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Valero Station

(NW Corner of Rio Bravo Blvd. / Broadway Blvd.)

Traffic Impact Analysis

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F I N A L

Presented to:

Bernalillo County
Public Works Department
&
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District 3 Office

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Introduction

The purpose of this study is to evaluate the transportation conditions before and after implementation of the proposed Valero Station at the northwest corner of Rio Bravo / Broadway and determine the impact of the development on the adjacent transportation system. The recommendations of this study will provide measures to mitigate the impact of the development of the site plan on critical intersections and street segments. This study is prepared to meet the requirements of the New Mexico Department of Transportation (District #3) and Bernalillo County associated with its review of the Valero Station Development as shown on the plan on Page A-3 in the Appendix of this report.

Study Procedures

A scoping study was submitted to Bernalillo County Transportation staff (Richard Mobarak) prior to beginning the study to discuss scope and methodology to be utilized within the proposed Valero Station Traffic Impact Study. Specific items included format, intersections to be studied, intersection analysis procedures, existing traffic counts, trip distribution methodology, and implementation year definition. A copy of the Scoping Study was sent to Antonio Jaramillo, District 3 Traffic Engineer for the New Mexico Department of Transportation.

Intersection capacity analyses were performed in accordance with the procedures for signalized and unsignalized intersections in the Highway Capacity Manual, Special Report 209, Transportation Research Board, 2000, using Trafficware's Synchro version 7 Highway Capacity Software for signalized and unsignalized intersections. For signalized intersections, the operational method of analysis was used for 2014 and 2024 conditions (NO BUILD and BUILD).

It should be noted that Synchro 8 (using HCM 2010 methodology) was not utilized in this analysis since there are numerous problematic issues related to the new software. Synchro 8 was recently released, but there have been problems with the software that Trafficware is trying to address, but have not yet done so. Therefore, Synchro 7 was utilized for this study as required by the New Mexico Department of Transportation.

Intersections targeted for analysis in this study include Rio Bravo Blvd / I-25 E. ramp, Rio Bravo Blvd / I-25 W. ramp, Rio Bravo Blvd / Broadway Blvd, Rio Bravo Blvd / Prince St, Rio Bravo Blvd / Second St, and Rio Bravo Blvd / Isleta Blvd. In addition, the proposed driveways for the site will be analyzed.

Study Area Characteristics

The subject area of land discussed in this report is bound on the east by Broadway Blvd and on the south by Rio Bravo Blvd. See the Valero Vicinity Map on Page A-1 in the Appendix of this report. The total area encompassed by this project is approximately 1.5 acres. The project consists of a 20 fueling position Gas Station with a Convenience Market.

Generally, the adjacent land uses in the area of this project are M-2. The property on which this project is proposed is also zoned M-2. Commercial development is an allowable use on M-2 zoned property.

The expected year of full implementation of the Valero Station is 2014. A horizon year of 2024 will also be analyzed in this study in compliance with the New Mexico Department of Transportation's *State Access Management Manual* which is also enforced to a large degree by the Bernalillo County Public Works Department.

Access to this new site will be proposed Driveway "B" on Rio Bravo Blvd (as a right-in, right-out driveway) and existing Driveway "A" on Broadway Blvd. (as a right-in, right-out driveway). The proposed Driveway "B" on Rio Bravo Blvd. was proposed and approved by the New Mexico Department of Transportation in a letter from the former District 3 Traffic Engineer dated December 1, 2009 (See copy of letter on pages A-130 thru A-131 in the Appendix of this study). It has been deemed by the current District 3 Traffic Engineer that the approval issued in the letter is no longer valid.

Rio Bravo Blvd, Broadway Blvd & Isleta Blvd are classified as a Principal Arterial Roadways on the Long Range Roadway Plan for the Albuquerque Urban Area. Rio Bravo Blvd is generally a four lane urban facility with raised medians. It will ultimately be a six lane roadway facility. The posted speed limit along Rio Bravo Blvd in the vicinity of the project is 45 MPH. Broadway Blvd is generally a four lane urban facility with raised medians. The posted speed limit along Broadway Blvd in the vicinity of this project is 55 MPH. Isleta Blvd is generally a two lane urban facility with raised medians. The posted speed limit along Isleta Blvd in the vicinity of Rio Bravo Blvd. is 45 MPH.

Second St is classified as a Minor Arterial Roadway on the Long Range Roadway Plan for the Albuquerque Urban Area. It is generally a two lane urban facility with raised medians. The posted speed limit along Second St in the vicinity of Rio Bravo Blvd. is 30 MPH.

Interstate 25 is classified as an Urban Interstate on the Long Range Roadway Plan for the Albuquerque Urban Area. It is generally a four lane urban facility with raised medians. The posted speed limit along Interstate 25 in the vicinity of Rio Bravo Blvd. is 65 MPH.

The Long Range Roadway Plan for the Albuquerque Urban Area Map is included in the report on Page A-4 of the Appendix.

Description of Proposed Development

The Rio Bravo / Broadway Commercial Development is a proposed mixed use commercial project. There is an existing building on-site which will have to be removed.

The proposed development is expected to consist of a 20 fueling position Gas Station w/a Convenience Market. Proposed uses are speculative and, hence, are subject to change. The proposed land use scenario, though, should provide a representative traffic generation rate for most development scenarios associated with development of this property. If the property were to develop in a manner significantly different than the propose plan considered in this report such that the number of generated trips are significantly greater, then an update to this study may be required by the County or the State.

Access to the existing property is via a right-in, right-out driveway on Broadway Blvd. only. There is no existing access on Rio Bravo Blvd. The developer of this project will apply for approval of a new driveway on Rio Bravo Blvd. to serve this project. The new access on Rio Bravo Blvd. will require approval of the Transportation Coordinating Committee (T.C.C.) at the Mid-Region Council of Governments (MRCOG). The Access Justification Study to make the case for the new access on Rio Bravo will be a separate report.

If approved by the Transportation Coordinating Committee, access to this project will be via a limited access driveway on Rio Bravo Blvd. and a full access driveway on Broadway Blvd.

Trip Generation Rates

Trip generation rates for this proposed development were projected based on data contained in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 8th Edition published in 2008. The following table lists the proposed assumed land uses in the project plan along with the calculated daily, AM, and PM Peak Hour trip generation rates resulting from application of the trip generation rate equations contained in the ITE Trip Generation Manual:

Valero Station (Rio Bravo Blvd. / Broadway Blvd.)

Trip Generation Data (ITE Trip Generation Manual - 8th Edition)

USE (ITE CODE)		24 HR VOL	A. M. PEAK HR.		P. M. PEAK HR.	
DESCRIPTION		*GROSS*	*ENTER*	*EXIT*	*ENTER*	*EXIT*
Summary Sheet	Units					
Gasoline / Service Station w/ Convenience Market (945)	20.00	3,256	102	102	134	134
Pass-by Trip Adjustment	*50%*	*(1,628)*	*(51)*	*(51)*	*(67)*	*(67)*
Net New Trips		**1,628**	**51**	**51**	**67**	**67**

The preceding table demonstrates the calculated trip generation rate based on the proposed plan and the projected use for the site. A 50% adjustment was made to account for pass-by trips or mixed use (internal capture) traffic reductions. Trip Generation Rate Summary Table and Individual Trip Generation Rate Worksheets for individual land uses are contained on Pages A-7 thru A-8 in the Appendix.

Trip Distribution / Trip Assignments

Primary and Diverted Linked Trips:

Commercial Land Use

Primary and diverted linked trips for the commercial land use development were distributed proportionally to the 2010 projected population of Data Analysis Subzones within a three-mile radius of the proposed development. Population data for the years 2015 and 2025 were taken from the 2035 Socioeconomic Forecasts by Data Analysis Subzones for the MRCOG Region, supplied by the Mid-Region Council of Governments (MRCOG). Population data from the years 2015 and 2025 was interpolated linearly to obtain 2015 population data to utilize for this analysis. Population Subzones were grouped based on the most likely major street(s) or route(s) to the subject development. The trip distribution worksheets and associated map of subareas and data analysis subzones is shown on Appendix Pages A-10 thru A-20.

Trip assignments are first made on a percentage basis derived from data established in the trip distribution determination process and logical routing. Those percentages are then applied to the projected trips to determine individual traffic movements. Percentage trip assignments are shown in the Appendix on Pages A-21 thru A-23.

Analysis of Existing Conditions

2010 Average Weekday Traffic Volumes (AWDT) for major streets in the site plan area are shown on Page A-7 of the Appendix.

An analysis of the existing conditions of the transportation system was not provided in this report for two primary reasons:

1) The implementation year analysis (2014) is only about two years into the future and significantly represents existing conditions considering approved nearby developments that have not been implemented.
2) The existing volumes do not reflect new volumes that will be present shortly resulting from land development projects that have been approved by the County and / or the State within the last few years, but have not yet been implemented. Therefore, an existing condition analysis would under-report the delays present at the intersections.

Background Traffic Growth

Background traffic growth rates for the implementation & horizon years (2014 & 2024) were calculated so as to approximate the 2035 AM and PM Peak Hour link volumes in the Mid-Region Council of Governments' regional transportation model. The worksheets for calculation of the annual growth rates associated with each intersection for the horizon year are contained under the Intersection Turning Movements Volumes Worksheets (Appendix Pages A-31 thru A-48r). The calculated growth rate should result in approach volumes (NO BUILD) at each intersection that closely approximate the link volumes for the upstream roadway segment. If, however, the calculated growth rate based on the MRCOG regional model results in a negative growth rate, then this report assumes that the growth rate for that leg of the intersection is three. Consequently, the projected horizon year volumes in this report will not match the MRCOG regional model volumes in those cases, but will be somewhat higher.

Projected Peak Hour Turning Movements for 2014 Buildout

The calculated annual growth rates were applied to the most recent peak hour traffic count volumes and trips were added for Neilsen Industrial Park, KAN Industrial Park, Neilsen Commercial Development, and Rio Bravo Commerce Center to account for trips generated by projects that are planned to be constructed in the near future. The sum of the existing volumes plus growth plus other proposed projects constitute the 2014 NO BUILD volumes utilized in this report. To these volumes, the generated trips based on implementation of the proposed Rio Bravo / Broadway (NW Corner) were added to obtain the 2014 BUILD Volumes utilized for the 2014 BUILD Condition analyses. See Appendix Pages A-43 thru A-73 for further information regarding the 2014 turning movement volumes.

NOTE: The implementation year and the horizon year volumes utilized in this study were calculated in similar manner with the following exception:

1. Other approved projects in the area were added to the implementation year background volumes but not the horizon year background volumes. It was assumed in this study

that the Mid-Region Council of Governments' regional model already contains traffic generated by the other developments that are currently approved.

Implementation Year Traffic Analysis (2014)

Classification of levels-of-service and delay for signalized and unsignalized intersections will be made based on criteria established by Synchro, Version 7 (Build 773 Rev 8) computer modeling software which approximates the 2000 Highway Capacity Manual methodology. The average control delay is calculated for each intersection and for each lane group of each leg of the intersection. The control delay then determines the level-of-service based on the following tables:

LEVEL-OF-SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS

Average Delay (secs)	Level-of-Service
≤ 10	A
> 10 and ≤ 20	B
> 20 and ≤ 35	C
> 35 and ≤ 55	D
> 55 and ≤ 80	E
> 80	F

LEVEL-OF-SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS

Average Delay (secs)	Level-of-Service
≤ 10	A
> 10 and ≤ 15	B
> 15 and ≤ 25	C
> 25 and ≤ 35	D
> 35 and ≤ 50	E
> 50	F

Generally speaking, a Level-of-Service D or better is an acceptable parameter for design purposes.

Following is a summary of the results of the Synchro Analysis for each of the intersections targeted for evaluation in this report:

Intersection #1 – Rio Bravo Blvd. / I-25 E. Ramp - Pages A-49 thru A-52

The following table provides a summary of the Levels-of-Service / delays associated with each case analyzed in this study:

Intersection: 1 - Rio Bravo Blvd. / I-25 E. Ramp

		2014 AM Peak Hour BUILD (EXIST. GEOM.)					2014 PM Peak Hour BUILD (EXIST. GEOM.)				
		NO BUILD		BUILD			NO BUILD		BUILD		
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay	
EB	L	2	A - 3.1	2	A - 3.5	L	2	A - 3.9	2	A - 4.2	
	T	2	A - 1.5	2	A - 1.6	T	2	A - 0.4	2	A - 0.4	
	R	0	A - 0.0	0	A - 0.0	R	0	A - 0.0	0	A - 0.0	
WB	L	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0	
	T	2	B - 20.0	2	C - 22.0	T	2	A - 9.0	2	A - 9.8	
	R	1	B - 17.9	1	B - 19.5	R	1	A - 8.0	1	A - 8.7	
NB	L	>	E - 61.0	>	E - 60.7	L	>	E - 59.3	>	E - 59.6	
	T	1	A - 0.0	1	A - 0.0	T	1	A - 0.0	1	A - 0.0	
	R	>	E - 61.0	>	E - 60.7	R	>	E - 59.3	>	E - 59.6	
SB	L	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0	
	T	0	A - 0.0	0	A - 0.0	T	0	A - 0.0	0	A - 0.0	
	R	0	A - 0.0	0	A - 0.0	R	0	A - 0.0	0	A - 0.0	
Intersection:		***B - 13.4***		***B - 13.9***			***A - 9.1***		***A - 9.5***		

Note: ">" designates a shared right or left turn lane next to a thru lane.

The analysis of the intersection of Rio Bravo Blvd. / I-25 East Ramp in this report demonstrates that the projected levels-of-service and delays are acceptable for all conditions analyzed. Therefore, no recommendations are made with regard to measures to increase capacity at the existing signalized intersection. Also, the Rio Bravo Blvd. / I-25 Interchange is currently under study and redesign to accommodate future traffic flows. The new design should provide acceptable levels-of-service and delays though the year 2035.

The results of the queuing analysis for the intersection of Rio Bravo Blvd. / I-25 East Ramp are summarized in the following table:

Queueing Analysis Summary Sheet

Project: Valero Station (NW Corner of Rio Bravo / Broadway)

Intersection: **Rio Bravo Blvd / I-25 E. ramp**

2014

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*2*	*1,040*	*250*	*2*	*556*	*Cont*	*0*	*0*	*0*
AM NO BUILD Queue	2	1,159	775	2	598	450	0	0	0
AM BUILD Queue	**2**	**1,169**	**775**	**2**	**607**	**450**	**0**	**0**	**0**
Existing Lane Length	*2*	*670*	*250*	*2*	*272*	*Cont*	*0*	*0*	*0*
PM NO BUILD Queue	2	866	**600**	2	350	300	0	0	0
PM BUILD Queue	**2**	**879**	**625**	**2**	**361**	**300**	**0**	**0**	**0**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*0*	*0*	*0*	*2*	*93*	*Cont*	*1*	*10*	*300*
AM NO BUILD Queue	0	0	0	2	273	225	1	21	50
AM BUILD Queue	**0**	**0**	**0**	**2**	**288**	**250**	**1**	**21**	**50**
Existing Lane Length	*0*	*0*	*0*	*2*	*274*	*Cont*	*1*	*81*	*300*
PM NO BUILD Queue	0	0	0	2	453	**350**	1	124	200
PM BUILD Queue	**0**	**0**	**0**	**2**	**473**	**375**	**1**	**124**	**200**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*0*	*31*	*0*	*1*	*1*	*Cont*	*0*	*151*	*0*
AM NO BUILD Queue	0	50	100	1	2	0	0	229	325
AM BUILD Queue	**0**	**53**	**100**	**1**	**2**	**0**	**0**	**229**	**325**
Existing Lane Length	*0*	*22*	*0*	*1*	*1*	*Cont*	*0*	*48*	*0*
PM NO BUILD Queue	0	43	100	1	2	0	0	93	175
PM BUILD Queue	**0**	**46**	**100**	**1**	**2**	**0**	**0**	**93**	**175**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*0*	*0*	*0*	*0*	*0*	*Cont*	*0*	*0*	*0*
AM NO BUILD Queue	0	0	0	0	0	0	0	0	0
AM BUILD Queue	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Existing Lane Length	*0*	*0*	*0*	*0*	*0*	*Cont*	*0*	*0*	*0*
PM NO BUILD Queue	0	0	0	0	0	0	0	0	0
PM BUILD Queue	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	AM	PM
Cycle Length:	130	130

NOTE: Queue lengths are in feet.

Reconstruction of the Rio Bravo / I-25 Interchange should meet the above queuing requirements to the extent possible.

Intersection #2 – Rio Bravo Blvd. / I-25 W. Ramp - Pages A-57 thru A-60

The following table provides a summary of the Levels-of-Service / delays associated with each case analyzed in this study:

Intersection: 2 - Rio Bravo Blvd. / I-25 W. Ramp

		2014 AM Peak Hour BUILD					2014 PM Peak Hour BUILD				
		(EXIST. GEOM.)					(EXIST. GEOM.)				
		NO BUILD		BUILD			NO BUILD		BUILD		
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay	
EB	L	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0	
	T	3	A - 7.1	3	A - 8.0	T	3	A - 3.6	3	A - 3.9	
	R	>	A - 7.1	>	A - 8.0	R	>	A - 3.6	>	A - 3.9	
WB	L	1	C - 31.6	1	C - 31.4	L	1	A - 9.0	1	A - 10.0	
	T	2	B - 14.3	2	B - 15.6	T	2	A - 2.0	2	A - 2.0	
	R	0	A - 0.0	0	A - 0.0	R	0	A - 0.0	0	A - 0.0	
NB	L	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0	
	T	0	A - 0.0	0	A - 0.0	T	0	A - 0.0	0	A - 0.0	
	R	0	A - 0.0	0	A - 0.0	R	0	A - 0.0	0	A - 0.0	
SB	L	>	D - 54.3	>	D - 54.3	L	>	E - 58.1	>	E - 58.1	
	T	1	D - 54.3	1	D - 54.3	T	1	E - 58.1	1	E - 58.1	
	R	1	A - 1.5	1	A - 1.9	R	1	B - 10.5	1	B - 12.6	
Intersection:		***B - 11.8***		***B - 12.3***			***A - 8.1***		***A - 9.1***		

Note: ">" designates a shared right or left turn lane next to a thru lane.

The analysis of the intersection of Rio Bravo Blvd. / I-25 W. Ramp in this report demonstrates that the projected levels-of-service and delays are acceptable for all conditions analyzed. Therefore, no recommendations are made with regard to measures to increase capacity at the existing signalized intersection. As previously mentioned, the Rio Bravo Blvd. / I-25 Interchange is currently under study and redesign to accommodate future traffic flows. The new design should provide acceptable levels-of-service and delays though the year 2035.

The results of the queuing analysis for the intersection of Rio Bravo Blvd. / I-25 West Ramp are summarized in the following table:

Queueing Analysis Summary Sheet

Project: Valero Station (NW Corner of Rio Bravo / Broadway)

Intersection: **Rio Bravo Blvd / I-25 W. ramp**

2014

Approach	Left Turns			Thru Movements				Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*0*	*0*	*0*	*2*	*1,596*	*Cont*		*1*	*8*	*50*
AM NO BUILD Queue	0	0	0	2	1,697	>1,000	*	1	8	25
AM BUILD Queue	**0**	**0**	**0**	**2**	**1,715**	**>1,000**	*	**1**	**8**	**25**
Existing Lane Length	*0*	*0*	*0*	*2*	*891*	*Cont*		*1*	*22*	*50*
PM NO BUILD Queue	0	0	0	2	1,122	**750**		1	24	75
PM BUILD Queue	**0**	**0**	**0**	**2**	**1,146**	**775**		**1**	**24**	**75**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*1*	*11*	*100*	*2*	*82*	*Cont*		*0*	*0*	*0*
AM NO BUILD Queue	1	19	50	2	149	150		0	0	0
AM BUILD Queue	**1**	**19**	**50**	**2**	**167**	**175**		**0**	**0**	**0**
Existing Lane Length	*1*	*54*	*100*	*2*	*220*	*Cont*		*0*	*0*	*0*
PM NO BUILD Queue	1	95	175	2	345	**275**		0	0	0
PM BUILD Queue	**1**	**95**	**175**	**2**	**368**	**300**		**0**	**0**	**0**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*0*	*0*	*0*	*0*	*0*	*Cont*		*0*	*0*	*0*
AM NO BUILD Queue	0	0	0	0	0	0		0	0	0
AM BUILD Queue	**0**	**0**	**0**	**0**	**0**	**0**		**0**	**0**	**0**
Existing Lane Length	*0*	*0*	*0*	*0*	*0*	*Cont*		*0*	*0*	*0*
PM NO BUILD Queue	0	0	0	0	0	0		0	0	0
PM BUILD Queue	**0**	**0**	**0**	**0**	**0**	**0**		**0**	**0**	**0**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*0*	*280*	*0*	*1*	*1*	*Cont*		*1*	*675*	*500*
AM NO BUILD Queue	0	294	400	1	71	125		1	815	>1,000
AM BUILD Queue	**0**	**294**	**400**	**1**	**71**	**125**		**1**	**838**	**>1,000**
Existing Lane Length	*0*	*51*	*0*	*1*	*1*	*Cont*		*1*	*1,148*	*500*
PM NO BUILD Queue	0	53	100	1	30	75		1	1,246	>1,000
PM BUILD Queue	**0**	**53**	**100**	**1**	**30**	**75**		**1**	**1,276**	**>1,000**

	AM	PM
Cycle Length:	**130**	**130**

NOTE: Queue lengths are in feet.

Reconstruction of the Rio Bravo / I-25 Interchange should meet the above queuing requirements to the extent possible.

Intersection #3 – Rio Bravo Blvd. / Broadway Blvd. - Pages A-65 thru A-70

The following table provides a summary of the Levels-of-Service / delays associated with each case analyzed in this study:

Intersection: 3 - Rio Bravo Blvd. / Broadway Blvd.

2014 AM Peak Hour BUILD

		(EXIST. GEOM.) NO BUILD		(EXIST. GEOM.) BUILD		(MIT. GEOM.) BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	1	A - 4.4	1	A - 4.2	1	A - 4.3
	T	2	B - 16.5	2	C - 24.7	2	C - 24.7
	R	1	A - 5.6	1	A - 5.4	1	A - 5.4
WB	L	2	F - 89.9	2	F - 89.7	2	F - 89.7
	T	2	B - 14.8	2	B - 15.4	2	B - 15.4
	R	1	B - 10.3	1	B - 11.4	1	B - 11.4
NB	L	1	F - 108	1	F - 114	2	F - 114
	T	2	D - 54.8	2	D - 55.0	2	D - 55.0
	R	1	D - 45.4	1	D - 45.4	1	D - 45.4
SB	L	1	D - 46.1	1	D - 48.1	1	D - 48.1
	T	2	D - 52.9	2	D - 53.1	2	D - 53.1
	R	1	D - 39.2	1	D - 39.3	1	D - 38.9
Intersection:			***C - 34.2***		***D - 37.3***		***D - 37.3***

2014 PM Peak Hour BUILD

		(EXIST. GEOM.) NO BUILD		(EXIST. GEOM.) BUILD		(MIT. GEOM.) BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	1	F - 93.0	1	F - 114	1	F - 114
	T	2	D - 42.5	2	D - 42.5	2	D - 39.4
	R	1	A - 7.0	1	A - 7.2	1	A - 7.2
WB	L	2	F - 94.4	2	F - 93.8	2	F - 93.8
	T	2	F - 133	2	F - 149	2	F - 136
	R	1	B - 19.2	1	B - 19.0	1	B - 18.4
NB	L	1	F - 188	1	F - 192	2	F - 204
	T	2	C - 23.1	2	C - 23.1	2	C - 23.8
	R	1	C - 24.6	1	C - 24.6	1	C - 25.8
SB	L	1	D - 45.6	1	D - 47.3	1	D - 47.3
	T	2	F - 105	2	F - 110	2	F - 110
	R	1	F - 111	1	F - 120	1	D - 47.8
Intersection:			***F - 91.4***		***F - 97.0***		***F - 91.3***

Note: ">" designates a shared right or left turn lane next to a thru lane.

The analysis of the intersection of Rio Bravo Blvd. / Broadway Blvd. in this report demonstrates that the projected levels-of-service and delays are moderately increased from the 2014 PM NO BUILD to the BUILD conditions analyzed. The initial analysis in this report is based on existing geometry. It should be noted, though, that it does not count the existing third westbound thru / right turn lane as a thru lane, but as an exclusive right turn lane since the extension of the westbound thru movement is too short to be functional. The 2024 Horizon Year analysis will consider the third westbound thru lane since the Rio Bravo / I-25 Interchange Study / Redesign will provide the additional third westbound thru lane all the way to 2nd St.

Mitigation of the increased delay resulting from this project can be accomplished by constructing a southbound right turn lane on Broadway Blvd. between Driveway "A" and Rio Bravo Blvd., thus providing dual southbound right turn lanes.

The results of the queuing analysis for the intersection of Rio Bravo Blvd. / Broadway Blvd. are summarized in the following table:

Queueing Analysis Summary Sheet

Project: Valero Station (NW Corner of Rio Bravo / Broadway)

Intersection: **Rio Bravo Blvd / Broadway Blvd**

2014

Approach	Left Turns			Thru Movements				Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*2*	*151*	*275*	*2*	*1,400*	*Cont*		*1*	*104*	*230*
AM NO BUILD Queue	2	157	150	2	1,538	>1,000	*	1	382	500
AM BUILD Queue	**2**	**163**	**150**	**2**	**1,538**	**>1,000**	*	**1**	**382**	**500**
Existing Lane Length	*2*	*105*	*275*	*2*	*766*	*Cont*		*1*	*114*	*230*
PM NO BUILD Queue	2	108	125	2	815	575		1	399	525
PM BUILD Queue	**2**	**116**	**125**	**2**	**815**	**575**		**1**	**399**	**525**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*2*	*155*	*375*	*3*	*562*	*Cont*		*1*	*26*	*999*
AM NO BUILD Queue	2	397	325	3	623	350		1	29	75
AM BUILD Queue	**2**	**397**	**325**	**3**	**659**	**350**		**1**	**34**	**75**
Existing Lane Length	*2*	*214*	*375*	*3*	*1,223*	*Cont*		*1*	*24*	*999*
PM NO BUILD Queue	2	283	250	3	1,247	**600**		1	24	75
PM BUILD Queue	**2**	**283**	**250**	**3**	**1,295**	**625**		**1**	**30**	**75**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*2*	*60*	*575*	*2*	*176*	*Cont*		*1*	*220*	*550*
AM NO BUILD Queue	2	212	200	2	310	250		1	340	450
AM BUILD Queue	**2**	**215**	**200**	**2**	**311**	**275**		**1**	**340**	**450**
Existing Lane Length	*2*	*174*	*575*	*2*	*163*	*Cont*		*1*	*260*	*550*
PM NO BUILD Queue	2	710	525	2	306	250		1	530	675
PM BUILD Queue	**2**	**714**	**525**	**2**	**307**	**250**		**1**	**530**	**675**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*1*	*15*	*135*	*2*	*87*	*Cont*		*1*	*65*	*250*
AM NO BUILD Queue	1	31	75	2	145	150		1	72	125
AM BUILD Queue	**1**	**54**	**100**	**2**	**149**	**150**		**1**	**78**	**150**
Existing Lane Length	*1*	*15*	*135*	*2*	*246*	*Cont*		*1*	*219*	*250*
PM NO BUILD Queue	1	33	**75**	2	381	300		1	296	**400**
PM BUILD Queue	**1**	**64**	**125**	**2**	**387**	**300**		**1**	**304**	**425**

	AM	PM
Cycle Length:	130	130

NOTE: Queue lengths are in feet.

Right turn calculated queues can be reduced by 50% to account for right turn on red and overlap phasing. No recommendation is made for this intersection with regard to modification of existing auxiliary turn lanes.

Intersection #4 – Rio Bravo Blvd. / Prince St. - Pages A-77 thru A-80

The following table provides a summary of the Levels-of-Service / delays associated with each case analyzed in this study:

Intersection: 4 - Rio Bravo Blvd. / Prince St.

		2014 AM Peak Hour BUILD					2014 PM Peak Hour BUILD				
		(EXIST. GEOM.)					(EXIST. GEOM.)				
		NO BUILD		BUILD			NO BUILD		BUILD		
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay	
EB	L	1	A - 2.1	1	A - 1.7	L	1	D - 42.6	1	D - 44.6	
	T	2	D - 36.3	2	A - 5.8	T	2	A - 5.1	2	A - 5.2	
	R	1	A - 0.8	1	A - 0.3	R	1	A - 1.0	1	A - 1.0	
WB	L	1	C - 29.2	1	B - 15.1	L	1	A - 3.7	1	A - 3.7	
	T	2	B - 12.2	2	B - 12.0	T	2	B - 13.5	2	B - 14.3	
	R	1	C - 21.8	1	C - 20.6	R	1	A - 2.1	1	A - 2.1	
NB	L	1	E - 60.8	1	E - 60.3	L	1	E - 74.3	1	E - 74.3	
	T	1	E - 57.9	1	E - 57.7	T	1	E - 57.6	1	E - 57.8	
	R	>	E - 57.9	>	E - 57.7	R	>	E - 57.6	>	E - 57.8	
SB	L	1	D - 52.1	1	D - 52.7	L	1	E - 55.3	1	E - 55.3	
	T	1	E - 56.6	1	E - 57.1	T	1	E - 57.6	1	E - 57.6	
	R	>	E - 56.6	>	E - 57.1	R	>	E - 57.6	>	E - 57.6	
Intersection:		***C - 31.6***			***B - 11.3***			***B - 14.6***		***B - 15.1***	

Note: ">" designates a shared right or left turn lane next to a thru lane.

The analysis of the intersection of Rio Bravo Blvd. / Prince St. in this report demonstrates that the projected levels-of-service and delays are acceptable for all conditions analyzed. Since the volumes on the side street are very minor, the signal timing creates longer delays for those movements in order to optimize the signal. The LOS "E" on the side street could be eliminated by reducing green time on Rio Bravo. The author of this study considers the LOS / delays report above to be acceptable given the low side street volumes. Therefore, no recommendations are made with regard to measures to increase capacity at the existing signalized intersection.

The results of the queuing analysis for the intersection of Rio Bravo Blvd. / Prince St. are summarized in the following table:

Queueing Analysis Summary Sheet

Project: Valero Station (NW Corner of Rio Bravo / Broadway)

Intersection: **Rio Bravo Blvd / Prince St**

2014

Approach	Left Turns			Thru Movements				Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*1*	*41*	*70*	*2*	*1,537*	*Cont*		*1*	*37*	*200*
AM NO BUILD Queue	1	43	100	2	1,914	>1,000	*	1	39	100
AM BUILD Queue	**1**	**43**	**100**	**2**	**1,920**	**>1,000**	*	**1**	**39**	**100**
Existing Lane Length	*1*	*19*	*70*	*2*	*774*	*Cont*		*1*	*94*	*200*
PM NO BUILD Queue	1	20	50	2	1,102	750		1	98	175
PM BUILD Queue	**1**	**20**	**50**	**2**	**1,109**	**750**		**1**	**98**	**175**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*1*	*35*	*120*	*2*	*576*	*Cont*		*1*	*43*	*550*
AM NO BUILD Queue	1	39	100	2	741	525		1	47	100
AM BUILD Queue	**1**	**40**	**100**	**2**	**764**	**550**		**1**	**47**	**100**
Existing Lane Length	*1*	*106*	*120*	*2*	*1,443*	*Cont*		*1*	*28*	*550*
PM NO BUILD Queue	1	120	200	2	1,961	>1,000	*	1	31	75
PM BUILD Queue	**1**	**121**	**200**	**2**	**1,991**	**>1,000**	*	**1**	**31**	**75**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*1*	*75*	*250*	*1*	*2*	*Cont*		*0*	*78*	*0*
AM NO BUILD Queue	1	80	150	1	2	0		0	88	150
AM BUILD Queue	**1**	**80**	**150**	**1**	**2**	**0**		**0**	**88**	**150**
Existing Lane Length	*1*	*87*	*250*	*1*	*4*	*Cont*		*0*	*63*	*0*
PM NO BUILD Queue	1	92	175	1	4	25		0	69	125
PM BUILD Queue	**1**	**92**	**175**	**1**	**4**	**25**		**0**	**69**	**125**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*1*	*13*	*250*	*1*	*0*	*Cont*		*0*	*10*	*0*
AM NO BUILD Queue	1	15	50	1	0	0		0	11	50
AM BUILD Queue	**1**	**15**	**50**	**1**	**0**	**0**		**0**	**11**	**50**
Existing Lane Length	*1*	*44*	*250*	*1*	*3*	*Cont*		*0*	*48*	*0*
PM NO BUILD Queue	1	48	100	1	3	25		0	51	100
PM BUILD Queue	**1**	**48**	**100**	**1**	**3**	**25**		**0**	**51**	**100**

	AM	PM
Cycle Length:	130	130

NOTE: Queue lengths are in feet.

There are no significant needs for auxiliary lane lengthening at this intersection. Therefore, no recommendation is made with regard to the modification of existing auxiliary turn lanes.

Intersection #5 – Rio Bravo Blvd. /2nd St. - Pages A-85 thru A-90

The following table provides a summary of the Levels-of-Service / delays associated with each case analyzed in this study:

Intersection: 5 - Rio Bravo Blvd. / Second St.

2014 AM Peak Hour BUILD

		(EXIST. GEOM.) NO BUILD		(EXIST. GEOM.) BUILD		(MIT. GEOM.) BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	1	B - 17.1	1	B - 18.4	1	B - 19.8
	T	2	B - 19.9	2	B - 20.0	2	C - 21.7
	R	1	A - 0.0	1	A - 0.0	1	A - 0.0
WB	L	1	C - 33.8	1	D - 35.3	1	D - 35.9
	T	2	B - 19.2	2	B - 19.8	2	C - 22.1
	R	1	B - 10.4	1	B - 10.7	1	B - 10.9
NB	L	1	D - 50.7	1	D - 50.7	1	D - 40.6
	T	1	**F - 86.4**	1	**F - 87.0**	1	**F - 87.0**
	R	>	**F - 86.4**	>	**F - 87.0**	>	**F - 87.0**
SB	L	1	**F - 105**	1	**F - 107**	1	**F - 85.6**
	T	1	D - 52.5	1	D - 52.5	1	D - 51.1
	R	>	D - 52.5	>	D - 52.5	1	C - 33.6
Intersection:		***C - 29.5***		***C - 29.9***		***C - 29.5***	

2014 PM Peak Hour BUILD

		(EXIST. GEOM.) NO BUILD		(EXIST. GEOM.) BUILD		(MIT. GEOM.) BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	1	**F - 134**	1	**F - 134**	1	D - 38.9
	T	2	C - 25.7	2	C - 25.7	2	B - 11.5
	R	1	C - 34.1	1	C - 33.9	1	B - 16.5
WB	L	1	C - 27.9	1	C - 28.5	1	B - 16.5
	T	2	**F - 144**	2	**F - 150**	2	E - 66.6
	R	1	B - 16.6	1	B - 16.8	1	B - 12.6
NB	L	1	**F - 242**	1	**F - 242**	1	**F - 209**
	T	1	D - 39.4	1	D - 39.5	1	**F - 107**
	R	>	D - 39.4	>	D - 39.5	>	**F - 107**
SB	L	1	C - 30.8	1	C - 30.9	1	**F - 124**
	T	1	**F - 236**	1	**F - 236**	1	E - 55.5
	R	>	**F - 236**	>	**F - 236**	1	**F - 141**
Intersection:		***F - 119***		***F - 122***		***E - 73.3***	

Note: ">" designates a shared right or left turn lane next to a thru lane.

The impact to the intersection of Rio Bravo Blvd. / 2nd St. as a result of full implementation of the Valero Project is moderately small. The resulting increases in delay resulting from this project a none to three seconds. Mitigation of the increase in delay could be accomplished by constructing a new southbound right turn lane on 2nd St. That would reduce the delay at the intersection of Rio Bravo / 2nd St. by almost 50 seconds, well below the delay associated with the 2014 NO BUILD condition. Recommendation is made to construct the southbound right turn lane on Broadway Blvd. at Rio Bravo.

The results of the queuing analysis for the intersection of Rio Bravo Blvd. / 2nd St. are summarized in the following table:

Queueing Analysis Summary Sheet

Project: Valero Station (NW Corner of Rio Bravo / Broadway)

Intersection: **Rio Bravo Blvd / Second St**

2014

Approach	Left Turns			Thru Movements				Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*1*	*329*	*190*	*2*	*1,333*	*Cont*		*1*	*162*	*275*
AM NO BUILD Queue	1	366	475	2	1,708	>1,000	*	1	180	275
AM BUILD Queue	**1**	**366**	**475**	**2**	**1,712**	**>1,000**	*	**1**	**180**	**275**
Existing Lane Length	*1*	*116*	*190*	*2*	*569*	*Cont*		*1*	*131*	*275*
PM NO BUILD Queue	1	137	225	2	903	625		1	155	250
PM BUILD Queue	**1**	**137**	**225**	**2**	**908**	**625**		**1**	**155**	**250**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*1*	*45*	*225*	*2*	*529*	*Cont*		*1*	*69*	*230*
AM NO BUILD Queue	1	68	125	2	650	475		1	97	175
AM BUILD Queue	**1**	**73**	**150**	**2**	**665**	**475**		**1**	**100**	**175**
Existing Lane Length	*1*	*30*	*225*	*2*	*1,296*	*Cont*		*1*	*57*	*230*
PM NO BUILD Queue	1	98	175	2	1,691	>1,000	*	1	133	225
PM BUILD Queue	**1**	**105**	**175**	**2**	**1,710**	**>1,000**	*	**1**	**137**	**225**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*1*	*128*	*125*	*1*	*110*	*Cont*		*0*	*52*	*0*
AM NO BUILD Queue	1	182	275	1	157	250		0	113	200
AM BUILD Queue	**1**	**182**	**275**	**1**	**157**	**250**		**0**	**114**	**200**
Existing Lane Length	*1*	*213*	*125*	*1*	*74*	*Cont*		*0*	*58*	*0*
PM NO BUILD Queue	1	281	400	1	97	175		0	128	200
PM BUILD Queue	**1**	**281**	**400**	**1**	**97**	**175**		**0**	**130**	**200**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*1*	*79*	*200*	*1*	*65*	*Cont*		*0*	*63*	*0*
AM NO BUILD Queue	1	141	225	1	74	150		0	71	125
AM BUILD Queue	**1**	**142**	**225**	**1**	**74**	**150**		**0**	**71**	**125**
Existing Lane Length	*1*	*112*	*200*	*1*	*98*	*Cont*		*0*	*399*	*0*
PM NO BUILD Queue	1	162	250	1	118	200		0	481	600
PM BUILD Queue	**1**	**163**	**250**	**1**	**118**	**200**		**0**	**481**	**600**

	AM	PM
Cycle Length:	**130**	**130**

NOTE: Queue lengths are in feet.

The northbound left turn lane deficit will be remedied by the developer of Las Estancias. No recommendation is made for lengthening existing auxiliary lanes at this intersection.

Intersection #6 – Broadway Blvd. / Poco Loco - Pages A-152 thru A-155

Analysis of the existing intersection of Rio Bravo Blvd. / Poco Loco has been visited numerous times in the past seven or eight years. The intersection of Rio Bravo Blvd. / Poco Loco serves as an access to the Rio Bravo Commons Residential and Commercial Development approved by Bernalillo County around the year 2000. There is secondary access to the development off of 2nd St. The residential component of the project has been fully implemented, but the proposed commercial component of the development has not been implemented at all. Previous analysis of the intersection of Rio Bravo Blvd. / Poco Loco in prior Traffic Impact Analyses have demonstrated 1) that the intersection fails as an unsignalized intersection due to heavy traffic volumes on Rio Bravo Blvd., and 2) the volumes at the intersection do not meet the Peak Hour Warrant for a traffic signal.

Previous Peak Hour Warrant analyses have shown that there are sufficient volumes of traffic on Rio Bravo Blvd., but not sufficient traffic volumes on Poco Loco to meet the minimum criteria for the Peak Hour Signal Warrant. Development of a significant portion of the commercial component of the Rio Bravo Commons along Rio Bravo Blvd. will be necessary to generate enough traffic so that the intersection of Rio Bravo Blvd. / Poco Loco meets the peak hour warrant.

Since the Traffic Impact Analysis for the Rio Bravo Commons project is in excess of ten years old, it is anticipated that future development of the commercial component of that project will be required to perform a new Traffic Impact Analysis to determine if a signal is warranted at the intersection of Rio Bravo Blvd. / Poco Loco. Upon meeting the warrant for a traffic signal, then the County will likely require the developer to install it.

No specific analysis of the intersection of Rio Bravo Blvd. / Poco Loco was performed for this study since it is certain that the results will be the same as those of previous analyses.

Intersection #7 – Rio Bravo Blvd. / Isleta Blvd. - Pages A-97 thru A-100

The following table provides a summary of the Levels-of-Service / delays associated with each case analyzed in this study:

Intersection: 7 - Rio Bravo Blvd. / Isleta Blvd.

		2014 AM Peak Hour BUILD (EXIST. GEOM.)					2014 PM Peak Hour BUILD (EXIST. GEOM.)				
		NO BUILD		BUILD			NO BUILD		BUILD		
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay	
EB	L	1	C - 21.3	1	C - 21.3	L	1	D - 35.5	1	D - 36.0	
	T	2	D - 49.3	2	D - 49.4	T	2	D - 45.5	2	D - 46.0	
	R	1	B - 18.4	1	B - 18.4	R	1	C - 28.1	1	C - 28.4	
WB	L	1	D - 38.9	1	D - 39.5	L	1	B - 14.7	1	B - 14.9	
	T	2	B - 19.4	2	B - 19.6	T	2	B - 18.7	2	B - 18.8	
	R	1	A - 10.0	1	A - 10.0	R	1	A - 8.6	1	A - 8.9	
NB	L	1	D - 46.6	1	D - 46.6	L	1	D - 47.4	1	D - 47.4	
	T	2	E - 58.9	2	E - 58.9	T	2	E - 58.3	2	E - 58.3	
	R	1	E - 65.8	1	E - 66.1	R	1	C - 21.3	1	C - 21.1	
SB	L	2	E - 78.2	2	E - 79.2	L	2	E - 65.5	2	E - 65.9	
	T	2	D - 45.4	2	D - 45.4	T	2	D - 50.0	2	D - 50.0	
	R	1	D - 37.6	1	D - 37.6	R	1	D - 37.3	1	D - 37.3	
Intersection:			***D - 46.3***		***D - 46.4***			***C - 31.3***		***C - 31.4***	

Note: ">" designates a shared right or left turn lane next to a thru lane.

The intersection of Rio Bravo Blvd. / Isleta Blvd. was reconstructed in 2007 by Bernalillo County. The analysis of the signalized intersection above demonstrates that the levels-of-service and associated delays are marginally acceptable for the 2014 AM and PM Peak Hour periods considered in this report.

The results of the queuing analysis for the intersection of Rio Bravo Blvd. / Isleta Blvd. are summarized in the following table:

Queueing Analysis Summary Sheet

Project: Valero Station (NW Corner of Rio Bravo / Broadway)

Intersection: **Rio Bravo Blvd / Isleta Blvd**

2014

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*112*	*220*	*2*	*910*	*Cont*	*1*	*62*	*200*
AM NO BUILD Queue	1	135	225	2	1,098	750	1	74	150
AM BUILD Queue	**1**	**135**	**225**	**2**	**1,099**	**750**	**1**	**74**	**150**
Existing Lane Length	*1*	*114*	*220*	*2*	*314*	*Cont*	*1*	*97*	*200*
PM NO BUILD Queue	1	164	250	2	464	350	1	140	225
PM BUILD Queue	**1**	**164**	**250**	**2**	**465**	**350**	**1**	**140**	**225**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*167*	*780*	*2*	*207*	*Cont*	*1*	*146*	*270*
AM NO BUILD Queue	1	265	375	2	312	275	1	257	375
AM BUILD Queue	**1**	**269**	**375**	**2**	**315**	**275**	**1**	**264**	**375**
Existing Lane Length	*1*	*417*	*780*	*2*	*791*	*Cont*	*1*	*305*	*270*
PM NO BUILD Queue	1	594	**725**	2	1,040	**700**	1	524	**650**
PM BUILD Queue	**1**	**600**	**750**	**2**	**1,045**	**725**	**1**	**533**	**675**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*72*	*90*	*2*	*190*	*Cont*	*1*	*346*	*125*
AM NO BUILD Queue	1	92	175	2	243	225	1	462	600
AM BUILD Queue	**1**	**92**	**175**	**2**	**243**	**225**	**1**	**463**	**600**
Existing Lane Length	*1*	*152*	*90*	*2*	*224*	*Cont*	*1*	*143*	*125*
PM NO BUILD Queue	1	171	275	2	251	225	1	210	300
PM BUILD Queue	**1**	**171**	**275**	**2**	**251**	**225**	**1**	**211**	**300**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*2*	*255*	*175*	*2*	*133*	*Cont*	*1*	*48*	*200*
AM NO BUILD Queue	2	394	325	2	180	175	1	65	125
AM BUILD Queue	**2**	**396**	**325**	**2**	**180**	**175**	**1**	**65**	**125**
Existing Lane Length	*2*	*253*	*175*	*2*	*253*	*Cont*	*1*	*135*	*200*
PM NO BUILD Queue	2	432	350	2	312	275	1	166	250
PM BUILD Queue	**2**	**434**	**350**	**2**	**312**	**275**	**1**	**166**	**250**

	AM	PM
Cycle Length:	130	130

NOTE: Queue lengths are in feet.

Since this is a relatively new reconstructed signalized intersection, no recommendation is made due to the fact that it is assumed that design of the new intersection was adequate to provide capacity and storage where possible for the projected 2014 AM and PM Peak Hour BUILD volumes associated with this project.

Intersection #8 –Driveway 'A' / Broadway Blvd. - Pages A-107 thru A-108

The following table provides a summary of the Levels-of-Service / delays associated with each case analyzed in this study:

Intersection: 8 - Driveway "A" / Broadway Blvd.

		2014 AM Peak Hour BUILD (EXIST. GEOM.)					2014 PM Peak Hour BUILD (EXIST. GEOM.)				
		NO BUILD		BUILD			NO BUILD		BUILD		
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay	
EB	L	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0	
	T	0	A - 0.0	0	A - 0.0	T	0	A - 0.0	0	A - 0.0	
	R	1	A - 0.0	1	A - 9.5	R	1	A - 0.0	1	B - 11.9	
NB	L	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0	
	T	2	A - 0.0	2	A - 0.0	T	2	A - 0.0	2	A - 0.0	
	R	0	A - 0.0	0	A - 0.0	R	0	A - 0.0	0	A - 0.0	
SB	L	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0	
	T	2	A - 0.0	2	A - 0.0	T	2	A - 0.0	2	A - 0.0	
	R	1	A - 0.0	1	A - 0.0	R	1	A - 0.0	1	A - 0.0	
Intersection:		*u - N/A*		*u - N/A*			*u - N/A*		*u - N/A*		

Note: ">" designates a shared right or left turn lane next to a thru lane.

Driveway "A" on Broadway Blvd. is proposed as a right-in / right-out only unsignalized intersection. The summaries in the preceding table indicate that the projected delays at the unsignalized driveway are acceptable.

Intersection #9 –Rio Bravo Blvd. / Driveway 'B' - Pages A-111 thru A-112

The following table provides a summary of the Levels-of-Service / delays associated with each case analyzed in this study:

Intersection: 9 - Rio Bravo Blvd. / Driveway "B"

		2014 AM Peak Hour BUILD (EXIST. GEOM.)				2014 PM Peak Hour BUILD (EXIST. GEOM.)			
		NO BUILD		BUILD		NO BUILD		BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	0	A - 0.0	0	A - 0.0	0	A - 0.0	0	A - 0.0
	T	2	A - 0.0	2	A - 0.0	2	A - 0.0	2	A - 0.0
	R	0	A - 0.0	0	A - 0.0	0	A - 0.0	0	A - 0.0
WB	L	0	A - 0.0	0	A - 0.0	0	A - 0.0	0	A - 0.0
	T	3	A - 0.0	3	A - 0.0	3	A - 0.0	3	A - 0.0
	R	1	A - 0.0	1	A - 0.0	1	A - 0.0	1	A - 0.0
SB	L	0	A - 0.0	0	A - 0.0	0	A - 0.0	0	A - 0.0
	T	0	A - 0.0	0	A - 0.0	0	A - 0.0	0	A - 0.0
	R	1	A - 0.0	1	A - 9.9	1	A - 0.0	1	C - 21.7
Intersection:		*u - N/A*		*u - N/A*		*u - N/A*		*u - N/A*	

Note: ">" designates a shared right or left turn lane next to a thru lane.

The preceding table demonstrates that the projected delay at the proposed Driveway "B" on Rio Bravo Blvd. is acceptable for the 2014 AM and PM Peak Hour periods considered in this study.

A companion report to this Traffic Impact Analysis provides justification for the proposed Driveway "B" access on Rio Bravo Blvd. west of Broadway Blvd. It is recommended that Driveway "B" be located as far to the west from Broadway Blvd. on the project as possible to provide a safe transportation condition.

Driveway "B" will be subject to approval of the Mid-Region Council of Governments' Transportation Coordination Committee.

Horizon Year Traffic Analysis

Intersection #1 – Rio Bravo Blvd. / I-25 E. Ramp - Pages A-53 thru A-56

The following table provides a summary of the Levels-of-Service / delays associated with each case analyzed in this study:

Intersection: 1 - Rio Bravo Blvd. / I-25 E. Ramp

		2024 AM Peak Hour BUILD					2024 PM Peak Hour BUILD				
		(EXIST. GEOM.)					(EXIST. GEOM.)				
		NO BUILD		BUILD			NO BUILD		BUILD		
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay	
EB	L	2	F - 164	2	F - 167	L	2	F - 118	2	F - 123	
	T	2	A - 6.2	2	A - 6.2	T	2	A - 3.5	2	A - 3.4	
	R	0	A - 0.0	0	A - 0.0	R	0	A - 0.0	0	A - 0.0	
WB	L	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0	
	T	2	F - 107	2	F - 114	T	2	F - 92.9	2	F - 99.5	
	R	1	D - 43.1	1	D - 43.2	R	1	D - 39.3	1	D - 39.4	
NB	L	>	F - 201	>	F - 207	L	>	F - 139	>	F - 143	
	T	1	F - 201	1	F - 207	T	1	F - 139	1	F - 143	
	R	>	F - 201	>	F - 207	R	>	F - 139	>	F - 143	
SB	L	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0	
	T	0	A - 0.0	0	A - 0.0	T	0	A - 0.0	0	A - 0.0	
	R	0	A - 0.0	0	A - 0.0	R	0	A - 0.0	0	A - 0.0	
Intersection:		F - *126*		F - *130*			F - *90.3*		F - *94.2*		

Note: ">" designates a shared right or left turn lane next to a thru lane.

The horizon year analysis of the intersection of Rio Bravo Blvd. / I-25 East Ramp demonstrates excessive delays for all conditions analyzed in this study (2024 AM and PM Peak Hour NO BUILD and BUILD conditions). Also, the Rio Bravo Blvd. / I-25 Interchange is currently under study and redesign to accommodate future traffic flows. The new design should provide acceptable levels-of-service and delays though the year 2035. Therefore, no recommendation is made for this intersection.

Intersection #2 – Rio Bravo Blvd. / I-25 W. Ramp - Pages A-61 thru A-64

The following table provides a summary of the Levels-of-Service / delays associated with each case analyzed in this study:

Intersection: 2 - Rio Bravo Blvd. / I-25 W. Ramp

		2024 AM Peak Hour BUILD					2024 PM Peak Hour BUILD				
		(EXIST. GEOM.)					(EXIST. GEOM.)				
		NO BUILD		BUILD			NO BUILD		BUILD		
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay	
EB	L	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0	
	T	3	B - 12.0	3	B - 12.7	T	3	A - 8.4	3	A - 8.7	
	R	>	B - 12.0	>	B - 12.7	R	>	A - 8.4	>	A - 8.7	
WB	L	1	E - 56.0	1	E - 56.2	L	1	C - 32.1	1	C - 33.1	
	T	2	C - 23.4	2	C - 23.6	T	2	A - 6.7	2	A - 6.8	
	R	0	A - 0.0	0	A - 0.0	R	0	A - 0.0	0	A - 0.0	
NB	L	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0	
	T	0	A - 0.0	0	A - 0.0	T	0	A - 0.0	0	A - 0.0	
	R	0	A - 0.0	0	A - 0.0	R	0	A - 0.0	0	A - 0.0	
SB	L	>	E - 57.0	>	E - 57.0	L	>	E - 63.7	>	E - 63.7	
	T	1	E - 57.0	1	E - 57.0	T	1	E - 63.7	1	E - 63.7	
	R	1	A - 2.6	1	A - 2.8	R	1	F - 112	1	F - 120	
Intersection:		***B - 16.8***		***B - 17.1***			***D - 48.2***		***D - 51.1***		

Note: ">" designates a shared right or left turn lane next to a thru lane.

The horizon year analysis of the intersection of Rio Bravo Blvd. / I-25 West Ramp demonstrates excessive delays for some individual turning movements for the 2024 PM Peak Hour conditions analyzed in this study. As previously noted, the Rio Bravo Blvd. / I-25 Interchange is currently under study and redesign to accommodate future traffic flows. The new design should provide acceptable levels-of-service and delays though the year 2035. Therefore, no recommendation is made for this intersection.

Intersection #3 – Rio Bravo Blvd. / Broadway Blvd. - Pages A-71 thru A-76

The following table provides a summary of the Levels-of-Service / delays associated with each case analyzed in this study:

Intersection: 3 - Rio Bravo Blvd. / Broadway Blvd.

2024 AM Peak Hour BUILD | **2024 PM Peak Hour BUILD**

		2024 AM Peak Hour BUILD							2024 PM Peak Hour BUILD						
		(EXIST. GEOM.) NO BUILD		(EXIST. GEOM.) BUILD		(MIT. GEOM.) BUILD			(EXIST. GEOM.) NO BUILD		(EXIST. GEOM.) BUILD		(MIT. GEOM.) BUILD		
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay	
EB	L	1	A - 9.8	1	B - 13.9	1	B - 13.9	L	1	F - 138	1	F - 161	1	F - 162	L
	T	2	F - 131	2	F - 131	2	F - 131	T	2	F - 173	2	F - 173	2	F - 146	T
	R	1	A - 8.6	1	A - 8.6	1	A - 8.6	R	1	B - 16.8	1	B - 16.9	1	B - 13.3	R
WB	L	2	F - 234	2	F - 234	2	F - 234	L	2	F - 279	2	F - 279	2	F - 220	L
	T	3	C - 25.0	3	C - 25.6	3	C - 25.6	T	3	F - 144	3	F - 165	3	F - 122	T
	R	>	C - 25.0	>	C - 25.6	>	C - 25.6	R	>	F - 144	>	F - 165	>	F - 122	R
NB	L	1	E - 66.6	1	E - 69.1	1	E - 72.1	L	1	F - 337	1	F - 340	1	F - 283	L
	T	2	E - 55.8	2	E - 55.9	2	E - 55.9	T	2	B - 17.9	2	B - 17.9	2	B - 19.6	T
	R	1	F - 191	1	F - 191	1	F - 191	R	1	C - 32.9	1	C - 32.9	1	D - 37.3	R
SB	L	1	D - 51.4	1	D - 53.6	1	D - 52.8	L	1	D - 36.1	1	D - 37.3	1	D - 43.1	L
	T	2	E - 58.7	2	E - 58.9	2	E - 57.7	T	2	F - 96.1	2	F - 98.4	2	F - 205	T
	R	1	D - 41.3	1	D - 41.5	2	D - 39.3	R	1	F - 288	1	F - 296	2	F - 84.5	R
Intersection:		F - *101*		F - *100*		F - *100*			F - *128*		F - *163*		F - *133*		

Note: ">" designates a shared right or left turn lane next to a thru lane.

The results of the horizon year analysis for the intersection of Rio Bravo Blvd. / Broadway Blvd. are similar to the results of the implementation year analysis in that all conditions in the analysis demonstrated long delays (LOS "F").

Mitigation of the excessive delays at the intersection consists of construction of a second southbound right turn lane on Broadway Blvd. at Rio Bravo (the same mitigation as the Implementation Year mitigation recommendation).

The results of the horizon year analysis demonstrate that the recommended mitigation measure associated with the implementation year analysis will also work for the horizon year.

Intersection #4 – Rio Bravo Blvd. / Prince St. - Pages A-81 thru A-84

The following table provides a summary of the Levels-of-Service / delays associated with each case analyzed in this study:

Intersection: 4 - Rio Bravo Blvd. / Prince St.

		2024 AM Peak Hour BUILD					2024 PM Peak Hour BUILD				
		(EXIST. GEOM.)					(EXIST. GEOM.)				
		NO BUILD		BUILD			NO BUILD		BUILD		
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay	
EB	L	1	A - 1.9	1	A - 1.9	L	1	**F - 87.6**	1	**F - 93.7**	
	T	2	B - 12.5	2	B - 13.0	T	2	A - 4.0	2	A - 4.0	
	R	1	A - 0.1	1	A - 0.1	R	1	A - 0.1	1	A - 0.1	
WB	L	1	C - 27.2	1	C - 30.4	L	1	B - 11.7	1	B - 12.6	
	T	2	B - 12.3	2	B - 12.1	T	2	D - 45.6	2	B - 17.8	
	R	1	B - 17.8	1	B - 16.1	R	1	A - 1.9	1	A - 1.9	
NB	L	1	E - 68.4	1	E - 68.4	L	1	**F - 121**	1	**F - 121**	
	T	1	E - 63.4	1	E - 63.4	T	1	E - 62.7	1	E - 62.7	
	R	>	E - 63.4	>	E - 63.4	R	>	E - 62.7	>	E - 62.7	
SB	L	1	E - 56.5	1	E - 56.5	L	1	E - 62.5	1	E - 62.5	
	T	1	E - 60.7	1	E - 60.7	T	1	E - 62.5	1	E - 62.5	
	R	>	E - 60.7	>	E - 60.7	R	>	E - 62.5	>	E - 62.5	
Intersection:		***B - 16.0***		***B - 16.3***			***B - 17.3***		***B - 18.6***		

Note: ">" designates a shared right or left turn lane next to a thru lane.

The horizon year analysis of the intersection of Rio Bravo Blvd. / Prince St. demonstrates a future capacity shortfall for limited turning movements, but overall an acceptable level-of-service, especially for the 2024 PM Peak Hour period NO BUILD and BUILD conditions. The overall increase in average delay at Rio Bravo / Prince is only slightly greater than 1 second for the PM Peak Hour period. Since the impact on this intersection resulting from implementation of the new Valero Station is so small, no recommendation is made.

Intersection #5 – Rio Bravo Blvd. / 2nd St. - Pages A-91 thru A-96

The following table provides a summary of the Levels-of-Service / delays associated with each case analyzed in this study:

Intersection: **5 - Rio Bravo Blvd. / Second St.**

2024 AM Peak Hour BUILD

		(EXIST. GEOM.) NO BUILD		(EXIST. GEOM.) BUILD		(MIT. GEOM.) BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	1	F - 100	1	F - 101	1	F - 89.5
	T	2	F - 243	2	F - 244	2	F - 244
	R	1	A - 1.9	1	A - 1.9	1	A - 1.2
WB	L	1	E - 56.6	1	E - 63.7	1	E - 64.2
	T	2	D - 51.7	2	D - 55.0	2	E - 61.9
	R	1	C - 22.0	1	C - 22.4	1	C - 23.2
NB	L	1	F - 273	1	F - 273	1	F - 117
	T	1	F - 262	1	F - 263	1	F - 263
	R	>	F - 262	>	F - 263	>	F - 263
SB	L	1	F - 270	1	F - 272	1	F - 276
	T	1	E - 74.5	1	E - 74.5	1	E - 62.0
	R	>	E - 74.5	>	E - 74.5	1	C - 27.6
Intersection:			F - *181*		F - *182*		F - *169*

2024 PM Peak Hour BUILD

		(EXIST. GEOM.) NO BUILD		(EXIST. GEOM.) BUILD		(MIT. GEOM.) BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	1	F - 381	1	F - 381	1	F - 400
	T	2	F - 149	2	F - 151	2	E - 76.5
	R	1	E - 60.9	1	E - 60.5	1	D - 38.9
WB	L	1	E - 76.2	1	F - 92.9	1	F - 86.7
	T	2	F - 451	2	F - 459	2	F - 331
	R	1	C - 21.4	1	C - 21.5	1	B - 16.6
NB	L	1	F - 624	1	F - 624	1	F - 288
	T	1	D - 53.9	1	D - 54.6	1	F - 89.6
	R	>	D - 53.9	>	D - 54.6	>	F - 89.6
SB	L	1	D - 41.4	1	D - 42.9	1	F - 87.5
	T	1	F - 573	1	F - 573	1	D - 36.7
	R	>	F - 573	>	F - 573	1	F - 436
Intersection:			F - *347*		F - *349*		F - *231*

Note: ">" designates a shared right or left turn lane next to a thru lane.

The preceding table demonstrates that the intersection of Rio Bravo Blvd. / 2nd St. will operate at unsatisfactory levels-of-service for all conditions analyzed in this study.

The proposed Valero Station at the northwest corner of Rio Bravo Blvd. / Broadway Blvd. does have a minor impact at this intersection. The increase in calculated delay at the signalized intersection is about 1 second during the AM Peak Hour period and about 2 seconds during the PM Peak Hour period.

Consistent with the recommendations for the implementation year analysis, this report recommends construction of a new southbound right turn lane on 2nd St. at Rio Bravo to mitigate the minor impact of the Valero Station.

Intersection #6 – Rio Bravo Blvd. / Poco Loco - Pages A-154 thru A-155

(See discussion on Page 17 in the implementation year analysis section)

Intersection #7 – Rio Bravo Blvd. / Isleta Blvd. - Pages A-162 thru A-167

The following table provides a summary of the Levels-of-Service / delays associated with each case analyzed in this study:

Intersection: 7 - Rio Bravo Blvd. / Isleta Blvd.

		2024 AM Peak Hour BUILD (EXIST. GEOM.)					2024 PM Peak Hour BUILD (EXIST. GEOM.)				
		NO BUILD		BUILD			NO BUILD		BUILD		
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay	
EB	L	1	C - 22.7	1	C - 22.7	L	1	F - 146	1	F - 146	
	T	2	F - 162	2	F - 162	T	2	F - 125	2	F - 126	
	R	1	B - 19.7	1	B - 19.7	R	1	D - 35.9	1	D - 35.9	
WB	L	1	F - 124	1	F - 128	L	1	F - 187	1	F - 190	
	T	2	C - 29.6	2	C - 29.7	T	2	E - 57.3	2	E - 58.6	
	R	1	C - 29.9	1	C - 30.2	R	1	C - 22.5	1	C - 22.9	
NB	L	1	D - 50.2	1	D - 50.2	L	1	F - 92.4	1	F - 92.4	
	T	2	F - 99.3	2	F - 99.3	T	2	E - 73.6	2	E - 73.6	
	R	1	F - 220	1	F - 221	R	1	C - 20.1	1	C - 20.1	
SB	L	2	F - 200	2	F - 202	L	2	F - 219	2	F - 222	
	T	2	D - 51.5	2	D - 51.5	T	2	F - 90.2	2	F - 90.2	
	R	1	D - 37.9	1	D - 37.9	R	1	D - 43.5	1	D - 43.5	
Intersection:		F - *124*		F - *124*			F - *98.3*		F - *99.4*		

Note: ">" designates a shared right or left turn lane next to a thru lane.

The implementation year analysis demonstrated that the intersection of Rio Bravo Blvd. / Isleta Blvd. was at or near capacity. The horizon year analysis demonstrates that the intersection is beyond capacity. The impact of the proposed Valero Station on this intersection is minimal. The impact to the 2024 AM Peak Hour is not measurable while the impact to the 2024 PM Peak Hour operation is about 1 second of increase in the average delay. In consideration of the significant improvement to the operation at the intersection of Rio Bravo Blvd. / 2nd St. with the recommended construct of a new southbound right turn lane, there is no recommendation at the intersection of Rio Bravo / Isleta Blvd.

Intersection #8 –Driveway 'A' / Broadway Blvd. - Pages A-109 thru A-110

The following table provides a summary of the Levels-of-Service / delays associated with each case analyzed in this study:

Intersection: 8 - Driveway "A" / Broadway Blvd.

		2024 AM Peak Hour BUILD (EXIST. GEOM.)					2024 PM Peak Hour BUILD (EXIST. GEOM.)				
		NO BUILD		BUILD			NO BUILD		BUILD		
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay	
EB	L	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0	
	T	0	A - 0.0	0	A - 0.0	T	0	A - 0.0	0	A - 0.0	
	R	1	A - 0.0	1	A - 9.9	R	1	A - 0.0	1	C - 21.7	
NB	L	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0	
	T	2	A - 0.0	2	A - 0.0	T	2	A - 0.0	2	A - 0.0	
	R	0	A - 0.0	0	A - 0.0	R	0	A - 0.0	0	A - 0.0	
SB	L	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0	
	T	2	A - 0.0	2	A - 0.0	T	2	A - 0.0	2	A - 0.0	
	R	1	A - 0.0	1	A - 0.0	R	1	A - 0.0	1	A - 0.0	
Intersection:		*u - N/A*		*u - N/A*			*u - N/A*		*u - N/A*		

Note: ">" designates a shared right or left turn lane next to a thru lane.

Driveway "A" on Broadway Blvd. is proposed as a right-in / right-out only unsignalized intersection. The summary in the preceding table indicate that the projected delays at the unsignalized driveway are acceptable.

Intersection #9 –Rio Bravo Blvd. / Driveway 'B' - Pages A-113 thru A-114

The following table provides a summary of the Levels-of-Service / delays associated with each case analyzed in this study:

Intersection: 9 - Rio Bravo Blvd. / Driveway "B"

		2024 AM Peak Hour BUILD (EXIST. GEOM.)				2024 PM Peak Hour BUILD (EXIST. GEOM.)			
		NO BUILD		BUILD		NO BUILD		BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	0	A - 0.0	0	A - 0.0	0	A - 0.0	0	A - 0.0
	T	2	A - 0.0	2	A - 0.0	2	A - 0.0	2	A - 0.0
	R	0	A - 0.0	0	A - 0.0	0	A - 0.0	0	A - 0.0
WB	L	2	A - 0.0	2	A - 0.0	2	A - 0.0	2	A - 0.0
	T	3	A - 0.0	3	A - 0.0	3	A - 0.0	3	A - 0.0
	R	1	A - 0.0	1	A - 0.0	1	A - 0.0	1	A - 0.0
SB	L	0	A - 0.0	0	A - 0.0	0	A - 0.0	0	A - 0.0
	T	0	A - 0.0	0	A - 0.0	0	A - 0.0	0	A - 0.0
	R	1	A - 0.0	1	B - 11.1	1	A - 0.0	1	A - 9.9
Intersection:		*u - N/A*		*u - N/A*		*u - N/A*		*u - N/A*	

Note: ">" designates a shared right or left turn lane next to a thru lane.

The preceding table demonstrates that the projected delay at the proposed Driveway "B" on Rio Bravo Blvd. is acceptable for the 2024 AM and PM Peak Hour periods considered in this study.

A companion report to this Traffic Impact Analysis provides justification for the proposed Driveway "B" access on Rio Bravo Blvd. west of Broadway Blvd. It is recommended that Driveway "B" be located as far to the west from Broadway Blvd. on the project as possible to provide a safe transportation condition.

Driveway "B" will be subject to approval of the Mid-Region Council of Governments' Transportation Coordination Committee.

Access Design Specifications

Access along the Rio Bravo Blvd. and along Broadway Blvd. will be required to comply with Table 18.C-1 of the New Mexico Department of Transportation's *State Access Management Manual* to the degree possible. Rio Bravo Blvd. and Broadway Blvd. are both considered as Urban Principal Arterial Roadways. Spacing of signalized intersections along Rio Bravo Blvd. is required to be 2,640 feet minimum with full access points spaced at a minimum of 1,230 feet and partial access points spaced at 370 feet minimum (based on posted speed of 45 MPH). Spacing of partial access driveways on Broadway Blvd. is required to be a minimum of 625 feet (based on posted speed of 55 MPH).
Also, right turn and left turn deceleration lanes are warranted at both Driveway "A" on Broadway Blvd. and at Driveway "B" on Rio Bravo Blvd. The proposed deceleration lanes should be constructed as recommended in this analysis.

The southbound right turn deceleration lane on Broadway Blvd. at Driveway "A" is required to be constructed to a length of 525 feet plus transition based on the New Mexico Department of Transportation's *State Access Management Manual*. However, there is an existing drainage channel located approximately 350 feet north of the proposed driveway location. Therefore, this report recommends that the southbound right turn deceleration lane be constructed to an approximate length of 300 feet plus a 150'-150' radii reverse curve transition (or the maximum distance that will fit between the driveway and the drainage channel).

A westbound right turn deceleration lane is warranted on Rio Bravo Blvd. at Driveway "B". The westbound right turn deceleration lane should be constructed to a length of approximately 130 feet plus transition (or the maximum distance possible between Broadway Blvd. and the approved location of Driveway "B".

Findings and Conclusions

The proposed retail commercial development at the northwest corner of Rio Bravo Blvd. / Broadway Blvd. is a relatively small project. As such, it has impact in the immediate area, but no significant overall impact to the extended areas in this analysis. The capacity problems occurring along Rio Bravo Blvd. from Isleta Blvd. east to the I-25 E. Ramp are regional issues mostly attributable to large background traffic volumes that exist today and are forecast into the future. This analysis indicated that, generally speaking, the Rio Bravo Blvd. corridor in the study area would be at approximately capacity (or below) during the 2014 AM and PM Peak Hour periods (implementation year) and beyond capacity for the 2024 AM and PM Peak Hour periods (horizon year).

Strict compliance with minimum spacing requirements of the New Mexico Department of Transportation's *State Access Management Manual* would leave this project with no access. If the existing right-in, right-out driveway were the only one serving the property, then only southbound traffic on Broadway Blvd. (about 15%) will be able to access the project without having to make a U-Turn. All the traffic approaching the Valero Station from Broadway to the south, Rio Bravo to the east, and Rio Bravo to the west will be required to turn north on Broadway Blvd., travel north approximately 800 feet, then execute a U-Turn on Broadway to access this facility. Both driveways are needed to provide reasonable access to this site, and to maintain safe travel conditions on Broadway Blvd. (by minimizing the need to execute U-Turns). Both proposed driveways, if approved, should be located as far from the intersection of Rio Bravo Blvd. / Broadway Blvd. as is feasibly possible. Please refer to the companion Access Justification Study for the proposed driveway on Rio Bravo Blvd. The proposed Rio Bravo driveway (Driveway "B") will require approval from the Mid-Region Council of Governments' Transportation Coordinating Committed.

A mixed use retail commercial project at this same location was proposed in 2009. The 2009 project proposed a driveway on Rio Bravo Blvd. that was in the same location as the one being proposed with the Valero Station project. The Valero Station generates slightly less traffic than the 2009 project. On December, 1, 2009, the New Mexico Department of Transportation District 3 Traffic Engineer at the time wrote a letter approving the new driveway (right-in, right-out) on Rio Bravo Blvd. (See letter on Page A-130 and A-131). On January 17, 2012, the current District 3 Traffic Engineer has judged the December 1, 2009 approval letter to be null and void due to the fact that it was issued a number of years ago (see e-mail on Page A-312). Therefore, a new access study is required to justify the Rio Bravo driveway.

This report finds that the impact of the proposed Valero Station at the northwest corner of Rio Bravo Blvd. / Broadway Blvd. is moderate and that the impact to the transportation system can be mitigated by the following recommended measures.

Recommendations

All constructed improvements to proposed driveways and existing intersections shall be designed and built to maintain adequate safe sight distances to the degree possible.

Recommendations for improvements to the adjacent transportation system include:

Rio Bravo Blvd. / Broadway Blvd. – construct dual southbound right turn lanes on Broadway Blvd. at Rio Bravo. The second (outside) southbound right turn lane should be constructed between Rio Bravo Blvd. and Driveway "A". Associated signal modifications may be required.

Rio Bravo Blvd. / 2nd St. – construct a new southbound right turn lane on 2nd St. at Rio Bravo Blvd. if sufficient right-of-way exists. The new southbound right turn lane should be constructed between Rio Bravo Blvd. and the existing Driveway to the Giant Station at the northwest corner of the intersection of Rio Bravo / 2nd St.

Access – it is recommended that two driveways be constructed to access this project. Driveway "A" on Broadway Blvd. is recommended as a right-in, right-out access unsignalized driveway. Driveway "B" on Rio Bravo Blvd. is recommended as a right-in, right-out access unsignalized driveway. It should be located as far to the west along the frontage of the project as possible to maximize the distance of the driveway from Broadway Blvd. The South Diversion Channel presents a barrier along the west side of this project that limits where the driveway can be constructed.

