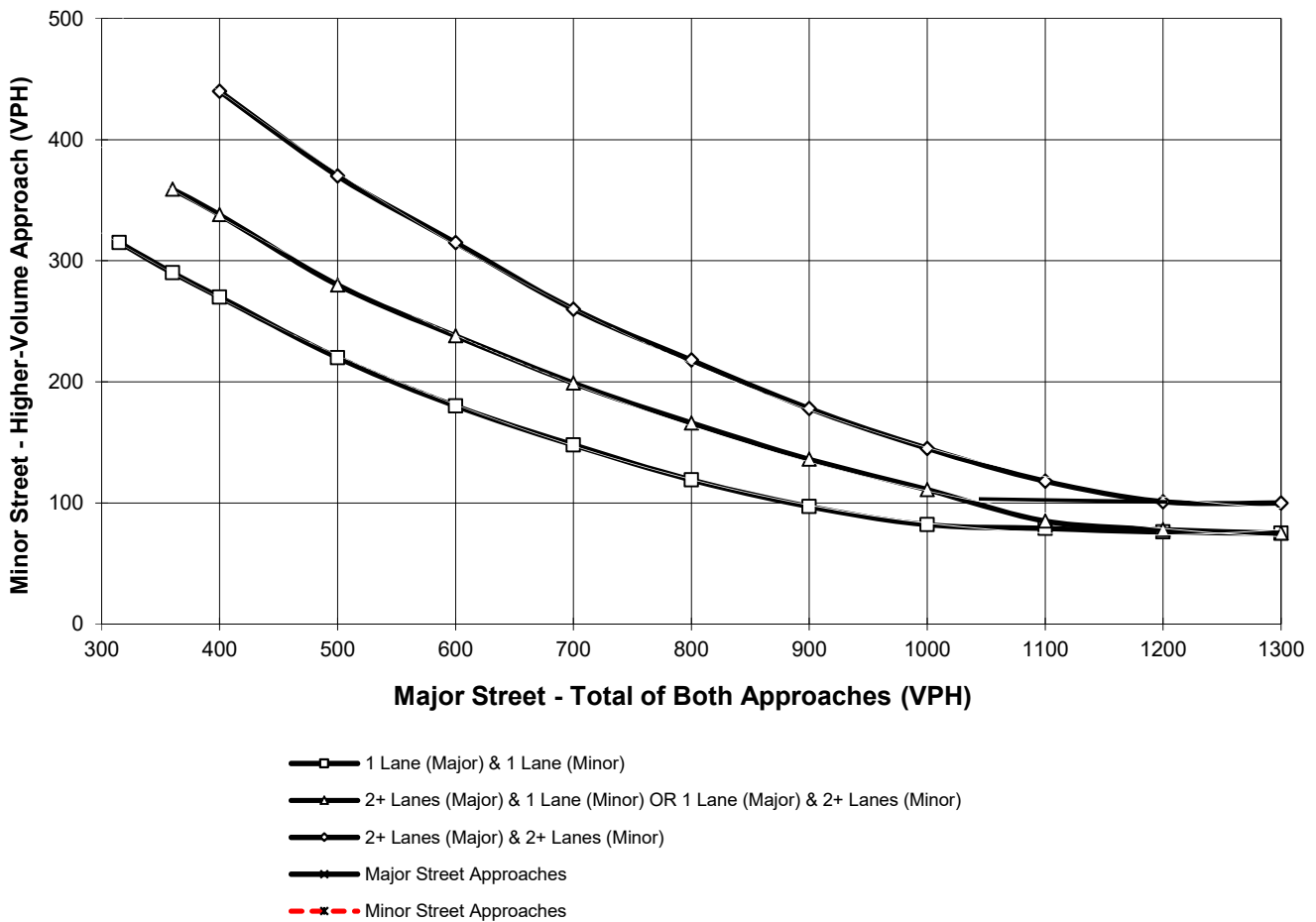
Major Street Name = **Placentia Street**

Total of Both Approaches (VPH) = **50**
 Number of Approach Lanes Major Street = **1**

Minor Street Name = **Driveway 2/Tobacco Road**

High Volume Approach (VPH) = **34**
 Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

<u>DIST</u>	<u>CO</u>	<u>RTE</u>	<u>PM</u>	CALC <u>LC</u>	TRAFFIC CONDITIONS	<u>E+P</u>	
Jurisdiction: <u>County of Riverside</u>				CHK <u>CH</u>		DATE <u>03/07/19</u>	
Major Street: <u>Placentia Street</u>					Critical Approach Speed (Major)	<u>45</u> mph	
Minor Street: <u>Driveway 3</u>					Critical Approach Speed (Minor)	<u>25</u> mph	
Major Street Approach Lanes =		<u>2</u>	lane	Minor Street Approach Lanes:		<u>1</u> lane	
Major Street Future ADT =		<u>1,579</u>	vpd	Minor Street Future ADT =		<u>440</u> vpd	
Speed limit or critical speed on major street traffic > 64 km/h (40 mph);						<input checked="" type="checkbox"/>	
						or	RURAL (R)
In built up area of isolated community of < 10,000 population						<input type="checkbox"/>	

(Based on Estimated Average Daily Traffic - See Note)

<u>URBAN</u>	<u>RURAL</u>	Minimum Requirements EADT			
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
<u>Satisfied</u>	<u>Not Satisfied</u>				
	XX				
Number of lanes for moving traffic on each approach					
<u>Major Street</u>	<u>Minor Street</u>	<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
1	1	8,000	5,600	2,400	1,680
2 + 1,579	1 440	9,600	6,720	2,400	1,680
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
<u>Satisfied</u>	<u>Not Satisfied</u>				
	XX				
Number of lanes for moving traffic on each approach					
<u>Major Street</u>	<u>Minor Street</u>	<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
1	1	12,000	8,400	1,200	850
2 + 1,579	1 440	14,400	10,080	1,200	850
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B		2 CONDITIONS 80%		2 CONDITIONS 80%	
<u>Satisfied</u>	<u>Not Satisfied</u>				
No one condition satisfied, but following conditions fulfilled 80% of more	XX				
	A				
	23%				
	B				
	16%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.



Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P Conditions - Weekday PM Peak Hour**

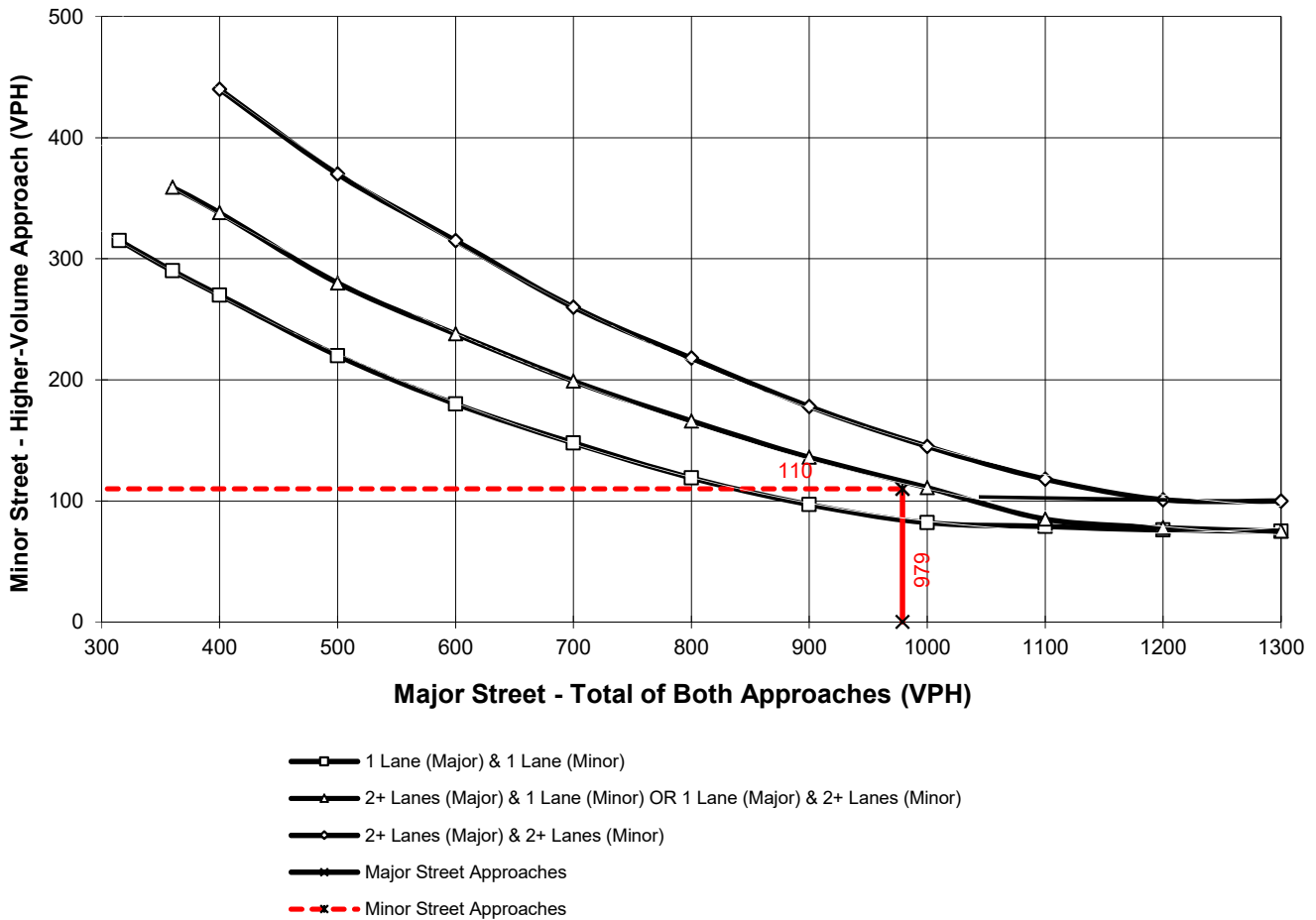
Major Street Name = **Harvill Avenue**

Total of Both Approaches (VPH) = **979**
 Number of Approach Lanes Major Street = **2**

Minor Street Name = **Rider Street**

High Volume Approach (VPH) = **110**
 Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane



Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **E+P Conditions - Weekday PM Peak Hour**

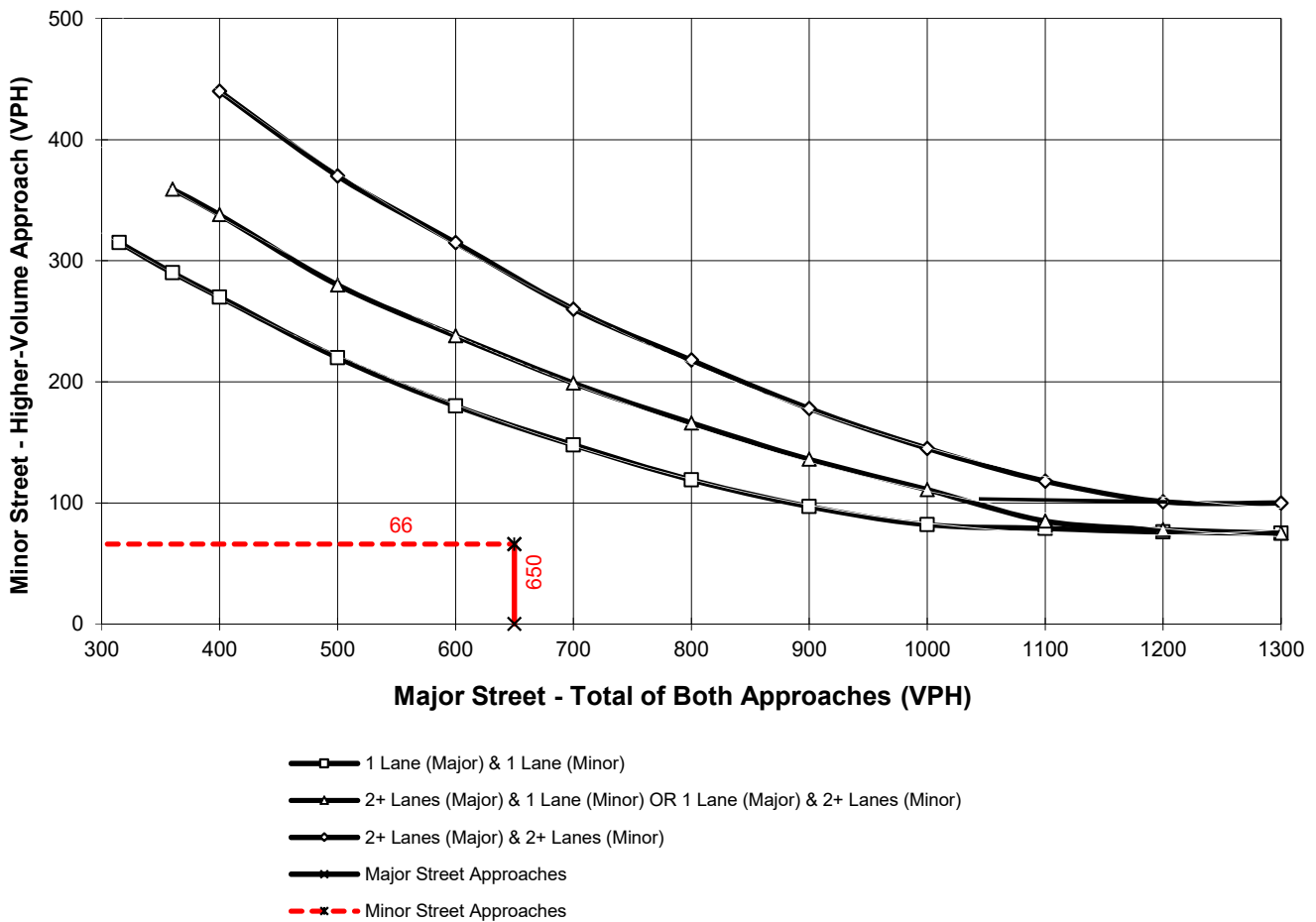
Major Street Name = **Harvill Avenue**

Total of Both Approaches (VPH) = **650**
 Number of Approach Lanes Major Street = **2**

Minor Street Name = **Orange Street**

High Volume Approach (VPH) = **66**
 Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



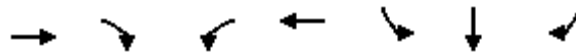
*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

APPENDIX 5.3:
E+P CONDITIONS QUEUING ANALYSIS WORKSHEETS

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Queues

11: I-215 SB Ramps & Ramona Exwy.



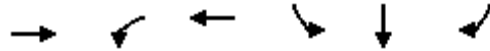
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	727	337	349	957	363	366	240
v/c Ratio	0.83	0.53	0.83	0.48	0.82	0.82	0.46
Control Delay	32.3	6.1	53.1	8.1	38.9	39.4	12.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.3	6.1	53.1	8.1	38.9	39.4	12.0
Queue Length 50th (ft)	133	0	145	80	129	130	30
Queue Length 95th (ft)	#222	55	m#214	132	#265	#267	83
Internal Link Dist (ft)	1278			472		973	
Turn Bay Length (ft)			100		510		510
Base Capacity (vph)	877	641	436	1985	443	444	518
Starvation Cap Reductn	0	0	0	0	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	0.83	0.53	0.80	0.48	0.82	0.82	0.46

Intersection Summary

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.



Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	754	426	1011	170	174	102
v/c Ratio	0.54	0.74	0.44	0.58	0.60	0.26
Control Delay	14.4	23.7	7.2	32.3	32.9	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.4	23.7	7.2	32.3	32.9	4.2
Queue Length 50th (ft)	95	80	158	60	62	0
Queue Length 95th (ft)	138	59	17	#116	#121	19
Internal Link Dist (ft)	1873		381		1001	
Turn Bay Length (ft)		115				300
Base Capacity (vph)	1399	607	2274	291	292	392
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	0.54	0.70	0.44	0.58	0.60	0.26

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Queues

14: I-215 NB Ramps & Ramona Exwy.



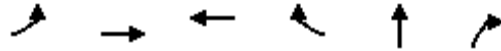
Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	202	1251	1028	985	142	139	426
v/c Ratio	0.89	0.59	0.73	0.92	0.38	0.37	0.94
Control Delay	56.6	13.5	19.2	20.5	23.7	23.5	48.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.6	13.5	19.2	20.5	23.7	23.5	48.4
Queue Length 50th (ft)	84	212	160	65	46	45	105
Queue Length 95th (ft)	m#109	m267	224	#373	93	91	#265
Internal Link Dist (ft)		472	1588			1153	
Turn Bay Length (ft)	105						500
Base Capacity (vph)	226	2137	1413	1074	371	372	456
Starvation Cap Reductn	0	0	0	0	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	0.89	0.59	0.73	0.92	0.38	0.37	0.93

Intersection Summary

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.



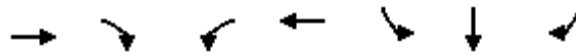
Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	43	830	1042	410	335	593
v/c Ratio	0.29	0.57	0.59	0.50	0.47	0.47
Control Delay	31.0	12.0	17.7	4.1	18.9	10.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.0	12.0	17.7	4.1	18.9	10.7
Queue Length 50th (ft)	16	108	104	0	82	45
Queue Length 95th (ft)	m30	142	142	48	#194	111
Internal Link Dist (ft)		381	941		975	
Turn Bay Length (ft)	105					
Base Capacity (vph)	150	1901	1910	853	720	1274
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	0.29	0.44	0.55	0.48	0.47	0.47

Intersection Summary

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.



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	921	337	413	896	418	424	178
v/c Ratio	1.02	0.51	0.92	0.44	0.81	0.82	0.31
Control Delay	60.8	5.8	62.8	8.7	34.9	35.6	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.8	5.8	62.8	8.7	34.9	35.6	7.0
Queue Length 50th (ft)	~181	0	172	94	145	148	11
Queue Length 95th (ft)	#297	54	#314	134	#289	#294	50
Internal Link Dist (ft)	1278			472		973	
Turn Bay Length (ft)			100		510		510
Base Capacity (vph)	902	656	451	2045	514	516	579
Starvation Cap Reductn	0	0	0	0	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	1.02	0.51	0.92	0.44	0.81	0.82	0.31

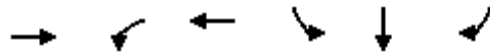
Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.



Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	707	619	459	289	294	78
v/c Ratio	0.44	1.06	0.19	0.84	0.85	0.18
Control Delay	8.3	73.4	2.4	48.0	49.5	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.3	73.4	2.4	48.0	49.5	2.1
Queue Length 50th (ft)	53	~49	0	106	108	0
Queue Length 95th (ft)	90	#200	1	#232	#236	9
Internal Link Dist (ft)	1873		381		1001	
Turn Bay Length (ft)		115				300
Base Capacity (vph)	1619	583	2406	343	344	436
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	0.44	1.06	0.19	0.84	0.85	0.18

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Queues

14: I-215 NB Ramps & Ramona Exwy.



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	273	1522	962	755	187	190	417
v/c Ratio	0.94	0.67	0.67	0.71	0.46	0.46	0.85
Control Delay	59.1	12.6	17.5	6.2	23.4	23.5	33.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.1	12.6	17.5	6.2	23.4	23.5	33.8
Queue Length 50th (ft)	109	237	143	12	60	61	95
Queue Length 95th (ft)	m#123	m266	202	85	114	115	#238
Internal Link Dist (ft)		472	1588			1153	
Turn Bay Length (ft)	105						500
Base Capacity (vph)	291	2268	1444	1066	428	430	505
Starvation Cap Reductn	0	0	0	0	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	0.94	0.67	0.67	0.71	0.44	0.44	0.83

Intersection Summary

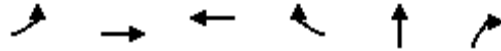
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

16: I-215 NB Ramps & Nuevo Rd.



Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	65	1153	1133	515	147	415
v/c Ratio	0.33	0.61	0.52	0.54	0.24	0.39
Control Delay	36.4	7.8	14.1	3.7	17.8	12.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.4	7.8	14.1	3.7	17.8	12.1
Queue Length 50th (ft)	25	85	106	0	42	44
Queue Length 95th (ft)	m41	101	121	28	73	68
Internal Link Dist (ft)		381	941		975	
Turn Bay Length (ft)	105					
Base Capacity (vph)	210	2166	2194	963	614	1063
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	0.31	0.53	0.52	0.53	0.24	0.39

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

APPENDIX 5.4:

E+P CONDITIONS FREEWAY FACILITY ANALYSIS WORKSHEETS

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HCS7 Freeway Facilities Report

Project Information

Analyst	RV	Date	2/22/2019
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Barker Logistics (JN 12216)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	9
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-215 SB North of Ramona	5175	3
2	Diverge	Diverge	SB Off-Ramp at Ramona	1500	3
3	Basic	Basic	Between Ramona On and Off Ramps	1525	3
4	Merge	Merge	SB On-Ramp at Ramona	1500	3
5	Basic	Basic	Ramona to Nuevo	13515	3
6	Diverge	Diverge	SB Off-Ramp at Nuevo	1500	3
7	Basic	Basic	Between Nuevo On and Off Ramps	1500	3
8	Merge	Basic	SB On-Ramp at Nuevo	1500	3
9	Basic	Basic	S of Nuevo	2045	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.952	3964	7161	0.55	68.6	19.3	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.952	0.870	3964	971	7200	2100	0.55	0.46	63.3	59.2	20.9	27.5	C

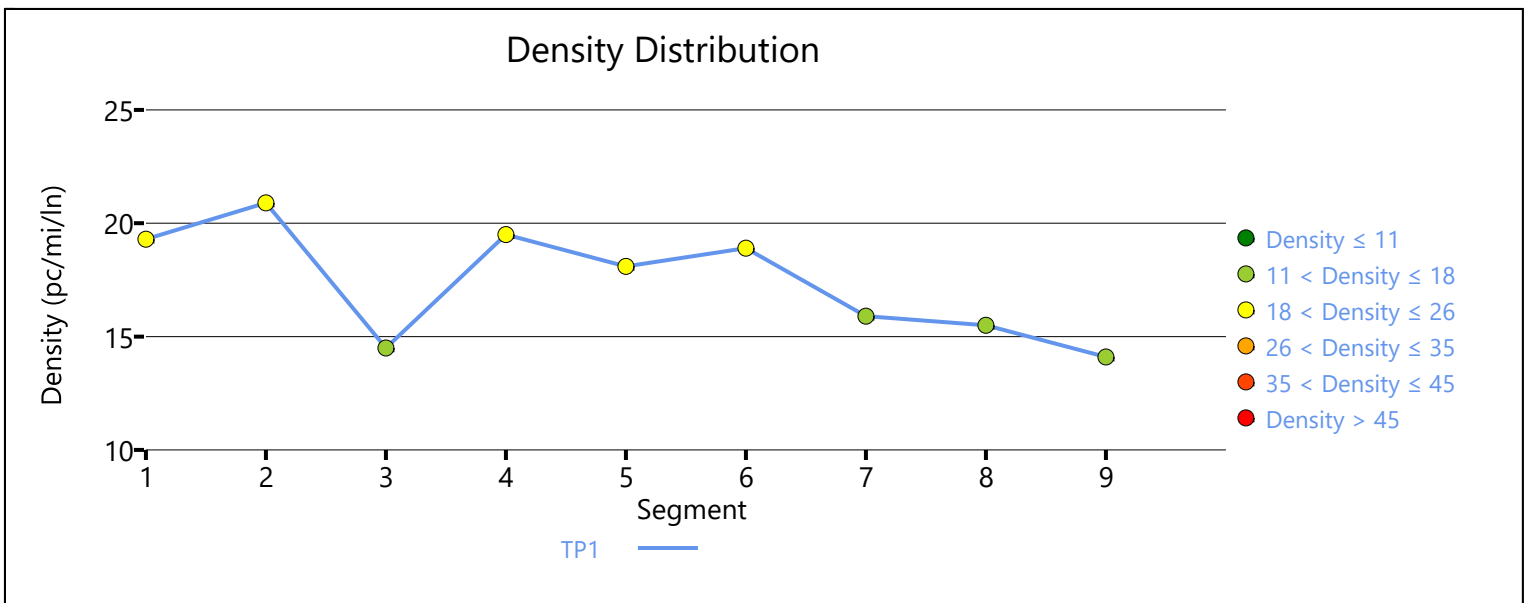
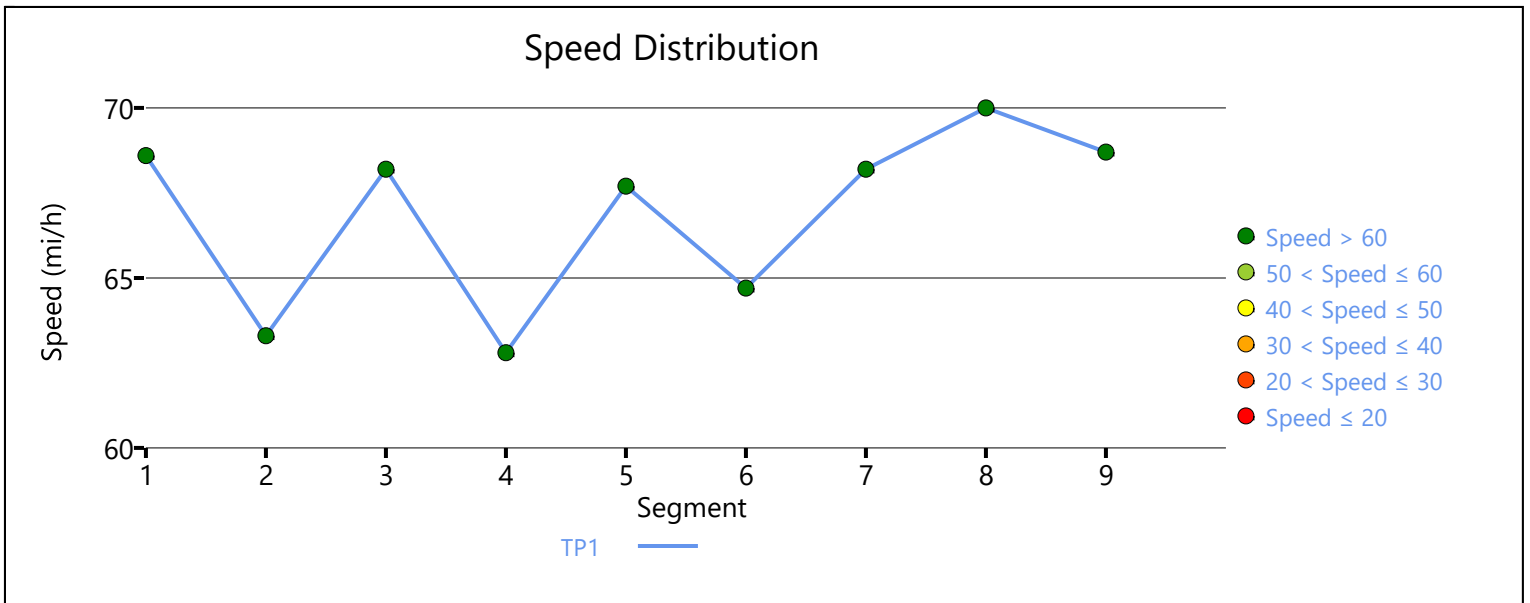
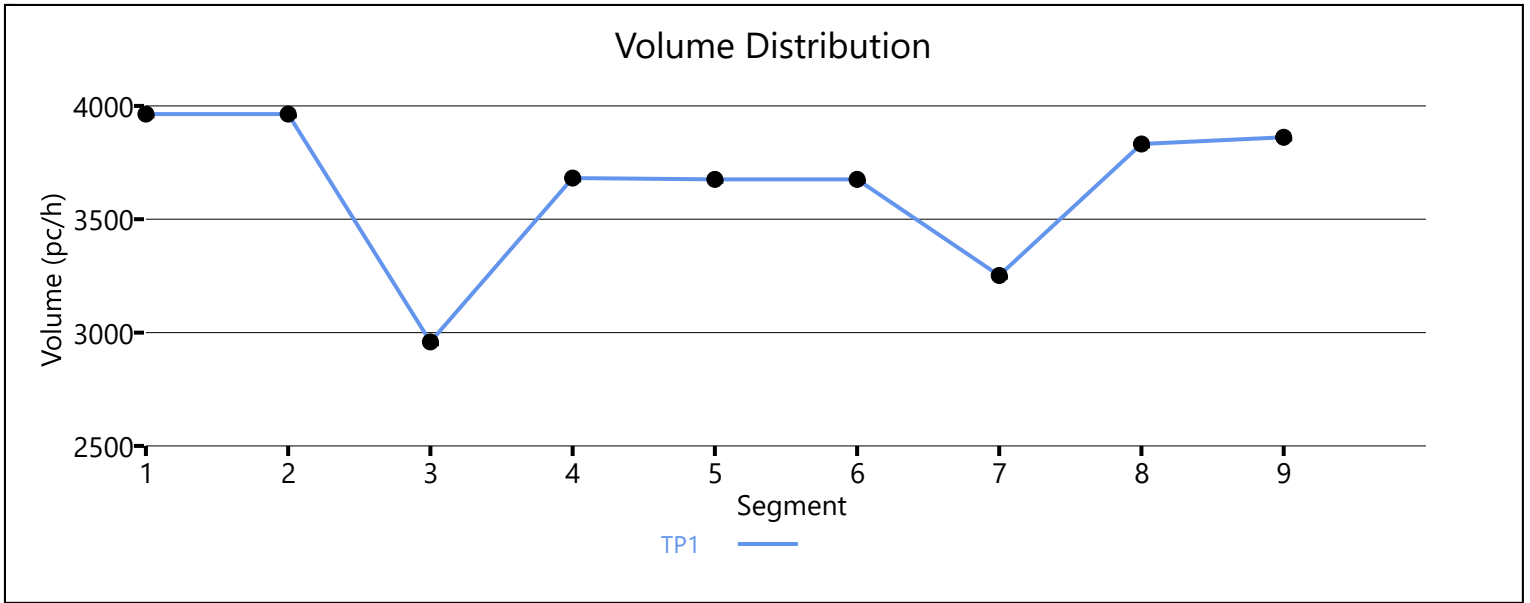
Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.990	2959	7146	0.41	68.2	14.5	B

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.885	3682	723	7200	2100	0.51	0.34	62.8	60.8	19.5	21.8	C

Segment 5: Basic																
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS	
1	0.92		0.971		3676		7131		0.52		67.7		18.1		C	
Segment 6: Diverge																
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS	
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp		
1	0.92	0.92	0.971	0.962	3676	428	7200	2100	0.51	0.20	64.7	60.6	18.9	25.0	C	
Segment 7: Basic																
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS	
1	0.92		0.971		3252		7146		0.46		68.2		15.9		B	
Segment 8: Merge																
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS	
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp		
1	0.92	0.92	0.971	0.962	3832	580	7200	2100	0.45	0.28	70.0	-	15.5	-	B	
Segment 9: Basic																
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS	
1	0.92		0.962		3862		9548		0.40		68.7		14.1		B	
Facility Time Period Results																
T	Speed, mi/h				Density, pc/mi/ln				Density, veh/mi/ln				Travel Time, min		LOS	
1	67.4				17.8				17.2				5.0		B	
Facility Overall Results																
Space Mean Speed, mi/h					67.4					Density, veh/mi/ln					17.2	
Average Travel Time, min					5.0					Density, pc/mi/ln					17.8	



HCS7 Freeway Facilities Report

Project Information

Analyst	RV	Date	2/22/2019
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Barker Logistics (JN 12216)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	9
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-215 NB S of Nuevo	1675	4
2	Diverge	Basic	NB Nuevo Off-Ramp	1500	4
3	Basic	Basic	Between Nuevo On and Off Ramps	1400	3
4	Merge	Merge	NB Nuevo On-Ramp	1500	3
5	Basic	Basic	Between Nuevo and Ramona	13735	3
6	Diverge	Diverge	NB Ramona Off-Ramp	1500	3
7	Basic	Basic	Between Ramona On and Off Ramps	1315	3
8	Merge	Merge	NB Ramona On-Ramp	1500	3
9	Basic	Basic	I-215 NB N of Ramona	5000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.943		5545		8800		0.63		43.7		31.7		D

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.943	0.980	5545	934	8800	2100	0.63	0.44	45.0	-	30.8	-	D

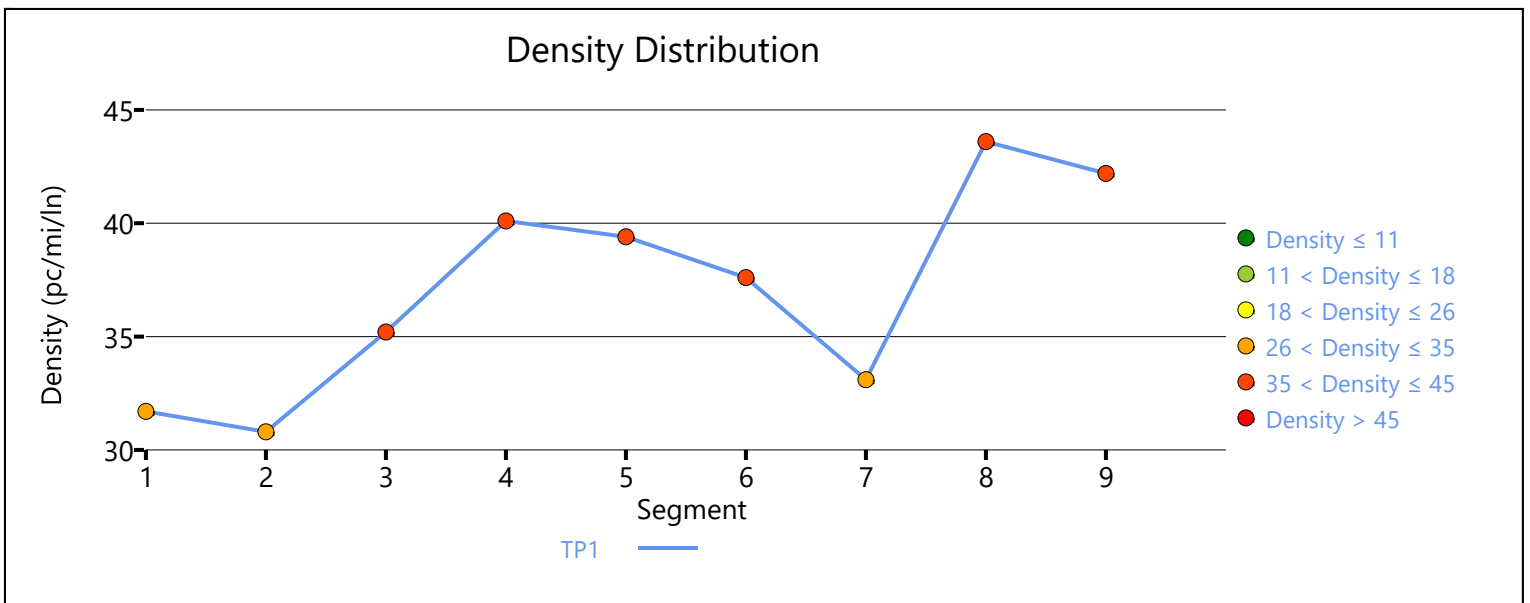
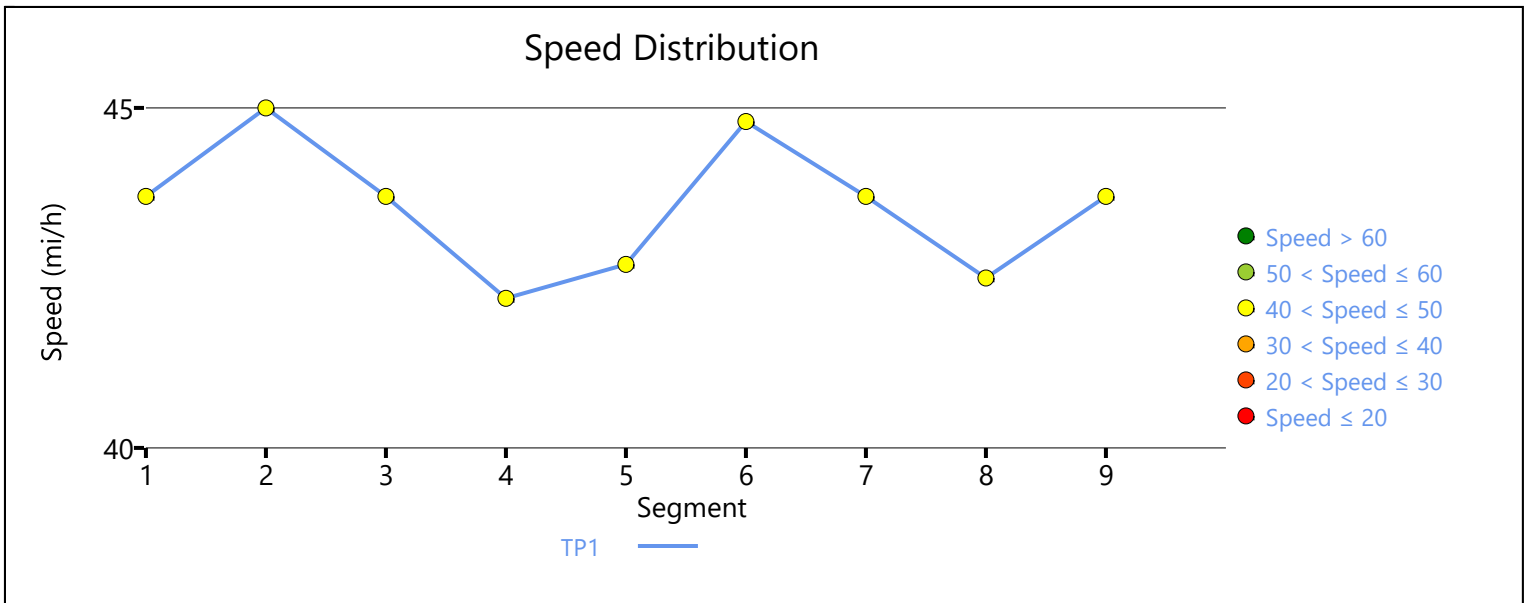
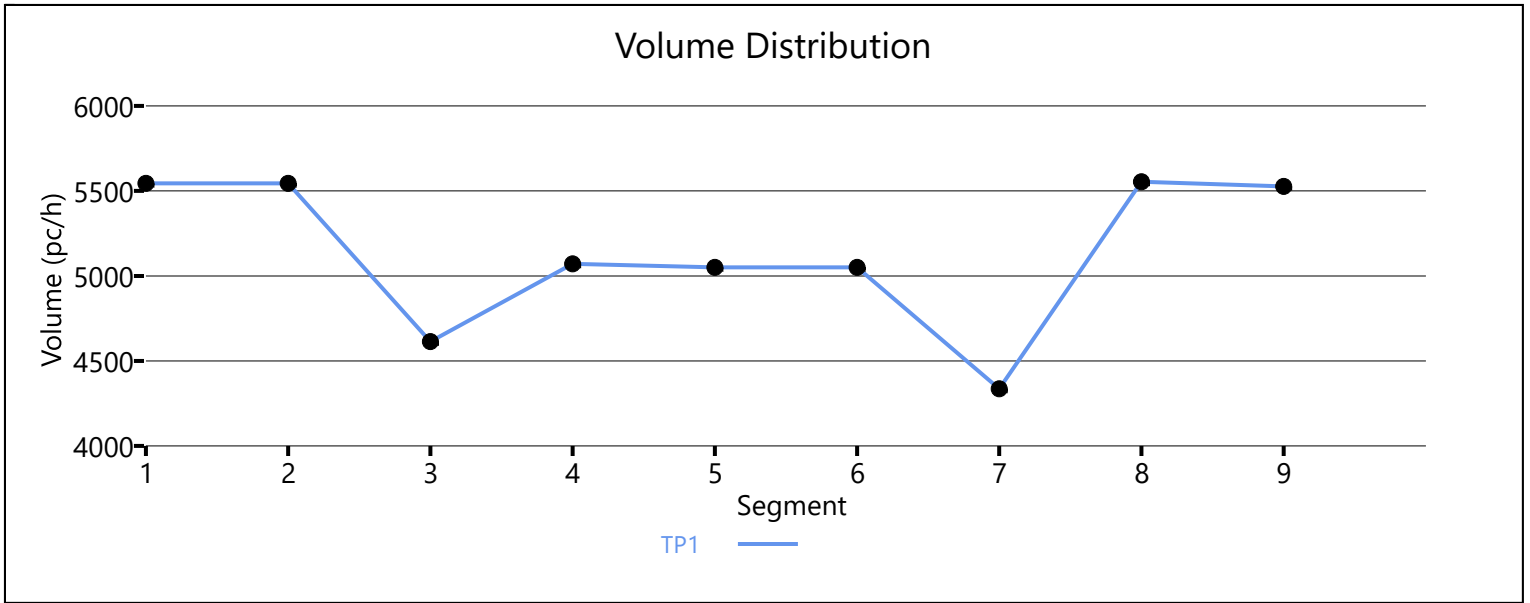
Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.935		4614		6600		0.70		43.7		35.2		E

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.935	0.980	5071	457	6750	2100	0.75	0.22	42.2	43.8	40.1	28.1	D

Segment 5: Basic																
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS	
1	0.92		0.943		5050		6600		0.77		42.7		39.4		E	
Segment 6: Diverge																
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS	
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp		
1	0.92	0.92	0.943	0.901	5050	747	6750	2100	0.75	0.36	44.8	43.9	37.6	31.6	D	
Segment 7: Basic																
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS	
1	0.92		0.943		4336		6600		0.66		43.7		33.1		D	
Segment 8: Merge																
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS	
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp		
1	0.92	0.92	0.943	0.885	5554	1218	6750	2100	0.82	0.58	42.5	43.6	43.6	31.8	D	
Segment 9: Basic																
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS	
1	0.92		0.935		5527		6600		0.84		43.7		42.2		E	
Facility Time Period Results																
T	Speed, mi/h				Density, pc/mi/ln				Density, veh/mi/ln				Travel Time, min		LOS	
1	43.2				38.4				36.2				7.7		E	
Facility Overall Results																
Space Mean Speed, mi/h					43.2				Density, veh/mi/ln				36.2			
Average Travel Time, min					7.7				Density, pc/mi/ln				38.4			



HCS7 Freeway Facilities Report

Project Information

Analyst	RV	Date	2/22/2019
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Barker Logistics (JN 12216)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	9
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-215 SB North of Ramona	5175	3
2	Diverge	Diverge	SB Off-Ramp at Ramona	1500	3
3	Basic	Basic	Between Ramona On and Off Ramps	1525	3
4	Merge	Merge	SB On-Ramp at Ramona	1500	3
5	Basic	Basic	Ramona to Nuevo	13515	3
6	Diverge	Diverge	SB Off-Ramp at Nuevo	1500	3
7	Basic	Basic	Between Nuevo On and Off Ramps	1500	3
8	Merge	Basic	SB On-Ramp at Nuevo	1500	3
9	Basic	Basic	S of Nuevo	2045	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	5437	7161	0.76	64.9	27.9	D

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.926	5437	1026	7200	2100	0.76	0.49	63.3	59.1	28.6	34.0	D

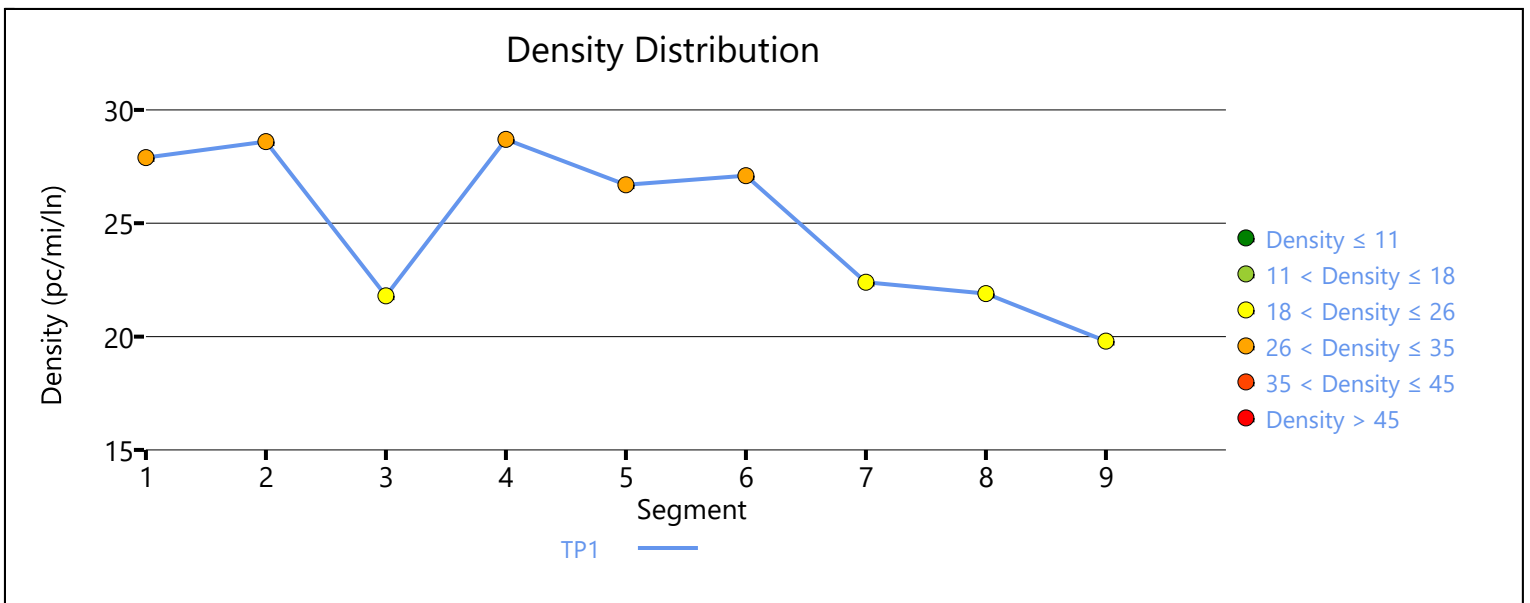
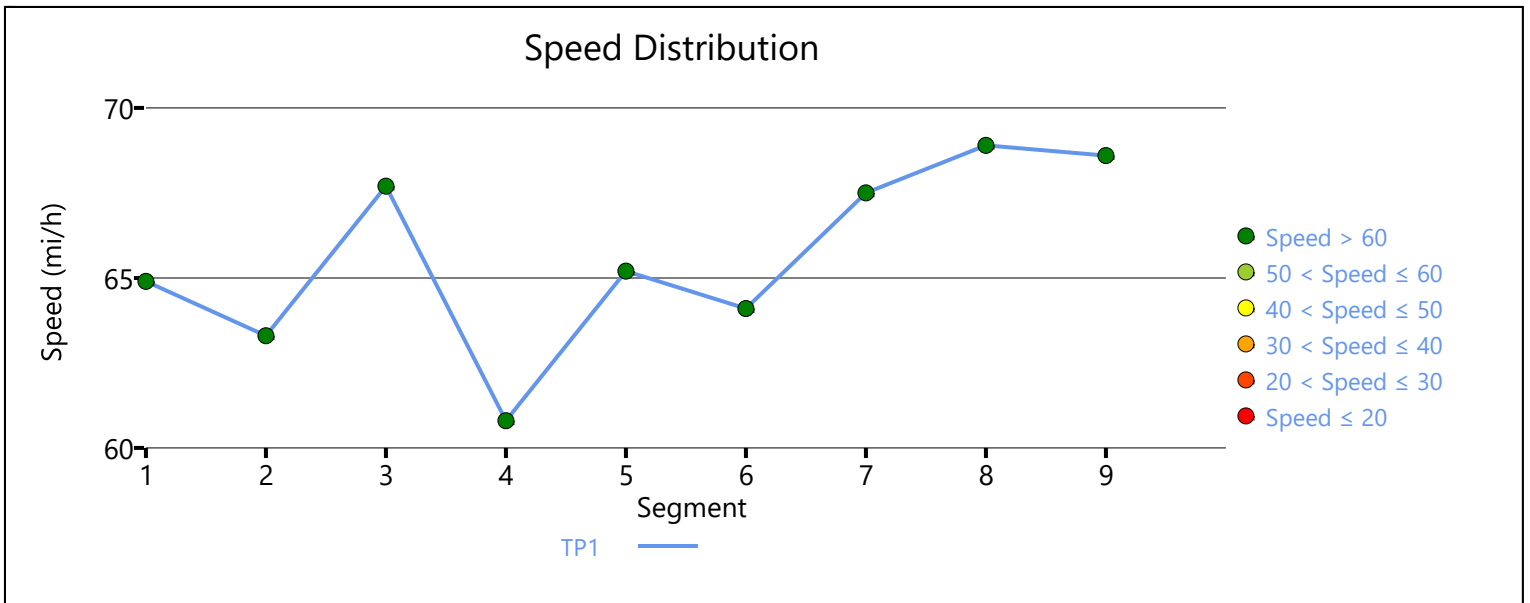
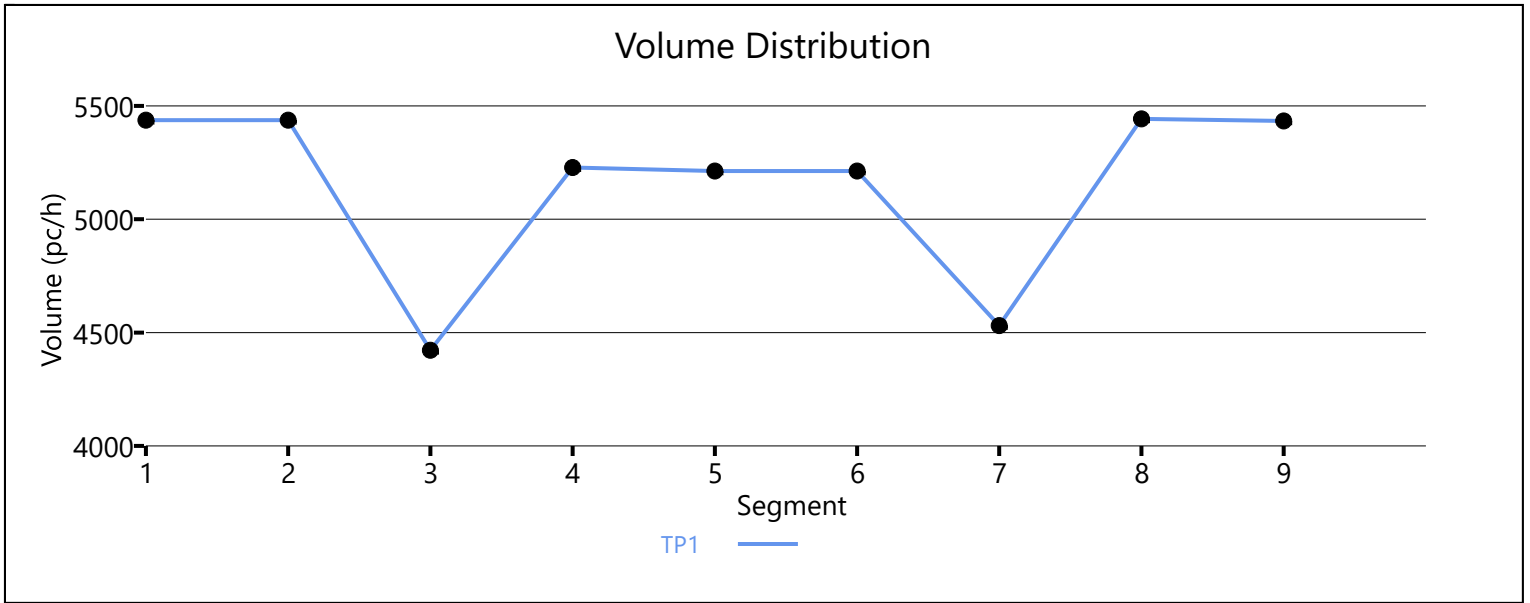
Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.990	4422	7146	0.62	67.7	21.8	C

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.971	5228	806	7200	2100	0.73	0.38	60.8	58.7	28.7	29.2	D

Segment 5: Basic																
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS	
1	0.92		0.990		5213		7131		0.73		65.2		26.7		D	
Segment 6: Diverge																
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS	
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp		
1	0.92	0.92	0.990	0.990	5213	682	7200	2100	0.72	0.32	64.1	59.9	27.1	32.4	D	
Segment 7: Basic																
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS	
1	0.92		0.990		4531		7146		0.63		67.5		22.4		C	
Segment 8: Merge																
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS	
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp		
1	0.92	0.92	0.990	0.980	5443	912	7200	2100	0.63	0.43	68.9	-	21.9	-	C	
Segment 9: Basic																
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS	
1	0.92		0.990		5434		9548		0.57		68.6		19.8		C	
Facility Time Period Results																
T	Speed, mi/h				Density, pc/mi/ln				Density, veh/mi/ln				Travel Time, min		LOS	
1	65.4				25.8				25.5				5.2		C	
Facility Overall Results																
Space Mean Speed, mi/h					65.4				Density, veh/mi/ln				25.5			
Average Travel Time, min					5.2				Density, pc/mi/ln				25.8			



HCS7 Freeway Facilities Report

Project Information

Analyst	RV	Date	2/22/2019
Agency	Urban Crossroads, Inc.	Analysis Year	E+P
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Barker Logistics (JN 12216)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	9
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-215 NB S of Nuevo	1675	4
2	Diverge	Basic	NB Nuevo Off-Ramp	1500	4
3	Basic	Basic	Between Nuevo On and Off Ramps	1400	3
4	Merge	Merge	NB Nuevo On-Ramp	1500	3
5	Basic	Basic	Between Nuevo and Ramona	13735	3
6	Diverge	Diverge	NB Ramona Off-Ramp	1500	3
7	Basic	Basic	Between Ramona On and Off Ramps	1315	3
8	Merge	Merge	NB Ramona On-Ramp	1500	3
9	Basic	Basic	I-215 NB N of Ramona	5000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	4316	9548	0.45	68.7	15.7	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.980	4316	490	9600	2100	0.45	0.23	70.0	-	15.4	-	B

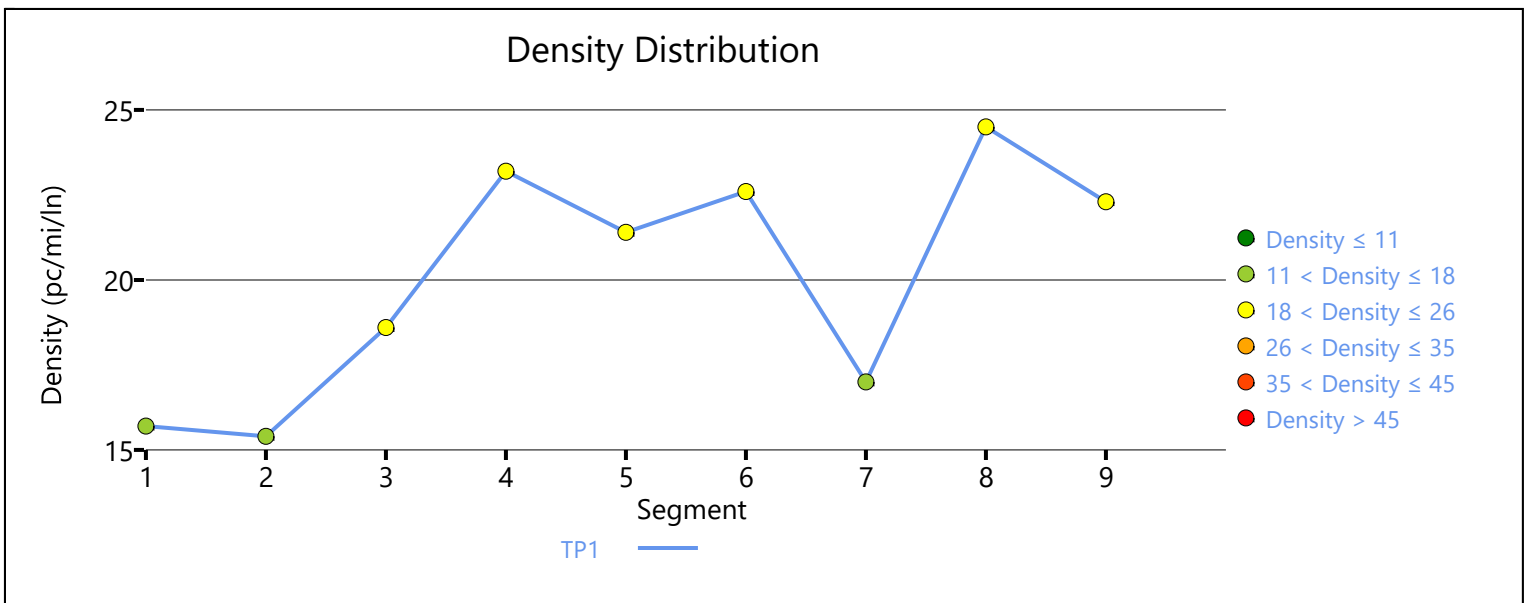
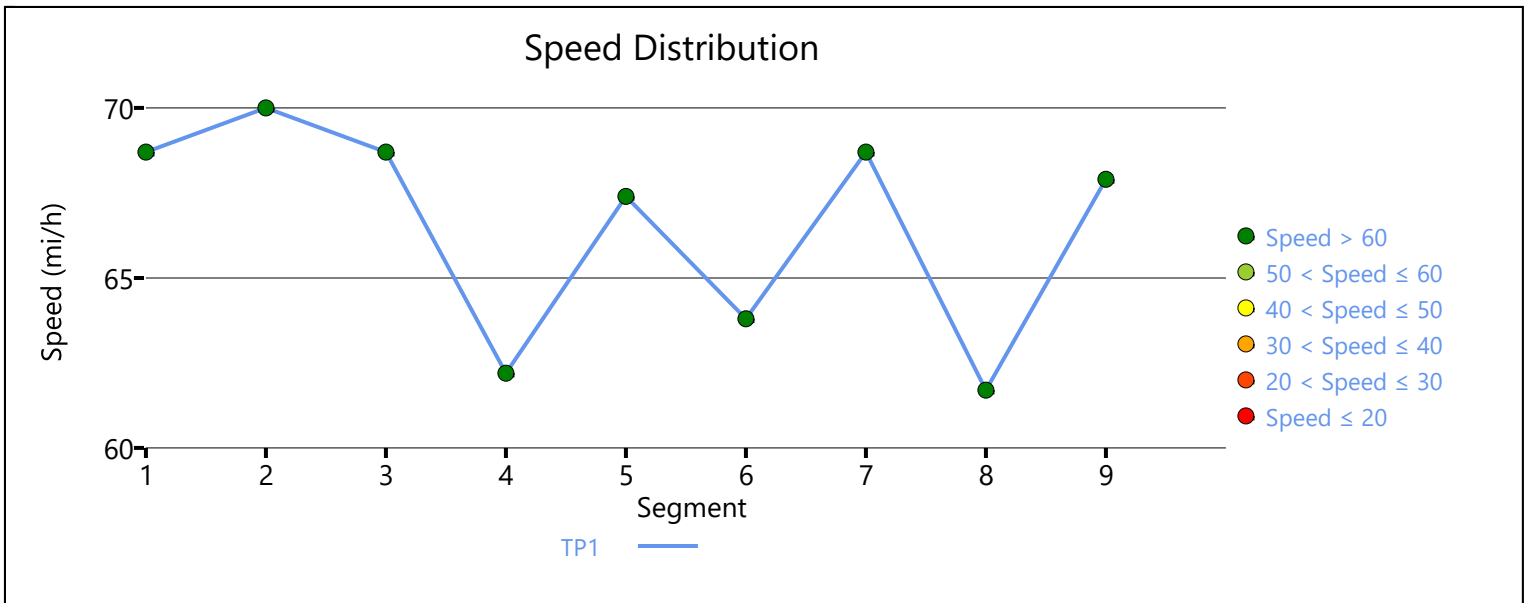
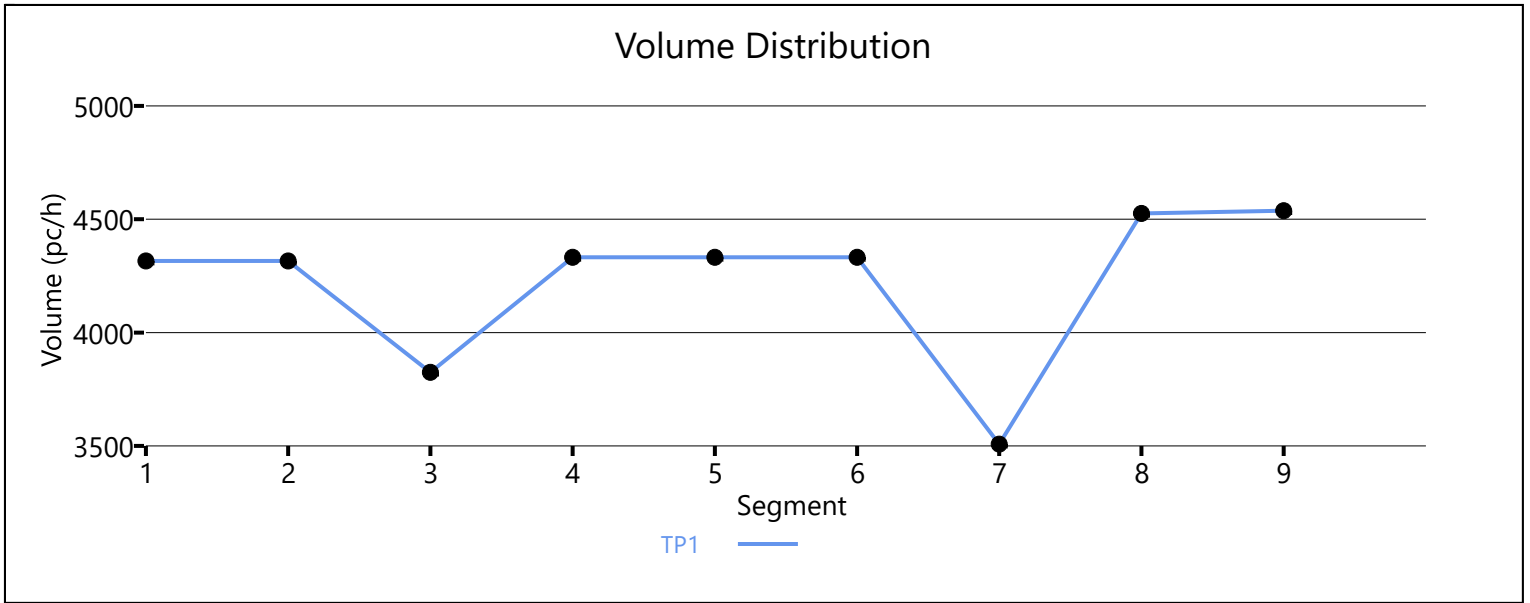
Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	3825	7161	0.53	68.7	18.6	C

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.980	4332	507	7200	2100	0.60	0.24	62.2	60.1	23.2	24.9	C

Segment 5: Basic																
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS	
1	0.92		0.980		4332		7131		0.61		67.4		21.4		C	
Segment 6: Diverge																
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS	
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp		
1	0.92	0.92	0.980	0.943	4332	820	7200	2100	0.60	0.39	63.8	59.6	22.6	28.6	D	
Segment 7: Basic																
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS	
1	0.92		0.990		3508		7161		0.49		68.7		17.0		B	
Segment 8: Merge																
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS	
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp		
1	0.92	0.92	0.990	0.917	4526	1018	7200	2100	0.63	0.48	61.7	59.7	24.5	26.5	C	
Segment 9: Basic																
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS	
1	0.92		0.971		4538		7161		0.63		67.9		22.3		C	
Facility Time Period Results																
T	Speed, mi/h				Density, pc/mi/ln				Density, veh/mi/ln				Travel Time, min		LOS	
1	67.0				20.7				20.3				4.9		C	
Facility Overall Results																
Space Mean Speed, mi/h					67.0				Density, veh/mi/ln				20.3			
Average Travel Time, min					4.9				Density, pc/mi/ln				20.7			



APPENDIX 5.5:

**E+P CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH
IMPROVEMENTS**

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Timings
10: Nuevo Rd./Harvill Av. & Driveway/N A St.

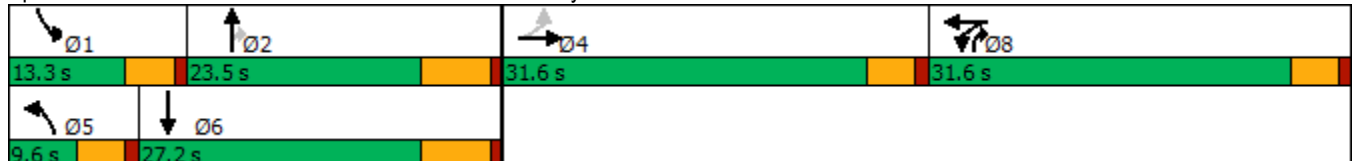


Lane Group	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↕	↗	↕	↗	↕	↗	↗	↕
Traffic Volume (vph)	4	523	0	4	258	582	125	135
Future Volume (vph)	4	523	0	4	258	582	125	135
Turn Type	NA	Split	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	4	8	8	5	2	8	1	6
Permitted Phases						2		
Detector Phase	4	8	8	5	2	8	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	31.6	9.6	23.2	31.6	9.6	23.2
Total Split (s)	31.6	31.6	31.6	9.6	23.5	31.6	13.3	27.2
Total Split (%)	31.6%	31.6%	31.6%	9.6%	23.5%	31.6%	13.3%	27.2%
Yellow Time (s)	3.6	3.6	3.6	3.6	5.2	3.6	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6	6.2	4.6	4.6	6.2
Lead/Lag				Lead	Lag		Lead	Lag
Lead-Lag Optimize?				Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	Min	None	None	Min

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 67.8
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated

Splits and Phases: 10: Nuevo Rd./Harvill Av. & Driveway/N A St.



HCM 6th Signalized Intersection Summary
 10: Nuevo Rd./Harvill Av. & Driveway/N A St.

Barker Logistics (JN 12216)

03/11/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↗	↕		↖	↕	↖	↗	↕	↗
Traffic Volume (veh/h)	0	4	1	523	0	220	4	258	582	125	135	3
Future Volume (veh/h)	0	4	1	523	0	220	4	258	582	125	135	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	4	1	412	236	244	4	287	647	139	150	3
Peak Hour Factor	0.92	0.92	0.92	0.90	0.92	0.90	0.92	0.90	0.90	0.90	0.90	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	19	5	598	283	292	10	936	949	176	1272	25
Arrive On Green	0.00	0.01	0.01	0.33	0.33	0.33	0.01	0.26	0.26	0.10	0.35	0.35
Sat Flow, veh/h	0	1467	367	1810	856	885	1810	3610	1610	1810	3620	72
Grp Volume(v), veh/h	0	0	5	412	0	480	4	287	647	139	75	78
Grp Sat Flow(s),veh/h/ln	0	0	1834	1810	0	1741	1810	1805	1610	1810	1805	1887
Q Serve(g_s), s	0.0	0.0	0.2	13.2	0.0	17.0	0.1	4.3	17.3	5.0	1.9	1.9
Cycle Q Clear(g_c), s	0.0	0.0	0.2	13.2	0.0	17.0	0.1	4.3	17.3	5.0	1.9	1.9
Prop In Lane	0.00		0.20	1.00		0.51	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	0	0	24	598	0	575	10	936	949	176	634	663
V/C Ratio(X)	0.00	0.00	0.21	0.69	0.00	0.83	0.41	0.31	0.68	0.79	0.12	0.12
Avail Cap(c_a), veh/h	0	0	742	732	0	704	136	936	949	236	634	663
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	32.6	19.4	0.0	20.7	33.1	19.9	9.2	29.4	14.6	14.6
Incr Delay (d2), s/veh	0.0	0.0	4.1	2.1	0.0	7.2	10.1	0.2	2.0	8.5	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.1	5.5	0.0	7.6	0.1	1.6	10.0	2.4	0.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	36.7	21.4	0.0	27.9	43.2	20.1	11.2	38.0	14.7	14.7
LnGrp LOS	A	A	D	C	A	C	D	C	B	D	B	B
Approach Vol, veh/h		5			892			938				292
Approach Delay, s/veh		36.7			24.9			14.0				25.8
Approach LOS		D			C			B				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.1	23.5		5.5	5.0	29.6		26.6				
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		4.6				
Max Green Setting (Gmax), s	8.7	17.3		27.0	5.0	21.0		27.0				
Max Q Clear Time (g_c+I1), s	7.0	19.3		2.2	2.1	3.9		19.0				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	0.6		3.0				

Intersection Summary

HCM 6th Ctrl Delay	20.3
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Timings
10: Nuevo Rd./Harvill Av. & Driveway/N A St.

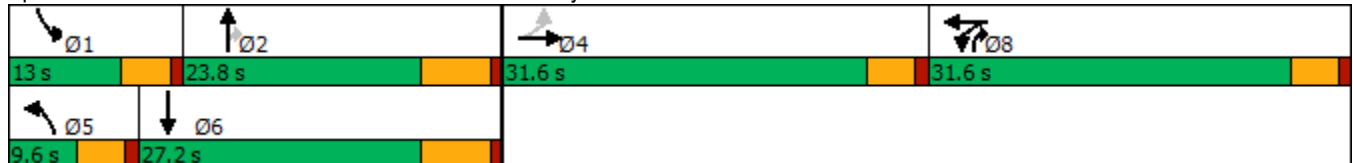


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations		↕	↗	↕	↗	↕	↗	↗	↕
Traffic Volume (vph)	2	0	290	0	1	166	320	112	327
Future Volume (vph)	2	0	290	0	1	166	320	112	327
Turn Type	Perm	NA	Split	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases		4	8	8	5	2	8	1	6
Permitted Phases	4						2		
Detector Phase	4	4	8	8	5	2	8	1	6
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	31.6	31.6	9.6	23.2	31.6	9.6	23.2
Total Split (s)	31.6	31.6	31.6	31.6	9.6	23.8	31.6	13.0	27.2
Total Split (%)	31.6%	31.6%	31.6%	31.6%	9.6%	23.8%	31.6%	13.0%	27.2%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	5.2	3.6	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6	4.6	4.6	4.6	6.2	4.6	4.6	6.2
Lead/Lag					Lead	Lag		Lead	Lag
Lead-Lag Optimize?					Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	None	Min

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 56.1
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated

Splits and Phases: 10: Nuevo Rd./Harvill Av. & Driveway/N A St.



HCM 6th Signalized Intersection Summary
 10: Nuevo Rd./Harvill Av. & Driveway/N A St.

Barker Logistics (JN 12216)
 03/11/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↗	↕		↗	↕	↗	↗	↕	↕
Traffic Volume (veh/h)	2	0	5	290	0	76	1	166	320	112	327	1
Future Volume (veh/h)	2	0	5	290	0	76	1	166	320	112	327	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	2	0	5	192	157	80	1	175	337	118	344	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	9	0	22	403	264	135	4	812	720	156	1143	3
Arrive On Green	0.02	0.00	0.02	0.22	0.22	0.22	0.00	0.23	0.23	0.09	0.31	0.31
Sat Flow, veh/h	475	0	1187	1810	1187	605	1810	3610	1607	1810	3692	11
Grp Volume(v), veh/h	7	0	0	192	0	237	1	175	337	118	168	177
Grp Sat Flow(s),veh/h/ln	1663	0	0	1810	0	1791	1810	1805	1607	1810	1805	1898
Q Serve(g_s), s	0.2	0.0	0.0	4.1	0.0	5.3	0.0	1.8	6.6	2.8	3.2	3.2
Cycle Q Clear(g_c), s	0.2	0.0	0.0	4.1	0.0	5.3	0.0	1.8	6.6	2.8	3.2	3.2
Prop In Lane	0.29		0.71	1.00		0.34	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	31	0	0	403	0	399	4	812	720	156	559	588
V/C Ratio(X)	0.23	0.00	0.00	0.48	0.00	0.59	0.25	0.22	0.47	0.76	0.30	0.30
Avail Cap(c_a), veh/h	1005	0	0	1093	0	1082	202	1422	991	340	848	892
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.6	0.0	0.0	15.1	0.0	15.6	22.3	14.1	8.6	20.0	11.7	11.7
Incr Delay (d2), s/veh	3.6	0.0	0.0	0.9	0.0	1.4	11.3	0.1	0.5	2.8	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	1.6	0.0	2.1	0.0	0.6	2.6	1.1	0.9	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.2	0.0	0.0	16.0	0.0	17.0	33.6	14.2	9.1	22.8	12.0	12.0
LnGrp LOS	C	A	A	B	A	B	C	B	A	C	B	B
Approach Vol, veh/h		7			429			513			463	
Approach Delay, s/veh		25.2			16.5			10.9			14.8	
Approach LOS		C			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.4	16.3		5.4	4.7	20.0		14.6				
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		4.6				
Max Green Setting (Gmax), s	8.4	17.6		27.0	5.0	21.0		27.0				
Max Q Clear Time (g_c+I1), s	4.8	8.6		2.2	2.0	5.2		7.3				
Green Ext Time (p_c), s	0.0	1.5		0.0	0.0	1.5		2.0				

Intersection Summary

HCM 6th Ctrl Delay	13.9
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

APPENDIX 6.1:

**EAP (2021) WITHOUT I-215/PLACENTIA INTERCHANGE CONDITIONS INTERSECTION
OPERATIONS ANALYSIS WORKSHEETS**

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Intersection												
Int Delay, s/veh	2.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕	↕		↕			↕	
Traffic Vol, veh/h	1	44	5	21	27	2	0	4	11	0	1	5
Future Vol, veh/h	1	44	5	21	27	2	0	4	11	0	1	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	49	6	23	30	2	0	4	12	0	1	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	32	0	0	55	0	0	132	129	49	138	133	30
Stage 1	-	-	-	-	-	-	51	51	-	76	76	-
Stage 2	-	-	-	-	-	-	81	78	-	62	57	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1593	-	-	1563	-	-	845	765	1025	837	761	1050
Stage 1	-	-	-	-	-	-	967	856	-	938	836	-
Stage 2	-	-	-	-	-	-	932	834	-	954	851	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1593	-	-	1563	-	-	829	753	1025	814	749	1050
Mov Cap-2 Maneuver	-	-	-	-	-	-	829	753	-	814	749	-
Stage 1	-	-	-	-	-	-	966	855	-	937	823	-
Stage 2	-	-	-	-	-	-	912	821	-	937	850	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	3.1	8.9	8.7
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	935	1593	-	-	1563	-	-	984
HCM Lane V/C Ratio	0.018	0.001	-	-	0.015	-	-	0.007
HCM Control Delay (s)	8.9	7.3	0	-	7.3	0	-	8.7
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	4	2	0	5	1	16	7	16	10	1
Future Vol, veh/h	0	0	4	2	0	5	1	16	7	16	10	1
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	54	54	54	54	54	54	54	54	54	54	54	54
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	7	4	0	9	2	30	13	30	19	2

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	125	127	20	125	122	37	21	0	0	43	0	0
Stage 1	80	80	-	41	41	-	-	-	-	-	-	-
Stage 2	45	47	-	84	81	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	854	767	1064	854	772	1041	1608	-	-	1579	-	-
Stage 1	934	832	-	979	865	-	-	-	-	-	-	-
Stage 2	974	860	-	929	832	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	834	752	1064	835	757	1041	1608	-	-	1579	-	-
Mov Cap-2 Maneuver	834	752	-	835	757	-	-	-	-	-	-	-
Stage 1	933	816	-	978	864	-	-	-	-	-	-	-
Stage 2	964	859	-	905	816	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.4	8.8	0.3	4.3
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1608	-	-	1064	972	1579	-
HCM Lane V/C Ratio	0.001	-	-	0.007	0.013	0.019	-
HCM Control Delay (s)	7.2	0	-	8.4	8.8	7.3	0
HCM Lane LOS	A	A	-	A	A	A	A
HCM 95th %tile Q(veh)	0	-	-	0	0	0.1	-

Intersection						
Int Delay, s/veh	3.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	2	2	4	22	14	2
Future Vol, veh/h	2	2	4	22	14	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, %	0	0	0	0	0	0
Mvmt Flow	3	3	5	29	19	3

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	34	0	-	0	29
Stage 1	-	-	-	-	20
Stage 2	-	-	-	-	9
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	1591	-	-	-	991
Stage 1	-	-	-	-	1008
Stage 2	-	-	-	-	1019
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1591	-	-	-	989
Mov Cap-2 Maneuver	-	-	-	-	989
Stage 1	-	-	-	-	1006
Stage 2	-	-	-	-	1019

Approach	EB	WB	SB
HCM Control Delay, s	3.6	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1591	-	-	-	998
HCM Lane V/C Ratio	0.002	-	-	-	0.021
HCM Control Delay (s)	7.3	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	16	1	3	23	26	3	0	6	8	0	0
Future Vol, veh/h	0	16	1	3	23	26	3	0	6	8	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	23	1	4	33	38	4	0	9	12	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	71	0	0	24	0	0	84	103	24	88	84	52
Stage 1	-	-	-	-	-	-	24	24	-	60	60	-
Stage 2	-	-	-	-	-	-	60	79	-	28	24	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1542	-	-	1604	-	-	908	791	1058	902	810	1021
Stage 1	-	-	-	-	-	-	999	879	-	957	849	-
Stage 2	-	-	-	-	-	-	957	833	-	994	879	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1542	-	-	1604	-	-	906	789	1058	893	808	1021
Mov Cap-2 Maneuver	-	-	-	-	-	-	906	789	-	893	808	-
Stage 1	-	-	-	-	-	-	999	879	-	957	846	-
Stage 2	-	-	-	-	-	-	954	831	-	986	879	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.4	8.6	9.1
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1002	1542	-	-	1604	-	-	893
HCM Lane V/C Ratio	0.013	-	-	-	0.003	-	-	0.013
HCM Control Delay (s)	8.6	0	-	-	7.2	0	-	9.1
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

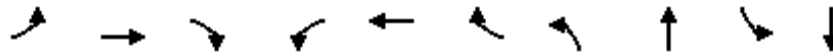
Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	0	30	52	37	11	0
Future Vol, veh/h	0	30	52	37	11	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	33	57	40	12	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	97	0	-	0	110 77
Stage 1	-	-	-	-	77 -
Stage 2	-	-	-	-	33 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1509	-	-	-	892 990
Stage 1	-	-	-	-	951 -
Stage 2	-	-	-	-	995 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1509	-	-	-	892 990
Mov Cap-2 Maneuver	-	-	-	-	892 -
Stage 1	-	-	-	-	951 -
Stage 2	-	-	-	-	995 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.1
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1509	-	-	-	892
HCM Lane V/C Ratio	-	-	-	-	0.013
HCM Control Delay (s)	0	-	-	-	9.1
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Timings
6: Harvill Av. & Cajalco Exwy./Ramona Exwy.

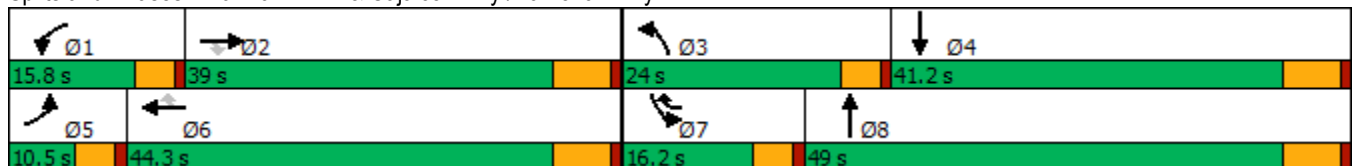


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations	↘	↑↑	↗	↘↗	↑↑	↗	↘↗	↑↔	↘↗	↑↔
Traffic Volume (vph)	26	696	152	224	790	191	364	320	191	143
Future Volume (vph)	26	696	152	224	790	191	364	320	191	143
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases	5	2		1	6	7	3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	7	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	36.2	36.2	9.6	34.2	9.6	9.6	16.2	9.6	41.2
Total Split (s)	10.5	39.0	39.0	15.8	44.3	16.2	24.0	49.0	16.2	41.2
Total Split (%)	8.8%	32.5%	32.5%	13.2%	36.9%	13.5%	20.0%	40.8%	13.5%	34.3%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	3.6	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	4.6	4.6	6.2	4.6	6.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	Max	None	None	None	None	None
Act Effct Green (s)	5.6	33.4	33.4	9.9	44.2	55.1	14.0	20.2	9.3	15.5
Actuated g/C Ratio	0.06	0.35	0.35	0.10	0.47	0.58	0.15	0.21	0.10	0.16
v/c Ratio	0.25	0.56	0.23	0.63	0.48	0.19	0.72	0.62	0.57	0.27
Control Delay	53.7	29.0	2.8	50.9	21.9	2.7	48.1	31.0	49.6	34.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.7	29.0	2.8	50.9	21.9	2.7	48.1	31.0	49.6	34.1
LOS	D	C	A	D	C	A	D	C	D	C
Approach Delay		25.2			24.3			38.3		42.7
Approach LOS		C			C			D		D

Intersection Summary

























Cycle Length: 120
 Actuated Cycle Length: 94.7
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.72
 Intersection Signal Delay: 30.1
 Intersection LOS: C
 Intersection Capacity Utilization 69.5%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 6: Harvill Av. & Cajalco Exwy./Ramona Exwy.



HCM 6th Signalized Intersection Summary
6: Harvill Av. & Cajalco Exwy./Ramona Exwy.

Barker Logistics (JN 12216)
02/26/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	696	152	224	790	191	364	320	163	191	143	11
Future Volume (veh/h)	26	696	152	224	790	191	364	320	163	191	143	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	27	710	104	229	806	117	371	327	128	195	146	8
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	50	1418	631	311	1637	857	463	465	179	277	451	25
Arrive On Green	0.03	0.39	0.39	0.09	0.45	0.45	0.13	0.18	0.18	0.08	0.13	0.13
Sat Flow, veh/h	1810	3610	1606	3510	3610	1609	3510	2548	979	3510	3480	189
Grp Volume(v), veh/h	27	710	104	229	806	117	371	230	225	195	75	79
Grp Sat Flow(s),veh/h/ln	1810	1805	1606	1755	1805	1609	1755	1805	1722	1755	1805	1865
Q Serve(g_s), s	1.2	12.5	3.5	5.3	13.2	3.1	8.6	10.0	10.3	4.6	3.2	3.2
Cycle Q Clear(g_c), s	1.2	12.5	3.5	5.3	13.2	3.1	8.6	10.0	10.3	4.6	3.2	3.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.57	1.00		0.10
Lane Grp Cap(c), veh/h	50	1418	631	311	1637	857	463	329	314	277	234	241
V/C Ratio(X)	0.54	0.50	0.16	0.74	0.49	0.14	0.80	0.70	0.72	0.70	0.32	0.33
Avail Cap(c_a), veh/h	127	1418	631	468	1637	857	811	920	877	485	752	777
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.3	19.3	16.6	37.3	16.1	9.9	35.4	32.2	32.3	37.7	33.2	33.2
Incr Delay (d2), s/veh	3.3	1.3	0.6	1.3	1.1	0.3	1.2	2.7	3.1	1.2	0.8	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	4.8	1.3	2.2	4.9	1.0	3.5	4.3	4.2	2.0	1.4	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.6	20.5	17.1	38.6	17.2	10.2	36.6	34.8	35.4	38.9	34.0	34.0
LnGrp LOS	D	C	B	D	B	B	D	C	D	D	C	C
Approach Vol, veh/h		841			1152			826			349	
Approach Delay, s/veh		20.9			20.7			35.8			36.8	
Approach LOS		C			C			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.1	39.2	15.7	17.1	6.9	44.3	11.2	21.5				
Change Period (Y+Rc), s	4.6	6.2	4.6	6.2	4.6	6.2	4.6	6.2				
Max Green Setting (Gmax), s	11.2	32.8	19.4	35.0	5.9	38.1	11.6	42.8				
Max Q Clear Time (g_c+I1), s	7.3	14.5	10.6	5.2	3.2	15.2	6.6	12.3				
Green Ext Time (p_c), s	0.1	4.4	0.5	0.8	0.0	5.5	0.2	2.5				
Intersection Summary												
HCM 6th Ctrl Delay			26.5									
HCM 6th LOS			C									

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖	↖	↖	↖↗		↖	↖↗	
Traffic Vol, veh/h	28	0	34	0	0	0	21	665	3	0	297	24
Future Vol, veh/h	28	0	34	0	0	0	21	665	3	0	297	24
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	115	-	-	165	-	0	150	-	-	160	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	30	0	37	0	0	0	23	723	3	0	323	26

Major/Minor	Minor2		Minor1			Major1		Major2				
Conflicting Flow All	744	1108	175	933	1120	363	349	0	0	726	0	0
Stage 1	336	336	-	771	771	-	-	-	-	-	-	-
Stage 2	408	772	-	162	349	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	307	212	844	224	208	640	1221	-	-	886	-	-
Stage 1	657	645	-	363	413	-	-	-	-	-	-	-
Stage 2	596	412	-	830	637	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	303	208	844	211	204	640	1221	-	-	886	-	-
Mov Cap-2 Maneuver	418	313	-	298	309	-	-	-	-	-	-	-
Stage 1	645	645	-	356	405	-	-	-	-	-	-	-
Stage 2	585	404	-	794	637	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.7	0	0.2	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	1221	-	-	418	-	844	-	-	-	886	-	-
HCM Lane V/C Ratio	0.019	-	-	0.073	-	0.044	-	-	-	-	-	-
HCM Control Delay (s)	8	-	-	14.3	0	9.5	0	0	0	0	-	-
HCM Lane LOS	A	-	-	B	A	A	A	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	-	0.1	-	-	-	0	-	-

Intersection	
Intersection Delay, s/veh	18.7
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔		↔	↔	
Traffic Vol, veh/h	16	5	17	114	3	339	41	376	108	158	146	40
Future Vol, veh/h	16	5	17	114	3	339	41	376	108	158	146	40
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	17	5	18	123	3	365	44	404	116	170	157	43
Number of Lanes	0	1	0	0	1	1	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	12.8	22.6	18.4	14.8
HCM LOS	B	C	C	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	42%	97%	0%	100%	0%	0%
Vol Thru, %	0%	100%	54%	13%	3%	0%	0%	100%	55%
Vol Right, %	0%	0%	46%	45%	0%	100%	0%	0%	45%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	41	251	233	38	117	339	158	97	89
LT Vol	41	0	0	16	114	0	158	0	0
Through Vol	0	251	125	5	3	0	0	97	49
RT Vol	0	0	108	17	0	339	0	0	40
Lane Flow Rate	44	270	251	41	126	365	170	105	95
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.1	0.574	0.511	0.102	0.287	0.711	0.405	0.234	0.205
Departure Headway (Hd)	8.181	7.666	7.333	8.977	8.22	7.024	8.576	8.061	7.735
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	437	469	489	398	437	514	418	444	462
Service Time	5.946	5.431	5.098	6.771	5.983	4.786	6.349	5.833	5.507
HCM Lane V/C Ratio	0.101	0.576	0.513	0.103	0.288	0.71	0.407	0.236	0.206
HCM Control Delay	11.9	20.3	17.6	12.8	14.3	25.4	17.1	13.3	12.5
HCM Lane LOS	B	C	C	B	B	D	C	B	B
HCM 95th-tile Q	0.3	3.5	2.9	0.3	1.2	5.6	1.9	0.9	0.8

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕		↕	↕	
Traffic Vol, veh/h	23	0	8	8	0	11	9	491	17	15	230	17
Future Vol, veh/h	23	0	8	8	0	11	9	491	17	15	230	17
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	-	-	-	-	-	0	160	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	25	0	9	9	0	12	10	528	18	16	247	18

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	572	854	133	713	854	273	265	0	0	546	0	0
Stage 1	288	288	-	557	557	-	-	-	-	-	-	-
Stage 2	284	566	-	156	297	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	407	298	898	323	298	731	1311	-	-	1033	-	-
Stage 1	701	677	-	487	515	-	-	-	-	-	-	-
Stage 2	705	511	-	836	671	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	394	291	898	314	291	731	1311	-	-	1033	-	-
Mov Cap-2 Maneuver	394	291	-	314	291	-	-	-	-	-	-	-
Stage 1	695	667	-	483	511	-	-	-	-	-	-	-
Stage 2	688	507	-	815	661	-	-	-	-	-	-	-

Approach	EB		WB			NB			SB		
HCM Control Delay, s	13.4		12.9			0.1			0.5		
HCM LOS	B		B								

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1311	-	-	461	314	731	1033	-	-
HCM Lane V/C Ratio	0.007	-	-	0.072	0.027	0.016	0.016	-	-
HCM Control Delay (s)	7.8	-	-	13.4	16.8	10	8.5	-	-
HCM Lane LOS	A	-	-	B	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	0	-	-

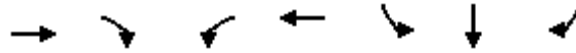
Intersection	
Intersection Delay, s/veh	142.2
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↔		↔	↔		↔	↔	
Traffic Vol, veh/h	0	4	1	544	0	229	4	267	605	130	140	3
Future Vol, veh/h	0	4	1	544	0	229	4	267	605	130	140	3
Peak Hour Factor	0.92	0.92	0.92	0.90	0.92	0.90	0.92	0.90	0.90	0.90	0.90	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	4	1	604	0	254	4	297	672	144	156	3
Number of Lanes	0	1	0	1	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	14.1	67	248.2	17.5
HCM LOS	B	F	F	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	0%	100%	38%	100%	0%	0%
Vol Thru, %	0%	100%	13%	80%	0%	0%	0%	100%	94%
Vol Right, %	0%	0%	87%	20%	0%	62%	0%	0%	6%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	4	178	694	5	403	370	130	93	50
LT Vol	4	0	0	0	403	141	130	0	0
Through Vol	0	178	89	4	0	0	0	93	47
RT Vol	0	0	605	1	0	229	0	0	3
Lane Flow Rate	4	198	771	5	447	412	144	104	55
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.01	0.449	1.62	0.015	1.036	0.869	0.381	0.259	0.137
Departure Headway (Hd)	8.956	8.44	7.809	11.234	9.218	8.468	10.546	10.022	9.978
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	402	429	470	321	398	432	344	361	362
Service Time	6.656	6.14	5.509	8.934	6.918	6.168	8.246	7.722	7.678
HCM Lane V/C Ratio	0.01	0.462	1.64	0.016	1.123	0.954	0.419	0.288	0.152
HCM Control Delay	11.7	17.8	308.6	14.1	86.1	46.3	19.6	16.2	14.3
HCM Lane LOS	B	C	F	B	F	E	C	C	B
HCM 95th-tile Q	0	2.3	42.3	0	13.2	8.8	1.7	1	0.5

Timings
11: I-215 SB Ramps & Ramona Exwy.

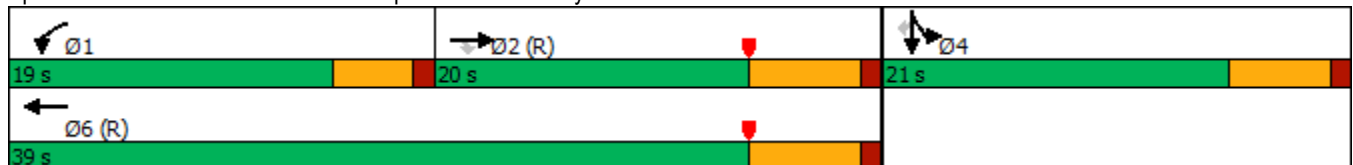


Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations	↑↑	↑	↙	↑↑	↙	↖	↖
Traffic Volume (vph)	732	340	352	965	732	3	240
Future Volume (vph)	732	340	352	965	732	3	240
Turn Type	NA	Perm	Prot	NA	Split	NA	Perm
Protected Phases	2		1	6	4	4	
Permitted Phases		2					4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	9.5	31.0	10.5	10.5	10.5
Total Split (s)	20.0	20.0	19.0	39.0	21.0	21.0	21.0
Total Split (%)	33.3%	33.3%	31.7%	65.0%	35.0%	35.0%	35.0%
Yellow Time (s)	5.0	5.0	3.5	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.5	6.0	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max	Max
Act Effct Green (s)	14.4	14.4	14.1	33.0	15.5	15.5	15.5
Actuated g/C Ratio	0.24	0.24	0.24	0.55	0.26	0.26	0.26
v/c Ratio	0.87	0.54	0.86	0.50	0.85	0.86	0.48
Control Delay	35.6	6.2	54.3	8.5	42.3	43.1	12.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.6	6.2	54.3	8.5	42.3	43.1	12.4
LOS	D	A	D	A	D	D	B
Approach Delay	26.3			20.7		35.3	
Approach LOS	C			C		D	

Intersection Summary













Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 19 (32%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.87
 Intersection Signal Delay: 26.7
 Intersection LOS: C
 Intersection Capacity Utilization 94.0%
 ICU Level of Service F
 Analysis Period (min) 15

Splits and Phases: 11: I-215 SB Ramps & Ramona Exwy.

