Terry O. Brown P.E.

Valle del Sol

(Los Picaros Rd. / University Blvd.)

Traffic Impact Study

September 14, 2016

FINAL

Presented to:

Bernalillo County
Public Works Department

New Mexico Dept. of Transportation
District 3

City of Albuquerque
Transportation Development

Prepared for:

Tierra West, LLC
5571 Midway Park Pl. NE
Albuquerque, NM 87109

Terry O. Brown P.E.
P.O. Box 92051
Albuquerque, NM 87199
505 · 883 · 8807

Valle del Sol Development
(Los Picaros Rd. / University Blvd.)
Traffic Impact Analysis

Contents

Executive Summary

The purpose of this study is to evaluate the transportation conditions before and after implementation of the proposed Valle del Sol Development, determine the impact of the development on the adjacent transportation system and recommend mitigation measures where necessary. 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 Valle del Sol Development. This study encompasses a portion of the *Valle del Sol Sector Development Plan – 2016.*

The proposed development is expected to consist of 234,370 S.F. of General Office Building, 546,870 S.F. of Warehousing, 446,410 S.F. Industrial Park and 612,960 S.F. of Shopping Center. It is proposed to be 30% developed by 2025 (implementation year) and 100% developed by 2040 (horizon year).

Vehicle access to the proposed project will be via a mix of full access and right-in, right-out driveways on Los Picaros Rd. and University Blvd. See the site plan in the Appendix (pg. A-3) for access details. Bicyclist and pedestrian access will be via the existing paved bicycle trail along the west side of University Blvd. north and south of Rio Bravo. This trail exists to the south property line of the proposed project (at Crick Ave.) There will also be a mix of pedestrian facilities within the proposed development.

Methodology used is as follows: 1) Trip generation rates for the proposed development were projected based on data contained in the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition (3% mixed use (internal capture) traffic reduction was used). 2) Primary and diverted linked trips for the commercial land use were distributed proportionally to the 2025 projected population of Data Analysis Subzones within a three-mile radius of the proposed development and primary and diverted linked trips for the office land use were distributed proportionally to the 2025 projected population of Data Subareas citywide inversely proportional to the distance of the subarea from the project location. 3) Trip assignments were first made on a percentage basis derived from data established in the trip distribution determination process and logical routing. Those percentages were then applied to the projected trips to determine individual traffic movements. 4) Background traffic growth rates were considered for each individual approach to an intersection that was targeted for analysis based on data from the 2012 and 2040 MRCOG Link Volumes adjusted for base year error. 5) The growth rates were applied to the most recent peak hour traffic count volumes and trips were added for the Wagner Development to account for trips generated by that project which is planned to be constructed in the near future (only for the 2025 volumes). The sum of the

existing volumes plus growth plus the other proposed project constitutes the 2025 and 2040 NO BUILD volumes utilized in this report. To these volumes, the generated trips based on implementation of the proposed Valle del Sol Development were added to obtain the 2025 and 2040 BUILD Volumes utilized for the 2025 and 2040 BUILD Condition analyses. 6) Classification of levels-of-service and delay for signalized and unsignalized intersections were made based on criteria established by Synchro, Version 8 (Build 803) computer modeling software which approximates the 2010 Highway Capacity Manual methodology.

In summary, the proposed retail commercial and office development at Los Picaros Rd. / University Blvd. is a large 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 University Blvd. are regional issues mostly attributable to large background traffic volumes forecast for the year 2040. This analysis indicated that, generally speaking, the Rio Bravo Blvd. corridor in the study area would be at approximately capacity (or below) during the 2025 AM and PM Peak Hour periods (implementation year) and beyond capacity for the 2040 AM and PM Peak Hour periods (horizon year).

This report finds that the impact of the proposed retail commercial and office development at the intersection of Los Picaros Rd. / University Blvd. is moderate and that the impact to the transportation system can be mitigated by the recommended measures described in this report and summarized on the following tables.

EXECUTIVE SUMMARY RESULTS TABLE

NO.	INTERSECTION	2040 AM PEAK HOUR			2040 PM PEAK HOUR			2040 RECOMMENDATIONS
		NO BUILD	BUILD	MITIGATED	NO BUILD	BUILD	MITIGATED	
1	Gibson Blvd. / Yale Blvd.	F - 91.7	F - 97.2	-	F - 250	F - 261	-	
2	Randolph Blvd. / Yale Blvd.	F - 130	F - 165	E - 67.3	F - 94.4	F - 110	D - 40.8	Add LT arrows and a RT arrow to traffic signals to make EB, NB and SB LTs permitted + protected and the SB RT permitted + overlap.
3	George Rd. / University Blvd.	B - 10.2	B - 11.2	-	B - 16.0	B - 18.7	-	None
4	Car Rental Rd. / University Blvd.	B - 11.1	B - 11.1	-	C - 26.7	C - 25.2	-	None
5	Rio Bravo Blvd. / University Blvd.	C - 21.8	F - 99.5	D - 35.2	F - 246	F - 749	F - 180	Reconfigure to make S leg of University an extension of Rio Bravo and make University tee into Rio Bravo and the new extension (See graphic Page 56).
6	Rio Bravo Blvd. / I-25 E. Ramp	-	-	-	-	-	-	None
7	Rio Bravo Blvd. / I-25 W. Ramp (Reconfigured Interchange)	D - 35.3	D - 54.3	-	C - 34.5	D - 37.8	-	None
8	Rio Bravo Blvd. / Broadway Blvd.	D - 54.2	D - 54.7	-	F - 95.2	F - 97.6	-	None
9	Rio Bravo Blvd. / Prince St.	C - 29.1	C - 28.9	-	B - 19.2	C - 24.8	-	None
10	Rio Bravo Blvd. /Second St.	F - 378	F - 324	-	F - 447	F - 382	-	None
11	Rio Bravo Blvd. / Isleta Blvd.	F - 81.0	F - 95.3	E - 77.6	F - 131	F - 166	F - 136	Add RT arrows to traffic signal to make WB, NB and SB RTs permitted + overlap.
12	Sunport N. Ramp / University Blvd.	A - 10.0	B - 10.2	-	A - 9.7	A - 9.9	-	None
13	Sunport S. Ramp / University Blvd.	C - 34.0	B - 10.6	-	B - 19.2	D - 35.7	-	None
14	Bobby Foster Rd. / Broadway Blvd.	C - 30.3	C - 32.2	D - 35.8	F - 175	F - 271	F - 101	Construct 2nd WB LT lane and add RT and LT arrows to traffic signals to make WB and NB RT lanes permitted +overlap and SB LT lane permitted + protected.
15	Los Picaros W. Ramp / University Blvd.	-	SB mvmts failing	-	-	SB mvmts failing	-	Consider Constructing traffic signals w/ lane geometry on Pages 65 and 66.
16	Los Picaros Rd. E. Ramp / University Blvd.	-	NB mvmts failing	-	-	NB mvmts failing	-	
17	Driveway "A" / University Blvd.	-	EB, WB mvmts, SB LT failing	-	-	EB & NB mvmts failing	-	Consider constructing traffic signal w/lane geometry on Page 67.
18	Driveway "B" / University Blvd.	-	F - 114	E - 59.8	-	F - 248	F - 84.4	Consider constructing traffic signal w/lane geometry on Page 68.
19	Driveway "C" / University Blvd.	-	F - 365	B - 18.1	-	F - 747	E - 73.1	Consider constructing traffic signal w/lane geometry on Page 69.
20	Lod Picaros Rd. / Driveway "D"	-	No failing	-	-	SB mvmts failing	-	Construct separate EB and SB LT lanes and WB and SB RT lanes.
21	Los Picaros Rd. / Driveway "E"	-	SB mvmts failing	-	-	NB & SB mvmts failing	-	Construct 2-lane circulating roundabout.
22	Los Picaros Rd. / Driveway "F"	-	No failing	-	-	NB mvmts failing	-	Construct 2-way LT lane along Los Piucaros from Driveway 'G' to 500 ft E of Driveway 'F'.
23	Los Picaros Rd. / Driveway "G"	-	No failing	-	-	No failing	-	
24	Los Picaros Rd. / Driveway "H"	-	No failing	-	-	No failing	-	None
25	Los Picaros Rd. / Driveway "I"	-	No failing	-	-	No failing	-	None
26	Los Picaros Rd. / Driveway "J"	-	No failing	-	-	No failing	-	None
27	Driveway "K" / University Blvd.	-	No failing	-	-	EB RT failing	-	Construct internal cross access to allow access to nearest signalized intersections along University.
28	Driveway "L" / University Blvd.	-	No failing	-	-	EB RT failing	-	Construct internal cross access to allow access to nearest signalized intersections along University.
29	Driveway "M" / University Blvd.	-	No failing	-	-	EB mvmts failing	-	Construct internal cross access to allow access to nearest signalized intersections along University.
	University Blvd.							Construct 3 lanes NB and 3 lanes SB on University from Rio Bravo to 1,000 ft S of Driveway 'C'
	Los Picaros Rd.							Construct 2 lanes EB and 2 lanes WB from 1,000 ft W of Driveway "J" to Driveway "G".

EXECUTIVE SUMMARY RESULTS TABLE

NO.	INTERSECTION	2015 EXISTING CONDITIONS AM PEAK HOUR	2015 EXISTING CONDITIONS PM PEAK HOUR	2025 AM PEAK HOUR NO BUILD	2025 AM PEAK HOUR BUILD	MITIGATED	2025 PM PEAK HOUR NO BUILD	2025 PM PEAK HOUR BUILD	MITIGATED	2025 RECOMMENDATIONS
1	Gibson Blvd. / Yale Blvd.	D - 41.2	F - 96.7	D - 41.4	D - 41.5	-	F - 94.7	F - 96.4	-	None
2	Randolph Blvd. / Yale Blvd.	C - 28.8	D - 43.2	C - 27.6	C - 28.0	-	D - 40.9	D - 42.6	-	None
3	George Rd. / University Blvd.	B - 12.1	B - 15.4	B - 11.3	B - 12.1	-	B - 17.1	B - 17.3	-	None
4	Car Rental Rd. / University Blvd.	A - 9.1	B - 14.2	B - 10.8	B - 10.7	-	C - 25.4	C - 24.8	-	None
5	Rio Bravo Blvd. / University Blvd.	C - 21.6	E - 75.9	C - 21.6	C - 21.7	C - 29.2	E - 75.9	F - 104	E - 59.6	Construct 3rd NB LT lane along University, re-stripe inside EB RT lane along Rio Bravo to create 3rd EB LT lane. Construct 3rd. NB receiving lane on University N. of Rio Bravo Min. 1,000 ft plus transition.
6	Rio Bravo Blvd. / I-25 E. Ramp	F - 179	F - 234	-	-	-	-	-	-	None
7	Rio Bravo Blvd. / I-25 W. Ramp (Reconfigured Interchange)	F - 98.2	F - 178	B - 18.0	B - 19.6	-	C - 21.8	C - 29.8	-	None
8	Rio Bravo Blvd. / Broadway Blvd.	E - 55.7	F - 224	D - 47.4	D - 43.7	D - 39.2	D - 53.8	E - 63.4	D - 39.3	Construct 2nd NB LT lane on Broadway.
9	Rio Bravo Blvd. / Prince St.	F - 88.5	F - 91.0	C - 28.1	C - 29.1	-	B - 18.6	B - 18.9	-	None
10	Rio Bravo Blvd. /Second St.	F - 151	F - 166	F - 154	F - 162	F - 146	F - 166	F - 178	F - 142	Construct 2nd NB LT lane on Second.
11	Rio Bravo Blvd. / Isleta Blvd.	D - 47.8	D - 50.7	D - 51.2	D - 53.5	-	D - 54.0	E - 55.4	-	None
12	Sunport N. Ramp / University Blvd.	A - 9.4	B - 10.7	A - 9.4	A - 9.4	-	B - 10.8	B - 10.8	-	None
13	Sunport S. Ramp / University Blvd.	C - 24.8	B - 12.3	B - 15.8	B - 16.8	-	B - 11.4	B - 12.0	-	None
14	Bobby Foster Rd. / Broadway Blvd.	WB mvmts failing	WB mvmts failing	B - 16.7	B - 16.8	-	D - 38.1	D - 42.9	-	Consider constructing traffic signal after conducting full traffic signal warrant.
15	Los Picaros W. Ramp / University Blvd.	-	-	-	No Failing	-	-	No Failing	-	Construct diamond interchange with E and W Ramps (unsignalized).
16	Los Picaros E. Ramp / University Blvd.	-	-	-	No Failing	-	-	No Failing	-	
17	Driveway "A" / University Blvd.	-	-	-	No Failing	-	-	No Failing	-	Full access. Construct SB RT decel lane (325 ft w/10.5:1 taper) and NB LT decel lane (400 ft w/10.5:1 taper).
18	Driveway "B" / University Blvd.	-	-	-	WB Failing	A - 9.4	-	EB & WB mvmts Failing	B - 14.3	Consider constructing traffic signal after conducting full signal warrant (around 2028). Use geometry Page 39. Construct SB RT decel lane (325 ft w/10.5:1 taper) and NB LT decel lane (450 ft w/10.5:1 taper).
19	Driveway "C" / University Blvd.	-	-	-	No Failing	A - 5.0	-	EB & WB LTs Failing	A - 10.0	Consider constructing traffic signal after conducting full signal warrant (around 2030). Use geometry Page 41. Construct NB LT decel lane (425 ft [or max length feasible] w/10.5:1 taper).
20	Lod Picaros Rd. / Driveway "D"	-	-	-	No Failing	-	-	No Failing	-	Right-in, right-out, only
21	Los Picaros Rd. / Driveway "E"	-	-	-	No Failing	-	-	No Failing	-	Full access
22	Los Picaros Rd. / Driveway "F"	-	-	-	No Failing	-	-	No Failing	-	Full access
23	Los Picaros Rd. / Driveway "G"	-	-	-	No Failing	-	-	No Failing	-	Right-in, right-out, only
24	Los Picaros Rd. / Driveway "H"	-	-	-	No Failing	-	-	No Failing	-	Right-in, right-out, only
25	Los Picaros Rd. / Driveway "I"	-	-	-	No Failing	-	-	No Failing	-	Right-in, right-out, only
26	Los Picaros Rd. / Driveway "J"	-	-	-	No Failing	-	-	No Failing	-	Right-in, right-out, only
27	Driveway "K" / University Blvd.	-	-	-	No Failing	-	-	No Failing	-	Right-in, right-out, only
28	Driveway "L" / University Blvd.	-	-	-	No Failing	-	-	No Failing	-	Right-in, right-out, only
29	Driveway "M" / University Blvd.	-	-	-	No Failing	-	-	No Failing	-	Right-in, right-out, only
	All Driveways									Construct all driveways with lane configurations Pages 38 thru 50.

Valley del Sol Development
(Los Picaros Rd. / University Blvd.)
Traffic Impact Analysis

Introduction

The purpose of this study is to evaluate the transportation conditions before and after implementation of the proposed Valle del Sol Development 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 Valle del Sol 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 prior to beginning the study to discuss scope and methodology to be utilized within the proposed Valle del Sol Development Traffic Impact Study. Specific items included format, intersections to be studied, intersection analysis procedures, existing traffic counts, trip distribution methodology, and implementation / horizon year definition. Additionally, the District 3 Traffic Engineer for the New Mexico Department of Transportation was contacted by e-mail and responded with the Department of Transportation's requirements via e-mail.

Intersection capacity analyses were performed in accordance with the procedures for signalized and unsignalized intersections utilized in the Synchro (Version 8, Build 803) Transportation System analysis software program as required by the New Mexico Department of Transportation and other local governments.

Intersections targeted for analysis in this study include Gibson Blvd. / Yale Blvd., Randolph Rd. / Yale Blvd., George Rd. / University Blvd., Car Rental Rd. / University Blvd., Rio Bravo Blvd. / University Blvd., Rio Bravo Blvd. / I-25 Interchange, Rio Bravo Blvd. / Broadway Blvd., Rio Bravo Blvd. / Prince St., Rio Bravo Blvd. / Second St., Rio Bravo Blvd. / Isleta Blvd., Sunport N. ramp / University Blvd., Sunport S. ramp / University Blvd., and Bobby Foster Rd. / University Blvd. In addition, Los Picaros Rd. will be analyzed as an interchange with off ramps at University Blvd. The proposed driveways for the site will be analyzed as well.

Study Area Characteristics

The subject area of land discussed in this report surrounds the intersection of Los Picaros Rd. / University Blvd. See the Valle del Sol Development site map on Page A-3 in the Appendix of this report. The total area encompassed by this project is approximately 625± acres. The project consists of mixed commercial, warehouse, manufacturing, and office uses. A vicinity map showing the location of the project is included on Page A-1 in the Appendix of this report.

Generally, the adjacent land uses in the area of this project are A-1. The property on which this project is proposed is also zoned A-1. There is another proposed development in the vicinity of this project which is the Wagner commercial development at the southeast corner of Rio Bravo Blvd. / Broadway Blvd.

The expected year of 30% implementation of the Valle del Sol Development is 2025. A horizon year of 2040 will also be analyzed in this study.

Access to this new site will be off of Los Picaros Rd. and University Blvd. They will be a mix of full access and right-in, right-out only driveways.

The following classifications were taken from the 2040 Metropolitan Transportation Plan by the Mid-Region Metropolitan Planning Organization:

Rio Bravo Blvd., Broadway Blvd., Sunport Blvd., and Gibson Blvd. are classified as Regional Principal Arterial roadways. 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. Sunport Blvd. is a two lane limited access interchange at University Blvd. The ramp speed limit is unknown but assumed to be low.

University Blvd. is classified as a Regional Principal Arterial roadway south of Rio Bravo Blvd. but a Minor Arterial roadway north of Rio Bravo Blvd. Yale Blvd., Randolph Rd. and Los Picaros Rd. east of University are classified as Minor Arterial roadways as well.

Isleta Blvd. is classified as a Community Principal Arterial roadway. It is generally a two lane urban facility with raised medians. The posted speed limit along Isleta Blvd. in the vicinity of this project is 40 MPH.

Second St., Los Picaros Rd. and Bobby Foster Rd. are classified as Major Collector roadways. They are generally two lane urban facilities without raised medians. The posted speed limits in the vicinity of this project are between 30 and 35 MPH.

Interstate 25 is classified as a freeway. It is generally a four lane urban facility with raised medians. The posted speed limit along Interstate 25 in the vicinity of this project is 65 MPH.

The Mid Region Council of Government's Interim Long Range Roadway System map is included in the report on Appendix Pages A-3a thru A-3b of the Appendix.

There are currently two ABQ RIDE Bus Routes in the project analysis area. Route 51 (Atrisco. Dr. / Rio Bravo Blvd.) runs weekdays from 5:30 am through 7:00 pm along Rio Bravo. Blvd., Second St. and Prince St. This route also runs on weekends. Route 222 (Rio Bravo – Sunport – Kirtland) runs weekdays from 6:00 am through 6:30 pm along Rio Bravo Blvd., University Blvd., Randolph Rd. and Gibson Blvd. See Appendix Pages A-429 thru A-431 for full bus route schedules. Currently, there are no bus routes in the immediate project area, such as along University Blvd., south of Rio Bravo Blvd.

Paved bicycle trails exist within the project analysis area and in the immediate project area – along Rio Bravo Blvd. from the Riverside Trail to the South Diversion Channel and along University Blvd. from just north of Rio Bravo Blvd. to Crick Ave. (Mesa del Sol). The Mid-Region Metropolitan Planning Organization's 2040 Long Range Bikeway System Map shows proposed paved bicycle trails along University Blvd. north of Rio Bravo Blvd., Along Rio Bravo Blvd. from Isleta Blvd. to the Riverside Trail and from the South Diversion Channel to University Blvd. Bicycle lanes exist along a portion of University Blvd, south of Sunport Blvd, Gibson Blvd. from University Blvd. to Washington St. and proposed bicycle lanes along Yale Blvd., Randolph Rd., University Blvd and Rio Bravo Blvd. See Appendix Page A-432 for further information regarding the Metropolitan Planning Organization's 2040 Long Range Bikeway System Map in the project area.

Along with the above mentioned paved bicycle trails, pedestrians have access to small segments of existing sidewalk along Rio Bravo Blvd. The paved bicycle trail along the west side of University Blvd. north and south of Rio Bravo is the most pedestrian friendly access to the proposed development.

Description of Proposed Development

The Valle del Sol Development is a proposed mixed use commercial project consisting of general office, warehousing, industrial park and shopping center. It is proposed to be 30% developed by 2025 (implementation year) and 100% developed by 2040 (horizon year).

The proposed development is expected to consist of 234,370 S.F. of General Office Building, 546,870 S.F. of Warehousing, 446,410 S.F. Industrial Park and 612,960 S.F. of Shopping Center. 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 proposed 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.

Vehicle access to the proposed project will be via a mix of full access and right-in, right-out driveways on Los Picaros Rd. and University Blvd. See the site plan in the Appendix (pg. A-3) for access details. Bicyclist and pedestrian access will be via the existing paved bicycle trail along the west side of University Blvd. north and south of Rio Bravo. This trail exists to the south property line of the proposed project (at Crick Ave.) There will also be a mix of pedestrian facilities within the proposed development.