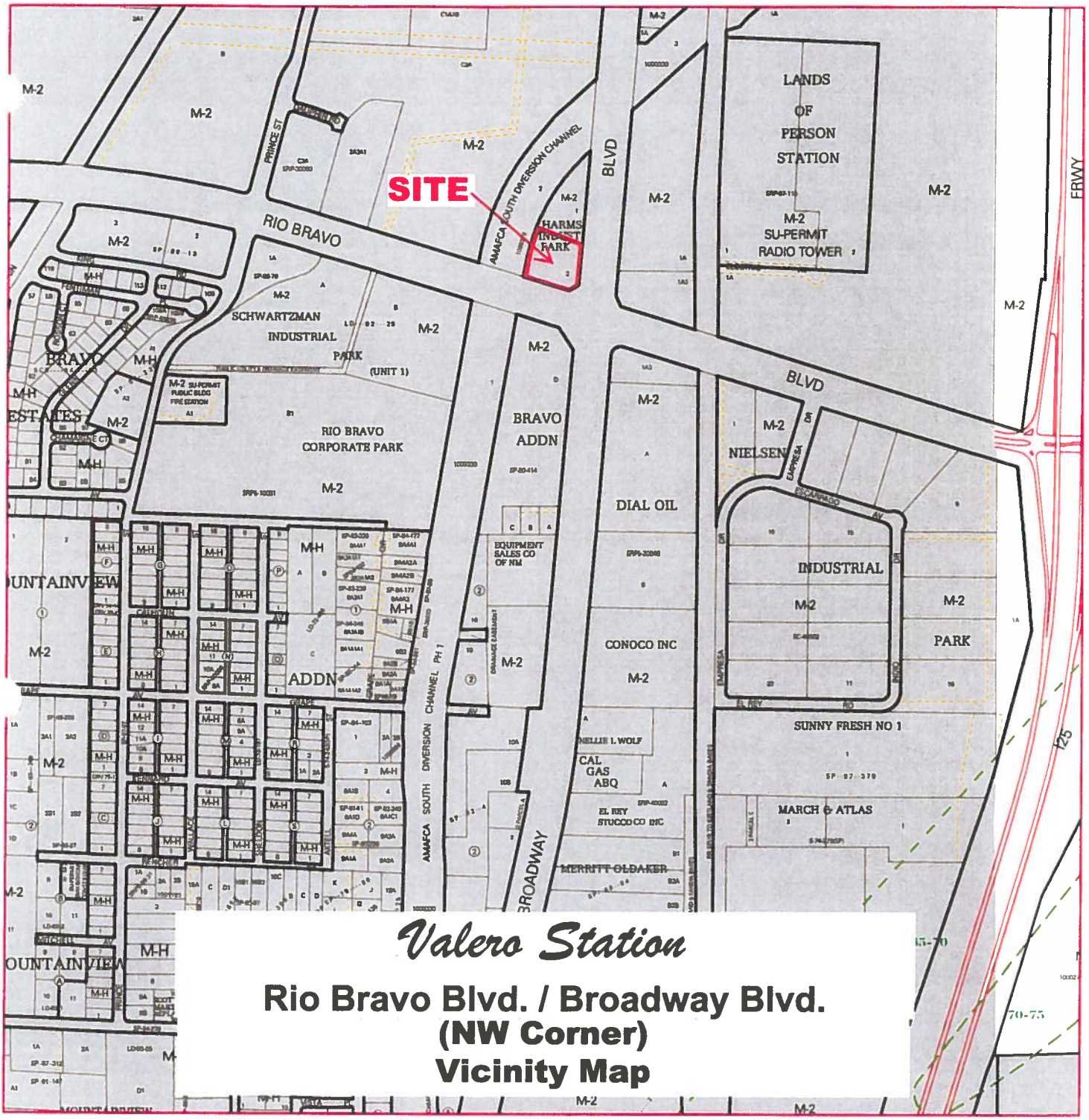
Driveway "A" / Broadway Blvd. – construct Driveway "A" as a right-in, right-out unsignalized driveway approximately 300 feet (centerline to centerline) north of Rio Bravo Blvd. A southbound right turn deceleration lane on Broadway Blvd. at Driveway "A" is warranted. The design and construction of the southbound right turn lane on Broadway Blvd. should comply with the recommendations on Page 30 of this report and with the requirements of the New Mexico Department of Transportation's *State Access Management Manual.*

Driveway "B" / Rio Bravo Blvd. – construct Driveway "B" as a right-in, right-out only unsignalized driveway as far to the west along the frontage of the project as is possible. A westbound right turn deceleration lane on Rio Bravo Blvd. at Driveway "B" is warranted. The design and construction of the westbound right turn lane on Rio Bravo Blvd. should comply with the recommendations on Page 30 of this report and with the requirements of the New Mexico Department of Transportation's *State Access Management Manual.*

Improvements on Bernalillo County streets and intersections should comply with requirements of the Bernalillo County Public Works Department. Improvements on State Roads should comply with the requirements of the New Mexico Department of Transportation's State *Access Management Manual.*

Appendix

APPENDIX



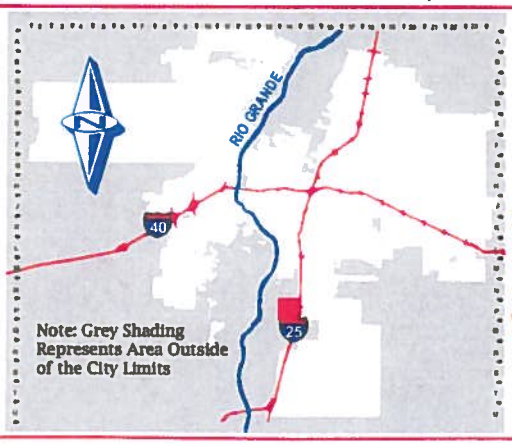
Valero Station

Rio Bravo Blvd. / Broadway Blvd. (NW Corner) Vicinity Map

For more current information and more details visit: http://www.cabq.gov/gis

AGIS
Albuquerque Geographic Information System

Map amended through: 3/10/2009



Zone Atlas Page:

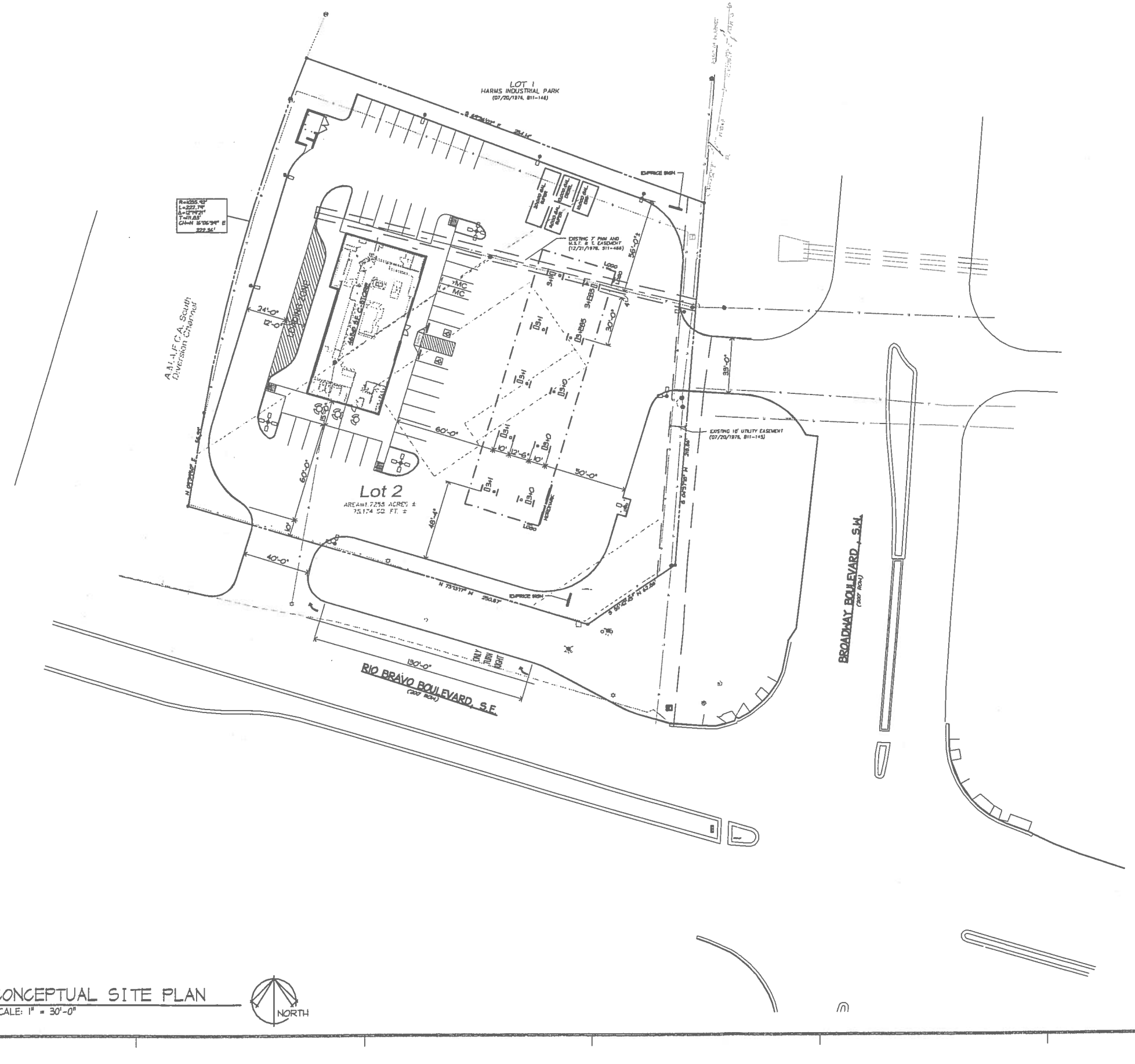
P-14-Z

Selected Symbols

- SECTOR PLANS
- Design Overlay Zones
- City Historic Zones
- H-1 Buffer Zone
- Petroglyph Mon.
- Escarpment
- 2 Mile Airport Zone
- Airport Noise Contours
- Wall Overlay Zone

0 750 1,500 Feet


Broadway Blvd.
Rio Bravo Blvd.
SITE
Driveway "A"
Driveway "B"
NORTH
Approx. Scale: 1" = 200'
PROPOSED VALERO STATION
NW CORNER OF RIO BRAVO BLVD. / BROADWAY BLVD.



A6 CONCEPTUAL SITE PLAN
SCALE: 1" = 30'-0"

NORTH

CORPORATE ARCHITECTURE & DEVELOPMENT solutions
3436 New Castle Dr.
Loveland, CO 80538
phone: 970.988.6302

PREPARED FOR:

DIAMOND SHAMROCK STATIONS, INC.
DBA: VALERO CORNER STORE #1252
555 RIO BRAVO BLVD. SE
ALBUQUERQUE, NEW MEXICO

CORNER STORE

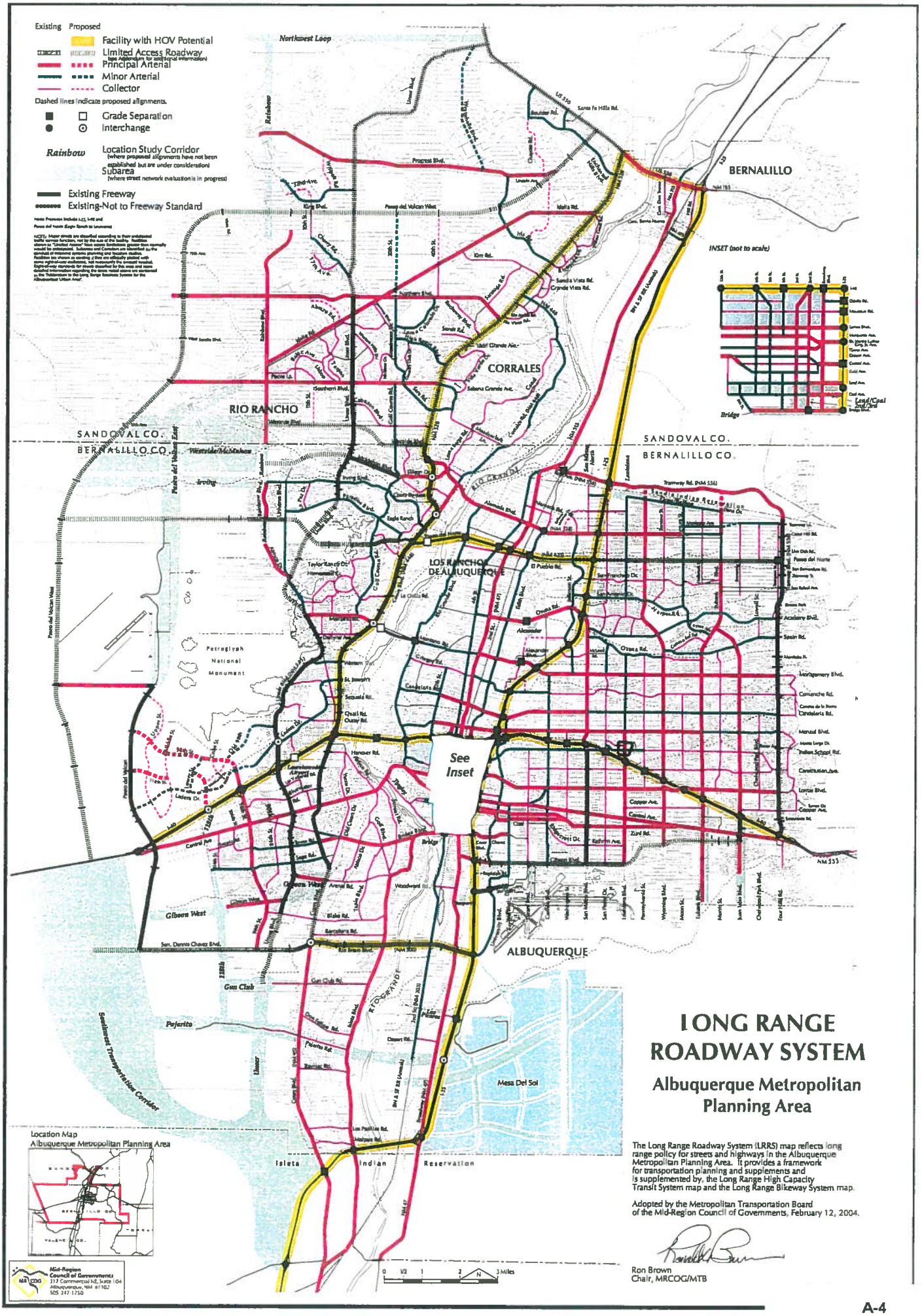
Valero Retail Holdings, Inc.
One Valero Way
San Antonio, TX 78249-1616

ISSUE	DATE
REVISION	1-21-12
REVISION	1-28-12
ADDED DECEL. LANE ON RIO BRAVO	2-16-12

PROJECT NO. -

SHEET TITLE
CONCEPTUAL SITE PLAN

SHEET NO.
CSP1.1



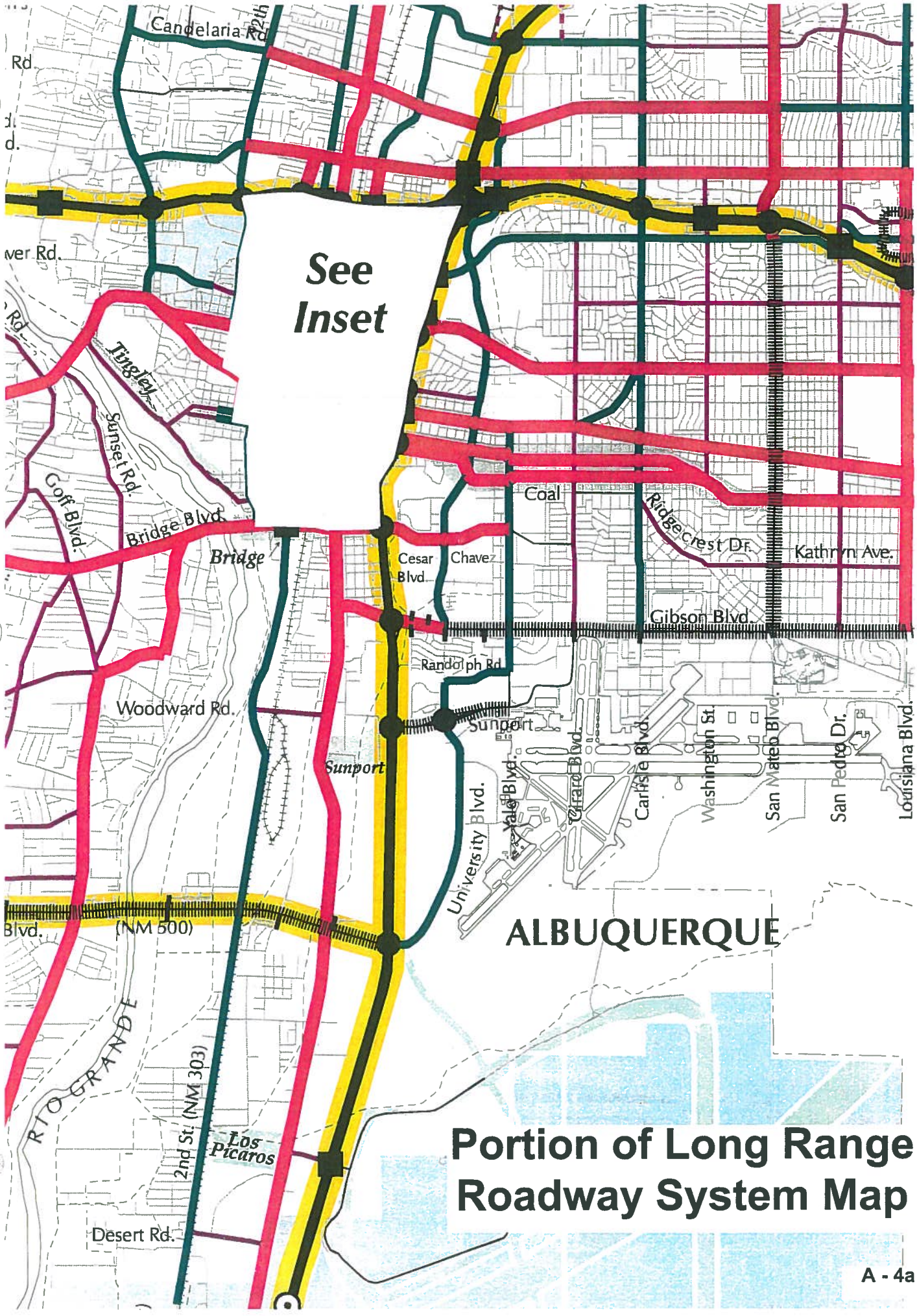
LONG RANGE ROADWAY SYSTEM

Albuquerque Metropolitan Planning Area

The Long Range Roadway System (LRRS) map reflects long range policy for streets and highways in the Albuquerque Metropolitan Planning Area. It provides a framework for transportation planning and supplements and is supplemented by, the Long Range High Capacity Transit System map and the Long Range Bikeway System map.

Adopted by the Metropolitan Transportation Board of the Mid-Region Council of Governments, February 12, 2004.

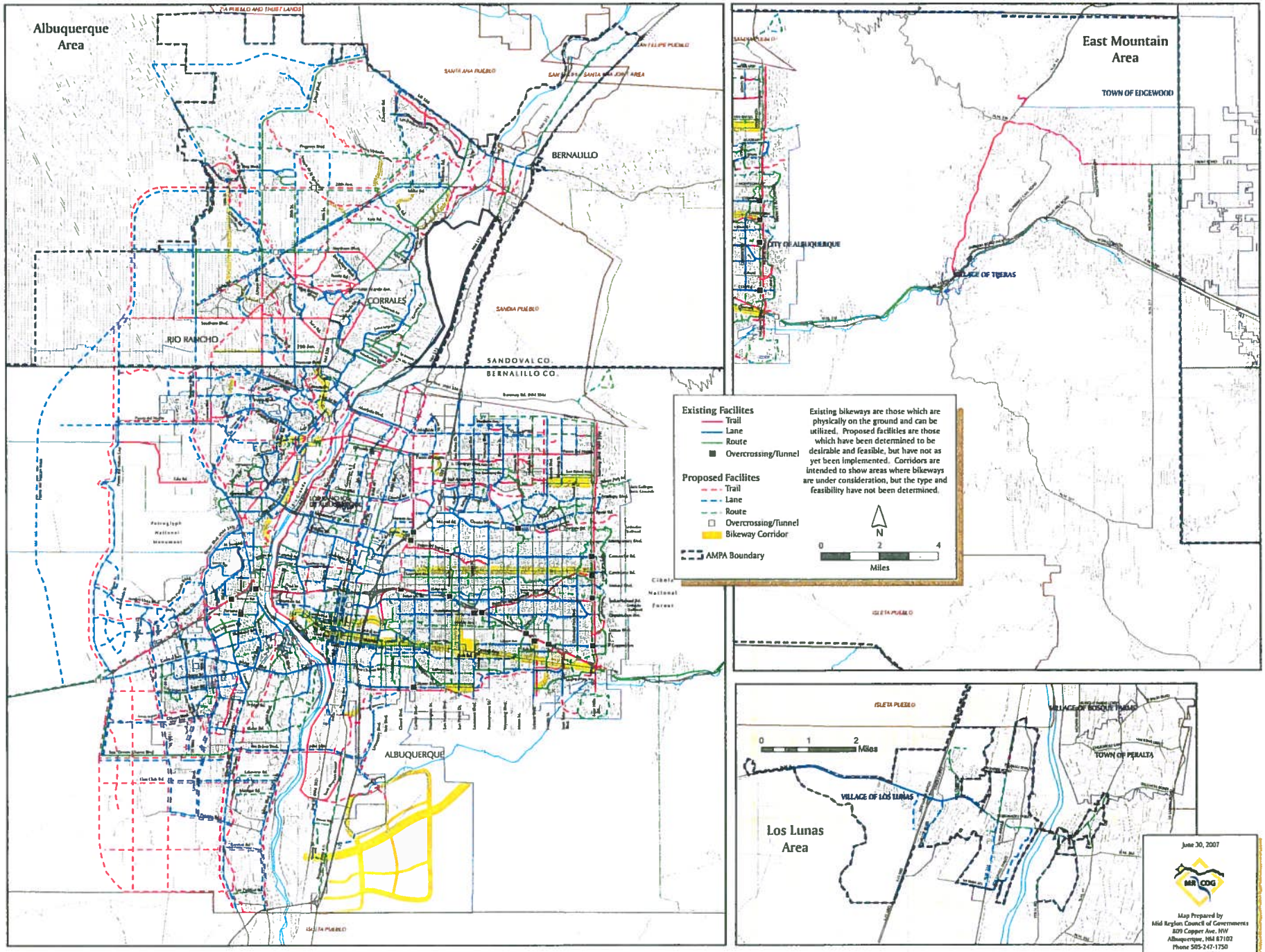
Ron Brown
Chair, MRCOG/MTB

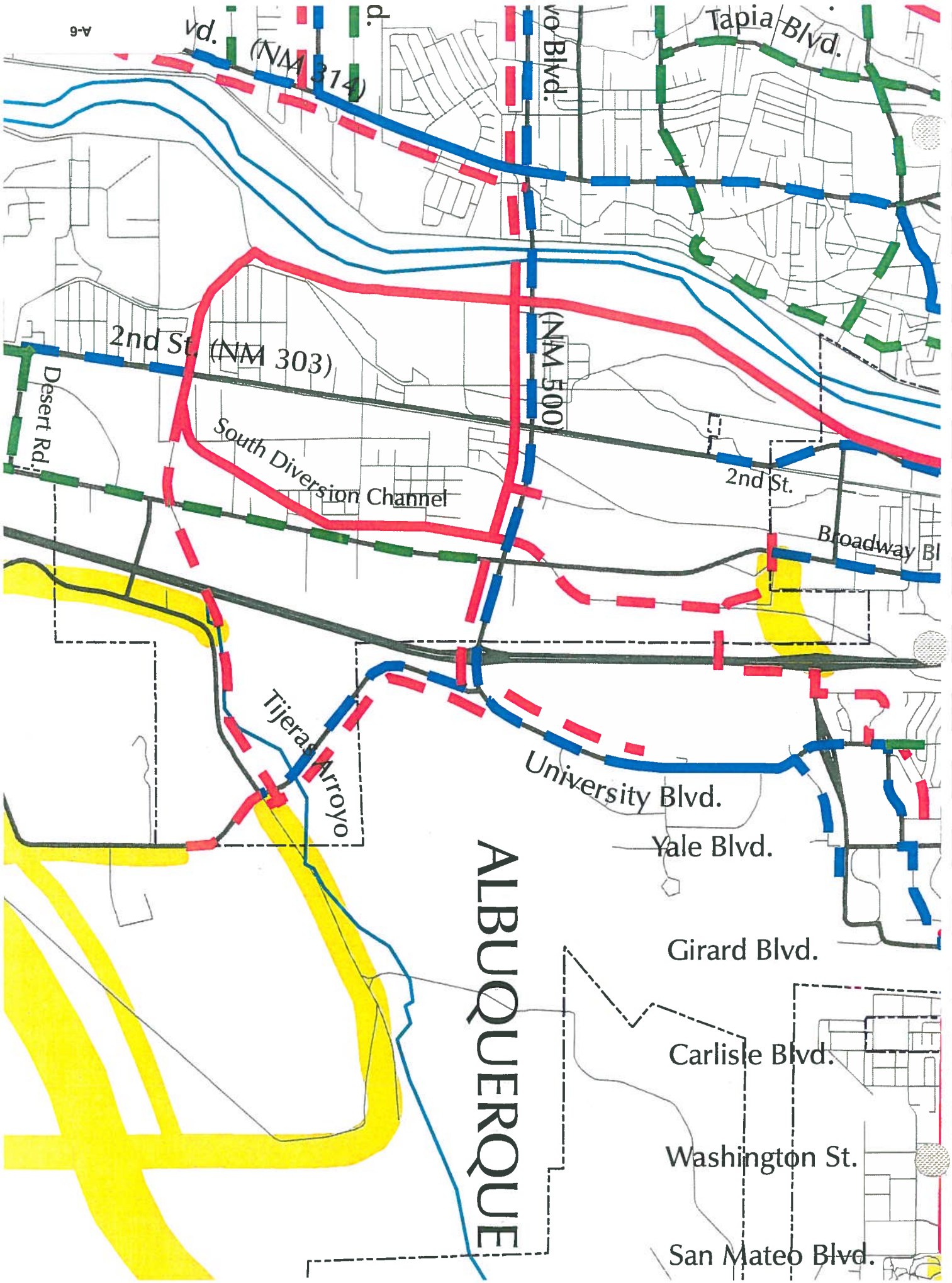


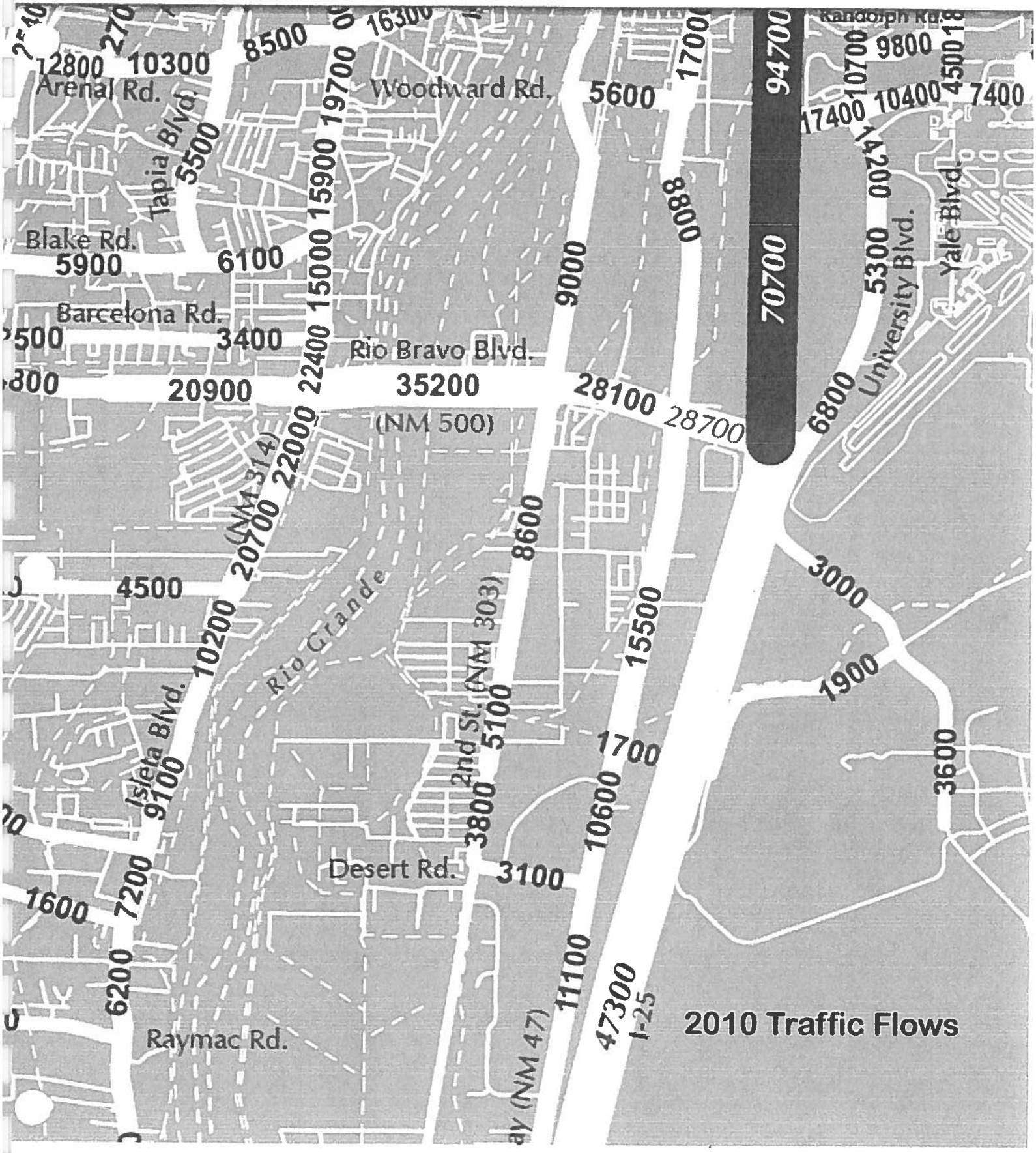
Portion of Long Range Roadway System Map

A - 4a

Long Range Bikeway System Map




A-6
vd. (NM 314)
d.
vo Blvd.
Tapia Blvd.
2nd St. (NM 303)
(NM 500)
Desert Rd.
South Diversion Channel
2nd St.
Broadway Bl
Tijeras Arroyo
University Blvd.
Yale Blvd.
ALBUQUERQUE
Girard Blvd.
Carlisle Blvd.
Washington St.
San Mateo Blvd.



2010 Traffic Flows

Valero Station (Rio Bravo Blvd. / Broadway Blvd.)

Trip Generation Data (ITE Trip Generation Manual - 8th Edition)

USE (ITE CODE) / DESCRIPTION		24 HR VOL	A. M. PEAK HR.		P. M. PEAK HR.	
		GROSS	ENTER	EXIT	ENTER	EXIT
Summary Sheet	Units					
Gasoline / Service Station w/ Convenience Market (945)	20.00	3,256	102	102	134	134
Pass-by Trip Adjustment	*50%*	*(1,628)*	*(51)*	*(51)*	*(67)*	*(67)*
Net New Trips		**1,628**	**51**	**51**	**67**	**67**

Valero Station (Rio Bravo Blvd. / Broadway Blvd.)
Trip Generation Data (ITE Trip Generation Manual - 8th Edition)

USE (ITE CODE)		24 HOUR TWO-WAY VOLUME	A.M. PEAK HOUR		P.M. PEAK HOUR	
		GROSS	ENTER	EXIT	ENTER	EXIT
	Units					
Gasoline / Service Station w/ Convenience Market (945)	*20.00*	3,256	102	102	134	134
	Fueling Positions					

ITE Trip Generation Equations:

Average Vehicle Trip Ends on a Weekday (24 HOUR TWO-WAY VOLUME)

T = *162.78* (X) + *0*
50% Enter, *50%* Exit

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7am and 9am (A.M. PEAK HOUR)

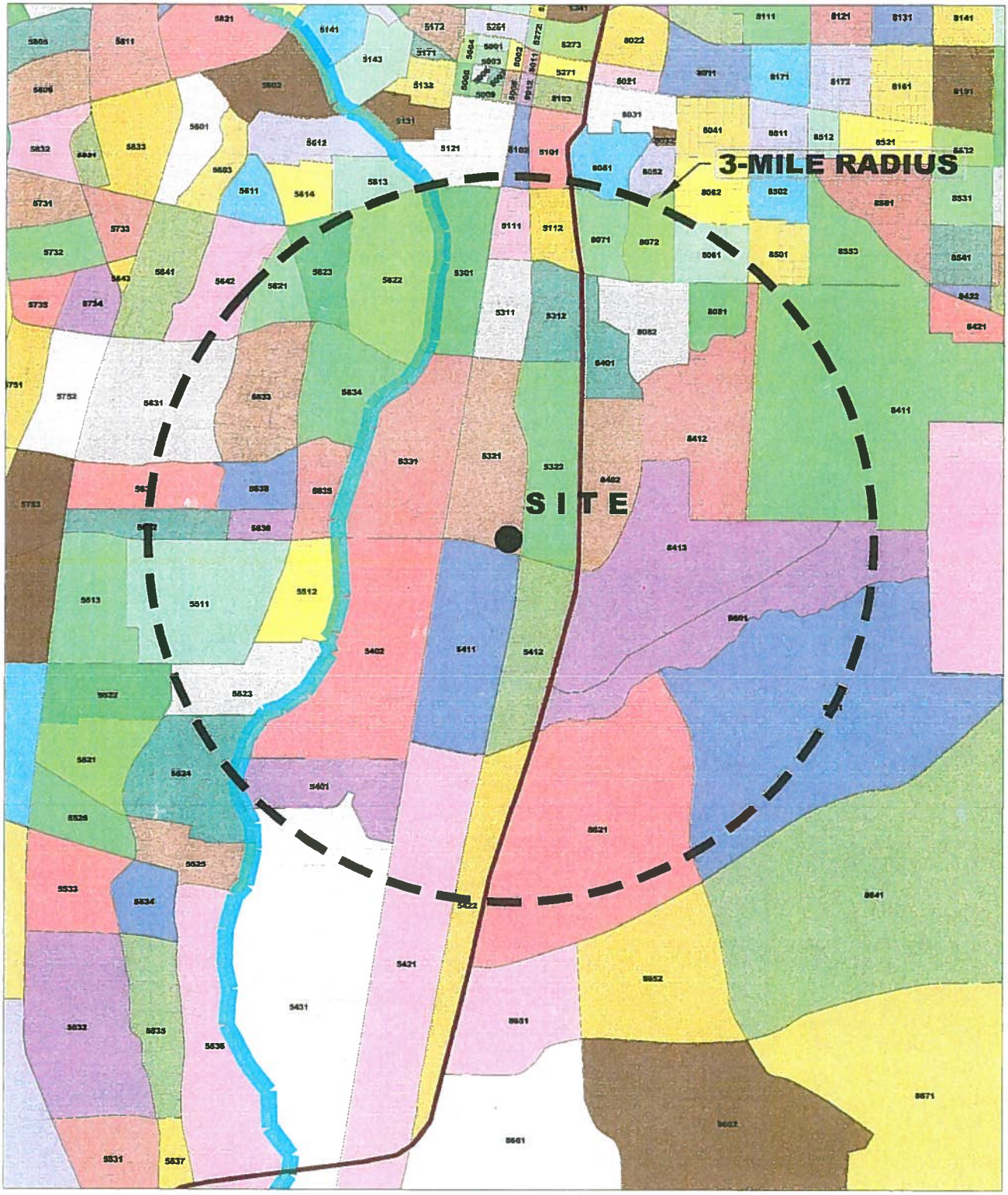
T = *10.16* (X) + *0*
50% Enter, *50%* Exit

Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4pm and 6pm (P.M. PEAK HOUR)

T = *13.38* (X) + *0*
50% Enter, *50%* Exit

Comments:
Tract No.

Based on ITE Trip Generation Manual - 8th Edition



DATA ANALYSIS SUBZONE (DASZ) MAP

Valero Station (Rio Bravo Blvd. / Broadway Blvd.)

Trip Distribution Table

Valero Station Development - Rio Bravo / Broadway

Data Analysis Subzone Population Data for determination of Local Trip Distribution for Proposed **Retail Commercial Trips**

2015 and 2025 Data Taken from Mid-Region Council of Governments'
2035 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

							(RW) Rio Bravo West			(IsN) Isleta Blvd North			(PLN) Poco Loco Rd North		
DASZ #	% Sub Area in Study	2015 Population	2025 Population	Interpolated Population for the Year	Population in Study	Percent Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
		2015	2025	2015											
Boundary Specified on DASZ Map															
5101	30%	2009	2146	2,009	603	1.65%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5102	35%	569	558	569	199	0.54%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5111	100%	1294	1249	1,294	1,294	3.53%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5112	100%	1839	1963	1,839	1,839	5.02%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5121	20%	2930	3948	2,930	586	1.60%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5301	100%	19	21	19	19	0.05%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5311	100%	1425	1393	1,425	1,425	3.89%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5312	100%	223	214	223	223	0.61%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5321	100%	0	230	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5322	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5331	100%	354	343	354	354	0.97%	0%	0.00%	0	0%	0.00%	0	10%	0.10%	35
5401	95%	769	748	769	731	2.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5402	100%	941	1302	941	941	2.57%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5411	100%	1920	3917	1,920	1,920	5.24%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5412	100%	25	27	25	25	0.07%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5421	30%	123	119	123	37	0.10%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5422	40%	55	55	55	22	0.06%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5431	85%	549	617	549	467	1.28%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5511	85%	2231	2233	2,231	1,896	5.18%	50%	2.59%	948	0%	0.00%	0	0%	0.00%	0
5512	100%	804	825	804	804	2.20%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5523	95%	529	546	529	503	1.37%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5524	20%	1028	1043	1,028	206	0.56%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5613	15%	1107	1094	1,107	166	0.45%	0%	0.00%	0	100%	0.45%	166	0%	0.00%	0
5621	100%	905	873	905	905	2.47%	0%	0.00%	0	100%	2.47%	905	0%	0.00%	0
5622	100%	2776	2744	2,776	2,776	7.58%	0%	0.00%	0	100%	7.58%	2,776	0%	0.00%	0

Trip Distribution Table

Valero Station Development - Rio Bravo / Broadway

Data Analysis Subzone Population Data for determination of Local Trip Distribution for Proposed **Retail Commercial Trips**

2015 and 2025 Data Taken from Mid-Region Council of Governments'
2035 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

							(RW) Rio Bravo West			(IsN) Isleta Blvd North			(PLN) Poco Loco Rd North		
DASZ #	% Sub Area in Study	2015 Population	2025 Population	Interpolated Population for the Year	Population in Study	Percent Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
		2015	2025	2015											
Boundary Specified on DASZ Map															
5623	95%	1487	1479	1,487	1,413	3.86%	0%	0.00%	0	100%	3.86%	1,413	0%	0.00%	0
5631	45%	2300	2322	2,300	1,035	2.83%	100%	2.83%	1,035	0%	0.00%	0	0%	0.00%	0
5632	55%	857	837	857	471	1.29%	100%	1.29%	471	0%	0.00%	0	0%	0.00%	0
5633	100%	3027	3040	3,027	3,027	8.27%	0%	0.00%	0	100%	8.27%	3,027	0%	0.00%	0
5634	100%	2408	2411	2,408	2,408	6.57%	0%	0.00%	0	100%	6.57%	2,408	0%	0.00%	0
5635	100%	1007	1078	1,007	1,007	2.75%	0%	0.00%	0	100%	2.75%	1,007	0%	0.00%	0
5636	100%	290	288	290	290	0.79%	50%	0.40%	145	50%	0.40%	145	0%	0.00%	0
5637	50%	935	972	935	468	1.28%	100%	1.28%	468	0%	0.00%	0	0%	0.00%	0
5638	100%	898	866	898	898	2.45%	50%	1.23%	449	50%	1.23%	449	0%	0.00%	0
5642	20%	1777	1802	1,777	355	0.97%	50%	0.48%	178	50%	0.48%	178	0%	0.00%	0
8051	15%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8061	85%	1188	1265	1,188	1,010	2.76%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8071	100%	773	2580	773	773	2.11%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8072	95%	1227	1397	1,227	1,166	3.18%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8081	100%	39	38	39	39	0.11%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8082	100%	1095	1055	1,095	1,095	2.99%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8401	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8402	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8411	40%	501	496	501	200	0.55%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8412	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8413	100%	0	753	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8501	10%	1847	1951	1,847	185	0.51%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8601	90%	0	784	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8621	85%	3345	4935	3,345	2,843	7.76%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8691	50%	0	10060	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
				49,425	36,624	100.00%			3,694			12,474			35
									10.08%			34.06%			0.10%

Trip Distribution Table

Valero Station Development - Rio Bravo / Broadway

Data Analysis Subzone Population Data for determination of Local Trip Distribution for Proposed **Retail Commercial**

2015 and 2025 Data Taken from Mid-Region Council of Governments'
2035 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

							(2N) Second St North			(PrN) Prince St North			(BN) Broadway Blvd North		
DASZ#	% Sub Area in Study	2015 Population	2025 Population	Interpolated Population for the Year	Population in Study	Percent Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
		2015	2025	2015											
Boundary Specified on DASZ Map															
5101	30%	2009	2146	2,009	603	1.65%	0%	0.00%	0	0%	0.00%	0	100%	1.65%	603
5102	35%	569	558	569	199	0.54%	0%	0.00%	0	0%	0.00%	0	100%	0.54%	199
5111	100%	1294	1249	1,294	1,294	3.53%	0%	0.00%	0	0%	0.00%	0	100%	3.53%	1,294
5112	100%	1839	1963	1,839	1,839	5.02%	0%	0.00%	0	0%	0.00%	0	100%	5.02%	1,839
5121	20%	2930	3948	2,930	586	1.60%	100%	1.60%	586	0%	0.00%	0	0%	0.00%	0
5301	100%	19	21	19	19	0.05%	100%	0.05%	19	0%	0.00%	0	0%	0.00%	0
5311	100%	1425	1393	1,425	1,425	3.89%	0%	0.00%	0	0%	0.00%	0	100%	3.89%	1,425
5312	100%	223	214	223	223	0.61%	0%	0.00%	0	0%	0.00%	0	100%	0.61%	223
5321	100%	0	230	0	0	0.00%	35%	0.00%	0	30%	0.00%	0	35%	0.00%	0
5322	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	100%	0.00%	0
5331	100%	354	343	354	354	0.97%	90%	0.87%	319	0%	0.00%	0	0%	0.00%	0
5401	95%	769	748	769	731	2.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5402	100%	941	1302	941	941	2.57%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5411	100%	1920	3917	1,920	1,920	5.24%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5412	100%	25	27	25	25	0.07%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5421	30%	123	119	123	37	0.10%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5422	40%	55	55	55	22	0.06%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5431	85%	549	617	549	467	1.28%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5511	85%	2231	2233	2,231	1,896	5.18%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5512	100%	804	825	804	804	2.20%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5523	95%	529	546	529	503	1.37%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5524	20%	1028	1043	1,028	206	0.56%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5613	15%	1107	1094	1,107	166	0.45%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5621	100%	905	873	905	905	2.47%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5622	100%	2776	2744	2,776	2,776	7.58%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0

Trip Distribution Table

Valero Station Development - Rio Bravo / Broadway

Data Analysis Subzone Population Data for determination of Local Trip Distribution for Proposed **Retail Commercial**

2015 and 2025 Data Taken from Mid-Region Council of Governments'
2035 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

							(2N) Second St North			(PrN) Prince St North			(BN) Broadway Blvd North		
DASZ #	% Sub Area in Study	2015 Population	2025 Population	Interpolated Population for the Year	Population in Study	Percent Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
		2015	2025	2015											
Boundary Specified on DASZ Map															
5623	95%	1487	1479	1,487	1,413	3.86%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5631	45%	2300	2322	2,300	1,035	2.83%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5632	55%	857	837	857	471	1.29%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5633	100%	3027	3040	3,027	3,027	8.27%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5634	100%	2408	2411	2,408	2,408	6.57%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5635	100%	1007	1078	1,007	1,007	2.75%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5636	100%	290	288	290	290	0.79%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5637	50%	935	972	935	468	1.28%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5638	100%	898	866	898	898	2.45%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5642	20%	1777	1802	1,777	355	0.97%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8051	15%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8061	85%	1188	1265	1,188	1,010	2.76%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8071	100%	773	2580	773	773	2.11%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8072	95%	1227	1397	1,227	1,166	3.18%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8081	100%	39	38	39	39	0.11%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8082	100%	1095	1055	1,095	1,095	2.99%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8401	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8402	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8411	40%	501	496	501	200	0.55%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8412	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8413	100%	0	753	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8501	10%	1847	1951	1,847	185	0.51%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8601	90%	0	784	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8621	85%	3345	4935	3,345	2,843	7.76%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8691	50%	0	10060	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
				49,425	36,624	100.00%			924			-			5,583
									2.52%			0.00%			15.24%

Trip Distribution Table

Valero Station Development - Rio Bravo / Broadway

Data Analysis Subzone Population Data for determination of Local Trip Distribution for Proposed **Retail Commercial**

2015 and 2025 Data Taken from Mid-Region Council of Governments'
2035 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

							(InN) Interstate 25 North			(RE) Rio Bravo Blvd East			(InS) Interstate 25 South		
DASZ #	% Sub Area in Study	2015 Population	2025 Population	Interpolated Population for the Year	Population in Study	Percent Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
		2015	2025	2015											
Boundary Specified on DASZ Map															
5101	30%	2009	2146	2,009	603	1.65%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5102	35%	569	558	569	199	0.54%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5111	100%	1294	1249	1,294	1,294	3.53%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5112	100%	1839	1963	1,839	1,839	5.02%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5121	20%	2930	3948	2,930	586	1.60%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5301	100%	19	21	19	19	0.05%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5311	100%	1425	1393	1,425	1,425	3.89%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5312	100%	223	214	223	223	0.61%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5321	100%	0	230	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5322	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5331	100%	354	343	354	354	0.97%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5401	95%	769	748	769	731	2.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5402	100%	941	1302	941	941	2.57%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5411	100%	1920	3917	1,920	1,920	5.24%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5412	100%	25	27	25	25	0.07%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5421	30%	123	119	123	37	0.10%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5422	40%	55	55	55	22	0.06%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5431	85%	549	617	549	467	1.28%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5511	85%	2231	2233	2,231	1,896	5.18%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5512	100%	804	825	804	804	2.20%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5523	95%	529	546	529	503	1.37%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5524	20%	1028	1043	1,028	206	0.56%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5613	15%	1107	1094	1,107	166	0.45%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5621	100%	905	873	905	905	2.47%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5622	100%	2776	2744	2,776	2,776	7.58%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0

Trip Distribution Table

Valero Station Development - Rio Bravo / Broadway

Data Analysis Subzone Population Data for determinationof Local Trip Distribution for Proposed **Retail Commercial**

2015 and 2025 Data Taken from Mid-Region Council of Governments'
2035 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

							(InN) Interstate 25 North			(RE) Rio Bravo Blvd East			(InS) Interstate 25 South		
DASZ #	% Sub Area in Study	2015 Population	2025 Population	Interpolated Population for the Year	Population in Study	Percent Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
		2015	2025	2015											
Boundary Specified on DASZ Map															
5623	95%	1487	1479	1,4187	1,413	3.86%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5631	45%	2300	2322	2,3300	1,035	2.83%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5632	55%	857	837	8157	471	1.29%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5633	100%	3027	3040	3,0127	3,027	8.27%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5634	100%	2408	2411	2,4108	2,408	6.57%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5635	100%	1007	1078	1,0107	1,007	2.75%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5636	100%	290	288	2190	290	0.79%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5637	50%	935	972	9135	468	1.28%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5638	100%	898	866	8198	898	2.45%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
5642	20%	1777	1802	1,7177	355	0.97%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8051	15%	0	0	0	0	0.00%	100%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8061	85%	1188	1265	1,1188	1,010	2.76%	100%	2.76%	1,010	0%	0.00%	0	0%	0.00%	0
8071	100%	773	2580	7173	773	2.11%	100%	2.11%	773	0%	0.00%	0	0%	0.00%	0
8072	95%	1227	1397	1,2227	1,166	3.18%	100%	3.18%	1,166	0%	0.00%	0	0%	0.00%	0
8081	100%	39	38	39	39	0.11%	50%	0.05%	20	50%	0.05%	20	0%	0.00%	0
8082	100%	1095	1055	1,0195	1,095	2.99%	50%	1.49%	548	50%	1.49%	548	0%	0.00%	0
8401	100%	0	0	0	0	0.00%	75%	0.00%	0	25%	0.00%	0	0%	0.00%	0
8402	100%	0	0	0	0	0.00%	0%	0.00%	0	100%	0.00%	0	0%	0.00%	0
8411	40%	501	496	5101	200	0.55%	0%	0.00%	0	100%	0.55%	200	0%	0.00%	0
8412	100%	0	0	0	0	0.00%	0%	0.00%	0	100%	0.00%	0	0%	0.00%	0
8413	100%	0	753	0	0	0.00%	0%	0.00%	0	100%	0.00%	0	0%	0.00%	0
8501	10%	1847	1951	1,8147	185	0.51%	100%	0.51%	185	0%	0.00%	0	0%	0.00%	0
8601	90%	0	784	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8621	85%	3345	4935	3,3345	2,843	7.76%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8691	50%	0	10060	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
				49,4125	36,624	100.00%			3,701			767			-
									10.11%			2.09%			0.00%

Trip Distribution Table

Valero Station Development - Rio Bravo / Broadway

Data Analysis Subzone Population Data for determination of Local Trip Distribution for Proposed **Retail Commercial**

2015 and 2025 Data Taken from Mid-Region Council of Governments'
2035 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

							(BS) Broadway Blvd South			(PrS) Prince St South		
DASZ #	% Sub Area in Study	2015 Population	2025 Population	Interpolated Population for the Year	Population In Study	Percent Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
		2015	2025	2015								
Boundary Specified on DASZ Map												
5101	30%	2009	2146	2,009	603	1.65%	0%	0.00%	0	0%	0.00%	0
5102	35%	569	558	569	199	0.54%	0%	0.00%	0	0%	0.00%	0
5111	100%	1294	1249	1,294	1,294	3.53%	0%	0.00%	0	0%	0.00%	0
5112	100%	1839	1963	1,839	1,839	5.02%	0%	0.00%	0	0%	0.00%	0
5121	20%	2930	3948	2,930	586	1.60%	0%	0.00%	0	0%	0.00%	0
5301	100%	19	21	19	19	0.05%	0%	0.00%	0	0%	0.00%	0
5311	100%	1425	1393	1,425	1,425	3.89%	0%	0.00%	0	0%	0.00%	0
5312	100%	223	214	223	223	0.61%	0%	0.00%	0	0%	0.00%	0
5321	100%	0	230	0	0	0.00%	0%	0.00%	0	0%	0.00%	0
5322	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0
5331	100%	354	343	354	354	0.97%	0%	0.00%	0	0%	0.00%	0
5401	95%	769	748	769	731	2.00%	0%	0.00%	0	0%	0.00%	0
5402	100%	941	1302	941	941	2.57%	0%	0.00%	0	0%	0.00%	0
5411	100%	1920	3917	1,920	1,920	5.24%	60%	3.15%	1,152	40%	2.10%	768
5412	100%	25	27	25	25	0.07%	100%	0.07%	25	0%	0.00%	0
5421	30%	123	119	123	37	0.10%	60%	0.06%	22	0%	0.00%	0
5422	40%	55	55	55	22	0.06%	100%	0.06%	22	0%	0.00%	0
5431	85%	549	617	549	467	1.28%	0%	0.00%	0	0%	0.00%	0
5511	85%	2231	2233	2,231	1,896	5.18%	0%	0.00%	0	0%	0.00%	0
5512	100%	804	825	804	804	2.20%	0%	0.00%	0	0%	0.00%	0
5523	95%	529	546	529	503	1.37%	0%	0.00%	0	0%	0.00%	0
5524	20%	1028	1043	1,028	206	0.56%	0%	0.00%	0	0%	0.00%	0
5613	15%	1107	1094	1,107	166	0.45%	0%	0.00%	0	0%	0.00%	0
5621	100%	905	873	905	905	2.47%	0%	0.00%	0	0%	0.00%	0
5622	100%	2776	2744	2,776	2,776	7.58%	0%	0.00%	0	0%	0.00%	0

Trip Distribution Table

Valero Station Development - Rio Bravo / Broadway

Data Analysis Subzone Population Data for determination of Local Trip Distribution for Proposed **Retail Commercial**

2015 and 2025 Data Taken from Mid-Region Council of Governments'
2035 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

							(BS) Broadway Blvd South			(PrS) Prince St South		
DASZ #	% Sub Area in Study	2015 Population	2025 Population	Interpolated Population for the Year	Population in Study	Percent Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
		2015	2025	2015								
Boundary Specified on DASZ Map												
5623	95%	1487	1479	1,487	1,413	3.86%	0%	0.00%	0	0%	0.00%	0
5631	45%	2300	2322	2,300	1,035	2.83%	0%	0.00%	0	0%	0.00%	0
5632	55%	857	837	857	471	1.29%	0%	0.00%	0	0%	0.00%	0
5633	100%	3027	3040	3,027	3,027	8.27%	0%	0.00%	0	0%	0.00%	0
5634	100%	2408	2411	2,408	2,408	6.57%	0%	0.00%	0	0%	0.00%	0
5635	100%	1007	1078	1,007	1,007	2.75%	0%	0.00%	0	0%	0.00%	0
5636	100%	290	288	290	290	0.79%	0%	0.00%	0	0%	0.00%	0
5637	50%	935	972	935	468	1.28%	0%	0.00%	0	0%	0.00%	0
5638	100%	898	866	898	898	2.45%	0%	0.00%	0	0%	0.00%	0
5642	20%	1777	1802	1,777	355	0.97%	0%	0.00%	0	0%	0.00%	0
8051	15%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0
8061	85%	1188	1265	1,188	1,010	2.76%	0%	0.00%	0	0%	0.00%	0
8071	100%	773	2580	773	773	2.11%	0%	0.00%	0	0%	0.00%	0
8072	95%	1227	1397	1,227	1,166	3.18%	0%	0.00%	0	0%	0.00%	0
8081	100%	39	38	39	39	0.11%	0%	0.00%	0	0%	0.00%	0
8082	100%	1095	1055	1,095	1,095	2.99%	0%	0.00%	0	0%	0.00%	0
8401	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0
8402	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0
8411	40%	501	496	501	200	0.55%	0%	0.00%	0	0%	0.00%	0
8412	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0
8413	100%	0	753	0	0	0.00%	0%	0.00%	0	0%	0.00%	0
8501	10%	1847	1951	1,847	185	0.51%	0%	0.00%	0	0%	0.00%	0
8601	90%	0	784	0	0	0.00%	100%	0.00%	0	0%	0.00%	0
8621	85%	3345	4935	3,345	2,843	7.76%	100%	7.76%	2,843	0%	0.00%	0
8691	50%	0	10060	0	0	0.00%	100%	0.00%	0	0%	0.00%	0
				49,425	36,624	100.00%			4,064			768
									11.10%			2.10%

Trip Distribution Table

Valero Station Development - Rio Bravo / Broadway

Data Analysis Subzone Population Data for determination of Local Trip Distribution for Proposed **Retail Commercial**

2015 and 2025 Data Taken from Mid-Region Council of Governments'
2035 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

							(2S) Second St South			(IsS) Isleta Blvd South		
DASZ #	% Sub Area in Study	2015 Population	2025 Population	Interpolated Population for the Year	Population in Study	Percent Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
		2015	2025	2015								
Boundary Specified on DASZ Map												
5101	30%	2009	2146	2,009	603	1.65%	0%	0.00%	0	0%	0.00%	0
5102	35%	569	558	569	199	0.54%	0%	0.00%	0	0%	0.00%	0
5111	100%	1294	1249	1,294	1,294	3.53%	0%	0.00%	0	0%	0.00%	0
5112	100%	1839	1963	1,839	1,839	5.02%	0%	0.00%	0	0%	0.00%	0
5121	20%	2930	3948	2,930	586	1.60%	0%	0.00%	0	0%	0.00%	0
5301	100%	19	21	19	19	0.05%	0%	0.00%	0	0%	0.00%	0
5311	100%	1425	1393	1,425	1,425	3.89%	0%	0.00%	0	0%	0.00%	0
5312	100%	223	214	223	223	0.61%	0%	0.00%	0	0%	0.00%	0
5321	100%	0	230	0	0	0.00%	0%	0.00%	0	0%	0.00%	0
5322	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0
5331	100%	354	343	354	354	0.97%	0%	0.00%	0	0%	0.00%	0
5401	95%	769	748	769	731	2.00%	100%	2.00%	731	0%	0.00%	0
5402	100%	941	1302	941	941	2.57%	100%	2.57%	941	0%	0.00%	0
5411	100%	1920	3917	1,920	1,920	5.24%	0%	0.00%	0	0%	0.00%	0
5412	100%	25	27	25	25	0.07%	0%	0.00%	0	0%	0.00%	0
5421	30%	123	119	123	37	0.10%	40%	0.04%	15	0%	0.00%	0
5422	40%	55	55	55	22	0.06%	0%	0.00%	0	0%	0.00%	0
5431	85%	549	617	549	467	1.28%	100%	1.28%	467	0%	0.00%	0
5511	85%	2231	2233	2,231	1,896	5.18%	0%	0.00%	0	50%	2.59%	948
5512	100%	804	825	804	804	2.20%	0%	0.00%	0	100%	2.20%	804
5523	95%	529	546	529	503	1.37%	0%	0.00%	0	100%	1.37%	503
5524	20%	1028	1043	1,028	206	0.56%	0%	0.00%	0	100%	0.56%	206
5613	15%	1107	1094	1,107	166	0.45%	0%	0.00%	0	0%	0.00%	0
5621	100%	905	873	905	905	2.47%	0%	0.00%	0	0%	0.00%	0
5622	100%	2776	2744	2,776	2,776	7.58%	0%	0.00%	0	0%	0.00%	0

Trip Distribution Table

Valero Station Development - Rio Bravo / Broadway

Data Analysis Subzone Population Data for determination of Local Trip Distribution for Proposed **Retail Commercial**

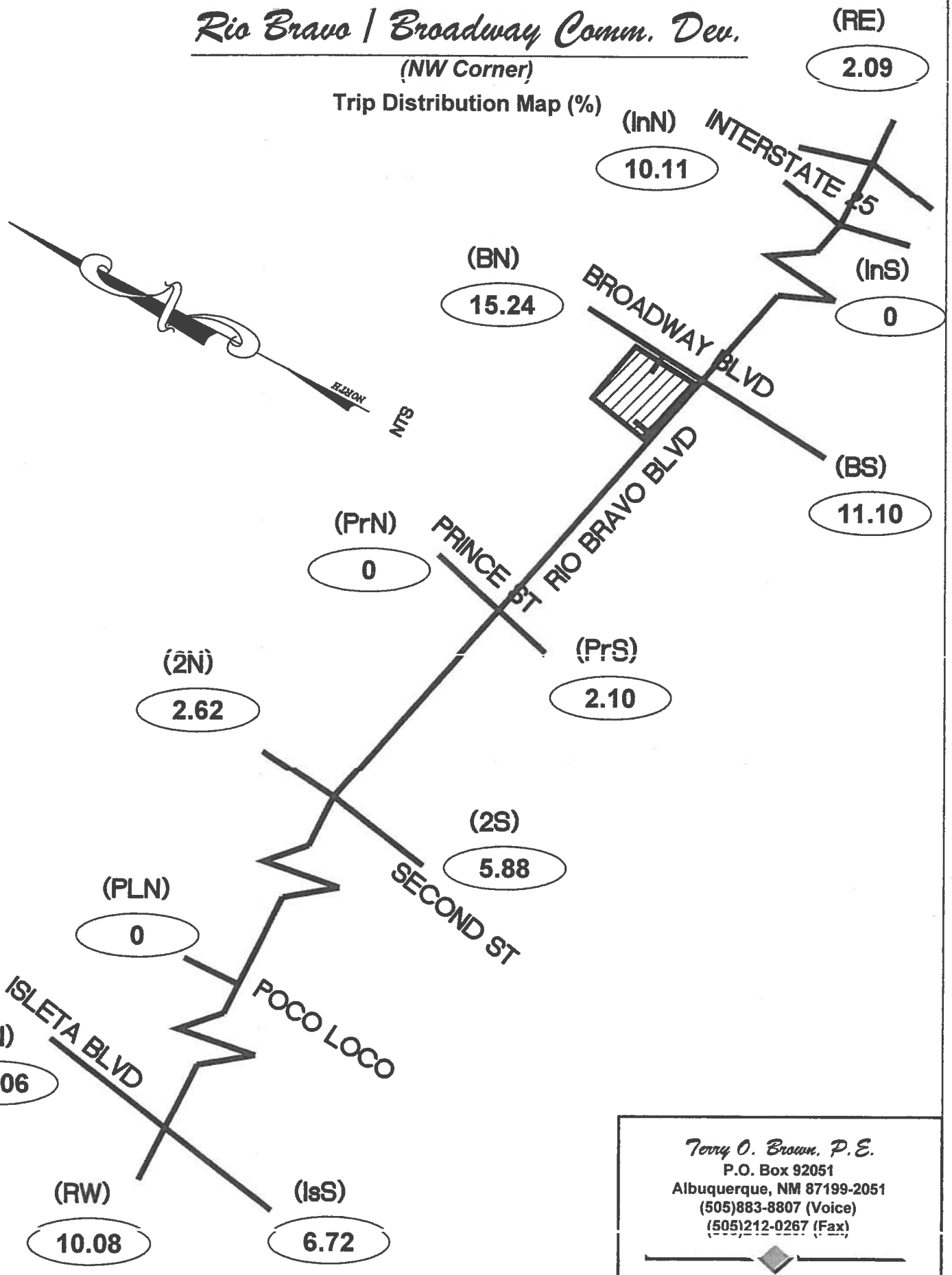
2015 and 2025 Data Taken from Mid-Region Council of Governments'
2035 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

							(2S) Second St South			(IsS) Isleta Blvd South		
DASZ #	% Sub Area in Study	2015 Population	2025 Population	Interpolated Population for the Year	Population in Study	Percent Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
		2015	2025	2015								
Boundary Specified on DASZ Map												
5623	95%	1487	1479	1,487	1,413	3.86%	0%	0.00%	0	0%	0.00%	0
5631	45%	2300	2322	2,300	1,035	2.83%	0%	0.00%	0	0%	0.00%	0
5632	55%	857	837	857	471	1.29%	0%	0.00%	0	0%	0.00%	0
5633	100%	3027	3040	3,027	3,027	8.27%	0%	0.00%	0	0%	0.00%	0
5634	100%	2408	2411	2,408	2,408	6.57%	0%	0.00%	0	0%	0.00%	0
5635	100%	1007	1078	1,007	1,007	2.75%	0%	0.00%	0	0%	0.00%	0
5636	100%	290	288	290	290	0.79%	0%	0.00%	0	0%	0.00%	0
5637	50%	935	972	935	468	1.28%	0%	0.00%	0	0%	0.00%	0
5638	100%	898	866	898	898	2.45%	0%	0.00%	0	0%	0.00%	0
5642	20%	1777	1802	1,777	355	0.97%	0%	0.00%	0	0%	0.00%	0
8051	15%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0
8061	85%	1188	1265	1,188	1,010	2.76%	0%	0.00%	0	0%	0.00%	0
8071	100%	773	2580	773	773	2.11%	0%	0.00%	0	0%	0.00%	0
8072	95%	1227	1397	1,227	1,166	3.18%	0%	0.00%	0	0%	0.00%	0
8081	100%	39	38	39	39	0.11%	0%	0.00%	0	0%	0.00%	0
8082	100%	1095	1055	1,095	1,095	2.99%	0%	0.00%	0	0%	0.00%	0
8401	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0
8402	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0
8411	40%	501	496	501	200	0.55%	0%	0.00%	0	0%	0.00%	0
8412	100%	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0
8413	100%	0	753	0	0	0.00%	0%	0.00%	0	0%	0.00%	0
8501	10%	1847	1951	1,847	185	0.51%	0%	0.00%	0	0%	0.00%	0
8601	90%	0	784	0	0	0.00%	0%	0.00%	0	0%	0.00%	0
8621	85%	3345	4935	3,345	2,843	7.76%	0%	0.00%	0	0%	0.00%	0
8691	50%	0	10060	0	0	0.00%	0%	0.00%	0	0%	0.00%	0
				49,425	36,624	100.00%			2,154			2,461
									5.88%			6.72%

Rio Bravo / Broadway Comm. Dev.

(NW Corner)

Trip Distribution Map (%)



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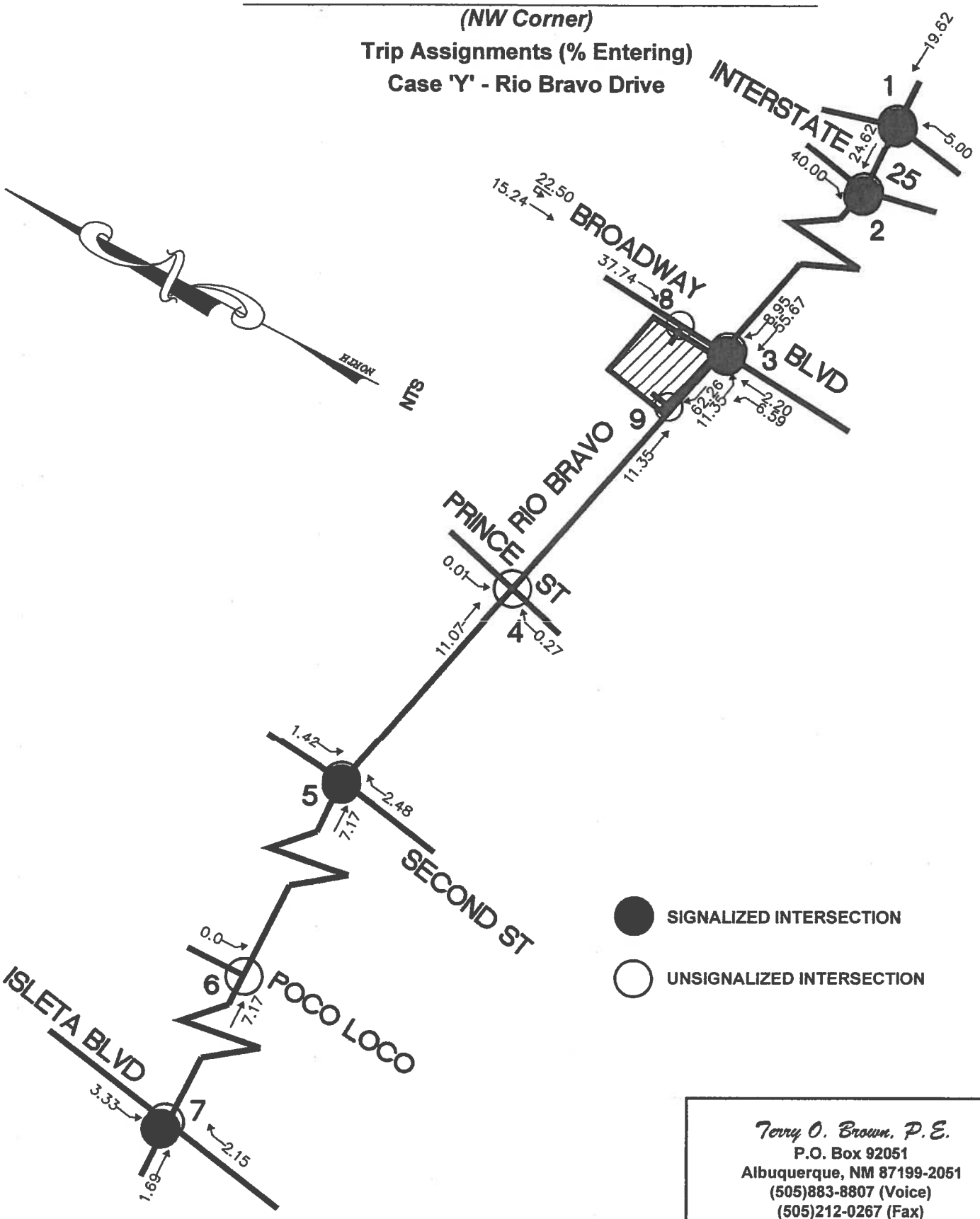
(505)883-8807 (Voice)
(505)212-0267 (Fax)

Rio Bravo / Broadway Comm. Dev.

(NW Corner)

Trip Assignments (% Entering)

Case 'Y' - Rio Bravo Drive



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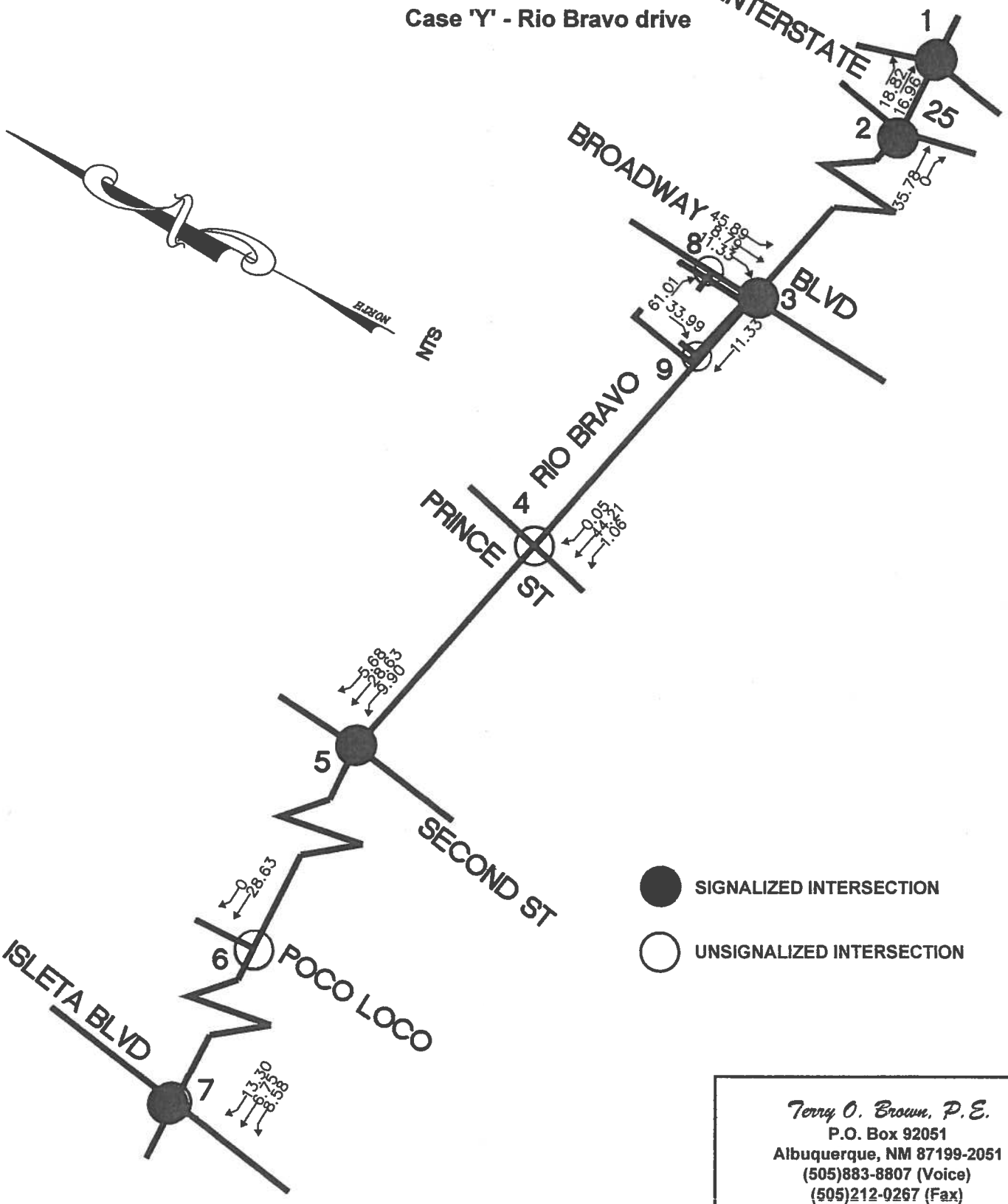
Rio Bravo / Broadway Comm. Dev.

(NW Corner)

Trip Assignments (% Exiting)

Case 'Y' - Rio Bravo drive



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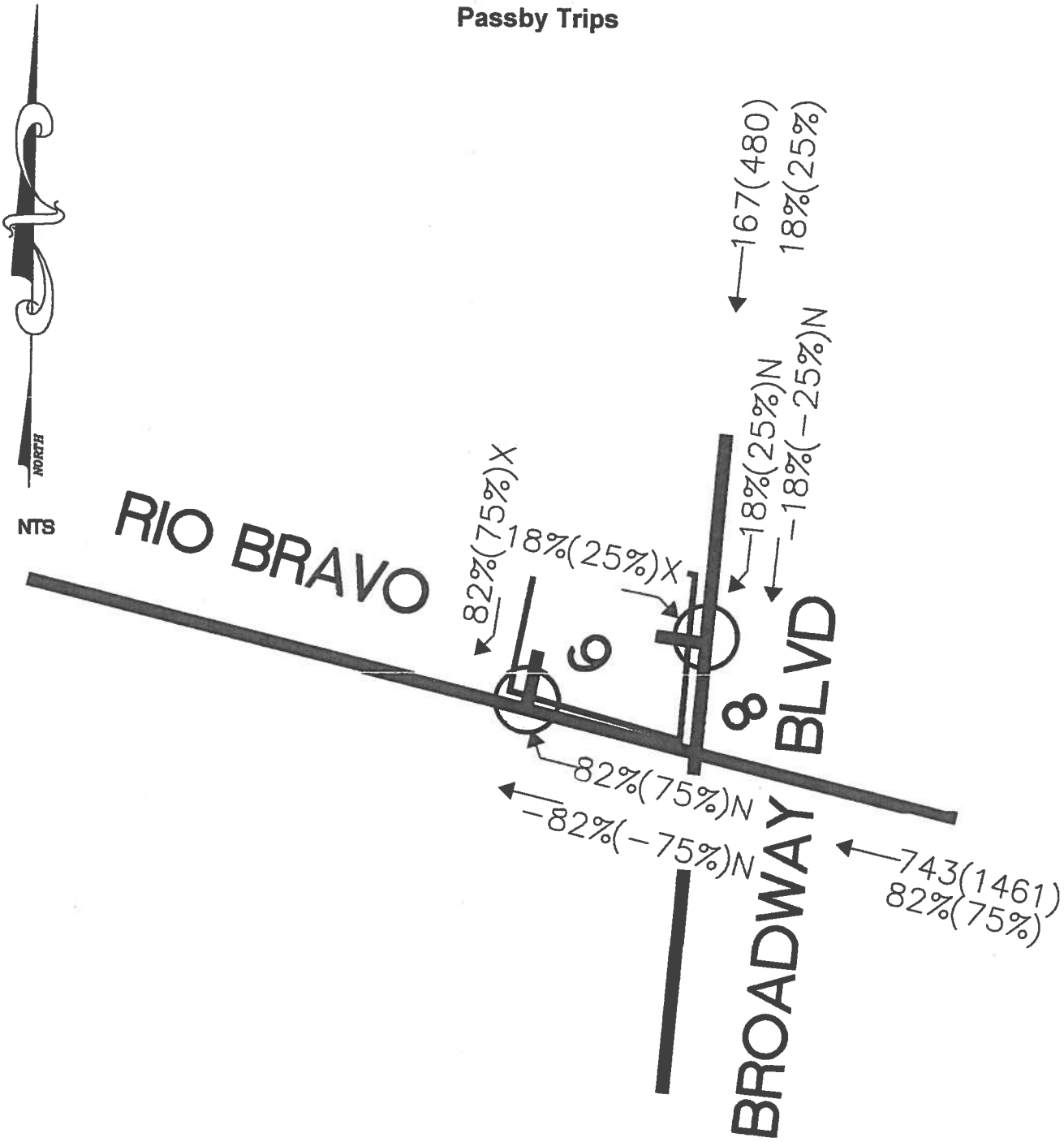
Rio Bravo / Broadway Comm. Dev.