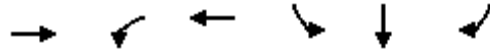


HCM 6th Signalized Intersection Summary
 11: I-215 SB Ramps & Ramona Exwy.

Barker Logistics (JN 12216)
 02/26/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑					↖	↗	↗
Traffic Volume (veh/h)	0	732	340	352	965	0	0	0	0	732	3	240
Future Volume (veh/h)	0	732	340	352	965	0	0	0	0	732	3	240
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	755	242	363	995	0				757	0	183
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	882	392	418	1986	0				935	0	416
Arrive On Green	0.00	0.24	0.24	0.14	0.33	0.00				0.26	0.00	0.26
Sat Flow, veh/h	0	3705	1606	1810	3705	0				3619	0	1610
Grp Volume(v), veh/h	0	755	242	363	995	0				757	0	183
Grp Sat Flow(s),veh/h/ln	0	1805	1606	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	12.0	8.0	11.8	13.3	0.0				11.8	0.0	5.7
Cycle Q Clear(g_c), s	0.0	12.0	8.0	11.8	13.3	0.0				11.8	0.0	5.7
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	882	392	418	1986	0				935	0	416
V/C Ratio(X)	0.00	0.86	0.62	0.87	0.50	0.00				0.81	0.00	0.44
Avail Cap(c_a), veh/h	0	882	392	437	1986	0				935	0	416
HCM Platoon Ratio	1.00	1.00	1.00	0.60	0.60	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.81	0.81	0.63	0.63	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	21.7	20.2	25.0	13.5	0.0				20.9	0.0	18.6
Incr Delay (d2), s/veh	0.0	8.7	5.8	11.1	0.6	0.0				7.5	0.0	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.3	3.1	6.0	4.8	0.0				5.2	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	30.4	26.0	36.1	14.1	0.0				28.4	0.0	22.0
LnGrp LOS	A	C	C	D	B	A				C	A	C
Approach Vol, veh/h		997			1358						940	
Approach Delay, s/veh		29.3			20.0						27.1	
Approach LOS		C			B						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	18.3	20.7		21.0		39.0						
Change Period (Y+Rc), s	4.5	6.0		5.5		6.0						
Max Green Setting (Gmax), s	14.5	14.0		15.5		33.0						
Max Q Clear Time (g_c+I1), s	13.8	14.0		13.8		15.3						
Green Ext Time (p_c), s	0.1	0.0		0.7		3.9						
Intersection Summary												
HCM 6th Ctrl Delay				24.8								
HCM 6th LOS				C								
Notes												
User approved volume balancing among the lanes for turning movement.												

Timings
13: I-215 SB Ramps & Nuevo Rd.



Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑	↑↑	↑	↑	↑
Traffic Volume (vph)	524	390	925	312	3	93
Future Volume (vph)	524	390	925	312	3	93
Turn Type	NA	Prot	NA	Split	NA	Perm
Protected Phases	2	1	6	4	4	
Permitted Phases						4
Detector Phase	2	1	6	4	4	4
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	28.2	9.6	28.2	15.8	15.8	15.8
Total Split (s)	29.0	15.0	44.0	16.0	16.0	16.0
Total Split (%)	48.3%	25.0%	73.3%	26.7%	26.7%	26.7%
Yellow Time (s)	5.2	3.6	5.2	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	4.6	6.2	5.8	5.8	5.8
Lead/Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes				
Recall Mode	C-Max	None	C-Max	Max	Max	Max
Act Effct Green (s)	23.2	10.0	37.8	10.2	10.2	10.2
Actuated g/C Ratio	0.39	0.17	0.63	0.17	0.17	0.17
v/c Ratio	0.56	0.76	0.46	0.61	0.62	0.27
Control Delay	14.8	24.3	6.0	33.5	34.1	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.8	24.3	6.0	33.5	34.1	4.6
LOS	B	C	A	C	C	A
Approach Delay	14.8		11.5		27.2	
Approach LOS	B		B		C	

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 18.6 (31%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.76
 Intersection Signal Delay: 15.1
 Intersection LOS: B
 Intersection Capacity Utilization 59.9%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 13: I-215 SB Ramps & Nuevo Rd.



HCM 6th Signalized Intersection Summary
 13: I-215 SB Ramps & Nuevo Rd.

Barker Logistics (JN 12216)
 02/26/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑↑	↑↑					↑	↑	↑
Traffic Volume (veh/h)	0	524	165	390	925	0	0	0	0	312	3	93
Future Volume (veh/h)	0	524	165	390	925	0	0	0	0	312	3	93
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	595	148	443	1051	0				357	0	33
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1132	281	556	2274	0				615	0	274
Arrive On Green	0.00	0.39	0.39	0.11	0.42	0.00				0.17	0.00	0.17
Sat Flow, veh/h	0	2961	711	3510	3705	0				3619	0	1610
Grp Volume(v), veh/h	0	374	369	443	1051	0				357	0	33
Grp Sat Flow(s),veh/h/ln	0	1805	1772	1755	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	9.5	9.5	7.4	12.5	0.0				5.5	0.0	1.0
Cycle Q Clear(g_c), s	0.0	9.5	9.5	7.4	12.5	0.0				5.5	0.0	1.0
Prop In Lane	0.00		0.40	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	713	700	556	2274	0				615	0	274
V/C Ratio(X)	0.00	0.52	0.53	0.80	0.46	0.00				0.58	0.00	0.12
Avail Cap(c_a), veh/h	0	713	700	608	2274	0				615	0	274
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.76	0.76	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	13.9	13.9	25.9	10.0	0.0				22.9	0.0	21.1
Incr Delay (d2), s/veh	0.0	2.8	2.8	4.6	0.5	0.0				4.0	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.5	3.5	3.1	3.7	0.0				2.4	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	16.6	16.7	30.5	10.6	0.0				26.9	0.0	22.0
LnGrp LOS	A	B	B	C	B	A				C	A	C
Approach Vol, veh/h		743			1494						390	
Approach Delay, s/veh		16.7			16.5						26.5	
Approach LOS		B			B						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	14.1	29.9		16.0		44.0						
Change Period (Y+Rc), s	4.6	6.2		5.8		6.2						
Max Green Setting (Gmax), s	10.4	22.8		10.2		37.8						
Max Q Clear Time (g_c+I1), s	9.4	11.5		7.5		14.5						
Green Ext Time (p_c), s	0.1	3.1		0.4		7.1						

Intersection Summary

HCM 6th Ctrl Delay	18.0
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Timings
14: I-215 NB Ramps & Ramona Exwy.



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations	↘	↑↑	↑↑	↗	↘	↗	↗
Traffic Volume (vph)	203	1261	1037	994	281	3	429
Future Volume (vph)	203	1261	1037	994	281	3	429
Turn Type	Prot	NA	NA	Perm	Split	NA	Perm
Protected Phases	5	2	6		8	8	
Permitted Phases				6			8
Detector Phase	5	2	6	6	8	8	8
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	11.0	26.0	26.0	10.5	10.5	10.5
Total Split (s)	12.0	41.5	29.5	29.5	18.5	18.5	18.5
Total Split (%)	20.0%	69.2%	49.2%	49.2%	30.8%	30.8%	30.8%
Yellow Time (s)	3.5	5.0	5.0	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	6.0	5.5	5.5	5.5
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None
Act Effct Green (s)	7.5	35.5	23.5	23.5	13.0	13.0	13.0
Actuated g/C Ratio	0.12	0.59	0.39	0.39	0.22	0.22	0.22
v/c Ratio	0.93	0.61	0.76	0.96	0.39	0.40	0.97
Control Delay	60.2	13.8	20.0	26.8	23.8	23.9	55.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.2	13.8	20.0	26.8	23.8	23.9	55.4
LOS	E	B	B	C	C	C	E
Approach Delay		20.2	23.3			42.8	
Approach LOS		C	C			D	

Intersection Summary




















Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 19 (32%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.97
 Intersection Signal Delay: 25.6
 Intersection LOS: C
 Intersection Capacity Utilization 94.0%
 ICU Level of Service F
 Analysis Period (min) 15

Splits and Phases: 14: I-215 NB Ramps & Ramona Exwy.



HCM 6th Signalized Intersection Summary
 14: I-215 NB Ramps & Ramona Exwy.

Barker Logistics (JN 12216)
 02/26/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	203	1261	0	0	1037	994	281	3	429	0	0	0
Future Volume (veh/h)	203	1261	0	0	1037	994	281	3	429	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	209	1300	0	0	1069	743	292	0	290			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	226	2162	0	0	1440	642	758	0	337			
Arrive On Green	0.25	1.00	0.00	0.00	0.40	0.40	0.21	0.00	0.21			
Sat Flow, veh/h	1810	3705	0	0	3705	1610	3619	0	1610			
Grp Volume(v), veh/h	209	1300	0	0	1069	743	292	0	290			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1610	1810	0	1610			
Q Serve(g_s), s	6.8	0.0	0.0	0.0	15.2	23.9	4.2	0.0	10.4			
Cycle Q Clear(g_c), s	6.8	0.0	0.0	0.0	15.2	23.9	4.2	0.0	10.4			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	226	2162	0	0	1440	642	758	0	337			
V/C Ratio(X)	0.92	0.60	0.00	0.00	0.74	1.16	0.39	0.00	0.86			
Avail Cap(c_a), veh/h	226	2162	0	0	1440	642	784	0	349			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.39	0.39	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	22.2	0.0	0.0	0.0	15.4	18.0	20.4	0.0	22.9			
Incr Delay (d2), s/veh	20.7	0.5	0.0	0.0	3.5	87.4	0.3	0.0	18.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	3.4	0.1	0.0	0.0	5.4	22.3	1.6	0.0	5.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.9	0.5	0.0	0.0	18.9	105.4	20.7	0.0	41.4			
LnGrp LOS	D	A	A	A	B	F	C	A	D			
Approach Vol, veh/h		1509			1812			582				
Approach Delay, s/veh		6.4			54.4			31.0				
Approach LOS		A			D			C				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		41.9			12.0	29.9		18.1				
Change Period (Y+Rc), s		6.0			4.5	6.0		5.5				
Max Green Setting (Gmax), s		35.5			7.5	23.5		13.0				
Max Q Clear Time (g_c+I1), s		2.0			8.8	25.9		12.4				
Green Ext Time (p_c), s		6.4			0.0	0.0		0.2				

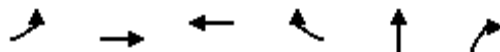
Intersection Summary

HCM 6th Ctrl Delay	32.3
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Timings
16: I-215 NB Ramps & Nuevo Rd.

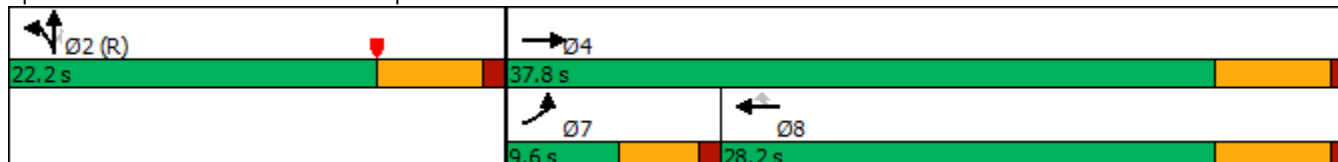


Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Configurations	↖	↗↗	↗↗↗	↖	↖	↖↖
Traffic Volume (vph)	42	795	997	392	2	568
Future Volume (vph)	42	795	997	392	2	568
Turn Type	Prot	NA	NA	Perm	NA	Perm
Protected Phases	7	4	8		2	
Permitted Phases				8		2
Detector Phase	7	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	28.2	28.2	28.2	15.8	15.8
Total Split (s)	9.6	37.8	28.2	28.2	22.2	22.2
Total Split (%)	16.0%	63.0%	47.0%	47.0%	37.0%	37.0%
Yellow Time (s)	3.6	5.2	5.2	5.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	6.2	5.8	5.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	5.0	26.3	20.5	20.5	21.7	21.7
Actuated g/C Ratio	0.08	0.44	0.34	0.34	0.36	0.36
v/c Ratio	0.31	0.55	0.61	0.51	0.53	0.53
Control Delay	31.2	11.6	17.9	4.2	21.7	12.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.2	11.6	17.9	4.2	21.7	12.9
LOS	C	B	B	A	C	B
Approach Delay		12.6	14.0		16.1	
Approach LOS		B	B		B	

Intersection Summary



















Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 16 (27%), Referenced to phase 2:NBTL and 6:, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.61
 Intersection Signal Delay: 14.2
 Intersection LOS: B
 Intersection Capacity Utilization 59.9%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 16: I-215 NB Ramps & Nuevo Rd.



HCM 6th Signalized Intersection Summary
 16: I-215 NB Ramps & Nuevo Rd.

Barker Logistics (JN 12216)
 02/26/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	795	0	0	997	392	317	2	568	0	0	0
Future Volume (veh/h)	42	795	0	0	997	392	317	2	568	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	46	864	0	0	1084	314	345	2	297			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	81	1524	0	0	1561	485	680	4	1071			
Arrive On Green	0.04	0.42	0.00	0.00	0.30	0.30	0.38	0.38	0.38			
Sat Flow, veh/h	1810	3705	0	0	5358	1610	1800	10	2834			
Grp Volume(v), veh/h	46	864	0	0	1084	314	347	0	297			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1729	1610	1810	0	1417			
Q Serve(g_s), s	1.5	10.9	0.0	0.0	11.1	10.2	8.9	0.0	4.4			
Cycle Q Clear(g_c), s	1.5	10.9	0.0	0.0	11.1	10.2	8.9	0.0	4.4			
Prop In Lane	1.00		0.00	0.00		1.00	0.99		1.00			
Lane Grp Cap(c), veh/h	81	1524	0	0	1561	485	684	0	1071			
V/C Ratio(X)	0.57	0.57	0.00	0.00	0.69	0.65	0.51	0.00	0.28			
Avail Cap(c_a), veh/h	151	1901	0	0	1902	590	684	0	1071			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.80	0.80	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	28.1	13.2	0.0	0.0	18.5	18.2	14.4	0.0	13.0			
Incr Delay (d2), s/veh	1.9	0.3	0.0	0.0	0.8	1.8	2.7	0.0	0.6			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.6	3.4	0.0	0.0	3.7	3.3	3.4	0.0	1.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.0	13.4	0.0	0.0	19.4	20.0	17.0	0.0	13.6			
LnGrp LOS	C	B	A	A	B	C	B	A	B			
Approach Vol, veh/h		910			1398			644				
Approach Delay, s/veh		14.3			19.5			15.5				
Approach LOS		B			B			B				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		28.5		31.5			7.3	24.3				
Change Period (Y+Rc), s		5.8		6.2			4.6	6.2				
Max Green Setting (Gmax), s		16.4		31.6			5.0	22.0				
Max Q Clear Time (g_c+I1), s		10.9		12.9			3.5	13.1				
Green Ext Time (p_c), s		1.6		5.1			0.0	5.0				
Intersection Summary												
HCM 6th Ctrl Delay				17.0								
HCM 6th LOS				B								

Intersection												
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕	↕		↕			↕	
Traffic Vol, veh/h	2	84	4	13	33	0	1	0	26	0	1	0
Future Vol, veh/h	2	84	4	13	33	0	1	0	26	0	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	90	4	14	35	0	1	0	28	0	1	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	35	0	0	94	0	0	158	157	90	173	161	35
Stage 1	-	-	-	-	-	-	94	94	-	63	63	-
Stage 2	-	-	-	-	-	-	64	63	-	110	98	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1589	-	-	1513	-	-	813	739	973	794	735	1044
Stage 1	-	-	-	-	-	-	918	821	-	953	846	-
Stage 2	-	-	-	-	-	-	952	846	-	900	818	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1589	-	-	1513	-	-	806	732	973	765	728	1044
Mov Cap-2 Maneuver	-	-	-	-	-	-	806	732	-	765	728	-
Stage 1	-	-	-	-	-	-	917	820	-	952	838	-
Stage 2	-	-	-	-	-	-	942	838	-	873	817	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	2.1	8.8	10
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	966	1589	-	-	1513	-	-	728
HCM Lane V/C Ratio	0.03	0.001	-	-	0.009	-	-	0.001
HCM Control Delay (s)	8.8	7.3	0	-	7.4	0	-	10
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection												
Int Delay, s/veh	5.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	1	8	0	19	3	8	3	7	11	0
Future Vol, veh/h	1	0	1	8	0	19	3	8	3	7	11	0
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	72	72	72	72	72	72	72	72	72	72	72	72
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	0	1	11	0	26	4	11	4	10	15	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	69	58	15	57	56	13	15	0	0	15	0	0
Stage 1	35	35	-	21	21	-	-	-	-	-	-	-
Stage 2	34	23	-	36	35	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	928	837	1070	945	839	1073	1616	-	-	1616	-	-
Stage 1	986	870	-	1003	882	-	-	-	-	-	-	-
Stage 2	987	880	-	985	870	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	899	830	1070	938	832	1073	1616	-	-	1616	-	-
Mov Cap-2 Maneuver	899	830	-	938	832	-	-	-	-	-	-	-
Stage 1	984	865	-	1001	880	-	-	-	-	-	-	-
Stage 2	961	878	-	978	865	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	8.7		8.6		1.5		2.8	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1616	-	-	977	1029	1616	-	-
HCM Lane V/C Ratio	0.003	-	-	0.003	0.036	0.006	-	-
HCM Control Delay (s)	7.2	0	-	8.7	8.6	7.2	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection						
Int Delay, s/veh	4.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	1	1	4	13	19	1
Future Vol, veh/h	1	1	4	13	19	1
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	72	72	72	72	72	72
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	1	6	18	26	1

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	24	0	-	0	18
Stage 1	-	-	-	-	15
Stage 2	-	-	-	-	3
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	1604	-	-	-	1005
Stage 1	-	-	-	-	1013
Stage 2	-	-	-	-	1025
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1604	-	-	-	1004
Mov Cap-2 Maneuver	-	-	-	-	1004
Stage 1	-	-	-	-	1012
Stage 2	-	-	-	-	1025

Approach	EB	WB	SB
HCM Control Delay, s	3.6	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1604	-	-	-	1007
HCM Lane V/C Ratio	0.001	-	-	-	0.028
HCM Control Delay (s)	7.2	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection												
Int Delay, s/veh	4.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	18	2	2	15	13	2	0	3	34	0	0
Future Vol, veh/h	0	18	2	2	15	13	2	0	3	34	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	23	3	3	19	17	3	0	4	44	0	0

Major/Minor	Major1		Major2		Minor1			Minor2				
Conflicting Flow All	36	0	0	26	0	0	59	67	25	61	60	28
Stage 1	-	-	-	-	-	-	25	25	-	34	34	-
Stage 2	-	-	-	-	-	-	34	42	-	27	26	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1588	-	-	1601	-	-	942	828	1057	939	835	1053
Stage 1	-	-	-	-	-	-	998	878	-	987	871	-
Stage 2	-	-	-	-	-	-	987	864	-	996	878	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1588	-	-	1601	-	-	940	826	1057	934	833	1053
Mov Cap-2 Maneuver	-	-	-	-	-	-	940	826	-	934	833	-
Stage 1	-	-	-	-	-	-	998	878	-	987	869	-
Stage 2	-	-	-	-	-	-	985	862	-	992	878	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.5	8.6	9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1007	1588	-	-	1601	-	-	934
HCM Lane V/C Ratio	0.006	-	-	-	0.002	-	-	0.047
HCM Control Delay (s)	8.6	0	-	-	7.3	0	-	9
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

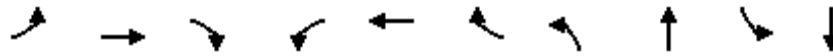
Intersection						
Int Delay, s/veh	2.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	0	56	31	16	42	0
Future Vol, veh/h	0	56	31	16	42	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	61	34	17	46	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	51	0	-	0	104 43
Stage 1	-	-	-	-	43 -
Stage 2	-	-	-	-	61 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1568	-	-	-	899 1033
Stage 1	-	-	-	-	985 -
Stage 2	-	-	-	-	967 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1568	-	-	-	899 1033
Mov Cap-2 Maneuver	-	-	-	-	899 -
Stage 1	-	-	-	-	985 -
Stage 2	-	-	-	-	967 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1568	-	-	-	899
HCM Lane V/C Ratio	-	-	-	-	0.051
HCM Control Delay (s)	0	-	-	-	9.2
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Timings
6: Harvill Av. & Cajalco Exwy./Ramona Exwy.

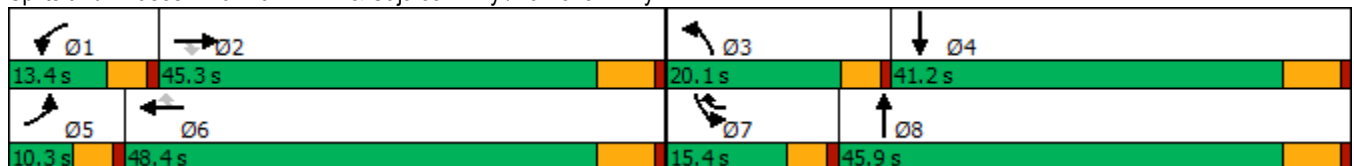


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations	↙	↕	↘	↙↘	↕	↘	↙↘	↕↘	↙↘	↕↘
Traffic Volume (vph)	28	871	281	205	735	142	311	138	174	191
Future Volume (vph)	28	871	281	205	735	142	311	138	174	191
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases	5	2		1	6	7	3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	7	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	36.2	36.2	9.6	34.2	9.6	9.6	16.2	9.6	41.2
Total Split (s)	10.3	45.3	45.3	13.4	48.4	15.4	20.1	45.9	15.4	41.2
Total Split (%)	8.6%	37.8%	37.8%	11.2%	40.3%	12.8%	16.8%	38.3%	12.8%	34.3%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	3.6	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-2.2	-2.2	-0.6	-2.2	-0.6	-0.6	-2.2	-0.6	-2.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	Max	None	None	None	None	None
Act Effct Green (s)	6.1	41.8	41.8	9.2	49.1	62.7	13.1	20.5	9.5	16.9
Actuated g/C Ratio	0.06	0.43	0.43	0.09	0.51	0.65	0.13	0.21	0.10	0.17
v/c Ratio	0.25	0.57	0.34	0.63	0.41	0.13	0.67	0.39	0.51	0.33
Control Delay	53.2	24.5	4.1	53.3	18.7	2.6	48.7	17.1	49.0	34.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.2	24.5	4.1	53.3	18.7	2.6	48.7	17.1	49.0	34.9
LOS	D	C	A	D	B	A	D	B	D	C
Approach Delay		20.3			23.1			32.9		41.3
Approach LOS		C			C			C		D

Intersection Summary

























Cycle Length: 120
 Actuated Cycle Length: 97.2
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.67
 Intersection Signal Delay: 26.1
 Intersection LOS: C
 Intersection Capacity Utilization 61.4%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 6: Harvill Av. & Cajalco Exwy./Ramona Exwy.



HCM 6th Signalized Intersection Summary
6: Harvill Av. & Cajalco Exwy./Ramona Exwy.

Barker Logistics (JN 12216)
02/26/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	871	281	205	735	142	311	138	174	174	191	16
Future Volume (veh/h)	28	871	281	205	735	142	311	138	174	174	191	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	28	880	212	207	742	102	314	139	111	176	193	8
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	63	1702	758	306	1890	940	420	356	264	276	492	20
Arrive On Green	0.04	0.47	0.47	0.09	0.52	0.51	0.12	0.18	0.16	0.08	0.14	0.11
Sat Flow, veh/h	1810	3610	1608	3510	3610	1610	3510	1975	1466	3510	3533	146
Grp Volume(v), veh/h	28	880	212	207	742	102	314	126	124	176	98	103
Grp Sat Flow(s),veh/h/ln	1810	1805	1608	1755	1805	1610	1755	1805	1636	1755	1805	1874
Q Serve(g_s), s	1.3	14.9	7.0	5.0	10.8	2.5	7.6	5.4	6.0	4.3	4.3	4.4
Cycle Q Clear(g_c), s	1.3	14.9	7.0	5.0	10.8	2.5	7.6	5.4	6.0	4.3	4.3	4.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.90	1.00		0.08
Lane Grp Cap(c), veh/h	63	1702	758	306	1890	940	420	325	295	276	251	261
V/C Ratio(X)	0.44	0.52	0.28	0.68	0.39	0.11	0.75	0.39	0.42	0.64	0.39	0.39
Avail Cap(c_a), veh/h	130	1702	758	377	1890	940	645	863	782	457	766	796
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.4	16.2	14.1	38.8	12.5	8.1	37.3	31.7	32.8	39.1	34.3	34.4
Incr Delay (d2), s/veh	1.8	1.1	0.9	2.1	0.6	0.2	1.0	0.8	1.0	0.9	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	5.5	2.4	2.1	3.8	0.7	3.1	2.3	2.3	1.8	1.9	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.2	17.3	15.0	40.9	13.1	8.3	38.3	32.4	33.7	40.1	35.3	35.4
LnGrp LOS	D	B	B	D	B	A	D	C	C	D	D	D
Approach Vol, veh/h		1120			1051			564			377	
Approach Delay, s/veh		17.5			18.1			36.0			37.5	
Approach LOS		B			B			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.6	45.3	14.5	16.2	7.1	49.9	10.9	19.8				
Change Period (Y+Rc), s	4.6	6.2	4.6	6.2	4.6	6.2	4.6	6.2				
Max Green Setting (Gmax), s	8.8	39.1	15.5	35.0	5.7	42.2	10.8	39.7				
Max Q Clear Time (g_c+1), s	7.0	16.9	9.6	6.4	3.3	12.8	6.3	8.0				
Green Ext Time (p_c), s	0.1	6.4	0.3	1.1	0.0	5.2	0.1	1.3				
Intersection Summary												
HCM 6th Ctrl Delay			23.5									
HCM 6th LOS			C									

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖	↖	↖	↖↗		↖	↖↗	
Traffic Vol, veh/h	41	0	72	1	1	0	32	417	2	0	541	23
Future Vol, veh/h	41	0	72	1	1	0	32	417	2	0	541	23
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	115	-	-	165	-	0	150	-	-	160	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	44	0	77	1	1	0	34	448	2	0	582	25

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	888	1113	304	808	1124	225	607	0	0	450	0	0
Stage 1	595	595	-	517	517	-	-	-	-	-	-	-
Stage 2	293	518	-	291	607	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	241	210	698	276	207	784	981	-	-	1121	-	-
Stage 1	463	496	-	515	537	-	-	-	-	-	-	-
Stage 2	696	536	-	698	489	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	234	203	698	239	200	784	981	-	-	1121	-	-
Mov Cap-2 Maneuver	344	324	-	353	312	-	-	-	-	-	-	-
Stage 1	447	496	-	497	518	-	-	-	-	-	-	-
Stage 2	670	517	-	621	489	-	-	-	-	-	-	-

Approach	EB		WB			NB			SB		
HCM Control Delay, s	13		15.9			0.6			0		
HCM LOS	B		C								

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	981	-	-	344	-	698	353	312	-	1121	-	-
HCM Lane V/C Ratio	0.035	-	-	0.128	-	0.111	0.003	0.003	-	-	-	-
HCM Control Delay (s)	8.8	-	-	17	0	10.8	15.2	16.6	0	0	-	-
HCM Lane LOS	A	-	-	C	A	B	C	C	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	-	0.4	0	0	-	0	-	-

Intersection	
Intersection Delay, s/veh	17.3
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↗	↖	↕		↖	↕	
Traffic Vol, veh/h	47	3	46	68	4	214	22	173	58	285	316	19
Future Vol, veh/h	47	3	46	68	4	214	22	173	58	285	316	19
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	53	3	52	76	4	240	25	194	65	320	355	21
Number of Lanes	0	1	0	0	1	1	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	14.2	15.9	13.7	19.8
HCM LOS	B	C	B	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	49%	94%	0%	100%	0%	0%
Vol Thru, %	0%	100%	50%	3%	6%	0%	0%	100%	85%
Vol Right, %	0%	0%	50%	48%	0%	100%	0%	0%	15%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	22	115	116	96	72	214	285	211	124
LT Vol	22	0	0	47	68	0	285	0	0
Through Vol	0	115	58	3	4	0	0	211	105
RT Vol	0	0	58	46	0	214	0	0	19
Lane Flow Rate	25	130	130	108	81	240	320	237	140
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.059	0.291	0.279	0.255	0.19	0.486	0.684	0.472	0.274
Departure Headway (Hd)	8.603	8.088	7.727	8.494	8.464	7.28	7.689	7.177	7.067
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	415	443	464	422	423	493	471	502	507
Service Time	6.378	5.863	5.501	6.274	6.232	5.046	5.452	4.94	4.83
HCM Lane V/C Ratio	0.06	0.293	0.28	0.256	0.191	0.487	0.679	0.472	0.276
HCM Control Delay	11.9	14.2	13.5	14.2	13.2	16.8	25.6	16.2	12.5
HCM Lane LOS	B	B	B	B	B	C	D	C	B
HCM 95th-tile Q	0.2	1.2	1.1	1	0.7	2.6	5.1	2.5	1.1

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕		↕	↕	
Traffic Vol, veh/h	14	2	6	38	0	30	4	207	24	23	383	32
Future Vol, veh/h	14	2	6	38	0	30	4	207	24	23	383	32
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	-	-	-	-	-	0	160	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	16	2	7	44	0	35	5	241	28	27	445	37

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	649	797	241	543	801	135	482	0	0	269	0	0
Stage 1	518	518	-	265	265	-	-	-	-	-	-	-
Stage 2	131	279	-	278	536	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	359	322	766	427	320	895	1091	-	-	1306	-	-
Stage 1	514	536	-	723	693	-	-	-	-	-	-	-
Stage 2	865	683	-	711	527	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	339	314	766	412	312	895	1091	-	-	1306	-	-
Mov Cap-2 Maneuver	339	314	-	412	312	-	-	-	-	-	-	-
Stage 1	511	525	-	719	690	-	-	-	-	-	-	-
Stage 2	827	680	-	687	516	-	-	-	-	-	-	-

Approach	EB		WB			NB			SB		
HCM Control Delay, s	14.7		12.3			0.1			0.4		
HCM LOS	B		B								

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1091	-	-	396	412	895	1306	-	-
HCM Lane V/C Ratio	0.004	-	-	0.065	0.107	0.039	0.02	-	-
HCM Control Delay (s)	8.3	-	-	14.7	14.8	9.2	7.8	-	-
HCM Lane LOS	A	-	-	B	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.4	0.1	0.1	-	-

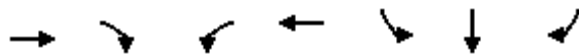
Intersection	
Intersection Delay, s/veh	19.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↔	↔		↔	↔		↔	↔	
Traffic Vol, veh/h	2	0	5	301	0	79	1	172	332	116	339	1
Future Vol, veh/h	2	0	5	301	0	79	1	172	332	116	339	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	0	5	317	0	83	1	181	349	122	357	1
Number of Lanes	0	1	0	1	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	11.6	16.9	26.1	15.5
HCM LOS	B	C	D	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	29%	100%	57%	100%	0%	0%
Vol Thru, %	0%	100%	15%	0%	0%	0%	0%	100%	99%
Vol Right, %	0%	0%	85%	71%	0%	43%	0%	0%	1%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	1	115	389	7	196	184	116	226	114
LT Vol	1	0	0	2	196	105	116	0	0
Through Vol	0	115	57	0	0	0	0	226	113
RT Vol	0	0	332	5	0	79	0	0	1
Lane Flow Rate	1	121	410	7	206	194	122	238	120
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.002	0.251	0.782	0.018	0.469	0.414	0.274	0.5	0.252
Departure Headway (Hd)	7.993	7.481	6.869	8.687	8.204	7.685	8.071	7.559	7.552
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	448	480	525	411	439	468	444	476	475
Service Time	5.742	5.23	4.618	6.466	5.958	5.439	5.823	5.31	5.304
HCM Lane V/C Ratio	0.002	0.252	0.781	0.017	0.469	0.415	0.275	0.5	0.253
HCM Control Delay	10.8	12.7	30.1	11.6	18	15.8	13.9	17.7	12.8
HCM Lane LOS	B	B	D	B	C	C	B	C	B
HCM 95th-tile Q	0	1	7.2	0.1	2.4	2	1.1	2.7	1

Timings
11: I-215 SB Ramps & Ramona Exwy.

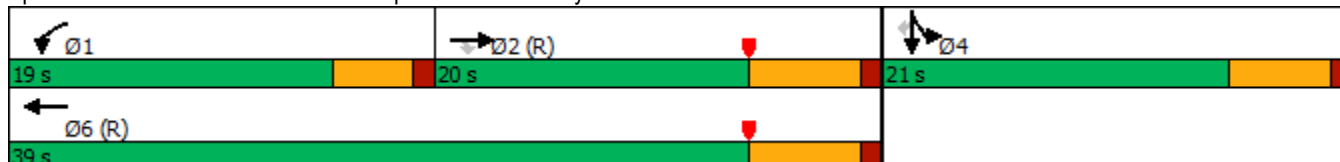


Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations	↑↑	↑	↙	↑↑	↙	↖	↙
Traffic Volume (vph)	927	340	417	904	845	5	179
Future Volume (vph)	927	340	417	904	845	5	179
Turn Type	NA	Perm	Prot	NA	Split	NA	Perm
Protected Phases	2		1	6	4	4	
Permitted Phases		2					4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	9.5	31.0	10.5	10.5	10.5
Total Split (s)	20.0	20.0	19.0	39.0	21.0	21.0	21.0
Total Split (%)	33.3%	33.3%	31.7%	65.0%	35.0%	35.0%	35.0%
Yellow Time (s)	5.0	5.0	3.5	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-2.0	-2.0	-0.5	-2.0	-1.5	-1.5	-1.5
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max	Max
Act Effct Green (s)	16.0	16.0	15.0	35.0	17.0	17.0	17.0
Actuated g/C Ratio	0.27	0.27	0.25	0.58	0.28	0.28	0.28
v/c Ratio	0.99	0.51	0.95	0.44	0.90	0.91	0.33
Control Delay	52.4	5.4	67.2	8.4	45.9	47.1	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.4	5.4	67.2	8.4	45.9	47.1	7.8
LOS	D	A	E	A	D	D	A
Approach Delay	39.8			26.9		39.8	
Approach LOS	D			C		D	

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 19 (32%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.99
 Intersection Signal Delay: 35.1
 Intersection LOS: D
 Intersection Capacity Utilization 82.3%
 ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 11: I-215 SB Ramps & Ramona Exwy.



HCM 6th Signalized Intersection Summary
 11: I-215 SB Ramps & Ramona Exwy.

Barker Logistics (JN 12216)

03/11/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑					↘	↙	↗
Traffic Volume (veh/h)	0	927	340	417	904	0	0	0	0	845	5	179
Future Volume (veh/h)	0	927	340	417	904	0	0	0	0	845	5	179
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	956	238	430	932	0				875	0	112
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	963	429	452	2106	0				1025	0	456
Arrive On Green	0.00	0.27	0.27	0.15	0.35	0.00				0.28	0.00	0.28
Sat Flow, veh/h	0	3705	1610	1810	3705	0				3619	0	1610
Grp Volume(v), veh/h	0	956	238	430	932	0				875	0	112
Grp Sat Flow(s),veh/h/ln	0	1805	1610	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	15.8	7.6	14.1	11.9	0.0				13.7	0.0	3.2
Cycle Q Clear(g_c), s	0.0	15.8	7.6	14.1	11.9	0.0				13.7	0.0	3.2
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	963	429	452	2106	0				1025	0	456
V/C Ratio(X)	0.00	0.99	0.55	0.95	0.44	0.00				0.85	0.00	0.25
Avail Cap(c_a), veh/h	0	963	429	452	2106	0				1025	0	456
HCM Platoon Ratio	1.00	1.00	1.00	0.60	0.60	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.81	0.81	0.71	0.71	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	21.9	18.9	25.1	12.0	0.0				20.3	0.0	16.6
Incr Delay (d2), s/veh	0.0	24.5	4.1	24.1	0.5	0.0				9.0	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	8.8	2.8	8.8	4.0	0.0				6.1	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	46.4	23.1	49.2	12.5	0.0				29.3	0.0	17.8
LnGrp LOS	A	D	C	D	B	A				C	A	B
Approach Vol, veh/h		1194			1362						987	
Approach Delay, s/veh		41.8			24.1						28.0	
Approach LOS		D			C						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	19.0	20.0		21.0		39.0						
Change Period (Y+Rc), s	4.5	6.0		5.5		6.0						
Max Green Setting (Gmax), s	14.5	14.0		15.5		33.0						
Max Q Clear Time (g_c+I1), s	16.1	17.8		15.7		13.9						
Green Ext Time (p_c), s	0.0	0.0		0.0		3.7						

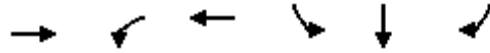
Intersection Summary

HCM 6th Ctrl Delay	31.1
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Timings
13: I-215 SB Ramps & Nuevo Rd.

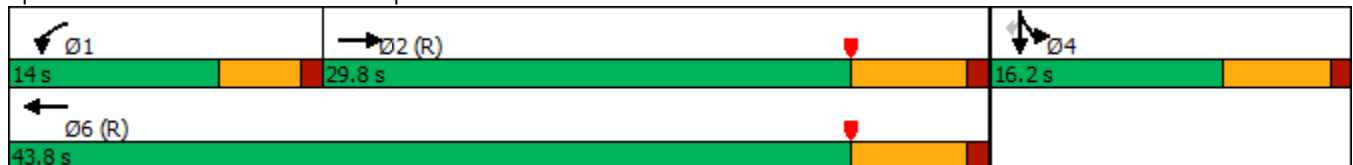


Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑	↑↑	↑	↑	↑
Traffic Volume (vph)	440	612	452	572	4	76
Future Volume (vph)	440	612	452	572	4	76
Turn Type	NA	Prot	NA	Split	NA	Perm
Protected Phases	2	1	6	4	4	
Permitted Phases						4
Detector Phase	2	1	6	4	4	4
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	28.2	9.6	28.2	15.8	15.8	15.8
Total Split (s)	29.8	14.0	43.8	16.2	16.2	16.2
Total Split (%)	49.7%	23.3%	73.0%	27.0%	27.0%	27.0%
Yellow Time (s)	5.2	3.6	5.2	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-2.2	-0.6	-2.2	-1.8	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes				
Recall Mode	C-Max	None	C-Max	Max	Max	Max
Act Effct Green (s)	25.8	10.0	39.8	12.2	12.2	12.2
Actuated g/C Ratio	0.43	0.17	0.66	0.20	0.20	0.20
v/c Ratio	0.46	1.10	0.20	0.86	0.87	0.18
Control Delay	8.8	88.0	2.4	50.5	51.7	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.8	88.0	2.4	50.5	51.7	2.2
LOS	A	F	A	D	D	A
Approach Delay	8.8		51.6		45.4	
Approach LOS	A		D		D	

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 18.6 (31%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.10
 Intersection Signal Delay: 37.6
 Intersection LOS: D
 Intersection Capacity Utilization 63.8%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 13: I-215 SB Ramps & Nuevo Rd.



HCM 6th Signalized Intersection Summary
 13: I-215 SB Ramps & Nuevo Rd.

Barker Logistics (JN 12216)
 03/11/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑↑	↑↑					↑	↑	↑
Traffic Volume (veh/h)	0	440	257	612	452	0	0	0	0	572	4	76
Future Volume (veh/h)	0	440	257	612	452	0	0	0	0	572	4	76
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	463	214	644	476	0				605	0	32
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1034	474	585	2395	0				736	0	327
Arrive On Green	0.00	0.43	0.39	0.06	0.22	0.00				0.20	0.00	0.20
Sat Flow, veh/h	0	2499	1103	3510	3705	0				3619	0	1610
Grp Volume(v), veh/h	0	347	330	644	476	0				605	0	32
Grp Sat Flow(s),veh/h/ln	0	1805	1701	1755	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	8.1	8.5	10.0	6.5	0.0				9.6	0.0	1.0
Cycle Q Clear(g_c), s	0.0	8.1	8.5	10.0	6.5	0.0				9.6	0.0	1.0
Prop In Lane	0.00		0.65	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	776	732	585	2395	0				736	0	327
V/C Ratio(X)	0.00	0.45	0.45	1.10	0.20	0.00				0.82	0.00	0.10
Avail Cap(c_a), veh/h	0	776	732	585	2395	0				736	0	327
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.82	0.82	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	12.1	12.7	28.3	10.4	0.0				22.9	0.0	19.4
Incr Delay (d2), s/veh	0.0	1.9	2.0	64.6	0.2	0.0				10.0	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.9	2.9	9.4	1.5	0.0				4.6	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	13.9	14.7	93.0	10.6	0.0				32.9	0.0	20.0
LnGrp LOS	A	B	B	F	B	A				C	A	C
Approach Vol, veh/h		677			1120						637	
Approach Delay, s/veh		14.3			58.0						32.3	
Approach LOS		B			E						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	14.0	29.8		16.2		43.8						
Change Period (Y+Rc), s	4.6	6.2		5.8		6.2						
Max Green Setting (Gmax), s	9.4	23.6		10.4		37.6						
Max Q Clear Time (g_c+I1), s	12.0	10.5		11.6		8.5						
Green Ext Time (p_c), s	0.0	3.1		0.0		2.9						

Intersection Summary

HCM 6th Ctrl Delay	39.1
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

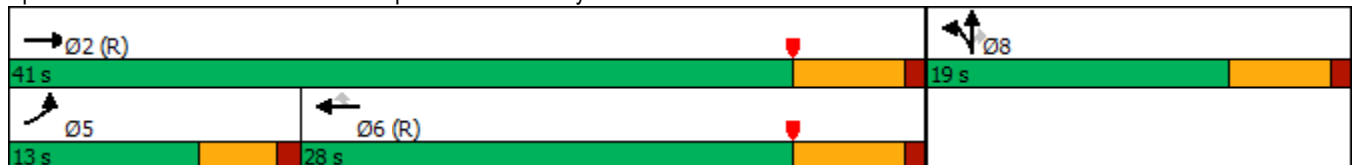
Timings
14: I-215 NB Ramps & Ramona Exwy.

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	268	1504	951	746	370	2	412
Future Volume (vph)	268	1504	951	746	370	2	412
Turn Type	Prot	NA	NA	Perm	Split	NA	Perm
Protected Phases	5	2	6		8	8	
Permitted Phases				6			8
Detector Phase	5	2	6	6	8	8	8
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	11.0	26.0	26.0	10.5	10.5	10.5
Total Split (s)	13.0	41.0	28.0	28.0	19.0	19.0	19.0
Total Split (%)	21.7%	68.3%	46.7%	46.7%	31.7%	31.7%	31.7%
Yellow Time (s)	3.5	5.0	5.0	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.5	-2.0	-2.0	-2.0	-1.5	-1.5	-1.5
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None
Act Effct Green (s)	9.5	37.5	24.0	24.0	14.5	14.5	14.5
Actuated g/C Ratio	0.16	0.62	0.40	0.40	0.24	0.24	0.24
v/c Ratio	0.99	0.70	0.69	0.74	0.47	0.47	0.88
Control Delay	68.2	13.0	18.1	7.2	23.6	23.6	37.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.2	13.0	18.1	7.2	23.6	23.6	37.2
LOS	E	B	B	A	C	C	D
Approach Delay		21.4	13.3			30.7	
Approach LOS		C	B			C	

Intersection Summary






















Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 19 (32%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.99
 Intersection Signal Delay: 19.9
 Intersection LOS: B
 Intersection Capacity Utilization 82.3%
 ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 14: I-215 NB Ramps & Ramona Exwy.



HCM 6th Signalized Intersection Summary
 14: I-215 NB Ramps & Ramona Exwy.

Barker Logistics (JN 12216)
 02/26/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 							
Traffic Volume (veh/h)	268	1504	0	0	951	746	370	2	412	0	0	0
Future Volume (veh/h)	268	1504	0	0	951	746	370	2	412	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	282	1583	0	0	1001	609	390	0	308			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	271	2256	0	0	1474	657	875	0	389			
Arrive On Green	0.30	1.00	0.00	0.00	0.41	0.41	0.24	0.00	0.24			
Sat Flow, veh/h	1810	3705	0	0	3705	1610	3619	0	1610			
Grp Volume(v), veh/h	282	1583	0	0	1001	609	390	0	308			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1610	1810	0	1610			
Q Serve(g_s), s	9.0	0.0	0.0	0.0	13.6	21.6	5.5	0.0	10.8			
Cycle Q Clear(g_c), s	9.0	0.0	0.0	0.0	13.6	21.6	5.5	0.0	10.8			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	271	2256	0	0	1474	657	875	0	389			
V/C Ratio(X)	1.04	0.70	0.00	0.00	0.68	0.93	0.45	0.00	0.79			
Avail Cap(c_a), veh/h	271	2256	0	0	1474	657	905	0	403			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.23	0.23	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	21.0	0.0	0.0	0.0	14.5	16.9	19.3	0.0	21.3			
Incr Delay (d2), s/veh	36.9	0.4	0.0	0.0	2.5	21.0	0.4	0.0	10.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.4	0.1	0.0	0.0	4.7	9.8	2.0	0.0	4.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.9	0.4	0.0	0.0	17.1	37.9	19.7	0.0	31.4			
LnGrp LOS	F	A	A	A	B	D	B	A	C			
Approach Vol, veh/h		1865			1610			698				
Approach Delay, s/veh		9.1			25.0			24.8				
Approach LOS		A			C			C				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		41.5			13.0	28.5		18.5				
Change Period (Y+Rc), s		6.0			4.5	6.0		5.5				
Max Green Setting (Gmax), s		35.0			8.5	22.0		13.5				
Max Q Clear Time (g_c+I1), s		2.0			11.0	23.6		12.8				
Green Ext Time (p_c), s		8.7			0.0	0.0		0.2				

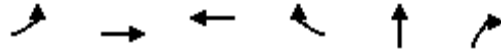
Intersection Summary

HCM 6th Ctrl Delay	17.9
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Timings
16: I-215 NB Ramps & Nuevo Rd.

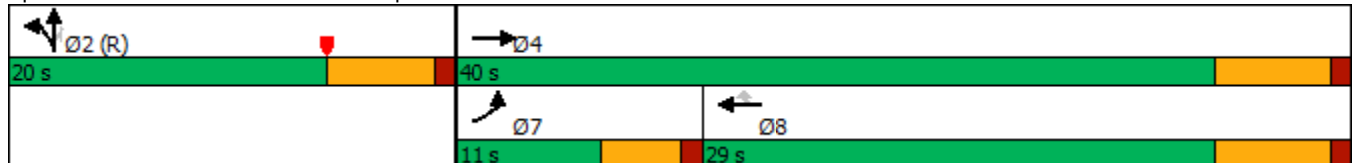


Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Configurations	↖	↑↑	↑↑↑	↗	↑	↗↗
Traffic Volume (vph)	54	958	942	428	1	345
Future Volume (vph)	54	958	942	428	1	345
Turn Type	Prot	NA	NA	Perm	NA	Perm
Protected Phases	7	4	8		2	
Permitted Phases				8		2
Detector Phase	7	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	28.2	28.2	28.2	15.8	15.8
Total Split (s)	11.0	40.0	29.0	29.0	20.0	20.0
Total Split (%)	18.3%	66.7%	48.3%	48.3%	33.3%	33.3%
Yellow Time (s)	3.6	5.2	5.2	5.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-2.2	-2.2	-2.2	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	6.5	31.8	25.2	25.2	20.2	20.2
Actuated g/C Ratio	0.11	0.53	0.42	0.42	0.34	0.34
v/c Ratio	0.35	0.63	0.54	0.55	0.25	0.41
Control Delay	36.4	8.1	14.2	3.8	18.0	12.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.4	8.1	14.2	3.8	18.0	12.8
LOS	D	A	B	A	B	B
Approach Delay		9.6	10.9		14.1	
Approach LOS		A	B		B	

Intersection Summary























Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 16 (27%), Referenced to phase 2:NBT and 6:, Start of Yellow
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.63
 Intersection Signal Delay: 11.0
 Intersection LOS: B
 Intersection Capacity Utilization 63.8%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 16: I-215 NB Ramps & Nuevo Rd.



HCM 6th Signalized Intersection Summary
 16: I-215 NB Ramps & Nuevo Rd.

Barker Logistics (JN 12216)
 02/26/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			  				 			
Traffic Volume (veh/h)	54	958	0	0	942	428	121	1	345	0	0	0
Future Volume (veh/h)	54	958	0	0	942	428	121	1	345	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	68	1198	0	0	1178	403	151	1	17			
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	120	1810	0	0	1910	590	657	4	1035			
Arrive On Green	0.13	1.00	0.00	0.00	0.37	0.37	0.37	0.37	0.37			
Sat Flow, veh/h	1810	3705	0	0	5358	1601	1798	12	2834			
Grp Volume(v), veh/h	68	1198	0	0	1178	403	152	0	17			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1729	1601	1810	0	1417			
Q Serve(g_s), s	2.1	0.0	0.0	0.0	11.1	12.7	3.5	0.0	0.2			
Cycle Q Clear(g_c), s	2.1	0.0	0.0	0.0	11.1	12.7	3.5	0.0	0.2			
Prop In Lane	1.00		0.00	0.00		1.00	0.99		1.00			
Lane Grp Cap(c), veh/h	120	1810	0	0	1910	590	661	0	1035			
V/C Ratio(X)	0.57	0.66	0.00	0.00	0.62	0.68	0.23	0.00	0.02			
Avail Cap(c_a), veh/h	211	2166	0	0	2161	667	661	0	1035			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.78	0.78	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	25.2	0.0	0.0	0.0	15.5	16.0	13.2	0.0	12.2			
Incr Delay (d2), s/veh	1.2	0.5	0.0	0.0	0.4	2.5	0.8	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.8	0.1	0.0	0.0	3.5	4.0	1.3	0.0	0.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.4	0.5	0.0	0.0	15.9	18.5	14.0	0.0	12.2			
LnGrp LOS	C	A	A	A	B	B	B	A	B			
Approach Vol, veh/h		1266			1581			169				
Approach Delay, s/veh		1.8			16.6			13.8				
Approach LOS		A			B			B				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		25.9		34.1			8.0	26.1				
Change Period (Y+Rc), s		5.8		6.2			4.6	6.2				
Max Green Setting (Gmax), s		14.2		33.8			6.4	22.8				
Max Q Clear Time (g_c+I1), s		5.5		2.0			4.1	14.7				
Green Ext Time (p_c), s		0.5		9.3			0.0	5.1				
Intersection Summary												
HCM 6th Ctrl Delay				10.2								
HCM 6th LOS				B								

APPENDIX 6.2:

**EAP (2021) WITH I-215/PLACENTIA INTERCHANGE CONDITIONS INTERSECTION
OPERATIONS ANALYSIS WORKSHEETS**

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Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕	↕		↕			↕	
Traffic Vol, veh/h	1	44	5	11	27	2	0	4	8	0	1	5
Future Vol, veh/h	1	44	5	11	27	2	0	4	8	0	1	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	49	6	12	30	2	0	4	9	0	1	6

Major/Minor	Major1		Major2		Minor1			Minor2				
Conflicting Flow All	32	0	0	55	0	0	110	107	49	115	111	30
Stage 1	-	-	-	-	-	-	51	51	-	54	54	-
Stage 2	-	-	-	-	-	-	59	56	-	61	57	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1593	-	-	1563	-	-	873	787	1025	867	783	1050
Stage 1	-	-	-	-	-	-	967	856	-	963	854	-
Stage 2	-	-	-	-	-	-	958	852	-	955	851	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1593	-	-	1563	-	-	862	780	1025	850	776	1050
Mov Cap-2 Maneuver	-	-	-	-	-	-	862	780	-	850	776	-
Stage 1	-	-	-	-	-	-	966	855	-	962	847	-
Stage 2	-	-	-	-	-	-	944	845	-	941	850	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	2	8.9	8.7
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	928	1593	-	-	1563	-	-	992
HCM Lane V/C Ratio	0.014	0.001	-	-	0.008	-	-	0.007
HCM Control Delay (s)	8.9	7.3	0	-	7.3	0	-	8.7
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	4	5	0	2	1	16	17	6	10	1
Future Vol, veh/h	0	0	4	5	0	2	1	16	17	6	10	1
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	54	54	54	54	54	54	54	54	54	54	54	54
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	7	9	0	4	2	30	31	11	19	2

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	94	107	20	96	93	46	21	0	0	61	0	0
Stage 1	42	42	-	50	50	-	-	-	-	-	-	-
Stage 2	52	65	-	46	43	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	894	787	1064	891	801	1029	1608	-	-	1555	-	-
Stage 1	978	864	-	968	857	-	-	-	-	-	-	-
Stage 2	966	845	-	973	863	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	885	781	1064	879	795	1029	1608	-	-	1555	-	-
Mov Cap-2 Maneuver	885	781	-	879	795	-	-	-	-	-	-	-
Stage 1	977	858	-	967	856	-	-	-	-	-	-	-
Stage 2	962	844	-	959	857	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.4	9	0.2	2.6
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1608	-	-	1064	917	1555	-
HCM Lane V/C Ratio	0.001	-	-	0.007	0.014	0.007	-
HCM Control Delay (s)	7.2	0	-	8.4	9	7.3	0
HCM Lane LOS	A	A	-	A	A	A	A
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-

Intersection						
Int Delay, s/veh	3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	2	2	4	32	17	2
Future Vol, veh/h	2	2	4	32	17	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, %	0	0	0	0	0	0
Mvmt Flow	3	3	5	43	23	3

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	48	0	-	0	36 27
Stage 1	-	-	-	-	27 -
Stage 2	-	-	-	-	9 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1572	-	-	-	982 1054
Stage 1	-	-	-	-	1001 -
Stage 2	-	-	-	-	1019 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1572	-	-	-	980 1054
Mov Cap-2 Maneuver	-	-	-	-	980 -
Stage 1	-	-	-	-	999 -
Stage 2	-	-	-	-	1019 -

Approach	EB	WB	SB
HCM Control Delay, s	3.6	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1572	-	-	-	987
HCM Lane V/C Ratio	0.002	-	-	-	0.026
HCM Control Delay (s)	7.3	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	19	1	3	33	26	3	0	6	8	0	0
Future Vol, veh/h	0	19	1	3	33	26	3	0	6	8	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	28	1	4	48	38	4	0	9	12	0	0

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	86	0	0	29	0	0	104	123	29	108	104	67
Stage 1	-	-	-	-	-	-	29	29	-	75	75	-
Stage 2	-	-	-	-	-	-	75	94	-	33	29	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1523	-	-	1597	-	-	881	771	1052	876	790	1002
Stage 1	-	-	-	-	-	-	993	875	-	939	836	-
Stage 2	-	-	-	-	-	-	939	821	-	988	875	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1523	-	-	1597	-	-	879	769	1052	866	788	1002
Mov Cap-2 Maneuver	-	-	-	-	-	-	879	769	-	866	788	-
Stage 1	-	-	-	-	-	-	993	875	-	939	833	-
Stage 2	-	-	-	-	-	-	936	819	-	980	875	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.4	8.7	9.2
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	987	1523	-	-	1597	-	-	866
HCM Lane V/C Ratio	0.013	-	-	-	0.003	-	-	0.013
HCM Control Delay (s)	8.7	0	-	-	7.3	0	-	9.2
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

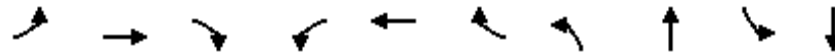
Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	0	33	62	37	11	0
Future Vol, veh/h	0	33	62	37	11	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	36	67	40	12	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	107	0	-	0	123 87
Stage 1	-	-	-	-	87 -
Stage 2	-	-	-	-	36 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1497	-	-	-	877 977
Stage 1	-	-	-	-	941 -
Stage 2	-	-	-	-	992 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1497	-	-	-	877 977
Mov Cap-2 Maneuver	-	-	-	-	877 -
Stage 1	-	-	-	-	941 -
Stage 2	-	-	-	-	992 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1497	-	-	-	877
HCM Lane V/C Ratio	-	-	-	-	0.014
HCM Control Delay (s)	0	-	-	-	9.2
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Timings
6: Harvill Av. & Cajalco Exwy./Ramona Exwy.

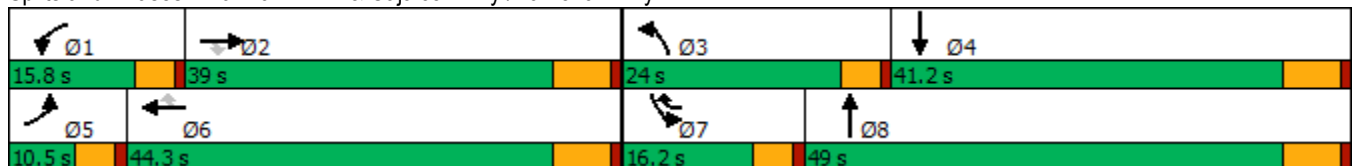


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations	↙	↑↑	↗	↙↗	↑↑	↗	↙↗	↑↔	↙↗	↑↔
Traffic Volume (vph)	26	570	277	65	687	191	467	320	191	143
Future Volume (vph)	26	570	277	65	687	191	467	320	191	143
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases	5	2		1	6	7	3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	7	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	36.2	36.2	9.6	34.2	9.6	9.6	16.2	9.6	41.2
Total Split (s)	10.5	39.0	39.0	15.8	44.3	16.2	24.0	49.0	16.2	41.2
Total Split (%)	8.8%	32.5%	32.5%	13.2%	36.9%	13.5%	20.0%	40.8%	13.5%	34.3%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	3.6	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	4.6	4.6	6.2	4.6	6.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	Max	None	None	None	None	None
Act Effct Green (s)	5.6	36.1	36.1	6.4	41.2	52.1	16.6	21.4	9.3	14.2
Actuated g/C Ratio	0.06	0.39	0.39	0.07	0.44	0.56	0.18	0.23	0.10	0.15
v/c Ratio	0.25	0.42	0.36	0.28	0.44	0.20	0.76	0.42	0.56	0.29
Control Delay	53.2	24.6	4.8	48.1	21.9	2.8	46.7	31.4	48.7	35.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.2	24.6	4.8	48.1	21.9	2.8	46.7	31.4	48.7	35.1
LOS	D	C	A	D	C	A	D	C	D	D
Approach Delay		19.2			19.8			40.3		42.6
Approach LOS		B			B			D		D

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 93
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.76
 Intersection Signal Delay: 27.8
 Intersection LOS: C
 Intersection Capacity Utilization 65.0%
 ICU Level of Service C
 Analysis Period (min) 15

























Splits and Phases: 6: Harvill Av. & Cajalco Exwy./Ramona Exwy.



HCM 6th Signalized Intersection Summary
6: Harvill Av. & Cajalco Exwy./Ramona Exwy.

Barker Logistics (JN 12216)

02/26/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	570	277	65	687	191	467	320	18	191	143	11
Future Volume (veh/h)	26	570	277	65	687	191	467	320	18	191	143	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	27	582	232	66	701	117	477	327	-20	195	146	8
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	50	1515	674	161	1581	831	565	751	0	275	436	24
Arrive On Green	0.03	0.42	0.42	0.05	0.44	0.44	0.16	0.21	0.00	0.08	0.13	0.13
Sat Flow, veh/h	1810	3610	1607	3510	3610	1609	3510	3705	0	3510	3480	189
Grp Volume(v), veh/h	27	582	232	66	701	117	477	307	0	195	75	79
Grp Sat Flow(s),veh/h/ln	1810	1805	1607	1755	1805	1609	1755	1805	0	1755	1805	1865
Q Serve(g_s), s	1.3	9.7	8.5	1.6	11.8	3.3	11.5	6.4	0.0	4.7	3.3	3.4
Cycle Q Clear(g_c), s	1.3	9.7	8.5	1.6	11.8	3.3	11.5	6.4	0.0	4.7	3.3	3.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		0.10
Lane Grp Cap(c), veh/h	50	1515	674	161	1581	831	565	751	0	275	226	234
V/C Ratio(X)	0.54	0.38	0.34	0.41	0.44	0.14	0.84	0.41	0.00	0.71	0.33	0.34
Avail Cap(c_a), veh/h	123	1515	674	452	1581	831	783	1776	0	468	726	750
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.8	17.5	17.1	40.4	17.1	11.0	35.4	29.8	0.0	39.1	34.7	34.7
Incr Delay (d2), s/veh	3.4	0.7	1.4	0.6	0.9	0.4	4.6	0.4	0.0	1.3	0.9	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	3.7	3.0	0.7	4.5	1.1	4.9	2.6	0.0	2.1	1.5	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	45.1	18.2	18.5	41.0	18.0	11.3	40.0	30.2	0.0	40.4	35.6	35.6
LnGrp LOS	D	B	B	D	B	B	D	C	A	D	D	D
Approach Vol, veh/h		841			884			784			349	
Approach Delay, s/veh		19.2			18.8			36.2			38.3	
Approach LOS		B			B			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.6	42.7	18.6	17.1	7.0	44.3	11.4	24.3				
Change Period (Y+Rc), s	4.6	6.2	4.6	6.2	4.6	6.2	4.6	6.2				
Max Green Setting (Gmax), s	11.2	32.8	19.4	35.0	5.9	38.1	11.6	42.8				
Max Q Clear Time (g_c+11), s	3.6	11.7	13.5	5.4	3.3	13.8	6.7	8.4				
Green Ext Time (p_c), s	0.0	4.2	0.5	0.8	0.0	4.8	0.2	1.8				
Intersection Summary												
HCM 6th Ctrl Delay			26.0									
HCM 6th LOS			C									

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖	↖	↖	↖↗		↖	↖↗	
Traffic Vol, veh/h	25	0	34	0	0	0	21	760	3	0	395	14
Future Vol, veh/h	25	0	34	0	0	0	21	760	3	0	395	14
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	115	-	-	165	-	0	150	-	-	160	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	27	0	37	0	0	0	23	826	3	0	429	15

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	896	1312	222	1089	1318	415	444	0	0	829	0	0
Stage 1	437	437	-	874	874	-	-	-	-	-	-	-
Stage 2	459	875	-	215	444	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	238	160	788	172	159	592	1127	-	-	811	-	-
Stage 1	574	583	-	315	370	-	-	-	-	-	-	-
Stage 2	557	370	-	773	579	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	234	157	788	161	156	592	1127	-	-	811	-	-
Mov Cap-2 Maneuver	360	270	-	254	267	-	-	-	-	-	-	-
Stage 1	563	583	-	309	363	-	-	-	-	-	-	-
Stage 2	546	363	-	737	579	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.3	0	0.2	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	1127	-	-	360	-	788	-	-	-	811	-	-
HCM Lane V/C Ratio	0.02	-	-	0.075	-	0.047	-	-	-	-	-	-
HCM Control Delay (s)	8.3	-	-	15.8	0	9.8	0	0	0	0	-	-
HCM Lane LOS	A	-	-	C	A	A	A	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	-	0.1	-	-	-	0	-	-

Intersection	
Intersection Delay, s/veh	122.1
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕		↕	↕	
Traffic Vol, veh/h	8	24	10	308	66	555	17	376	237	417	146	12
Future Vol, veh/h	8	24	10	308	66	555	17	376	237	417	146	12
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	9	26	11	331	71	597	18	404	255	448	157	13
Number of Lanes	0	1	0	0	1	1	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	17.5	168.7	55.9	126.8
HCM LOS	C	F	F	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	19%	82%	0%	100%	0%	0%
Vol Thru, %	0%	100%	35%	57%	18%	0%	0%	100%	80%
Vol Right, %	0%	0%	65%	24%	0%	100%	0%	0%	20%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	17	251	362	42	374	555	417	97	61
LT Vol	17	0	0	8	308	0	417	0	0
Through Vol	0	251	125	24	66	0	0	97	49
RT Vol	0	0	237	10	0	555	0	0	12
Lane Flow Rate	18	270	390	45	402	597	448	105	65
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.05	0.706	0.972	0.147	1.063	1.394	1.258	0.279	0.171
Departure Headway (Hd)	10.939	10.416	9.937	12.627	10.098	8.957	10.768	10.246	10.102
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	329	350	366	286	362	412	341	353	357
Service Time	8.639	8.116	7.637	10.327	7.798	6.657	8.468	7.946	7.802
HCM Lane V/C Ratio	0.055	0.771	1.066	0.157	1.11	1.449	1.314	0.297	0.182
HCM Control Delay	14.2	34.6	72.6	17.5	97.9	216.4	168.8	16.9	14.9
HCM Lane LOS	B	D	F	C	F	F	F	C	B
HCM 95th-tile Q	0.2	5.1	10.9	0.5	13.4	27.4	19.1	1.1	0.6

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↔			↕	↕	↕	↕↔		↕	↕↔	
Traffic Vol, veh/h	23	0	8	8	0	11	9	546	17	15	321	17
Future Vol, veh/h	23	0	8	8	0	11	9	546	17	15	321	17
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	-	-	-	-	-	0	160	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	25	0	9	9	0	12	10	587	18	16	345	18

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	700	1011	182	821	1011	303	363	0	0	605	0	0
Stage 1	386	386	-	616	616	-	-	-	-	-	-	-
Stage 2	314	625	-	205	395	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	330	241	836	270	241	699	1207	-	-	983	-	-
Stage 1	614	614	-	450	485	-	-	-	-	-	-	-
Stage 2	677	480	-	784	608	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	318	235	836	262	235	699	1207	-	-	983	-	-
Mov Cap-2 Maneuver	318	235	-	262	235	-	-	-	-	-	-	-
Stage 1	609	604	-	446	481	-	-	-	-	-	-	-
Stage 2	660	476	-	763	598	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.4	14	0.1	0.4
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1207	-	-	379	262	699	983	-	-
HCM Lane V/C Ratio	0.008	-	-	0.088	0.033	0.017	0.016	-	-
HCM Control Delay (s)	8	-	-	15.4	19.2	10.2	8.7	-	-
HCM Lane LOS	A	-	-	C	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.1	0.1	0.1	-	-

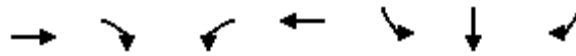
Intersection	
Intersection Delay, s/veh	161.1
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕		↕	↕		↕	↕	
Traffic Vol, veh/h	0	4	1	544	0	229	4	322	605	130	232	3
Future Vol, veh/h	0	4	1	544	0	229	4	322	605	130	232	3
Peak Hour Factor	0.92	0.92	0.92	0.90	0.92	0.90	0.92	0.90	0.90	0.90	0.90	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	4	1	604	0	254	4	358	672	144	258	3
Number of Lanes	0	1	0	1	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	14.8	80.6	284.2	19.5
HCM LOS	B	F	F	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	0%	100%	38%	100%	0%	0%
Vol Thru, %	0%	100%	15%	80%	0%	0%	0%	100%	96%
Vol Right, %	0%	0%	85%	20%	0%	62%	0%	0%	4%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	4	215	712	5	403	370	130	155	80
LT Vol	4	0	0	0	403	141	130	0	0
Through Vol	0	215	107	4	0	0	0	155	77
RT Vol	0	0	605	1	0	229	0	0	3
Lane Flow Rate	4	239	791	5	447	412	144	172	89
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.011	0.565	1.745	0.016	1.085	0.914	0.386	0.435	0.225
Departure Headway (Hd)	9.39	8.872	8.256	11.929	9.726	8.972	10.837	10.313	10.286
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	383	410	451	302	376	407	334	352	351
Service Time	7.09	6.572	5.956	9.629	7.426	6.672	8.537	8.013	7.986
HCM Lane V/C Ratio	0.01	0.583	1.754	0.017	1.189	1.012	0.431	0.489	0.254
HCM Control Delay	12.2	22.5	364.5	14.8	103.1	56.1	20.2	20.7	15.9
HCM Lane LOS	B	C	F	B	F	F	C	C	C
HCM 95th-tile Q	0	3.4	46.7	0	14.4	9.8	1.8	2.1	0.8

Timings
11: I-215 SB Ramps & Ramona Exwy.

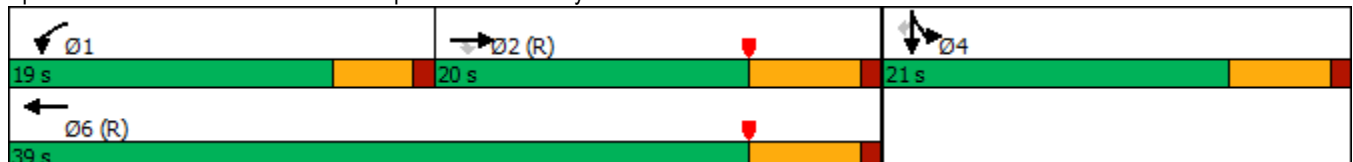


Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑	↑
Traffic Volume (vph)	547	254	264	792	549	3	151
Future Volume (vph)	547	254	264	792	549	3	151
Turn Type	NA	Perm	Prot	NA	Split	NA	Perm
Protected Phases	2		1	6	4	4	
Permitted Phases		2					4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	9.5	31.0	10.5	10.5	10.5
Total Split (s)	20.0	20.0	19.0	39.0	21.0	21.0	21.0
Total Split (%)	33.3%	33.3%	31.7%	65.0%	35.0%	35.0%	35.0%
Yellow Time (s)	5.0	5.0	3.5	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.5	6.0	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max	Max
Act Effct Green (s)	15.7	15.7	12.8	33.0	15.5	15.5	15.5
Actuated g/C Ratio	0.26	0.26	0.21	0.55	0.26	0.26	0.26
v/c Ratio	0.60	0.43	0.71	0.41	0.64	0.64	0.29
Control Delay	23.1	5.6	47.4	7.0	27.5	27.8	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.1	5.6	47.4	7.0	27.5	27.8	5.5
LOS	C	A	D	A	C	C	A
Approach Delay	17.5			17.1		22.9	
Approach LOS	B			B		C	

Intersection Summary













Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 19 (32%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.71
 Intersection Signal Delay: 18.8
 Intersection LOS: B
 Intersection Capacity Utilization 73.3%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 11: I-215 SB Ramps & Ramona Exwy.



HCM 6th Signalized Intersection Summary
 11: I-215 SB Ramps & Ramona Exwy.

Barker Logistics (JN 12216)
 02/26/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑					↖	↗	↗
Traffic Volume (veh/h)	0	547	254	264	792	0	0	0	0	549	3	151
Future Volume (veh/h)	0	547	254	264	792	0	0	0	0	549	3	151
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	564	153	272	816	0				568	0	92
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1054	469	331	1986	0				935	0	416
Arrive On Green	0.00	0.29	0.29	0.11	0.33	0.00				0.26	0.00	0.26
Sat Flow, veh/h	0	3705	1607	1810	3705	0				3619	0	1610
Grp Volume(v), veh/h	0	564	153	272	816	0				568	0	92
Grp Sat Flow(s),veh/h/ln	0	1805	1607	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	7.9	4.5	8.8	10.5	0.0				8.3	0.0	2.7
Cycle Q Clear(g_c), s	0.0	7.9	4.5	8.8	10.5	0.0				8.3	0.0	2.7
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1054	469	331	1986	0				935	0	416
V/C Ratio(X)	0.00	0.53	0.33	0.82	0.41	0.00				0.61	0.00	0.22
Avail Cap(c_a), veh/h	0	1054	469	437	1986	0				935	0	416
HCM Platoon Ratio	1.00	1.00	1.00	0.60	0.60	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.89	0.89	0.85	0.85	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	17.8	16.6	25.8	12.6	0.0				19.6	0.0	17.5
Incr Delay (d2), s/veh	0.0	1.7	1.6	7.9	0.5	0.0				2.9	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.9	1.6	4.2	3.5	0.0				3.3	0.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	19.5	18.3	33.7	13.1	0.0				22.5	0.0	18.7
LnGrp LOS	A	B	B	C	B	A				C	A	B
Approach Vol, veh/h		717			1088						660	
Approach Delay, s/veh		19.3			18.2						22.0	
Approach LOS		B			B						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	15.5	23.5		21.0		39.0						
Change Period (Y+Rc), s	4.5	6.0		5.5		6.0						
Max Green Setting (Gmax), s	14.5	14.0		15.5		33.0						
Max Q Clear Time (g_c+I1), s	10.8	9.9		10.3		12.5						
Green Ext Time (p_c), s	0.3	1.1		1.2		3.2						

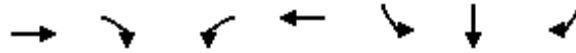
Intersection Summary

HCM 6th Ctrl Delay	19.5
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Timings
12: I-215 SB Ramps & Placentia St./Placentia Av.

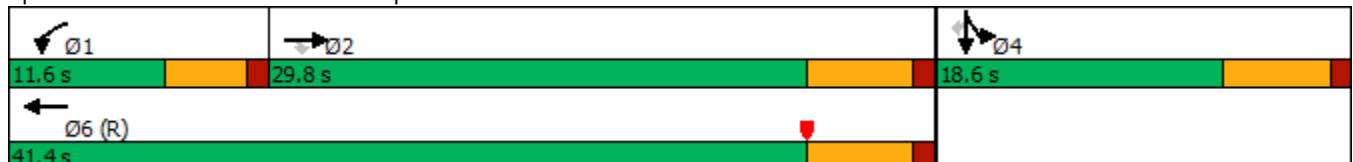


Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations	↑↑	↑	↑↑	↑↑	↑	↑	↑
Traffic Volume (vph)	275	132	186	369	261	0	112
Future Volume (vph)	275	132	186	369	261	0	112
Turn Type	NA	Perm	Prot	NA	Split	NA	Perm
Protected Phases	2		1	6	4	4	
Permitted Phases		2					4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	27.8	15.8	15.8	15.8
Total Split (s)	29.8	29.8	11.6	41.4	18.6	18.6	18.6
Total Split (%)	49.7%	49.7%	19.3%	69.0%	31.0%	31.0%	31.0%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	None	None	None	C-Max	Max	Max	Max
Act Effct Green (s)	24.3	24.3	6.7	35.6	12.8	12.8	12.8
Actuated g/C Ratio	0.40	0.40	0.11	0.59	0.21	0.21	0.21
v/c Ratio	0.20	0.19	0.52	0.19	0.39	0.39	0.27
Control Delay	12.2	3.3	32.0	4.8	24.0	24.0	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.2	3.3	32.0	4.8	24.0	24.0	5.6
LOS	B	A	C	A	C	C	A
Approach Delay	9.3			13.9		18.5	
Approach LOS	A			B		B	

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 0 (0%), Referenced to phase 6:WBT, Start of Yellow, Master Intersection
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.52
 Intersection Signal Delay: 13.8
 Intersection LOS: B
 Intersection Capacity Utilization 47.4%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 12: I-215 SB Ramps & Placentia St./Placentia Av.



HCM 6th Signalized Intersection Summary
 12: I-215 SB Ramps & Placentia St./Placentia Av.

Barker Logistics (JN 12216)
 02/26/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑↑	↑↑					↑	↑	↑
Traffic Volume (veh/h)	0	275	132	186	369	0	0	0	0	261	0	112
Future Volume (veh/h)	0	275	132	186	369	0	0	0	0	261	0	112
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	299	143	202	401	0				284	0	122
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1557	695	299	2142	0				772	0	344
Arrive On Green	0.00	0.43	0.43	0.17	1.00	0.00				0.21	0.00	0.21
Sat Flow, veh/h	0	3705	1610	3510	3705	0				3619	0	1610
Grp Volume(v), veh/h	0	299	143	202	401	0				284	0	122
Grp Sat Flow(s),veh/h/ln	0	1805	1610	1755	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	3.1	3.3	3.2	0.0	0.0				4.0	0.0	3.9
Cycle Q Clear(g_c), s	0.0	3.1	3.3	3.2	0.0	0.0				4.0	0.0	3.9
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1557	695	299	2142	0				772	0	344
V/C Ratio(X)	0.00	0.19	0.21	0.67	0.19	0.00				0.37	0.00	0.36
Avail Cap(c_a), veh/h	0	1557	695	410	2142	0				772	0	344
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.98	0.98	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	10.6	10.6	24.1	0.0	0.0				20.1	0.0	20.1
Incr Delay (d2), s/veh	0.0	0.1	0.1	1.0	0.2	0.0				1.4	0.0	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.0	1.0	1.2	0.1	0.0				1.6	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	10.6	10.8	25.1	0.2	0.0				21.5	0.0	22.9
LnGrp LOS	A	B	B	C	A	A				C	A	C
Approach Vol, veh/h		442			603						406	
Approach Delay, s/veh		10.7			8.5						21.9	
Approach LOS		B			A						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	9.7	31.7		18.6		41.4						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	7.0	24.0		12.8		35.6						
Max Q Clear Time (g_c+I1), s	5.2	5.3		6.0		2.0						
Green Ext Time (p_c), s	0.1	2.0		0.8		2.5						

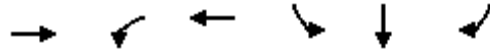
Intersection Summary

HCM 6th Ctrl Delay	12.9
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Timings
13: I-215 SB Ramps & Nuevo Rd.



Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑	↑↑	↑	↑	↑
Traffic Volume (vph)	435	292	729	234	3	70
Future Volume (vph)	435	292	729	234	3	70
Turn Type	NA	Prot	NA	Split	NA	Perm
Protected Phases	2	1	6	4	4	
Permitted Phases						4
Detector Phase	2	1	6	4	4	4
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	28.2	9.6	28.2	15.8	15.8	15.8
Total Split (s)	29.0	15.0	44.0	16.0	16.0	16.0
Total Split (%)	48.3%	25.0%	73.3%	26.7%	26.7%	26.7%
Yellow Time (s)	5.2	3.6	5.2	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	4.6	6.2	5.8	5.8	5.8
Lead/Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes				
Recall Mode	C-Max	None	C-Max	Max	Max	Max
Act Effct Green (s)	23.9	9.3	37.8	10.2	10.2	10.2
Actuated g/C Ratio	0.40	0.16	0.63	0.17	0.17	0.17
v/c Ratio	0.44	0.61	0.36	0.47	0.46	0.20
Control Delay	13.1	20.0	6.8	28.4	28.1	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.1	20.0	6.8	28.4	28.1	2.6
LOS	B	C	A	C	C	A
Approach Delay	13.1		10.6		22.4	
Approach LOS	B		B		C	

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 18.6 (31%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.61
 Intersection Signal Delay: 13.3
 Intersection LOS: B
 Intersection Capacity Utilization 48.6%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 13: I-215 SB Ramps & Nuevo Rd.



HCM 6th Signalized Intersection Summary
 13: I-215 SB Ramps & Nuevo Rd.

Barker Logistics (JN 12216)
 02/26/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑↑	↑↑					↑	↑	↑
Traffic Volume (veh/h)	0	435	118	292	729	0	0	0	0	234	3	70
Future Volume (veh/h)	0	435	118	292	729	0	0	0	0	234	3	70
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	494	94	332	828	0				268	0	7
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1284	243	454	2274	0				615	0	274
Arrive On Green	0.00	0.42	0.42	0.04	0.21	0.00				0.17	0.00	0.17
Sat Flow, veh/h	0	3123	573	3510	3705	0				3619	0	1610
Grp Volume(v), veh/h	0	293	295	332	828	0				268	0	7
Grp Sat Flow(s),veh/h/ln	0	1805	1797	1755	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	6.7	6.8	5.6	11.8	0.0				4.0	0.0	0.2
Cycle Q Clear(g_c), s	0.0	6.7	6.8	5.6	11.8	0.0				4.0	0.0	0.2
Prop In Lane	0.00		0.32	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	765	762	454	2274	0				615	0	274
V/C Ratio(X)	0.00	0.38	0.39	0.73	0.36	0.00				0.44	0.00	0.03
Avail Cap(c_a), veh/h	0	765	762	608	2274	0				615	0	274
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.81	0.81	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	11.9	11.9	27.7	13.5	0.0				22.3	0.0	20.8
Incr Delay (d2), s/veh	0.0	1.5	1.5	1.4	0.4	0.0				2.2	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.3	2.4	2.3	4.3	0.0				1.7	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	13.3	13.4	29.1	13.8	0.0				24.6	0.0	20.9
LnGrp LOS	A	B	B	C	B	A				C	A	C
Approach Vol, veh/h		588			1160							275
Approach Delay, s/veh		13.4			18.2							24.5
Approach LOS		B			B							C
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	12.4	31.6		16.0		44.0						
Change Period (Y+Rc), s	4.6	6.2		5.8		6.2						
Max Green Setting (Gmax), s	10.4	22.8		10.2		37.8						
Max Q Clear Time (g_c+I1), s	7.6	8.8		6.0		13.8						
Green Ext Time (p_c), s	0.2	2.6		0.4		5.3						

Intersection Summary

HCM 6th Ctrl Delay	17.6
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Timings
14: I-215 NB Ramps & Ramona Exwy.



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations	↶	↷	↶	↷	↶	↷	↷
Traffic Volume (vph)	144	952	845	745	210	3	322
Future Volume (vph)	144	952	845	745	210	3	322
Turn Type	Prot	NA	NA	Perm	Split	NA	Perm
Protected Phases	5	2	6		8	8	
Permitted Phases				6			8
Detector Phase	5	2	6	6	8	8	8
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	11.0	26.0	26.0	10.5	10.5	10.5
Total Split (s)	12.0	41.5	29.5	29.5	18.5	18.5	18.5
Total Split (%)	20.0%	69.2%	49.2%	49.2%	30.8%	30.8%	30.8%
Yellow Time (s)	3.5	5.0	5.0	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	6.0	5.5	5.5	5.5
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None
Act Effct Green (s)	7.6	37.2	27.3	27.3	11.3	11.3	11.3
Actuated g/C Ratio	0.13	0.62	0.46	0.46	0.19	0.19	0.19
v/c Ratio	0.65	0.44	0.53	0.67	0.34	0.34	0.80
Control Delay	41.2	10.1	14.7	4.7	23.4	23.3	29.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.2	10.1	14.7	4.7	23.4	23.3	29.7
LOS	D	B	B	A	C	C	C
Approach Delay		14.2	10.0			27.2	
Approach LOS		B	B			C	

Intersection Summary




















Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 19 (32%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.80
 Intersection Signal Delay: 14.3
 Intersection LOS: B
 Intersection Capacity Utilization 73.3%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 14: I-215 NB Ramps & Ramona Exwy.



HCM 6th Signalized Intersection Summary
 14: I-215 NB Ramps & Ramona Exwy.

Barker Logistics (JN 12216)
 02/26/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	144	952	0	0	845	745	210	3	322	0	0	0
Future Volume (veh/h)	144	952	0	0	845	745	210	3	322	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	148	981	0	0	871	486	218	0	180			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	185	2377	0	0	1737	775	543	0	241			
Arrive On Green	0.20	1.00	0.00	0.00	0.48	0.48	0.15	0.00	0.15			
Sat Flow, veh/h	1810	3705	0	0	3705	1610	3619	0	1610			
Grp Volume(v), veh/h	148	981	0	0	871	486	218	0	180			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1610	1810	0	1610			
Q Serve(g_s), s	4.7	0.0	0.0	0.0	9.9	13.5	3.3	0.0	6.4			
Cycle Q Clear(g_c), s	4.7	0.0	0.0	0.0	9.9	13.5	3.3	0.0	6.4			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	185	2377	0	0	1737	775	543	0	241			
V/C Ratio(X)	0.80	0.41	0.00	0.00	0.50	0.63	0.40	0.00	0.75			
Avail Cap(c_a), veh/h	226	2377	0	0	1737	775	784	0	349			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.76	0.76	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	23.3	0.0	0.0	0.0	10.6	11.6	23.1	0.0	24.4			
Incr Delay (d2), s/veh	12.0	0.4	0.0	0.0	1.0	3.8	0.5	0.0	5.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.2	0.1	0.0	0.0	3.0	4.2	1.3	0.0	2.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	35.3	0.4	0.0	0.0	11.7	15.4	23.5	0.0	29.4			
LnGrp LOS	D	A	A	A	B	B	C	A	C			
Approach Vol, veh/h		1129			1357			398				
Approach Delay, s/veh		5.0			13.0			26.2				
Approach LOS		A			B			C				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		45.5			10.6	34.9		14.5				
Change Period (Y+Rc), s		6.0			4.5	6.0		5.5				
Max Green Setting (Gmax), s		35.5			7.5	23.5		13.0				
Max Q Clear Time (g_c+I1), s		2.0			6.7	15.5		8.4				
Green Ext Time (p_c), s		4.3			0.0	3.0		0.6				

Intersection Summary

HCM 6th Ctrl Delay	11.7
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Timings
15: I-215 NB Ramps & Placentia Av.



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations	↶↶	↶↶	↶↶	↷	↶	↶	↷
Traffic Volume (vph)	70	466	388	346	168	0	249
Future Volume (vph)	70	466	388	346	168	0	249
Turn Type	Prot	NA	NA	Perm	Split	NA	Perm
Protected Phases	5	2	6		8	8	
Permitted Phases				6			8
Detector Phase	5	2	6	6	8	8	8
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.8	27.8	27.8	15.8	15.8	15.8
Total Split (s)	11.6	42.2	30.6	30.6	17.8	17.8	17.8
Total Split (%)	19.3%	70.3%	51.0%	51.0%	29.7%	29.7%	29.7%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None
Act Effct Green (s)	5.8	37.9	31.3	31.3	10.5	10.5	10.5
Actuated g/C Ratio	0.10	0.63	0.52	0.52	0.18	0.18	0.18
v/c Ratio	0.22	0.22	0.22	0.37	0.30	0.31	0.53
Control Delay	19.0	4.4	9.6	2.7	24.3	24.3	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.0	4.4	9.6	2.7	24.3	24.3	7.7
LOS	B	A	A	A	C	C	A
Approach Delay		6.3	6.3			14.4	
Approach LOS		A	A			B	

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.53
 Intersection Signal Delay: 8.3
 Intersection Capacity Utilization 47.4%
 Analysis Period (min) 15
























Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 15: I-215 NB Ramps & Placentia Av.

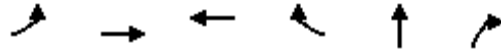


HCM 6th Signalized Intersection Summary
 15: I-215 NB Ramps & Placentia Av.

Barker Logistics (JN 12216)
 02/26/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 			 				
Traffic Volume (veh/h)	70	466	0	0	388	346	168	0	249	0	0	0
Future Volume (veh/h)	70	466	0	0	388	346	168	0	249	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	76	507	0	0	422	376	183	0	271			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	210	2202	0	0	1709	762	712	0	317			
Arrive On Green	0.06	0.61	0.00	0.00	0.47	0.47	0.20	0.00	0.20			
Sat Flow, veh/h	3510	3705	0	0	3705	1610	3619	0	1610			
Grp Volume(v), veh/h	76	507	0	0	422	376	183	0	271			
Grp Sat Flow(s),veh/h/ln	1755	1805	0	0	1805	1610	1810	0	1610			
Q Serve(g_s), s	1.2	3.8	0.0	0.0	4.2	9.6	2.6	0.0	9.8			
Cycle Q Clear(g_c), s	1.2	3.8	0.0	0.0	4.2	9.6	2.6	0.0	9.8			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	210	2202	0	0	1709	762	712	0	317			
V/C Ratio(X)	0.36	0.23	0.00	0.00	0.25	0.49	0.26	0.00	0.86			
Avail Cap(c_a), veh/h	410	2202	0	0	1709	762	724	0	322			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.97	0.97	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	27.1	5.3	0.0	0.0	9.4	10.8	20.4	0.0	23.3			
Incr Delay (d2), s/veh	0.4	0.2	0.0	0.0	0.3	2.3	0.2	0.0	19.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.5	0.9	0.0	0.0	1.3	3.0	1.0	0.0	4.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.5	5.5	0.0	0.0	9.8	13.1	20.6	0.0	42.8			
LnGrp LOS	C	A	A	A	A	B	C	A	D			
Approach Vol, veh/h		583			798			454				
Approach Delay, s/veh		8.4			11.3			33.8				
Approach LOS		A			B			C				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		42.4			8.2	34.2		17.6				
Change Period (Y+Rc), s		5.8			4.6	5.8		5.8				
Max Green Setting (Gmax), s		36.4			7.0	24.8		12.0				
Max Q Clear Time (g_c+I1), s		5.8			3.2	11.6		11.8				
Green Ext Time (p_c), s		3.2			0.0	3.2		0.0				
Intersection Summary												
HCM 6th Ctrl Delay				16.0								
HCM 6th LOS				B								
Notes												
User approved volume balancing among the lanes for turning movement.												

Timings
16: I-215 NB Ramps & Nuevo Rd.

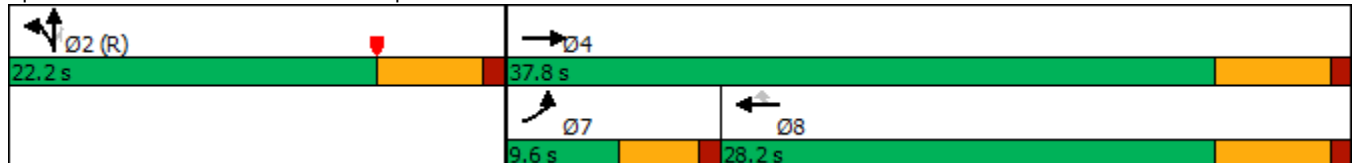


Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Configurations	↖	↑↑	↑↑↑	↗	↖	↗↗
Traffic Volume (vph)	31	638	801	294	2	427
Future Volume (vph)	31	638	801	294	2	427
Turn Type	Prot	NA	NA	Perm	NA	Perm
Protected Phases	7	4	8		2	
Permitted Phases				8		2
Detector Phase	7	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	28.2	28.2	28.2	15.8	15.8
Total Split (s)	9.6	37.8	28.2	28.2	22.2	22.2
Total Split (%)	16.0%	63.0%	47.0%	47.0%	37.0%	37.0%
Yellow Time (s)	3.6	5.2	5.2	5.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	6.2	5.8	5.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	5.0	22.0	18.2	18.2	26.0	26.0
Actuated g/C Ratio	0.08	0.37	0.30	0.30	0.43	0.43
v/c Ratio	0.23	0.52	0.55	0.45	0.31	0.33
Control Delay	29.9	12.9	18.5	4.2	15.6	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.9	12.9	18.5	4.2	15.6	5.3
LOS	C	B	B	A	B	A
Approach Delay		13.7	14.6		8.8	
Approach LOS		B	B		A	

Intersection Summary























Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 16 (27%), Referenced to phase 2:NBTL and 6:, Start of Yellow
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.55
 Intersection Signal Delay: 12.8
 Intersection LOS: B
 Intersection Capacity Utilization 48.6%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 16: I-215 NB Ramps & Nuevo Rd.



HCM 6th Signalized Intersection Summary
 16: I-215 NB Ramps & Nuevo Rd.