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, 9th Edition published in 2009. 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:

Valle del Sol - 2015 Plan

Trip Generation Data (ITE Trip Generation Manual - 9th Edition)

COMMENT	USE (ITE CODE) DESCRIPTION		24 HR VOL GROSS	A. M. PEAK HR. ENTER	A. M. PEAK HR. EXIT	P. M. PEAK HR. ENTER	P. M. PEAK HR. EXIT
	Summary Sheet	Units					
Parcel 1	General Office Building (710)	47.56	746	93	13	22	109
Parcel 1	Warehousing (150)	110.97	539	69	18	16	48
Parcel 1	Industrial Park (130)	126.82	1,311	93	21	27	102
Parcel 1	Shopping Center (820)	31.71	3,219	48	29	133	144
Parcel 2	General Office Building (710)	43.00	691	86	12	22	105
Parcel 2	Warehousing (150)	100.33	494	65	17	15	45
Parcel 2	Industrial Park (130)	114.67	1,250	86	19	25	95
Parcel 2	Shopping Center (820)	28.67	3,015	45	28	125	135
Parcel 3	General Office Building (710)	30.06	527	64	9	19	93
Parcel 3	Warehousing (150)	70.14	363	54	14	12	36
Parcel 3	Industrial Park (130)	50.10	928	45	10	15	55
Parcel 3	Shopping Center (820)	50.10	4,333	63	39	181	196
Parcel 4	General Office Building (710)	51.18	789	99	13	23	113
Parcel 4	Warehousing (150)	119.41	574	72	19	17	50
Parcel 4	Industrial Park (130)	85.30	1,104	68	15	20	77
Parcel 4	Shopping Center (820)	85.30	6,124	88	54	259	280
Parcel 5	General Office Building (710)	30.46	532	65	9	19	93
Parcel 5	Warehousing (150)	71.08	368	54	14	12	36
Parcel 5	Industrial Park (130)	33.85	847	33	7	12	45
Parcel 5	Shopping Center (820)	203.08	10,763	149	91	462	501
Parcel 6	General Office Building (710)	32.12	554	68	9	19	95
Parcel 6	Warehousing (150)	74.93	385	56	15	12	37
Parcel 6	Industrial Park (130)	35.68	856	34	8	12	46
Parcel 6	Shopping Center (820)	214.10	11,139	154	94	479	519
	Subtotal (Raw Trips)		**51,451**	**1,751**	**577**	**1,958**	**3,055**
Internal Capture	3%	Net Trips	49907	1698	560	1899	2963
	Raw Trips in 2009 Traffic Study (From 09/28/09 TIS)		**58,299**	**2,074**	**1,973**	**2,729**	**2,590**
Parcel 1 Summary		317.06	5,815	303	81	198	403
Parcel 2 Summary		286.67	5,450	282	76	187	380
Parcel 3 Summary		200.39	6,151	226	72	227	380
Parcel 4 Summary		341.18	8,591	327	101	319	520
Parcel 5 Summary		338.46	12,510	301	121	505	675
Parcel 6 Summary		356.83	12,934	312	126	522	697
Parcel 7 Summary		0.00	-	-	-	-	-
Parcel 8 Summary		0.00	-	-	-	-	-
	Commercial Trips			547	335	1,639	1,775

The preceding table demonstrates the calculated trip generation rate based on the proposed plan and the projected uses for each parcel on the site. No adjustment was made to account for pass-by trips but a 3% mixed use (internal capture) traffic reduction was used. Trip Generation Rate Summary Table and Individual Trip Generation Rate Worksheets for individual land uses are contained on Pages A-4 thru A-29 in the Appendix. The map showing the internal capture used in the analysis is on Appendix Page A-30.

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 2025 projected population of Data Analysis Subzones within a three-mile radius of the proposed development. Population data for the years 2012 and 2040 were taken from the 2040 Socioeconomic Forecasts by Data Analysis Subzones for the MRCOG Region, supplied by the Mid-Region Council of Governments (MRCOG). Population data from the years 2012 and 2040 was interpolated linearly to obtain 2025 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-31 thru A-37 and A-44 thru A-45.

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-46 thru A-51.

Office Land Use

Primary and diverted linked trips for the office land use development were distributed proportionally to the 2025 projected population of Data Subareas citywide inversely proportional to the distance of the subarea from the project location. Population data for the years 2012 and 2040 were taken from the 2040 Socioeconomic Forecasts by Data Analysis Subzones for the MRCOG Region supplied by the Mid-Region Council of Governments (MRCOG). Population data from the years 2012 and 2040 was interpolated linearly to obtain 2025 population data to utilize for this analysis. Population Subareas 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 data analysis subzones is shown in the Appendix on Pages A-38 thru A-43 and A-52 thru A-53. Percentage trip assignments are shown in the Appendix on Pages A-54 thru A-60.

Analysis of Existing Conditions

2014 Average Weekday Traffic Volumes (AWDT) for major streets in the site plan area are shown on Page A-3c of the Appendix.

An analysis of the existing 2015 AM Peak Hour and PM Peak Hour conditions can be found on Appendix Pages A-381 thru A-408.

Background Traffic Growth

Background traffic growth rates were considered for each individual approach to an intersection that was targeted for analysis based on data from the 2012 and 2040 MRCOG Link Volumes adjusted for base year error. Growth Rate Maps with associated tables are shown in the Appendix on Pages A-61 thru A-62.

The growth rate utilized for each approach to an intersection is printed at the top of the Turning Movement sheets for each intersection (Appendix Pages A-63 thru A-64).

Projected Peak Hour Turning Movements for 2025 and 2040 Buildout

The calculated annual growth rates were applied to the most recent peak hour traffic count volumes and trips were added for the Wagner Development to account for trips generated by that project which is planned to be constructed in the near future. The sum of the existing volumes plus growth plus the other proposed project constitutes the 2025 and 2040 NO BUILD volumes utilized in this report. To these volumes, the generated trips based on implementation of the proposed Valle del Sol Development were added to obtain the 2025 and 2040 BUILD Volumes utilized for the 2025 and 2040 BUILD Condition analyses. See Appendix Pages A-65 thru A-128 for further information regarding the 2025 turning movement volumes and Appendix Pages A-129 thru A-193 for further information regarding the 2040 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:

> 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. In addition, the 2040 NO BUILD volumes for the intersections of Rio Bravo Blvd. / Broadway Blvd., the proposed Rio Bravo Blvd. / I-25 Interchange and Rio Bravo Blvd. / University Blvd. were obtained from the proposed Rio Bravo Blvd. / I-25 Interchange project.

- Need Mitigation table 2025 40' Here.

In summary, the 2040 AM and PM Peak Hour forecast volumes were derived directly from the Mid-Region Council of Governments' Regional Model (2040 data set) adjusted for base year error. The 2025 AM and PM Peak Hour forecast volumes were interpolated between the 2015 (existing) volumes and the 2040 Regional Model forecast volumes.

Implementation and Horizon Year Traffic Analyses

Classification of levels-of-service and delay for signalized and unsignalized intersections will be made based on criteria established by Synchro, Version 8 (Build 803) computer modeling software which approximates the 2010 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:

Implementation Year Traffic Analysis

Intersection #1 – Gibson Blvd. / Yale Blvd. - Pages A-194 thru A-281

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

Intersection: 1 - GIBSON BLVD. / YALE BLVD.

		2025 AM Peak Hour BUILD					2025 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	D - 45.4	1	D - 44.7	L	1	**F - 171**	1	**F - 171**	
	T	3	D - 42.1	3	D - 42.8	T	3	E - 65.4	3	E - 71.4	
	R	1	C - 23.1	1	C - 23.5	R	1	C - 20.1	1	C - 20.8	
WB	L	1	D - 40.3	1	D - 42.4	L	1	**F - 99.9**	1	**F - 94.6**	
	T	3	D - 41.2	3	D - 40.7	T	3	**F - 101**	3	**F - 101**	
	R	1	C - 28.7	1	C - 28.3	R	1	B - 18.7	1	B - 18.7	
NB	L	2	C - 32.1	2	C - 32.6	L	2	**F - 128**	2	**F - 134**	
	T	2	D - 48.8	2	D - 49.2	T	2	E - 60.6	2	E - 61.2	
	R	1	E - 60.0	1	E - 59.0	R	1	D - 53.6	1	E - 56.4	
SB	L	1	C - 33.5	1	C - 34.0	L	1	**F - 113**	1	**F - 114**	
	T	2	D - 42.4	2	D - 43.1	T	2	**F - 146**	2	**F - 146**	
	R	>	D - 43.0	>	D - 43.8	R	>	**F - 253**	>	**F - 253**	
Intersection:		***D - 41.4***		***D - 41.5***			**F - *94.7***		**F - *96.4***		

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

The analysis of the intersection of Gibson Blvd. / Yale Blvd. in this report demonstrates that the projected levels-of-service and delays are acceptable for both the AM Peak Hour NO BUILD and BUILD conditions, but will experience excessive delays for both the PM Peak Hour NO BUILD and BUILD conditions. The proposed development only increases the delay during the PM Peak Hour by 1.7 seconds. No physical improvements can be made to this intersection due to lack of right-of-way; therefore, no recommendations are made for the intersection of Gibson Blvd. / Yale Blvd.

If physical improvements could be made at the intersection, it appears that dual eastbound and west bound left turn lanes and a separate southbound right turn lane may improve the intersection delays.

The results of the queuing analysis for the intersection of Gibson Blvd. / Yale Blvd. are summarized in the following table:

Queueing Analysis Summary Sheet

Project: Valle del Sol Development - 2015

Intersection: **Gibson Blvd. / Yale Blvd.**

2025

Approach	Left Turns			Thru Movements				Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*1*	*157*	*250*	*3*	*1,291*	*Cont*		*1*	*277*	*250*
AM NO BUILD Queue	1	184	300	3	1,510	775		1	324	475
AM BUILD Queue	**1**	**184**	**300**	**3**	**1,510**	**775**		**1**	**332**	**475**
Existing Lane Length	*1*	*173*	*250*	*3*	*918*	*Cont*		*1*	*154*	*250*
PM NO BUILD Queue	1	280	425	3	1,488	750		1	250	375
PM BUILD Queue	**1**	**280**	**425**	**3**	**1,488**	**750**		**1**	**252**	**375**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*1*	*159*	*415*	*3*	*1,305*	*Cont*		*1*	*280*	*165*
AM NO BUILD Queue	1	183	300	3	1,503	750		1	322	475
AM BUILD Queue	**1**	**202**	**325**	**3**	**1,503**	**750**		**1**	**322**	**475**
Existing Lane Length	*1*	*304*	*415*	*3*	*1,792*	*Cont*		*1*	*161*	*165*
PM NO BUILD Queue	1	334	475	3	1,971	>1,000	*	1	177	275
PM BUILD Queue	**1**	**339**	**475**	**3**	**1,971**	**>1,000**	*	**1**	**177**	**275**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*2*	*185*	*180*	*2*	*161*	*Cont*		*1*	*209*	*650*
AM NO BUILD Queue	2	493	400	2	429	350		1	557	750
AM BUILD Queue	**2**	**495**	**400**	**2**	**430**	**350**		**1**	**561**	**750**
Existing Lane Length	*2*	*370*	*180*	*2*	*303*	*Cont*		*1*	*272*	*650*
PM NO BUILD Queue	2	643	500	2	527	425		1	473	**650**
PM BUILD Queue	**2**	**651**	**500**	**2**	**530**	**425**		**1**	**493**	**675**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*1*	*96*	*185*	*2*	*186*	*Cont*		*0*	*119*	*0*
AM NO BUILD Queue	1	113	200	2	219	200		0	140	250
AM BUILD Queue	**1**	**113**	**200**	**2**	**222**	**225**		**0**	**140**	**250**
Existing Lane Length	*1*	*186*	*185*	*2*	*206*	*Cont*		*0*	*232*	*0*
PM NO BUILD Queue	1	205	325	2	227	225		0	255	375
PM BUILD Queue	**1**	**205**	**325**	**2**	**228**	**225**		**0**	**255**	**375**

	AM	PM
Cycle Length:	**140**	**140**

NOTE: Queue lengths are in feet.

Calculated Right Turn Queue Lengths can be reduced by 50% to account for right-turns-on-red and right turn overlaps.

According to the queuing analysis, the eastbound left turn lane should be lengthened from 250 feet to 425 feet plus transition; the westbound left turn lane should be lengthened from 415 feet to 475 feet plus transition; the westbound right turn lane should be lengthened from 165 feet to 240 feet plus transition; the northbound left turn lane should be lengthened from 180 feet to 500 feet plus transition and the southbound left turn lane should be lengthened from 185 feet to 325 feet plus transition. The eastbound left turn lane cannot be lengthened without adversely affecting the street to the west (Wilmoore Dr.) and the westbound right turn lane cannot be lengthened due to lack of right-of-way. The northbound left turn lane cannot be lengthened without adversely affecting the street to the south (Miles Rd.) and the southbound left turn lane cannot be lengthened without adversely affecting the driveway to the north (2015 Yale Blvd.). The westbound left turn lane cane be lengthened to 475 feet plus transition; however, that would only allow for 2 additional vehicles and is not worth the expense of construction and utility relocations. Therefore, no recommendations are made for the queuing at the intersection of Gibson Blvd. / Yale Blvd.

Intersection #2 – Randolph Rd. Blvd. / Yale Blvd. - Pages A-194 thru A-281

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

Intersection: 2 - RANDOLPH RD. / YALE BLVD.

		2025 AM Peak Hour BUILD					2025 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	D - 38.6	1	D - 43.6	L	1	D - 41.5	1	D - 50.0	L
	T	1	A - 0.0	1	A - 0.0	T	1	A - 0.0	1	A - 0.0	T
	R	>	A - 0.0	>	A - 0.0	R	>	A - 0.0	>	A - 0.0	R
WB	L	>	C - 22.6	>	C - 26.0	L	>	C - 23.0	>	E - 74.5	L
	T	1	A - 0.0	1	A - 0.0	T	1	A - 0.0	1	A - 0.0	T
	R	>	A - 0.0	>	A - 0.0	R	>	A - 0.0	>	A - 0.0	R
NB	L	1	C - 21.2	1	C - 22.4	L	1	C - 27.3	1	C - 25.6	L
	T	3	B - 15.9	3	B - 18.0	T	3	C - 21.3	3	B - 19.7	T
	R	>	B - 16.3	>	B - 18.4	R	>	C - 21.8	>	C - 20.2	R
SB	L	1	C - 22.5	1	B - 16.3	L	1	D - 44.7	1	D - 42.8	L
	T	2	B - 14.5	2	A - 9.7	T	2	C - 33.1	2	C - 31.8	T
	R	1	D - 35.1	1	C - 30.0	R	1	E - 70.0	1	E - 65.8	R
Intersection:		***C - 27.6***		***C - 28.0***			***D - 40.9***		***D - 42.6***		

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

The analysis of the intersection of Randolph Rd. Blvd. / Yale Blvd. in this report demonstrates that the projected levels-of-service and delays are acceptable for all conditions analyzed.

Therefore, no recommendations are made for the intersection of Randolph Rd. Blvd. / Yale Blvd.

The results of the queuing analysis for the intersection of Randolph Rd. Blvd. / Yale Blvd. are summarized in the following table:

Queueing Analysis Summary Sheet

Project: Valle del Sol Development - 2015

Intersection: **Randolph Rd. / Yale Blvd.**

2025

Approach	Left Turns				Thru Movements				Right Turns			
Eastbound	# Lanes	Vol.	Length		# Lanes	Vol.	Length		# Lanes	Vol.	Length	
Existing Lane Length	*1*	*529*	*250*		*1*	*13*	*Cont*		*0*	*12*	*0*	
AM NO BUILD Queue	1	821	>1,000	*	1	20	50		0	19	50	
AM BUILD Queue	**1**	**827**	**>1,000**	*	**1**	**20**	**50**		**0**	**19**	**50**	
Existing Lane Length	*1*	*775*	*250*		*1*	*1*	*Cont*		*0*	*17*	*0*	
PM NO BUILD Queue	1	1,045	>1,000	*	1	1	0		0	23	75	
PM BUILD Queue	**1**	**1,076**	**>1,000**	*	**1**	**1**	**0**		**0**	**24**	**75**	
Westbound	# Lanes	Vol.	Length		# Lanes	Vol.	Length		# Lanes	Vol.	Length	
Existing Lane Length	*0*	*0*	*0*		*1*	*7*	*Cont*		*0*	*23*	*0*	
AM NO BUILD Queue	0	0	0		1	7	25		0	23	75	
AM BUILD Queue	**0**	**1**	**0**		**1**	**7**	**25**		**0**	**23**	**75**	
Existing Lane Length	*0*	*0*	*0*		*1*	*7*	*Cont*		*0*	*10*	*0*	
PM NO BUILD Queue	0	0	0		1	9	25		0	13	50	
PM BUILD Queue	**0**	**1**	**0**		**1**	**9**	**25**		**0**	**13**	**50**	
Northbound	# Lanes	Vol.	Length		# Lanes	Vol.	Length		# Lanes	Vol.	Length	
Existing Lane Length	*1*	*12*	*60*		*3*	*146*	*Cont*		*0*	*2*	*0*	
AM NO BUILD Queue	1	63	125		3	761	425		0	10	50	
AM BUILD Queue	**1**	**64**	**125**		**3**	**761**	**425**		**0**	**10**	**50**	
Existing Lane Length	*1*	*27*	*60*		*3*	*469*	*Cont*		*0*	*3*	*0*	
PM NO BUILD Queue	1	55	125		3	964	525		0	6	25	
PM BUILD Queue	**1**	**55**	**125**		**3**	**964**	**525**		**0**	**6**	**25**	
Southbound	# Lanes	Vol.	Length		# Lanes	Vol.	Length		# Lanes	Vol.	Length	
Existing Lane Length	*1*	*26*	*75*		*2*	*146*	*Cont*		*1*	*280*	*900*	
AM NO BUILD Queue	1	59	125		2	330	300		1	633	825	
AM BUILD Queue	**1**	**59**	**125**		**2**	**330**	**300**		**1**	**663**	**850**	
Existing Lane Length	*1*	*16*	*75*		*2*	*246*	*Cont*		*1*	*586*	*900*	
PM NO BUILD Queue	1	20	50		2	313	275		1	746	>1,000	*
PM BUILD Queue	**1**	**20**	**50**		**2**	**313**	**275**		**1**	**754**	**>1,000**	*

	AM	PM
Cycle Length:	140	140

NOTE: Queue lengths are in feet.

~~Calculated Right Turn Queue Lengths can be reduced by 50%~~ **to account for right-turns-on-red and right turn overlaps.**

According to the queuing analysis, the northbound left turn lane should be lengthened from 60 feet to 125 feet plus transition and the southbound left turn lane should be lengthened from 75 feet to 125 feet plus transition. The northbound left turn lane cannot be lengthened without adversely affecting the driveway to the south (2700 Yale Blvd.). The southbound left turn lane cannot be lengthened because it is a thru lane beginning at Gibson Blvd. that turns into an exclusive right turn lane. It can actually queue much further north without than demonstrated by the queuing analysis and should operate reasonably well. Therefore, no recommendations are made for the queuing at the intersection of Randolph Rd. / Yale Blvd.

Intersection #3 – George Rd. / University Blvd. - Pages A-194 thru A-281

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

Intersection: 3 - GEORGE RD. / UNIVERSITY BLVD.

		2025 AM Peak Hour BUILD					2025 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	E - 64.9	1	E - 64.9	L	1	E - 64.3	1	E - 64.3	L
	T	1	A - 0.0	1	A - 0.0	T	1	A - 0.0	1	A - 0.0	T
	R	>	E - 63.5	>	E - 63.6	R	>	E - 56.8	>	E - 56.8	R
WB	L	>	E - 68.4	>	E - 68.4	L	>	E - 64.4	>	E - 64.4	L
	T	1	A - 0.0	1	A - 0.0	T	1	A - 0.0	1	A - 0.0	T
	R	>	A - 0.0	>	A - 0.0	R	>	A - 0.0	>	A - 0.0	R
NB	L	1	E - 67.9	1	E - 67.9	L	1	**F - 113**	1	**F - 104**	L
	T	2	B - 14.5	2	B - 14.6	T	2	B - 19.1	2	B - 19.7	T
	R	>	B - 14.5	>	B - 14.6	R	>	B - 19.1	>	B - 19.7	R
SB	L	1	A - 2.5	1	A - 2.6	L	1	A - 4.2	1	A - 4.4	L
	T	2	A - 0.3	2	A - 2.7	T	2	A - 0.3	2	A - 0.3	T
	R	>	A - 0.3	>	A - 2.7	R	>	A - 0.3	>	A - 0.3	R
Intersection:		***B - 11.3***		***B - 12.1***			***B - 17.1***		***B - 17.3***		

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

The analysis of the intersection of George Rd. / University Blvd. in this report demonstrates that the projected levels-of-service and delays are acceptable for all conditions analyzed. The proposed development increases the delay during the AM Peak Hour by 0.8 seconds and by 0.2 seconds during the PM Peak Hour. Therefore, no recommendations are made for the intersection of George Rd. / University Blvd.

The results of the queuing analysis for the intersection of George Rd. / University Blvd. are summarized in the following table:

Queueing Analysis Summary Sheet

Project: Valle del Sol Development - 2015

Intersection: **George Rd. / University Blvd.**

2025

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*21*	*100*	*1*	*1*	*Cont*	*0*	*5*	*0*
AM NO BUILD Queue	1	23	75	1	1	0	0	6	25
AM BUILD Queue	**1**	**23**	**75**	**1**	**1**	**0**	**0**	**7**	**25**
Existing Lane Length	*1*	*62*	*100*	*1*	*0*	*Cont*	*0*	*3*	*0*
PM NO BUILD Queue	1	62	125	1	0	0	0	3	25
PM BUILD Queue	**1**	**62**	**125**	**1**	**0**	**0**	**0**	**3**	**25**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*0*	*10*	*0*	*1*	*0*	*Cont*	*0*	*33*	*0*
AM NO BUILD Queue	0	11	50	1	0	0	0	36	100
AM BUILD Queue	**0**	**11**	**50**	**1**	**0**	**0**	**0**	**36**	**100**
Existing Lane Length	*0*	*15*	*0*	*1*	*1*	*Cont*	*0*	*83*	*0*
PM NO BUILD Queue	0	17	50	1	1	0	0	91	175
PM BUILD Queue	**0**	**17**	**50**	**1**	**1**	**0**	**0**	**91**	**175**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*2*	*250*	*2*	*384*	*Cont*	*0*	*11*	*0*
AM NO BUILD Queue	1	2	0	2	422	350	0	12	50
AM BUILD Queue	**1**	**2**	**0**	**2**	**430**	**350**	**0**	**12**	**50**
Existing Lane Length	*1*	*4*	*250*	*2*	*562*	*Cont*	*0*	*16*	*0*
PM NO BUILD Queue	1	4	25	2	618	**475**	0	18	50
PM BUILD Queue	**1**	**5**	**25**	**2**	**660**	**525**	**0**	**18**	**50**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*78*	*250*	*2*	*379*	*Cont*	*0*	*45*	*0*
AM NO BUILD Queue	1	86	175	2	417	350	0	50	100
AM BUILD Queue	**1**	**86**	**175**	**2**	**453**	**375**	**0**	**50**	**100**
Existing Lane Length	*1*	*51*	*250*	*2*	*439*	*Cont*	*0*	*58*	*0*
PM NO BUILD Queue	1	56	125	2	483	400	0	64	125
PM BUILD Queue	**1**	**56**	**125**	**2**	**498**	**400**	**0**	**64**	**125**

	AM	PM
Cycle Length:	140	140

NOTE: Queue lengths are in feet.

Calculated Right Turn Queue Lengths can be reduced by 50% to account for right-turns-on-red and right turn overlaps.

The queuing analysis makes no recommendations for the intersection of George Rd. / University Blvd.

Intersection #4 – Car Rental Rd. / University Blvd. - Pages A-194 thru A-281

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

Intersection: 4 - CAR RENTAL RD. / UNIVERSITY BLVD.