(NW Corner)

Passby Trips



SIGNALIZED INTERSECTION

UNSIGNALIZED INTERSECTION

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Rio Bravo / Broadway Comm. Dev. (NW Corner)

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2014) - 100% Development

Case 'Y' - Rio Bravo drive

INTERSECTION: **Summary**

Rio Bravo Blvd / I-25 E. ramp

(1)

5.0% Truck

	0.97			0.76			0.78			0.85		PHF
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (I-25 E. ramp)			Southbound (I-25 E. ramp)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)	1,040	556	0	0	93	10	31	1	151	0	0	0
2014 (NO BUILD - A.M.)	*1,159*	*598*	*0*	*0*	*273*	*21*	*50*	*2*	*229*	*0*	*0*	*0*
2014 (BUILD - A.M.)	***1,169***	***607***	***0***	***0***	***283***	***21***	***53***	***2***	***229***	***0***	***0***	***0***

	0.96			0.77			0.85			0.85		PHF
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (I-25 E. ramp)			Southbound (I-25 E. ramp)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)	670	272	0	0	274	81	22	1	48	0	0	0
2014 (NO BUILD - P.M.)	*866*	*350*	*0*	*0*	*453*	*124*	*43*	*2*	*93*	*0*	*0*	*0*
2014 (BUILD - P.M.)	***879***	***361***	***0***	***0***	***466***	***124***	***46***	***2***	***93***	***0***	***0***	***0***

Rio Bravo Blvd / I-25 W. ramp

(2)

5.0% Truck

	0.91			0.78			0.85			0.93		PHF
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (I-25 W. ramp)			Southbound (I-25 W. ramp)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)	0	1,596	8	11	82	0	0	0	0	280	1	675
2014 (NO BUILD - A.M.)	*0*	*1,697*	*8*	*19*	*149*	*0*	*0*	*0*	*0*	*294*	*71*	*815*
2014 (BUILD - A.M.)	***0***	***1,715***	***8***	***19***	***162***	***0***	***0***	***0***	***0***	***294***	***71***	***835***

	0.95			0.79			0.85			0.88		PHF
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (I-25 W. ramp)			Southbound (I-25 W. ramp)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)	0	891	22	54	220	0	0	0	0	51	1	1,148
2014 (NO BUILD - P.M.)	*0*	*1,122*	*24*	*95*	*345*	*0*	*0*	*0*	*0*	*53*	*30*	*1,246*
2014 (BUILD - P.M.)	***0***	***1,146***	***24***	***95***	***361***	***0***	***0***	***0***	***0***	***53***	***30***	***1,273***

Rio Bravo Blvd / Broadway Blvd

(3)

9.9% Truck

	0.93			0.82			0.86			0.75		PHF
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Broadway Blvd)			Southbound (Broadway Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)	151	1,400	104	155	562	26	60	176	220	15	87	65
2014 (NO BUILD - A.M.)	*157*	*1,538*	*382*	*397*	*623*	*29*	*212*	*310*	*340*	*31*	*145*	*72*
2014 (BUILD - A.M.)	***163***	***1,538***	***382***	***397***	***651***	***34***	***215***	***311***	***340***	***54***	***149***	***78***

	0.91			0.92			0.85			0.87		PHF
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Broadway Blvd)			Southbound (Broadway Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)	105	766	114	214	1,223	24	174	163	260	15	246	219
2014 (NO BUILD - P.M.)	*108*	*815*	*399*	*283*	*1,247*	*24*	*710*	*306*	*530*	*33*	*381*	*296*
2014 (BUILD - P.M.)	***116***	***815***	***399***	***283***	***1,284***	***30***	***714***	***307***	***530***	***64***	***387***	***304***

Rio Bravo / Broadway Comm. Dev. (NW Corner)

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2014) - 100% Development

Case 'Y' - Rio Bravo drive

INTERSECTION: Summary

Rio Bravo Blvd / Prince St

(4)

5.0% Truck

	0.89			0.89			0.81			0.75		PHF
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Prince St)			Southbound (Prince St)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)	41	1,537	37	35	576	43	75	2	78	13	0	10
2014 (NO BUILD - A.M.)	*43*	*1,914*	*39*	*39*	*741*	*47*	*80*	*2*	*88*	*15*	*0*	*11*
2014 (BUILD - A.M.)	***43***	***1,920***	***39***	***40***	***764***	***47***	***80***	***2***	***88***	***15***	***0***	***11***

	0.95			0.87			0.77			0.85		PHF
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Prince St)			Southbound (Prince St)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)	19	774	94	106	1,443	28	87	4	63	44	3	48
2014 (NO BUILD - P.M.)	*20*	*1,102*	*98*	*120*	*1,961*	*31*	*92*	*4*	*69*	*48*	*3*	*51*
2014 (BUILD - P.M.)	***20***	***1,109***	***98***	***121***	***1,991***	***31***	***92***	***4***	***69***	***48***	***3***	***51***

Rio Bravo Blvd / Second St

(5)

5.0% Truck

	0.92			0.92			0.87			0.91		PHF
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Second St)			Southbound (Second St)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)	329	1,333	162	45	529	69	128	110	52	79	65	63
2014 (NO BUILD - A.M.)	*366*	*1,708*	*180*	*68*	*650*	*97*	*182*	*157*	*113*	*141*	*74*	*71*
2014 (BUILD - A.M.)	***366***	***1,712***	***180***	***73***	***665***	***100***	***182***	***157***	***114***	***142***	***74***	***71***

	0.92			0.91			0.75			0.91		PHF
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Second St)			Southbound (Second St)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)	116	569	131	30	1,296	57	213	74	58	112	98	399
2014 (NO BUILD - P.M.)	*137*	*903*	*155*	*98*	*1,691*	*133*	*281*	*97*	*128*	*162*	*118*	*481*
2014 (BUILD - P.M.)	***137***	***908***	***155***	***105***	***1,710***	***137***	***281***	***97***	***130***	***163***	***118***	***481***

(6) Rio Bravo Blvd / Poco Loco will not be analyzed

Rio Bravo / Broadway Comm. Dev. (NW Corner)

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2014) - 100% Development

Case 'Y' - Rio Bravo drive

INTERSECTION: Summary

Rio Bravo Blvd / Isleta Blvd

(7)

5.4% Truck

	0.84			0.81			0.87			0.93			PHF
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Isleta Blvd)			Southbound (Isleta Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2012)	123	1,001	68	208	258	182	82	216	394	300	156	56	
2014 (NO BUILD - A.M.)	*135*	*1,098*	*74*	*265*	*312*	*257*	*92*	*243*	*462*	*394*	*180*	*65*	
2014 (BUILD - A.M.)	***135***	***1,099***	***74***	***269***	***315***	***264***	***92***	***243***	***463***	***396***	***180***	***65***	

	0.94			0.92			0.95			0.95			PHF
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Isleta Blvd)			Southbound (Isleta Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2012)	139	383	118	479	909	351	161	238	152	282	282	151	
2014 (NO BUILD - P.M.)	*164*	*464*	*140*	*594*	*1,040*	*524*	*171*	*251*	*210*	*432*	*312*	*166*	
2014 (BUILD - P.M.)	***164***	***465***	***140***	***600***	***1,045***	***533***	***171***	***251***	***211***	***434***	***312***	***166***	

Driveway 'A' / Broadway Blvd

(8)

5.0% Truck

	0.85			0.85			0.75			0.75			PHF
	Eastbound (Driveway 'A')			Westbound (Driveway 'A')			Northbound (Broadway Blvd)			Southbound (Broadway Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2012)	0	0	0	0	0	0	0	353	0	0	167	0	
2014 (NO BUILD - A.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*496*	*0*	*0*	*248*	*0*	
2014 (BUILD - A.M.)	***0***	***0***	***40***	***0***	***0***	***0***	***0***	***496***	***0***	***0***	***239***	***20***	

	0.85			0.85			0.87			0.87			PHF
	Eastbound (Driveway 'A')			Westbound (Driveway 'A')			Northbound (Broadway Blvd)			Southbound (Broadway Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2012)	0	0	0	0	0	0	0	292	0	0	480	0	
2014 (NO BUILD - P.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*438*	*0*	*0*	*710*	*0*	
2014 (BUILD - P.M.)	***0***	***0***	***58***	***0***	***0***	***0***	***0***	***438***	***0***	***0***	***693***	***42***	

Rio Bravo Blvd / Driveway 'B'

(9)

5.0% Truck

	0.93			0.93			0.85			0.85			PHF
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Driveway 'B')			Southbound (Driveway 'B')			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2012)	0	1,655	0	0	687	0	0	0	0	0	0	0	
2014 (NO BUILD - A.M.)	*0*	*2,077*	*0*	*0*	*907*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
2014 (BUILD - A.M.)	***0***	***2,083***	***0***	***0***	***871***	***74***	***0***	***0***	***0***	***0***	***0***	***59***	

	0.91			0.91			0.85			0.85			PHF
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Driveway 'B')			Southbound (Driveway 'B')			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2012)	0	985	0	0	1,616	0	0	0	0	0	0	0	
2014 (NO BUILD - P.M.)	*0*	*1,322*	*0*	*0*	*2,253*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
2014 (BUILD - P.M.)	***0***	***1,330***	***0***	***0***	***2,211***	***92***	***0***	***0***	***0***	***0***	***0***	***73***	

Rio Bravo / Broadway Comm. Dev. (NW Corner)

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2024) - 100% Development

Case 'Y' - Rio Bravo drive

INTERSECTION: Summary

Rio Bravo Blvd / I-25 E. ramp

(1)

5.0% Truck

	PHF	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (I-25 E. ramp)			Southbound (I-25 E. ramp)		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)		1,040	556	0	0	93	10	31	1	151	0	0	0
2024 (NO BUILD - A.M.)	*0.97*	*1,454*	*755*	*0*	*0*	*800*	*78*	*131*	*4*	*622*	*0*	*0*	*0*
2024 (BUILD - A.M.)	*0.76*	***1,464***	***764***	***0***	***0***	***815***	***78***	***134***	***4***	***622***	***0***	***0***	***0***
	0.78												
	0.85												
	PHF												

	PHF	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (I-25 E. ramp)			Southbound (I-25 E. ramp)		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)		670	272	0	0	274	81	22	1	48	0	0	0
2024 (NO BUILD - P.M.)	*0.96*	*1,219*	*493*	*0*	*0*	*1,186*	*341*	*146*	*7*	*318*	*0*	*0*	*0*
2024 (BUILD - P.M.)	*0.77*	***1,232***	***504***	***0***	***0***	***1,206***	***341***	***149***	***7***	***318***	***0***	***0***	***0***
	0.85												
	0.85												
	PHF												

Rio Bravo Blvd / I-25 W. ramp

(2)

5.0% Truck

	PHF	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (I-25 W. ramp)			Southbound (I-25 W. ramp)		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)		0	1,596	8	11	82	0	0	0	0	280	1	675
2024 (NO BUILD - A.M.)	*0.91*	*0*	*1,855*	*9*	*60*	*456*	*0*	*0*	*0*	*0*	*363*	*71*	*981*
2024 (BUILD - A.M.)	*0.78*	***0***	***1,873***	***9***	***60***	***474***	***0***	***0***	***0***	***0***	***363***	***71***	***1,004***
	0.85												
	0.93												
	PHF												

	PHF	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (I-25 W. ramp)			Southbound (I-25 W. ramp)		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)		0	891	22	54	220	0	0	0	0	51	1	1,148
2024 (NO BUILD - P.M.)	*0.95*	*0*	*1,404*	*31*	*227*	*882*	*0*	*0*	*0*	*0*	*65*	*30*	*1,505*
2024 (BUILD - P.M.)	*0.79*	***0***	***1,428***	***31***	***227***	***905***	***0***	***0***	***0***	***0***	***65***	***30***	***1,535***
	0.85												
	0.88												
	PHF												

Rio Bravo Blvd / Broadway Blvd

(3)

9.9% Truck

	PHF	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Broadway Blvd)			Southbound (Broadway Blvd)		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)		151	1,400	104	155	562	26	60	176	220	15	87	65
2024 (NO BUILD - A.M.)	*0.93*	*186*	*1,805*	*402*	*481*	*927*	*43*	*308*	*591*	*691*	*38*	*188*	*104*
2024 (BUILD - A.M.)	*0.82*	***192***	***1,805***	***402***	***481***	***963***	***48***	***311***	***592***	***691***	***61***	***192***	***110***
	0.86												
	0.75												
	PHF												

	PHF	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Broadway Blvd)			Southbound (Broadway Blvd)		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)		105	766	114	214	1,223	24	174	163	260	15	246	219
2024 (NO BUILD - P.M.)	*0.91*	*121*	*915*	*414*	*304*	*1,365*	*27*	*871*	*457*	*771*	*60*	*813*	*680*
2024 (BUILD - P.M.)	*0.92*	***129***	***915***	***414***	***304***	***1,413***	***33***	***875***	***458***	***771***	***91***	***819***	***688***
	0.85												
	0.87												
	PHF												

Rio Bravo / Broadway Comm. Dev. (NW Corner)

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2024) - 100% Development

Case 'Y' - Rio Bravo drive

INTERSECTION: Summary

Rio Bravo Blvd / Prince St

(4)

5.0% Truck

	0.89			0.89			0.81			0.75		PHF
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Prince St)			Southbound (Prince St)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)	41	1,537	37	35	576	43	75	2	78	13	0	10
2024 (NO BUILD - A.M.)	*51*	*2,231*	*46*	*51*	*954*	*63*	*102*	*3*	*111*	*19*	*0*	*14*
2024 (BUILD - A.M.)	***51***	***2,237***	***46***	***52***	***977***	***63***	***102***	***3***	***111***	***19***	***0***	***14***

	0.95			0.87			0.77			0.85		PHF
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Prince St)			Southbound (Prince St)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)	19	774	94	106	1,443	28	87	4	63	44	3	48
2024 (NO BUILD - P.M.)	*23*	*1,251*	*116*	*142*	*2,271*	*37*	*118*	*5*	*88*	*61*	*4*	*65*
2024 (BUILD - P.M.)	***23***	***1,258***	***116***	***143***	***2,301***	***37***	***118***	***5***	***88***	***61***	***4***	***65***

Rio Bravo Blvd / Second St

(5)

5.0% Truck

	0.92			0.92			0.87			0.91		PHF
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Second St)			Southbound (Second St)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)	329	1,333	162	45	529	69	128	110	52	79	65	63
2024 (NO BUILD - A.M.)	*549*	*2,452*	*271*	*86*	*853*	*124*	*454*	*390*	*223*	*194*	*118*	*114*
2024 (BUILD - A.M.)	***549***	***2,456***	***271***	***91***	***868***	***127***	***454***	***390***	***224***	***195***	***118***	***114***

	0.92			0.91			0.75			0.91		PHF
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Second St)			Southbound (Second St)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2012)	116	569	131	30	1,296	57	213	74	58	112	98	399
2024 (NO BUILD - P.M.)	*243*	*1,424*	*275*	*107*	*2,088*	*151*	*618*	*215*	*220*	*276*	*218*	*889*
2024 (BUILD - P.M.)	***243***	***1,429***	***275***	***114***	***2,107***	***155***	***618***	***215***	***222***	***277***	***218***	***889***

(6) Rio Bravo Blvd / Poco Loco will not be analyzed.

Rio Bravo / Broadway Comm. Dev. (NW Corner)

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2024) - 100% Development

Case 'Y' - Rio Bravo drive

INTERSECTION: Summary

Rio Bravo Blvd / Isleta Blvd

(7)

5.4% Truck

	0.84			0.81			0.87			0.93			PHF
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Isleta Blvd)			Southbound (Isleta Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2012)	123	1,001	68	208	258	182	82	216	394	300	156	56	
2024 (NO BUILD - A.M.)	*191*	*1,555*	*106*	*469*	*566*	*435*	*142*	*375*	*703*	*618*	*296*	*107*	
2024 (BUILD - A.M.)	***191***	***1,556***	***106***	***473***	***569***	***442***	***142***	***375***	***704***	***620***	***296***	***107***	

	0.94			0.92			0.95			0.95			PHF
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Isleta Blvd)			Southbound (Isleta Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2012)	139	383	118	479	909	351	161	238	152	282	282	151	
2024 (NO BUILD - P.M.)	*291*	*811*	*247*	*906*	*1,632*	*753*	*217*	*320*	*253*	*579*	*459*	*245*	
2024 (BUILD - P.M.)	***291***	***812***	***247***	***912***	***1,637***	***762***	***217***	***320***	***254***	***581***	***459***	***245***	

Driveway 'A' / Broadway Blvd

(8)

5.0% Truck

	0.85			0.85			0.75			0.75			PHF
	Eastbound (Driveway 'A')			Westbound (Driveway 'A')			Northbound (Broadway Blvd)			Southbound (Broadway Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2012)	0	0	0	0	0	0	0	353	0	0	167	0	
2024 (NO BUILD - A.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*820*	*0*	*0*	*330*	*0*	
2024 (BUILD - A.M.)	***0***	***0***	***40***	***0***	***0***	***0***	***0***	***820***	***0***	***0***	***321***	***20***	

	0.85			0.85			0.87			0.87			PHF
	Eastbound (Driveway 'A')			Westbound (Driveway 'A')			Northbound (Broadway Blvd)			Southbound (Broadway Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2012)	0	0	0	0	0	0	0	292	0	0	480	0	
2024 (NO BUILD - P.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*605*	*0*	*0*	*1,553*	*0*	
2024 (BUILD - P.M.)	***0***	***0***	***58***	***0***	***0***	***0***	***0***	***605***	***0***	***0***	***1,536***	***32***	

Rio Bravo Blvd / Driveway 'B'

(9)

5.0% Truck

	0.93			0.93			0.85			0.85			PHF
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Driveway 'B')			Southbound (Driveway 'B')			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2012)	0	1,655	0	0	687	0	0	0	0	0	0	0	
2024 (NO BUILD - A.M.)	*0*	*2,393*	*0*	*0*	*1,339*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
2024 (BUILD - A.M.)	***0***	***2,399***	***0***	***0***	***1,303***	***82***	***0***	***0***	***0***	***0***	***0***	***59***	

	0.91			0.91			0.85			0.85			PHF
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Driveway 'B')			Southbound (Driveway 'B')			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2012)	0	985	0	0	1,616	0	0	0	0	0	0	0	
2024 (NO BUILD - P.M.)	*0*	*1,450*	*0*	*0*	*2,916*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
2024 (BUILD - P.M.)	***0***	***1,458***	***0***	***0***	***2,874***	***102***	***0***	***0***	***0***	***0***	***0***	***73***	

Rio Bravo / Broadway Comm. Dev. (NW Corner)

Projected Turning Movements Worksheet

Rio Bravo Blvd / I-25 E. ramp

INTERSECTION: E-W Street: **Rio Bravo Blvd** (1)
N-S Street: **I-25 E. ramp**

Year of Existing Counts 2012
Implementation Year **2014**

	Growth Rates	2.84%			56.65%			25.99%			3.00%		
		Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (I-25 E. ramp)			Southbound (I-25 E. ramp)		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes		1,040	556	0	0	93	10	31	1	151	0	0	0
Background Traffic Growth		59	32	0	0	105	11	16	1	78	0	0	0
Subtotal		1,099	588	0	0	198	21	47	2	229	0	0	0
Neilsen Industrial Park		56	7	0	0	72	0	0	0	0	0	0	0
Rio Bravo Commerce Center		4	3	0	0	3	0	3	0	0	0	0	0
Neilsen Broadway Dev.		0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)		***1,159***	***598***	***0***	***0***	***273***	***21***	***50***	***2***	***229***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)		*0.00%*	*0.00%*	*0.00%*	*0.00%*	*29.86%*	*0.00%*	*5.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)		*18.82%*	*16.96%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated		10	9	0	0	15	0	3	0	0	0	0	0
Total AM Peak Hour BUILD Volumes		**1,169**	**607**	**0**	**0**	**288**	**21**	**53**	**2**	**229**	**0**	**0**	**0**

	5.28%			26.76%			46.85%			3.00%		
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (I-25 E. ramp)			Southbound (I-25 E. ramp)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	670	272	0	0	274	81	22	1	48	0	0	0
Background Traffic Growth	71	29	0	0	147	43	21	1	45	0	0	0
Subtotal	741	301	0	0	421	124	43	2	93	0	0	0
Neilsen Industrial Park	100	41	0	0	30	0	0	0	0	0	0	0
Rio Bravo Commerce Center	25	8	0	0	2	0	0	0	0	0	0	0
Neilsen Broadway Dev.	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***866***	***350***	***0***	***0***	***453***	***124***	***43***	***2***	***93***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*29.86%*	*0.00%*	*5.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*18.82%*	*16.96%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	13	11	0	0	20	0	3	0	0	0	0	0
Total PM Peak Hour BUILD Volumes	**879**	**361**	**0**	**0**	**473**	**124**	**46**	**2**	**93**	**0**	**0**	**0**

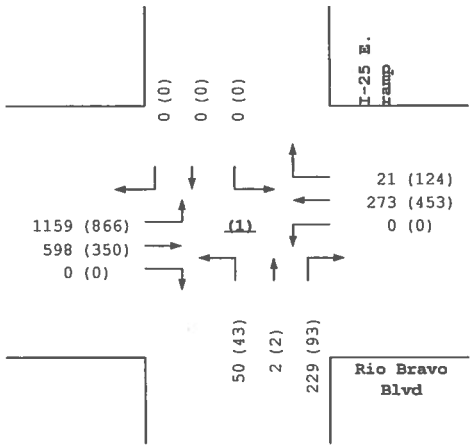
	Entering	Exiting		
Number of Commercial Trips Generated	**51**	**51**	A.M.	100% Commercial Development
	67	**67**	P.M.	

	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (I-25 E. ramp)			Southbound (I-25 E. ramp)		
2012 AM Peak Hr. Volumes	1,040	556	0	0	93	10	31	1	151	0	0	0
2012 PM Peak Hr. Volumes	670	272	0	0	274	81	22	1	48	0	0	0

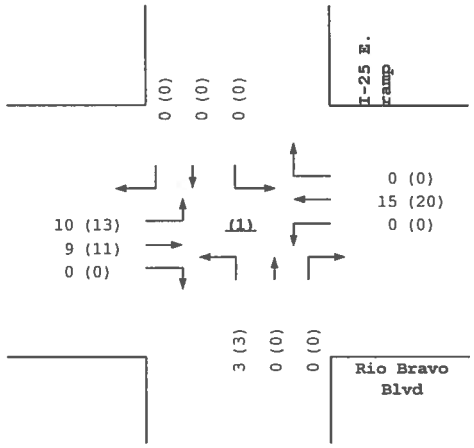
MRCOG Forecast Volumes Worksheet

Based on 2012 Traffic Count				
2012 AM Link Volume	**1,596**	**103**	**183**	**0**
2012 PM Link Volume	**942**	**355**	**71**	**0**
Based on MRCOG Model (2035 Data Set)				
2035 AM Link Volume	**2637**	**1445**	**1277**	
2035 PM Link Volume	**2085**	**2540**	**836**	
Growth Rate to Apply to Existing Counts to Match 2035 Forecasts				
2012-2035 AM Growth Rates	**2.64%**	**56.65%**	**25.99%**	#DIV/0!
2012-2035 PM Growth Rates	**5.28%**	**26.76%**	**46.85%**	#DIV/0!
Growth Rate to Apply to 2004 Model Volumes to Match 2035 Forecasts				
2004-2035 AM Growth Rates	2.00%	78.55%	10.88%	#DIV/0!
2004-2035 PM Growth Rates	2.38%	3.76%	35.30%	#DIV/0!

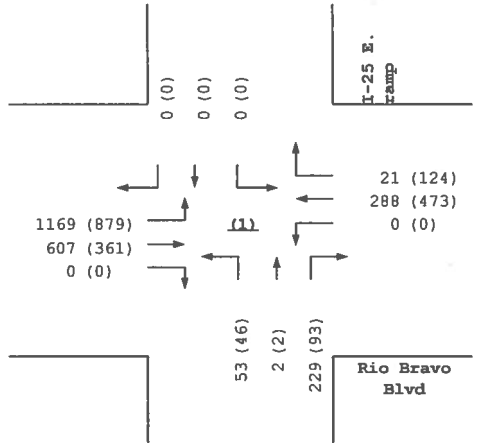
2014
NO BUILD



Trips



2014
BUILD



Rio Bravo Blvd / I-25 E. ramp

Rio Bravo / Broadway Comm. Dev. (NW Corner)

Projected Turning Movements Worksheet

Rio Bravo Blvd / I-25 W. ramp

INTERSECTION: E-W Street: **Rio Bravo Blvd** (2)
N-S Street: **I-25 W. ramp**

Year of Existing Counts 2012
Implementation Year **2014**

Growth Rates	0.99%			37.40%			3.00%			2.46%		
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (I-25 W. ramp)			Southbound (I-25 W. ramp)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	1,596	8	11	82	0	0	0	0	280	1	675
Background Traffic Growth	0	31	0	8	61	0	0	0	0	14	0	33
Subtotal	0	1,627	8	19	143	0	0	0	0	294	1	708
Neilsen Industrial Park	0	63	0	0	0	0	0	0	0	0	70	85
Rio Bravo Commerce Center	0	7	0	0	6	0	0	0	0	0	0	22
Neilsen Broadway Dev.	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***1,697***	***8***	***19***	***149***	***0***	***0***	***0***	***0***	***294***	***71***	***815***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*34.86%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*45.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*35.78%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	18	0	0	18	0	0	0	0	0	0	23
Total AM Peak Hour BUILD Volumes	**0**	**1,715**	**8**	**19**	**167**	**0**	**0**	**0**	**0**	**294**	**71**	**838**

	3.17%			24.44%			3.00%			2.26%		
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (I-25 W. ramp)			Southbound (I-25 W. ramp)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	891	22	54	220	0	0	0	0	51	1	1,148
Background Traffic Growth	0	57	1	26	108	0	0	0	0	2	0	52
Subtotal	0	948	23	80	328	0	0	0	0	53	1	1,200
Neilsen Industrial Park	0	141	0	15	15	0	0	0	0	0	29	38
Rio Bravo Commerce Center	0	33	1	0	2	0	0	0	0	0	0	8
Neilsen Broadway Dev.	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***1,122***	***24***	***95***	***345***	***0***	***0***	***0***	***0***	***53***	***30***	***1,246***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*34.86%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*45.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*35.78%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	24	0	0	23	0	0	0	0	0	0	30
Total PM Peak Hour BUILD Volumes	**0**	**1,146**	**24**	**95**	**368**	**0**	**0**	**0**	**0**	**53**	**30**	**1,276**

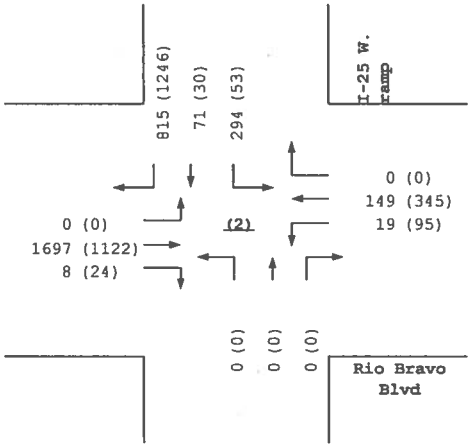
	Entering	Exiting		
Number of Commercial Trips Generated	**51**	**51**	A.M.	100% Commercial Development
	67	**67**	P.M.	

	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (I-25 W. ramp)			Southbound (I-25 W. ramp)		
2012 AM Peak Hr. Volumes	0	1596	8	11	82	0	0	0	0	280	1	675
2012 PM Peak Hr. Volumes	0	891	22	54	220	0	0	0	0	51	1	1,148

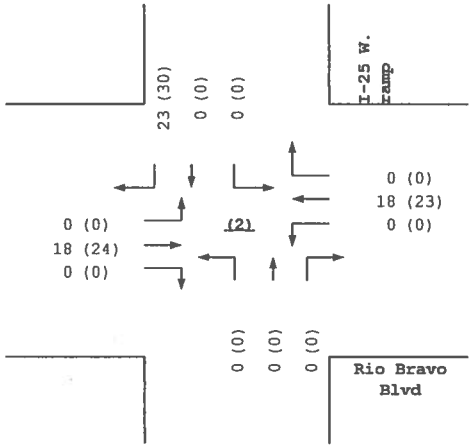
MRCOG Forecast Volumes Worksheet

Based on 2012 Traffic Count				
2012 AM Link Volume	**1,604**	**93**	**0**	**956**
2012 PM Link Volume	**913**	**274**	**0**	**1,200**
Based on MRCOG Model (2035 Data Set)				
2035 AM Link Volume	**1968**	**893**	**0**	**1497**
2035 PM Link Volume	**1579**	**1814**	**0**	**1823**
Growth Rate to Apply to Existing Counts to Match 2035 Forecasts				
2012-2035 AM Growth Rates	**0.99%**	**37.40%**	**#DIV/0!**	**2.46%**
2012-2035 PM Growth Rates	**3.17%**	**24.44%**	**#DIV/0!**	**2.26%**
Growth Rate to Apply to 2004 Model Volumes to Match 2035 Forecasts				
2004-2035 AM Growth Rates	1.00%	26.17%	#DIV/0!	1.52%
2004-2035 PM Growth Rates	0.98%	2.17%	#DIV/0!	80.78%

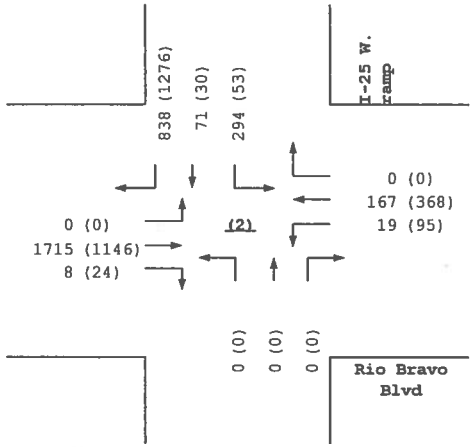
2014
NO BUILD



Trips



2014
BUILD



Rio Bravo Blvd / I-25 W. ramp

Rio Bravo / Broadway Comm. Dev. (NW Corner)

Projected Turning Movements Worksheet

Rio Bravo Blvd / Broadway Blvd

INTERSECTION: E-W Street: **Rio Bravo Blvd** (3)
N-S Street: **Broadway Blvd**

Year of Existing Counts 2012
Implementation Year **2014**

	Growth Rates	1.90%			5.42%			15.94%			5.02%		
		Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Broadway Blvd)			Southbound (Broadway Blvd)		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes		151	1,400	104	155	562	26	60	176	220	15	87	65
Background Traffic Growth		6	53	4	17	61	3	19	56	70	2	9	7
Subtotal		157	1,453	108	172	623	29	79	232	290	17	96	72
Kan Industrial Park		0	0	39	181	0	0	8	4	37	0	21	0
Rio Bravo Commerce Center		0	0	53	28	0	0	5	5	7	0	8	0
Previous Development from below		0	85	182	16	0	0	120	69	6	14	20	0
Subtotal (NO BUILD - A.M.)		***157***	***1,538***	***382***	***397***	***623***	***29***	***212***	***310***	***340***	***31***	***145***	***72***
Percent Commercial Trips Generated(Entering)		*11.35%*	*0.00%*	*0.00%*	*0.00%*	*70.91%*	*8.95%*	*6.59%*	*2.20%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)		*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*45.89%*	*8.79%*	*11.33%*
Total Trips Generated		6	0	0	0	36	5	3	1	0	23	4	6
Total AM Peak Hour BUILD Volumes		**163**	**1,538**	**382**	**397**	**659**	**34**	**215**	**311**	**340**	**54**	**149**	**78**

	1.30%			0.97%			9.26%			17.55%		
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Broadway Blvd)			Southbound (Broadway Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	105	766	114	214	1,223	24	174	163	260	15	246	219
Background Traffic Growth	3	20	3	4	24	0	32	30	48	5	86	77
Subtotal	108	786	117	218	1,247	24	206	193	308	20	332	296
Kan Industrial Park	0	0	10	46	0	0	38	20	175	0	5	0
Rio Bravo Commerce Center	0	0	9	10	0	0	53	12	34	0	6	0
Previous Development from below	0	29	263	9	0	0	413	81	13	13	38	0
Subtotal (NO BUILD - P.M.)	***108***	***815***	***399***	***283***	***1,247***	***24***	***710***	***306***	***530***	***33***	***381***	***296***
Percent Commercial Trips Generated(Entering)	*11.35%*	*0.00%*	*0.00%*	*0.00%*	*70.91%*	*8.95%*	*6.59%*	*2.20%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*45.89%*	*8.79%*	*11.33%*
Total Trips Generated	8	0	0	0	48	6	4	1	0	31	6	8
Total PM Peak Hour BUILD Volumes	**116**	**815**	**399**	**283**	**1,295**	**30**	**714**	**307**	**530**	**64**	**387**	**304**

	Entering	Exiting		
Number of Commercial Trips Generated	**51**	**51**	A.M.	100% Commercial Development
	67	**67**	P.M.	

	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Broadway Blvd)			Southbound (Broadway Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2012 AM Peak Hr. Volumes	151	1400	104	155	562	26	60	176	220	15	87	65
2012 PM Peak Hr. Volumes	105	766	114	214	1,223	24	174	163	260	15	246	219

Previous Developments - AM Peak Hour Volumes

	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Broadway Blvd)			Southbound (Broadway Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Neilsen Industrial Park	0	85	85	16	0	0	44	59	6	14	7	0
Neilsen Broadway Dev.	0	0	97	0	0	0	76	10	0	0	13	0
Subtotal	0	85	182	16	0	0	120	69	6	14	20	0

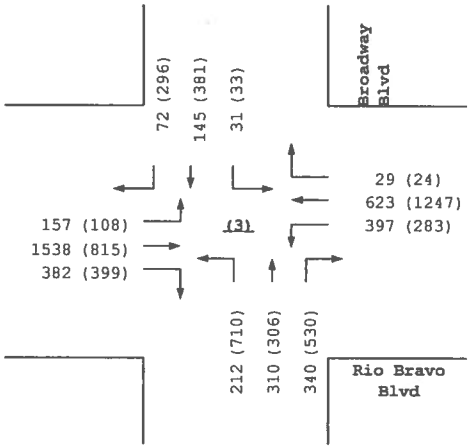
Previous Developments - PM Peak Hour Volumes

	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Broadway Blvd)			Southbound (Broadway Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Neilsen Industrial Park	0	29	29	9	0	0	163	48	13	13	7	0
Neilsen Broadway Dev.	0	0	234	0	0	0	250	33	0	0	31	0
Subtotal	0	29	263	9	0	0	413	81	13	13	38	0

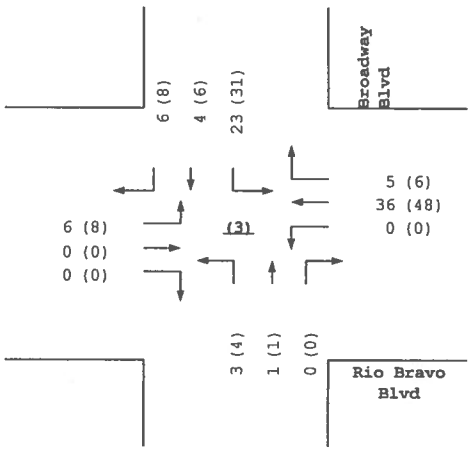
MRCOG Forecast Volumes Worksheet

Based on 2012 Traffic Count				
2012 AM Link Volume	**1,655**	**743**	**456**	**167**
2012 PM Link Volume	**985**	**1,461**	**597**	**480**
Based on MRCOG Model (2035 Data Set)				
2035 AM Link Volume	**2380**	**1669**	**2128**	**360**
2035 PM Link Volume	**1280**	**1787**	**1868**	**2417**
Growth Rate to Apply to Existing Counts to Match 2035 Forecasts				
2012-2035 AM Growth Rates	**1.90%**	**5.42%**	**15.94%**	**5.02%**
2012-2035 PM Growth Rates	**1.30%**	**0.97%**	**9.26%**	**17.55%**

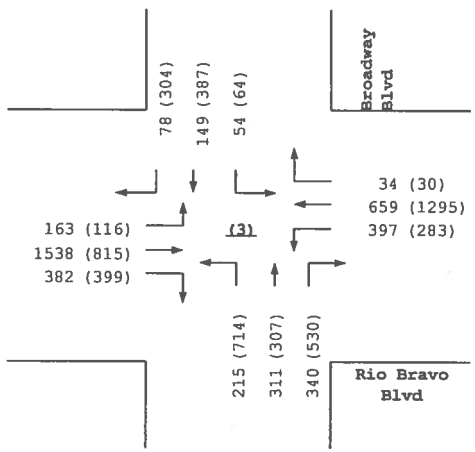
2014
NO BUILD



Trips



2014
BUILD



Rio Bravo Blvd / Broadway Blvd

Rio Bravo / Broadway Comm. Dev. (NW Corner)

Projected Turning Movements Worksheet

Rio Bravo Blvd / Prince St

INTERSECTION: E-W Street: **Rio Bravo Blvd** (4)

N-S Street: **Prince St**

Year of Existing Counts 2012

Implementation Year **2014**

Growth Rates	2.06%			3.68%			3.00%			3.00%		
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Prince St)			Southbound (Prince St)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	41	1,537	37	35	576	43	75	2	78	13	0	10
Background Traffic Growth	2	63	2	3	42	3	5	0	5	1	0	1
Subtotal	43	1,600	39	38	618	46	80	2	83	14	0	11
Neilsen Industrial Park	0	166	0	1	42	1	0	0	3	1	0	0
Rio Bravo Commerce Center	0	51	0	0	5	0	0	0	2	0	0	0
Neilsen Broadway Dev.	0	97	0	0	76	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***43***	***1,914***	***39***	***39***	***741***	***47***	***80***	***2***	***88***	***15***	***0***	***11***
Percent Commercial Trips Generated(Entering)	*0.00%*	*11.07%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.27%*	*0.01%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*1.06%*	*44.21%*	*0.05%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	6	0	1	23	0	0	0	0	0	0	0
Total AM Peak Hour BUILD Volumes	**43**	**1,920**	**39**	**40**	**764**	**47**	**80**	**2**	**88**	**15**	**0**	**11**

	1.93%			2.15%			3.00%			3.00%		
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Prince St)			Southbound (Prince St)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	19	774	94	106	1,443	28	87	4	63	44	3	48
Background Traffic Growth	1	30	4	5	62	1	5	0	4	3	0	3
Subtotal	20	804	98	111	1,505	29	92	4	67	47	3	51
Neilsen Industrial Park	0	56	0	3	160	1	0	0	1	1	0	0
Rio Bravo Commerce Center	0	8	0	6	46	1	0	0	1	0	0	0
Neilsen Broadway Dev.	0	234	0	0	250	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***20***	***1,102***	***98***	***120***	***1,961***	***31***	***92***	***4***	***69***	***48***	***3***	***51***
Percent Commercial Trips Generated(Entering)	*0.00%*	*11.07%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.27%*	*0.01%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*1.06%*	*44.21%*	*0.05%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	7	0	1	30	0	0	0	0	0	0	0
Total PM Peak Hour BUILD Volumes	**20**	**1,109**	**98**	**121**	**1,991**	**31**	**92**	**4**	**69**	**48**	**3**	**51**

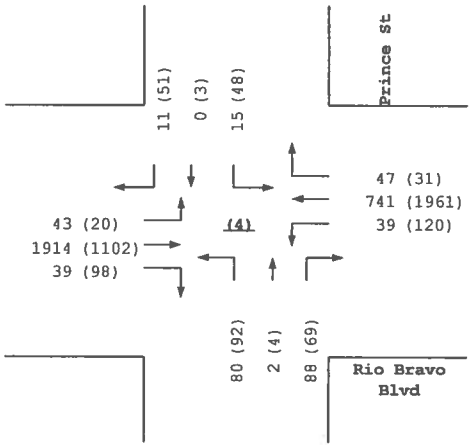
	Entering	Exiting		
Number of Commercial Trips Generated	**51**	**51**	A.M.	100% Commercial Development
	67	**67**	P.M.	

	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Prince St)			Southbound (Prince St)		
2012 AM Peak Hr. Volumes	41	1537	37	35	576	43	75	2	78	13	0	10
2012 PM Peak Hr. Volumes	19	774	94	106	1,443	28	87	4	63	44	3	48

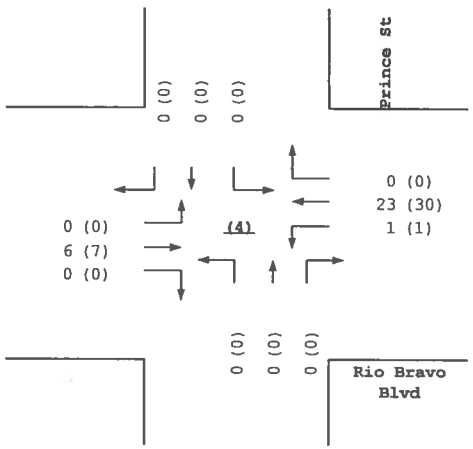
MRCOG Forecast Volumes Worksheet

Based on 2012 Traffic Count				
2012 AM Link Volume	**1,615**	**654**	**155**	**23**
2012 PM Link Volume	**887**	**1,577**	**154**	**95**
Based on MRCOG Model (2035 Data Set)				
2035 AM Link Volume	**2380**	**1208**		
2035 PM Link Volume	**1280**	**2357**		
Growth Rate to Apply to Existing Counts to Match 2035 Forecasts				
2012-2035 AM Growth Rates	**2.06%**	**3.68%**	**-4.35%**	**-4.35%**
2012-2035 PM Growth Rates	**1.93%**	**2.15%**	**-4.35%**	**-4.35%**

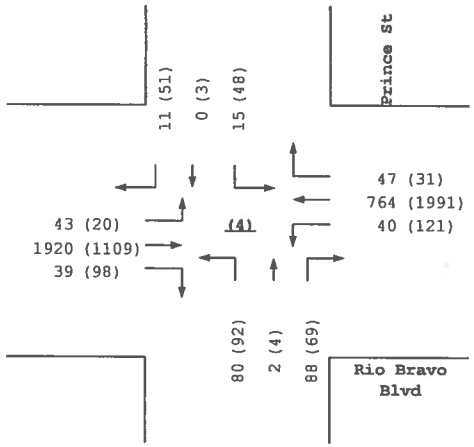
2014
NO BUILD



Trips



2014
BUILD



Rio Bravo Blvd / Prince St

Rio Bravo / Broadway Comm. Dev. (NW Corner)

Projected Turning Movements Worksheet

Rio Bravo Blvd / Second St

INTERSECTION: E-W Street: **Rio Bravo Blvd** (5)

N-S Street: **Second St**

Year of Existing Counts 2012

Implementation Year **2014**

Growth Rates	5.58%			3.82%			21.21%			6.74%		
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Second St)			Southbound (Second St)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	329	1,333	162	45	529	69	128	110	52	79	65	63
Background Traffic Growth	37	149	18	3	40	5	54	47	22	11	9	8
Subtotal	366	1,482	180	48	569	74	182	157	74	90	74	71
Neilsen Industrial Park	0	107	0	5	19	19	0	0	18	42	0	0
Rio Bravo Commerce Center	0	44	0	0	4	1	0	0	2	5	0	0
Neilsen Broadway Dev.	0	75	0	15	58	3	0	0	19	4	0	0
Subtotal (NO BUILD - A.M.)	***366***	***1,708***	***180***	***68***	***650***	***97***	***182***	***157***	***113***	***141***	***74***	***71***
Percent Commercial Trips Generated(Entering)	*0.00%*	*7.17%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*2.48%*	*1.42%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*9.90%*	*28.63%*	*5.68%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	4	0	5	15	3	0	0	1	1	0	0
Total AM Peak Hour BUILD Volumes	**366**	**1,712**	**180**	**73**	**665**	**100**	**182**	**157**	**114**	**142**	**74**	**71**

	9.16%			3.06%			15.85%			10.23%		
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Second St)			Southbound (Second St)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	116	569	131	30	1,296	57	213	74	58	112	98	399
Background Traffic Growth	21	104	24	2	79	3	68	23	18	23	20	82
Subtotal	137	673	155	32	1,375	60	281	97	76	135	118	481
Neilsen Industrial Park	0	44	0	17	80	63	0	0	6	17	0	0
Rio Bravo Commerce Center	0	6	0	1	44	1	0	0	1	1	0	0
Neilsen Broadway Dev.	0	180	0	48	192	9	0	0	45	9	0	0
Subtotal (NO BUILD - P.M.)	***137***	***903***	***155***	***98***	***1,691***	***133***	***281***	***97***	***128***	***162***	***118***	***481***
Percent Commercial Trips Generated(Entering)	*0.00%*	*7.17%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*2.48%*	*1.42%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*9.90%*	*28.63%*	*5.68%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	5	0	7	19	4	0	0	2	1	0	0
Total PM Peak Hour BUILD Volumes	**137**	**908**	**155**	**105**	**1,710**	**137**	**281**	**97**	**130**	**163**	**118**	**481**

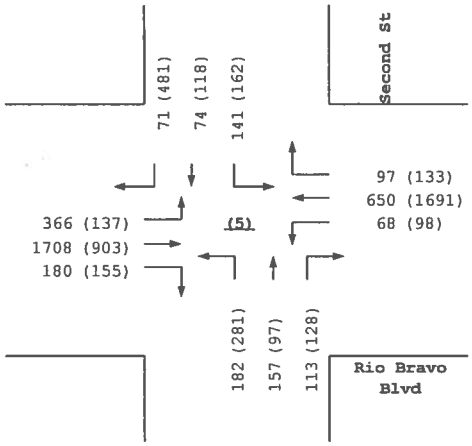
	Entering	Exiting		
Number of Commercial Trips Generated	**51**	**51**	A.M.	100% Commercial Development
	67	**67**	P.M.	

	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Second St)			Southbound (Second St)		
2012 AM Peak Hr. Volumes	329	1333	162	45	529	69	128	110	52	79	65	63
2012 PM Peak Hr. Volumes	116	569	131	30	1,296	57	213	74	58	112	98	399

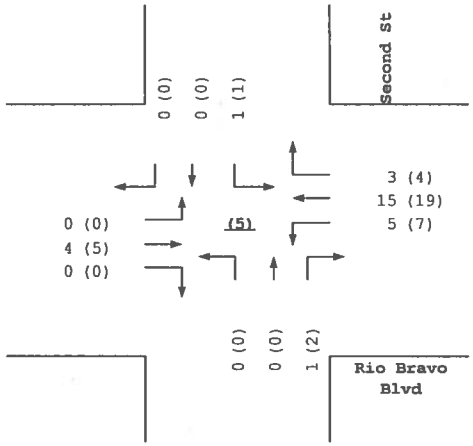
MRCOG Forecast Volumes Worksheet

Based on 2012 Traffic Count				
2012 AM Link Volume	**1,824**	**643**	**290**	**207**
2012 PM Link Volume	**816**	**1,383**	**345**	**609**
Based on MRCOG Model (2035 Data Set)				
2035 AM Link Volume	**4167**	**1208**	**1705**	**528**
2035 PM Link Volume	**2535**	**2357**	**1603**	**2042**
Growth Rate to Apply to Existing Counts to Match 2035 Forecasts				
2012-2035 AM Growth Rates	**5.58%**	**3.82%**	**21.21%**	**6.74%**
2012-2035 PM Growth Rates	**9.16%**	**3.06%**	**15.85%**	**10.23%**

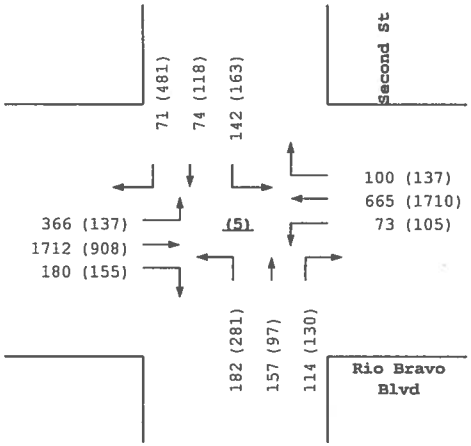
2014
NO BUILD



Trips



2014
BUILD



Rio Bravo Blvd / Second St

Rio Bravo / Broadway Comm. Dev. (NW Corner)

Projected Turning Movements Worksheet

Rio Bravo Blvd / Poco Loco

INTERSECTION: E-W Street: **Rio Bravo Blvd** (6)

N-S Street: **Poco Loco**

Year of Existing Counts 2012

Implementation Year **2014**

Growth Rates	-1.00%			-1.00%			-1.00%			-1.00%		
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Poco Loco)			Southbound (Poco Loco)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
Rio Bravo Commerce Center	0	0	0	0	0	0	0	0	0	0	0	0
Neilsen Broadway Dev.	0	75	0	0	58	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***75***	***0***	***0***	***58***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*7.17%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*28.63%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	4	0	0	15	0	0	0	0	0	0	0
Total AM Peak Hour BUILD Volumes	**0**	**79**	**0**	**0**	**73**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	-1.00%			-1.00%			-1.00%			-1.00%		
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Poco Loco)			Southbound (Poco Loco)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
Rio Bravo Commerce Center	0	0	0	0	0	0	0	0	0	0	0	0
Neilsen Broadway Dev.	0	180	0	0	192	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***180***	***0***	***0***	***192***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*7.17%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*28.63%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	5	0	0	19	0	0	0	0	0	0	0
Total PM Peak Hour BUILD Volumes	**0**	**185**	**0**	**0**	**211**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

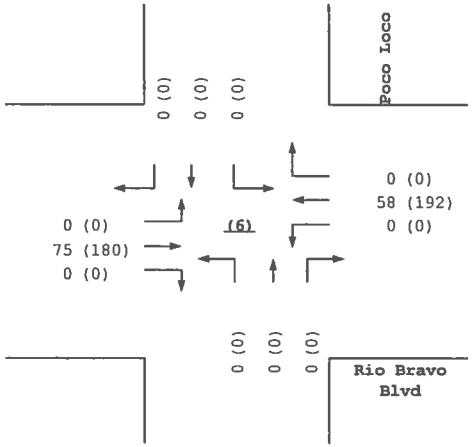
	Entering	Exiting		
Number of Commercial Trips Generated	**51**	**51**	A.M.	100% Commercial Development
	67	**67**	P.M.	

	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Poco Loco)			Southbound (Poco Loco)		
2012 AM Peak Hr. Volumes	0	0	0	0	0	0	0	0	0	0	0	0
2012 PM Peak Hr. Volumes	0	0	0	0	0	0	0	0	0	0	0	0

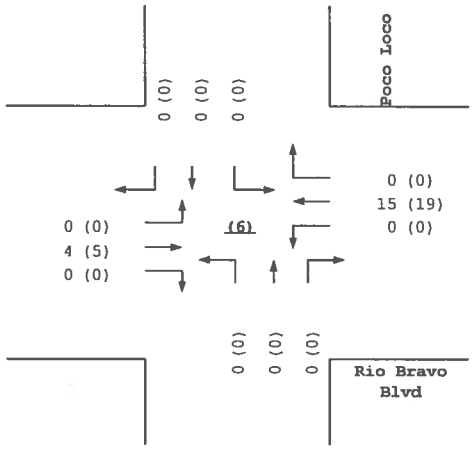
MRCOG Forecast Volumes Worksheet

Based on 2012 Traffic Count				
2012 AM Link Volume	**0**	**0**	**0**	**0**
2012 PM Link Volume	**0**	**0**	**0**	**0**
Based on MRCOG Model (2035 Data Set)				
2035 AM Link Volume	**4167**	**2113**		
2035 PM Link Volume	**2535**	**4345**		
Growth Rate to Apply to Existing Counts to Match 2035 Forecasts				
2012-2035 AM Growth Rates	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2012-2035 PM Growth Rates	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

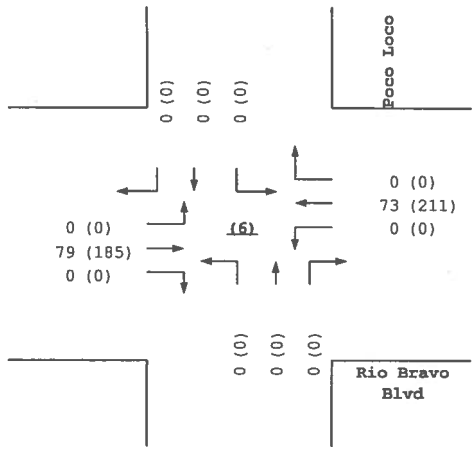
2014
NO BUILD



Trips



2014
BUILD



Rio Bravo Blvd / Poco Loco

Rio Bravo / Broadway Comm. Dev. (NW Corner)

Projected Turning Movements Worksheet

Rio Bravo Blvd / Isleta Blvd

INTERSECTION: E-W Street: **Rio Bravo Blvd** (7)
N-S Street: **Isleta Blvd**

Year of Existing Counts 2010
Implementation Year **2014**

Growth Rates	5.03%			12.25%			6.96%			8.77%		
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Isleta Blvd)			Southbound (Isleta Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	112	910	62	167	207	146	72	190	346	255	133	48
Background Traffic Growth	23	183	12	82	101	72	20	53	96	89	47	17
Subtotal	135	1,093	74	249	308	218	92	243	442	344	180	65
Rio Bravo Commerce Center	0	0	0	0	0	0	0	0	0	0	0	0
Neilsen Broadway Dev.	0	5	0	16	4	39	0	0	20	50	0	0
Subtotal (NO BUILD - A.M.)	***135***	***1,098***	***74***	***265***	***312***	***257***	***92***	***243***	***462***	***394***	***180***	***65***
Percent Commercial Trips Generated(Entering)	*0.00%*	*1.69%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*2.15%*	*3.33%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*8.58%*	*6.75%*	*13.30%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	1	0	4	3	7	0	0	1	2	0	0
Total AM Peak Hour BUILD Volumes	**135**	**1,099**	**74**	**269**	**315**	**264**	**92**	**243**	**463**	**396**	**180**	**65**

	11.06%			7.49%			3.07%			5.81%		
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Isleta Blvd)			Southbound (Isleta Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	114	314	97	417	791	305	152	224	143	253	253	135
Background Traffic Growth	50	139	43	125	237	91	19	27	18	59	59	31
Subtotal	164	453	140	542	1,028	396	171	251	161	312	312	166
Rio Bravo Commerce Center	0	0	0	0	0	0	0	0	0	0	0	0
Neilsen Broadway Dev.	0	11	0	52	12	128	0	0	49	120	0	0
Subtotal (NO BUILD - P.M.)	***164***	***464***	***140***	***594***	***1,040***	***524***	***171***	***251***	***210***	***432***	***312***	***166***
Percent Commercial Trips Generated(Entering)	*0.00%*	*1.69%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*2.15%*	*3.33%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*8.58%*	*6.75%*	*13.30%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	1	0	6	5	9	0	0	1	2	0	0
Total PM Peak Hour BUILD Volumes	**164**	**465**	**140**	**600**	**1,045**	**533**	**171**	**251**	**211**	**434**	**312**	**166**

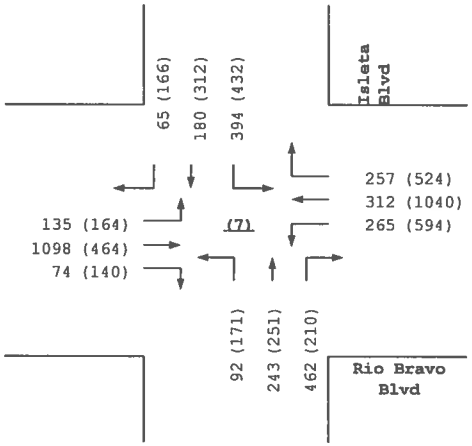
	Entering	Exiting		
Number of Commercial Trips Generated	**51**	**51**	A.M.	100% Commercial Development
	67	**67**	P.M.	

	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Isleta Blvd)			Southbound (Isleta Blvd)		
2012 AM Peak Hr. Volumes	123	1001	68	208	258	182	82	216	394	300	156	56
2012 PM Peak Hr. Volumes	139	383	118	479	909	351	161	238	152	282	282	151

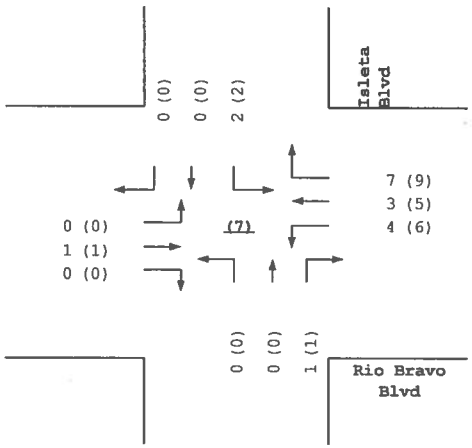
MRCOG Forecast Volumes Worksheet

Based on 2010 Traffic Count				
2010 AM Link Volume	**1,084**	**520**	**608**	**436**
2010 PM Link Volume	**525**	**1,513**	**519**	**641**
Based on MRCOG Model (2035 Data Set)				
2035 AM Link Volume	**2446**	**2113**	**1666**	**1392**
2035 PM Link Volume	**1977**	**4345**	**917**	**1572**
Growth Rate to Apply to Existing Counts to Match 2035 Forecasts				
2010-2035 AM Growth Rates	**5.03%**	**12.25%**	**6.96%**	**8.77%**
2010-2035 PM Growth Rates	**11.06%**	**7.49%**	**3.07%**	**5.81%**

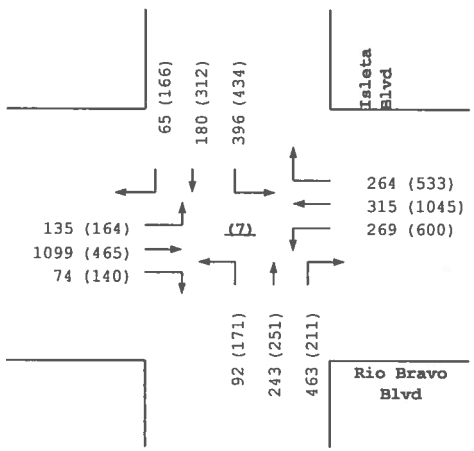
2014
NO BUILD



Trips



2014
BUILD



Rio Bravo Blvd / Isleta Blvd

Rio Bravo / Broadway Comm. Dev. (NW Corner)

Projected Turning Movements Worksheet

Driveway 'A' / Broadway Blvd

INTERSECTION: E-W Street: **Driveway 'A'** (8)

N-S Street: **Broadway Blvd**

Year of Existing Counts 2012

Implementation Year **2014**

Growth Rates	3.00%			3.00%			5.02%			5.02%		
	Eastbound (Driveway 'A')			Westbound (Driveway 'A')			Northbound (Broadway Blvd)			Southbound (Broadway Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	353	0	0	167	0
Background Traffic Growth	0	0	0	0	0	0	0	35	0	0	17	0
Subtotal	0	0	0	0	0	0	0	418	0	0	185	0
Kan Industrial Park	0	0	0	0	0	0	0	4	0	0	21	0
Rio Bravo Commerce Center	0	0	0	0	0	0	0	5	0	0	8	0
Neilsen Commercial / IP Development	0	0	0	0	0	0	0	69	0	0	34	0
Subtotal (NO BUILD - A.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***496***	***0***	***0***	***248***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*22.50%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*61.01%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	31	0	0	0	0	0	0	0	0	11
Subtotal AM Pk Hr. BUILD Volumes	**0**	**0**	**31**	**0**	**0**	**0**	**0**	**496**	**0**	**0**	**248**	**11**
Pass-by Trip Adjustments	*0*	*0*	*9*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*-9*	*9*
Total AM Peak Hour BUILD Volumes	**0**	**0**	**40**	**0**	**0**	**0**	**0**	**496**	**0**	**0**	**239**	**20**

	3.00%			3.00%			17.55%			17.55%		
	Eastbound (Driveway 'A')			Westbound (Driveway 'A')			Northbound (Broadway Blvd)			Southbound (Broadway Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	292	0	0	480	0
Background Traffic Growth	0	0	0	0	0	0	0	102	0	0	168	0
Subtotal	0	0	0	0	0	0	0	325	0	0	648	0
Kan Industrial Park	0	0	0	0	0	0	0	20	0	0	5	0
Rio Bravo Commerce Center	0	0	0	0	0	0	0	12	0	0	6	0
Neilsen Commercial / IP Development	0	0	0	0	0	0	0	81	0	0	51	0
Subtotal (NO BUILD - P.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***438***	***0***	***0***	***710***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*22.50%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*61.01%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	41	0	0	0	0	0	0	0	0	15
Subtotal PM Pk Hr. BUILD Volumes	**0**	**0**	**41**	**0**	**0**	**0**	**0**	**438**	**0**	**0**	**710**	**15**
Pass-by Trip Adjustments	*0*	*0*	*17*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*-17*	*17*
Total PM Peak Hour BUILD Volumes	**0**	**0**	**58**	**0**	**0**	**0**	**0**	**438**	**0**	**0**	**693**	**32**

	Entering	Exiting		
Number of Commercial Trips Generated	**51**	**51**	A.M.	100% Commercial Development
	67	**67**	P.M.	

	Eastbound (Driveway 'A')			Westbound (Driveway 'A')			Northbound (Broadway Blvd)			Southbound (Broadway Blvd)		
2012 AM Peak Hr. Volumes	0	0	0	0	0	0	0	353	0	0	167	0
2012 PM Peak Hr. Volumes	0	0	0	0	0	0	0	292	0	0	480	0

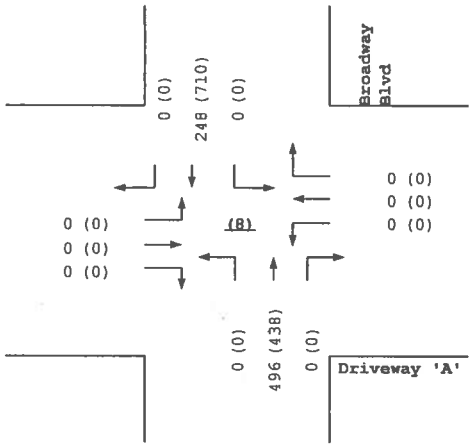
Pass-by Trip Calculations:

AM Pass-by Trips	*Eastbound (Driveway 'A')*			*Westbound (Driveway 'A')*			*Northbound (Broadway Blvd)*			*Southbound (Broadway Blvd)*		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*-18.00%*	*18.00%*
Volume Entering	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*-9*	*9*
Percent Exiting	*0.00%*	*0.00%*	*18.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Exiting	*0*	*0*	*9*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Net AM Passby Trips	***0***	***0***	***9***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***-9***	***9***

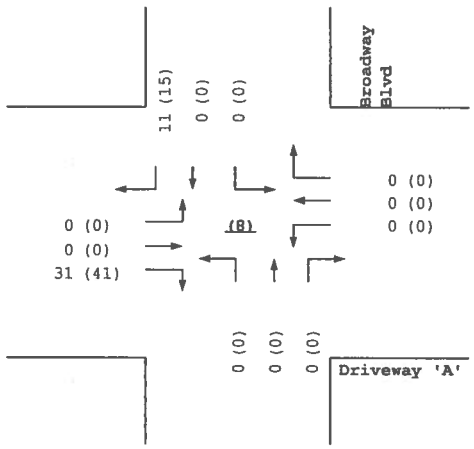
PM Pass-by Trips	*Eastbound (Driveway 'A')*			*Westbound (Driveway 'A')*			*Northbound (Broadway Blvd)*			*Southbound (Broadway Blvd)*		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*-25.00%*	*25.00%*
Volume Entering	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*-17*	*17*
Percent Exiting	*0.00%*	*0.00%*	*25.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Exiting	*0*	*0*	*17*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Net PM Passby Trips	***0***	***0***	***17***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***-17***	***17***

	Entering	*Exiting*	
Pass-by Trips	***51***	***51***	*AM*
	67	***67***	*PM*

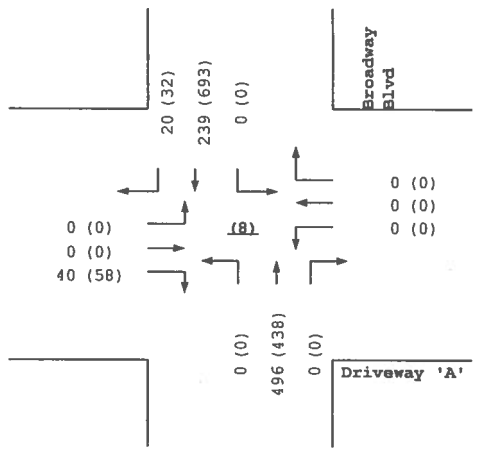
2014
NO BUILD



Trips



2014
BUILD



Driveway 'A' / Broadway Blvd

Rio Bravo / Broadway Comm. Dev. (NW Corner)

Projected Turning Movements Worksheet

Rio Bravo Blvd / Driveway 'B'

INTERSECTION: E-W Street: **Rio Bravo Blvd** (9)

N-S Street: **Driveway 'B'**

Year of Existing Counts 2012

Implementation Year **2014**

Growth Rates	**1.90%**			**1.90%**			**3.00%**			**3.00%**		
	Eastbound (Rio Bravo Blvd)			**Westbound (Rio Bravo Blvd)**			**Northbound (Driveway 'B')**			**Southbound (Driveway 'B')**		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	1,655	0	0	687	0	0	0	0	0	0	0
Background Traffic Growth	0	63	0	0	26	0	0	0	0	0	0	0
Subtotal	0	1,718	0	0	774	0	0	0	0	0	0	0
Kan Industrial Park	0	39	0	0	8	0	0	0	0	0	0	0
Rio Bravo Commerce Center	0	53	0	0	5	0	0	0	0	0	0	0
Neilsen Commercial / IP Development	0	267	0	0	120	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***2,077***	***0***	***0***	***907***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*11.35%*	*0.00%*	*0.00%*	*0.00%*	*77.50%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*11.33%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*33.99%*
Total Trips Generated	0	6	0	0	6	40	0	0	0	0	0	17
Subtotal AM Pk Hr. BUILD Volumes	**0**	**2,083**	**0**	**0**	**913**	**40**	**0**	**0**	**0**	**0**	**0**	**17**
Pass-by Trip Adjustments	*0*	*0*	*0*	*0*	*-42*	*42*	*0*	*0*	*0*	*0*	*0*	*42*
Total AM Peak Hour BUILD Volumes	**0**	**2,083**	**0**	**0**	**871**	**82**	**0**	**0**	**0**	**0**	**0**	**59**

	1.30%			**1.30%**			**3.00%**			**3.00%**		
	Eastbound (Rio Bravo Blvd)			**Westbound (Rio Bravo Blvd)**			**Northbound (Driveway 'B')**			**Southbound (Driveway 'B')**		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	985	0	0	1,616	0	0	0	0	0	0	0
Background Traffic Growth	0	26	0	0	42	0	0	0	0	0	0	0
Subtotal	0	1,011	0	0	1,749	0	0	0	0	0	0	0
Kan Industrial Park	0	10	0	0	38	0	0	0	0	0	0	0
Rio Bravo Commerce Center	0	9	0	0	53	0	0	0	0	0	0	0
Neilsen Commercial / IP Development	0	292	0	0	413	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***1,322***	***0***	***0***	***2,253***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*11.35%*	*0.00%*	*0.00%*	*0.00%*	*77.50%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*11.33%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*33.99%*
Total Trips Generated	0	8	0	0	8	52	0	0	0	0	0	23
Subtotal PM Pk Hr. BUILD Volumes	**0**	**1,330**	**0**	**0**	**2,261**	**52**	**0**	**0**	**0**	**0**	**0**	**23**
Pass-by Trip Adjustments	*0*	*0*	*0*	*0*	*-50*	*50*	*0*	*0*	*0*	*0*	*0*	*50*
Total PM Peak Hour BUILD Volumes	**0**	**1,330**	**0**	**0**	**2,211**	**102**	**0**	**0**	**0**	**0**	**0**	**73**

	Entering	Exiting		
Number of Commercial Trips Generated	**51**	**51**	A.M.	100% Commercial Development
	67	**67**	P.M.	

	Eastbound (Rio Bravo Blvd)			**Westbound (Rio Bravo Blvd)**			**Northbound (Driveway 'B')**			**Southbound (Driveway 'B')**		
2012 AM Peak Hr. Volumes	0	1655	0	0	687	0	0	0	0	0	0	0
2012 PM Peak Hr. Volumes	0	985	0	0	1,616	0	0	0	0	0	0	0

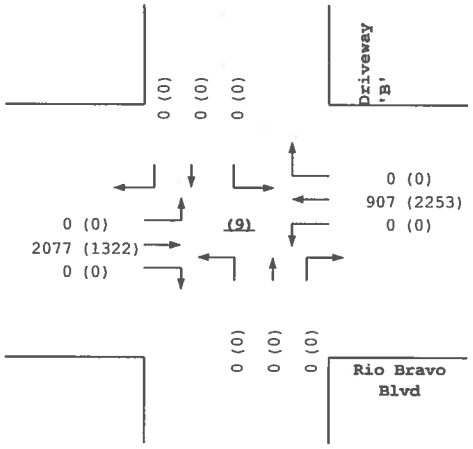
Pass-by Trip Calculations:

AM Pass-by Trips	***Eastbound (Rio Bravo Blvd)***			***Westbound (Rio Bravo Blvd)***			***Northbound (Driveway 'B')***			***Southbound (Driveway 'B')***		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*-82.00%*	*82.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Entering	*0*	*0*	*0*	*0*	*-42*	*42*	*0*	*0*	*0*	*0*	*0*	*0*
Percent Exiting	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*82.00%*
Volume Exiting	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*42*
Net AM Passby Trips	***0***	***0***	***0***	***0***	***-42***	***42***	***0***	***0***	***0***	***0***	***0***	***42***

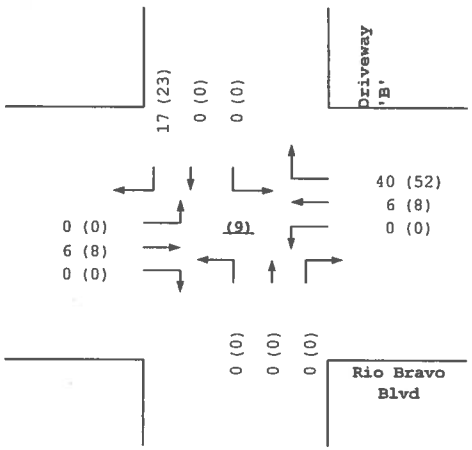
PM Pass-by Trips	***Eastbound (Rio Bravo Blvd)***			***Westbound (Rio Bravo Blvd)***			***Northbound (Driveway 'B')***			***Southbound (Driveway 'B')***		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*-75.00%*	*75.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Entering	*0*	*0*	*0*	*0*	*-50*	*50*	*0*	*0*	*0*	*0*	*0*	*0*
Percent Exiting	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*75.00%*
Volume Exiting	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*50*
Net PM Passby Trips	***0***	***0***	***0***	***0***	***-50***	***50***	***0***	***0***	***0***	***0***	***0***	***50***

	Entering	*Exiting*	
Pass-by Trips	***51***	***51***	*AM*
	67	***67***	*PM*

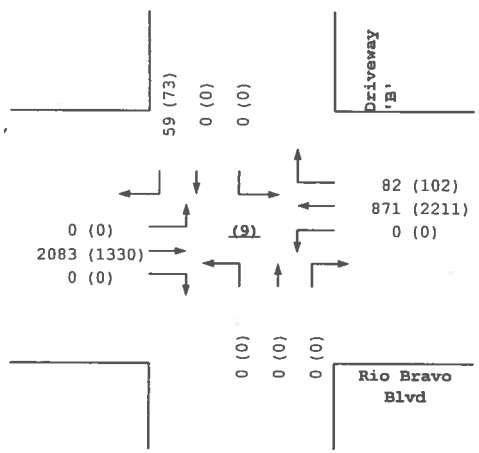
2014
NO BUILD



Trips



2014
BUILD



Rio Bravo Blvd / Driveway 'B'

Rio Bravo / Broadway Comm. Dev. (NW Corner)

Projected Turning Movements Worksheet

Rio Bravo Blvd / I-25 E. ramp

INTERSECTION: E-W Street: **Rio Bravo Blvd** (1)

N-S Street: **I-25 E. ramp**

Year of Existing Counts 2012

Horizon Year **2024**

Growth Rates	2.84%			56.65%			25.99%			3.00%		
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (I-25 E. ramp)			Southbound (I-25 E. ramp)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	1,040	556	0	0	93	10	31	1	151	0	0	0
Background Traffic Growth	354	189	0	0	632	68	97	3	471	0	0	0
Subtotal	1,394	745	0	0	725	78	128	4	622	0	0	0
Neilsen Industrial Park	56	7	0	0	72	0	0	0	0	0	0	0
Rio Bravo Commerce Center	4	3	0	0	3	0	3	0	0	0	0	0
Neilsen Broadway Dev.	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***1,454***	***755***	***0***	***0***	***800***	***78***	***131***	***4***	***622***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*29.86%*	*0.00%*	*5.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*18.82%*	*16.96%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	10	9	0	0	15	0	3	0	0	0	0	0
Total AM Peak Hour BUILD Volumes	**1,464**	**764**	**0**	**0**	**815**	**78**	**134**	**4**	**622**	**0**	**0**	**0**

	5.28%			26.76%			46.85%			3.00%		
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (I-25 E. ramp)			Southbound (I-25 E. ramp)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	670	272	0	0	274	81	22	1	48	0	0	0
Background Traffic Growth	424	172	0	0	880	260	124	6	270	0	0	0
Subtotal	1,094	444	0	0	1,154	341	146	7	318	0	0	0
Neilsen Industrial Park	100	41	0	0	30	0	0	0	0	0	0	0
Rio Bravo Commerce Center	25	8	0	0	2	0	0	0	0	0	0	0
Neilsen Broadway Dev.	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***1,219***	***493***	***0***	***0***	***1,186***	***341***	***146***	***7***	***318***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*29.86%*	*0.00%*	*5.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*18.82%*	*16.96%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	13	11	0	0	20	0	3	0	0	0	0	0
Total PM Peak Hour BUILD Volumes	**1,232**	**504**	**0**	**0**	**1,206**	**341**	**149**	**7**	**318**	**0**	**0**	**0**

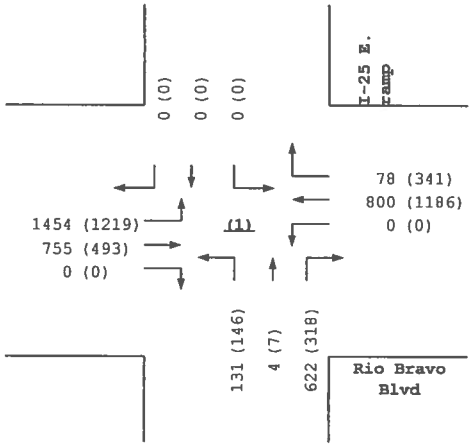
	Entering	Exiting		
Number of Commercial Trips Generated	**51**	**51**	A.M.	100% Commercial Development
	67	**67**	P.M.	