Barker Logistics (JN 12216)
 02/26/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			  				 			
Traffic Volume (veh/h)	31	638	0	0	801	294	221	2	427	0	0	0
Future Volume (veh/h)	31	638	0	0	801	294	221	2	427	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	34	693	0	0	871	208	240	2	144			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	65	1340	0	0	1341	416	770	6	1215			
Arrive On Green	0.01	0.12	0.00	0.00	0.26	0.26	0.43	0.43	0.43			
Sat Flow, veh/h	1810	3705	0	0	5358	1610	1795	15	2834			
Grp Volume(v), veh/h	34	693	0	0	871	208	242	0	144			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1729	1610	1810	0	1417			
Q Serve(g_s), s	1.1	10.8	0.0	0.0	9.0	6.6	5.3	0.0	1.8			
Cycle Q Clear(g_c), s	1.1	10.8	0.0	0.0	9.0	6.6	5.3	0.0	1.8			
Prop In Lane	1.00		0.00	0.00		1.00	0.99		1.00			
Lane Grp Cap(c), veh/h	65	1340	0	0	1341	416	776	0	1215			
V/C Ratio(X)	0.52	0.52	0.00	0.00	0.65	0.50	0.31	0.00	0.12			
Avail Cap(c_a), veh/h	151	1901	0	0	1902	590	776	0	1215			
HCM Platoon Ratio	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.90	0.90	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	29.1	21.3	0.0	0.0	19.8	18.9	11.3	0.0	10.3			
Incr Delay (d2), s/veh	2.1	0.3	0.0	0.0	0.5	0.9	1.0	0.0	0.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.5	4.5	0.0	0.0	3.1	2.2	1.9	0.0	0.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.3	21.6	0.0	0.0	20.4	19.9	12.3	0.0	10.5			
LnGrp LOS	C	C	A	A	C	B	B	A	B			
Approach Vol, veh/h		727			1079			386				
Approach Delay, s/veh		22.0			20.3			11.7				
Approach LOS		C			C			B				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		31.5		28.5			6.8	21.7				
Change Period (Y+Rc), s		5.8		6.2			4.6	6.2				
Max Green Setting (Gmax), s		16.4		31.6			5.0	22.0				
Max Q Clear Time (g_c+I1), s		7.3		12.8			3.1	11.0				
Green Ext Time (p_c), s		1.2		4.0			0.0	4.5				
Intersection Summary												
HCM 6th Ctrl Delay				19.3								
HCM 6th LOS				B								

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕	↕		↕			↕	
Traffic Vol, veh/h	2	84	4	9	33	0	1	0	15	0	1	0
Future Vol, veh/h	2	84	4	9	33	0	1	0	15	0	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	90	4	10	35	0	1	0	16	0	1	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	35	0	0	94	0	0	150	149	90	159	153	35
Stage 1	-	-	-	-	-	-	94	94	-	55	55	-
Stage 2	-	-	-	-	-	-	56	55	-	104	98	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1589	-	-	1513	-	-	822	746	973	811	742	1044
Stage 1	-	-	-	-	-	-	918	821	-	962	853	-
Stage 2	-	-	-	-	-	-	961	853	-	907	818	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1589	-	-	1513	-	-	816	740	973	792	736	1044
Mov Cap-2 Maneuver	-	-	-	-	-	-	816	740	-	792	736	-
Stage 1	-	-	-	-	-	-	917	820	-	961	847	-
Stage 2	-	-	-	-	-	-	953	847	-	891	817	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1.6	8.8	9.9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	961	1589	-	-	1513	-	-	736
HCM Lane V/C Ratio	0.018	0.001	-	-	0.006	-	-	0.001
HCM Control Delay (s)	8.8	7.3	0	-	7.4	0	-	9.9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection												
Int Delay, s/veh	5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	1	20	0	8	3	8	7	3	11	0
Future Vol, veh/h	1	0	1	20	0	8	3	8	7	3	11	0
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	72	72	72	72	72	72	72	72	72	72	72	72
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	0	1	28	0	11	4	11	10	4	15	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	53	52	15	48	47	16	15	0	0	21	0	0
Stage 1	23	23	-	24	24	-	-	-	-	-	-	-
Stage 2	30	29	-	24	23	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	951	843	1070	958	849	1069	1616	-	-	1608	-	-
Stage 1	1000	880	-	999	879	-	-	-	-	-	-	-
Stage 2	992	875	-	999	880	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	937	838	1070	952	844	1069	1616	-	-	1608	-	-
Mov Cap-2 Maneuver	937	838	-	952	844	-	-	-	-	-	-	-
Stage 1	997	877	-	996	876	-	-	-	-	-	-	-
Stage 2	979	872	-	995	877	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	8.6		8.8		1.2		1.6	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1616	-	-	999	983	1608	-	-
HCM Lane V/C Ratio	0.003	-	-	0.003	0.04	0.003	-	-
HCM Control Delay (s)	7.2	0	-	8.6	8.8	7.2	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection						
Int Delay, s/veh	5.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	1	1	4	17	31	1
Future Vol, veh/h	1	1	4	17	31	1
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	72	72	72	72	72	72
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	1	6	24	43	1

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	30	0	-	0	21 18
Stage 1	-	-	-	-	18 -
Stage 2	-	-	-	-	3 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1596	-	-	-	1001 1066
Stage 1	-	-	-	-	1010 -
Stage 2	-	-	-	-	1025 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1596	-	-	-	1000 1066
Mov Cap-2 Maneuver	-	-	-	-	1000 -
Stage 1	-	-	-	-	1009 -
Stage 2	-	-	-	-	1025 -

Approach	EB	WB	SB
HCM Control Delay, s	3.6	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1596	-	-	-	1002
HCM Lane V/C Ratio	0.001	-	-	-	0.044
HCM Control Delay (s)	7.3	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	30	2	2	19	13	2	0	3	34	0	0
Future Vol, veh/h	0	30	2	2	19	13	2	0	3	34	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	38	3	3	24	17	3	0	4	44	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	41	0	0	41	0	0	79	87	40	81	80	33
Stage 1	-	-	-	-	-	-	40	40	-	39	39	-
Stage 2	-	-	-	-	-	-	39	47	-	42	41	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1581	-	-	1581	-	-	914	807	1037	912	814	1046
Stage 1	-	-	-	-	-	-	980	866	-	981	866	-
Stage 2	-	-	-	-	-	-	981	860	-	978	865	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1581	-	-	1581	-	-	912	805	1037	907	812	1046
Mov Cap-2 Maneuver	-	-	-	-	-	-	912	805	-	907	812	-
Stage 1	-	-	-	-	-	-	980	866	-	981	864	-
Stage 2	-	-	-	-	-	-	979	858	-	974	865	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.4			8.7			9.2		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	983	1581	-	-	1581	-	-	907
HCM Lane V/C Ratio	0.007	-	-	-	0.002	-	-	0.048
HCM Control Delay (s)	8.7	0	-	-	7.3	0	-	9.2
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.2

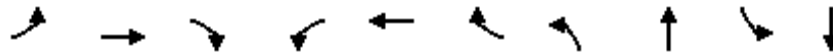
Intersection						
Int Delay, s/veh	2.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	0	67	35	16	42	0
Future Vol, veh/h	0	67	35	16	42	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	73	38	17	46	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	55	0	-	0	120 47
Stage 1	-	-	-	-	47 -
Stage 2	-	-	-	-	73 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1563	-	-	-	880 1028
Stage 1	-	-	-	-	981 -
Stage 2	-	-	-	-	955 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1563	-	-	-	880 1028
Mov Cap-2 Maneuver	-	-	-	-	880 -
Stage 1	-	-	-	-	981 -
Stage 2	-	-	-	-	955 -

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

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1563	-	-	-	880
HCM Lane V/C Ratio	-	-	-	-	0.052
HCM Control Delay (s)	0	-	-	-	9.3
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Timings
6: Harvill Av. & Cajalco Exwy./Ramona Exwy.

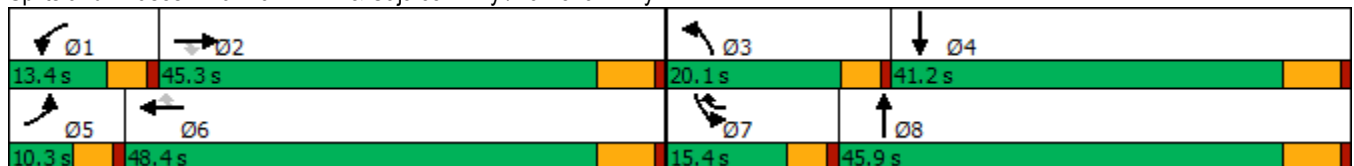


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations	↙	↕	↘	↙↘	↕	↘	↙↘	↕	↙↘	↕
Traffic Volume (vph)	28	722	431	55	640	142	405	138	174	191
Future Volume (vph)	28	722	431	55	640	142	405	138	174	191
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases	5	2		1	6	7	3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	7	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	36.2	36.2	9.6	34.2	9.6	9.6	16.2	9.6	41.2
Total Split (s)	10.3	45.3	45.3	13.4	48.4	15.4	20.1	45.9	15.4	41.2
Total Split (%)	8.6%	37.8%	37.8%	11.2%	40.3%	12.8%	16.8%	38.3%	12.8%	34.3%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	3.6	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-2.2	-2.2	-0.6	-2.2	-0.6	-0.6	-2.2	-0.6	-2.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	Max	None	None	None	None	None
Act Effct Green (s)	6.1	43.9	43.9	6.8	46.6	60.1	15.1	22.6	9.5	17.0
Actuated g/C Ratio	0.06	0.45	0.45	0.07	0.48	0.62	0.16	0.23	0.10	0.18
v/c Ratio	0.25	0.45	0.45	0.23	0.37	0.14	0.75	0.21	0.51	0.33
Control Delay	53.6	21.5	4.0	48.5	19.0	2.6	50.0	24.2	49.3	35.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.6	21.5	4.0	48.5	19.0	2.6	50.0	24.2	49.3	35.0
LOS	D	C	A	D	B	A	D	C	D	D
Approach Delay		15.9			18.2			42.1		41.5
Approach LOS		B			B			D		D

Intersection Summary

























Cycle Length: 120
 Actuated Cycle Length: 96.7
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.75
 Intersection Signal Delay: 24.9
 Intersection LOS: C
 Intersection Capacity Utilization 54.9%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 6: Harvill Av. & Cajalco Exwy./Ramona Exwy.



HCM 6th Signalized Intersection Summary
 6: Harvill Av. & Cajalco Exwy./Ramona Exwy.

Barker Logistics (JN 12216)
 02/26/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	722	431	55	640	142	405	138	42	174	191	16
Future Volume (veh/h)	28	722	431	55	640	142	405	138	42	174	191	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	28	729	363	56	646	102	409	139	-23	176	193	8
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	63	1759	783	172	1810	904	511	739	0	275	487	20
Arrive On Green	0.03	0.49	0.49	0.05	0.50	0.48	0.15	0.20	0.00	0.08	0.14	0.11
Sat Flow, veh/h	1810	3610	1608	3510	3610	1610	3510	3705	0	3510	3533	146
Grp Volume(v), veh/h	28	729	363	56	646	102	409	116	0	176	98	103
Grp Sat Flow(s),veh/h/ln	1810	1805	1608	1755	1805	1610	1755	1805	0	1755	1805	1874
Q Serve(g_s), s	1.3	11.5	13.2	1.4	9.6	2.6	10.0	2.3	0.0	4.3	4.4	4.4
Cycle Q Clear(g_c), s	1.3	11.5	13.2	1.4	9.6	2.6	10.0	2.3	0.0	4.3	4.4	4.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.00	1.00		0.08
Lane Grp Cap(c), veh/h	63	1759	783	172	1810	904	511	739	0	275	249	258
V/C Ratio(X)	0.44	0.41	0.46	0.33	0.36	0.11	0.80	0.16	0.00	0.64	0.39	0.40
Avail Cap(c_a), veh/h	129	1759	783	373	1810	904	638	1708	0	452	758	787
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.9	14.6	15.0	40.7	13.4	9.1	36.6	28.9	0.0	39.6	34.8	34.9
Incr Delay (d2), s/veh	1.8	0.7	2.0	0.4	0.6	0.3	4.6	0.1	0.0	0.9	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	4.2	4.6	0.6	3.5	0.8	4.3	1.0	0.0	1.9	2.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.7	15.3	17.0	41.1	14.0	9.3	41.2	29.0	0.0	40.5	35.8	35.9
LnGrp LOS	D	B	B	D	B	A	D	C	A	D	D	D
Approach Vol, veh/h		1120			804			525			377	
Approach Delay, s/veh		16.6			15.3			38.5			38.0	
Approach LOS		B			B			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	8.3	47.2	16.9	16.2	7.1	48.4	10.9	22.1				
Change Period (Y+Rc), s	4.6	6.2	4.6	6.2	4.6	6.2	4.6	6.2				
Max Green Setting (Gmax), s	8.8	39.1	15.5	35.0	5.7	42.2	10.8	39.7				
Max Q Clear Time (g_c+I1), s	3.4	15.2	12.0	6.4	3.3	11.6	6.3	4.3				
Green Ext Time (p_c), s	0.0	6.0	0.3	1.1	0.0	4.5	0.1	0.6				
Intersection Summary												
HCM 6th Ctrl Delay			23.1									
HCM 6th LOS			C									

Intersection												
Int Delay, s/veh	1.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖	↖	↖	↖↗		↖	↖↗	
Traffic Vol, veh/h	30	0	72	1	1	0	32	478	2	0	679	19
Future Vol, veh/h	30	0	72	1	1	0	32	478	2	0	679	19
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	115	-	-	165	-	0	150	-	-	160	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	32	0	77	1	1	0	34	514	2	0	730	20

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	1066	1324	375	948	1333	258	750	0	0	516	0	0
Stage 1	740	740	-	583	583	-	-	-	-	-	-	-
Stage 2	326	584	-	365	750	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	179	157	628	218	155	747	868	-	-	1060	-	-
Stage 1	379	426	-	470	502	-	-	-	-	-	-	-
Stage 2	666	501	-	632	422	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	173	151	628	185	149	747	868	-	-	1060	-	-
Mov Cap-2 Maneuver	281	275	-	304	263	-	-	-	-	-	-	-
Stage 1	364	426	-	452	482	-	-	-	-	-	-	-
Stage 2	638	481	-	554	422	-	-	-	-	-	-	-

Approach	EB		WB			NB			SB		
HCM Control Delay, s	13.9		17.8			0.6			0		
HCM LOS	B		C								

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	868	-	-	281	-	628	304	263	-	1060	-	-
HCM Lane V/C Ratio	0.04	-	-	0.115	-	0.123	0.004	0.004	-	-	-	-
HCM Control Delay (s)	9.3	-	-	19.5	0	11.5	16.9	18.7	0	0	-	-
HCM Lane LOS	A	-	-	C	A	B	C	C	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	-	0.4	0	0	-	0	-	-

Intersection	
Intersection Delay, s/veh	157.4
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕		↕	↕	
Traffic Vol, veh/h	14	77	16	210	32	442	10	173	224	575	316	7
Future Vol, veh/h	14	77	16	210	32	442	10	173	224	575	316	7
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	16	87	18	236	36	497	11	194	252	646	355	8
Number of Lanes	0	1	0	0	1	1	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	23.3	115.2	44.4	256.7
HCM LOS	C	F	E	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	13%	87%	0%	100%	0%	0%
Vol Thru, %	0%	100%	20%	72%	13%	0%	0%	100%	94%
Vol Right, %	0%	0%	80%	15%	0%	100%	0%	0%	6%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	10	115	282	107	242	442	575	211	112
LT Vol	10	0	0	14	210	0	575	0	0
Through Vol	0	115	58	77	32	0	0	211	105
RT Vol	0	0	224	16	0	442	0	0	7
Lane Flow Rate	11	130	316	120	272	497	646	237	126
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.034	0.369	0.853	0.381	0.759	1.231	1.781	0.62	0.329
Departure Headway (Hd)	12.468	11.939	11.349	12.901	11.16	9.987	10.542	10.016	9.97
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	289	303	323	281	326	368	349	362	364
Service Time	10.168	9.639	9.049	10.601	8.86	7.687	8.242	7.716	7.67
HCM Lane V/C Ratio	0.038	0.429	0.978	0.427	0.834	1.351	1.851	0.655	0.346
HCM Control Delay	15.6	21.5	54.8	23.3	41.8	155.4	387.3	27.7	17.5
HCM Lane LOS	C	C	F	C	E	F	F	D	C
HCM 95th-tile Q	0.1	1.6	7.6	1.7	5.9	19.1	39.2	4	1.4

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕		↕	↕	
Traffic Vol, veh/h	14	2	6	38	0	30	4	290	24	23	447	32
Future Vol, veh/h	14	2	6	38	0	30	4	290	24	23	447	32
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	-	-	-	-	-	0	160	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	16	2	7	44	0	35	5	337	28	27	520	37

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	772	968	279	676	972	183	557	0	0	365	0	0
Stage 1	593	593	-	361	361	-	-	-	-	-	-	-
Stage 2	179	375	-	315	611	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	293	256	724	343	254	834	1024	-	-	1205	-	-
Stage 1	464	497	-	636	629	-	-	-	-	-	-	-
Stage 2	811	621	-	676	487	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	275	249	724	330	247	834	1024	-	-	1205	-	-
Mov Cap-2 Maneuver	275	249	-	330	247	-	-	-	-	-	-	-
Stage 1	462	486	-	633	626	-	-	-	-	-	-	-
Stage 2	773	618	-	651	476	-	-	-	-	-	-	-

Approach	EB		WB			NB			SB		
HCM Control Delay, s	16.9		14			0.1			0.4		
HCM LOS	C		B								

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1024	-	-	327	330	834	1205	-	-
HCM Lane V/C Ratio	0.005	-	-	0.078	0.134	0.042	0.022	-	-
HCM Control Delay (s)	8.5	-	-	16.9	17.6	9.5	8.1	-	-
HCM Lane LOS	A	-	-	C	C	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.5	0.1	0.1	-	-

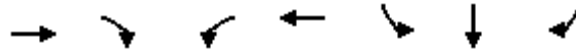
Intersection	
Intersection Delay, s/veh	24.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕		↕	↕		↕	↕	
Traffic Vol, veh/h	2	0	5	301	0	79	1	254	332	116	402	1
Future Vol, veh/h	2	0	5	301	0	79	1	254	332	116	402	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	0	5	317	0	83	1	267	349	122	423	1
Number of Lanes	0	1	0	1	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	12.2	18.5	34.5	18.5
HCM LOS	B	C	D	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	29%	100%	57%	100%	0%	0%
Vol Thru, %	0%	100%	20%	0%	0%	0%	0%	100%	99%
Vol Right, %	0%	0%	80%	71%	0%	43%	0%	0%	1%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	1	169	417	7	196	184	116	268	135
LT Vol	1	0	0	2	196	105	116	0	0
Through Vol	0	169	85	0	0	0	0	268	134
RT Vol	0	0	332	5	0	79	0	0	1
Lane Flow Rate	1	178	439	7	206	194	122	282	142
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.002	0.384	0.876	0.019	0.496	0.439	0.284	0.616	0.31
Departure Headway (Hd)	8.275	7.761	7.189	9.367	8.668	8.148	8.377	7.863	7.858
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	432	463	504	384	416	440	429	457	456
Service Time	6.036	5.522	4.949	7.067	6.436	5.916	6.141	5.627	5.621
HCM Lane V/C Ratio	0.002	0.384	0.871	0.018	0.495	0.441	0.284	0.617	0.311
HCM Control Delay	11.1	15.3	42.3	12.2	19.7	17.2	14.5	22.5	14.1
HCM Lane LOS	B	C	E	B	C	C	B	C	B
HCM 95th-tile Q	0	1.8	9.5	0.1	2.7	2.2	1.2	4.1	1.3

Timings
11: I-215 SB Ramps & Ramona Exwy.



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations	↑↑	↑	↵	↑↑	↵	↵	↵
Traffic Volume (vph)	677	255	313	725	634	5	121
Future Volume (vph)	677	255	313	725	634	5	121
Turn Type	NA	Perm	Prot	NA	Split	NA	Perm
Protected Phases	2		1	6	4	4	
Permitted Phases		2					4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	9.5	31.0	10.5	10.5	10.5
Total Split (s)	21.0	21.0	19.0	40.0	20.0	20.0	20.0
Total Split (%)	35.0%	35.0%	31.7%	66.7%	33.3%	33.3%	33.3%
Yellow Time (s)	5.0	5.0	3.5	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-2.0	-2.0	-0.5	-2.0	-1.5	-1.5	-1.5
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max	Max
Act Effct Green (s)	17.9	17.9	14.1	36.0	16.0	16.0	16.0
Actuated g/C Ratio	0.30	0.30	0.24	0.60	0.27	0.27	0.27
v/c Ratio	0.65	0.39	0.76	0.34	0.72	0.72	0.24
Control Delay	22.0	4.7	50.5	6.8	30.9	31.4	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.0	4.7	50.5	6.8	30.9	31.4	4.7
LOS	C	A	D	A	C	C	A
Approach Delay	17.2			20.0		26.9	
Approach LOS	B			B		C	

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 19 (32%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 50
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.76
 Intersection Signal Delay: 21.0
 Intersection LOS: C
 Intersection Capacity Utilization 63.7%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 11: I-215 SB Ramps & Ramona Exwy.



HCM 6th Signalized Intersection Summary
 11: I-215 SB Ramps & Ramona Exwy.

Barker Logistics (JN 12216)
 02/26/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑	↑↑					↑	↑	↑
Traffic Volume (veh/h)	0	677	255	313	725	0	0	0	0	634	5	121
Future Volume (veh/h)	0	677	255	313	725	0	0	0	0	634	5	121
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	698	150	323	747	0				658	0	52
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1138	508	394	2166	0				965	0	429
Arrive On Green	0.00	0.32	0.32	0.13	0.36	0.00				0.27	0.00	0.27
Sat Flow, veh/h	0	3705	1610	1810	3705	0				3619	0	1610
Grp Volume(v), veh/h	0	698	150	323	747	0				658	0	52
Grp Sat Flow(s),veh/h/ln	0	1805	1610	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	9.8	4.2	10.4	9.1	0.0				9.8	0.0	1.5
Cycle Q Clear(g_c), s	0.0	9.8	4.2	10.4	9.1	0.0				9.8	0.0	1.5
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1138	508	394	2166	0				965	0	429
V/C Ratio(X)	0.00	0.61	0.30	0.82	0.34	0.00				0.68	0.00	0.12
Avail Cap(c_a), veh/h	0	1138	508	452	2166	0				965	0	429
HCM Platoon Ratio	1.00	1.00	1.00	0.60	0.60	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.89	0.89	0.87	0.87	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	17.4	15.5	24.9	10.6	0.0				19.7	0.0	16.7
Incr Delay (d2), s/veh	0.0	2.2	1.3	8.9	0.4	0.0				3.9	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.6	1.4	5.1	2.7	0.0				4.0	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	19.6	16.8	33.8	11.0	0.0				23.6	0.0	17.2
LnGrp LOS	A	B	B	C	B	A				C	A	B
Approach Vol, veh/h		848			1070						710	
Approach Delay, s/veh		19.1			17.9						23.1	
Approach LOS		B			B						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	17.1	22.9		20.0		40.0						
Change Period (Y+Rc), s	4.5	6.0		5.5		6.0						
Max Green Setting (Gmax), s	14.5	15.0		14.5		34.0						
Max Q Clear Time (g_c+I1), s	12.4	11.8		11.8		11.1						
Green Ext Time (p_c), s	0.2	1.1		0.8		2.9						

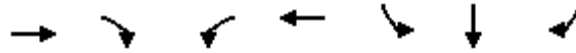
Intersection Summary

HCM 6th Ctrl Delay	19.7
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Timings
12: I-215 SB Ramps & Placentia St./Placentia Av.

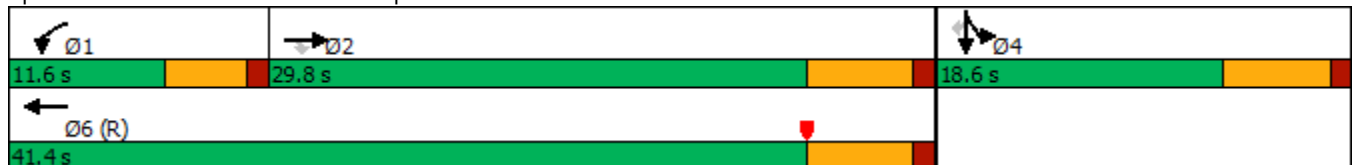


Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations	↑↑	↑	↑↑	↑↑	↑	↑	↑
Traffic Volume (vph)	358	171	257	320	355	0	77
Future Volume (vph)	358	171	257	320	355	0	77
Turn Type	NA	Perm	Prot	NA	Split	NA	Perm
Protected Phases	2		1	6	4	4	
Permitted Phases		2					4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	27.8	15.8	15.8	15.8
Total Split (s)	29.8	29.8	11.6	41.4	18.6	18.6	18.6
Total Split (%)	49.7%	49.7%	19.3%	69.0%	31.0%	31.0%	31.0%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.8	-1.8	-0.6	-1.8	-1.8	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	None	None	None	C-Max	Max	Max	Max
Act Effct Green (s)	25.9	25.9	7.5	37.4	14.6	14.6	14.6
Actuated g/C Ratio	0.43	0.43	0.12	0.62	0.24	0.24	0.24
v/c Ratio	0.25	0.23	0.64	0.15	0.46	0.46	0.17
Control Delay	11.4	2.8	35.7	4.2	23.7	23.7	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.4	2.8	35.7	4.2	23.7	23.7	2.4
LOS	B	A	D	A	C	C	A
Approach Delay	8.7			18.2		19.9	
Approach LOS	A			B		B	

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 0 (0%), Referenced to phase 6:WBT, Start of Yellow, Master Intersection
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.64
 Intersection Signal Delay: 15.4
 Intersection LOS: B
 Intersection Capacity Utilization 40.6%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 12: I-215 SB Ramps & Placentia St./Placentia Av.



HCM 6th Signalized Intersection Summary
 12: I-215 SB Ramps & Placentia St./Placentia Av.

Barker Logistics (JN 12216)
 02/26/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑↑	↑↑					↑	↑	↑
Traffic Volume (veh/h)	0	358	171	257	320	0	0	0	0	355	0	77
Future Volume (veh/h)	0	358	171	257	320	0	0	0	0	355	0	77
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	389	186	279	348	0				386	0	84
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1592	710	406	2250	0				881	0	392
Arrive On Green	0.00	0.44	0.44	0.23	1.00	0.00				0.24	0.00	0.24
Sat Flow, veh/h	0	3705	1610	3510	3705	0				3619	0	1610
Grp Volume(v), veh/h	0	389	186	279	348	0				386	0	84
Grp Sat Flow(s),veh/h/ln	0	1805	1610	1755	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	4.1	4.4	4.4	0.0	0.0				5.4	0.0	2.5
Cycle Q Clear(g_c), s	0.0	4.1	4.4	4.4	0.0	0.0				5.4	0.0	2.5
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1592	710	406	2250	0				881	0	392
V/C Ratio(X)	0.00	0.24	0.26	0.69	0.15	0.00				0.44	0.00	0.21
Avail Cap(c_a), veh/h	0	1592	710	445	2250	0				881	0	392
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.98	0.98	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	10.5	10.6	22.1	0.0	0.0				19.2	0.0	18.1
Incr Delay (d2), s/veh	0.0	0.1	0.2	2.9	0.1	0.0				1.6	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.3	1.3	1.6	0.0	0.0				2.1	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	10.6	10.8	25.0	0.1	0.0				20.8	0.0	19.4
LnGrp LOS	A	B	B	C	A	A				C	A	B
Approach Vol, veh/h		575			627						470	
Approach Delay, s/veh		10.7			11.2						20.6	
Approach LOS		B			B						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	10.9	30.5		18.6		41.4						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	7.0	24.0		12.8		35.6						
Max Q Clear Time (g_c+I1), s	6.4	6.4		7.4		2.0						
Green Ext Time (p_c), s	0.0	2.7		0.8		2.1						

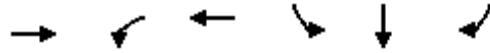
Intersection Summary

HCM 6th Ctrl Delay	13.6
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Timings
13: I-215 SB Ramps & Nuevo Rd.

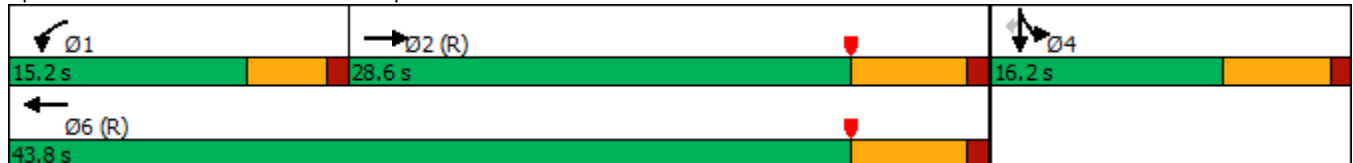


Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑	↑↑	↑	↑	↑
Traffic Volume (vph)	331	459	319	429	4	57
Future Volume (vph)	331	459	319	429	4	57
Turn Type	NA	Prot	NA	Split	NA	Perm
Protected Phases	2	1	6	4	4	
Permitted Phases						4
Detector Phase	2	1	6	4	4	4
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	28.2	9.6	28.2	15.8	15.8	15.8
Total Split (s)	28.6	15.2	43.8	16.2	16.2	16.2
Total Split (%)	47.7%	25.3%	73.0%	27.0%	27.0%	27.0%
Yellow Time (s)	5.2	3.6	5.2	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-2.2	-0.6	-2.2	-1.8	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes				
Recall Mode	C-Max	None	C-Max	Max	Max	Max
Act Effct Green (s)	24.9	10.9	39.8	12.2	12.2	12.2
Actuated g/C Ratio	0.42	0.18	0.66	0.20	0.20	0.20
v/c Ratio	0.35	0.76	0.14	0.65	0.66	0.14
Control Delay	8.5	22.0	2.5	32.5	33.0	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.5	22.0	2.5	32.5	33.0	0.6
LOS	A	C	A	C	C	A
Approach Delay	8.5		14.0		29.0	
Approach LOS	A		B		C	

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 18.6 (31%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.76
 Intersection Signal Delay: 16.6
 Intersection LOS: B
 Intersection Capacity Utilization 49.7%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 13: I-215 SB Ramps & Nuevo Rd.



HCM 6th Signalized Intersection Summary
 13: I-215 SB Ramps & Nuevo Rd.

Barker Logistics (JN 12216)
 02/26/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑↑	↑↑					↑	↑	↑
Traffic Volume (veh/h)	0	331	170	459	319	0	0	0	0	429	4	57
Future Volume (veh/h)	0	331	170	459	319	0	0	0	0	429	4	57
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	348	122	483	336	0				455	0	12
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1097	379	632	2395	0				736	0	327
Arrive On Green	0.00	0.42	0.38	0.06	0.22	0.00				0.20	0.00	0.20
Sat Flow, veh/h	0	2728	908	3510	3705	0				3619	0	1610
Grp Volume(v), veh/h	0	237	233	483	336	0				455	0	12
Grp Sat Flow(s),veh/h/ln	0	1805	1736	1755	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	5.3	5.6	8.1	4.5	0.0				6.9	0.0	0.4
Cycle Q Clear(g_c), s	0.0	5.3	5.6	8.1	4.5	0.0				6.9	0.0	0.4
Prop In Lane	0.00		0.52	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	752	724	632	2395	0				736	0	327
V/C Ratio(X)	0.00	0.31	0.32	0.76	0.14	0.00				0.62	0.00	0.04
Avail Cap(c_a), veh/h	0	752	724	655	2395	0				736	0	327
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.89	0.89	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	11.7	12.2	27.0	9.6	0.0				21.8	0.0	19.2
Incr Delay (d2), s/veh	0.0	1.1	1.2	4.1	0.1	0.0				3.9	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.8	1.9	3.6	0.9	0.0				2.9	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	12.8	13.4	31.1	9.8	0.0				25.7	0.0	19.4
LnGrp LOS	A	B	B	C	A	A				C	A	B
Approach Vol, veh/h		470			819						467	
Approach Delay, s/veh		13.1			22.3						25.5	
Approach LOS		B			C						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	14.8	29.0		16.2		43.8						
Change Period (Y+Rc), s	4.6	6.2		5.8		6.2						
Max Green Setting (Gmax), s	10.6	22.4		10.4		37.6						
Max Q Clear Time (g_c+I1), s	10.1	7.6		8.9		6.5						
Green Ext Time (p_c), s	0.1	2.1		0.3		2.0						

Intersection Summary

HCM 6th Ctrl Delay	20.7
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Timings
14: I-215 NB Ramps & Ramona Exwy.



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations	↙	↕	↙	↘	↙	↕	↘
Traffic Volume (vph)	168	1143	752	560	277	2	309
Future Volume (vph)	168	1143	752	560	277	2	309
Turn Type	Prot	NA	NA	Perm	Split	NA	Perm
Protected Phases	5	2	6		8	8	
Permitted Phases				6			8
Detector Phase	5	2	6	6	8	8	8
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	11.0	26.0	26.0	10.5	10.5	10.5
Total Split (s)	13.0	41.0	28.0	28.0	19.0	19.0	19.0
Total Split (%)	21.7%	68.3%	46.7%	46.7%	31.7%	31.7%	31.7%
Yellow Time (s)	3.5	5.0	5.0	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.5	-2.0	-2.0	-2.0	-1.5	-1.5	-1.5
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None
Act Effct Green (s)	9.0	39.1	26.2	26.2	12.9	12.9	12.9
Actuated g/C Ratio	0.15	0.65	0.44	0.44	0.22	0.22	0.22
v/c Ratio	0.66	0.51	0.50	0.57	0.40	0.40	0.72
Control Delay	39.0	9.3	14.3	3.8	22.8	22.9	21.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.0	9.3	14.3	3.8	22.8	22.9	21.7
LOS	D	A	B	A	C	C	C
Approach Delay		13.1	9.8			22.3	
Approach LOS		B	A			C	

Intersection Summary






















Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 19 (32%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 50
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.72
 Intersection Signal Delay: 13.4
 Intersection LOS: B
 Intersection Capacity Utilization 63.7%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 14: I-215 NB Ramps & Ramona Exwy.



HCM 6th Signalized Intersection Summary
 14: I-215 NB Ramps & Ramona Exwy.

Barker Logistics (JN 12216)
 02/26/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 							
Traffic Volume (veh/h)	168	1143	0	0	752	560	277	2	309	0	0	0
Future Volume (veh/h)	168	1143	0	0	752	560	277	2	309	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	177	1203	0	0	792	413	293	0	199			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	229	2457	0	0	1759	785	673	0	299			
Arrive On Green	0.25	1.00	0.00	0.00	0.49	0.49	0.19	0.00	0.19			
Sat Flow, veh/h	1810	3705	0	0	3705	1610	3619	0	1610			
Grp Volume(v), veh/h	177	1203	0	0	792	413	293	0	199			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1610	1810	0	1610			
Q Serve(g_s), s	5.4	0.0	0.0	0.0	8.6	10.6	4.3	0.0	6.9			
Cycle Q Clear(g_c), s	5.4	0.0	0.0	0.0	8.6	10.6	4.3	0.0	6.9			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	229	2457	0	0	1759	785	673	0	299			
V/C Ratio(X)	0.77	0.49	0.00	0.00	0.45	0.53	0.44	0.00	0.66			
Avail Cap(c_a), veh/h	271	2457	0	0	1759	785	905	0	403			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.69	0.69	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	21.6	0.0	0.0	0.0	10.1	10.6	21.6	0.0	22.7			
Incr Delay (d2), s/veh	7.8	0.5	0.0	0.0	0.8	2.5	0.4	0.0	2.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	2.3	0.2	0.0	0.0	2.6	3.2	1.6	0.0	2.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.3	0.5	0.0	0.0	10.9	13.1	22.1	0.0	25.2			
LnGrp LOS	C	A	A	A	B	B	C	A	C			
Approach Vol, veh/h		1380			1205			492				
Approach Delay, s/veh		4.2			11.7			23.3				
Approach LOS		A			B			C				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		44.8			11.6	33.2		15.2				
Change Period (Y+Rc), s		6.0			4.5	6.0		5.5				
Max Green Setting (Gmax), s		35.0			8.5	22.0		13.5				
Max Q Clear Time (g_c+I1), s		2.0			7.4	12.6		8.9				
Green Ext Time (p_c), s		5.7			0.0	2.9		0.8				
Intersection Summary												
HCM 6th Ctrl Delay					10.2							
HCM 6th LOS					B							
Notes												
User approved volume balancing among the lanes for turning movement.												

Timings
15: I-215 NB Ramps & Placentia Av.



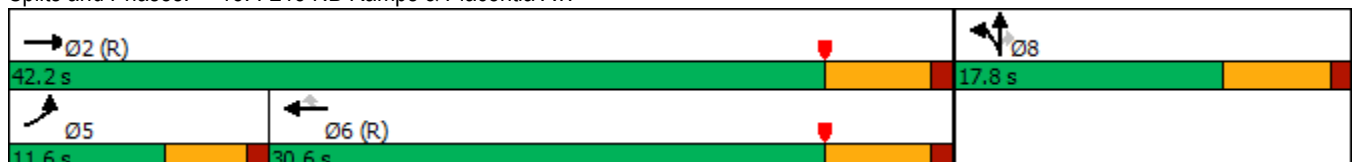
Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations	↶↶	↶↶	↶↶	↷	↶	↶	↷
Traffic Volume (vph)	114	599	445	293	132	0	189
Future Volume (vph)	114	599	445	293	132	0	189
Turn Type	Prot	NA	NA	Perm	Split	NA	Perm
Protected Phases	5	2	6		8	8	
Permitted Phases				6			8
Detector Phase	5	2	6	6	8	8	8
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.8	27.8	27.8	15.8	15.8	15.8
Total Split (s)	11.6	42.2	30.6	30.6	17.8	17.8	17.8
Total Split (%)	19.3%	70.3%	51.0%	51.0%	29.7%	29.7%	29.7%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-1.8	-1.8	-1.8	-1.8	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None
Act Effct Green (s)	6.9	39.8	30.8	30.8	12.2	12.2	12.2
Actuated g/C Ratio	0.12	0.66	0.51	0.51	0.20	0.20	0.20
v/c Ratio	0.31	0.27	0.26	0.32	0.20	0.21	0.42
Control Delay	18.8	4.1	9.6	2.5	21.3	21.4	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.8	4.1	9.6	2.5	21.3	21.4	6.5
LOS	B	A	A	A	C	C	A
Approach Delay		6.5	6.8			12.6	
Approach LOS		A	A			B	

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.42
 Intersection Signal Delay: 7.7
 Intersection Capacity Utilization 40.6%
 Analysis Period (min) 15
























Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 15: I-215 NB Ramps & Placentia Av.



HCM 6th Signalized Intersection Summary
 15: I-215 NB Ramps & Placentia Av.

Barker Logistics (JN 12216)
 02/26/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 			 				
Traffic Volume (veh/h)	114	599	0	0	445	293	132	0	189	0	0	0
Future Volume (veh/h)	114	599	0	0	445	293	132	0	189	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	124	651	0	0	484	318	143	0	205			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	291	2421	0	0	1881	839	710	0	316			
Arrive On Green	0.08	0.67	0.00	0.00	0.52	0.52	0.20	0.00	0.20			
Sat Flow, veh/h	3510	3705	0	0	3705	1610	3619	0	1610			
Grp Volume(v), veh/h	124	651	0	0	484	318	143	0	205			
Grp Sat Flow(s),veh/h/ln	1755	1805	0	0	1805	1610	1810	0	1610			
Q Serve(g_s), s	2.0	4.3	0.0	0.0	4.4	7.1	2.0	0.0	7.0			
Cycle Q Clear(g_c), s	2.0	4.3	0.0	0.0	4.4	7.1	2.0	0.0	7.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	291	2421	0	0	1881	839	710	0	316			
V/C Ratio(X)	0.43	0.27	0.00	0.00	0.26	0.38	0.20	0.00	0.65			
Avail Cap(c_a), veh/h	445	2421	0	0	1881	839	832	0	370			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.96	0.96	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	26.2	4.0	0.0	0.0	7.9	8.6	20.2	0.0	22.2			
Incr Delay (d2), s/veh	0.4	0.3	0.0	0.0	0.3	1.3	0.1	0.0	3.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.8	0.8	0.0	0.0	1.3	2.1	0.7	0.0	2.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.5	4.2	0.0	0.0	8.3	9.9	20.3	0.0	25.3			
LnGrp LOS	C	A	A	A	A	A	C	A	C			
Approach Vol, veh/h		775			802			348				
Approach Delay, s/veh		7.8			8.9			23.3				
Approach LOS		A			A			C				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		44.2			9.0	35.3		15.8				
Change Period (Y+Rc), s		5.8			4.6	5.8		5.8				
Max Green Setting (Gmax), s		36.4			7.0	24.8		12.0				
Max Q Clear Time (g_c+I1), s		6.3			4.0	9.1		9.0				
Green Ext Time (p_c), s		4.3			0.0	3.6		0.4				

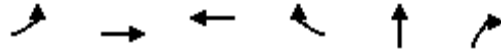
Intersection Summary

HCM 6th Ctrl Delay	11.1
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Timings
16: I-215 NB Ramps & Nuevo Rd.

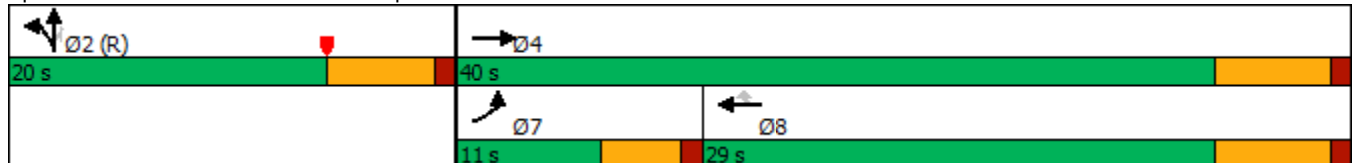


Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Configurations	↖	↑↑	↑↑↑	↗	↖	↗↗
Traffic Volume (vph)	40	720	695	321	1	259
Future Volume (vph)	40	720	695	321	1	259
Turn Type	Prot	NA	NA	Perm	NA	Perm
Protected Phases	7	4	8		2	
Permitted Phases				8		2
Detector Phase	7	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	28.2	28.2	28.2	15.8	15.8
Total Split (s)	11.0	40.0	29.0	29.0	20.0	20.0
Total Split (%)	18.3%	66.7%	48.3%	48.3%	33.3%	33.3%
Yellow Time (s)	3.6	5.2	5.2	5.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-2.2	-2.2	-2.2	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	6.4	28.9	22.4	22.4	23.1	23.1
Actuated g/C Ratio	0.11	0.48	0.37	0.37	0.38	0.38
v/c Ratio	0.26	0.52	0.45	0.48	0.15	0.26
Control Delay	35.8	7.8	14.7	3.6	16.2	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.8	7.8	14.7	3.6	16.2	4.9
LOS	D	A	B	A	B	A
Approach Delay		9.3	11.2		7.6	
Approach LOS		A	B		A	

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 16 (27%), Referenced to phase 2:NBTL and 6:, Start of Yellow
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.52
 Intersection Signal Delay: 9.9
 Intersection Capacity Utilization 49.7%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 16: I-215 NB Ramps & Nuevo Rd.



HCM 6th Signalized Intersection Summary
 16: I-215 NB Ramps & Nuevo Rd.

Barker Logistics (JN 12216)
 02/26/2019

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	40	720	0	0	695	321	82	1	259	0	0	0
Future Volume (veh/h)	40	720	0	0	695	321	82	1	259	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	50	900	0	0	869	269	102	1	-90			
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	103	1525	0	0	1549	478	796	8	1259			
Arrive On Green	0.11	0.84	0.00	0.00	0.30	0.30	0.44	0.44	0.00			
Sat Flow, veh/h	1810	3705	0	0	5358	1599	1793	18	2834			
Grp Volume(v), veh/h	50	900	0	0	869	269	103	0	-90			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1729	1599	1810	0	1417			
Q Serve(g_s), s	1.6	4.6	0.0	0.0	8.5	8.5	2.0	0.0	0.0			
Cycle Q Clear(g_c), s	1.6	4.6	0.0	0.0	8.5	8.5	2.0	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.99		1.00			
Lane Grp Cap(c), veh/h	103	1525	0	0	1549	478	804	0	1259			
V/C Ratio(X)	0.48	0.59	0.00	0.00	0.56	0.56	0.13	0.00	-0.07			
Avail Cap(c_a), veh/h	211	2166	0	0	2161	666	804	0	1259			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.90	0.90	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	25.7	3.0	0.0	0.0	17.7	17.7	9.8	0.0	0.0			
Incr Delay (d2), s/veh	1.2	0.3	0.0	0.0	0.3	1.0	0.3	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.6	0.8	0.0	0.0	2.8	2.7	0.7	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.9	3.4	0.0	0.0	18.0	18.8	10.2	0.0	0.0			
LnGrp LOS	C	A	A	A	B	B	B	A	A			
Approach Vol, veh/h		950			1138			13				
Approach Delay, s/veh		4.6			18.2			80.5				
Approach LOS		A			B			F				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		30.7		29.3			7.4	21.9				
Change Period (Y+Rc), s		5.8		6.2			4.6	6.2				
Max Green Setting (Gmax), s		14.2		33.8			6.4	22.8				
Max Q Clear Time (g_c+I1), s		4.0		6.6			3.6	10.5				
Green Ext Time (p_c), s		0.3		6.1			0.0	5.0				
Intersection Summary												
HCM 6th Ctrl Delay				12.5								
HCM 6th LOS				B								

APPENDIX 6.3:

**EAP (2021) CONDITIONS WITHOUT I-215/PLACENTIA INTERCHANGE TRAFFIC
SIGNAL WARRANT ANALYSIS WORKSHEETS**

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAP Without Interchange Conditions - Weekday PM Peak Hour**

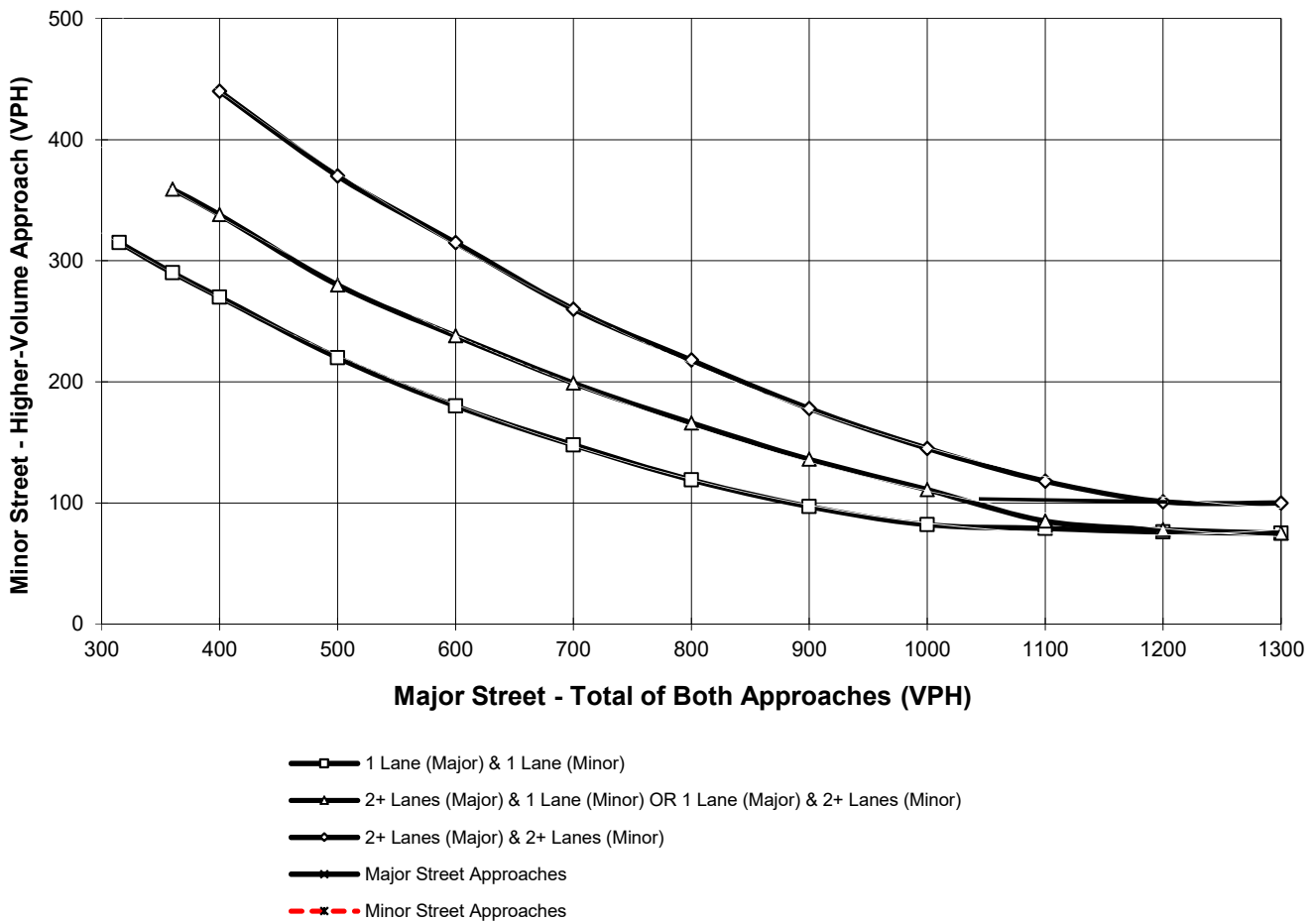
Major Street Name = **Rider Street**

Total of Both Approaches (VPH) = **137**
 Number of Approach Lanes Major Street = **1**

Minor Street Name = **Patterson Avenue**

High Volume Approach (VPH) = **27**
 Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

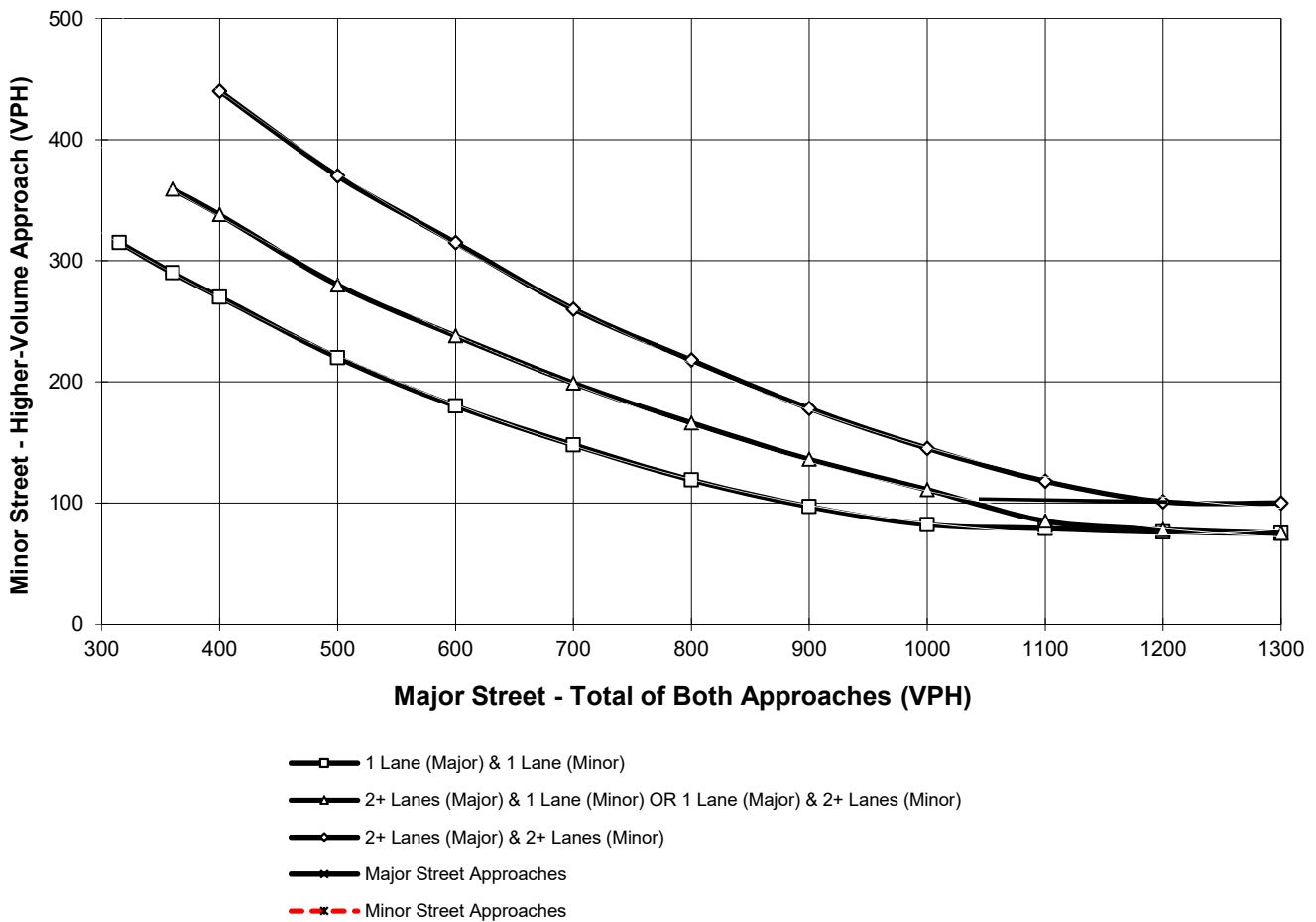
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAP Without Interchange Conditions - Weekday PM Peak Hour**

Major Street Name = **Patterson Avenue** Total of Both Approaches (VPH) = **33**
 Number of Approach Lanes Major Street = **1**

Minor Street Name = **Walnut Street/Driveway 1** High Volume Approach (VPH) = **27**
 Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAP Without Interchange Conditions - Weekday PM Peak Hour**

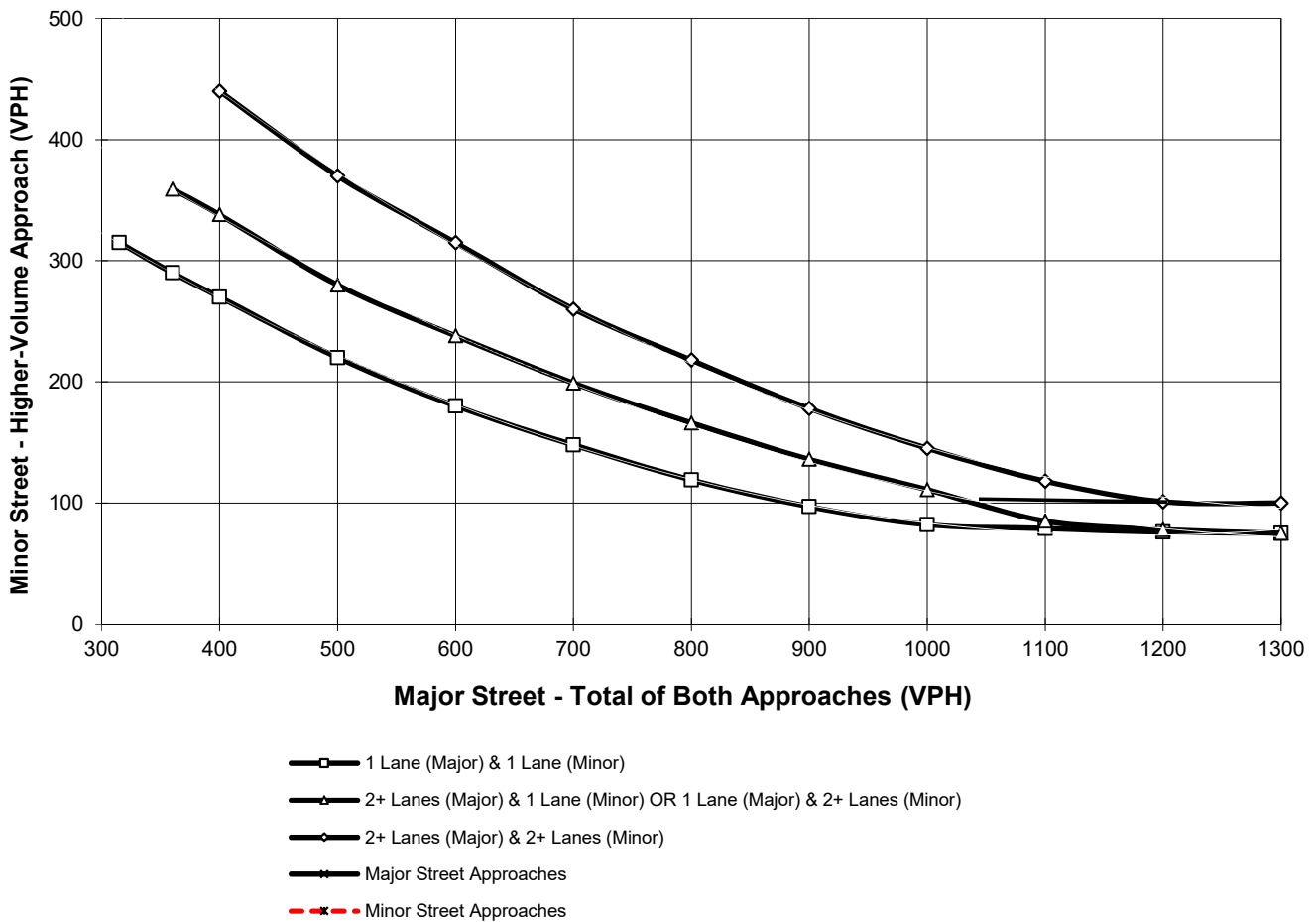
Major Street Name = **Placentia Street**

Total of Both Approaches (VPH) = **20**
 Number of Approach Lanes Major Street = **1**

Minor Street Name = **Patterson Avenue**

High Volume Approach (VPH) = **20**
 Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAP Without Interchange Conditions - Weekday PM Peak Hour**

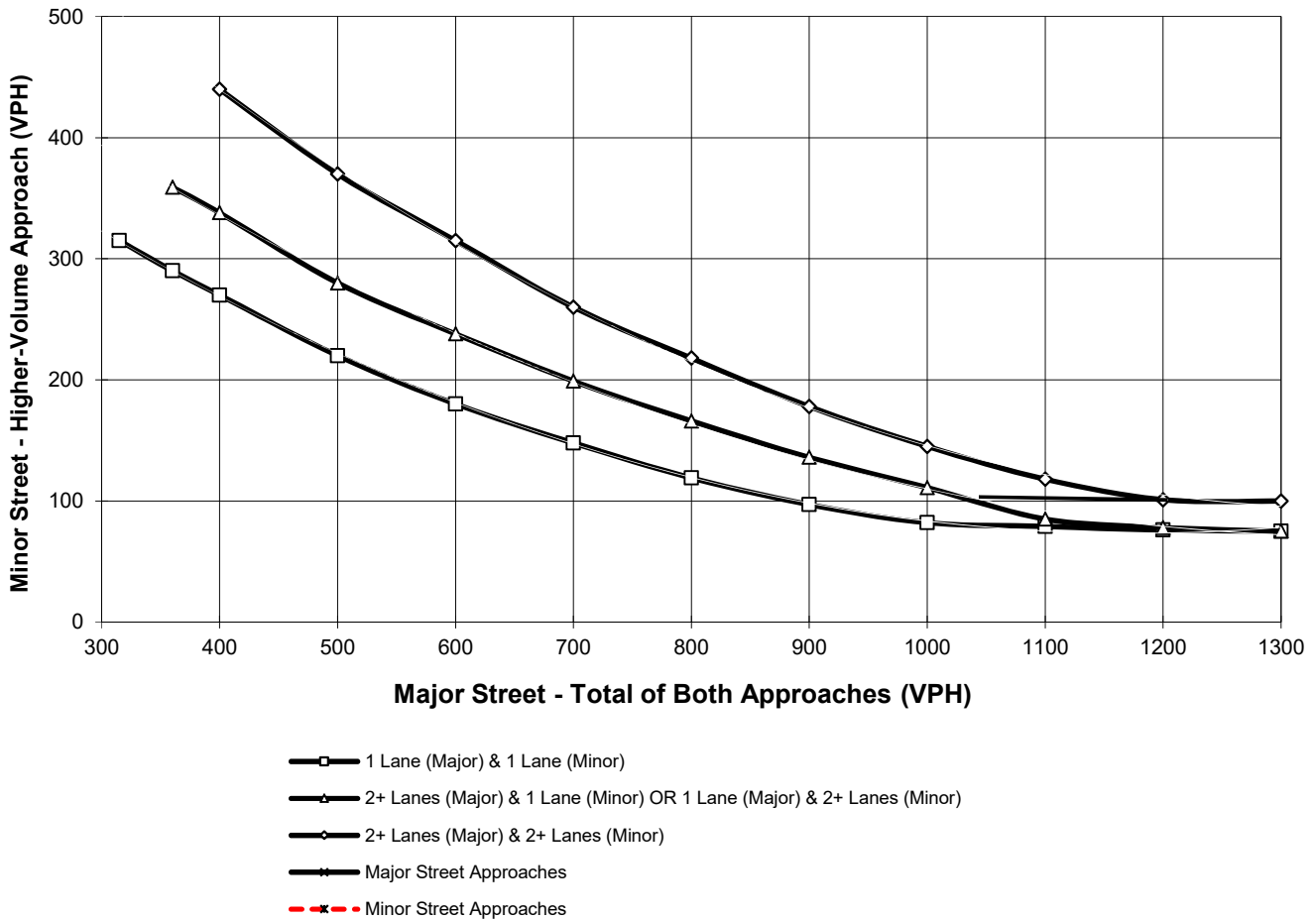
Major Street Name = **Placentia Street**

Total of Both Approaches (VPH) = **51**
 Number of Approach Lanes Major Street = **1**

Minor Street Name = **Driveway 2/Tobacco Road**

High Volume Approach (VPH) = **34**
 Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

<u>DIST</u>	<u>CO</u>	<u>RTE</u>	<u>PM</u>	TRAFFIC CONDITIONS	EAP WO Int
Jurisdiction: <u>County of Riverside</u>				CALC <u>LC</u>	DATE <u>03/07/19</u>
Major Street: <u>Placentia Street</u>				CHK <u>CH</u>	DATE <u>03/07/19</u>
Minor Street: <u>Driveway 3</u>				Critical Approach Speed (Major) <u>45</u> mph	
				Critical Approach Speed (Minor) <u>25</u> mph	

Major Street Approach Lanes = 2 lane Minor Street Approach Lanes: 1 lane

Major Street Future ADT = 1,595 vpd Minor Street Future ADT = 440 vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); or **RURAL (R)**

In built up area of isolated community of < 10,000 population

(Based on Estimated Average Daily Traffic - See Note)

<u>URBAN</u>	<u>RURAL</u>	Minimum Requirements EADT			
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
<u>Satisfied</u>	XX <u>Not Satisfied</u>	<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
Number of lanes for moving traffic on each approach					
<u>Major Street</u>	<u>Minor Street</u>				
<u>1</u>	<u>1</u>	8,000	5,600	2,400	1,680
<u>2 + 1,595</u>	<u>1 440</u>	9,600	6,720	2,400	1,680
<u>2 +</u>	<u>2 +</u>	9,600	6,720	3,200	2,240
<u>1</u>	<u>2 +</u>	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
<u>Satisfied</u>	XX <u>Not Satisfied</u>	<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
Number of lanes for moving traffic on each approach					
<u>Major Street</u>	<u>Minor Street</u>				
<u>1</u>	<u>1</u>	12,000	8,400	1,200	850
<u>2 + 1,595</u>	<u>1 440</u>	14,400	10,080	1,200	850
<u>2 +</u>	<u>2 +</u>	14,400	10,080	1,600	1,120
<u>1</u>	<u>2 +</u>	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B		2 CONDITIONS 80%		2 CONDITIONS 80%	
<u>Satisfied</u>	XX <u>Not Satisfied</u>				
No one condition satisfied, but following conditions fulfilled 80% of more					
	A 24%	B 16%			

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.



Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAP Without Interchange Conditions - Weekday PM Peak Hour**

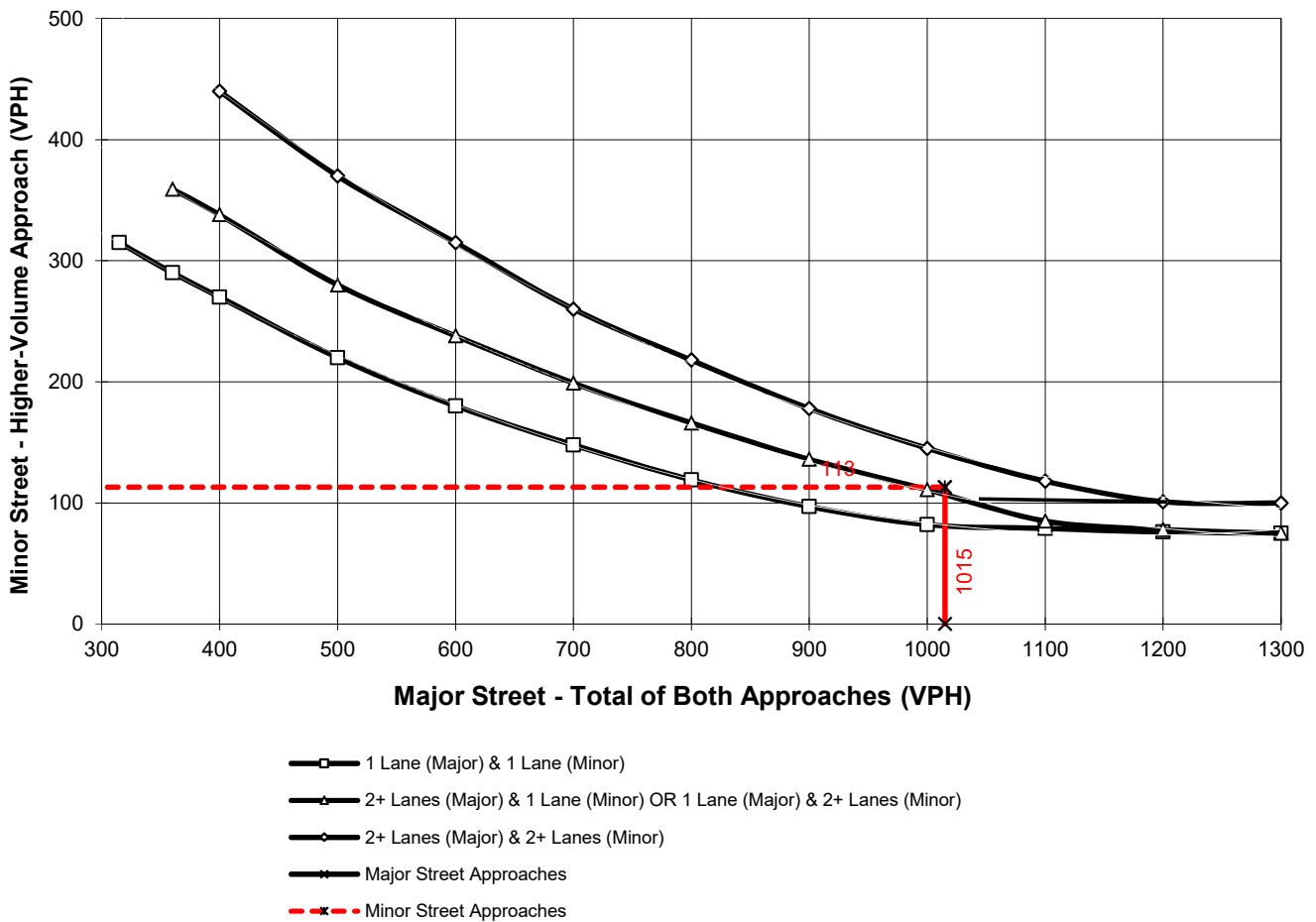
Major Street Name = **Harvill Avenue**

Total of Both Approaches (VPH) = **1015**
 Number of Approach Lanes Major Street = **2**

Minor Street Name = **Rider Street**

High Volume Approach (VPH) = **113**
 Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAP Without Interchange Conditions - Weekday PM Peak Hour**

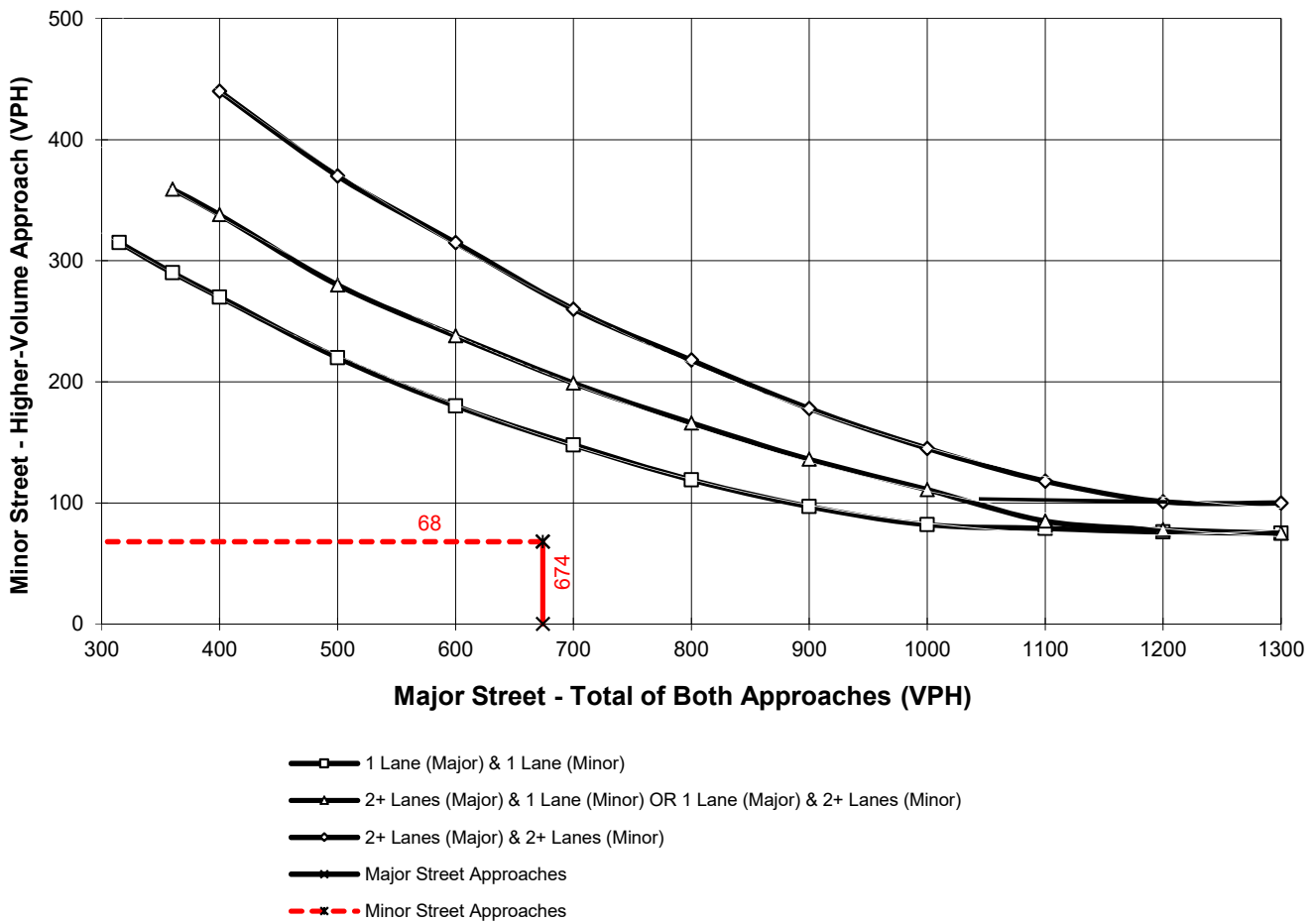
Major Street Name = **Harvill Avenue**

Total of Both Approaches (VPH) = **674**
 Number of Approach Lanes Major Street = **2**

Minor Street Name = **Orange Street**

High Volume Approach (VPH) = **68**
 Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

APPENDIX 6.4:

**EAP (2021) CONDITIONS WITH I-215/PLACENTIA INTERCHANGE TRAFFIC SIGNAL
WARRANT ANALYSIS WORKSHEETS**

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAP With Interchange Conditions - Weekday PM Peak Hour**

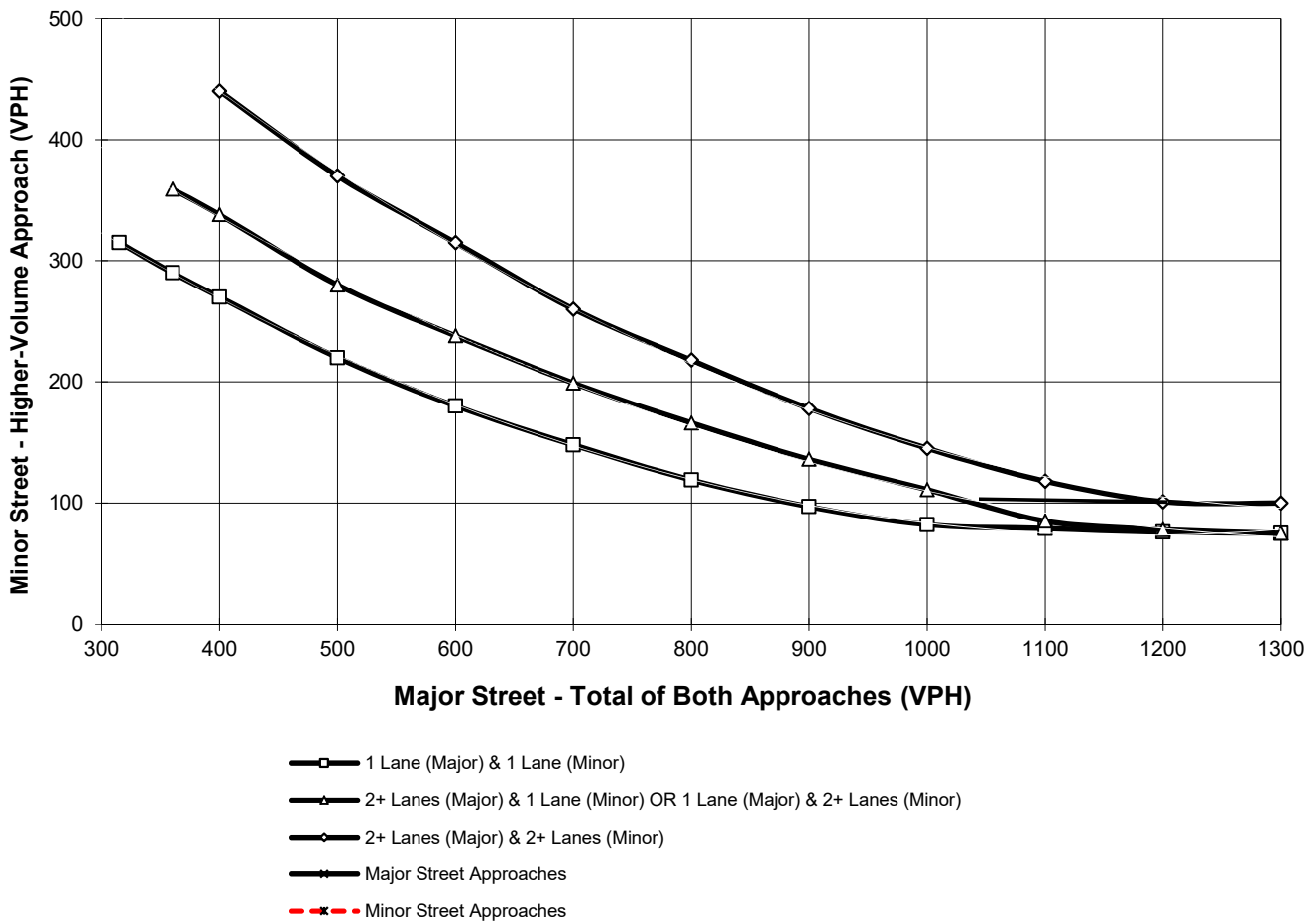
Major Street Name = **Rider Street**

Total of Both Approaches (VPH) = **133**
 Number of Approach Lanes Major Street = **1**

Minor Street Name = **Patterson Avenue**

High Volume Approach (VPH) = **16**
 Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

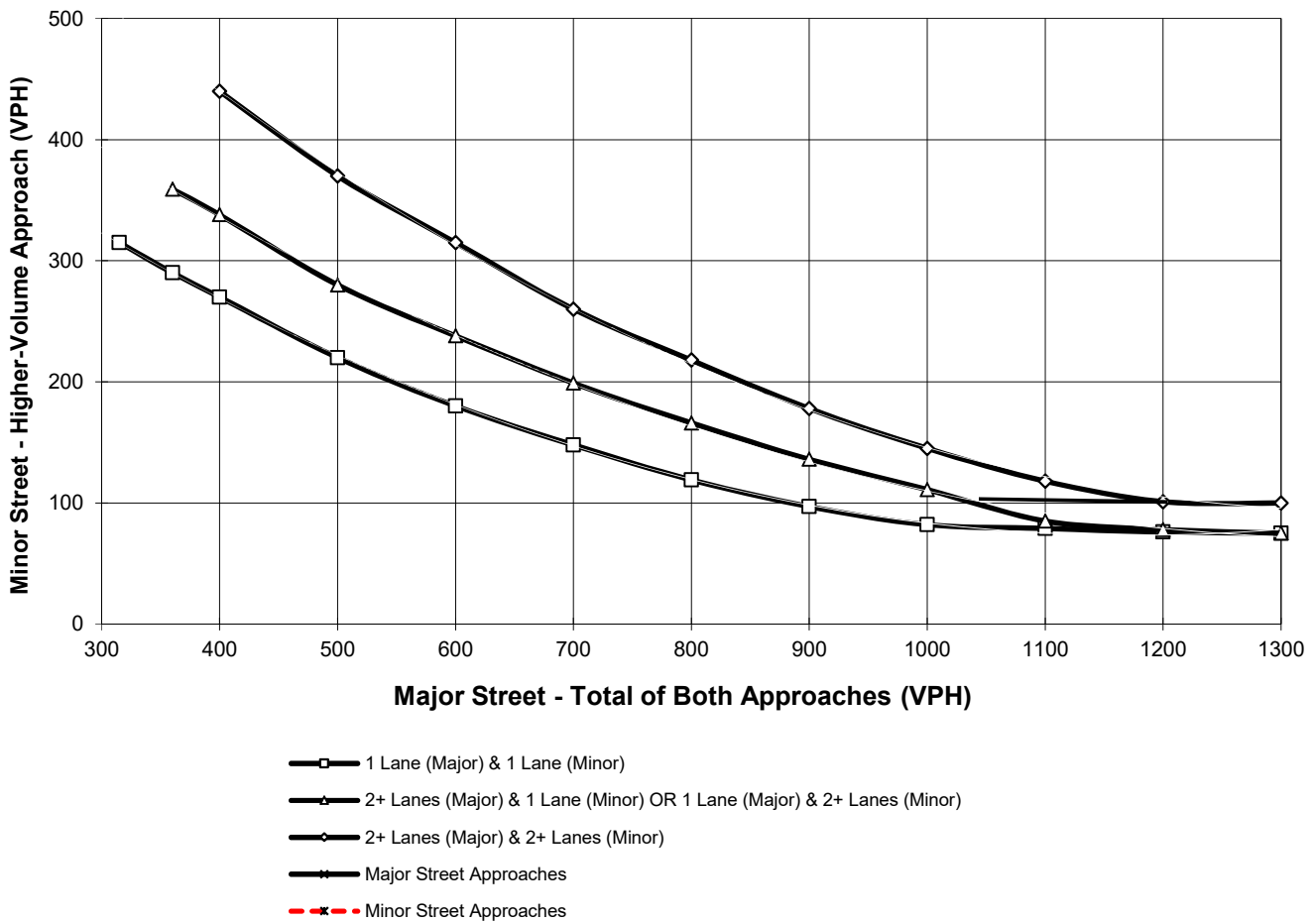
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAP With Interchange Conditions - Weekday PM Peak Hour**

Major Street Name = **Patterson Avenue** Total of Both Approaches (VPH) = **33**
 Number of Approach Lanes Major Street = **1**

Minor Street Name = **Walnut Street/Driveway 1** High Volume Approach (VPH) = **28**
 Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAP With Interchange Conditions - Weekday PM Peak Hour**

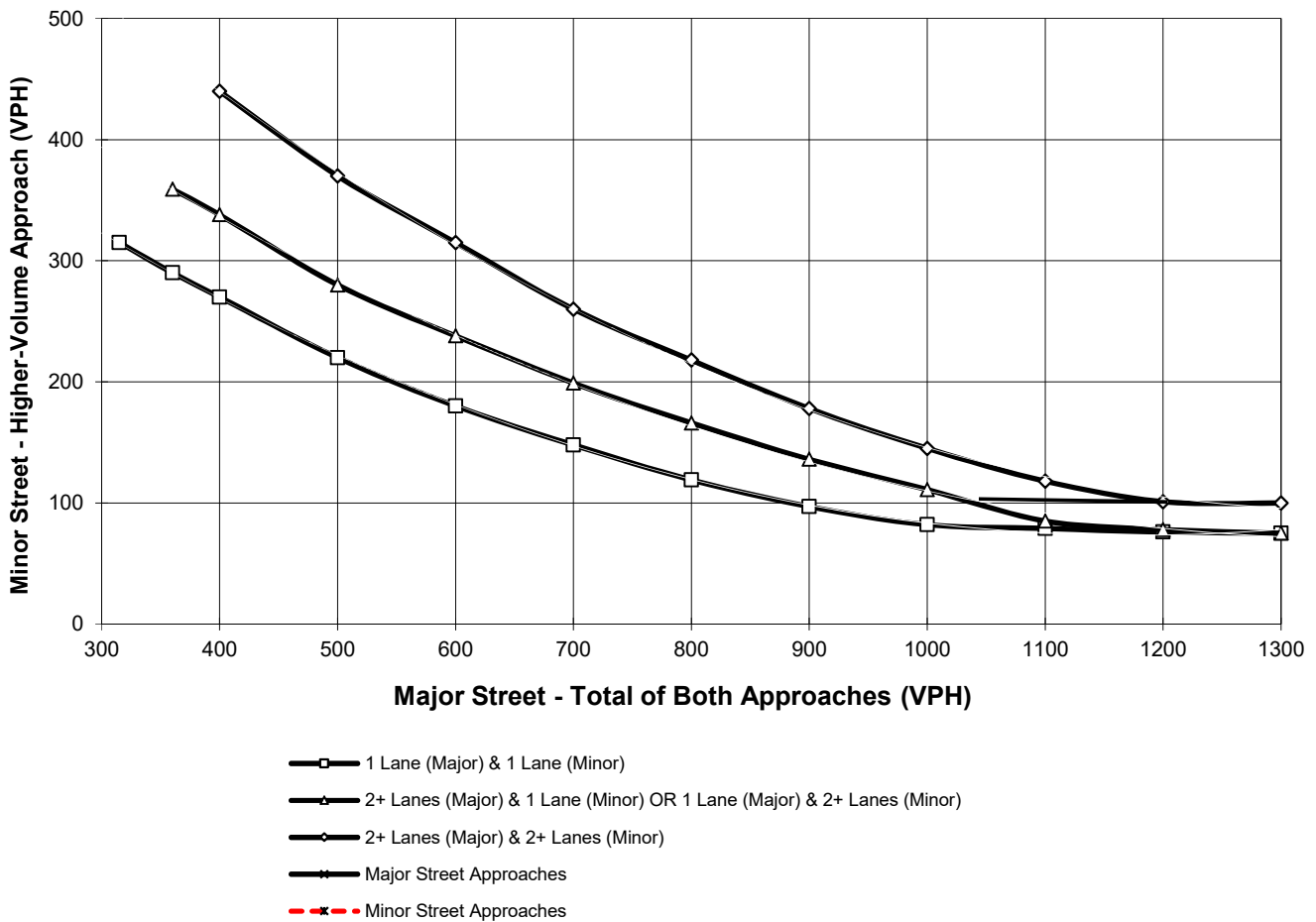
Major Street Name = **Placentia Street**

Total of Both Approaches (VPH) = **24**
 Number of Approach Lanes Major Street = **1**

Minor Street Name = **Patterson Avenue**

High Volume Approach (VPH) = **32**
 Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAP With Interchange Conditions - Weekday PM Peak Hour**

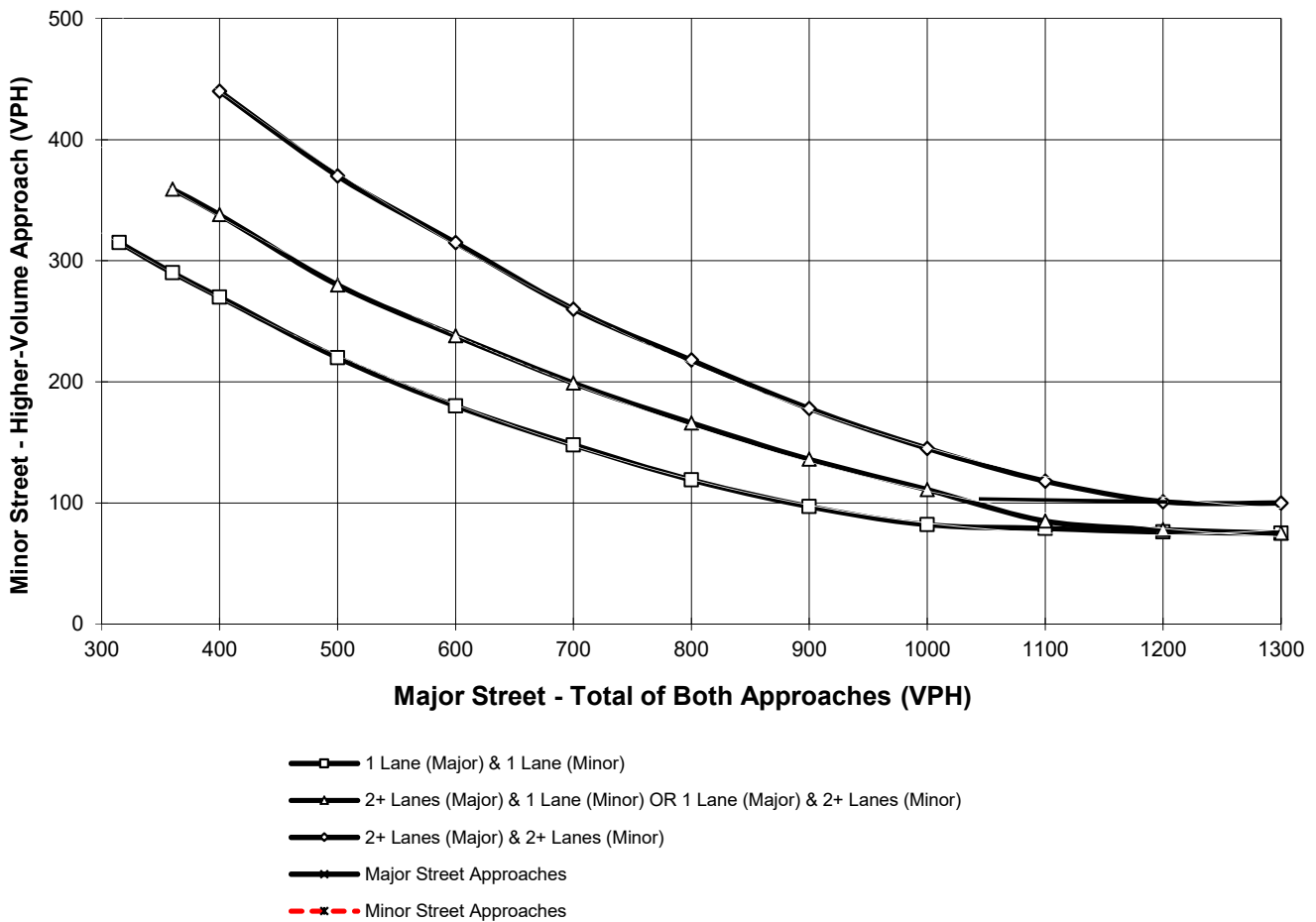
Major Street Name = **Placentia Street**

Total of Both Approaches (VPH) = **67**
 Number of Approach Lanes Major Street = **1**

Minor Street Name = **Driveway 2/Tobacco Road**

High Volume Approach (VPH) = **34**
 Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

	<u> </u>	<u> </u>	<u> </u>		TRAFFIC CONDITIONS	EAP W Int
DIST	CO	RTE	PM	CALC	<u>LC</u>	DATE
Jurisdiction: <u>County of Riverside</u>				CHK	<u>CH</u>	<u>03/07/19</u>
Major Street: <u>Placentia Street</u>				Critical Approach Speed (Major)		<u>45</u> mph
Minor Street: <u>Driveway 3</u>				Critical Approach Speed (Minor)		<u>25</u> mph
Major Street Approach Lanes = <u>2</u> lane				Minor Street Approach Lanes: <u>1</u> lane		
Major Street Future ADT = <u>1,830</u> vpd				Minor Street Future ADT = <u>439</u> vpd		
Speed limit or critical speed on major street traffic > 64 km/h (40 mph);						<input checked="" type="checkbox"/>
						or
In built up area of isolated community of < 10,000 population						<input type="checkbox"/>
RURAL (R)						

(Based on Estimated Average Daily Traffic - See Note)

	<u>URBAN</u>	<u>RURAL</u>	Minimum Requirements EADT			
CONDITION A - Minimum Vehicular Volume	<u>Satisfied</u>	XX				
		<u>Not Satisfied</u>				
		XX				
Number of lanes for moving traffic on each approach	<u>Major Street</u>	<u>Minor Street</u>	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
			<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
	<u>1</u>	<u>1</u>	8,000	5,600	2,400	1,680
	<u>2 + 1,830</u>	<u>1 439</u>	9,600	6,720	2,400	1,680
	<u>2 +</u>	<u>2 +</u>	9,600	6,720	3,200	2,240
	<u>1</u>	<u>2 +</u>	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic	<u>Satisfied</u>	XX				
		<u>Not Satisfied</u>				
		XX				
Number of lanes for moving traffic on each approach	<u>Major Street</u>	<u>Minor Street</u>	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
			<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
	<u>1</u>	<u>1</u>	12,000	8,400	1,200	850
	<u>2 + 1,830</u>	<u>1 439</u>	14,400	10,080	1,200	850
	<u>2 +</u>	<u>2 +</u>	14,400	10,080	1,600	1,120
	<u>1</u>	<u>2 +</u>	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B	<u>Satisfied</u>	XX				
		<u>Not Satisfied</u>				
		XX				
No one condition satisfied, but following conditions fulfilled 80% of more	A	B	2 CONDITIONS 80%		2 CONDITIONS 80%	
	26%	18%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.



Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAP With Interchange Conditions - Weekday PM Peak Hour**

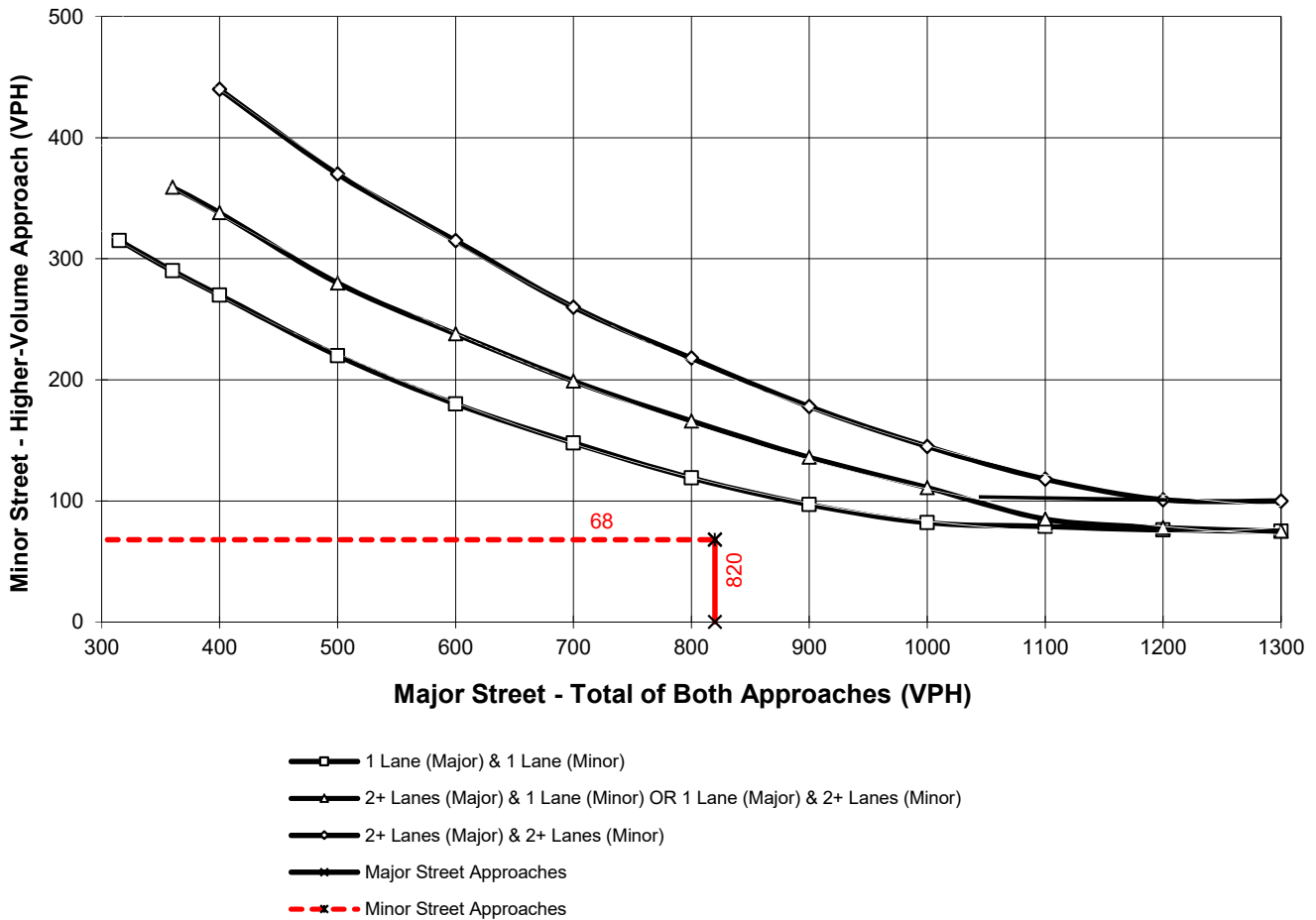
Major Street Name = **Harvill Avenue**

Total of Both Approaches (VPH) = **820**
 Number of Approach Lanes Major Street = **2**

Minor Street Name = **Orange Street**

High Volume Approach (VPH) = **68**
 Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane



Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

<u>DIST</u>	<u>CO</u>	<u>RTE</u>	<u>PM</u>	TRAFFIC CONDITIONS	EAP W Int
Jurisdiction: <u>County of Riverside</u>				CALC <u>LC</u>	DATE <u>03/07/19</u>
Major Street: <u>Placentia Av.</u>				CHK <u>CH</u>	DATE <u>03/07/19</u>
Minor Street: <u>I-215 SB Ramps</u>				Critical Approach Speed (Major) <u>45</u> mph	
				Critical Approach Speed (Minor) <u>25</u> mph	

Major Street Approach Lanes = 2 lane Minor Street Approach Lanes: 1 lane

Major Street Future ADT = 16,197 vpd Minor Street Future ADT = 3,269 vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); or **RURAL (R)**

In built up area of isolated community of < 10,000 population

(Based on Estimated Average Daily Traffic - See Note)

<u>URBAN</u>	<u>RURAL</u>	Minimum Requirements			
	XX	EADT			
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street		Vehicles Per Day on Higher-Volume Minor Street Approach	
<u>Satisfied</u>	<u>Not Satisfied</u>	(Total of Both Approaches)		(One Direction Only)	
XX		<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
Number of lanes for moving traffic on each approach					
<u>Major Street</u>	<u>Minor Street</u>				
<u>1</u>	<u>1</u>	8,000	5,600	2,400	1,680
<u>2 + 16,197</u>	<u>1 3,269</u>	9,600	6,720 *	2,400	1,680 *
<u>2 +</u>	<u>2 +</u>	9,600	6,720	3,200	2,240
<u>1</u>	<u>2 +</u>	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street		Vehicles Per Day on Higher-Volume Minor Street Approach	
<u>Satisfied</u>	<u>Not Satisfied</u>	(Total of Both Approaches)		(One Direction Only)	
XX		<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
Number of lanes for moving traffic on each approach					
<u>Major Street</u>	<u>Minor Street</u>				
<u>1</u>	<u>1</u>	12,000	8,400	1,200	850
<u>2 + 16,197</u>	<u>1 3,269</u>	14,400	10,080 *	1,200	850 *
<u>2 +</u>	<u>2 +</u>	14,400	10,080	1,600	1,120
<u>1</u>	<u>2 +</u>	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B		2 CONDITIONS		2 CONDITIONS	
<u>Satisfied</u>	<u>Not Satisfied</u>	80%		80%	
XX					
No one condition satisfied, but following conditions fulfilled 80% of more					
	<u>A</u>				
	100%				
	<u>B</u>				
	100%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.



Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

<u>DIST</u>	<u>CO</u>	<u>RTE</u>	<u>PM</u>	CALC <u>LC</u>	TRAFFIC CONDITIONS	<u>EAP W Int</u>	
Jurisdiction: <u>County of Riverside</u>				CHK <u>CH</u>		DATE <u>03/07/19</u>	
Major Street: <u>Placentia Av.</u>					Critical Approach Speed (Major)	<u>45</u> mph	
Minor Street: <u>I-215 NB Ramps</u>					Critical Approach Speed (Minor)	<u>25</u> mph	
Major Street Approach Lanes =		<u>2</u>	lane	Minor Street Approach Lanes:		<u>1</u> lane	
Major Street Future ADT =		<u>20,612</u>	vpd	Minor Street Future ADT =		<u>2,888</u> vpd	
Speed limit or critical speed on major street traffic > 64 km/h (40 mph);						<input checked="" type="checkbox"/>	RURAL (R)
In built up area of isolated community of < 10,000 population						<input type="checkbox"/>	

(Based on Estimated Average Daily Traffic - See Note)

<u>URBAN</u>	<u>RURAL</u>	Minimum Requirements EADT			
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
<u>Satisfied</u>	<u>Not Satisfied</u>	<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
XX	XX				
Number of lanes for moving traffic on each approach					
<u>Major Street</u>	<u>Minor Street</u>				
1	1	8,000	5,600	2,400	1,680
2 + 20,612	1 2,888	9,600	6,720 *	2,400	1,680 *
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
<u>Satisfied</u>	<u>Not Satisfied</u>	<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
XX	XX				
Number of lanes for moving traffic on each approach					
<u>Major Street</u>	<u>Minor Street</u>				
1	1	12,000	8,400	1,200	850
2 + 20,612	1 2,888	14,400	10,080 *	1,200	850 *
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B		2 CONDITIONS 80%		2 CONDITIONS 80%	
<u>Satisfied</u>	<u>Not Satisfied</u>				
XX	XX				
No one condition satisfied, but following conditions fulfilled 80% of more					
	<u>A</u>				
	100%				
	<u>B</u>				
	100%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

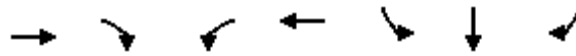
APPENDIX 6.5:

**EAP (2021) WITHOUT I-215/PLACENTIA INTERCHANGE CONDITIONS QUEUING
ANALYSIS WORKSHEETS**

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Queues

11: I-215 SB Ramps & Ramona Exwy.



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	755	351	363	995	377	381	247
v/c Ratio	0.87	0.54	0.86	0.50	0.85	0.86	0.48
Control Delay	35.6	6.2	54.3	8.5	42.3	43.1	12.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.6	6.2	54.3	8.5	42.3	43.1	12.4
Queue Length 50th (ft)	139	0	151	83	135	137	32
Queue Length 95th (ft)	#235	56	m#215	141	#278	#282	87
Internal Link Dist (ft)	1278			472		973	
Turn Bay Length (ft)			100		510		510
Base Capacity (vph)	868	649	436	1985	443	444	518
Starvation Cap Reductn	0	0	0	0	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	0.87	0.54	0.83	0.50	0.85	0.86	0.48

Intersection Summary

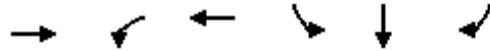
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

13: I-215 SB Ramps & Nuevo Rd.



Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	783	443	1051	177	181	106
v/c Ratio	0.56	0.76	0.46	0.61	0.62	0.27
Control Delay	14.8	24.3	6.0	33.5	34.1	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.8	24.3	6.0	33.5	34.1	4.6
Queue Length 50th (ft)	101	35	6	63	65	0
Queue Length 95th (ft)	145	#75	17	#130	#134	21
Internal Link Dist (ft)	1873		381		1001	
Turn Bay Length (ft)		115				300
Base Capacity (vph)	1394	607	2274	291	292	392
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	0.56	0.73	0.46	0.61	0.62	0.27

Intersection Summary

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

Queues

14: I-215 NB Ramps & Ramona Exwy.



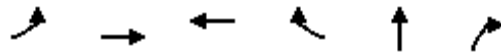
Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	209	1300	1069	1025	145	148	442
v/c Ratio	0.93	0.61	0.76	0.96	0.39	0.40	0.97
Control Delay	60.2	13.8	20.0	26.8	23.8	23.9	55.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.2	13.8	20.0	26.8	23.8	23.9	55.4
Queue Length 50th (ft)	87	222	169	93	47	48	112
Queue Length 95th (ft)	m#104	m265	236	#410	95	96	#280
Internal Link Dist (ft)		472	1588			1153	
Turn Bay Length (ft)	105						500
Base Capacity (vph)	225	2135	1413	1072	371	372	456
Starvation Cap Reductn	0	0	0	0	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	0.93	0.61	0.76	0.96	0.39	0.40	0.97

Intersection Summary

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.



Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	46	864	1084	426	347	617
v/c Ratio	0.31	0.55	0.61	0.51	0.53	0.53
Control Delay	31.2	11.6	17.9	4.2	21.7	12.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.2	11.6	17.9	4.2	21.7	12.9
Queue Length 50th (ft)	18	111	111	0	112	68
Queue Length 95th (ft)	m31	147	149	49	#217	123
Internal Link Dist (ft)		381	941		975	
Turn Bay Length (ft)	105					
Base Capacity (vph)	150	1901	1901	861	655	1169
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	0.31	0.45	0.57	0.49	0.53	0.53

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

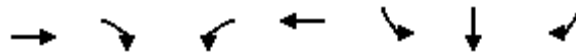
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

11: I-215 SB Ramps & Ramona Exwy.

03/11/2019



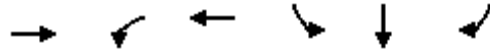
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	956	351	430	932	435	441	185
v/c Ratio	0.99	0.51	0.95	0.44	0.90	0.91	0.33
Control Delay	52.4	5.4	67.2	8.4	45.9	47.1	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.4	5.4	67.2	8.4	45.9	47.1	7.8
Queue Length 50th (ft)	181	0	179	98	157	161	13
Queue Length 95th (ft)	#300	54	m#327	143	#317	#323	54
Internal Link Dist (ft)	1278			472		973	
Turn Bay Length (ft)			100		510		510
Base Capacity (vph)	962	688	451	2105	485	487	555
Starvation Cap Reductn	0	0	0	0	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	0.99	0.51	0.95	0.44	0.90	0.91	0.33

Intersection Summary

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.



Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	734	644	476	301	305	80
v/c Ratio	0.46	1.10	0.20	0.86	0.87	0.18
Control Delay	8.8	88.0	2.4	50.5	51.7	2.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.8	88.0	2.4	50.5	51.7	2.2
Queue Length 50th (ft)	58	~127	0	111	113	0
Queue Length 95th (ft)	96	#211	1	#242	#246	10
Internal Link Dist (ft)	1873		381		1001	
Turn Bay Length (ft)		115				300
Base Capacity (vph)	1608	583	2394	348	349	441
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	0.46	1.10	0.20	0.86	0.87	0.18

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Queues

14: I-215 NB Ramps & Ramona Exwy.



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	282	1583	1001	785	194	197	434
v/c Ratio	0.99	0.70	0.69	0.74	0.47	0.47	0.88
Control Delay	68.2	13.0	18.1	7.2	23.6	23.6	37.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.2	13.0	18.1	7.2	23.6	23.6	37.2
Queue Length 50th (ft)	112	250	152	19	62	63	103
Queue Length 95th (ft)	m#123	m267	213	110	117	120	#254
Internal Link Dist (ft)		472	1588			1153	
Turn Bay Length (ft)	105						500
Base Capacity (vph)	285	2256	1444	1064	428	430	505
Starvation Cap Reductn	0	0	0	0	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	0.99	0.70	0.69	0.74	0.45	0.46	0.86

Intersection Summary

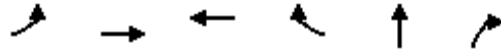
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

16: I-215 NB Ramps & Nuevo Rd.



Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	68	1198	1178	535	152	431
v/c Ratio	0.35	0.63	0.54	0.55	0.25	0.41
Control Delay	36.4	8.1	14.2	3.8	18.0	12.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.4	8.1	14.2	3.8	18.0	12.8
Queue Length 50th (ft)	26	90	112	0	44	48
Queue Length 95th (ft)	m42	106	127	28	76	73
Internal Link Dist (ft)		381	941		975	
Turn Bay Length (ft)	105					
Base Capacity (vph)	210	2166	2201	975	609	1051
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	0.32	0.55	0.54	0.55	0.25	0.41

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

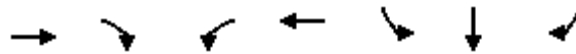
APPENDIX 6.6:

**EAP (2021) WITH I-215/PLACENTIA INTERCHANGE CONDITIONS QUEUING
ANALYSIS WORKSHEETS**

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Queues

11: I-215 SB Ramps & Ramona Exwy.



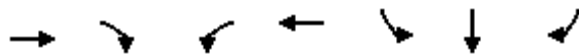
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	564	262	272	816	283	286	156
v/c Ratio	0.60	0.43	0.71	0.41	0.64	0.64	0.29
Control Delay	23.1	5.6	47.4	7.0	27.5	27.8	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.1	5.6	47.4	7.0	27.5	27.8	5.5
Queue Length 50th (ft)	96	0	113	63	95	96	0
Queue Length 95th (ft)	145	49	179	91	#172	#175	38
Internal Link Dist (ft)	1278			472		973	
Turn Bay Length (ft)			100		510		510
Base Capacity (vph)	944	610	436	1985	443	444	532
Starvation Cap Reductn	0	0	0	0	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	0.60	0.43	0.62	0.41	0.64	0.64	0.29

Intersection Summary

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

Queues
12: I-215 SB Ramps & Placentia St./Placentia Av.

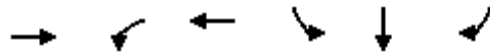
Barker Logistics (JN 12216)
02/26/2019



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	299	143	202	401	142	142	122
v/c Ratio	0.20	0.19	0.52	0.19	0.39	0.39	0.27
Control Delay	12.2	3.3	32.0	4.8	24.0	24.0	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.2	3.3	32.0	4.8	24.0	24.0	5.6
Queue Length 50th (ft)	35	0	42	35	46	46	0
Queue Length 95th (ft)	58	28	72	46	94	94	31
Internal Link Dist (ft)	1040			666		1313	
Turn Bay Length (ft)		230	250				330
Base Capacity (vph)	1464	739	408	2141	365	365	450
Starvation Cap Reductn	0	0	0	0	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	0.20	0.19	0.50	0.19	0.39	0.39	0.27
Intersection Summary							

Queues

13: I-215 SB Ramps & Nuevo Rd.



Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	628	332	828	136	133	80
v/c Ratio	0.44	0.61	0.36	0.47	0.46	0.20
Control Delay	13.1	20.0	6.8	28.4	28.1	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.1	20.0	6.8	28.4	28.1	2.6
Queue Length 50th (ft)	75	64	139	47	46	0
Queue Length 95th (ft)	113	38	5	94	91	9
Internal Link Dist (ft)	1873		381		1001	
Turn Bay Length (ft)		115				300
Base Capacity (vph)	1431	607	2274	291	292	392
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	0.44	0.55	0.36	0.47	0.46	0.20

Intersection Summary

Queues
14: I-215 NB Ramps & Ramona Exwy.



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	148	981	871	768	110	109	332
v/c Ratio	0.65	0.44	0.53	0.67	0.34	0.34	0.80
Control Delay	41.2	10.1	14.7	4.7	23.4	23.3	29.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.2	10.1	14.7	4.7	23.4	23.3	29.7
Queue Length 50th (ft)	62	147	128	1	35	34	64
Queue Length 95th (ft)	m#113	215	181	61	75	74	#175
Internal Link Dist (ft)		472	1588			1153	
Turn Bay Length (ft)	105						500
Base Capacity (vph)	233	2239	1644	1151	371	373	456
Starvation Cap Reductn	0	0	0	0	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	0.64	0.44	0.53	0.67	0.30	0.29	0.73

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

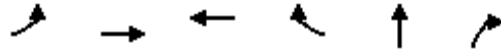
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues
15: I-215 NB Ramps & Placentia Av.



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	76	507	422	376	91	92	271
v/c Ratio	0.22	0.22	0.22	0.37	0.30	0.31	0.53
Control Delay	19.0	4.4	9.6	2.7	24.3	24.3	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.0	4.4	9.6	2.7	24.3	24.3	7.7
Queue Length 50th (ft)	8	11	45	0	30	31	0
Queue Length 95th (ft)	23	54	79	43	66	66	52
Internal Link Dist (ft)		666	995			965	
Turn Bay Length (ft)	260			365	575		
Base Capacity (vph)	408	2278	1883	1022	343	343	539
Starvation Cap Reductn	0	0	0	0	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	0.19	0.22	0.22	0.37	0.27	0.27	0.50
Intersection Summary							

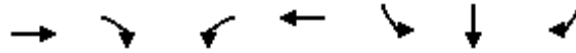


Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	34	693	871	320	242	464
v/c Ratio	0.23	0.52	0.55	0.45	0.31	0.33
Control Delay	29.9	12.9	18.5	4.2	15.6	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.9	12.9	18.5	4.2	15.6	5.3
Queue Length 50th (ft)	13	93	94	0	48	12
Queue Length 95th (ft)	m29	127	116	43	132	53
Internal Link Dist (ft)		381	941		975	
Turn Bay Length (ft)	105					
Base Capacity (vph)	150	1901	1901	794	783	1424
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	0.23	0.36	0.46	0.40	0.31	0.33

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
11: I-215 SB Ramps & Ramona Exwy.

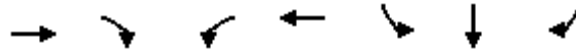


Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	698	263	323	747	327	332	125
v/c Ratio	0.65	0.39	0.76	0.34	0.72	0.72	0.24
Control Delay	22.0	4.7	50.5	6.8	30.9	31.4	4.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.0	4.7	50.5	6.8	30.9	31.4	4.7
Queue Length 50th (ft)	117	0	134	72	112	114	0
Queue Length 95th (ft)	170	46	#223	97	#223	#228	29
Internal Link Dist (ft)	1278			472		973	
Turn Bay Length (ft)			100		510		510
Base Capacity (vph)	1079	667	451	2166	457	458	530
Starvation Cap Reductn	0	0	0	0	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	0.65	0.39	0.72	0.34	0.72	0.72	0.24

Intersection Summary

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

Queues
 12: I-215 SB Ramps & Placentia St./Placentia Av.



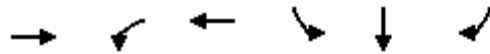
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	389	186	279	348	193	193	84
v/c Ratio	0.25	0.23	0.64	0.15	0.46	0.46	0.17
Control Delay	11.4	2.8	35.7	4.2	23.7	23.7	2.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.4	2.8	35.7	4.2	23.7	23.7	2.4
Queue Length 50th (ft)	45	0	58	26	62	62	0
Queue Length 95th (ft)	70	30	#93	36	118	118	13
Internal Link Dist (ft)	1040			666		1313	
Turn Bay Length (ft)		230	250				330
Base Capacity (vph)	1560	803	443	2250	417	417	495
Starvation Cap Reductn	0	0	0	0	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	0.25	0.23	0.63	0.15	0.46	0.46	0.17

Intersection Summary

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

Queues

13: I-215 SB Ramps & Nuevo Rd.



Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	527	483	336	226	230	60
v/c Ratio	0.35	0.76	0.14	0.65	0.66	0.14
Control Delay	8.5	22.0	2.5	32.5	33.0	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.5	22.0	2.5	32.5	33.0	0.6
Queue Length 50th (ft)	41	23	0	80	81	0
Queue Length 95th (ft)	71	#49	0	#165	#169	0
Internal Link Dist (ft)	1873		381		1001	
Turn Bay Length (ft)		115				300
Base Capacity (vph)	1526	653	2394	348	349	441
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	0.35	0.74	0.14	0.65	0.66	0.14

Intersection Summary

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



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	177	1203	792	589	146	148	325
v/c Ratio	0.66	0.51	0.50	0.57	0.40	0.40	0.72
Control Delay	39.0	9.3	14.3	3.8	22.8	22.9	21.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.0	9.3	14.3	3.8	22.8	22.9	21.7
Queue Length 50th (ft)	69	163	111	0	45	46	58
Queue Length 95th (ft)	m102	228	159	53	91	92	134
Internal Link Dist (ft)		472	1588			1153	
Turn Bay Length (ft)	105						500
Base Capacity (vph)	277	2355	1574	1036	428	430	505
Starvation Cap Reductn	0	0	0	0	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	0.64	0.51	0.50	0.57	0.34	0.34	0.64

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

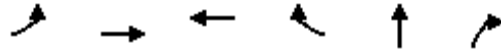
Queues
15: I-215 NB Ramps & Placentia Av.



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	124	651	484	318	71	72	205
v/c Ratio	0.31	0.27	0.26	0.32	0.20	0.21	0.42
Control Delay	18.8	4.1	9.6	2.5	21.3	21.4	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.8	4.1	9.6	2.5	21.3	21.4	6.5
Queue Length 50th (ft)	13	13	51	0	23	23	0
Queue Length 95th (ft)	32	61	85	37	51	52	44
Internal Link Dist (ft)		666	995			965	
Turn Bay Length (ft)	260			365	575		
Base Capacity (vph)	445	2394	1854	984	394	394	529
Starvation Cap Reductn	0	0	0	0	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	0.28	0.27	0.26	0.32	0.18	0.18	0.39
Intersection Summary							

Queues

16: I-215 NB Ramps & Nuevo Rd.



Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	50	900	869	401	104	324
v/c Ratio	0.26	0.52	0.45	0.48	0.15	0.26
Control Delay	35.8	7.8	14.7	3.6	16.2	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.8	7.8	14.7	3.6	16.2	4.9
Queue Length 50th (ft)	19	67	86	0	26	7
Queue Length 95th (ft)	m36	79	91	27	55	27
Internal Link Dist (ft)		381	941		975	
Turn Bay Length (ft)	105					
Base Capacity (vph)	210	2166	2161	889	696	1256
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	0.24	0.42	0.40	0.45	0.15	0.26

Intersection Summary

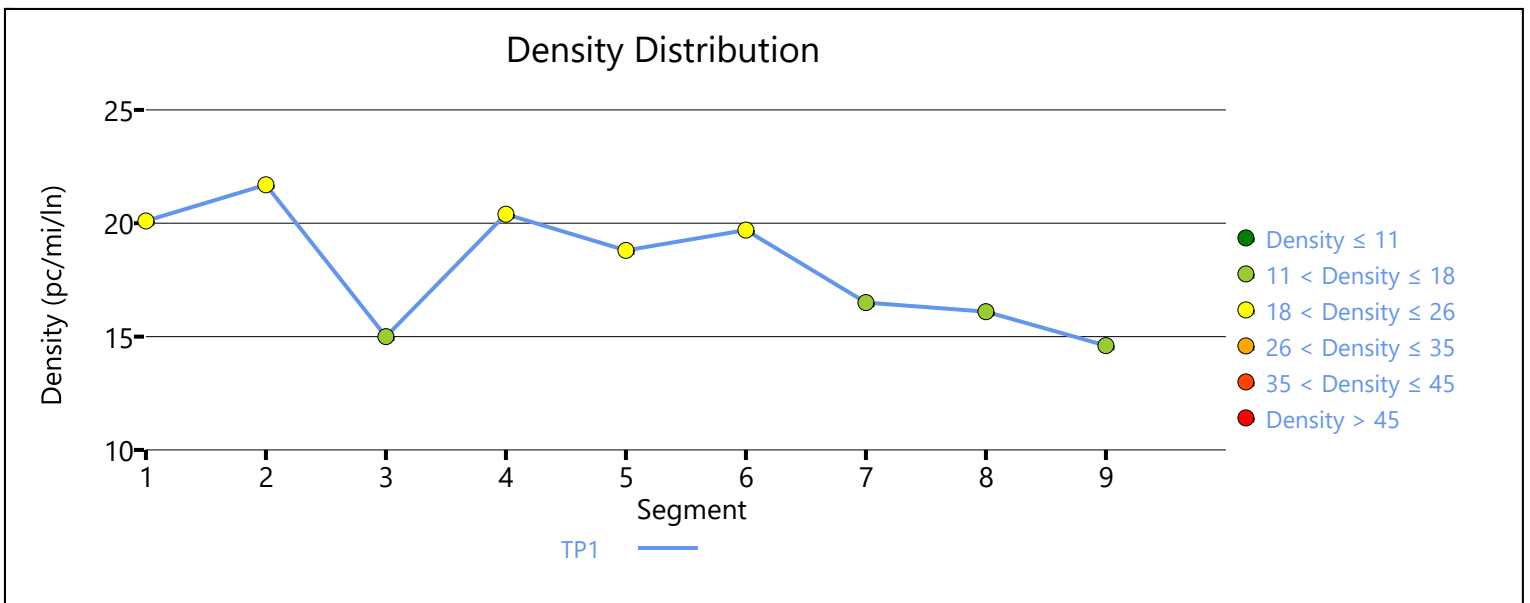
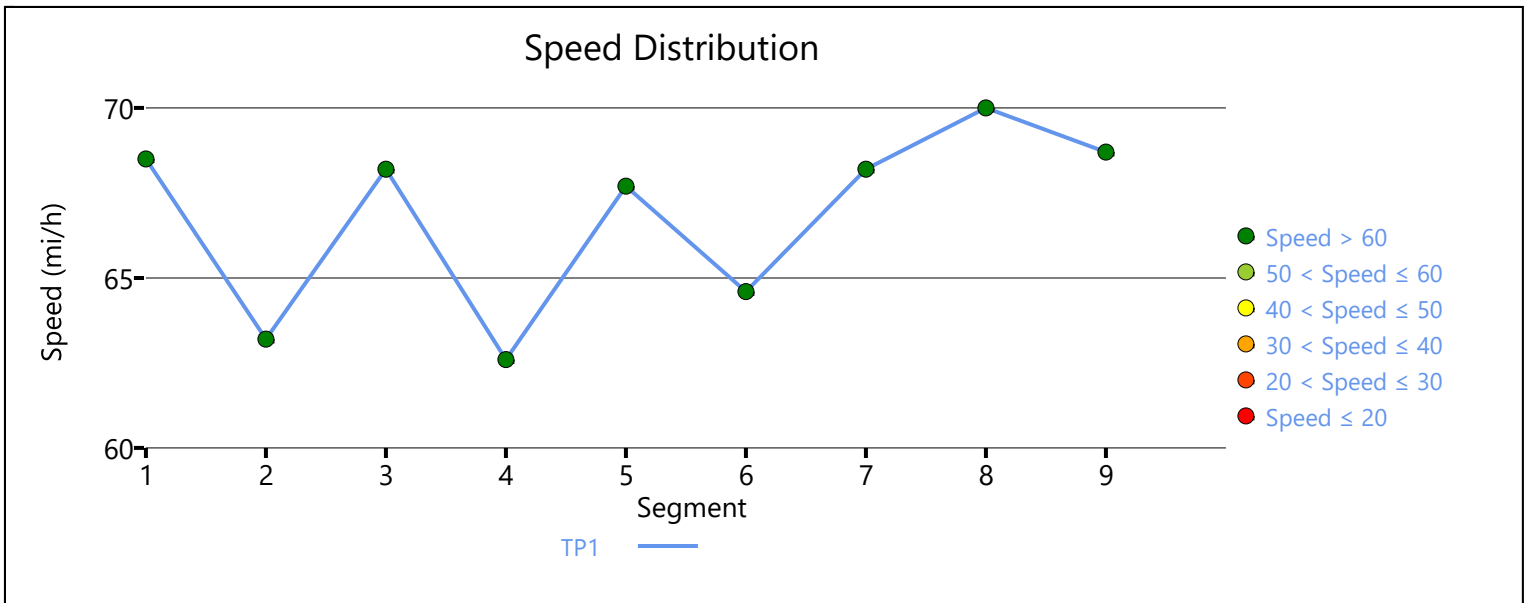
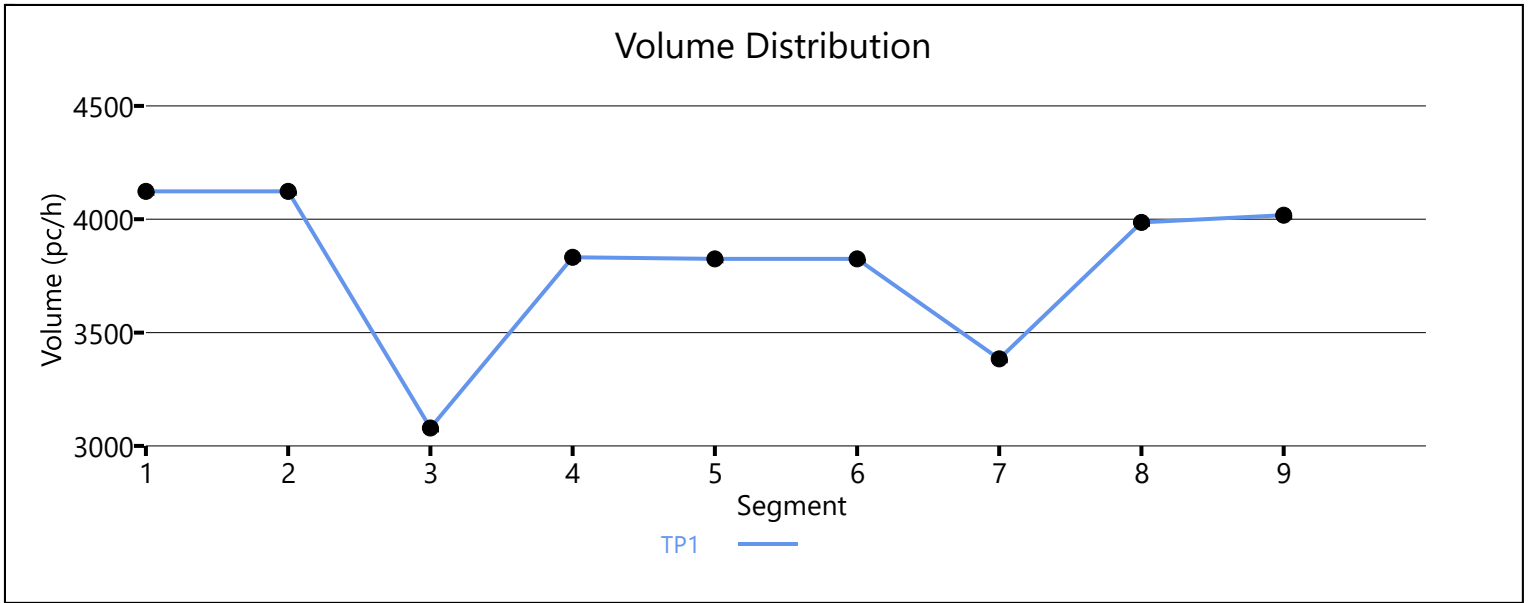
m Volume for 95th percentile queue is metered by upstream signal.

APPENDIX 6.7:

**EAP (2021) CONDITIONS WITHOUT I-215/PLACENTIA INTERCHANGE FREEWAY
FACILITY ANALYSIS WORKSHEETS**

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1	0.92	0.92	0.990	0.885	3832	753	7200	2100	0.53	0.36	62.6	60.6	20.4	22.6	C
Segment 5: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		3825		7131		0.54		67.7		18.8		C
Segment 6: Diverge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.962	3825	445	7200	2100	0.53	0.21	64.6	60.5	19.7	25.8	C
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		3384		7146		0.47		68.2		16.5		B
Segment 8: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.962	3986	602	7200	2100	0.47	0.29	70.0	-	16.1	-	B
Segment 9: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		4018		9548		0.42		68.7		14.6		B
Facility Time Period Results															
T	Speed, mi/h		Density, pc/mi/ln		Density, veh/mi/ln		Travel Time, min		LOS						
1	67.4		18.5		17.9		5.0		C						
Facility Overall Results															
Space Mean Speed, mi/h					67.4			Density, veh/mi/ln			17.9				
Average Travel Time, min					5.0			Density, pc/mi/ln			18.5				



HCS7 Freeway Facilities Report

Project Information

Analyst	RV	Date	2/22/2019
Agency	Urban Crossroads, Inc.	Analysis Year	EAP 2021 wo I-215/Placentia Interchange
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Barker Logistics (JN 12216)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	9
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-215 NB S of Nuevo	1675	4
2	Diverge	Basic	NB Nuevo Off-Ramp	1500	4
3	Basic	Basic	Between Nuevo On and Off Ramps	1400	3
4	Merge	Merge	NB Nuevo On-Ramp	1500	3
5	Basic	Basic	Between Nuevo and Ramona	13735	3
6	Diverge	Diverge	NB Ramona Off-Ramp	1500	3
7	Basic	Basic	Between Ramona On and Off Ramps	1315	3
8	Merge	Merge	NB Ramona On-Ramp	1500	3
9	Basic	Basic	I-215 NB N of Ramona	5000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.943		5769		8800		0.66		43.7		33.0		D

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.943	0.980	5769	970	8800	2100	0.66	0.46	45.0	-	32.0	-	D

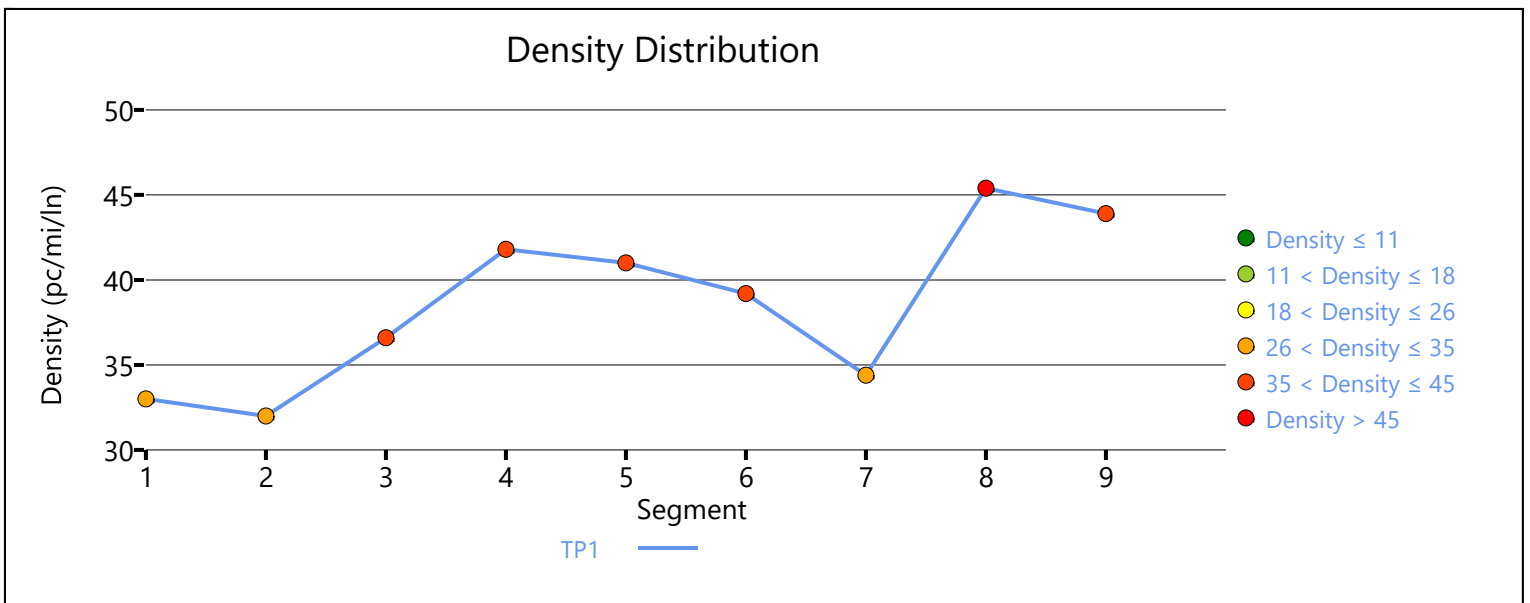
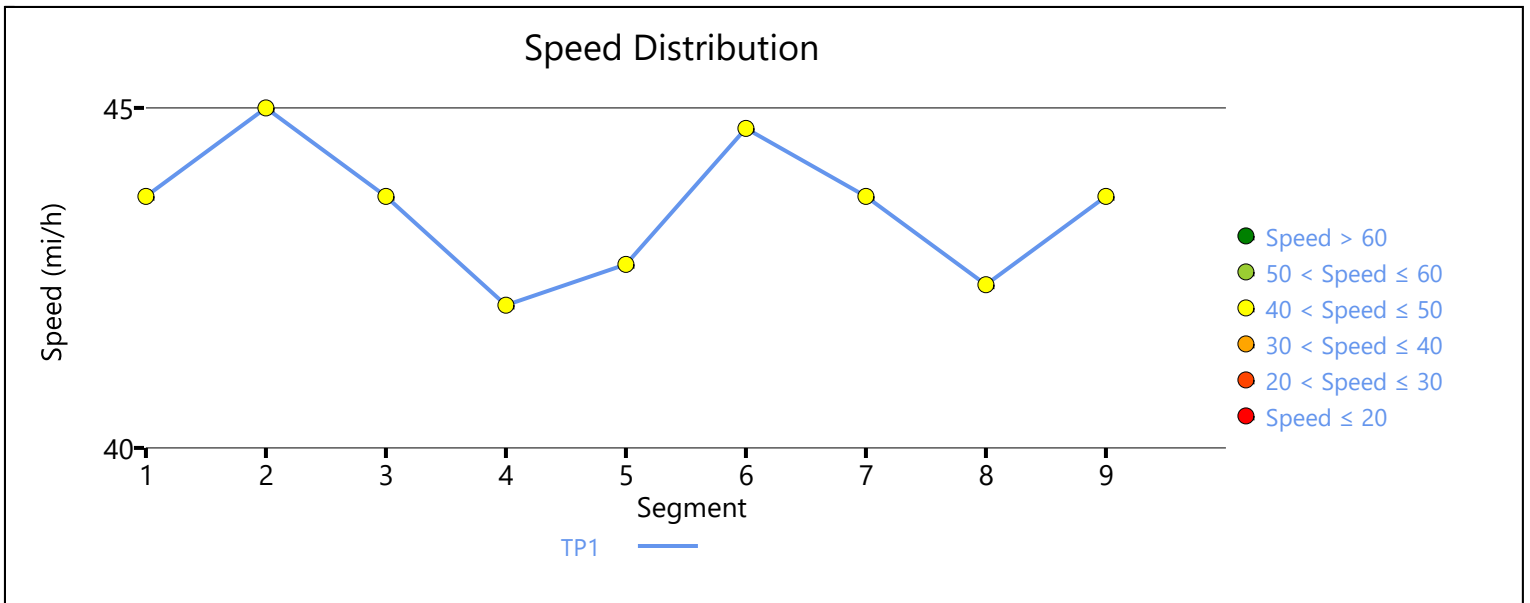
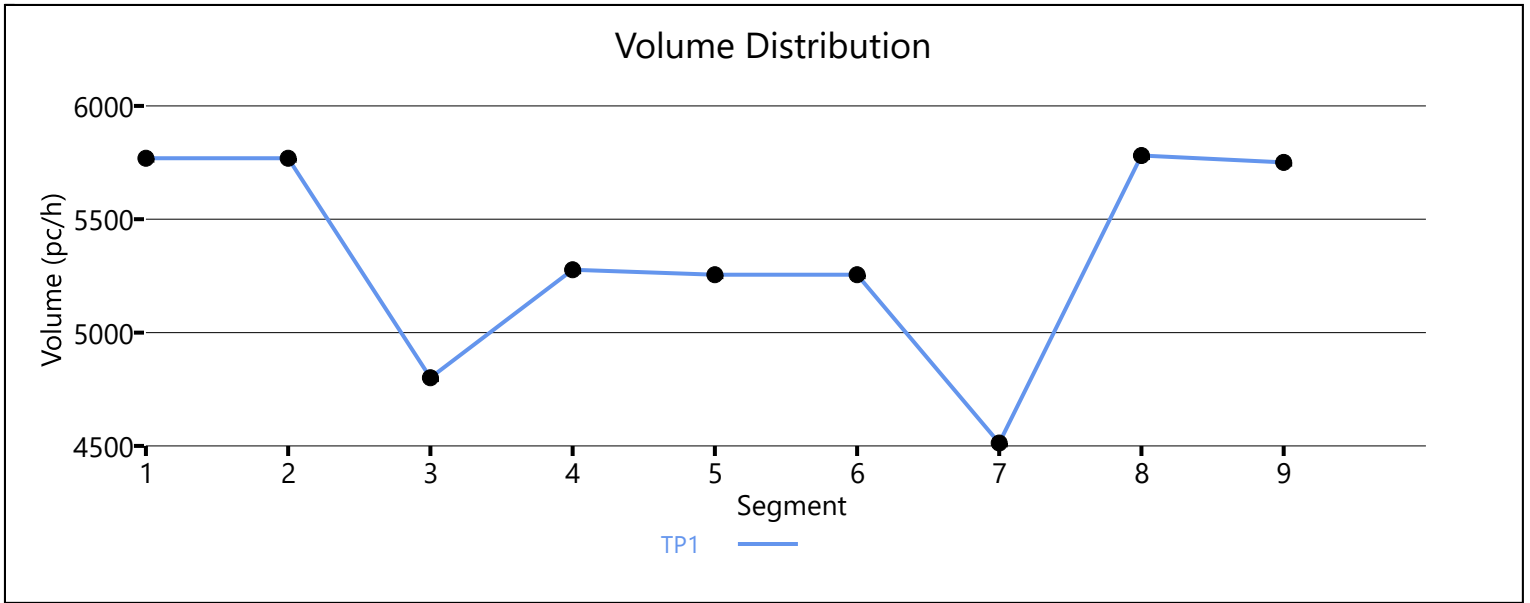
Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.935		4801		6600		0.73		43.7		36.6		E

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.943	0.980	5769	970	8800	2100	0.66	0.46	45.0	-	32.0	-	D

1	0.92	0.92	0.935	0.980	5277	476	6750	2100	0.78	0.23	42.1	43.8	41.8	29.1	D
Segment 5: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.943		5255		6600		0.80		42.7		41.0		E
Segment 6: Diverge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.943	0.901	5255	777	6750	2100	0.78	0.37	44.7	43.9	39.2	32.5	D
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.943		4513		6600		0.68		43.7		34.4		D
Segment 8: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.943	0.885	5781	1268	6750	2100	0.86	0.60	42.4	43.6	45.4	33.0	D
Segment 9: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.935		5751		6600		0.87		43.7		43.9		E
Facility Time Period Results															
T	Speed, mi/h		Density, pc/mi/ln		Density, veh/mi/ln		Travel Time, min		LOS						
1	43.2		40.0		37.6		7.7		E						
Facility Overall Results															
Space Mean Speed, mi/h					43.2			Density, veh/mi/ln			37.6				
Average Travel Time, min					7.7			Density, pc/mi/ln			40.0				



HCS7 Freeway Facilities Report

Project Information

Analyst	RV	Date	2/22/2019
Agency	Urban Crossroads, Inc.	Analysis Year	EAP 2021 wo I-215/Placentia Interchange
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Barker Logistics (JN 12216)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	9
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-215 SB North of Ramona	5175	3
2	Diverge	Diverge	SB Off-Ramp at Ramona	1500	3
3	Basic	Basic	Between Ramona On and Off Ramps	1525	3
4	Merge	Merge	SB On-Ramp at Ramona	1500	3
5	Basic	Basic	Ramona to Nuevo	13515	3
6	Diverge	Diverge	SB Off-Ramp at Nuevo	1500	3
7	Basic	Basic	Between Nuevo On and Off Ramps	1500	3
8	Merge	Basic	SB On-Ramp at Nuevo	1500	3
9	Basic	Basic	S of Nuevo	2045	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.980		5657		7161		0.79		63.8		29.6		D

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.926	5657	1067	7200	2100	0.79	0.51	63.2	59.0	29.8	34.9	D

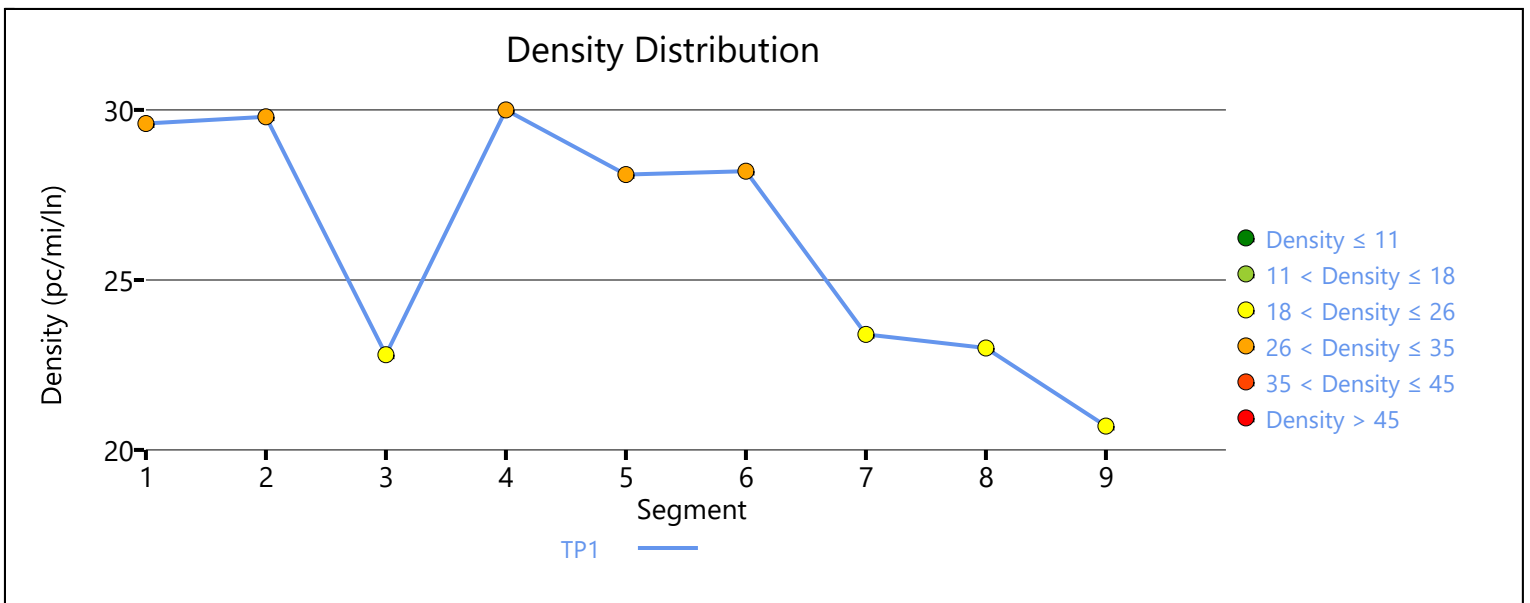
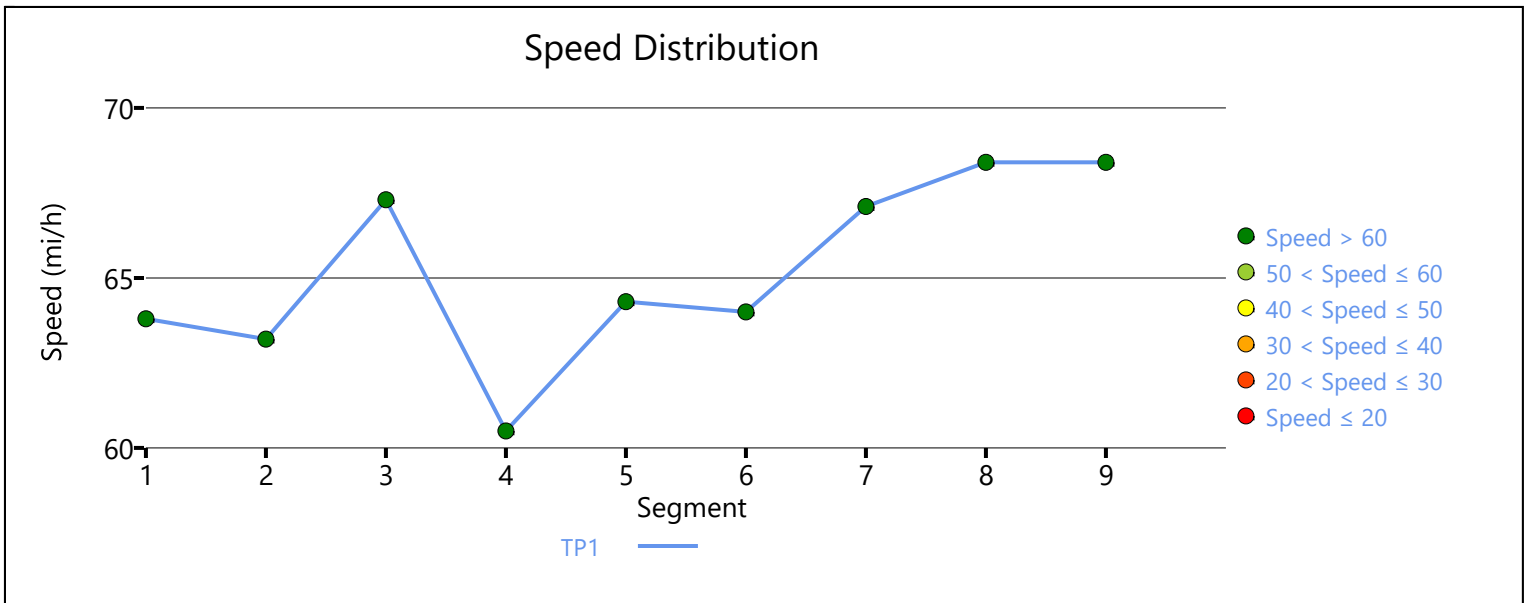
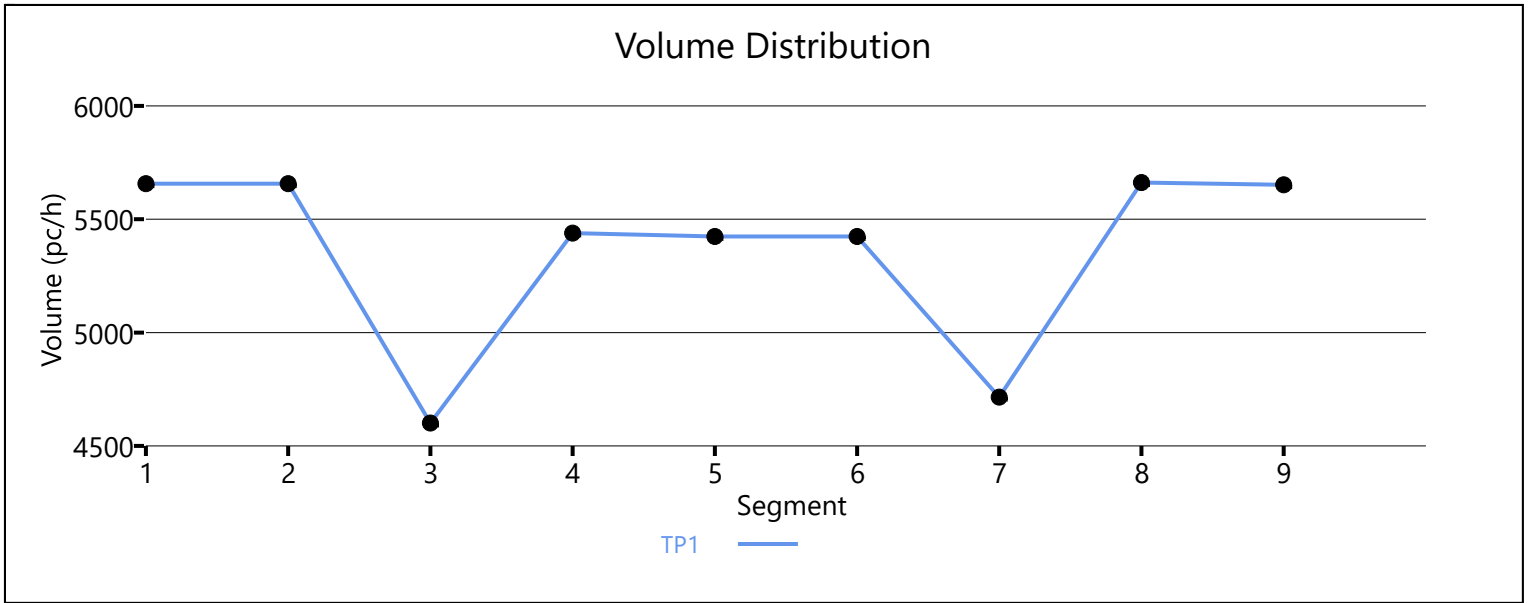
Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.990		4601		7146		0.64		67.3		22.8		C

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.926	5657	1067	7200	2100	0.79	0.51	63.2	59.0	29.8	34.9	D

1	0.92	0.92	0.990	0.971	5439	838	7200	2100	0.76	0.40	60.5	58.3	30.0	30.2	D
Segment 5: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.990		5424		7131		0.76		64.3		28.1		D
Segment 6: Diverge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.990	5424	709	7200	2100	0.75	0.34	64.0	59.9	28.2	33.3	D
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.990		4715		7146		0.66		67.1		23.4		C
Segment 8: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.980	5662	947	7200	2100	0.65	0.45	68.4	-	23.0	-	C
Segment 9: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.990		5652		9548		0.59		68.4		20.7		C
Facility Time Period Results															
T	Speed, mi/h		Density, pc/mi/ln		Density, veh/mi/ln		Travel Time, min		LOS						
1	64.7		27.1		26.8		5.2		D						
Facility Overall Results															
Space Mean Speed, mi/h					64.7			Density, veh/mi/ln			26.8				
Average Travel Time, min					5.2			Density, pc/mi/ln			27.1				



HCS7 Freeway Facilities Report

Project Information

Analyst	RV	Date	2/22/2019
Agency	Urban Crossroads, Inc.	Analysis Year	EAP 2021 wo I-215/Placentia Interchange
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Barker Logistics (JN 12216)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	9
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-215 NB S of Nuevo	1675	4
2	Diverge	Basic	NB Nuevo Off-Ramp	1500	4
3	Basic	Basic	Between Nuevo On and Off Ramps	1400	3
4	Merge	Merge	NB Nuevo On-Ramp	1500	3
5	Basic	Basic	Between Nuevo and Ramona	13735	3
6	Diverge	Diverge	NB Ramona Off-Ramp	1500	3
7	Basic	Basic	Between Ramona On and Off Ramps	1315	3
8	Merge	Merge	NB Ramona On-Ramp	1500	3
9	Basic	Basic	I-215 NB N of Ramona	5000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.980		4490		9548		0.47		68.7		16.3		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.980	4490	509	9600	2100	0.47	0.24	70.0	-	16.0	-	B

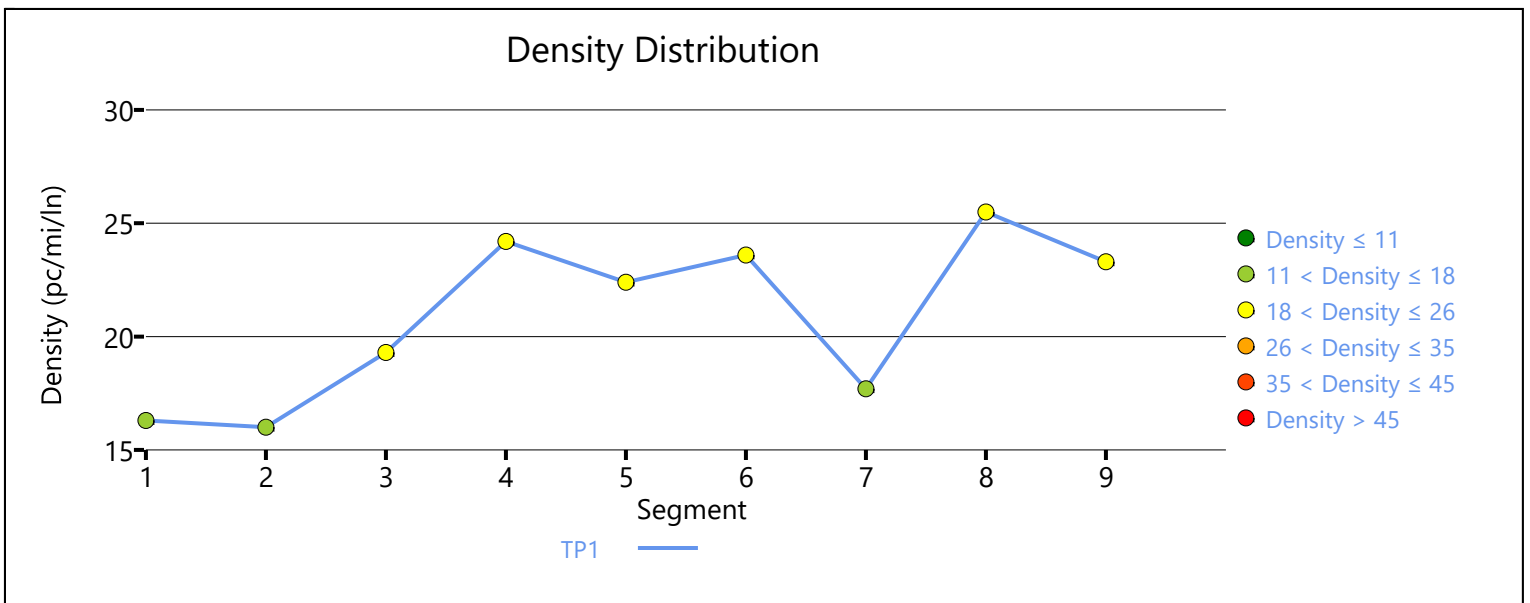
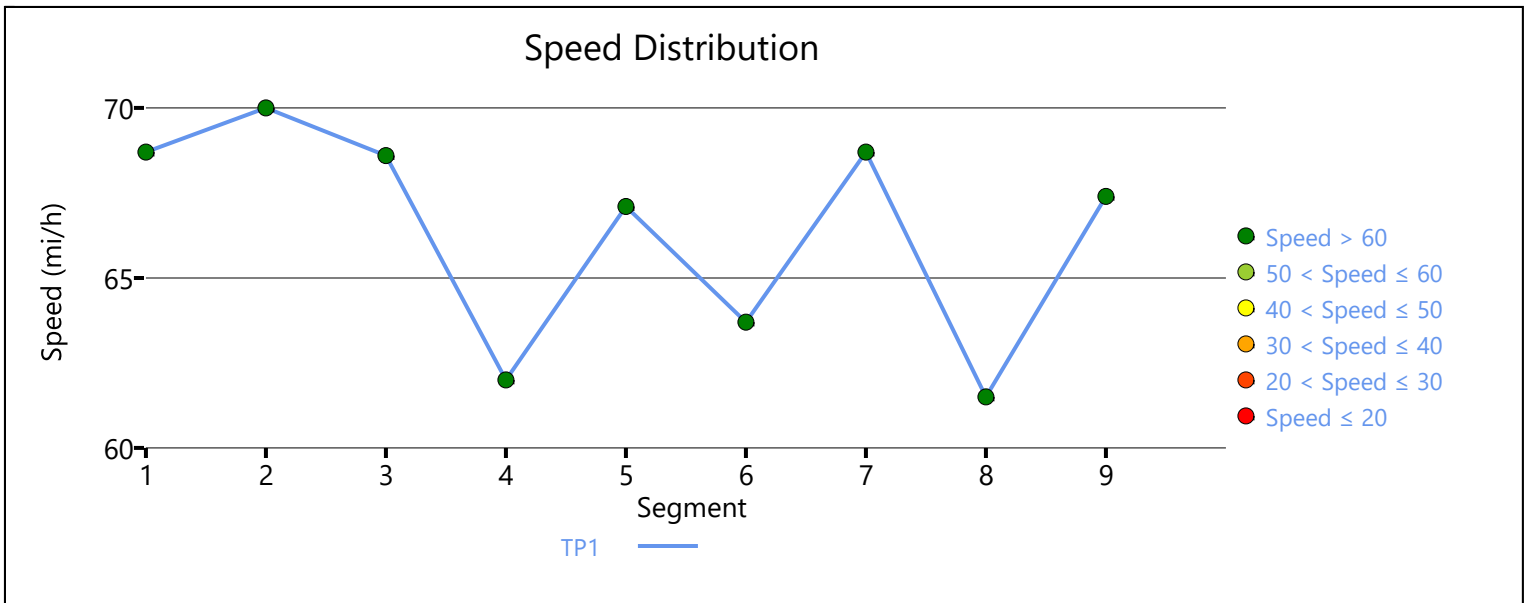
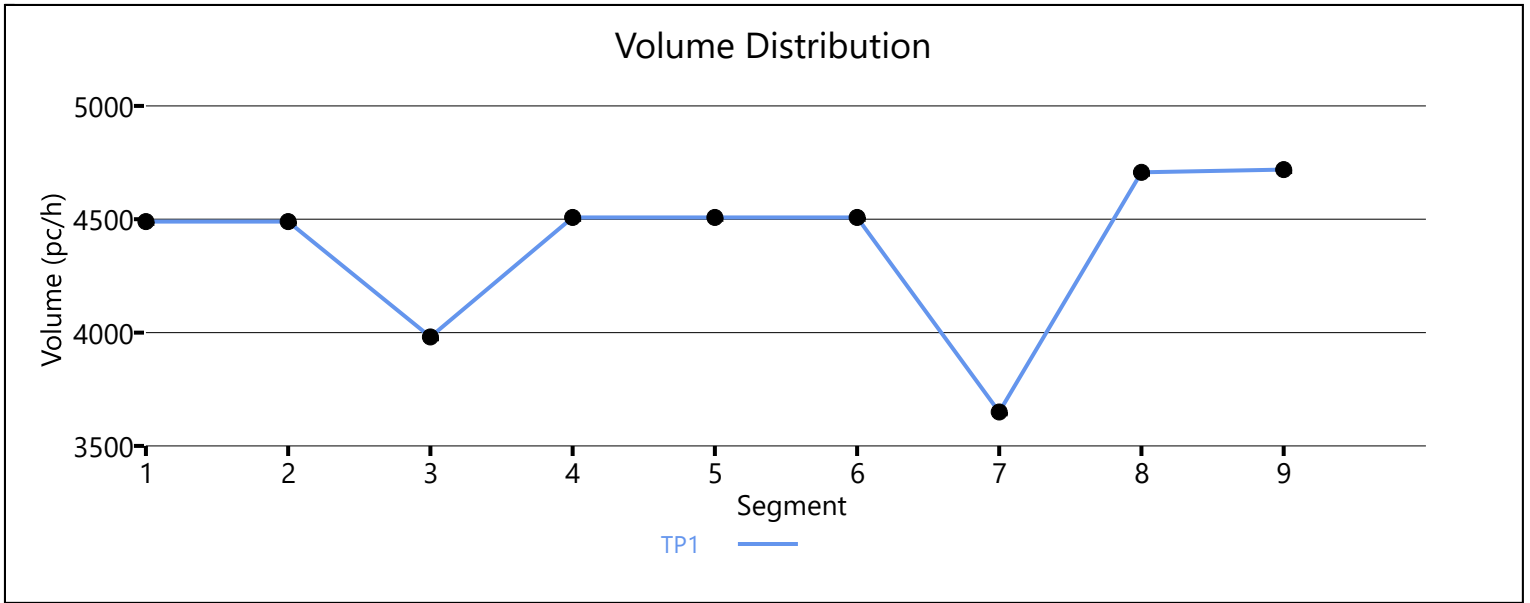
Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.980		3981		7161		0.56		68.6		19.3		C

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	

1	0.92	0.92	0.980	0.980	4508	527	7200	2100	0.63	0.25	62.0	59.9	24.2	25.7	C
Segment 5: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.980		4508		7131		0.63		67.1		22.4		C
Segment 6: Diverge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.943	4508	853	7200	2100	0.63	0.41	63.7	59.5	23.6	29.4	D
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.990		3650		7161		0.51		68.7		17.7		B
Segment 8: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.917	4707	1057	7200	2100	0.65	0.50	61.5	59.4	25.5	27.4	C
Segment 9: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		4719		7161		0.66		67.4		23.3		C
Facility Time Period Results															
T	Speed, mi/h		Density, pc/mi/ln		Density, veh/mi/ln		Travel Time, min		LOS						
1	66.7		21.6		21.2		5.0		C						
Facility Overall Results															
Space Mean Speed, mi/h					66.7					Density, veh/mi/ln					21.2
Average Travel Time, min					5.0					Density, pc/mi/ln					21.6



APPENDIX 6.8:

**EAP (2021) CONDITIONS WITH I-215/PLACENTIA INTERCHANGE FREEWAY FACILITY
ANALYSIS WORKSHEETS**

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HCS7 Freeway Facilities Report

Project Information

Analyst	RV	Date	2/22/2019
Agency	Urban Crossroads, Inc.	Analysis Year	EAP 2021 w I-215/Placentia Interchange
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Barker Logistics (JN 12216)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	13
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-215 SB North of Ramona	5175	3
2	Diverge	Diverge	SB Off-Ramp at Ramona	1500	3
3	Basic	Basic	Between Ramona On and Off Ramps	1525	3
4	Merge	Merge	SB On-Ramp at Ramona	1500	3
5	Basic	Basic	Ramona to Placentia	5280	3
6	Diverge	Diverge	SB Off-Ramp at Placentia	1500	3
7	Basic	Basic	Between Placentia On and Off Ramps	2300	3
8	Merge	Merge	SB On-Ramp at Placentia	1500	3
9	Basic	Basic	Placentia to Nuevo	5940	3
10	Diverge	Diverge	SB Off-Ramp at Nuevo	1500	3
11	Basic	Basic	Between Nuevo On and Off Ramps	1500	3
12	Merge	Basic	SB On-Ramp at Nuevo	1500	3
13	Basic	Basic	S of Nuevo	2045	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	3860	7146	0.54	68.2	18.9	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.870	3860	731	7200	2100	0.54	0.35	63.9	59.8	20.1	26.5	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	3140	6811 7131	0.44	67.7	15.5	B

Segment 4: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.885	3705	565	7200	2100	0.51	0.27	62.9	60.8	19.6	21.5	C
Segment 5: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92		0.971		3684		7116		0.52		67.2		18.3		C
Segment 6: Diverge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.885	3684	394	7200	2100	0.51	0.19	69.0	64.3	17.8	22.3	C
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92		0.980		3294		7104		0.46		66.8		16.4		B
Segment 8: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.917	3639	345	7200	2100	0.51	0.16	67.2	64.5	18.1	20.9	C
Segment 9: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92		0.971		3650		7116		0.51		67.2		18.1		C
Segment 10: Diverge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.962	3650	333	7200	2100	0.51	0.16	64.9	60.8	18.7	24.7	C
Segment 11: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92		0.971		3320		7131		0.47		67.7		16.4		B
Segment 12: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.962	3766	446	7200	2100	0.46	0.21	70.0	-	15.8	-	B
Segment 13: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92		0.971		3766		6.8-2 7200		0.46		70.0		15.8		B

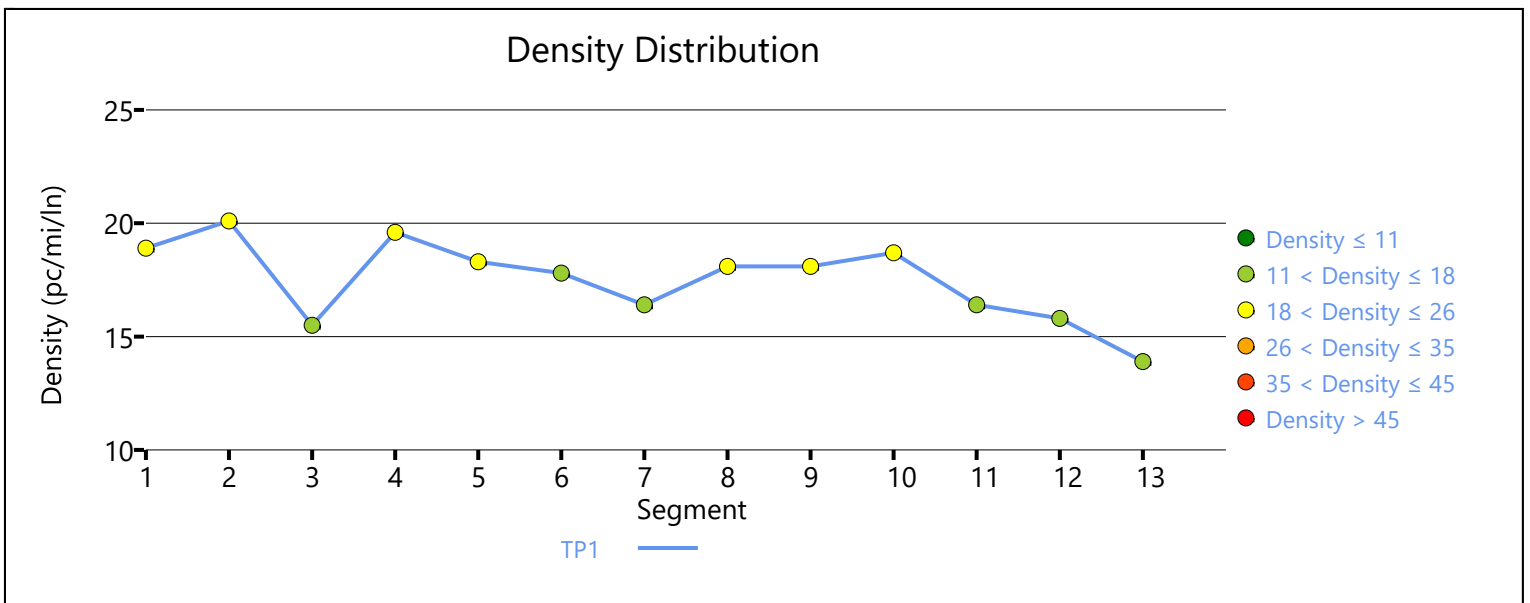
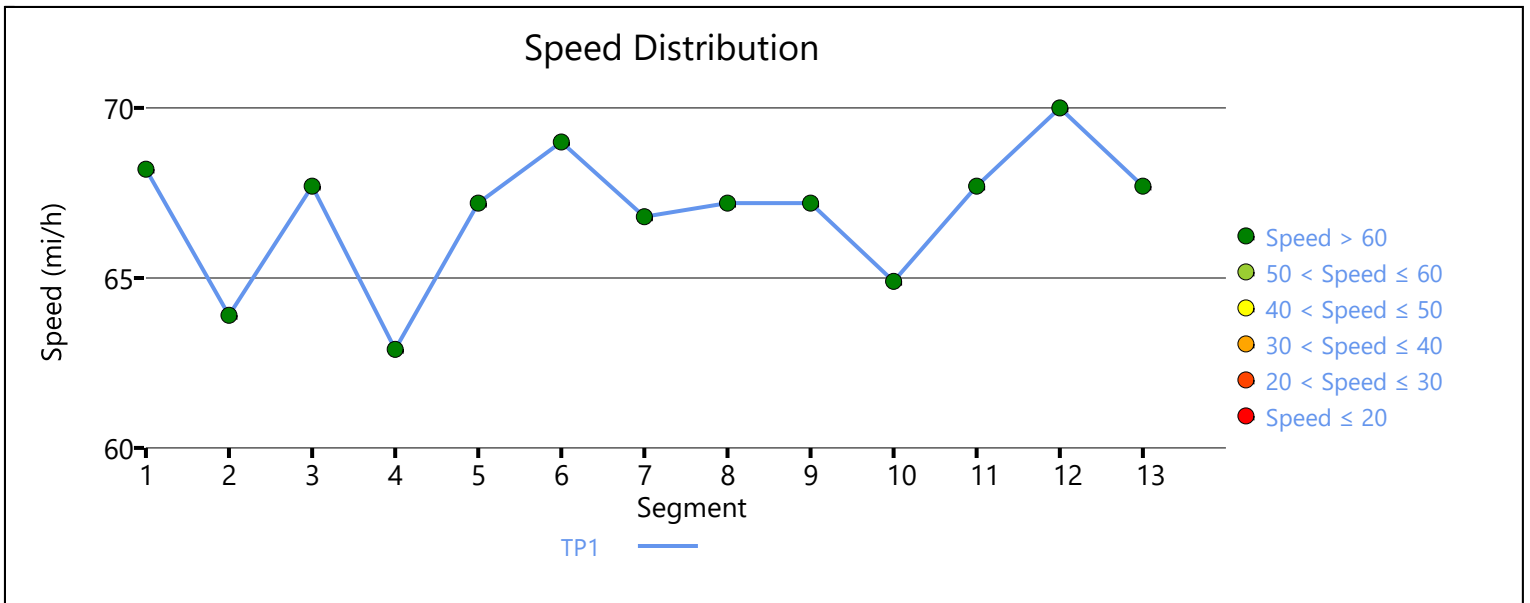
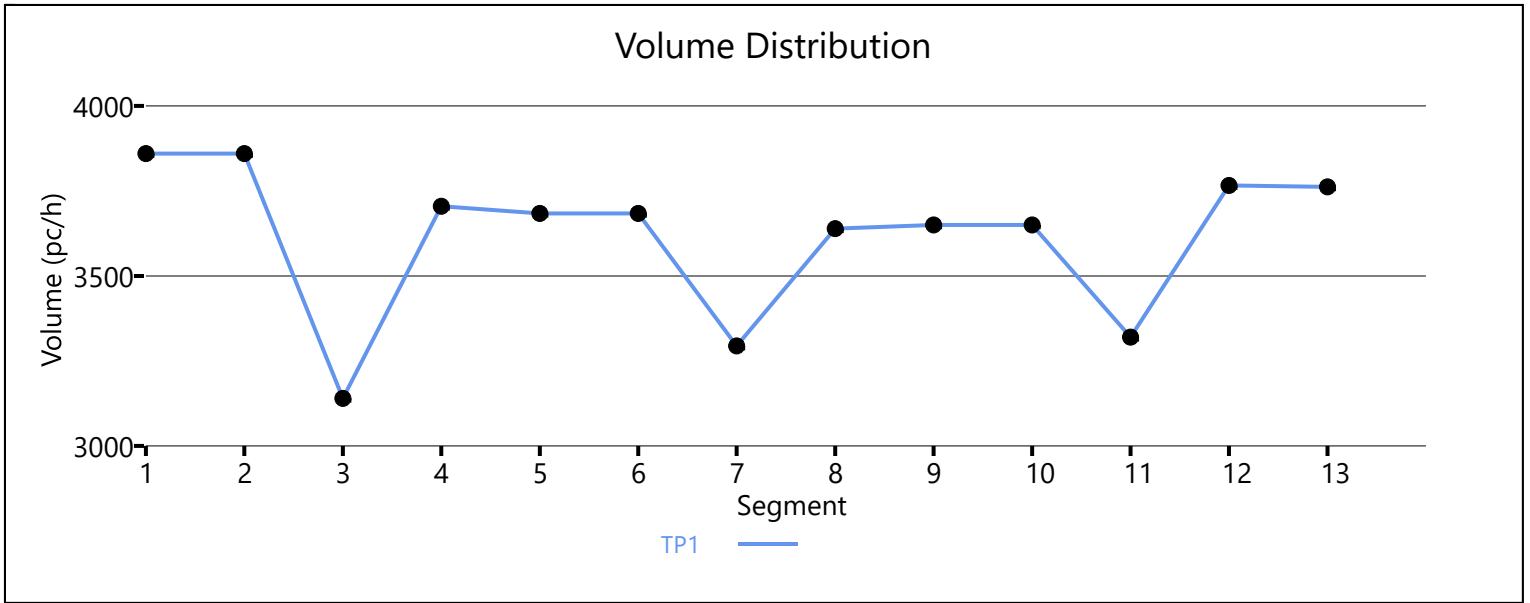
1	0.92	0.971	3762	9508	0.40	67.7	13.9	B
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Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.1	17.7	17.2	5.5	B

Facility Overall Results

Space Mean Speed, mi/h	67.1	Density, veh/mi/ln	17.2
Average Travel Time, min	5.5	Density, pc/mi/ln	17.7



HCS7 Freeway Facilities Report

Project Information

Analyst	RV	Date	2/22/2019
Agency	Urban Crossroads, Inc.	Analysis Year	EAP 2021 w I-215/Placentia Interchange
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Barker Logistics (JN 12216)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	13
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-215 NB S of Nuevo	1675	4
2	Diverge	Basic	NB Nuevo Off-Ramp	1500	4
3	Basic	Basic	Between Nuevo On and Off Ramps	1400	3
4	Merge	Merge	NB Nuevo On-Ramp	1500	3
5	Basic	Basic	Between Nuevo and Ramona	5870	3
6	Diverge	Diverge	NB Placentia Off-Ramp	1500	3
7	Basic	Basic	Between Placentia On and Off Ramps	2425	3
8	Merge	Merge	NB Placentia On Ramp	1500	3
9	Basic	Basic	Between Placentia and Ramona	5440	3
10	Diverge	Diverge	NB Ramona Off-Ramp	1500	3
11	Basic	Basic	Between Ramona On and Off Ramps	1315	3
12	Merge	Merge	NB Ramona On-Ramp	1500	3
13	Basic	Basic	I-215 NB N of Ramona	5000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.943	5473	9600	0.57	69.7	19.6	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.943	0.990	5473	704	9600	2100	0.57	0.34	69.7	-	19.6	-	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.943	4734	6.8-5 7200	0.66	68.3	23.1	C

Segment 4: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.943	0.980	5090	356	7200	2100	0.71	0.17	61.3	59.3	27.7	27.9	C
Segment 5: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92		0.943		5104		7200		0.71		67.1		25.4		C
Segment 6: Diverge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.943	0.943	5104	455	7200	2100	0.71	0.22	64.6	60.5	26.3	28.6	D
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92		0.943		4649		7200		0.65		68.6		22.6		C
Segment 8: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.943	0.909	5093	444	7200	2100	0.71	0.21	61.4	59.4	27.6	27.5	C
Segment 9: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92		0.943		5076		7200		0.71		67.2		25.2		C
Segment 10: Diverge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.943	0.901	5076	583	7200	2100	0.71	0.28	64.3	60.2	26.3	31.4	D
Segment 11: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92		0.943		4520		7200		0.63		68.9		21.9		C
Segment 12: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.943	0.885	5463	943	7200	2100	0.76	0.45	60.2	58.0	30.2	30.6	D
Segment 13: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92		0.943		5463		7200		0.76		60.2		30.2		D

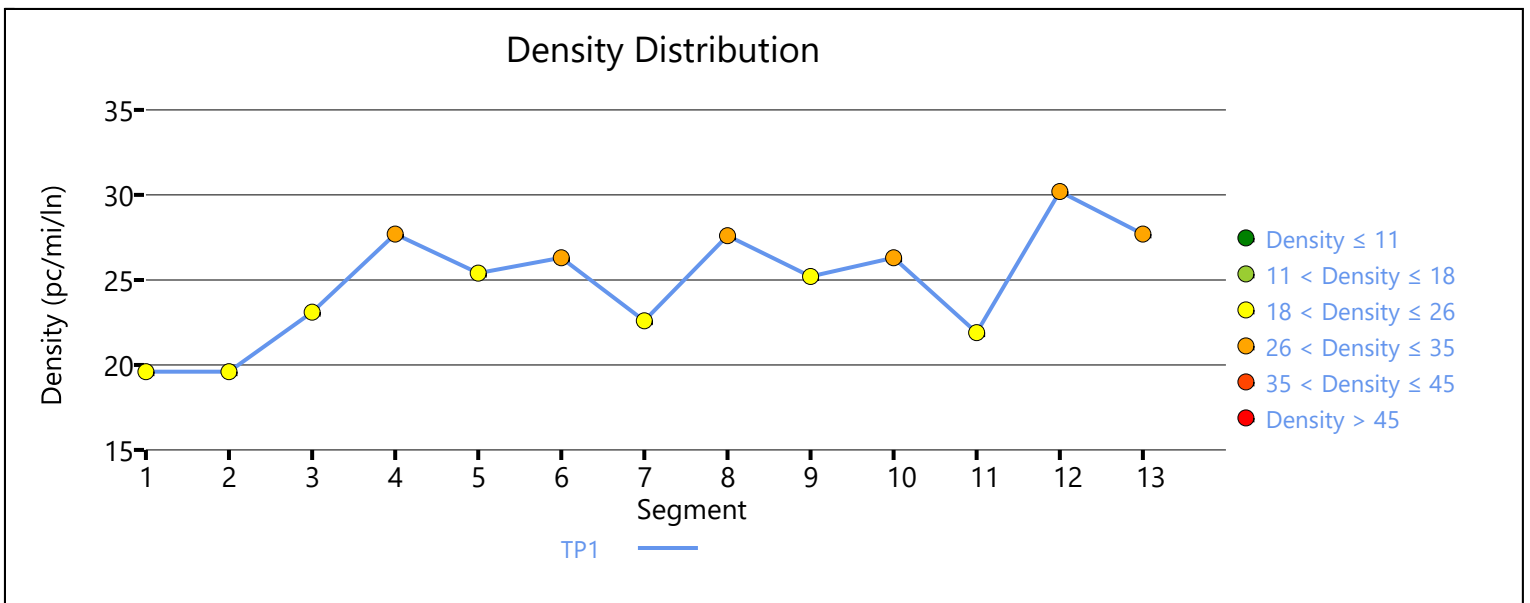
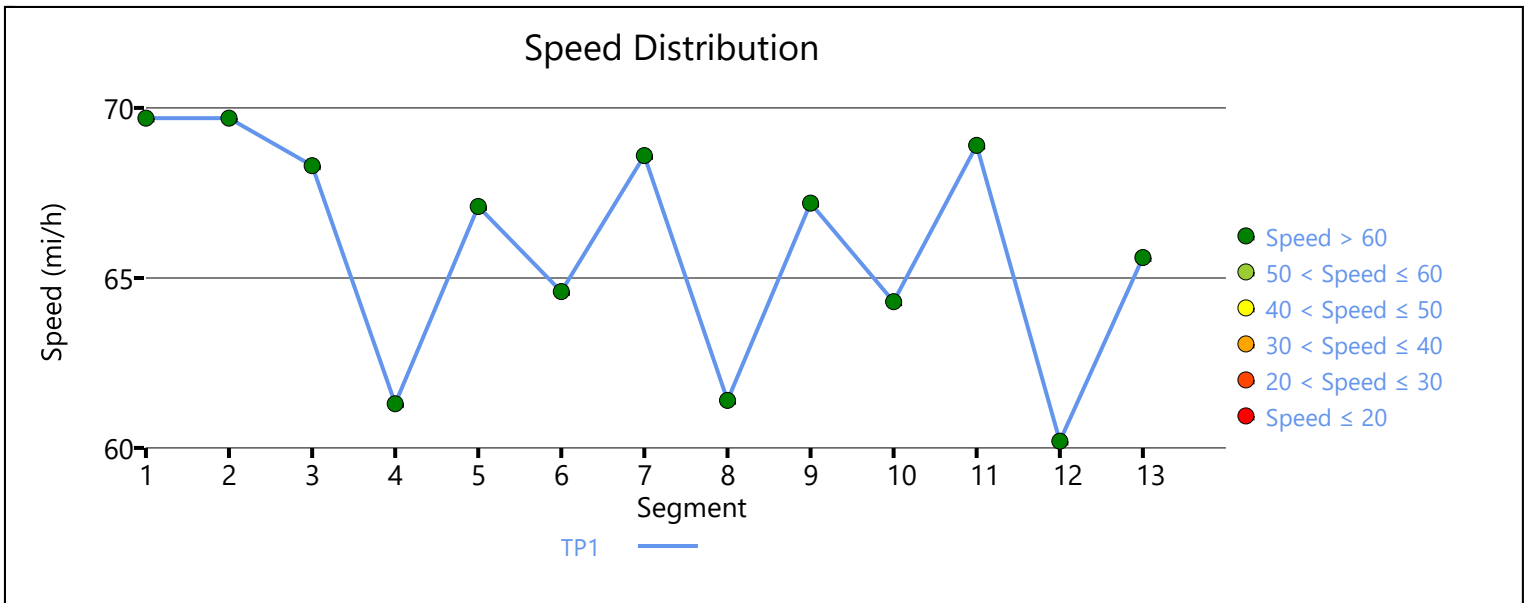
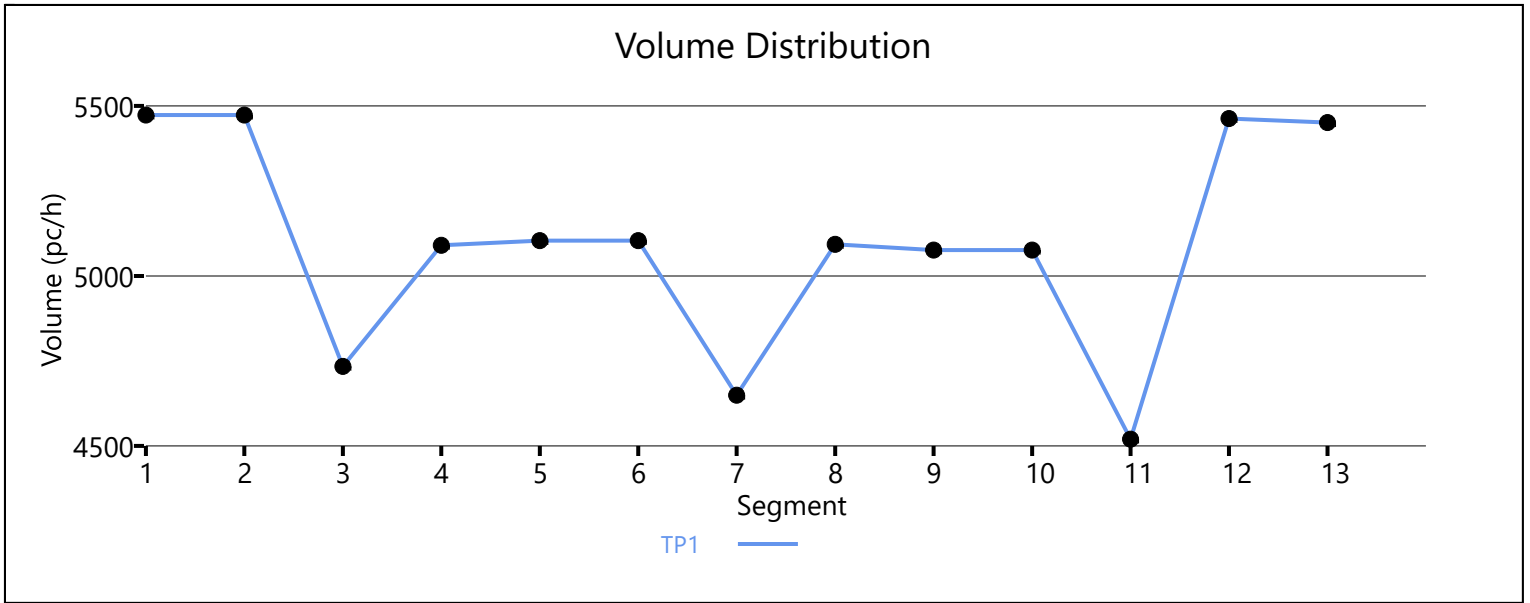
1	0.92	0.935	5451	7200	0.76	65.6	27.7	D
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Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	66.1	25.0	23.6	5.5	C

Facility Overall Results

Space Mean Speed, mi/h	66.1	Density, veh/mi/ln	23.6
Average Travel Time, min	5.5	Density, pc/mi/ln	25.0



HCS7 Freeway Facilities Report

Project Information

Analyst	RV	Date	2/22/2019
Agency	Urban Crossroads, Inc.	Analysis Year	EAP 2021 w I-215/Placentia Interchange
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Barker Logistics (JN 12216)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	13
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-215 SB North of Ramona	5175	3
2	Diverge	Diverge	SB Off-Ramp at Ramona	1500	3
3	Basic	Basic	Between Ramona On and Off Ramps	1525	3
4	Merge	Merge	SB On-Ramp at Ramona	1500	3
5	Basic	Basic	Ramona to Placentia	5280	3
6	Diverge	Diverge	SB Off-Ramp at Placentia	1500	3
7	Basic	Basic	Between Placentia On and Off Ramps	2300	3
8	Merge	Merge	SB On-Ramp at Placentia	1500	3
9	Basic	Basic	Placentia to Nuevo	5940	3
10	Diverge	Diverge	SB Off-Ramp at Nuevo	1500	3
11	Basic	Basic	Between Nuevo On and Off Ramps	1500	3
12	Merge	Basic	SB On-Ramp at Nuevo	1500	3
13	Basic	Basic	S of Nuevo	2045	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	5408	7146	0.76	64.7	27.9	D

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.926	5408	789	7200	2100	0.75	0.38	63.9	59.7	28.2	33.4	D

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.990	4616	6.8-9 7131	0.65	66.9	23.0	C

Segment 4: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.980	5239	623	7200	2100	0.73	0.30	61.0	59.0	28.6	28.7	D
Segment 5: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	1	0.92	0.990	5233	7116	0.74	64.8	26.9	D						
Segment 6: Diverge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.943	5233	459	7200	2100	0.73	0.22	68.8	64.1	25.4	29.4	D
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	1	0.92	1.000	4748	7104	0.67	65.9	24.0	C						
Segment 8: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	1.000	0.971	5218	470	7200	2100	0.72	0.22	65.1	62.4	26.7	28.5	D
Segment 9: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	1	0.92	0.990	5257	7116	0.74	64.7	27.1	D						
Segment 10: Diverge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.980	5257	538	7200	2100	0.73	0.26	64.4	60.3	27.2	32.4	D
Segment 11: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	1	0.92	0.990	4724	7131	0.66	66.7	23.6	C						
Segment 12: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.980	5442	718	7200	2100	0.66	0.34	68.4	-	23.0	-	C
Segment 13: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	1	0.92	0.990	5233	7116	0.74	64.8	26.9	D						