		2025 AM Peak Hour BUILD					2025 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	
WB	L	1	E - 62.9	1	E - 62.9	L	1	D - 49.7	1	D - 49.7	
	R	1	E - 76.1	1	E - 76.1	R	1	E - 68.5	1	E - 68.5	
NB	T	2	A - 3.3	2	A - 3.4	T	2	A - 6.7	2	A - 6.9	
	R	>	A - 3.3	>	A - 3.4	R	>	A - 6.7	>	A - 6.9	
SB	L	2	A - 1.8	2	A - 1.8	L	2	A - 4.8	2	A - 4.8	
	T	2	A - 8.2	2	A - 8.7	T	2	C - 20.2	2	C - 20.4	
Intersection:		***B - 10.8***		***B - 10.7***			***C - 25.4***		***C - 24.8***		

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

The analysis of the intersection of Car Rental Rd. / University Blvd. in this report demonstrates that the projected levels-of-service and delays are acceptable for all conditions analyzed. The proposed development does not increase the delay during neither the AM Peak Hour, nor the PM Peak Hour. Therefore, no recommendations are made for the intersection of Car Rental Rd. / University Blvd.

The results of the queuing analysis for the intersection of Car Rental Rd. / University Blvd. are summarized in the following table:

Queueing Analysis Summary Sheet

Project: Valle del Sol Development - 2015

Intersection: **Car Rental Rd. / University Blvd.**

2025

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# 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**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*6*	*450*	*0*	*0*	*Cont*	*1*	*47*	*450*
AM NO BUILD Queue	1	7	25	0	0	0	1	52	125
AM BUILD Queue	**1**	**7**	**25**	**0**	**0**	**0**	**1**	**52**	**125**
Existing Lane Length	*1*	*2*	*450*	*0*	*0*	*Cont*	*1*	*181*	*450*
PM NO BUILD Queue	1	2	0	0	0	0	1	199	325
PM BUILD Queue	**1**	**2**	**0**	**0**	**0**	**0**	**1**	**199**	**325**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*0*	*0*	*0*	*2*	*281*	*Cont*	*0*	*14*	*0*
AM NO BUILD Queue	0	0	0	2	309	275	0	15	50
AM BUILD Queue	**0**	**0**	**0**	**2**	**317**	**275**	**0**	**15**	**50**
Existing Lane Length	*0*	*0*	*0*	*2*	*131*	*Cont*	*0*	*6*	*0*
PM NO BUILD Queue	0	0	0	2	144	**150**	0	7	25
PM BUILD Queue	**0**	**0**	**0**	**2**	**187**	**200**	**0**	**7**	**25**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*2*	*100*	*220*	*2*	*121*	*Cont*	*0*	*0*	*0*
AM NO BUILD Queue	2	110	125	2	133	150	0	0	0
AM BUILD Queue	**2**	**110**	**125**	**2**	**170**	**175**	**0**	**0**	**0**
Existing Lane Length	*2*	*116*	*220*	*2*	*550*	*Cont*	*0*	*0*	*0*
PM NO BUILD Queue	2	128	150	2	605	**475**	0	0	0
PM BUILD Queue	**2**	**128**	**150**	**2**	**620**	**500**	**0**	**0**	**0**

	AM	PM
Cycle Length:	**140**	**140**

NOTE: Queue lengths are in feet.

Calculated Right Turn Queue Lengths can be reduced by 50% to account for right-turns-on-red and right turn overlaps.

The queuing analysis makes no recommendations for the intersection of Car Rental Rd. / University Blvd.

Intersection #5 – Rio Bravo Blvd. / University Blvd. - Pages A-194 thru A-281

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. / UNIVERSITY BLVD.

		2025 AM Peak Hour BUILD						2025 PM Peak Hour BUILD					
		(EXIST. GEOM.)				(MIT. GEOM.)		(EXIST. GEOM.)				(MIT. GEOM.)	
		NO BUILD		BUILD		BUILD		NO BUILD		BUILD		BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	2	D - 54.8	2	D - 49.1	3	D - 37.5	2	D - 47.7	2	D - 47.6	3	D - 38.7
	R	2	C - 30.6	2	C - 26.1	1	E - 59.6	2	B - 17.0	2	B - 14.4	1	C - 20.1
NB	L	2	A - 9.8	2	B - 13.0	3	B - 15.5	2	**F** - 81.9	2	**F** - 142	3	C - 32.9
	T	2	A - 5.6	2	A - 7.3	2	B - 11.1	2	B - 10.6	2	B - 11.0	2	B - 12.2
SB	T	2	B - 19.8	2	C - 25.9	2	C - 27.3	2	C - 32.4	2	D - 37.7	2	D - 36.8
	R	1	A - 8.9	1	B - 10.7	1	A - 7.7	1	**F** - 129	1	**F** - 169	1	**F** - 141
Intersection:		***C - 21.6***		***C - 21.7***		***C - 29.2***		***E - 75.9***		***F - 104***		***E - 59.6***	

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

Mitigation includes constructing a third NB left turn lane and re-striping the inside EB right turn lane to create a third EB left turn lane.

The analysis of the intersection of Rio Bravo Blvd. / University Blvd. in this report demonstrates that the projected levels-of-service and delays are acceptable for the AM Peak Hour NO BUILD and BUILD conditions, but will experience excessive delays during the PM Peak Hour NO BUILD and BUILD conditions. The intersection can be mitigated by constructing a third northbound left turn lane and re-striping the inside eastbound right turn lane to create a third eastbound left turn lane. It should be noted that triple left turn lanes on both streets will require three receiving thru lanes on the adjacent streets.

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

Queueing Analysis Summary Sheet

Project: Valle del Sol Development - 2015

Intersection: **Rio Bravo Blvd. / University Blvd.**

2025

Approach	Left Turns			Thru Movements			Right Turns			
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length	
Existing Lane Length	*3*	*352*	*225*	*0*	*0*	*Cont*	*1*	*408*	*625*	
AM NO BUILD Queue	3	464	375	0	0	0	1	539	725	
AM BUILD Queue	**3**	**464**	**375**	**0**	**0**	**0**	**1**	**711**	**>1,000**	*
Existing Lane Length	*3*	*163*	*225*	*0*	*0*	*Cont*	*1*	*88*	*625*	
PM NO BUILD Queue	3	673	525	0	0	0	1	378	**525**	
PM BUILD Queue	**3**	**673**	**525**	**0**	**0**	**0**	**1**	**470**	**650**	
Westbound	# 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**	
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length	
Existing Lane Length	*3*	*96*	*320*	*2*	*24*	*Cont*	*0*	*0*	*0*	
AM NO BUILD Queue	3	1,130	825	2	278	250	0	0	0	
AM BUILD Queue	**3**	**1,171**	**850**	**2**	**286**	**250**	**0**	**0**	**0**	
Existing Lane Length	*3*	*401*	*320*	*2*	*58*	*Cont*	*0*	*0*	*0*	
PM NO BUILD Queue	3	977	**725**	2	140	**150**	0	0	0	
PM BUILD Queue	**3**	**1,197**	**850**	**2**	**184**	**175**	**0**	**0**	**0**	
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length	
Existing Lane Length	*0*	*0*	*0*	*2*	*47*	*Cont*	*1*	*79*	*145*	
AM NO BUILD Queue	0	0	0	2	103	125	1	187	300	
AM BUILD Queue	**0**	**0**	**0**	**2**	**145**	**150**	**1**	**187**	**300**	
Existing Lane Length	*0*	*0*	*0*	*2*	*35*	*Cont*	*1*	*270*	*145*	
PM NO BUILD Queue	0	0	0	2	121	**125**	1	941	>1,000	*
PM BUILD Queue	**0**	**0**	**0**	**2**	**150**	**150**	**1**	**941**	**>1,000**	*

	AM	PM
Cycle Length:	**140**	**140**

NOTE: Queue lengths are in feet.

Calculated Right Turn Queue Lengths can be reduced by 50% to account for right-turns-on-red and right turn overlaps.

According to the queuing analysis, the eastbound left turn lane should be lengthened from 225 feet to 525 feet plus transition and the northbound left turn lane should be lengthened from 320 feet to 850 feet plus transition. The eastbound left turn lane cannot be lengthened due to the

location of the proposed Rio Bravo Blvd. / I-25 Interchange. The northbound left turn lane cannot be lengthened without adversely affecting the art project (a 500-foot stone snake) located in the existing median. Therefore, no recommendations are made for lengthening the existing queue lanes at the intersection of Rio Bravo Blvd. / University Blvd.

Intersection #6 – Rio Bravo Blvd. / I-25 E. Ramp (Existing – to be removed)

The existing intersection of Rio Bravo Blvd. / I-25 East Ramp will no longer exist in 2025 and will be replaced with a free right movement for northbound I-25 with the reconfigured Rio Bravo Blvd. / I-25 Interchange. Therefore, this intersection was not analyzed since there will be no conflicting movements.

Intersection #7 – Rio Bravo Blvd. / I-25 Interchange - Pages A-194 thru A-281

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. / I-25 W. RAMP

		2025 AM Peak Hour BUILD (EXIST. GEOM.)					2025 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	T	2	A - 0.5	2	A - 0.6	T	2	B - 13.9	2	E - 64.9	
	R	1	A - 0.1	1	A - 0.1	R	1	A - 1.2	1	C - 34.4	
WB	L	2	A - 4.6	2	A - 4.6	L	2	A - 9.9	2	B - 12.8	
	T	2	A - 5.0	2	A - 5.1	T	2	A - 9.7	2	A - 2.3	
NB	L	1	E - 65.9	1	E - 65.9	L	1	E - 61.2	1	E - 75.1	
	R	1	A - 0.0	1	A - 0.0	R	1	A - 0.0	1	A - 0.0	
SB	L	3	D - 53.5	3	E - 57.1	L	3	D - 38.4	3	E - 66.0	
	R	1	A - 0.0	1	A - 0.0	R	1	A - 0.0	1	A - 0.0	
Intersection:		***B - 18.0***		***B - 19.6***			***C - 21.8***		***C - 29.8***		

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

The analysis of the intersection of Rio Bravo Blvd. / I-25 Interchange in this report is actually an analysis of the proposed reconfigured Rio Bravo Blvd. / I-25 Interchange and demonstrates that the projected levels-of-service and delays are acceptable for all conditions analyzed. The proposed development increases the delay at the intersection by 1.6 seconds during the AM Peak Hour and by 8 seconds during the PM Peak Hour. Therefore, no recommendations are made for the reconfigured Rio Bravo Blvd. / I-25 Interchange.

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

Queueing Analysis Summary Sheet

Project: Valle del Sol Development - 2015

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

2025

Approach	Left Turns			Thru Movements			Right Turns			
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length	
Existing Lane Length	*0*	*0*	*0*	*2*	*216*	*Cont*	*1*	*17*	*200*	
AM NO BUILD Queue	0	0	0	2	921	675	1	81	150	
AM BUILD Queue	**0**	**0**	**0**	**2**	**992**	**725**	**1**	**81**	**150**	
Existing Lane Length	*0*	*0*	*0*	*2*	*196*	*Cont*	*1*	*25*	*200*	
PM NO BUILD Queue	0	0	0	2	704	550	1	105	200	
PM BUILD Queue	**0**	**0**	**0**	**2**	**768**	**575**	**1**	**105**	**200**	
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length	
Existing Lane Length	*2*	*13*	*400*	*2*	*76*	*Cont*	*0*	*0*	*0*	
AM NO BUILD Queue	2	91	100	2	595	475	0	0	0	
AM BUILD Queue	**2**	**91**	**100**	**2**	**616**	**475**	**0**	**0**	**0**	
Existing Lane Length	*2*	*62*	*400*	*2*	*290*	*Cont*	*0*	*0*	*0*	
PM NO BUILD Queue	2	136	150	2	669	525	0	0	0	
PM BUILD Queue	**2**	**138**	**150**	**2**	**781**	**600**	**0**	**0**	**0**	
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length	
Existing Lane Length	*1*	*20*	*900*	*0*	*0*	*Cont*	*1*	*51*	*900*	
AM NO BUILD Queue	1	260	400	0	0	0	1	662	850	
AM BUILD Queue	**1**	**260**	**400**	**0**	**0**	**0**	**1**	**662**	**850**	
Existing Lane Length	*1*	*20*	*900*	*0*	*0*	*Cont*	*1*	*16*	*900*	
PM NO BUILD Queue	1	403	550	0	0	0	1	323	475	
PM BUILD Queue	**1**	**403**	**550**	**0**	**0**	**0**	**1**	**323**	**475**	
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length	
Existing Lane Length	*3*	*361*	*1,000*	*0*	*0*	*Cont*	*1*	*778*	*1,000*	
AM NO BUILD Queue	3	397	350	0	0	0	1	985	>1,000	*
AM BUILD Queue	**3**	**496**	**400**	**0**	**0**	**0**	**1**	**985**	**>1,000**	*
Existing Lane Length	*3*	*65*	*1,000*	*0*	*0*	*Cont*	*1*	*1,266*	*1,000*	
PM NO BUILD Queue	3	92	100	0	0	0	1	1,853	>1,000	*
PM BUILD Queue	**3**	**118**	**125**	**0**	**0**	**0**	**1**	**1,853**	**>1,000**	*

	AM	PM
Cycle Length:	140	140

NOTE: Queue lengths are in feet.

Calculated Right Turn Queue Lengths can be reduced by 50% to account for right-turns-on-red and right turn overlaps.

The queuing analysis makes no recommendations for the Rio Bravo / I-25 Interchange, except that the reconfigured design include queue lane lengths at least as long as what is shown in the table above.

Intersection #8 – Rio Bravo Blvd. / Broadway Blvd. - Pages A-194 thru A-281

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

Intersection: 8 - RIO BRAVO BLVD. / BROADWAY BLVD.

2025 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	E - 78.3	1	E - 78.3	1	E - 78.3
	T	3	D - 49.0	3	D - 49.6	3	D - 46.4
	R	>	D - 54.3	>	E - 55.1	>	D - 50.9
WB	L	2	E - 71.0	2	E - 64.9	2	E - 60.7
	T	3	D - 52.6	3	C - 32.9	3	B - 18.7
	R	>	D - 53.0	>	C - 33.3	>	B - 19.0
NB	L	1	C - 29.9	1	C - 29.9	2	C - 28.8
	T	2	C - 34.2	2	C - 34.2	2	C - 35.0
	R	1	C - 32.8	1	C - 32.9	1	C - 34.0
SB	L	1	D - 36.1	1	D - 36.1	1	C - 29.6
	T	2	D - 40.2	2	D - 40.1	2	C - 32.1
	R	1	C - 28.1	1	C - 28.1	1	C - 21.3
Intersection:		***D - 47.4***		***D - 43.7***		***D - 39.2***	

2025 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	E - 74.6	1	E - 74.6	1	- 74.3
	T	3	D - 51.8	3	D - 52.3	3	D - 47.8
	R	>	E - 55.2	>	E - 56.0	>	D - 49.8
WB	L	2	E - 63.7	2	E - 71.7	2	E - 63.5
	T	3	E - 60.7	3	F - 92.4	3	D - 45.2
	R	>	E - 71.6	>	F - 103	>	D - 53.5
NB	L	1	E - 58.5	1	E - 59.2	2	C - 25.5
	T	2	C - 21.1	2	C - 21.7	2	C - 22.1
	R	1	C - 22.7	1	C - 23.2	1	C - 23.9
SB	L	1	C - 30.2	1	C - 31.2	1	C - 22.2
	T	2	D - 44.1	2	D - 45.6	2	C - 31.0
	R	1	E - 79.4	1	F - 87.2	1	D - 37.7
Intersection:		***D - 53.8***		***E - 63.4***		***D - 39.3***	

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

Mitigation includes constructing second NB left turn 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 acceptable for the AM Peak Hour BUILD and NO BUILD conditions and the PM Peak Hour NO BUILD condition, but will be excessive for the PM Peak Hour BUILD condition. The intersection may be mitigated by constructing a second northbound left turn lane.

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: Valle del Sol Development - 2015

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

2025

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*181*	*250*	*3*	*1,212*	*Cont*	*0*	*47*	*0*
AM NO BUILD Queue	1	206	325	3	1,433	725	0	105	200
AM BUILD Queue	**1**	**206**	**325**	**3**	**1,450**	**750**	**0**	**105**	**200**
Existing Lane Length	*1*	*88*	*250*	*3*	*596*	*Cont*	*0*	*96*	*0*
PM NO BUILD Queue	1	102	175	3	718	**400**	0	137	225
PM BUILD Queue	**1**	**102**	**175**	**3**	**767**	**425**	**0**	**137**	**225**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*2*	*194*	*340*	*3*	*574*	*Cont*	*0*	*29*	*0*
AM NO BUILD Queue	2	254	250	3	752	425	0	38	100
AM BUILD Queue	**2**	**254**	**250**	**3**	**762**	**425**	**0**	**38**	**100**
Existing Lane Length	*2*	*197*	*340*	*3*	*1,149*	*Cont*	*0*	*31*	*0*
PM NO BUILD Queue	2	198	200	3	1,157	**600**	0	31	75
PM BUILD Queue	**2**	**198**	**200**	**3**	**1,211**	**625**	**0**	**32**	**75**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*2*	*111*	*540*	*2*	*208*	*Cont*	*1*	*189*	*540*
AM NO BUILD Queue	2	303	275	2	489	400	1	441	600
AM BUILD Queue	**2**	**303**	**275**	**2**	**489**	**400**	**1**	**441**	**600**
Existing Lane Length	*2*	*208*	*540*	*2*	*154*	*Cont*	*1*	*280*	*540*
PM NO BUILD Queue	2	476	400	2	273	250	1	475	650
PM BUILD Queue	**2**	**476**	**400**	**2**	**273**	**250**	**1**	**475**	**650**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*53*	*100*	*2*	*100*	*Cont*	*1*	*95*	*180*
AM NO BUILD Queue	1	63	125	2	115	125	1	105	200
AM BUILD Queue	**1**	**63**	**125**	**2**	**115**	**125**	**1**	**105**	**200**
Existing Lane Length	*1*	*47*	*100*	*2*	*240*	*Cont*	*1*	*211*	*180*
PM NO BUILD Queue	1	132	225	2	668	525	1	586	775
PM BUILD Queue	**1**	**133**	**225**	**2**	**668**	**525**	**1**	**586**	**775**

	AM	PM
Cycle Length:	**140**	**140**

NOTE: Queue lengths are in feet.

Calculated Right Turn Queue Lengths can be reduced by 50% to account for right-turns-on-red and right turn overlaps.

According to the queuing analysis, the eastbound left turn lane should be lengthened from 250 feet to 325 feet plus transition and the southbound left turn lane should be lengthened from 100 feet to 225 feet plus transition. The eastbound left turn lane can be lengthened; however, that

would only allow for three additional vehicles and is not worth the expense of construction. The southbound left turn lane cannot be lengthened without adversely affecting the street to the south (Electric Ave.). Therefore, no recommendations are made for the queuing at the intersection of Rio Bravo Blvd. / Broadway Blvd. However, the recommended dual northbound left turn lanes should be designed and constructed to a length of 400 feet plus transition.

Intersection #9 – Rio Bravo Blvd. / Prince St. - Pages A-194 thru A-281

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. / PRINCE ST.

		2025 AM Peak Hour BUILD					2025 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	B - 16.2	1	B - 15.2	L	1	C - 20.2	1	C - 21.0	
	T	2	C - 31.3	2	C - 33.3	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	
WB	L	1	B - 16.6	1	B - 15.6	L	1	B - 11.2	1	B - 10.4	
	T	2	C - 22.4	2	C - 21.2	T	2	C - 25.3	2	C - 25.5	
	R	1	B - 18.5	1	B - 17.3	R	1	B - 12.1	1	B - 11.1	
NB	L	1	C - 34.7	1	D - 36.4	L	1	D - 44.7	1	D - 46.0	
	T	1	A - 0.0	1	A - 0.0	T	1	A - 0.0	1	A - 0.0	
	R	>	D - 39.9	>	D - 42.0	R	>	D - 49.8	>	D - 52.9	
SB	L	1	C - 34.4	1	C - 34.7	L	1	D - 44.7	1	D - 48.1	
	T	1	A - 0.0	1	A - 0.0	T	1	A - 0.0	1	A - 0.0	
	R	>	D - 37.6	>	D - 37.8	R	>	D - 50.7	>	D - 55.0	
Intersection:		***C - 28.1***			***C - 29.1***			***B - 18.6***		***B - 18.9***	

Note: ">" designates a shared right or left turn 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. The proposed development increases the delay during the AM Peak Hour by 1 second and increases the delay during the PM Peak Hour by 0.3 seconds. 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: Valle del Sol Development - 2015

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

2025

Approach	Left Turns			Thru Movements				Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*1*	*33*	*435*	*2*	*1,462*	*Cont*		*1*	*51*	*180*
AM NO BUILD Queue	1	36	100	2	1,705	>1,000	*	1	56	125
AM BUILD Queue	**1**	**36**	**100**	**2**	**1,767**	**>1,000**	*	**1**	**56**	**125**
Existing Lane Length	*1*	*13*	*435*	*2*	*703*	*Cont*		*1*	*112*	*180*
PM NO BUILD Queue	1	14	50	2	821	**625**		1	123	225
PM BUILD Queue	**1**	**14**	**50**	**2**	**874**	**650**		**1**	**123**	**225**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*1*	*63*	*295*	*2*	*595*	*Cont*		*1*	*71*	*295*
AM NO BUILD Queue	1	71	150	2	697	550		1	78	150
AM BUILD Queue	**1**	**73**	**150**	**2**	**715**	**550**		**1**	**78**	**150**
Existing Lane Length	*1*	*139*	*295*	*2*	*1,385*	*Cont*		*1*	*41*	*295*
PM NO BUILD Queue	1	158	**250**	2	1,641	>1,000	*	1	46	100
PM BUILD Queue	**1**	**169**	**275**	**2**	**1,736**	**>1,000**	*	**1**	**46**	**100**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*1*	*88*	*110*	*1*	*1*	*Cont*		*0*	*87*	*0*
AM NO BUILD Queue	1	97	175	1	1	0		0	100	175
AM BUILD Queue	**1**	**97**	**175**	**1**	**1**	**0**		**0**	**104**	**200**
Existing Lane Length	*1*	*89*	*110*	*1*	*4*	*Cont*		*0*	*63*	*0*
PM NO BUILD Queue	1	98	175	1	4	25		0	71	150
PM BUILD Queue	**1**	**98**	**175**	**1**	**4**	**25**		**0**	**80**	**150**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*1*	*21*	*285*	*1*	*0*	*Cont*		*0*	*7*	*0*
AM NO BUILD Queue	1	24	75	1	0	0		0	8	25
AM BUILD Queue	**1**	**24**	**75**	**1**	**0**	**0**		**0**	**8**	**25**
Existing Lane Length	*1*	*45*	*285*	*1*	*6*	*Cont*		*0*	*48*	*0*
PM NO BUILD Queue	1	51	100	1	7	25		0	53	125
PM BUILD Queue	**1**	**51**	**100**	**1**	**7**	**25**		**0**	**53**	**125**

	AM	PM
Cycle Length:	140	140

NOTE: Queue lengths are in feet.