	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (I-25 E. ramp)			Southbound (I-25 E. ramp)		
2012 AM Peak Hr. Volumes	1,040	556	0	0	93	10	31	1	151	0	0	0
2012 PM Peak Hr. Volumes	670	272	0	0	274	81	22	1	48	0	0	0

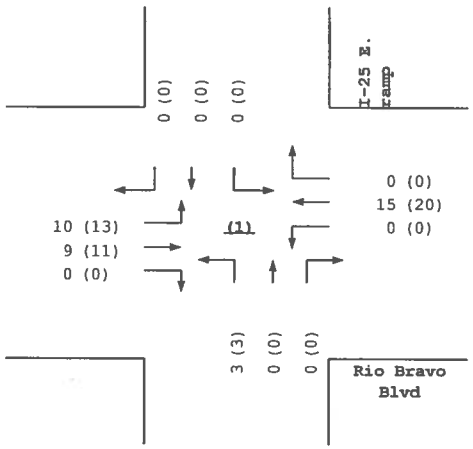
MRCOG Forecast Volumes Worksheet

Based on 2012 Traffic Count				
2012 AM Link Volume	**1,596**	**103**	**183**	**0**
2012 PM Link Volume	**942**	**355**	**71**	**0**
Based on MRCOG Model (2035 Data Set)				
2035 AM Link Volume	**2637**	**1445**	**1277**	
2035 PM Link Volume	**2085**	**2540**	**836**	
Growth Rate to Apply to Existing Counts to Match 2035 Forecasts				
2012-2035 AM Growth Rates	**2.84%**	**56.65%**	**25.99%**	#DIV/0!
2012-2035 PM Growth Rates	**5.28%**	**26.76%**	**46.85%**	#DIV/0!
Growth Rate to Apply to 2004 Model Volumes to Match 2035 Forecasts				
2004-2035 AM Growth Rates	2.00%	78.55%	10.88%	#DIV/0!
2004-2035 PM Growth Rates	2.38%	3.76%	35.30%	#DIV/0!

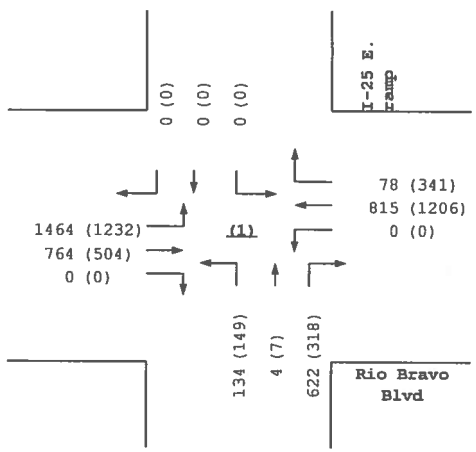
2024
NO BUILD



Trips



2024
BUILD



Rio Bravo Blvd / I-25 E. ramp

Rio Bravo / Broadway Comm. Dev. (NW Corner)

Projected Turning Movements Worksheet

Rio Bravo Blvd / I-25 W. ramp

INTERSECTION: E-W Street: **Rio Bravo Blvd** (2)

N-S Street: **I-25 W. ramp**

Year of Existing Counts **2012**

Horizon Year **2024**

Growth Rates	0.99%			37.40%			3.00%			2.46%		
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (I-25 W. ramp)			Southbound (I-25 W. ramp)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	1,596	8	11	82	0	0	0	0	280	1	675
Background Traffic Growth	0	189	1	49	368	0	0	0	0	83	0	199
Subtotal	0	1,785	9	60	450	0	0	0	0	363	1	874
Neilsen Industrial Park	0	63	0	0	0	0	0	0	0	0	70	85
Rio Bravo Commerce Center	0	7	0	0	6	0	0	0	0	0	0	22
Neilsen Broadway Dev.	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***1,855***	***9***	***60***	***456***	***0***	***0***	***0***	***0***	***363***	***71***	***981***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*34.86%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*45.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*35.78%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	18	0	0	18	0	0	0	0	0	0	23
Total AM Peak Hour BUILD Volumes	**0**	**1,873**	**9**	**60**	**474**	**0**	**0**	**0**	**0**	**363**	**71**	**1,004**

	3.17%			24.44%			3.00%			2.26%		
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (I-25 W. ramp)			Southbound (I-25 W. ramp)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	891	22	54	220	0	0	0	0	51	1	1,148
Background Traffic Growth	0	339	8	158	645	0	0	0	0	14	0	311
Subtotal	0	1,230	30	212	865	0	0	0	0	65	1	1,459
Neilsen Industrial Park	0	141	0	15	15	0	0	0	0	0	29	38
Rio Bravo Commerce Center	0	33	1	0	2	0	0	0	0	0	0	8
Neilsen Broadway Dev.	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***1,404***	***31***	***227***	***882***	***0***	***0***	***0***	***0***	***65***	***30***	***1,505***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*34.86%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*45.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*35.78%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	24	0	0	23	0	0	0	0	0	0	30
Total PM Peak Hour BUILD Volumes	**0**	**1,428**	**31**	**227**	**905**	**0**	**0**	**0**	**0**	**65**	**30**	**1,535**

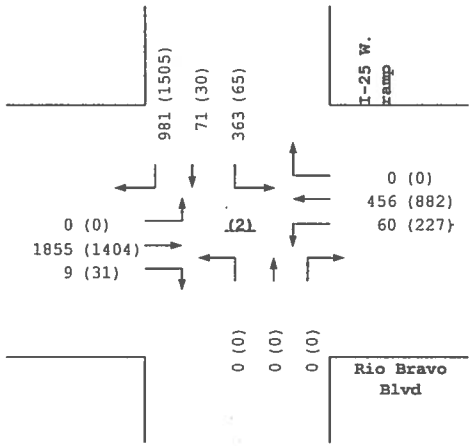
	Entering	Exiting		
Number of Commercial Trips Generated	51	51	A.M.	100% Commercial Development
	67	67	P.M.	

	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (I-25 W. ramp)			Southbound (I-25 W. ramp)		
2012 AM Peak Hr. Volumes	0	1596	8	11	82	0	0	0	0	280	1	675
2012 PM Peak Hr. Volumes	0	891	22	54	220	0	0	0	0	51	1	1,148

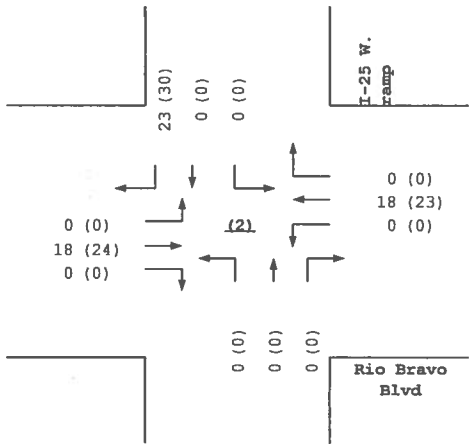
MRCOG Forecast Volumes Worksheet

Based on 2012 Traffic Count				
2012 AM Link Volume	**1,604**	**93**	**0**	**956**
2012 PM Link Volume	**913**	**274**	**0**	**1,200**
Based on MRCOG Model (2035 Data Set)				
2035 AM Link Volume	**1968**	**893**	**0**	**1497**
2035 PM Link Volume	**1579**	**1814**	**0**	**1823**
Growth Rate to Apply to Existing Counts to Match 2035 Forecasts				
2012-2035 AM Growth Rates	**0.99%**	**37.40%**	#DIV/0!	**2.46%**
2012-2035 PM Growth Rates	**3.17%**	**24.44%**	#DIV/0!	**2.26%**
Growth Rate to Apply to 2004 Model Volumes to Match 2035 Forecasts				
2004-2035 AM Growth Rates	1.00%	26.17%	#DIV/0!	1.52%
2004-2035 PM Growth Rates	0.98%	2.17%	#DIV/0!	80.78%

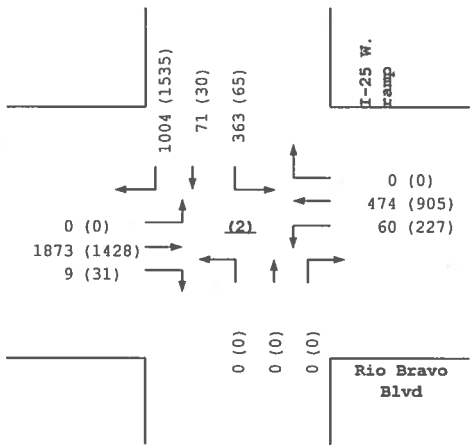
2024
NO BUILD



Trips



2024
BUILD



Rio Bravo Blvd / I-25 W. ramp

Rio Bravo / Broadway Comm. Dev. (NW Corner)

Projected Turning Movements Worksheet

Rio Bravo Blvd / Broadway Blvd

INTERSECTION: E-W Street: **Rio Bravo Blvd** (3)
N-S Street: **Broadway Blvd**

Year of Existing Counts **2012**
Horizon Year **2024**

Growth Rates	1.90%			5.42%			15.94%			5.02%		
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Broadway Blvd)			Southbound (Broadway Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	151	1,400	104	155	562	26	60	176	220	15	87	65
Background Traffic Growth	35	320	24	101	365	17	115	337	421	9	52	39
Subtotal	186	1,720	128	256	927	43	175	513	641	24	139	104
Kan Industrial Park	0	0	39	181	0	0	8	4	37	0	21	0
Rio Bravo Commerce Center	0	0	53	28	0	0	5	5	7	0	8	0
Previous Development from below	0	85	182	16	0	0	120	69	6	14	20	0
Subtotal (NO BUILD - A.M.)	***186***	***1,805***	***402***	***481***	***927***	***43***	***308***	***591***	***691***	***38***	***188***	***104***
Percent Commercial Trips Generated(Entering)	*11.35%*	*0.00%*	*0.00%*	*0.00%*	*70.91%*	*8.95%*	*6.59%*	*2.20%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*45.89%*	*8.79%*	*11.33%*
Total Trips Generated	6	0	0	0	36	5	3	1	0	23	4	6
Total AM Peak Hour BUILD Volumes	**192**	**1,805**	**402**	**481**	**963**	**48**	**311**	**592**	**691**	**61**	**192**	**110**

	1.30%			0.97%			9.26%			17.55%		
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Broadway Blvd)			Southbound (Broadway Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	105	766	114	214	1,223	24	174	163	260	15	246	219
Background Traffic Growth	16	120	18	25	142	3	193	181	289	32	518	461
Subtotal	121	886	132	239	1,365	27	367	344	549	47	764	680
Kan Industrial Park	0	0	10	46	0	0	38	20	175	0	5	0
Rio Bravo Commerce Center	0	0	9	10	0	0	53	12	34	0	6	0
Previous Development from below	0	29	263	9	0	0	413	81	13	13	38	0
Subtotal (NO BUILD - P.M.)	***121***	***915***	***414***	***304***	***1,365***	***27***	***871***	***457***	***771***	***60***	***813***	***680***
Percent Commercial Trips Generated(Entering)	*11.35%*	*0.00%*	*0.00%*	*0.00%*	*70.91%*	*8.95%*	*6.59%*	*2.20%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*45.89%*	*8.79%*	*11.33%*
Total Trips Generated	8	0	0	0	48	6	4	1	0	31	6	8
Total PM Peak Hour BUILD Volumes	**129**	**915**	**414**	**304**	**1,413**	**33**	**875**	**458**	**771**	**91**	**819**	**688**

	Entering	Exiting		
Number of Commercial Trips Generated	**51**	**51**	A.M.	100% Commercial Development
	67	**67**	P.M.	

	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Broadway Blvd)			Southbound (Broadway Blvd)		
2012 AM Peak Hr. Volumes	151	1400	104	155	562	26	60	176	220	15	87	65
2012 PM Peak Hr. Volumes	105	766	114	214	1,223	24	174	163	260	15	246	219

Previous Developments - AM Peak Hour Volumes

	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Broadway Blvd)			Southbound (Broadway Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Neilsen Industrial Park	0	85	85	16	0	0	44	59	6	14	7	0
Neilsen Broadway Dev.	0	0	97	0	0	0	76	10	0	0	13	0
Subtotal	0	85	182	16	0	0	120	69	6	14	20	0

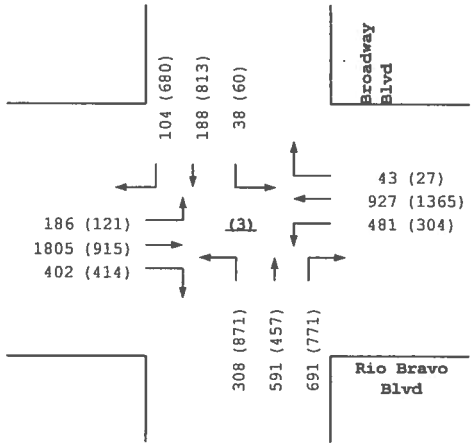
Previous Developments - PM Peak Hour Volumes

	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Broadway Blvd)			Southbound (Broadway Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Neilsen Industrial Park	0	29	29	9	0	0	163	48	13	13	7	0
Neilsen Broadway Dev.	0	0	234	0	0	0	250	33	0	0	31	0
Subtotal	0	29	263	9	0	0	413	81	13	13	38	0

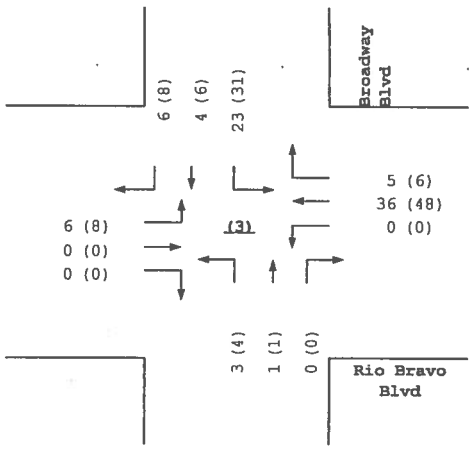
MRCOG Forecast Volumes Worksheet

Based on 2012 Traffic Count				
2012 AM Link Volume	**1,655**	**743**	**456**	**167**
2012 PM Link Volume	**985**	**1,461**	**597**	**480**
Based on MRCOG Model (2035 Data Set)				
2035 AM Link Volume	**2380**	**1669**	**2128**	**360**
2035 PM Link Volume	**1280**	**1787**	**1868**	**2417**
Growth Rate to Apply to Existing Counts to Match 2035 Forecasts				
2012-2035 AM Growth Rates	**1.90%**	**5.42%**	**15.94%**	**5.02%**
2012-2035 PM Growth Rates	**1.30%**	**0.97%**	**9.26%**	**17.55%**

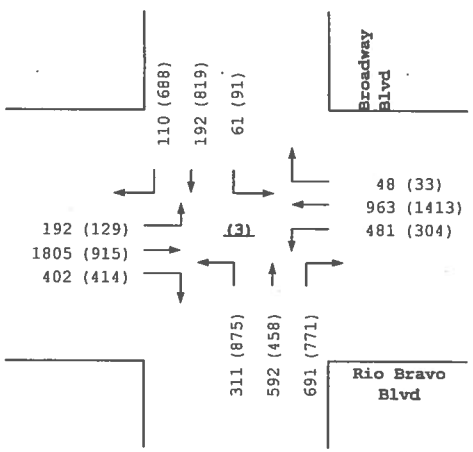
2024
NO BUILD



Trips



2024
BUILD



Rio Bravo Blvd / Broadway Blvd

Rio Bravo / Broadway Comm. Dev. (NW Corner)

Projected Turning Movements Worksheet

Rio Bravo Blvd / Prince St

INTERSECTION: E-W Street: **Rio Bravo Blvd** (4)

N-S Street: **Prince St**

Year of Existing Counts **2012**

Horizon Year **2024**

Growth Rates **2.06%** **3.68%** **3.00%** **3.00%**

	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Prince St)			Southbound (Prince St)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	41	1,537	37	35	576	43	75	2	78	13	0	10
Background Traffic Growth	10	380	9	15	255	19	27	1	28	5	0	4
Subtotal	51	1,917	46	50	831	62	102	3	106	18	0	14
Neilsen Industrial Park	0	166	0	1	42	1	0	0	3	1	0	0
Rio Bravo Commerce Center	0	51	0	0	5	0	0	0	2	0	0	0
Neilsen Broadway Dev.	0	97	0	0	76	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***51***	***2,231***	***46***	***51***	***954***	***63***	***102***	***3***	***111***	***19***	***0***	***14***
Percent Commercial Trips Generated(Entering)	*0.00%*	*11.07%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.27%*	*0.01%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*1.06%*	*44.21%*	*0.05%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	6	0	1	23	0	0	0	0	0	0	0
Total AM Peak Hour BUILD Volumes	**51**	**2,237**	**46**	**52**	**977**	**63**	**102**	**3**	**111**	**19**	**0**	**14**

1.93% **2.15%** **3.00%** **3.00%**

	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Prince St)			Southbound (Prince St)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	19	774	94	106	1,443	28	87	4	63	44	3	48
Background Traffic Growth	4	179	22	27	372	7	31	1	23	16	1	17
Subtotal	23	953	116	133	1,815	35	118	5	86	60	4	65
Neilsen Industrial Park	0	56	0	3	160	1	0	0	1	1	0	0
Rio Bravo Commerce Center	0	8	0	6	46	1	0	0	1	0	0	0
Neilsen Broadway Dev.	0	234	0	0	250	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***23***	***1,251***	***116***	***142***	***2,271***	***37***	***118***	***5***	***88***	***61***	***4***	***65***
Percent Commercial Trips Generated(Entering)	*0.00%*	*11.07%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.27%*	*0.01%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*1.06%*	*44.21%*	*0.05%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	7	0	1	30	0	0	0	0	0	0	0
Total PM Peak Hour BUILD Volumes	**23**	**1,258**	**116**	**143**	**2,301**	**37**	**118**	**5**	**88**	**61**	**4**	**65**

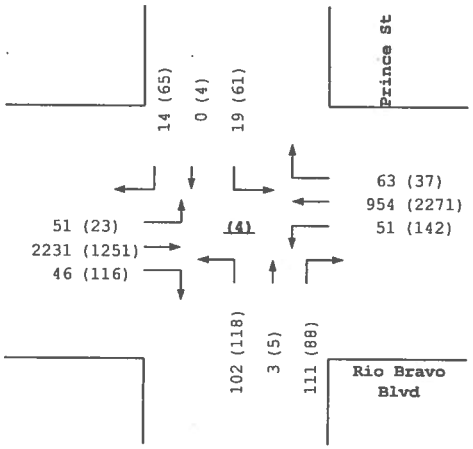
	Entering	Exiting		
Number of Commercial Trips Generated	**51**	**51**	A.M.	100% Commercial Development
	67	**67**	P.M.	

	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Prince St)			Southbound (Prince St)		
2012 AM Peak Hr. Volumes	41	1537	37	35	576	43	75	2	78	13	0	10
2012 PM Peak Hr. Volumes	19	774	94	106	1,443	28	87	4	63	44	3	48

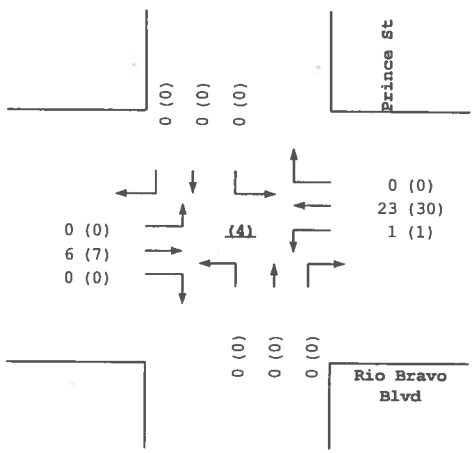
MRCOG Forecast Volumes Worksheet

Based on 2012 Traffic Count				
2012 AM Link Volume	**1,615**	**654**	**155**	**23**
2012 PM Link Volume	**887**	**1,577**	**154**	**95**
Based on MRCOG Model (2035 Data Set)				
2035 AM Link Volume	**2380**	**1208**		
2035 PM Link Volume	**1280**	**2357**		
Growth Rate to Apply to Existing Counts to Match 2035 Forecasts				
2012-2035 AM Growth Rates	**2.06%**	**3.68%**	**-4.35%**	**-4.35%**
2012-2035 PM Growth Rates	**1.93%**	**2.15%**	**-4.35%**	**-4.35%**

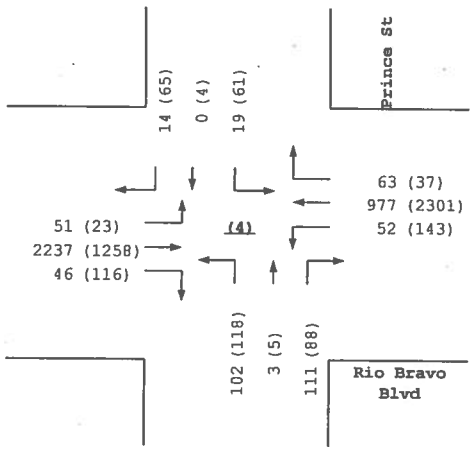
2024
NO BUILD



Trips



2024
BUILD



Rio Bravo Blvd / Prince St

Rio Bravo / Broadway Comm. Dev. (NW Corner)

Projected Turning Movements Worksheet

Rio Bravo Blvd / Second St

INTERSECTION: E-W Street: **Rio Bravo Blvd** (5)
N-S Street: **Second St**

Year of Existing Counts 2012
Horizon Year **2024**

Growth Rates	5.58%			3.82%			21.21%			6.74%		
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Second St)			Southbound (Second St)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	329	1,333	162	45	529	69	128	110	52	79	65	63
Background Traffic Growth	220	893	109	21	243	32	326	280	132	64	53	51
Subtotal	549	2,226	271	66	772	101	454	390	184	143	118	114
Neilsen Industrial Park	0	107	0	5	19	19	0	0	18	42	0	0
Rio Bravo Commerce Center	0	44	0	0	4	1	0	0	2	5	0	0
Neilsen Broadway Dev.	0	75	0	15	58	3	0	0	19	4	0	0
Subtotal (NO BUILD - A.M.)	***549***	***2,452***	***271***	***86***	***853***	***124***	***454***	***390***	***223***	***194***	***118***	***114***
Percent Commercial Trips Generated(Entering)	*0.00%*	*7.17%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*2.48%*	*1.42%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*9.90%*	*28.63%*	*5.68%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	4	0	5	15	3	0	0	1	1	0	0
Total AM Peak Hour BUILD Volumes	**549**	**2,456**	**271**	**91**	**868**	**127**	**454**	**390**	**224**	**195**	**118**	**114**

	9.16%			3.06%			15.85%			10.23%		
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Second St)			Southbound (Second St)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	116	569	131	30	1,296	57	213	74	58	112	98	399
Background Traffic Growth	127	625	144	11	476	21	405	141	110	137	120	490
Subtotal	243	1,194	275	41	1,772	78	618	215	168	249	218	889
Neilsen Industrial Park	0	44	0	17	80	63	0	0	6	17	0	0
Rio Bravo Commerce Center	0	6	0	1	44	1	0	0	1	1	0	0
Neilsen Broadway Dev.	0	180	0	48	192	9	0	0	45	9	0	0
Subtotal (NO BUILD - P.M.)	***243***	***1,424***	***275***	***107***	***2,088***	***151***	***618***	***215***	***220***	***276***	***218***	***889***
Percent Commercial Trips Generated(Entering)	*0.00%*	*7.17%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*2.48%*	*1.42%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*9.90%*	*28.63%*	*5.68%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	5	0	7	19	4	0	0	2	1	0	0
Total PM Peak Hour BUILD Volumes	**243**	**1,429**	**275**	**114**	**2,107**	**155**	**618**	**215**	**222**	**277**	**218**	**889**

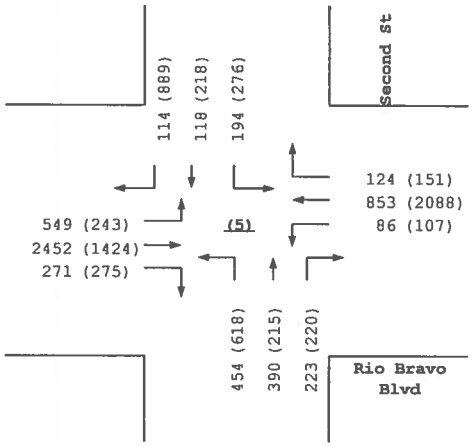
	Entering	Exiting		
Number of Commercial Trips Generated	**51**	**51**	A.M.	100% Commercial Development
	67	**67**	P.M.	

	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Second St)			Southbound (Second St)		
2012 AM Peak Hr. Volumes	329	1333	162	45	529	69	128	110	52	79	65	63
2012 PM Peak Hr. Volumes	116	569	131	30	1,296	57	213	74	58	112	98	399

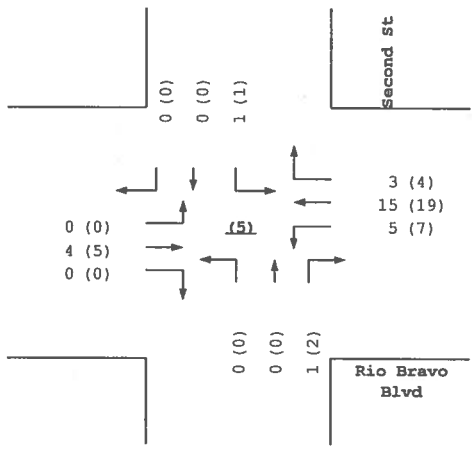
MRCOG Forecast Volumes Worksheet

Based on 2012 Traffic Count				
2012 AM Link Volume	**1,824**	**843**	**290**	**207**
2012 PM Link Volume	**816**	**1,383**	**345**	**609**
Based on MRCOG Model (2035 Data Set)				
2035 AM Link Volume	**4167**	**1208**	**1705**	**528**
2035 PM Link Volume	**2535**	**2357**	**1603**	**2042**
Growth Rate to Apply to Existing Counts to Match 2035 Forecasts				
2012-2035 AM Growth Rates	**5.58%**	**3.82%**	**21.21%**	**6.74%**
2012-2035 PM Growth Rates	**9.16%**	**3.06%**	**15.85%**	**10.23%**

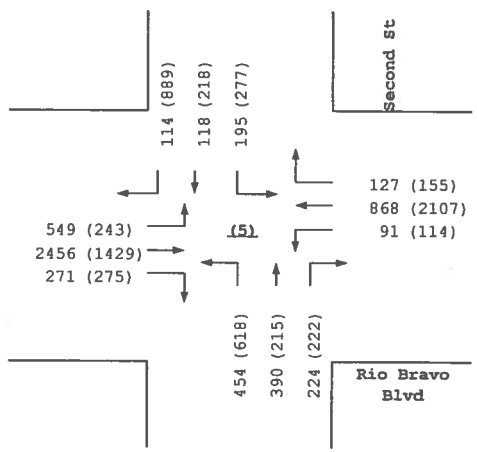
2024
NO BUILD



Trips



2024
BUILD



Rio Bravo Blvd / Second St

Rio Bravo / Broadway Comm. Dev. (NW Corner)

Projected Turning Movements Worksheet

Rio Bravo Blvd / Poco Loco

INTERSECTION: E-W Street: **Rio Bravo Blvd** (6)

N-S Street: **Poco Loco**

Year of Existing Counts 2012

Horizon Year **2024**

Growth Rates	-1.00%			-1.00%			-1.00%			-1.00%		
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Poco Loco)			Southbound (Poco Loco)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
Rio Bravo Commerce Center	0	0	0	0	0	0	0	0	0	0	0	0
Neilsen Broadway Dev.	0	75	0	0	58	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***75***	***0***	***0***	***58***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*7.17%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*28.63%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	4	0	0	15	0	0	0	0	0	0	0
Total AM Peak Hour BUILD Volumes	**0**	**79**	**0**	**0**	**73**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	-1.00%			-1.00%			-1.00%			-1.00%		
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Poco Loco)			Southbound (Poco Loco)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
Rio Bravo Commerce Center	0	0	0	0	0	0	0	0	0	0	0	0
Neilsen Broadway Dev.	0	180	0	0	192	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***180***	***0***	***0***	***192***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*7.17%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*28.63%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	5	0	0	19	0	0	0	0	0	0	0
Total PM Peak Hour BUILD Volumes	**0**	**185**	**0**	**0**	**211**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

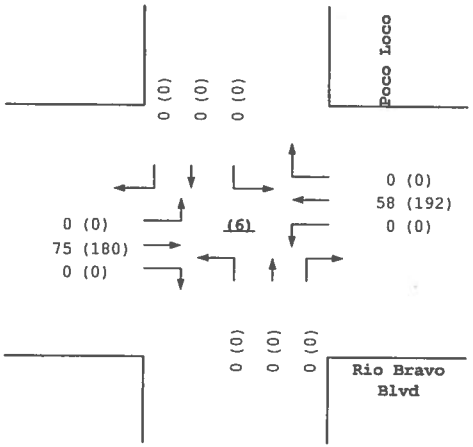
	Entering	Exiting		
Number of Commercial Trips Generated	51	51	A.M.	100% Commercial Development
	67	67	P.M.	

	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Poco Loco)			Southbound (Poco Loco)		
2012 AM Peak Hr. Volumes	0	0	0	0	0	0	0	0	0	0	0	0
2012 PM Peak Hr. Volumes	0	0	0	0	0	0	0	0	0	0	0	0

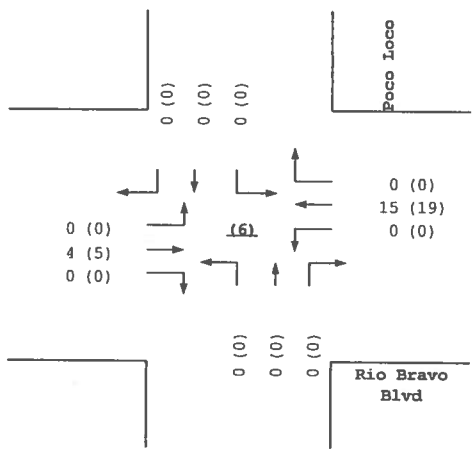
MRCOG Forecast Volumes Worksheet

Based on 2012 Traffic Count				
2012 AM Link Volume	**0**	**0**	**0**	**0**
2012 PM Link Volume	**0**	**0**	**0**	**0**
Based on MRCOG Model (2035 Data Set)				
2035 AM Link Volume	**4167**	**2113**		
2035 PM Link Volume	**2535**	**4345**		
Growth Rate to Apply to Existing Counts to Match 2035 Forecasts				
2012-2035 AM Growth Rates	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2012-2035 PM Growth Rates	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

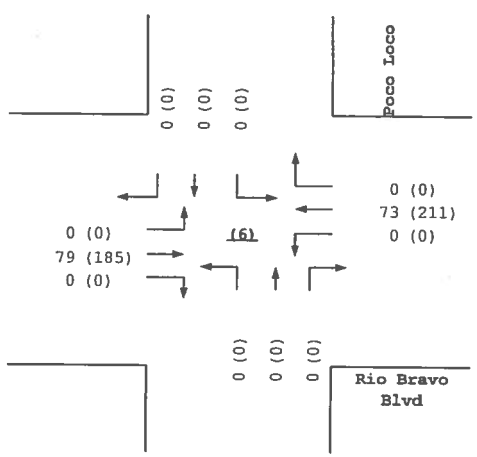
2024
NO BUILD



Trips



2024
BUILD



Rio Bravo Blvd / Poco Loco

Rio Bravo / Broadway Comm. Dev. (NW Corner)

Projected Turning Movements Worksheet

Rio Bravo Blvd / Isleta Blvd

INTERSECTION: E-W Street: **Rio Bravo Blvd** (7)

N-S Street: **Isleta Blvd**

Year of Existing Counts **2010**

Horizon Year **2024**

Growth Rates	5.03%			12.25%			6.96%			8.77%		
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Isleta Blvd)			Southbound (Isleta Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	112	910	62	167	207	146	72	190	346	255	133	48
Background Traffic Growth	79	640	44	286	355	250	70	185	337	313	163	59
Subtotal	191	1,550	106	453	562	396	142	375	683	568	296	107
Rio Bravo Commerce Center	0	0	0	0	0	0	0	0	0	0	0	0
Neilsen Broadway Dev.	0	5	0	16	4	39	0	0	20	50	0	0
Subtotal (NO BUILD - A.M.)	***191***	***1,555***	***106***	***469***	***566***	***435***	***142***	***375***	***703***	***618***	***296***	***107***
Percent Commercial Trips Generated(Entering)	*0.00%*	*1.69%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*2.15%*	*3.33%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*8.58%*	*6.75%*	*13.30%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	1	0	4	3	7	0	0	1	2	0	0
Total AM Peak Hour BUILD Volumes	**191**	**1,556**	**106**	**473**	**569**	**442**	**142**	**375**	**704**	**620**	**296**	**107**

	11.06%			7.49%			3.07%			5.81%		
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Isleta Blvd)			Southbound (Isleta Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	114	314	97	417	791	305	152	224	143	253	253	135
Background Traffic Growth	177	486	150	437	829	320	65	96	61	206	206	110
Subtotal	291	800	247	854	1,620	625	217	320	204	459	459	245
Rio Bravo Commerce Center	0	0	0	0	0	0	0	0	0	0	0	0
Neilsen Broadway Dev.	0	11	0	52	12	128	0	0	49	120	0	0
Subtotal (NO BUILD - P.M.)	***291***	***811***	***247***	***906***	***1,632***	***753***	***217***	***320***	***253***	***579***	***459***	***245***
Percent Commercial Trips Generated(Entering)	*0.00%*	*1.69%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*2.15%*	*3.33%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*8.58%*	*6.75%*	*13.30%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	1	0	6	5	9	0	0	1	2	0	0
Total PM Peak Hour BUILD Volumes	**291**	**812**	**247**	**912**	**1,637**	**762**	**217**	**320**	**254**	**581**	**459**	**245**

	Entering	Exiting		
Number of Commercial Trips Generated	**51**	**51**	A.M.	100% Commercial Development
	67	**67**	P.M.	

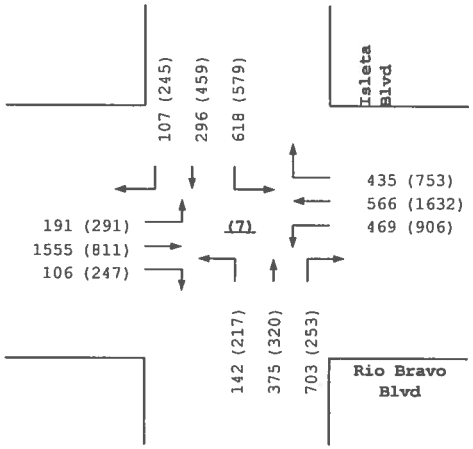
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Isleta Blvd)			Southbound (Isleta Blvd)		
2012 AM Peak Hr. Volumes	123	1001	68	208	258	182	82	216	394	300	156	56
2012 PM Peak Hr. Volumes	139	383	118	479	909	351	161	238	152	282	282	151

MRCOG Forecast Volumes Worksheet

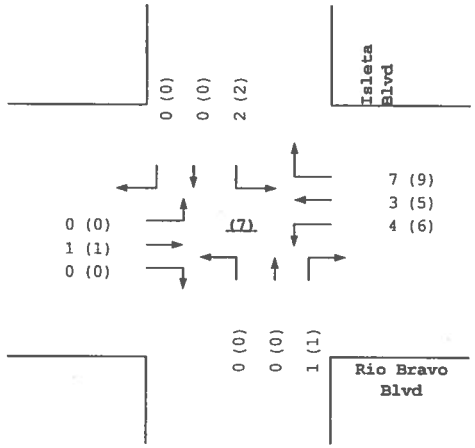
Based on 2010 Traffic Count				
2010 AM Link Volume	**1,084**	**520**	**608**	**436**
2010 PM Link Volume	**525**	**1,513**	**519**	**641**
Based on MRCOG Model (2035 Data Set)				
2035 AM Link Volume	**2446**	**2113**	**1666**	**1392**
2035 PM Link Volume	**1977**	**4345**	**917**	**1572**
Growth Rate to Apply to Existing Counts to Match 2035 Forecasts				
2010-2035 AM Growth Rates	**5.03%**	**12.25%**	**6.96%**	**8.77%**
2010-2035 PM Growth Rates	**11.06%**	**7.49%**	**3.07%**	**5.81%**

48 m

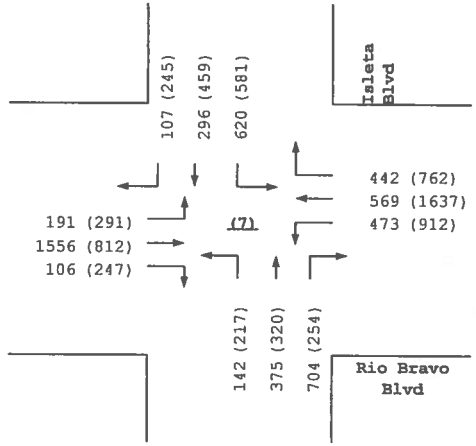
2024
NO BUILD



Trips



2024
BUILD



Rio Bravo Blvd / Isleta Blvd

Rio Bravo / Broadway Comm. Dev. (NW Corner)

Projected Turning Movements Worksheet

Driveway 'A' / Broadway Blvd

INTERSECTION: E-W Street: **Driveway 'A'** (8)

N-S Street: **Broadway Blvd**

Year of Existing Counts 2012

Horizon Year **2024**

Growth Rates	3.00%			3.00%			5.02%			5.02%		
	Eastbound (Driveway 'A')			Westbound (Driveway 'A')			Northbound (Broadway Blvd)			Southbound (Broadway Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	353	0	0	167	0
Background Traffic Growth	0	0	0	0	0	0	0	213	0	0	101	0
Subtotal	0	0	0	0	0	0	0	742	0	0	267	0
Kan Industrial Park	0	0	0	0	0	0	0	4	0	0	21	0
Rio Bravo Commerce Center	0	0	0	0	0	0	0	5	0	0	8	0
Neilsen Commercial / IP Development	0	0	0	0	0	0	0	69	0	0	34	0
Subtotal (NO BUILD - A.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***820***	***0***	***0***	***330***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*22.50%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*61.01%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	31	0	0	0	0	0	0	0	0	11
Subtotal AM Pk Hr. BUILD Volumes	**0**	**0**	**31**	**0**	**0**	**0**	**0**	**820**	**0**	**0**	**330**	**11**
Pass-by Trip Adjustments	*0*	*0*	*9*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*-9*	*9*
Total AM Peak Hour BUILD Volumes	**0**	**0**	**40**	**0**	**0**	**0**	**0**	**820**	**0**	**0**	**321**	**20**

	3.00%			3.00%			17.55%			17.55%		
	Eastbound (Driveway 'A')			Westbound (Driveway 'A')			Northbound (Broadway Blvd)			Southbound (Broadway Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	292	0	0	480	0
Background Traffic Growth	0	0	0	0	0	0	0	615	0	0	1,011	0
Subtotal	0	0	0	0	0	0	0	492	0	0	1,491	0
Kan Industrial Park	0	0	0	0	0	0	0	20	0	0	5	0
Rio Bravo Commerce Center	0	0	0	0	0	0	0	12	0	0	6	0
Neilsen Commercial / IP Development	0	0	0	0	0	0	0	81	0	0	51	0
Subtotal (NO BUILD - P.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***605***	***0***	***0***	***1,553***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*22.50%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*61.01%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	41	0	0	0	0	0	0	0	0	15
Subtotal PM Pk Hr. BUILD Volumes	**0**	**0**	**41**	**0**	**0**	**0**	**0**	**605**	**0**	**0**	**1,553**	**15**
Pass-by Trip Adjustments	*0*	*0*	*17*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*-17*	*17*
Total PM Peak Hour BUILD Volumes	**0**	**0**	**58**	**0**	**0**	**0**	**0**	**605**	**0**	**0**	**1,536**	**32**

	Entering	Exiting		
Number of Commercial Trips Generated	**51**	**51**	A.M.	100% Commercial Development
	67	**67**	P.M.	

	Eastbound (Driveway 'A')			Westbound (Driveway 'A')			Northbound (Broadway Blvd)			Southbound (Broadway Blvd)		
2012 AM Peak Hr. Volumes	0	0	0	0	0	0	0	353	0	0	167	0
2012 PM Peak Hr. Volumes	0	0	0	0	0	0	0	292	0	0	480	0

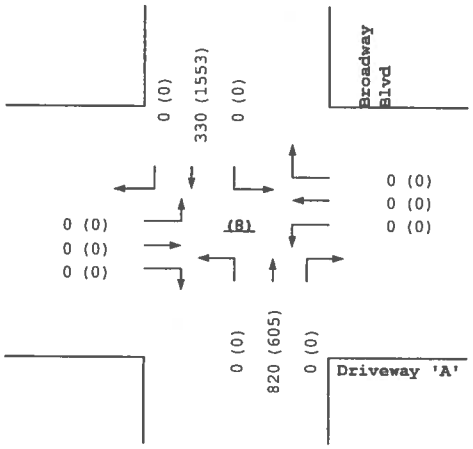
Pass-by Trip Calculations:

AM Pass-by Trips	*Eastbound (Driveway 'A')*			*Westbound (Driveway 'A')*			*Northbound (Broadway Blvd)*			*Southbound (Broadway Blvd)*		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*-18.00%*	*18.00%*
Volume Entering	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*-9*	*9*
Percent Exiting	*0.00%*	*0.00%*	*18.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Exiting	*0*	*0*	*9*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Net AM Passby Trips	***0***	***0***	***9***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***-9***	***9***

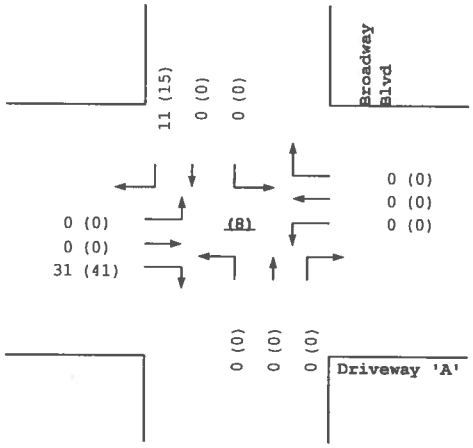
PM Pass-by Trips	*Eastbound (Driveway 'A')*			*Westbound (Driveway 'A')*			*Northbound (Broadway Blvd)*			*Southbound (Broadway Blvd)*		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*-25.00%*	*25.00%*
Volume Entering	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*-17*	*17*
Percent Exiting	*0.00%*	*0.00%*	*25.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Exiting	*0*	*0*	*17*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Net PM Passby Trips	***0***	***0***	***17***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***-17***	***17***

	Entering	*Exiting*	
Pass-by Trips	*51*	*51*	*AM*
	67	*67*	*PM*

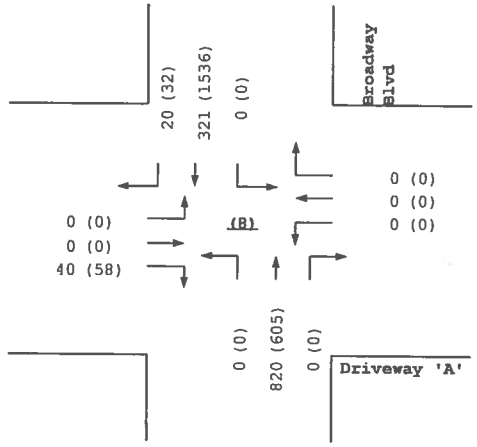
2024
NO BUILD



Trips



2024
BUILD



Driveway 'A' / Broadway Blvd

Rio Bravo / Broadway Comm. Dev. (NW Corner)

Projected Turning Movements Worksheet

Rio Bravo Blvd / Driveway 'B'

INTERSECTION: E-W Street: **Rio Bravo Blvd** (9)
N-S Street: **Driveway 'B'**

Year of Existing Counts **2012**
Horizon Year **2024**

Growth Rates	1.90%			1.90%			3.00%			3.00%		
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Driveway 'B')			Southbound (Driveway 'B')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	1,655	0	0	687	0	0	0	0	0	0	0
Background Traffic Growth	0	378	0	0	157	0	0	0	0	0	0	0
Subtotal	0	2,034	0	0	1,206	0	0	0	0	0	0	0
Kan Industrial Park	0	39	0	0	8	0	0	0	0	0	0	0
Rio Bravo Commerce Center	0	53	0	0	5	0	0	0	0	0	0	0
Neilsen Commercial / IP Development	0	267	0	0	120	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***2,393***	***0***	***0***	***1,339***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*11.35%*	*0.00%*	*0.00%*	*0.00%*	*77.50%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*11.33%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*33.99%*
Total Trips Generated	0	6	0	0	6	40	0	0	0	0	0	17
Subtotal AM Pk Hr. BUILD Volumes	**0**	**2,399**	**0**	**0**	**1,345**	**40**	**0**	**0**	**0**	**0**	**0**	**17**
Pass-by Trip Adjustments	*0*	*0*	*0*	*0*	*-42*	*42*	*0*	*0*	*0*	*0*	*0*	*42*
Total AM Peak Hour BUILD Volumes	**0**	**2,399**	**0**	**0**	**1,303**	**82**	**0**	**0**	**0**	**0**	**0**	**59**

	1.30%			1.30%			3.00%			3.00%		
	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Driveway 'B')			Southbound (Driveway 'B')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	985	0	0	1,616	0	0	0	0	0	0	0
Background Traffic Growth	0	154	0	0	253	0	0	0	0	0	0	0
Subtotal	0	1,139	0	0	2,412	0	0	0	0	0	0	0
Kan Industrial Park	0	10	0	0	38	0	0	0	0	0	0	0
Rio Bravo Commerce Center	0	9	0	0	53	0	0	0	0	0	0	0
Neilsen Commercial / IP Development	0	292	0	0	413	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***1,450***	***0***	***0***	***2,916***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*11.35%*	*0.00%*	*0.00%*	*0.00%*	*77.50%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*11.33%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*33.99%*
Total Trips Generated	0	8	0	0	8	52	0	0	0	0	0	23
Subtotal PM Pk Hr. BUILD Volumes	**0**	**1,458**	**0**	**0**	**2,924**	**52**	**0**	**0**	**0**	**0**	**0**	**23**
Pass-by Trip Adjustments	*0*	*0*	*0*	*0*	*-50*	*50*	*0*	*0*	*0*	*0*	*0*	*50*
Total PM Peak Hour BUILD Volumes	**0**	**1,458**	**0**	**0**	**2,874**	**102**	**0**	**0**	**0**	**0**	**0**	**73**

	Entering	Exiting		
Number of Commercial Trips Generated	**51**	**51**	A.M.	100% Commercial Development
	67	**67**	P.M.	

	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Driveway 'B')			Southbound (Driveway 'B')		
2012 AM Peak Hr. Volumes	0	1655	0	0	687	0	0	0	0	0	0	0
2012 PM Peak Hr. Volumes	0	985	0	0	1,616	0	0	0	0	0	0	0

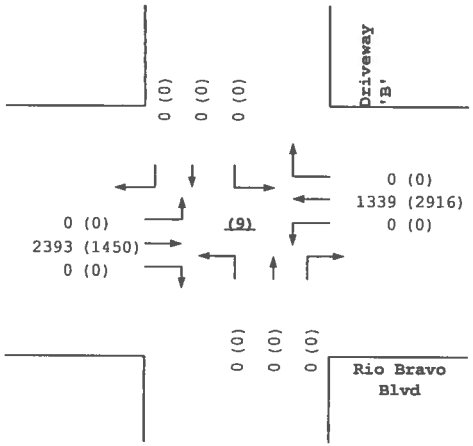
Pass-by Trip Calculations:

AM Pass-by Trips	*Eastbound (Rio Bravo Blvd)*			*Westbound (Rio Bravo Blvd)*			*Northbound (Driveway 'B')*			*Southbound (Driveway 'B')*		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*-82.00%*	*82.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Entering	*0*	*0*	*0*	*0*	*-42*	*42*	*0*	*0*	*0*	*0*	*0*	*0*
Percent Exiting	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*82.00%*
Volume Exiting	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*42*
Net AM Passby Trips	***0***	***0***	***0***	***0***	***-42***	***42***	***0***	***0***	***0***	***0***	***0***	***42***

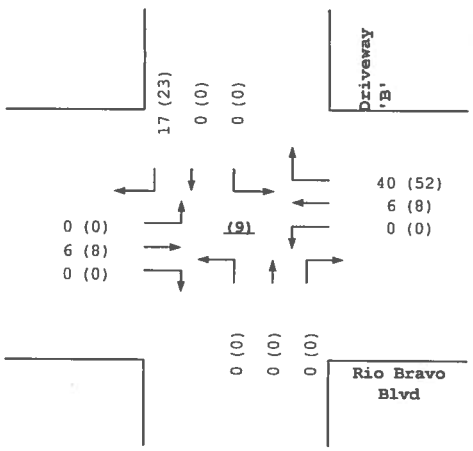
PM Pass-by Trips	*Eastbound (Rio Bravo Blvd)*			*Westbound (Rio Bravo Blvd)*			*Northbound (Driveway 'B')*			*Southbound (Driveway 'B')*		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*-75.00%*	*75.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Entering	*0*	*0*	*0*	*0*	*-50*	*50*	*0*	*0*	*0*	*0*	*0*	*0*
Percent Exiting	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*75.00%*
Volume Exiting	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*50*
Net PM Passby Trips	***0***	***0***	***0***	***0***	***-50***	***50***	***0***	***0***	***0***	***0***	***0***	***50***

	Entering	*Exiting*	
Pass-by Trips	***51***	***51***	*AM*
	67	***67***	*PM*

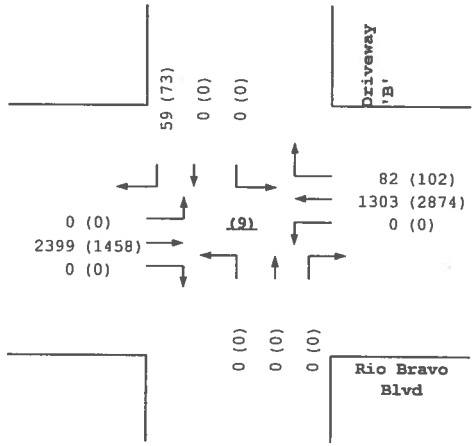
2024
NO BUILD



Trips



2024
BUILD



Rio Bravo Blvd / Driveway 'B'

Timings
1: I-25 E. ramp & Rio Bravo Blvd

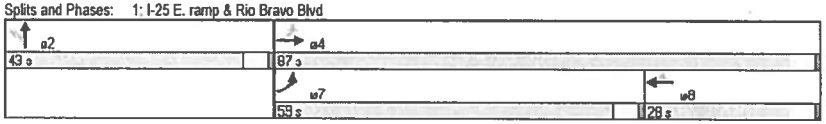
Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Volume (vph)	1159	598	273	21	2
Turn Type	pm+pt	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases	4			8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	21.0	21.0	21.0
Total Split (s)	59.0	87.0	28.0	28.0	43.0
Total Split (%)	45.4%	66.9%	21.5%	21.5%	33.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?					
Recall Mode	Min	C-Max	C-Max	C-Max	Min
Act Effct Green (s)	98.4	98.4	62.2	62.2	23.6
Actuated g/C Ratio	0.76	0.76	0.48	0.48	0.18
v/c Ratio	0.72	0.24	0.22	0.04	0.84
Control Delay	4.1	1.8	25.3	12.0	42.1
Queue Delay	0.2	0.2	0.0	0.0	0.0
Total Delay	4.3	2.0	25.3	12.0	42.1
LOS	A	A	C	B	D
Approach Delay		3.6	24.4		42.1
Approach LOS		A	C		D

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 80 (62%), Referenced to phase 4:EBTL and 8:WBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 12.1 Intersection LOS: B
Intersection Capacity Utilization 67.6% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 1: I-25 E. ramp & Rio Bravo Blvd



HCM Signalized Intersection Capacity Analysis
1: I-25 E. ramp & Rio Bravo Blvd

Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1159	598	0	0	273	21	50	2	229	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0				
Lane Util. Factor	0.97	0.95			0.95	1.00		1.00				
Frt	1.00	1.00			1.00	0.85		0.89				
Flt Protected	0.95	1.00			1.00	1.00		0.99				
Satd. Flow (prot)	3335	3438			3438	1538		1596				
Flt Permitted	0.47	1.00			1.00	1.00		0.99				
Satd. Flow (perm)	1660	3438			3438	1538		1596				
Peak-hour factor, PHF	0.97	0.97	0.97	0.76	0.76	0.76	0.78	0.78	0.78	0.85	0.85	0.85
Adj. Flow (vph)	1195	616	0	0	359	28	64	3	294	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	15	0	142	0	0	0	0
Lane Group Flow (vph)	1195	616	0	0	359	13	0	219	0	0	0	0
Turn Type	pm+pt	NA			NA	Perm	Perm	NA				
Protected Phases	7	4			8			2				
Permitted Phases	4					8	2					
Actuated Green, G (s)	97.4	97.4			61.2	61.2		22.6				
Effective Green, g (s)	98.4	98.4			62.2	62.2		23.6				
Actuated g/C Ratio	0.76	0.76			0.48	0.48		0.18				
Clearance Time (s)	5.0	5.0			5.0	5.0		5.0				
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0				
Lane Grp Cap (vph)	1671	2602			1645	736		290				
v/s Ratio Prot	c0.18	0.18			0.10							
v/s Ratio Perm	c0.36					0.01		0.14				
v/c Ratio	0.72	0.24			0.22	0.02		0.75				
Uniform Delay, d1	6.6	4.7			19.7	17.8		50.4				
Progression Factor	0.29	0.29			1.00	1.00		1.00				
Incremental Delay, d2	1.1	0.2			0.3	0.0		10.6				
Delay (s)	3.1	1.5			20.0	17.9		61.0				
Level of Service	A	A			C	B		E				
Approach Delay (s)		2.6			19.9			61.0			0.0	
Approach LOS		A			B			E			A	

Intersection Summary

HCM Average Control Delay	13.4	HCM Level of Service		B	
HCM Volume to Capacity ratio	0.72				
Actuated Cycle Length (s)	130.0	Sum of lost time (s)		8.0	
Intersection Capacity Utilization	67.6%	ICU Level of Service		C	
Analysis Period (min)	15				

c Critical Lane Group

Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Volume (vph)	1169	607	283	21	2
Turn Type	pm+pt	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases	4			8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	21.0	21.0	21.0
Total Split (s)	59.0	87.0	28.0	28.0	43.0
Total Split (%)	45.4%	66.9%	21.5%	21.5%	33.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?					
Recall Mode	Min	C-Max	C-Max	C-Max	Min
Act Effct Green (s)	97.3	97.3	59.1	59.1	24.7
Actuated g/C Ratio	0.75	0.75	0.45	0.45	0.19
v/c Ratio	0.73	0.24	0.24	0.04	0.84
Control Delay	4.5	1.9	27.5	12.7	43.5
Queue Delay	0.3	0.2	0.0	0.0	0.0
Total Delay	4.8	2.1	27.5	12.7	43.5
LOS	A	A	C	B	D
Approach Delay		3.9	26.5		43.5
Approach LOS		A	C		D

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 80 (62%), Referenced to phase 4:EBTL and 8:WBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 12.9 — Intersection LOS: B
Intersection Capacity Utilization 68.3% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 1: I-25 E. ramp & Rio Bravo Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1169	607	0	0	283	21	53	2	229	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0				
Lane Util. Factor	0.97	0.95			0.95	1.00		1.00				
Frt	1.00	1.00			1.00	0.85		0.89				
Flt Protected	0.95	1.00			1.00	1.00		0.99				
Satd. Flow (prot)	3335	3438			3438	1538		1598				
Flt Permitted	0.46	1.00			1.00	1.00		0.99				
Satd. Flow (perm)	1607	3438			3438	1538		1598				
Peak-hour factor, PHF	0.97	0.97	0.97	0.76	0.76	0.76	0.78	0.78	0.78	0.85	0.85	0.85
Adj. Flow (vph)	1205	626	0	0	372	28	68	3	294	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	15	0	133	0	0	0	0
Lane Group Flow (vph)	1205	626	0	0	372	13	0	232	0	0	0	0
Turn Type	pm+pt	NA			NA	Perm	Perm	NA				
Protected Phases	7	4			8			2				
Permitted Phases	4					8	2					
Actuated Green, G (s)	96.3	96.3			58.1	58.1		23.7				
Effective Green, g (s)	97.3	97.3			59.1	59.1		24.7				
Actuated g/C Ratio	0.75	0.75			0.45	0.45		0.19				
Clearance Time (s)	5.0	5.0			5.0	5.0		5.0				
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0				
Lane Grp Cap (vph)	1657	2573			1563	699		304				
v/s Ratio Prot	c0.19	0.18			0.11							
v/s Ratio Perm	c0.35					0.01		0.15				
v/c Ratio	0.73	0.24			0.24	0.02		0.76				
Uniform Delay, d1	7.3	5.0			21.7	19.5		49.9				
Progression Factor	0.32	0.29			1.00	1.00		1.00				
Incremental Delay, d2	1.2	0.2			0.4	0.0		10.8				
Delay (s)	3.5	1.6			22.0	19.5		60.7				
Level of Service	A	A			C	B		E				
Approach Delay (s)		2.9			21.9			60.7			0.0	
Approach LOS		A			C			E			A	

Intersection Summary

HCM Average Control Delay	13.9	HCM Level of Service		B	
HCM Volume to Capacity ratio	0.73				
Actuated Cycle Length (s)	130.0	Sum of lost time (s)		8.0	
Intersection Capacity Utilization	68.3%	ICU Level of Service		C	
Analysis Period (min)	15				

c Critical Lane Group

Timings
1: I-25 E. ramp & Rio Bravo Blvd

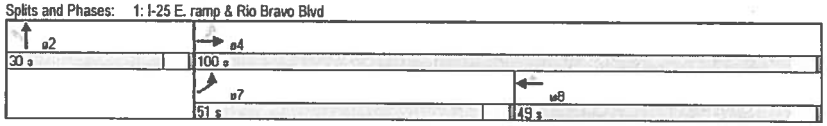
Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Volume (vph)	866	350	453	124	2
Turn Type	pm+pt	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases	4			8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	21.0	21.0	21.0
Total Split (s)	51.0	100.0	49.0	49.0	30.0
Total Split (%)	39.2%	76.9%	37.7%	37.7%	23.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?					
Recall Mode	Min	C-Max	C-Max	C-Max	Min
Act Effct Green (s)	108.0	108.0	86.6	86.6	14.0
Actuated g/C Ratio	0.83	0.83	0.67	0.67	0.11
v/c Ratio	0.65	0.13	0.26	0.15	0.68
Control Delay	4.8	0.4	10.7	2.6	44.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	4.9	0.4	10.7	2.6	44.7
LOS	A	A	B	A	D
Approach Delay		3.6	8.9		44.7
Approach LOS		A	A		D

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 96 (74%), Referenced to phase 4:EBTL and 8:WBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.68
Intersection Signal Delay: 8.5 — Intersection LOS: A
Intersection Capacity Utilization 55.4% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: I-25 E. ramp & Rio Bravo Blvd



HCM Signalized Intersection Capacity Analysis
1: I-25 E. ramp & Rio Bravo Blvd

Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	866	350	0	0	453	124	43	2	93	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0				
Lane Util. Factor	0.97	0.95			0.95	1.00		1.00				
Frt	1.00	1.00			1.00	0.85		0.91				
Flt Protected	0.95	1.00			1.00	1.00		0.98				
Satd. Flow (prot)	3335	3438			3438	1538		1620				
Flt Permitted	0.39	1.00			1.00	1.00		0.98				
Satd. Flow (perm)	1360	3438			3438	1538		1620				
Peak-hour factor, PHF	0.96	0.96	0.96	0.77	0.77	0.77	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	902	365	0	0	588	161	51	2	109	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	51	0	63	0	0	0	0
Lane Group Flow (vph)	902	365	0	0	588	110	0	99	0	0	0	0
Turn Type	pm+pt	NA			NA	Perm	Perm	NA				
Protected Phases	7	4			8			2				
Permitted Phases	4					8	2					
Actuated Green, G (s)	107.0	107.0			86.6	86.6		13.0				
Effective Green, g (s)	108.0	108.0			86.6	86.6		14.0				
Actuated g/C Ratio	0.83	0.83			0.67	0.67		0.11				
Clearance Time (s)	5.0	5.0			5.0	5.0		5.0				
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0				
Lane Grp Cap (vph)	1394	2856			2290	1025		174				
v/s Ratio Prot	c0.09	0.11			0.17							
v/s Ratio Perm	c0.45					0.07		0.06				
v/c Ratio	0.65	0.13			0.26	0.11		0.57				
Uniform Delay, d1	3.3	2.1			8.7	7.8		55.1				
Progression Factor	0.88	0.13			1.00	1.00		1.00				
Incremental Delay, d2	1.0	0.1			0.3	0.2		4.2				
Delay (s)	3.9	0.4			9.0	8.0		59.3				
Level of Service	A	A			A	A		E				
Approach Delay (s)		2.9			8.8			59.3			0.0	
Approach LOS		A			A			E			A	

Intersection Summary

HCM Average Control Delay	9.1	HCM Level of Service		A		
HCM Volume to Capacity ratio	0.63					
Actuated Cycle Length (s)	130.0	Sum of lost time (s)		8.0		
Intersection Capacity Utilization	55.4%	ICU Level of Service		B		
Analysis Period (min)	15					

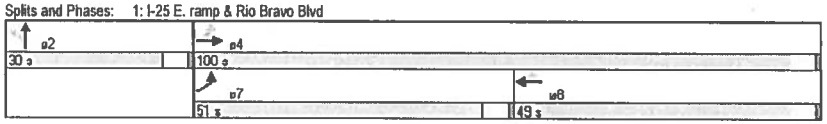
c Critical Lane Group

Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Volume (vph)	879	361	466	124	2
Turn Type	pm+pt	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases	4			8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	21.0	21.0	21.0
Total Split (s)	51.0	100.0	49.0	49.0	30.0
Total Split (%)	39.2%	76.9%	37.7%	37.7%	23.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?					
Recall Mode	Min	C-Max	C-Max	C-Max	Min
Act Effct Green (s)	107.5	107.5	84.8	84.8	14.5
Actuated g/C Ratio	0.83	0.83	0.65	0.65	0.11
v/c Ratio	0.66	0.13	0.27	0.15	0.69
Control Delay	5.0	0.4	11.6	3.0	46.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	5.1	0.4	11.6	3.0	46.6
LOS	A	A	B	A	D
Approach Delay		3.7	9.8		46.6
Approach LOS		A	A		D

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 96 (74%), Referenced to phase 4:EBTL and 8:WBT, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.69
Intersection Signal Delay: 9.0 — Intersection LOS: A
Intersection Capacity Utilization 56.3% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: I-25 E. ramp & Rio Bravo Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	879	361	0	0	466	124	46	2	93	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0				
Lane Util. Factor	0.97	0.95			0.95	1.00		1.00				
Frt	1.00	1.00			1.00	0.85		0.91				
Flt Protected	0.95	1.00			1.00	1.00		0.98				
Satd. Flow (prot)	3335	3438			3438	1538		1622				
Flt Permitted	0.38	1.00			1.00	1.00		0.98				
Satd. Flow (perm)	1323	3438			3438	1538		1622				
Peak-hour factor, PHF	0.96	0.96	0.96	0.77	0.77	0.77	0.85	0.85	0.85	0.85	0.85	0.85
Adj. Flow (vph)	916	376	0	0	605	161	54	2	109	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	52	0	60	0	0	0	0
Lane Group Flow (vph)	916	376	0	0	605	109	0	105	0	0	0	0
Turn Type	pm+pt	NA			NA	Perm	Perm	NA				
Protected Phases	7	4			8			2				
Permitted Phases	4					8	2					
Actuated Green, G (s)	106.5	106.5			83.8	83.8		13.5				
Effective Green, g (s)	107.5	107.5			84.8	84.8		14.5				
Actuated g/C Ratio	0.83	0.83			0.65	0.65		0.11				
Clearance Time (s)	5.0	5.0			5.0	5.0		5.0				
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0				
Lane Grp Cap (vph)	1383	2843			2243	1003		181				
v/s Ratio Prot	c0.10	0.11			0.18							
v/s Ratio Perm	c0.45					0.07		0.07				
v/c Ratio	0.66	0.13			0.27	0.11		0.58				
Uniform Delay, d1	3.6	2.2			9.5	8.5		54.9				
Progression Factor	0.85	0.12			1.00	1.00		1.00				
Incremental Delay, d2	1.2	0.1			0.3	0.2		4.7				
Delay (s)	4.2	0.4			9.8	8.7		59.6				
Level of Service	A	A			A	A		E				
Approach Delay (s)		3.1			9.6			59.6			0.0	
Approach LOS		A			A			E			A	

Intersection Summary

HCM Average Control Delay	9.5	HCM Level of Service	A	
HCM Volume to Capacity ratio	0.65			
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	8.0	
Intersection Capacity Utilization	56.3%	ICU Level of Service	B	
Analysis Period (min)	15			

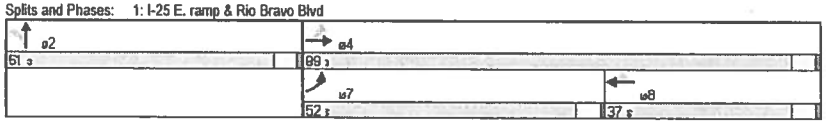
c Critical Lane Group

Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Volume (vph)	1454	755	800	78	4
Turn Type	pm+pt	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases	4			8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	21.0	21.0	21.0
Total Split (s)	52.0	89.0	37.0	37.0	51.0
Total Split (%)	37.1%	63.6%	26.4%	26.4%	36.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?					
Recall Mode	Min	C-Max	C-Max	C-Max	Min
Act Effct Green (s)	85.0	85.0	33.0	33.0	47.0
Actuated g/C Ratio	0.61	0.61	0.24	0.24	0.34
v/c Ratio	1.27	0.39	1.07	0.21	1.26
Control Delay	158.5	6.2	103.4	23.9	158.9
Queue Delay	5.5	0.4	0.0	0.0	0.0
Total Delay	164.0	6.6	103.4	23.9	158.9
LOS	F	A	F	C	F
Approach Delay		110.2	96.3		158.9
Approach LOS		F	F		F

Intersection Summary

Cycle Length: 140
Actuated Cycle Length: 140
Offset: 24 (17%), Referenced to phase 4:EBTL and 8:WBT, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.27
Intersection Signal Delay: 116.6 — Intersection LOS: F
Intersection Capacity Utilization 119.4% — ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 1: I-25 E. ramp & Rio Bravo Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1454	755	0	0	800	78	131	4	622	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0				
Lane Util. Factor	0.97	0.95			0.95	1.00		1.00				
Frt	1.00	1.00			1.00	0.85		0.89				
Flt Protected	0.95	1.00			1.00	1.00		0.99				
Satd. Flow (prot)	3335	3438			3438	1538		1595				
Flt Permitted	0.11	1.00			1.00	1.00		0.99				
Satd. Flow (perm)	380	3438			3438	1538		1595				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1580	821	0	0	870	85	142	4	676	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	34	0	119	0	0	0	0
Lane Group Flow (vph)	1580	821	0	0	870	51	0	703	0	0	0	0
Turn Type	pm+pt	NA			NA	Perm	Perm	NA				
Protected Phases	7	4			8			2				
Permitted Phases	4					8	2					
Actuated Green, G (s)	84.0	84.0			32.0	32.0		46.0				
Effective Green, g (s)	85.0	85.0			33.0	33.0		47.0				
Actuated g/C Ratio	0.61	0.61			0.24	0.24		0.34				
Clearance Time (s)	5.0	5.0			5.0	5.0		5.0				
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0				
Lane Grp Cap (vph)	1244	2087			810	363		535				
v/s Ratio Prot	c0.44	0.24			0.25							
v/s Ratio Perm	c0.34					0.03		0.44				
v/c Ratio	1.27	0.39			1.07	0.14		1.31				
Uniform Delay, d1	39.5	14.2			53.5	42.3		46.5				
Progression Factor	0.96	0.41			1.00	1.00		1.00				
Incremental Delay, d2	125.7	0.4			53.4	0.8		154.3				
Delay (s)	163.7	6.2			106.9	43.1		200.8				
Level of Service	F	A			F	D		F				
Approach Delay (s)		109.8			101.3			200.8			0.0	
Approach LOS		F			F			F			A	

Intersection Summary

HCM Average Control Delay	125.8	HCM Level of Service	F	
HCM Volume to Capacity ratio	1.27			
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	8.0	
Intersection Capacity Utilization	119.4%	ICU Level of Service	H	
Analysis Period (min)	15			

c Critical Lane Group

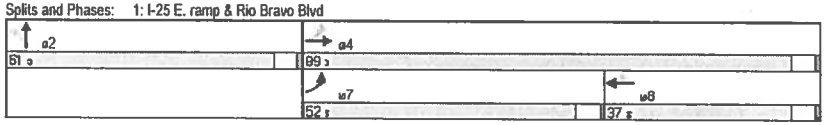
Timings
1: I-25 E. ramp & Rio Bravo Blvd

Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Volume (vph)	1464	764	815	78	4
Turn Type	pm+pt	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases	4			8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	21.0	21.0	21.0
Total Split (s)	52.0	89.0	37.0	37.0	51.0
Total Split (%)	37.1%	63.6%	26.4%	26.4%	36.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?					
Recall Mode	Min	C-Max	C-Max	C-Max	Min
Act Effct Green (s)	85.0	85.0	33.0	33.0	47.0
Actuated g/C Ratio	0.61	0.61	0.24	0.24	0.34
v/c Ratio	1.28	0.40	1.09	0.22	1.27
Control Delay	162.1	6.3	109.6	24.3	164.0
Queue Delay	5.6	0.4	0.0	0.0	0.0
Total Delay	167.7	6.7	109.6	24.3	164.0
LOS	F	A	F	C	F
Approach Delay		112.5	102.1		164.0
Approach LOS		F	F		F

Intersection Summary
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 24 (17%), Referenced to phase 4:EBTL and 8:WBT, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.28
Intersection Signal Delay: 120.2 Intersection LOS: F
Intersection Capacity Utilization 120.3% ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 1: I-25 E. ramp & Rio Bravo Blvd



HCM Signalized Intersection Capacity Analysis
1: I-25 E. ramp & Rio Bravo Blvd

Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1464	764	0	0	815	78	134	4	622	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0				
Lane Util. Factor	0.97	0.95			0.95	1.00		1.00				
Frt	1.00	1.00			1.00	0.85		0.89				
Flt Protected	0.95	1.00			1.00	1.00		0.99				
Satd. Flow (prot)	3335	3438			3438	1538		1595				
Flt Permitted	0.11	1.00			1.00	1.00		0.99				
Satd. Flow (perm)	380	3438			3438	1538		1595				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1591	830	0	0	886	85	146	4	676	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	33	0	116	0	0	0	0
Lane Group Flow (vph)	1591	830	0	0	886	52	0	710	0	0	0	0
Turn Type	pm+pt	NA			NA	Perm	Perm	NA				
Protected Phases	7	4			8			2				
Permitted Phases	4					8	2					
Actuated Green, G (s)	84.0	84.0			32.0	32.0		46.0				
Effective Green, g (s)	85.0	85.0			33.0	33.0		47.0				
Actuated g/C Ratio	0.61	0.61			0.24	0.24		0.34				
Clearance Time (s)	5.0	5.0			5.0	5.0		5.0				
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0				
Lane Grp Cap (vph)	1244	2087			810	363		535				
v/s Ratio Prot	c0.44	0.24			0.26							
v/s Ratio Perm	c0.34					0.03		0.45				
v/c Ratio	1.28	0.40			1.09	0.14		1.33				
Uniform Delay, d1	39.5	14.2			53.5	42.3		46.5				
Progression Factor	0.96	0.41			1.00	1.00		1.00				
Incremental Delay, d2	129.5	0.4			60.3	0.8		160.1				
Delay (s)	167.3	6.2			113.8	43.2		206.6				
Level of Service	F	A			F	D		F				
Approach Delay (s)		112.1			107.7			206.6			0.0	
Approach LOS		F			F			F			A	

Intersection Summary

HCM Average Control Delay	129.6	HCM Level of Service	F	
HCM Volume to Capacity ratio	1.28			
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	8.0	
Intersection Capacity Utilization	120.3%	ICU Level of Service	H	
Analysis Period (min)	15			

c Critical Lane Group

Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Volume (vph)	1219	493	1186	341	7
Turn Type	pm+pt	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases	4			8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	21.0	21.0	21.0
Total Split (s)	48.0	101.0	53.0	53.0	39.0
Total Split (%)	34.3%	72.1%	37.9%	37.9%	27.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?					
Recall Mode	Min	C-Max	C-Max	C-Max	Min
Act Effct Green (s)	97.0	97.0	49.0	49.0	35.0
Actuated g/C Ratio	0.69	0.69	0.35	0.35	0.25
v/c Ratio	1.15	0.23	1.07	0.58	1.12
Control Delay	113.9	3.5	90.6	25.3	120.0
Queue Delay	0.0	0.2	0.0	0.0	0.0
Total Delay	113.9	3.7	90.6	25.3	120.0
LOS	F	A	F	C	F
Approach Delay		82.1	76.0		120.0
Approach LOS		F	E		F