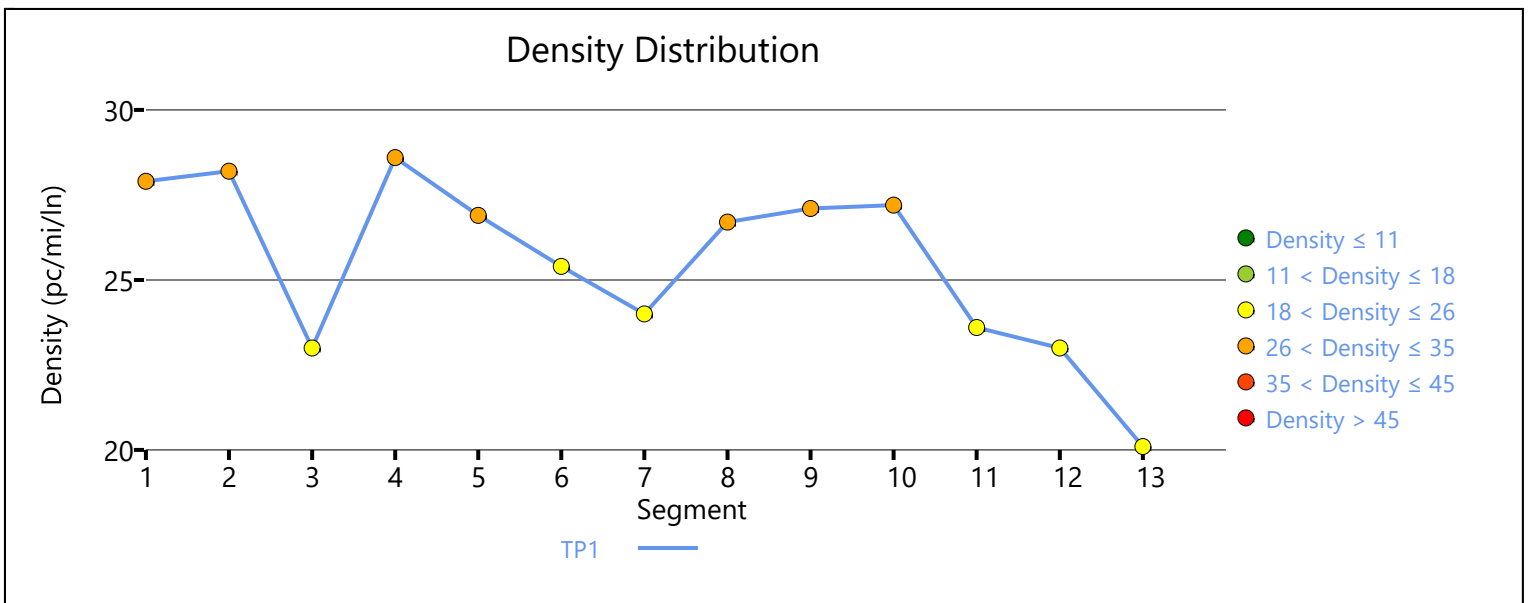
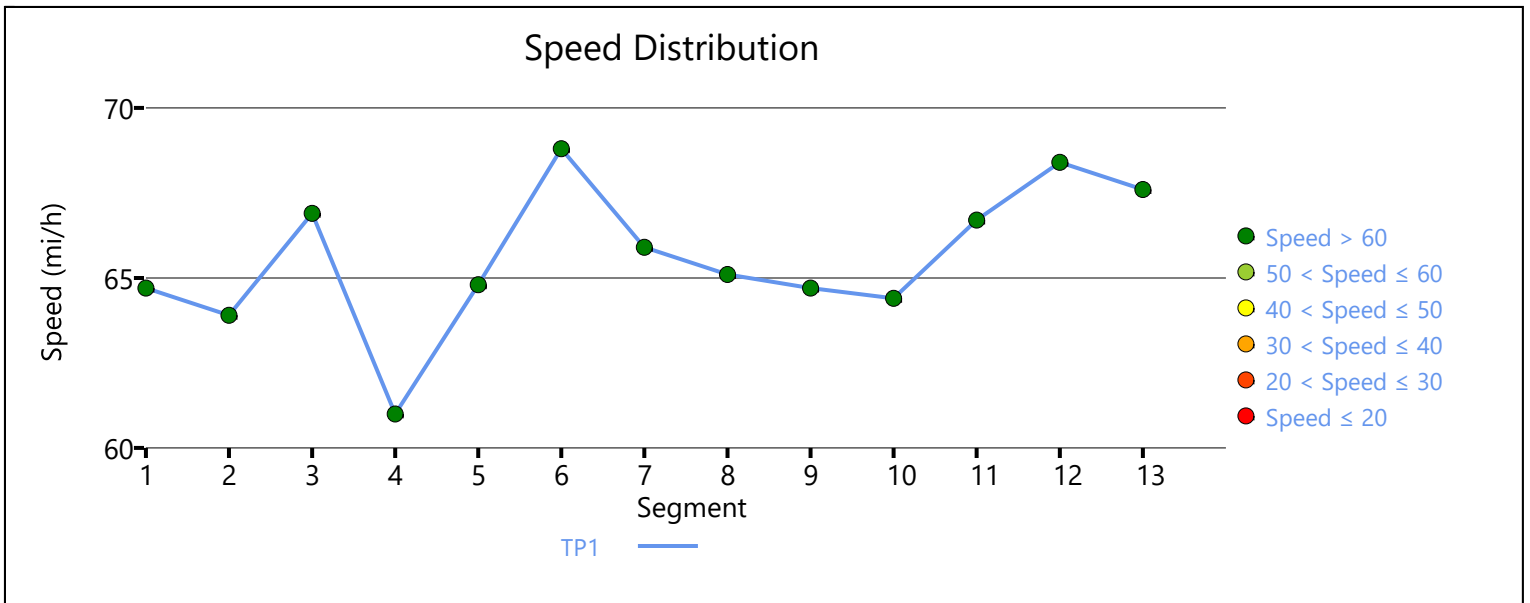
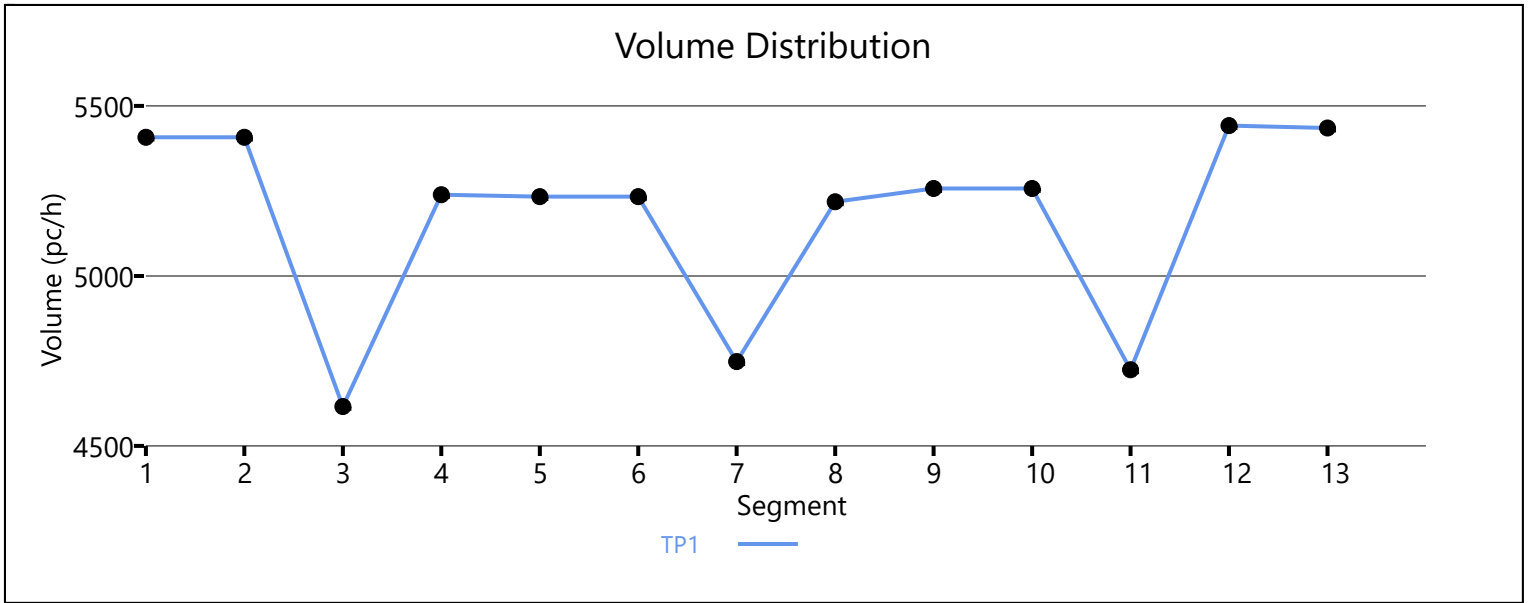
1	0.92	0.990	5435	9508	0.57	67.6	20.1	C
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Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	65.3	25.9	25.6	5.7	C

Facility Overall Results

Space Mean Speed, mi/h	65.3	Density, veh/mi/ln	25.6
Average Travel Time, min	5.7	Density, pc/mi/ln	25.9



HCS7 Freeway Facilities Report

Project Information

Analyst	RV	Date	2/22/2019
Agency	Urban Crossroads, Inc.	Analysis Year	EAP 2021 w I-215/Placentia Interchange
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Barker Logistics (JN 12216)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	13
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-215 NB S of Nuevo	1675	4
2	Diverge	Basic	NB Nuevo Off-Ramp	1500	4
3	Basic	Basic	Between Nuevo On and Off Ramps	1400	3
4	Merge	Merge	NB Nuevo On-Ramp	1500	3
5	Basic	Basic	Between Nuevo and Ramona	5870	3
6	Diverge	Diverge	NB Placentia Off-Ramp	1500	3
7	Basic	Basic	Between Placentia On and Off Ramps	2425	3
8	Merge	Merge	NB Placentia On Ramp	1500	3
9	Basic	Basic	Between Placentia and Ramona	5440	3
10	Diverge	Diverge	NB Ramona Off-Ramp	1500	3
11	Basic	Basic	Between Ramona On and Off Ramps	1315	3
12	Merge	Merge	NB Ramona On-Ramp	1500	3
13	Basic	Basic	I-215 NB N of Ramona	5000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.990	4206	9600	0.44	70.0	15.0	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.990	4206	369	9600	2100	0.44	0.18	70.0	-	15.0	-	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.990	3837	6.8-13 7200	0.53	69.9	18.3	C

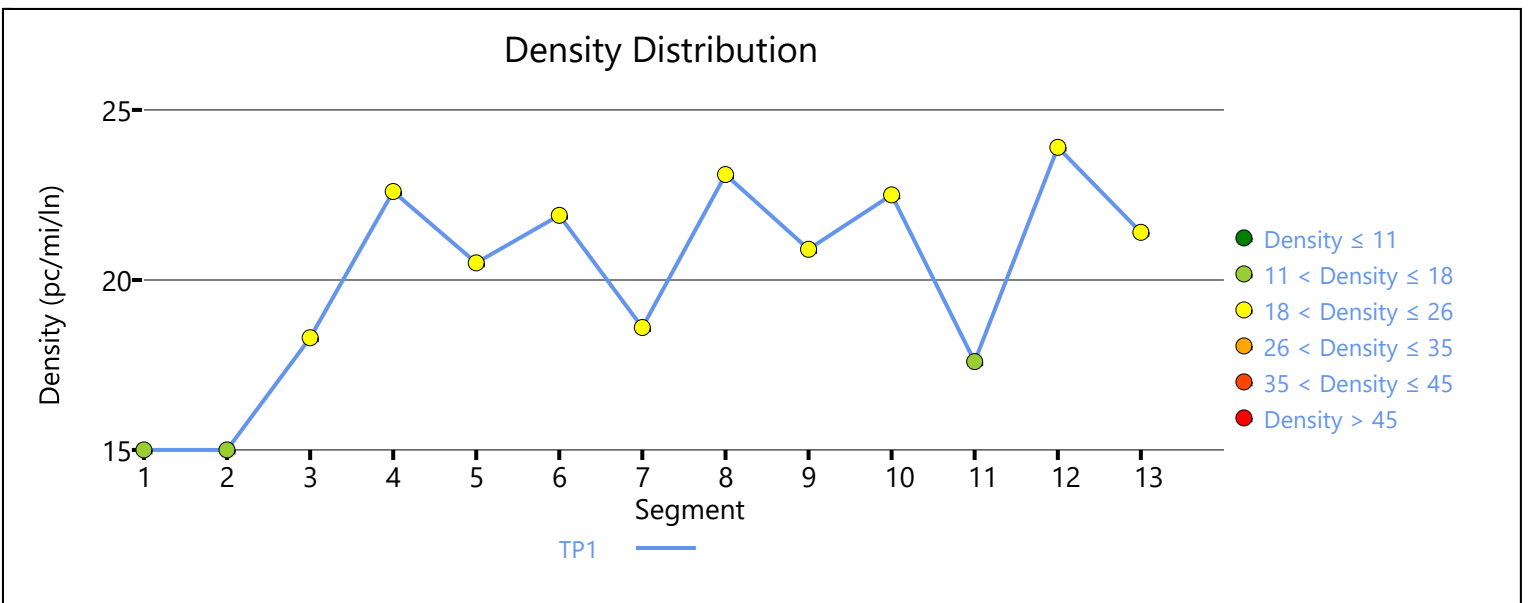
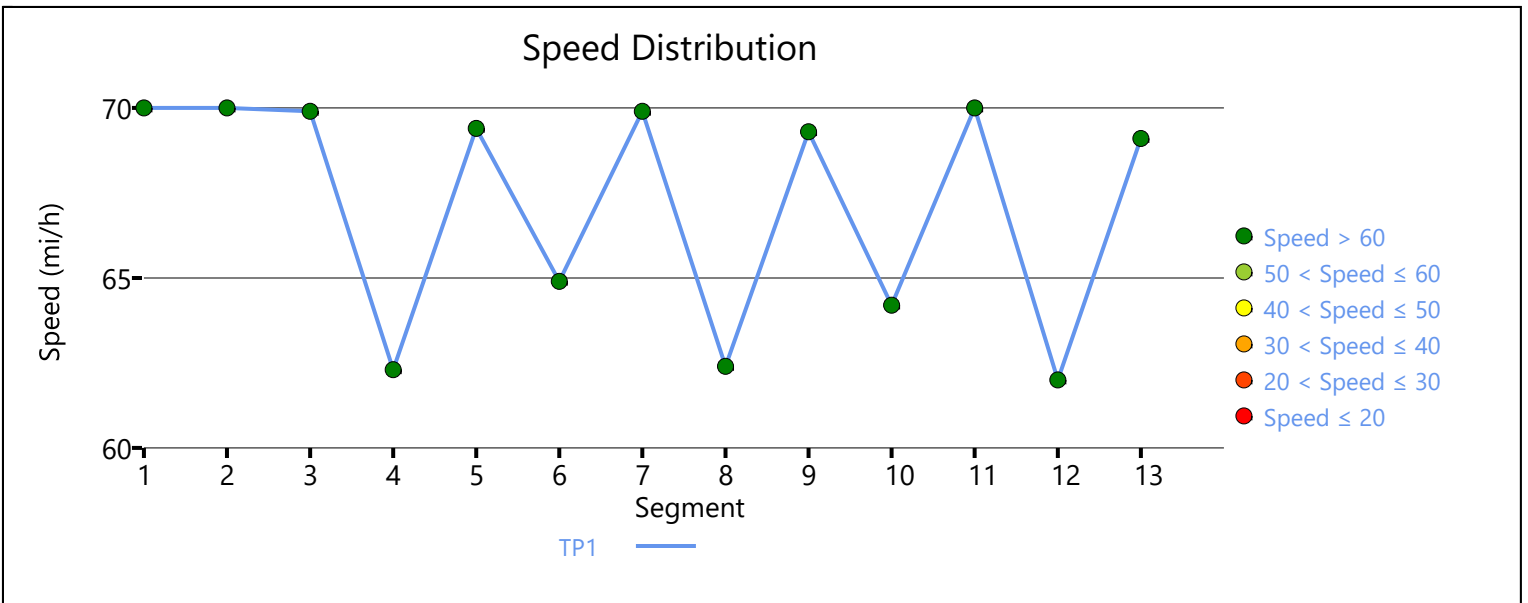
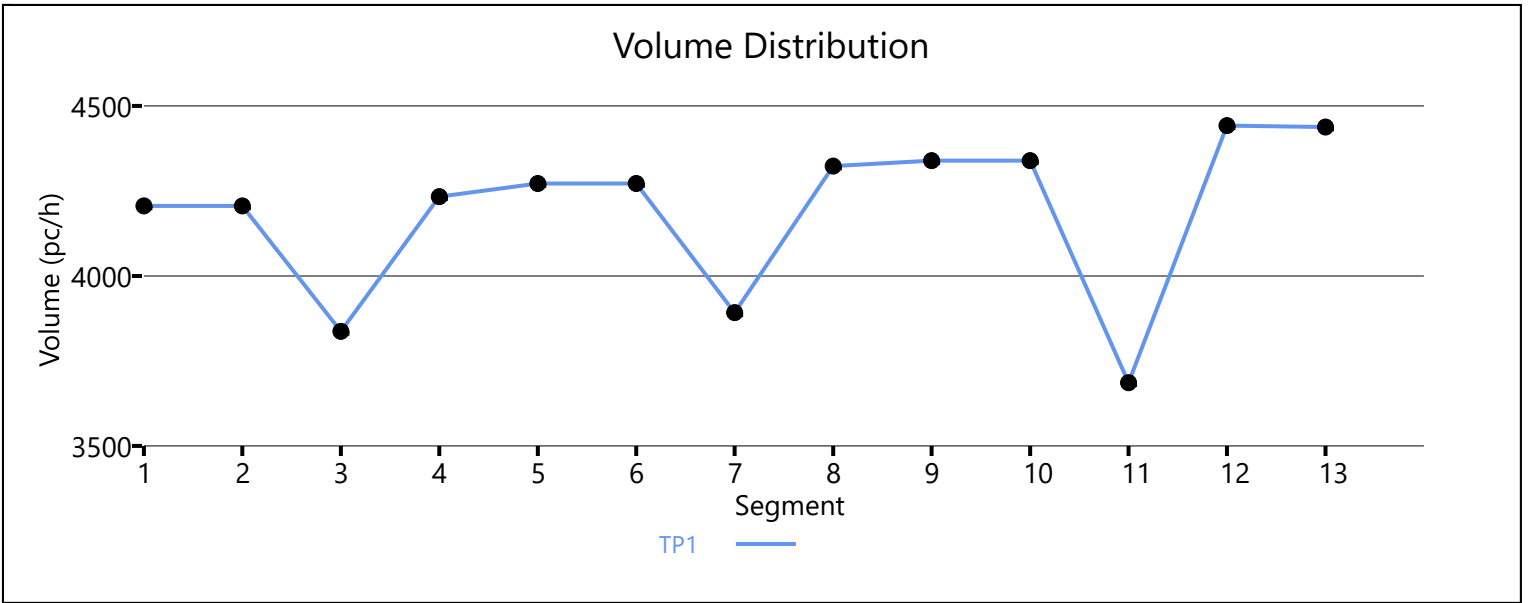
1	0.92	0.980	4438	7200	0.62	69.1	21.4	C
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Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.9	20.2	19.9	5.4	C

Facility Overall Results

Space Mean Speed, mi/h	67.9	Density, veh/mi/ln	19.9
Average Travel Time, min	5.4	Density, pc/mi/ln	20.2



APPENDIX 6.9:

**EAP (2021) WITHOUT I-215/PLACENTIA INTERCHANGE CONDITIONS INTERSECTION
OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS**

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Timings
10: Nuevo Rd./Harvill Av. & Driveway/N A St.

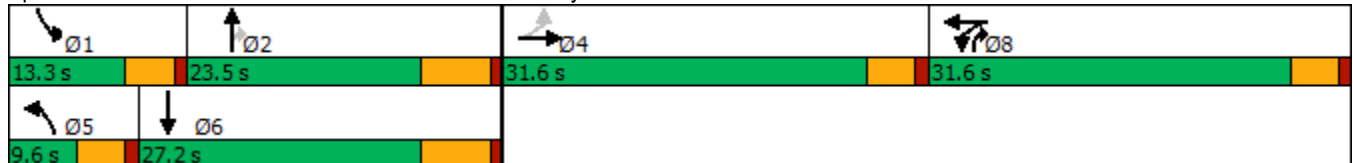


Lane Group	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↕	↗	↕	↖	↑↑	↗	↖	↑↑
Traffic Volume (vph)	4	544	0	4	267	605	130	140
Future Volume (vph)	4	544	0	4	267	605	130	140
Turn Type	NA	Split	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	4	8	8	5	2	8	1	6
Permitted Phases						2		
Detector Phase	4	8	8	5	2	8	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	31.6	9.6	23.2	31.6	9.6	23.2
Total Split (s)	31.6	31.6	31.6	9.6	23.5	31.6	13.3	27.2
Total Split (%)	31.6%	31.6%	31.6%	9.6%	23.5%	31.6%	13.3%	27.2%
Yellow Time (s)	3.6	3.6	3.6	3.6	5.2	3.6	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6	6.2	4.6	4.6	6.2
Lead/Lag				Lead	Lag		Lead	Lag
Lead-Lag Optimize?				Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	Min	None	None	Min

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 68.8
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated

Splits and Phases: 10: Nuevo Rd./Harvill Av. & Driveway/N A St.



HCM 6th Signalized Intersection Summary
 10: Nuevo Rd./Harvill Av. & Driveway/N A St.

Barker Logistics (JN 12216)
 03/11/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↗	↕		↖	↕	↗	↖	↕	↖
Traffic Volume (veh/h)	0	4	1	544	0	229	4	267	605	130	140	3
Future Volume (veh/h)	0	4	1	544	0	229	4	267	605	130	140	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	4	1	429	245	254	4	297	672	144	156	3
Peak Hour Factor	0.92	0.92	0.92	0.90	0.92	0.90	0.92	0.90	0.90	0.90	0.90	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	19	5	611	289	299	10	919	953	182	1267	24
Arrive On Green	0.00	0.01	0.01	0.34	0.34	0.34	0.01	0.25	0.25	0.10	0.35	0.35
Sat Flow, veh/h	0	1467	367	1810	855	886	1810	3610	1610	1810	3623	70
Grp Volume(v), veh/h	0	0	5	429	0	499	4	297	672	144	78	81
Grp Sat Flow(s),veh/h/ln	0	0	1834	1810	0	1741	1810	1805	1610	1810	1805	1887
Q Serve(g_s), s	0.0	0.0	0.2	14.0	0.0	18.1	0.1	4.5	17.3	5.3	2.0	2.0
Cycle Q Clear(g_c), s	0.0	0.0	0.2	14.0	0.0	18.1	0.1	4.5	17.3	5.3	2.0	2.0
Prop In Lane	0.00		0.20	1.00		0.51	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	0	0	24	611	0	588	10	919	953	182	631	660
V/C Ratio(X)	0.00	0.00	0.21	0.70	0.00	0.85	0.41	0.32	0.70	0.79	0.12	0.12
Avail Cap(c_a), veh/h	0	0	728	719	0	691	133	919	953	232	631	660
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	33.2	19.5	0.0	20.9	33.7	20.6	9.2	29.9	15.0	15.0
Incr Delay (d2), s/veh	0.0	0.0	4.1	2.5	0.0	8.6	10.1	0.2	2.4	10.3	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.1	6.0	0.0	8.3	0.1	1.7	10.8	2.6	0.7	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	37.3	22.1	0.0	29.5	43.8	20.8	11.6	40.2	15.1	15.1
LnGrp LOS	A	A	D	C	A	C	D	C	B	D	B	B
Approach Vol, veh/h		5			928			973				303
Approach Delay, s/veh		37.3			26.1			14.5				27.0
Approach LOS		D			C			B				C
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.4	23.5		5.5	5.0	30.0		27.6				
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		4.6				
Max Green Setting (Gmax), s	8.7	17.3		27.0	5.0	21.0		27.0				
Max Q Clear Time (g_c+11), s	7.3	19.3		2.2	2.1	4.0		20.1				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	0.6		2.9				

Intersection Summary

HCM 6th Ctrl Delay	21.1
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Timings
10: Nuevo Rd./Harvill Av. & Driveway/N A St.

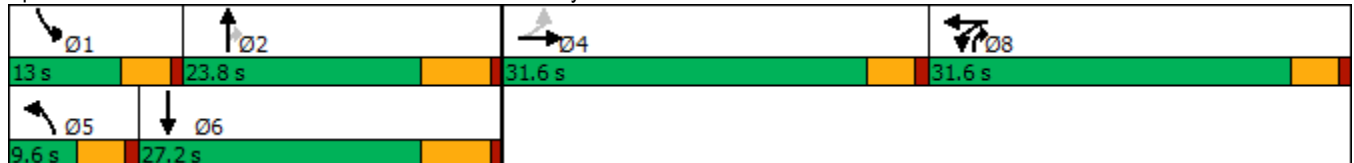


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations		↕	↗	↕	↗	↕	↗	↗	↕
Traffic Volume (vph)	2	0	301	0	1	172	332	116	339
Future Volume (vph)	2	0	301	0	1	172	332	116	339
Turn Type	Perm	NA	Split	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases		4	8	8	5	2	8	1	6
Permitted Phases	4						2		
Detector Phase	4	4	8	8	5	2	8	1	6
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	31.6	31.6	9.6	23.2	31.6	9.6	23.2
Total Split (s)	31.6	31.6	31.6	31.6	9.6	23.8	31.6	13.0	27.2
Total Split (%)	31.6%	31.6%	31.6%	31.6%	9.6%	23.8%	31.6%	13.0%	27.2%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	5.2	3.6	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6	4.6	4.6	4.6	6.2	4.6	4.6	6.2
Lead/Lag					Lead	Lag		Lead	Lag
Lead-Lag Optimize?					Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	None	Min

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 56.5
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated

Splits and Phases: 10: Nuevo Rd./Harvill Av. & Driveway/N A St.



HCM 6th Signalized Intersection Summary
 10: Nuevo Rd./Harvill Av. & Driveway/N A St.

Barker Logistics (JN 12216)

03/11/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↖	↔		↖	↕	↗	↖	↕	↗
Traffic Volume (veh/h)	2	0	5	301	0	79	1	172	332	116	339	1
Future Volume (veh/h)	2	0	5	301	0	79	1	172	332	116	339	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	2	0	5	200	164	83	1	181	349	122	357	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	9	0	22	399	263	133	4	832	726	158	1168	3
Arrive On Green	0.02	0.00	0.02	0.22	0.22	0.22	0.00	0.23	0.23	0.09	0.32	0.32
Sat Flow, veh/h	475	0	1187	1810	1190	602	1810	3610	1607	1810	3693	10
Grp Volume(v), veh/h	7	0	0	200	0	247	1	181	349	122	174	184
Grp Sat Flow(s),veh/h/ln	1663	0	0	1810	0	1792	1810	1805	1607	1810	1805	1898
Q Serve(g_s), s	0.2	0.0	0.0	4.4	0.0	5.6	0.0	1.8	6.9	3.0	3.3	3.3
Cycle Q Clear(g_c), s	0.2	0.0	0.0	4.4	0.0	5.6	0.0	1.8	6.9	3.0	3.3	3.3
Prop In Lane	0.29		0.71	1.00		0.34	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	31	0	0	399	0	395	4	832	726	158	571	600
V/C Ratio(X)	0.23	0.00	0.00	0.50	0.00	0.62	0.25	0.22	0.48	0.77	0.31	0.31
Avail Cap(c_a), veh/h	994	0	0	1082	0	1072	200	1407	982	337	840	883
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.8	0.0	0.0	15.4	0.0	15.9	22.5	14.1	8.7	20.2	11.7	11.7
Incr Delay (d2), s/veh	3.6	0.0	0.0	1.0	0.0	1.6	11.6	0.1	0.5	3.0	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	1.7	0.0	2.2	0.0	0.6	2.7	1.1	1.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.5	0.0	0.0	16.4	0.0	17.5	34.1	14.2	9.2	23.2	12.0	12.0
LnGrp LOS	C	A	A	B	A	B	C	B	A	C	B	B
Approach Vol, veh/h		7			447			531			480	
Approach Delay, s/veh		25.5			17.0			10.9			14.8	
Approach LOS		C			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.5	16.6		5.4	4.7	20.5		14.6				
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		4.6				
Max Green Setting (Gmax), s	8.4	17.6		27.0	5.0	21.0		27.0				
Max Q Clear Time (g_c+11), s	5.0	8.9		2.2	2.0	5.3		7.6				
Green Ext Time (p_c), s	0.0	1.5		0.0	0.0	1.5		2.1				

Intersection Summary

HCM 6th Ctrl Delay	14.1
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

APPENDIX 6.10:

**EAC (2021) WITH I-215/PLACENTIA INTERCHANGE CONDITIONS INTERSECTION
OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS**

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Timings
8: Harvill Av. & Placentia St.

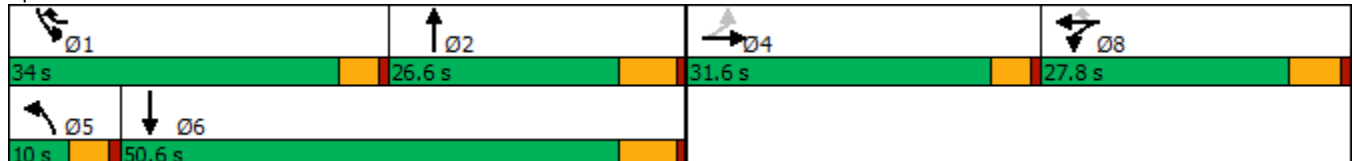


Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations		↔	↗	↖	↗	↗	↕	↗	↕
Traffic Volume (vph)	8	24	308	66	555	17	376	417	146
Future Volume (vph)	8	24	308	66	555	17	376	417	146
Turn Type	Perm	NA	Split	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases		4	8	8	1	5	2	1	6
Permitted Phases	4				8				
Detector Phase	4	4	8	8	1	5	2	1	6
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	27.8	27.8	9.6	9.6	23.2	9.6	23.2
Total Split (s)	31.6	31.6	27.8	27.8	34.0	10.0	26.6	34.0	50.6
Total Split (%)	26.3%	26.3%	23.2%	23.2%	28.3%	8.3%	22.2%	28.3%	42.2%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6	5.8	5.8	4.6	4.6	6.2	4.6	6.2
Lead/Lag					Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 95
 Natural Cycle: 115
 Control Type: Actuated-Uncoordinated























Splits and Phases: 8: Harvill Av. & Placentia St.



HCM 6th Signalized Intersection Summary
8: Harvill Av. & Placentia St.

Barker Logistics (JN 12216)

03/11/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	24	10	308	66	555	17	376	237	417	146	12
Future Volume (veh/h)	8	24	10	308	66	555	17	376	237	417	146	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	9	26	11	382	0	597	18	404	255	448	157	13
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	26	75	32	831	0	797	36	448	280	481	1540	126
Arrive On Green	0.07	0.07	0.07	0.23	0.00	0.23	0.02	0.21	0.21	0.27	0.46	0.46
Sat Flow, veh/h	353	1020	432	3619	0	1610	1810	2134	1332	1810	3378	277
Grp Volume(v), veh/h	46	0	0	382	0	597	18	341	318	448	83	87
Grp Sat Flow(s),veh/h/ln	1805	0	0	1810	0	1610	1810	1805	1660	1810	1805	1850
Q Serve(g_s), s	2.3	0.0	0.0	8.7	0.0	22.0	0.9	17.6	17.9	23.2	2.5	2.6
Cycle Q Clear(g_c), s	2.3	0.0	0.0	8.7	0.0	22.0	0.9	17.6	17.9	23.2	2.5	2.6
Prop In Lane	0.20		0.24	1.00		1.00	1.00		0.80	1.00		0.15
Lane Grp Cap(c), veh/h	133	0	0	831	0	797	36	379	349	481	823	843
V/C Ratio(X)	0.35	0.00	0.00	0.46	0.00	0.75	0.50	0.90	0.91	0.93	0.10	0.10
Avail Cap(c_a), veh/h	508	0	0	831	0	797	102	384	353	555	836	857
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.2	0.0	0.0	31.8	0.0	19.4	46.5	36.9	37.0	34.3	14.9	14.9
Incr Delay (d2), s/veh	1.5	0.0	0.0	0.4	0.0	3.9	4.0	23.2	26.9	20.0	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	0.0	0.0	3.7	0.0	10.2	0.4	9.7	9.4	12.0	0.9	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.7	0.0	0.0	32.2	0.0	23.3	50.5	60.1	63.9	54.3	14.9	14.9
LnGrp LOS	D	A	A	C	A	C	D	E	E	D	B	B
Approach Vol, veh/h		46			979			677			618	
Approach Delay, s/veh		43.7			26.8			61.6			43.5	
Approach LOS		D			C			E			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	30.1	26.3		11.7	6.5	49.9		27.8				
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		5.8				
Max Green Setting (Gmax), s	29.4	20.4		27.0	5.4	44.4		22.0				
Max Q Clear Time (g_c+I1), s	25.2	19.9		4.3	2.9	4.6		24.0				
Green Ext Time (p_c), s	0.3	0.2		0.2	0.0	0.8		0.0				

Intersection Summary

HCM 6th Ctrl Delay	41.7
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Timings
8: Harvill Av. & Placentia St.

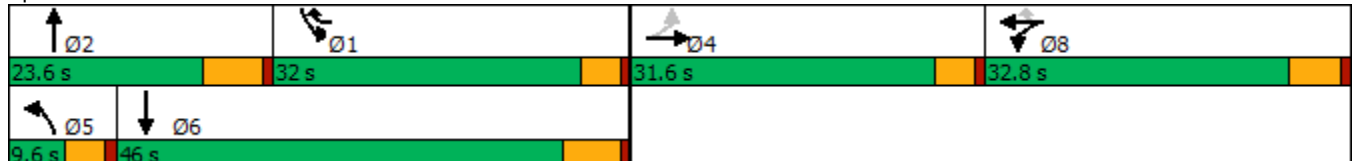


Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations		↕	↕	↕	↕	↕	↕	↕
Traffic Volume (vph)	14	77	32	442	10	173	575	316
Future Volume (vph)	14	77	32	442	10	173	575	316
Turn Type	Perm	NA	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases		4	8	1	5	2	1	6
Permitted Phases	4			8				
Detector Phase	4	4	8	1	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	5.0	5.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	32.8	9.6	9.6	23.2	9.6	23.2
Total Split (s)	31.6	31.6	32.8	32.0	9.6	23.6	32.0	46.0
Total Split (%)	26.3%	26.3%	27.3%	26.7%	8.0%	19.7%	26.7%	38.3%
Yellow Time (s)	3.6	3.6	4.8	3.6	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6	5.8	4.6	4.6	6.2	4.6	6.2
Lead/Lag				Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?				Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 104.2
 Natural Cycle: 120
 Control Type: Actuated-Uncoordinated

Splits and Phases: 8: Harvill Av. & Placentia St.



HCM 6th Signalized Intersection Summary
8: Harvill Av. & Placentia St.

Barker Logistics (JN 12216)
03/11/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↙	↖	↗	↘	↕	↕	↘	↕	↕
Traffic Volume (veh/h)	14	77	16	210	32	442	10	173	224	575	316	7
Future Volume (veh/h)	14	77	16	210	32	442	10	173	224	575	316	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	16	87	18	262	0	497	11	194	252	646	355	8
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	27	146	30	443	0	712	24	328	293	578	1829	41
Arrive On Green	0.11	0.11	0.11	0.12	0.00	0.12	0.01	0.18	0.18	0.32	0.51	0.51
Sat Flow, veh/h	243	1322	274	3619	0	1610	1810	1805	1610	1810	3609	81
Grp Volume(v), veh/h	121	0	0	262	0	497	11	194	252	646	177	186
Grp Sat Flow(s),veh/h/ln	1839	0	0	1810	0	1610	1810	1805	1610	1810	1805	1885
Q Serve(g_s), s	5.4	0.0	0.0	5.9	0.0	0.0	0.5	8.4	13.0	27.4	4.6	4.6
Cycle Q Clear(g_c), s	5.4	0.0	0.0	5.9	0.0	0.0	0.5	8.4	13.0	27.4	4.6	4.6
Prop In Lane	0.13		0.15	1.00		1.00	1.00		1.00	1.00		0.04
Lane Grp Cap(c), veh/h	202	0	0	443	0	712	24	328	293	578	915	955
V/C Ratio(X)	0.60	0.00	0.00	0.59	0.00	0.70	0.45	0.59	0.86	1.12	0.19	0.19
Avail Cap(c_a), veh/h	579	0	0	1140	0	1022	106	366	327	578	915	955
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.3	0.0	0.0	35.6	0.0	19.3	42.0	32.1	34.0	29.2	11.6	11.6
Incr Delay (d2), s/veh	2.8	0.0	0.0	1.3	0.0	1.3	4.8	2.1	18.7	73.8	0.1	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	0.0	2.5	0.0	7.2	0.3	3.6	6.2	22.4	1.6	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.1	0.0	0.0	36.9	0.0	20.6	46.8	34.2	52.7	102.9	11.7	11.7
LnGrp LOS	D	A	A	D	A	C	D	C	D	F	B	B
Approach Vol, veh/h		121			759			457			1009	
Approach Delay, s/veh		39.1			26.2			44.7			70.1	
Approach LOS		D			C			D			E	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	33.6	21.8		14.0	5.8	49.6		16.3				
Change Period (Y+Rc), s	6.2	* 6.2		4.6	4.6	6.2		5.8				
Max Green Setting (Gmax), s	27.4	* 17		27.0	5.0	39.8		27.0				
Max Q Clear Time (g_c+I1), s	29.4	15.0		7.4	2.5	6.6		7.9				
Green Ext Time (p_c), s	0.0	0.6		0.6	0.0	1.9		2.6				

Intersection Summary

HCM 6th Ctrl Delay	49.3
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX 7.1:

**EAPC (2021) WITHOUT I-215/PLACENTIA INTERCHANGE CONDITIONS
INTERSECTION OPERATIONS ANALYSIS WORKSHEETS**

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Intersection												
Int Delay, s/veh	2.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕	↗		↕			↕	
Traffic Vol, veh/h	1	44	5	21	27	2	0	4	11	0	1	5
Future Vol, veh/h	1	44	5	21	27	2	0	4	11	0	1	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	49	6	23	30	2	0	4	12	0	1	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	32	0	0	55	0	0	132	129	49	138	133	30
Stage 1	-	-	-	-	-	-	51	51	-	76	76	-
Stage 2	-	-	-	-	-	-	81	78	-	62	57	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1593	-	-	1563	-	-	845	765	1025	837	761	1050
Stage 1	-	-	-	-	-	-	967	856	-	938	836	-
Stage 2	-	-	-	-	-	-	932	834	-	954	851	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1593	-	-	1563	-	-	829	753	1025	814	749	1050
Mov Cap-2 Maneuver	-	-	-	-	-	-	829	753	-	814	749	-
Stage 1	-	-	-	-	-	-	966	855	-	937	823	-
Stage 2	-	-	-	-	-	-	912	821	-	937	850	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			3.1			8.9			8.7		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	935	1593	-	-	1563	-	-	984
HCM Lane V/C Ratio	0.018	0.001	-	-	0.015	-	-	0.007
HCM Control Delay (s)	8.9	7.3	0	-	7.3	0	-	8.7
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	4	2	0	5	1	16	7	16	10	1
Future Vol, veh/h	0	0	4	2	0	5	1	16	7	16	10	1
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	54	54	54	54	54	54	54	54	54	54	54	54
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	7	4	0	9	2	30	13	30	19	2

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	125	127	20	125	122	37	21	0	0	43	0	0
Stage 1	80	80	-	41	41	-	-	-	-	-	-	-
Stage 2	45	47	-	84	81	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	854	767	1064	854	772	1041	1608	-	-	1579	-	-
Stage 1	934	832	-	979	865	-	-	-	-	-	-	-
Stage 2	974	860	-	929	832	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	834	752	1064	835	757	1041	1608	-	-	1579	-	-
Mov Cap-2 Maneuver	834	752	-	835	757	-	-	-	-	-	-	-
Stage 1	933	816	-	978	864	-	-	-	-	-	-	-
Stage 2	964	859	-	905	816	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	8.4		8.8		0.3		4.3	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1608	-	-	1064	972	1579	-
HCM Lane V/C Ratio	0.001	-	-	0.007	0.013	0.019	-
HCM Control Delay (s)	7.2	0	-	8.4	8.8	7.3	0
HCM Lane LOS	A	A	-	A	A	A	A
HCM 95th %tile Q(veh)	0	-	-	0	0	0.1	-

Intersection						
Int Delay, s/veh	3.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	2	2	4	22	14	2
Future Vol, veh/h	2	2	4	22	14	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, %	0	0	0	0	0	0
Mvmt Flow	3	3	5	29	19	3

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	34	0	-	0	29
Stage 1	-	-	-	-	20
Stage 2	-	-	-	-	9
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	1591	-	-	-	991
Stage 1	-	-	-	-	1008
Stage 2	-	-	-	-	1019
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1591	-	-	-	989
Mov Cap-2 Maneuver	-	-	-	-	989
Stage 1	-	-	-	-	1006
Stage 2	-	-	-	-	1019

Approach	EB	WB	SB
HCM Control Delay, s	3.6	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1591	-	-	-	998
HCM Lane V/C Ratio	0.002	-	-	-	0.021
HCM Control Delay (s)	7.3	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	16	1	3	23	26	3	0	6	8	0	0
Future Vol, veh/h	0	16	1	3	23	26	3	0	6	8	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	23	1	4	33	38	4	0	9	12	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	71	0	0	24	0	0	84	103	24	88	84	52
Stage 1	-	-	-	-	-	-	24	24	-	60	60	-
Stage 2	-	-	-	-	-	-	60	79	-	28	24	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1542	-	-	1604	-	-	908	791	1058	902	810	1021
Stage 1	-	-	-	-	-	-	999	879	-	957	849	-
Stage 2	-	-	-	-	-	-	957	833	-	994	879	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1542	-	-	1604	-	-	906	789	1058	893	808	1021
Mov Cap-2 Maneuver	-	-	-	-	-	-	906	789	-	893	808	-
Stage 1	-	-	-	-	-	-	999	879	-	957	846	-
Stage 2	-	-	-	-	-	-	954	831	-	986	879	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.4	8.6	9.1
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1002	1542	-	-	1604	-	-	893
HCM Lane V/C Ratio	0.013	-	-	-	0.003	-	-	0.013
HCM Control Delay (s)	8.6	0	-	-	7.2	0	-	9.1
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0

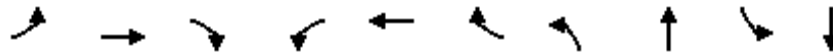
Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	0	30	52	37	11	0
Future Vol, veh/h	0	30	52	37	11	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	33	57	40	12	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	97	0	-	0	110 77
Stage 1	-	-	-	-	77 -
Stage 2	-	-	-	-	33 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1509	-	-	-	892 990
Stage 1	-	-	-	-	951 -
Stage 2	-	-	-	-	995 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1509	-	-	-	892 990
Mov Cap-2 Maneuver	-	-	-	-	892 -
Stage 1	-	-	-	-	951 -
Stage 2	-	-	-	-	995 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.1
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1509	-	-	-	892
HCM Lane V/C Ratio	-	-	-	-	0.013
HCM Control Delay (s)	0	-	-	-	9.1
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Timings
6: Harvill Av. & Cajalco Exwy./Ramona Exwy.

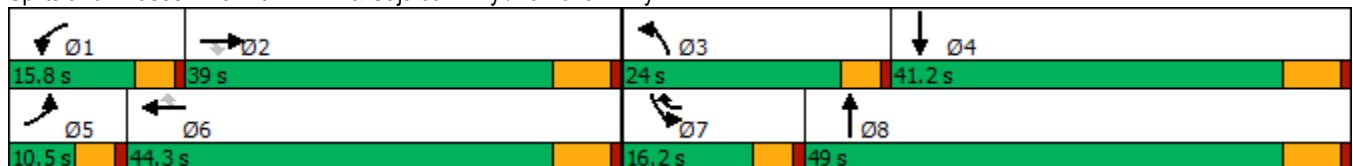


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations	↘	↑↑	↗	↘↗	↑↑	↗	↘↗	↑↔	↘↗	↑↔
Traffic Volume (vph)	87	709	177	377	841	423	370	334	273	151
Future Volume (vph)	87	709	177	377	841	423	370	334	273	151
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases	5	2		1	6	7	3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	7	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	36.2	36.2	9.6	34.2	9.6	9.6	16.2	9.6	41.2
Total Split (s)	10.5	39.0	39.0	15.8	44.3	16.2	24.0	49.0	16.2	41.2
Total Split (%)	8.8%	32.5%	32.5%	13.2%	36.9%	13.5%	20.0%	40.8%	13.5%	34.3%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	3.6	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	4.6	4.6	6.2	4.6	6.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	Max	None	None	None	None	None
Act Effct Green (s)	6.0	33.2	33.2	11.3	38.6	51.2	14.4	20.9	11.0	17.5
Actuated g/C Ratio	0.06	0.34	0.34	0.11	0.39	0.52	0.15	0.21	0.11	0.18
v/c Ratio	0.82	0.59	0.27	0.96	0.61	0.45	0.74	0.67	0.71	0.29
Control Delay	96.4	31.1	4.7	80.0	27.8	6.6	50.4	31.1	54.7	31.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	96.4	31.1	4.7	80.0	27.8	6.6	50.4	31.1	54.7	31.4
LOS	F	C	A	E	C	A	D	C	D	C
Approach Delay		32.2			34.3			39.0		45.3
Approach LOS		C			C			D		D

Intersection Summary

























Cycle Length: 120
 Actuated Cycle Length: 98.3
 Natural Cycle: 110
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.96
 Intersection Signal Delay: 36.1
 Intersection LOS: D
 Intersection Capacity Utilization 77.4%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 6: Harvill Av. & Cajalco Exwy./Ramona Exwy.



HCM 6th Signalized Intersection Summary
 6: Harvill Av. & Cajalco Exwy./Ramona Exwy.

Barker Logistics (JN 12216)
 02/26/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	709	177	377	841	423	370	334	204	273	151	32
Future Volume (veh/h)	87	709	177	377	841	423	370	334	204	273	151	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	89	723	130	385	858	354	378	341	170	279	154	30
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	114	1276	568	424	1485	824	461	451	221	353	489	93
Arrive On Green	0.06	0.35	0.35	0.12	0.41	0.41	0.13	0.19	0.19	0.10	0.16	0.16
Sat Flow, veh/h	1810	3610	1606	3510	3610	1609	3510	2348	1148	3510	3023	576
Grp Volume(v), veh/h	89	723	130	385	858	354	378	261	250	279	91	93
Grp Sat Flow(s),veh/h/ln	1810	1805	1606	1755	1805	1609	1755	1805	1691	1755	1805	1794
Q Serve(g_s), s	4.5	15.0	5.3	10.0	17.0	12.8	9.7	12.6	13.0	7.2	4.1	4.3
Cycle Q Clear(g_c), s	4.5	15.0	5.3	10.0	17.0	12.8	9.7	12.6	13.0	7.2	4.1	4.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.68	1.00		0.32
Lane Grp Cap(c), veh/h	114	1276	568	424	1485	824	461	347	325	353	292	290
V/C Ratio(X)	0.78	0.57	0.23	0.91	0.58	0.43	0.82	0.75	0.77	0.79	0.31	0.32
Avail Cap(c_a), veh/h	115	1276	568	424	1485	824	734	833	780	439	681	677
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.8	24.2	21.1	40.3	21.1	14.2	39.2	35.4	35.5	40.8	34.3	34.4
Incr Delay (d2), s/veh	26.0	1.8	0.9	22.6	1.6	1.6	1.9	3.3	3.9	5.9	0.6	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	6.1	2.0	5.4	6.8	4.4	4.1	5.5	5.3	3.4	1.8	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.8	26.1	22.0	62.9	22.7	15.8	41.1	38.7	39.4	46.7	34.9	35.0
LnGrp LOS	E	C	C	E	C	B	D	D	D	D	C	D
Approach Vol, veh/h		942			1597			889			463	
Approach Delay, s/veh		29.5			30.9			39.9			42.0	
Approach LOS		C			C			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.8	39.0	16.8	21.2	10.4	44.4	13.9	24.0				
Change Period (Y+Rc), s	4.6	6.2	4.6	6.2	4.6	6.2	4.6	6.2				
Max Green Setting (Gmax), s	11.2	32.8	19.4	35.0	5.9	38.1	11.6	42.8				
Max Q Clear Time (g_c+I1), s	12.0	17.0	11.7	6.3	6.5	19.0	9.2	15.0				
Green Ext Time (p_c), s	0.0	4.3	0.5	1.0	0.0	6.4	0.1	2.8				
Intersection Summary												
HCM 6th Ctrl Delay				33.9								
HCM 6th LOS				C								

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↕↗		↖	↕	↗	↖	↕↗		↖	↕↗	
Traffic Vol, veh/h	28	0	34	0	0	0	21	719	3	0	453	24
Future Vol, veh/h	28	0	34	0	0	0	21	719	3	0	453	24
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	115	-	-	165	-	0	150	-	-	160	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	30	0	37	0	0	0	23	782	3	0	492	26

Major/Minor	Minor2		Minor1			Major1		Major2				
Conflicting Flow All	942	1336	259	1076	1348	393	518	0	0	785	0	0
Stage 1	505	505	-	830	830	-	-	-	-	-	-	-
Stage 2	437	831	-	246	518	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	221	155	746	176	152	612	1058	-	-	843	-	-
Stage 1	523	544	-	335	388	-	-	-	-	-	-	-
Stage 2	574	387	-	742	536	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	217	152	746	165	149	612	1058	-	-	843	-	-
Mov Cap-2 Maneuver	343	270	-	264	265	-	-	-	-	-	-	-
Stage 1	511	544	-	328	379	-	-	-	-	-	-	-
Stage 2	562	378	-	705	536	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	13		0		0.2		0	
HCM LOS	B		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	1058	-	-	343	-	746	-	-	-	843	-	-
HCM Lane V/C Ratio	0.022	-	-	0.089	-	0.05	-	-	-	-	-	-
HCM Control Delay (s)	8.5	-	-	16.5	0	10.1	0	0	0	0	-	-
HCM Lane LOS	A	-	-	C	A	B	A	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	-	0.2	-	-	-	0	-	-

Intersection	
Intersection Delay, s/veh	24.6
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↗	↖	↕		↖	↕	
Traffic Vol, veh/h	16	5	17	114	3	339	41	433	108	158	296	40
Future Vol, veh/h	16	5	17	114	3	339	41	433	108	158	296	40
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	17	5	18	123	3	365	44	466	116	170	318	43
Number of Lanes	0	1	0	0	1	1	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	14.2	30.7	25.9	18.2
HCM LOS	B	D	D	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	42%	97%	0%	100%	0%	0%
Vol Thru, %	0%	100%	57%	13%	3%	0%	0%	100%	71%
Vol Right, %	0%	0%	43%	45%	0%	100%	0%	0%	29%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	41	289	252	38	117	339	158	197	139
LT Vol	41	0	0	16	114	0	158	0	0
Through Vol	0	289	144	5	3	0	0	197	99
RT Vol	0	0	108	17	0	339	0	0	40
Lane Flow Rate	44	310	271	41	126	365	170	212	149
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.109	0.725	0.611	0.115	0.319	0.802	0.43	0.506	0.347
Departure Headway (Hd)	8.929	8.412	8.102	10.1	9.12	7.916	9.109	8.591	8.381
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	402	431	445	355	395	459	396	420	429
Service Time	6.675	6.157	5.847	7.863	6.863	5.659	6.856	6.337	6.128
HCM Lane V/C Ratio	0.109	0.719	0.609	0.115	0.319	0.795	0.429	0.505	0.347
HCM Control Delay	12.8	30.4	22.8	14.2	16.1	35.8	18.6	19.9	15.5
HCM Lane LOS	B	D	C	B	C	E	C	C	C
HCM 95th-tile Q	0.4	5.7	4	0.4	1.4	7.3	2.1	2.8	1.5

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕		↕	↕	
Traffic Vol, veh/h	23	0	8	8	0	11	9	548	17	15	379	17
Future Vol, veh/h	23	0	8	8	0	11	9	548	17	15	379	17
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	-	-	-	-	-	0	160	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	25	0	9	9	0	12	10	589	18	16	408	18

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	764	1076	213	854	1076	304	426	0	0	607	0	0
Stage 1	449	449	-	618	618	-	-	-	-	-	-	-
Stage 2	315	627	-	236	458	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	297	221	798	256	221	698	1144	-	-	981	-	-
Stage 1	564	576	-	448	484	-	-	-	-	-	-	-
Stage 2	676	479	-	752	570	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	286	215	798	248	215	698	1144	-	-	981	-	-
Mov Cap-2 Maneuver	286	215	-	248	215	-	-	-	-	-	-	-
Stage 1	559	567	-	444	480	-	-	-	-	-	-	-
Stage 2	659	475	-	732	561	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.6	14.3	0.1	0.3
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1144	-	-	343	248	698	981	-	-
HCM Lane V/C Ratio	0.008	-	-	0.097	0.035	0.017	0.016	-	-
HCM Control Delay (s)	8.2	-	-	16.6	20	10.2	8.7	-	-
HCM Lane LOS	A	-	-	C	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.1	0.1	0.1	-	-

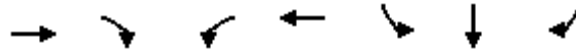
Intersection	
Intersection Delay, s/veh	168.2
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕		↕	↕		↕	↕	
Traffic Vol, veh/h	0	4	1	544	0	229	4	324	605	130	289	3
Future Vol, veh/h	0	4	1	544	0	229	4	324	605	130	289	3
Peak Hour Factor	0.92	0.92	0.92	0.90	0.92	0.90	0.92	0.90	0.90	0.90	0.90	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	4	1	604	0	254	4	360	672	144	321	3
Number of Lanes	0	1	0	1	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	15.2	88	301.6	21.7
HCM LOS	C	F	F	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	0%	100%	38%	100%	0%	0%
Vol Thru, %	0%	100%	15%	80%	0%	0%	0%	100%	97%
Vol Right, %	0%	0%	85%	20%	0%	62%	0%	0%	3%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	4	216	713	5	403	370	130	193	99
LT Vol	4	0	0	0	403	141	130	0	0
Through Vol	0	216	108	4	0	0	0	193	96
RT Vol	0	0	605	1	0	229	0	0	3
Lane Flow Rate	4	240	792	5	447	412	144	214	110
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.011	0.583	1.795	0.017	1.109	0.937	0.387	0.544	0.28
Departure Headway (Hd)	9.656	9.138	8.522	12.298	10.013	9.257	10.947	10.423	10.401
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	373	398	436	293	367	395	331	349	347
Service Time	7.356	6.838	6.222	9.998	7.713	6.957	8.647	8.123	8.101
HCM Lane V/C Ratio	0.011	0.603	1.817	0.017	1.218	1.043	0.435	0.613	0.317
HCM Control Delay	12.5	23.8	387.3	15.2	112.1	61.8	20.4	24.9	17.1
HCM Lane LOS	B	C	F	C	F	F	C	C	C
HCM 95th-tile Q	0	3.6	47.9	0.1	14.9	10.3	1.8	3.1	1.1

Timings
11: I-215 SB Ramps & Ramona Exwy.

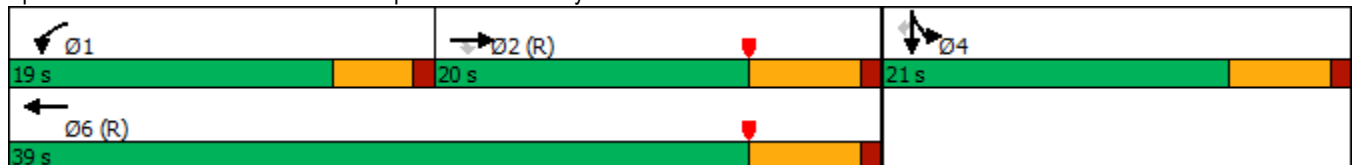


Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations	↑↑	↑	↙	↑↑	↙	↕	↙
Traffic Volume (vph)	806	401	436	1206	944	3	434
Future Volume (vph)	806	401	436	1206	944	3	434
Turn Type	NA	Perm	Prot	NA	Split	NA	Perm
Protected Phases	2		1	6	4	4	
Permitted Phases		2					4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	9.5	31.0	10.5	10.5	10.5
Total Split (s)	20.0	20.0	19.0	39.0	21.0	21.0	21.0
Total Split (%)	33.3%	33.3%	31.7%	65.0%	35.0%	35.0%	35.0%
Yellow Time (s)	5.0	5.0	3.5	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.5	6.0	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max	Max
Act Effct Green (s)	14.0	14.0	14.5	33.0	15.5	15.5	15.5
Actuated g/C Ratio	0.23	0.23	0.24	0.55	0.26	0.26	0.26
v/c Ratio	0.99	0.60	1.03	0.63	1.10	1.10	0.86
Control Delay	53.9	6.7	79.2	10.7	97.7	99.9	34.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.9	6.7	79.2	10.7	97.7	99.9	34.5
LOS	D	A	E	B	F	F	C
Approach Delay	38.2			28.9		78.6	
Approach LOS	D			C		E	

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 19 (32%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.10
 Intersection Signal Delay: 47.8
 Intersection Capacity Utilization 158.7%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service H

Splits and Phases: 11: I-215 SB Ramps & Ramona Exwy.



HCM 6th Signalized Intersection Summary
 11: I-215 SB Ramps & Ramona Exwy.

Barker Logistics (JN 12216)
 02/26/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑					↘	↙	↖
Traffic Volume (veh/h)	0	806	401	436	1206	0	0	0	0	944	3	434
Future Volume (veh/h)	0	806	401	436	1206	0	0	0	0	944	3	434
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	831	304	449	1243	0				975	0	383
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	842	375	437	1986	0				935	0	416
Arrive On Green	0.00	0.23	0.23	0.15	0.33	0.00				0.26	0.00	0.26
Sat Flow, veh/h	0	3705	1606	1810	3705	0				3619	0	1610
Grp Volume(v), veh/h	0	831	304	449	1243	0				975	0	383
Grp Sat Flow(s),veh/h/ln	0	1805	1606	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	13.8	10.7	14.5	17.4	0.0				15.5	0.0	13.9
Cycle Q Clear(g_c), s	0.0	13.8	10.7	14.5	17.4	0.0				15.5	0.0	13.9
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	842	375	437	1986	0				935	0	416
V/C Ratio(X)	0.00	0.99	0.81	1.03	0.63	0.00				1.04	0.00	0.92
Avail Cap(c_a), veh/h	0	842	375	437	1986	0				935	0	416
HCM Platoon Ratio	1.00	1.00	1.00	0.60	0.60	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.74	0.74	0.46	0.46	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	22.9	21.8	25.7	14.9	0.0				22.3	0.0	21.7
Incr Delay (d2), s/veh	0.0	23.6	13.2	36.2	0.7	0.0				41.2	0.0	28.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.6	4.7	10.4	7.2	0.0				10.9	0.0	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	46.5	35.0	61.9	15.6	0.0				63.5	0.0	49.8
LnGrp LOS	A	D	C	F	B	A				F	A	D
Approach Vol, veh/h		1135			1692						1358	
Approach Delay, s/veh		43.4			27.9						59.6	
Approach LOS		D			C						E	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	19.0	20.0		21.0		39.0						
Change Period (Y+Rc), s	4.5	6.0		5.5		6.0						
Max Green Setting (Gmax), s	14.5	14.0		15.5		33.0						
Max Q Clear Time (g_c+I1), s	16.5	15.8		17.5		19.4						
Green Ext Time (p_c), s	0.0	0.0		0.0		4.6						

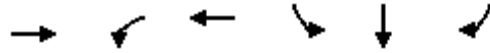
Intersection Summary

HCM 6th Ctrl Delay	42.4
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Timings
13: I-215 SB Ramps & Nuevo Rd.

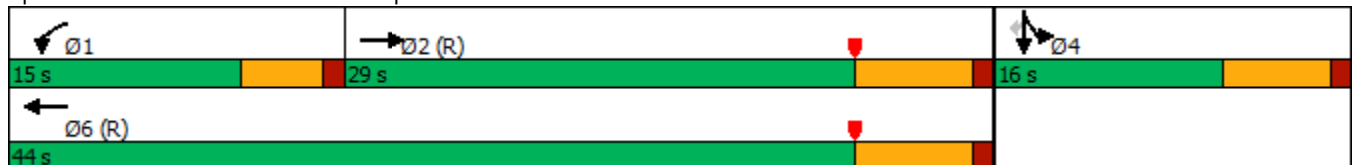


Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑	↑↑	↑	↑	↑
Traffic Volume (vph)	671	390	982	312	3	93
Future Volume (vph)	671	390	982	312	3	93
Turn Type	NA	Prot	NA	Split	NA	Perm
Protected Phases	2	1	6	4	4	
Permitted Phases						4
Detector Phase	2	1	6	4	4	4
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	28.2	9.6	28.2	15.8	15.8	15.8
Total Split (s)	29.0	15.0	44.0	16.0	16.0	16.0
Total Split (%)	48.3%	25.0%	73.3%	26.7%	26.7%	26.7%
Yellow Time (s)	5.2	3.6	5.2	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	4.6	6.2	5.8	5.8	5.8
Lead/Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes				
Recall Mode	C-Max	None	C-Max	Max	Max	Max
Act Effct Green (s)	23.2	10.0	37.8	10.2	10.2	10.2
Actuated g/C Ratio	0.39	0.17	0.63	0.17	0.17	0.17
v/c Ratio	0.69	0.76	0.49	0.61	0.62	0.27
Control Delay	17.6	24.2	6.3	33.5	34.1	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.6	24.2	6.3	33.5	34.1	4.6
LOS	B	C	A	C	C	A
Approach Delay	17.6		11.4		27.2	
Approach LOS	B		B		C	

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 18.6 (31%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.76
 Intersection Signal Delay: 15.8
 Intersection LOS: B
 Intersection Capacity Utilization 60.2%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 13: I-215 SB Ramps & Nuevo Rd.



HCM 6th Signalized Intersection Summary
 13: I-215 SB Ramps & Nuevo Rd.

Barker Logistics (JN 12216)
 02/26/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑↑	↑↑					↑	↑	↑
Traffic Volume (veh/h)	0	671	166	390	982	0	0	0	0	312	3	93
Future Volume (veh/h)	0	671	166	390	982	0	0	0	0	312	3	93
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	762	149	443	1116	0				357	0	33
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1189	232	556	2274	0				615	0	274
Arrive On Green	0.00	0.39	0.39	0.11	0.42	0.00				0.17	0.00	0.17
Sat Flow, veh/h	0	3105	589	3510	3705	0				3619	0	1610
Grp Volume(v), veh/h	0	457	454	443	1116	0				357	0	33
Grp Sat Flow(s),veh/h/ln	0	1805	1794	1755	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	12.3	12.3	7.4	13.5	0.0				5.5	0.0	1.0
Cycle Q Clear(g_c), s	0.0	12.3	12.3	7.4	13.5	0.0				5.5	0.0	1.0
Prop In Lane	0.00		0.33	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	713	709	556	2274	0				615	0	274
V/C Ratio(X)	0.00	0.64	0.64	0.80	0.49	0.00				0.58	0.00	0.12
Avail Cap(c_a), veh/h	0	713	709	608	2274	0				615	0	274
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.74	0.74	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	14.7	14.7	25.9	10.3	0.0				22.9	0.0	21.1
Incr Delay (d2), s/veh	0.0	4.4	4.4	4.5	0.6	0.0				4.0	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.7	4.7	3.1	4.2	0.0				2.4	0.0	0.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	19.1	19.1	30.3	10.9	0.0				26.9	0.0	22.0
LnGrp LOS	A	B	B	C	B	A				C	A	C
Approach Vol, veh/h		911			1559						390	
Approach Delay, s/veh		19.1			16.4						26.5	
Approach LOS		B			B						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	14.1	29.9		16.0		44.0						
Change Period (Y+Rc), s	4.6	6.2		5.8		6.2						
Max Green Setting (Gmax), s	10.4	22.8		10.2		37.8						
Max Q Clear Time (g_c+I1), s	9.4	14.3		7.5		15.5						
Green Ext Time (p_c), s	0.1	3.3		0.4		7.5						

Intersection Summary

HCM 6th Ctrl Delay	18.6
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Timings
14: I-215 NB Ramps & Ramona Exwy.

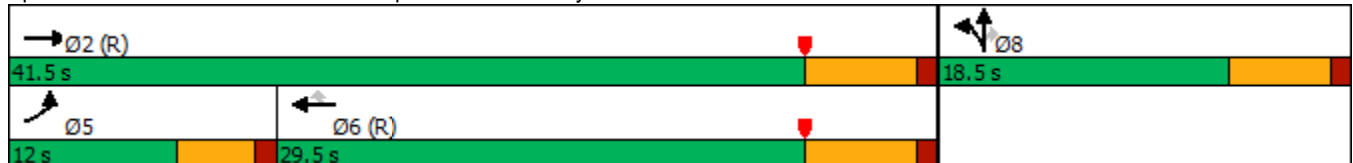


Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations	↶	↷	↷	↷	↶	↷	↷
Traffic Volume (vph)	262	1489	1171	1116	472	3	500
Future Volume (vph)	262	1489	1171	1116	472	3	500
Turn Type	Prot	NA	NA	Perm	Split	NA	Perm
Protected Phases	5	2	6		8	8	
Permitted Phases				6			8
Detector Phase	5	2	6	6	8	8	8
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	11.0	26.0	26.0	10.5	10.5	10.5
Total Split (s)	12.0	41.5	29.5	29.5	18.5	18.5	18.5
Total Split (%)	20.0%	69.2%	49.2%	49.2%	30.8%	30.8%	30.8%
Yellow Time (s)	3.5	5.0	5.0	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	6.0	5.5	5.5	5.5
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None
Act Effct Green (s)	7.5	35.5	23.5	23.5	13.0	13.0	13.0
Actuated g/C Ratio	0.12	0.59	0.39	0.39	0.22	0.22	0.22
v/c Ratio	1.20	0.72	0.85	1.09	0.65	0.66	1.13
Control Delay	131.7	15.0	24.6	65.8	31.6	32.0	103.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	131.7	15.0	24.6	65.8	31.6	32.0	103.8
LOS	F	B	C	E	C	C	F
Approach Delay		32.5	44.7			68.7	
Approach LOS		C	D			E	

Intersection Summary






















Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 19 (32%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.20
 Intersection Signal Delay: 45.1
 Intersection LOS: D
 Intersection Capacity Utilization 158.7%
 ICU Level of Service H
 Analysis Period (min) 15

Splits and Phases: 14: I-215 NB Ramps & Ramona Exwy.

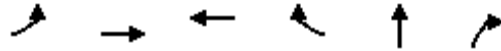


HCM 6th Signalized Intersection Summary
 14: I-215 NB Ramps & Ramona Exwy.

Barker Logistics (JN 12216)
 02/26/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 							
Traffic Volume (veh/h)	262	1489	0	0	1171	1116	472	3	500	0	0	0
Future Volume (veh/h)	262	1489	0	0	1171	1116	472	3	500	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	270	1535	0	0	1207	869	489	0	363			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	226	2136	0	0	1414	631	784	0	349			
Arrive On Green	0.25	1.00	0.00	0.00	0.39	0.39	0.22	0.00	0.22			
Sat Flow, veh/h	1810	3705	0	0	3705	1610	3619	0	1610			
Grp Volume(v), veh/h	270	1535	0	0	1207	869	489	0	363			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1610	1810	0	1610			
Q Serve(g_s), s	7.5	0.0	0.0	0.0	18.3	23.5	7.3	0.0	13.0			
Cycle Q Clear(g_c), s	7.5	0.0	0.0	0.0	18.3	23.5	7.3	0.0	13.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	226	2136	0	0	1414	631	784	0	349			
V/C Ratio(X)	1.19	0.72	0.00	0.00	0.85	1.38	0.62	0.00	1.04			
Avail Cap(c_a), veh/h	226	2136	0	0	1414	631	784	0	349			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.09	0.09	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	22.5	0.0	0.0	0.0	16.7	18.2	21.3	0.0	23.5			
Incr Delay (d2), s/veh	91.4	0.2	0.0	0.0	6.7	179.9	1.5	0.0	59.1			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	8.1	0.1	0.0	0.0	7.1	38.1	2.8	0.0	9.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	113.9	0.2	0.0	0.0	23.4	198.2	22.8	0.0	82.6			
LnGrp LOS	F	A	A	A	C	F	C	A	F			
Approach Vol, veh/h		1805			2076			852				
Approach Delay, s/veh		17.2			96.6			48.3				
Approach LOS		B			F			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		41.5			12.0	29.5		18.5				
Change Period (Y+Rc), s		6.0			4.5	6.0		5.5				
Max Green Setting (Gmax), s		35.5			7.5	23.5		13.0				
Max Q Clear Time (g_c+I1), s		2.0			9.5	25.5		15.0				
Green Ext Time (p_c), s		8.3			0.0	0.0		0.0				
Intersection Summary												
HCM 6th Ctrl Delay					57.6							
HCM 6th LOS					E							
Notes												
User approved volume balancing among the lanes for turning movement.												

Timings
16: I-215 NB Ramps & Nuevo Rd.

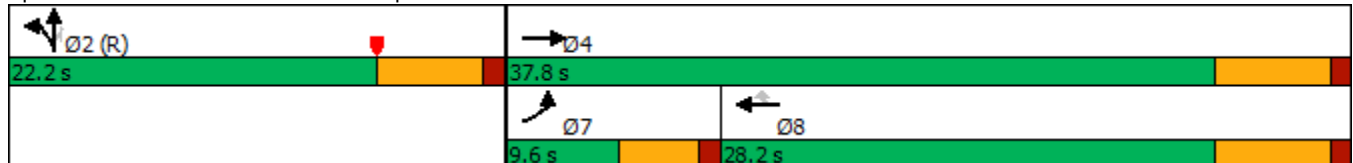


Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Configurations	↘	↑↑	↑↑↑	↗	↙	↗↗
Traffic Volume (vph)	42	942	1050	392	2	568
Future Volume (vph)	42	942	1050	392	2	568
Turn Type	Prot	NA	NA	Perm	NA	Perm
Protected Phases	7	4	8		2	
Permitted Phases				8		2
Detector Phase	7	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	28.2	28.2	28.2	15.8	15.8
Total Split (s)	9.6	37.8	28.2	28.2	22.2	22.2
Total Split (%)	16.0%	63.0%	47.0%	47.0%	37.0%	37.0%
Yellow Time (s)	3.6	5.2	5.2	5.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	6.2	5.8	5.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effect Green (s)	5.0	26.8	21.0	21.0	21.2	21.2
Actuated g/C Ratio	0.08	0.45	0.35	0.35	0.35	0.35
v/c Ratio	0.31	0.64	0.63	0.51	0.55	0.56
Control Delay	27.8	13.7	17.8	4.1	22.4	15.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.8	13.7	17.8	4.1	22.4	15.7
LOS	C	B	B	A	C	B
Approach Delay		14.3	14.1		18.1	
Approach LOS		B	B		B	

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 16 (27%), Referenced to phase 2:NBT and 6:, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.64
 Intersection Signal Delay: 15.2
 Intersection Capacity Utilization 60.2%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service B

Splits and Phases: 16: I-215 NB Ramps & Nuevo Rd.



HCM 6th Signalized Intersection Summary
 16: I-215 NB Ramps & Nuevo Rd.

Barker Logistics (JN 12216)
 02/26/2019

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	42	942	0	0	1050	392	321	2	568	0	0	0
Future Volume (veh/h)	42	942	0	0	1050	392	321	2	568	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	46	1024	0	0	1141	314	349	2	297			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	81	1556	0	0	1607	499	664	4	1045			
Arrive On Green	0.04	0.43	0.00	0.00	0.31	0.31	0.37	0.37	0.37			
Sat Flow, veh/h	1810	3705	0	0	5358	1610	1800	10	2834			
Grp Volume(v), veh/h	46	1024	0	0	1141	314	351	0	297			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1729	1610	1810	0	1417			
Q Serve(g_s), s	1.5	13.5	0.0	0.0	11.7	10.0	9.1	0.0	4.4			
Cycle Q Clear(g_c), s	1.5	13.5	0.0	0.0	11.7	10.0	9.1	0.0	4.4			
Prop In Lane	1.00		0.00	0.00		1.00	0.99		1.00			
Lane Grp Cap(c), veh/h	81	1556	0	0	1607	499	668	0	1045			
V/C Ratio(X)	0.57	0.66	0.00	0.00	0.71	0.63	0.53	0.00	0.28			
Avail Cap(c_a), veh/h	151	1901	0	0	1902	590	668	0	1045			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.68	0.68	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	28.1	13.6	0.0	0.0	18.3	17.8	14.8	0.0	13.3			
Incr Delay (d2), s/veh	1.6	0.4	0.0	0.0	1.0	1.6	2.9	0.0	0.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.6	4.2	0.0	0.0	3.9	3.2	3.6	0.0	1.3			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	29.7	14.0	0.0	0.0	19.3	19.4	17.8	0.0	14.0			
LnGrp LOS	C	B	A	A	B	B	B	A	B			
Approach Vol, veh/h		1070			1455			648				
Approach Delay, s/veh		14.6			19.3			16.1				
Approach LOS		B			B			B				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		27.9		32.1			7.3	24.8				
Change Period (Y+Rc), s		5.8		6.2			4.6	6.2				
Max Green Setting (Gmax), s		16.4		31.6			5.0	22.0				
Max Q Clear Time (g_c+I1), s		11.1		15.5			3.5	13.7				
Green Ext Time (p_c), s		1.5		5.9			0.0	4.9				
Intersection Summary												
HCM 6th Ctrl Delay				17.1								
HCM 6th LOS				B								

Intersection												
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕	↕		↕			↕	
Traffic Vol, veh/h	2	84	4	13	33	0	1	0	26	0	1	0
Future Vol, veh/h	2	84	4	13	33	0	1	0	26	0	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	90	4	14	35	0	1	0	28	0	1	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	35	0	0	94	0	0	158	157	90	173	161	35
Stage 1	-	-	-	-	-	-	94	94	-	63	63	-
Stage 2	-	-	-	-	-	-	64	63	-	110	98	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1589	-	-	1513	-	-	813	739	973	794	735	1044
Stage 1	-	-	-	-	-	-	918	821	-	953	846	-
Stage 2	-	-	-	-	-	-	952	846	-	900	818	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1589	-	-	1513	-	-	806	732	973	765	728	1044
Mov Cap-2 Maneuver	-	-	-	-	-	-	806	732	-	765	728	-
Stage 1	-	-	-	-	-	-	917	820	-	952	838	-
Stage 2	-	-	-	-	-	-	942	838	-	873	817	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			2.1			8.8			10		
HCM LOS							A			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	966	1589	-	-	1513	-	-	728
HCM Lane V/C Ratio	0.03	0.001	-	-	0.009	-	-	0.001
HCM Control Delay (s)	8.8	7.3	0	-	7.4	0	-	10
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection												
Int Delay, s/veh	5.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	1	8	0	19	3	8	3	7	11	0
Future Vol, veh/h	1	0	1	8	0	19	3	8	3	7	11	0
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	72	72	72	72	72	72	72	72	72	72	72	72
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	0	1	11	0	26	4	11	4	10	15	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	69	58	15	57	56	13	15	0	0	15	0	0
Stage 1	35	35	-	21	21	-	-	-	-	-	-	-
Stage 2	34	23	-	36	35	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	928	837	1070	945	839	1073	1616	-	-	1616	-	-
Stage 1	986	870	-	1003	882	-	-	-	-	-	-	-
Stage 2	987	880	-	985	870	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	899	830	1070	938	832	1073	1616	-	-	1616	-	-
Mov Cap-2 Maneuver	899	830	-	938	832	-	-	-	-	-	-	-
Stage 1	984	865	-	1001	880	-	-	-	-	-	-	-
Stage 2	961	878	-	978	865	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.7	8.6	1.5	2.8
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1616	-	-	977 1029	1616	-	-
HCM Lane V/C Ratio	0.003	-	-	0.003 0.036	0.006	-	-
HCM Control Delay (s)	7.2	0	-	8.7 8.6	7.2	0	-
HCM Lane LOS	A	A	-	A A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0 0.1	0	-	-

Intersection						
Int Delay, s/veh	4.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	1	1	4	13	19	1
Future Vol, veh/h	1	1	4	13	19	1
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	72	72	72	72	72	72
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	1	6	18	26	1

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	24	0	-	0	18
Stage 1	-	-	-	-	15
Stage 2	-	-	-	-	3
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	1604	-	-	-	1005
Stage 1	-	-	-	-	1013
Stage 2	-	-	-	-	1025
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1604	-	-	-	1004
Mov Cap-2 Maneuver	-	-	-	-	1004
Stage 1	-	-	-	-	1012
Stage 2	-	-	-	-	1025

Approach	EB	WB	SB
HCM Control Delay, s	3.6	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1604	-	-	-	1007
HCM Lane V/C Ratio	0.001	-	-	-	0.028
HCM Control Delay (s)	7.2	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection												
Int Delay, s/veh	4.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	18	2	2	15	13	2	0	3	34	0	0
Future Vol, veh/h	0	18	2	2	15	13	2	0	3	34	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	23	3	3	19	17	3	0	4	44	0	0

Major/Minor	Major1		Major2		Minor1			Minor2				
Conflicting Flow All	36	0	0	26	0	0	59	67	25	61	60	28
Stage 1	-	-	-	-	-	-	25	25	-	34	34	-
Stage 2	-	-	-	-	-	-	34	42	-	27	26	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1588	-	-	1601	-	-	942	828	1057	939	835	1053
Stage 1	-	-	-	-	-	-	998	878	-	987	871	-
Stage 2	-	-	-	-	-	-	987	864	-	996	878	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1588	-	-	1601	-	-	940	826	1057	934	833	1053
Mov Cap-2 Maneuver	-	-	-	-	-	-	940	826	-	934	833	-
Stage 1	-	-	-	-	-	-	998	878	-	987	869	-
Stage 2	-	-	-	-	-	-	985	862	-	992	878	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.5	8.6	9
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	1007	1588	-	-	1601	-	-	934
HCM Lane V/C Ratio	0.006	-	-	-	0.002	-	-	0.047
HCM Control Delay (s)	8.6	0	-	-	7.3	0	-	9
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

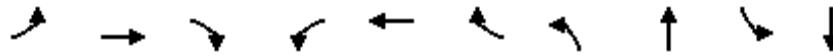
Intersection						
Int Delay, s/veh	2.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	0	56	31	16	42	0
Future Vol, veh/h	0	56	31	16	42	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	61	34	17	46	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	51	0	-	0	104 43
Stage 1	-	-	-	-	43 -
Stage 2	-	-	-	-	61 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1568	-	-	-	899 1033
Stage 1	-	-	-	-	985 -
Stage 2	-	-	-	-	967 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1568	-	-	-	899 1033
Mov Cap-2 Maneuver	-	-	-	-	899 -
Stage 1	-	-	-	-	985 -
Stage 2	-	-	-	-	967 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1568	-	-	-	899
HCM Lane V/C Ratio	-	-	-	-	0.051
HCM Control Delay (s)	0	-	-	-	9.2
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Timings
6: Harvill Av. & Cajalco Exwy./Ramona Exwy.

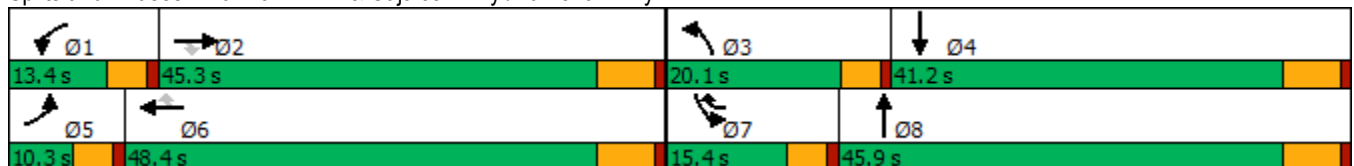


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations	↙	↕	↘	↙↘	↕	↘	↙↘	↕↘	↙↘	↕↘
Traffic Volume (vph)	28	871	281	205	735	142	311	138	174	191
Future Volume (vph)	28	871	281	205	735	142	311	138	174	191
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases	5	2		1	6	7	3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	7	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	36.2	36.2	9.6	34.2	9.6	9.6	16.2	9.6	41.2
Total Split (s)	10.3	45.3	45.3	13.4	48.4	15.4	20.1	45.9	15.4	41.2
Total Split (%)	8.6%	37.8%	37.8%	11.2%	40.3%	12.8%	16.8%	38.3%	12.8%	34.3%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	3.6	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-2.2	-2.2	-0.6	-2.2	-0.6	-0.6	-2.2	-0.6	-2.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	Max	None	None	None	None	None
Act Effct Green (s)	6.1	41.8	41.8	9.2	49.1	62.7	13.1	20.5	9.5	16.9
Actuated g/C Ratio	0.06	0.43	0.43	0.09	0.51	0.65	0.13	0.21	0.10	0.17
v/c Ratio	0.25	0.57	0.34	0.63	0.41	0.13	0.67	0.39	0.51	0.33
Control Delay	53.2	24.5	4.1	53.3	18.7	2.6	48.7	17.1	49.0	34.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.2	24.5	4.1	53.3	18.7	2.6	48.7	17.1	49.0	34.9
LOS	D	C	A	D	B	A	D	B	D	C
Approach Delay		20.3			23.1			32.9		41.3
Approach LOS		C			C			C		D

Intersection Summary

























Cycle Length: 120
 Actuated Cycle Length: 97.2
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.67
 Intersection Signal Delay: 26.1
 Intersection LOS: C
 Intersection Capacity Utilization 61.4%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 6: Harvill Av. & Cajalco Exwy./Ramona Exwy.



HCM 6th Signalized Intersection Summary
6: Harvill Av. & Cajalco Exwy./Ramona Exwy.

Barker Logistics (JN 12216)
02/26/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	871	281	205	735	142	311	138	174	174	191	16
Future Volume (veh/h)	28	871	281	205	735	142	311	138	174	174	191	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	28	880	212	207	742	102	314	139	111	176	193	8
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	63	1702	758	306	1890	940	420	356	264	276	492	20
Arrive On Green	0.04	0.47	0.47	0.09	0.52	0.51	0.12	0.18	0.16	0.08	0.14	0.11
Sat Flow, veh/h	1810	3610	1608	3510	3610	1610	3510	1975	1466	3510	3533	146
Grp Volume(v), veh/h	28	880	212	207	742	102	314	126	124	176	98	103
Grp Sat Flow(s),veh/h/ln	1810	1805	1608	1755	1805	1610	1755	1805	1636	1755	1805	1874
Q Serve(g_s), s	1.3	14.9	7.0	5.0	10.8	2.5	7.6	5.4	6.0	4.3	4.3	4.4
Cycle Q Clear(g_c), s	1.3	14.9	7.0	5.0	10.8	2.5	7.6	5.4	6.0	4.3	4.3	4.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.90	1.00		0.08
Lane Grp Cap(c), veh/h	63	1702	758	306	1890	940	420	325	295	276	251	261
V/C Ratio(X)	0.44	0.52	0.28	0.68	0.39	0.11	0.75	0.39	0.42	0.64	0.39	0.39
Avail Cap(c_a), veh/h	130	1702	758	377	1890	940	645	863	782	457	766	796
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.4	16.2	14.1	38.8	12.5	8.1	37.3	31.7	32.8	39.1	34.3	34.4
Incr Delay (d2), s/veh	1.8	1.1	0.9	2.1	0.6	0.2	1.0	0.8	1.0	0.9	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	5.5	2.4	2.1	3.8	0.7	3.1	2.3	2.3	1.8	1.9	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	43.2	17.3	15.0	40.9	13.1	8.3	38.3	32.4	33.7	40.1	35.3	35.4
LnGrp LOS	D	B	B	D	B	A	D	C	C	D	D	D
Approach Vol, veh/h		1120			1051			564			377	
Approach Delay, s/veh		17.5			18.1			36.0			37.5	
Approach LOS		B			B			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	11.6	45.3	14.5	16.2	7.1	49.9	10.9	19.8				
Change Period (Y+Rc), s	4.6	6.2	4.6	6.2	4.6	6.2	4.6	6.2				
Max Green Setting (Gmax), s	8.8	39.1	15.5	35.0	5.7	42.2	10.8	39.7				
Max Q Clear Time (g_c+1), s	7.0	16.9	9.6	6.4	3.3	12.8	6.3	8.0				
Green Ext Time (p_c), s	0.1	6.4	0.3	1.1	0.0	5.2	0.1	1.3				
Intersection Summary												
HCM 6th Ctrl Delay			23.5									
HCM 6th LOS			C									

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖	↖	↖	↖↗		↖	↖↗	
Traffic Vol, veh/h	41	0	72	1	1	0	32	417	2	0	541	23
Future Vol, veh/h	41	0	72	1	1	0	32	417	2	0	541	23
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	115	-	-	165	-	0	150	-	-	160	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	44	0	77	1	1	0	34	448	2	0	582	25

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	888	1113	304	808	1124	225	607	0	0	450	0	0
Stage 1	595	595	-	517	517	-	-	-	-	-	-	-
Stage 2	293	518	-	291	607	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	241	210	698	276	207	784	981	-	-	1121	-	-
Stage 1	463	496	-	515	537	-	-	-	-	-	-	-
Stage 2	696	536	-	698	489	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	234	203	698	239	200	784	981	-	-	1121	-	-
Mov Cap-2 Maneuver	344	324	-	353	312	-	-	-	-	-	-	-
Stage 1	447	496	-	497	518	-	-	-	-	-	-	-
Stage 2	670	517	-	621	489	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13	15.9	0.6	0
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	981	-	-	344	-	698	353	312	-	1121	-	-
HCM Lane V/C Ratio	0.035	-	-	0.128	-	0.111	0.003	0.003	-	-	-	-
HCM Control Delay (s)	8.8	-	-	17	0	10.8	15.2	16.6	0	0	-	-
HCM Lane LOS	A	-	-	C	A	B	C	C	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	-	0.4	0	0	-	0	-	-

Intersection	
Intersection Delay, s/veh	17.3
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↗	↖	↕		↖	↕	
Traffic Vol, veh/h	47	3	46	68	4	214	22	173	58	285	316	19
Future Vol, veh/h	47	3	46	68	4	214	22	173	58	285	316	19
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	53	3	52	76	4	240	25	194	65	320	355	21
Number of Lanes	0	1	0	0	1	1	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	14.2	15.9	13.7	19.8
HCM LOS	B	C	B	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	49%	94%	0%	100%	0%	0%
Vol Thru, %	0%	100%	50%	3%	6%	0%	0%	100%	85%
Vol Right, %	0%	0%	50%	48%	0%	100%	0%	0%	15%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	22	115	116	96	72	214	285	211	124
LT Vol	22	0	0	47	68	0	285	0	0
Through Vol	0	115	58	3	4	0	0	211	105
RT Vol	0	0	58	46	0	214	0	0	19
Lane Flow Rate	25	130	130	108	81	240	320	237	140
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.059	0.291	0.279	0.255	0.19	0.486	0.684	0.472	0.274
Departure Headway (Hd)	8.603	8.088	7.727	8.494	8.464	7.28	7.689	7.177	7.067
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	415	443	464	422	423	493	471	502	507
Service Time	6.378	5.863	5.501	6.274	6.232	5.046	5.452	4.94	4.83
HCM Lane V/C Ratio	0.06	0.293	0.28	0.256	0.191	0.487	0.679	0.472	0.276
HCM Control Delay	11.9	14.2	13.5	14.2	13.2	16.8	25.6	16.2	12.5
HCM Lane LOS	B	B	B	B	B	C	D	C	B
HCM 95th-tile Q	0.2	1.2	1.1	1	0.7	2.6	5.1	2.5	1.1

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕		↕	↕	
Traffic Vol, veh/h	14	2	6	38	0	30	4	207	24	23	383	32
Future Vol, veh/h	14	2	6	38	0	30	4	207	24	23	383	32
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	-	-	-	-	-	0	160	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	16	2	7	44	0	35	5	241	28	27	445	37

Major/Minor	Minor2		Minor1			Major1		Major2				
Conflicting Flow All	649	797	241	543	801	135	482	0	0	269	0	0
Stage 1	518	518	-	265	265	-	-	-	-	-	-	-
Stage 2	131	279	-	278	536	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	359	322	766	427	320	895	1091	-	-	1306	-	-
Stage 1	514	536	-	723	693	-	-	-	-	-	-	-
Stage 2	865	683	-	711	527	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	339	314	766	412	312	895	1091	-	-	1306	-	-
Mov Cap-2 Maneuver	339	314	-	412	312	-	-	-	-	-	-	-
Stage 1	511	525	-	719	690	-	-	-	-	-	-	-
Stage 2	827	680	-	687	516	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	14.7		12.3		0.1		0.4	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1091	-	-	396	412	895	1306	-	-
HCM Lane V/C Ratio	0.004	-	-	0.065	0.107	0.039	0.02	-	-
HCM Control Delay (s)	8.3	-	-	14.7	14.8	9.2	7.8	-	-
HCM Lane LOS	A	-	-	B	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.4	0.1	0.1	-	-

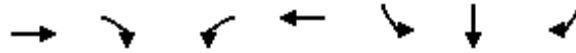
Intersection	
Intersection Delay, s/veh	19.8
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕		↕	↕		↕	↕	
Traffic Vol, veh/h	2	0	5	301	0	79	1	172	332	116	339	1
Future Vol, veh/h	2	0	5	301	0	79	1	172	332	116	339	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	0	5	317	0	83	1	181	349	122	357	1
Number of Lanes	0	1	0	1	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	11.6	16.9	26.1	15.5
HCM LOS	B	C	D	C

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	29%	100%	57%	100%	0%	0%
Vol Thru, %	0%	100%	15%	0%	0%	0%	0%	100%	99%
Vol Right, %	0%	0%	85%	71%	0%	43%	0%	0%	1%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	1	115	389	7	196	184	116	226	114
LT Vol	1	0	0	2	196	105	116	0	0
Through Vol	0	115	57	0	0	0	0	226	113
RT Vol	0	0	332	5	0	79	0	0	1
Lane Flow Rate	1	121	410	7	206	194	122	238	120
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.002	0.251	0.782	0.018	0.469	0.414	0.274	0.5	0.252
Departure Headway (Hd)	7.993	7.481	6.869	8.687	8.204	7.685	8.071	7.559	7.552
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	448	480	525	411	439	468	444	476	475
Service Time	5.742	5.23	4.618	6.466	5.958	5.439	5.823	5.31	5.304
HCM Lane V/C Ratio	0.002	0.252	0.781	0.017	0.469	0.415	0.275	0.5	0.253
HCM Control Delay	10.8	12.7	30.1	11.6	18	15.8	13.9	17.7	12.8
HCM Lane LOS	B	B	D	B	C	C	B	C	B
HCM 95th-tile Q	0	1	7.2	0.1	2.4	2	1.1	2.7	1

Timings
11: I-215 SB Ramps & Ramona Exwy.