Calculated Right Turn Queue Lengths can be reduced by 50% to account for right-turns-on-red and right turn overlaps.

According to the queuing analysis, the northbound left turn lane should be lengthened from 110 feet to 175 feet plus transition. The northbound left turn lane cannot be lengthened without

adversely affecting the street to the south (King Rd.). Therefore, no recommendations are made for the queueing at the intersection of Rio Bravo Blvd. / Prince St.

Intersection #10 – Rio Bravo Blvd. /Second St. - Pages A-194 thru A-281

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

Intersection: 10 - RIO BRAVO BLVD. / SECOND ST.

2025 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 - 215	1	F - 233	1	F - 233
	T	2	F - 177	2	F - 192	2	F - 192
	R	1	C - 23.3	1	C - 23.3	1	C - 23.3
WB	L	1	F - 93.2	1	F - 119	1	F - 121
	T	2	F - 112	2	F - 107	2	F - 94.0
	R	1	D - 50.4	1	D - 49.8	1	D - 38.8
NB	L	1	F - 170	1	F - 159	2	D - 35.4
	T	1	A - 0.0	1	A - 0.0	1	A - 0.0
	R	>	F - 170	>	F - 185	>	F - 185
SB	L	1	F - 242	1	F - 254	1	F - 247
	T	1	E - 69.2	1	E - 77.2	1	D - 54.1
	R	1	D - 35.1	1	D - 37.8	1	C - 29.9
Intersection:		F - *154*		F - *162*		F - *146*	

2025 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 - 180	1	F - 214	1	F - 214
	T	2	E - 76.9	2	F - 87.1	2	F - 87.1
	R	1	C - 24.5	1	C - 25.2	1	C - 25.2
WB	L	1	D - 51.4	1	F - 157	1	F - 174
	T	2	F - 213	2	F - 239	2	F - 230
	R	1	C - 24.0	1	C - 30.4	1	C - 24.1
NB	L	1	F - 301	1	F - 292	2	D - 41.5
	T	1	A - 0.0	1	A - 0.0	1	A - 0.0
	R	>	D - 50.6	>	E - 56.2	>	E - 56.2
SB	L	1	D - 53.6	1	D - 53.7	1	D - 52.0
	T	1	E - 64.5	1	E - 62.5	1	E - 58.6
	R	1	F - 327	1	F - 327	1	F - 274
Intersection:		F - *166*		F - *178*		F - *142*	

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

Mitigation includes constructing a second NB left turn lane.

The impact to the intersection of Rio Bravo Blvd. / Second St. in this report demonstrates that the projected levels-of-service and delays will be excessive for all conditions analyzed. The proposed development increases the delays at the intersection by 8 seconds during the AM Peak Hour and by 12 seconds during the PM Peak Hour. The intersection can be mitigated by constructing a second northbound left turn lane along Second St.

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

Queueing Analysis Summary Sheet

Project: Valle del Sol Development - 2015

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

2025

Approach	Left Turns			Thru Movements				Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*1*	*440*	*195*	*2*	*1,513*	*Cont*		*1*	*129*	*295*
AM NO BUILD Queue	1	466	625	2	1,685	>1,000	*	1	137	225
AM BUILD Queue	**1**	**466**	**625**	**2**	**1,730**	**>1,000**	*	**1**	**137**	**225**
Existing Lane Length	*1*	*88*	*195*	*2*	*653*	*Cont*		*1*	*115*	*295*
PM NO BUILD Queue	1	200	325	2	1,523	>1,000	*	1	261	400
PM BUILD Queue	**1**	**200**	**325**	**2**	**1,537**	**>1,000**	*	**1**	**261**	**400**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*1*	*66*	*190*	*2*	*683*	*Cont*		*1*	*74*	*190*
AM NO BUILD Queue	1	82	150	2	845	625		1	91	175
AM BUILD Queue	**1**	**90**	**175**	**2**	**855**	**650**		**1**	**92**	**175**
Existing Lane Length	*1*	*59*	*190*	*2*	*1,546*	*Cont*		*1*	*49*	*190*
PM NO BUILD Queue	1	75	**150**	2	1,799	>1,000	*	1	63	**125**
PM BUILD Queue	**1**	**117**	**200**	**2**	**1,848**	**>1,000**	*	**1**	**68**	**150**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*2*	*162*	*125*	*1*	*120*	*Cont*		*0*	*44*	*0*
AM NO BUILD Queue	2	486	400	1	360	500		0	140	250
AM BUILD Queue	**2**	**486**	**400**	**1**	**360**	**500**		**0**	**154**	**250**
Existing Lane Length	*2*	*262*	*125*	*1*	*84*	*Cont*		*0*	*43*	*0*
PM NO BUILD Queue	2	667	525	1	214	325		0	114	**200**
PM BUILD Queue	**2**	**667**	**525**	**1**	**214**	**325**		**0**	**151**	**250**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*1*	*118*	*150*	*1*	*90*	*Cont*		*1*	*108*	*120*
AM NO BUILD Queue	1	208	325	1	153	250		1	184	300
AM BUILD Queue	**1**	**212**	**325**	**1**	**153**	**250**		**1**	**184**	**300**
Existing Lane Length	*1*	*88*	*150*	*1*	*95*	*Cont*		*1*	*404*	*120*
PM NO BUILD Queue	1	101	**175**	1	105	200		1	444	600
PM BUILD Queue	**1**	**103**	**200**	**1**	**105**	**200**		**1**	**444**	**600**

	AM	PM
Cycle Length:	**140**	**140**

NOTE: Queue lengths are in feet.

Calculated Right Turn Queue Lengths can be reduced by 50% to account for right-turns-on-red and right turn overlaps.

According to the queuing analysis, the eastbound left turn lane should be lengthened from 450 feet to 625 feet plus transition; the northbound left turn lanes should be lengthened from 250

feet to 525 feet plus transition; the southbound left turn lane should be lengthened from 150 feet to 325 feet plus transition and the southbound right turn lane should be lengthened from 120 feet to 300 feet plus transition. The eastbound left turn lane cannot be lengthened without adversely affecting the driveway to the west. The northbound and southbound left turn lanes cannot be lengthened due to right-of-way restrictions because of the railroad right-of-way running along the east side of Second St. Therefore, no recommendations are made for the queuing at the intersection of Rio Bravo Blvd. / Second St.

Intersection #11 – Rio Bravo Blvd. / Isleta Blvd. - Pages A-194 thru A-281

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

Intersection: 11 - RIO BRAVO BLVD. / ISLETA BLVD.

		2025 AM Peak Hour BUILD					2025 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	C - 27.4	1	C - 25.4	L	1	C - 33.4	1	C - 33.7	
	T	2	E - 66.8	2	E - 68.4	T	2	E - 73.8	2	E - 76.4	
	R	1	C - 25.6	1	C - 26.9	R	1	C - 30.0	1	C - 30.0	
WB	L	1	F - 96.5	1	F - 100	L	1	E - 71.6	1	E - 77.9	
	T	2	C - 22.6	2	C - 23.4	T	2	C - 26.7	2	C - 27.5	
	R	1	A - 0.0	1	A - 0.0	R	1	A - 0.0	1	A - 0.0	
NB	L	1	C - 33.8	1	C - 34.6	L	1	E - 75.7	1	E - 75.7	
	T	2	D - 40.3	2	D - 41.2	T	2	D - 54.7	2	D - 54.7	
	R	1	A - 0.0	1	A - 0.0	R	1	A - 0.0	1	A - 0.0	
SB	L	2	D - 39.1	2	D - 44.6	L	2	D - 53.5	2	D - 53.5	
	T	2	D - 41.5	2	D - 35.7	T	2	E - 70.4	2	E - 70.4	
	R	1	D - 39.5	1	D - 37.9	R	1	E - 79.2	1	E - 79.2	
Intersection:		***D - 51.2***		***D - 53.5***			***D - 54.0***		***E - 55.4***		

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

The intersection of Rio Bravo Blvd. / Isleta Blvd. was fairly recently reconstructed by Bernalillo County. The analysis of the signalized intersection above demonstrates that the levels-of-service and associated delays are acceptable for the AM Peak Hour NO BUILD and BUILD conditions and for the PM Peak Hour NO BUILD condition but are slightly above capacity for the PM Peak Hour BUILD condition considered in this report. This intersection is built out and no more physical improvements can be made; therefore, there are no recommendations for the intersection of Rio Bravo Blvd. / Isleta Blvd.

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: Valle del Sol Development - 2015

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

2025

Approach	Left Turns			Thru Movements				Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*1*	*100*	*235*	*2*	*1,014*	*Cont*		*1*	*105*	*200*
AM NO BUILD Queue	1	111	200	2	1,136	825		1	117	200
AM BUILD Queue	**1**	**111**	**200**	**2**	**1,169**	**825**		**1**	**117**	**200**
Existing Lane Length	*1*	*111*	*235*	*2*	*500*	*Cont*		*1*	*116*	*200*
PM NO BUILD Queue	1	215	325	2	972	725		1	224	350
PM BUILD Queue	**1**	**215**	**325**	**2**	**981**	**725**		**1**	**224**	**350**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*1*	*225*	*780*	*2*	*362*	*Cont*		*1*	*199*	*490*
AM NO BUILD Queue	1	317	450	2	498	400		1	282	425
AM BUILD Queue	**1**	**319**	**450**	**2**	**505**	**400**		**1**	**282**	**425**
Existing Lane Length	*1*	*472*	*780*	*2*	*1,229*	*Cont*		*1*	*395*	*490*
PM NO BUILD Queue	1	556	750	2	1,377	>1,000	*	1	472	650
PM BUILD Queue	**1**	**566**	**750**	**2**	**1,412**	**>1,000**	*	**1**	**473**	**650**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*1*	*93*	*110*	*2*	*294*	*Cont*		*1*	*409*	*185*
AM NO BUILD Queue	1	125	225	2	396	350		1	566	750
AM BUILD Queue	**1**	**125**	**225**	**2**	**396**	**350**		**1**	**575**	**750**
Existing Lane Length	*1*	*141*	*110*	*2*	*271*	*Cont*		*1*	*226*	*185*
PM NO BUILD Queue	1	228	350	2	438	375		1	374	525
PM BUILD Queue	**1**	**228**	**350**	**2**	**438**	**375**		**1**	**376**	**525**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*2*	*287*	*160*	*2*	*267*	*Cont*		*1*	*57*	*160*
AM NO BUILD Queue	2	310	275	2	274	250		1	59	125
AM BUILD Queue	**2**	**311**	**275**	**2**	**274**	**250**		**1**	**59**	**125**
Existing Lane Length	*2*	*222*	*160*	*2*	*373*	*Cont*		*1*	*160*	*160*
PM NO BUILD Queue	2	252	225	2	410	350		1	176	275
PM BUILD Queue	**2**	**252**	**225**	**2**	**410**	**350**		**1**	**176**	**275**

	AM	PM
Cycle Length:	**140**	**140**

NOTE: Queue lengths are in feet.

Calculated Right Turn Queue Lengths can be reduced by 50% to account for right-turns-on-red and right turn overlaps.

According to the queuing analysis, the eastbound left turn lane should be lengthened from 235 feet to 325 feet plus transition; the northbound left turn lane should be lengthened from 110 feet

to 350 feet plus transition; the northbound right turn lane should be lengthened from 185 feet to 380 feet plus transition and the southbound left turn lane should be lengthened from 160 feet to 275 feet plus transition. The eastbound left turn lane cannot be lengthened without adversely affecting the driveways to the west. The northbound left turn lane cannot be affected by adversely affecting the street to the south (La Mora Ln.) and the northbound right turn lane cannot be lengthened without adversely affecting the driveway to the south. The southbound left turn lane cannot be lengthened without adversely affecting the street to the north (Kelsey Rd.). Therefore, no recommendations are made for the queuing at the intersection of Rio Bravo Blvd. / Isleta Blvd.

Intersection #12 – Sunport N. Ramp / University Blvd. - Pages A-194 thru A-281

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

Intersection: 12 - SUNPORT N. RAMP / UNIVERSITY BLVD.

		2025 AM Peak Hour BUILD					2025 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	
WB	L	1	E - 73.4	1	E - 73.3	L	1	E - 73.0	1	E - 72.9	
	T	1	A - 0.0	1	A - 0.0	T	1	A - 0.0	1	A - 0.0	
	R	>	E - 60.9	>	E - 60.7	R	>	E - 61.1	>	E - 60.7	
NB	L	2	E - 68.2	2	E - 68.4	L	2	E - 67.8	2	E - 67.8	
	T	2	A - 0.4	2	A - 0.4	T	2	A - 0.4	2	A - 0.4	
SB	T	2	A - 3.9	2	A - 4.0	T	2	A - 4.5	2	A - 4.6	
	R	1	A - 0.0	1	A - 0.0	R	1	A - 0.0	1	A - 0.0	
Intersection:		***A - 9.4***		***A - 9.4***			***B - 10.8***		***B - 10.8***		

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

The analysis of the intersection of Sunport N. Ramp / University Blvd. demonstrates that the levels-of-service and associated delays are acceptable for all conditions analyzed in this report. The proposed development does not increase the delays at the intersection. Therefore, there are no recommendations made for the intersection of Sunport N. Ramp / University Blvd.

The results of the queuing analysis for the intersection of Sunport N. Ramp / University Blvd. are summarized in the following table:

Queueing Analysis Summary Sheet

Project: Valle del Sol Development - 2015

Intersection: **Sunport N.Ramp / University Blvd.**

2025

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# 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**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*67*	*200*	*1*	*0*	*Cont*	*0*	*14*	*0*
AM NO BUILD Queue	1	101	175	1	0	0	0	21	50
AM BUILD Queue	**1**	**103**	**200**	**1**	**0**	**0**	**0**	**21**	**50**
Existing Lane Length	*1*	*97*	*200*	*1*	*0*	*Cont*	*0*	*25*	*0*
PM NO BUILD Queue	1	107	200	1	0	0	0	28	75
PM BUILD Queue	**1**	**110**	**200**	**1**	**0**	**0**	**0**	**28**	**75**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*2*	*34*	*220*	*2*	*577*	*Cont*	*0*	*0*	*0*
AM NO BUILD Queue	2	63	75	2	1,078	775	0	0	0
AM BUILD Queue	**2**	**64**	**100**	**2**	**1,085**	**775**	**0**	**0**	**0**
Existing Lane Length	*2*	*36*	*220*	*2*	*429*	*Cont*	*0*	*0*	*0*
PM NO BUILD Queue	2	90	**100**	2	1,069	**775**	0	0	0
PM BUILD Queue	**2**	**93**	**125**	**2**	**1,105**	**800**	**0**	**0**	**0**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*0*	*0*	*0*	*2*	*182*	*Cont*	*1*	*48*	*400*
AM NO BUILD Queue	0	0	0	2	283	250	1	75	150
AM BUILD Queue	**0**	**0**	**0**	**2**	**315**	**275**	**1**	**75**	**150**
Existing Lane Length	*0*	*0*	*0*	*2*	*298*	*Cont*	*1*	*186*	*400*
PM NO BUILD Queue	0	0	0	2	328	300	1	205	325
PM BUILD Queue	**0**	**0**	**0**	**2**	**339**	**300**	**1**	**205**	**325**

	AM	PM
Cycle Length:	140	140

NOTE: Queue lengths are in feet.

Calculated Right Turn Queue Lengths can be reduced by 50% to account for right-turns-on-red and right turn overlaps.

The queuing analysis makes no recommendations for the intersection of Sunport Blvd. N. Ramp / University Blvd.

Intersection #13 – Sunport S. Ramp / University Blvd. - Pages A-194 thru A-281

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

Intersection: 13 - SUNPORT S. RAMP / UNIVERSITY BLVD.

		2025 AM Peak Hour BUILD (EXIST. GEOM.)					2025 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	>	E - 57.2	>	E - 57.2	L	>	E - 63.8	>	E - 63.8	L
	T	1	A - 0.0	1	A - 0.0	T	1	A - 0.0	1	A - 0.0	T
	R	2	D - 45.2	2	D - 45.3	R	2	E - 55.1	2	E - 55.1	R
NB	T	4	A - 0.2	4	A - 0.2	T	4	A - 0.2	4	A - 1.7	T
	R	>	A - 0.6	>	A - 0.6	R	>	A - 0.6	>	A - 2.1	R
SB	L	1	A - 7.4	1	A - 7.5	L	1	A - 4.1	1	A - 4.2	L
	T	2	A - 1.8	2	A - 7.6	T	2	A - 0.1	2	A - 0.1	T
Intersection:		***B - 15.8***		***B - 16.8***			***B - 11.4***		***B - 12.0***		

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

The analysis of the signalized intersection of Sunport S. Ramp / University Blvd. demonstrates that the levels-of-service and associated delays are acceptable for all cases analyzed in this report. The proposed development increases the delay at the intersection by 1 second during the AM Peak Hour and by 0.6 seconds during the PM Peak Hour. Therefore, there are no recommendations made for the intersection of Sunport S. Ramp / University Blvd.

The results of the queuing analysis for the intersection of Sunport S. Ramp / University Blvd. are summarized in the following table:

Queueing Analysis Summary Sheet

Project: Valle del Sol Development - 2015

Intersection: **Sunport S.Ramp / University Blvd.**

2025

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*0*	*287*	*0*	*1*	*4*	*Cont*	*2*	*188*	*330*
AM NO BUILD Queue	0	316	450	1	4	25	2	207	200
AM BUILD Queue	**0**	**316**	**450**	**1**	**4**	**25**	**2**	**210**	**200**
Existing Lane Length	*0*	*74*	*0*	*1*	*0*	*Cont*	*2*	*69*	*330*
PM NO BUILD Queue	0	202	325	1	0	0	2	188	200
PM BUILD Queue	**0**	**202**	**325**	**1**	**0**	**0**	**2**	**189**	**200**
Westbound	# 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**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*0*	*0*	*0*	*4*	*312*	*Cont*	*0*	*50*	*0*
AM NO BUILD Queue	0	0	0	4	786	350	0	126	225
AM BUILD Queue	**0**	**0**	**0**	**4**	**794**	**375**	**0**	**127**	**225**
Existing Lane Length	*0*	*0*	*0*	*4*	*391*	*Cont*	*0*	*30*	*0*
PM NO BUILD Queue	0	0	0	4	1,173	**500**	0	90	175
PM BUILD Queue	**0**	**0**	**0**	**4**	**1,212**	**525**	**0**	**94**	**175**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*6*	*140*	*2*	*243*	*Cont*	*0*	*0*	*0*
AM NO BUILD Queue	1	9	25	2	367	325	0	0	0
AM BUILD Queue	**1**	**9**	**25**	**2**	**400**	**350**	**0**	**0**	**0**
Existing Lane Length	*1*	*2*	*140*	*2*	*395*	*Cont*	*0*	*0*	*0*
PM NO BUILD Queue	1	2	0	2	435	375	0	0	0
PM BUILD Queue	**1**	**2**	**0**	**2**	**449**	**375**	**0**	**0**	**0**

	AM	PM
Cycle Length:	140	140

NOTE: Queue lengths are in feet.

Calculated Right Turn Queue Lengths can be reduced by 50% to account for right-turns-on-red and right turn overlaps.

The queuing analysis makes no recommendations for the intersection of Sunport Blvd. S. Ramp / University Blvd.

Intersection #14 –Bobby Foster Rd. / Broadway Blvd. - Pages A-194 thru A-281

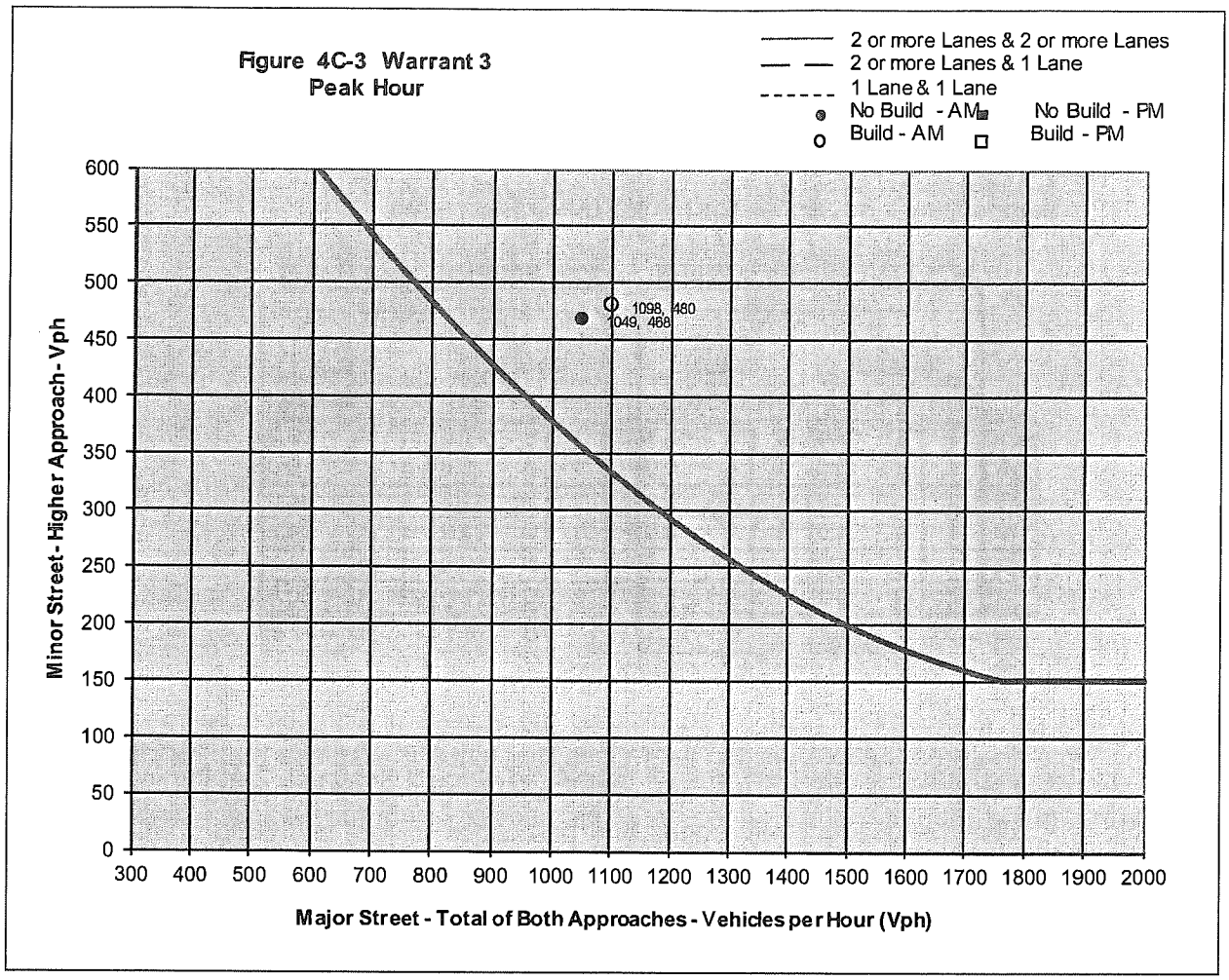
The following table provides a summary of the Levels-of-Service / delays associated with each case analyzed in this study:

Intersection: 14 - BOBBY FOSTER RD. / BROADWAY BLVD.