Intersection Summary

Cycle Length: 140
Actuated Cycle Length: 140
Offset: 14 (10%), Referenced to phase 4:EBTL and 8:WBT, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.15
Intersection Signal Delay: 84.4 — Intersection LOS: F
Intersection Capacity Utilization 98.6% — ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 1: I-25 E. ramp & Rio Bravo Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1219	493	0	0	1186	341	146	7	318	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0				
Lane Util. Factor	0.97	0.95			0.95	1.00		1.00				
Frt	1.00	1.00			1.00	0.85		0.91				
Flt Protected	0.95	1.00			1.00	1.00		0.98				
Satd. Flow (prot)	3335	3438			3438	1538		1620				
Flt Permitted	0.08	1.00			1.00	1.00		0.98				
Satd. Flow (perm)	265	3438			3438	1538		1620				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1325	536	0	0	1289	371	159	8	346	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	99	0	53	0	0	0	0
Lane Group Flow (vph)	1325	536	0	0	1289	272	0	460	0	0	0	0
Turn Type	pm+pt	NA			NA	Perm	Perm	NA				
Protected Phases	7	4			8			2				
Permitted Phases	4					8	2					
Actuated Green, G (s)	96.0	96.0			48.0	48.0		34.0				
Effective Green, g (s)	97.0	97.0			49.0	49.0		35.0				
Actuated g/C Ratio	0.69	0.69			0.35	0.35		0.25				
Clearance Time (s)	5.0	5.0			5.0	5.0		5.0				
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0				
Lane Grp Cap (vph)	1148	2382			1203	538		405				
v/s Ratio Prot	c0.36	0.16			0.37							
v/s Ratio Perm	c0.44					0.18		0.28				
v/c Ratio	1.15	0.23			1.07	0.51		1.14				
Uniform Delay, d1	42.1	7.8			45.5	35.9		52.5				
Progression Factor	0.93	0.42			1.00	1.00		1.00				
Incremental Delay, d2	79.0	0.2			47.4	3.4		86.9				
Delay (s)	118.2	3.5			92.9	39.3		139.4				
Level of Service	F	A			F	D		F				
Approach Delay (s)		85.1			80.9			139.4			0.0	
Approach LOS		F			F			F			A	

Intersection Summary

HCM Average Control Delay	90.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.14		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	98.6%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Timings
1: I-25 E. ramp & Rio Bravo Blvd

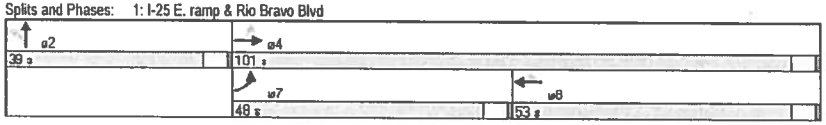
Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Lane Group	EBL	EBT	WBT	WBR	NBT
Lane Configurations					
Volume (vph)	1232	504	1206	341	7
Turn Type	pm+pt	NA	NA	Perm	NA
Protected Phases	7	4	8		2
Permitted Phases	4			8	
Detector Phase	7	4	8	8	2
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	21.0	21.0	21.0
Total Split (s)	48.0	101.0	53.0	53.0	39.0
Total Split (%)	34.3%	72.1%	37.9%	37.9%	27.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag	Lag	
Lead-Lag Optimize?					
Recall Mode	Min	C-Max	C-Max	C-Max	Min
Act Effct Green (s)	97.0	97.0	49.0	49.0	35.0
Actuated g/C Ratio	0.69	0.69	0.35	0.35	0.25
v/c Ratio	1.17	0.23	1.09	0.58	1.13
Control Delay	118.2	3.4	96.7	25.7	122.3
Queue Delay	0.0	0.2	0.0	0.0	0.0
Total Delay	118.2	3.6	96.7	25.7	122.3
LOS	F	A	F	C	F
Approach Delay		84.9	81.0		122.3
Approach LOS		F	F		F

Intersection Summary

Cycle Length: 140
Actuated Cycle Length: 140
Offset: 14 (10%), Referenced to phase 4:EBTL and 8:WBT, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.17
Intersection Signal Delay: 88.0 Intersection LOS: F
Intersection Capacity Utilization 99.8% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 1: I-25 E. ramp & Rio Bravo Blvd



HCM Signalized Intersection Capacity Analysis
1: I-25 E. ramp & Rio Bravo Blvd

Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1232	504	0	0	1206	341	149	7	318	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0				
Lane Util. Factor	0.97	0.95			0.95	1.00		1.00				
Frt	1.00	1.00			1.00	0.85		0.91				
Flt Protected	0.95	1.00			1.00	1.00		0.98				
Satd. Flow (prot)	3335	3438			3438	1538		1620				
Flt Permitted	0.08	1.00			1.00	1.00		0.98				
Satd. Flow (perm)	265	3438			3438	1538		1620				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1339	548	0	0	1311	371	162	8	346	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	97	0	53	0	0	0	0
Lane Group Flow (vph)	1339	548	0	0	1311	274	0	464	0	0	0	0
Turn Type	pm+pt	NA			NA	Perm	Perm	NA				
Protected Phases	7	4			8			2				
Permitted Phases	4					8	2					
Actuated Green, G (s)	96.0	96.0			48.0	48.0		34.0				
Effective Green, g (s)	97.0	97.0			49.0	49.0		35.0				
Actuated g/C Ratio	0.69	0.69			0.35	0.35		0.25				
Clearance Time (s)	5.0	5.0			5.0	5.0		5.0				
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0				
Lane Grp Cap (vph)	1148	2382			1203	538		405				
v/s Ratio Prot	c0.37	0.16			0.38							
v/s Ratio Perm	c0.44					0.18		0.29				
v/c Ratio	1.17	0.23			1.09	0.51		1.14				
Uniform Delay, d1	42.1	7.9			45.5	36.0		52.5				
Progression Factor	0.91	0.41			1.00	1.00		1.00				
Incremental Delay, d2	84.0	0.2			54.0	3.4		90.3				
Delay (s)	122.5	3.4			99.5	39.4		142.8				
Level of Service	F	A			F	D		F				
Approach Delay (s)		87.9			86.2			142.8			0.0	
Approach LOS		F			F			F			A	

Intersection Summary

HCM Average Control Delay	94.2	HCM Level of Service	F
HCM Volume to Capacity ratio	1.15		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	99.8%	ICU Level of Service	F
Analysis Period (min)	15		

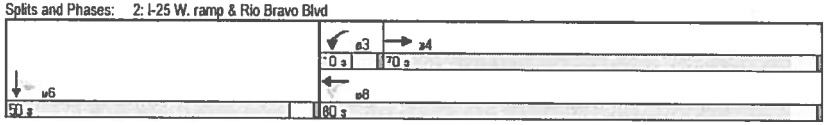
c Critical Lane Group

Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations					
Volume (vph)	1697	19	149	71	815
Turn Type	NA	pm+pt	NA	NA	Free
Protected Phases	4	3	8	6	
Permitted Phases		8			Free
Detector Phase	4	3	8	6	
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	
Minimum Split (s)	21.0	10.0	21.0	21.0	
Total Split (s)	70.0	10.0	80.0	50.0	
Total Split (%)	53.8%	7.7%	61.5%	38.5%	
Yellow Time (s)	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?					
Recall Mode	C-Max	Min	C-Max	Min	
Act Effct Green (s)	75.3	86.1	86.1	35.9	130.0
Actuated g/C Ratio	0.58	0.66	0.66	0.28	1.00
v/c Ratio	0.66	0.15	0.08	0.82	0.57
Control Delay	7.6	25.9	16.3	57.4	1.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	7.6	25.9	16.3	57.4	1.5
LOS	A	C	B	E	A
Approach Delay	7.6		17.3	18.8	
Approach LOS	A		B	B	

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 6 (5%), Referenced to phase 4:EBT and 8:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 12.5 — Intersection LOS: B
Intersection Capacity Utilization 67.6% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: I-25 W. ramp & Rio Bravo Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1697	8	19	149	0	0	0	0	294	71	815
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0						4.0	3.0
Lane Util. Factor		0.91		1.00	0.95						1.00	1.00
Frt		1.00		1.00	1.00						1.00	0.85
Flt Protected		1.00		0.95	1.00						0.96	1.00
Satd. Flow (prot)		4936		1719	3438						1739	1538
Flt Permitted		1.00		0.06	1.00						0.96	1.00
Satd. Flow (perm)		4936		113	3438						1739	1538
Peak-hour factor, PHF	0.91	0.91	0.91	0.78	0.78	0.78	0.85	0.85	0.85	0.93	0.93	0.93
Adj. Flow (vph)	0	1865	9	24	191	0	0	0	0	316	76	876
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1874	0	24	191	0	0	0	0	0	392	876
Turn Type		NA		pm+pt	NA					Perm	NA	Free
Protected Phases		4		3	8						6	
Permitted Phases				8						6		Free
Actuated Green, G (s)		74.3		85.1	85.1						34.9	130.0
Effective Green, g (s)		75.3		86.1	86.1						35.9	130.0
Actuated g/C Ratio		0.58		0.66	0.66						0.28	1.00
Clearance Time (s)		5.0		5.0	5.0						5.0	
Vehicle Extension (s)		3.0		3.0	3.0						3.0	
Lane Grp Cap (vph)		2859		159	2277						480	1538
v/s Ratio Prot		c0.38		0.01	0.06							
v/s Ratio Perm				0.09							0.23	c0.57
v/c Ratio		0.66		0.15	0.08						0.82	0.57
Uniform Delay, d1		18.5		12.5	7.8						44.0	0.0
Progression Factor		0.36		2.49	1.81						1.00	1.00
Incremental Delay, d2		0.4		0.4	0.1						10.3	1.5
Delay (s)		7.1		31.6	14.3						54.3	1.5
Level of Service		A		C	B						D	A
Approach Delay (s)		7.1			16.2			0.0			17.9	
Approach LOS		A			B			A			B	

Intersection Summary

HCM Average Control Delay	11.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	67.6%	ICU Level of Service	C
Analysis Period (min)	15		

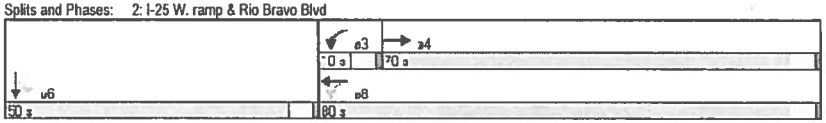
c Critical Lane Group

Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations					
Volume (vph)	1715	19	162	71	835
Turn Type	NA	pm+pt	NA	NA	Free
Protected Phases	4	3	8	6	
Permitted Phases		8			Free
Detector Phase	4	3	8	6	
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	
Minimum Split (s)	21.0	10.0	21.0	21.0	
Total Split (s)	70.0	10.0	80.0	50.0	
Total Split (%)	53.8%	7.7%	61.5%	38.5%	
Yellow Time (s)	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?					
Recall Mode	C-Max	Min	C-Max	Min	
Act Effct Green (s)	75.3	86.1	86.1	35.9	130.0
Actuated g/C Ratio	0.58	0.66	0.66	0.28	1.00
v/c Ratio	0.66	0.15	0.09	0.82	0.58
Control Delay	8.5	25.4	17.7	57.4	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	8.5	25.4	17.7	57.4	1.6
LOS	A	C	B	E	A
Approach Delay	8.5		18.5	18.6	
Approach LOS	A		B	B	

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 6 (5%), Referenced to phase 4:EBT and 8:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 13.0 — Intersection LOS: B
Intersection Capacity Utilization 68.3% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 2: I-25 W. ramp & Rio Bravo Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1715	8	19	162	0	0	0	0	294	71	835
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0						4.0	3.0
Lane Util. Factor		0.91		1.00	0.95						1.00	1.00
Frt		1.00		1.00	1.00						1.00	0.85
Flt Protected		1.00		0.95	1.00						0.96	1.00
Satd. Flow (prot)		4936		1719	3438						1739	1538
Flt Permitted		1.00		0.06	1.00						0.96	1.00
Satd. Flow (perm)		4936		109	3438						1739	1538
Peak-hour factor, PHF	0.91	0.91	0.91	0.78	0.78	0.78	0.85	0.85	0.85	0.93	0.93	0.93
Adj. Flow (vph)	0	1885	9	24	208	0	0	0	0	316	76	898
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1894	0	24	208	0	0	0	0	0	392	898
Turn Type		NA		pm+pt	NA					Perm	NA	Free
Protected Phases		4		3	8						6	
Permitted Phases				8						6		Free
Actuated Green, G (s)		74.3		85.1	85.1						34.9	130.0
Effective Green, g (s)		75.3		86.1	86.1						35.9	130.0
Actuated g/C Ratio		0.58		0.66	0.66						0.28	1.00
Clearance Time (s)		5.0		5.0	5.0						5.0	
Vehicle Extension (s)		3.0		3.0	3.0						3.0	
Lane Grp Cap (vph)		2859		156	2277						480	1538
v/s Ratio Prot		c0.38		0.01	0.06							
v/s Ratio Perm				0.09							0.23	c0.58
v/c Ratio		0.66		0.15	0.09						0.82	0.58
Uniform Delay, d1		18.7		12.7	7.9						44.0	0.0
Progression Factor		0.40		2.44	1.97						1.00	1.00
Incremental Delay, d2		0.5		0.4	0.1						10.3	1.6
Delay (s)		8.0		31.4	15.6						54.3	1.6
Level of Service		A		C	B						D	A
Approach Delay (s)		8.0			17.3			0.0			17.6	
Approach LOS		A			B			A			B	

Intersection Summary

HCM Average Control Delay	12.3	HCM Level of Service		B	
HCM Volume to Capacity ratio	0.70				
Actuated Cycle Length (s)	130.0	Sum of lost time (s)		8.0	
Intersection Capacity Utilization	68.3%	ICU Level of Service		C	
Analysis Period (min)	15				

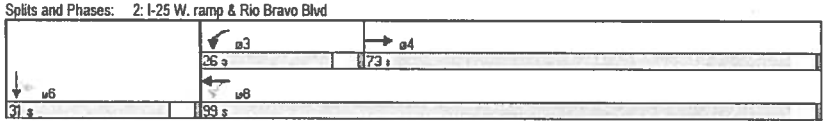
c Critical Lane Group

Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations					
Volume (vph)	1122	95	345	30	1246
Turn Type	NA	pm+pt	NA	NA	Free
Protected Phases	4	3	8	6	
Permitted Phases		8			Free
Detector Phase	4	3	8	6	
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	
Minimum Split (s)	21.0	10.0	21.0	21.0	
Total Split (s)	73.0	26.0	99.0	31.0	
Total Split (%)	56.2%	20.0%	76.2%	23.8%	
Yellow Time (s)	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?					
Recall Mode	C-Max	Min	C-Max	Min	
Act Effct Green (s)	96.5	108.7	108.7	13.3	130.0
Actuated g/C Ratio	0.74	0.84	0.84	0.10	1.00
v/c Ratio	0.33	0.31	0.15	0.53	0.92
Control Delay	3.9	9.6	2.2	65.1	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	3.9	9.6	2.2	65.1	11.6
LOS	A	A	A	E	B
Approach Delay	3.9		3.8	14.9	
Approach LOS	A		A	B	

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 52 (40%), Referenced to phase 4:EBT and 8:WBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.92
Intersection Signal Delay: 9.0 — Intersection LOS: A
Intersection Capacity Utilization 55.4% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 2: I-25 W. ramp & Rio Bravo Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1122	24	95	345	0	0	0	0	53	30	1246
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0						4.0	3.0
Lane Util. Factor		0.91		1.00	0.95						1.00	1.00
Frt		1.00		1.00	1.00						1.00	0.85
Flt Protected		1.00		0.95	1.00						0.97	1.00
Satd. Flow (prot)		4925		1719	3438						1754	1538
Flt Permitted		1.00		0.20	1.00						0.97	1.00
Satd. Flow (perm)		4925		357	3438						1754	1638
Peak-hour factor, PHF	0.95	0.95	0.95	0.79	0.79	0.79	0.85	0.85	0.85	0.88	0.88	0.88
Adj. Flow (vph)	0	1181	25	120	437	0	0	0	0	60	34	1416
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1205	0	120	437	0	0	0	0	0	94	1416
Turn Type		NA		pm+pt	NA					Perm	NA	Free
Protected Phases		4		3	8						6	
Permitted Phases				8						6		Free
Actuated Green, G (s)		95.5		107.7	107.7						12.3	130.0
Effective Green, g (s)		96.5		108.7	108.7						13.3	130.0
Actuated g/C Ratio		0.74		0.84	0.84						0.10	1.00
Clearance Time (s)		5.0		5.0	5.0						5.0	
Vehicle Extension (s)		3.0		3.0	3.0						3.0	
Lane Grp Cap (vph)		3656		384	2875						179	1538
v/s Ratio Prot		0.24		0.02	0.13							
v/s Ratio Perm				0.24							0.05	c0.92
v/c Ratio		0.33		0.31	0.15						0.53	0.92
Uniform Delay, d1		5.7		2.5	2.0						55.4	0.0
Progression Factor		0.61		3.39	0.95						1.00	1.00
Incremental Delay, d2		0.1		0.5	0.1						2.8	10.5
Delay (s)		3.6		9.0	2.0						58.1	10.5
Level of Service		A		A	A						E	B
Approach Delay (s)		3.6			3.5			0.0			13.5	
Approach LOS		A			A			A			B	

Intersection Summary

HCM Average Control Delay	8.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	55.4%	ICU Level of Service	B
Analysis Period (min)	15		

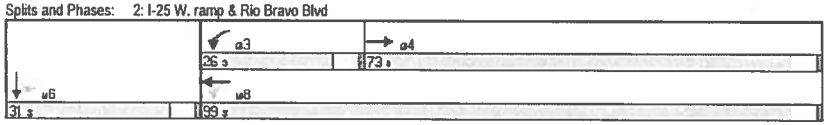
c Critical Lane Group

Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations					
Volume (vph)	1146	95	361	30	1273
Turn Type	NA	pm+pt	NA	NA	Free
Protected Phases	4	3	8	6	
Permitted Phases		8			Free
Detector Phase	4	3	8	6	
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	
Minimum Split (s)	21.0	10.0	21.0	21.0	
Total Split (s)	73.0	26.0	99.0	31.0	
Total Split (%)	56.2%	20.0%	76.2%	23.8%	
Yellow Time (s)	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?					
Recall Mode	C-Max	Min	C-Max	Min	
Act Effct Green (s)	96.5	108.7	108.7	13.3	130.0
Actuated g/C Ratio	0.74	0.84	0.84	0.10	1.00
v/c Ratio	0.34	0.32	0.16	0.53	0.94
Control Delay	4.1	10.3	2.2	65.1	14.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	4.1	10.3	2.2	65.1	14.1
LOS	A	B	A	E	B
Approach Delay	4.1		3.9	17.2	
Approach LOS	A		A	B	

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 52 (40%), Referenced to phase 4:EBT and 8:WBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 10.1 — Intersection LOS: B
Intersection Capacity Utilization 56.3% — ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 2: I-25 W. ramp & Rio Bravo Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1146	24	95	361	0	0	0	0	53	30	1273
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0						4.0	3.0
Lane Util. Factor		0.91		1.00	0.95						1.00	1.00
Frt		1.00		1.00	1.00						1.00	0.85
Flt Protected		1.00		0.95	1.00						0.97	1.00
Satd. Flow (prot)		4925		1719	3438						1754	1538
Flt Permitted		1.00		0.19	1.00						0.97	1.00
Satd. Flow (perm)		4925		346	3438						1754	1538
Peak-hour factor, PHF	0.95	0.95	0.95	0.79	0.79	0.79	0.85	0.85	0.85	0.88	0.88	0.88
Adj. Flow (vph)	0	1206	25	120	457	0	0	0	0	60	34	1447
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1230	0	120	457	0	0	0	0	0	94	1447
Turn Type		NA		pm+pt	NA					Perm	NA	Free
Protected Phases		4		3	8						6	
Permitted Phases				8						6		Free
Actuated Green, G (s)		95.5		107.7	107.7						12.3	130.0
Effective Green, g (s)		96.5		108.7	108.7						13.3	130.0
Actuated g/C Ratio		0.74		0.84	0.84						0.10	1.00
Clearance Time (s)		5.0		5.0	5.0						5.0	
Vehicle Extension (s)		3.0		3.0	3.0						3.0	
Lane Grp Cap (vph)		3656		376	2875						179	1538
v/s Ratio Prot		0.25		0.02	0.13							
v/s Ratio Perm				0.25							0.05	c0.94
v/c Ratio		0.34		0.32	0.16						0.53	0.94
Uniform Delay, d1		5.8		2.6	2.0						55.4	0.0
Progression Factor		0.65		3.69	0.94						1.00	1.00
Incremental Delay, d2		0.1		0.5	0.1						2.8	12.6
Delay (s)		3.9		10.0	2.0						58.1	12.6
Level of Service		A		A	A						E	B
Approach Delay (s)		3.9			3.7			0.0			15.4	
Approach LOS		A			A			A			B	

Intersection Summary

HCM Average Control Delay	9.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	56.3%	ICU Level of Service	B
Analysis Period (min)	15		

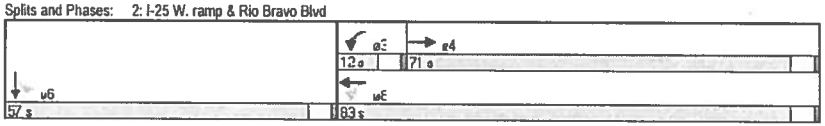
c Critical Lane Group

Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations					
Volume (vph)	1855	60	456	71	981
Turn Type	NA	pm+pt	NA	NA	Free
Protected Phases	4	3	8	6	
Permitted Phases		8			Free
Detector Phase	4	3	8	6	
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	
Minimum Split (s)	21.0	10.0	21.0	21.0	
Total Split (s)	71.0	12.0	83.0	57.0	
Total Split (%)	50.7%	8.6%	59.3%	40.7%	
Yellow Time (s)	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?					
Recall Mode	C-Max	Min	C-Max	Min	
Act Effct Green (s)	75.4	87.5	87.5	44.5	140.0
Actuated g/C Ratio	0.54	0.62	0.62	0.32	1.00
v/c Ratio	0.76	0.43	0.23	0.86	0.69
Control Delay	12.7	44.4	25.4	59.6	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	12.7	44.4	25.4	59.6	2.6
LOS	B	D	C	E	A
Approach Delay	12.7		27.6	20.1	
Approach LOS	B		C	C	

Intersection Summary

Cycle Length: 140
Actuated Cycle Length: 140
Offset: 122 (87%), Referenced to phase 4:EBT and 8:WBTL, Start of Green
Natural Cycle: 70
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.86
Intersection Signal Delay: 17.5 Intersection LOS: B
Intersection Capacity Utilization 119.4% ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 2: I-25 W. ramp & Rio Bravo Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1855	9	60	456	0	0	0	0	363	71	981
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0						4.0	3.0
Lane Util. Factor		0.91		1.00	0.95						1.00	1.00
Frt		1.00		1.00	1.00						1.00	0.85
Flt Protected		1.00		0.95	1.00						0.96	1.00
Satd. Flow (prot)		4936		1719	3438						1737	1538
Flt Permitted		1.00		0.05	1.00						0.96	1.00
Satd. Flow (perm)		4936		91	3438						1737	1538
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	2016	10	65	496	0	0	0	0	395	77	1066
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	2026	0	65	496	0	0	0	0	0	472	1066
Turn Type		NA		pm+pt	NA					Perm	NA	Free
Protected Phases		4		3	8						6	
Permitted Phases				8						6		Free
Actuated Green, G (s)		74.4		86.5	86.5						43.5	140.0
Effective Green, g (s)		75.4		87.5	87.5						44.5	140.0
Actuated g/C Ratio		0.54		0.62	0.62						0.32	1.00
Clearance Time (s)		5.0		5.0	5.0						5.0	
Vehicle Extension (s)		3.0		3.0	3.0						3.0	
Lane Grp Cap (vph)		2658		151	2149						552	1538
v/s Ratio Prot		c0.41		0.02	0.14							
v/s Ratio Perm				0.24							0.27	c0.69
v/c Ratio		0.76		0.43	0.23						0.86	0.69
Uniform Delay, d1		25.3		20.8	11.5						44.7	0.0
Progression Factor		0.47		2.68	2.03						1.00	1.00
Incremental Delay, d2		0.2		0.2	0.0						12.3	2.6
Delay (s)		12.0		56.0	23.4						57.0	2.6
Level of Service		B		E	C						E	A
Approach Delay (s)		12.0			27.2			0.0			19.3	
Approach LOS		B			C			A			B	

Intersection Summary

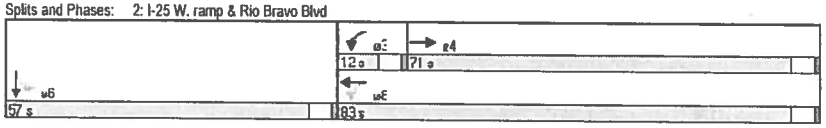
HCM Average Control Delay	16.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	119.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations					
Volume (vph)	1873	60	474	71	1004
Turn Type	NA	pm+pt	NA	NA	Free
Protected Phases	4	3	8	6	
Permitted Phases		8			Free
Detector Phase	4	3	8	6	
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	
Minimum Split (s)	21.0	10.0	21.0	21.0	
Total Split (s)	71.0	12.0	83.0	57.0	
Total Split (%)	50.7%	8.6%	59.3%	40.7%	
Yellow Time (s)	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?					
Recall Mode	C-Max	Min	C-Max	Min	
Act Effct Green (s)	75.4	87.5	87.5	44.5	140.0
Actuated g/C Ratio	0.54	0.62	0.62	0.32	1.00
v/c Ratio	0.77	0.43	0.24	0.86	0.71
Control Delay	13.5	44.0	25.6	59.6	2.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	13.5	44.0	25.6	59.6	2.8
LOS	B	D	C	E	A
Approach Delay	13.5		27.6	20.0	
Approach LOS	B		C	B	

Intersection Summary			
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 122 (87%), Referenced to phase 4:EBT and 8:WBTL, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.86			
Intersection Signal Delay: 17.9		Intersection LOS: B	
Intersection Capacity Utilization 120.3%		ICU Level of Service H	
Analysis Period (min) 15			

Splits and Phases: 2: I-25 W. ramp & Rio Bravo Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1873	9	60	474	0	0	0	0	363	71	1004
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0						4.0	3.0
Lane Util. Factor		0.91		1.00	0.95						1.00	1.00
Frt		1.00		1.00	1.00						1.00	0.85
Flt Protected		1.00		0.95	1.00						0.96	1.00
Satd. Flow (prot)		4936		1719	3438						1737	1538
Flt Permitted		1.00		0.05	1.00						0.96	1.00
Satd. Flow (perm)		4936		91	3438						1737	1538
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	2036	10	65	515	0	0	0	0	395	77	1091
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	2046	0	65	515	0	0	0	0	0	472	1091
Turn Type		NA		pm+pt	NA					Perm	NA	Free
Protected Phases		4		3	8						6	
Permitted Phases				8						6		Free
Actuated Green, G (s)		74.4		86.5	86.5						43.5	140.0
Effective Green, g (s)		75.4		87.5	87.5						44.5	140.0
Actuated g/C Ratio		0.54		0.62	0.62						0.32	1.00
Clearance Time (s)		5.0		5.0	5.0						5.0	
Vehicle Extension (s)		3.0		3.0	3.0						3.0	
Lane Grp Cap (vph)		2658		151	2149						552	1538
v/s Ratio Prot		c0.41		0.02	0.15							
v/s Ratio Perm				0.24							0.27	c0.71
v/c Ratio		0.77		0.43	0.24						0.86	0.71
Uniform Delay, d1		25.5		21.1	11.6						44.7	0.0
Progression Factor		0.49		2.66	2.04						1.00	1.00
Incremental Delay, d2		0.2		0.2	0.0						12.3	2.8
Delay (s)		12.7		56.2	23.6						57.0	2.8
Level of Service		B		E	C						E	A
Approach Delay (s)		12.7			27.3			0.0			19.2	
Approach LOS		B			C			A			B	

Intersection Summary					
HCM Average Control Delay	17.1	HCM Level of Service		B	
HCM Volume to Capacity ratio	0.79				
Actuated Cycle Length (s)	140.0	Sum of lost time (s)		8.0	
Intersection Capacity Utilization	120.3%	ICU Level of Service		H	
Analysis Period (min)	15				
c Critical Lane Group					

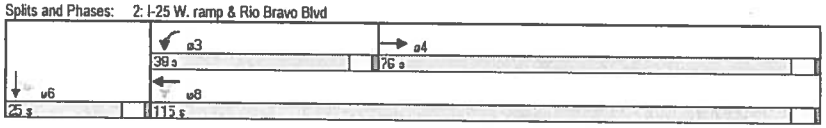
Timings
2: I-25 W. ramp & Rio Bravo Blvd

Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations					
Volume (vph)	1404	227	882	30	1505
Turn Type	NA	pm+pt	NA	NA	Free
Protected Phases	4	3	8	6	
Permitted Phases		8			Free
Detector Phase	4	3	8	6	
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	
Minimum Split (s)	21.0	10.0	21.0	21.0	
Total Split (s)	76.0	39.0	115.0	25.0	
Total Split (%)	54.3%	27.9%	82.1%	17.9%	
Yellow Time (s)	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?					
Recall Mode	C-Max	Min	C-Max	Min	
Act Effct Green (s)	96.7	117.4	117.4	14.6	140.0
Actuated g/C Ratio	0.69	0.84	0.84	0.10	1.00
v/c Ratio	0.46	0.68	0.33	0.57	1.06
Control Delay	9.5	26.4	7.3	71.2	46.6
Queue Delay	0.0	0.5	1.2	0.9	0.0
Total Delay	9.5	26.9	8.5	72.1	46.6
LOS	A	C	A	E	D
Approach Delay	9.5		12.3	48.1	
Approach LOS	A		B	D	

Intersection Summary
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 122 (87%), Referenced to phase 4:EBT and 8:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.06
Intersection Signal Delay: 25.2 Intersection LOS: C
Intersection Capacity Utilization 98.6% ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 2: I-25 W. ramp & Rio Bravo Blvd



HCM Signalized Intersection Capacity Analysis
2: I-25 W. ramp & Rio Bravo Blvd

Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1404	31	227	882	0	0	0	0	65	30	1505
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0						4.0	3.0
Lane Util. Factor		0.91		1.00	0.95						1.00	1.00
Frt		1.00		1.00	1.00						1.00	0.85
Flt Protected		1.00		0.95	1.00						0.97	1.00
Satd. Flow (prot)		4924		1719	3438						1750	1538
Flt Permitted		1.00		0.12	1.00						0.97	1.00
Satd. Flow (perm)		4924		220	3438						1750	1538
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1526	34	247	959	0	0	0	0	71	33	1636
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1559	0	247	959	0	0	0	0	0	104	1636
Turn Type		NA		pm+pt	NA					Perm	NA	Free
Protected Phases		4		3	8						6	
Permitted Phases				8						6		Free
Actuated Green, G (s)		95.7		116.4	116.4						13.6	140.0
Effective Green, g (s)		96.7		117.4	117.4						14.6	140.0
Actuated g/C Ratio		0.69		0.84	0.84						0.10	1.00
Clearance Time (s)		5.0		5.0	5.0						5.0	
Vehicle Extension (s)		3.0		3.0	3.0						3.0	
Lane Grp Cap (vph)		3401		363	2883						183	1538
v/s Ratio Prot		0.32		0.08	0.28							
v/s Ratio Perm				0.49							0.06	c1.06
v/c Ratio		0.46		0.68	0.33						0.57	1.06
Uniform Delay, d1		9.8		14.7	2.5						59.7	70.0
Progression Factor		0.86		2.15	2.63						1.00	1.00
Incremental Delay, d2		0.0		0.5	0.0						4.0	42.0
Delay (s)		8.4		32.1	6.7						63.7	112.0
Level of Service		A		C	A						E	F
Approach Delay (s)		8.4			11.9			0.0			109.1	
Approach LOS		A			B			A			F	

Intersection Summary

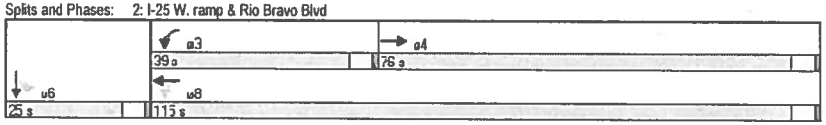
HCM Average Control Delay	48.2	HCM Level of Service		D	
HCM Volume to Capacity ratio	1.06				
Actuated Cycle Length (s)	140.0	Sum of lost time (s)		0.0	
Intersection Capacity Utilization	98.6%	ICU Level of Service		F	
Analysis Period (min)	15				
c Critical Lane Group					

Lane Group	EBT	WBL	WBT	SBT	SBR
Lane Configurations					
Volume (vph)	1428	227	905	30	1535
Turn Type	NA	pm+pt	NA	NA	Free
Protected Phases	4	3	8	6	
Permitted Phases		8			Free
Detector Phase	4	3	8	6	
Switch Phase					
Minimum Initial (s)	5.0	5.0	5.0	5.0	
Minimum Split (s)	21.0	10.0	21.0	21.0	
Total Split (s)	76.0	39.0	115.0	25.0	
Total Split (%)	54.3%	27.9%	82.1%	17.9%	
Yellow Time (s)	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	
Lead/Lag	Lag	Lead			
Lead-Lag Optimize?					
Recall Mode	C-Max	Min	C-Max	Min	
Act Effct Green (s)	96.4	117.4	117.4	14.6	140.0
Actuated g/C Ratio	0.69	0.84	0.84	0.10	1.00
v/c Ratio	0.47	0.68	0.34	0.57	1.08
Control Delay	9.8	26.7	7.4	71.2	54.8
Queue Delay	0.0	0.4	1.3	1.0	0.0
Total Delay	9.8	27.2	8.7	72.2	54.8
LOS	A	C	A	E	D
Approach Delay	9.8		12.4	55.8	
Approach LOS	A		B	E	

Intersection Summary

Cycle Length: 140
Actuated Cycle Length: 140
Offset: 122 (87%), Referenced to phase 4:EBT and 8:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.08
Intersection Signal Delay: 28.3 — Intersection LOS: C
Intersection Capacity Utilization 99.8% — ICU Level of Service F
Analysis Period (min) 15

Splits and Phases: 2: I-25 W. ramp & Rio Bravo Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1428	31	227	905	0	0	0	0	65	30	1535
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0						4.0	3.0
Lane Util. Factor		0.91		1.00	0.95						1.00	1.00
Frt		1.00		1.00	1.00						1.00	0.85
Flt Protected		1.00		0.95	1.00						0.97	1.00
Satd. Flow (prot)		4924		1719	3438						1750	1538
Flt Permitted		1.00		0.12	1.00						0.97	1.00
Satd. Flow (perm)		4924		212	3438						1750	1538
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1552	34	247	984	0	0	0	0	71	33	1668
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1585	0	247	984	0	0	0	0	0	104	1668
Turn Type		NA		pm+pt	NA					Perm	NA	Free
Protected Phases		4		3	8						6	
Permitted Phases				8						6		Free
Actuated Green, G (s)		95.4		116.4	116.4						13.6	140.0
Effective Green, g (s)		96.4		117.4	117.4						14.6	140.0
Actuated g/C Ratio		0.69		0.84	0.84						0.10	1.00
Clearance Time (s)		5.0		5.0	5.0						5.0	
Vehicle Extension (s)		3.0		3.0	3.0						3.0	
Lane Grp Cap (vph)		3391		361	2883						183	1538
v/s Ratio Prot		0.32		0.08	0.29							
v/s Ratio Perm				0.49							0.06	c1.08
v/c Ratio		0.47		0.68	0.34						0.57	1.08
Uniform Delay, d1		10.0		16.4	2.6						59.7	70.0
Progression Factor		0.86		1.99	2.64						1.00	1.00
Incremental Delay, d2		0.0		0.5	0.0						4.0	49.6
Delay (s)		8.7		33.1	6.8						63.7	119.6
Level of Service		A		C	A						E	F
Approach Delay (s)		8.7			12.1			0.0			116.3	
Approach LOS		A			B			A			F	

Intersection Summary

HCM Average Control Delay	51.1	HCM Level of Service	D		
HCM Volume to Capacity ratio	1.08				
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	0.0		
Intersection Capacity Utilization	99.8%	ICU Level of Service	F		
Analysis Period (min)	15				

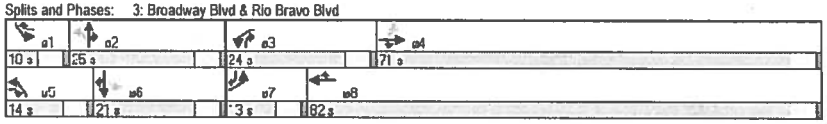
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	157	1538	382	397	623	29	212	310	340	31	145	72
Turn Type	pm+pt	NA	pt+ov	Prot	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4	4 5	3	8	8 1	5	2	2 3	1	6	6 7
Permitted Phases	4						2			6		
Detector Phase	7	4	4 5	3	8	8 1	5	2	2 3	1	6	6 7
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	21.0		10.0	21.0		10.0	21.0		10.0	21.0	
Total Split (s)	13.0	71.0		24.0	82.0		14.0	25.0		10.0	21.0	
Total Split (%)	10.0%	54.6%		18.5%	63.1%		10.8%	19.2%		7.7%	16.2%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Recall Mode	Min	C-Max		Min	C-Max		Min	Min		Min	Min	
Act Effct Green (s)	75.9	67.0	81.0	20.0	78.1	88.1	31.0	21.0	45.0	23.0	17.0	29.9
Actuated g/C Ratio	0.58	0.52	0.62	0.15	0.60	0.68	0.24	0.16	0.35	0.18	0.13	0.23
v/c Ratio	0.39	0.98	0.43	0.99	0.39	0.03	1.00	0.68	0.78	0.25	0.45	0.23
Control Delay	2.9	17.9	4.5	90.5	15.0	3.3	105.4	58.6	50.1	43.2	55.9	9.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.9	17.9	4.5	90.5	15.0	3.3	105.4	58.6	50.1	43.2	55.9	9.1
LOS	A	B	A	F	B	A	F	E	D	D	E	A
Approach Delay		14.3			43.2			66.8			40.7	
Approach LOS		B			D			E			D	

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 82 (63%), Referenced to phase 4:EBTL and 8:WBT, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.00
Intersection Signal Delay: 34.6 — Intersection LOS: C
Intersection Capacity Utilization 83.1% — ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 3: Broadway Blvd & Rio Bravo Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	157	1538	382	397	623	29	212	310	340	31	145	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1641	3282	1468	3183	3282	1468	1641	3282	1468	1641	3282	1468
Flt Permitted	0.36	1.00	1.00	0.95	1.00	1.00	0.43	1.00	1.00	0.38	1.00	1.00
Satd. Flow (perm)	628	3282	1468	3183	3282	1468	738	3282	1468	664	3282	1468
Peak-hour factor, PHF	0.93	0.93	0.93	0.82	0.82	0.82	0.86	0.86	0.86	0.75	0.75	0.75
Adj. Flow (vph)	169	1654	411	484	760	35	247	360	395	41	193	96
RTOR Reduction (vph)	0	0	34	0	0	11	0	0	0	0	0	74
Lane Group Flow (vph)	169	1654	377	484	760	24	247	360	396	41	193	22
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Turn Type	pm+pt	NA	pt+ov	Prot	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4	4 5	3	8	8 1	5	2	2 3	1	6	6 7
Permitted Phases	4						2			6		
Actuated Green, G (s)	73.9	66.0	80.0	19.0	77.1	87.1	29.0	20.0	44.0	21.0	16.0	28.9
Effective Green, g (s)	75.9	67.0	81.0	20.0	78.1	88.1	31.0	21.0	45.0	23.0	17.0	29.9
Actuated g/C Ratio	0.58	0.52	0.62	0.15	0.60	0.68	0.24	0.16	0.35	0.18	0.13	0.23
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	436	1691	915	490	1972	995	245	530	508	163	429	338
v/s Ratio Prot	0.03	c0.50	0.26	c0.15	0.23	0.02	c0.08	0.11	0.27	0.01	0.06	0.02
v/s Ratio Perm	0.20						c0.16			0.03		
v/c Ratio	0.39	0.98	0.41	0.99	0.39	0.02	1.01	0.68	0.78	0.25	0.45	0.07
Uniform Delay, d1	12.5	30.8	12.4	54.9	13.5	6.9	48.1	51.3	38.0	45.3	52.2	39.1
Progression Factor	0.34	0.43	0.45	0.99	1.06	1.50	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1	3.2	0.0	35.7	0.5	0.0	59.6	3.5	7.4	0.8	0.8	0.1
Delay (s)	4.4	16.5	5.6	89.9	14.8	10.3	107.7	54.8	45.4	46.1	52.9	39.2
Level of Service	A	B	A	F	B	B	F	D	D	D	D	D
Approach Delay (s)		13.5			43.1			64.1			48.1	
Approach LOS		B			D			E			D	

Intersection Summary

HCM Average Control Delay	34.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	83.1%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Timings
3: Broadway Blvd & Rio Bravo Blvd

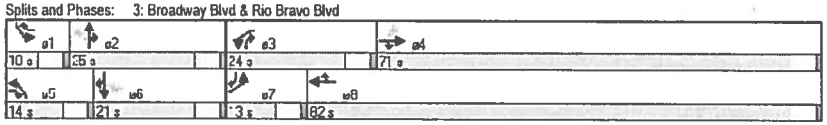
Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	163	1538	382	397	651	34	215	311	340	54	149	78
Turn Type	pm+pt	NA	pt+ov	Prot	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4	4 5	3	8	8 1	5	2	2 3	1	6	6 7
Permitted Phases	4						2			6		
Detector Phase	7	4	4 5	3	8	8 1	5	2	2 3	1	6	6 7
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	21.0		10.0	21.0		10.0	21.0		10.0	21.0	
Total Split (s)	13.0	71.0		24.0	82.0		14.0	25.0		10.0	21.0	
Total Split (%)	10.0%	54.6%		18.5%	63.1%		10.8%	19.2%		7.7%	16.2%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Recall Mode	Min	C-Max		Min	C-Max		Min	Min		Min	Min	
Act Effct Green (s)	75.9	67.0	81.0	20.0	78.1	88.1	31.0	21.0	45.0	23.0	17.0	29.9
Actuated g/C Ratio	0.58	0.52	0.62	0.15	0.60	0.68	0.24	0.16	0.35	0.18	0.13	0.23
v/c Ratio	0.41	0.98	0.43	0.99	0.40	0.04	1.03	0.68	0.78	0.44	0.46	0.25
Control Delay	4.0	26.1	4.9	90.2	15.6	3.5	111.4	58.7	50.1	49.8	56.2	8.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.0	26.1	4.9	90.2	15.6	3.5	111.4	58.7	50.1	49.8	56.2	8.9
LOS	A	C	A	F	B	A	F	E	D	D	E	A
Approach Delay		20.5			42.6			68.4			41.9	
Approach LOS		C			D			E			D	

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 82 (63%), Referenced to phase 4:EBTL and 8:WBT, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.03
Intersection Signal Delay: 37.8 — Intersection LOS: D
Intersection Capacity Utilization 83.3% — ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 3: Broadway Blvd & Rio Bravo Blvd



HCM Signalized Intersection Capacity Analysis
3: Broadway Blvd & Rio Bravo Blvd

Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	163	1538	382	397	651	34	215	311	340	54	149	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1641	3282	1468	3183	3282	1468	1641	3282	1468	1641	3282	1468
Flt Permitted	0.35	1.00	1.00	0.95	1.00	1.00	0.42	1.00	1.00	0.38	1.00	1.00
Satd. Flow (perm)	602	3282	1468	3183	3282	1468	723	3282	1468	658	3282	1468
Peak-hour factor, PHF	0.93	0.93	0.93	0.82	0.82	0.82	0.86	0.86	0.86	0.75	0.75	0.75
Adj. Flow (vph)	175	1654	411	484	794	41	250	362	395	72	199	104
RTOR Reduction (vph)	0	0	32	0	0	13	0	0	0	0	0	80
Lane Group Flow (vph)	175	1654	379	484	794	28	250	362	395	72	199	24
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Turn Type	pm+pt	NA	pt+ov	Prot	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4	4 5	3	8	8 1	5	2	2 3	1	6	6 7
Permitted Phases	4						2			6		
Actuated Green, G (s)	73.9	66.0	80.0	19.0	77.1	87.1	29.0	20.0	44.0	21.0	16.0	28.9
Effective Green, g (s)	75.9	67.0	81.0	20.0	78.1	88.1	31.0	21.0	45.0	23.0	17.0	29.9
Actuated g/C Ratio	0.58	0.52	0.62	0.15	0.60	0.68	0.24	0.16	0.35	0.18	0.13	0.23
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	423	1691	915	490	1972	995	243	530	508	162	429	338
v/s Ratio Prot	0.03	c0.50	0.26	c0.15	0.24	0.02	c0.08	0.11	0.27	0.02	0.06	0.02
v/s Ratio Perm	0.21						c0.17			0.06		
v/c Ratio	0.41	0.98	0.41	0.99	0.40	0.03	1.03	0.68	0.78	0.44	0.46	0.07
Uniform Delay, d1	12.6	30.8	12.4	54.9	13.7	6.9	48.1	51.4	38.0	46.2	52.3	39.2
Progression Factor	0.31	0.44	0.42	0.98	1.08	1.66	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.3	11.1	0.2	35.6	0.6	0.0	65.4	3.6	7.4	1.9	0.8	0.1
Delay (s)	4.3	24.7	5.4	89.7	15.4	11.4	113.5	55.0	45.4	48.1	53.1	39.3
Level of Service	A	C	A	F	B	B	F	D	D	D	D	D
Approach Delay (s)		19.6			42.5			65.8			48.3	
Approach LOS		B			D			E			D	

Intersection Summary

HCM Average Control Delay	37.3	HCM Level of Service		D	
HCM Volume to Capacity ratio	0.99				
Actuated Cycle Length (s)	130.0	Sum of lost time (s)		12.0	
Intersection Capacity Utilization	83.3%	ICU Level of Service		E	
Analysis Period (min)	15				

c Critical Lane Group

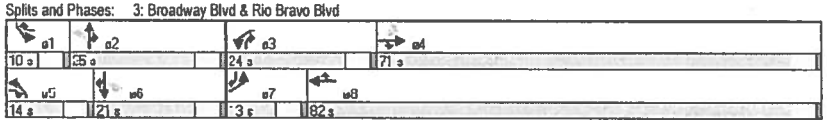
Timings
3: Broadway Blvd & Rio Bravo Blvd

Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	163	1538	382	397	651	34	215	311	340	54	149	78
Turn Type	pm+pt	NA	pt+ov	Prot	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4	4 5	3	8	8 1	5	2	2 3	1	6	6 7
Permitted Phases	4						2			6		
Detector Phase	7	4	4 5	3	8	8 1	5	2	2 3	1	6	6 7
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	21.0		10.0	21.0		10.0	21.0		10.0	21.0	
Total Split (s)	13.0	71.0		24.0	82.0		14.0	25.0		10.0	21.0	
Total Split (%)	10.0%	54.6%		18.5%	63.1%		10.8%	19.2%		7.7%	16.2%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Recall Mode	Min	C-Max		Min	C-Max		Min	Min		Min	Min	
Act Effct Green (s)	75.9	67.0	81.0	20.0	78.1	88.1	31.0	21.0	45.0	23.0	17.0	29.9
Actuated g/C Ratio	0.58	0.52	0.62	0.15	0.60	0.68	0.24	0.16	0.35	0.18	0.13	0.23
v/c Ratio	0.41	0.98	0.43	0.99	0.40	0.04	1.03	0.68	0.78	0.44	0.46	0.15
Control Delay	4.0	26.1	4.9	90.2	15.6	3.5	111.4	58.7	50.1	49.8	56.2	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.0	26.1	4.9	90.2	15.6	3.5	111.4	58.7	50.1	49.8	56.2	7.8
LOS	A	C	A	F	B	A	F	E	D	D	E	A
Approach Delay		20.5			42.6			68.4			41.6	
Approach LOS		C			D			E			D	

Intersection Summary
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 82 (63%), Referenced to phase 4:EBTL and 8:WBT, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.03
Intersection Signal Delay: 37.8 Intersection LOS: D
Intersection Capacity Utilization 83.3% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 3: Broadway Blvd & Rio Bravo Blvd



HCM Signalized Intersection Capacity Analysis
3: Broadway Blvd & Rio Bravo Blvd

Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	163	1538	382	397	651	34	215	311	340	54	149	78
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.88
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1641	3282	1468	3183	3282	1468	1641	3282	1468	1641	3282	2584
Flt Permitted	0.35	1.00	1.00	0.95	1.00	1.00	0.42	1.00	1.00	0.38	1.00	1.00
Satd. Flow (perm)	602	3282	1468	3183	3282	1468	723	3282	1468	658	3282	2584
Peak-hour factor, PHF	0.93	0.93	0.93	0.82	0.82	0.82	0.86	0.86	0.86	0.75	0.75	0.75
Adj. Flow (vph)	175	1654	411	484	794	41	250	362	395	72	199	104
RTOR Reduction (vph)	0	0	32	0	0	13	0	0	0	0	0	80
Lane Group Flow (vph)	175	1654	379	484	794	28	250	362	395	72	199	24
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Turn Type	pm+pt	NA	pt+ov	Prot	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4	4 5	3	8	8 1	5	2	2 3	1	6	6 7
Permitted Phases	4						2			6		
Actuated Green, G (s)	73.9	66.0	80.0	19.0	77.1	87.1	29.0	20.0	44.0	21.0	16.0	28.9
Effective Green, g (s)	75.9	67.0	81.0	20.0	78.1	88.1	31.0	21.0	45.0	23.0	17.0	29.9
Actuated g/C Ratio	0.58	0.52	0.62	0.15	0.60	0.68	0.24	0.16	0.35	0.18	0.13	0.23
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	423	1691	915	490	1972	995	243	530	508	162	429	594
v/s Ratio Prot	0.03	c0.50	0.26	c0.15	0.24	0.02	c0.08	0.11	0.27	0.02	0.06	0.01
v/s Ratio Perm	0.21						c0.17			0.06		
v/c Ratio	0.41	0.98	0.41	0.99	0.40	0.03	1.03	0.68	0.78	0.44	0.46	0.04
Uniform Delay, d1	12.6	30.8	12.4	54.9	13.7	6.9	48.1	51.4	38.0	46.2	52.3	38.9
Progression Factor	0.31	0.44	0.42	0.98	1.08	1.66	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.3	11.1	0.2	35.6	0.6	0.0	65.4	3.6	7.4	1.9	0.8	0.0
Delay (s)	4.3	24.7	5.4	89.7	15.4	11.4	113.5	55.0	45.4	48.1	53.1	38.9
Level of Service	A	C	A	F	B	B	F	D	D	D	D	D
Approach Delay (s)		19.6			42.5			65.8			48.2	
Approach LOS		B			D			E			D	

Intersection Summary

HCM Average Control Delay	37.3	HCM Level of Service		D	
HCM Volume to Capacity ratio	0.99				
Actuated Cycle Length (s)	130.0	Sum of lost time (s)		12.0	
Intersection Capacity Utilization	83.3%	ICU Level of Service		E	
Analysis Period (min)	15				

c Critical Lane Group

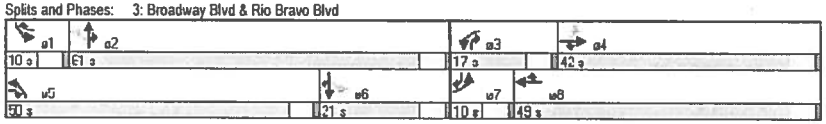
Timings
3: Broadway Blvd & Rio Bravo Blvd

Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	108	815	399	283	1247	24	710	306	530	33	381	296
Turn Type	pm+pt	NA	pt+ov	Prot	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4	45	3	8	81	5	2	23	1	6	67
Permitted Phases	4						2			6		
Detector Phase	7	4	45	3	8	81	5	2	23	1	6	67
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	21.0		10.0	21.0		10.0	21.0		10.0	21.0	
Total Split (s)	10.0	42.0		17.0	49.0		50.0	61.0		10.0	21.0	
Total Split (%)	7.7%	32.3%		13.1%	37.7%		38.5%	46.9%		7.7%	16.2%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Recall Mode	Min	C-Max		Min	C-Max		Min	Min		Min	Min	
Act Effct Green (s)	44.0	38.0	88.0	13.0	45.0	55.0	67.0	57.0	74.0	23.0	17.0	27.0
Actuated g/C Ratio	0.34	0.29	0.68	0.10	0.35	0.42	0.52	0.44	0.57	0.18	0.13	0.21
v/c Ratio	0.92	0.93	0.44	0.97	1.19	0.04	1.32	0.25	0.75	0.19	1.02	1.03
Control Delay	89.1	43.5	8.0	95.1	129.0	9.8	184.2	23.6	27.9	25.9	104.0	102.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	89.1	43.5	8.0	95.1	129.0	9.8	184.2	23.6	27.9	25.9	104.0	102.1
LOS	F	D	A	F	F	A	F	C	C	C	F	F
Approach Delay		36.5			121.0			98.8			99.6	
Approach LOS		D			F			F			F	

Intersection Summary
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 114 (88%), Referenced to phase 4:EBTL and 8:WBT, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.32
Intersection Signal Delay: 89.7 Intersection LOS: F
Intersection Capacity Utilization 103.7% ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 3: Broadway Blvd & Rio Bravo Blvd



HCM Signalized Intersection Capacity Analysis
3: Broadway Blvd & Rio Bravo Blvd

Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	108	815	399	283	1247	24	710	306	530	33	381	296
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1641	3282	1468	3183	3282	1468	1641	3282	1468	1641	3282	1468
Flt Permitted	0.11	1.00	1.00	0.95	1.00	1.00	0.19	1.00	1.00	0.54	1.00	1.00
Satd. Flow (perm)	182	3282	1468	3183	3282	1468	329	3282	1468	927	3282	1468
Peak-hour factor, PHF	0.91	0.91	0.91	0.92	0.92	0.92	0.85	0.85	0.85	0.87	0.87	0.87
Adj. Flow (vph)	119	896	438	308	1355	26	835	360	624	38	438	340
RTOR Reduction (vph)	0	0	4	0	0	11	0	0	0	0	0	26
Lane Group Flow (vph)	119	896	434	308	1355	15	835	360	624	38	438	314
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Turn Type	pm+pt	NA	pt+ov	Prot	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4	45	3	8	81	5	2	23	1	6	67
Permitted Phases	4						2			6		
Actuated Green, G (s)	42.0	37.0	87.0	12.0	44.0	54.0	66.0	56.0	73.0	21.0	16.0	26.0
Effective Green, g (s)	44.0	38.0	88.0	13.0	45.0	55.0	67.0	57.0	74.0	23.0	17.0	27.0
Actuated g/C Ratio	0.34	0.29	0.68	0.10	0.35	0.42	0.52	0.44	0.57	0.18	0.13	0.21
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	129	959	994	318	1136	621	634	1439	836	197	429	305
v/s Ratio Prot	0.04	0.27	0.30	0.10	c0.41	0.01	c0.47	0.11	0.43	0.01	0.13	c0.21
v/s Ratio Perm	0.27						c0.21			0.03		
v/c Ratio	0.92	0.93	0.44	0.97	1.19	0.02	1.32	0.25	0.75	0.19	1.02	1.03
Uniform Delay, d1	38.0	44.8	9.6	58.3	42.5	21.9	34.6	23.0	21.0	45.1	56.5	51.5
Progression Factor	1.05	0.59	0.70	1.06	0.94	0.88	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	53.0	16.0	0.3	32.4	92.8	0.0	153.6	0.1	3.7	0.5	48.9	59.2
Delay (s)	93.0	42.5	7.0	94.4	132.8	19.2	188.2	23.1	24.6	45.6	105.4	110.7
Level of Service	F	D	A	F	F	B	F	C	C	D	F	F
Approach Delay (s)		36.0			124.0			99.4			104.8	
Approach LOS		D			F			F			F	

Intersection Summary

HCM Average Control Delay	91.4	HCM Level of Service		F	
HCM Volume to Capacity ratio	1.22				
Actuated Cycle Length (s)	130.0	Sum of lost time (s)		8.0	
Intersection Capacity Utilization	103.7%	ICU Level of Service		G	
Analysis Period (min)	15				

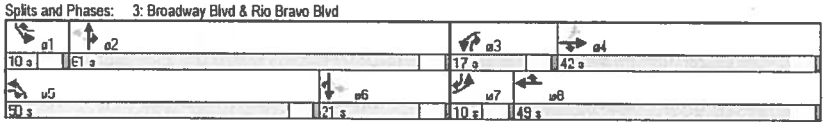
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	116	815	399	283	1284	30	714	307	530	64	387	304
Turn Type	pm+pt	NA	pt+ov	Prot	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4	4 5	3	8	8 1	5	2	2 3	1	6	6 7
Permitted Phases	4						2			6		
Detector Phase	7	4	4 5	3	8	8 1	5	2	2 3	1	6	6 7
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	21.0		10.0	21.0		10.0	21.0		10.0	21.0	
Total Split (s)	10.0	42.0		17.0	49.0		50.0	61.0		10.0	21.0	
Total Split (%)	7.7%	32.3%		13.1%	37.7%		38.5%	46.9%		7.7%	16.2%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Recall Mode	Min	C-Max		Min	C-Max		Min	Min		Min	Min	
Act Effct Green (s)	44.0	38.0	88.0	13.0	45.0	55.0	67.0	57.0	74.0	23.0	17.0	27.0
Actuated g/C Ratio	0.34	0.29	0.68	0.10	0.35	0.42	0.52	0.44	0.57	0.18	0.13	0.21
v/c Ratio	0.98	0.93	0.44	0.97	1.23	0.05	1.32	0.25	0.75	0.38	1.04	1.06
Control Delay	105.1	43.5	8.1	94.5	144.0	9.3	187.4	23.6	27.9	29.9	107.8	110.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	105.1	43.5	8.1	94.5	144.0	9.3	187.4	23.6	27.9	29.9	107.8	110.2
LOS	F	D	A	F	F	A	F	C	C	C	F	F
Approach Delay		38.3			132.6			100.5			102.1	
Approach LOS		D			F			F			F	

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 114 (88%), Referenced to phase 4:EBTL and 8:WBT, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.32
Intersection Signal Delay: 94.8 — Intersection LOS: F
Intersection Capacity Utilization 105.5% — ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 3: Broadway Blvd & Rio Bravo Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	116	815	399	283	1284	30	714	307	530	64	387	304
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1641	3282	1468	3183	3282	1468	1641	3282	1468	1641	3282	1468
Flt Permitted	0.11	1.00	1.00	0.95	1.00	1.00	0.19	1.00	1.00	0.54	1.00	1.00
Satd. Flow (perm)	182	3282	1468	3183	3282	1468	329	3282	1468	926	3282	1468
Peak-hour factor, PHF	0.91	0.91	0.91	0.92	0.92	0.92	0.85	0.85	0.85	0.87	0.87	0.87
Adj. Flow (vph)	127	896	438	308	1396	33	840	361	624	74	445	349
RTOR Reduction (vph)	0	0	4	0	0	14	0	0	0	0	0	25
Lane Group Flow (vph)	127	896	434	308	1396	19	840	361	624	74	445	324
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Turn Type	pm+pt	NA	pt+ov	Prot	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4	4 5	3	8	8 1	5	2	2 3	1	6	6 7
Permitted Phases	4						2			6		
Actuated Green, G (s)	42.0	37.0	87.0	12.0	44.0	54.0	66.0	56.0	73.0	21.0	16.0	26.0
Effective Green, g (s)	44.0	38.0	88.0	13.0	45.0	55.0	67.0	57.0	74.0	23.0	17.0	27.0
Actuated g/C Ratio	0.34	0.29	0.68	0.10	0.35	0.42	0.52	0.44	0.57	0.18	0.13	0.21
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	129	959	994	318	1136	621	634	1439	836	197	429	305
v/s Ratio Prot	0.05	0.27	0.30	0.10	c0.43	0.01	c0.47	0.11	0.43	0.02	0.14	c0.22
v/s Ratio Perm	0.29						c0.21			0.05		
v/c Ratio	0.98	0.93	0.44	0.97	1.23	0.03	1.32	0.25	0.75	0.38	1.04	1.06
Uniform Delay, d1	39.7	44.8	9.6	56.3	42.5	21.9	34.6	23.0	21.0	46.1	56.5	51.5
Progression Factor	1.08	0.59	0.71	1.06	0.95	0.86	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	70.9	16.0	0.3	31.9	108.2	0.0	157.0	0.1	3.7	1.2	53.4	68.6
Delay (s)	113.8	42.5	7.2	93.8	148.6	19.0	191.6	23.1	24.6	47.3	109.9	120.1
Level of Service	F	D	A	F	F	B	F	C	C	D	F	F
Approach Delay (s)		38.1			136.4			101.2			108.7	
Approach LOS		D			F			F			F	

Intersection Summary

HCM Average Control Delay	97.0	HCM Level of Service		F	
HCM Volume to Capacity ratio	1.24				
Actuated Cycle Length (s)	130.0	Sum of lost time (s)		8.0	
Intersection Capacity Utilization	105.5%	ICU Level of Service		G	
Analysis Period (min)	15				

c Critical Lane Group

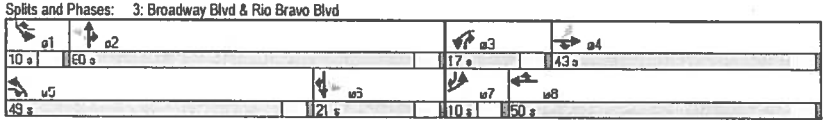
Timings
3: Broadway Blvd & Rio Bravo Blvd

Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	116	815	399	283	1284	30	714	307	530	64	387	304
Turn Type	pm+pt	NA	pt+ov	Prot	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4	45	3	8	81	5	2	23	1	6	67
Permitted Phases	4						2			6		
Detector Phase	7	4	45	3	8	81	5	2	23	1	6	67
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	21.0		10.0	21.0		10.0	21.0		10.0	21.0	
Total Split (s)	10.0	43.0		17.0	50.0		49.0	60.0		10.0	21.0	
Total Split (%)	7.7%	33.1%		13.1%	38.5%		37.7%	46.2%		7.7%	16.2%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0		-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?												
Recall Mode	Min	C-Max		Min	C-Max		Min	Min		Min	Min	
Act Effct Green (s)	45.0	39.0	88.0	13.0	46.0	56.0	66.0	56.0	73.0	23.0	17.0	27.0
Actuated g/C Ratio	0.35	0.30	0.68	0.10	0.35	0.43	0.51	0.43	0.56	0.18	0.13	0.21
v/c Ratio	0.98	0.91	0.44	0.97	1.20	0.05	1.35	0.26	0.76	0.38	1.04	0.60
Control Delay	104.9	40.2	8.1	94.5	132.5	9.0	199.4	24.3	29.2	30.0	107.8	44.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	104.9	40.2	8.1	94.5	132.5	9.0	199.4	24.3	29.2	30.0	107.8	44.3
LOS	F	D	A	F	F	A	F	C	C	C	F	D
Approach Delay		36.2			123.4			106.5			75.6	
Approach LOS		D			F			F			E	

Intersection Summary
Cycle Length: 130
Actuated Cycle Length: 130
Offset: 114 (88%), Referenced to phase 4:EBTL and 8:WBT, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.35
Intersection Signal Delay: 89.5 Intersection LOS: F
Intersection Capacity Utilization 105.5% ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 3: Broadway Blvd & Rio Bravo Blvd



HCM Signalized Intersection Capacity Analysis
3: Broadway Blvd & Rio Bravo Blvd

Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	116	815	399	283	1284	30	714	307	530	64	387	304
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.88
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1641	3282	1468	3183	3282	1468	1641	3282	1468	1641	3282	2584
Flt Permitted	0.10	1.00	1.00	0.95	1.00	1.00	0.19	1.00	1.00	0.54	1.00	1.00
Satd. Flow (perm)	177	3282	1468	3183	3282	1468	329	3282	1468	926	3282	2584
Peak-hour factor, PHF	0.91	0.91	0.91	0.92	0.92	0.92	0.85	0.85	0.85	0.87	0.87	0.87
Adj. Flow (vph)	127	896	438	308	1396	33	840	361	624	74	445	349
RTOR Reduction (vph)	0	0	4	0	0	14	0	0	0	0	0	42
Lane Group Flow (vph)	127	896	434	308	1396	19	840	361	624	74	445	307
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Turn Type	pm+pt	NA	pt+ov	Prot	NA	pt+ov	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4	45	3	8	81	5	2	23	1	6	67
Permitted Phases	4						2			6		
Actuated Green, G (s)	43.0	38.0	87.0	12.0	45.0	55.0	65.0	55.0	72.0	21.0	16.0	26.0
Effective Green, g (s)	45.0	39.0	88.0	13.0	46.0	56.0	66.0	56.0	73.0	23.0	17.0	27.0
Actuated g/C Ratio	0.35	0.30	0.68	0.10	0.35	0.43	0.51	0.43	0.56	0.18	0.13	0.21
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	129	985	994	318	1161	632	621	1414	824	197	429	537
v/s Ratio Prot	0.05	0.27	0.30	0.10	c0.43	0.01	c0.47	0.11	c0.43	0.02	0.14	0.12
v/s Ratio Perm	0.30						c0.22			0.05		
v/c Ratio	0.98	0.91	0.44	0.97	1.20	0.03	1.35	0.26	0.76	0.38	1.04	0.57
Uniform Delay, d1	39.1	43.8	9.6	58.3	42.0	21.3	34.9	23.7	21.7	46.1	56.5	46.3
Progression Factor	1.11	0.60	0.71	1.06	0.95	0.86	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	70.9	12.9	0.3	31.9	96.6	0.0	169.1	0.1	4.0	1.2	53.4	1.5
Delay (s)	114.2	39.4	7.2	93.8	136.4	18.4	204.0	23.8	25.8	47.3	109.9	47.8
Level of Service	F	D	A	F	F	B	F	C	C	D	F	D
Approach Delay (s)		36.2			126.6			107.4			79.6	
Approach LOS		D			F			F			E	

Intersection Summary

HCM Average Control Delay	91.3	HCM Level of Service		F	
HCM Volume to Capacity ratio	1.23				
Actuated Cycle Length (s)	130.0	Sum of lost time (s)		8.0	
Intersection Capacity Utilization	105.5%	ICU Level of Service		G	
Analysis Period (min)	15				

c Critical Lane Group

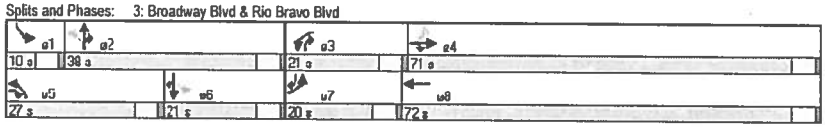
Timings
3: Broadway Blvd & Rio Bravo Blvd

Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Volume (vph)	186	1805	402	481	927	308	591	691	38	188	104
Turn Type	pm+pt	NA	pt+ov	Prot	NA	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4	4 5	3	8	5	2	2 3	1	6	6 7
Permitted Phases	4					2			6		
Detector Phase	7	4	4 5	3	8	5	2	2 3	1	6	6 7
Switch Phase											
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	21.0		10.0	21.0	10.0	21.0		10.0	21.0	
Total Split (s)	20.0	71.0		21.0	72.0	27.0	38.0		10.0	21.0	
Total Split (%)	14.3%	50.7%		15.0%	51.4%	19.3%	27.1%		7.1%	15.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0	-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?											
Recall Mode	Min	C-Max		Min	C-Max	Min	Min		Min	Min	
Act Effct Green (s)	80.5	67.0	94.0	17.0	70.5	44.0	34.0	55.0	23.0	17.0	34.5
Actuated g/C Ratio	0.58	0.48	0.67	0.12	0.50	0.31	0.24	0.39	0.16	0.12	0.25
v/c Ratio	0.60	1.25	0.43	1.35	0.45	0.90	0.81	1.30	0.30	0.51	0.26
Control Delay	9.5	134.7	7.8	217.5	25.3	70.3	58.8	183.8	41.4	62.6	14.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.5	134.7	7.8	217.5	25.3	70.3	58.8	183.8	41.4	62.6	14.2
LOS	A	F	A	F	C	E	E	F	D	E	B
Approach Delay		103.7			89.0		115.4			44.9	
Approach LOS		F			F		F			D	

Intersection Summary
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 68 (49%), Referenced to phase 4:EBTL and 8:WBT, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.35
Intersection Signal Delay: 99.9 Intersection LOS: F
Intersection Capacity Utilization 106.8% ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 3: Broadway Blvd & Rio Bravo Blvd



HCM Signalized Intersection Capacity Analysis
3: Broadway Blvd & Rio Bravo Blvd

Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	186	1805	402	481	927	43	308	591	691	38	188	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	0.97	0.91		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1641	3282	1468	3183	4684		1641	3282	1468	1641	3282	1468
Flt Permitted	0.21	1.00	1.00	0.95	1.00		0.39	1.00	1.00	0.32	1.00	1.00
Satd. Flow (perm)	371	3282	1468	3183	4684		677	3282	1468	560	3282	1468
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	202	1962	437	523	1008	47	335	642	751	41	204	113
RTOR Reduction (vph)	0	0	21	0	3	0	0	0	0	0	0	65
Lane Group Flow (vph)	202	1962	416	523	1052	0	335	642	751	41	204	48
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Turn Type	pm+pt	NA	pt+ov	Prot	NA		pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4	4 5	3	8		5	2	2 3	1	6	6 7
Permitted Phases	4						2			6		
Actuated Green, G (s)	78.5	66.0	93.0	16.0	69.5		43.0	33.0	54.0	21.0	16.0	33.5
Effective Green, g (s)	80.5	67.0	94.0	17.0	70.5		44.0	34.0	55.0	23.0	17.0	34.5
Actuated g/C Ratio	0.58	0.48	0.67	0.12	0.50		0.31	0.24	0.39	0.16	0.12	0.25
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	336	1571	986	387	2359		371	797	577	138	398	362
v/s Ratio Prot	0.06	c0.60	0.28	0.16	c0.22		c0.15	0.20	c0.51	0.01	0.06	0.03
v/s Ratio Perm	0.29						0.14			0.04		
v/c Ratio	0.60	1.25	0.42	1.35	0.45		0.90	0.81	1.30	0.30	0.51	0.13
Uniform Delay, d1	15.3	36.5	10.5	61.5	22.2		42.2	49.9	42.5	50.2	57.8	41.1
Progression Factor	0.57	0.48	0.80	1.00	1.10		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.1	114.0	0.1	172.1	0.5		24.3	6.0	148.0	1.2	1.1	0.2
Delay (s)	9.8	131.4	8.6	233.9	25.0		66.6	55.8	190.5	51.4	58.7	41.3
Level of Service	A	F	A	F	C		E	E	F	D	E	D
Approach Delay (s)		101.3			94.3			116.5			52.4	
Approach LOS		F			F			F			D	

Intersection Summary

HCM Average Control Delay	100.9	HCM Level of Service	F
HCM Volume to Capacity ratio	1.29		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	106.8%	ICU Level of Service	G
Analysis Period (min)	15		

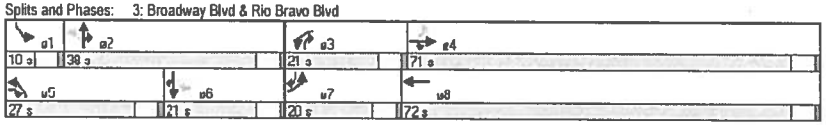
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Volume (vph)	192	1805	402	481	963	311	592	691	61	192	110
Turn Type	pm+pt	NA	pt+ov	Prot	NA	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4	4 5	3	8	5	2	2 3	1	6	6 7
Permitted Phases	4					2			6		
Detector Phase	7	4	4 5	3	8	5	2	2 3	1	6	6 7
Switch Phase											
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	21.0		10.0	21.0	10.0	21.0		10.0	21.0	
Total Split (s)	20.0	71.0		21.0	72.0	27.0	38.0		10.0	21.0	
Total Split (%)	14.3%	50.7%		15.0%	51.4%	19.3%	27.1%		7.1%	15.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0	-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?											
Recall Mode	Min	C-Max		Min	C-Max	Min	Min		Min	Min	
Act Effct Green (s)	80.7	67.0	94.0	17.0	70.3	44.0	34.0	55.0	23.0	17.0	34.7
Actuated g/C Ratio	0.58	0.48	0.67	0.12	0.50	0.31	0.24	0.39	0.16	0.12	0.25
v/c Ratio	0.64	1.25	0.43	1.35	0.47	0.92	0.81	1.30	0.48	0.52	0.28
Control Delay	12.8	134.7	7.9	217.3	25.8	72.6	58.9	183.8	49.4	62.9	17.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.8	134.7	7.9	217.3	25.8	72.6	58.9	183.8	49.4	62.9	17.6
LOS	B	F	A	F	C	E	E	F	D	E	B
Approach Delay		103.7			87.6		115.7			46.9	
Approach LOS		F			F		F			D	

Intersection Summary

Cycle Length: 140
Actuated Cycle Length: 140
Offset: 68 (49%), Referenced to phase 4:EBTL and 8:WBT, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.35
Intersection Signal Delay: 99.3 — Intersection LOS: F
Intersection Capacity Utilization 106.8% — ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 3: Broadway Blvd & Rio Bravo Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	192	1805	402	481	963	48	311	592	691	61	192	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	0.97	0.91		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1641	3282	1468	3183	4682		1641	3282	1468	1641	3282	1468
Flt Permitted	0.20	1.00	1.00	0.95	1.00		0.38	1.00	1.00	0.32	1.00	1.00
Satd. Flow (perm)	346	3282	1468	3183	4682		663	3282	1468	557	3282	1468
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	209	1962	437	523	1047	52	338	643	751	66	209	120
RTOR Reduction (vph)	0	0	19	0	3	0	0	0	0	0	0	59
Lane Group Flow (vph)	209	1962	418	523	1096	0	338	643	751	66	209	61
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Turn Type	pm+pt	NA	pt+ov	Prot	NA		pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4	4 5	3	8		5	2	2 3	1	6	6 7
Permitted Phases	4						2			6		
Actuated Green, G (s)	78.7	66.0	93.0	16.0	69.3		43.0	33.0	54.0	21.0	16.0	33.7
Effective Green, g (s)	80.7	67.0	94.0	17.0	70.3		44.0	34.0	55.0	23.0	17.0	34.7
Actuated g/C Ratio	0.58	0.48	0.67	0.12	0.50		0.31	0.24	0.39	0.16	0.12	0.25
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	326	1571	986	387	2351		369	797	577	138	399	364
v/s Ratio Prot	0.06	c0.60	0.28	0.16	c0.23		c0.15	0.20	c0.51	0.02	0.06	0.04
v/s Ratio Perm	0.31						0.14			0.06		
v/c Ratio	0.64	1.25	0.42	1.35	0.47		0.92	0.81	1.30	0.48	0.52	0.17
Uniform Delay, d1	15.5	36.5	10.6	61.5	22.7		42.4	49.9	42.5	51.0	57.7	41.3
Progression Factor	0.80	0.48	0.80	1.00	1.10		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.5	114.0	0.1	172.0	0.6		26.7	6.0	148.0	2.6	1.2	0.2
Delay (s)	13.9	131.4	8.6	233.7	25.6		69.1	55.9	190.5	53.6	58.9	41.5
Level of Service	B	F	A	F	C		E	E	F	D	E	D
Approach Delay (s)		101.4			92.7			116.9			52.8	
Approach LOS		F			F			F			D	