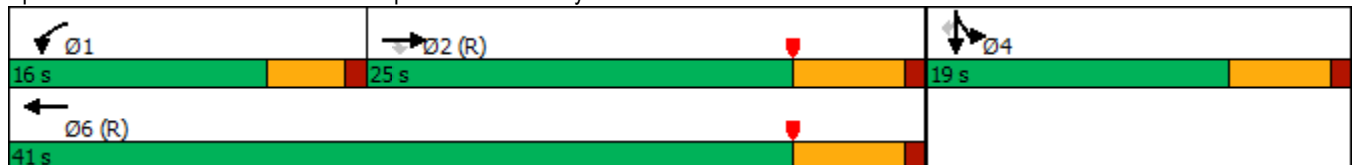


Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations	↑↑	↑	↵	↑↑	↵	↵	↵
Traffic Volume (vph)	927	340	417	904	845	5	179
Future Volume (vph)	927	340	417	904	845	5	179
Turn Type	NA	Perm	Prot	NA	Split	NA	Perm
Protected Phases	2		1	6	4	4	
Permitted Phases		2					4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	9.5	31.0	10.5	10.5	10.5
Total Split (s)	25.0	25.0	16.0	41.0	19.0	19.0	19.0
Total Split (%)	41.7%	41.7%	26.7%	68.3%	31.7%	31.7%	31.7%
Yellow Time (s)	5.0	5.0	3.5	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-2.0	-2.0	-0.5	-2.0	-1.5	-1.5	-1.5
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max	Max
Act Effct Green (s)	21.0	21.0	12.0	37.0	15.0	15.0	15.0
Actuated g/C Ratio	0.35	0.35	0.20	0.62	0.25	0.25	0.25
v/c Ratio	0.76	0.44	1.19	0.42	1.02	1.03	0.36
Control Delay	21.9	3.9	139.1	7.3	74.6	76.9	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.9	3.9	139.1	7.3	74.6	76.9	7.9
LOS	C	A	F	A	E	E	A
Approach Delay	17.1			48.9		63.9	
Approach LOS	B			D		E	

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 19 (32%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.19
 Intersection Signal Delay: 42.0
 Intersection LOS: D
 Intersection Capacity Utilization 82.3%
 ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 11: I-215 SB Ramps & Ramona Exwy.



HCM 6th Signalized Intersection Summary
 11: I-215 SB Ramps & Ramona Exwy.

Barker Logistics (JN 12216)

03/11/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↘	↑↑					↘	↗	↗
Traffic Volume (veh/h)	0	927	340	417	904	0	0	0	0	845	5	179
Future Volume (veh/h)	0	927	340	417	904	0	0	0	0	845	5	179
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	956	238	430	932	0				875	0	112
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1264	564	362	2226	0				905	0	403
Arrive On Green	0.00	0.35	0.35	0.20	0.62	0.00				0.25	0.00	0.25
Sat Flow, veh/h	0	3705	1610	1810	3705	0				3619	0	1610
Grp Volume(v), veh/h	0	956	238	430	932	0				875	0	112
Grp Sat Flow(s),veh/h/ln	0	1805	1610	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	14.0	6.8	12.0	8.0	0.0				14.3	0.0	3.4
Cycle Q Clear(g_c), s	0.0	14.0	6.8	12.0	8.0	0.0				14.3	0.0	3.4
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1264	564	362	2226	0				905	0	403
V/C Ratio(X)	0.00	0.76	0.42	1.19	0.42	0.00				0.97	0.00	0.28
Avail Cap(c_a), veh/h	0	1264	564	362	2226	0				905	0	403
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.81	0.81	0.71	0.71	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	17.2	14.9	24.0	5.9	0.0				22.3	0.0	18.1
Incr Delay (d2), s/veh	0.0	3.5	1.9	103.0	0.4	0.0				22.9	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.2	2.3	14.7	1.7	0.0				8.0	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	20.7	16.8	127.0	6.4	0.0				45.2	0.0	19.9
LnGrp LOS	A	C	B	F	A	A				D	A	B
Approach Vol, veh/h		1194			1362						987	
Approach Delay, s/veh		19.9			44.4						42.3	
Approach LOS		B			D						D	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	16.0	25.0		19.0		41.0						
Change Period (Y+Rc), s	4.5	6.0		5.5		6.0						
Max Green Setting (Gmax), s	11.5	19.0		13.5		35.0						
Max Q Clear Time (g_c+I1), s	14.0	16.0		16.3		10.0						
Green Ext Time (p_c), s	0.0	1.4		0.0		3.9						

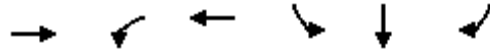
Intersection Summary

HCM 6th Ctrl Delay	35.6
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Timings
13: I-215 SB Ramps & Nuevo Rd.

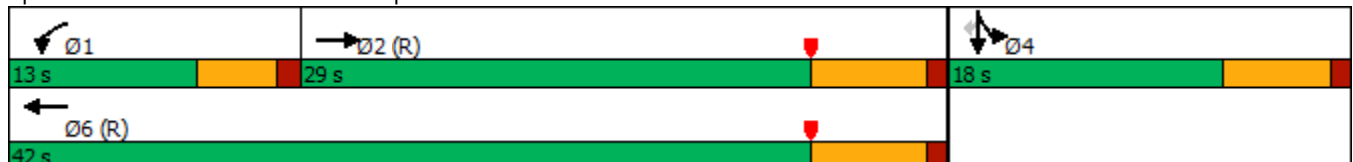


Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑	↑↑	↑	↑	↑
Traffic Volume (vph)	440	612	452	572	4	76
Future Volume (vph)	440	612	452	572	4	76
Turn Type	NA	Prot	NA	Split	NA	Perm
Protected Phases	2	1	6	4	4	
Permitted Phases						4
Detector Phase	2	1	6	4	4	4
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	28.2	9.6	28.2	15.8	15.8	15.8
Total Split (s)	29.0	13.0	42.0	18.0	18.0	18.0
Total Split (%)	48.3%	21.7%	70.0%	30.0%	30.0%	30.0%
Yellow Time (s)	5.2	3.6	5.2	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-2.2	-0.6	-2.2	-1.8	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes				
Recall Mode	C-Max	None	C-Max	Max	Max	Max
Act Effct Green (s)	25.0	9.0	38.0	14.0	14.0	14.0
Actuated g/C Ratio	0.42	0.15	0.63	0.23	0.23	0.23
v/c Ratio	0.47	1.23	0.21	0.75	0.76	0.16
Control Delay	9.4	137.4	3.3	35.9	36.4	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.4	137.4	3.3	35.9	36.4	1.9
LOS	A	F	A	D	D	A
Approach Delay	9.4		80.4		32.2	
Approach LOS	A		F		C	

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 18.6 (31%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.23
 Intersection Signal Delay: 46.9
 Intersection LOS: D
 Intersection Capacity Utilization 63.8%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 13: I-215 SB Ramps & Nuevo Rd.



HCM 6th Signalized Intersection Summary
 13: I-215 SB Ramps & Nuevo Rd.

Barker Logistics (JN 12216)

03/11/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑↑	↑↑					↑	↑	↑
Traffic Volume (veh/h)	0	440	257	612	452	0	0	0	0	572	4	76
Future Volume (veh/h)	0	440	257	612	452	0	0	0	0	572	4	76
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	463	214	644	476	0				605	0	32
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1001	460	527	2286	0				844	0	376
Arrive On Green	0.00	0.42	0.38	0.05	0.21	0.00				0.23	0.00	0.23
Sat Flow, veh/h	0	2499	1103	3510	3705	0				3619	0	1610
Grp Volume(v), veh/h	0	347	330	644	476	0				605	0	32
Grp Sat Flow(s),veh/h/ln	0	1805	1701	1755	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	8.3	8.7	9.0	6.5	0.0				9.2	0.0	0.9
Cycle Q Clear(g_c), s	0.0	8.3	8.7	9.0	6.5	0.0				9.2	0.0	0.9
Prop In Lane	0.00		0.65	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	752	709	527	2286	0				844	0	376
V/C Ratio(X)	0.00	0.46	0.47	1.22	0.21	0.00				0.72	0.00	0.09
Avail Cap(c_a), veh/h	0	752	709	527	2286	0				844	0	376
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.82	0.82	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	12.6	13.3	28.5	11.3	0.0				21.2	0.0	18.0
Incr Delay (d2), s/veh	0.0	2.0	2.2	113.9	0.2	0.0				5.2	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.0	3.0	12.0	1.7	0.0				4.0	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	14.7	15.4	142.4	11.5	0.0				26.3	0.0	18.4
LnGrp LOS	A	B	B	F	B	A				C	A	B
Approach Vol, veh/h		677			1120						637	
Approach Delay, s/veh		15.0			86.8						26.0	
Approach LOS		B			F						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	13.0	29.0		18.0		42.0						
Change Period (Y+Rc), s	4.6	6.2		5.8		6.2						
Max Green Setting (Gmax), s	8.4	22.8		12.2		35.8						
Max Q Clear Time (g_c+I1), s	11.0	10.7		11.2		8.5						
Green Ext Time (p_c), s	0.0	3.0		0.3		2.8						

Intersection Summary

HCM 6th Ctrl Delay	50.9
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Timings
14: I-215 NB Ramps & Ramona Exwy.

Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations							
Traffic Volume (vph)	268	1504	951	746	370	2	412
Future Volume (vph)	268	1504	951	746	370	2	412
Turn Type	Prot	NA	NA	Perm	Split	NA	Perm
Protected Phases	5	2	6		8	8	
Permitted Phases				6			8
Detector Phase	5	2	6	6	8	8	8
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	11.0	26.0	26.0	10.5	10.5	10.5
Total Split (s)	13.0	41.0	28.0	28.0	19.0	19.0	19.0
Total Split (%)	21.7%	68.3%	46.7%	46.7%	31.7%	31.7%	31.7%
Yellow Time (s)	3.5	5.0	5.0	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.5	-2.0	-2.0	-2.0	-1.5	-1.5	-1.5
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None
Act Effct Green (s)	9.5	37.5	24.0	24.0	14.5	14.5	14.5
Actuated g/C Ratio	0.16	0.62	0.40	0.40	0.24	0.24	0.24
v/c Ratio	0.99	0.70	0.69	0.74	0.47	0.47	0.88
Control Delay	68.2	13.0	18.1	7.2	23.6	23.6	37.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.2	13.0	18.1	7.2	23.6	23.6	37.2
LOS	E	B	B	A	C	C	D
Approach Delay		21.4	13.3			30.7	
Approach LOS		C	B			C	






















Intersection Summary
 Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 19 (32%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.99
 Intersection Signal Delay: 19.9
 Intersection LOS: B
 Intersection Capacity Utilization 82.3%
 ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 14: I-215 NB Ramps & Ramona Exwy.



HCM 6th Signalized Intersection Summary
 14: I-215 NB Ramps & Ramona Exwy.

Barker Logistics (JN 12216)
 02/26/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			 							
Traffic Volume (veh/h)	268	1504	0	0	951	746	370	2	412	0	0	0
Future Volume (veh/h)	268	1504	0	0	951	746	370	2	412	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	282	1583	0	0	1001	609	390	0	308			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	271	2256	0	0	1474	657	875	0	389			
Arrive On Green	0.30	1.00	0.00	0.00	0.41	0.41	0.24	0.00	0.24			
Sat Flow, veh/h	1810	3705	0	0	3705	1610	3619	0	1610			
Grp Volume(v), veh/h	282	1583	0	0	1001	609	390	0	308			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1610	1810	0	1610			
Q Serve(g_s), s	9.0	0.0	0.0	0.0	13.6	21.6	5.5	0.0	10.8			
Cycle Q Clear(g_c), s	9.0	0.0	0.0	0.0	13.6	21.6	5.5	0.0	10.8			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	271	2256	0	0	1474	657	875	0	389			
V/C Ratio(X)	1.04	0.70	0.00	0.00	0.68	0.93	0.45	0.00	0.79			
Avail Cap(c_a), veh/h	271	2256	0	0	1474	657	905	0	403			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.23	0.23	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	21.0	0.0	0.0	0.0	14.5	16.9	19.3	0.0	21.3			
Incr Delay (d2), s/veh	36.9	0.4	0.0	0.0	2.5	21.0	0.4	0.0	10.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	5.4	0.1	0.0	0.0	4.7	9.8	2.0	0.0	4.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.9	0.4	0.0	0.0	17.1	37.9	19.7	0.0	31.4			
LnGrp LOS	F	A	A	A	B	D	B	A	C			
Approach Vol, veh/h		1865			1610			698				
Approach Delay, s/veh		9.1			25.0			24.8				
Approach LOS		A			C			C				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		41.5			13.0	28.5		18.5				
Change Period (Y+Rc), s		6.0			4.5	6.0		5.5				
Max Green Setting (Gmax), s		35.0			8.5	22.0		13.5				
Max Q Clear Time (g_c+I1), s		2.0			11.0	23.6		12.8				
Green Ext Time (p_c), s		8.7			0.0	0.0		0.2				

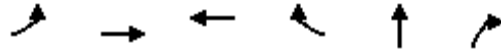
Intersection Summary

HCM 6th Ctrl Delay	17.9
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Timings
16: I-215 NB Ramps & Nuevo Rd.

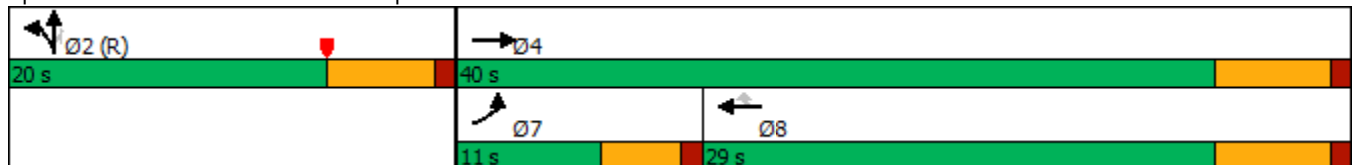


Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Configurations	↘	↑↑	↑↑↑	↗	↑	↗↗
Traffic Volume (vph)	54	958	942	428	1	345
Future Volume (vph)	54	958	942	428	1	345
Turn Type	Prot	NA	NA	Perm	NA	Perm
Protected Phases	7	4	8		2	
Permitted Phases				8		2
Detector Phase	7	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	28.2	28.2	28.2	15.8	15.8
Total Split (s)	11.0	40.0	29.0	29.0	20.0	20.0
Total Split (%)	18.3%	66.7%	48.3%	48.3%	33.3%	33.3%
Yellow Time (s)	3.6	5.2	5.2	5.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-2.2	-2.2	-2.2	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	6.5	31.8	25.2	25.2	20.2	20.2
Actuated g/C Ratio	0.11	0.53	0.42	0.42	0.34	0.34
v/c Ratio	0.35	0.63	0.54	0.55	0.25	0.41
Control Delay	36.4	8.1	14.2	3.8	18.0	12.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.4	8.1	14.2	3.8	18.0	12.8
LOS	D	A	B	A	B	B
Approach Delay		9.6	10.9		14.1	
Approach LOS		A	B		B	

Intersection Summary























Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 16 (27%), Referenced to phase 2:NBTL and 6:, Start of Yellow
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.63
 Intersection Signal Delay: 11.0
 Intersection LOS: B
 Intersection Capacity Utilization 63.8%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 16: I-215 NB Ramps & Nuevo Rd.



HCM 6th Signalized Intersection Summary
 16: I-215 NB Ramps & Nuevo Rd.

Barker Logistics (JN 12216)
 02/26/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			  				 			
Traffic Volume (veh/h)	54	958	0	0	942	428	121	1	345	0	0	0
Future Volume (veh/h)	54	958	0	0	942	428	121	1	345	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	68	1198	0	0	1178	403	151	1	17			
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	120	1810	0	0	1910	590	657	4	1035			
Arrive On Green	0.13	1.00	0.00	0.00	0.37	0.37	0.37	0.37	0.37			
Sat Flow, veh/h	1810	3705	0	0	5358	1601	1798	12	2834			
Grp Volume(v), veh/h	68	1198	0	0	1178	403	152	0	17			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1729	1601	1810	0	1417			
Q Serve(g_s), s	2.1	0.0	0.0	0.0	11.1	12.7	3.5	0.0	0.2			
Cycle Q Clear(g_c), s	2.1	0.0	0.0	0.0	11.1	12.7	3.5	0.0	0.2			
Prop In Lane	1.00		0.00	0.00		1.00	0.99		1.00			
Lane Grp Cap(c), veh/h	120	1810	0	0	1910	590	661	0	1035			
V/C Ratio(X)	0.57	0.66	0.00	0.00	0.62	0.68	0.23	0.00	0.02			
Avail Cap(c_a), veh/h	211	2166	0	0	2161	667	661	0	1035			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.78	0.78	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	25.2	0.0	0.0	0.0	15.5	16.0	13.2	0.0	12.2			
Incr Delay (d2), s/veh	1.2	0.5	0.0	0.0	0.4	2.5	0.8	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.8	0.1	0.0	0.0	3.5	4.0	1.3	0.0	0.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.4	0.5	0.0	0.0	15.9	18.5	14.0	0.0	12.2			
LnGrp LOS	C	A	A	A	B	B	B	A	B			
Approach Vol, veh/h		1266			1581			169				
Approach Delay, s/veh		1.8			16.6			13.8				
Approach LOS		A			B			B				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		25.9		34.1			8.0	26.1				
Change Period (Y+Rc), s		5.8		6.2			4.6	6.2				
Max Green Setting (Gmax), s		14.2		33.8			6.4	22.8				
Max Q Clear Time (g_c+I1), s		5.5		2.0			4.1	14.7				
Green Ext Time (p_c), s		0.5		9.3			0.0	5.1				
Intersection Summary												
HCM 6th Ctrl Delay				10.2								
HCM 6th LOS				B								

APPENDIX 7.2:

**EAPC (2021) WITH I-215/PLACENTIA INTERCHANGE CONDITIONS INTERSECTION
OPERATIONS ANALYSIS WORKSHEETS**

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Intersection												
Int Delay, s/veh	2.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕	↗		↕↗			↕↗	
Traffic Vol, veh/h	1	45	5	18	28	2	0	4	11	0	1	5
Future Vol, veh/h	1	45	5	18	28	2	0	4	11	0	1	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	50	6	20	31	2	0	4	12	0	1	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	33	0	0	56	0	0	128	125	50	134	129	31
Stage 1	-	-	-	-	-	-	52	52	-	71	71	-
Stage 2	-	-	-	-	-	-	76	73	-	63	58	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1592	-	-	1562	-	-	850	769	1024	842	765	1049
Stage 1	-	-	-	-	-	-	966	856	-	944	840	-
Stage 2	-	-	-	-	-	-	938	838	-	953	851	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1592	-	-	1562	-	-	836	758	1024	819	754	1049
Mov Cap-2 Maneuver	-	-	-	-	-	-	836	758	-	819	754	-
Stage 1	-	-	-	-	-	-	965	855	-	943	829	-
Stage 2	-	-	-	-	-	-	920	827	-	936	850	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			2.8			8.9			8.7		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	936	1592	-	-	1562	-	-	985
HCM Lane V/C Ratio	0.018	0.001	-	-	0.013	-	-	0.007
HCM Control Delay (s)	8.9	7.3	0	-	7.3	0	-	8.7
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection												
Int Delay, s/veh	2.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	4	10	0	4	1	16	35	12	11	1
Future Vol, veh/h	0	0	4	10	0	4	1	16	35	12	11	1
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	54	54	54	54	54	54	54	54	54	54	54	54
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	7	19	0	7	2	30	65	22	20	2

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	135	164	21	136	133	63	22	0	0	95	0	0
Stage 1	65	65	-	67	67	-	-	-	-	-	-	-
Stage 2	70	99	-	69	66	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	841	732	1062	840	761	1007	1607	-	-	1512	-	-
Stage 1	951	845	-	948	843	-	-	-	-	-	-	-
Stage 2	945	817	-	946	844	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	825	720	1062	824	749	1007	1607	-	-	1512	-	-
Mov Cap-2 Maneuver	825	720	-	824	749	-	-	-	-	-	-	-
Stage 1	950	832	-	947	842	-	-	-	-	-	-	-
Stage 2	937	816	-	925	831	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	8.4		9.3		0.1		3.7	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1607	-	-	1062	869	1512	-	-
HCM Lane V/C Ratio	0.001	-	-	0.007	0.03	0.015	-	-
HCM Control Delay (s)	7.2	0	-	8.4	9.3	7.4	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

Intersection						
Int Delay, s/veh	2.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	2	2	4	50	23	2
Future Vol, veh/h	2	2	4	50	23	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, %	0	0	0	0	0	0
Mvmt Flow	3	3	5	67	31	3

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	72	0	-	0	48 39
Stage 1	-	-	-	-	39 -
Stage 2	-	-	-	-	9 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1541	-	-	-	967 1038
Stage 1	-	-	-	-	989 -
Stage 2	-	-	-	-	1019 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1541	-	-	-	965 1038
Mov Cap-2 Maneuver	-	-	-	-	965 -
Stage 1	-	-	-	-	987 -
Stage 2	-	-	-	-	1019 -

Approach	EB	WB	SB
HCM Control Delay, s	3.7	0	8.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1541	-	-	-	970
HCM Lane V/C Ratio	0.002	-	-	-	0.034
HCM Control Delay (s)	7.3	0	-	-	8.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	24	1	3	51	53	3	0	6	16	0	0
Future Vol, veh/h	0	24	1	3	51	53	3	0	6	16	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	35	1	4	74	77	4	0	9	23	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	151	0	0	36	0	0	157	195	36	161	157	113
Stage 1	-	-	-	-	-	-	36	36	-	121	121	-
Stage 2	-	-	-	-	-	-	121	159	-	40	36	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1442	-	-	1588	-	-	814	704	1042	809	739	945
Stage 1	-	-	-	-	-	-	985	869	-	888	800	-
Stage 2	-	-	-	-	-	-	888	770	-	980	869	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1442	-	-	1588	-	-	812	702	1042	800	737	945
Mov Cap-2 Maneuver	-	-	-	-	-	-	812	702	-	800	737	-
Stage 1	-	-	-	-	-	-	985	869	-	888	798	-
Stage 2	-	-	-	-	-	-	885	768	-	972	869	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.2			8.8			9.6		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	952	1442	-	-	1588	-	-	800
HCM Lane V/C Ratio	0.014	-	-	-	0.003	-	-	0.029
HCM Control Delay (s)	8.8	0	-	-	7.3	0	-	9.6
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

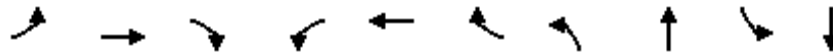
Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	0	47	107	75	22	0
Future Vol, veh/h	0	47	107	75	22	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	51	116	82	24	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	198	0	-	0	208
Stage 1	-	-	-	-	157
Stage 2	-	-	-	-	51
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	1387	-	-	-	785
Stage 1	-	-	-	-	876
Stage 2	-	-	-	-	977
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1387	-	-	-	785
Mov Cap-2 Maneuver	-	-	-	-	785
Stage 1	-	-	-	-	876
Stage 2	-	-	-	-	977

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1387	-	-	-	785
HCM Lane V/C Ratio	-	-	-	-	0.03
HCM Control Delay (s)	0	-	-	-	9.7
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Timings
6: Harvill Av. & Cajalco Exwy./Ramona Exwy.

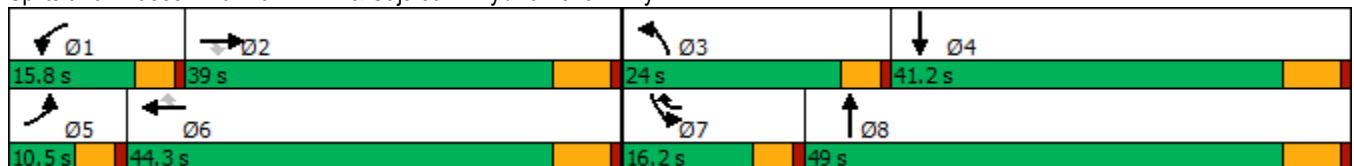


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations	↙	↕	↘	↙↘	↕	↘	↙↘	↕↘	↙↘	↕↘
Traffic Volume (vph)	88	606	323	217	765	431	495	348	281	160
Future Volume (vph)	88	606	323	217	765	431	495	348	281	160
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases	5	2		1	6	7	3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	7	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	36.2	36.2	9.6	34.2	9.6	9.6	16.2	9.6	41.2
Total Split (s)	10.5	39.0	39.0	15.8	44.3	16.2	24.0	49.0	16.2	41.2
Total Split (%)	8.8%	32.5%	32.5%	13.2%	36.9%	13.5%	20.0%	40.8%	13.5%	34.3%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	3.6	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	4.6	6.2	4.6	4.6	6.2	4.6	6.2
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	Max	None	None	None	None	None
Act Effct Green (s)	6.0	34.6	34.6	9.9	38.5	51.4	17.9	21.1	11.2	14.5
Actuated g/C Ratio	0.06	0.35	0.35	0.10	0.39	0.52	0.18	0.21	0.11	0.15
v/c Ratio	0.83	0.49	0.43	0.63	0.55	0.46	0.80	0.54	0.72	0.37
Control Delay	98.3	28.7	5.3	52.7	26.8	7.1	49.9	34.9	54.7	35.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	98.3	28.7	5.3	52.7	26.8	7.1	49.9	34.9	54.7	35.2
LOS	F	C	A	D	C	A	D	C	D	D
Approach Delay		27.3			24.8			43.1		46.8
Approach LOS		C			C			D		D

Intersection Summary

























Cycle Length: 120
 Actuated Cycle Length: 98.7
 Natural Cycle: 110
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 0.83
 Intersection Signal Delay: 32.5
 Intersection LOS: C
 Intersection Capacity Utilization 73.0%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 6: Harvill Av. & Cajalco Exwy./Ramona Exwy.



HCM 6th Signalized Intersection Summary
6: Harvill Av. & Cajalco Exwy./Ramona Exwy.

Barker Logistics (JN 12216)
02/26/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	88	606	323	217	765	431	495	348	58	281	160	32
Future Volume (veh/h)	88	606	323	217	765	431	495	348	58	281	160	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	90	618	279	221	781	362	505	355	21	287	163	30
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	115	1423	633	296	1498	834	586	634	37	362	364	66
Arrive On Green	0.06	0.39	0.39	0.08	0.41	0.41	0.17	0.18	0.18	0.10	0.12	0.12
Sat Flow, veh/h	1810	3610	1606	3510	3610	1609	3510	3464	204	3510	3052	550
Grp Volume(v), veh/h	90	618	279	221	781	362	505	184	192	287	95	98
Grp Sat Flow(s),veh/h/ln	1810	1805	1606	1755	1805	1609	1755	1805	1863	1755	1805	1798
Q Serve(g_s), s	4.5	11.5	11.7	5.6	14.8	12.9	12.9	8.5	8.6	7.3	4.5	4.7
Cycle Q Clear(g_c), s	4.5	11.5	11.7	5.6	14.8	12.9	12.9	8.5	8.6	7.3	4.5	4.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		0.31
Lane Grp Cap(c), veh/h	115	1423	633	296	1498	834	586	331	341	362	215	214
V/C Ratio(X)	0.78	0.43	0.44	0.75	0.52	0.43	0.86	0.56	0.56	0.79	0.44	0.46
Avail Cap(c_a), veh/h	116	1423	633	428	1498	834	742	841	868	443	688	685
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.4	20.3	20.4	41.1	20.1	13.8	37.2	34.1	34.2	40.2	37.6	37.7
Incr Delay (d2), s/veh	25.8	1.0	2.2	1.9	1.3	1.6	7.1	1.5	1.5	6.3	1.4	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	4.5	4.3	2.4	5.8	4.3	5.7	3.6	3.8	3.4	2.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	68.2	21.3	22.6	43.0	21.4	15.4	44.3	35.6	35.6	46.5	39.0	39.2
LnGrp LOS	E	C	C	D	C	B	D	D	D	D	D	D
Approach Vol, veh/h		987			1364			881			480	
Approach Delay, s/veh		26.0			23.3			40.6			43.5	
Approach LOS		C			C			D			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.4	42.4	19.9	17.2	10.4	44.3	14.1	23.0				
Change Period (Y+Rc), s	4.6	6.2	4.6	6.2	4.6	6.2	4.6	6.2				
Max Green Setting (Gmax), s	11.2	32.8	19.4	35.0	5.9	38.1	11.6	42.8				
Max Q Clear Time (g_c+I1), s	7.6	13.7	14.9	6.7	6.5	16.8	9.3	10.6				
Green Ext Time (p_c), s	0.1	4.5	0.5	1.1	0.0	6.2	0.1	1.9				
Intersection Summary												
HCM 6th Ctrl Delay			30.7									
HCM 6th LOS			C									

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↗		↖	↖	↖	↖	↖↗		↖	↖↗	
Traffic Vol, veh/h	28	0	36	0	0	0	22	847	3	0	569	21
Future Vol, veh/h	28	0	36	0	0	0	22	847	3	0	569	21
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	115	-	-	165	-	0	150	-	-	160	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	30	0	39	0	0	0	24	921	3	0	618	23

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	1139	1602	321	1280	1612	462	641	0	0	924	0	0
Stage 1	630	630	-	971	971	-	-	-	-	-	-	-
Stage 2	509	972	-	309	641	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	159	107	681	125	105	552	953	-	-	748	-	-
Stage 1	441	478	-	275	334	-	-	-	-	-	-	-
Stage 2	520	333	-	682	473	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	156	104	681	116	102	552	953	-	-	748	-	-
Mov Cap-2 Maneuver	283	222	-	212	217	-	-	-	-	-	-	-
Stage 1	430	478	-	268	326	-	-	-	-	-	-	-
Stage 2	507	325	-	643	473	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.4	0	0.2	0
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	953	-	-	283	-	681	-	-	-	748	-	-
HCM Lane V/C Ratio	0.025	-	-	0.108	-	0.057	-	-	-	-	-	-
HCM Control Delay (s)	8.9	-	-	19.2	0	10.6	0	0	0	0	-	-
HCM Lane LOS	A	-	-	C	A	B	A	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.4	-	0.2	-	-	-	0	-	-

Intersection	
Intersection Delay, s/veh	195.3
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕		↕	↕	
Traffic Vol, veh/h	12	44	14	323	132	585	26	444	247	436	300	22
Future Vol, veh/h	12	44	14	323	132	585	26	444	247	436	300	22
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	13	47	15	347	142	629	28	477	266	469	323	24
Number of Lanes	0	1	0	0	1	1	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	22.3	307.9	109	138.5
HCM LOS	C	F	F	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	17%	71%	0%	100%	0%	0%
Vol Thru, %	0%	100%	37%	63%	29%	0%	0%	100%	82%
Vol Right, %	0%	0%	63%	20%	0%	100%	0%	0%	18%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	26	296	395	70	455	585	436	200	122
LT Vol	26	0	0	12	323	0	436	0	0
Through Vol	0	296	148	44	132	0	0	200	100
RT Vol	0	0	247	14	0	585	0	0	22
Lane Flow Rate	28	318	425	75	489	629	469	215	131
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.085	0.921	1.178	0.265	1.461	1.695	1.382	0.604	0.364
Departure Headway (Hd)	12.87	12.351	11.897	14.497	11.661	10.575	11.749	11.231	11.1
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	280	296	310	249	318	352	314	325	327
Service Time	10.57	10.051	9.597	12.197	9.361	8.275	9.449	8.931	8.8
HCM Lane V/C Ratio	0.1	1.074	1.371	0.301	1.538	1.787	1.494	0.662	0.401
HCM Control Delay	16.8	71	143.6	22.3	253.8	350	221.6	29.7	20
HCM Lane LOS	C	F	F	C	F	F	F	D	C
HCM 95th-tile Q	0.3	8.7	15.4	1	24.7	35.6	21.9	3.7	1.6

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↔			↕	↕	↕	↕↔		↕	↕↔	
Traffic Vol, veh/h	24	0	8	9	0	11	9	630	17	15	484	18
Future Vol, veh/h	24	0	8	9	0	11	9	630	17	15	484	18
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	-	-	-	-	-	0	160	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	26	0	9	10	0	12	10	677	18	16	520	19

Major/Minor	Minor2		Minor1			Major1		Major2				
Conflicting Flow All	921	1277	270	998	1277	348	539	0	0	695	0	0
Stage 1	562	562	-	706	706	-	-	-	-	-	-	-
Stage 2	359	715	-	292	571	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	229	168	734	201	168	654	1040	-	-	910	-	-
Stage 1	484	513	-	397	442	-	-	-	-	-	-	-
Stage 2	637	438	-	697	508	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	220	163	734	195	163	654	1040	-	-	910	-	-
Mov Cap-2 Maneuver	220	163	-	195	163	-	-	-	-	-	-	-
Stage 1	479	504	-	393	438	-	-	-	-	-	-	-
Stage 2	619	434	-	677	499	-	-	-	-	-	-	-

Approach	EB		WB			NB		SB		
HCM Control Delay, s	20.5		16.8			0.1		0.3		
HCM LOS	C		C							

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1040	-	-	267	195	654	910	-	-
HCM Lane V/C Ratio	0.009	-	-	0.129	0.05	0.018	0.018	-	-
HCM Control Delay (s)	8.5	-	-	20.5	24.4	10.6	9	-	-
HCM Lane LOS	A	-	-	C	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0.2	0.1	0.1	-	-

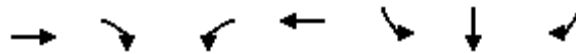
Intersection	
Intersection Delay, s/veh	217.6
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕		↕	↕		↕	↕	
Traffic Vol, veh/h	0	4	1	566	0	238	4	397	629	135	391	3
Future Vol, veh/h	0	4	1	566	0	238	4	397	629	135	391	3
Peak Hour Factor	0.92	0.92	0.92	0.90	0.92	0.90	0.92	0.90	0.90	0.90	0.90	0.92
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	4	1	629	0	264	4	441	699	150	434	3
Number of Lanes	0	1	0	1	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	16.3	125.6	386.4	30.8
HCM LOS	C	F	F	D

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	0%	100%	38%	100%	0%	0%
Vol Thru, %	0%	100%	17%	80%	0%	0%	0%	100%	98%
Vol Right, %	0%	0%	83%	20%	0%	62%	0%	0%	2%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	4	265	761	5	419	385	135	261	133
LT Vol	4	0	0	0	419	147	135	0	0
Through Vol	0	265	132	4	0	0	0	261	130
RT Vol	0	0	629	1	0	238	0	0	3
Lane Flow Rate	4	294	846	5	465	428	150	290	148
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.012	0.766	2.067	0.018	1.226	1.04	0.411	0.753	0.385
Departure Headway (Hd)	10.337	9.817	9.216	13.355	10.889	10.132	11.542	11.02	11.003
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	348	371	406	270	340	364	314	330	329
Service Time	8.037	7.517	6.916	11.055	8.589	7.832	9.242	8.72	8.703
HCM Lane V/C Ratio	0.011	0.792	2.084	0.019	1.368	1.176	0.478	0.879	0.45
HCM Control Delay	13.2	38.3	509.3	16.3	157.1	91.3	22.1	40.7	20.4
HCM Lane LOS	B	E	F	C	F	F	C	E	C
HCM 95th-tile Q	0	6.2	57.4	0.1	17.9	12.7	1.9	5.8	1.8

Timings
11: I-215 SB Ramps & Ramona Exwy.

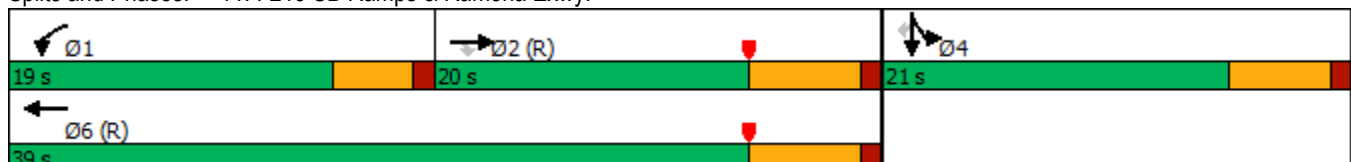


Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations	↑↑	↑	↙	↑↑	↙	↙	↙
Traffic Volume (vph)	642	311	337	1041	731	3	298
Future Volume (vph)	642	311	337	1041	731	3	298
Turn Type	NA	Perm	Prot	NA	Split	NA	Perm
Protected Phases	2		1	6	4	4	
Permitted Phases		2					4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	9.5	31.0	10.5	10.5	10.5
Total Split (s)	20.0	20.0	19.0	39.0	21.0	21.0	21.0
Total Split (%)	33.3%	33.3%	31.7%	65.0%	35.0%	35.0%	35.0%
Yellow Time (s)	5.0	5.0	3.5	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	4.5	6.0	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max	Max
Act Effct Green (s)	14.6	14.6	13.9	33.0	15.5	15.5	15.5
Actuated g/C Ratio	0.24	0.24	0.23	0.55	0.26	0.26	0.26
v/c Ratio	0.75	0.51	0.83	0.54	0.85	0.86	0.59
Control Delay	28.3	6.1	52.6	9.0	42.3	42.9	16.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.3	6.1	52.6	9.0	42.3	42.9	16.1
LOS	C	A	D	A	D	D	B
Approach Delay	21.0			19.7		34.9	
Approach LOS	C			B		C	













Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 19 (32%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.86
 Intersection Signal Delay: 24.8
 Intersection Capacity Utilization 87.7%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service E

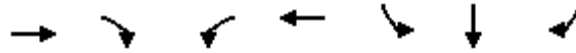
Splits and Phases: 11: I-215 SB Ramps & Ramona Exwy.



HCM 6th Signalized Intersection Summary
 11: I-215 SB Ramps & Ramona Exwy.

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑	↑↑					↑	↑	↑
Traffic Volume (veh/h)	0	642	311	337	1041	0	0	0	0	731	3	298
Future Volume (veh/h)	0	642	311	337	1041	0	0	0	0	731	3	298
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	662	212	347	1073	0				756	0	243
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	910	405	403	1986	0				935	0	416
Arrive On Green	0.00	0.25	0.25	0.13	0.33	0.00				0.26	0.00	0.26
Sat Flow, veh/h	0	3705	1606	1810	3705	0				3619	0	1610
Grp Volume(v), veh/h	0	662	212	347	1073	0				756	0	243
Grp Sat Flow(s),veh/h/ln	0	1805	1606	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	10.1	6.8	11.3	14.5	0.0				11.8	0.0	7.9
Cycle Q Clear(g_c), s	0.0	10.1	6.8	11.3	14.5	0.0				11.8	0.0	7.9
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	910	405	403	1986	0				935	0	416
V/C Ratio(X)	0.00	0.73	0.52	0.86	0.54	0.00				0.81	0.00	0.58
Avail Cap(c_a), veh/h	0	910	405	437	1986	0				935	0	416
HCM Platoon Ratio	1.00	1.00	1.00	0.60	0.60	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.81	0.81	0.65	0.65	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	20.5	19.3	25.1	13.9	0.0				20.9	0.0	19.4
Incr Delay (d2), s/veh	0.0	4.1	3.9	10.4	0.7	0.0				7.5	0.0	5.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.0	2.6	5.7	5.5	0.0				5.2	0.0	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	24.7	23.2	35.5	14.6	0.0				28.3	0.0	25.3
LnGrp LOS	A	C	C	D	B	A				C	A	C
Approach Vol, veh/h		874			1420						999	
Approach Delay, s/veh		24.3			19.7						27.6	
Approach LOS		C			B						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	17.9	21.1		21.0		39.0						
Change Period (Y+Rc), s	4.5	6.0		5.5		6.0						
Max Green Setting (Gmax), s	14.5	14.0		15.5		33.0						
Max Q Clear Time (g_c+I1), s	13.3	12.1		13.8		16.5						
Green Ext Time (p_c), s	0.1	0.7		0.8		4.2						
Intersection Summary												
HCM 6th Ctrl Delay				23.3								
HCM 6th LOS				C								
Notes												
User approved volume balancing among the lanes for turning movement.												

Timings
12: I-215 SB Ramps & Placentia St./Placentia Av.



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations	↑↑	↑	↑↑	↑↑	↑	↑	↑
Traffic Volume (vph)	315	160	215	460	325	0	208
Future Volume (vph)	315	160	215	460	325	0	208
Turn Type	NA	Perm	Prot	NA	Split	NA	Perm
Protected Phases	2		1	6	4	4	
Permitted Phases		2					4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	27.8	15.8	15.8	15.8
Total Split (s)	29.8	29.8	11.6	41.4	18.6	18.6	18.6
Total Split (%)	49.7%	49.7%	19.3%	69.0%	31.0%	31.0%	31.0%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.8	5.8	4.6	5.8	5.8	5.8	5.8
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	None	None	None	C-Max	Max	Max	Max
Act Effct Green (s)	24.2	24.2	6.8	35.6	12.8	12.8	12.8
Actuated g/C Ratio	0.40	0.40	0.11	0.59	0.21	0.21	0.21
v/c Ratio	0.23	0.23	0.59	0.23	0.48	0.48	0.43
Control Delay	12.4	3.2	30.3	5.1	25.9	25.9	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.4	3.2	30.3	5.1	25.9	25.9	6.4
LOS	B	A	C	A	C	C	A
Approach Delay	9.3			13.2		18.3	
Approach LOS	A			B		B	

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 0 (0%), Referenced to phase 6:WBT, Start of Yellow, Master Intersection
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.59
 Intersection Signal Delay: 13.7
 Intersection LOS: B
 Intersection Capacity Utilization 50.2%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 12: I-215 SB Ramps & Placentia St./Placentia Av.



HCM 6th Signalized Intersection Summary
 12: I-215 SB Ramps & Placentia St./Placentia Av.

Barker Logistics (JN 12216)
 02/26/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↘↗	↑↑					↘	↗	↗
Traffic Volume (veh/h)	0	315	160	215	460	0	0	0	0	325	0	208
Future Volume (veh/h)	0	315	160	215	460	0	0	0	0	325	0	208
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	342	174	234	500	0				353	0	226
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1523	679	332	2142	0				772	0	344
Arrive On Green	0.00	0.42	0.42	0.19	1.00	0.00				0.21	0.00	0.21
Sat Flow, veh/h	0	3705	1610	3510	3705	0				3619	0	1610
Grp Volume(v), veh/h	0	342	174	234	500	0				353	0	226
Grp Sat Flow(s),veh/h/ln	0	1805	1610	1755	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	3.6	4.2	3.7	0.0	0.0				5.1	0.0	7.7
Cycle Q Clear(g_c), s	0.0	3.6	4.2	3.7	0.0	0.0				5.1	0.0	7.7
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1523	679	332	2142	0				772	0	344
V/C Ratio(X)	0.00	0.22	0.26	0.70	0.23	0.00				0.46	0.00	0.66
Avail Cap(c_a), veh/h	0	1523	679	410	2142	0				772	0	344
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.96	0.96	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	11.1	11.2	23.5	0.0	0.0				20.6	0.0	21.6
Incr Delay (d2), s/veh	0.0	0.1	0.2	2.6	0.2	0.0				1.9	0.0	9.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.2	1.2	1.4	0.1	0.0				2.1	0.0	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	11.1	11.4	26.1	0.2	0.0				22.5	0.0	31.1
LnGrp LOS	A	B	B	C	A	A				C	A	C
Approach Vol, veh/h		516			734						579	
Approach Delay, s/veh		11.2			8.5						25.9	
Approach LOS		B			A						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	10.3	31.1		18.6		41.4						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	7.0	24.0		12.8		35.6						
Max Q Clear Time (g_c+I1), s	5.7	6.2		9.7		2.0						
Green Ext Time (p_c), s	0.1	2.4		0.7		3.2						

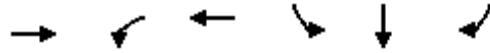
Intersection Summary

HCM 6th Ctrl Delay	14.8
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Timings
13: I-215 SB Ramps & Nuevo Rd.



Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑	↑↑	↑	↑	↑
Traffic Volume (vph)	602	304	820	244	3	73
Future Volume (vph)	602	304	820	244	3	73
Turn Type	NA	Prot	NA	Split	NA	Perm
Protected Phases	2	1	6	4	4	
Permitted Phases						4
Detector Phase	2	1	6	4	4	4
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	28.2	9.6	28.2	15.8	15.8	15.8
Total Split (s)	29.0	15.0	44.0	16.0	16.0	16.0
Total Split (%)	48.3%	25.0%	73.3%	26.7%	26.7%	26.7%
Yellow Time (s)	5.2	3.6	5.2	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.2	4.6	6.2	5.8	5.8	5.8
Lead/Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes				
Recall Mode	C-Max	None	C-Max	Max	Max	Max
Act Effct Green (s)	23.8	9.4	37.8	10.2	10.2	10.2
Actuated g/C Ratio	0.40	0.16	0.63	0.17	0.17	0.17
v/c Ratio	0.58	0.63	0.41	0.48	0.48	0.21
Control Delay	15.6	19.7	7.1	28.9	28.7	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.6	19.7	7.1	28.9	28.7	2.8
LOS	B	B	A	C	C	A
Approach Delay	15.6		10.5		22.8	
Approach LOS	B		B		C	

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 18.6 (31%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.63
 Intersection Signal Delay: 14.0
 Intersection LOS: B
 Intersection Capacity Utilization 51.4%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 13: I-215 SB Ramps & Nuevo Rd.



HCM 6th Signalized Intersection Summary
 13: I-215 SB Ramps & Nuevo Rd.

Barker Logistics (JN 12216)
 02/26/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑↑	↑↑					↑	↑	↑
Traffic Volume (veh/h)	0	602	123	304	820	0	0	0	0	244	3	73
Future Volume (veh/h)	0	602	123	304	820	0	0	0	0	244	3	73
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	684	100	345	932	0				279	0	10
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88				0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1332	194	463	2274	0				615	0	274
Arrive On Green	0.00	0.42	0.42	0.09	0.42	0.00				0.17	0.00	0.17
Sat Flow, veh/h	0	3255	462	3510	3705	0				3619	0	1610
Grp Volume(v), veh/h	0	390	394	345	932	0				279	0	10
Grp Sat Flow(s),veh/h/ln	0	1805	1817	1755	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	9.6	9.6	5.8	10.8	0.0				4.2	0.0	0.3
Cycle Q Clear(g_c), s	0.0	9.6	9.6	5.8	10.8	0.0				4.2	0.0	0.3
Prop In Lane	0.00		0.25	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	760	766	463	2274	0				615	0	274
V/C Ratio(X)	0.00	0.51	0.51	0.74	0.41	0.00				0.45	0.00	0.04
Avail Cap(c_a), veh/h	0	760	766	608	2274	0				615	0	274
HCM Platoon Ratio	1.00	1.00	1.00	0.67	0.67	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.80	0.80	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	12.8	12.8	26.4	9.5	0.0				22.4	0.0	20.8
Incr Delay (d2), s/veh	0.0	2.5	2.5	1.8	0.4	0.0				2.4	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	3.4	3.5	2.3	3.0	0.0				1.8	0.0	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	15.3	15.3	28.2	10.0	0.0				24.8	0.0	21.0
LnGrp LOS	A	B	B	C	A	A				C	A	C
Approach Vol, veh/h		784			1277						289	
Approach Delay, s/veh		15.3			14.9						24.7	
Approach LOS		B			B						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	12.5	31.5		16.0		44.0						
Change Period (Y+Rc), s	4.6	6.2		5.8		6.2						
Max Green Setting (Gmax), s	10.4	22.8		10.2		37.8						
Max Q Clear Time (g_c+I1), s	7.8	11.6		6.2		12.8						
Green Ext Time (p_c), s	0.2	3.3		0.4		6.2						

Intersection Summary

HCM 6th Ctrl Delay	16.2
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Timings
14: I-215 NB Ramps & Ramona Exwy.



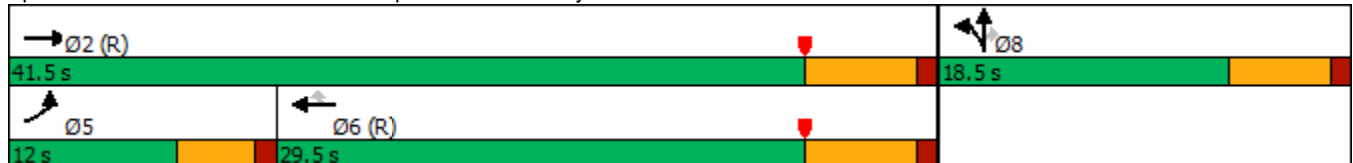
Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations	↙	↕	↕	↘	↙	↕	↘
Traffic Volume (vph)	192	1180	1016	866	362	3	388
Future Volume (vph)	192	1180	1016	866	362	3	388
Turn Type	Prot	NA	NA	Perm	Split	NA	Perm
Protected Phases	5	2	6		8	8	
Permitted Phases				6			8
Detector Phase	5	2	6	6	8	8	8
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	11.0	26.0	26.0	10.5	10.5	10.5
Total Split (s)	12.0	41.5	29.5	29.5	18.5	18.5	18.5
Total Split (%)	20.0%	69.2%	49.2%	49.2%	30.8%	30.8%	30.8%
Yellow Time (s)	3.5	5.0	5.0	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.0	6.0	6.0	5.5	5.5	5.5
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None
Act Effct Green (s)	7.8	36.1	23.7	23.7	12.4	12.4	12.4
Actuated g/C Ratio	0.13	0.60	0.40	0.40	0.21	0.21	0.21
v/c Ratio	0.84	0.56	0.73	0.83	0.52	0.53	0.90
Control Delay	53.1	12.7	19.3	11.9	26.9	27.1	42.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.1	12.7	19.3	11.9	26.9	27.1	42.7
LOS	D	B	B	B	C	C	D
Approach Delay		18.4	15.9			35.1	
Approach LOS		B	B			D	

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 19 (32%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.90
 Intersection Signal Delay: 20.3
 Intersection Capacity Utilization 87.7%
 Analysis Period (min) 15




















Intersection LOS: C
 ICU Level of Service E

Splits and Phases: 14: I-215 NB Ramps & Ramona Exwy.



HCM 6th Signalized Intersection Summary
 14: I-215 NB Ramps & Ramona Exwy.

Barker Logistics (JN 12216)
 02/26/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	192	1180	0	0	1016	866	362	3	388	0	0	0
Future Volume (veh/h)	192	1180	0	0	1016	866	362	3	388	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	198	1216	0	0	1047	611	375	0	248			
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	226	2232	0	0	1510	673	688	0	306			
Arrive On Green	0.25	1.00	0.00	0.00	0.42	0.42	0.19	0.00	0.19			
Sat Flow, veh/h	1810	3705	0	0	3705	1610	3619	0	1610			
Grp Volume(v), veh/h	198	1216	0	0	1047	611	375	0	248			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1610	1810	0	1610			
Q Serve(g_s), s	6.3	0.0	0.0	0.0	14.3	21.3	5.6	0.0	8.8			
Cycle Q Clear(g_c), s	6.3	0.0	0.0	0.0	14.3	21.3	5.6	0.0	8.8			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	226	2232	0	0	1510	673	688	0	306			
V/C Ratio(X)	0.88	0.54	0.00	0.00	0.69	0.91	0.55	0.00	0.81			
Avail Cap(c_a), veh/h	226	2232	0	0	1510	673	784	0	349			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.52	0.52	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	22.1	0.0	0.0	0.0	14.3	16.4	22.0	0.0	23.3			
Incr Delay (d2), s/veh	17.8	0.5	0.0	0.0	2.6	18.2	0.7	0.0	12.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	3.1	0.2	0.0	0.0	4.9	9.2	2.1	0.0	3.9			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.8	0.5	0.0	0.0	16.9	34.6	22.6	0.0	35.3			
LnGrp LOS	D	A	A	A	B	C	C	A	D			
Approach Vol, veh/h		1414			1658			623				
Approach Delay, s/veh		6.0			23.4			27.7				
Approach LOS		A			C			C				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		43.1			12.0	31.1		16.9				
Change Period (Y+Rc), s		6.0			4.5	6.0		5.5				
Max Green Setting (Gmax), s		35.5			7.5	23.5		13.0				
Max Q Clear Time (g_c+I1), s		2.0			8.3	23.3		10.8				
Green Ext Time (p_c), s		5.8			0.0	0.1		0.6				

Intersection Summary

HCM 6th Ctrl Delay	17.5
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Timings
15: I-215 NB Ramps & Placentia Av.



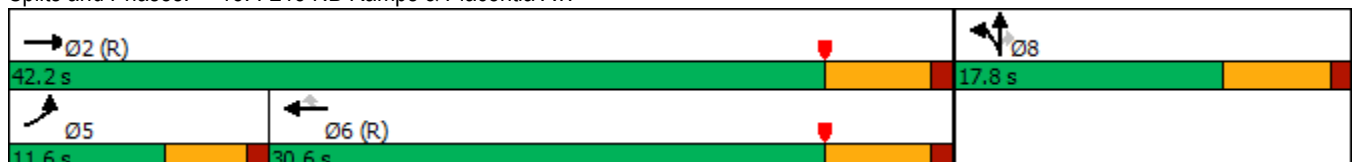
Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations	↗↗	↑↑	↑↑	↖	↖	↖	↖
Traffic Volume (vph)	101	538	425	391	250	0	276
Future Volume (vph)	101	538	425	391	250	0	276
Turn Type	Prot	NA	NA	Perm	Split	NA	Perm
Protected Phases	5	2	6		8	8	
Permitted Phases				6			8
Detector Phase	5	2	6	6	8	8	8
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.8	27.8	27.8	15.8	15.8	15.8
Total Split (s)	11.6	42.2	30.6	30.6	17.8	17.8	17.8
Total Split (%)	19.3%	70.3%	51.0%	51.0%	29.7%	29.7%	29.7%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	5.8	5.8	5.8	5.8	5.8	5.8
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None
Act Effct Green (s)	6.2	37.4	28.6	28.6	11.0	11.0	11.0
Actuated g/C Ratio	0.10	0.62	0.48	0.48	0.18	0.18	0.18
v/c Ratio	0.31	0.26	0.27	0.43	0.43	0.43	0.56
Control Delay	19.2	4.7	11.1	3.0	26.3	26.3	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.2	4.7	11.1	3.0	26.3	26.3	7.6
LOS	B	A	B	A	C	C	A
Approach Delay		7.0	7.2			16.5	
Approach LOS		A	A			B	

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.56
 Intersection Signal Delay: 9.6
 Intersection Capacity Utilization 50.2%
 Analysis Period (min) 15























Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 15: I-215 NB Ramps & Placentia Av.



HCM 6th Signalized Intersection Summary
 15: I-215 NB Ramps & Placentia Av.

Barker Logistics (JN 12216)
 02/26/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 							
Traffic Volume (veh/h)	101	538	0	0	425	391	250	0	276	0	0	0
Future Volume (veh/h)	101	538	0	0	425	391	250	0	276	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	110	585	0	0	462	425	272	0	300			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	246	2190	0	0	1661	741	724	0	322			
Arrive On Green	0.07	0.61	0.00	0.00	0.46	0.46	0.20	0.00	0.20			
Sat Flow, veh/h	3510	3705	0	0	3705	1610	3619	0	1610			
Grp Volume(v), veh/h	110	585	0	0	462	425	272	0	300			
Grp Sat Flow(s),veh/h/ln	1755	1805	0	0	1805	1610	1810	0	1610			
Q Serve(g_s), s	1.8	4.6	0.0	0.0	4.8	11.6	3.9	0.0	11.0			
Cycle Q Clear(g_c), s	1.8	4.6	0.0	0.0	4.8	11.6	3.9	0.0	11.0			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	246	2190	0	0	1661	741	724	0	322			
V/C Ratio(X)	0.45	0.27	0.00	0.00	0.28	0.57	0.38	0.00	0.93			
Avail Cap(c_a), veh/h	410	2190	0	0	1661	741	724	0	322			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.96	0.96	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	26.8	5.5	0.0	0.0	10.0	11.9	20.8	0.0	23.6			
Incr Delay (d2), s/veh	0.5	0.3	0.0	0.0	0.4	3.2	0.3	0.0	32.9			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.7	1.1	0.0	0.0	1.5	3.8	1.5	0.0	6.5			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.2	5.8	0.0	0.0	10.4	15.1	21.1	0.0	56.5			
LnGrp LOS	C	A	A	A	B	B	C	A	E			
Approach Vol, veh/h		695			887			572				
Approach Delay, s/veh		9.2			12.7			39.6				
Approach LOS		A			B			D				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		42.2			8.8	33.4		17.8				
Change Period (Y+Rc), s		5.8			4.6	5.8		5.8				
Max Green Setting (Gmax), s		36.4			7.0	24.8		12.0				
Max Q Clear Time (g_c+I1), s		6.6			3.8	13.6		13.0				
Green Ext Time (p_c), s		3.8			0.0	3.3		0.0				

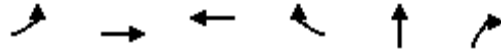
Intersection Summary

HCM 6th Ctrl Delay	18.7
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Timings
16: I-215 NB Ramps & Nuevo Rd.

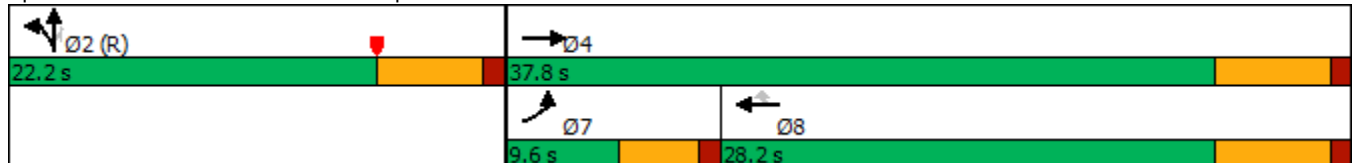


Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Configurations	↖	↑↑	↑↑↑	↗	↖	↗↗
Traffic Volume (vph)	32	813	895	306	2	444
Future Volume (vph)	32	813	895	306	2	444
Turn Type	Prot	NA	NA	Perm	NA	Perm
Protected Phases	7	4	8		2	
Permitted Phases				8		2
Detector Phase	7	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	28.2	28.2	28.2	15.8	15.8
Total Split (s)	9.6	37.8	28.2	28.2	22.2	22.2
Total Split (%)	16.0%	63.0%	47.0%	47.0%	37.0%	37.0%
Yellow Time (s)	3.6	5.2	5.2	5.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	6.2	6.2	6.2	5.8	5.8
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effect Green (s)	5.0	23.8	20.0	20.0	24.2	24.2
Actuated g/C Ratio	0.08	0.40	0.33	0.33	0.40	0.40
v/c Ratio	0.23	0.62	0.56	0.44	0.34	0.38
Control Delay	26.5	14.7	17.5	3.9	16.7	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.5	14.7	17.5	3.9	16.7	9.6
LOS	C	B	B	A	B	A
Approach Delay		15.1	14.1		12.0	
Approach LOS		B	B		B	

Intersection Summary



















Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 16 (27%), Referenced to phase 2:NBTL and 6:, Start of Yellow
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.62
 Intersection Signal Delay: 13.9
 Intersection LOS: B
 Intersection Capacity Utilization 51.4%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 16: I-215 NB Ramps & Nuevo Rd.



HCM 6th Signalized Intersection Summary
 16: I-215 NB Ramps & Nuevo Rd.

Barker Logistics (JN 12216)
 02/26/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	813	0	0	895	306	229	2	444	0	0	0
Future Volume (veh/h)	32	813	0	0	895	306	229	2	444	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	35	884	0	0	973	221	249	2	163			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	67	1416	0	0	1445	449	732	6	1156			
Arrive On Green	0.02	0.26	0.00	0.00	0.28	0.28	0.41	0.41	0.41			
Sat Flow, veh/h	1810	3705	0	0	5358	1610	1796	14	2834			
Grp Volume(v), veh/h	35	884	0	0	973	221	251	0	163			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1729	1610	1810	0	1417			
Q Serve(g_s), s	1.1	13.0	0.0	0.0	10.0	6.9	5.7	0.0	2.2			
Cycle Q Clear(g_c), s	1.1	13.0	0.0	0.0	10.0	6.9	5.7	0.0	2.2			
Prop In Lane	1.00		0.00	0.00		1.00	0.99		1.00			
Lane Grp Cap(c), veh/h	67	1416	0	0	1445	449	738	0	1156			
V/C Ratio(X)	0.53	0.62	0.00	0.00	0.67	0.49	0.34	0.00	0.14			
Avail Cap(c_a), veh/h	151	1901	0	0	1902	590	738	0	1156			
HCM Platoon Ratio	0.67	0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.80	0.80	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	28.7	18.2	0.0	0.0	19.2	18.1	12.2	0.0	11.2			
Incr Delay (d2), s/veh	1.9	0.4	0.0	0.0	0.6	0.8	1.3	0.0	0.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.5	4.9	0.0	0.0	3.4	2.2	2.1	0.0	0.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.6	18.6	0.0	0.0	19.8	18.9	13.5	0.0	11.4			
LnGrp LOS	C	B	A	A	B	B	B	A	B			
Approach Vol, veh/h		919			1194			414				
Approach Delay, s/veh		19.0			19.6			12.7				
Approach LOS		B			B			B				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		30.3		29.7			6.8	22.9				
Change Period (Y+Rc), s		5.8		6.2			4.6	6.2				
Max Green Setting (Gmax), s		16.4		31.6			5.0	22.0				
Max Q Clear Time (g_c+I1), s		7.7		15.0			3.1	12.0				
Green Ext Time (p_c), s		1.3		5.0			0.0	4.7				
Intersection Summary												
HCM 6th Ctrl Delay				18.3								
HCM 6th LOS				B								

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕	↗		↕			↕	
Traffic Vol, veh/h	2	88	4	13	35	0	1	0	24	0	1	0
Future Vol, veh/h	2	88	4	13	35	0	1	0	24	0	1	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	0	-	-	0	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	95	4	14	38	0	1	0	26	0	1	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	38	0	0	99	0	0	166	165	95	180	169	38
Stage 1	-	-	-	-	-	-	99	99	-	66	66	-
Stage 2	-	-	-	-	-	-	67	66	-	114	103	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1585	-	-	1507	-	-	803	731	967	786	728	1040
Stage 1	-	-	-	-	-	-	912	817	-	950	844	-
Stage 2	-	-	-	-	-	-	948	844	-	896	814	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1585	-	-	1507	-	-	796	724	967	759	721	1040
Mov Cap-2 Maneuver	-	-	-	-	-	-	796	724	-	759	721	-
Stage 1	-	-	-	-	-	-	911	816	-	949	836	-
Stage 2	-	-	-	-	-	-	938	836	-	871	813	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	2	8.9	10
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	959	1585	-	-	1507	-	-	721
HCM Lane V/C Ratio	0.028	0.001	-	-	0.009	-	-	0.001
HCM Control Delay (s)	8.9	7.3	0	-	7.4	0	-	10
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection												
Int Delay, s/veh	5.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	0	1	41	0	16	3	9	14	6	12	0
Future Vol, veh/h	1	0	1	41	0	16	3	9	14	6	12	0
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	72	72	72	72	72	72	72	72	72	72	72	72
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	0	1	57	0	22	4	13	19	8	17	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	75	73	17	65	64	23	17	0	0	32	0	0
Stage 1	33	33	-	31	31	-	-	-	-	-	-	-
Stage 2	42	40	-	34	33	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	920	821	1068	934	831	1060	1613	-	-	1593	-	-
Stage 1	988	872	-	991	873	-	-	-	-	-	-	-
Stage 2	978	866	-	987	872	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	895	814	1068	927	824	1060	1613	-	-	1593	-	-
Mov Cap-2 Maneuver	895	814	-	927	824	-	-	-	-	-	-	-
Stage 1	985	868	-	988	870	-	-	-	-	-	-	-
Stage 2	955	863	-	981	868	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	8.7		9.1		0.8		2.4	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1613	-	-	974	961	1593	-	-
HCM Lane V/C Ratio	0.003	-	-	0.003	0.082	0.005	-	-
HCM Control Delay (s)	7.2	0	-	8.7	9.1	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.3	0	-	-

Intersection						
Int Delay, s/veh	5.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	1	1	4	25	53	1
Future Vol, veh/h	1	1	4	25	53	1
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	72	72	72	72	72	72
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	1	1	6	35	74	1

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	41	0	-	0	27
Stage 1	-	-	-	-	24
Stage 2	-	-	-	-	3
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	1581	-	-	-	993
Stage 1	-	-	-	-	1004
Stage 2	-	-	-	-	1025
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1581	-	-	-	992
Mov Cap-2 Maneuver	-	-	-	-	992
Stage 1	-	-	-	-	1003
Stage 2	-	-	-	-	1025

Approach	EB	WB	SB
HCM Control Delay, s	3.6	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1581	-	-	-	993
HCM Lane V/C Ratio	0.001	-	-	-	0.076
HCM Control Delay (s)	7.3	0	-	-	8.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection												
Int Delay, s/veh	4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	52	2	2	27	27	2	0	3	69	0	0
Future Vol, veh/h	0	52	2	2	27	27	2	0	3	69	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	67	3	3	35	35	3	0	4	88	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	70	0	0	70	0	0	128	145	69	130	129	53
Stage 1	-	-	-	-	-	-	69	69	-	59	59	-
Stage 2	-	-	-	-	-	-	59	76	-	71	70	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1544	-	-	1544	-	-	850	750	1000	847	765	1020
Stage 1	-	-	-	-	-	-	946	841	-	958	850	-
Stage 2	-	-	-	-	-	-	958	836	-	944	841	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1544	-	-	1544	-	-	848	749	1000	843	763	1020
Mov Cap-2 Maneuver	-	-	-	-	-	-	848	749	-	843	763	-
Stage 1	-	-	-	-	-	-	946	841	-	958	848	-
Stage 2	-	-	-	-	-	-	956	834	-	940	841	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			0.3			8.9			9.8		
HCM LOS							A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	933	1544	-	-	1544	-	-	843
HCM Lane V/C Ratio	0.007	-	-	-	0.002	-	-	0.105
HCM Control Delay (s)	8.9	0	-	-	7.3	0	-	9.8
HCM Lane LOS	A	A	-	-	A	A	-	A
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.3

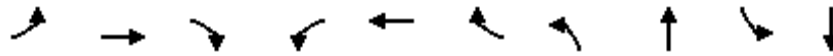
Intersection						
Int Delay, s/veh	3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	0	122	56	33	86	0
Future Vol, veh/h	0	122	56	33	86	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	133	61	36	93	0

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	97	0	-	0	212 79
Stage 1	-	-	-	-	79 -
Stage 2	-	-	-	-	133 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	1509	-	-	-	781 987
Stage 1	-	-	-	-	949 -
Stage 2	-	-	-	-	898 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1509	-	-	-	781 987
Mov Cap-2 Maneuver	-	-	-	-	781 -
Stage 1	-	-	-	-	949 -
Stage 2	-	-	-	-	898 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1509	-	-	-	781
HCM Lane V/C Ratio	-	-	-	-	0.12
HCM Control Delay (s)	0	-	-	-	10.2
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.4

Timings
6: Harvill Av. & Cajalco Exwy./Ramona Exwy.

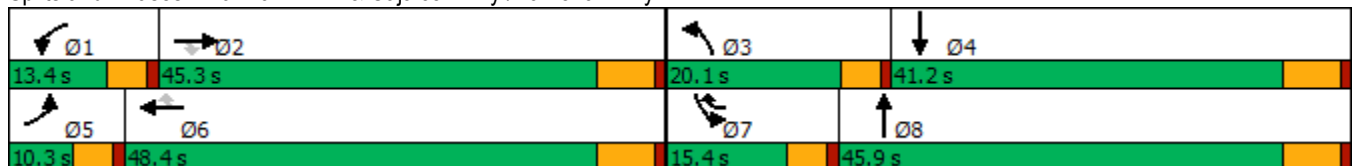


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations	↘	↑↑	↗	↘↗	↑↑	↗	↘↗	↑↘	↘↗	↑↘
Traffic Volume (vph)	59	810	462	111	692	246	458	159	421	217
Future Volume (vph)	59	810	462	111	692	246	458	159	421	217
Turn Type	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases	5	2		1	6	7	3	8	7	4
Permitted Phases			2			6				
Detector Phase	5	2	2	1	6	7	3	8	7	4
Switch Phase										
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	5.0	5.0	10.0	5.0	10.0
Minimum Split (s)	9.6	36.2	36.2	9.6	34.2	9.6	9.6	16.2	9.6	41.2
Total Split (s)	10.3	45.3	45.3	13.4	48.4	15.4	20.1	45.9	15.4	41.2
Total Split (%)	8.6%	37.8%	37.8%	11.2%	40.3%	12.8%	16.8%	38.3%	12.8%	34.3%
Yellow Time (s)	3.6	5.2	5.2	3.6	5.2	3.6	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-2.2	-2.2	-0.6	-2.2	-0.6	-0.6	-2.2	-0.6	-2.2
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Max	Max	None	Max	None	None	None	None	None
Act Effct Green (s)	6.2	42.5	42.5	7.9	46.3	61.8	16.2	22.8	11.5	18.0
Actuated g/C Ratio	0.06	0.42	0.42	0.08	0.46	0.61	0.16	0.23	0.11	0.18
v/c Ratio	0.54	0.54	0.50	0.41	0.42	0.23	0.82	0.42	1.07	0.45
Control Delay	67.1	25.0	4.3	50.6	21.2	2.3	55.2	20.6	107.5	33.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.1	25.0	4.3	50.6	21.2	2.3	55.2	20.6	107.5	33.1
LOS	E	C	A	D	C	A	E	C	F	C
Approach Delay		19.7			19.9			40.0		76.9
Approach LOS		B			B			D		E

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 100.8
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated
 Maximum v/c Ratio: 1.07
 Intersection Signal Delay: 34.4
 Intersection LOS: C
 Intersection Capacity Utilization 65.3%
 ICU Level of Service C
 Analysis Period (min) 15

























Splits and Phases: 6: Harvill Av. & Cajalco Exwy./Ramona Exwy.



HCM 6th Signalized Intersection Summary
6: Harvill Av. & Cajalco Exwy./Ramona Exwy.

Barker Logistics (JN 12216)

02/26/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	59	810	462	111	692	246	458	159	199	421	217	76
Future Volume (veh/h)	59	810	462	111	692	246	458	159	199	421	217	76
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	60	818	395	112	699	207	463	161	136	425	219	69
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	89	1699	757	201	1729	941	555	339	267	432	385	118
Arrive On Green	0.05	0.47	0.47	0.06	0.48	0.46	0.16	0.18	0.15	0.12	0.14	0.12
Sat Flow, veh/h	1810	3610	1608	3510	3610	1610	3510	1918	1515	3510	2720	835
Grp Volume(v), veh/h	60	818	395	112	699	207	463	151	146	425	143	145
Grp Sat Flow(s),veh/h/ln	1810	1805	1608	1755	1805	1610	1755	1805	1627	1755	1805	1750
Q Serve(g_s), s	3.0	14.4	16.0	2.9	11.6	5.7	11.9	7.0	7.6	11.2	6.9	7.2
Cycle Q Clear(g_c), s	3.0	14.4	16.0	2.9	11.6	5.7	11.9	7.0	7.6	11.2	6.9	7.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.93	1.00		0.48
Lane Grp Cap(c), veh/h	89	1699	757	201	1729	941	555	319	287	432	255	247
V/C Ratio(X)	0.68	0.48	0.52	0.56	0.40	0.22	0.83	0.47	0.51	0.98	0.56	0.58
Avail Cap(c_a), veh/h	123	1699	757	356	1729	941	610	816	735	432	724	702
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	43.4	16.8	17.2	42.6	15.6	9.2	37.9	34.3	35.5	40.6	37.1	37.8
Incr Delay (d2), s/veh	3.3	1.0	2.6	0.9	0.7	0.5	8.2	1.1	1.4	39.1	1.9	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	5.4	5.7	1.2	4.3	1.8	5.4	3.0	3.0	7.1	3.1	3.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.7	17.8	19.8	43.4	16.3	9.7	46.1	35.4	36.9	79.7	39.1	39.9
LnGrp LOS	D	B	B	D	B	A	D	D	D	E	D	D
Approach Vol, veh/h		1273			1018			760			713	
Approach Delay, s/veh		19.8			18.0			42.2			63.4	
Approach LOS		B			B			D			E	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	9.3	47.6	18.7	17.1	8.6	48.4	15.4	20.4				
Change Period (Y+Rc), s	4.6	6.2	4.6	6.2	4.6	6.2	4.6	6.2				
Max Green Setting (Gmax), s	8.8	39.1	15.5	35.0	5.7	42.2	10.8	39.7				
Max Q Clear Time (g_c+I1), s	4.9	18.0	13.9	9.2	5.0	13.6	13.2	9.6				
Green Ext Time (p_c), s	0.1	6.6	0.2	1.7	0.0	5.3	0.0	1.6				
Intersection Summary												
HCM 6th Ctrl Delay			32.1									
HCM 6th LOS			C									

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↵	↵↶		↵	↶	↶	↵	↶↶		↵	↶↶	
Traffic Vol, veh/h	39	0	75	1	1	0	34	660	2	0	786	23
Future Vol, veh/h	39	0	75	1	1	0	34	660	2	0	786	23
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	115	-	-	165	-	0	150	-	-	160	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	42	0	81	1	1	0	37	710	2	0	845	25

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	1288	1644	435	1208	1655	356	870	0	0	712	0	0
Stage 1	858	858	-	785	785	-	-	-	-	-	-	-
Stage 2	430	786	-	423	870	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	123	101	575	141	99	646	783	-	-	897	-	-
Stage 1	322	376	-	356	407	-	-	-	-	-	-	-
Stage 2	579	406	-	585	372	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	118	96	575	117	94	646	783	-	-	897	-	-
Mov Cap-2 Maneuver	228	218	-	231	207	-	-	-	-	-	-	-
Stage 1	307	376	-	339	388	-	-	-	-	-	-	-
Stage 2	550	387	-	503	372	-	-	-	-	-	-	-

Approach	EB		WB			NB			SB		
HCM Control Delay, s	16.4		21.6			0.5			0		
HCM LOS	C		C								

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	783	-	-	228	-	575	231	207	-	897	-	-
HCM Lane V/C Ratio	0.047	-	-	0.184	-	0.14	0.005	0.005	-	-	-	-
HCM Control Delay (s)	9.8	-	-	24.3	0	12.3	20.7	22.5	0	0	-	-
HCM Lane LOS	A	-	-	C	A	B	C	C	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.7	-	0.5	0	0	-	0	-	-

Intersection	
Intersection Delay, s/veh	250.3
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕		↕	↕	
Traffic Vol, veh/h	25	154	28	219	61	462	15	332	236	606	404	11
Future Vol, veh/h	25	154	28	219	61	462	15	332	236	606	404	11
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	28	173	31	246	69	519	17	373	265	681	454	12
Number of Lanes	0	1	0	0	1	1	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	63.8	243.4	129.2	362.2
HCM LOS	F	F	F	F

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	12%	78%	0%	100%	0%	0%
Vol Thru, %	0%	100%	32%	74%	22%	0%	0%	100%	92%
Vol Right, %	0%	0%	68%	14%	0%	100%	0%	0%	8%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	15	221	347	207	280	462	606	269	146
LT Vol	15	0	0	25	219	0	606	0	0
Through Vol	0	221	111	154	61	0	0	269	135
RT Vol	0	0	236	28	0	462	0	0	11
Lane Flow Rate	17	249	390	233	315	519	681	303	164
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.058	0.825	1.241	0.836	1.069	1.607	2.189	0.931	0.501
Departure Headway (Hd)	15.518	14.985	14.477	14.78	14.281	13.134	12.45	11.917	11.86
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	232	244	253	247	258	280	300	306	306
Service Time	13.218	12.685	12.177	12.48	11.981	10.834	10.15	9.617	9.56
HCM Lane V/C Ratio	0.073	1.02	1.542	0.943	1.221	1.854	2.27	0.99	0.536
HCM Control Delay	19.2	62.7	176.4	63.8	116.8	320.2	572.2	71.4	25.9
HCM Lane LOS	C	F	F	F	F	F	F	F	D
HCM 95th-tile Q	0.2	6.4	15.1	6.6	11.2	26.9	47.9	9	2.6

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕		↕	↕	
Traffic Vol, veh/h	14	2	6	40	0	31	4	458	25	24	552	33
Future Vol, veh/h	14	2	6	40	0	31	4	458	25	24	552	33
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	-	-	-	-	-	0	160	-	-	150	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	16	2	7	47	0	36	5	533	29	28	642	38

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	994	1289	340	936	1294	281	680	0	0	562	0	0
Stage 1	717	717	-	558	558	-	-	-	-	-	-	-
Stage 2	277	572	-	378	736	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	202	165	662	223	164	722	922	-	-	1019	-	-
Stage 1	391	437	-	487	515	-	-	-	-	-	-	-
Stage 2	712	508	-	621	428	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	187	160	662	213	159	722	922	-	-	1019	-	-
Mov Cap-2 Maneuver	187	160	-	213	159	-	-	-	-	-	-	-
Stage 1	389	425	-	485	512	-	-	-	-	-	-	-
Stage 2	673	505	-	594	416	-	-	-	-	-	-	-

Approach	EB		WB			NB			SB		
HCM Control Delay, s	22.8		19.4			0.1			0.3		
HCM LOS	C		C								

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	922	-	-	228	213	722	1019	-	-
HCM Lane V/C Ratio	0.005	-	-	0.112	0.218	0.05	0.027	-	-
HCM Control Delay (s)	8.9	-	-	22.8	26.6	10.2	8.6	-	-
HCM Lane LOS	A	-	-	C	D	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0.8	0.2	0.1	-	-

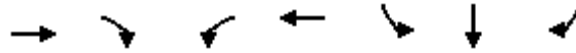
Intersection	
Intersection Delay, s/veh	47.4
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↕		↕	↕		↕	↕	
Traffic Vol, veh/h	2	0	5	313	0	82	1	420	346	121	505	1
Future Vol, veh/h	2	0	5	313	0	82	1	420	346	121	505	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	0	5	329	0	86	1	442	364	127	532	1
Number of Lanes	0	1	0	1	1	0	1	2	0	1	2	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	13.5	22.5	75.3	29.2
HCM LOS	B	C	F	D

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	29%	100%	57%	100%	0%	0%
Vol Thru, %	0%	100%	29%	0%	0%	0%	0%	100%	99%
Vol Right, %	0%	0%	71%	71%	0%	43%	0%	0%	1%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	1	280	486	7	203	192	121	337	169
LT Vol	1	0	0	2	203	110	121	0	0
Through Vol	0	280	140	0	0	0	0	337	168
RT Vol	0	0	346	5	0	82	0	0	1
Lane Flow Rate	1	295	512	7	214	202	127	354	178
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.003	0.682	1.111	0.021	0.561	0.5	0.312	0.819	0.412
Departure Headway (Hd)	8.845	8.329	7.816	10.561	9.707	9.184	9.113	8.597	8.592
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	404	433	466	341	375	395	397	425	422
Service Time	6.602	6.086	5.572	8.261	7.407	6.884	6.813	6.297	6.292
HCM Lane V/C Ratio	0.002	0.681	1.099	0.021	0.571	0.511	0.32	0.833	0.422
HCM Control Delay	11.6	27.2	103.1	13.5	24.1	20.7	15.9	40	17.2
HCM Lane LOS	B	D	F	B	C	C	C	E	C
HCM 95th-tile Q	0	5	17.3	0.1	3.3	2.7	1.3	7.6	2

Timings
11: I-215 SB Ramps & Ramona Exwy.



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations	↑↑	↑	↓	↑↑	↓	↑	↓
Traffic Volume (vph)	955	417	442	877	815	5	181
Future Volume (vph)	955	417	442	877	815	5	181
Turn Type	NA	Perm	Prot	NA	Split	NA	Perm
Protected Phases	2		1	6	4	4	
Permitted Phases		2					4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	11.0	11.0	9.5	31.0	10.5	10.5	10.5
Total Split (s)	21.0	21.0	19.0	40.0	20.0	20.0	20.0
Total Split (%)	35.0%	35.0%	31.7%	66.7%	33.3%	33.3%	33.3%
Yellow Time (s)	5.0	5.0	3.5	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-2.0	-2.0	-0.5	-2.0	-1.5	-1.5	-1.5
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	C-Max	C-Max	None	C-Max	Max	Max	Max
Act Effct Green (s)	17.0	17.0	15.0	36.0	16.0	16.0	16.0
Actuated g/C Ratio	0.28	0.28	0.25	0.60	0.27	0.27	0.27
v/c Ratio	0.96	0.56	1.01	0.42	0.92	0.93	0.35
Control Delay	44.4	5.4	78.8	7.8	51.1	52.6	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.4	5.4	78.8	7.8	51.1	52.6	7.5
LOS	D	A	E	A	D	D	A
Approach Delay	32.5			31.6		43.8	
Approach LOS	C			C		D	

Intersection Summary













Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 19 (32%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.01
 Intersection Signal Delay: 35.3
 Intersection LOS: D
 Intersection Capacity Utilization 83.6%
 ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 11: I-215 SB Ramps & Ramona Exwy.

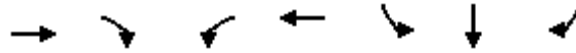


HCM 6th Signalized Intersection Summary
 11: I-215 SB Ramps & Ramona Exwy.

Barker Logistics (JN 12216)
 02/26/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑↑					↖	↗	↗
Traffic Volume (veh/h)	0	955	417	442	877	0	0	0	0	815	5	181
Future Volume (veh/h)	0	955	417	442	877	0	0	0	0	815	5	181
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	985	317	456	904	0				844	0	114
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97				0.97	0.97	0.97
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1023	456	452	2166	0				965	0	429
Arrive On Green	0.00	0.28	0.28	0.15	0.36	0.00				0.27	0.00	0.27
Sat Flow, veh/h	0	3705	1610	1810	3705	0				3619	0	1610
Grp Volume(v), veh/h	0	985	317	456	904	0				844	0	114
Grp Sat Flow(s),veh/h/ln	0	1805	1610	1810	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	16.1	10.5	15.0	11.3	0.0				13.4	0.0	3.4
Cycle Q Clear(g_c), s	0.0	16.1	10.5	15.0	11.3	0.0				13.4	0.0	3.4
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1023	456	452	2166	0				965	0	429
V/C Ratio(X)	0.00	0.96	0.69	1.01	0.42	0.00				0.87	0.00	0.27
Avail Cap(c_a), veh/h	0	1023	456	452	2166	0				965	0	429
HCM Platoon Ratio	1.00	1.00	1.00	0.60	0.60	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.63	0.63	0.70	0.70	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	21.2	19.2	25.5	11.3	0.0				21.0	0.0	17.4
Incr Delay (d2), s/veh	0.0	15.1	5.4	37.4	0.4	0.0				10.9	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	7.7	3.9	10.9	3.6	0.0				6.2	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	36.3	24.6	62.9	11.7	0.0				31.9	0.0	18.9
LnGrp LOS	A	D	C	F	B	A				C	A	B
Approach Vol, veh/h		1302			1360						958	
Approach Delay, s/veh		33.5			28.9						30.4	
Approach LOS		C			C						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	19.0	21.0		20.0		40.0						
Change Period (Y+Rc), s	4.5	6.0		5.5		6.0						
Max Green Setting (Gmax), s	14.5	15.0		14.5		34.0						
Max Q Clear Time (g_c+I1), s	17.0	18.1		15.4		13.3						
Green Ext Time (p_c), s	0.0	0.0		0.0		3.6						
Intersection Summary												
HCM 6th Ctrl Delay				30.9								
HCM 6th LOS				C								
Notes												
User approved volume balancing among the lanes for turning movement.												

Timings
12: I-215 SB Ramps & Placentia St./Placentia Av.



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Configurations	↑↑	↑	↑↑	↑↑	↑	↑	↑
Traffic Volume (vph)	470	263	306	365	421	0	118
Future Volume (vph)	470	263	306	365	421	0	118
Turn Type	NA	Perm	Prot	NA	Split	NA	Perm
Protected Phases	2		1	6	4	4	
Permitted Phases		2					4
Detector Phase	2	2	1	6	4	4	4
Switch Phase							
Minimum Initial (s)	10.0	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	27.8	27.8	9.6	27.8	15.8	15.8	15.8
Total Split (s)	29.8	29.8	11.6	41.4	18.6	18.6	18.6
Total Split (%)	49.7%	49.7%	19.3%	69.0%	31.0%	31.0%	31.0%
Yellow Time (s)	4.8	4.8	3.6	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.8	-1.8	-0.6	-1.8	-1.8	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes	Yes				
Recall Mode	None	None	None	C-Max	Max	Max	Max
Act Effct Green (s)	25.8	25.8	7.6	37.4	14.6	14.6	14.6
Actuated g/C Ratio	0.43	0.43	0.13	0.62	0.24	0.24	0.24
v/c Ratio	0.33	0.33	0.75	0.18	0.55	0.55	0.26
Control Delay	12.1	2.9	39.7	4.2	25.6	25.6	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.1	2.9	39.7	4.2	25.6	25.6	5.4
LOS	B	A	D	A	C	C	A
Approach Delay	8.8			20.4		21.2	
Approach LOS	A			C		C	

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 0 (0%), Referenced to phase 6:WBT, Start of Yellow, Master Intersection
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.75
 Intersection Signal Delay: 16.3
 Intersection LOS: B
 Intersection Capacity Utilization 46.7%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 12: I-215 SB Ramps & Placentia St./Placentia Av.



HCM 6th Signalized Intersection Summary
 12: I-215 SB Ramps & Placentia St./Placentia Av.

Barker Logistics (JN 12216)
 02/26/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↘↗	↑↑					↘	↗	↗
Traffic Volume (veh/h)	0	470	263	306	365	0	0	0	0	421	0	118
Future Volume (veh/h)	0	470	263	306	365	0	0	0	0	421	0	118
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	511	286	333	397	0				458	0	128
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92				0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1552	692	445	2250	0				881	0	392
Arrive On Green	0.00	0.43	0.43	0.25	1.00	0.00				0.24	0.00	0.24
Sat Flow, veh/h	0	3705	1610	3510	3705	0				3619	0	1610
Grp Volume(v), veh/h	0	511	286	333	397	0				458	0	128
Grp Sat Flow(s),veh/h/ln	0	1805	1610	1755	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	5.6	7.4	5.2	0.0	0.0				6.6	0.0	3.9
Cycle Q Clear(g_c), s	0.0	5.6	7.4	5.2	0.0	0.0				6.6	0.0	3.9
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1552	692	445	2250	0				881	0	392
V/C Ratio(X)	0.00	0.33	0.41	0.75	0.18	0.00				0.52	0.00	0.33
Avail Cap(c_a), veh/h	0	1552	692	445	2250	0				881	0	392
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.96	0.96	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	11.4	11.9	21.5	0.0	0.0				19.7	0.0	18.7
Incr Delay (d2), s/veh	0.0	0.1	0.4	5.9	0.2	0.0				2.2	0.0	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.8	2.1	2.1	0.1	0.0				2.6	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	11.5	12.2	27.4	0.2	0.0				21.9	0.0	20.9
LnGrp LOS	A	B	B	C	A	A				C	A	C
Approach Vol, veh/h		797			730						586	
Approach Delay, s/veh		11.8			12.6						21.6	
Approach LOS		B			B						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	11.6	29.8		18.6		41.4						
Change Period (Y+Rc), s	4.6	5.8		5.8		5.8						
Max Green Setting (Gmax), s	7.0	24.0		12.8		35.6						
Max Q Clear Time (g_c+I1), s	7.2	9.4		8.6		2.0						
Green Ext Time (p_c), s	0.0	3.6		0.9		2.5						

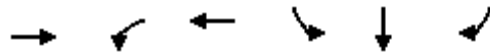
Intersection Summary

HCM 6th Ctrl Delay	14.8
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Timings
13: I-215 SB Ramps & Nuevo Rd.

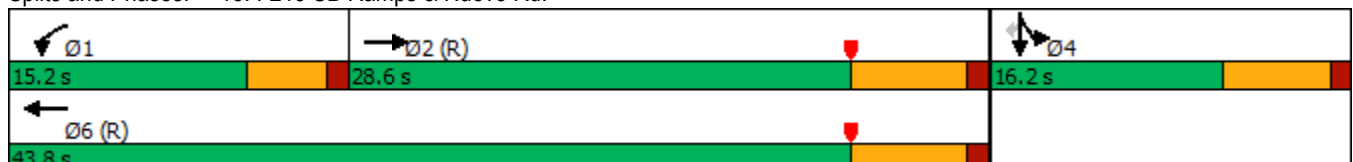


Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑	↑↑	↑	↑	↑
Traffic Volume (vph)	432	477	488	446	4	59
Future Volume (vph)	432	477	488	446	4	59
Turn Type	NA	Prot	NA	Split	NA	Perm
Protected Phases	2	1	6	4	4	
Permitted Phases						4
Detector Phase	2	1	6	4	4	4
Switch Phase						
Minimum Initial (s)	10.0	5.0	10.0	10.0	10.0	10.0
Minimum Split (s)	28.2	9.6	28.2	15.8	15.8	15.8
Total Split (s)	28.6	15.2	43.8	16.2	16.2	16.2
Total Split (%)	47.7%	25.3%	73.0%	27.0%	27.0%	27.0%
Yellow Time (s)	5.2	3.6	5.2	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-2.2	-0.6	-2.2	-1.8	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lead				
Lead-Lag Optimize?	Yes	Yes				
Recall Mode	C-Max	None	C-Max	Max	Max	Max
Act Effct Green (s)	24.8	11.0	39.8	12.2	12.2	12.2
Actuated g/C Ratio	0.41	0.18	0.66	0.20	0.20	0.20
v/c Ratio	0.43	0.79	0.21	0.67	0.68	0.14
Control Delay	11.0	22.4	2.9	33.7	34.4	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.0	22.4	2.9	33.7	34.4	0.7
LOS	B	C	A	C	C	A
Approach Delay	11.0		12.5		30.2	
Approach LOS	B		B		C	

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 18.6 (31%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.79
 Intersection Signal Delay: 16.4
 Intersection LOS: B
 Intersection Capacity Utilization 53.7%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 13: I-215 SB Ramps & Nuevo Rd.



HCM 6th Signalized Intersection Summary
 13: I-215 SB Ramps & Nuevo Rd.

Barker Logistics (JN 12216)
 02/26/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↑↑	↑↑					↑	↑	↑
Traffic Volume (veh/h)	0	432	177	477	488	0	0	0	0	446	4	59
Future Volume (veh/h)	0	432	177	477	488	0	0	0	0	446	4	59
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1900	1900	1900	1900	0				1900	1900	1900
Adj Flow Rate, veh/h	0	455	129	502	514	0				472	0	14
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95				0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0				0	0	0
Cap, veh/h	0	1146	322	648	2395	0				736	0	327
Arrive On Green	0.00	0.41	0.38	0.06	0.22	0.00				0.20	0.00	0.20
Sat Flow, veh/h	0	2877	783	3510	3705	0				3619	0	1610
Grp Volume(v), veh/h	0	294	290	502	514	0				472	0	14
Grp Sat Flow(s),veh/h/ln	0	1805	1759	1755	1805	0				1810	0	1610
Q Serve(g_s), s	0.0	6.9	7.1	8.5	7.0	0.0				7.2	0.0	0.4
Cycle Q Clear(g_c), s	0.0	6.9	7.1	8.5	7.0	0.0				7.2	0.0	0.4
Prop In Lane	0.00		0.44	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	744	725	648	2395	0				736	0	327
V/C Ratio(X)	0.00	0.40	0.40	0.77	0.21	0.00				0.64	0.00	0.04
Avail Cap(c_a), veh/h	0	744	725	655	2395	0				736	0	327
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.83	0.83	0.00				1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	12.4	12.8	26.9	10.6	0.0				21.9	0.0	19.2
Incr Delay (d2), s/veh	0.0	1.6	1.6	4.3	0.2	0.0				4.3	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.4	2.5	3.8	1.7	0.0				3.1	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	14.0	14.4	31.3	10.8	0.0				26.2	0.0	19.5
LnGrp LOS	A	B	B	C	B	A				C	A	B
Approach Vol, veh/h		584			1016						486	
Approach Delay, s/veh		14.2			20.9						26.0	
Approach LOS		B			C						C	
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	15.1	28.7		16.2		43.8						
Change Period (Y+Rc), s	4.6	6.2		5.8		6.2						
Max Green Setting (Gmax), s	10.6	22.4		10.4		37.6						
Max Q Clear Time (g_c+I1), s	10.5	9.1		9.2		9.0						
Green Ext Time (p_c), s	0.0	2.6		0.3		3.1						

Intersection Summary

HCM 6th Ctrl Delay	20.2
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Timings
14: I-215 NB Ramps & Ramona Exwy.