		2025 AM Peak Hour BUILD					2025 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	
WB	L	1	E - 65.6	1	E - 65.1	L	1	E - 57.6	1	E - 66.3	
	R	1	A - 0.0	1	A - 0.0	R	1	A - 0.0	1	A - 0.0	
NB	T	2	A - 4.8	2	A - 5.0	T	2	C - 31.3	2	C - 34.0	
	R	1	A - 4.5	1	A - 5.0	R	1	C - 21.9	1	C - 24.2	
SB	L	1	A - 7.0	1	A - 7.6	L	1	D - 49.9	1	E - 58.6	
	T	2	A - 4.2	2	A - 4.4	T	2	C - 28.6	2	C - 30.9	
Intersection:		***B - 16.7***		***B - 16.8***			***D - 38.1***		***D - 42.9***		

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

Bobby Foster Rd. / Broadway Blvd. is an existing full access unsignalized intersection. The preceding table analyzes the intersection as if signalized since it assumes that the intersection will be signalized in the near future. It is one of the access points for the Isleta Amphitheater, and traffic is regularly re-directed with cones and barricades to facilitate better traffic flow for concerts. This unsignalized intersection is currently over capacity (see the 2015 Existing Conditions Analyses on Appendix Pages A-394 and A-408). This study indicates that the intersection of Bobby Foster Rd. / Broadway Blvd. meets the requirements of the Peak Hour Signal Warrant (See graph below). However, implementation of a traffic signal at this intersection should not occur until a full intersection traffic signal warrant study has been performed based on actual volumes that exist in the future at the time of the warrant study. A traffic signal should only be implemented if the future warrant study demonstrates that the intersection meets the signal warrant based on the future study. This study only indicates that it is likely that the intersection warrants a traffic signal at this time. The BUILD Condition analyses, above, assumed the construction of a traffic signal.



The results of the queuing analysis for the intersection of Bobby Foster Rd. / Broadway Blvd. are summarized in the following table:

Queueing Analysis Summary Sheet

Project: Valle del Sol Development - 2015

Intersection: **Bobby Foster Rd. / Broadway Blvd.**

2025

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# 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**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*18*	*1,000*	*0*	*0*	*Cont*	*1*	*30*	*1,000*
AM NO BUILD Queue	1	255	375	0	0	0	1	425	575
AM BUILD Queue	**1**	**265**	**400**	**0**	**0**	**0**	**1**	**429**	**600**
Existing Lane Length	*1*	*300*	*1,000*	*0*	*0*	*Cont*	*1*	*110*	*1,000*
PM NO BUILD Queue	1	648	**850**	0	0	0	1	238	375
PM BUILD Queue	**1**	**701**	**900**	**0**	**0**	**0**	**1**	**258**	**375**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*0*	*0*	*0*	*2*	*492*	*Cont*	*1*	*140*	*150*
AM NO BUILD Queue	0	0	0	2	541	425	1	154	250
AM BUILD Queue	**0**	**0**	**0**	**2**	**541**	**425**	**1**	**197**	**300**
Existing Lane Length	*0*	*0*	*0*	*2*	*436*	*Cont*	*1*	*29*	*150*
PM NO BUILD Queue	0	0	0	2	804	600	1	53	**125**
PM BUILD Queue	**0**	**0**	**0**	**2**	**804**	**600**	**1**	**74**	**150**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*91*	*300*	*2*	*215*	*Cont*	*0*	*0*	*0*
AM NO BUILD Queue	1	105	200	2	249	225	0	0	0
AM BUILD Queue	**1**	**111**	**200**	**2**	**249**	**225**	**0**	**0**	**0**
Existing Lane Length	*1*	*52*	*300*	*2*	*680*	*Cont*	*0*	*0*	*0*
PM NO BUILD Queue	1	57	**125**	2	748	575	0	0	0
PM BUILD Queue	**1**	**75**	**150**	**2**	**748**	**575**	**0**	**0**	**0**

	AM	PM
Cycle Length:	140	140

NOTE: Queue lengths are in feet.

Calculated Right Turn Queue Lengths can be reduced by 50% to account for right-turns-on-red and right turn overlaps.

The queuing analysis makes no recommendation for the intersection of Bobby Foster Rd. / Broadway Blvd.

Intersection #15 –Los Picaros W. Ramp / University Blvd. - Pages A-194 thru A-281

Los Picaros Rd. / University Blvd. will initially be a full access, unsignalized intersection. It is scheduled to be constructed as an interchange with this project and is analyzed as such, see Appendix Page A-433 for Interchange Exhibit.

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

Intersection: 15 - LOS PICAROS RD. / UNIVERSITY W. RAMP

		2025 AM Peak Hour BUILD					2025 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	T	1	A - 0.0	1	A - 0.0	T	1	A - 0.0	1	A - 0.0	T
	R	>	A - 0.0	>	A - 0.0	R	>	A - 0.0	>	A - 0.0	R
WB	L	>	A - 0.0	>	A - 7.5	L	>	A - 0.0	>	A - 8.1	L
	T	1	A - 0.0	1	A - 0.0	T	1	A - 0.0	1	A - 0.0	T
SB	L	>	A - 0.0	>	A - 9.7	L	>	A - 0.0	>	B - 10.8	L
	T	1	A - 0.0	1	A - 9.7	T	1	A - 0.0	1	B - 10.8	T
	R	>	A - 0.0	>	A - 9.7	R	>	A - 0.0	>	B - 10.8	R
Intersection:		*u - 0.0*		*u - 3.5*			*u - 0.0*		*u - 3.1*		

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

The analysis of the intersection of Los Picaros Rd. / University Blvd. W. Ramp demonstrates that the levels-of-service and associated delays are acceptable for all cases analyzed in this report. Therefore, no recommendations are made for the intersection of Los Picaros Rd. / University Blvd. W. Ramp.

Intersection #16 –Los Picaros E. Ramp / University Blvd. - Pages A-194 thru A-281

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

Intersection: 16 - LOS PICAROS RD. / UNIVERSITY E. RAMP

		2025 AM Peak Hour BUILD					2025 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	>	A - 0.0	>	A - 7.4	L	>	A - 0.0	>	A - 7.7	
	T	1	A - 0.0	1	A - 0.0	T	1	A - 0.0	1	A - 0.0	
WB	T	1	A - 0.0	1	A - 0.0	T	1	A - 0.0	1	A - 0.0	
	R	>	A - 0.0	>	A - 0.0	R	>	A - 0.0	>	A - 0.0	
NB	L	>	A - 0.0	>	A - 10.0	L	>	A - 0.0	>	B - 12.2	
	T	1	A - 0.0	1	A - 10.0	T	1	A - 0.0	1	B - 12.2	
	R	>	A - 0.0	>	A - 10.0	R	>	A - 0.0	>	B - 12.2	
Intersection:		*u - 0.0*			*u - 6.4*			*u - 0.0*			*u - 6.3*

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

The analysis of the intersection of Los Picaros Rd. / University Blvd. E. Ramp demonstrates that the levels-of-service and associated delays are acceptable for all cases analyzed in this report. Therefore, no recommendations are made for the intersection of Los Picaros Rd. / University Blvd. E. Ramp.

Intersection #17 –Driveway "A" / University Blvd. - Pages A-194 thru A-281

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

Intersection: 17 - DRIVEWAY "A" / UNIVERSITY BLVD.

		2025 AM Peak Hour BUILD					2025 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	>	A - 0.0	>	B - 14.7	L	>	A - 0.0	>	B - 12.5	
	T	1	A - 0.0	1	B - 14.7	T	1	A - 0.0	1	B - 12.5	
	R	>	A - 0.0	>	B - 14.7	R	>	A - 0.0	>	B - 12.5	
WB	L	>	A - 0.0	>	B - 14.1	L	>	A - 0.0	>	C - 18.0	
	T	1	A - 0.0	1	B - 14.1	T	1	A - 0.0	1	C - 18.0	
	R	>	A - 0.0	>	B - 14.1	R	>	A - 0.0	>	C - 18.0	
NB	L	>	A - 0.0	>	B - 10.4	L	>	A - 0.0	>	A - 8.1	
	T	2	A - 0.0	2	A - 0.3	T	2	A - 0.0	2	A - 0.3	
	R	>	A - 0.0	>	A - 0.0	R	>	A - 0.0	>	A - 0.0	
SB	L	>	A - 0.0	>	A - 7.7	L	>	A - 0.0	>	A - 9.4	
	T	2	A - 0.0	2	A - 0.0	T	2	A - 0.0	2	A - 0.0	
	R	>	A - 0.0	>	A - 0.0	R	>	A - 0.0	>	A - 0.0	
Intersection:		***u - 0.0***			***u - 1.0***			***u - 0.0***			***u - 1.9***

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

Driveway "A" on University Blvd. is proposed as a full access unsignalized intersection. The analysis of the intersection of Driveway "A" / University Blvd. demonstrates that the levels-of-service and associated delays are acceptable for all cases analyzed in this report. Therefore, no recommendations are made for the intersection of Driveway "A" / University Blvd.

Intersection #18 –Driveway "B" / University Blvd. - Pages A-194 thru A-281

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

Intersection: 18 - DRIVEWAY "B" / UNIVERSITY BLVD.

2025 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	>	A - 0.0	>	C - 21.9	1	C - 27.7
	T	1	A - 0.0	1	C - 21.9	1	A - 0.0
	R	>	A - 0.0	>	C - 21.9	1	C - 28.3
WB	L	>	A - 0.0	>	E - 36.3	1	C - 28.2
	T	1	A - 0.0	1	E - 36.3	1	A - 0.0
	R	>	A - 0.0	>	E - 36.3	>	C - 31.7
NB	L	>	A - 0.0	>	B - 10.7	1	A - 5.3
	T	2	A - 0.0	2	A - 0.5	2	A - 6.5
	R	>	A - 0.0	>	A - 0.0	>	A - 6.5
SB	L	>	A - 0.0	>	A - 8.1	1	A - 4.3
	T	2	A - 0.0	2	A - 0.2	2	A - 8.5
	R	>	A - 0.0	>	A - 0.0	>	A - 8.5
Intersection:		*u - 0.0*		*u - 3.5*		*A - 9.4*	

2025 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	>	A - 0.0	>	F - 56.6	1	C - 26.4
	T	1	A - 0.0	1	F - 56.6	1	A - 0.0
	R	>	A - 0.0	>	F - 56.6	1	C - 27.2
WB	L	>	A - 0.0	>	F - 648	1	C - 26.4
	T	1	A - 0.0	1	F - 648	1	A - 0.0
	R	>	A - 0.0	>	F - 648	>	C - 29.0
NB	L	>	A - 0.0	>	A - 8.3	1	A - 6.1
	T	2	A - 0.0	2	A - 0.8	2	B - 11.8
	R	>	A - 0.0	>	A - 0.0	>	B - 11.7
SB	L	>	A - 0.0	>	B - 10.5	1	A - 6.7
	T	2	A - 0.0	2	A - 0.2	2	A - 8.4
	R	>	A - 0.0	>	A - 0.0	>	A - 8.4
Intersection:		*u - 0.0*		*u - 63.7*		*B - 14.3*	

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

Mitigation includes considering construction of a traffic sinal with the above lane geometry. The EB thru is actually a shard thru / right turn.

Driveway "B" on University Blvd. is proposed as a full access unsignalized intersection. The analysis of the intersection of Driveway "B" / University Blvd. demonstrates that the levels-of-service and associated delays will be excessive for the westbound movements during the AM Peak Hour and for the eastbound and westbound movements during the PM Peak Hour. This study indicates that the intersection of Driveway "B" / University Blvd. will meet the requirements of the Peak Hour Signal Warrant on or about the year 2028 (see graph below). However, implementation of a traffic signal at this intersection should not occur until a full intersection traffic signal warrant study has been performed based on actual volumes that exist in the future at the time of the warrant study. A traffic signal should only be implemented if the future warrant study demonstrates that the intersection meets the signal warrant based on the future study. This study only indicates that it is likely that the intersection will warrant a traffic signal in the future and, therefore, intersection design should take that into account (for example, underground conduit should be constructed under the intersection to accommodate a future traffic signal if and when warranted.

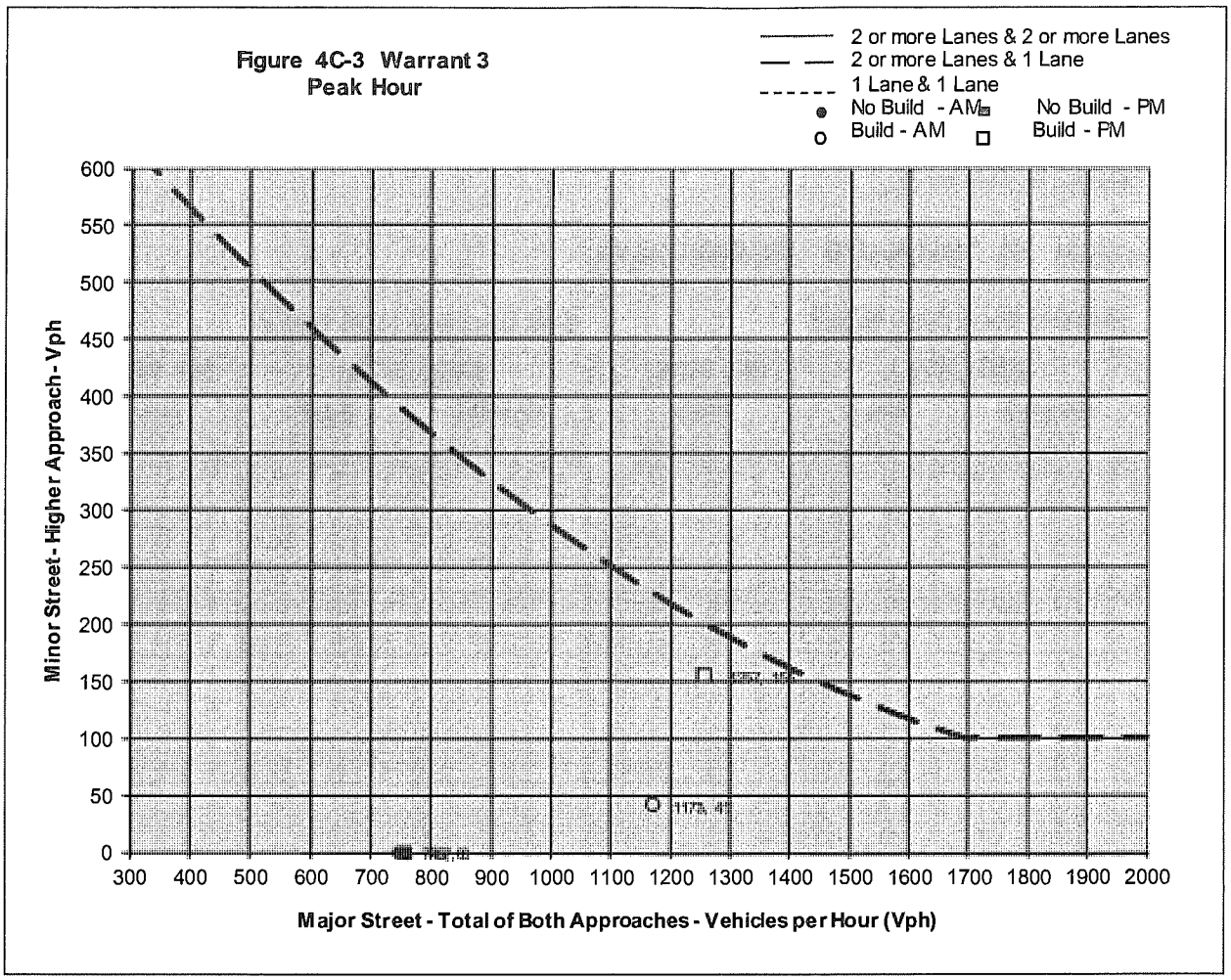


Figure 4C-3 Warrant 3
Peak Hour
2 or more Lanes & 2 or more Lanes
2 or more Lanes & 1 Lane
1 Lane & 1 Lane
No Build - AM
No Build - PM
Build - AM
Build - PM
Minor Street - Higher Approach - Vph
600
550
500
450
400
350
300
250
200
150
100
50
0
300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000
Major Street - Total of Both Approaches - Vehicles per Hour (Vph)

Intersection #19 –Driveway "C" / University Blvd. - Pages A-194 thru A-281

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

Intersection: 19 - DRIVEWAY "C" / UNIVERSITY BLVD.

2025 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		A - 0.0	1	C - 24.8	1	C - 31.5
	T		A - 0.0	1	C - 20.2	1	A - 0.0
	R		A - 0.0	>	C - 20.2	>	C - 33.9
WB	L	1	A - 0.0	1	D - 33.8	1	C - 32.7
	T		A - 0.0	1	D - 26.0	1	C - 31.1
	R	1	A - 0.0	1	A - 10.0	1	C - 31.3
NB	L		A - 0.0	>	B - 10.4	>	A - 2.5
	T	2	A - 0.0	2	A - 0.6	2	A - 0.0
	R	1	A - 0.0	>	A - 0.0	>	A - 1.8
SB	L	1	A - 0.0	1	A - 8.5	1	A - 1.8
	T	1	A - 0.0	1	A - 0.0	1	A - 4.1
	R	1	A - 0.0	1	A - 0.0	1	A - 1.1
Intersection:		***u - 0.0***		***u - 1.9***		***A - 5.0***	

2025 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		A - 0.0	1	F - 70.0	1	C - 26.4
	T		A - 0.0	1	D - 25.9	1	A - 0.0
	R		A - 0.0	>	D - 25.9	>	C - 26.3
WB	L	1	A - 0.0	1	F - 71.2	1	C - 30.8
	T		A - 0.0	1	E - 43.6	1	C - 24.5
	R	1	A - 0.0	1	B - 12.8	1	C - 24.6
NB	L		A - 0.0	>	B - 10.6	>	A - 7.4
	T	2	A - 0.0	2	A - 1.4	2	A - 0.0
	R	1	A - 0.0	>	A - 0.0	>	A - 6.0
SB	L	1	A - 0.0	1	B - 10.9	1	A - 7.3
	T	1	A - 0.0	1	A - 0.0	1	A - 8.7
	R	1	A - 0.0	1	A - 0.0	1	A - 2.8
Intersection:		***u - 0.0***		***u - 4.8***		***A - 10.0***	

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

Mitigation includes considering construction of a traffic signal with the above lane geometry.

Driveway "C" on University Blvd. is proposed as a full access unsignalized intersection. Driveway "C" will be the west leg of the existing Crick Ave. / University Blvd. intersection. The analysis of the intersection of Driveway "C" / University Blvd. demonstrates that the levels-of-service and associated delays will be excessive for the eastbound and westbound left turn movements during the PM Peak Hour. This study indicates that the intersection of Driveway "C" / University Blvd. will meet the requirements of the Peak Hour Signal Warrant on or about the year 2030 (see graph below). However, implementation of a traffic signal at this intersection should not occur until a full intersection traffic signal warrant study has been performed based on actual volumes that exist in the future at the time of the warrant study. A traffic signal should only be implemented if the future warrant study demonstrates that the intersection meets the signal warrant based on the future study. This study only indicates that it is likely that the intersection will warrant a traffic signal in the future and, therefore, intersection design should take that into account (for example, underground conduit should be constructed under the intersection to accommodate a future traffic signal if and when warranted.