Intersection Summary

HCM Average Control Delay	100.4	HCM Level of Service		F	
HCM Volume to Capacity ratio	1.29				
Actuated Cycle Length (s)	140.0	Sum of lost time (s)		16.0	
Intersection Capacity Utilization	106.8%	ICU Level of Service		G	
Analysis Period (min)	15				

c Critical Lane Group

Timings
3: Broadway Blvd & Rio Bravo Blvd

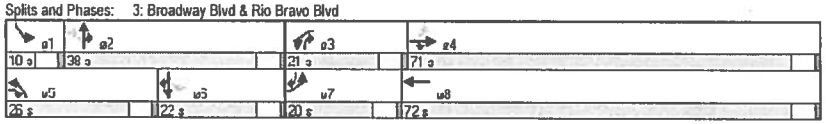
Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Volume (vph)	192	1805	402	481	963	311	592	691	61	192	110
Turn Type	pm+pt	NA	pt+ov	Prot	NA	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4	4 5	3	8	5	2	2 3	1	6	6 7
Permitted Phases	4					2			6		
Detector Phase	7	4	4 5	3	8	5	2	2 3	1	6	6 7
Switch Phase											
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	21.0		10.0	21.0	10.0	21.0		10.0	21.0	
Total Split (s)	20.0	71.0		21.0	72.0	26.0	38.0		10.0	22.0	
Total Split (%)	14.3%	50.7%		15.0%	51.4%	18.6%	27.1%		7.1%	15.7%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0	-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?											
Recall Mode	Min	C-Max		Min	C-Max	Min	Min		Min	Min	
Act Effct Green (s)	80.7	67.0	93.0	17.0	70.3	44.0	34.0	55.0	24.0	18.0	35.7
Actuated g/C Ratio	0.58	0.48	0.66	0.12	0.50	0.31	0.24	0.39	0.17	0.13	0.26
v/c Ratio	0.64	1.25	0.44	1.35	0.47	0.92	0.81	1.30	0.48	0.50	0.16
Control Delay	12.8	134.8	7.7	217.3	25.8	74.1	58.9	183.8	49.2	61.3	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.8	134.8	7.7	217.3	25.8	74.1	58.9	183.8	49.2	61.3	6.8
LOS	B	F	A	F	C	E	E	F	D	E	A
Approach Delay		103.7			87.6		116.0			42.7	
Approach LOS		F			F		F			D	

Intersection Summary

Cycle Length: 140
Actuated Cycle Length: 140
Offset: 68 (49%), Referenced to phase 4:EBTL and 8:WBT, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.35
Intersection Signal Delay: 99.2 — Intersection LOS: F
Intersection Capacity Utilization 106.8% — ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 3: Broadway Blvd & Rio Bravo Blvd



HCM Signalized Intersection Capacity Analysis
3: Broadway Blvd & Rio Bravo Blvd

Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	192	1805	402	481	963	48	311	592	691	61	192	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	0.97	0.91		1.00	0.95	1.00	1.00	0.95	0.88
Frt	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1641	3282	1468	3183	4682		1641	3282	1468	1641	3282	2584
Flt Permitted	0.20	1.00	1.00	0.95	1.00		0.40	1.00	1.00	0.30	1.00	1.00
Satd. Flow (perm)	346	3282	1468	3183	4682		685	3282	1468	526	3282	2584
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	209	1962	437	523	1047	52	338	643	751	66	209	120
RTOR Reduction (vph)	0	0	23	0	3	0	0	0	0	0	0	89
Lane Group Flow (vph)	209	1962	414	523	1096	0	338	643	751	66	209	31
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Turn Type	pm+pt	NA	pt+ov	Prot	NA		pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4	4 5	3	8		5	2	2 3	1	6	6 7
Permitted Phases	4						2			6		
Actuated Green, G (s)	78.7	66.0	92.0	16.0	69.3		43.0	33.0	54.0	22.0	17.0	34.7
Effective Green, g (s)	80.7	67.0	93.0	17.0	70.3		44.0	34.0	55.0	24.0	18.0	35.7
Actuated g/C Ratio	0.58	0.48	0.66	0.12	0.50		0.31	0.24	0.39	0.17	0.13	0.26
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	326	1571	975	387	2351		366	797	577	138	422	659
v/s Ratio Prot	0.06	c0.60	0.28	0.16	c0.23		c0.15	0.20	c0.51	0.02	0.06	0.01
v/s Ratio Perm	0.31						0.15			0.06		
v/c Ratio	0.64	1.25	0.42	1.35	0.47		0.92	0.81	1.30	0.48	0.50	0.05
Uniform Delay, d1	15.5	36.5	11.0	61.5	22.7		42.8	49.9	42.5	50.2	58.8	39.3
Progression Factor	0.80	0.48	0.77	1.00	1.10		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.5	114.0	0.1	172.0	0.6		28.4	6.0	148.0	2.6	0.9	0.0
Delay (s)	13.9	131.5	8.6	233.7	25.6		71.2	55.9	190.5	52.8	57.7	39.3
Level of Service	B	F	A	F	C		E	E	F	D	E	D
Approach Delay (s)		101.5			92.7			117.3			51.3	
Approach LOS		F			F			F			D	

Intersection Summary

HCM Average Control Delay	100.4	HCM Level of Service		F	
HCM Volume to Capacity ratio	1.29				
Actuated Cycle Length (s)	140.0	Sum of lost time (s)		16.0	
Intersection Capacity Utilization	106.8%	ICU Level of Service		G	
Analysis Period (min)	15				

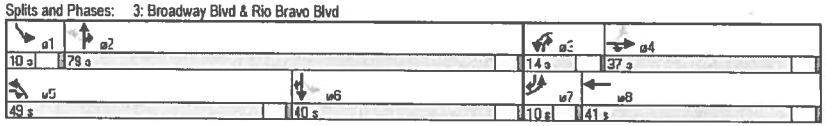
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Volume (vph)	121	915	414	304	1365	871	457	771	60	813	680
Turn Type	pm+pt	NA	pt+ov	Prot	NA	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4	4 5	3	8	5	2	2 3	1	6	6 7
Permitted Phases	4					2			6		
Detector Phase	7	4	4 5	3	8	5	2	2 3	1	6	6 7
Switch Phase											
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	21.0		10.0	21.0	10.0	21.0		10.0	21.0	
Total Split (s)	10.0	37.0		14.0	41.0	49.0	79.0		10.0	40.0	
Total Split (%)	7.1%	26.4%		10.0%	29.3%	35.0%	56.4%		7.1%	28.6%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0	-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?											
Recall Mode	Min	C-Max		Min	C-Max	Min	Min		Min	Min	
Act Effct Green (s)	39.0	33.0	82.0	10.0	37.0	85.0	75.0	89.0	42.0	36.0	46.0
Actuated g/C Ratio	0.28	0.24	0.59	0.07	0.26	0.61	0.54	0.64	0.30	0.26	0.33
v/c Ratio	1.10	1.29	0.52	1.45	1.22	1.64	0.28	0.90	0.23	1.05	1.50
Control Delay	134.9	169.4	18.4	259.7	139.2	325.2	18.3	36.0	20.7	93.8	268.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	134.9	169.4	18.4	259.7	139.2	325.2	18.3	36.0	20.7	93.8	268.6
LOS	F	F	B	F	F	F	B	D	C	F	F
Approach Delay		123.4			160.8		152.2			167.5	
Approach LOS		F			F		F			F	

Intersection Summary

Cycle Length: 140
Actuated Cycle Length: 140
Offset: 116 (83%), Referenced to phase 4:EBTL and 8:WBT, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.64
Intersection Signal Delay: 151.7 — Intersection LOS: F
Intersection Capacity Utilization 127.3% — ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 3: Broadway Blvd & Rio Bravo Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	121	915	414	304	1365	27	871	457	771	60	813	680
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	0.97	0.91		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1641	3282	1468	3183	4702		1641	3282	1468	1641	3282	1468
Flt Permitted	0.12	1.00	1.00	0.95	1.00		0.10	1.00	1.00	0.47	1.00	1.00
Satd. Flow (perm)	209	3282	1468	3183	4702		173	3282	1468	812	3282	1468
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	132	995	450	330	1484	29	947	497	838	65	884	739
RTOR Reduction (vph)	0	0	4	0	1	0	0	0	0	0	0	11
Lane Group Flow (vph)	132	995	446	330	1512	0	947	497	838	65	884	728
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Turn Type	pm+pt	NA	pt+ov	Prot	NA		pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4	4 5	3	8		5	2	2 3	1	6	6 7
Permitted Phases	4						2			6		
Actuated Green, G (s)	37.0	32.0	81.0	9.0	36.0		84.0	74.0	88.0	40.0	35.0	45.0
Effective Green, g (s)	39.0	33.0	82.0	10.0	37.0		85.0	75.0	89.0	42.0	36.0	46.0
Actuated g/C Ratio	0.28	0.24	0.59	0.07	0.26		0.61	0.54	0.64	0.30	0.26	0.33
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	120	774	860	227	1243		577	1758	933	279	844	482
v/s Ratio Prot	0.05	0.30	0.30	0.10	c0.32		c0.53	0.15	0.57	0.01	0.27	c0.50
v/s Ratio Perm	0.26						c0.47			0.06		
v/c Ratio	1.10	1.29	0.52	1.45	1.22		1.64	0.28	0.90	0.23	1.05	1.51
Uniform Delay, d1	48.1	53.5	17.3	65.0	51.5		40.7	17.8	21.7	35.7	52.0	47.0
Progression Factor	0.68	0.68	0.95	0.94	0.82		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	105.7	137.0	0.5	218.0	101.7		296.3	0.1	11.3	0.4	44.1	240.5
Delay (s)	138.2	173.3	16.8	279.1	144.2		337.0	17.9	32.9	36.1	96.1	287.5
Level of Service	F	F	B	F	F		F	B	C	D	F	F
Approach Delay (s)		125.7			168.3			155.8			177.6	
Approach LOS		F			F			F			F	

Intersection Summary

HCM Average Control Delay	157.5	HCM Level of Service		F	
HCM Volume to Capacity ratio	1.48				
Actuated Cycle Length (s)	140.0	Sum of lost time (s)		8.0	
Intersection Capacity Utilization	127.3%	ICU Level of Service		H	
Analysis Period (min)	15				

c Critical Lane Group

Timings
3: Broadway Blvd & Rio Bravo Blvd

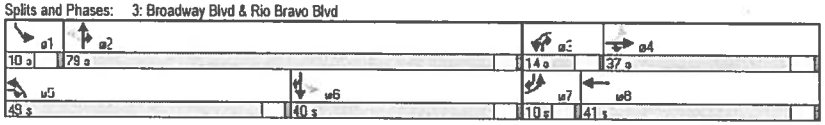
Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Volume (vph)	129	915	414	304	1413	875	458	771	91	819	688
Turn Type	pm+pt	NA	pt+ov	Prot	NA	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4	4 5	3	8	5	2	2 3	1	6	6 7
Permitted Phases	4					2			6		
Detector Phase	7	4	4 5	3	8	5	2	2 3	1	6	6 7
Switch Phase											
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	21.0		10.0	21.0	10.0	21.0		10.0	21.0	
Total Split (s)	10.0	37.0		14.0	41.0	49.0	79.0		10.0	40.0	
Total Split (%)	7.1%	26.4%		10.0%	29.3%	35.0%	56.4%		7.1%	28.6%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0	-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?											
Recall Mode	Min	C-Max		Min	C-Max	Min	Min		Min	Min	
Act Effct Green (s)	39.0	33.0	82.0	10.0	37.0	85.0	75.0	89.0	42.0	36.0	46.0
Actuated g/C Ratio	0.28	0.24	0.59	0.07	0.26	0.61	0.54	0.64	0.30	0.26	0.33
v/c Ratio	1.17	1.29	0.52	1.45	1.26	1.65	0.28	0.90	0.35	1.05	1.52
Control Delay	156.6	169.3	18.5	259.3	158.9	328.1	18.3	36.0	23.0	95.8	277.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	156.6	169.3	18.5	259.3	158.9	328.1	18.3	36.0	23.0	95.8	277.6
LOS	F	F	B	F	F	F	B	D	C	F	F
Approach Delay		125.4			176.3		153.6			169.9	
Approach LOS		F			F		F			F	

Intersection Summary

Cycle Length: 140
Actuated Cycle Length: 140
Offset: 116 (83%), Referenced to phase 4:EBTL and 8:WBT, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.65
Intersection Signal Delay: 157.2 — Intersection LOS: F
Intersection Capacity Utilization 129.1% — ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 3: Broadway Blvd & Rio Bravo Blvd



HCM Signalized Intersection Capacity Analysis
3: Broadway Blvd & Rio Bravo Blvd

Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	129	915	414	304	1413	33	875	458	771	91	819	688
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	0.97	0.91		1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1641	3282	1468	3183	4699		1641	3282	1468	1641	3282	1468
Flt Permitted	0.12	1.00	1.00	0.95	1.00		0.10	1.00	1.00	0.47	1.00	1.00
Satd. Flow (perm)	209	3282	1468	3183	4699		173	3282	1468	811	3282	1468
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	140	995	450	330	1536	36	951	498	838	99	890	748
RTOR Reduction (vph)	0	0	3	0	1	0	0	0	0	0	0	10
Lane Group Flow (vph)	140	995	447	330	1571	0	951	498	838	99	890	738
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Turn Type	pm+pt	NA	pt+ov	Prot	NA		pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4	4 5	3	8		5	2	2 3	1	6	6 7
Permitted Phases	4						2			6		
Actuated Green, G (s)	37.0	32.0	81.0	9.0	36.0		84.0	74.0	88.0	40.0	35.0	45.0
Effective Green, g (s)	39.0	33.0	82.0	10.0	37.0		85.0	75.0	89.0	42.0	36.0	46.0
Actuated g/C Ratio	0.28	0.24	0.59	0.07	0.26		0.61	0.54	0.64	0.30	0.26	0.33
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	120	774	860	227	1242		577	1758	933	279	844	482
v/s Ratio Prot	0.05	0.30	0.30	0.10	c0.33		c0.53	0.15	0.57	0.02	0.27	c0.50
v/s Ratio Perm	0.28						c0.47			0.09		
v/c Ratio	1.17	1.29	0.52	1.45	1.26		1.65	0.28	0.90	0.35	1.05	1.53
Uniform Delay, d1	48.1	53.5	17.3	65.0	51.5		40.7	17.8	21.7	36.5	52.0	47.0
Progression Factor	0.69	0.68	0.95	0.94	0.82		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	128.0	137.0	0.5	217.5	122.8		299.4	0.1	11.3	0.8	46.4	249.3
Delay (s)	161.0	173.3	16.9	278.6	165.2		340.1	17.9	32.9	37.3	98.4	296.3
Level of Service	F	F	B	F	F		F	B	C	D	F	F
Approach Delay (s)		127.8			184.9			157.4			180.1	
Approach LOS		F			F			F			F	

Intersection Summary

HCM Average Control Delay	163.4	HCM Level of Service		F	
HCM Volume to Capacity ratio	1.50				
Actuated Cycle Length (s)	140.0	Sum of lost time (s)		8.0	
Intersection Capacity Utilization	129.1%	ICU Level of Service		H	
Analysis Period (min)	15				

c Critical Lane Group

Timings
3: Broadway Blvd & Rio Bravo Blvd

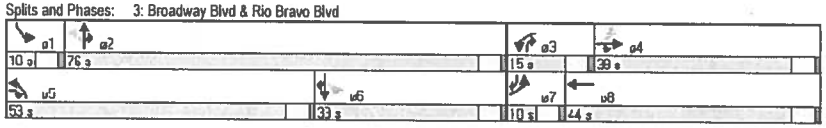
Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Volume (vph)	129	915	414	304	1413	875	458	771	91	819	688
Turn Type	pm+pt	NA	pt+ov	Prot	NA	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4	4 5	3	8	5	2	2 3	1	6	6 7
Permitted Phases	4					2			6		
Detector Phase	7	4	4 5	3	8	5	2	2 3	1	6	6 7
Switch Phase											
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	10.0	21.0		10.0	21.0	10.0	21.0		10.0	21.0	
Total Split (s)	10.0	39.0		15.0	44.0	53.0	76.0		10.0	33.0	
Total Split (%)	7.1%	27.9%		10.7%	31.4%	37.9%	54.3%		7.1%	23.6%	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0	-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?											
Recall Mode	Min	C-Max		Min	C-Max	Min	Min		Min	Min	
Act Effct Green (s)	41.0	35.0	88.0	11.0	40.0	82.0	72.0	87.0	35.0	29.0	39.0
Actuated g/C Ratio	0.29	0.25	0.63	0.08	0.29	0.59	0.51	0.62	0.25	0.21	0.28
v/c Ratio	1.17	1.21	0.49	1.32	1.17	1.52	0.30	0.92	0.41	1.31	1.00
Control Delay	156.5	141.9	14.8	204.8	118.2	273.7	20.1	40.1	28.0	192.6	80.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	156.5	141.9	14.8	204.8	118.2	273.7	20.1	40.1	28.0	192.6	80.9
LOS	F	F	B	F	F	F	C	D	C	F	F
Approach Delay		107.1			133.2		132.9			135.1	
Approach LOS		F			F		F			F	

Intersection Summary

Cycle Length: 140
Actuated Cycle Length: 140
Offset: 116 (83%), Referenced to phase 4:EBTL and 8:WBT, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.52
Intersection Signal Delay: 128.0 — Intersection LOS: F
Intersection Capacity Utilization 119.6% — ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 3: Broadway Blvd & Rio Bravo Blvd



HCM Signalized Intersection Capacity Analysis
3: Broadway Blvd & Rio Bravo Blvd

Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	129	915	414	304	1413	33	875	458	771	91	819	688
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	0.97	0.91		1.00	0.95	1.00	1.00	0.95	0.88
Frt	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1641	3282	1468	3183	4699		1641	3282	1468	1641	3282	2584
Flt Permitted	0.11	1.00	1.00	0.95	1.00		0.12	1.00	1.00	0.47	1.00	1.00
Satd. Flow (perm)	197	3282	1468	3183	4699		209	3282	1468	811	3282	2584
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	140	995	450	330	1536	36	951	498	838	99	890	748
RTOR Reduction (vph)	0	0	1	0	1	0	0	0	0	0	0	27
Lane Group Flow (vph)	140	995	449	330	1571	0	951	498	838	99	890	721
Heavy Vehicles (%)	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%	10%
Turn Type	pm+pt	NA	pt+ov	Prot	NA		pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	7	4	4 5	3	8		5	2	2 3	1	6	6 7
Permitted Phases	4						2			6		
Actuated Green, G (s)	39.0	34.0	87.0	10.0	39.0		81.0	71.0	86.0	33.0	28.0	38.0
Effective Green, g (s)	41.0	35.0	88.0	11.0	40.0		82.0	72.0	87.0	35.0	29.0	39.0
Actuated g/C Ratio	0.29	0.25	0.63	0.08	0.29		0.59	0.51	0.62	0.25	0.21	0.28
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	120	821	923	250	1343		624	1688	912	238	680	720
v/s Ratio Prot	0.05	0.30	0.31	c0.10	c0.33		c0.53	0.15	0.57	0.02	0.27	0.28
v/s Ratio Perm	0.29						c0.36			0.09		
v/c Ratio	1.17	1.21	0.49	1.32	1.17		1.52	0.30	0.92	0.42	1.31	1.00
Uniform Delay, d1	46.9	52.5	13.9	64.5	50.0		38.8	19.5	23.4	41.9	55.5	50.5
Progression Factor	0.72	0.79	0.93	0.94	0.82		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	128.0	105.2	0.3	159.1	81.1		243.9	0.1	13.9	1.2	149.4	34.0
Delay (s)	161.9	146.4	13.3	219.7	122.1		282.8	19.6	37.3	43.1	204.9	84.5
Level of Service	F	F	B	F	F		F	B	D	D	F	F
Approach Delay (s)		110.0			139.0			135.5			143.8	
Approach LOS		F			F			F			F	

Intersection Summary

HCM Average Control Delay	132.9	HCM Level of Service		F		
HCM Volume to Capacity ratio	1.37					
Actuated Cycle Length (s)	140.0	Sum of lost time (s)		8.0		
Intersection Capacity Utilization	119.6%	ICU Level of Service		H		
Analysis Period (min)	15					

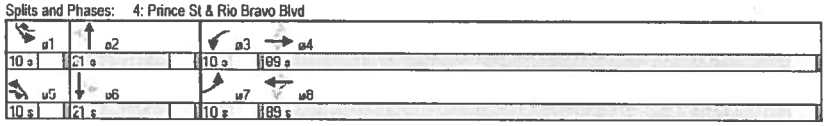
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	43	1914	39	39	741	47	80	2	15	1
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	5	3	8	1	5	2	1	6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	7	4	5	3	8	1	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	21.0
Total Split (s)	10.0	89.0	10.0	10.0	89.0	10.0	10.0	21.0	10.0	21.0
Total Split (%)	7.7%	68.5%	7.7%	7.7%	68.5%	7.7%	7.7%	16.2%	7.7%	16.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
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)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
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	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	Min	C-Max	Min	Min	C-Max	Min	Min	Min	Min	Min
Act Effct Green (s)	99.4	92.0	102.0	99.0	91.8	101.8	14.8	8.8	14.8	8.8
Actuated g/C Ratio	0.76	0.71	0.78	0.76	0.71	0.78	0.11	0.07	0.11	0.07
v/c Ratio	0.11	1.05	0.04	0.27	0.32	0.04	0.61	0.58	0.13	0.12
Control Delay	2.0	39.7	0.4	8.7	12.8	6.3	67.1	23.9	48.7	27.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	2.0	39.7	0.4	8.7	12.8	6.3	67.1	23.9	48.7	27.3
LOS	A	D	A	A	B	A	E	C	D	C
Approach Delay		38.1			12.3			44.1		39.4
Approach LOS		D			B			D		D

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 20 (15%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.05
Intersection Signal Delay: 32.6 — Intersection LOS: C
Intersection Capacity Utilization 70.7% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 4: Prince St & Rio Bravo Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	43	1914	39	39	741	47	80	2	88	15	1	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.85		1.00	0.86	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1719	3438	1538	1719	3438	1538	1719	1545		1719	1557	
Flt Permitted	0.33	1.00	1.00	0.04	1.00	1.00	0.75	1.00		0.45	1.00	
Satd. Flow (perm)	592	3438	1538	79	3438	1538	1354	1545		823	1557	
Peak-hour factor, PHF	0.75	0.75	0.75	0.95	0.95	0.95	0.76	0.76	0.76	0.85	0.85	0.85
Adj. Flow (vph)	57	2552	52	41	780	49	105	3	116	18	1	13
RTOR Reduction (vph)	0	0	8	0	0	12	0	102	0	0	12	0
Lane Group Flow (vph)	57	2552	44	41	780	37	105	17	0	18	2	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4	5	3	8	1	5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	97.4	91.0	96.0	97.0	90.8	95.8	12.8	7.8		12.8	7.8	
Effective Green, g (s)	99.4	92.0	98.0	99.0	91.8	97.8	14.8	8.8		14.8	8.8	
Actuated g/C Ratio	0.76	0.71	0.75	0.76	0.71	0.75	0.11	0.07		0.11	0.07	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	517	2433	1207	151	2428	1204	171	105		135	105	
v/s Ratio Prot	0.01	c0.74	0.00	c0.02	0.23	0.00	c0.03	0.01		0.01	0.00	
v/s Ratio Perm	0.08		0.03	0.19		0.02	c0.04			0.01		
v/c Ratio	0.11	1.05	0.04	0.27	0.32	0.03	0.61	0.17		0.13	0.02	
Uniform Delay, d1	4.0	19.0	4.1	34.1	7.3	4.1	54.4	57.1		51.7	56.6	
Progression Factor	0.50	0.35	0.19	0.83	1.63	5.34	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.1	29.6	0.0	0.8	0.3	0.0	6.4	0.7		0.5	0.1	
Delay (s)	2.1	36.3	0.8	29.2	12.2	21.8	60.8	57.9		52.1	56.6	
Level of Service	A	D	A	C	B	C	E	E		D	E	
Approach Delay (s)		34.9			13.5			59.3			54.1	
Approach LOS		C			B			E			D	

Intersection Summary

HCM Average Control Delay	31.6	HCM Level of Service		C	
HCM Volume to Capacity ratio	0.91				
Actuated Cycle Length (s)	130.0	Sum of lost time (s)		12.0	
Intersection Capacity Utilization	70.7%	ICU Level of Service		C	
Analysis Period (min)	15				

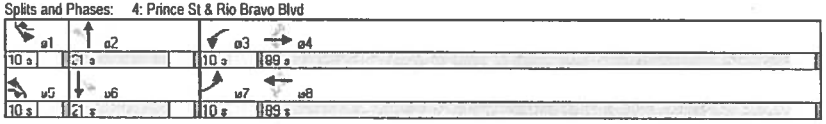
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	43	1920	39	40	764	47	80	2	15	1
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	5	3	8	1	5	2	1	6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	7	4	5	3	8	1	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	21.0
Total Split (s)	10.0	89.0	10.0	10.0	89.0	10.0	10.0	21.0	10.0	21.0
Total Split (%)	7.7%	68.5%	7.7%	7.7%	68.5%	7.7%	7.7%	16.2%	7.7%	16.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
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)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
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	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	Min	C-Max	Min	Min	C-Max	Min	Min	Min	Min	Min
Act Effct Green (s)	99.6	92.3	102.3	99.7	92.4	102.4	14.3	8.3	14.3	8.3
Actuated g/C Ratio	0.77	0.71	0.79	0.77	0.71	0.79	0.11	0.06	0.11	0.06
v/c Ratio	0.10	0.88	0.04	0.29	0.35	0.04	0.60	0.55	0.15	0.14
Control Delay	1.5	6.9	0.2	9.2	12.6	5.6	66.6	21.2	49.7	27.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.5	6.9	0.2	9.2	12.6	5.6	66.6	21.2	49.7	27.2
LOS	A	A	A	A	B	A	E	C	D	C
Approach Delay		6.7			12.1			42.6		39.7
Approach LOS		A			B			D		D

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 20 (15%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 10.7 — Intersection LOS: B
Intersection Capacity Utilization 70.8% — ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 4: Prince St & Rio Bravo Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	43	1920	39	40	764	47	80	2	88	15	1	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.85		1.00	0.86	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1719	3438	1538	1719	3438	1538	1719	1543		1719	1555	
Flt Permitted	0.30	1.00	1.00	0.04	1.00	1.00	0.75	1.00		0.48	1.00	
Satd. Flow (perm)	542	3438	1538	78	3438	1538	1352	1543		872	1555	
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89	0.81	0.81	0.81	0.75	0.75	0.75
Adj. Flow (vph)	48	2157	44	45	858	53	99	2	109	20	1	15
RTOR Reduction (vph)	0	0	8	0	0	13	0	102	0	0	14	0
Lane Group Flow (vph)	48	2157	36	45	858	40	99	9	0	20	2	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4	5	3	8	1	5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	97.6	91.3	96.3	97.8	91.4	96.4	12.3	7.3		12.3	7.3	
Effective Green, g (s)	99.6	92.3	98.3	99.8	92.4	98.4	14.3	8.3		14.3	8.3	
Actuated g/C Ratio	0.77	0.71	0.76	0.77	0.71	0.76	0.11	0.06		0.11	0.06	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	481	2441	1210	153	2444	1211	166	99		135	99	
v/s Ratio Prot	0.01	c0.63	0.00	c0.02	0.25	0.00	c0.03	0.01		0.01	0.00	
v/s Ratio Perm	0.07		0.02	0.21		0.02	c0.04			0.01		
v/c Ratio	0.10	0.88	0.03	0.29	0.35	0.03	0.60	0.09		0.15	0.02	
Uniform Delay, d1	4.0	14.7	4.0	21.2	7.2	3.9	54.7	57.3		52.2	57.0	
Progression Factor	0.42	0.24	0.07	0.67	1.61	5.24	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	2.3	0.0	1.0	0.4	0.0	5.7	0.4		0.5	0.1	
Delay (s)	1.7	5.8	0.3	15.1	12.0	20.6	60.3	57.7		52.7	57.1	
Level of Service	A	A	A	B	B	C	E	E		D	E	
Approach Delay (s)		5.6			12.6			58.9			54.6	
Approach LOS		A			B			E			D	

Intersection Summary

HCM Average Control Delay	11.3	HCM Level of Service	B	
HCM Volume to Capacity ratio	0.81			
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	16.0	
Intersection Capacity Utilization	70.8%	ICU Level of Service	C	
Analysis Period (min)	15			

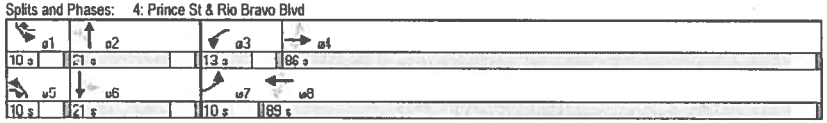
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	20	1102	98	120	1961	31	92	4	48	3
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	5	3	8	1	5	2	1	6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	7	4	5	3	8	1	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	21.0
Total Split (s)	10.0	86.0	10.0	13.0	89.0	10.0	10.0	21.0	10.0	21.0
Total Split (%)	7.7%	66.2%	7.7%	10.0%	68.5%	7.7%	7.7%	16.2%	7.7%	16.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
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)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
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	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	Min	C-Max	Min	Min	C-Max	Min	Min	Min	Min	Min
Act Effct Green (s)	97.7	90.8	100.8	101.7	92.8	102.8	14.3	8.3	14.3	8.3
Actuated g/C Ratio	0.75	0.70	0.78	0.78	0.71	0.79	0.11	0.06	0.11	0.06
v/c Ratio	0.14	0.48	0.08	0.37	0.92	0.03	0.76	0.52	0.41	0.41
Control Delay	8.3	5.4	0.3	2.5	14.7	1.2	81.4	22.8	58.4	23.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.3	5.4	0.3	2.5	14.7	1.2	81.4	22.8	58.4	23.2
LOS	A	A	A	A	B	A	F	C	E	C
Approach Delay		5.0			13.8			55.4		39.6
Approach LOS		A			B			E		D

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 26 (20%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.92
Intersection Signal Delay: 14.0 — Intersection LOS: B
Intersection Capacity Utilization 80.1% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 4: Prince St & Rio Bravo Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	1102	98	120	1961	31	92	4	69	48	3	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.86		1.00	0.86	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1719	3438	1538	1719	3438	1538	1719	1552		1719	1555	
Flt Permitted	0.04	1.00	1.00	0.20	1.00	1.00	0.67	1.00		0.48	1.00	
Satd. Flow (perm)	80	3438	1538	356	3438	1538	1218	1552		872	1555	
Peak-hour factor, PHF	0.95	0.95	0.95	0.87	0.87	0.87	0.77	0.77	0.77	0.85	0.85	0.85
Adj. Flow (vph)	21	1160	103	138	2254	36	119	5	90	56	4	60
RTOR Reduction (vph)	0	0	26	0	0	4	0	84	0	0	56	0
Lane Group Flow (vph)	21	1160	77	138	2254	32	119	11	0	56	8	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4	5	3	8	1	5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	95.7	89.8	94.8	99.7	91.8	96.8	12.3	7.3		12.3	7.3	
Effective Green, g (s)	97.7	90.8	96.8	101.7	92.8	98.8	14.3	8.3		14.3	8.3	
Actuated g/C Ratio	0.75	0.70	0.74	0.78	0.71	0.76	0.11	0.06		0.11	0.06	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	147	2401	1193	372	2454	1216	157	99		135	99	
v/s Ratio Prot	0.01	0.34	0.00	c0.03	c0.66	0.00	c0.03	0.01		0.02	0.01	
v/s Ratio Perm	0.10		0.05	0.27		0.02	c0.05			0.03		
v/c Ratio	0.14	0.48	0.06	0.37	0.92	0.03	0.76	0.11		0.41	0.08	
Uniform Delay, d1	22.1	8.9	4.5	5.2	15.5	3.8	55.6	57.4		53.3	57.3	
Progression Factor	1.92	0.51	0.22	0.69	0.83	0.54	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.3	0.5	0.0	0.1	0.7	0.0	18.7	0.5		2.1	0.3	
Delay (s)	42.6	5.1	1.0	3.7	13.5	2.1	74.3	57.8		55.3	57.6	
Level of Service	D	A	A	A	B	A	E	E		E	E	
Approach Delay (s)		5.4			12.8			57.0			56.5	
Approach LOS		A			B			E			E	

Intersection Summary

HCM Average Control Delay	14.6	HCM Level of Service		B	
HCM Volume to Capacity ratio	0.87				
Actuated Cycle Length (s)	130.0	Sum of lost time (s)		16.0	
Intersection Capacity Utilization	80.1%	ICU Level of Service		D	
Analysis Period (min)	15				

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	20	1109	98	121	1991	31	92	4	48	3
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	5	3	8	1	5	2	1	6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	7	4	5	3	8	1	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	21.0
Total Split (s)	10.0	86.0	10.0	13.0	89.0	10.0	10.0	21.0	10.0	21.0
Total Split (%)	7.7%	66.2%	7.7%	10.0%	68.5%	7.7%	7.7%	16.2%	7.7%	16.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
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)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
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	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	Min	C-Max	Min	Min	C-Max	Min	Min	Min	Min	Min
Act Effct Green (s)	97.6	90.8	100.8	101.7	92.8	102.8	14.3	8.3	14.3	8.3
Actuated g/C Ratio	0.75	0.70	0.78	0.78	0.71	0.79	0.11	0.06	0.11	0.06
v/c Ratio	0.14	0.49	0.08	0.38	0.93	0.03	0.76	0.52	0.41	0.41
Control Delay	8.2	5.5	0.3	2.5	15.5	1.2	81.4	22.8	58.4	23.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.2	5.5	0.3	2.5	15.5	1.2	81.4	22.8	58.4	23.2
LOS	A	A	A	A	B	A	F	C	E	C
Approach Delay		5.1			14.5			55.4		39.6
Approach LOS		A			B			E		D

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 26 (20%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 14.4 — Intersection LOS: B
Intersection Capacity Utilization 81.0% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 4: Prince St & Rio Bravo Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	1109	98	121	1991	31	92	4	69	48	3	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.86		1.00	0.86	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1719	3438	1538	1719	3438	1538	1719	1552		1719	1555	
Flt Permitted	0.04	1.00	1.00	0.19	1.00	1.00	0.67	1.00		0.48	1.00	
Satd. Flow (perm)	80	3438	1538	352	3438	1538	1218	1552		872	1555	
Peak-hour factor, PHF	0.95	0.95	0.95	0.87	0.87	0.87	0.77	0.77	0.77	0.85	0.85	0.85
Adj. Flow (vph)	21	1167	103	139	2289	36	119	5	90	56	4	60
RTOR Reduction (vph)	0	0	26	0	0	4	0	84	0	0	56	0
Lane Group Flow (vph)	21	1167	77	139	2289	32	119	11	0	56	8	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4	5	3	8	1	5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	95.7	89.8	94.8	99.7	91.8	96.8	12.3	7.3		12.3	7.3	
Effective Green, g (s)	97.7	90.8	96.8	101.7	92.8	98.8	14.3	8.3		14.3	8.3	
Actuated g/C Ratio	0.75	0.70	0.74	0.78	0.71	0.76	0.11	0.06		0.11	0.06	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	147	2401	1193	369	2454	1216	157	99		135	99	
v/s Ratio Prot	0.01	0.34	0.00	c0.03	c0.67	0.00	c0.03	0.01		0.02	0.01	
v/s Ratio Perm	0.10		0.05	0.27		0.02	c0.05			0.03		
v/c Ratio	0.14	0.49	0.06	0.38	0.93	0.03	0.76	0.11		0.41	0.08	
Uniform Delay, d1	23.8	8.9	4.5	5.2	15.9	3.8	55.6	57.4		53.3	57.3	
Progression Factor	1.86	0.52	0.21	0.70	0.84	0.56	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.3	0.5	0.0	0.1	0.9	0.0	18.7	0.5		2.1	0.3	
Delay (s)	44.6	5.2	1.0	3.7	14.3	2.1	74.3	57.8		55.3	57.6	
Level of Service	D	A	A	A	B	A	E	E		E	E	
Approach Delay (s)		5.5			13.6			67.0			56.5	
Approach LOS		A			B			E			E	

Intersection Summary

HCM Average Control Delay	15.1	HCM Level of Service		B	
HCM Volume to Capacity ratio	0.88				
Actuated Cycle Length (s)	130.0	Sum of lost time (s)		16.0	
Intersection Capacity Utilization	81.0%	ICU Level of Service		D	
Analysis Period (min)	15				

c Critical Lane Group

Timings
4: Prince St & Rio Bravo Blvd

Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	51	2231	46	51	954	63	102	3	19	1
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	5	3	8	1	5	2	1	6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	7	4	5	3	8	1	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	21.0
Total Split (s)	10.0	99.0	10.0	10.0	99.0	10.0	10.0	21.0	10.0	21.0
Total Split (%)	7.1%	70.7%	7.1%	7.1%	70.7%	7.1%	7.1%	15.0%	7.1%	15.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
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)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
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	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	Min	C-Max	Min	Min	C-Max	Min	Min	Min	Min	Min
Act Effct Green (s)	108.1	100.9	110.9	108.3	101.0	111.0	15.8	9.8	15.8	9.8
Actuated g/C Ratio	0.77	0.72	0.79	0.77	0.72	0.79	0.11	0.07	0.11	0.07
v/c Ratio	0.14	0.98	0.04	0.39	0.42	0.06	0.66	0.62	0.17	0.13
Control Delay	1.5	14.2	0.0	15.9	12.9	4.3	74.8	30.8	53.4	27.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.5	14.2	0.0	15.9	12.9	4.3	74.8	30.8	53.4	27.7
LOS	A	B	A	B	B	A	E	C	D	C
Approach Delay		13.6			12.6			51.6		42.3
Approach LOS		B			B			D		D

Intersection Summary
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 136 (97%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 15.8 Intersection LOS: B
Intersection Capacity Utilization 80.7% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 4: Prince St & Rio Bravo Blvd

HCM Signalized Intersection Capacity Analysis
4: Prince St & Rio Bravo Blvd

Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	51	2231	46	51	954	63	102	3	111	19	1	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.85		1.00	0.86	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1719	3438	1538	1719	3438	1538	1719	1545		1719	1555	
Flt Permitted	0.24	1.00	1.00	0.04	1.00	1.00	0.75	1.00		0.41	1.00	
Satd. Flow (perm)	436	3438	1538	72	3438	1538	1352	1545		739	1555	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	55	2425	50	55	1037	68	111	3	121	21	1	15
RTOR Reduction (vph)	0	0	7	0	0	16	0	92	0	0	14	0
Lane Group Flow (vph)	55	2425	43	55	1037	52	111	32	0	21	2	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4	5	3	8	1	5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	106.1	99.9	104.9	106.3	100.0	105.0	13.8	8.8		13.8	8.8	
Effective Green, g (s)	108.1	100.9	106.9	108.3	101.0	107.0	15.8	9.8		15.8	9.8	
Actuated g/C Ratio	0.77	0.72	0.76	0.77	0.72	0.76	0.11	0.07		0.11	0.07	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	403	2478	1218	142	2480	1219	168	108		125	109	
v/s Ratio Prot	0.01	c0.71	0.00	c0.02	0.30	0.00	c0.03	0.02		0.01	0.00	
v/s Ratio Perm	0.10		0.03	0.28		0.03	c0.05			0.01		
v/c Ratio	0.14	0.98	0.04	0.39	0.42	0.04	0.66	0.30		0.17	0.02	
Uniform Delay, d1	4.4	18.5	4.0	35.9	7.8	4.0	59.0	61.8		55.9	60.6	
Progression Factor	0.43	0.55	0.02	0.72	1.52	4.43	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	2.4	0.0	1.5	0.4	0.0	9.4	1.5		0.6	0.1	
Delay (s)	1.9	12.5	0.1	27.2	12.3	17.8	68.4	63.4		56.5	60.7	
Level of Service	A	B	A	C	B	B	E	E		E	E	
Approach Delay (s)		12.1			13.3			65.7			58.3	
Approach LOS		B			B			E			E	

Intersection Summary

HCM Average Control Delay	16.0	HCM Level of Service		B	
HCM Volume to Capacity ratio	0.90				
Actuated Cycle Length (s)	140.0	Sum of lost time (s)		16.0	
Intersection Capacity Utilization	80.7%	ICU Level of Service		D	
Analysis Period (min)	15				

c Critical Lane Group

Timings
4: Prince St & Rio Bravo Blvd

Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	51	2237	46	52	977	63	102	3	19	1
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	5	3	8	1	5	2	1	6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	7	4	5	3	8	1	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	21.0
Total Split (s)	10.0	99.0	10.0	10.0	99.0	10.0	10.0	21.0	10.0	21.0
Total Split (%)	7.1%	70.7%	7.1%	7.1%	70.7%	7.1%	7.1%	15.0%	7.1%	15.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
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)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
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	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	Min	C-Max	Min	Min	C-Max	Min	Min	Min	Min	Min
Act Effct Green (s)	108.1	100.9	110.9	108.4	101.0	111.0	15.8	9.8	15.8	9.8
Actuated g/C Ratio	0.77	0.72	0.79	0.77	0.72	0.79	0.11	0.07	0.11	0.07
v/c Ratio	0.14	0.98	0.04	0.40	0.43	0.06	0.66	0.62	0.17	0.13
Control Delay	1.5	14.6	0.0	17.8	12.8	3.9	74.8	30.8	53.4	27.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	1.5	14.6	0.0	17.8	12.8	3.9	74.8	30.8	53.4	27.7
LOS	A	B	A	B	B	A	E	C	D	C
Approach Delay		14.0			12.5			51.6		42.3
Approach LOS		B			B			D		D

Intersection Summary
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 136 (97%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 16.0 Intersection LOS: B
Intersection Capacity Utilization 80.8% ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 4: Prince St & Rio Bravo Blvd

HCM Signalized Intersection Capacity Analysis
4: Prince St & Rio Bravo Blvd

Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	51	2237	46	52	977	63	102	3	111	19	1	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.85		1.00	0.86	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1719	3438	1538	1719	3438	1538	1719	1545		1719	1555	
Flt Permitted	0.23	1.00	1.00	0.04	1.00	1.00	0.75	1.00		0.41	1.00	
Satd. Flow (perm)	423	3438	1538	72	3438	1538	1352	1545		739	1555	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	55	2432	50	57	1062	68	111	3	121	21	1	15
RTOR Reduction (vph)	0	0	7	0	0	16	0	92	0	0	14	0
Lane Group Flow (vph)	55	2432	43	57	1062	52	111	32	0	21	2	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4	5	3	8	1	5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	106.0	99.8	104.8	106.4	100.0	105.0	13.8	8.8		13.8	8.8	
Effective Green, g (s)	108.0	100.8	106.8	108.4	101.0	107.0	15.8	9.8		15.8	9.8	
Actuated g/C Ratio	0.77	0.72	0.76	0.77	0.72	0.76	0.11	0.07		0.11	0.07	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	393	2475	1217	143	2480	1219	168	108		125	109	
v/s Ratio Prot	0.01	c0.71	0.00	c0.02	0.31	0.00	c0.03	0.02		0.01	0.00	
v/s Ratio Perm	0.10		0.03	0.29		0.03	c0.05			0.01		
v/c Ratio	0.14	0.98	0.04	0.40	0.43	0.04	0.66	0.30		0.17	0.02	
Uniform Delay, d1	4.5	18.8	4.0	36.5	7.9	4.0	59.0	61.8		55.9	60.6	
Progression Factor	0.43	0.55	0.02	0.79	1.48	4.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.0	2.7	0.0	1.6	0.5	0.0	9.4	1.5		0.6	0.1	
Delay (s)	1.9	13.0	0.1	30.4	12.1	16.1	68.4	63.4		56.5	60.7	
Level of Service	A	B	A	C	B	B	E	E		E	E	
Approach Delay (s)		12.5			13.2			65.7			58.3	
Approach LOS		B			B			E			E	

Intersection Summary

HCM Average Control Delay	16.3	HCM Level of Service		B	
HCM Volume to Capacity ratio	0.91				
Actuated Cycle Length (s)	140.0	Sum of lost time (s)		16.0	
Intersection Capacity Utilization	80.8%	ICU Level of Service		D	
Analysis Period (min)	15				

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	23	1251	116	142	2271	37	118	5	61	4
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	5	3	8	1	5	2	1	6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	7	4	5	3	8	1	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	21.0
Total Split (s)	10.0	92.0	10.0	17.0	99.0	10.0	10.0	21.0	10.0	21.0
Total Split (%)	7.1%	65.7%	7.1%	12.1%	70.7%	7.1%	7.1%	15.0%	7.1%	15.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
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)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
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	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	Min	C-Max	Min	Min	C-Max	Min	Min	Min	Min	Min
Act Effct Green (s)	107.0	100.1	110.1	111.8	102.6	112.6	14.5	8.5	14.5	8.5
Actuated g/C Ratio	0.76	0.72	0.79	0.80	0.73	0.80	0.10	0.06	0.10	0.06
v/c Ratio	0.18	0.55	0.10	0.49	0.98	0.03	0.94	0.55	0.53	0.47
Control Delay	10.0	4.3	0.0	5.6	16.8	0.7	122.2	24.1	70.0	24.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.0	4.3	0.0	5.6	16.8	0.7	122.2	24.1	70.0	24.1
LOS	A	A	A	A	B	A	F	C	E	C
Approach Delay		4.0			15.9			79.0		45.6
Approach LOS		A			B			E		D

Intersection Summary

Cycle Length: 140
Actuated Cycle Length: 140
Offset: 8 (6%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.98
Intersection Signal Delay: 16.0 — Intersection LOS: B
Intersection Capacity Utilization 90.1% — ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 4: Prince St & Rio Bravo Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	23	1251	116	142	2271	37	118	5	88	61	4	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.86		1.00	0.86	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1719	3438	1538	1719	3438	1538	1719	1552		1719	1553	
Flt Permitted	0.04	1.00	1.00	0.15	1.00	1.00	0.57	1.00		0.47	1.00	
Satd. Flow (perm)	72	3438	1538	274	3438	1538	1023	1552		852	1553	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	25	1360	126	154	2468	40	128	5	96	66	4	71
RTOR Reduction (vph)	0	0	29	0	0	8	0	90	0	0	67	0
Lane Group Flow (vph)	25	1360	97	154	2468	32	128	11	0	66	8	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4	5	3	8	1	5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	105.0	99.1	104.1	110.0	101.6	106.6	12.5	7.5		12.5	7.5	
Effective Green, g (s)	107.0	100.1	106.1	112.0	102.6	108.6	14.5	8.5		14.5	8.5	
Actuated g/C Ratio	0.76	0.71	0.76	0.80	0.73	0.78	0.10	0.06		0.10	0.06	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	136	2458	1210	316	2520	1237	136	94		125	94	
v/s Ratio Prot	0.01	0.40	0.00	c0.03	c0.72	0.00	c0.04	0.01		0.02	0.01	
v/s Ratio Perm	0.13		0.06	0.36		0.02	c0.06			0.03		
v/c Ratio	0.18	0.55	0.08	0.49	0.98	0.03	0.94	0.12		0.53	0.09	
Uniform Delay, d1	34.2	9.4	4.4	6.9	17.7	3.6	61.8	62.2		58.6	62.1	
Progression Factor	2.56	0.42	0.02	1.68	0.75	0.53	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.1	0.1	0.0	0.1	2.4	0.0	59.2	0.5		4.0	0.4	
Delay (s)	87.6	4.0	0.1	11.7	15.6	1.9	120.9	62.7		62.5	62.5	
Level of Service	F	A	A	B	B	A	F	E		E	E	
Approach Delay (s)		5.1			15.2			95.3			62.5	
Approach LOS		A			B			F			E	

Intersection Summary

HCM Average Control Delay	17.3	HCM Level of Service		B	
HCM Volume to Capacity ratio	0.96				
Actuated Cycle Length (s)	140.0	Sum of lost time (s)		16.0	
Intersection Capacity Utilization	90.1%	ICU Level of Service		E	
Analysis Period (min)	15				

c Critical Lane Group

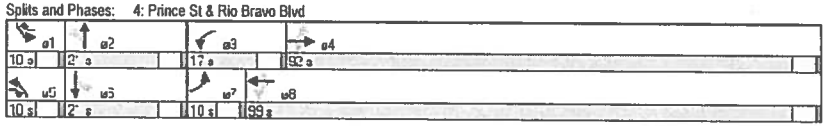
Timings
4: Prince St & Rio Bravo Blvd

Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	23	1258	116	143	2301	37	118	5	61	4
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	5	3	8	1	5	2	1	6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	7	4	5	3	8	1	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	21.0
Total Split (s)	10.0	92.0	10.0	17.0	99.0	10.0	10.0	21.0	10.0	21.0
Total Split (%)	7.1%	65.7%	7.1%	12.1%	70.7%	7.1%	7.1%	15.0%	7.1%	15.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
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)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
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	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	Min	C-Max	Min	Min	C-Max	Min	Min	Min	Min	Min
Act Effct Green (s)	106.9	100.0	110.0	111.8	102.6	112.6	14.5	8.5	14.5	8.5
Actuated g/C Ratio	0.76	0.71	0.79	0.80	0.73	0.80	0.10	0.06	0.10	0.06
v/c Ratio	0.18	0.56	0.10	0.49	0.99	0.03	0.94	0.55	0.53	0.47
Control Delay	10.0	4.3	0.0	5.9	18.9	0.7	122.2	24.1	70.0	24.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.0	4.3	0.0	5.9	18.9	0.7	122.2	24.1	70.0	24.1
LOS	A	A	A	A	B	A	F	C	E	C
Approach Delay		4.0			17.8			79.0		45.6
Approach LOS		A			B			E		D

Intersection Summary
Cycle Length: 140
Actuated Cycle Length: 140
Offset: 8 (6%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.99
Intersection Signal Delay: 17.2 Intersection LOS: B
Intersection Capacity Utilization 91.0% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 4: Prince St & Rio Bravo Blvd



HCM Signalized Intersection Capacity Analysis
4: Prince St & Rio Bravo Blvd

Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	23	1258	116	143	2301	37	118	5	88	61	4	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.86		1.00	0.86	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1719	3438	1538	1719	3438	1538	1719	1552		1719	1553	
Flt Permitted	0.04	1.00	1.00	0.15	1.00	1.00	0.57	1.00		0.47	1.00	
Satd. Flow (perm)	72	3438	1538	271	3438	1538	1023	1552		852	1553	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	25	1367	126	155	2501	40	128	5	96	66	4	71
RTOR Reduction (vph)	0	0	28	0	0	8	0	90	0	0	67	0
Lane Group Flow (vph)	25	1367	98	155	2501	32	128	11	0	66	8	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4	5	3	8	1	5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	104.9	99.0	104.0	110.1	101.6	106.6	12.5	7.5		12.5	7.5	
Effective Green, g (s)	106.9	100.0	106.0	112.1	102.6	108.6	14.5	8.5		14.5	8.5	
Actuated g/C Ratio	0.76	0.71	0.76	0.80	0.73	0.78	0.10	0.06		0.10	0.06	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	136	2456	1208	315	2520	1237	136	94		125	94	
v/s Ratio Prot	0.01	0.40	0.00	c0.03	c0.73	0.00	c0.04	0.01		0.02	0.01	
v/s Ratio Perm	0.13		0.06	0.36		0.02	c0.06			0.03		
v/c Ratio	0.18	0.56	0.08	0.49	0.99	0.03	0.94	0.12		0.53	0.09	
Uniform Delay, d1	36.9	9.5	4.4	7.1	18.3	3.6	61.8	62.2		58.6	62.1	
Progression Factor	2.54	0.41	0.03	1.77	0.76	0.53	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.1	0.1	0.0	0.1	3.9	0.0	59.2	0.5		4.0	0.4	
Delay (s)	93.7	4.0	0.1	12.6	17.8	1.9	120.9	62.7		62.5	62.5	
Level of Service	F	A	A	B	B	A	F	E		E	E	
Approach Delay (s)		5.2			17.3			95.3			62.5	
Approach LOS		A			B			F			E	

Intersection Summary

HCM Average Control Delay	18.6	HCM Level of Service		B	
HCM Volume to Capacity ratio	0.97				
Actuated Cycle Length (s)	140.0	Sum of lost time (s)		16.0	
Intersection Capacity Utilization	91.0%	ICU Level of Service		E	
Analysis Period (min)	15				

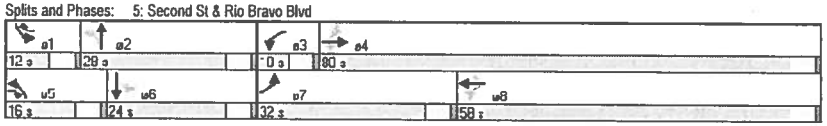
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	366	1708	180	68	650	97	182	157	141	74
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	5	3	8	1	5	2	1	6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	7	4	5	3	8	1	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	21.0
Total Split (s)	32.0	80.0	16.0	10.0	58.0	12.0	16.0	28.0	12.0	24.0
Total Split (%)	24.6%	61.5%	12.3%	7.7%	44.6%	9.2%	12.3%	21.5%	9.2%	18.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
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)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
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	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	Min	C-Max	Min	Min	C-Max	Min	Min	Min	Min	Min
Act Effct Green (s)	86.2	76.0	92.0	68.1	61.9	73.9	35.8	23.8	27.8	19.8
Actuated g/C Ratio	0.66	0.58	0.71	0.52	0.48	0.57	0.28	0.18	0.21	0.15
v/c Ratio	0.76	0.92	0.17	0.54	0.43	0.12	0.75	0.94	0.96	0.56
Control Delay	16.6	20.5	0.2	38.5	20.1	10.3	57.3	84.4	103.1	49.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.6	20.5	0.2	38.5	20.1	10.3	57.3	84.4	103.1	49.0
LOS	B	C	A	D	C	B	E	F	F	D
Approach Delay		18.3			20.4			73.5		75.7
Approach LOS		B			C			E		E

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 15 (12%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay: 29.9 — Intersection LOS: C
Intersection Capacity Utilization 87.7% — ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 5: Second St & Rio Bravo Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	366	1708	180	68	650	97	182	157	113	141	74	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.94		1.00	0.93	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1719	3438	1538	1719	3438	1538	1719	1696		1719	1676	
Flt Permitted	0.28	1.00	1.00	0.06	1.00	1.00	0.36	1.00		0.20	1.00	
Satd. Flow (perm)	506	3438	1538	117	3438	1538	655	1696		366	1676	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.87	0.87	0.87	0.91	0.91	0.91
Adj. Flow (vph)	398	1857	196	74	707	105	209	180	130	155	81	78
RTOR Reduction (vph)	0	0	63	0	0	0	0	20	0	0	27	0
Lane Group Flow (vph)	398	1857	133	74	707	105	209	290	0	155	132	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4	5	3	8	1	5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	85.2	75.0	86.0	66.1	60.9	67.9	33.8	22.8		25.8	18.8	
Effective Green, g (s)	86.2	76.0	88.0	68.1	61.9	69.9	35.8	23.8		27.8	19.8	
Actuated g/C Ratio	0.66	0.58	0.68	0.52	0.48	0.54	0.28	0.18		0.21	0.15	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	525	2010	1088	138	1637	874	279	310		162	255	
v/s Ratio Prot	c0.12	c0.54	0.01	0.03	0.21	0.01	c0.07	c0.17		c0.06	0.08	
v/s Ratio Perm	0.38		0.08	0.26		0.06	0.14			0.15		
v/c Ratio	0.76	0.92	0.12	0.54	0.43	0.12	0.75	0.93		0.96	0.52	
Uniform Delay, d1	12.4	24.4	7.4	25.1	22.5	14.9	40.1	52.3		47.7	50.7	
Progression Factor	1.13	0.63	0.00	1.20	0.82	0.70	1.00	1.00		1.00	1.00	
Incremental Delay, d2	3.1	4.6	0.0	3.8	0.8	0.1	10.5	34.0		57.3	1.8	
Delay (s)	17.1	19.9	0.0	33.8	19.2	10.4	50.7	86.4		105.1	52.5	
Level of Service	B	B	A	C	B	B	D	F		F	D	
Approach Delay (s)		17.8			19.4			72.0			78.4	
Approach LOS		B			B			E			E	

Intersection Summary

HCM Average Control Delay	29.5	HCM Level of Service		C	
HCM Volume to Capacity ratio	0.91				
Actuated Cycle Length (s)	130.0	Sum of lost time (s)		12.0	
Intersection Capacity Utilization	87.7%	ICU Level of Service		E	
Analysis Period (min)	15				

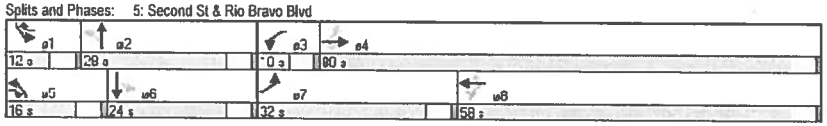
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	366	1712	180	73	665	100	182	157	142	74
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	5	3	8	1	5	2	1	6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	7	4	5	3	8	1	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	21.0
Total Split (s)	32.0	80.0	16.0	10.0	58.0	12.0	16.0	28.0	12.0	24.0
Total Split (%)	24.6%	61.5%	12.3%	7.7%	44.6%	9.2%	12.3%	21.5%	9.2%	18.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
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)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
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	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	Min	C-Max	Min	Min	C-Max	Min	Min	Min	Min	Min
Act Effct Green (s)	86.2	76.0	92.0	67.9	61.8	73.8	35.8	23.8	27.8	19.8
Actuated g/C Ratio	0.66	0.58	0.71	0.52	0.48	0.57	0.28	0.18	0.21	0.15
v/c Ratio	0.77	0.93	0.17	0.57	0.44	0.12	0.75	0.94	0.96	0.56
Control Delay	17.9	20.7	0.2	41.4	20.7	10.6	57.3	84.6	104.3	48.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.9	20.7	0.2	41.4	20.7	10.6	57.3	84.6	104.3	48.9
LOS	B	C	A	D	C	B	E	F	F	D
Approach Delay		18.6			21.3			73.6		76.4
Approach LOS		B			C			E		E

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 15 (12%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.96
Intersection Signal Delay: 30.3 — Intersection LOS: C
Intersection Capacity Utilization 87.9% — ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 5: Second St & Rio Bravo Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	366	1712	180	73	665	100	182	157	114	142	74	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.94		1.00	0.93	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1719	3438	1538	1719	3438	1538	1719	1695		1719	1676	
Flt Permitted	0.27	1.00	1.00	0.06	1.00	1.00	0.36	1.00		0.20	1.00	
Satd. Flow (perm)	492	3438	1538	117	3438	1538	655	1695		366	1676	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.87	0.87	0.87	0.91	0.91	0.91
Adj. Flow (vph)	398	1861	196	79	723	109	209	180	131	156	81	78
RTOR Reduction (vph)	0	0	63	0	0	0	0	20	0	0	27	0
Lane Group Flow (vph)	398	1861	133	79	723	109	209	291	0	156	132	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4	5	3	8	1	5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	85.2	75.0	86.0	66.0	60.8	67.8	33.8	22.8		25.8	18.8	
Effective Green, g (s)	86.2	76.0	88.0	68.0	61.8	69.8	35.8	23.8		27.8	19.8	
Actuated g/C Ratio	0.66	0.58	0.68	0.52	0.48	0.54	0.28	0.18		0.21	0.15	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	519	2010	1088	138	1634	873	279	310		162	255	
v/s Ratio Prot	c0.12	c0.54	0.01	0.03	0.21	0.01	c0.07	c0.17		c0.06	0.08	
v/s Ratio Perm	0.39		0.08	0.27		0.06	0.14			0.15		
v/c Ratio	0.77	0.93	0.12	0.57	0.44	0.12	0.75	0.94		0.96	0.52	
Uniform Delay, d1	12.7	24.4	7.4	25.4	22.7	14.9	40.1	52.4		47.9	50.7	
Progression Factor	1.19	0.63	0.00	1.18	0.84	0.71	1.00	1.00		1.00	1.00	
Incremental Delay, d2	3.3	4.7	0.0	5.3	0.8	0.1	10.5	34.6		59.3	1.8	
Delay (s)	18.4	20.0	0.0	35.3	19.8	10.7	50.7	87.0		107.2	52.5	
Level of Service	B	C	A	D	B	B	D	F		F	D	
Approach Delay (s)		18.1			20.0			72.4			79.6	
Approach LOS		B			C			E			E	

Intersection Summary

HCM Average Control Delay	29.9	HCM Level of Service		C	
HCM Volume to Capacity ratio	0.91				
Actuated Cycle Length (s)	130.0	Sum of lost time (s)		12.0	
Intersection Capacity Utilization	87.9%	ICU Level of Service		E	
Analysis Period (min)	15				

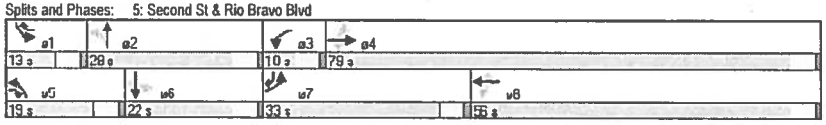
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Volume (vph)	366	1712	180	73	665	100	182	157	142	74	71
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+pt	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	1	6	7
Permitted Phases	4		4	8		8	2		6		6
Detector Phase	7	4	5	3	8	1	5	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	21.0	10.0
Total Split (s)	33.0	79.0	19.0	10.0	56.0	13.0	19.0	28.0	13.0	22.0	33.0
Total Split (%)	25.4%	60.8%	14.6%	7.7%	43.1%	10.0%	14.6%	21.5%	10.0%	16.9%	25.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?											
Recall Mode	Min	C-Max	Min	Min	C-Max	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	85.2	75.0	93.6	66.4	60.2	73.2	36.8	23.8	27.2	18.2	42.2
Actuated g/C Ratio	0.66	0.58	0.72	0.51	0.46	0.56	0.28	0.18	0.21	0.14	0.32
v/c Ratio	0.77	0.94	0.17	0.58	0.45	0.13	0.58	0.94	0.89	0.32	0.14
Control Delay	19.2	22.4	0.1	42.2	23.1	10.8	45.5	84.6	85.2	54.4	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.2	22.4	0.1	42.2	23.1	10.8	45.5	84.6	85.2	54.4	6.2
LOS	B	C	A	D	C	B	D	F	F	D	A
Approach Delay		20.1			23.3			68.9		57.7	
Approach LOS		C			C			E		E	

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 15 (12%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 29.7 — Intersection LOS: C
Intersection Capacity Utilization 87.9% — ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 5: Second St & Rio Bravo Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	366	1712	180	73	665	100	182	157	114	142	74	71
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.94		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1719	3438	1538	1719	3438	1538	1719	1695		1719	1810	1538
Flt Permitted	0.27	1.00	1.00	0.07	1.00	1.00	0.54	1.00		0.22	1.00	1.00
Satd. Flow (perm)	483	3438	1538	120	3438	1538	972	1695		398	1810	1538
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.87	0.87	0.87	0.91	0.91	0.91
Adj. Flow (vph)	398	1861	196	79	723	109	209	180	131	156	81	78
RTOR Reduction (vph)	0	0	61	0	0	0	0	20	0	0	0	56
Lane Group Flow (vph)	398	1861	135	79	723	109	209	291	0	156	81	22
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2		1	6	7
Permitted Phases	4		4	8		8	2			6		6
Actuated Green, G (s)	84.2	74.0	87.6	64.4	59.2	67.2	35.8	22.8		25.2	17.2	37.2
Effective Green, g (s)	85.2	75.0	89.6	66.4	60.2	69.2	36.8	23.8		27.2	18.2	37.2
Actuated g/C Ratio	0.66	0.58	0.69	0.51	0.46	0.53	0.28	0.18		0.21	0.14	0.29
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	516	1983	1107	138	1592	866	359	310		175	253	499
v/s Ratio Prot	c0.12	c0.54	0.01	0.03	0.21	0.01	0.07	c0.17		c0.06	0.04	0.01
v/s Ratio Perm	0.38		0.07	0.27		0.06	0.10			0.13		0.01
v/c Ratio	0.77	0.94	0.12	0.57	0.45	0.13	0.58	0.94		0.89	0.32	0.04
Uniform Delay, d1	13.3	25.4	6.9	26.2	23.7	15.2	38.2	52.4		46.8	50.3	33.6
Progression Factor	1.23	0.64	0.00	1.17	0.89	0.71	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	3.5	5.5	0.0	5.3	0.9	0.1	2.4	34.6		38.8	0.7	0.0
Delay (s)	19.8	21.7	0.0	35.9	22.1	10.9	40.6	87.0		85.6	51.1	33.6
Level of Service	B	C	A	D	C	B	D	F		F	D	C
Approach Delay (s)		19.7			21.9			68.3			63.8	
Approach LOS		B			C			E			E	

Intersection Summary

HCM Average Control Delay	29.5	HCM Level of Service		C	
HCM Volume to Capacity ratio	0.94				
Actuated Cycle Length (s)	130.0	Sum of lost time (s)		16.0	
Intersection Capacity Utilization	87.9%	ICU Level of Service		E	
Analysis Period (min)	15				

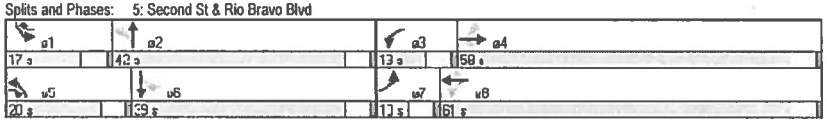
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	137	903	155	98	1691	133	281	97	162	118
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	5	3	8	1	5	2	1	6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	7	4	5	3	8	1	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	21.0
Total Split (s)	10.0	58.0	20.0	13.0	61.0	17.0	20.0	42.0	17.0	39.0
Total Split (%)	7.7%	44.6%	15.4%	10.0%	46.9%	13.1%	15.4%	32.3%	13.1%	30.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
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)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
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	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	Min	C-Max	Min	Min	C-Max	Min	Min	Min	Min	Min
Act Effct Green (s)	60.2	54.2	74.2	65.8	57.0	73.5	54.2	38.5	47.5	35.0
Actuated g/C Ratio	0.46	0.42	0.57	0.51	0.44	0.57	0.42	0.30	0.37	0.27
v/c Ratio	1.10	0.68	0.18	0.47	1.23	0.17	1.40	0.57	0.50	1.34
Control Delay	128.7	26.0	4.7	24.3	140.6	14.8	233.0	36.8	29.7	199.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	128.7	26.0	4.7	24.3	140.6	14.8	233.0	36.8	29.7	199.2
LOS	F	C	A	C	F	B	F	D	C	F
Approach Delay		35.0			125.9			145.8		163.1
Approach LOS		D			F			F		F

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 36 (28%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.40
Intersection Signal Delay: 111.0 — Intersection LOS: F
Intersection Capacity Utilization 119.1% — ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 5: Second St & Rio Bravo Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	137	903	155	98	1691	133	281	97	128	162	118	481
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.91		1.00	0.88	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1719	3438	1538	1719	3438	1538	1719	1655		1719	1592	
Flt Permitted	0.07	1.00	1.00	0.14	1.00	1.00	0.10	1.00		0.40	1.00	
Satd. Flow (perm)	134	3438	1538	256	3438	1538	188	1655		722	1592	
Peak-hour factor, PHF	0.92	0.92	0.92	0.91	0.91	0.91	0.75	0.75	0.75	0.91	0.91	0.91
Adj. Flow (vph)	149	982	168	108	1858	146	375	129	171	178	130	529
RTOR Reduction (vph)	0	0	77	0	0	0	0	37	0	0	64	0
Lane Group Flow (vph)	149	982	91	108	1858	146	375	263	0	178	595	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4	5	3	8	1	5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	58.2	53.2	68.2	63.8	56.0	67.5	52.5	37.5		45.5	34.0	
Effective Green, g (s)	60.2	54.2	70.2	65.8	57.0	69.5	54.5	38.5		47.5	35.0	
Actuated g/C Ratio	0.46	0.42	0.54	0.51	0.44	0.53	0.42	0.30		0.37	0.27	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	135	1433	878	229	1507	870	267	490		360	429	
v/s Ratio Prot	c0.05	0.29	0.01	c0.03	c0.54	0.02	c0.17	0.16		0.05	0.37	
v/s Ratio Perm	0.46		0.05	0.21		0.08	c0.42			0.13		
v/c Ratio	1.10	0.69	0.10	0.47	1.23	0.17	1.40	0.54		0.49	1.39	
Uniform Delay, d1	31.2	30.9	14.6	21.1	36.5	15.5	39.2	38.3		29.7	47.5	
Progression Factor	1.06	0.76	2.34	1.29	1.00	1.07	1.00	1.00		1.00	1.00	
Incremental Delay, d2	101.4	2.3	0.0	0.7	107.4	0.0	203.0	1.1		1.1	188.5	
Delay (s)	134.4	25.7	34.1	27.9	143.8	16.6	242.2	39.4		30.8	236.0	
Level of Service	F	C	C	C	F	B	F	D		C	F	
Approach Delay (s)		39.3			129.1			152.1			192.3	
Approach LOS		D			F			F			F	

Intersection Summary

HCM Average Control Delay	119.3	HCM Level of Service		F	
HCM Volume to Capacity ratio	1.34				
Actuated Cycle Length (s)	130.0	Sum of lost time (s)		16.0	
Intersection Capacity Utilization	119.1%	ICU Level of Service		H	
Analysis Period (min)	15				

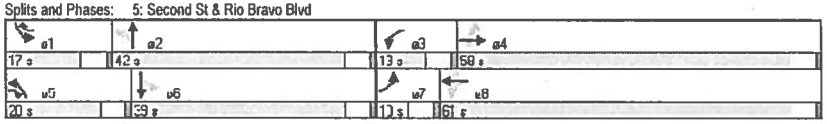
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	137	908	155	105	1710	137	281	97	163	118
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	5	3	8	1	5	2	1	6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	7	4	5	3	8	1	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	21.0
Total Split (s)	10.0	58.0	20.0	13.0	61.0	17.0	20.0	42.0	17.0	39.0
Total Split (%)	7.7%	44.6%	15.4%	10.0%	46.9%	13.1%	15.4%	32.3%	13.1%	30.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
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)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
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	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	Min	C-Max	Min	Min	C-Max	Min	Min	Min	Min	Min
Act Effct Green (s)	60.2	54.2	74.2	65.8	57.0	73.5	54.2	38.5	47.5	35.0
Actuated g/C Ratio	0.46	0.42	0.57	0.51	0.44	0.57	0.42	0.30	0.37	0.27
v/c Ratio	1.10	0.69	0.18	0.50	1.25	0.17	1.40	0.57	0.50	1.34
Control Delay	128.5	26.0	4.7	24.9	146.6	15.0	233.0	37.0	29.8	199.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	128.5	26.0	4.7	24.9	146.6	15.0	233.0	37.0	29.8	199.2
LOS	F	C	A	C	F	B	F	D	C	F
Approach Delay		35.0			130.9			145.6		163.0
Approach LOS		C			F			F		F

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 36 (28%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.40
Intersection Signal Delay: 113.1 Intersection LOS: F
Intersection Capacity Utilization 119.6% ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 5: Second St & Rio Bravo Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	137	908	155	105	1710	137	281	97	130	163	118	481
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.91		1.00	0.88	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1719	3438	1538	1719	3438	1538	1719	1654		1719	1592	
Flt Permitted	0.07	1.00	1.00	0.14	1.00	1.00	0.10	1.00		0.40	1.00	
Satd. Flow (perm)	134	3438	1538	253	3438	1538	188	1654		716	1592	
Peak-hour factor, PHF	0.92	0.92	0.92	0.91	0.91	0.91	0.75	0.75	0.75	0.91	0.91	0.91
Adj. Flow (vph)	149	987	168	115	1879	151	375	129	173	179	130	529
RTOR Reduction (vph)	0	0	77	0	0	0	0	37	0	0	64	0
Lane Group Flow (vph)	149	987	91	115	1879	151	375	265	0	179	595	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4	5	3	8	1	5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	58.2	53.2	68.2	63.8	56.0	67.5	52.5	37.5		45.5	34.0	
Effective Green, g (s)	60.2	54.2	70.2	65.8	57.0	69.5	54.5	38.5		47.5	35.0	
Actuated g/C Ratio	0.46	0.42	0.54	0.51	0.44	0.53	0.42	0.30		0.37	0.27	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	135	1433	878	227	1507	870	267	490		358	429	
v/s Ratio Prot	c0.05	0.29	0.01	c0.03	c0.55	0.02	c0.17	0.16		0.05	0.37	
v/s Ratio Perm	0.46		0.05	0.22		0.08	c0.42			0.13		
v/c Ratio	1.10	0.69	0.10	0.51	1.25	0.17	1.40	0.54		0.50	1.39	
Uniform Delay, d1	31.2	31.0	14.6	21.3	36.5	15.5	39.2	38.4		29.8	47.5	
Progression Factor	1.05	0.76	2.33	1.31	1.01	1.08	1.00	1.00		1.00	1.00	
Incremental Delay, d2	101.2	2.3	0.0	0.7	113.4	0.0	203.0	1.2		1.1	188.5	
Delay (s)	134.0	25.7	33.9	28.5	150.3	16.8	242.2	39.6		30.9	236.0	
Level of Service	F	C	C	C	F	B	F	D		C	F	
Approach Delay (s)		39.2			134.4			151.8			192.2	
Approach LOS		D			F			F			F	

Intersection Summary

HCM Average Control Delay	121.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.34		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	119.6%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Timings
5: Second St & Rio Bravo Blvd