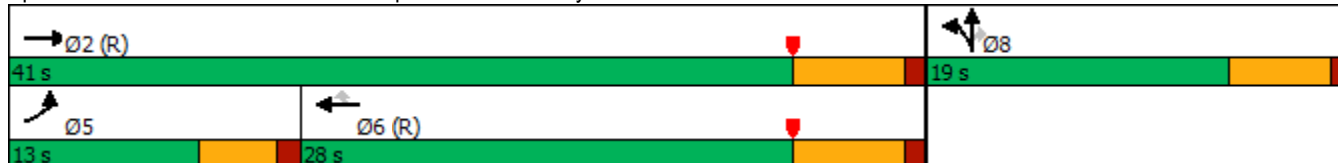
Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations	↘	↑↑	↑↑	↗	↘	↖	↗
Traffic Volume (vph)	316	1452	962	723	348	2	371
Future Volume (vph)	316	1452	962	723	348	2	371
Turn Type	Prot	NA	NA	Perm	Split	NA	Perm
Protected Phases	5	2	6		8	8	
Permitted Phases				6			8
Detector Phase	5	2	6	6	8	8	8
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	11.0	26.0	26.0	10.5	10.5	10.5
Total Split (s)	13.0	41.0	28.0	28.0	19.0	19.0	19.0
Total Split (%)	21.7%	68.3%	46.7%	46.7%	31.7%	31.7%	31.7%
Yellow Time (s)	3.5	5.0	5.0	5.0	4.5	4.5	4.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.5	-2.0	-2.0	-2.0	-1.5	-1.5	-1.5
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None
Act Effct Green (s)	10.0	38.0	24.0	24.0	14.0	14.0	14.0
Actuated g/C Ratio	0.17	0.63	0.40	0.40	0.23	0.23	0.23
v/c Ratio	1.11	0.67	0.70	0.72	0.46	0.46	0.81
Control Delay	101.0	12.7	18.2	6.8	23.5	23.5	29.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	101.0	12.7	18.2	6.8	23.5	23.5	29.5
LOS	F	B	B	A	C	C	C
Approach Delay		28.5	13.3			26.6	
Approach LOS		C	B			C	

Intersection Summary

Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 19 (32%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.11
 Intersection Signal Delay: 22.0
 Intersection Capacity Utilization 83.6%
 Analysis Period (min) 15

Intersection LOS: C
 ICU Level of Service E

Splits and Phases: 14: I-215 NB Ramps & Ramona Exwy.



HCM 6th Signalized Intersection Summary
 14: I-215 NB Ramps & Ramona Exwy.

Barker Logistics (JN 12216)
 02/26/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗↗			↗↗	↘	↘	↗	↘			
Traffic Volume (veh/h)	316	1452	0	0	962	723	348	2	371	0	0	0
Future Volume (veh/h)	316	1452	0	0	962	723	348	2	371	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	333	1528	0	0	1013	585	367	0	265			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	271	2328	0	0	1546	690	802	0	357			
Arrive On Green	0.30	1.00	0.00	0.00	0.43	0.43	0.22	0.00	0.22			
Sat Flow, veh/h	1810	3705	0	0	3705	1610	3619	0	1610			
Grp Volume(v), veh/h	333	1528	0	0	1013	585	367	0	265			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1805	1610	1810	0	1610			
Q Serve(g_s), s	9.0	0.0	0.0	0.0	13.4	19.6	5.3	0.0	9.2			
Cycle Q Clear(g_c), s	9.0	0.0	0.0	0.0	13.4	19.6	5.3	0.0	9.2			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	271	2328	0	0	1546	690	802	0	357			
V/C Ratio(X)	1.23	0.66	0.00	0.00	0.66	0.85	0.46	0.00	0.74			
Avail Cap(c_a), veh/h	271	2328	0	0	1546	690	905	0	403			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.21	0.21	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	21.0	0.0	0.0	0.0	13.6	15.4	20.2	0.0	21.8			
Incr Delay (d2), s/veh	109.1	0.3	0.0	0.0	2.2	12.3	0.4	0.0	6.4			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	10.9	0.1	0.0	0.0	4.5	7.6	2.0	0.0	3.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	130.1	0.3	0.0	0.0	15.8	27.7	20.6	0.0	28.2			
LnGrp LOS	F	A	A	A	B	C	C	A	C			
Approach Vol, veh/h		1861			1598			632				
Approach Delay, s/veh		23.5			20.2			23.8				
Approach LOS		C			C			C				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		42.7			13.0	29.7		17.3				
Change Period (Y+Rc), s		6.0			4.5	6.0		5.5				
Max Green Setting (Gmax), s		35.0			8.5	22.0		13.5				
Max Q Clear Time (g_c+I1), s		2.0			11.0	21.6		11.2				
Green Ext Time (p_c), s		8.2			0.0	0.3		0.6				

Intersection Summary

HCM 6th Ctrl Delay	22.3
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Timings
15: I-215 NB Ramps & Placentia Av.

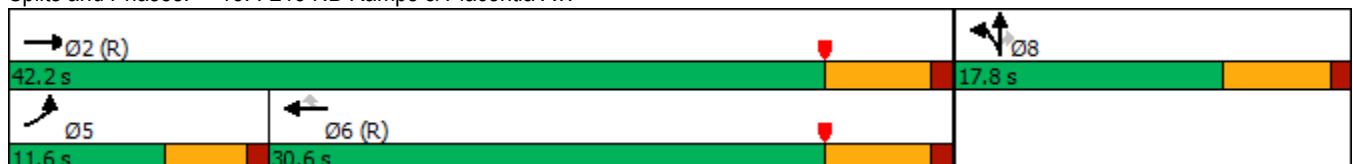


Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Configurations	↶↶	↶↶	↶↶	↷	↶	↶	↷
Traffic Volume (vph)	216	675	502	352	169	0	214
Future Volume (vph)	216	675	502	352	169	0	214
Turn Type	Prot	NA	NA	Perm	Split	NA	Perm
Protected Phases	5	2	6		8	8	
Permitted Phases				6			8
Detector Phase	5	2	6	6	8	8	8
Switch Phase							
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	27.8	27.8	27.8	15.8	15.8	15.8
Total Split (s)	11.6	42.2	30.6	30.6	17.8	17.8	17.8
Total Split (%)	19.3%	70.3%	51.0%	51.0%	29.7%	29.7%	29.7%
Yellow Time (s)	3.6	4.8	4.8	4.8	4.8	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-1.8	-1.8	-1.8	-1.8	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag			
Lead-Lag Optimize?	Yes		Yes	Yes			
Recall Mode	None	C-Max	C-Max	C-Max	None	None	None
Act Effct Green (s)	7.9	39.7	27.7	27.7	12.3	12.3	12.3
Actuated g/C Ratio	0.13	0.66	0.46	0.46	0.20	0.20	0.20
v/c Ratio	0.51	0.31	0.33	0.40	0.26	0.26	0.45
Control Delay	21.3	4.1	11.2	2.8	22.0	22.0	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.3	4.1	11.2	2.8	22.0	22.0	6.5
LOS	C	A	B	A	C	C	A
Approach Delay		8.3	7.7			13.3	
Approach LOS		A	A			B	

Intersection Summary
























Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.51
 Intersection Signal Delay: 9.0
 Intersection Capacity Utilization 46.7%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service A

Splits and Phases: 15: I-215 NB Ramps & Placentia Av.



HCM 6th Signalized Intersection Summary
 15: I-215 NB Ramps & Placentia Av.

Barker Logistics (JN 12216)
 02/26/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	 	 			 			 				
Traffic Volume (veh/h)	216	675	0	0	502	352	169	0	214	0	0	0
Future Volume (veh/h)	216	675	0	0	502	352	169	0	214	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	235	734	0	0	546	383	184	0	233			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	373	2395	0	0	1771	790	735	0	327			
Arrive On Green	0.11	0.66	0.00	0.00	0.49	0.49	0.20	0.00	0.20			
Sat Flow, veh/h	3510	3705	0	0	3705	1610	3619	0	1610			
Grp Volume(v), veh/h	235	734	0	0	546	383	184	0	233			
Grp Sat Flow(s),veh/h/ln	1755	1805	0	0	1805	1610	1810	0	1610			
Q Serve(g_s), s	3.8	5.2	0.0	0.0	5.4	9.5	2.6	0.0	8.1			
Cycle Q Clear(g_c), s	3.8	5.2	0.0	0.0	5.4	9.5	2.6	0.0	8.1			
Prop In Lane	1.00		0.00	0.00		1.00	1.00		1.00			
Lane Grp Cap(c), veh/h	373	2395	0	0	1771	790	735	0	327			
V/C Ratio(X)	0.63	0.31	0.00	0.00	0.31	0.48	0.25	0.00	0.71			
Avail Cap(c_a), veh/h	445	2395	0	0	1771	790	832	0	370			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.92	0.92	0.00	0.00	1.00	1.00	1.00	0.00	1.00			
Uniform Delay (d), s/veh	25.7	4.3	0.0	0.0	9.2	10.2	20.1	0.0	22.3			
Incr Delay (d2), s/veh	1.0	0.3	0.0	0.0	0.5	2.1	0.2	0.0	5.5			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	1.5	1.0	0.0	0.0	1.7	2.9	1.0	0.0	3.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.7	4.6	0.0	0.0	9.6	12.3	20.2	0.0	27.8			
LnGrp LOS	C	A	A	A	A	B	C	A	C			
Approach Vol, veh/h		969			929			417				
Approach Delay, s/veh		9.9			10.7			24.4				
Approach LOS		A			B			C				
Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		43.8			10.4	33.4		16.2				
Change Period (Y+Rc), s		5.8			4.6	5.8		5.8				
Max Green Setting (Gmax), s		36.4			7.0	24.8		12.0				
Max Q Clear Time (g_c+I1), s		7.2			5.8	11.5		10.1				
Green Ext Time (p_c), s		5.0			0.1	3.9		0.3				

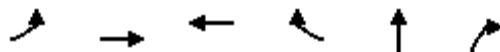
Intersection Summary

HCM 6th Ctrl Delay	12.9
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

Timings
16: I-215 NB Ramps & Nuevo Rd.

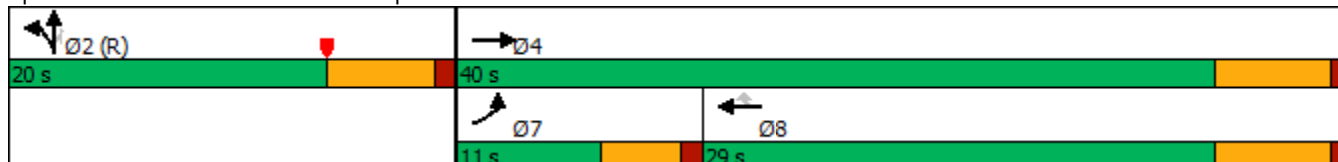


Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Configurations	↘	↑↑	↑↑↑	↗	↑	↗↗
Traffic Volume (vph)	42	836	879	334	1	269
Future Volume (vph)	42	836	879	334	1	269
Turn Type	Prot	NA	NA	Perm	NA	Perm
Protected Phases	7	4	8		2	
Permitted Phases				8		2
Detector Phase	7	4	8	8	2	2
Switch Phase						
Minimum Initial (s)	5.0	10.0	10.0	10.0	10.0	10.0
Minimum Split (s)	9.6	28.2	28.2	28.2	15.8	15.8
Total Split (s)	11.0	40.0	29.0	29.0	20.0	20.0
Total Split (%)	18.3%	66.7%	48.3%	48.3%	33.3%	33.3%
Yellow Time (s)	3.6	5.2	5.2	5.2	4.8	4.8
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-0.6	-2.2	-2.2	-2.2	-1.8	-1.8
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag		
Lead-Lag Optimize?	Yes		Yes	Yes		
Recall Mode	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	6.4	30.5	24.0	24.0	21.5	21.5
Actuated g/C Ratio	0.11	0.51	0.40	0.40	0.36	0.36
v/c Ratio	0.27	0.57	0.53	0.48	0.17	0.30
Control Delay	33.5	9.1	14.6	3.5	17.2	8.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.5	9.1	14.6	3.5	17.2	8.4
LOS	C	A	B	A	B	A
Approach Delay		10.3	11.6		10.5	
Approach LOS		B	B		B	

Intersection Summary























Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 16 (27%), Referenced to phase 2:NBT and 6:, Start of Yellow
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.57
 Intersection Signal Delay: 10.9
 Intersection Capacity Utilization 53.7%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service A

Splits and Phases: 16: I-215 NB Ramps & Nuevo Rd.



HCM 6th Signalized Intersection Summary
 16: I-215 NB Ramps & Nuevo Rd.

Barker Logistics (JN 12216)
 02/26/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		 			  				 			
Traffic Volume (veh/h)	42	836	0	0	879	334	86	1	269	0	0	0
Future Volume (veh/h)	42	836	0	0	879	334	86	1	269	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.99	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1900	1900	0	0	1900	1900	1900	1900	1900			
Adj Flow Rate, veh/h	52	1045	0	0	1099	286	108	1	-78			
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80			
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0			
Cap, veh/h	106	1679	0	0	1765	545	720	7	1138			
Arrive On Green	0.12	0.93	0.00	0.00	0.34	0.34	0.40	0.40	0.00			
Sat Flow, veh/h	1810	3705	0	0	5358	1601	1794	17	2834			
Grp Volume(v), veh/h	52	1045	0	0	1099	286	109	0	-78			
Grp Sat Flow(s),veh/h/ln	1810	1805	0	0	1729	1601	1810	0	1417			
Q Serve(g_s), s	1.6	2.9	0.0	0.0	10.6	8.6	2.3	0.0	0.0			
Cycle Q Clear(g_c), s	1.6	2.9	0.0	0.0	10.6	8.6	2.3	0.0	0.0			
Prop In Lane	1.00		0.00	0.00		1.00	0.99		1.00			
Lane Grp Cap(c), veh/h	106	1679	0	0	1765	545	727	0	1138			
V/C Ratio(X)	0.49	0.62	0.00	0.00	0.62	0.53	0.15	0.00	-0.07			
Avail Cap(c_a), veh/h	211	2166	0	0	2161	667	727	0	1138			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.86	0.86	0.00	0.00	1.00	1.00	1.00	0.00	0.00			
Uniform Delay (d), s/veh	25.7	1.2	0.0	0.0	16.6	15.9	11.4	0.0	0.0			
Incr Delay (d2), s/veh	1.1	0.3	0.0	0.0	0.4	0.8	0.4	0.0	0.0			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(50%),veh/ln	0.6	0.4	0.0	0.0	3.4	2.6	0.8	0.0	0.0			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.8	1.5	0.0	0.0	17.0	16.7	11.9	0.0	0.0			
LnGrp LOS	C	A	A	A	B	B	B	A	A			
Approach Vol, veh/h		1097			1385			31				
Approach Delay, s/veh		2.7			16.9			41.7				
Approach LOS		A			B			D				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		28.1		31.9			7.5	24.4				
Change Period (Y+Rc), s		5.8		6.2			4.6	6.2				
Max Green Setting (Gmax), s		14.2		33.8			6.4	22.8				
Max Q Clear Time (g_c+I1), s		4.3		4.9			3.6	12.6				
Green Ext Time (p_c), s		0.3		7.5			0.0	5.4				
Intersection Summary												
HCM 6th Ctrl Delay				11.0								
HCM 6th LOS				B								

APPENDIX 7.3:

**EAPC (2021) WITHOUT I-215/PLACENTIA INTERCHANGE CONDITIONS TRAFFIC
SIGNAL WARRANT ANALYSIS WORKSHEETS**

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAPC Without Interchange Conditions - Weekday PM Peak Hour**

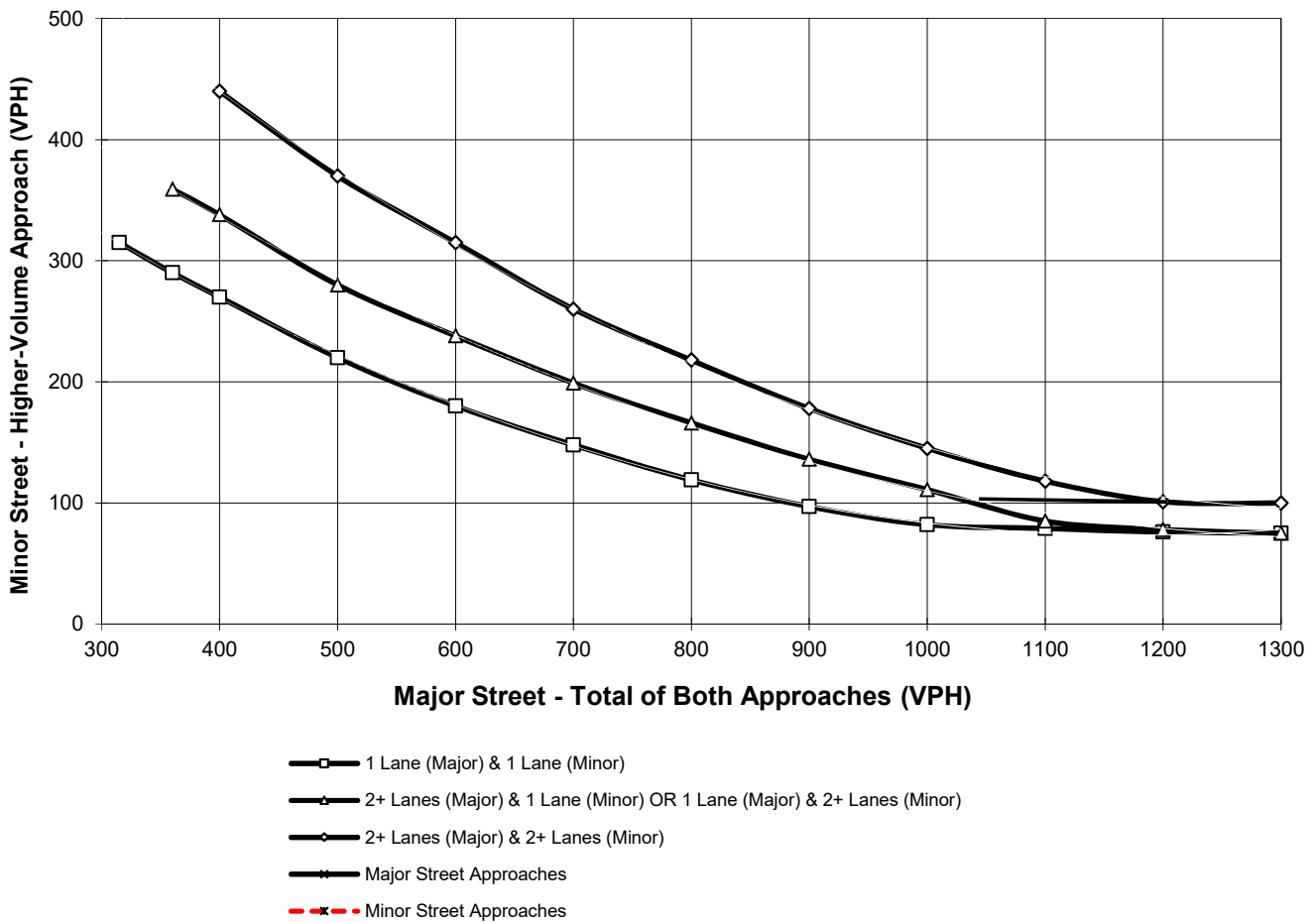
Major Street Name = **Rider Street**

Total of Both Approaches (VPH) = **137**
 Number of Approach Lanes Major Street = **1**

Minor Street Name = **Patterson Avenue**

High Volume Approach (VPH) = **27**
 Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

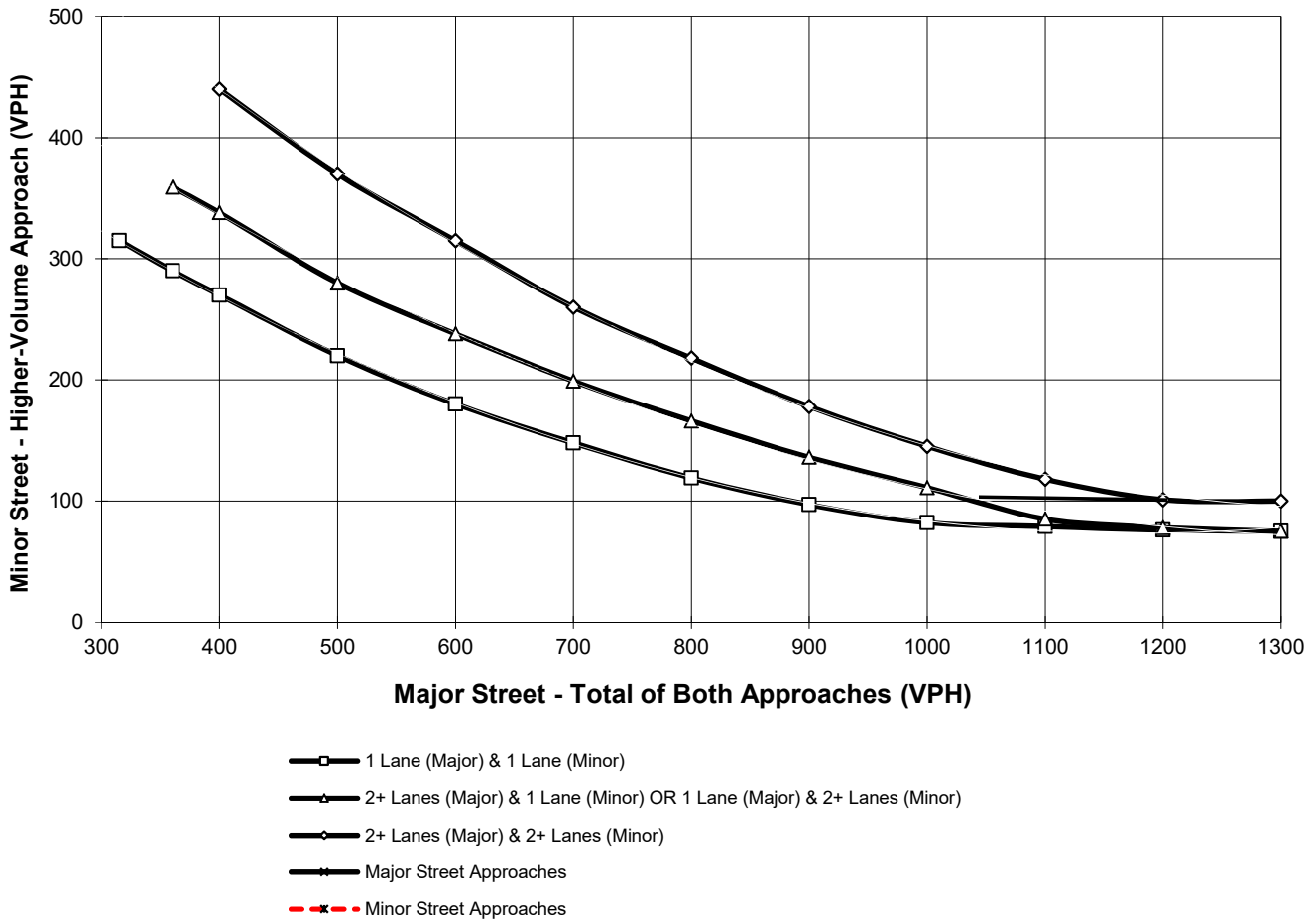
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAPC Without Interchange Conditions - Weekday PM Peak Hour**

Major Street Name = **Patterson Avenue** Total of Both Approaches (VPH) = **33**
 Number of Approach Lanes Major Street = **1**

Minor Street Name = **Walnut Street/Driveway 1** High Volume Approach (VPH) = **27**
 Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane



Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAPC Without Interchange Conditions - Weekday PM Peak Hour**

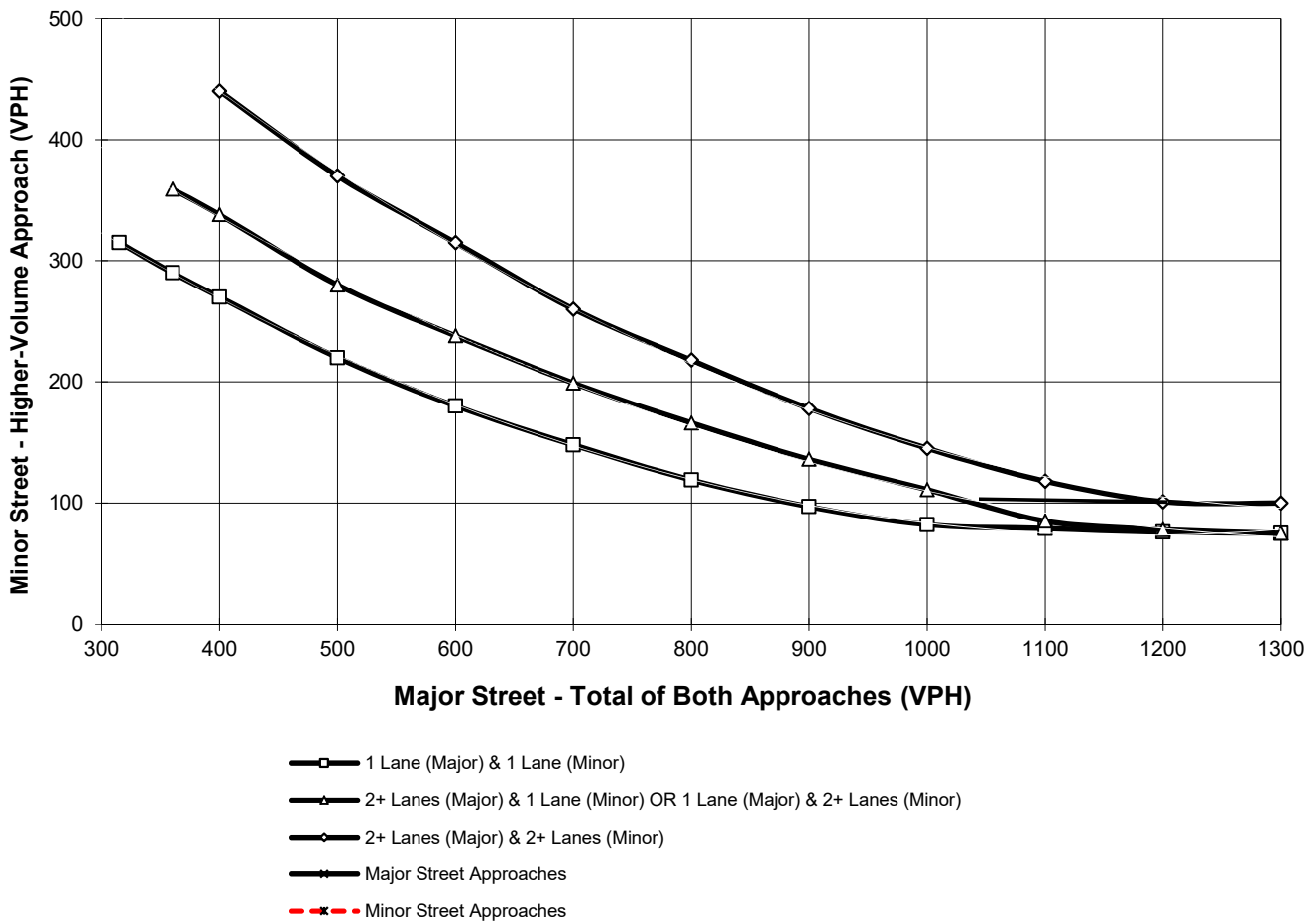
Major Street Name = **Placentia Street**

Total of Both Approaches (VPH) = **20**
 Number of Approach Lanes Major Street = **1**

Minor Street Name = **Patterson Avenue**

High Volume Approach (VPH) = **20**
 Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAPC Without Interchange Conditions - Weekday PM Peak Hour**

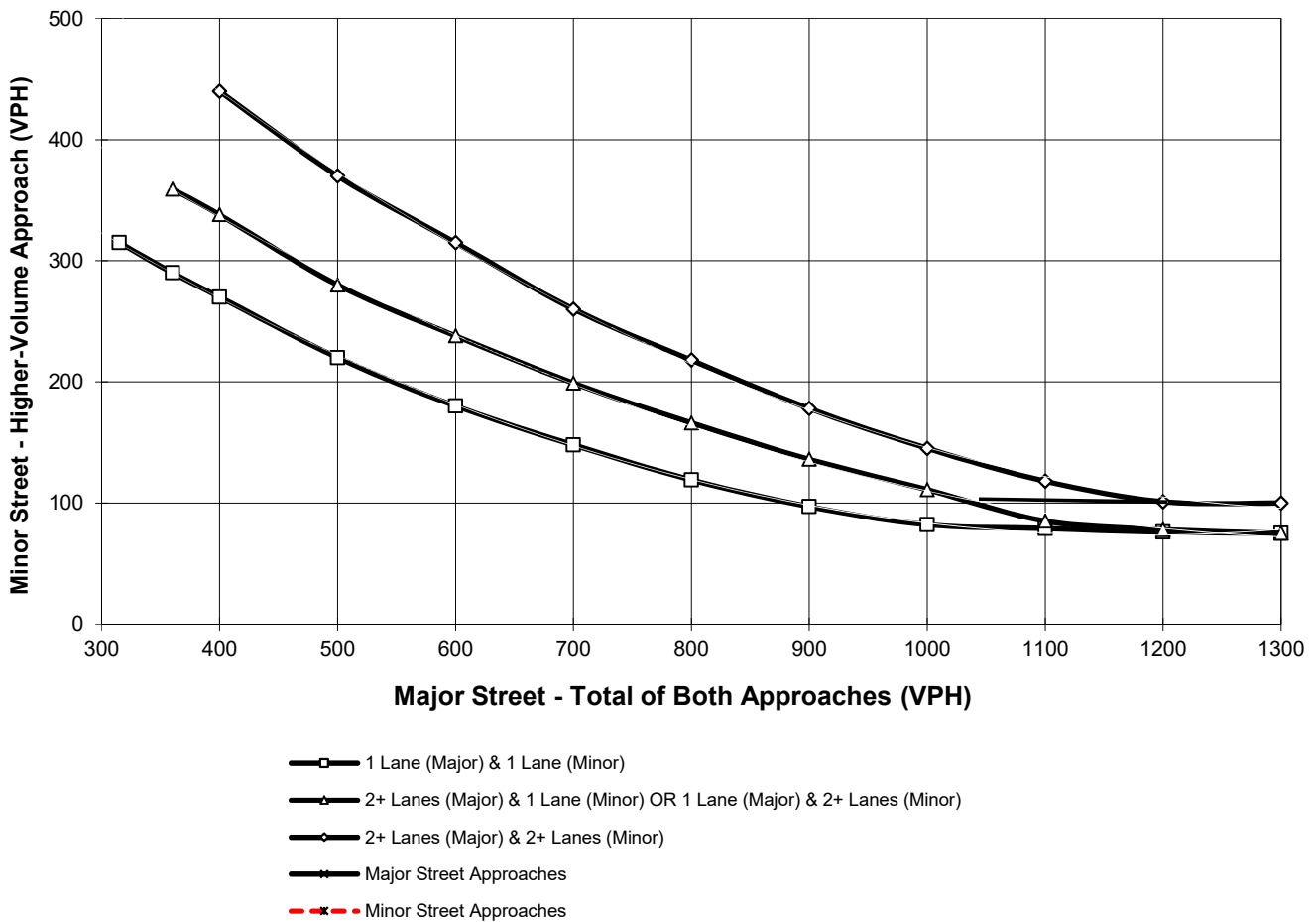
Major Street Name = **Placentia Street**

Total of Both Approaches (VPH) = **51**
 Number of Approach Lanes Major Street = **1**

Minor Street Name = **Driveway 2/Tobacco Road**

High Volume Approach (VPH) = **34**
 Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

<u>DIST</u>	<u>CO</u>	<u>RTE</u>	<u>PM</u>	CALC <u>LC</u>	TRAFFIC CONDITIONS	EAPC WO Int
Jurisdiction: <u>County of Riverside</u>				CHK <u>CH</u>		DATE <u>03/07/19</u>
Major Street: <u>Placentia Street</u>					Critical Approach Speed (Major) <u>45</u> mph	DATE <u>03/07/19</u>
Minor Street: <u>Driveway 3</u>					Critical Approach Speed (Minor) <u>25</u> mph	
Major Street Approach Lanes = <u>2</u>	lane	Minor Street Approach Lanes: <u>1</u>	lane			
Major Street Future ADT = <u>1,595</u>	vpd	Minor Street Future ADT = <u>440</u>	vpd			
Speed limit or critical speed on major street traffic > 64 km/h (40 mph);		<input checked="" type="checkbox"/>				
		or				RURAL (R)
In built up area of isolated community of < 10,000 population		<input type="checkbox"/>				

(Based on Estimated Average Daily Traffic - See Note)

<u>URBAN</u>	<u>RURAL</u>	Minimum Requirements EADT			
CONDITION A - Minimum Vehicular Volume	XX	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
<u>Satisfied</u>	<u>Not Satisfied</u>				
	XX				
Number of lanes for moving traffic on each approach					
<u>Major Street</u>	<u>Minor Street</u>	<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
1	1	8,000	5,600	2,400	1,680
2 + 1,595	1 440	9,600	6,720	2,400	1,680
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
<u>Satisfied</u>	<u>Not Satisfied</u>				
	XX				
Number of lanes for moving traffic on each approach					
<u>Major Street</u>	<u>Minor Street</u>	<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
1	1	12,000	8,400	1,200	850
2 + 1,595	1 440	14,400	10,080	1,200	850
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B		2 CONDITIONS		2 CONDITIONS	
<u>Satisfied</u>	<u>Not Satisfied</u>	80%		80%	
	XX				
No one condition satisfied, but following conditions fulfilled 80% of more					
	A				
	24%				
	B				
	16%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.



Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAPC Without Interchange Conditions - Weekday PM Peak Hour**

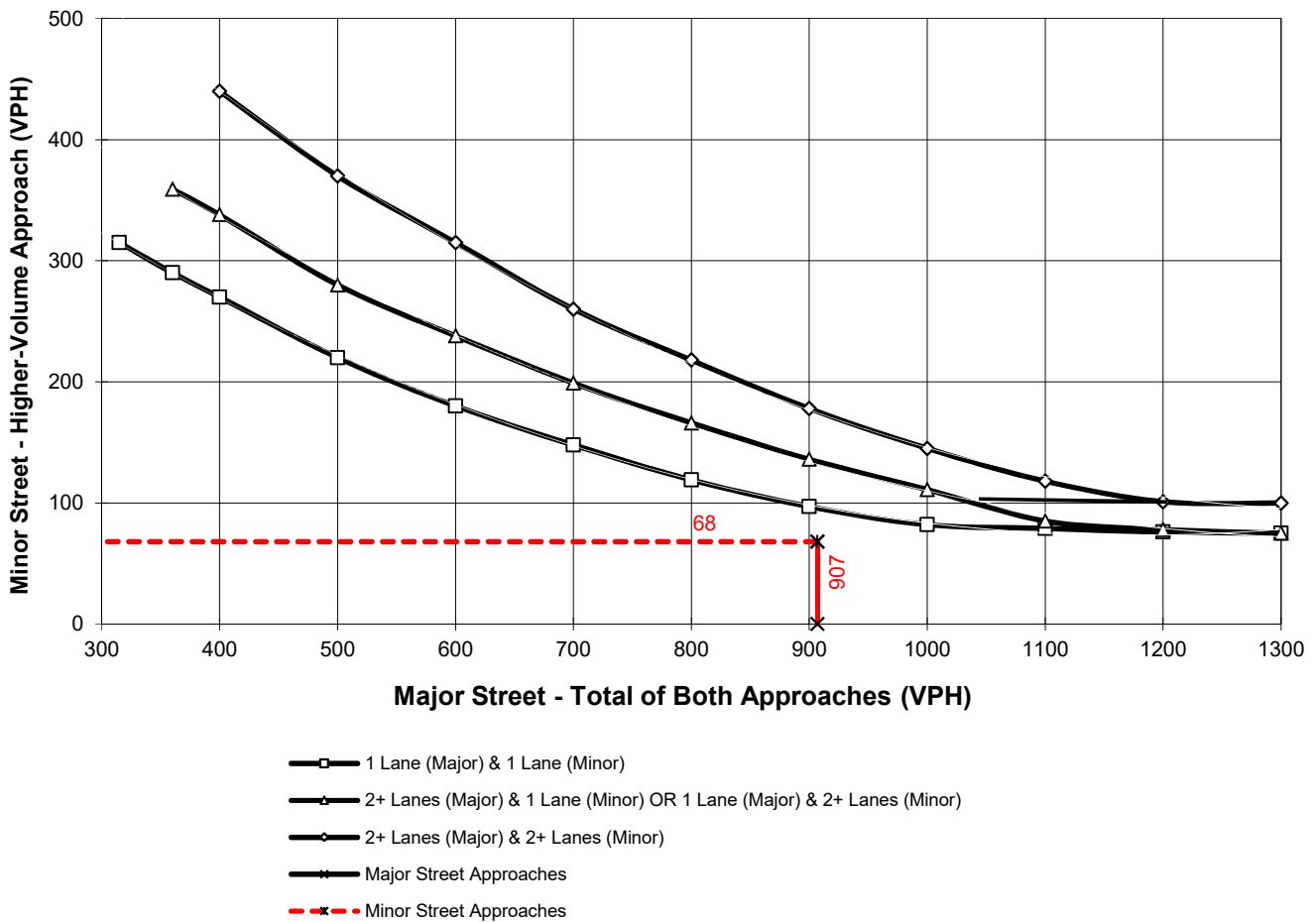
Major Street Name = **Harvill Avenue**

Total of Both Approaches (VPH) = **907**
 Number of Approach Lanes Major Street = **2**

Minor Street Name = **Orange Street**

High Volume Approach (VPH) = **68**
 Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

APPENDIX 7.4:

**EAPC (2021) WITH I-215/PLACENTIA INTERCHANGE CONDITIONS TRAFFIC SIGNAL
WARRANT ANALYSIS WORKSHEETS**

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Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAPC With Interchange Conditions - Weekday PM Peak Hour**

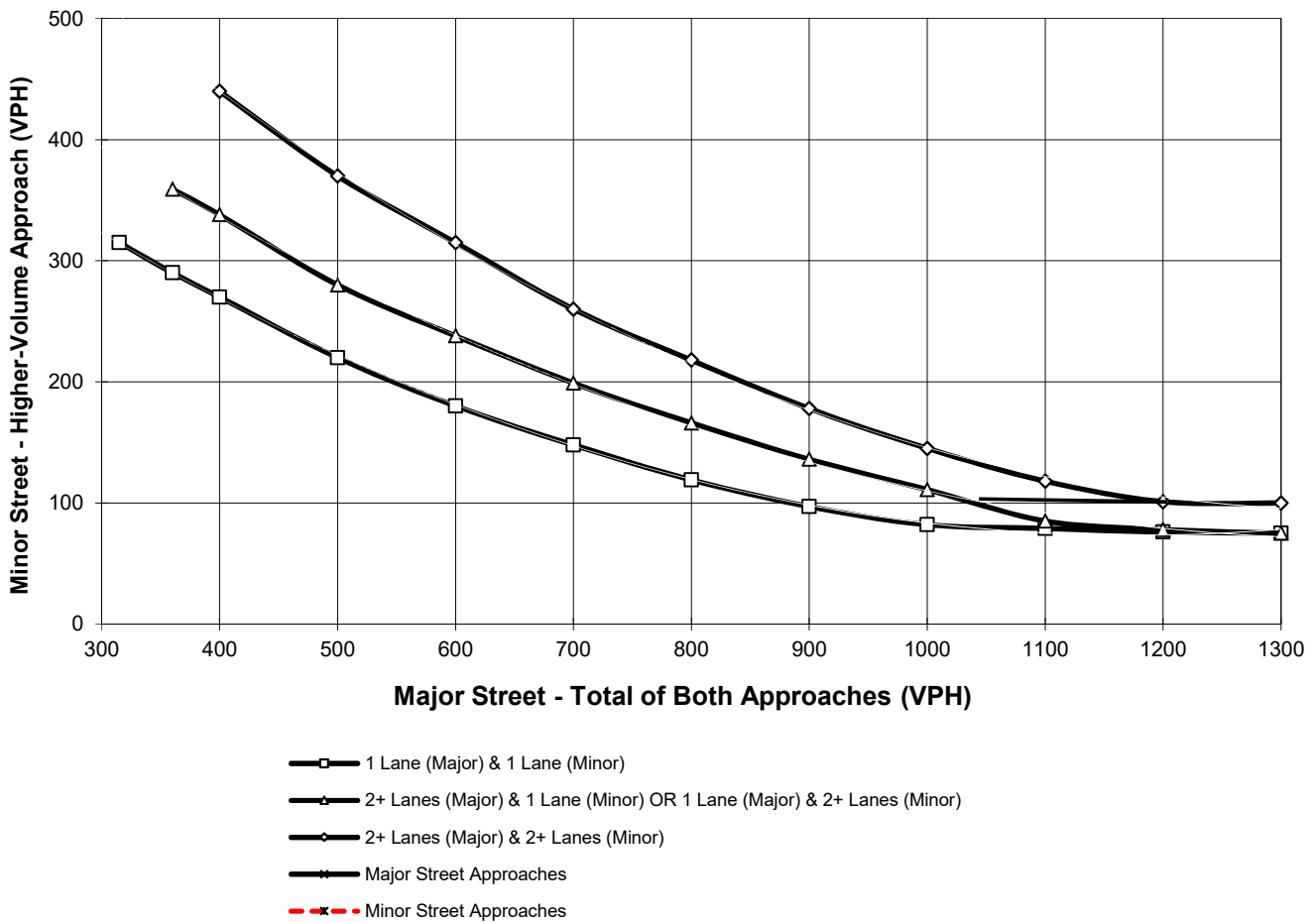
Major Street Name = **Rider Street**

Total of Both Approaches (VPH) = **141**
 Number of Approach Lanes Major Street = **1**

Minor Street Name = **Patterson Avenue**

High Volume Approach (VPH) = **25**
 Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

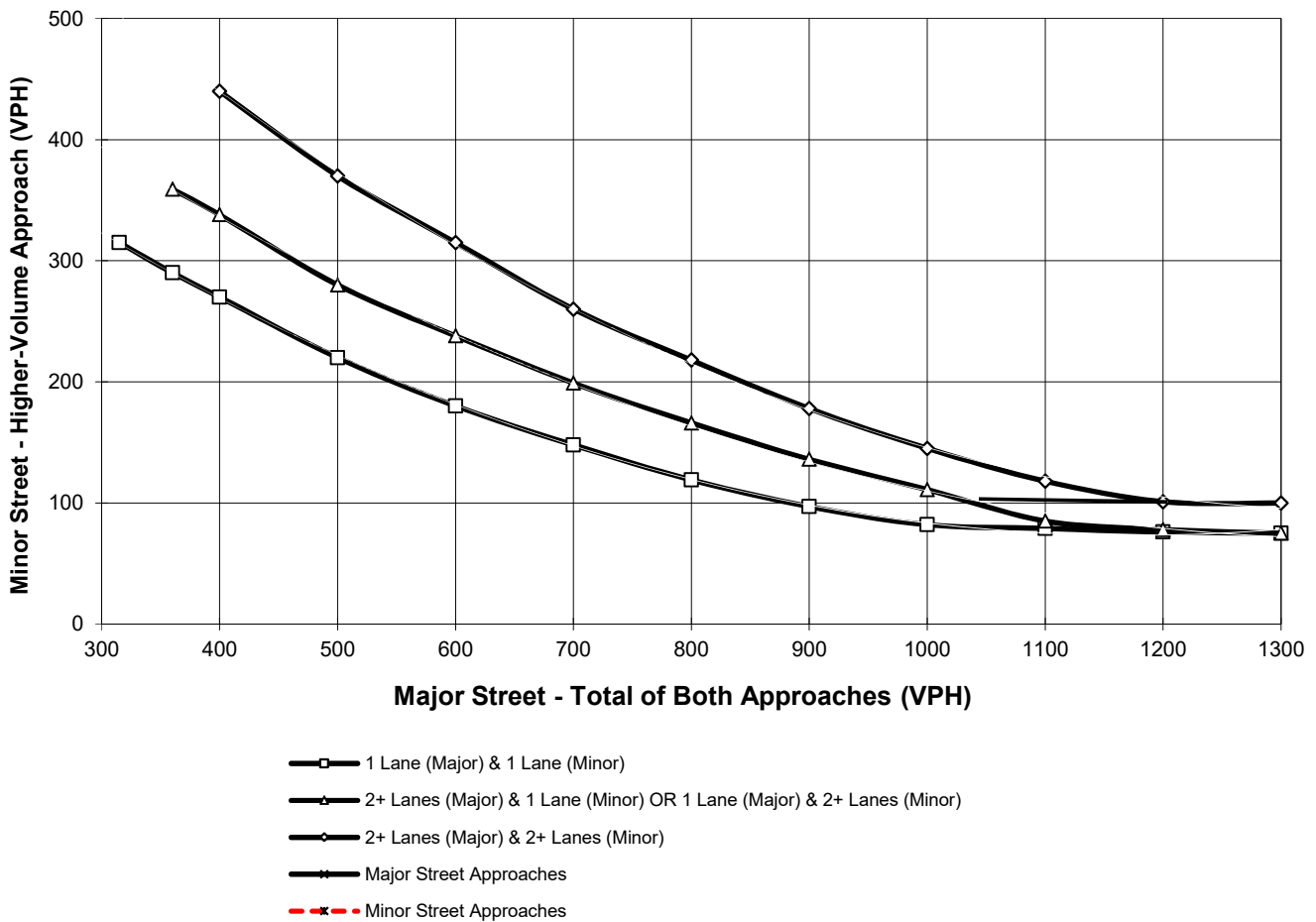
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAPC With Interchange Conditions - Weekday PM Peak Hour**

Major Street Name = **Patterson Avenue** Total of Both Approaches (VPH) = **44**
 Number of Approach Lanes Major Street = **1**

Minor Street Name = **Walnut Street/Driveway 1** High Volume Approach (VPH) = **57**
 Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAPC With Interchange Conditions - Weekday PM Peak Hour**

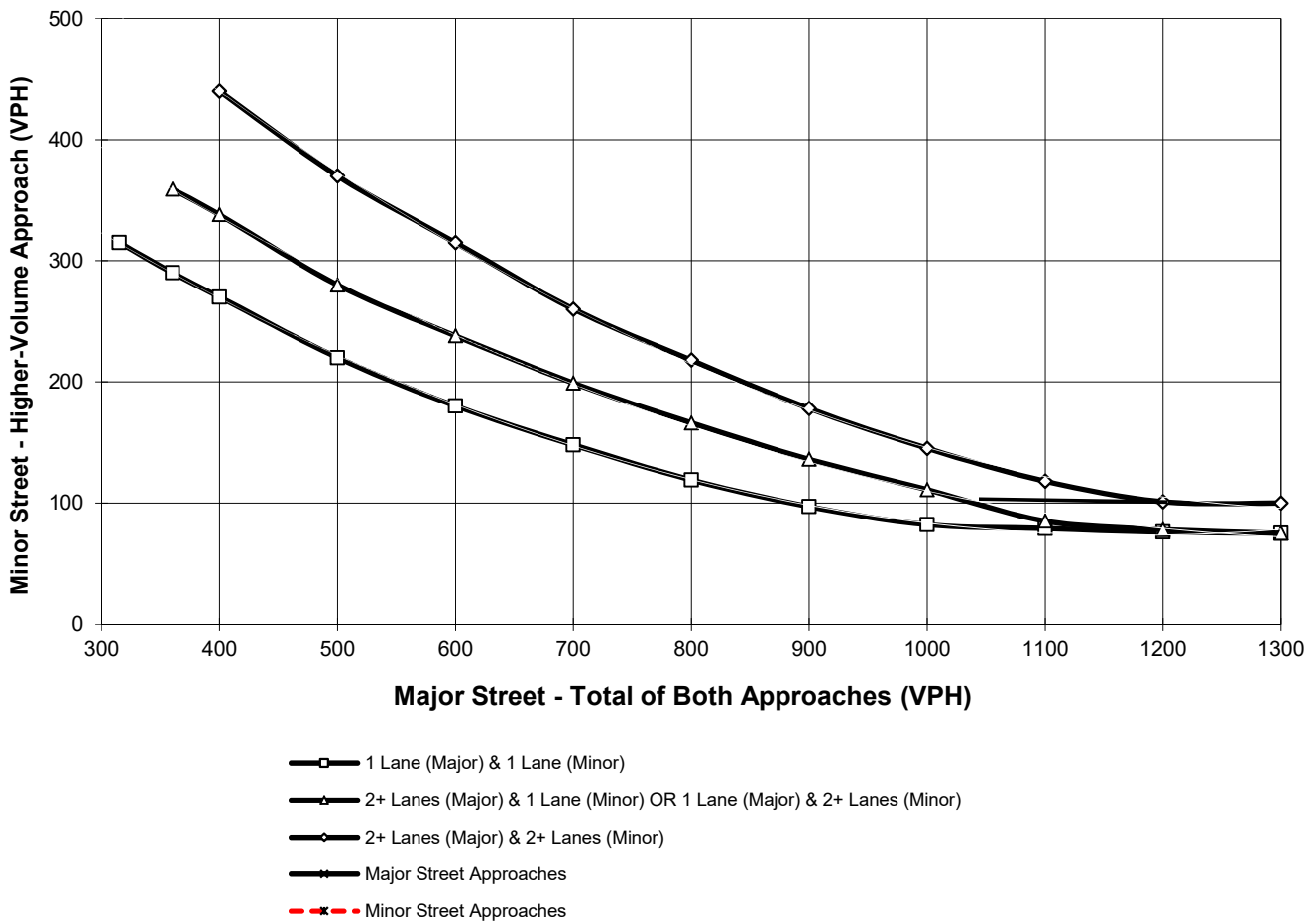
Major Street Name = **Placentia Street**

Total of Both Approaches (VPH) = **32**
 Number of Approach Lanes Major Street = **1**

Minor Street Name = **Patterson Avenue**

High Volume Approach (VPH) = **54**
 Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAPC With Interchange Conditions - Weekday PM Peak Hour**

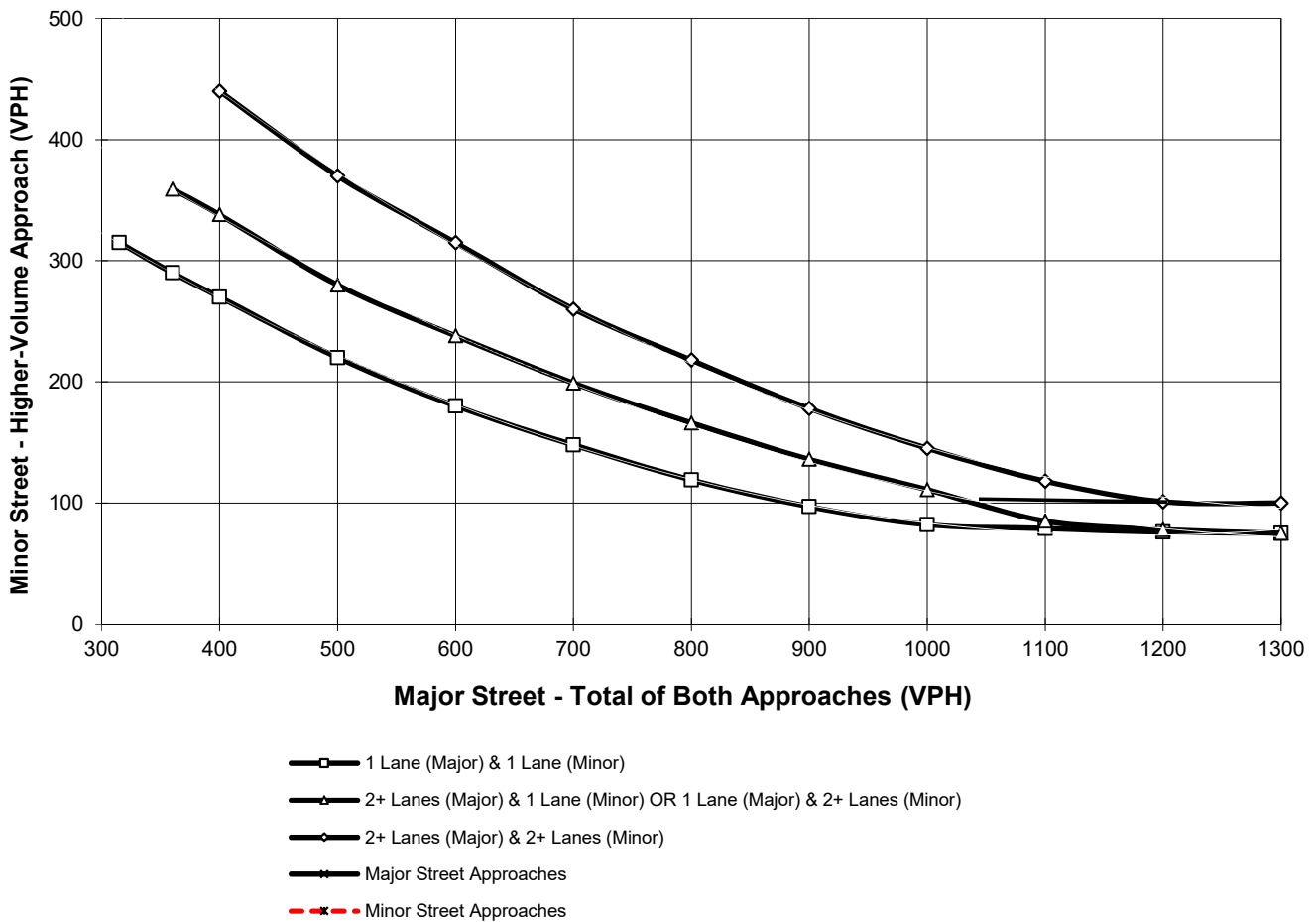
Major Street Name = **Placentia Street**

Total of Both Approaches (VPH) = **110**
 Number of Approach Lanes Major Street = **1**

Minor Street Name = **Driveway 2/Tobacco Road**

High Volume Approach (VPH) = **69**
 Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

<u>DIST</u>	<u>CO</u>	<u>RTE</u>	<u>PM</u>	<u>CALC</u>	<u>TRAFFIC CONDITIONS</u>	<u>EAPC W Int</u>
Jurisdiction: <u>County of Riverside</u>				CHK <u>LC</u>	DATE <u>03/07/19</u>	
Major Street: <u>Placentia Street</u>				CHK <u>CH</u>	DATE <u>03/07/19</u>	
Minor Street: <u>Driveway 3</u>				Critical Approach Speed (Major) <u>45</u> mph		
				Critical Approach Speed (Minor) <u>25</u> mph		

Major Street Approach Lanes = <u>2</u> lane	Minor Street Approach Lanes: <u>1</u> lane
Major Street Future ADT = <u>1,830</u> vpd	Minor Street Future ADT = <u>439</u> vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); or **RURAL (R)**

In built up area of isolated community of < 10,000 population

(Based on Estimated Average Daily Traffic - See Note)

<u>URBAN</u>		<u>RURAL</u>		Minimum Requirements EADT			
CONDITION A - Minimum Vehicular Volume		XX					
<u>Satisfied</u>		<u>Not Satisfied</u>		Vehicles Per Day on Major Street		Vehicles Per Day on Higher-Volume Minor Street Approach	
		XX		(Total of Both Approaches)		(One Direction Only)	
<u>Major Street</u>		<u>Minor Street</u>		<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
Number of lanes for moving traffic on each approach		Number of lanes for moving traffic on each approach					
<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	8,000	5,600	2,400	1,680
<u>2 + 1,830</u>	<u>1 439</u>	<u>1 439</u>	<u>1 439</u>	9,600	6,720	2,400	1,680
<u>2 +</u>	<u>2 +</u>	<u>2 +</u>	<u>2 +</u>	9,600	6,720	3,200	2,240
<u>1</u>	<u>2 +</u>	<u>2 +</u>	<u>2 +</u>	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		XX		Vehicles Per Day on Major Street		Vehicles Per Day on Higher-Volume Minor Street Approach	
<u>Satisfied</u>		<u>Not Satisfied</u>		(Total of Both Approaches)		(One Direction Only)	
<u>Major Street</u>		<u>Minor Street</u>		<u>Urban</u>	<u>Rural</u>	<u>Urban</u>	<u>Rural</u>
Number of lanes for moving traffic on each approach		Number of lanes for moving traffic on each approach					
<u>1</u>	<u>1</u>	<u>1</u>	<u>1</u>	12,000	8,400	1,200	850
<u>2 + 1,830</u>	<u>1 439</u>	<u>1 439</u>	<u>1 439</u>	14,400	10,080	1,200	850
<u>2 +</u>	<u>2 +</u>	<u>2 +</u>	<u>2 +</u>	14,400	10,080	1,600	1,120
<u>1</u>	<u>2 +</u>	<u>2 +</u>	<u>2 +</u>	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B		XX		2 CONDITIONS		2 CONDITIONS	
<u>Satisfied</u>		<u>Not Satisfied</u>		80%		80%	
No one condition satisfied, but following conditions fulfilled 80% of more							
		<u>A</u>	<u>B</u>				
		26%	18%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.



Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAPC With Interchange Conditions - Weekday PM Peak Hour**

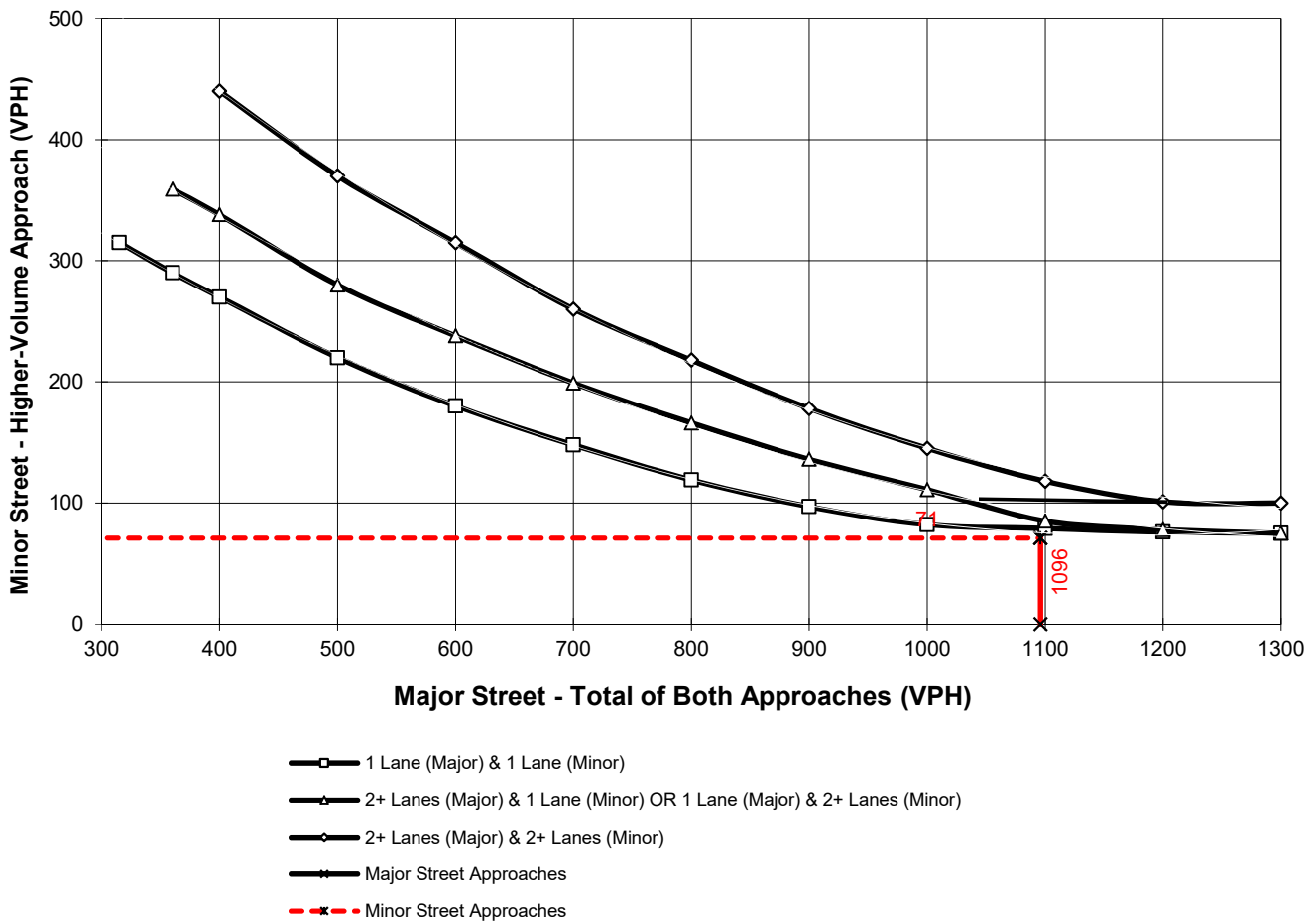
Major Street Name = **Harvill Avenue**

Total of Both Approaches (VPH) = **1096**
 Number of Approach Lanes Major Street = **2**

Minor Street Name = **Orange Street**

High Volume Approach (VPH) = **71**
 Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

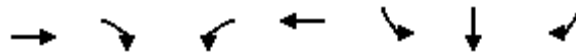
APPENDIX 7.5:

**EAPC (2021) WITHOUT I-215/PLACENTIA INTERCHANGE CONDITIONS QUEUING
ANALYSIS WORKSHEETS**

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Queues

11: I-215 SB Ramps & Ramona Exwy.



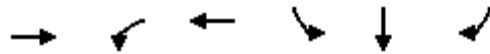
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	831	413	449	1243	486	490	447
v/c Ratio	0.99	0.60	1.03	0.63	1.10	1.10	0.86
Control Delay	53.9	6.7	79.2	10.7	97.7	99.9	34.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.9	6.7	79.2	10.7	97.7	99.9	34.5
Queue Length 50th (ft)	157	0	~193	140	~216	~220	107
Queue Length 95th (ft)	#268	61	m#257	m190	#384	#387	#261
Internal Link Dist (ft)	1278			472		973	
Turn Bay Length (ft)			100		510		510
Base Capacity (vph)	842	688	436	1985	443	444	518
Starvation Cap Reductn	0	0	0	0	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	0.99	0.60	1.03	0.63	1.10	1.10	0.86

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 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.

Queues

13: I-215 SB Ramps & Nuevo Rd.



Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	952	443	1116	177	181	106
v/c Ratio	0.69	0.76	0.49	0.61	0.62	0.27
Control Delay	17.6	24.2	6.3	33.5	34.1	4.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.6	24.2	6.3	33.5	34.1	4.6
Queue Length 50th (ft)	138	34	6	63	65	0
Queue Length 95th (ft)	192	#80	18	#130	#134	21
Internal Link Dist (ft)	1873		381		1001	
Turn Bay Length (ft)		115				300
Base Capacity (vph)	1389	607	2274	291	292	392
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	0.69	0.73	0.49	0.61	0.62	0.27

Intersection Summary

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



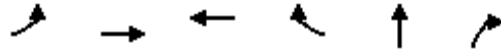
Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	270	1535	1207	1151	243	247	515
v/c Ratio	1.20	0.72	0.85	1.09	0.65	0.66	1.13
Control Delay	131.7	15.0	24.6	65.8	31.6	32.0	103.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	131.7	15.0	24.6	65.8	31.6	32.0	103.8
Queue Length 50th (ft)	~129	278	202	~308	85	86	~180
Queue Length 95th (ft)	m#130	m264	#318	#529	#173	#176	#349
Internal Link Dist (ft)		472	1588			1153	
Turn Bay Length (ft)	105						500
Base Capacity (vph)	225	2135	1413	1059	371	372	456
Starvation Cap Reductn	0	0	0	0	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	1.20	0.72	0.85	1.09	0.65	0.66	1.13

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 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.

Queues

16: I-215 NB Ramps & Nuevo Rd.



Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	46	1024	1141	426	351	617
v/c Ratio	0.31	0.64	0.63	0.51	0.55	0.56
Control Delay	27.8	13.7	17.8	4.1	22.4	15.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	27.8	13.7	17.8	4.1	22.4	15.7
Queue Length 50th (ft)	17	149	119	0	114	85
Queue Length 95th (ft)	m24	189	158	49	#221	142
Internal Link Dist (ft)		381	941		975	
Turn Bay Length (ft)	105					
Base Capacity (vph)	150	1901	1901	861	640	1097
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	0.31	0.54	0.60	0.49	0.55	0.56

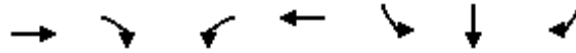
Intersection Summary

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.

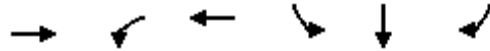
Queues
11: I-215 SB Ramps & Ramona Exwy.



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	956	351	430	932	435	441	185
v/c Ratio	0.76	0.44	1.19	0.42	1.02	1.03	0.36
Control Delay	21.9	3.9	139.1	7.3	74.6	76.9	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.9	3.9	139.1	7.3	74.6	76.9	7.9
Queue Length 50th (ft)	156	0	~207	95	~169	~174	10
Queue Length 95th (ft)	221	46	m#365	143	#341	#346	53
Internal Link Dist (ft)	1278			472		973	
Turn Bay Length (ft)			100		510		510
Base Capacity (vph)	1263	793	361	2226	428	430	515
Starvation Cap Reductn	0	0	0	0	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	0.76	0.44	1.19	0.42	1.02	1.03	0.36

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 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.



Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	734	644	476	301	305	80
v/c Ratio	0.47	1.23	0.21	0.75	0.76	0.16
Control Delay	9.4	137.4	3.3	35.9	36.4	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.4	137.4	3.3	35.9	36.4	1.9
Queue Length 50th (ft)	61	~145	0	106	108	0
Queue Length 95th (ft)	100	#223	1	#221	#225	9
Internal Link Dist (ft)	1873		381		1001	
Turn Bay Length (ft)		115				300
Base Capacity (vph)	1562	525	2286	400	401	485
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	0.47	1.23	0.21	0.75	0.76	0.16

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Queues

14: I-215 NB Ramps & Ramona Exwy.



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	282	1583	1001	785	194	197	434
v/c Ratio	0.99	0.70	0.69	0.74	0.47	0.47	0.88
Control Delay	68.2	13.0	18.1	7.2	23.6	23.6	37.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	68.2	13.0	18.1	7.2	23.6	23.6	37.2
Queue Length 50th (ft)	112	250	152	19	62	63	103
Queue Length 95th (ft)	m#123	m267	213	110	117	120	#254
Internal Link Dist (ft)		472	1588			1153	
Turn Bay Length (ft)	105						500
Base Capacity (vph)	285	2256	1444	1064	428	430	505
Starvation Cap Reductn	0	0	0	0	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	0.99	0.70	0.69	0.74	0.45	0.46	0.86

Intersection Summary

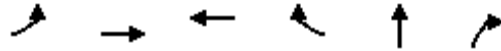
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues

16: I-215 NB Ramps & Nuevo Rd.



Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	68	1198	1178	535	152	431
v/c Ratio	0.35	0.63	0.54	0.55	0.25	0.41
Control Delay	36.4	8.1	14.2	3.8	18.0	12.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.4	8.1	14.2	3.8	18.0	12.8
Queue Length 50th (ft)	26	90	112	0	44	48
Queue Length 95th (ft)	m42	106	127	28	76	73
Internal Link Dist (ft)		381	941		975	
Turn Bay Length (ft)	105					
Base Capacity (vph)	210	2166	2201	975	609	1051
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	0.32	0.55	0.54	0.55	0.25	0.41

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

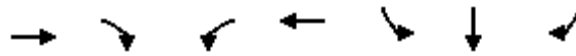
APPENDIX 7.6:

**EAPC (2021) WITH I-215/PLACENTIA INTERCHANGE CONDITIONS QUEUING
ANALYSIS WORKSHEETS**

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Queues

11: I-215 SB Ramps & Ramona Exwy.



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	662	321	347	1073	377	380	307
v/c Ratio	0.75	0.51	0.83	0.54	0.85	0.86	0.59
Control Delay	28.3	6.1	52.6	9.0	42.3	42.9	16.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.3	6.1	52.6	9.0	42.3	42.9	16.1
Queue Length 50th (ft)	118	0	145	101	135	137	51
Queue Length 95th (ft)	#192	54	m#213	158	#278	#281	121
Internal Link Dist (ft)	1278			472		973	
Turn Bay Length (ft)			100		510		510
Base Capacity (vph)	878	630	436	1985	443	444	518
Starvation Cap Reductn	0	0	0	0	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	0.75	0.51	0.80	0.54	0.85	0.86	0.59

Intersection Summary

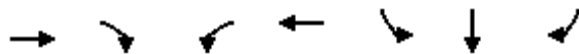
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues
12: I-215 SB Ramps & Placentia St./Placentia Av.

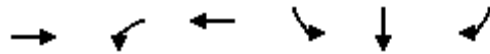
Barker Logistics (JN 12216)
02/26/2019



Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	342	174	234	500	176	177	226
v/c Ratio	0.23	0.23	0.59	0.23	0.48	0.48	0.43
Control Delay	12.4	3.2	30.3	5.1	25.9	25.9	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.4	3.2	30.3	5.1	25.9	25.9	6.4
Queue Length 50th (ft)	41	0	48	50	58	60	0
Queue Length 95th (ft)	66	30	79	54	114	114	47
Internal Link Dist (ft)	1040			666		1313	
Turn Bay Length (ft)	230		250		330		
Base Capacity (vph)	1458	756	408	2141	365	365	522
Starvation Cap Reductn	0	0	0	0	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	0.23	0.23	0.57	0.23	0.48	0.48	0.43
Intersection Summary							

Queues

13: I-215 SB Ramps & Nuevo Rd.



Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	824	345	932	141	139	83
v/c Ratio	0.58	0.63	0.41	0.48	0.48	0.21
Control Delay	15.6	19.7	7.1	28.9	28.7	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.6	19.7	7.1	28.9	28.7	2.8
Queue Length 50th (ft)	113	64	154	49	48	0
Queue Length 95th (ft)	161	38	6	96	95	10
Internal Link Dist (ft)	1873		381		1001	
Turn Bay Length (ft)		115				300
Base Capacity (vph)	1424	607	2274	291	292	392
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	0.58	0.57	0.41	0.48	0.48	0.21
Intersection Summary						

Queues

14: I-215 NB Ramps & Ramona Exwy.



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	198	1216	1047	893	186	190	400
v/c Ratio	0.84	0.56	0.73	0.83	0.52	0.53	0.90
Control Delay	53.1	12.7	19.3	11.9	26.9	27.1	42.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.1	12.7	19.3	11.9	26.9	27.1	42.7
Queue Length 50th (ft)	82	206	164	39	63	64	93
Queue Length 95th (ft)	m#123	m262	230	#291	120	122	#241
Internal Link Dist (ft)		472	1588			1153	
Turn Bay Length (ft)	105						500
Base Capacity (vph)	235	2169	1426	1079	371	372	456
Starvation Cap Reductn	0	0	0	0	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	0.84	0.56	0.73	0.83	0.50	0.51	0.88

Intersection Summary

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.

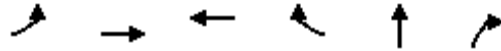
Queues
15: I-215 NB Ramps & Placentia Av.



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	110	585	462	425	136	136	300
v/c Ratio	0.31	0.26	0.27	0.43	0.43	0.43	0.56
Control Delay	19.2	4.7	11.1	3.0	26.3	26.3	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.2	4.7	11.1	3.0	26.3	26.3	7.6
Queue Length 50th (ft)	12	33	53	0	46	46	0
Queue Length 95th (ft)	29	56	86	45	92	92	55
Internal Link Dist (ft)		666	995			965	
Turn Bay Length (ft)	260			365	575		
Base Capacity (vph)	408	2251	1718	991	343	343	563
Starvation Cap Reductn	0	0	0	0	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	0.27	0.26	0.27	0.43	0.40	0.40	0.53
Intersection Summary							

Queues

16: I-215 NB Ramps & Nuevo Rd.

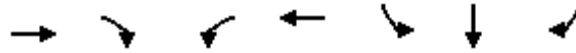


Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	35	884	973	333	251	483
v/c Ratio	0.23	0.62	0.56	0.44	0.34	0.38
Control Delay	26.5	14.7	17.5	3.9	16.7	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.5	14.7	17.5	3.9	16.7	9.6
Queue Length 50th (ft)	13	135	99	0	55	32
Queue Length 95th (ft)	m24	174	131	44	138	86
Internal Link Dist (ft)		381	941		975	
Turn Bay Length (ft)	105					
Base Capacity (vph)	150	1901	1901	803	729	1270
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	0.23	0.47	0.51	0.41	0.34	0.38

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Queues
11: I-215 SB Ramps & Ramona Exwy.

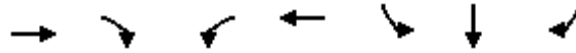


Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	985	430	456	904	420	425	187
v/c Ratio	0.96	0.56	1.01	0.42	0.92	0.93	0.35
Control Delay	44.4	5.4	78.8	7.8	51.1	52.6	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.4	5.4	78.8	7.8	51.1	52.6	7.5
Queue Length 50th (ft)	183	0	~190	91	154	156	10
Queue Length 95th (ft)	#301	57	m#349	139	#314	#318	52
Internal Link Dist (ft)	1278			472		973	
Turn Bay Length (ft)			100		510		510
Base Capacity (vph)	1022	765	451	2166	457	458	540
Starvation Cap Reductn	0	0	0	0	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	0.96	0.56	1.01	0.42	0.92	0.93	0.35

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 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.

Queues
 12: I-215 SB Ramps & Placentia St./Placentia Av.



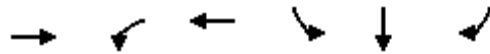
Lane Group	EBT	EBR	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	511	286	333	397	229	229	128
v/c Ratio	0.33	0.33	0.75	0.18	0.55	0.55	0.26
Control Delay	12.1	2.9	39.7	4.2	25.6	25.6	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.1	2.9	39.7	4.2	25.6	25.6	5.4
Queue Length 50th (ft)	61	0	70	31	75	75	0
Queue Length 95th (ft)	92	36	#122	40	141	141	32
Internal Link Dist (ft)	1040			666		1313	
Turn Bay Length (ft)		230	250				330
Base Capacity (vph)	1552	857	443	2250	417	417	495
Starvation Cap Reductn	0	0	0	0	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	0.33	0.33	0.75	0.18	0.55	0.55	0.26

Intersection Summary

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

Queues

13: I-215 SB Ramps & Nuevo Rd.



Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Group Flow (vph)	641	502	514	234	239	62
v/c Ratio	0.43	0.79	0.21	0.67	0.68	0.14
Control Delay	11.0	22.4	2.9	33.7	34.4	0.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.0	22.4	2.9	33.7	34.4	0.7
Queue Length 50th (ft)	65	29	0	83	85	0
Queue Length 95th (ft)	103	#59	1	#173	#177	1
Internal Link Dist (ft)	1873		381		1001	
Turn Bay Length (ft)		115				300
Base Capacity (vph)	1501	653	2394	348	349	441
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	0.43	0.77	0.21	0.67	0.68	0.14

Intersection Summary

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

Queues

14: I-215 NB Ramps & Ramona Exwy.



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	333	1528	1013	761	183	185	391
v/c Ratio	1.11	0.67	0.70	0.72	0.46	0.46	0.81
Control Delay	101.0	12.7	18.2	6.8	23.5	23.5	29.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	101.0	12.7	18.2	6.8	23.5	23.5	29.5
Queue Length 50th (ft)	~155	244	154	17	58	58	84
Queue Length 95th (ft)	m#160	m260	216	101	112	112	#213
Internal Link Dist (ft)		472	1588			1153	
Turn Bay Length (ft)	105						500
Base Capacity (vph)	300	2285	1444	1056	428	430	505
Starvation Cap Reductn	0	0	0	0	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	1.11	0.67	0.70	0.72	0.43	0.43	0.77

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 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.

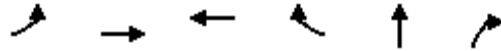
Queues
15: I-215 NB Ramps & Placentia Av.



Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	NBR
Lane Group Flow (vph)	235	734	546	383	92	92	233
v/c Ratio	0.51	0.31	0.33	0.40	0.26	0.26	0.45
Control Delay	21.3	4.1	11.2	2.8	22.0	22.0	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.3	4.1	11.2	2.8	22.0	22.0	6.5
Queue Length 50th (ft)	29	16	63	0	30	30	0
Queue Length 95th (ft)	59	60	96	40	64	64	47
Internal Link Dist (ft)		666	995			965	
Turn Bay Length (ft)	260			365	575		
Base Capacity (vph)	477	2386	1667	952	394	394	550
Starvation Cap Reductn	0	0	0	0	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	0.49	0.31	0.33	0.40	0.23	0.23	0.42
Intersection Summary							

Queues

16: I-215 NB Ramps & Nuevo Rd.



Lane Group	EBL	EBT	WBT	WBR	NBT	NBR
Lane Group Flow (vph)	53	1045	1099	418	109	336
v/c Ratio	0.27	0.57	0.53	0.48	0.17	0.30
Control Delay	33.5	9.1	14.6	3.5	17.2	8.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	33.5	9.1	14.6	3.5	17.2	8.4
Queue Length 50th (ft)	20	94	102	0	31	22
Queue Length 95th (ft)	m39	111	117	27	57	43
Internal Link Dist (ft)		381	941		975	
Turn Bay Length (ft)	105					
Base Capacity (vph)	210	2166	2164	900	647	1138
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	0.25	0.48	0.51	0.46	0.17	0.30

Intersection Summary

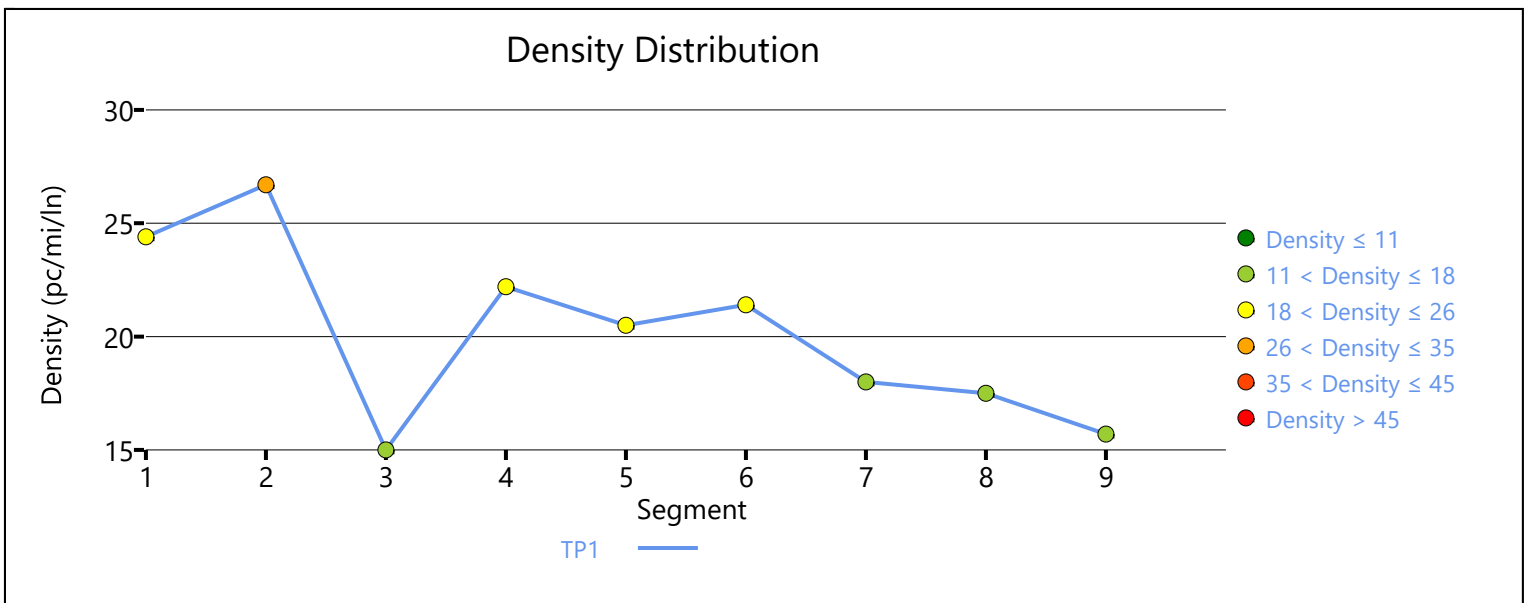
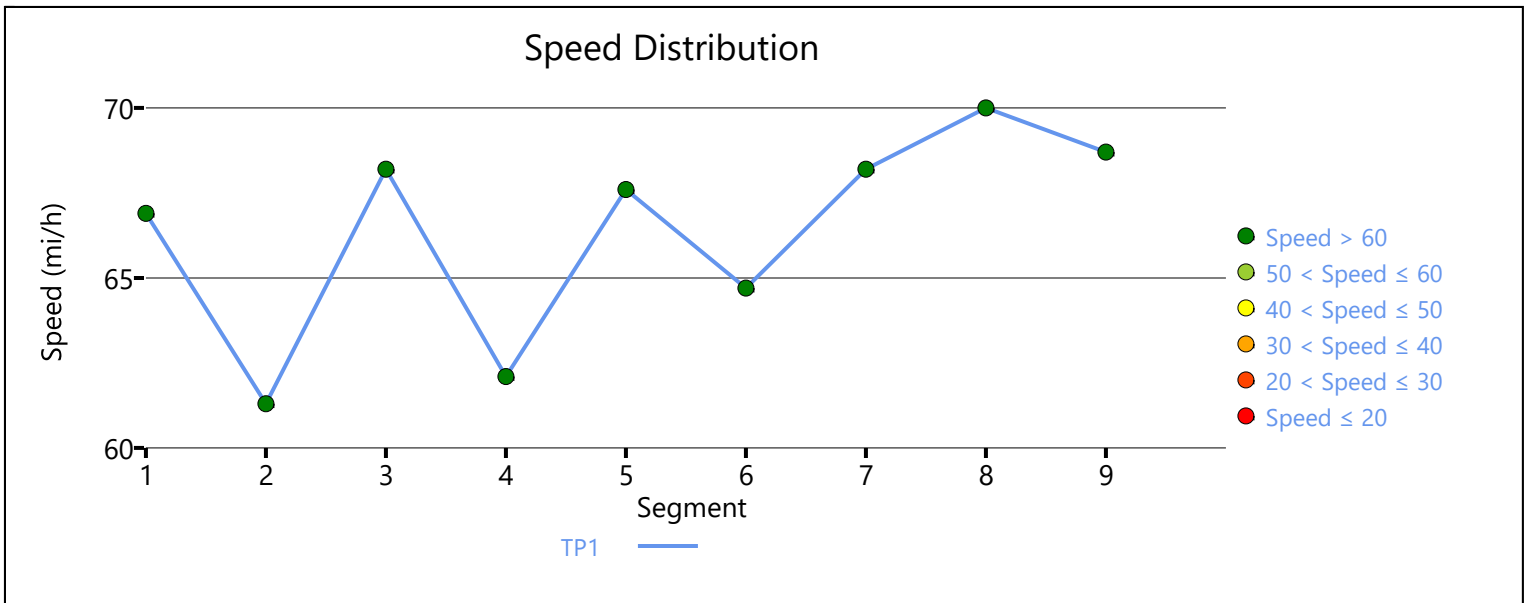
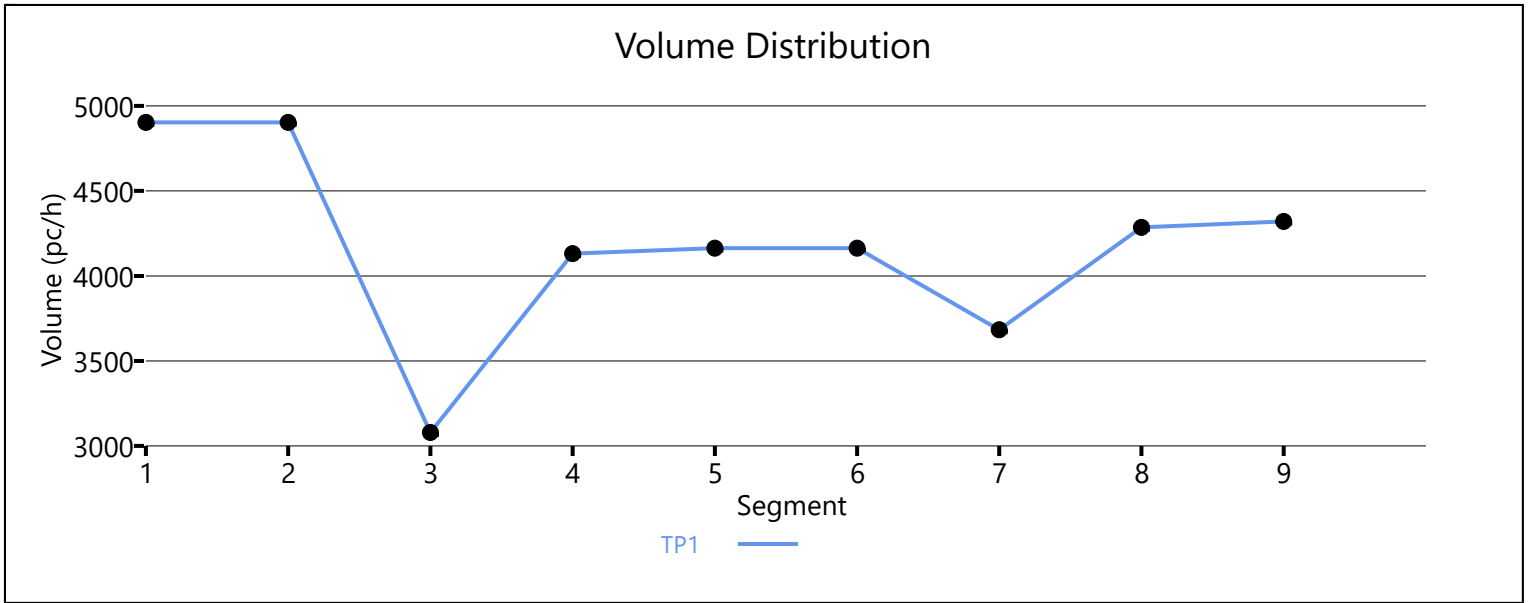
m Volume for 95th percentile queue is metered by upstream signal.