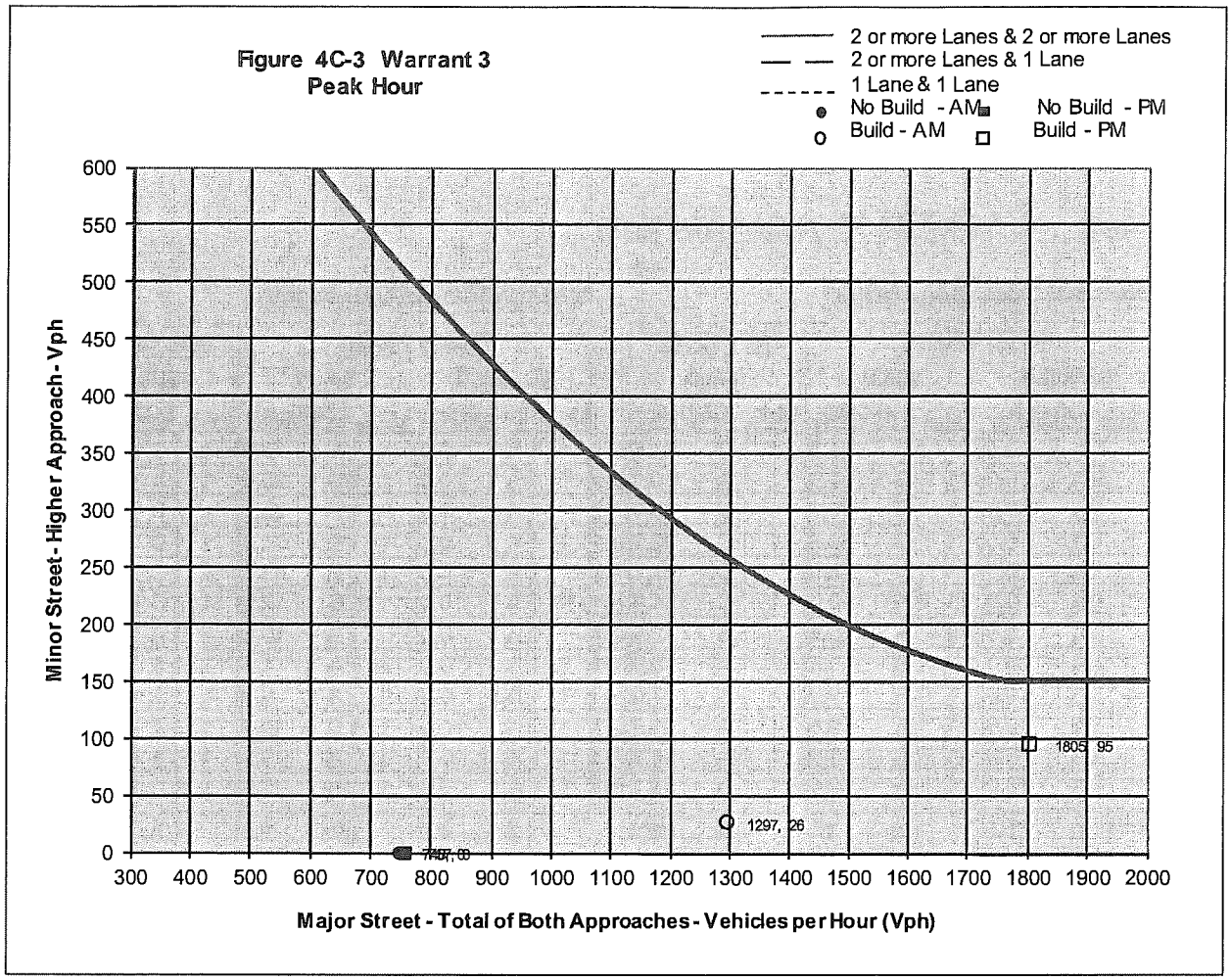


Figure 4C-3 Warrant 3
Peak Hour
2 or more Lanes & 2 or more Lanes
2 or more Lanes & 1 Lane
1 Lane & 1 Lane
No Build - AM
Build - AM
No Build - PM
Build - PM
Minor Street - Higher Approach - Vph
600
550
500
450
400
350
300
250
200
150
100
50
0
300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000
Major Street - Total of Both Approaches - Vehicles per Hour (Vph)
1805, 95
1297, 26
745, 88

Intersection #20 –Los Picaros Rd. / Driveway "D" - Pages A-194 thru A-281

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

Intersection: 20 - LOS PICAROS RD. / DRIVEWAY "D"

		2025 AM Peak Hour BUILD					2025 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	>	A - 0.0	>	A - 7.4	L	>	A - 0.0	>	A - 7.5	L
	T	1	A - 0.0	1	A - 0.0	T	1	A - 0.0	1	A - 0.0	T
WB	T	1	A - 0.0	1	A - 0.0	T	1	A - 0.0	1	A - 0.0	T
	R	>	A - 0.0	>	A - 0.0	R	>	A - 0.0	>	A - 0.0	R
SB	L	1	A - 0.0	1	A - 9.3	L	1	A - 0.0	1	B - 10.2	L
	R	>	A - 0.0	>	A - 9.3	R	>	A - 0.0	>	B - 10.2	R
Intersection:		*u - 0.0*		*u - 2.3*			*u - 0.0*		*u - 4.3*		

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

Driveway "D" on Los Picaros Rd. is proposed as a full access unsignalized intersection. The analysis of the intersection of Driveway "D" / Los Picaros Rd. demonstrates that the levels-of-service and associated delays are acceptable for all cases analyzed in this report. Therefore, no recommendations are made for the intersection of Driveway "D" / Los Picaros Rd.

Intersection #21 –Los Picaros Rd. / Driveway "E" - Pages A-194 thru A-281

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

Intersection: 21 - LOS PICAROS RD. / DRIVEWAY "E"

		2025 AM Peak Hour BUILD (EXIST. GEOM.)					2025 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	>	A - 0.0	>	A - 7.5	L	>	A - 0.0	>	A - 7.6	
	T	1	A - 0.0	1	A - 0.0	T	1	A - 0.0	1	A - 0.0	
	R	>	A - 0.0	>	A - 0.0	R	>	A - 0.0	>	A - 0.0	
WB	L	>	A - 0.0	>	A - 7.4	L	>	A - 0.0	>	A - 7.6	
	T	1	A - 0.0	1	A - 0.0	T	1	A - 0.0	1	A - 0.0	
	R	>	A - 0.0	>	A - 0.0	R	>	A - 0.0	>	A - 0.0	
NB	L	>	A - 0.0	>	A - 9.1	L	>	A - 0.0	>	A - 9.8	
	T	1	A - 0.0	1	A - 9.1	T	1	A - 0.0	1	A - 9.8	
	R	>	A - 0.0	>	A - 9.1	R	>	A - 0.0	>	A - 9.8	
SB	L	>	A - 0.0	>	B - 10.3	L	>	A - 0.0	>	B - 13.7	
	T	1	A - 0.0	1	B - 10.3	T	1	A - 0.0	1	B - 13.7	
	R	>	A - 0.0	>	B - 10.3	R	>	A - 0.0	>	B - 13.7	
Intersection:		*u - 0.0*		*u - 2.1*			*u - 0.0*		*u - 4.0*		

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

Driveway "E" on Los Picaros Rd. is proposed as a full access unsignalized intersection. The analysis of the intersection of Los Picaros Rd. / Driveway "E" demonstrates that the levels-of-service and associated delays are acceptable for all cases analyzed in this report. Therefore, no recommendations are made for the intersection of Los Picaros Rd. / Driveway "E".

Intersection #22 –Los Picaros Rd. / Driveway "F" - Pages A-194 thru A-281

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

Intersection: 22 - LOS PICAROS RD. / DRIVEWAY "F"

		2025 AM Peak Hour BUILD (EXIST. GEOM.)				2025 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	>	A - 0.0	>	A - 7.3	>	A - 0.0	>	A - 7.4
	T	1	A - 0.0	1	A - 0.0	1	A - 0.0	1	A - 0.0
	R	>	A - 0.0	>	A - 0.0	>	A - 0.0	>	A - 0.0
WB	L	>	A - 0.0	>	A - 7.2	>	A - 0.0	>	A - 7.2
	T	1	A - 0.0	1	A - 0.0	1	A - 0.0	1	A - 0.0
	R	>	A - 0.0	>	A - 0.0	>	A - 0.0	>	A - 0.0
NB	L	>	A - 0.0	>	A - 9.4	>	A - 0.0	>	B - 10.5
	T	1	A - 0.0	1	A - 9.4	1	A - 0.0	1	B - 10.5
	R	>	A - 0.0	>	A - 9.4	>	A - 0.0	>	B - 10.5
SB	L	>	A - 0.0	>	A - 8.6	>	A - 0.0	>	A - 8.8
	T	1	A - 0.0	1	A - 8.6	1	A - 0.0	1	A - 8.8
	R	>	A - 0.0	>	A - 8.6	>	A - 0.0	>	A - 8.8
Intersection:		*u - 0.0*		*u - 6.8*		*u - 0.0*		*u - 7.6*	

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

Driveway "F" on Los Picaros Rd. is proposed as a full access unsignalized intersection. The analysis of the intersection of Los Picaros Rd. / Driveway "F" demonstrates that the levels-of-service and associated delays are acceptable for all cases analyzed in this report. Therefore, no recommendations are made for the intersection of Los Picaros Rd. / Driveway "F".

Intersection #23 –Los Picaros Rd. / Driveway "G" - Pages A-194 thru A-281

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

Intersection: 23 - LOS PICAROS RD. / DRIVEWAY "G"

		2025 AM Peak Hour BUILD (EXIST. GEOM.)					2025 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	T	1	A - 0.0	1	A - 0.0	T	1	A - 0.0	1	A - 0.0	T
	R	>	A - 0.0	>	A - 0.0	R	>	A - 0.0	>	A - 0.0	R
WB	T	1	A - 0.0	1	A - 0.0	T	1	A - 0.0	1	A - 0.0	T
	R	>	A - 0.0	>	A - 0.0	R	>	A - 0.0	>	A - 0.0	R
NB	R	1	A - 0.0	1	A - 8.7	R	1	A - 0.0	1	A - 8.8	R
SB	R	1	A - 0.0	1	A - 8.5	R	1	A - 0.0	1	A - 9.1	R
Intersection:		*u - 0.0*			*u - 0.6*			*u - 0.0*		*u - 1.6*	

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

Driveway "G" on Los Picaros Rd. is proposed as a right-in, right-out only unsignalized intersection. The analysis of the intersection of Los Picaros Rd. / Driveway "G" demonstrates that the levels-of-service and associated delays are acceptable for all cases analyzed in this report. Therefore, no recommendations are made for the intersection of Los Picaros Rd. / Driveway "G".

Intersection #24 –Los Picaros Rd. / Driveway "H" - Pages A-194 thru A-281

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

Intersection: 24 - LOS PICAROS RD. / DRIVEWAY "H"

		2025 AM Peak Hour BUILD (EXIST. GEOM.)					2025 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	T	1	A - 0.0	1	A - 0.0	T	1	A - 0.0	1	A - 0.0	
	R	>	A - 0.0	>	A - 0.0	R	>	A - 0.0	>	A - 0.0	
WB	T	1	A - 0.0	1	A - 0.0	T	1	A - 0.0	1	A - 0.0	
	R	>	A - 0.0	>	A - 0.0	R	>	A - 0.0	>	A - 0.0	
NB	R	1	A - 0.0	1	A - 8.7	R	1	A - 0.0	1	A - 9.8	
SB	R	1	A - 0.0	1	A - 9.0	R	1	A - 0.0	1	A - 9.4	
Intersection:		***u - 0.0***		***u - 0.2***			***u - 0.0***		***u - 0.4***		

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

Driveway "H" on Los Picaros Rd. is proposed as a right-in, right-out only unsignalized intersection. The analysis of the intersection of Los Picaros Rd. / Driveway "H" demonstrates that the levels-of-service and associated delays are acceptable for all cases analyzed in this report. Therefore, no recommendations are made for the intersection of Los Picaros Rd. / Driveway "H".

Intersection #25 –Los Picaros Rd. / Driveway "I" - Pages A-194 thru A-281

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

Intersection: 25 - LOS PICAROS RD. / DRIVEWAY "I"

		2025 AM Peak Hour BUILD (EXIST. GEOM.)					2025 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	T	1	A - 0.0	1	A - 0.0	T	1	A - 0.0	1	A - 0.0	
WB	T	1	A - 0.0	1	A - 0.0	T	1	A - 0.0	1	A - 0.0	
	R	>	A - 0.0	>	A - 0.0	R	>	A - 0.0	>	A - 0.0	
SB	R	1	A - 0.0	1	A - 8.7	R	1	A - 0.0	1	A - 9.0	
Intersection:		***u - 0.0***		***u - 0.1***			***u - 0.0***		***u - 0.1***		

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

Driveway "I" on Los Picaros Rd. is proposed as a right-in, right-out only unsignalized intersection. The analysis of the intersection of Los Picaros Rd. / Driveway "I" demonstrates that the levels-of-service and associated delays are acceptable for all cases analyzed in this report. Therefore, no recommendations are made for the intersection of Los Picaros Rd. / Driveway "I".

Intersection #26 –Los Picaros Rd. / Driveway "J" - Pages A-194 thru A-281

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

Intersection: 26 - LOS PICAROS RD. / DRIVEWAY "J"

		2025 AM Peak Hour BUILD					2025 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	T	1	A - 0.0	1	A - 0.0	T	1	A - 0.0	1	A - 0.0	
WB	T	1	A - 0.0	1	A - 0.0	T	1	A - 0.0	1	A - 0.0	
	R	>	A - 0.0	>	A - 0.0	R	>	A - 0.0	>	A - 0.0	
SB	R	1	A - 0.0	1	A - 8.4	R	1	A - 0.0	1	A - 8.8	
Intersection:		*u - 0.0*		*u - 0.1*			*u - 0.0*		*u - 0.1*		

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

Driveway "J" on Los Picaros Rd. is proposed as a right-in, right-out only unsignalized intersection. The analysis of the intersection of Los Picaros Rd. / Driveway "J" demonstrates that the levels-of-service and associated delays are acceptable for all cases analyzed in this report. Therefore, no recommendations are made for the intersection of Los Picaros Rd. / Driveway "J".

Intersection #27 –Driveway "K" / University Blvd. - Pages A-194 thru A-281

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

Intersection: 27 - DRIVEWAY "K" / UNIVERSITY BLVD.

		2025 AM Peak Hour BUILD					2025 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	R	1	A - 0.0	1	B - 11.3	R	1	A - 0.0	1	B - 11.9	
NB	T	2	A - 0.0	2	A - 0.0	T	2	A - 0.0	2	A - 0.0	
SB	T	2	A - 0.0	2	A - 0.0	T	2	A - 0.0	2	A - 0.0	
	R	>	A - 0.0	>	A - 0.0	R	>	A - 0.0	>	A - 0.0	
Intersection:		***A - 0.0***		***A - 0.0***			***A - 0.0***		***A - 0.2***		

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

Driveway "K" on University Blvd. is proposed as a right-in, right-out only unsignalized intersection. The analysis of the intersection of Driveway "K" / University Blvd. demonstrates that the levels-of-service and associated delays are acceptable for all cases analyzed in this report. Therefore, no recommendations are made for the intersection of Driveway "K" / University Blvd.

Intersection #28 –Driveway "L" / University Blvd. - Pages A-194 thru A-281

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

Intersection: 28 - DRIVEWAY "L" / UNIVERSITY BLVD.

		2025 AM Peak Hour BUILD					2025 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	R	1	A - 0.0	1	B - 11.5	R	1	A - 0.0	1	B - 11.9	
NB	T	2	A - 0.0	2	A - 0.0	T	2	A - 0.0	2	A - 0.0	
SB	T	2	A - 0.0	2	A - 0.0	T	2	A - 0.0	2	A - 0.0	
	R	>	A - 0.0	>	A - 0.0	R	>	A - 0.0	>	A - 0.0	
Intersection:		***A - 0.0***		***A - 0.0***			***A - 0.0***		***A - 0.2***		

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

Driveway "L" on University Blvd. is proposed as a right-in, right-out only unsignalized intersection. The analysis of the intersection of Driveway "L" / University Blvd. demonstrates that the levels-of-service and associated delays are acceptable for all cases analyzed in this report. Therefore, no recommendations are made for the intersection of Driveway "L" / University Blvd.

Intersection #29 –Driveway "M" / University Blvd. - Pages A-194 thru A-281

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

Intersection: 29 - DRIVEWAY "M" / UNIVERSITY BLVD.

		2025 AM Peak Hour BUILD (EXIST. GEOM.)					2025 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	A - 0.0	1	B - 11.8	L	1	A - 0.0	1	A - 9.7	L
	R	>	A - 0.0	>	B - 11.8	R	>	A - 0.0	>	A - 9.7	R
NB	L	>	A - 0.0	>	A - 0.0	L	>	A - 0.0	>	A - 0.0	L
	T	2	A - 0.0	2	A - 0.0	T	2	A - 0.0	2	A - 0.0	T
SB	T	2	A - 0.0	2	A - 0.0	T	2	A - 0.0	2	A - 0.0	T
	R	>	A - 0.0	>	A - 0.0	R	>	A - 0.0	>	A - 0.0	R
Intersection:		*u - 0.0*		*u - 0.1*			*u - 0.0*		*u - 0.3*		

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

Driveway "M" on University Blvd. is proposed as a right-in, right-out only unsignalized intersection. The analysis of the intersection of Driveway "M" / University Blvd. demonstrates that the levels-of-service and associated delays are acceptable for all cases analyzed in this report. Therefore, no recommendations are made for the intersection of Driveway "M" / University Blvd.

Horizon Year Traffic Analysis

Intersection #1 – Gibson Blvd. / Yale Blvd. - Pages A-282 thru A-380c

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

Intersection: 1 - GIBSON BLVD. / YALE BLVD

		2040 AM Peak Hour BUILD (EXIST. GEOM.)				2040 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	E - 61.9	1	E - 69.4	1	**F** - 369	1	**F** - 369
	T	3	D - 52.2	3	**F** - 85.0	3	**F** - 276	3	**F** - 290
	R	1	B - 19.2	1	C - 21.4	1	B - 19.0	1	B - 19.9
WB	L	1	D - 51.3	1	E - 58.9	1	**F** - 295	1	**F** - 323
	T	3	D - 48.1	3	D - 48.2	3	**F** - 260	3	**F** - 273
	R	1	C - 31.9	1	C - 29.3	1	C - 27.4	1	C - 28.0
NB	L	2	**F** - 143	2	**F** - 130	2	**F** - 331	2	**F** - 345
	T	2	C - 29.3	2	D - 46.1	2	**F** - 98.1	2	**F** - 88.2
	R	1	**F** - 305	1	**F** - 290	1	**F** - 236	1	**F** - 275
SB	L	1	**F** - 117	1	E - 75.3	1	**F** - 397	1	**F** - 396
	T	2	E - 62.3	2	E - 71.4	2	**F** - 198	2	**F** - 178
	R	>	E - 64.5	>	E - 75.0	>	**F** - 332	>	**F** - 299
Intersection:		**F - *91.7***		**F - *97.2***		**F - *250***		**F - *261***	

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

The analysis of the intersection of Gibson Blvd. / Yale Blvd. in this report demonstrates that the projected levels-of-service and delays are excessive for all conditions analyzed. The proposed development has minimal impact on the intersection and only increases the delay at the intersection by 5.5 seconds during the AM Peak Hour and by 11 seconds during the PM Peak hour. This intersection is already built out and no physical improvements can be made. Therefore, no recommendations are made for the intersection of Gibson Blvd. / Yale Blvd.

Intersection #2 – Randolph Rd. / Yale Blvd. - Pages A-282 thru A-380c

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

Intersection: 2 - RANDOLPH RD. / YALE BLVD.

2040 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 - 281	1	F - 279	1	D - 50.2
	T	1	A - 0.0	1	A - 0.0	1	A - 0.0
	R	>	A - 0.0	>	A - 0.0	>	A - 0.0
WB	L	>	C - 31.6	>	C - 31.0	>	E - 69.7
	T	1	A - 0.0	1	A - 0.0	1	A - 0.0
	R	>	A - 0.0	>	A - 0.0	>	A - 0.0
NB	L	1	F - 113	1	F - 245	1	D - 44.3
	T	3	B - 19.0	3	B - 19.8	3	D - 48.9
	R	>	C - 20.3	>	C - 21.0	>	E - 55.6
SB	L	1	F - 113	1	F - 159	1	F - 157
	T	2	A - 0.3	2	C - 22.9	2	D - 42.6
	R	1	F - 198	1	F - 303	1	F - 114
Intersection:		F - *130*		F - *165*		*E - 67.3*	

2040 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 - 103	1	F - 137	1	E - 62.5
	T	1	A - 0.0	1	A - 0.0	1	A - 0.0
	R	>	A - 0.0	>	A - 0.0	>	A - 0.0
WB	L	>	C - 20.5	>	C - 20.5	>	E - 69.6
	T	1	A - 0.0	1	A - 0.0	1	A - 0.0
	R	>	A - 0.0	>	A - 0.0	>	A - 0.0
NB	L	1	D - 51.4	1	D - 53.0	1	C - 24.3
	T	3	C - 31.5	3	C - 31.5	3	D - 38.4
	R	>	C - 33.6	>	C - 33.6	>	D - 41.7
SB	L	1	E - 72.0	1	E - 72.0	1	C - 29.5
	T	2	D - 37.1	2	D - 37.1	2	D - 42.5
	R	1	F - 221	1	F - 237	1	A - 9.0
Intersection:		F - *94.4*		F - *110*		*D - 40.8*	

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

Mitigation includes making EB, NB and SB left turns permitted plus protected and making SB right turn permitted plus overlap.

The analysis of the intersection of Randolph Rd. Blvd. / Yale Blvd. in this report demonstrates that the projected levels-of-service and delays are excessive for all conditions analyzed. The intersection can be mitigated by making some signal modifications – the eastbound, northbound and southbound left turns should operate as permitted plus protected and the southbound right turn should operate as permitted plus overlap. This requires adding left turn arrows and a right turn arrow, respectively to the traffic signals.

Intersection #3 – George Rd. / University Blvd. - Pages A-282 thru A-380c

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

Intersection: 3 - GEORGE RD. / UNIVERSITY BLVD.

		2040 AM Peak Hour BUILD (EXIST. GEOM.)					2040 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	E - 64.6	1	E - 64.4	L	1	E - 63.5	1	E - 63.6	L
	T	1	A - 0.0	1	A - 0.0	T	1	A - 0.0	1	A - 0.0	T
	R	>	E - 62.7	>	E - 62.8	R	>	E - 55.5	>	E - 55.6	R
WB	L	>	E - 68.2	>	E - 67.9	L	>	E - 63.9	>	E - 64.0	L
	T	1	A - 0.0	1	A - 0.0	T	1	A - 0.0	1	A - 0.0	T
	R	>	A - 0.0	>	A - 0.0	R	>	A - 0.0	>	A - 0.0	R
NB	L	1	E - 68.1	1	E - 68.3	L	1	F - 103	1	F - 98.0	L
	T	2	B - 12.3	2	B - 16.2	T	2	B - 17.4	2	C - 23.1	T
	R		B - 12.3	0	B - 16.2	R	0	B - 17.4	0	C - 23.0	R
SB	L	1	A - 1.1	1	A - 3.2	L	1	A - 2.3	1	A - 6.3	L
	T	2	A - 0.3	2	A - 0.4	T	2	A - 0.4	2	A - 0.4	T
	R		A - 0.3	0	A - 0.4	R	0	A - 0.4	0	A - 0.4	R
Intersection:		***B - 10.2***		***B - 11.2***			***B - 16.0***		***B - 18.7***		

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

The analysis of the intersection of George Rd. / University Blvd. in this report demonstrates that the projected levels-of-service and delays are acceptable for all conditions analyzed. The proposed development only increases the delay at the intersection by 1 second during the AM Peak Hour and by 2.7 seconds during the PM Peak Hour. Therefore, no recommendations are made for the intersection of George Rd. / University Blvd.

Intersection #4 – Car Rental Rd. / University Blvd. - Pages A-282 thru A-380c

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

Intersection: 4 - CAR RENTAL RD. / UNIVERSITY BLVD.

		2040 AM Peak Hour BUILD					2040 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	
WB	L	1	E - 62.2	1	E - 62.2	L	1	D - 47.5	1	D - 47.5	
	R	1	E - 75.8	1	E - 75.8	R	1	E - 66.9	1	E - 67.0	
NB	T	2	A - 3.6	2	A - 3.7	T	2	A - 7.7	2	A - 8.2	
	R	>	A - 3.6	>	A - 3.6	R	>	A - 7.7	>	A - 8.2	
SB	L	2	A - 2.0	2	A - 2.0	L	2	A - 5.6	2	A - 5.7	
	T	2	A - 8.7	2	B - 10.4	T	2	C - 22.7	2	C - 23.4	
Intersection:		***B - 11.1***		***B - 11.1***			***C - 26.7***		***C - 25.2***		

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

The analysis of the intersection of Car Rental Rd. / University Blvd. in this report demonstrates that the projected levels-of-service and delays are acceptable for all conditions analyzed. The proposed development does not increase the delays at the intersection. Therefore, no recommendations are made for the intersection of Car Rental Rd. / University Blvd.