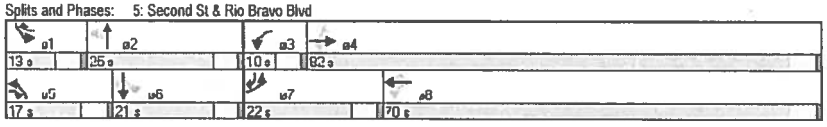
Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Volume (vph)	137	908	155	105	1710	137	281	97	163	118	481
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+pt	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	1	6	7
Permitted Phases	4		4	8		8	2		6		6
Detector Phase	7	4	5	3	8	1	5	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	21.0	10.0
Total Split (s)	22.0	82.0	17.0	10.0	70.0	13.0	17.0	25.0	13.0	21.0	22.0
Total Split (%)	16.9%	63.1%	13.1%	7.7%	53.8%	10.0%	13.1%	19.2%	10.0%	16.2%	16.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?											
Recall Mode	Min	C-Max	Min	Min	C-Max	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	88.0	78.0	95.0	72.0	66.0	79.0	34.0	21.0	26.0	17.0	38.0
Actuated g/C Ratio	0.68	0.60	0.73	0.55	0.51	0.61	0.26	0.16	0.20	0.13	0.29
v/c Ratio	0.51	0.48	0.14	0.35	1.08	0.16	1.31	0.99	1.02	0.55	1.16
Control Delay	32.2	11.7	2.1	11.3	67.0	11.1	199.5	96.4	117.2	62.5	132.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.2	11.7	2.1	11.3	67.0	11.1	199.5	96.4	117.2	62.5	132.5
LOS	C	B	A	B	E	B	F	F	F	E	F
Approach Delay		12.8			60.1			153.5		118.4	
Approach LOS		B			E			F		F	

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 36 (28%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 100
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.31
Intersection Signal Delay: 70.2 — Intersection LOS: E
Intersection Capacity Utilization 103.5% — ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 5: Second St & Rio Bravo Blvd



HCM Signalized Intersection Capacity Analysis
5: Second St & Rio Bravo Blvd

Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	137	908	155	105	1710	137	281	97	130	163	118	481
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.91		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1719	3438	1538	1719	3438	1538	1719	1654		1719	1810	1538
Flt Permitted	0.06	1.00	1.00	0.27	1.00	1.00	0.39	1.00		0.24	1.00	1.00
Satd. Flow (perm)	103	3438	1538	485	3438	1538	708	1654		426	1810	1538
Peak-hour factor, PHF	0.92	0.92	0.92	0.91	0.91	0.91	0.75	0.75	0.75	0.91	0.91	0.91
Adj. Flow (vph)	149	987	168	115	1879	151	375	129	173	179	130	529
RTOR Reduction (vph)	0	0	50	0	0	0	0	37	0	0	0	9
Lane Group Flow (vph)	149	987	118	115	1879	151	375	265	0	179	130	520
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2		1	6	7
Permitted Phases	4		4	8		8	2			6		6
Actuated Green, G (s)	87.0	77.0	89.0	70.0	65.0	73.0	32.0	20.0		24.0	16.0	33.0
Effective Green, g (s)	88.0	78.0	91.0	72.0	66.0	75.0	34.0	21.0		26.0	17.0	33.0
Actuated g/C Ratio	0.68	0.60	0.70	0.55	0.51	0.58	0.26	0.16		0.20	0.13	0.25
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	293	2063	1124	326	1745	935	286	267		175	237	450
v/s Ratio Prot	0.07	0.29	0.01	0.02	c0.55	0.01	c0.13	0.16		0.07	0.07	c0.15
v/s Ratio Perm	0.27		0.07	0.18		0.09	c0.21			0.13		0.19
v/c Ratio	0.51	0.48	0.10	0.35	1.08	0.16	1.31	0.99		1.02	0.55	1.16
Uniform Delay, d1	33.3	14.6	6.3	14.0	32.0	12.8	46.0	54.4		49.7	52.9	48.5
Progression Factor	1.14	0.75	2.61	1.16	0.84	0.98	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	1.2	0.7	0.0	0.3	39.6	0.0	162.8	52.9		74.1	2.6	92.5
Delay (s)	38.9	11.5	16.5	16.5	66.6	12.6	208.9	107.3		123.9	55.6	141.0
Level of Service	D	B	B	B	E	B	F	F		F	E	F
Approach Delay (s)		15.3			60.1			163.6			124.1	
Approach LOS		B			E			F			F	

Intersection Summary

HCM Average Control Delay	73.3	HCM Level of Service	E
HCM Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	103.5%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Timings
5: Second St & Rio Bravo Blvd

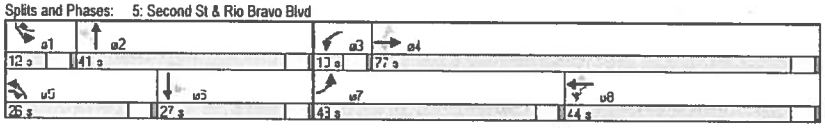
Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	549	2452	271	86	853	124	454	390	194	118
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	5	3	8	1	5	2	1	6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	7	4	5	3	8	1	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	21.0
Total Split (s)	43.0	77.0	26.0	10.0	44.0	12.0	26.0	41.0	12.0	27.0
Total Split (%)	30.7%	55.0%	18.6%	7.1%	31.4%	8.6%	18.6%	29.3%	8.6%	19.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
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)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
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	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	Min	C-Max	Min	Min	C-Max	Min	Min	Min	Min	Min
Act Effct Green (s)	83.0	73.0	99.0	46.0	40.0	52.0	49.0	37.0	31.0	23.0
Actuated g/C Ratio	0.59	0.52	0.71	0.33	0.29	0.37	0.35	0.26	0.22	0.16
v/c Ratio	1.12	1.49	0.26	0.74	0.94	0.24	1.48	1.43	1.41	0.84
Control Delay	96.1	243.0	0.4	59.3	52.3	21.3	263.9	240.7	249.0	73.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	96.1	243.0	0.4	59.3	52.3	21.3	263.9	240.7	249.0	73.8
LOS	F	F	A	E	D	C	F	F	F	E
Approach Delay		198.2			49.2			250.6		153.6
Approach LOS		F			D			F		F

Intersection Summary

Cycle Length: 140
Actuated Cycle Length: 140
Offset: 12 (9%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.49
Intersection Signal Delay: 177.4 — Intersection LOS: F
Intersection Capacity Utilization 130.8% — ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 5: Second St & Rio Bravo Blvd



HCM Signalized Intersection Capacity Analysis
5: Second St & Rio Bravo Blvd

Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	549	2452	271	86	853	124	454	390	223	194	118	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.95		1.00	0.93	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1719	3438	1538	1719	3438	1538	1719	1711		1719	1676	
Flt Permitted	0.09	1.00	1.00	0.10	1.00	1.00	0.18	1.00		0.17	1.00	
Satd. Flow (perm)	165	3438	1538	181	3438	1538	321	1711		315	1676	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	597	2665	295	93	927	135	493	424	242	211	128	124
RTOR Reduction (vph)	0	0	75	0	0	0	0	15	0	0	25	0
Lane Group Flow (vph)	597	2665	220	93	927	135	493	651	0	211	227	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4	5	3	8	1	5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	82.0	72.0	93.0	44.0	39.0	46.0	48.0	36.0		29.0	22.0	
Effective Green, g (s)	83.0	73.0	95.0	46.0	40.0	48.0	49.0	37.0		31.0	23.0	
Actuated g/C Ratio	0.59	0.52	0.68	0.33	0.29	0.34	0.35	0.26		0.22	0.16	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	531	1793	1088	125	982	571	332	452		150	275	
v/s Ratio Prot	c0.31	c0.78	0.03	0.03	0.27	0.01	c0.23	0.38		0.08	0.14	
v/s Ratio Perm	0.35		0.11	0.21		0.07	c0.29			0.23		
v/c Ratio	1.12	1.49	0.20	0.74	0.94	0.24	1.48	1.44		1.41	0.83	
Uniform Delay, d1	42.7	33.5	8.4	38.2	48.9	32.9	39.2	51.5		51.6	56.6	
Progression Factor	0.98	0.70	0.22	0.97	0.71	0.66	1.00	1.00		1.00	1.00	
Incremental Delay, d2	58.6	219.1	0.0	19.5	16.9	0.2	233.7	210.7		217.9	17.9	
Delay (s)	100.4	242.7	1.9	56.6	51.7	22.0	272.9	262.2		269.5	74.5	
Level of Service	F	F	A	E	D	C	F	F		F	E	
Approach Delay (s)		198.8			48.6			266.7			163.3	
Approach LOS		F			D			F			F	

Intersection Summary

HCM Average Control Delay	181.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.47		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	130.8%	ICU Level of Service	H
Analysis Period (min)	15		

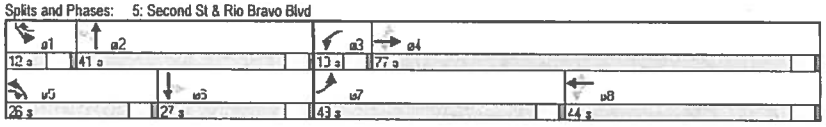
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	549	2456	271	91	868	127	454	390	195	118
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	5	3	8	1	5	2	1	6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	7	4	5	3	8	1	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	21.0
Total Split (s)	43.0	77.0	26.0	10.0	44.0	12.0	26.0	41.0	12.0	27.0
Total Split (%)	30.7%	55.0%	18.6%	7.1%	31.4%	8.6%	18.6%	29.3%	8.6%	19.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
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)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
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	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	Min	C-Max	Min	Min	C-Max	Min	Min	Min	Min	Min
Act Effct Green (s)	83.0	73.0	99.0	46.0	40.0	52.0	49.0	37.0	31.0	23.0
Actuated g/C Ratio	0.59	0.52	0.71	0.33	0.29	0.37	0.35	0.26	0.22	0.16
v/c Ratio	1.12	1.49	0.26	0.79	0.96	0.24	1.48	1.43	1.41	0.84
Control Delay	96.1	244.2	0.4	66.5	55.6	21.7	263.9	241.6	251.6	73.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	96.1	244.2	0.4	66.5	55.6	21.7	263.9	241.6	251.6	73.8
LOS	F	F	A	E	E	C	F	F	F	E
Approach Delay		199.2			52.6			251.1		155.0
Approach LOS		F			D			F		F

Intersection Summary

Cycle Length: 140
Actuated Cycle Length: 140
Offset: 12 (9%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.49
Intersection Signal Delay: 178.3 — Intersection LOS: F
Intersection Capacity Utilization 131.3% — ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 5: Second St & Rio Bravo Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	549	2456	271	91	868	127	454	390	224	195	118	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.95		1.00	0.93	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1719	3438	1538	1719	3438	1538	1719	1711		1719	1676	
Flt Permitted	0.09	1.00	1.00	0.10	1.00	1.00	0.18	1.00		0.17	1.00	
Satd. Flow (perm)	165	3438	1538	181	3438	1538	321	1711		315	1676	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	597	2670	295	99	943	138	493	424	243	212	128	124
RTOR Reduction (vph)	0	0	75	0	0	0	0	15	0	0	25	0
Lane Group Flow (vph)	597	2670	220	99	943	138	493	652	0	212	227	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4	5	3	8	1	5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	82.0	72.0	93.0	44.0	39.0	46.0	48.0	36.0		29.0	22.0	
Effective Green, g (s)	83.0	73.0	95.0	46.0	40.0	48.0	49.0	37.0		31.0	23.0	
Actuated g/C Ratio	0.59	0.52	0.68	0.33	0.29	0.34	0.35	0.26		0.22	0.16	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	531	1793	1088	125	982	571	332	452		150	275	
v/s Ratio Prot	c0.31	c0.78	0.03	0.03	0.27	0.01	c0.23	0.38		0.08	0.14	
v/s Ratio Perm	0.35		0.11	0.23		0.08	c0.29			0.23		
v/c Ratio	1.12	1.49	0.20	0.79	0.96	0.24	1.48	1.44		1.41	0.83	
Uniform Delay, d1	42.8	33.5	8.4	38.4	49.2	33.0	39.2	51.5		51.6	56.6	
Progression Factor	0.98	0.70	0.23	0.98	0.72	0.67	1.00	1.00		1.00	1.00	
Incremental Delay, d2	58.6	220.4	0.0	26.0	19.4	0.2	233.7	211.6		220.6	17.9	
Delay (s)	100.5	243.9	1.9	63.7	55.0	22.4	272.9	263.1		272.2	74.5	
Level of Service	F	F	A	E	D	C	F	F		F	E	
Approach Delay (s)		199.8			51.9			267.3			164.8	
Approach LOS		F			D			F			F	

Intersection Summary

HCM Average Control Delay	182.2	HCM Level of Service		F	
HCM Volume to Capacity ratio	1.47				
Actuated Cycle Length (s)	140.0	Sum of lost time (s)		12.0	
Intersection Capacity Utilization	131.3%	ICU Level of Service		H	
Analysis Period (min)	15				

c Critical Lane Group

Timings
5: Second St & Rio Bravo Blvd

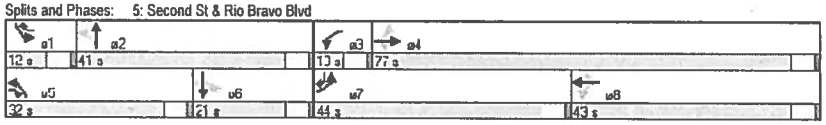
Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Volume (vph)	549	2456	271	91	868	127	454	390	195	118	114
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+pt	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	1	6	7
Permitted Phases	4		4	8		8	2		6		6
Detector Phase	7	4	5	3	8	1	5	2	1	6	7
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	21.0	10.0
Total Split (s)	44.0	77.0	32.0	10.0	43.0	12.0	32.0	41.0	12.0	21.0	44.0
Total Split (%)	31.4%	55.0%	22.9%	7.1%	30.7%	8.6%	22.9%	29.3%	8.6%	15.0%	31.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?											
Recall Mode	Min	C-Max	Min	Min	C-Max	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	83.0	73.0	105.0	45.0	39.0	51.0	49.0	37.0	25.0	17.0	60.0
Actuated g/C Ratio	0.59	0.52	0.75	0.32	0.28	0.36	0.35	0.26	0.18	0.12	0.43
v/c Ratio	1.10	1.49	0.24	0.79	0.98	0.25	1.11	1.43	1.41	0.58	0.18
Control Delay	85.6	244.1	0.2	66.7	62.5	22.5	113.9	241.6	252.1	69.6	17.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	85.6	244.1	0.2	66.7	62.5	22.5	113.9	241.6	252.1	69.6	17.8
LOS	F	F	A	E	E	C	F	F	F	E	B
Approach Delay		197.3			58.2			187.3		139.1	
Approach LOS		F			E			F		F	

Intersection Summary

Cycle Length: 140
Actuated Cycle Length: 140
Offset: 12 (9%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.49
Intersection Signal Delay: 165.5 — Intersection LOS: F
Intersection Capacity Utilization 131.3% — ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 5: Second St & Rio Bravo Blvd



HCM Signalized Intersection Capacity Analysis
5: Second St & Rio Bravo Blvd

Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	549	2456	271	91	868	127	454	390	224	195	118	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.95		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1719	3438	1538	1719	3438	1538	1719	1711		1719	1810	1538
Flt Permitted	0.09	1.00	1.00	0.10	1.00	1.00	0.37	1.00		0.24	1.00	1.00
Satd. Flow (perm)	168	3438	1538	186	3438	1538	674	1711		426	1810	1538
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	597	2670	295	99	943	138	493	424	243	212	128	124
RTOR Reduction (vph)	0	0	71	0	0	0	0	15	0	0	0	23
Lane Group Flow (vph)	597	2670	224	99	943	138	493	652	0	212	128	101
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2		1	6	7
Permitted Phases	4		4	8		8	2			6		6
Actuated Green, G (s)	82.0	72.0	99.0	43.0	38.0	45.0	48.0	36.0		23.0	16.0	55.0
Effective Green, g (s)	83.0	73.0	101.0	45.0	39.0	47.0	49.0	37.0		25.0	17.0	55.0
Actuated g/C Ratio	0.59	0.52	0.72	0.32	0.28	0.34	0.35	0.26		0.18	0.12	0.39
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	543	1793	1154	125	958	560	445	452		150	220	659
v/s Ratio Prot	c0.31	c0.78	0.04	0.03	0.27	0.01	0.22	c0.38		c0.08	0.07	0.04
v/s Ratio Perm	0.34		0.11	0.22		0.08	0.17			0.17		0.02
v/c Ratio	1.10	1.49	0.19	0.79	0.98	0.25	1.11	1.44		1.41	0.58	0.15
Uniform Delay, d1	42.5	33.5	6.3	38.8	50.2	33.7	41.6	51.5		55.6	58.1	27.5
Progression Factor	0.98	0.69	0.18	0.98	0.75	0.68	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	47.8	220.4	0.0	26.0	24.2	0.2	75.3	211.6		220.6	3.9	0.1
Delay (s)	89.5	243.6	1.2	64.2	61.9	23.2	117.0	263.1		276.2	62.0	27.6
Level of Service	F	F	A	E	E	C	F	F		F	E	C
Approach Delay (s)		197.7			57.5			201.0			150.6	
Approach LOS		F			E			F			F	

Intersection Summary

HCM Average Control Delay	168.9	HCM Level of Service	F
HCM Volume to Capacity ratio	1.46		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	131.3%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Timings
5: Second St & Rio Bravo Blvd

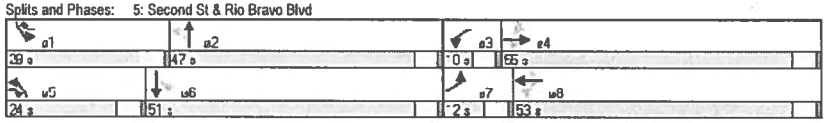
Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	243	1424	275	107	2088	151	618	215	276	218
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	5	3	8	1	5	2	1	6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	7	4	5	3	8	1	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	21.0
Total Split (s)	12.0	55.0	24.0	10.0	53.0	26.0	24.0	47.0	28.0	51.0
Total Split (%)	8.6%	39.3%	17.1%	7.1%	37.9%	20.0%	17.1%	33.6%	20.0%	36.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
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)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
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	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	Min	C-Max	Min	Min	C-Max	Min	Min	Min	Min	Min
Act Effct Green (s)	59.0	51.0	75.0	55.0	49.0	74.8	65.2	45.2	68.8	47.0
Actuated g/C Ratio	0.42	0.36	0.54	0.39	0.35	0.53	0.47	0.32	0.49	0.34
v/c Ratio	1.76	1.24	0.32	0.93	1.89	0.20	2.26	0.84	0.82	2.05
Control Delay	374.8	144.4	10.6	67.1	429.4	18.9	603.3	55.1	44.1	504.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	374.8	144.4	10.6	67.1	429.4	18.9	603.3	55.1	44.1	504.3
LOS	F	F	B	E	F	B	F	E	D	F
Approach Delay		154.3			386.5			376.8		412.4
Approach LOS		F			F			F		F

Intersection Summary

Cycle Length: 140
Actuated Cycle Length: 140
Offset: 12 (9%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 110
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.26
Intersection Signal Delay: 323.2 — Intersection LOS: F
Intersection Capacity Utilization 185.0% — ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 5: Second St & Rio Bravo Blvd



HCM Signalized Intersection Capacity Analysis
5: Second St & Rio Bravo Blvd

Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	243	1424	275	107	2088	151	618	215	220	276	218	889
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.92		1.00	0.88	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1719	3438	1538	1719	3438	1538	1719	1672		1719	1592	
Flt Permitted	0.08	1.00	1.00	0.08	1.00	1.00	0.09	1.00		0.16	1.00	
Satd. Flow (perm)	142	3438	1538	148	3438	1538	160	1672		292	1592	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	264	1548	299	116	2270	164	672	234	239	300	237	966
RTOR Reduction (vph)	0	0	126	0	0	0	0	26	0	0	51	0
Lane Group Flow (vph)	264	1548	173	116	2270	164	672	447	0	300	1152	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4	5	3	8	1	5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	57.0	50.0	69.0	53.0	48.0	68.8	63.2	44.2		66.8	46.0	
Effective Green, g (s)	59.0	51.0	71.0	55.0	49.0	70.8	65.2	45.2		68.8	47.0	
Actuated g/C Ratio	0.42	0.36	0.51	0.39	0.35	0.51	0.47	0.32		0.49	0.34	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	150	1252	824	125	1203	822	297	540		366	534	
v/s Ratio Prot	c0.10	0.45	0.03	0.04	c0.66	0.03	c0.32	0.27		c0.13	0.72	
v/s Ratio Perm	0.64		0.08	0.32		0.08	c0.73			0.28		
v/c Ratio	1.76	1.24	0.21	0.93	1.89	0.20	2.26	0.83		0.82	2.16	
Uniform Delay, d1	36.0	44.5	19.0	36.1	45.5	19.0	44.9	43.8		28.1	46.5	
Progression Factor	0.77	0.89	3.20	1.37	1.12	1.12	1.00	1.00		1.00	1.00	
Incremental Delay, d2	352.9	109.4	0.1	26.9	400.1	0.0	578.8	10.1		13.4	526.9	
Delay (s)	380.5	148.8	60.9	76.2	451.1	21.4	623.7	53.9		41.4	573.4	
Level of Service	F	F	E	E	F	C	F	D		D	F	
Approach Delay (s)		165.4			406.4			388.3			467.2	
Approach LOS		F			F			F			F	

Intersection Summary

HCM Average Control Delay	346.5	HCM Level of Service	F	
HCM Volume to Capacity ratio	2.19			
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	24.0	
Intersection Capacity Utilization	185.0%	ICU Level of Service	H	
Analysis Period (min)	15			

c Critical Lane Group

Timings
5: Second St & Rio Bravo Blvd

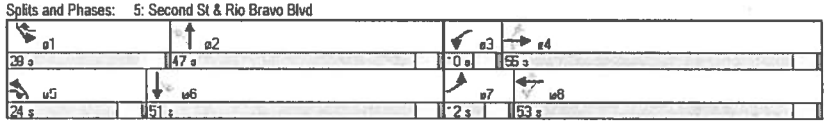
Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations										
Volume (vph)	243	1429	275	114	2107	155	618	215	277	218
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	5	3	8	1	5	2	1	6
Permitted Phases	4		4	8		8	2		6	
Detector Phase	7	4	5	3	8	1	5	2	1	6
Switch Phase										
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	21.0
Total Split (s)	12.0	55.0	24.0	10.0	53.0	28.0	24.0	47.0	28.0	51.0
Total Split (%)	8.6%	39.3%	17.1%	7.1%	37.9%	20.0%	17.1%	33.6%	20.0%	36.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
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)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
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	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag
Lead-Lag Optimize?										
Recall Mode	Min	C-Max	Min	Min	C-Max	Min	Min	Min	Min	Min
Act Effct Green (s)	59.0	51.0	75.0	55.0	49.0	74.9	65.1	45.1	68.9	47.0
Actuated g/C Ratio	0.42	0.36	0.54	0.39	0.35	0.54	0.46	0.32	0.49	0.34
v/c Ratio	1.76	1.24	0.32	0.99	1.90	0.20	2.26	0.84	0.82	2.05
Control Delay	374.7	146.1	10.6	79.2	436.6	19.1	600.5	55.7	44.9	504.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	374.7	146.1	10.6	79.2	436.6	19.1	600.5	55.7	44.9	504.3
LOS	F	F	B	E	F	B	F	E	D	F
Approach Delay		155.5			392.2			374.9		412.4
Approach LOS		F			F			F		F

Intersection Summary

Cycle Length: 140
Actuated Cycle Length: 140
Offset: 12 (9%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 2.26
Intersection Signal Delay: 325.5 — Intersection LOS: F
Intersection Capacity Utilization 185.5% — ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 5: Second St & Rio Bravo Blvd



HCM Signalized Intersection Capacity Analysis
5: Second St & Rio Bravo Blvd

Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	243	1429	275	114	2107	155	618	215	222	277	218	889
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.92		1.00	0.88	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1719	3438	1538	1719	3438	1538	1719	1672		1719	1592	
Flt Permitted	0.08	1.00	1.00	0.08	1.00	1.00	0.09	1.00		0.16	1.00	
Satd. Flow (perm)	142	3438	1538	148	3438	1538	160	1672		285	1592	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	264	1553	299	124	2290	168	672	234	241	301	237	966
RTOR Reduction (vph)	0	0	126	0	0	0	0	26	0	0	51	0
Lane Group Flow (vph)	264	1553	173	124	2290	168	672	449	0	301	1152	0
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4	5	3	8	1	5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Actuated Green, G (s)	57.0	50.0	69.0	53.0	48.0	68.9	63.1	44.1		66.9	46.0	
Effective Green, g (s)	59.0	51.0	71.0	55.0	49.0	70.9	65.1	45.1		68.9	47.0	
Actuated g/C Ratio	0.42	0.36	0.51	0.39	0.35	0.51	0.46	0.32		0.49	0.34	
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	150	1252	824	125	1203	823	297	539		365	534	
v/s Ratio Prot	c0.10	0.45	0.03	0.04	c0.67	0.03	c0.32	0.27		c0.13	0.72	
v/s Ratio Perm	0.64		0.08	0.35		0.08	c0.73			0.28		
v/c Ratio	1.76	1.24	0.21	0.99	1.90	0.20	2.26	0.83		0.82	2.16	
Uniform Delay, d1	36.0	44.5	19.0	38.3	45.5	19.0	44.9	44.0		28.9	46.5	
Progression Factor	0.77	0.89	3.17	1.37	1.12	1.13	1.00	1.00		1.00	1.00	
Incremental Delay, d2	352.8	111.1	0.1	40.4	407.5	0.0	578.8	10.7		14.0	526.9	
Delay (s)	380.5	150.5	60.5	92.9	458.6	21.5	623.7	54.6		42.9	573.4	
Level of Service	F	F	E	F	F	C	F	D		D	F	
Approach Delay (s)		166.5			412.6			388.0			467.2	
Approach LOS		F			F			F			F	

Intersection Summary

HCM Average Control Delay	349.1	HCM Level of Service	F
HCM Volume to Capacity ratio	2.20		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	185.5%	ICU Level of Service	H
Analysis Period (min)	15		

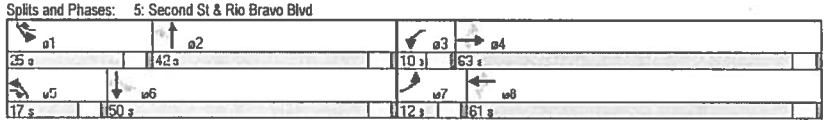
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Volume (vph)	243	1429	275	114	2107	155	618	215	277	218	889
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+pt	NA	Perm
Protected Phases	7	4	5	3	8	1	5	2	1	6	
Permitted Phases	4		4	8		8	2		6		6
Detector Phase	7	4	5	3	8	1	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	21.0	21.0
Total Split (s)	12.0	63.0	17.0	10.0	61.0	25.0	17.0	42.0	25.0	50.0	50.0
Total Split (%)	8.6%	45.0%	12.1%	7.1%	43.6%	17.9%	12.1%	30.0%	17.9%	35.7%	35.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?											
Recall Mode	Min	C-Max	Min	Min	C-Max	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	67.0	59.0	76.0	63.0	57.0	82.0	51.0	38.0	63.0	46.0	45.0
Actuated g/C Ratio	0.48	0.42	0.54	0.45	0.41	0.59	0.36	0.27	0.45	0.33	0.32
v/c Ratio	1.76	1.07	0.31	0.99	1.64	0.19	1.52	0.99	0.97	0.40	1.76
Control Delay	384.8	75.9	6.9	77.0	317.8	15.0	275.2	85.3	85.2	38.8	377.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	384.8	75.9	6.9	77.0	317.8	15.0	275.2	85.3	85.2	38.8	377.1
LOS	F	E	A	E	F	B	F	F	F	D	F
Approach Delay		104.7			286.5			196.6		265.4	
Approach LOS		F			F			F		F	

Intersection Summary

Cycle Length: 140
Actuated Cycle Length: 140
Offset: 12 (9%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.76
Intersection Signal Delay: 215.8 — Intersection LOS: F
Intersection Capacity Utilization 158.4% — ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 5: Second St & Rio Bravo Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	243	1429	275	114	2107	155	618	215	222	277	218	889
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	5.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.92		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1719	3438	1538	1719	3438	1538	1719	1672		1719	1810	1538
Flt Permitted	0.07	1.00	1.00	0.07	1.00	1.00	0.57	1.00		0.10	1.00	1.00
Satd. Flow (perm)	123	3438	1538	127	3438	1538	1040	1672		172	1810	1538
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	264	1553	299	124	2290	168	672	234	241	301	237	966
RTOR Reduction (vph)	0	0	126	0	0	0	0	26	0	0	0	54
Lane Group Flow (vph)	264	1553	173	124	2290	168	672	449	0	301	237	912
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA	Perm
Protected Phases	7	4	5	3	8	1	5	2		1	6	
Permitted Phases	4		4	8		8	2			6		6
Actuated Green, G (s)	65.0	58.0	70.0	61.0	56.0	76.0	49.0	37.0		62.0	45.0	45.0
Effective Green, g (s)	67.0	59.0	72.0	63.0	57.0	78.0	51.0	38.0		63.0	46.0	45.0
Actuated g/C Ratio	0.48	0.42	0.51	0.45	0.41	0.56	0.36	0.27		0.45	0.33	0.32
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	150	1449	835	125	1400	901	442	454		309	595	494
v/s Ratio Prot	c0.10	0.45	0.02	0.04	0.67	0.03	c0.14	0.27		0.15	0.13	
v/s Ratio Perm	c0.74		0.09	0.40		0.08	0.41			0.29		c0.59
v/c Ratio	1.76	1.07	0.21	0.99	1.64	0.19	1.52	0.99		0.97	0.40	1.85
Uniform Delay, d1	38.8	40.5	18.5	33.6	41.5	15.3	42.5	50.8		43.7	36.3	47.5
Progression Factor	1.04	0.85	2.10	1.38	1.07	1.08	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	360.0	42.0	0.1	40.4	287.0	0.0	245.5	38.8		43.8	0.4	388.3
Delay (s)	400.3	76.5	38.9	86.7	331.3	16.6	288.0	89.6		87.5	36.7	435.8
Level of Service	F	E	D	F	F	B	F	F		F	D	F
Approach Delay (s)		111.6			299.1			205.8			303.2	
Approach LOS		F			F			F			F	

Intersection Summary

HCM Average Control Delay	231.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.79		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	17.0
Intersection Capacity Utilization	158.4%	ICU Level of Service	H
Analysis Period (min)	15		

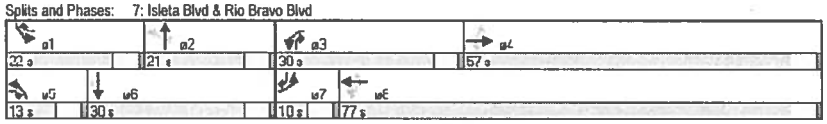
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	135	1098	74	265	312	257	92	243	462	394	180	65
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases	4		4	8		8	2		2			6
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0
Total Split (s)	10.0	57.0	13.0	30.0	77.0	22.0	13.0	21.0	30.0	22.0	30.0	10.0
Total Split (%)	7.7%	43.8%	10.0%	23.1%	59.2%	16.9%	10.0%	16.2%	23.1%	16.9%	23.1%	7.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?												
Recall Mode	Min	C-Max	Min	Min	C-Max	Min	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	59.9	53.0	65.9	84.3	73.4	95.4	24.6	15.7	47.0	18.0	24.8	35.7
Actuated g/C Ratio	0.46	0.41	0.51	0.65	0.56	0.73	0.19	0.12	0.36	0.14	0.19	0.27
v/c Ratio	0.34	0.93	0.11	0.79	0.20	0.27	0.42	0.67	0.94	0.92	0.30	0.15
Control Delay	14.8	49.6	4.6	40.9	19.7	4.2	41.0	63.0	65.3	81.0	46.2	8.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.8	49.6	4.6	40.9	19.7	4.2	41.0	63.0	65.3	81.0	46.2	8.6
LOS	B	D	A	D	B	A	D	E	E	F	D	A
Approach Delay		43.5			21.7			61.8			63.8	
Approach LOS		D			C			E			E	

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 102 (78%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 45.5 — Intersection LOS: D
Intersection Capacity Utilization 80.2% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 7: Isleta Blvd & Rio Bravo Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	135	1098	74	265	312	257	92	243	462	394	180	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1719	3438	1538	1719	3438	1538	1719	3438	1538	3335	3438	1538
Flt Permitted	0.52	1.00	1.00	0.07	1.00	1.00	0.63	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	948	3438	1538	127	3438	1538	1140	3438	1538	3335	3438	1538
Peak-hour factor, PHF	0.84	0.84	0.84	0.81	0.81	0.81	0.87	0.87	0.87	0.93	0.93	0.93
Adj. Flow (vph)	161	1307	88	327	385	317	106	279	531	424	194	70
RTOR Reduction (vph)	0	0	41	0	0	50	0	0	9	0	0	53
Lane Group Flow (vph)	161	1307	47	327	385	267	106	279	522	424	194	17
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases	4		4	8		8	2		2			6
Actuated Green, G (s)	57.9	52.0	59.9	83.3	72.4	89.4	22.6	14.7	41.0	17.0	23.8	29.7
Effective Green, g (s)	59.9	53.0	61.9	84.3	73.4	91.4	24.6	15.7	43.0	18.0	24.8	31.7
Actuated g/C Ratio	0.46	0.41	0.48	0.65	0.56	0.70	0.19	0.12	0.33	0.14	0.19	0.24
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	478	1402	780	417	1941	1129	255	415	556	462	656	422
v/s Ratio Prot	0.02	c0.38	0.00	0.16	0.11	0.03	0.03	0.08	c0.20	c0.13	0.06	0.00
v/s Ratio Perm	0.14		0.03	0.34		0.14	0.05		0.14			0.01
v/c Ratio	0.34	0.93	0.06	0.78	0.20	0.24	0.42	0.67	0.94	0.92	0.30	0.04
Uniform Delay, d1	20.9	36.8	18.4	37.9	13.9	6.9	45.5	54.7	42.2	55.3	45.1	37.5
Progression Factor	1.00	1.00	1.00	0.81	1.39	1.44	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	12.5	0.0	8.3	0.2	0.1	1.1	4.3	23.6	23.0	0.3	0.0
Delay (s)	21.3	49.3	18.4	38.9	19.4	10.0	46.6	58.9	65.8	78.2	45.4	37.6
Level of Service	C	D	B	D	B	A	D	E	E	E	D	D
Approach Delay (s)		44.7			22.7			61.5			64.8	
Approach LOS		D			C			E			E	

Intersection Summary

HCM Average Control Delay	46.3	HCM Level of Service		D	
HCM Volume to Capacity ratio	0.93				
Actuated Cycle Length (s)	130.0	Sum of lost time (s)		12.0	
Intersection Capacity Utilization	80.2%	ICU Level of Service		D	
Analysis Period (min)	15				

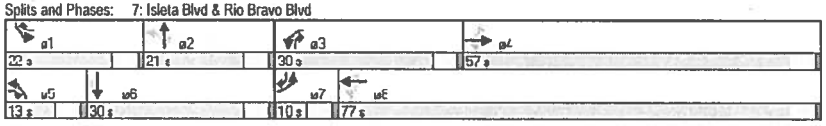
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	135	1099	74	269	315	264	92	243	463	396	180	65
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases	4		4	8		8	2		2			6
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0
Total Split (s)	10.0	57.0	13.0	30.0	77.0	22.0	13.0	21.0	30.0	22.0	30.0	10.0
Total Split (%)	7.7%	43.8%	10.0%	23.1%	59.2%	16.9%	10.0%	16.2%	23.1%	16.9%	23.1%	7.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?												
Recall Mode	Min	C-Max	Min	Min	C-Max	Min	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	59.9	53.0	65.9	84.3	73.4	95.4	24.6	15.7	47.0	18.0	24.8	35.7
Actuated g/C Ratio	0.46	0.41	0.51	0.65	0.56	0.73	0.19	0.12	0.36	0.14	0.19	0.27
v/c Ratio	0.34	0.93	0.11	0.80	0.20	0.28	0.42	0.67	0.94	0.92	0.30	0.15
Control Delay	14.9	49.8	4.6	41.6	19.8	4.3	41.0	63.0	65.5	81.7	46.2	8.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.9	49.8	4.6	41.6	19.8	4.3	41.0	63.0	65.5	81.7	46.2	8.6
LOS	B	D	A	D	B	A	D	E	E	F	D	A
Approach Delay		43.6			21.9			61.9			64.3	
Approach LOS		D			C			E			E	

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 102 (78%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.94
Intersection Signal Delay: 45.6 — Intersection LOS: D
Intersection Capacity Utilization 80.3% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 7: Isleta Blvd & Rio Bravo Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	135	1099	74	269	315	264	92	243	463	396	180	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1719	3438	1538	1719	3438	1538	1719	3438	1538	3335	3438	1538
Flt Permitted	0.52	1.00	1.00	0.07	1.00	1.00	0.63	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	944	3438	1538	127	3438	1538	1140	3438	1538	3335	3438	1538
Peak-hour factor, PHF	0.84	0.84	0.84	0.81	0.81	0.81	0.87	0.87	0.87	0.93	0.93	0.93
Adj. Flow (vph)	161	1308	88	332	389	326	106	279	532	426	194	70
RTOR Reduction (vph)	0	0	41	0	0	50	0	0	9	0	0	53
Lane Group Flow (vph)	161	1308	47	332	389	276	106	279	523	426	194	17
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases	4		4	8		8	2		2			6
Actuated Green, G (s)	57.9	52.0	59.9	83.3	72.4	89.4	22.6	14.7	41.0	17.0	23.8	29.7
Effective Green, g (s)	59.9	53.0	61.9	84.3	73.4	91.4	24.6	15.7	43.0	18.0	24.8	31.7
Actuated g/C Ratio	0.46	0.41	0.48	0.65	0.56	0.70	0.19	0.12	0.33	0.14	0.19	0.24
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	476	1402	780	417	1941	1129	255	415	556	462	656	422
v/s Ratio Prot	0.02	c0.38	0.00	0.17	0.11	0.03	0.03	0.08	c0.20	c0.13	0.06	0.00
v/s Ratio Perm	0.14		0.03	0.35		0.15	0.05		0.14			0.01
v/c Ratio	0.34	0.93	0.06	0.80	0.20	0.24	0.42	0.67	0.94	0.92	0.30	0.04
Uniform Delay, d1	20.9	36.8	18.4	38.1	13.9	6.9	45.5	54.7	42.2	55.3	45.1	37.5
Progression Factor	1.00	1.00	1.00	0.80	1.40	1.43	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	12.6	0.0	9.0	0.2	0.1	1.1	4.3	23.9	23.9	0.3	0.0
Delay (s)	21.3	49.4	18.4	39.5	19.6	10.0	46.6	58.9	66.1	79.2	45.4	37.6
Level of Service	C	D	B	D	B	B	D	E	E	E	D	D
Approach Delay (s)		44.7			22.9			61.7			65.5	
Approach LOS		D			C			E			E	

Intersection Summary

HCM Average Control Delay	46.4	HCM Level of Service	D
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	80.3%	ICU Level of Service	D
Analysis Period (min)	15		

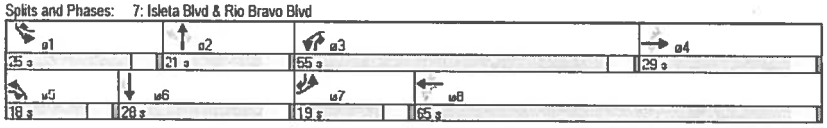
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	164	464	140	594	1040	524	171	251	210	432	312	166
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases	4		4	8		8	2		2			6
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0
Total Split (s)	19.0	29.0	18.0	55.0	65.0	25.0	18.0	21.0	55.0	25.0	28.0	19.0
Total Split (%)	14.6%	22.3%	13.8%	42.3%	50.0%	19.2%	13.8%	16.2%	42.3%	19.2%	21.5%	14.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?												
Recall Mode	Min	C-Max	Min	Min	C-Max	Min	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	44.8	32.5	50.0	81.8	65.6	90.3	28.9	15.4	64.7	20.8	22.6	38.9
Actuated g/C Ratio	0.34	0.25	0.38	0.63	0.50	0.69	0.22	0.12	0.50	0.16	0.17	0.30
v/c Ratio	0.63	0.58	0.22	0.88	0.65	0.51	0.61	0.65	0.28	0.85	0.55	0.33
Control Delay	35.0	48.0	5.5	14.3	19.5	5.6	44.6	62.4	16.0	69.2	52.6	17.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.0	48.0	5.5	14.3	19.5	5.6	44.6	62.4	16.0	69.2	52.6	17.4
LOS	D	D	A	B	B	A	D	E	B	E	D	B
Approach Delay		37.5			14.7			42.2			54.1	
Approach LOS		D			B			D			D	

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 116 (89%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 30.3 — Intersection LOS: C
Intersection Capacity Utilization 78.3% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 7: Isleta Blvd & Rio Bravo Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	164	464	140	594	1040	524	171	251	210	432	312	166
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1719	3438	1538	1719	3438	1538	1719	3438	1538	3335	3438	1538
Flt Permitted	0.25	1.00	1.00	0.26	1.00	1.00	0.55	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	456	3438	1538	468	3438	1538	996	3438	1538	3335	3438	1538
Peak-hour factor, PHF	0.94	0.94	0.94	0.92	0.92	0.92	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	174	494	149	646	1130	570	180	264	221	455	328	175
RTOR Reduction (vph)	0	0	96	0	0	57	0	0	16	0	0	68
Lane Group Flow (vph)	174	494	53	646	1130	513	180	264	205	455	328	107
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases	4		4	8		8	2		2			6
Actuated Green, G (s)	42.8	31.5	44.0	80.8	64.5	84.3	26.9	14.4	58.7	19.8	21.7	33.0
Effective Green, g (s)	44.8	32.5	46.0	81.8	65.5	86.3	28.9	15.4	60.7	20.8	22.7	35.0
Actuated g/C Ratio	0.34	0.25	0.35	0.63	0.50	0.66	0.22	0.12	0.47	0.16	0.17	0.27
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	277	860	592	730	1732	1068	296	407	765	534	600	461
v/s Ratio Prot	0.06	0.14	0.01	c0.31	0.33	0.08	0.06	c0.08	0.09	c0.14	0.10	0.02
v/s Ratio Perm	0.16		0.03	c0.25		0.26	0.07		0.04			0.05
v/c Ratio	0.63	0.57	0.09	0.88	0.65	0.48	0.61	0.65	0.27	0.85	0.55	0.23
Uniform Delay, d1	31.1	42.7	28.0	23.6	23.8	10.8	43.9	54.7	21.1	53.1	49.0	37.0
Progression Factor	1.00	1.00	1.00	0.57	0.78	0.80	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.4	2.8	0.1	1.3	0.2	0.0	3.5	3.5	0.2	12.4	1.0	0.3
Delay (s)	35.5	45.5	28.1	14.7	18.7	8.6	47.4	58.3	21.3	65.5	50.0	37.3
Level of Service	D	D	C	B	B	A	D	E	C	E	D	D
Approach Delay (s)		40.2			15.2			43.0			55.0	
Approach LOS		D			B			D			E	

Intersection Summary

HCM Average Control Delay	31.3	HCM Level of Service		C	
HCM Volume to Capacity ratio	0.84				
Actuated Cycle Length (s)	130.0	Sum of lost time (s)		12.0	
Intersection Capacity Utilization	78.3%	ICU Level of Service		D	
Analysis Period (min)	15				

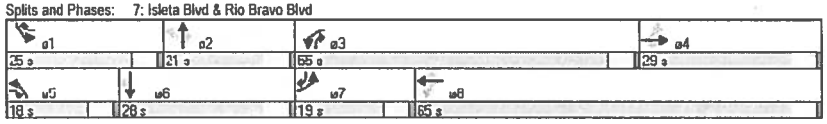
c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	164	465	140	600	1045	533	171	251	211	434	312	166
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases	4		4	8		8	2		2			6
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0
Total Split (s)	19.0	29.0	18.0	55.0	65.0	25.0	18.0	21.0	55.0	25.0	28.0	19.0
Total Split (%)	14.6%	22.3%	13.8%	42.3%	50.0%	19.2%	13.8%	16.2%	42.3%	19.2%	21.5%	14.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?												
Recall Mode	Min	C-Max	Min	Min	C-Max	Min	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	44.4	32.1	49.6	81.8	65.5	90.3	28.9	15.4	65.1	20.8	22.7	39.0
Actuated g/C Ratio	0.34	0.25	0.38	0.63	0.50	0.69	0.22	0.12	0.50	0.16	0.17	0.30
v/c Ratio	0.64	0.58	0.22	0.89	0.66	0.52	0.61	0.65	0.28	0.86	0.55	0.33
Control Delay	35.5	48.4	5.8	14.7	19.6	5.8	44.6	62.4	15.9	69.5	52.6	17.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.5	48.4	5.8	14.7	19.6	5.8	44.6	62.4	15.9	69.5	52.6	17.5
LOS	D	D	A	B	B	A	D	E	B	E	D	B
Approach Delay		37.9			14.9			42.1			54.2	
Approach LOS		D			B			D			D	

Intersection Summary

Cycle Length: 130
Actuated Cycle Length: 130
Offset: 116 (89%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 30.4 — Intersection LOS: C
Intersection Capacity Utilization 78.7% — ICU Level of Service D
Analysis Period (min) 15

Splits and Phases: 7: Isleta Blvd & Rio Bravo Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	164	465	140	600	1045	533	171	251	211	434	312	166
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1719	3438	1538	1719	3438	1538	1719	3438	1538	3335	3438	1538
Flt Permitted	0.25	1.00	1.00	0.25	1.00	1.00	0.55	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	453	3438	1538	461	3438	1538	996	3438	1538	3335	3438	1538
Peak-hour factor, PHF	0.94	0.94	0.94	0.92	0.92	0.92	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	174	495	149	652	1136	579	180	264	222	457	328	175
RTOR Reduction (vph)	0	0	95	0	0	57	0	0	16	0	0	67
Lane Group Flow (vph)	174	495	54	652	1136	522	180	264	206	457	328	108
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases	4		4	8		8	2		2			6
Actuated Green, G (s)	42.4	31.1	43.6	80.8	64.5	84.3	26.9	14.4	59.1	19.8	21.7	33.0
Effective Green, g (s)	44.4	32.1	45.6	81.8	65.5	86.3	28.9	15.4	61.1	20.8	22.7	35.0
Actuated g/C Ratio	0.34	0.25	0.35	0.63	0.50	0.66	0.22	0.12	0.47	0.16	0.17	0.27
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	275	849	587	732	1732	1068	296	407	770	534	600	461
v/s Ratio Prot	0.06	0.14	0.01	c0.31	0.33	0.08	0.06	c0.08	0.09	c0.14	0.10	0.02
v/s Ratio Perm	0.16		0.03	c0.25		0.26	0.07		0.04			0.05
v/c Ratio	0.63	0.58	0.09	0.89	0.66	0.49	0.61	0.65	0.27	0.86	0.55	0.23
Uniform Delay, d1	31.4	43.1	28.3	24.1	23.9	10.9	43.9	54.7	20.9	53.1	49.0	37.0
Progression Factor	1.00	1.00	1.00	0.56	0.78	0.81	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.7	2.9	0.1	1.4	0.2	0.0	3.5	3.5	0.2	12.7	1.0	0.3
Delay (s)	36.0	46.0	28.4	14.9	18.8	8.9	47.4	58.3	21.1	65.9	50.0	37.3
Level of Service	D	D	C	B	B	A	D	E	C	E	D	D
Approach Delay (s)		40.7			15.3			42.9			55.2	
Approach LOS		D			B			D			E	

Intersection Summary

HCM Average Control Delay	31.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	78.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Timings
7: Isleta Blvd & Rio Bravo Blvd

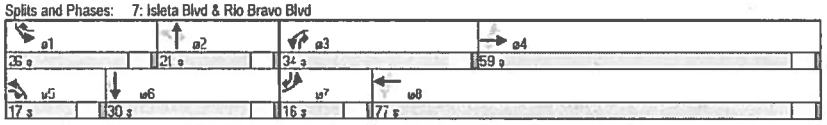
Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	191	1555	108	469	566	435	142	375	703	618	296	107
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases	4		4	8		8	2		2			6
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0
Total Split (s)	16.0	59.0	17.0	34.0	77.0	26.0	17.0	21.0	34.0	26.0	30.0	16.0
Total Split (%)	11.4%	42.1%	12.1%	24.3%	55.0%	18.6%	12.1%	15.0%	24.3%	18.6%	21.4%	11.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?												
Recall Mode	Min	C-Max	Min	Min	C-Max	Min	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	66.6	55.0	71.6	89.0	73.4	99.4	29.6	17.0	51.0	22.0	26.4	42.1
Actuated g/C Ratio	0.48	0.39	0.51	0.64	0.52	0.71	0.21	0.12	0.36	0.16	0.19	0.30
v/c Ratio	0.47	1.25	0.14	1.21	0.34	0.41	0.56	0.98	1.36	1.28	0.50	0.21
Control Delay	16.9	156.0	7.3	123.5	29.9	16.2	46.6	99.7	208.7	187.3	54.0	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.9	156.0	7.3	123.5	29.9	16.2	46.6	99.7	208.7	187.3	54.0	7.0
LOS	B	F	A	F	C	B	D	F	F	F	D	A
Approach Delay		133.1			55.7			156.3			129.8	
Approach LOS		F			E			F			F	

Intersection Summary

Cycle Length: 140
Actuated Cycle Length: 140
Offset: 97 (69%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.36
Intersection Signal Delay: 117.1 — Intersection LOS: F
Intersection Capacity Utilization 114.1% — ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 7: Isleta Blvd & Rio Bravo Blvd



HCM Signalized Intersection Capacity Analysis
7: Isleta Blvd & Rio Bravo Blvd

Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	191	1555	106	469	566	435	142	375	703	618	296	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1719	3438	1538	1719	3438	1538	1719	3438	1538	3335	3438	1538
Flt Permitted	0.42	1.00	1.00	0.07	1.00	1.00	0.56	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	758	3438	1538	123	3438	1538	1008	3438	1538	3335	3438	1538
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	208	1690	115	510	615	473	154	408	764	672	322	116
RTOR Reduction (vph)	0	0	39	0	0	52	0	0	2	0	0	85
Lane Group Flow (vph)	208	1690	76	510	615	421	154	408	762	672	322	31
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases	4		4	8		8	2		2			6
Actuated Green, G (s)	64.6	54.0	65.6	88.0	72.4	93.4	27.6	16.0	45.0	21.0	25.4	36.0
Effective Green, g (s)	66.6	55.0	67.6	89.0	73.4	95.4	29.6	17.0	47.0	22.0	26.4	38.0
Actuated g/C Ratio	0.48	0.39	0.48	0.64	0.52	0.68	0.21	0.12	0.34	0.16	0.19	0.27
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	440	1351	787	420	1802	1092	277	417	560	524	648	461
v/s Ratio Prot	0.04	0.49	0.01	0.26	0.18	0.06	0.05	0.12	c0.29	c0.20	0.09	0.01
v/s Ratio Perm	0.19		0.04	c0.51		0.21	0.07		0.20			0.01
v/c Ratio	0.47	1.25	0.10	1.21	0.34	0.39	0.56	0.98	1.36	1.28	0.50	0.07
Uniform Delay, d1	21.9	42.5	19.6	46.6	19.3	9.6	47.8	61.3	46.5	59.0	50.9	37.9
Progression Factor	1.00	1.00	1.00	0.54	1.53	3.10	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.8	119.2	0.1	98.6	0.0	0.0	2.4	38.0	173.7	141.1	0.6	0.1
Delay (s)	22.7	161.7	19.7	123.8	29.6	29.9	50.2	99.3	220.2	200.1	51.5	37.9
Level of Service	C	F	B	F	C	C	D	F	F	F	D	D
Approach Delay (s)		139.2			59.7			163.2			140.1	
Approach LOS		F			E			F			F	

Intersection Summary

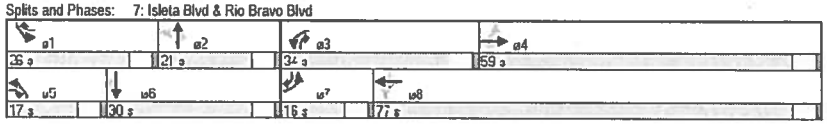
HCM Average Control Delay	123.6	HCM Level of Service	F
HCM Volume to Capacity ratio	1.27		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	114.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	191	1556	106	473	569	442	142	375	704	620	296	107
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases	4		4	8		8	2		2			6
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0
Total Split (s)	16.0	59.0	17.0	34.0	77.0	26.0	17.0	21.0	34.0	26.0	30.0	16.0
Total Split (%)	11.4%	42.1%	12.1%	24.3%	55.0%	18.6%	12.1%	15.0%	24.3%	18.6%	21.4%	11.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?												
Recall Mode	Min	C-Max	Min	Min	C-Max	Min	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	66.6	55.0	71.6	89.0	73.4	99.4	29.6	17.0	51.0	22.0	26.4	42.1
Actuated g/C Ratio	0.48	0.39	0.51	0.64	0.52	0.71	0.21	0.12	0.36	0.16	0.19	0.30
v/c Ratio	0.47	1.25	0.14	1.22	0.34	0.42	0.56	0.98	1.36	1.29	0.50	0.21
Control Delay	16.9	156.3	7.3	127.6	30.1	16.6	46.6	99.7	209.4	188.7	54.0	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.9	156.3	7.3	127.6	30.1	16.6	46.6	99.7	209.4	188.7	54.0	7.0
LOS	B	F	A	F	C	B	D	F	F	F	D	A
Approach Delay		133.4			57.2			156.8			130.8	
Approach LOS		F			E			F			F	

Intersection Summary			
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 97 (69%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green			
Natural Cycle: 130			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.36			
Intersection Signal Delay: 117.8		Intersection LOS: F	
Intersection Capacity Utilization 114.3%		ICU Level of Service H	
Analysis Period (min) 15			

Splits and Phases: 7: Isleta Blvd & Rio Bravo Blvd



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	191	1556	106	473	569	442	142	375	704	620	296	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1719	3438	1538	1719	3438	1538	1719	3438	1538	3335	3438	1538
Flt Permitted	0.42	1.00	1.00	0.07	1.00	1.00	0.56	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	756	3438	1538	123	3438	1538	1008	3438	1538	3335	3438	1538
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	208	1691	115	514	618	480	154	408	765	674	322	116
RTOR Reduction (vph)	0	0	39	0	0	52	0	0	2	0	0	85
Lane Group Flow (vph)	208	1691	76	514	618	428	154	408	763	674	322	31
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases	4		4	8		8	2		2			6
Actuated Green, G (s)	64.6	54.0	65.6	88.0	72.4	93.4	27.6	16.0	45.0	21.0	25.4	36.0
Effective Green, g (s)	66.6	55.0	67.6	89.0	73.4	95.4	29.6	17.0	47.0	22.0	26.4	38.0
Actuated g/C Ratio	0.48	0.39	0.48	0.64	0.52	0.68	0.21	0.12	0.34	0.16	0.19	0.27
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	439	1351	787	420	1802	1092	277	417	560	524	648	461
v/s Ratio Prot	0.04	0.49	0.01	0.26	0.18	0.06	0.05	0.12	c0.29	c0.20	0.09	0.01
v/s Ratio Perm	0.19		0.04	c0.52		0.22	0.07		0.20			0.01
v/c Ratio	0.47	1.25	0.10	1.22	0.34	0.39	0.56	0.98	1.36	1.29	0.50	0.07
Uniform Delay, d1	21.9	42.5	19.6	46.6	19.3	9.7	47.8	61.3	46.5	59.0	50.9	37.9
Progression Factor	1.00	1.00	1.00	0.54	1.54	3.12	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.8	119.5	0.1	102.8	0.0	0.0	2.4	38.0	174.4	142.7	0.6	0.1
Delay (s)	22.7	162.0	19.7	127.8	29.7	30.2	50.2	99.3	220.9	201.7	51.5	37.9
Level of Service	C	F	B	F	C	C	D	F	F	F	D	D
Approach Delay (s)		139.5			61.1			163.7			141.1	
Approach LOS		F			E			F			F	

Intersection Summary					
HCM Average Control Delay	124.3	HCM Level of Service		F	
HCM Volume to Capacity ratio	1.27				
Actuated Cycle Length (s)	140.0	Sum of lost time (s)		8.0	
Intersection Capacity Utilization	114.3%	ICU Level of Service		H	
Analysis Period (min)	15				
c Critical Lane Group					

Timings
7: Isleta Blvd & Rio Bravo Blvd

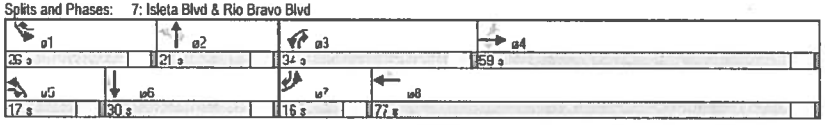
Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	191	1556	106	473	569	442	142	375	704	620	296	107
Turn Type	pm+pt	NA	pm+ov	Prot	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases	4		4			8	2		2			6
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0
Total Split (s)	16.0	59.0	17.0	34.0	77.0	26.0	17.0	21.0	34.0	26.0	30.0	16.0
Total Split (%)	11.4%	42.1%	12.1%	24.3%	55.0%	18.6%	12.1%	15.0%	24.3%	18.6%	21.4%	11.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?												
Recall Mode	Min	C-Max	Min	Min	C-Max	Min	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	66.6	55.0	71.6	30.0	73.4	99.4	29.6	17.0	51.0	22.0	26.4	42.1
Actuated g/C Ratio	0.48	0.39	0.51	0.21	0.52	0.71	0.21	0.12	0.36	0.16	0.19	0.30
v/c Ratio	0.47	1.25	0.14	0.72	0.34	0.42	0.56	0.98	1.36	1.29	0.50	0.21
Control Delay	16.9	156.3	7.5	37.2	30.4	16.3	46.6	99.7	209.4	188.7	54.0	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.9	156.3	7.5	37.2	30.4	16.3	46.6	99.7	209.4	188.7	54.0	7.0
LOS	B	F	A	D	C	B	D	F	F	F	D	A
Approach Delay		133.4			28.4			156.8			130.8	
Approach LOS		F			C			F			F	

Intersection Summary

Cycle Length: 140
Actuated Cycle Length: 140
Offset: 97 (69%), Referenced to phase 4:EBTL and 8:WBT, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.36
Intersection Signal Delay: 110.1 — Intersection LOS: F
Intersection Capacity Utilization 114.3% — ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 7: Isleta Blvd & Rio Bravo Blvd



HCM Signalized Intersection Capacity Analysis
7: Isleta Blvd & Rio Bravo Blvd

Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	191	1556	106	473	569	442	142	375	704	620	296	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1719	3438	1538	3335	3438	1538	1719	3438	1538	3335	3438	1538
Flt Permitted	0.42	1.00	1.00	0.95	1.00	1.00	0.56	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	756	3438	1538	3335	3438	1538	1008	3438	1538	3335	3438	1538
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	208	1691	115	514	618	480	154	408	765	674	322	116
RTOR Reduction (vph)	0	0	38	0	0	52	0	0	2	0	0	85
Lane Group Flow (vph)	208	1691	77	514	618	428	154	408	763	674	322	31
Turn Type	pm+pt	NA	pm+ov	Prot	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases	4		4			8	2		2			6
Actuated Green, G (s)	64.6	54.0	65.6	29.0	72.4	93.4	27.6	16.0	45.0	21.0	25.4	36.0
Effective Green, g (s)	66.6	55.0	67.6	30.0	73.4	95.4	29.6	17.0	47.0	22.0	26.4	38.0
Actuated g/C Ratio	0.48	0.39	0.48	0.21	0.52	0.68	0.21	0.12	0.34	0.16	0.19	0.27
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	439	1351	787	715	1802	1092	277	417	560	524	648	461
v/s Ratio Prot	0.04	c0.49	0.01	0.15	0.18	0.06	0.05	0.12	c0.29	c0.20	0.09	0.01
v/s Ratio Perm	0.19		0.04			0.22	0.07		0.20			0.01
v/c Ratio	0.47	1.25	0.10	0.72	0.34	0.39	0.56	0.98	1.36	1.29	0.50	0.07
Uniform Delay, d1	21.9	42.5	19.6	51.1	19.3	9.7	47.8	61.3	46.5	59.0	50.9	37.9
Progression Factor	1.00	1.00	1.00	0.88	1.54	3.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.8	119.5	0.1	1.3	0.2	0.1	2.4	38.0	174.4	142.7	0.6	0.1
Delay (s)	22.7	162.0	19.7	35.9	30.0	29.2	50.2	99.3	220.9	201.7	51.5	37.9
Level of Service	C	F	B	D	C	C	D	F	F	F	D	D
Approach Delay (s)		139.5			31.6			163.7			141.1	
Approach LOS		F			C			F			F	

Intersection Summary

HCM Average Control Delay	116.4	HCM Level of Service	F	
HCM Volume to Capacity ratio	1.30			
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0	
Intersection Capacity Utilization	114.3%	ICU Level of Service	H	
Analysis Period (min)	15			

c Critical Lane Group

Timings
7: Isleta Blvd & Rio Bravo Blvd

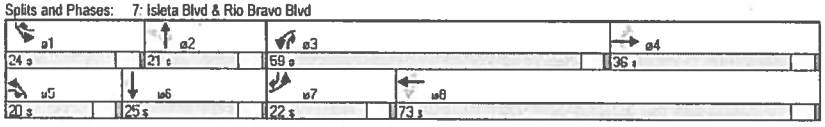
Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	291	811	247	906	1632	753	217	320	253	579	459	245
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases	4		4	8		8	2		2			6
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0
Total Split (s)	22.0	36.0	20.0	59.0	73.0	24.0	20.0	21.0	59.0	24.0	25.0	22.0
Total Split (%)	15.7%	25.7%	14.3%	42.1%	52.1%	17.1%	14.3%	15.0%	42.1%	17.1%	17.9%	15.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?												
Recall Mode	Min	C-Max	Min	Min	C-Max	Min	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	50.0	32.0	52.0	91.0	69.0	93.0	33.0	17.0	76.0	20.0	21.0	43.0
Actuated g/C Ratio	0.36	0.23	0.37	0.65	0.49	0.66	0.24	0.12	0.54	0.14	0.15	0.31
v/c Ratio	1.16	1.12	0.45	1.35	1.05	0.79	0.95	0.83	0.33	1.32	0.97	0.54
Control Delay	145.8	119.8	30.9	186.0	56.9	20.1	88.8	77.8	18.9	204.2	91.0	40.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	145.8	119.8	30.9	186.0	56.9	20.1	88.8	77.8	18.9	204.2	91.0	40.3
LOS	F	F	C	F	E	C	F	E	B	F	F	D
Approach Delay		109.1			84.0			62.0			132.4	
Approach LOS		F			F			E			F	

Intersection Summary

Cycle Length: 140
Actuated Cycle Length: 140
Offset: 93 (66%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.35
Intersection Signal Delay: 95.7 — Intersection LOS: F
Intersection Capacity Utilization 111.3% — ICU Level of Service H
Analysis Period (min) 15

Splits and Phases: 7: Isleta Blvd & Rio Bravo Blvd



HCM Signalized Intersection Capacity Analysis
7: Isleta Blvd & Rio Bravo Blvd

Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	291	811	247	906	1632	753	217	320	253	579	459	245
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1719	3438	1538	1719	3438	1538	1719	3438	1538	3335	3438	1538
Flt Permitted	0.12	1.00	1.00	0.11	1.00	1.00	0.24	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	226	3438	1538	201	3438	1538	426	3438	1538	3335	3438	1538
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	316	882	268	985	1774	818	236	348	275	629	499	266
RTOR Reduction (vph)	0	0	26	0	0	18	0	0	2	0	0	22
Lane Group Flow (vph)	316	882	242	985	1774	800	236	348	273	629	499	244
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases	4		4	8		8	2		2			6
Actuated Green, G (s)	48.0	31.0	46.0	90.0	68.0	87.0	31.0	16.0	70.0	19.0	20.0	37.0
Effective Green, g (s)	50.0	32.0	48.0	91.0	69.0	89.0	33.0	17.0	72.0	20.0	21.0	39.0
Actuated g/C Ratio	0.36	0.23	0.34	0.65	0.49	0.64	0.24	0.12	0.51	0.14	0.15	0.28
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	273	786	571	727	1694	1022	248	417	835	476	516	472
v/s Ratio Prot	0.15	0.26	0.05	c0.53	0.52	0.11	0.11	0.10	0.13	c0.19	c0.15	0.07
v/s Ratio Perm	0.26		0.11	c0.35		0.41	0.12		0.05			0.09
v/c Ratio	1.16	1.12	0.42	1.35	1.05	0.78	0.95	0.83	0.33	1.32	0.97	0.52
Uniform Delay, d1	41.9	54.0	35.4	36.9	35.5	18.5	48.7	60.1	19.9	60.0	59.2	42.6
Progression Factor	1.00	1.00	1.00	0.71	0.96	1.20	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	103.9	71.2	0.5	160.5	23.2	0.4	43.7	13.4	0.2	158.8	31.0	1.0
Delay (s)	145.8	125.2	35.9	186.7	57.3	22.5	92.4	73.6	20.1	218.8	90.2	43.5
Level of Service	F	F	D	F	E	C	F	E	C	F	F	D
Approach Delay (s)		113.3			85.0			61.6			139.3	
Approach LOS		F			F			E			F	

Intersection Summary

HCM Average Control Delay	98.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.29		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	111.3%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

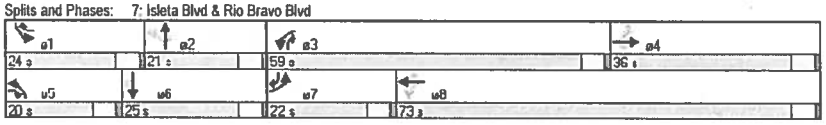
Timings
7: Isleta Blvd & Rio Bravo Blvd

Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	291	812	247	912	1637	762	217	320	254	581	459	245
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases	4		4	8		8	2		2			6
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0
Total Split (s)	22.0	36.0	20.0	59.0	73.0	24.0	20.0	21.0	59.0	24.0	25.0	22.0
Total Split (%)	15.7%	25.7%	14.3%	42.1%	52.1%	17.1%	14.3%	15.0%	42.1%	17.1%	17.9%	15.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?												
Recall Mode	Min	C-Max	Min	Min	C-Max	Min	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	50.0	32.0	52.0	91.0	69.0	93.0	33.0	17.0	76.0	20.0	21.0	43.0
Actuated g/C Ratio	0.36	0.23	0.37	0.65	0.49	0.66	0.24	0.12	0.54	0.14	0.15	0.31
v/c Ratio	1.16	1.12	0.45	1.36	1.05	0.80	0.95	0.83	0.33	1.33	0.97	0.54
Control Delay	145.8	120.2	31.1	189.6	58.1	20.5	88.8	77.8	18.9	206.6	91.0	40.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	145.8	120.2	31.1	189.6	58.1	20.5	88.8	77.8	18.9	206.6	91.0	40.3
LOS	F	F	C	F	E	C	F	E	B	F	F	D
Approach Delay		109.4			85.7			61.9			133.6	
Approach LOS		F			F			E			F	

Intersection Summary			
Cycle Length: 140			
Actuated Cycle Length: 140			
Offset: 93 (66%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green			
Natural Cycle: 130			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.36			
Intersection Signal Delay: 96.8		Intersection LOS: F	
Intersection Capacity Utilization 111.7%		ICU Level of Service H	
Analysis Period (min) 15			

Splits and Phases: 7: Isleta Blvd & Rio Bravo Blvd



HCM Signalized Intersection Capacity Analysis
7: Isleta Blvd & Rio Bravo Blvd

Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	291	812	247	912	1637	762	217	320	254	581	459	245
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1719	3438	1538	1719	3438	1538	1719	3438	1538	3335	3438	1538
Flt Permitted	0.12	1.00	1.00	0.11	1.00	1.00	0.24	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	226	3438	1538	201	3438	1538	426	3438	1538	3335	3438	1538
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	316	883	268	991	1779	828	236	348	276	632	499	266
RTOR Reduction (vph)	0	0	25	0	0	18	0	0	2	0	0	22
Lane Group Flow (vph)	316	883	243	991	1779	810	236	348	274	632	499	244
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases	4		4	8		8	2		2			6
Actuated Green, G (s)	48.0	31.0	46.0	90.0	68.0	87.0	31.0	16.0	70.0	19.0	20.0	37.0
Effective Green, g (s)	50.0	32.0	48.0	91.0	69.0	89.0	33.0	17.0	72.0	20.0	21.0	39.0
Actuated g/C Ratio	0.36	0.23	0.34	0.65	0.49	0.64	0.24	0.12	0.51	0.14	0.15	0.28
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	273	786	571	727	1694	1022	248	417	835	476	516	472
v/s Ratio Prot	0.15	0.26	0.05	c0.54	0.52	0.11	0.11	0.10	0.13	c0.19	c0.15	0.07
v/s Ratio Perm	0.26		0.11	c0.35		0.41	0.12		0.05			0.09
v/c Ratio	1.16	1.12	0.43	1.36	1.05	0.79	0.95	0.83	0.33	1.33	0.97	0.52
Uniform Delay, d1	41.9	54.0	35.4	36.9	35.5	18.7	48.7	60.1	19.9	60.0	59.2	42.6
Progression Factor	1.00	1.00	1.00	0.71	0.96	1.20	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	103.9	71.7	0.5	164.2	24.4	0.4	43.7	13.4	0.2	161.5	31.0	1.0
Delay (s)	145.8	125.7	35.9	190.3	58.6	22.9	92.4	73.6	20.1	221.5	90.2	43.5
Level of Service	F	F	D	F	E	C	F	E	C	F	F	D
Approach Delay (s)		113.6			86.7			61.6			140.7	
Approach LOS		F			F			E			F	

Intersection Summary					
HCM Average Control Delay	99.4	HCM Level of Service		F	
HCM Volume to Capacity ratio	1.30				
Actuated Cycle Length (s)	140.0	Sum of lost time (s)		12.0	
Intersection Capacity Utilization	111.7%	ICU Level of Service		H	
Analysis Period (min)	15				
c Critical Lane Group					

Timings
7: Isleta Blvd & Rio Bravo Blvd

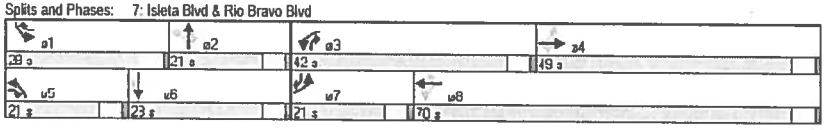
Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	291	812	247	912	1637	762	217	320	254	581	459	245
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases	4		4	8		8	2		2			6
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0
Total Split (s)	21.0	49.0	21.0	42.0	70.0	28.0	21.0	21.0	42.0	28.0	28.0	21.0
Total Split (%)	15.0%	35.0%	15.0%	30.0%	50.0%	20.0%	15.0%	15.0%	30.0%	20.0%	20.0%	15.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?												
Recall Mode	Min	C-Max	Min	Min	C-Max	Min	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	62.6	45.4	66.4	87.2	66.0	94.0	33.8	16.8	58.6	24.0	23.8	45.0
Actuated g/C Ratio	0.45	0.32	0.47	0.62	0.47	0.67	0.24	0.12	0.42	0.17	0.17	0.32
v/c Ratio	1.20	0.79	0.36	0.96	1.10	0.79	0.91	0.84	0.42	1.10	0.85	0.51
Control Delay	160.4	49.3	23.7	32.8	79.7	28.1	76.0	79.0	28.7	122.1	71.2	37.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	160.4	49.3	23.7	32.8	79.7	28.1	76.0	79.0	28.7	122.1	71.2	37.6
LOS	F	D	C	C	E	C	E	E	C	F	E	D
Approach Delay		68.6			54.9			62.0			87.8	
Approach LOS		E			D			E			F	

Intersection Summary

Cycle Length: 140
Actuated Cycle Length: 140
Offset: 93 (66%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.20
Intersection Signal Delay: 64.8 — Intersection LOS: E
Intersection Capacity Utilization 100.1% — ICU Level of Service G
Analysis Period (min) 15

Splits and Phases: 7: Isleta Blvd & Rio Bravo Blvd



HCM Signalized Intersection Capacity Analysis
7: Isleta Blvd & Rio Bravo Blvd

Terry O. Brown, P.E.
3/10/2012 - Synchro 7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	291	812	247	912	1637	762	217	320	254	581	459	245
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1719	3438	1538	3335	3438	1538	1719	3438	1538	3335	3438	1538
Flt Permitted	0.09	1.00	1.00	0.11	1.00	1.00	0.24	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	159	3438	1538	377	3438	1538	431	3438	1538	3335	3438	1538
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	316	883	268	991	1779	828	236	348	276	632	499	266
RTOR Reduction (vph)	0	0	9	0	0	16	0	0	13	0	0	24
Lane Group Flow (vph)	316	883	259	991	1779	812	236	348	263	632	499	242
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases	4		4	8		8	2		2			6
Actuated Green, G (s)	60.6	44.4	60.4	86.2	65.0	88.0	31.8	15.8	52.6	23.0	22.8	39.0
Effective Green, g (s)	62.6	45.4	62.4	87.2	66.0	90.0	33.8	16.8	54.6	24.0	23.8	41.0
Actuated g/C Ratio	0.45	0.32	0.45	0.62	0.47	0.64	0.24	0.12	0.39	0.17	0.17	0.29
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	263	1115	729	1033	1621	1033	260	413	644	572	584	494
v/s Ratio Prot	c0.15	0.26	0.04	0.26	c0.52	0.13	0.11	0.10	0.11	c0.19	c0.15	0.06
v/s Ratio Perm	c0.39		0.13	0.34		0.39	0.11		0.06			0.10
v/c Ratio	1.20	0.79	0.36	0.96	1.10	0.79	0.91	0.84	0.41	1.10	0.85	0.49
Uniform Delay, d1	44.1	43.0	25.6	39.6	37.0	18.0	47.1	60.3	31.0	58.0	56.4	40.9
Progression Factor	1.00	1.00	1.00	0.78	0.98	1.72	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	121.2	5.8	0.3	2.9	45.0	0.4	32.2	14.4	0.4	69.7	11.7	0.8
Delay (s)	165.3	48.8	25.9	33.7	81.1	31.4	79.3	74.7	31.4	127.7	68.1	41.6
Level of Service	F	D	C	C	F	C	E	E	C	F	E	D
Approach Delay (s)		69.7			56.6			62.1			90.0	
Approach LOS		E			E			E			F	