APPENDIX 7.7:

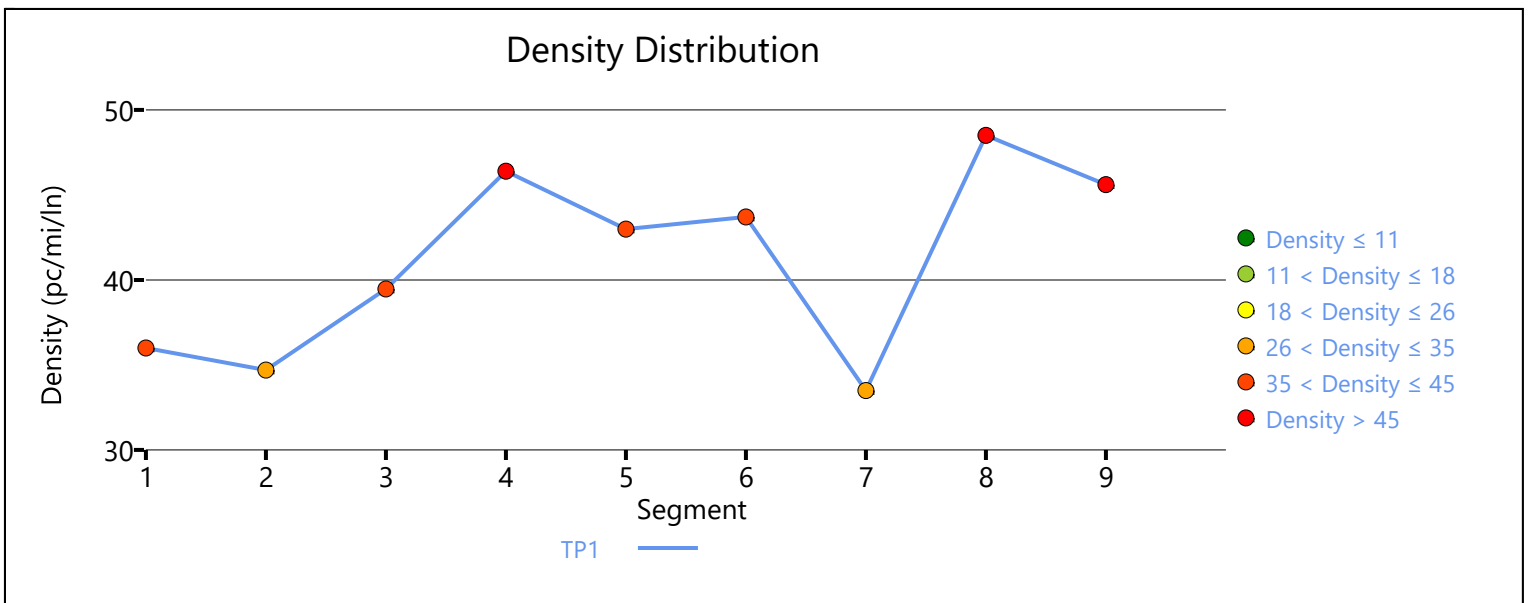
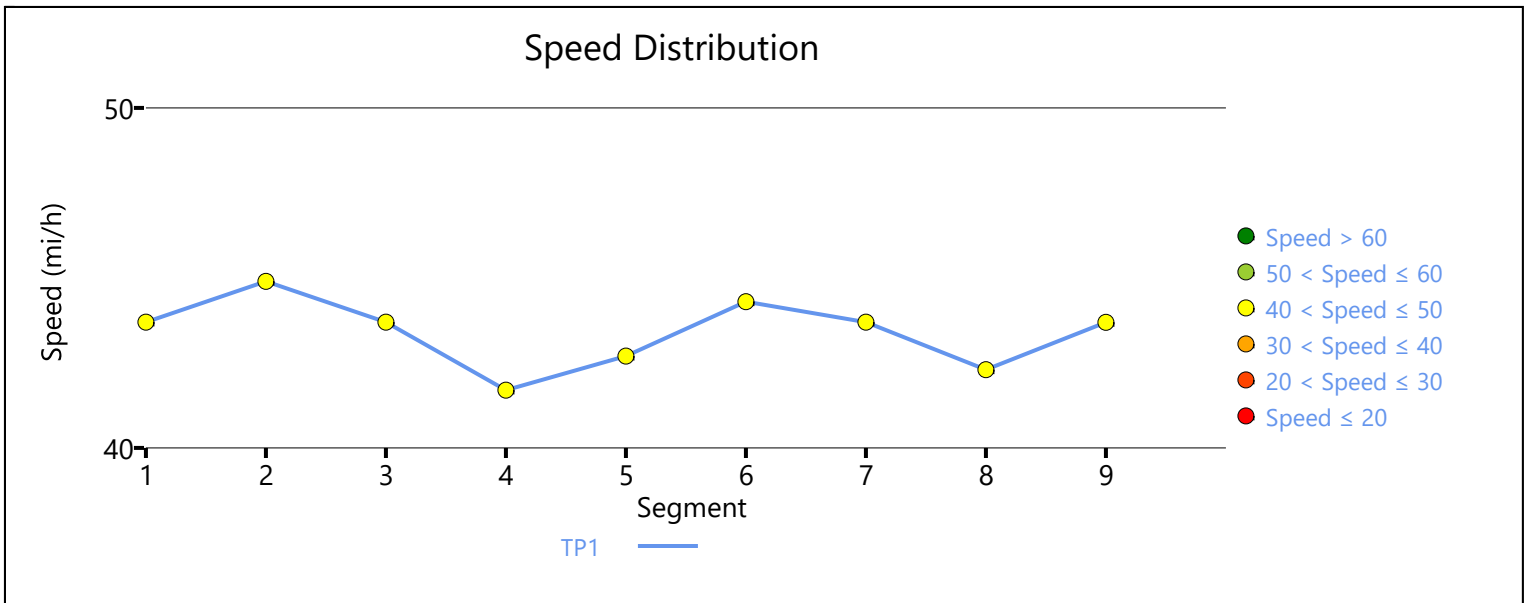
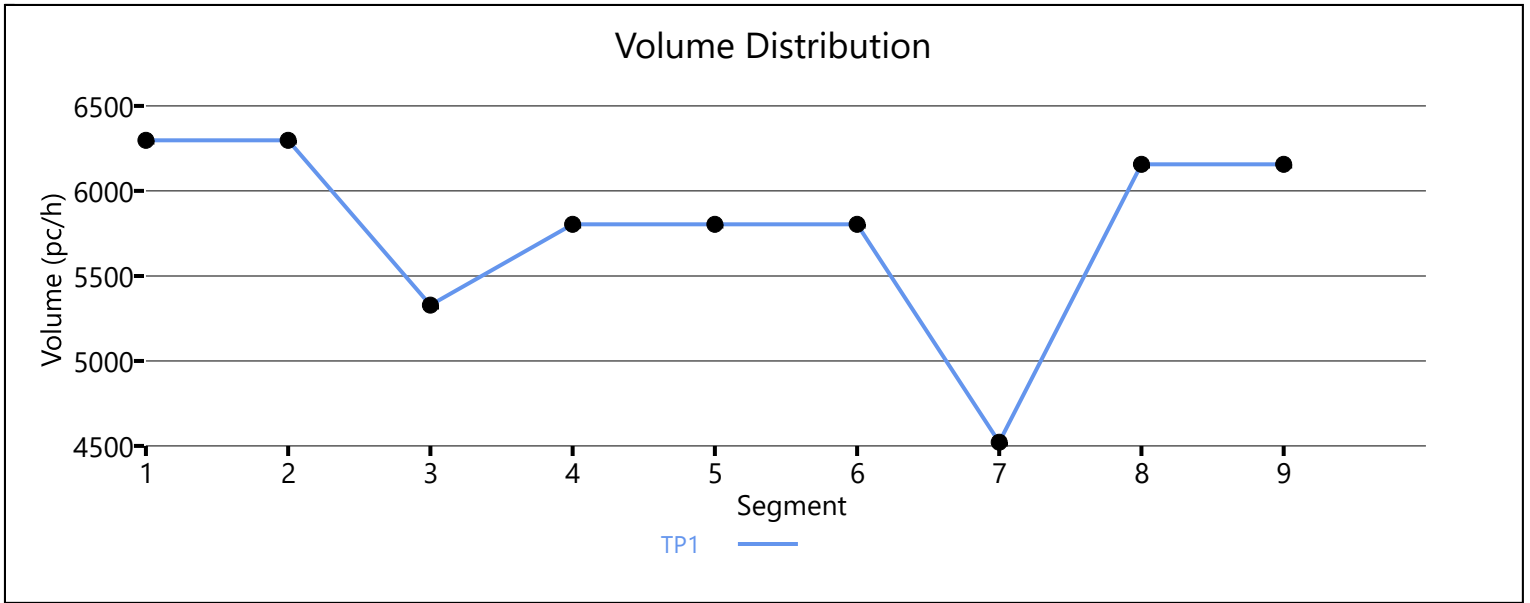
**EAPC (2021) CONDITIONS WITHOUT I-215/PLACENTIA INTERCHANGE FREEWAY
FACILITY ANALYSIS WORKSHEETS**

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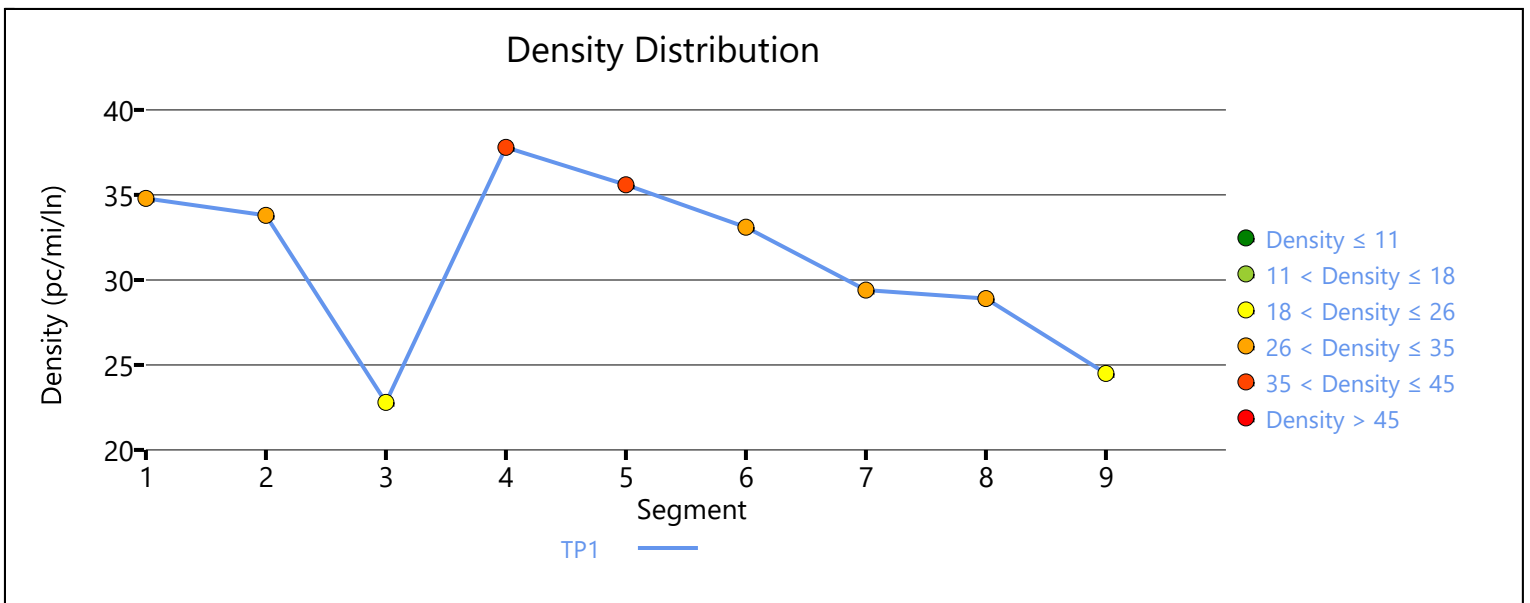
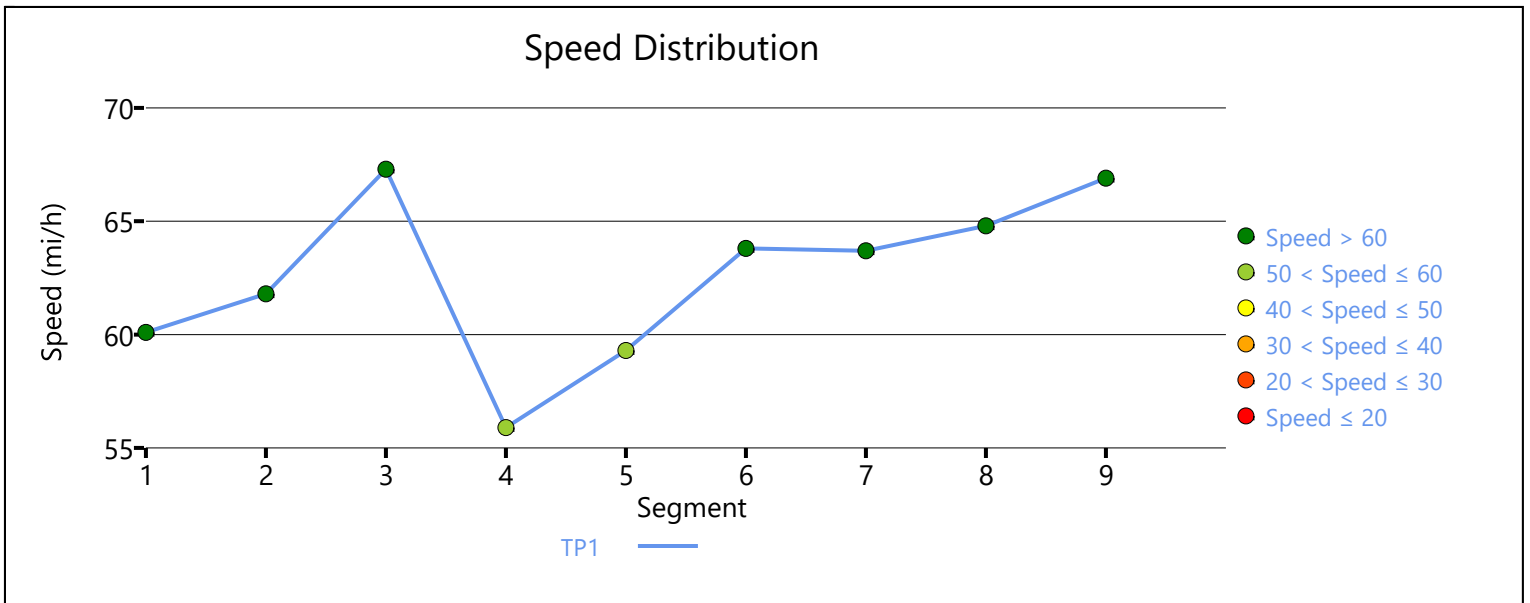
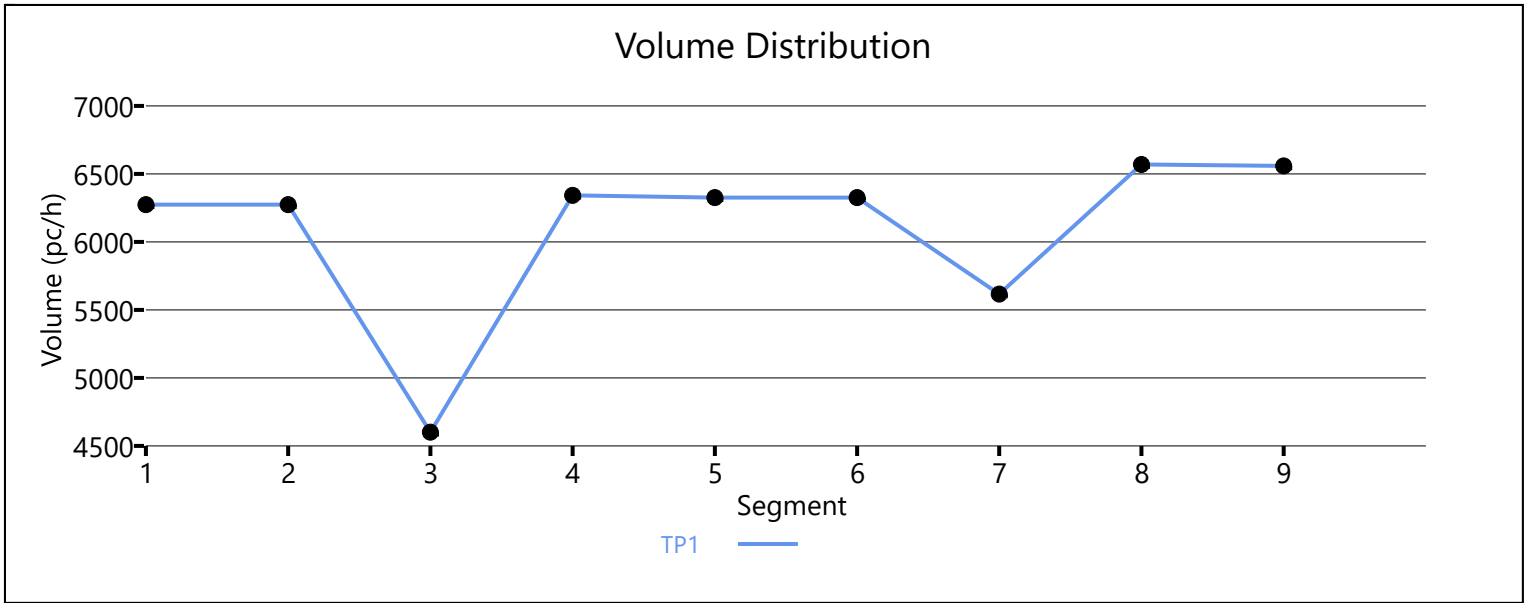
1	0.92	0.92	0.990	0.909	4131	1052	7200	2100	0.57	0.50	62.1	60.1	22.2	24.8	C
Segment 5: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		4163		7131		0.58		67.6		20.5		C
Segment 6: Diverge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.962	4163	445	7200	2100	0.58	0.21	64.7	60.5	21.4	27.3	C
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		3683		7146		0.52		68.2		18.0		B
Segment 8: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.971	0.962	4286	603	7200	2100	0.51	0.29	70.0	-	17.5	-	B
Segment 9: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.962		4321		9548		0.45		68.7		15.7		B
Facility Time Period Results															
T	Speed, mi/h		Density, pc/mi/ln		Density, veh/mi/ln		Travel Time, min		LOS						
1	66.9		20.6		19.8		5.1		C						
Facility Overall Results															
Space Mean Speed, mi/h					66.9			Density, veh/mi/ln			19.8				
Average Travel Time, min					5.1			Density, pc/mi/ln			20.6				



1	0.92	0.92	0.943	0.980	5804	476	6750	2100	0.85	0.23	41.7	43.7	46.4	31.5	F
Segment 5: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.943		5804		6600		0.88		42.7		43.0		E
Segment 6: Diverge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.943	0.935	5804	1282	6750	2100	0.86	0.61	44.3	43.8	43.7	35.6	E
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.943		4522		6600		0.68		43.7		33.5		D
Segment 8: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.943	0.901	6157	1635	6750	2100	0.91	0.78	42.3	43.3	48.5	35.7	F
Segment 9: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.935		6157		6600		0.93		43.7		45.6		F
Facility Time Period Results															
T	Speed, mi/h		Density, pc/mi/ln		Density, veh/mi/ln		Travel Time, min		LOS						
1	43.1		42.2		39.7		7.7		E						
Facility Overall Results															
Space Mean Speed, mi/h					43.1			Density, veh/mi/ln			39.7				
Average Travel Time, min					7.7			Density, pc/mi/ln			42.2				



1	0.92	0.92	0.990	0.980	6343	1742	7200	2100	0.88	0.83	55.9	52.7	37.8	36.9	E
Segment 5: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.990		6326		7131		0.89		59.3		35.6		E
Segment 6: Diverge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.990	6326	709	7200	2100	0.88	0.34	63.8	59.9	33.1	36.8	E
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.990		5617		7146		0.79		63.7		29.4		D
Segment 8: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.980	6569	952	7200	2100	0.78	0.45	64.8	-	28.9	-	D
Segment 9: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.990		6559		9548		0.69		66.9		24.5		C
Facility Time Period Results															
T	Speed, mi/h		Density, pc/mi/ln		Density, veh/mi/ln		Travel Time, min		LOS						
1	60.8		33.1		32.7		5.6		D						
Facility Overall Results															
Space Mean Speed, mi/h					60.8			Density, veh/mi/ln			32.7				
Average Travel Time, min					5.6			Density, pc/mi/ln			33.1				



HCS7 Freeway Facilities Report

Project Information

Analyst	RV	Date	2/22/2019
Agency	Urban Crossroads, Inc.	Analysis Year	EAPC 2021 wo I-215/Placentia Interchange
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Barker Logistics (JN 12216)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	9
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-215 NB S of Nuevo	1675	4
2	Diverge	Basic	NB Nuevo Off-Ramp	1500	4
3	Basic	Basic	Between Nuevo On and Off Ramps	1400	3
4	Merge	Merge	NB Nuevo On-Ramp	1500	3
5	Basic	Basic	Between Nuevo and Ramona	13735	3
6	Diverge	Diverge	NB Ramona Off-Ramp	1500	3
7	Basic	Basic	Between Ramona On and Off Ramps	1315	3
8	Merge	Merge	NB Ramona On-Ramp	1500	3
9	Basic	Basic	I-215 NB N of Ramona	5000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.980		4861		9548		0.51		68.7		17.7		B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.980	4861	509	9600	2100	0.51	0.24	70.0	-	17.4	-	B

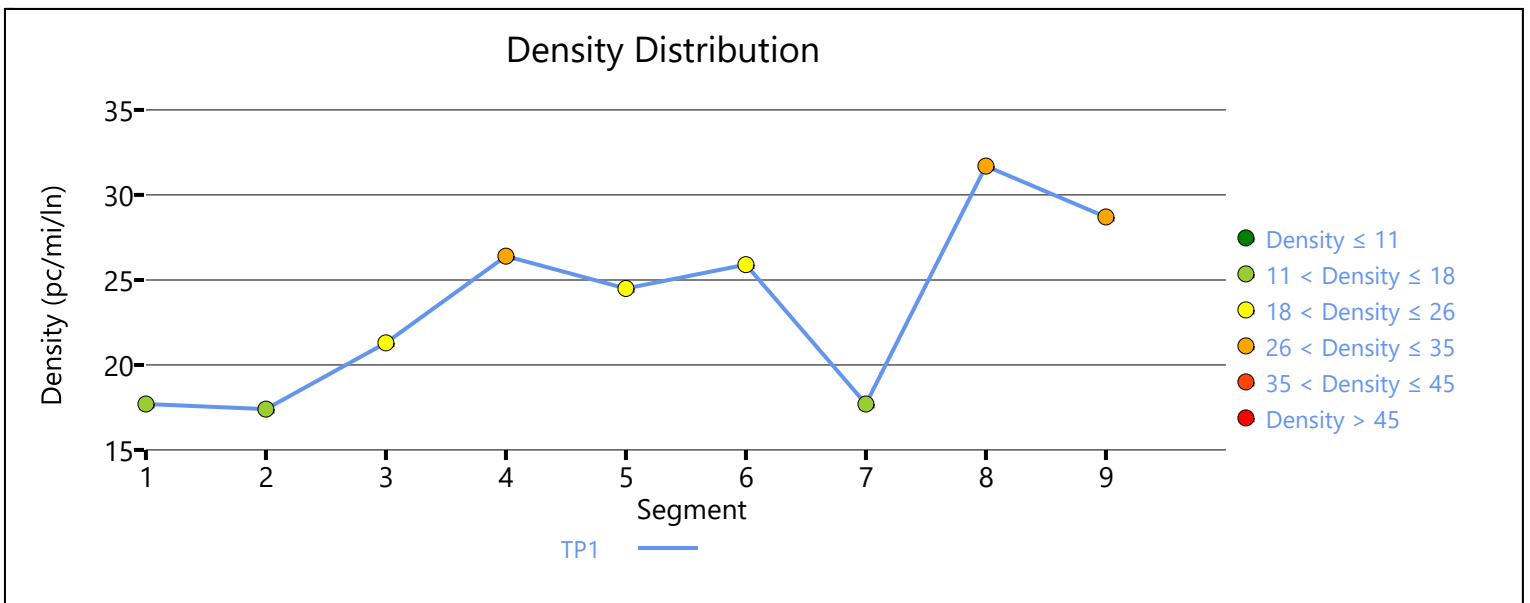
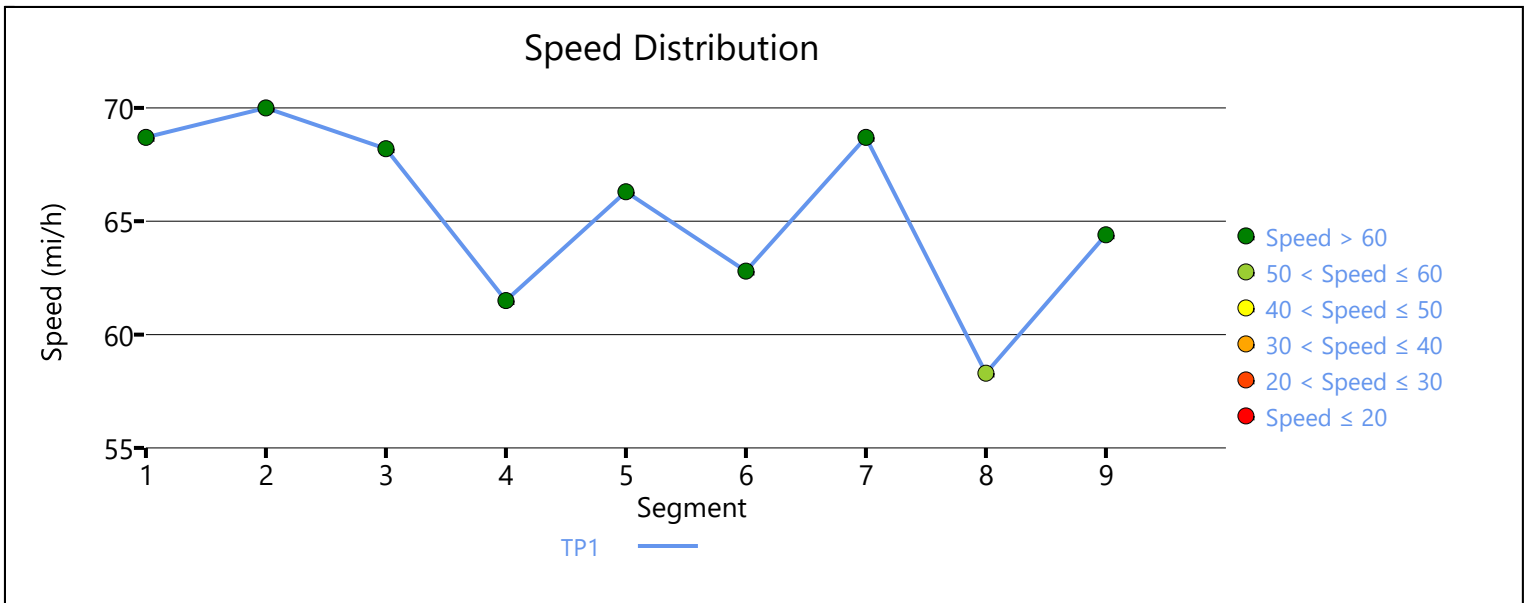
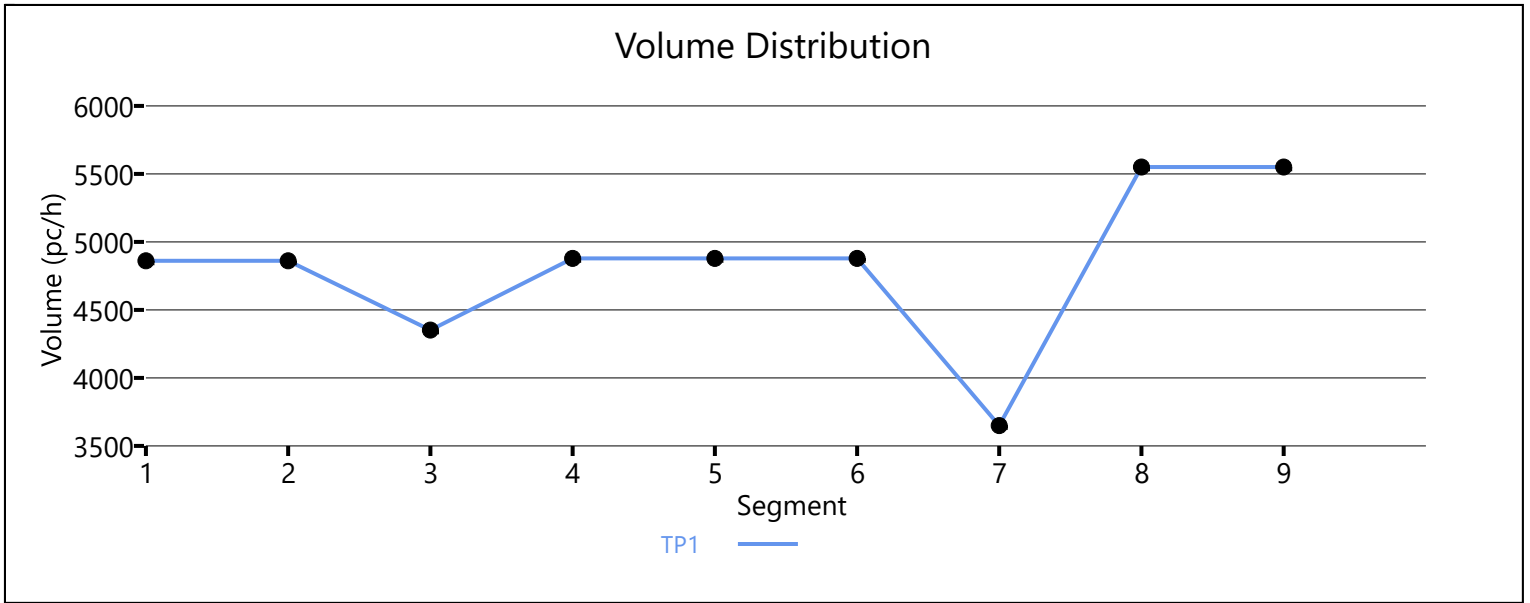
Segment 3: Basic

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.980		4352		7161		0.61		68.2		21.3		C

Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.980	4861	509	9600	2100	0.51	0.24	70.0	-	17.4	-	B

1	0.92	0.92	0.980	0.980	4879	527	7200	2100	0.68	0.25	61.5	59.4	26.4	27.4	C
Segment 5: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.980		4879		7131		0.68		66.3		24.5		C
Segment 6: Diverge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.952	4879	1227	7200	2100	0.68	0.58	62.8	58.6	25.9	31.8	D
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.990		3650		7161		0.51		68.7		17.7		B
Segment 8: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.935	5551	1901	7200	2100	0.77	0.91	58.3	55.8	31.7	33.6	D
Segment 9: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.92		0.971		5551		7161		0.78		64.4		28.7		D
Facility Time Period Results															
T	Speed, mi/h		Density, pc/mi/ln		Density, veh/mi/ln		Travel Time, min		LOS						
1	65.4		24.3		23.8		5.1		C						
Facility Overall Results															
Space Mean Speed, mi/h					65.4					Density, veh/mi/ln					23.8
Average Travel Time, min					5.1					Density, pc/mi/ln					24.3



APPENDIX 7.8:

**EAPC (2021) CONDITIONS WITH I-215/PLACENTIA INTERCHANGE FREEWAY
FACILITY ANALYSIS WORKSHEETS**

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HCS7 Freeway Facilities Report

Project Information

Analyst	RV	Date	2/22/2019
Agency	Urban Crossroads, Inc.	Analysis Year	EAPC 2021 w I-215/Placentia Interchange
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Barker Logistics (JN 12216)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	13
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-215 SB North of Ramona	5175	3
2	Diverge	Diverge	SB Off-Ramp at Ramona	1500	3
3	Basic	Basic	Between Ramona On and Off Ramps	1525	3
4	Merge	Merge	SB On-Ramp at Ramona	1500	3
5	Basic	Basic	Ramona to Placentia	5280	3
6	Diverge	Diverge	SB Off-Ramp at Placentia	1500	3
7	Basic	Basic	Between Placentia On and Off Ramps	2300	3
8	Merge	Merge	SB On-Ramp at Placentia	1500	3
9	Basic	Basic	Placentia to Nuevo	5940	3
10	Diverge	Diverge	SB Off-Ramp at Nuevo	1500	3
11	Basic	Basic	Between Nuevo On and Off Ramps	1500	3
12	Merge	Basic	SB On-Ramp at Nuevo	1500	3
13	Basic	Basic	S of Nuevo	2045	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.962	4631	7146	0.65	67.3	22.9	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.962	0.901	4631	1323	7200	2100	0.64	0.63	62.5	58.3	24.7	31.2	D

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	3330	7131	0.47	67.7	16.4	B

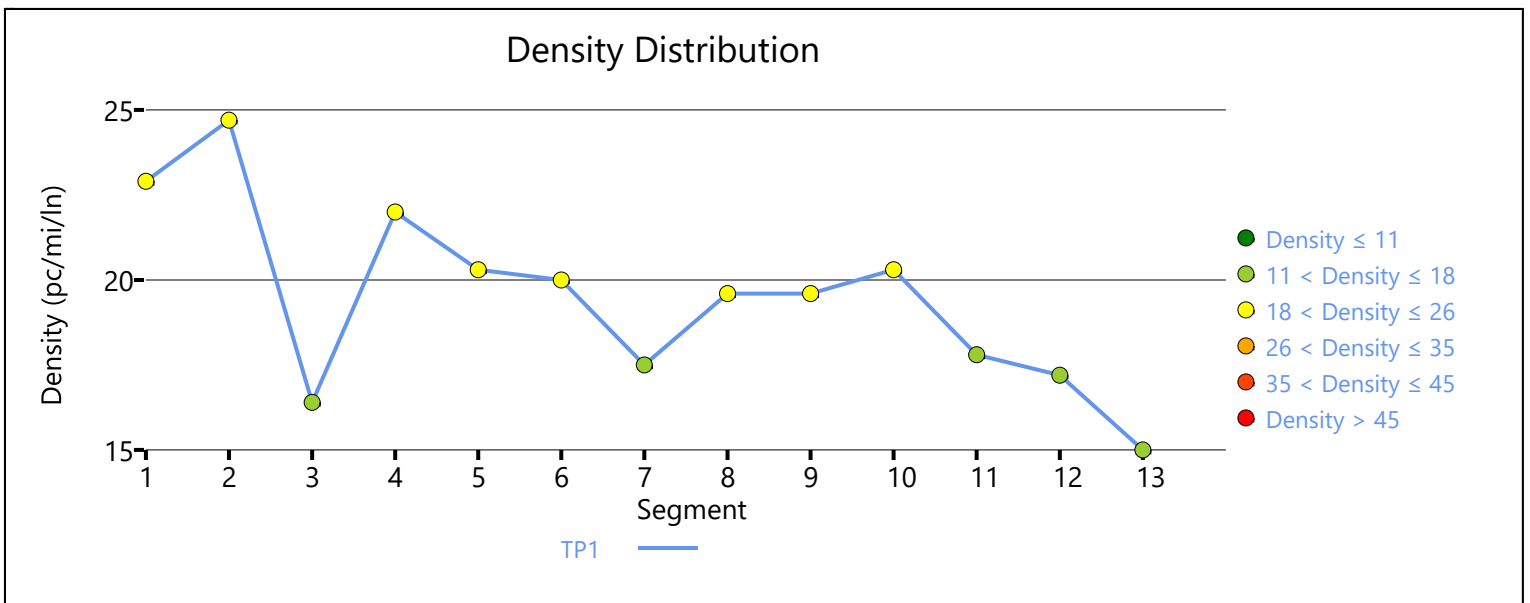
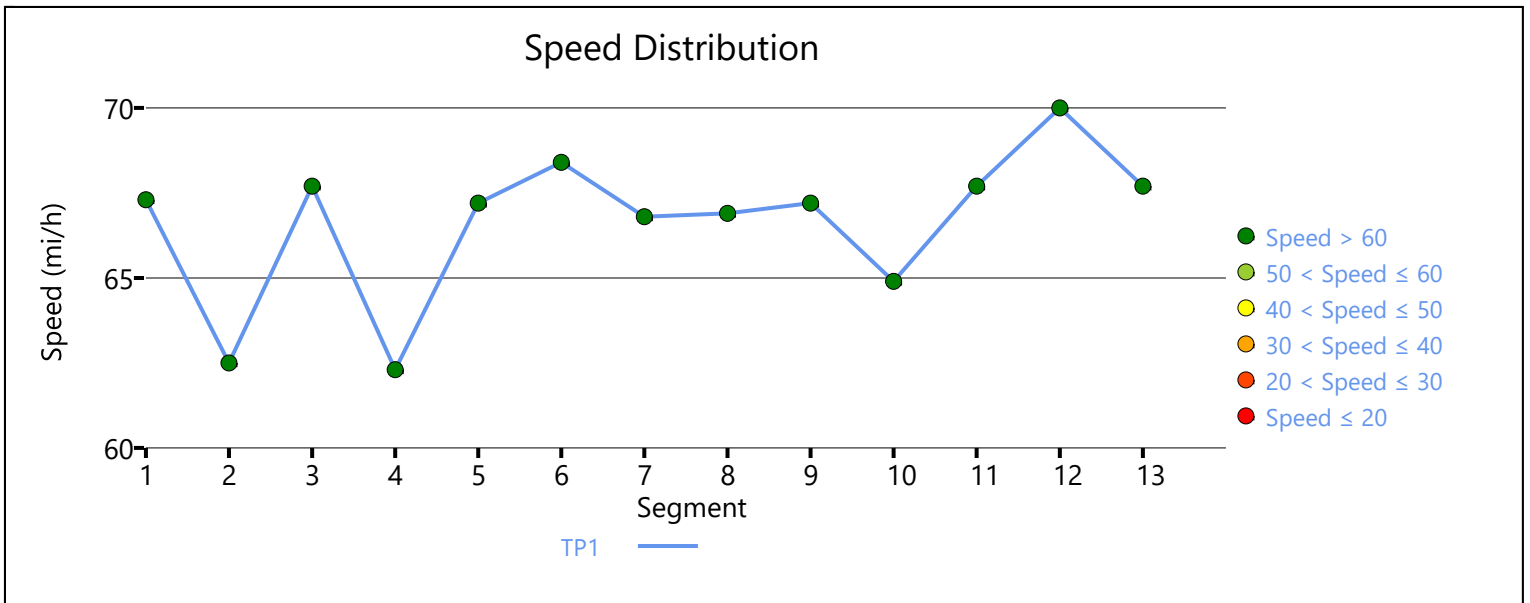
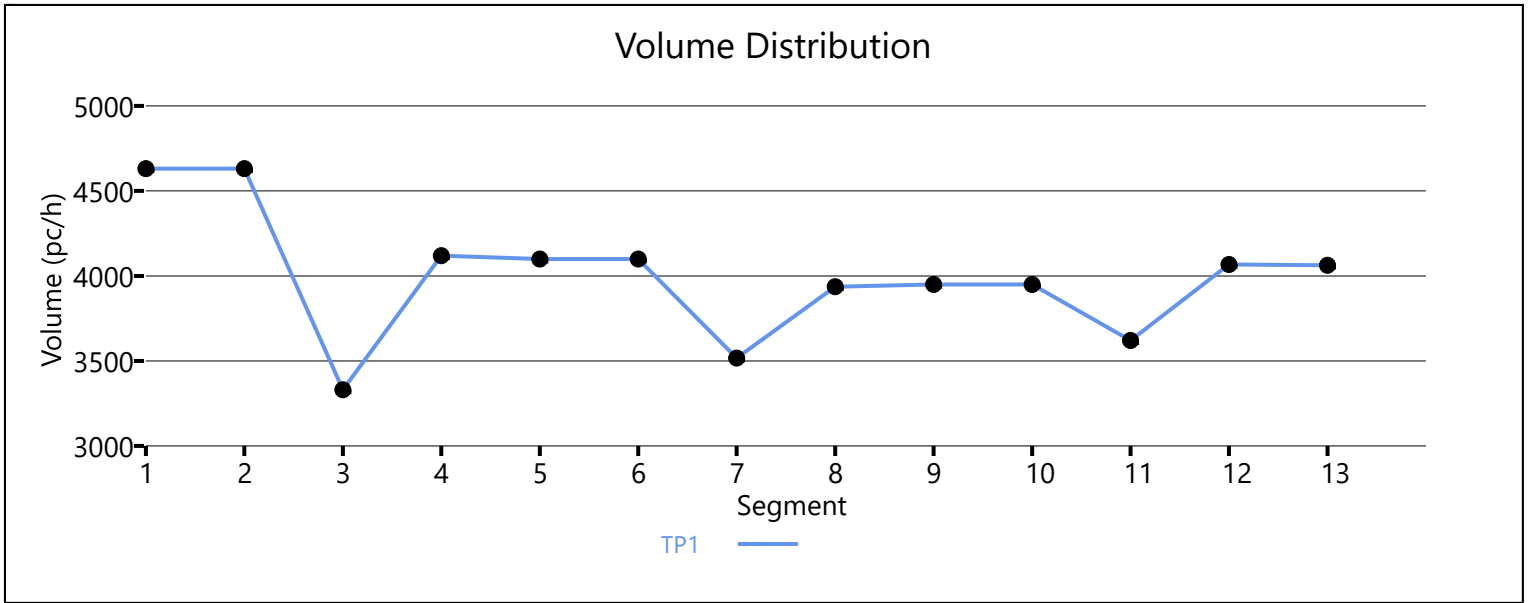
1	0.92	0.971	4063	9508	0.43	67.7	15.0	B
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Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	66.8	19.8	19.2	5.6	C

Facility Overall Results

Space Mean Speed, mi/h	66.8	Density, veh/mi/ln	19.2
Average Travel Time, min	5.6	Density, pc/mi/ln	19.8



HCS7 Freeway Facilities Report

Project Information

Analyst	RV	Date	2/22/2019
Agency	Urban Crossroads, Inc.	Analysis Year	EAPC 2021 w I-215/Placentia Interchange
Jurisdiction	Caltrans	Time Period Analyzed	AM Peak Hour
Project Description	Barker Logistics (JN 12216)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	13
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-215 NB S of Nuevo	1675	4
2	Diverge	Basic	NB Nuevo Off-Ramp	1500	4
3	Basic	Basic	Between Nuevo On and Off Ramps	1400	3
4	Merge	Merge	NB Nuevo On-Ramp	1500	3
5	Basic	Basic	Between Nuevo and Ramona	5870	3
6	Diverge	Diverge	NB Placentia Off-Ramp	1500	3
7	Basic	Basic	Between Placentia On and Off Ramps	2425	3
8	Merge	Merge	NB Placentia On Ramp	1500	3
9	Basic	Basic	Between Placentia and Ramona	5440	3
10	Diverge	Diverge	NB Ramona Off-Ramp	1500	3
11	Basic	Basic	Between Ramona On and Off Ramps	1315	3
12	Merge	Merge	NB Ramona On-Ramp	1500	3
13	Basic	Basic	I-215 NB N of Ramona	5000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.952	5945	9600	0.62	69.1	21.5	C

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.952	0.990	5945	704	9600	2100	0.62	0.34	69.1	-	21.5	-	C

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.943	5263	7200	0.73	66.4	26.4	D

Segment 4: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.943	0.980	5619	356	7200	2100	0.78	0.17	60.5	58.4	31.0	30.3	D
Segment 5: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	1	0.92	0.943	5633	7200	0.78	64.7	29.0	D						
Segment 6: Diverge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.943	0.952	5633	582	7200	2100	0.78	0.28	64.2	60.2	29.2	31.0	D
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	1	0.92	0.943	5045	7200	0.70	67.3	25.0	C						
Segment 8: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.943	0.917	5581	536	7200	2100	0.78	0.26	60.5	58.4	30.7	30.0	D
Segment 9: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	1	0.92	0.943	5566	7200	0.77	65.0	28.5	D						
Segment 10: Diverge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.943	0.935	5566	961	7200	2100	0.77	0.46	63.4	59.2	29.3	34.1	D
Segment 11: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	1	0.92	0.943	4613	7200	0.64	68.7	22.4	C						
Segment 12: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.943	0.901	5831	1218	7200	2100	0.81	0.58	59.0	56.5	32.9	33.0	D
Segment 13: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	1	0.92	0.943	5831	7200	0.81	59.0	32.9	D						

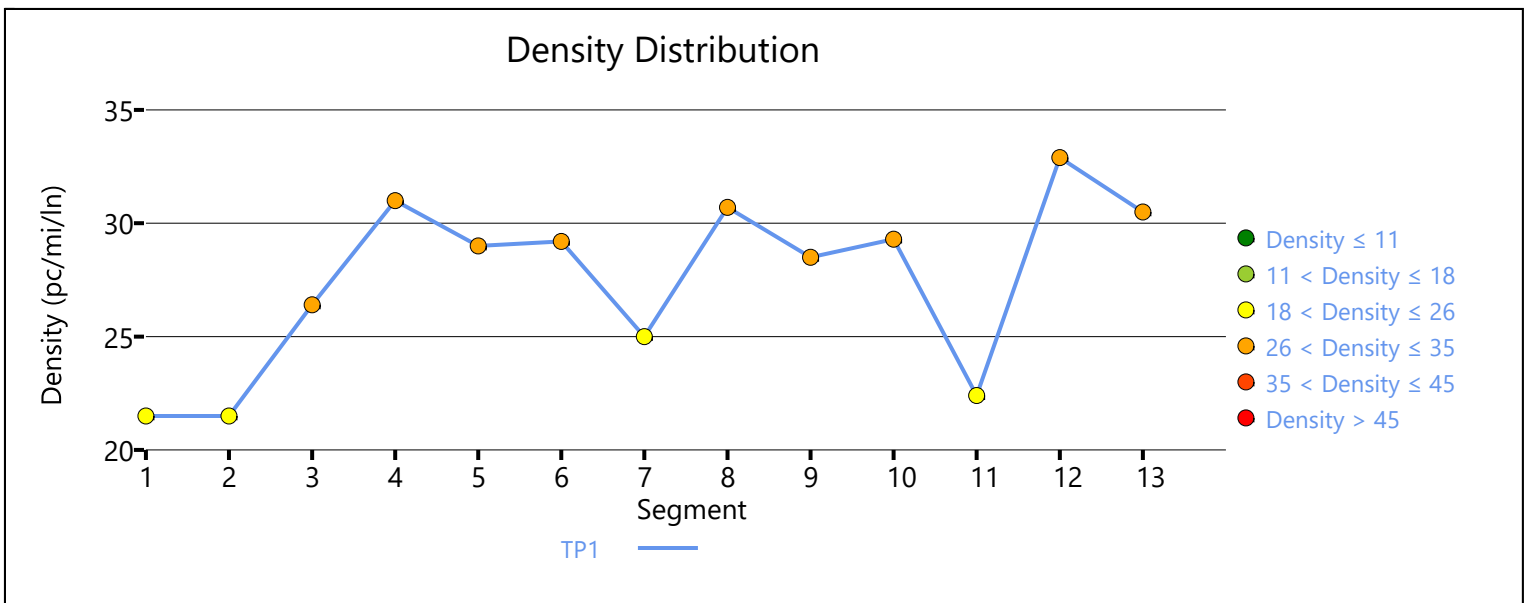
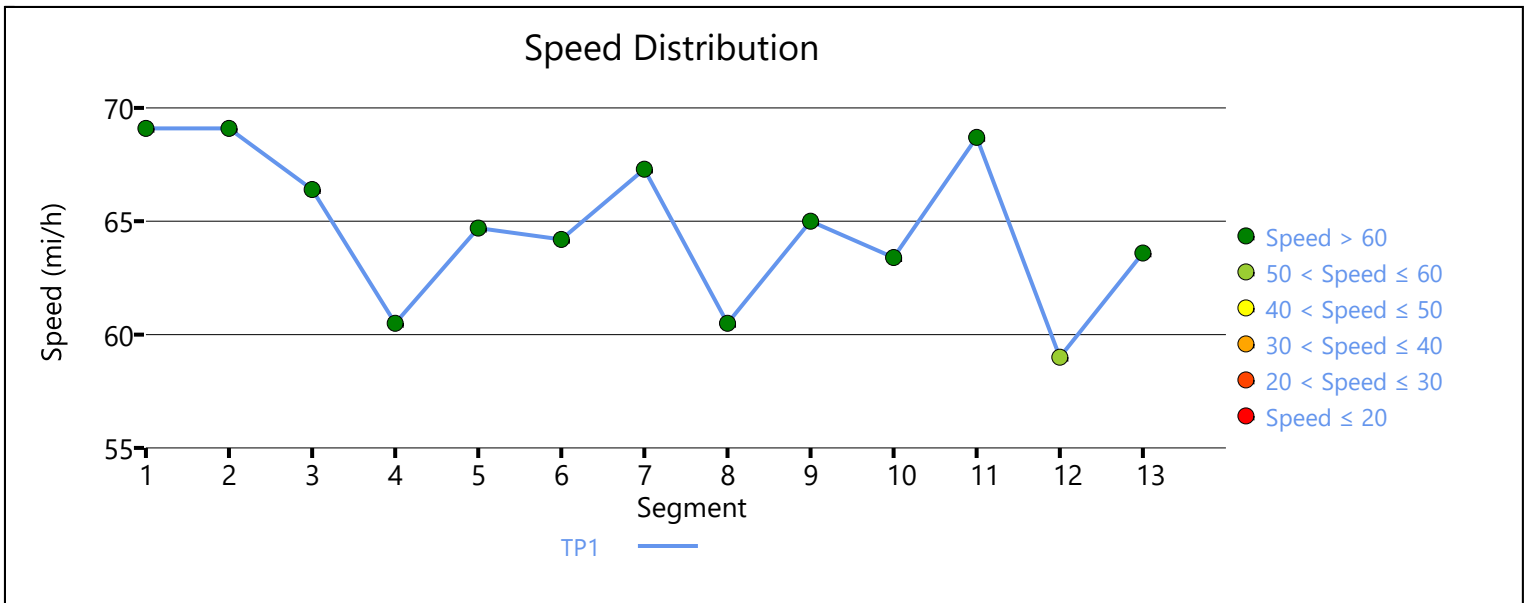
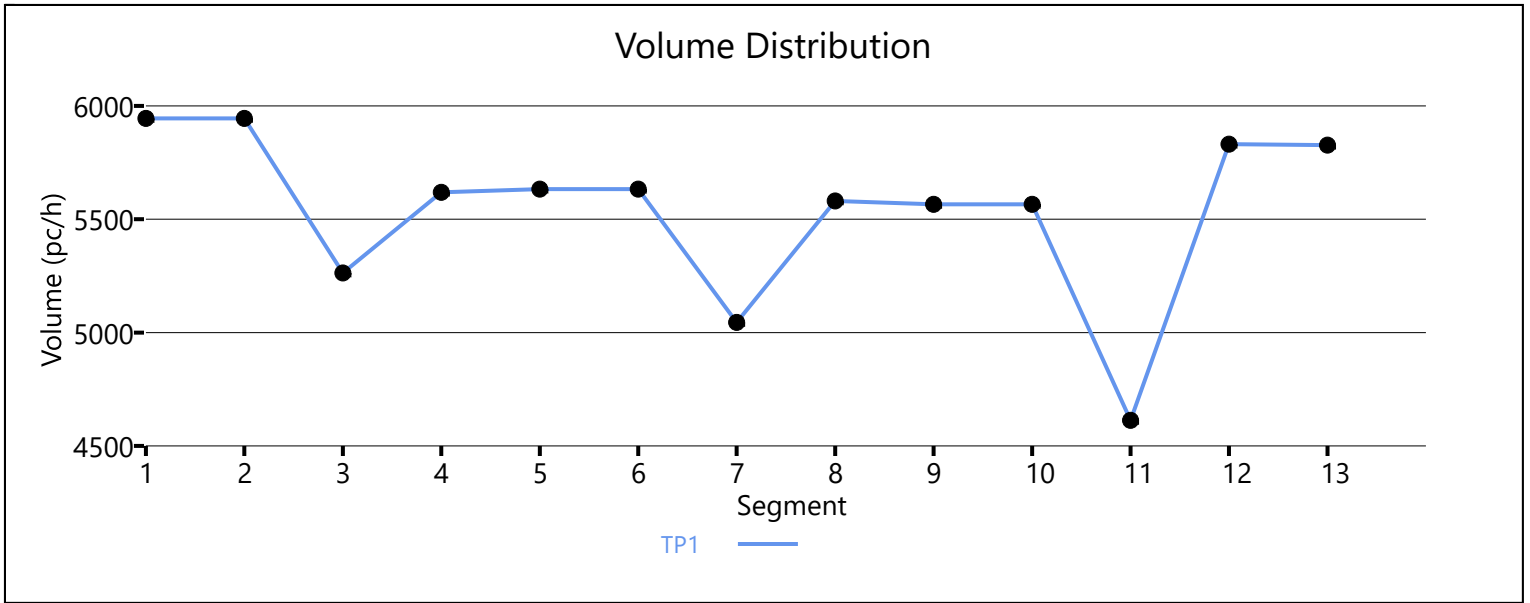
1	0.92	0.935	5827	7200	0.81	63.6	30.5	D
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Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	64.6	27.9	26.3	5.7	D

Facility Overall Results

Space Mean Speed, mi/h	64.6	Density, veh/mi/ln	26.3
Average Travel Time, min	5.7	Density, pc/mi/ln	27.9



HCS7 Freeway Facilities Report

Project Information

Analyst	RV	Date	2/22/2019
Agency	Urban Crossroads, Inc.	Analysis Year	EAPC 2021 w I-215/Placentia Interchange
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Barker Logistics (JN 12216)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	13
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-215 SB North of Ramona	5175	3
2	Diverge	Diverge	SB Off-Ramp at Ramona	1500	3
3	Basic	Basic	Between Ramona On and Off Ramps	1525	3
4	Merge	Merge	SB On-Ramp at Ramona	1500	3
5	Basic	Basic	Ramona to Placentia	5280	3
6	Diverge	Diverge	SB Off-Ramp at Placentia	1500	3
7	Basic	Basic	Between Placentia On and Off Ramps	2300	3
8	Merge	Merge	SB On-Ramp at Placentia	1500	3
9	Basic	Basic	Placentia to Nuevo	5940	3
10	Diverge	Diverge	SB Off-Ramp at Nuevo	1500	3
11	Basic	Basic	Between Nuevo On and Off Ramps	1500	3
12	Merge	Basic	SB On-Ramp at Nuevo	1500	3
13	Basic	Basic	S of Nuevo	2045	4

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.980	6026	7146	0.84	61.5	32.7	D

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.943	6026	1256	7200	2100	0.84	0.60	62.8	58.5	32.0	36.7	E

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.990	4768	7131	0.67	66.6	23.9	C

Segment 4: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.980	6075	1307	7200	2100	0.84	0.62	58.1	55.4	34.9	34.4	D
Segment 5: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	1	0.92	0.990	6062	7116	0.85	60.7	33.3	D						
Segment 6: Diverge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.952	6062	614	7200	2100	0.84	0.29	68.3	63.6	29.6	33.0	D
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	1	0.92	0.990	5471	7104	0.77	63.6	28.7	D						
Segment 8: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.980	6166	695	7200	2100	0.86	0.33	62.5	59.3	32.9	33.5	D
Segment 9: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	1	0.92	0.990	6159	7116	0.87	60.1	34.2	D						
Segment 10: Diverge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.980	6159	538	7200	2100	0.86	0.26	64.1	60.3	32.0	35.9	E
Segment 11: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	1	0.92	0.990	5627	7131	0.79	63.4	29.6	D						
Segment 12: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.980	6349	722	7200	2100	0.78	0.34	64.7	-	29.0	-	D
Segment 13: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	1	0.92	0.990	5627	7131	0.79	63.4	29.6	D						

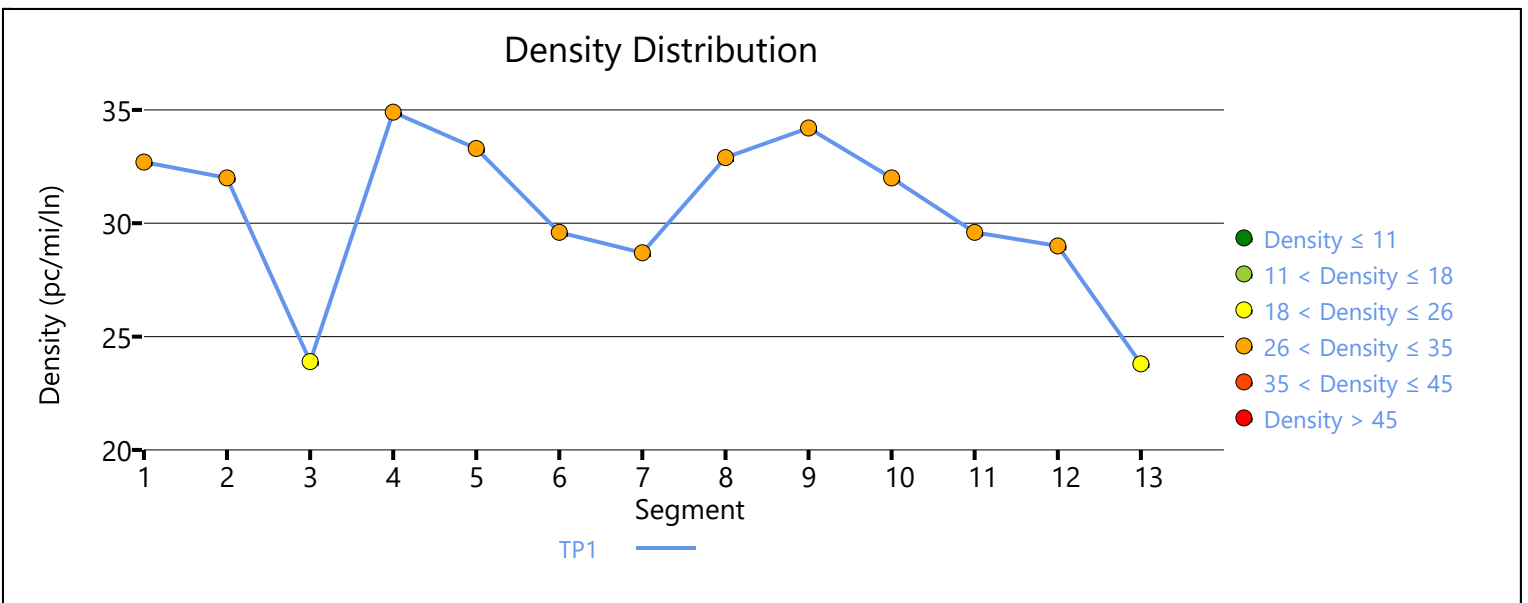
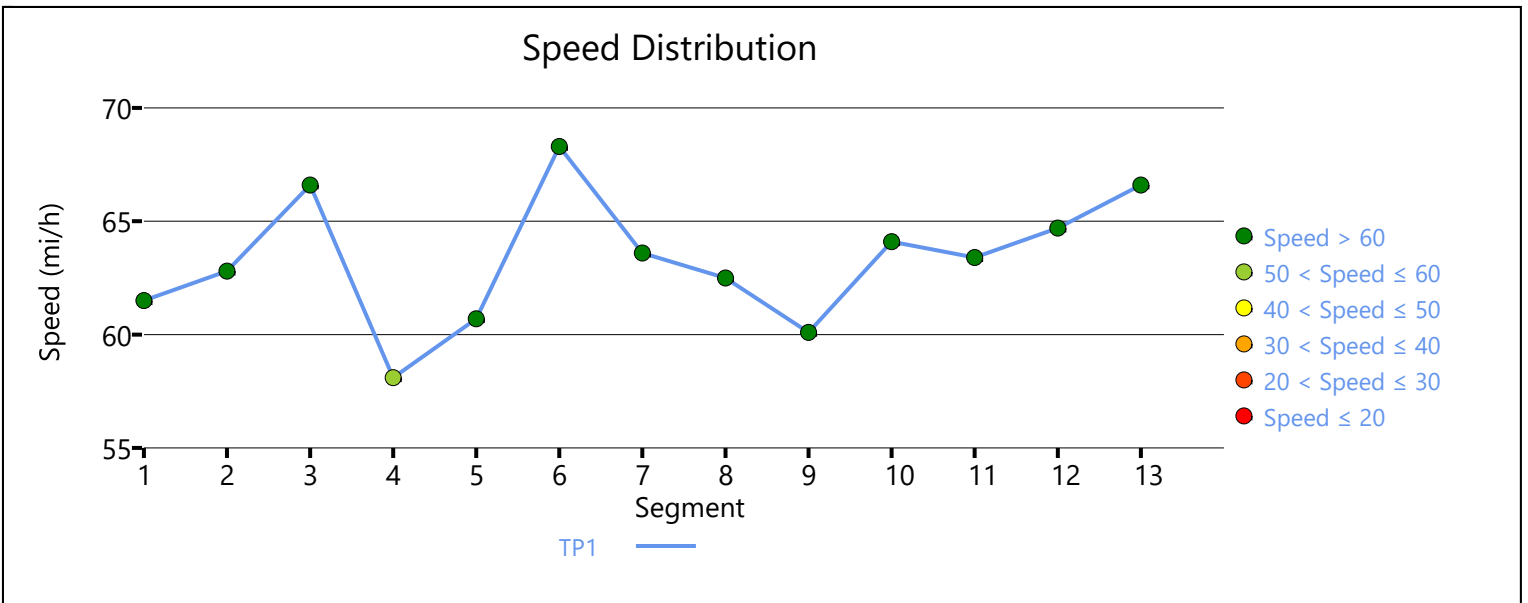
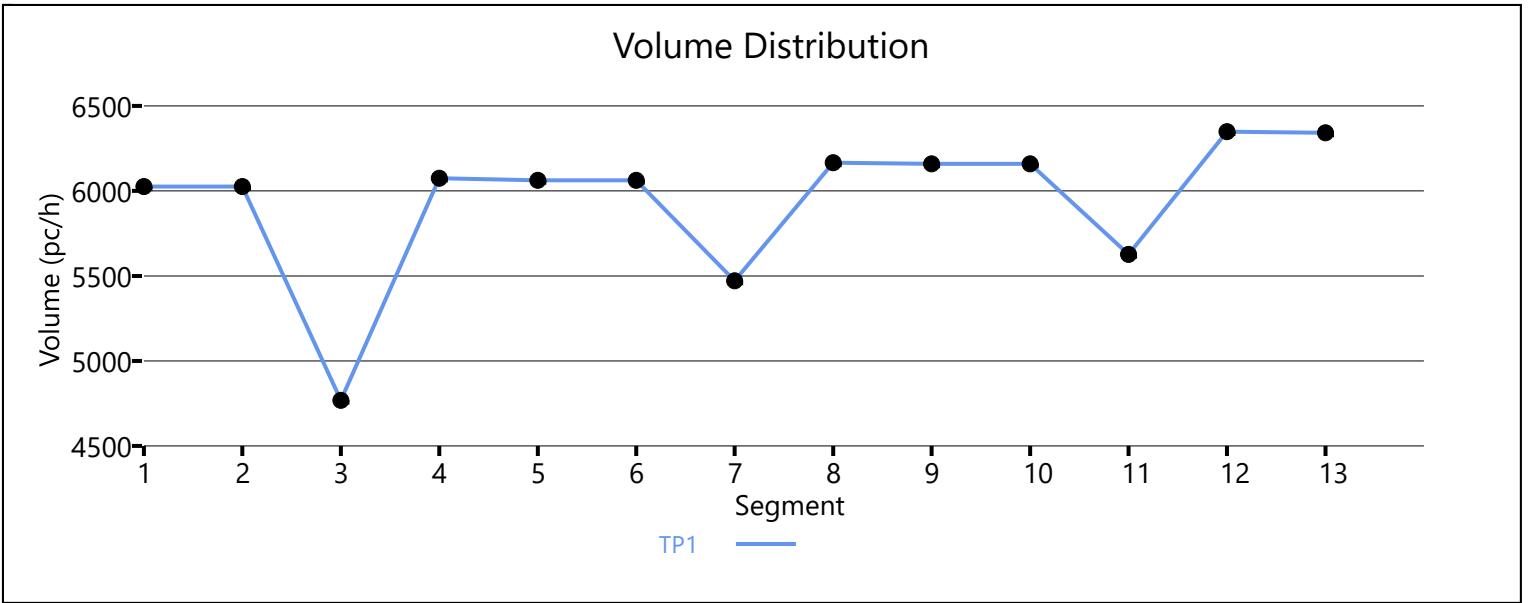
1	0.92	0.990	6342	9508	0.67	66.6	23.8	C
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Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	62.3	31.3	30.9	6.0	D

Facility Overall Results

Space Mean Speed, mi/h	62.3	Density, veh/mi/ln	30.9
Average Travel Time, min	6.0	Density, pc/mi/ln	31.3



HCS7 Freeway Facilities Report

Project Information

Analyst	RV	Date	2/22/2019
Agency	Urban Crossroads, Inc.	Analysis Year	EAPC 2021 w I-215/Placentia Interchange
Jurisdiction	Caltrans	Time Period Analyzed	PM Peak Hour
Project Description	Barker Logistics (JN 12216)		

Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	13
Total Time Periods	1	Time Period Duration, min	15

Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-215 NB S of Nuevo	1675	4
2	Diverge	Basic	NB Nuevo Off-Ramp	1500	4
3	Basic	Basic	Between Nuevo On and Off Ramps	1400	3
4	Merge	Merge	NB Nuevo On-Ramp	1500	3
5	Basic	Basic	Between Nuevo and Ramona	5870	3
6	Diverge	Diverge	NB Placentia Off-Ramp	1500	3
7	Basic	Basic	Between Placentia On and Off Ramps	2425	3
8	Merge	Merge	NB Placentia On Ramp	1500	3
9	Basic	Basic	Between Placentia and Ramona	5440	3
10	Diverge	Diverge	NB Ramona Off-Ramp	1500	3
11	Basic	Basic	Between Ramona On and Off Ramps	1315	3
12	Merge	Merge	NB Ramona On-Ramp	1500	3
13	Basic	Basic	I-215 NB N of Ramona	5000	3

Facility Segment Data

Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.990	4574	9600	0.48	70.0	16.3	B

Segment 2: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.990	4574	369	9600	2100	0.48	0.18	70.0	-	16.3	-	B

Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.92	0.990	4205	7200	0.58	69.5	20.2	C

Segment 4: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.980	4601	396	7200	2100	0.64	0.19	61.9	59.9	24.8	25.8	C
Segment 5: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92		0.980		4644		7200		0.65		68.6		22.6		C
Segment 6: Diverge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.962	4644	442	7200	2100	0.65	0.21	64.6	60.5	24.0	26.6	C
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92		0.990		4168		7200		0.58		69.6		20.0		C
Segment 8: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.935	4811	643	7200	2100	0.67	0.31	61.6	59.6	26.0	26.8	C
Segment 9: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92		0.980		4824		7200		0.67		68.1		23.6		C
Segment 10: Diverge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.980	0.952	4824	920	7200	2100	0.67	0.44	63.6	59.3	25.3	31.0	D
Segment 11: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92		0.990		3890		7200		0.54		69.9		18.6		C
Segment 12: Merge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92	0.92	0.990	0.943	5274	1384	7200	2100	0.73	0.66	60.1	57.8	29.3	30.9	D
Segment 13: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.92		0.990		5274		7200		0.73		60.1		29.3		D

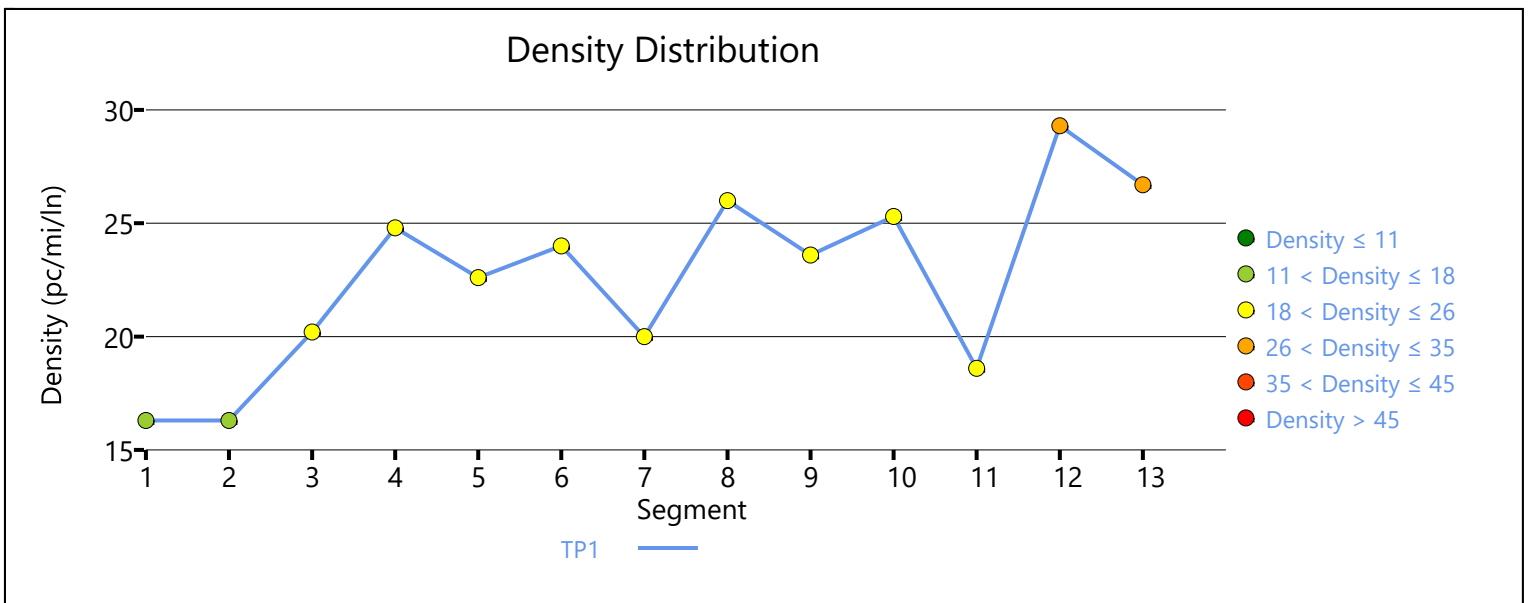
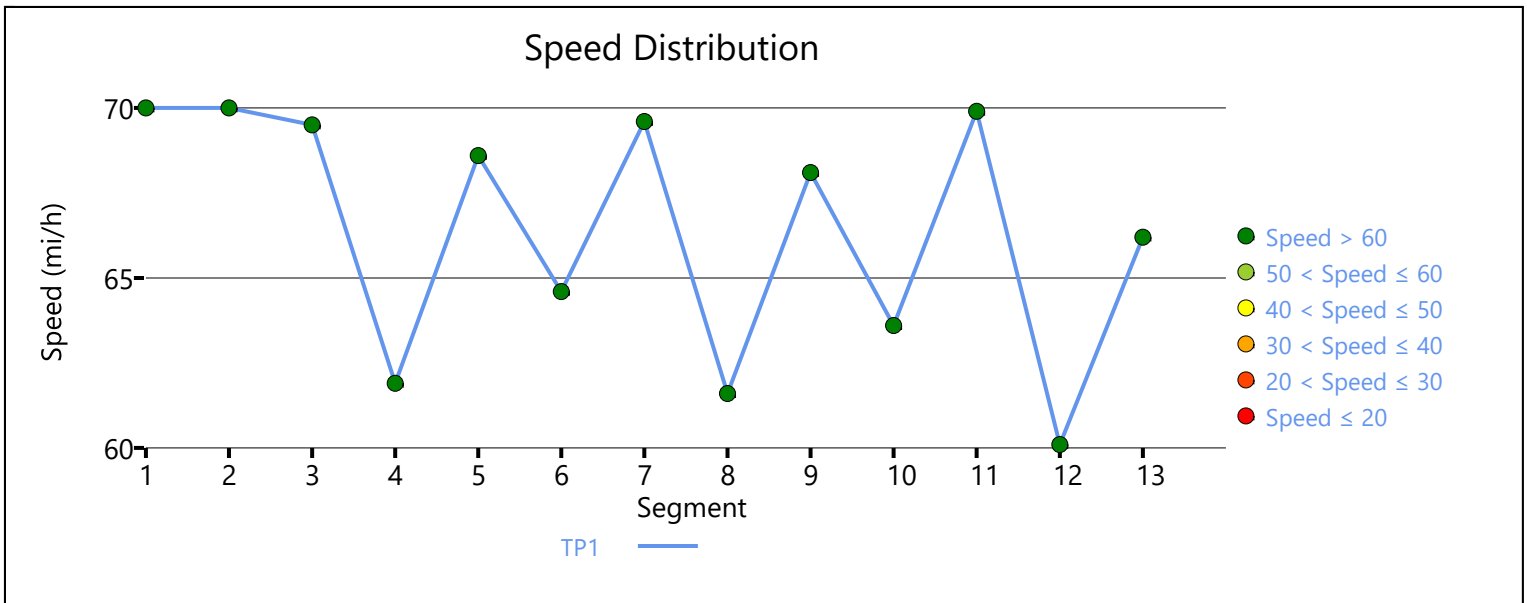
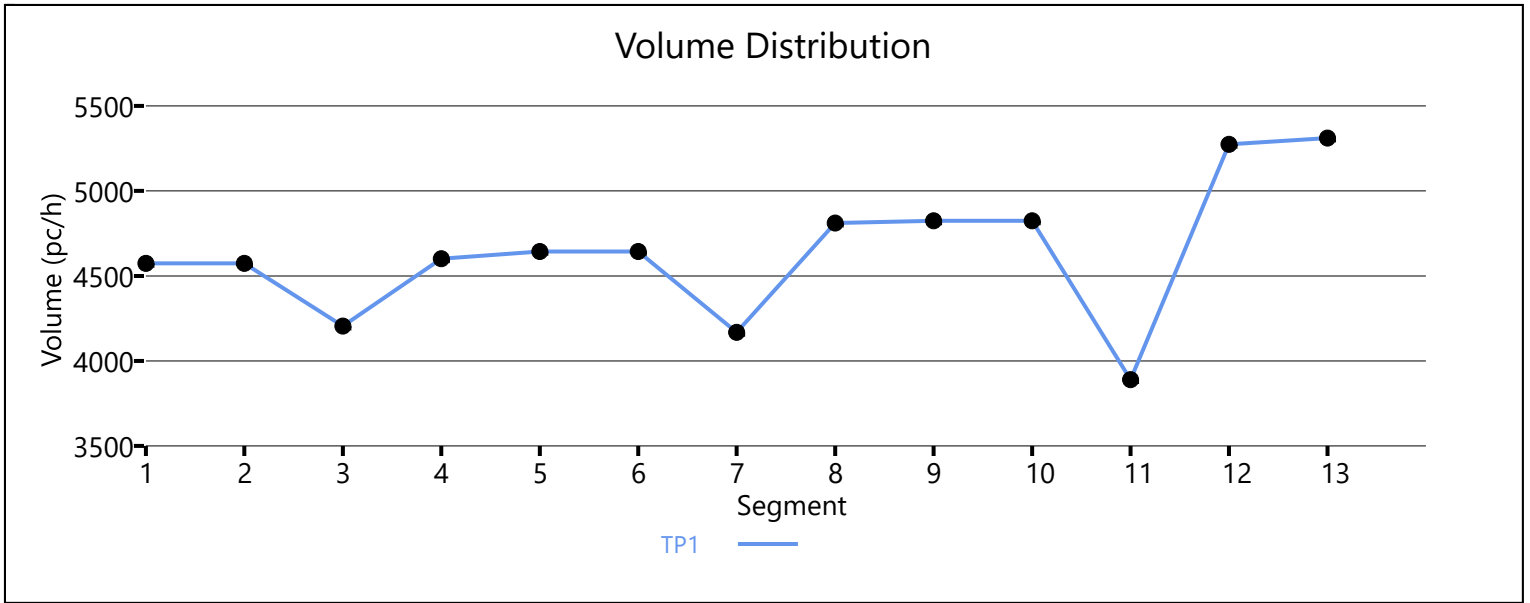
1	0.92	0.971	5311	7200	0.74	66.2	26.7	D
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Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	66.7	22.9	22.4	5.5	C

Facility Overall Results

Space Mean Speed, mi/h	66.7	Density, veh/mi/ln	22.4
Average Travel Time, min	5.5	Density, pc/mi/ln	22.9



APPENDIX 7.9:

**EAPC (2021) WITHOUT I-215/PLACENTIA INTERCHANGE CONDITIONS
INTERSECTION OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS**

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Timings
10: Nuevo Rd./Harvill Av. & Driveway/N A St.

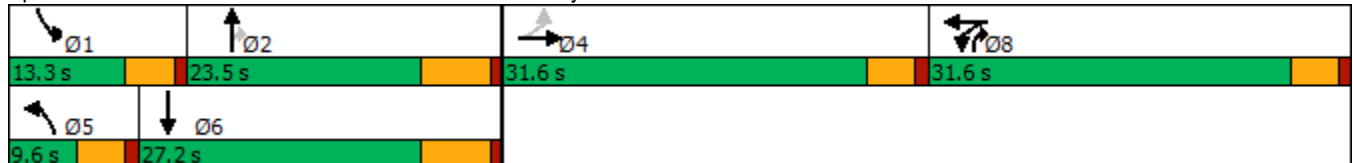


Lane Group	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↕	↗	↕	↗	↕	↗	↗	↕
Traffic Volume (vph)	4	544	0	4	324	605	130	289
Future Volume (vph)	4	544	0	4	324	605	130	289
Turn Type	NA	Split	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases	4	8	8	5	2	8	1	6
Permitted Phases						2		
Detector Phase	4	8	8	5	2	8	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	31.6	9.6	23.2	31.6	9.6	23.2
Total Split (s)	31.6	31.6	31.6	9.6	23.5	31.6	13.3	27.2
Total Split (%)	31.6%	31.6%	31.6%	9.6%	23.5%	31.6%	13.3%	27.2%
Yellow Time (s)	3.6	3.6	3.6	3.6	5.2	3.6	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.6	4.6	4.6	4.6	6.2	4.6	4.6	6.2
Lead/Lag				Lead	Lag		Lead	Lag
Lead-Lag Optimize?				Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	Min	None	None	Min

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 69.5
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated

Splits and Phases: 10: Nuevo Rd./Harvill Av. & Driveway/N A St.



HCM 6th Signalized Intersection Summary
 10: Nuevo Rd./Harvill Av. & Driveway/N A St.

Barker Logistics (JN 12216)

03/11/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↗	↔		↗	↑↑	↗	↗	↑↑	
Traffic Volume (veh/h)	0	4	1	544	0	229	4	324	605	130	289	3
Future Volume (veh/h)	0	4	1	544	0	229	4	324	605	130	289	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	0	4	1	429	245	254	4	360	672	144	321	3
Peak Hour Factor	0.92	0.92	0.92	0.90	0.92	0.90	0.92	0.90	0.90	0.90	0.90	0.92
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	0	19	5	611	289	299	10	919	953	182	1281	12
Arrive On Green	0.00	0.01	0.01	0.34	0.34	0.34	0.01	0.25	0.25	0.10	0.35	0.35
Sat Flow, veh/h	0	1467	367	1810	855	886	1810	3610	1610	1810	3665	34
Grp Volume(v), veh/h	0	0	5	429	0	499	4	360	672	144	158	166
Grp Sat Flow(s),veh/h/ln	0	0	1834	1810	0	1741	1810	1805	1610	1810	1805	1894
Q Serve(g_s), s	0.0	0.0	0.2	14.0	0.0	18.1	0.1	5.6	17.3	5.3	4.2	4.2
Cycle Q Clear(g_c), s	0.0	0.0	0.2	14.0	0.0	18.1	0.1	5.6	17.3	5.3	4.2	4.2
Prop In Lane	0.00		0.20	1.00		0.51	1.00		1.00	1.00		0.02
Lane Grp Cap(c), veh/h	0	0	24	611	0	588	10	919	953	182	631	662
V/C Ratio(X)	0.00	0.00	0.21	0.70	0.00	0.85	0.41	0.39	0.70	0.79	0.25	0.25
Avail Cap(c_a), veh/h	0	0	728	719	0	691	133	919	953	232	631	662
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	0.0	33.2	19.5	0.0	20.9	33.7	21.0	9.2	29.9	15.8	15.8
Incr Delay (d2), s/veh	0.0	0.0	4.1	2.5	0.0	8.6	10.1	0.3	2.4	10.3	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.1	6.0	0.0	8.3	0.1	2.1	10.8	2.6	1.5	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	37.3	22.1	0.0	29.5	43.8	21.3	11.6	40.2	16.0	16.0
LnGrp LOS	A	A	D	C	A	C	D	C	B	D	B	B
Approach Vol, veh/h		5			928			1036			468	
Approach Delay, s/veh		37.3			26.1			15.1			23.4	
Approach LOS		D			C			B			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.4	23.5		5.5	5.0	30.0		27.6				
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		4.6				
Max Green Setting (Gmax), s	8.7	17.3		27.0	5.0	21.0		27.0				
Max Q Clear Time (g_c+I1), s	7.3	19.3		2.2	2.1	6.2		20.1				
Green Ext Time (p_c), s	0.0	0.0		0.0	0.0	1.3		2.9				

Intersection Summary

HCM 6th Ctrl Delay	20.9
HCM 6th LOS	C

Notes

User approved volume balancing among the lanes for turning movement.

Timings
10: Nuevo Rd./Harvill Av. & Driveway/N A St.

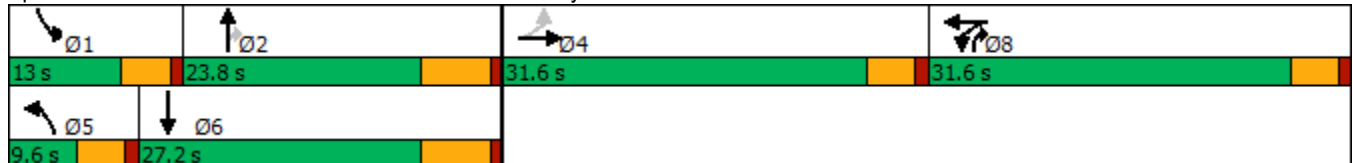


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations		↕	↗	↕	↗	↕	↗	↗	↕
Traffic Volume (vph)	2	0	301	0	1	172	332	116	339
Future Volume (vph)	2	0	301	0	1	172	332	116	339
Turn Type	Perm	NA	Split	NA	Prot	NA	pm+ov	Prot	NA
Protected Phases		4	8	8	5	2	8	1	6
Permitted Phases	4						2		
Detector Phase	4	4	8	8	5	2	8	1	6
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	31.6	31.6	9.6	23.2	31.6	9.6	23.2
Total Split (s)	31.6	31.6	31.6	31.6	9.6	23.8	31.6	13.0	27.2
Total Split (%)	31.6%	31.6%	31.6%	31.6%	9.6%	23.8%	31.6%	13.0%	27.2%
Yellow Time (s)	3.6	3.6	3.6	3.6	3.6	5.2	3.6	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6	4.6	4.6	4.6	6.2	4.6	4.6	6.2
Lead/Lag					Lead	Lag		Lead	Lag
Lead-Lag Optimize?					Yes	Yes		Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	None	Min

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 56.5
 Natural Cycle: 100
 Control Type: Actuated-Uncoordinated

Splits and Phases: 10: Nuevo Rd./Harvill Av. & Driveway/N A St.



HCM 6th Signalized Intersection Summary
 10: Nuevo Rd./Harvill Av. & Driveway/N A St.

Barker Logistics (JN 12216)
 03/11/2019



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↗	↕		↗	↕	↗	↗	↕	↕
Traffic Volume (veh/h)	2	0	5	301	0	79	1	172	332	116	339	1
Future Volume (veh/h)	2	0	5	301	0	79	1	172	332	116	339	1
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	2	0	5	200	164	83	1	181	349	122	357	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	9	0	22	399	263	133	4	832	726	158	1168	3
Arrive On Green	0.02	0.00	0.02	0.22	0.22	0.22	0.00	0.23	0.23	0.09	0.32	0.32
Sat Flow, veh/h	475	0	1187	1810	1190	602	1810	3610	1607	1810	3693	10
Grp Volume(v), veh/h	7	0	0	200	0	247	1	181	349	122	174	184
Grp Sat Flow(s),veh/h/ln	1663	0	0	1810	0	1792	1810	1805	1607	1810	1805	1898
Q Serve(g_s), s	0.2	0.0	0.0	4.4	0.0	5.6	0.0	1.8	6.9	3.0	3.3	3.3
Cycle Q Clear(g_c), s	0.2	0.0	0.0	4.4	0.0	5.6	0.0	1.8	6.9	3.0	3.3	3.3
Prop In Lane	0.29		0.71	1.00		0.34	1.00		1.00	1.00		0.01
Lane Grp Cap(c), veh/h	31	0	0	399	0	395	4	832	726	158	571	600
V/C Ratio(X)	0.23	0.00	0.00	0.50	0.00	0.62	0.25	0.22	0.48	0.77	0.31	0.31
Avail Cap(c_a), veh/h	994	0	0	1082	0	1072	200	1407	982	337	840	883
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	21.8	0.0	0.0	15.4	0.0	15.9	22.5	14.1	8.7	20.2	11.7	11.7
Incr Delay (d2), s/veh	3.6	0.0	0.0	1.0	0.0	1.6	11.6	0.1	0.5	3.0	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	1.7	0.0	2.2	0.0	0.6	2.7	1.1	1.0	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.5	0.0	0.0	16.4	0.0	17.5	34.1	14.2	9.2	23.2	12.0	12.0
LnGrp LOS	C	A	A	B	A	B	C	B	A	C	B	B
Approach Vol, veh/h		7			447			531			480	
Approach Delay, s/veh		25.5			17.0			10.9			14.8	
Approach LOS		C			B			B			B	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.5	16.6		5.4	4.7	20.5		14.6				
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		4.6				
Max Green Setting (Gmax), s	8.4	17.6		27.0	5.0	21.0		27.0				
Max Q Clear Time (g_c+I1), s	5.0	8.9		2.2	2.0	5.3		7.6				
Green Ext Time (p_c), s	0.0	1.5		0.0	0.0	1.5		2.1				

Intersection Summary

HCM 6th Ctrl Delay	14.1
HCM 6th LOS	B

Notes

User approved volume balancing among the lanes for turning movement.

APPENDIX 7.10:

**EAPC (2021) WITH I-215/PLACENTIA INTERCHANGE CONDITIONS INTERSECTION
OPERATIONS ANALYSIS WORKSHEETS WITH IMPROVEMENTS**

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Timings
8: Harvill Av. & Placentia St.

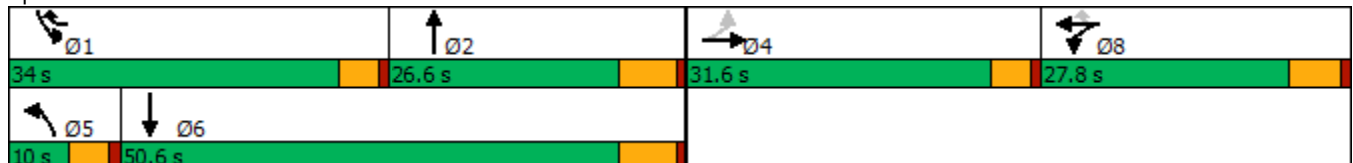


Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations		↔	↗	↖	↗	↗	↕	↗	↕
Traffic Volume (vph)	12	44	323	132	585	26	444	436	300
Future Volume (vph)	12	44	323	132	585	26	444	436	300
Turn Type	Perm	NA	Split	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases		4	8	8	1	5	2	1	6
Permitted Phases	4				8				
Detector Phase	4	4	8	8	1	5	2	1	6
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	5.0	5.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	27.8	27.8	9.6	9.6	23.2	9.6	23.2
Total Split (s)	31.6	31.6	27.8	27.8	34.0	10.0	26.6	34.0	50.6
Total Split (%)	26.3%	26.3%	23.2%	23.2%	28.3%	8.3%	22.2%	28.3%	42.2%
Yellow Time (s)	3.6	3.6	4.8	4.8	3.6	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6	5.8	5.8	4.6	4.6	6.2	4.6	6.2
Lead/Lag					Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	Min	None	Min

Intersection Summary





















Cycle Length: 120
 Actuated Cycle Length: 89.5
 Natural Cycle: 105
 Control Type: Actuated-Uncoordinated

Splits and Phases: 8: Harvill Av. & Placentia St.



HCM 6th Signalized Intersection Summary
8: Harvill Av. & Placentia St.

Barker Logistics (JN 12216)
03/11/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	12	44	14	323	132	585	26	444	247	436	300	22
Future Volume (veh/h)	12	44	14	323	132	585	26	444	247	436	300	22
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	13	47	15	244	285	629	28	477	266	469	323	24
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	31	111	35	466	490	675	51	526	292	567	1255	93
Arrive On Green	0.10	0.10	0.10	0.26	0.26	0.26	0.03	0.24	0.24	0.16	0.37	0.37
Sat Flow, veh/h	315	1140	364	1810	1900	1610	1810	2239	1242	3510	3408	252
Grp Volume(v), veh/h	75	0	0	244	285	629	28	384	359	469	170	177
Grp Sat Flow(s),veh/h/ln	1819	0	0	1810	1900	1610	1810	1805	1676	1755	1805	1855
Q Serve(g_s), s	3.3	0.0	0.0	9.9	11.2	22.0	1.3	17.6	17.8	11.0	5.6	5.7
Cycle Q Clear(g_c), s	3.3	0.0	0.0	9.9	11.2	22.0	1.3	17.6	17.8	11.0	5.6	5.7
Prop In Lane	0.17		0.20	1.00		1.00	1.00		0.74	1.00		0.14
Lane Grp Cap(c), veh/h	177	0	0	466	490	675	51	424	394	567	665	683
V/C Ratio(X)	0.42	0.00	0.00	0.52	0.58	0.93	0.54	0.90	0.91	0.83	0.26	0.26
Avail Cap(c_a), veh/h	575	0	0	466	490	675	114	431	401	1209	939	964
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.3	0.0	0.0	27.2	27.7	23.6	40.9	31.7	31.8	34.6	18.8	18.8
Incr Delay (d2), s/veh	1.6	0.0	0.0	1.1	1.8	19.8	3.3	22.1	24.3	1.2	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	0.0	4.1	4.9	14.2	0.6	9.6	9.2	4.5	2.1	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.9	0.0	0.0	28.3	29.4	43.4	44.2	53.8	56.1	35.8	19.0	19.0
LnGrp LOS	D	A	A	C	C	D	D	D	E	D	B	B
Approach Vol, veh/h		75			1158			771			816	
Approach Delay, s/veh		37.9			36.8			54.5			28.7	
Approach LOS		D			D			D			C	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	18.4	26.3		12.9	7.0	37.7		27.8				
Change Period (Y+Rc), s	4.6	6.2		4.6	4.6	6.2		5.8				
Max Green Setting (Gmax), s	29.4	20.4		27.0	5.4	44.4		22.0				
Max Q Clear Time (g_c+I1), s	13.0	19.8		5.3	3.3	7.7		24.0				
Green Ext Time (p_c), s	0.8	0.3		0.3	0.0	1.8		0.0				

Intersection Summary

HCM 6th Ctrl Delay	39.3
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.

Timings
8: Harvill Av. & Placentia St.

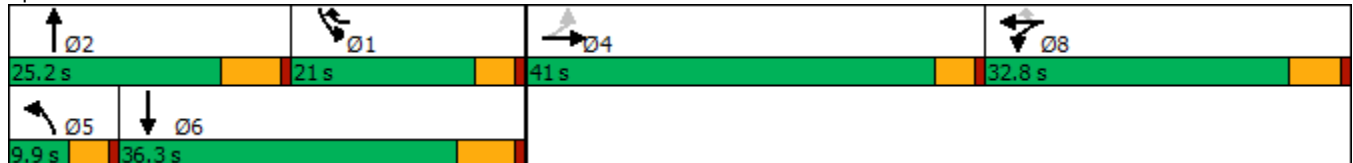


Lane Group	EBL	EBT	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations		↔	↕	↗	↖	↕	↖	↕
Traffic Volume (vph)	25	154	61	462	15	332	606	404
Future Volume (vph)	25	154	61	462	15	332	606	404
Turn Type	Perm	NA	NA	pm+ov	Prot	NA	Prot	NA
Protected Phases		4	8	1	5	2	1	6
Permitted Phases	4			8				
Detector Phase	4	4	8	1	5	2	1	6
Switch Phase								
Minimum Initial (s)	10.0	10.0	10.0	5.0	5.0	10.0	5.0	10.0
Minimum Split (s)	31.6	31.6	32.8	9.6	9.6	23.2	9.6	23.2
Total Split (s)	41.0	41.0	32.8	21.0	9.9	25.2	21.0	36.3
Total Split (%)	34.2%	34.2%	27.3%	17.5%	8.3%	21.0%	17.5%	30.3%
Yellow Time (s)	3.6	3.6	4.8	3.6	3.6	5.2	3.6	5.2
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		4.6	5.8	4.6	4.6	6.2	4.6	6.2
Lead/Lag				Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?				Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	Min	None	Min

Intersection Summary





















Cycle Length: 120
 Actuated Cycle Length: 117.6
 Natural Cycle: 120
 Control Type: Actuated-Uncoordinated

Splits and Phases: 8: Harvill Av. & Placentia St.



HCM 6th Signalized Intersection Summary
8: Harvill Av. & Placentia St.

Barker Logistics (JN 12216)
03/11/2019

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	154	28	219	61	462	15	332	236	606	404	11
Future Volume (veh/h)	25	154	28	219	61	462	15	332	236	606	404	11
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adj Flow Rate, veh/h	28	173	31	158	193	519	17	373	265	681	454	12
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	36	220	39	309	325	584	35	428	300	673	1444	38
Arrive On Green	0.16	0.16	0.16	0.17	0.17	0.17	0.02	0.21	0.21	0.19	0.40	0.40
Sat Flow, veh/h	223	1375	246	1810	1900	1610	1810	2029	1421	3510	3593	95
Grp Volume(v), veh/h	232	0	0	158	193	519	17	331	307	681	228	238
Grp Sat Flow(s),veh/h/ln	1845	0	0	1810	1900	1610	1810	1805	1644	1755	1805	1883
Q Serve(g_s), s	10.3	0.0	0.0	6.8	8.0	9.5	0.8	15.2	15.5	16.4	7.4	7.4
Cycle Q Clear(g_c), s	10.3	0.0	0.0	6.8	8.0	9.5	0.8	15.2	15.5	16.4	7.4	7.4
Prop In Lane	0.12		0.13	1.00		1.00	1.00		0.86	1.00		0.05
Lane Grp Cap(c), veh/h	295	0	0	309	325	584	35	381	347	673	726	757
V/C Ratio(X)	0.79	0.00	0.00	0.51	0.59	0.89	0.48	0.87	0.88	1.01	0.31	0.31
Avail Cap(c_a), veh/h	785	0	0	571	600	817	112	401	365	673	726	757
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	34.5	0.0	0.0	32.2	32.7	25.7	41.5	32.6	32.7	34.6	17.5	17.5
Incr Delay (d2), s/veh	4.6	0.0	0.0	1.3	1.7	9.0	3.8	17.7	21.1	37.7	0.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.0	0.0	0.0	2.9	3.6	10.3	0.4	7.9	7.7	9.9	2.8	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.1	0.0	0.0	33.5	34.5	34.6	45.3	50.3	53.8	72.3	17.8	17.8
LnGrp LOS	D	A	A	C	C	C	D	D	D	F	B	B
Approach Vol, veh/h		232			870			655			1147	
Approach Delay, s/veh		39.1			34.4			51.8			50.1	
Approach LOS		D			C			D			D	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	22.6	24.3		18.3	6.3	40.6		20.4				
Change Period (Y+Rc), s	6.2	* 6.2		4.6	4.6	6.2		5.8				
Max Green Setting (Gmax), s	16.4	* 19		36.4	5.3	30.1		27.0				
Max Q Clear Time (g_c+I1), s	18.4	17.5		12.3	2.8	9.4		11.5				
Green Ext Time (p_c), s	0.0	0.6		1.4	0.0	2.3		3.1				

Intersection Summary

HCM 6th Ctrl Delay	44.9
HCM 6th LOS	D

Notes

User approved volume balancing among the lanes for turning movement.
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.