Intersection #5 – Rio Bravo Blvd. / University Blvd. - Pages A-282 thru A-380c

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. / UNIVERSITY BLVD.

2040 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	3	E - 60.9	3	D - 36.1	1	E - 75.7
	T		A - 0.0		A - 0.0	3	A - 7.9
	R	1	C - 25.4	1	F - 281		A - 0.0
WB	T		A - 0.0		A - 0.0	2	D - 41.8
	R		A - 0.0		A - 0.0	1	A - 0.0
NB	L	3	C - 23.4	3	C - 33.5		A - 0.0
	T	2	A - 7.7	2	C - 24.4		A - 0.0
SB	L		A - 0.0		A - 0.0	2	E - 70.6
	T	2	D - 35.2	2	E - 66.9		A - 0.0
	R	1	C - 20.2	1	B - 19.0	1	A - 0.0
Intersection:		***C - 21.8***		***F - 99.5***		***D - 35.2***	

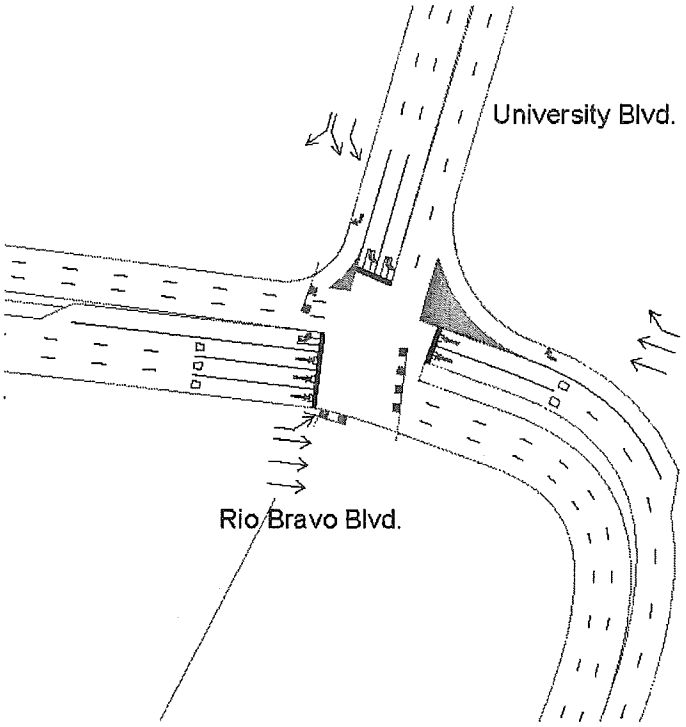
2040 PM Peak Hour BUILD

		(EXIST. GEOM.) NO BUILD		(EXIST. GEOM.) BUILD		(MIT. GEOM.) BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	3	F - 168	3	C - 21.0	1	F - 246
	T		A - 0.0		A - 0.0	3	D - 48.1
	R	1	F - 422	1	F - 600		A - 0.0
WB	T		A - 0.0		A - 0.0	2	F - 232
	R		A - 0.0		A - 0.0	1	A - 0.0
NB	L	3	F - 231	3	F - 375		A - 0.0
	T	2	A - 3.6	2	C - 33.4		A - 0.0
SB	L		A - 0.0		A - 0.0	2	F - 260
	T	2	F - 252	2	F - 2021		A - 0.0
	R	1	C - 32.7	1	B - 19.1	1	A - 0.0
Intersection:		***F - 246***		***F - 749***		***F - 180***	

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

Mitigation includes reconfiguring the intersection to make the south leg of University Blvd. an extension of Rio Bravo Blvd. and have University Blvd. tee in from the north.

The analysis of the intersection of Rio Bravo Blvd. / University Blvd. in this report demonstrates that the projected levels-of-service and delays are acceptable for the AM NO BUILD condition, but are excessive for the AM BUILD condition and the PM Peak Hour NO BUILD and BUILD conditions. The intersection can be mitigated by reconfiguring it to make the south leg of University Blvd. an extension of Rio Bravo Blvd. and making University Blvd. tee into Rio Bravo Blvd. and this new extension from the north. The lane geometry in the table above should be used in the reconfiguration. Please see the following graphic:



2040 Recommended Mitigation Reconfiguration of Rio Bravo Blvd. / University Blvd.

Intersection #6 – Rio Bravo Blvd. / I-25 E. Ramp

The existing intersection of Rio Bravo Blvd. / I-25 East Ramp will no longer exist in 2025 or 2040 and will be replaced with a free right movement for northbound I-25 with the reconfigured Rio Bravo Blvd. / I-25 Interchange. Therefore, this intersection was not analyzed.

Intersection #7 – Rio Bravo Blvd. / I-25 Interchange - Pages A-282 thru A-380c

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. / I-25 W. RAMP

		2040 AM Peak Hour BUILD (EXIST. GEOM.)					2040 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	T	2	C - 23.7	2	C - 31.3	T	2	D - 39.8	2	D - 47.3	
	R	1	A - 2.6	1	A - 2.3	R	1	A - 2.3	1	A - 2.3	
WB	L	2	A - 6.6	2	B - 10.5	L	2	B - 18.4	2	C - 23.2	
	T	2	A - 5.4	2	A - 7.9	T	2	B - 19.7	2	C - 27.6	
NB	L	1	D - 49.4	1	D - 43.1	L	1	C - 27.3	1	C - 24.7	
	R	1	A - 0.0	1	A - 0.0	R	1	A - 0.0	1	A - 0.0	
SB	L	3	E - 56.4	3	F - 91.5	L	3	D - 46.2	3	D - 46.4	
	R	1	A - 0.0	1	A - 0.0	R	1	A - 0.0	1	A - 0.0	
Intersection:		***D - 35.3***		***D - 54.3***			***C - 34.5***		***D - 37.8***		

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

The analysis of the intersection of Rio Bravo Blvd. / I-25 W. Ramp is actually the analysis of the proposed Rio Bravo Blvd. I-25 Interchange. This report demonstrates that the projected levels-of-service and delays are acceptable for all conditions analyzed. Therefore, no recommendations are made for the proposed Rio Bravo Blvd. / I-25 Interchange.

Intersection #8 – Rio Bravo Blvd. / Broadway Blvd. - Pages A-282 thru A-380c

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

Intersection: 8 - RIO BRAVO BLVD. / BROADWAY BLVD.

		2040 AM Peak Hour BUILD					2040 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	F - 82.4	1	F - 84.1	L	1	F - 163	1	F - 206	
	T	3	E - 56.2	3	D - 54.1	T	3	D - 45.8	3	D - 46.3	
	R	>	E - 63.3	>	E - 60.8	R	>	D - 48.0	>	D - 49.2	
WB	L	2	E - 75.6	2	F - 96.2	L	2	E - 65.9	2	E - 66.1	
	T	3	E - 71.8	3	E - 70.2	T	3	F - 146	3	F - 129	
	R	>	F - 89.4	>	F - 86.9	R	>	F - 155	>	F - 139	
NB	L	2	C - 25.6	2	C - 24.6	L	2	F - 211	1	D - 40.8	
	T	2	D - 42.5	2	D - 43.6	T	2	E - 68.7	2	F - 83.3	
	R	1	C - 23.7	1	C - 24.9	R	1	C - 28.4	1	C - 30.7	
SB	L	1	D - 45.7	1	D - 48.1	L	1	F - 178	1	F - 218	
	T	2	C - 28.5	2	C - 27.2	T	2	F - 104	2	F - 123	
	R	1	B - 13.3	1	B - 12.3	R	1	C - 34.1	1	D - 40.2	
Intersection:		***D - 54.2***		***D - 54.7***			***F - 95.2***		***F - 97.6***		

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

The analysis of the intersection of Rio Bravo Blvd. / Broadway Blvd. in this report demonstrates that the projected levels-of-service and delays will be acceptable for both the AM Peak Hour NO BUILD and BUILD conditions and will be excessive for the PM Peak Hour NO BUILD and BUILD conditions. The proposed development only increases the delay at the intersection during the PM Peak Hour by 2.4 seconds. Therefore, no recommendations are made for the intersection of Rio Bravo Blvd. / Broadway Blvd.

Intersection #9 – Rio Bravo Blvd. / Prince St. - Pages A-282 thru A-380c

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. / PRINCE ST.

		2040 AM Peak Hour BUILD (EXIST. GEOM.)					2040 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	B - 12.7	1	A - 9.3	L	1	C - 22.3	1	C - 33.6	
	T	2	C - 34.1	2	C - 34.0	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	
WB	L	1	B - 13.2	1	B - 17.6	L	1	A - 9.4	1	A - 8.9	
	T	2	B - 18.0	2	B - 13.6	T	2	C - 25.5	2	C - 34.7	
	R	1	B - 14.4	1	B - 10.6	R	1	A - 10.0	1	A - 8.2	
NB	L	1	D - 41.8	1	D - 49.6	L	1	D - 49.9	1	E - 57.8	
	T	1	A - 0.0	1	A - 0.0	T	1	A - 0.0	1	A - 0.0	
	R	>	D - 48.7	>	E - 62.0	R	>	E - 56.6	>	E - 73.3	
SB	L	1	D - 40.2	1	D - 46.7	L	1	D - 50.2	1	D - 53.0	
	T	1	A - 0.0	1	A - 0.0	T	1	A - 0.0	1	A - 0.0	
	R	>	D - 43.5	>	D - 49.8	R	>	E - 58.5	>	E - 61.5	
Intersection:		***C - 29.1***		***C - 28.9***			***B - 19.2***		***C - 24.8***		

Note: ">" designates a shared right or left turn 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. The proposed development does not increase the delay at the intersection during the AM Peak Hour and only increases the delay by 5.6 seconds during the PM Peak Hour. Therefore, no recommendations are made for the intersection of Rio Bravo Blvd. / Prince St.

Intersection #10 – Rio Bravo Blvd. /Second St. - Pages A-282 thru A-380c

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

Intersection: 10 - RIO BRAVO BLVD. / SECOND ST.

		2040 AM Peak Hour BUILD					2040 PM Peak Hour BUILD				
		(EXIST. GEOM.) NO BUILD		(MIT. GEOM.) BUILD			(EXIST. GEOM.) NO BUILD		(MIT. GEOM.) BUILD		
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay	
EB	L	1	F - 532	1	F - 283	L	1	F - 687	1	F - 687	
	T	2	F - 459	2	F - 274	T	2	F - 469	2	F - 484	
	R	1	D - 35.4	1	C - 23.5	R	1	D - 35.6	1	D - 35.6	
WB	L	1	F - 161	1	F - 258	L	1	E - 58.3	1	F - 595	
	T	2	F - 339	2	F - 206	T	2	F - 301	2	F - 357	
	R	1	E - 56.0	1	D - 45.2	R	1	C - 30.4	1	C - 30.9	
NB	L	1	F - 374	2	F - 212	L	1	F - 967	2	F - 290	
	T	1	A - 0.0	1	A - 0.0	T	1	A - 0.0	1	A - 0.0	
	R	>	F - 396	>	F - 731	R	>	F - 213	>	F - 341	
SB	L	1	F - 479	1	F - 706	L	1	F - 113	1	F - 131	
	T	1	F - 252	1	F - 191	T	1	E - 62.7	1	E - 64.8	
	R	1	E - 72.7	1	D - 46.3	R	1	F - 394	1	F - 421	
Intersection:		F - *378*		F - *324*			F - *447*		F - *382*		

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

The analysis of the intersection of Rio Bravo Blvd. / Second St. in this report demonstrates that the projected levels-of-service and delays are excessive for all conditions analyzed. However, the mitigation that was proposed for the 2025 BUILD condition reduces the delays to lower than those of the NO BUILD conditions for the 2040 analysis. Therefore, no recommendations are made for the intersection of Rio Bravo Blvd. / Second St.

Intersection #11 – Rio Bravo Blvd. / Isleta Blvd. - Pages A-282 thru A-380c

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

Intersection: 11 - RIO BRAVO BLVD. / ISLETA BLVD.

2040 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	C - 25.5	1	C - 25.6	1	C - 22.5
	T	2	F - 105	2	F - 144	2	F - 96.6
	R	1	C - 27.3	1	C - 27.3	1	C - 20.5
WB	L	1	F - 241	1	F - 249	1	F - 116
	T	2	C - 25.8	2	C - 26.0	2	B - 17.5
	R	1	A - 0.0	1	A - 0.0	1	A - 0.0
NB	L	1	D - 42.3	1	D - 42.3	1	D - 54.3
	T	2	D - 44.6	2	D - 44.6	2	F - 83.2
	R	1	A - 0.0	1	A - 0.0	1	A - 0.0
SB	L	2	E - 55.8	2	E - 56.6	2	F - 144
	T	2	D - 40.0	2	D - 40.0	2	E - 60.3
	R	1	D - 38.0	1	D - 38.0	1	D - 46.9
Intersection:		F - *81.0*		F - *95.3*		*E - 77.6*	

2040 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	E - 57.5	1	F - 87.7	1	E - 80.6
	T	2	F - 213	2	F - 380	2	F - 211
	R	1	C - 25.6	1	D - 36.2	1	C - 24.9
WB	L	1	F - 257	1	F - 133	1	F - 272
	T	2	D - 38.8	2	D - 44.3	2	D - 41.5
	R	1	A - 0.0	1	A - 0.0	1	A - 0.0
NB	L	1	F - 244	1	F - 291	1	F - 254
	T	2	E - 67.1	2	F - 86.2	2	F - 96.3
	R	1	A - 0.0	1	A - 0.0	1	A - 0.0
SB	L	2	F - 150	2	F - 131	2	F - 139
	T	2	F - 92.8	2	F - 82.8	2	F - 125
	R	1	F - 103	1	F - 93.3	1	E - 60.1
Intersection:		F - *131*		F - *166*		F - *136*	

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

Mitigation includes making the WB, NB, and SB right turns permitted plus overlap.

The analysis of the intersection of Rio Bravo Blvd. / Isleta Blvd. in this report demonstrates that the projected levels-of-service and delays are excessive for all conditions analyzed. The intersection can be mitigated by making some signal modifications – the westbound, northbound and southbound right turns should operate as permitted plus overlap. This requires adding right turn arrows to the traffic signals.

Intersection #12 – Sunport N. Ramp / University Blvd. - Pages A-282 thru A-380c

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

Intersection: 12 - SUNPORT N. RAMP / UNIVERSITY BLVD.

		2040 AM Peak Hour BUILD (EXIST. GEOM.)					2040 PM Peak Hour BUILD (EXIST. GEOM.)				
		NO BUILD		BUILD			NO BUILD		BUILD		
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay	
WB	L	1	E - 74.4	1	E - 76.9	L	1	E - 79.2	1	E - 79.2	
	T	1	A - 0.0	1	A - 0.0	T	1	A - 0.0	1	A - 0.0	
	R	>	E - 56.9	>	E - 56.4	R	>	E - 60.2	>	E - 59.4	
NB	L	2	E - 68.6	2	E - 67.0	L	2	E - 64.6	2	E - 64.5	
	T	2	A - 1.3	2	A - 1.4	T	2	A - 0.9	2	A - 1.1	
SB	T	2	A - 6.1	2	A - 6.6	T	2	A - 5.7	2	A - 6.2	
	R	1	A - 0.0	1	A - 0.0	R	1	A - 0.0	1	A - 0.0	
Intersection:		***A - 10.0***		***B - 10.2***			***A - 9.7***		***A - 9.9***		

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

The analysis of the intersection of Sunport N. Ramp / University Blvd. in this report demonstrates that the projected levels-of-service and delays are acceptable for all conditions analyzed. The proposed development increases the delay at the intersection by only 0.2 seconds during both the AM Peak Hour and PM Peak Hour. Therefore, no recommendations are made for the intersection of Sunport N. Ramp / University Blvd.

Intersection #13 – Sunport S. Ramp / University Blvd. - Pages A-282 thru A-380c

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

Intersection: 13 - SUNPORT S. RAMP / UNIVERSITY BLVD.

		2040 AM Peak Hour BUILD (EXIST. GEOM.)				2040 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	>	E - 57.8	>	D - 54.5	>	E - 60.0	>	E - 63.3
	T	1	A - 0.0	1	A - 0.0	1	A - 0.0	1	A - 0.0
	R	2	D - 42.3	2	D - 42.3	2	D - 43.1	2	D - 43.6
NB	T	4	D - 38.5	4	A - 0.7	4	B - 12.2	4	D - 36.7
	R	>	D - 39.7	>	A - 1.8	>	B - 15.2	>	D - 40.5
SB	L	1	B - 14.5	1	A - 8.8	1	B - 13.6	1	C - 21.1
	T	2	A - 0.3	2	A - 0.3	2	A - 0.2	2	A - 0.3
Intersection:		***C - 34.0***		***B - 10.6***		***B - 19.2***		***D - 35.7***	

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

The analysis of the intersection of Sunport S. Ramp / University Blvd. in this report demonstrates that the projected levels-of-service and delays are acceptable for all conditions analyzed. The proposed development does not increase the delay at the intersection during the AM Peak Hour and increases the delay by 16.5 seconds during the PM Peak Hour. Therefore, no recommendations are made for the intersection of Sunport S. Ramp / University Blvd.

Intersection #14 –Bobby Foster Rd. / Broadway Blvd. - Pages A-282 thru A-380c

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

Intersection: 14 - BOBBY FOSTER RD. / BROADWAY BLVD.

2040 AM Peak Hour BUILD

		(EXIST. GEOM.) NO BUILD		(EXIST. GEOM.) BUILD		(MIT. GEOM.) BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
WB	L	1	D - 52.4	1	D - 52.7	2	D - 39.7
	R	1	A - 0.0	1	A - 0.0	1	A - 0.0
NB	T	2	B - 18.6	2	C - 20.4	2	D - 36.0
	R	1	B - 17.3	1	C - 22.1	1	E - 66.7
SB	L	1	C - 32.6	1	D - 43.2	1	B - 13.9
	T	2	B - 16.3	2	B - 17.8	2	A - 4.6
Intersection:		***C - 30.3***		***C - 32.2***		***D - 35.8***	

2040 PM Peak Hour BUILD

		(EXIST. GEOM.) NO BUILD		(EXIST. GEOM.) BUILD		(MIT. GEOM.) BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
L		1	**F** - 305	1	**F** - 610	2	**F** - 130
R		1	A - 0.0	1	A - 0.0	1	A - 0.0
T		2	**F** - 149	2	D - 51.2	2	**F** - 130
R		1	C - 27.2	1	C - 20.4	1	C - 28.2
L		1	**F** - 389	1	**F** - 995	1	**F** - 83.6
T		2	D - 36.1	2	C - 24.8	2	C - 24.1
			F - 175		***F - 271***		***F - 101***

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

Mitigation includes constructing a second WB left turn lane and making the WB right and NB right turns permitted plus overlap and making the SB left turn permitted plus protected.

Bobby Foster Rd. / Broadway Blvd. is an existing full access unsignalized intersection. This analysis assumes that the intersection will be signalized in 2025 with this project. The analysis of the intersection demonstrates that the projected levels-of-service and delays are acceptable for the AM Peak Hour NO BUILD and BUILD conditions and are excessive for the PM Peak Hour NO BUILD and BUILD conditions. The intersection can be mitigated by constructing a second westbound left turn lane and modifying the traffic signals by making the westbound and northbound right turns operate as permitted plus overlap and the southbound left turn operate as permitted plus protected. This requires adding right turn arrows and a left turn arrow, respectively to the traffic signals.

Intersection #15 –Los Picaros W. Ramp / University Blvd. - Pages A-282 thru A-380c

Los Picaros W. Ramp / University Blvd. is initially assumed to be a full access, unsignalized intersection. It is scheduled to be constructed as an interchange with this project.

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

Intersection: 15 - LOS PICAROS RD. / UNIVERSITY W. RAMP

		2040 AM Peak Hour BUILD						2040 PM Peak Hour BUILD					
		(EXIST. GEOM.)				(MIT. GEOM.)		(EXIST. GEOM.)				(MIT. GEOM.)	
		NO BUILD		BUILD		BUILD		NO BUILD		BUILD		BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	T	1	A - 0.0	1	A - 0.0	2	C - 23.3	1	A - 0.0	1	A - 0.0	2	D - 37.4
	R	>	A - 0.0	>	A - 0.0	>	C - 23.3	>	A - 0.0	>	A - 0.0	>	D - 41.8
WB	L	>	A - 0.0	>	B - 10.7	1	B - 14.1	>	A - 0.0	>	C - 20.2	1	C - 21.3
	T	1	A - 0.0	1	A - 0.0	2	A - 7.5	1	A - 0.0	1	A - 0.0	2	A - 0.0
SB	L	>	A - 0.0	>	**F - 110**	>	B - 13.4	>	A - 0.0	>	**F - 2502**	>	B - 18.8
	T	1	A - 0.0	1	**F - 110**	1	B - 13.4	1	A - 0.0	1	**F - 2502**	1	B - 18.8
	R	>	A - 0.0	>	**F - 110**	1	B - 15.0	>	A - 0.0	>	**F - 2502**	1	C - 23.7
Intersection:		***u - 0.0***		***u - 21.4***		***B - 18.1***		***u - 0.0***		***u - 349***		***C - 27.6***	

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

Mitigation includes considering construction of a traffic signal with the lane geometry shown above.

The preceding table demonstrates that the southbound movements experience excessive delays for both the AM Peak Hour and PM Peak Hour BUILD conditions. This study indicates that the intersection of Los Picaros W. Ramp / University Blvd. can be mitigated by signalization with the lane geometry shown in the above table. However, implementation of a traffic signal at this intersection should not occur until a full intersection traffic signal warrant study has been performed based on actual volumes that exist in the future at the time of the warrant study. A traffic signal should only be implemented if the future warrant study demonstrates that the intersection meets the signal warrant based on the future study. This study only indicates that it is likely that the intersection will warrant a traffic signal in the future and, therefore, intersection design should take that into account (for example, underground conduit should be constructed under the intersection to accommodate a future traffic signal if and when warranted.

Intersection #16 –Los Picaros E. Ramp / University Blvd. - Pages A-282 thru A-380c

Los Picaros E. Ramp / University Blvd. is initially assumed to be a full access, unsignalized intersection. It is scheduled to be constructed as an interchange with this project.