Intersection Summary

HCM Average Control Delay	66.2	HCM Level of Service	E	
HCM Volume to Capacity ratio	1.11			
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	16.0	
Intersection Capacity Utilization	100.1%	ICU Level of Service	G	
Analysis Period (min)	15			

c Critical Lane Group

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	0	40	0	496	239	20
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.75	0.75	0.75	0.75
Hourly flow rate (vph)	0	47	0	661	319	27
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				Raised	Raised	
Median storage veh)				1	1	
Upstream signal (ft)				271		
pX, platoon unblocked	0.90					
vC, conflicting volume	649	159	345			
vC1, stage 1 conf vol	319					
vC2, stage 2 conf vol	331					
vCu, unblocked vol	395	159	345			
tC, single (s)	6.9	7.0	4.2			
tC, 2 stage (s)	5.9					
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	94	100			
cM capacity (veh/h)	583	848	1189			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	47	331	331	159	159	27
Volume Left	0	0	0	0	0	0
Volume Right	47	0	0	0	0	27
cSH	848	1700	1700	1700	1700	1700
Volume to Capacity	0.06	0.19	0.19	0.09	0.09	0.02
Queue Length 95th (ft)	4	0	0	0	0	0
Control Delay (s)	9.5	0.0	0.0	0.0	0.0	0.0
Lane LOS	A					
Approach Delay (s)	9.5	0.0		0.0		
Approach LOS	A					

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	17.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	0	58	0	438	693	32
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	0	68	0	503	797	37
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				Raised	Raised	
Median storage veh)				1	1	
Upstream signal (ft)				271		
pX, platoon unblocked	0.94					
vC, conflicting volume	1048	398	833			
vC1, stage 1 conf vol	797					
vC2, stage 2 conf vol	252					
vCu, unblocked vol	921	398	833			
tC, single (s)	6.9	7.0	4.2			
tC, 2 stage (s)	5.9					
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	88	100			
cM capacity (veh/h)	336	593	776			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	68	252	252	398	398	37
Volume Left	0	0	0	0	0	0
Volume Right	68	0	0	0	0	37
cSH	593	1700	1700	1700	1700	1700
Volume to Capacity	0.12	0.15	0.15	0.23	0.23	0.02
Queue Length 95th (ft)	10	0	0	0	0	0
Control Delay (s)	11.9	0.0	0.0	0.0	0.0	0.0
Lane LOS	B					
Approach Delay (s)	11.9	0.0		0.0		
Approach LOS	B					

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	29.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	0	40	0	820	321	20
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.75	0.75	0.75	0.75
Hourly flow rate (vph)	0	47	0	1093	428	27
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				Raised	Raised	
Median storage veh)				1	1	
Upstream signal (ft)				271		
pX, platoon unblocked	0.80					
vC, conflicting volume	975	214	455			
vC1, stage 1 conf vol	428					
vC2, stage 2 conf vol	547					
vCu, unblocked vol	473	214	455			
tC, single (s)	6.9	7.0	4.2			
tC, 2 stage (s)	5.9					
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	94	100			
cM capacity (veh/h)	499	782	1081			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	47	547	547	214	214	27
Volume Left	0	0	0	0	0	0
Volume Right	47	0	0	0	0	27
cSH	782	1700	1700	1700	1700	1700
Volume to Capacity	0.06	0.32	0.32	0.13	0.13	0.02
Queue Length 95th (ft)	5	0	0	0	0	0
Control Delay (s)	9.9	0.0	0.0	0.0	0.0	0.0
Lane LOS	A					
Approach Delay (s)	9.9	0.0		0.0		
Approach LOS	A					

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	26.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	0	58	0	605	1536	32
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	0	68	0	695	1766	37
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				Raised	Raised	
Median storage veh)				1	1	
Upstream signal (ft)				271		
pX, platoon unblocked	0.92					
vC, conflicting volume	2113	883	1802			
vC1, stage 1 conf vol	1766					
vC2, stage 2 conf vol	348					
vCu, unblocked vol	2033	883	1802			
tC, single (s)	6.9	7.0	4.2			
tC, 2 stage (s)	5.9					
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	76	100			
cM capacity (veh/h)	102	283	326			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2	SB 3
Volume Total	68	348	348	883	883	37
Volume Left	0	0	0	0	0	0
Volume Right	68	0	0	0	0	37
cSH	283	1700	1700	1700	1700	1700
Volume to Capacity	0.24	0.20	0.20	0.52	0.52	0.02
Queue Length 95th (ft)	23	0	0	0	0	0
Control Delay (s)	21.7	0.0	0.0	0.0	0.0	0.0
Lane LOS	C					
Approach Delay (s)	21.7	0.0		0.0		
Approach LOS	C					

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	52.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑	↱		↱
Volume (veh/h)	0	2083	871	74	0	59
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.85	0.85
Hourly flow rate (vph)	0	2240	937	80	0	69
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		Raised	Raised			
Median storage veh)		1	1			
Upstream signal (ft)			459			
pX, platoon unblocked	0.90				0.90	0.90
vC, conflicting volume	1016				2056	468
vC1, stage 1 conf vol					937	
vC2, stage 2 conf vol					1120	
vCu, unblocked vol	792				1950	182
tC, single (s)	4.2				6.9	7.0
tC, 2 stage (s)					5.9	
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	91
cM capacity (veh/h)	723				167	736

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	SB 1
Volume Total	1120	1120	468	468	80	69
Volume Left	0	0	0	0	0	0
Volume Right	0	0	0	0	80	69
cSH	1700	1700	1700	1700	1700	736
Volume to Capacity	0.66	0.66	0.28	0.28	0.05	0.09
Queue Length 95th (ft)	0	0	0	0	0	8
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	10.4
Lane LOS						B
Approach Delay (s)	0.0		0.0			10.4
Approach LOS						B

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	60.9%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑	↱		↱
Volume (veh/h)	0	1330	2211	92	0	73
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.85	0.85
Hourly flow rate (vph)	0	1462	2430	101	0	86
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		Raised	Raised			
Median storage veh)		1	1			
Upstream signal (ft)			459			
pX, platoon unblocked	0.67				0.67	0.67
vC, conflicting volume	2531				3160	1215
vC1, stage 1 conf vol					2430	
vC2, stage 2 conf vol					731	
vCu, unblocked vol	2295				3241	318
tC, single (s)	4.2				6.9	7.0
tC, 2 stage (s)					5.9	
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	81
cM capacity (veh/h)	138				40	445

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	SB 1
Volume Total	731	731	1215	1215	101	86
Volume Left	0	0	0	0	0	0
Volume Right	0	0	0	0	101	86
cSH	1700	1700	1700	1700	1700	445
Volume to Capacity	0.43	0.43	0.71	0.71	0.06	0.19
Queue Length 95th (ft)	0	0	0	0	0	18
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	15.0
Lane LOS						C
Approach Delay (s)	0.0		0.0			15.0
Approach LOS						C

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	72.3%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑	↱		↱
Volume (veh/h)	0	2399	1303	82	0	59
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.85	0.85
Hourly flow rate (vph)	0	2580	1401	88	0	69
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		Raised	Raised			
Median storage veh)		1	1			
Upstream signal (ft)			459			
pX, platoon unblocked	0.82				0.82	0.82
vC, conflicting volume	1489				2691	701
vC1, stage 1 conf vol					1401	
vC2, stage 2 conf vol					1290	
vCu, unblocked vol	1157				2623	195
tC, single (s)	4.2				6.9	7.0
tC, 2 stage (s)					5.9	
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	89
cM capacity (veh/h)	478				111	659

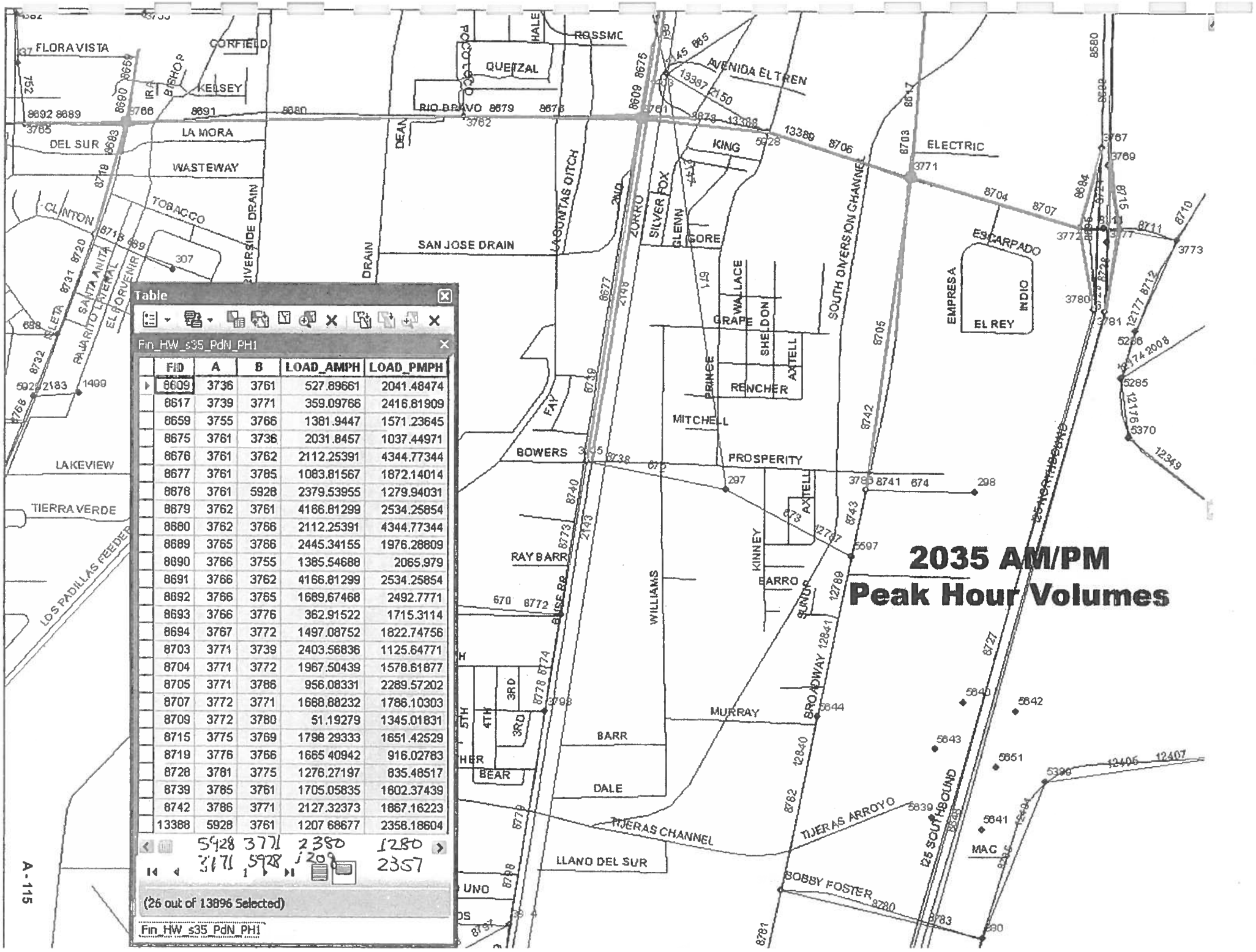
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	SB 1
Volume Total	1290	1290	701	701	88	69
Volume Left	0	0	0	0	0	0
Volume Right	0	0	0	0	88	69
cSH	1700	1700	1700	1700	1700	659
Volume to Capacity	0.76	0.76	0.41	0.41	0.05	0.11
Queue Length 95th (ft)	0	0	0	0	0	9
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	11.1
Lane LOS						B
Approach Delay (s)	0.0		0.0			11.1
Approach LOS						B

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	69.6%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑↑	↱		↱
Volume (veh/h)	0	1458	2874	102	0	73
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.85	0.85
Hourly flow rate (vph)	0	1602	3158	112	0	86
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		Raised	Raised			
Median storage veh)		1	1			
Upstream signal (ft)			459			
pX, platoon unblocked	0.76				0.76	0.76
vC, conflicting volume	3270				3959	1053
vC1, stage 1 conf vol					3158	
vC2, stage 2 conf vol					801	
vCu, unblocked vol	2875				3786	0
tC, single (s)	4.2				6.9	7.0
tC, 2 stage (s)					5.9	
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	89
cM capacity (veh/h)	91				22	813

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	WB 3	WB 4	SB 1
Volume Total	801	801	1053	1053	1053	112	86
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	112	86
cSH	1700	1700	1700	1700	1700	1700	813
Volume to Capacity	0.47	0.47	0.62	0.62	0.62	0.07	0.11
Queue Length 95th (ft)	0	0	0	0	0	0	9
Control Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	9.9
Lane LOS							A
Approach Delay (s)	0.0		0.0				9.9
Approach LOS							A

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	66.7%	ICU Level of Service	C
Analysis Period (min)	15		



Table

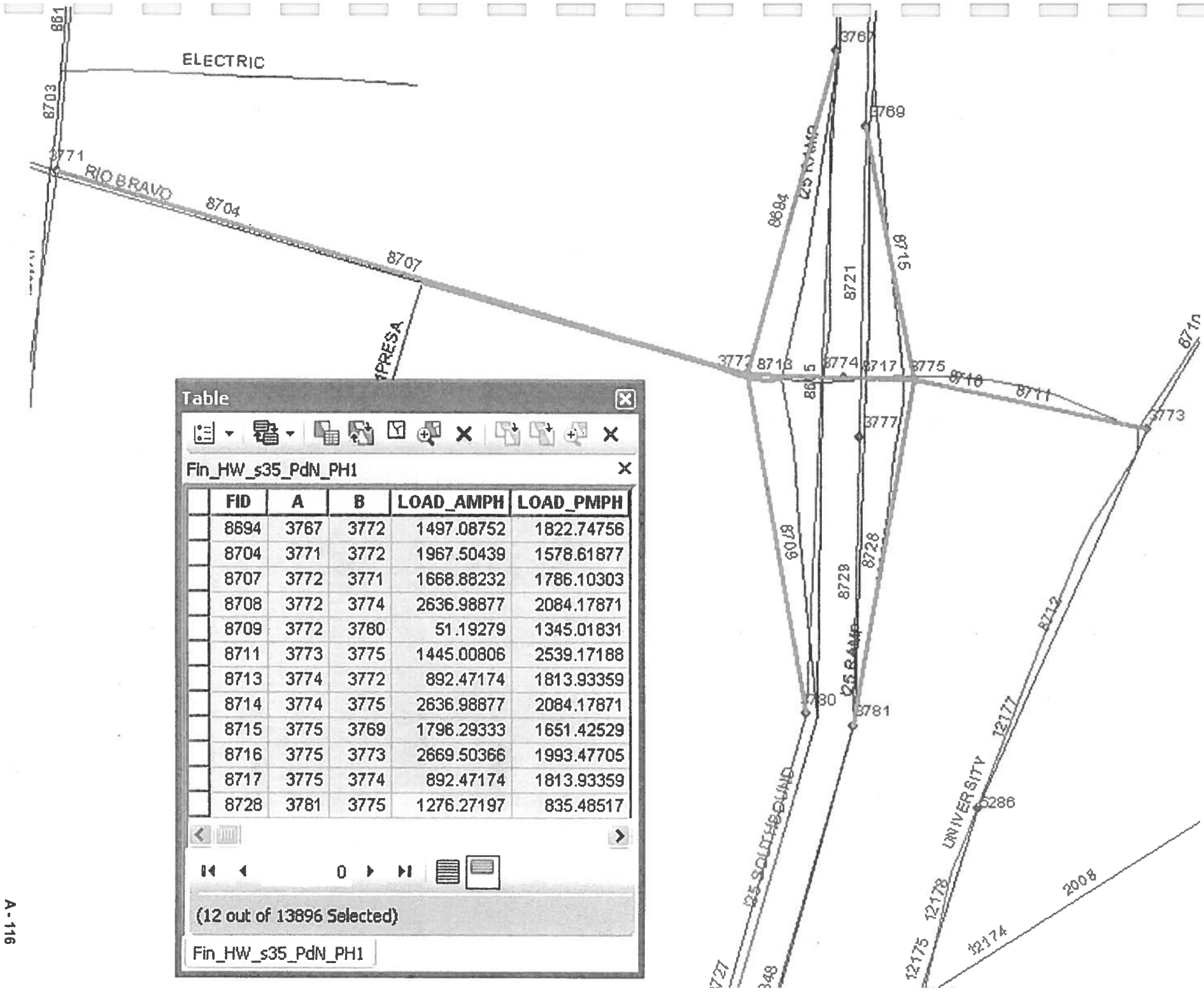
Fin_HW_s35_PdN_PH1

FID	A	B	LOAD_AMPH	LOAD_PMPH
8609	3736	3761	527.89661	2041.48474
8617	3739	3771	359.09766	2416.81909
8659	3755	3766	1381.9447	1571.23645
8675	3761	3736	2031.8457	1037.44971
8676	3761	3762	2112.25391	4344.77344
8677	3761	3785	1083.81567	1872.14014
8678	3761	5928	2379.53955	1279.94031
8679	3762	3761	4166.81299	2534.25854
8680	3762	3766	2112.25391	4344.77344
8689	3765	3766	2445.34155	1976.28809
8690	3766	3755	1385.54688	2065.979
8691	3766	3762	4166.81299	2534.25854
8692	3766	3765	1689.67468	2492.7771
8693	3766	3776	362.91522	1715.3114
8694	3767	3772	1497.08752	1822.74756
8703	3771	3739	2403.56836	1125.64771
8704	3771	3772	1967.50439	1578.61877
8705	3771	3786	956.08331	2289.57202
8707	3772	3771	1668.88232	1786.10303
8709	3772	3780	51.19279	1345.01831
8715	3775	3769	1798.29333	1651.42529
8719	3776	3766	1665.40942	916.02783
8728	3781	3775	1276.27197	835.48517
8739	3785	3761	1705.05835	1602.37439
8742	3786	3771	2127.32373	1867.16223
13388	5928	3761	1207.68677	2358.18604

5928 3771 2380 1280
3771 5928 120 2357

(26 out of 13896 Selected)

Fin_HW_s35_PdN_PH1



Table

Fin_HW_s35_PdN_PH1

FID	A	B	LOAD_AMPH	LOAD_PMPH
8694	3767	3772	1497.08752	1822.74756
8704	3771	3772	1967.50439	1578.61877
8707	3772	3771	1668.88232	1786.10303
8708	3772	3774	2636.98877	2084.17871
8709	3772	3780	51.19279	1345.01831
8711	3773	3775	1445.00806	2539.17188
8713	3774	3772	892.47174	1813.93359
8714	3774	3775	2636.98877	2084.17871
8715	3775	3769	1796.29333	1651.42529
8716	3775	3773	2669.50366	1993.47705
8717	3775	3774	892.47174	1813.93359
8728	3781	3775	1276.27197	835.48517

0

(12 out of 13896 Selected)

Fin_HW_s35_PdN_PH1

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Traffic Count Data Sheet

Valero (Rio Bravo Blvd. / Broadway Blvd.)

Year Counts Taken: **2012**

E-W Street **Rio Bravo Blvd.**

N-S Street: **I-25 E. Ramp]**

SIGNALIZED

Speed Limit (Rio Bravo Blvd.)= **25** MPH

Speed Limit (I-25 E. Ramp])= **25** MPH

Date of Count: **3/8/12**

Begin Time	End Time	Eastbound (Rio Bravo Blvd.)			Westbound (Rio Bravo Blvd.)			Northbound (I-25 E. Ramp])			Southbound (I-25 E. Ramp])		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	~~227~~	~~104~~	~~0~~	~~0~~	~~24~~	~~2~~	~~4~~	~~0~~	~~20~~	~~0~~	~~0~~	~~0~~
7:15 AM	7:30 AM	**241**	**141**	**0**	**0**	**26**	**0**	**9**	**0**	**49**	**0**	**0**	**0**
7:30 AM	7:45 AM	**248**	**148**	**0**	**0**	**20**	**1**	**10**	**0**	**49**	**0**	**0**	**0**
7:45 AM	8:00 AM	**261**	**146**	**0**	**0**	**17**	**5**	**7**	**1**	**27**	**0**	**0**	**0**
8:00 AM	8:15 AM	**290**	**121**	**0**	**0**	**30**	**4**	**5**	**0**	**26**	**0**	**0**	**0**
8:15 AM	8:30 AM	~~195~~	~~53~~	~~0~~	~~0~~	~~28~~	~~10~~	~~15~~	~~0~~	~~23~~	~~0~~	~~0~~	~~0~~
8:30 AM	8:45 AM	~~192~~	~~57~~	~~0~~	~~0~~	~~46~~	~~6~~	~~6~~	~~0~~	~~22~~	~~0~~	~~0~~	~~0~~
8:45 AM	9:00 AM	~~220~~	~~82~~	~~0~~	~~0~~	~~26~~	~~11~~	~~6~~	~~0~~	~~28~~	~~0~~	~~0~~	~~0~~
AM Peak Hour Volumes		**1040**	**556**	**0**	**0**	**93**	**10**	**31**	**1**	**151**	**0**	**0**	**0**
% of Total Traffic		55.3%	29.5%	0.0%	0.0%	4.9%	0.5%	1.6%	0.1%	8.0%	0.0%	0.0%	0.0%
% Directional			84.8%			5.5%			9.7%			0.0%	
AM Peak Hour Factor			*0.97*			*0.76*			*0.78*				

Begin Time	End Time	Eastbound (Rio Bravo Blvd.)			Westbound (Rio Bravo Blvd.)			Northbound (I-25 E. Ramp])			Southbound (I-25 E. Ramp])		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	**171**	**61**	**0**	**0**	**87**	**28**	**7**	**0**	**14**	**0**	**0**	**0**
4:15 PM	4:30 PM	**169**	**75**	**0**	**0**	**68**	**19**	**5**	**0**	**11**	**0**	**0**	**0**
4:30 PM	4:45 PM	**172**	**73**	**0**	**0**	**60**	**15**	**6**	**1**	**12**	**0**	**0**	**0**
4:45 PM	5:00 PM	**158**	**63**	**0**	**0**	**59**	**19**	**4**	**0**	**11**	**0**	**0**	**0**
5:00 PM	5:15 PM	~~155~~	~~48~~	~~0~~	~~0~~	~~73~~	~~5~~	~~2~~	~~0~~	~~10~~	~~0~~	~~0~~	~~0~~
5:15 PM	5:30 PM	~~127~~	~~54~~	~~0~~	~~0~~	~~48~~	~~17~~	~~13~~	~~0~~	~~16~~	~~0~~	~~0~~	~~0~~
5:30 PM	5:45 PM	~~115~~	~~31~~	~~0~~	~~0~~	~~58~~	~~9~~	~~9~~	~~0~~	~~12~~	~~0~~	~~0~~	~~0~~
5:45 PM	6:00 PM	~~143~~	~~24~~	~~0~~	~~0~~	~~34~~	~~21~~	~~11~~	~~0~~	~~16~~	~~0~~	~~0~~	~~0~~
PM Peak Hour Volumes		**670**	**272**	**0**	**0**	**274**	**81**	**22**	**1**	**48**	**0**	**0**	**0**
% of Total Traffic		49.0%	19.9%	0.0%	0.0%	20.0%	5.9%	1.6%	0.1%	3.5%	0.0%	0.0%	0.0%
% Directional			68.9%			26.0%			5.2%			0.0%	
PM Peak Hour Factor			*0.96*			*0.77*			*0.85*				

Traffic Count Data Sheet

Valero (Rio Bravo Blvd. / Broadway Blvd.)

Year Counts Taken: **2012**

E-W Street **Rio Bravo Blvd.**

N-S Street: **I-25 W. Ramp**

SIGNALIZED

Speed Limit (Rio Bravo Blvd.)= **25** MPH

Speed Limit (I-25 W. Ramp)= **35** MPH

Date of Count: **3/8/12**

Begin Time	End Time	Eastbound (Rio Bravo Blvd.)			Westbound (Rio Bravo Blvd.)			Northbound (I-25 W. Ramp)			Southbound (I-25 W. Ramp)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	~~0~~	~~316~~	~~1~~	~~4~~	~~20~~	~~0~~	~~0~~	~~0~~	~~0~~	~~49~~	~~0~~	~~135~~
7:15 AM	7:30 AM	**0**	**393**	**2**	**2**	**24**	**0**	**0**	**0**	**0**	**65**	**1**	**154**
7:30 AM	7:45 AM	**0**	**379**	**4**	**3**	**17**	**0**	**0**	**0**	**0**	**76**	**0**	**182**
7:45 AM	8:00 AM	**0**	**442**	**1**	**2**	**15**	**0**	**0**	**0**	**0**	**77**	**0**	**180**
8:00 AM	8:15 AM	**0**	**382**	**1**	**4**	**26**	**0**	**0**	**0**	**0**	**62**	**0**	**159**
8:15 AM	8:30 AM	~~0~~	~~286~~	~~1~~	~~4~~	~~24~~	~~0~~	~~0~~	~~0~~	~~0~~	~~87~~	~~1~~	~~160~~
8:30 AM	8:45 AM	~~0~~	~~265~~	~~5~~	~~5~~	~~41~~	~~0~~	~~0~~	~~0~~	~~0~~	~~55~~	~~0~~	~~151~~
8:45 AM	9:00 AM	~~0~~	~~267~~	~~5~~	~~5~~	~~21~~	~~0~~	~~0~~	~~0~~	~~0~~	~~42~~	~~0~~	~~171~~
AM Peak Hour Volumes		**0**	**1596**	**8**	**11**	**82**	**0**	**0**	**0**	**0**	**280**	**1**	**675**
% of Total Traffic		0.0%	60.2%	0.3%	0.4%	3.1%	0.0%	0.0%	0.0%	0.0%	10.6%	0.0%	25.4%
% Directional			60.5%			3.5%			0.0%			36.0%	
AM Peak Hour Factor			*0.91*			*0.78*						*0.93*	

Begin Time	End Time	Eastbound (Rio Bravo Blvd.)			Westbound (Rio Bravo Blvd.)			Northbound (I-25 W. Ramp)			Southbound (I-25 W. Ramp)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	**0**	**225**	**4**	**13**	**74**	**0**	**0**	**0**	**0**	**23**	**0**	**285**
4:15 PM	4:30 PM	**0**	**214**	**3**	**17**	**51**	**0**	**0**	**0**	**0**	**13**	**0**	**327**
4:30 PM	4:45 PM	**0**	**233**	**8**	**15**	**45**	**0**	**0**	**0**	**0**	**8**	**1**	**283**
4:45 PM	5:00 PM	**0**	**219**	**7**	**9**	**50**	**0**	**0**	**0**	**0**	**7**	**0**	**253**
5:00 PM	5:15 PM	~~0~~	~~246~~	~~1~~	~~12~~	~~61~~	~~0~~	~~0~~	~~0~~	~~0~~	~~8~~	~~0~~	~~277~~
5:15 PM	5:30 PM	~~0~~	~~191~~	~~3~~	~~9~~	~~39~~	~~0~~	~~0~~	~~0~~	~~0~~	~~9~~	~~0~~	~~290~~
5:30 PM	5:45 PM	~~0~~	~~211~~	~~4~~	~~11~~	~~47~~	~~0~~	~~0~~	~~0~~	~~0~~	~~11~~	~~2~~	~~191~~
5:45 PM	6:00 PM	~~0~~	~~170~~	~~4~~	~~4~~	~~30~~	~~0~~	~~0~~	~~0~~	~~0~~	~~2~~	~~0~~	~~227~~
PM Peak Hour Volumes		**0**	**891**	**22**	**54**	**220**	**0**	**0**	**0**	**0**	**51**	**1**	**1148**
% of Total Traffic		0.0%	37.3%	0.9%	2.3%	9.2%	0.0%	0.0%	0.0%	0.0%	2.1%	0.0%	48.1%
% Directional			38.2%			11.5%			0.0%			50.3%	
PM Peak Hour Factor			*0.95*			*0.79*						*0.88*	

Traffic Count Data Sheet

Year Counts Taken: **2012**

E-W Street **Rio Bravo Blvd**
N-S Street: **Broadway Blvd**

Speed Limit (Rio Bravo Blvd)= **25** MPH
Speed Limit (Broadway Blvd)= **25** MPH
Date of Count: **2/14/12**

Begin Time	End Time	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Broadway Blvd)			Southbound (Broadway Blvd)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	~~31~~	~~286~~	~~18~~	~~36~~	~~92~~	~~3~~	~~15~~	~~45~~	~~46~~	~~2~~	~~14~~	~~11~~
7:15 AM	7:30 AM	**33**	**353**	**25**	**31**	**131**	**2**	**11**	**52**	**50**	**4**	**17**	**13**
7:30 AM	7:45 AM	**43**	**376**	**26**	**36**	**135**	**6**	**17**	**40**	**75**	**2**	**19**	**12**
7:45 AM	8:00 AM	**33**	**306**	**20**	**49**	**170**	**8**	**17**	**47**	**54**	**4**	**17**	**18**
8:00 AM	8:15 AM	**42**	**365**	**33**	**39**	**126**	**10**	**15**	**37**	**41**	**5**	**34**	**22**
8:15 AM	8:30 AM	~~31~~	~~253~~	~~21~~	~~51~~	~~132~~	~~11~~	~~20~~	~~39~~	~~41~~	~~3~~	~~27~~	~~12~~
8:30 AM	8:45 AM	~~25~~	~~228~~	~~21~~	~~52~~	~~151~~	~~5~~	~~19~~	~~41~~	~~46~~	~~5~~	~~23~~	~~16~~
8:45 AM	9:00 AM	~~25~~	~~282~~	~~19~~	~~36~~	~~104~~	~~6~~	~~17~~	~~30~~	~~58~~	~~3~~	~~20~~	~~9~~
AM Peak Hour Volumes		**151**	**1400**	**104**	**155**	**562**	**26**	**60**	**176**	**220**	**15**	**87**	**65**
% of Total Traffic		5.0%	46.3%	3.4%	5.1%	18.6%	0.9%	2.0%	5.8%	7.3%	0.5%	2.9%	2.2%
% Directional			54.8%			24.6%			15.1%			5.5%	
AM Peak Hour Factor			*0.93*			*0.82*			*0.86*			*0.68*	

Begin Time	End Time	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Broadway Blvd)			Southbound (Broadway Blvd)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	~~23~~	~~148~~	~~30~~	~~58~~	~~285~~	~~5~~	~~42~~	~~53~~	~~56~~	~~3~~	~~79~~	~~47~~
4:15 PM	4:30 PM	~~25~~	~~209~~	~~21~~	~~60~~	~~277~~	~~5~~	~~55~~	~~44~~	~~57~~	~~4~~	~~55~~	~~48~~
4:30 PM	4:45 PM	**38**	**192**	**33**	**44**	**276**	**10**	**42**	**36**	**91**	**4**	**52**	**44**
4:45 PM	5:00 PM	**15**	**158**	**25**	**58**	**299**	**5**	**39**	**47**	**50**	**4**	**64**	**70**
5:00 PM	5:15 PM	**23**	**200**	**29**	**52**	**340**	**5**	**50**	**56**	**70**	**4**	**73**	**41**
5:15 PM	5:30 PM	**29**	**216**	**27**	**60**	**308**	**4**	**43**	**24**	**50**	**3**	**57**	**64**
5:30 PM	5:45 PM	~~23~~	~~215~~	~~16~~	~~38~~	~~303~~	~~3~~	~~21~~	~~25~~	~~42~~	~~2~~	~~58~~	~~31~~
5:45 PM	6:00 PM	~~16~~	~~146~~	~~13~~	~~35~~	~~225~~	~~0~~	~~20~~	~~17~~	~~24~~	~~4~~	~~37~~	~~53~~
PM Peak Hour Volumes		**105**	**766**	**114**	**214**	**1223**	**24**	**174**	**163**	**261**	**15**	**246**	**219**
% of Total Traffic		3.0%	21.7%	3.2%	6.1%	34.7%	0.7%	4.9%	4.6%	7.4%	0.4%	7.0%	6.2%
% Directional			28.0%			41.5%			17.0%			13.6%	
PM Peak Hour Factor			*0.91*			*0.92*			*0.85*			*0.87*	

Traffic Count Data Sheet

Year Counts Taken: **2012**

E-W Street **Rio Bravo Blvd**
N-S Street: **Prince St**

Speed Limit (Rio Bravo Blvd)= **25** MPH
Speed Limit (Prince St)= **25** MPH
Date of Count: **2/21/12**

Begin Time	End Time	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Prince St)			Southbound (Prince St)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	~~10~~	~~290~~	~~9~~	~~13~~	~~113~~	~~8~~	~~7~~	~~0~~	~~33~~	~~3~~	~~0~~	~~1~~
7:15 AM	7:30 AM	**5**	**376**	**4**	**7**	**112**	**5**	**19**	**0**	**21**	**3**	**0**	**2**
7:30 AM	7:45 AM	**7**	**362**	**8**	**13**	**157**	**13**	**17**	**0**	**31**	**1**	**0**	**2**
7:45 AM	8:00 AM	**16**	**432**	**8**	**9**	**157**	**15**	**26**	**1**	**18**	**4**	**0**	**2**
8:00 AM	8:15 AM	**13**	**367**	**17**	**6**	**150**	**10**	**13**	**1**	**8**	**5**	**0**	**4**
8:15 AM	8:30 AM	~~8~~	~~274~~	~~12~~	~~9~~	~~135~~	~~11~~	~~19~~	~~1~~	~~17~~	~~3~~	~~0~~	~~1~~
8:30 AM	8:45 AM	~~7~~	~~275~~	~~14~~	~~7~~	~~160~~	~~12~~	~~16~~	~~1~~	~~22~~	~~13~~	~~2~~	~~4~~
8:45 AM	9:00 AM	~~4~~	~~250~~	~~7~~	~~7~~	~~177~~	~~11~~	~~23~~	~~1~~	~~9~~	~~11~~	~~1~~	~~7~~
AM Peak Hour Volumes		**41**	**1537**	**37**	**35**	**576**	**43**	**75**	**2**	**78**	**13**	**0**	**10**
% of Total Traffic		1.7%	62.8%	1.5%	1.4%	23.5%	1.8%	3.1%	0.1%	3.2%	0.5%	0.0%	0.4%
% Directional			66.0%			26.7%			6.3%			0.9%	
AM Peak Hour Factor			*0.89*			*0.89*			*0.81*			*0.64*	

Begin Time	End Time	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Prince St)			Southbound (Prince St)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	~~6~~	~~211~~	~~25~~	~~19~~	~~311~~	~~12~~	~~21~~	~~2~~	~~12~~	~~5~~	~~1~~	~~12~~
4:15 PM	4:30 PM	~~5~~	~~176~~	~~35~~	~~34~~	~~399~~	~~4~~	~~34~~	~~0~~	~~18~~	~~9~~	~~1~~	~~4~~
4:30 PM	4:45 PM	**6**	**204**	**24**	**29**	**331**	**10**	**27**	**1**	**22**	**9**	**0**	**12**
4:45 PM	5:00 PM	**4**	**194**	**31**	**30**	**342**	**7**	**25**	**1**	**17**	**8**	**3**	**8**
5:00 PM	5:15 PM	**5**	**181**	**21**	**25**	**348**	**4**	**18**	**2**	**14**	**15**	**0**	**13**
5:15 PM	5:30 PM	**4**	**195**	**18**	**22**	**422**	**7**	**17**	**0**	**10**	**12**	**0**	**15**
5:30 PM	5:45 PM	~~4~~	~~170~~	~~17~~	~~9~~	~~315~~	~~10~~	~~19~~	~~1~~	~~13~~	~~17~~	~~1~~	~~13~~
5:45 PM	6:00 PM	~~2~~	~~150~~	~~20~~	~~15~~	~~295~~	~~2~~	~~16~~	~~0~~	~~7~~	~~10~~	~~0~~	~~14~~
PM Peak Hour Volumes		**19**	**774**	**94**	**106**	**1443**	**28**	**87**	**4**	**63**	**44**	**3**	**48**
% of Total Traffic		0.7%	28.5%	3.5%	3.9%	53.2%	1.0%	3.2%	0.1%	2.3%	1.6%	0.1%	1.8%
% Directional			32.7%			58.1%			5.7%			3.5%	
PM Peak Hour Factor			*0.95*			*0.87*			*0.77*			*0.85*	

Traffic Count Data Sheet

Year Counts Taken: **2012**

E-W Street **Rio Bravo Blvd**
N-S Street: **Second St**

Speed Limit (Rio Bravo Blvd)= **25** MPH
Speed Limit (Second St)= **25** MPH
Date of Count: **2/16/12**

Begin Time	End Time	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Second St)			Southbound (Second St)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	~~39~~	~~264~~	~~32~~	~~10~~	~~76~~	~~9~~	~~44~~	~~14~~	~~15~~	~~20~~	~~11~~	~~19~~
7:15 AM	7:30 AM	**87**	**377**	**30**	**11**	**127**	**20**	**26**	**22**	**6**	**17**	**13**	**16**
7:30 AM	7:45 AM	**75**	**291**	**28**	**7**	**132**	**11**	**22**	**32**	**20**	**19**	**17**	**21**
7:45 AM	8:00 AM	**76**	**318**	**44**	**12**	**141**	**21**	**38**	**37**	**8**	**22**	**20**	**12**
8:00 AM	8:15 AM	**91**	**347**	**60**	**15**	**129**	**17**	**42**	**19**	**18**	**21**	**15**	**14**
8:15 AM	8:30 AM	~~56~~	~~259~~	~~31~~	~~13~~	~~154~~	~~12~~	~~32~~	~~20~~	~~17~~	~~22~~	~~16~~	~~25~~
8:30 AM	8:45 AM	~~54~~	~~214~~	~~30~~	~~11~~	~~134~~	~~19~~	~~40~~	~~19~~	~~19~~	~~17~~	~~26~~	~~25~~
8:45 AM	9:00 AM	~~42~~	~~247~~	~~31~~	~~8~~	~~117~~	~~13~~	~~45~~	~~26~~	~~11~~	~~33~~	~~31~~	~~28~~
AM Peak Hour Volumes		**329**	**1333**	**162**	**45**	**529**	**69**	**128**	**110**	**52**	**79**	**65**	**63**
% of Total Traffic		11.1%	45.0%	5.5%	1.5%	17.8%	2.3%	4.3%	3.7%	1.8%	2.7%	2.2%	2.1%
% Directional			61.5%			21.7%			9.8%			7.0%	
AM Peak Hour Factor			*0.92*			*0.92*			*0.87*			*0.91*	

Begin Time	End Time	Eastbound (Rio Bravo Blvd)			Westbound (Rio Bravo Blvd)			Northbound (Second St)			Southbound (Second St)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	~~27~~	~~155~~	~~33~~	~~9~~	~~309~~	~~22~~	~~56~~	~~24~~	~~16~~	~~19~~	~~19~~	~~67~~
4:15 PM	4:30 PM	~~24~~	~~144~~	~~18~~	~~14~~	~~275~~	~~13~~	~~45~~	~~30~~	~~11~~	~~30~~	~~37~~	~~84~~
4:30 PM	4:45 PM	~~25~~	~~154~~	~~30~~	~~11~~	~~285~~	~~19~~	~~46~~	~~17~~	~~14~~	~~23~~	~~17~~	~~75~~
4:45 PM	5:00 PM	**32**	**135**	**31**	**8**	**311**	**20**	**70**	**27**	**20**	**33**	**34**	**93**
5:00 PM	5:15 PM	**37**	**161**	**23**	**4**	**287**	**9**	**39**	**25**	**14**	**33**	**14**	**94**
5:15 PM	5:30 PM	**23**	**128**	**36**	**8**	**344**	**13**	**60**	**8**	**12**	**28**	**25**	**115**
5:30 PM	5:45 PM	**24**	**145**	**41**	**10**	**354**	**15**	**44**	**14**	**12**	**18**	**25**	**97**
5:45 PM	6:00 PM	~~30~~	~~131~~	~~23~~	~~5~~	~~316~~	~~13~~	~~62~~	~~15~~	~~6~~	~~24~~	~~18~~	~~77~~
PM Peak Hour Volumes		**116**	**569**	**131**	**30**	**1296**	**57**	**213**	**74**	**58**	**112**	**98**	**399**
% of Total Traffic		3.7%	18.0%	4.2%	1.0%	41.1%	1.8%	6.8%	2.3%	1.8%	3.6%	3.1%	12.7%
% Directional			25.9%			43.9%			10.9%			19.3%	
PM Peak Hour Factor			*0.92*			*0.91*			*0.74*			*0.91*	

Traffic Count Data Sheet

Year Counts Taken: **2010**

E-W Street **Rio Bravo Blvd.**
N-S Street: **Isleta Blvd.**
SIGNALIZED

Speed Limit (Rio Bravo Blvd.)= **35** MPH
Speed Limit (Isleta Blvd.)= **35** MPH
Date of Count: **7/7/10**

Begin Time	End Time	Eastbound (Rio Bravo Blvd.)			Westbound (Rio Bravo Blvd.)			Northbound (Isleta Blvd.)			Southbound (Isleta Blvd.)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	~~13~~	~~196~~	~~13~~	~~28~~	~~67~~	~~23~~	~~4~~	~~29~~	~~97~~	~~49~~	~~23~~	~~5~~
7:15 AM	7:30 AM	**23**	**250**	**15**	**26**	**47**	**29**	**17**	**31**	**108**	**64**	**37**	**10**
7:30 AM	7:45 AM	**33**	**268**	**20**	**47**	**65**	**49**	**13**	**57**	**105**	**66**	**37**	**14**
7:45 AM	8:00 AM	**32**	**203**	**16**	**52**	**52**	**36**	**23**	**56**	**79**	**64**	**35**	**15**
8:00 AM	8:15 AM	**24**	**189**	**11**	**42**	**43**	**32**	**19**	**46**	**54**	**61**	**24**	**9**
8:15 AM	8:30 AM	~~19~~	~~145~~	~~21~~	~~43~~	~~58~~	~~45~~	~~26~~	~~52~~	~~76~~	~~51~~	~~39~~	~~9~~
8:30 AM	8:45 AM	~~34~~	~~158~~	~~14~~	~~58~~	~~85~~	~~42~~	~~21~~	~~42~~	~~71~~	~~54~~	~~38~~	~~15~~
8:45 AM	9:00 AM	~~32~~	~~143~~	~~16~~	~~39~~	~~83~~	~~64~~	~~17~~	~~56~~	~~60~~	~~61~~	~~71~~	~~24~~
AM Peak Hour Volumes		**112**	**910**	**62**	**167**	**207**	**146**	**72**	**190**	**346**	**255**	**133**	**48**
% of Total Traffic		4.2%	34.4%	2.3%	6.3%	7.8%	5.5%	2.7%	7.2%	13.1%	9.6%	5.0%	1.8%
% Directional			40.9%			19.6%			23.0%			16.5%	
AM Peak Hour Factor			*0.84*			*0.81*			*0.87*			*0.93*	

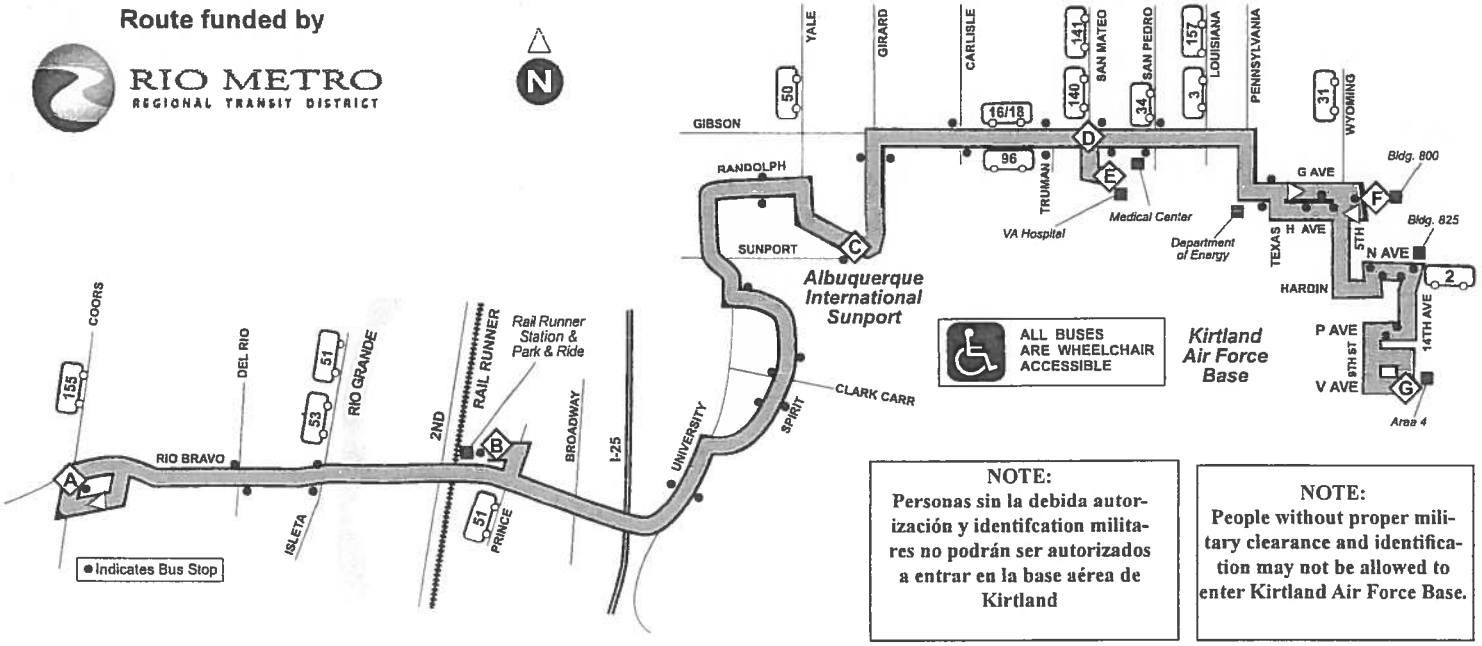
Begin Time	End Time	Eastbound (Rio Bravo Blvd.)			Westbound (Rio Bravo Blvd.)			Northbound (Isleta Blvd.)			Southbound (Isleta Blvd.)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	~~50~~	~~89~~	~~18~~	~~87~~	~~148~~	~~47~~	~~37~~	~~60~~	~~54~~	~~60~~	~~65~~	~~39~~
4:15 PM	4:30 PM	~~29~~	~~84~~	~~15~~	~~91~~	~~213~~	~~59~~	~~52~~	~~57~~	~~47~~	~~55~~	~~71~~	~~41~~
4:30 PM	4:45 PM	~~22~~	~~68~~	~~33~~	~~70~~	~~131~~	~~77~~	~~53~~	~~68~~	~~43~~	~~59~~	~~66~~	~~34~~
4:45 PM	5:00 PM	**28**	**76**	**29**	**113**	**193**	**68**	**36**	**62**	**38**	**50**	**63**	**40**
5:00 PM	5:15 PM	**24**	**69**	**26**	**89**	**183**	**67**	**36**	**51**	**27**	**70**	**62**	**35**
5:15 PM	5:30 PM	**39**	**79**	**21**	**103**	**233**	**77**	**38**	**54**	**43**	**58**	**62**	**33**
5:30 PM	5:45 PM	**23**	**90**	**21**	**112**	**182**	**93**	**42**	**57**	**35**	**75**	**66**	**27**
5:45 PM	6:00 PM	~~22~~	~~79~~	~~41~~	~~96~~	~~163~~	~~54~~	~~48~~	~~49~~	~~64~~	~~60~~	~~42~~	~~30~~
PM Peak Hour Volumes		**114**	**314**	**97**	**417**	**791**	**305**	**152**	**224**	**143**	**253**	**253**	**135**
% of Total Traffic		3.6%	9.8%	3.0%	13.0%	24.7%	9.5%	4.8%	7.0%	4.5%	7.9%	7.9%	4.2%
% Directional			16.4%			47.3%			16.2%			20.0%	
PM Peak Hour Factor			*0.94*			*0.92*			*0.95*			*0.95*	

Route 222 / Ruta 222
Rio Bravo - Sunport - Kirtland

Effective 8/27/2011

Route funded by

RIO METRO
REGIONAL TRANSIT DISTRICT



NOTE:
Personas sin la debida autorización y identifcation militares no podrán ser autorizados a entrar en la base aérea de Kirtland

NOTE:
People without proper military clearance and identification may not be allowed to enter Kirtland Air Force Base.

Route 222 - Weekday Eastbound

COORS & RIO BRAVO (A)	RAIL RUNNER STATION ARRIVE (B)	RAIL RUNNER STATION DEPART (B)	AIRPORT (C)	GIBSON & SAN MATEO (D)	V.A. HOSPITAL (E)	BUILDING 800 (F)	AREA 4 (G)	
5:35a	5:47a	5:53a	....	....	....	6:17a	....	KAFB
....	....	5:53a	6:05a	....	6:12a	....	....	VA
....	....	5:53a	....	....	....	6:17a	6:25a	KAFB
....	....	7:15a	....	....	....	7:39a	7:47a	KAFB
6:57a	7:09a	7:15a	7:27a	....	7:34a	....	....	VA
2:28p	2:40p	2:46p	3:03p	....	3:10p	....	....	
5:35p	5:47p	5:53p	6:08p	6:15p	....	6:24p	....	

Be sure to board the bus which will stop where you need to get off!

VA: These buses serve the stops on:
- University
- Spirit Dr
- Airport
- Girard
- Gibson & Carlisle
- Gibson & Truman
- San Mateo & Gibson and
- ends at the VA Medical Center (San Mateo side).

They do not stop on Randolph Rd. or Kirtland Air Force Base.

KAFB: These buses serve only the stops on:
- Randolph Rd.
- Gibson & Valencia and
- Kirtland Air Force Base.

As shown in the schedule, only one continues to Area 4 at 625a.

Route 222 - Weekday Westbound

	AREA 4 (G)	BUILDING 800 (F)	GIBSON & SAN MATEO (D)	V.A. HOSPITAL (E)	AIRPORT (C)	RAIL RUNNER STATION ARRIVE (B)	RAIL RUNNER STATION DEPART (B)	COORS & RIO BRAVO (A)
	....	6:35a	6:44a	....	6:53a	7:09a	7:15a	7:27a
	....	....	....	2:10p	2:21p	2:40p	2:46p	2:58p
VA	....	....	....	4:05p	4:16p	4:32p	....	....
KAFB	3:56p	4:04p	....	....	....	4:32p	4:39p	4:51p
VA	....	....	....	5:17p	5:28p	5:46p	....	....
KAFB	5:03p	5:16p	....	....	....	5:46p	5:53p	6:06p

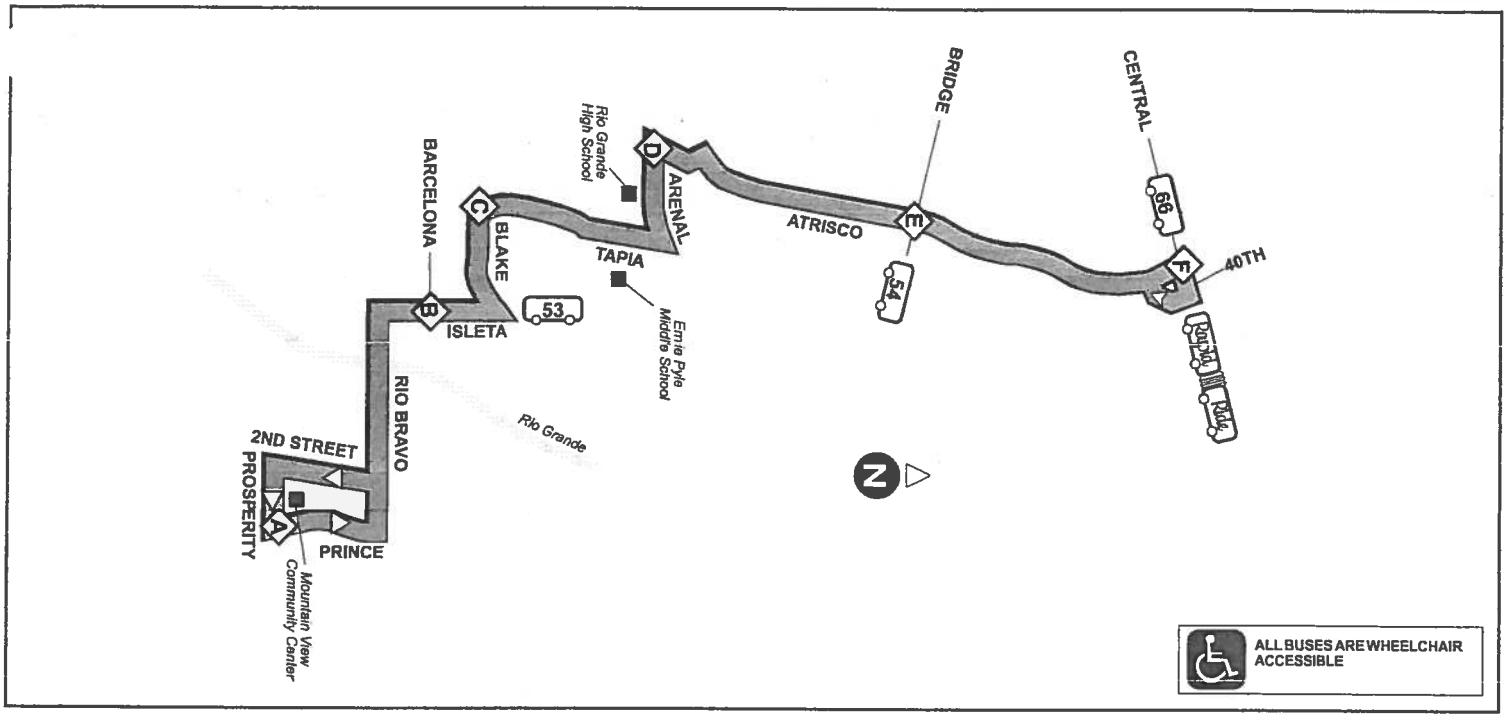
As in the AM peak, two buses meet the PM peak trains:

VA: These buses serve stops at:
- VA Medical Center (San Mateo side)
- For service from Gibson & San Mateo, use stop at VA or Truman
- Gibson & Truman
- Gibson & Carlisle
- Girard
- Airport
- Spirit Dr. and
- University.

They do not stop on Randolph Rd.

KAFB: These buses serve only the stops on:
- Kirtland Air Force Base
- Gibson & San Pedro and
- Randolph Rd.

Route 51/Ruta 51 - Atrisco/Rio Bravo Eff. 12/19/2009



Route 51 - Weekdays Northbound

MOUNTAIN VIEW COMMUNITY CENTER (A)	ISLETA & BARCELONA (B)	BLAKE & TAPIA (C)	ATRISCO & ARENAL (D)	ATRISCO & BRIDGE (E)	CENTRAL & ATRISCO (F)
531a	537a	541a	545a	549a	555a
636a	642a	646a	650a	654a	700a
741a	748a	752a	756a	800a	807a
846a	853a	857a	901a	905a	912a
951a	958a	1002a	1006a	1010a	1017a
1056a	1103a	1107a	1111a	1115a	1122a
1201p	1208p	1212p	1216p	1220p	1227p
106p	113p	117p	122p	126p	133p
211p	218p	222p	227p	231p	238p
316p	323p	327p	332p	336p	343p
421p	428p	432p	437p	441p	448p
526p	532p	536p	540p	544p	550p
631p	637p	641p	645p	649p	655p

Route 51 - Weekdays Southbound

CENTRAL & ATRISCO (F)	ATRISCO & BRIDGE (E)	ATRISCO & ARENAL (D)	BLAKE & TAPIA (C)	ISLETA & BARCELONA (B)	MOUNTAIN VIEW COMMUNITY CENTER (A)
605a	612a	616a	620a	624a	631a
710a	717a	721a	725a	729a	736a
815a	822a	826a	830a	834a	841a
920a	927a	931a	935a	939a	946a
1025a	1032a	1036a	1040a	1044a	1051a
1130a	1137a	1141a	1145a	1149a	1156a
1235p	1242p	1246p	1250p	1254p	101p
140p	147p	151p	156p	200p	207p
245p	252p	256p	301p	305p	312p
350p	357p	401p	406p	410p	417p
455p	502p	506p	510p	514p	521p
600p	607p	611p	615p	619p	626p

Route 51 - Saturday Northbound

MOUNTAIN VIEW COMMUNITY CENTER (A)	ISLETA & BARCELONA (B)	BLAKE & TAPIA (C)	ATRISCO & ARENAL (D)	ATRISCO & BRIDGE (E)	CENTRAL & ATRISCO (F)
....	.....	.....	.....	551a	558a
631a	638a	642a	646a	650a	657a
736a	743a	747a	751a	755a	802a
841a	848a	852a	856a	900a	907a
945a	952a	956a	1001a	1005a	1012a
1050a	1057a	1101a	1106a	1110a	1117a
1155a	1202p	1206p	1211p	1215p	1222p
100p	107p	111p	116p	120p	127p
208p	214p	218p	222p	226p	232p
313p	319p	323p	327p	331p	337p
418p	424p	428p	432p	436p	442p
523p	529p	533p	537p	541p	547p
628p	634p	638p	642p	646p	652p

Route 51 - Saturday Southbound

CENTRAL & ATRISCO (F)	ATRISCO & BRIDGE (E)	ATRISCO & ARENAL (D)	BLAKE & TAPIA (C)	ISLETA & BARCELONA (B)	MOUNTAIN VIEW COMMUNITY CENTER (A)
600a	607a	611a	615a	619a	626a
705a	712a	716a	720a	724a	731a
810a	817a	821a	825a	829a	836a
915a	922a	926a	930a	934a	941a
1020a	1027a	1031a	1035a	1039a	1046a
1125a	1132a	1136a	1140a	1144a	1151a
1230p	1237p	1241p	1245p	1249p	1256p
135p	142p	146p	151p	155p	202p
240p	247p	251p	256p	300p	307p
345p	352p	356p	401p	405p	412p
450p	457p	501p	505p	509p	516p
555p	602p	606p	610p	614p	621p

Data Entry Sheet

Determination of Warrants for Deceleration Lanes

NM DOT State Access Management Manual Criteria

Driveway "A" / Broadway Blvd.

Project Information:

Project Name:	**Rio Bravo / Broadway Comm. Dev. (NW Corner)**	
Project Location:	**Northwest Corner**	
Implemenation Year:	**2014**	
Project Environment:	**Urban**	**Multi-Lane**

Street Information:

Major Street Name:	**Broadway Blvd.**
Minor Street Name:	**Driveway "A"**

Intersection Information:

	Orientation	Prevailing Speed	No. Lanes Each Direction
Driveway "A"	**Eastbound**	**25**	**N/A**
Broadway Blvd.	**North-South**	**55**	**2**

Determine Case:

Case
1 Urban Two-Lane Highway - Use Table 17.B.1
2 Urban Multi-Lane Highway - Use Table 17.B-2
3 Rural Two Lane Highway - Use Table 17.B-3 and 17.B-5
4 Rural Multi-Lane Highway - Use Table 17.B-4 and 17.B-6

Broadway Blvd. is Case	**2**
Speed Category	**45 to 55**

SB Right Turn Volumes		**SB Thru Volumes**
2014 AM Pk. Hr. NO BUILD	0	248
2014 AM Pk. Hr. BUILD	20	239
2014 PM Pk. Hr. NO BUILD	0	710
2014 PM Pk. Hr. BUILD	32	693

NB Left Turn Volumes		**NB Thru Volumes**
2014 AM Pk. Hr. NO BUILD	0	496
2014 AM Pk. Hr. BUILD	0	496
2014 PM Pk. Hr. NO BUILD	0	438
2014 PM Pk. Hr. BUILD	0	438

Worksheet Developed by Terry O. Brown, P.E.

A-125a

Determination of Warrants for Auxiliary Lanes

Project Name: **Rio Bravo / Broadway Comm. Dev. (NW Corner)**
Name of Highway: **Broadway Blvd.**
Name of Cross Street: **Driveway "A"**

Determination of Warrants for: Eastbound Driveway

Implementation Year Volumes - **2014** **Posted Speed Limit:** **55**

Right Turn Deceleration Lane - Implementation Year Volumes

Condition	Year	Projected Right Turn Volume	Warrant Volume in thru Lane	Projected Volume in thru Lane	✓ if Met	Lane Length (Deceleration)*	Adjustment Factor for Grade**	Lane Length (Storage)***	Total Lane Length	Taper Ratio
AM Peak Hour NO BUILD	2014	-	-	124		N/A		-	N/A	N/A
AM Peak Hour BUILD	2014	20	180	120		N/A		-	N/A	N/A
PM Peak Hour NO BUILD	2014	-	-	355		N/A		-	N/A	N/A
PM Peak Hour BUILD	2014	32	126	347	✓	550	1.00	-	550	16.5:1

Based on Table 17.B-2 (Criteria for Deceleration Lanes on Urban Multi-Lane Highways)

Left Turn Deceleration Lane - Implementation Year Volumes

Condition	Year	Projected Left Turn Volume	Warrant Volume in thru Lane	Projected Volume in thru Lane	✓ if Met	Lane Length (Deceleration)*	Adjustment Factor for Grade**	Lane Length (Storage)***	Total Lane Length	Taper Ratio
AM Peak Hour NO BUILD	2014	-	-	248		N/A		N/A	N/A	N/A
AM Peak Hour BUILD	2014	-	-	248		N/A		N/A	N/A	N/A
PM Peak Hour NO BUILD	2014	-	-	219		N/A		N/A	N/A	N/A
PM Peak Hour BUILD	2014	-	-	219		N/A		N/A	N/A	N/A

Based on Table 17.B-2 (Criteria for Deceleration Lanes on Urban Multi-Lane Highways)

* Lane Length Requirements based on Table 18.K-1 (Deceleration and Acceleraion Lengths)

** Enter Grade Adjustment Factor from Table 18.K-2 or other criteria.

*** Lane Storage Length is Based on a calculated 3-minute queue based on average arrival rate per minute.
= Volume/Hr. divided by 60 times three (rounded) times 25 feet per vehicle.
Lane Storage Length for right turn decel lanes is zero unless there is a stop condition.

Notes and Comments:

1. This warrant sheet is for the southbound Driveway 'B' at 100% Development of the Project

Worksheet Developed by Terry O. Brown, P.E.

A-125b

Data Entry Sheet

Determination of Warrants for Deceleration Lanes

NM DOT State Access Management Manual Criteria

Driveway 'B' / Rio Bravo Blvd

Project Information:

Project Name:	**Rio Bravo / Broadway Comm. Dev. (NW Corner)**
Project Location:	**Northwest Corner**
Implemenation Year:	**2014**
Project Environment:	**Urban** **Multi-Lane**

Street Information:

Major Street Name:	**Rio Bravo Blvd**
Minor Street Name:	**Driveway 'B'**

Intersection Information:

	Orientation	Prevailing Speed	No. Lanes Each Direction
Driveway 'B'	**Southbound**	**25**	**N/A**
Rio Bravo Blvd	**East-West**	**45**	**2**

Determine Case:

Case
1 Urban Two-Lane Highway - Use Table 17.B.1
2 Urban Multi-Lane Highway - Use Table 17.B-2
3 Rural Two Lane Highway - Use Table 17.B-3 and 17.B-5
4 Rural Multi-Lane Highway - Use Table 17.B-4 and 17.B-6

Rio Bravo Blvd is Case **2**
Speed Category **45 to 55**

WB Right Turn Volumes		**WB Thru Volumes**
2014 AM Pk. Hr. NO BUILD	0	907
2014 AM Pk. Hr. BUILD	82	871
2014 PM Pk. Hr. NO BUILD	0	2253
2014 PM Pk. Hr. BUILD	102	2211

EB Leftt Turn Volumes		**EB Thru Volumes**
2014 AM Pk. Hr. NO BUILD	0	2077
2014 AM Pk. Hr. BUILD	0	2083
2014 PM Pk. Hr. NO BUILD	0	1322
2014 PM Pk. Hr. BUILD	0	1330

Determination of Warrants for Auxiliary Lanes

Project Name: **Rio Bravo / Broadway Comm. Dev. (NW Corner)**
Name of Highway: **Rio Bravo Blvd**
Name of Cross Street: **Driveway 'B'**

Determination of Warrants for: Southbound Driveway

Implementation Year Volumes - **2014** **Posted Speed Limit:** **45**

Right Turn Deceleration Lane - Implementation Year Volumes

Condition	Year	Projected Right Turn Volume	Warrant Volume in thru Lane	Projected Volume in thru Lane	✓ if Met	Lane Length (Deceleration)*	Adjustment Factor for Grade**	Lane Length (Storage)***	Total Lane Length	Taper Ratio
AM Peak Hour NO BUILD	2014	-	-	454		N/A		-	N/A	N/A
AM Peak Hour BUILD	2014	82	1	436	✓	400	1.00	-	400	12.5:1
PM Peak Hour NO BUILD	2014	-	-	1,127		N/A		-	N/A	N/A
PM Peak Hour BUILD	2014	102	1	1,106	✓	400	1.00	-	400	12.5:1

Based on Table 17.B-2 (Criteria for Deceleration Lanes on Urban Multi-Lane Highways)

Left Turn Deceleration Lane - Implementation Year Volumes

Condition	Year	Projected Left Turn Volume	Warrant Volume in thru Lane	Projected Volume in thru Lane	✓ if Met	Lane Length (Deceleration)*	Adjustment Factor for Grade**	Lane Length (Storage)***	Total Lane Length	Taper Ratio
AM Peak Hour NO BUILD	2014	-	-	1,039		N/A		N/A	N/A	N/A
AM Peak Hour BUILD	2014	-	-	1,042		N/A		N/A	N/A	N/A
PM Peak Hour NO BUILD	2014	-	-	661		N/A		N/A	N/A	N/A
PM Peak Hour BUILD	2014	-	-	665		N/A		N/A	N/A	N/A

Based on Table 17.B-2 (Criteria for Deceleration Lanes on Urban Multi-Lane Highways)

* Lane Length Requirements based on Table 18.K-1 (Deceleration and Acceleraion Lengths)

** Enter Grade Adjustment Factor from Table 18.K-2 or other criteria.

*** Lane Storage Length is Based on a calculated 3-minute queue based on average arrival rate per minute.
= Volume/Hr. divided by 60 times three (rounded) times 25 feet per vehicle.
Lane Storage Length for right turn decel lanes is zero unless there is a stop condition.

Notes and Comments:

1. This warrant sheet is for the southbound Driveway 'B' at 100% Development of the Project

Worksheet Developed by Terry O. Brown, P.E.

Table 17.B-2
Criteria For Deceleration Lanes On
URBAN MULTI-LANE HIGHWAYS

Turning Volume[1] (vph)	LEFT-TURN DECELERATION LANE			RIGHT-TURN DECELERATION LANE		
	Minimum Volume in Adjacent Through Lane (vphpl)[2]			Minimum Volume in Adjacent Through Lane (vphpl)[2]		
	≤30 mph	35 to 40 mph	45 to 55 mph	≤30 mph	35 to 40 mph	45 to 55 mph
<5	Not Required	Not Required	Not Required	Not Required	Not Required	Not Required
5	Not Required	490	420	1,200	730	450
10	420	370	300	820	490	320
15	360	290	220	600	350	240
20	310	230	160	460	260	180
25	270	190	130	360	230	150
30	240	160	110	290	200	130
35	210	130	100	260	180	120
40	180	120	Required	240	170	110
45	160	110	Required	220	160	Required
50	140	Required	Required	200	Required	Required
55	120	Required	Required	190	Required	Required
≥56	Required	Required	Required	Required	Required	Required
	Left-turn Deceleratаion Lanes are Required on Urban Multi-lane Highways for the following Left-turn Volumes: • ≤30 mph : 56 vph or more • 35 to 40 mph : 46 vph or more • 45 to 55 mph : 36 vph or more			***Right-turn Deceleratаion Lanes are Required on Urban Multi-lane Highways for the following Right-turn Volumes:*** • ≤30 mph : 56 vph or more • 35 to 40 mph : 46 vph or more • 45 to 55 mph : 41 vph or more		

Notes:

1. *Use linear interpolation for turning volumes between 5 and 55 vph.*
2. *The volume in the adjacent through lane includes through vehicles and turning vehicles.*

Table 18.K-1
Deceleration and Acceleration Lengths (feet)

Speed Change Lane Condition	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
Deceleration Distance										
Stop Condition	150	200	250	325	400	475	550	650	725	850
Slow to 15 MPH	130	175	230	300	370	450	525	620	700	820
Deceleration Taper										
Length for 12-foot Lane	50	75	100	125	150	175	200	225	250	250
Straight Line Ratios (L:W)	4:1	6:1	8:1	10.5:1	12.5:1	14.5:1	16.5:1	18.5:1	21:1	21:1
Acceleration Lane Length	N/A	190	270	380	550	760	960	1,170	1,380	1,590
Acceleration Taper										
Length of 12-foot Lane	N/A	100	120	150	170	180	230	270	300	300
Straight Line Ratios (L:W)	N/A	8:1	10:1	12.5:1	14:1	15:1	19:1	22.5:1	25:1	25:1

New Mexico DEPARTMENT OF TRANSPORTATION
MOBILITY FOR EVERYONE

District Three Office - Albuquerque

December 1, 2009

Mr. Terry Brown, P.E.
P.O. Box 92051
Albuquerque, New Mexico 87199

Subject: Access Justification Study for Rio Bravo (NM 500) & Broadway (NM 47)
Bernalillo County

Dear Mr. Brown:

The NMDOT District Three Office has completed its review of the Final Access Justification Study dated September 28, 2009, for the proposed Rio Bravo/Broadway commercial development within Bernalillo County. The proposed development lies north of Rio Bravo (NM 500) and east of Broadway (NM 47).

We are satisfied with the information and data presented within the analysis and have no further comments. Therefore, the Access Justification Study has been approved by NMDOT.

As described within the study, the following access recommendations are supported:

1. At the access to the property (driveway "B") along Rio Bravo, a right-in, right-out driveway will be constructed. This driveway will contain a westbound right turn lane into the driveway and will be constructed as far west of the Broadway/Rio Bravo intersection as possible.
2. At the access to the property (driveway "A") along Broadway, a full access, unsignalized driveway will be constructed to access the development. This driveway will contain a southbound right turn lane and a northbound left turn lane into the driveway and will be constructed as far north of the Broadway/Rio Bravo intersection as possible.

Both driveways, as well as other offsite improvements outlined in the Traffic Study, will be designed and constructed according to the requirements of the NMDOT's State Access Management Manual. The NMDOT is requesting that you provide the MRCOG with copies of this approval letter along with 4 copies of the Traffic Study and Access Justification Report for their information. It is not the intent of the NMDOT to request an approval from the MRCOG for the access. We will be granting the access once we receive the access permit and the plans detailing all the offsite improvements.

If you have any questions or require additional information, please feel free to give me a call at (505) 841-9173.

Sincerely,

Andrew J. Gallegos, P.E.
District Three Traffic Engineer

cc: Larry Velasquez
Ton Abbo
Nancy Perea
Christina Bahl
Jack Lord
File

Terry O. Brown, P.E.

From: Jaramillo, Antonio, NMDOT <Antonio.Jaramillo@state.nm.us>
Sent: Tuesday, January 17, 2012 10:11 AM
To: Terry O. Brown, P.E.
Cc: Perea, Nancy, NMDOT; Ronald R. Bohannan
Subject: RE:

Terry,

Due to the fact that the approval was issued a number of years ago, I would say that the agreement is null and void and a new approval will need to be issued. That being said the new and updated information will need to be evaluated and included for approval. If you have any further questions please let me know. Thanks!

Antonio E. Jaramillo, PE
District 3 Traffic Engineer
NMDOT
(505) 841-2741

From: Terry O. Brown, P.E. [mailto:tobe@swcp.com]
Sent: Tuesday, January 17, 2012 8:37 AM
To: Jaramillo, Antonio, NMDOT
Cc: Perea, Nancy, NMDOT; Ronald R. Bohannan
Subject: RE:

Thanks, Antonio. I will follow up with regard to the November application to see what is occurring there.

Also, would you please address the access issue on Rio Bravo Blvd. Is access approved?

Please call me if you have questions.

Best Regards,

Terry O. Brown, P.E.
P. O. Box 92051
Albuquerque, NM 87199-2051
(505) 883-8807 – Office
(505) 270-6981 – Cell
e-mail: tobe@swcp.com

From: Jaramillo, Antonio, NMDOT [mailto:Antonio.Jaramillo@state.nm.us]
Sent: Thursday, January 12, 2012 11:12 AM
To: Terry O. Brown
Cc: Perea, Nancy, NMDOT
Subject: RE:

Terry,

As discussed in our conversation yesterday, I was to get back with you regarding the letter that was sent to you by Mr. Gallegos regarding the property at Rio Bravo and Broadway. Since the development has changed since this letter was issued I would ask that a new study be done for this development.
On Rio Bravo Please analyze from I-25 west to Isleta Blvd. and on Broadway from Rio Bravo to Prosperity.

On a related note, I have received plans from Thompson Engineering Consultants back in mid-November to develop this site as a MVD express. This is only a couple months ago so I was wondering if you were aware of this. The plan set was submitted to Bernalillo County and was submitted to us for review. Please make sure that there are no mix ups. Thanks!

Antonio E. Jaramillo, PE
District 3 Traffic Engineer
NMDOT
(505) 841-2741

From: Terry O. Brown [mailto:tobe@swcp.com]
Sent: Tuesday, January 10, 2012 2:55 PM
To: Jaramillo, Antonio, NMDOT
Cc: Abbo, Tony S., NMDOT; Vince Carrica; Ronald R. Bohannan
Subject:

Antonio,

I performed an Access Study in 2009 for a new right-in, right-out driveway on the north side of Rio Bravo Blvd. approximately 400 feet west of Broadway Blvd. (centerline to centerline). Andrew Gallegos, the District Traffic Engineer at the time, wrote a letter of approval dated December, 1, 2009 (See attached). Based on Mr. Gallegos' letter, it appears that we have the right to construct a right-in right-out driveway at that location. A potential user is proposing a gasoline station with Convenience Market at this location and we intend to construct access on Broadway Blvd. as well as the right-in, right-out on Rio Bravo Blvd.

Would you please provide me with a scope of Traffic Impact Study for the new project, and confirm that we are approved for the right-in, right-out driveway on Rio Bravo.

Please call me if you have questions or if you need additional information.

Best Regards,

Terry O. Brown, P.E.
P. O. Box 92051
Albuquerque, NM 87199-2051
(505) 883-8807 – Office
(505) 270-6981 – Cell
(505) 212-0267 – FAX

e-mail: tobe@swcp.com