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

Intersection: 16 - LOS PICAROS RD. / UNIVERSITY E. RAMP

2040 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	>	A - 0.0	>	B - 10.2	1	B - 13.5
	T	1	A - 0.0	1	A - 0.0	2	A - 1.7
WB	T	1	A - 0.0	1	A - 0.0	2	C - 20.3
	R	>	A - 0.0	>	A - 0.0	1	B - 16.2
NB	L	>	A - 0.0	>	F - 714	1	B - 13.3
	T	1	A - 0.0	1	F - 714	1	A - 0.0
	R	>	A - 0.0	>	F - 714	>	B - 12.5
Intersection:			***u - 0.0***		***u - 148***		***A - 0.0***

2040 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	>	A - 0.0	>	B - 10.3	1	B - 12.2
	T	1	A - 0.0	1	A - 0.0	2	A - 1.2
WB	T	1	A - 0.0	1	A - 0.0	2	C - 21.6
	R	>	A - 0.0	>	A - 0.0	1	C - 21.3
NB	L	>	A - 0.0	>	F - 9854	1	C - 15.8
	T	1	A - 0.0	1	F - 9854	1	A - 0.0
	R	>	A - 0.0	>	F - 9854	>	B - 14.0
Intersection:			***u - 0.0***		***u - 2348***		***u - 10.7***

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

Mitigation includes considering construction of a traffic signal with the lane geometry shown above.

The analysis demonstrates that the northbound movements will experience excessive delays during the AM Peak Hour and PM Peak Hour BUILD conditions. This study indicates that the intersection of Los Picaros E. Ramp / University Blvd. can be mitigated by signalization with the lane geometry shown in the above table. However, implementation of a traffic signal at this intersection should not occur until a full intersection traffic signal warrant study has been performed based on actual volumes that exist in the future at the time of the warrant study. A traffic signal should only be implemented if the future warrant study demonstrates that the intersection meets the signal warrant based on the future study. This study only indicates that it is likely that the intersection will warrant a traffic signal in the future and, therefore, intersection design should take that into account (for example, underground conduit should be constructed under the intersection to accommodate a future traffic signal if and when warranted.

Intersection #17 –Driveway "A" / University Blvd. - Pages A-282 thru A-380c

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

Intersection: 17 - DRIVEWAY "A" / UNIVERSITY BLVD.

2040 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	>	A - 0.0	>	F - 79.0	1	E - 41.2
	T	1	A - 0.0	1	F - 79.0	1	A - 0.0
	R	>	A - 0.0	>	F - 79.0	>	E - 40.2
WB	L	>	A - 0.0	>	F - 1595	>	E - 46.7
	T	1	A - 0.0	1	F - 1595	1	A - 0.0
	R	>	A - 0.0	>	F - 1595	>	A - 0.0
NB	L	>	A - 0.0	>	E - 39.0	1	B - 12.9
	T	2	A - 0.0	2	A - 0.0	3	A - 8.6
	R	>	A - 0.0	>	A - 0.0	>	B - 10.8
SB	L	>	A - 0.0	>	F - 67.7	1	C - 23.8
	T	2	A - 0.0	2	A - 0.0	3	A - 7.6
	R	>	A - 0.0	>	A - 0.0	>	A - 8.4
Intersection:		*u - 0.0*		*u - 12.5*		*u - 9.3*	

2040 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	>	A - 0.0	>	F - 20724	1	F - 56.1
	T	1	A - 0.0	1	F - 20723	1	A - 0.0
	R	>	A - 0.0	>	F - 20723	>	F - 58.0
WB	L	>	A - 0.0	>	A - 0.0	>	F - 61.7
	T	1	A - 0.0	1	A - 0.0	1	A - 0.0
	R	>	A - 0.0	>	A - 0.0	>	A - 0.0
NB	L	>	A - 0.0	>	F - 1777	1	F - 68.6
	T	2	A - 0.0	2	F - 777	3	A - 5.5
	R	>	A - 0.0	>	A - 0.0	>	A - 6.3
SB	L	>	A - 0.0	>	D - 28.0	1	A - 9.7
	T	2	A - 0.0	2	A - 0.0	3	F - 61.2
	R	>	A - 0.0	>	A - 0.0	>	F - 68.7
Intersection:		*u - 0.0*		*u - 1099*		*u - 42.6*	

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

Mitigation includes considering construction of a traffic signal with the lane geometry shown above.

Driveway "A" on University Blvd. is proposed as a full access unsignalized intersection. The analysis of the intersection of Driveway "A" / University Blvd. in this report demonstrates that the projected levels-of-service and delays are excessive for both the AM Peak Hour and PM Peak Hour BUILD conditions. This study indicates that the intersection of Driveway "A" / University Blvd. can be mitigated by signalization with the lane geometry shown in the above table. However, implementation of a traffic signal at this intersection should not occur until a full intersection traffic signal warrant study has been performed based on actual volumes that exist in the future at the time of the warrant study. A traffic signal should only be implemented if the future warrant study demonstrates that the intersection meets the signal warrant based on the future study. This study only indicates that it is likely that the intersection will warrant a traffic signal in the future and, therefore, intersection design should take that into account (for example, underground conduit should be constructed under the intersection to accommodate a future traffic signal if and when warranted.

Intersection #18 –Driveway "B" / University Blvd. - Pages A-282 thru A-380c

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

Intersection: 18 - DRIVEWAY "B" / UNIVERSITY BLVD.

2040 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	>	A - 0.0	1	E - 61.7	1	C - 32.5
	T	1	A - 0.0	1	A - 0.0	1	A - 0.0
	R	>	A - 0.0	1	D - 54.4	1	C - 29.1
WB	L	>	A - 0.0	1	E - 63.2	1	C - 32.3
	T	1	A - 0.0	1	A - 0.0	1	A - 0.0
	R	>	A - 0.0	>	E - 66.0	>	D - 35.7
NB	L	>	A - 0.0	1	E - 62.7	2	D - 37.2
	T	2	A - 0.0	2	F - 169	3	F - 85.0
	R	>	A - 0.0	>	F - 176	>	F - 98.2
SB	L	>	A - 0.0	1	F - 129	1	C - 21.8
	T	2	A - 0.0	2	B - 16.3	3	B - 12.3
	R	>	A - 0.0	>	B - 17.2	1	A - 6.8
Intersection:		*u - 0.0*		*F - 114*		*E - 59.8*	

2040 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	>	A - 0.0	1	F - 154	1	F - 105
	T	1	A - 0.0	1	A - 0.0	1	A - 0.0
	R	>	A - 0.0	1	D - 41.8	1	E - 65.0
WB	L	>	A - 0.0	1	F - 135	1	F - 105
	T	1	A - 0.0	1	A - 0.0	1	A - 0.0
	R	>	A - 0.0	>	F - 82.2	>	E - 71.8
NB	L	>	A - 0.0	1	F - 298	2	F - 226
	T	2	A - 0.0	2	F - 150	3	C - 26.2
	R	>	A - 0.0	>	F - 161	>	C - 34.6
SB	L	>	A - 0.0	1	D - 40.3	1	D - 38.6
	T	2	A - 0.0	2	F - 366	3	F - 120
	R	>	A - 0.0	>	F - 373	1	A - 7.2
Intersection:		*u - 0.0*		*F - 248*		*F - 84.4*	

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

Mitigation includes considering construction of a traffic signal with the lane geometry shown above.

Driveway "B" on University Blvd. is proposed as a full access unsignalized intersection. The analysis demonstrates that the eastbound and westbound movements will experience excessive delays during the AM Peak Hour and PM Peak Hour BUILD conditions. This study indicates that the intersection of Driveway "B" / University Blvd. can be mitigated by signalization with the lane geometry shown in the above table. However, implementation of a traffic signal at this intersection should not occur until a full intersection traffic signal warrant study has been performed based on actual volumes that exist in the future at the time of the warrant study. A traffic signal should only be implemented if the future warrant study demonstrates that the intersection meets the signal warrant based on the future study. This study only indicates that it is likely that the intersection will warrant a traffic signal in the future and, therefore, intersection design should take that into account (for example, underground conduit should be constructed under the intersection to accommodate a future traffic signal if and when warranted.

Intersection #19 –Driveway "C" / University Blvd. - Pages A-282 thru A-380c

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

Intersection: 19 - DRIVEWAY "C" / UNIVERSITY BLVD.

		2040 AM Peak Hour BUILD							2040 PM Peak Hour BUILD						
		(EXIST. GEOM.)				(MIT. GEOM.)			(EXIST. GEOM.)				(MIT. GEOM.)		
		NO BUILD		BUILD		BUILD			NO BUILD		BUILD		BUILD		
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay	
EB	L		A - 0.0	1	E - 67.0	1	C - 31.8	L		A - 0.0	1	F - 133	1	F - 166	
	T		A - 0.0	1	A - 0.0	1	C - 28.9	T		A - 0.0	1	A - 0.0	1	E - 57.8	
	R		A - 0.0	>	E - 70.1	1	C - 26.1	R		A - 0.0	>	E - 68.4	1	D - 53.8	
WB	L	1	A - 0.0	1	E - 67.9	1	D - 36.6	L	1	A - 0.0	1	E - 65.2	1	E - 59.9	
	T		A - 0.0	1	E - 63.2	1	D - 36.8	T		A - 0.0	1	D - 53.5	1	E - 61.2	
	R	1	A - 0.0	1	E - 63.5	1	C - 32.8	R	1	A - 0.0	1	D - 53.6	1	E - 57.5	
NB	L		A - 0.0	>	F - 1043	1	B - 12.0	L		A - 0.0	>	F - 1729	1	F - 202	
	T	2	A - 0.0	2	A - 0.0	3	C - 21.1	T	2	A - 0.0	2	A - 0.0	3	B - 14.7	
	R	1	A - 0.0	>	F - 512	>	C - 26.7	R	1	A - 0.0	>	F - 632	>	B - 17.3	
SB	L	1	A - 0.0	1	E - 79.3	1	B - 17.4	L	1	A - 0.0	1	E - 79.3	1	B - 16.4	
	T	1	A - 0.0	1	F - 97.9	3	A - 9.4	T	1	A - 0.0	1	F - 845	3	F - 104	
	R	1	A - 0.0	1	A - 0.9	>	B - 10.3	R	1	A - 0.0	1	A - 2.4	>	F - 108	
Intersection:		*u - 0.0*		*F - 365*		*B - 18.1*			*u - 0.0*		*F - 747*		*E - 73.1*		

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

Mitigation includes considering construction of a traffic signal with the lane geometry shown above.

Driveway "C" on University Blvd. is proposed as a full access unsignalized intersection. The analysis demonstrates that the eastbound and northbound left turn movements will experience excessive delays during the PM Peak Hour BUILD conditions. This study indicates that the intersection of Driveway "C" / University Blvd. can be mitigated by signalization with the lane geometry shown in the above table. However, implementation of a traffic signal at this intersection should not occur until a full intersection traffic signal warrant study has been performed based on actual volumes that exist in the future at the time of the warrant study. A traffic signal should only be implemented if the future warrant study demonstrates that the intersection meets the signal warrant based on the future study. This study only indicates that it is likely that the intersection will warrant a traffic signal in the future and, therefore, intersection design should take that into account (for example, underground conduit should be constructed under the intersection to accommodate a future traffic signal if and when warranted.

Intersection #20 –Los Picaros Rd. / Driveway "D" - Pages A-282 thru A-380c

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

Intersection: 20 - LOS PICAROS RD. / DRIVEWAY "D"

2040 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	>	A - 0.0	>	A - 7.8	1	A - 7.7
	T	1	A - 0.0	1	A - 0.0	2	A - 0.0
WB	T	1	A - 0.0	1	A - 0.0	2	A - 0.0
	R	>	A - 0.0	>	A - 0.0	1	A - 0.0
SB	L	1	A - 0.0	1	D - 28.4	1	B - 13.9
	R	>	A - 0.0	>	D - 28.4	1	A - 8.8
Intersection:			***u - 0.0***		***u - 2.0***		***u - 1.0***

2040 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	>	A - 0.0	>	B - 10.4	1	B - 10.1
	T	1	A - 0.0	1	A - 0.0	2	A - 0.0
WB	T	1	A - 0.0	1	A - 0.0	2	A - 0.0
	R	>	A - 0.0	>	A - 0.0	1	A - 0.0
SB	L	1	A - 0.0	1	**F** - 1214	1	**F** - 218
	R	>	A - 0.0	>	**F** - 1214	1	B - 11.8
Intersection:			***u - 0.0***		***u - 216***		***u - 38.0***

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

Mitigation includes constructing separate EB and SB left turn lanes and WB and SB right turn lanes and constructing second EB and WB thru lanes.

Driveway "D" on Los Picaros Rd. is proposed as a full access unsignalized intersection. The analysis demonstrates that the projected levels-of-service and delays are acceptable for the AM Peak Hour BUILD condition but will be excessive for the PM Peak Hour BUILD condition for the southbound left and right turns. The intersection can be mitigated by constructing separate eastbound and southbound left turn lanes and westbound and southbound right turn lanes. Mitigation also includes constructing second eastbound and westbound thru lanes along Los Picaros Rd. The southbound left turn lane will still experience delays; however, there will be a traffic signal to the east at Los Picaros W. Ramp / University Blvd. which will create gaps allowing the southbound left turns to maneuver with greater ease. Those who do not wish to wait to turn left will turn right instead and make a U-turn along Los Picaros Rd. or will choose to exit via another driveway.

Intersection #21 –Los Picaros Rd. / Driveway "E" - Pages A-282 thru A-380c

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

Intersection: 21 - LOS PICAROS RD. / DRIVEWAY "E"

2040 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	>	A - 0.0	>	A - 8.1	>	A - 7.9
	T	1	A - 0.0	1	A - 0.0	2	A - 7.9
	R	>	A - 0.0	>	A - 0.0	>	A - 8.5
WB	L	>	A - 0.0	>	B - 10.3	>	A - 5.0
	T	1	A - 0.0	1	A - 0.0	2	A - 5.0
	R	>	A - 0.0	>	A - 0.0	>	A - 5.2
NB	L	>	A - 0.0	>	C - 23.4	>	A - 6.4
	T	1	A - 0.0	1	C - 23.4	2	A - 6.4
	R	>	A - 0.0	>	C - 23.4	>	A - 6.3
SB	L	>	A - 0.0	>	**F** - 82.8	>	A - 4.9
	T	1	A - 0.0	1	**F** - 82.8	2	A - 4.9
	R	>	A - 0.0	>	**F** - 82.8	>	A - 4.2
Intersection:		***u - 0.0***		***u - 4.0***		***u - 7.1***	

2040 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	>	A - 0.0	>	B - 11.0	>	B - 11.5
	T	1	A - 0.0	1	A - 0.0	2	B - 11.5
	R	>	A - 0.0	>	A - 0.0	>	B - 12.7
WB	L	>	A - 0.0	>	B - 11.0	>	A - 9.1
	T	1	A - 0.0	1	A - 0.0	2	A - 9.1
	R	>	A - 0.0	>	A - 0.0	>	B - 10.3
NB	L	>	A - 0.0	>	**F** - 355	>	A - 9.1
	T	1	A - 0.0	1	**F** - 355	1	A - 9.1
	R	>	A - 0.0	>	**F** - 355	2	A - 9.8
SB	L	>	A - 0.0	>	**F** - 10254	>	C - 19.1
	T	1	A - 0.0	1	**F** - 10254	2	C - 19.1
	R	>	A - 0.0	>	**F** - 10254	>	A - 7.1
Intersection:		***u - 0.0***		***u - 1156***		***u - 11.7***	

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

Mitigation includes constructing a two-lane circulating roundabout.

Driveway "E" on Los Picaros Rd. is proposed as a full access unsignalized intersection. The analysis demonstrates that the southbound movements will experience excessive delays during the PM Peak Hour BUILD conditions. The intersection can be mitigated by constructing a two-lane circulating roundabout with the lane configuration shown in the above table.

Intersection #22 –Los Picaros Rd. / Driveway "F" - Pages A-282 thru A-380c

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

Intersection: 22 - LOS PICAROS RD. / DRIVEWAY "F"

2040 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	>	A - 0.0	>	A - 9.8	>	A - 9.8
	T	1	A - 0.0	1	A - 0.0	1	A - 0.0
	R	>	A - 0.0	>	A - 0.0	>	A - 0.0
WB	L	>	A - 0.0	>	A - 7.2	>	A - 7.2
	T	1	A - 0.0	1	A - 0.0	1	A - 0.0
	R	>	A - 0.0	>	A - 0.0	>	A - 0.0
NB	L	>	A - 0.0	>	D - 27.0	>	C - 22.8
	T	1	A - 0.0	1	D - 27.0	1	C - 22.8
	R	>	A - 0.0	>	D - 27.0	>	C - 22.8
SB	L	>	A - 0.0	>	C - 15.1	>	B - 14.4
	T	1	A - 0.0	1	C - 15.1	1	B - 14.4
	R	>	A - 0.0	>	C - 15.1	>	B - 14.4
Intersection:		*u - 0.0*		*u - 2.8*		*u - 2.7*	

2040 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	>	A - 0.0	>	A - 8.0	>	A - 8.0
	T	1	A - 0.0	1	A - 0.0	1	A - 0.0
	R	>	A - 0.0	>	A - 0.0	>	A - 0.0
WB	L	>	A - 0.0	>	B - 10.3	>	B - 10.3
	T	1	A - 0.0	1	A - 0.0	1	A - 0.0
	R	>	A - 0.0	>	A - 0.0	>	A - 0.0
NB	L	>	A - 0.0	>	**F** - 703	>	**F** - 187
	T	1	A - 0.0	1	**F** - 703	1	**F** - 187
	R	>	A - 0.0	>	**F** - 703	>	**F** - 187
SB	L	>	A - 0.0	>	C - 19.8	>	C - 15.6
	T	1	A - 0.0	1	C - 19.8	1	C - 15.6
	R	>	A - 0.0	>	C - 19.8	>	C - 15.6
Intersection:		*u - 0.0*		*u - 47.5*		*u - 14.4*	

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

Mitigation includes constructing a two-way left turn lane along Los Picaros Rd.

Driveway "F" on Los Picaros Rd. is proposed as a full access unsignalized intersection. The analysis demonstrates that the projected levels-of-service and delays are acceptable for the AM Peak Hour BUILD condition, but will be excessive for the PM Peak Hour BUILD condition for the northbound movements. The intersection can be mitigated by constructing a two-way left turn lane along Los Picaros Rd. The northbound movements will still experience delays; however, there will be a traffic signal to the west at Los Picaros E. Ramp / University Blvd. which will create gaps allowing the northbound movements to maneuver with greater ease.

Intersection #23 –Los Picaros Rd. / Driveway "G" - Pages A-282 thru A-380c

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

Intersection: 23 - LOS PICAROS RD. / DRIVEWAY "G"

		2040 AM Peak Hour BUILD					2040 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	T	1	A - 0.0	1	A - 0.0	T	1	A - 0.0	1	A - 0.0	
	R	>	A - 0.0	>	A - 0.0	R	>	A - 0.0	>	A - 0.0	
WB	T	1	A - 0.0	1	A - 7.8	T	1	A - 0.0	1	B - 12.0	
	R	>	A - 0.0	>	A - 0.0	R	>	A - 0.0	>	A - 0.0	
NB	R	1	A - 0.0	1	A - 9.5	R	1	A - 0.0	1	C - 23.7	
SB	R	1	A - 0.0	1	B - 14.5	R	1	A - 0.0	1	B - 12.6	
Intersection:		*u - 0.0*		*u - 0.4*			*u - 0.0*		*u - 1.0*		

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

Driveway "G" on Los Picaros Rd. is proposed as a right-in, right-out only unsignalized intersection. The analysis demonstrates that the projected levels-of-service and delays are acceptable for all conditions analyzed. Therefore, no recommendations are made for the intersection of Driveway "G" / Los Picaros Rd.

Intersection #24 –Los Picaros Rd. / Driveway "H" - Pages A-282 thru A-380c

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

Intersection: 24 - LOS PICAROS RD. / DRIVEWAY "H"

		2040 AM Peak Hour BUILD					2040 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	T	1	A - 0.0	1	A - 0.0	T	1	A - 0.0	1	A - 0.0	
	R	>	A - 0.0	>	A - 0.0	R	>	A - 0.0	>	A - 0.0	
WB	T	1	A - 0.0	1	A - 0.0	T	1	A - 0.0	1	A - 0.0	
	R	>	A - 0.0	>	A - 0.0	R	>	A - 0.0	>	A - 0.0	
NB	R	1	A - 0.0	1	C - 16.8	R	1	A - 0.0	1	D - 31.0	
SB	R	1	A - 0.0	1	B - 11.3	R	1	A - 0.0	1	C - 22.9	
Intersection:		***u - 0.0***		***u - 0.1***			***u - 0.0***		***u - 0.7***		

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

Driveway "H" on Los Picaros Rd. is proposed as a right-in, right-out only unsignalized intersection. The analysis demonstrates that the projected levels-of-service and delays are acceptable for all conditions analyzed. Therefore, no recommendations are made for the intersection of Driveway "H" / Los Picaros Rd.

Intersection #25 –Los Picaros Rd. / Driveway "I" - Pages A-282 thru A-380c

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

Intersection: 25 - LOS PICAROS RD. / DRIVEWAY "I"

		2040 AM Peak Hour BUILD (EXIST. GEOM.)					2040 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	T	1	A - 0.0	1	A - 0.0	T	1	A - 0.0	1	A - 0.0	
WB	T	1	A - 0.0	1	A - 0.0	T	1	A - 0.0	1	A - 0.0	
	R	>	A - 0.0	>	A - 0.0	R	>	A - 0.0	>	A - 0.0	
SB	R	1	A - 0.0	1	A - 9.9	R	1	A - 0.0	1	C - 18.6	
Intersection:		*u - 0.0*		*u - 0.0*			*u - 0.0*		*u - 0.1*		

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

Driveway "I" on Los Picaros Rd. is proposed as a right-in, right-out only unsignalized intersection. The analysis demonstrates that the projected levels-of-service and delays are acceptable for all conditions analyzed. Therefore, no recommendations are made for the intersection of Driveway "I" / Los Picaros Rd.

Intersection #26 –Los Picaros Rd. / Driveway "J" - Pages A-282 thru A-380c

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

Intersection: 26 - LOS PICAROS RD. / DRIVEWAY "J"

		2040 AM Peak Hour BUILD (EXIST. GEOM.)					2040 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	T	1	A - 0.0	1	A - 0.0	T	1	A - 0.0	1	A - 0.0	
WB	T	1	A - 0.0	1	A - 0.0	T	1	A - 0.0	1	A - 0.0	
	R	>	A - 0.0	>	A - 0.0	R	>	A - 0.0	>	A - 0.0	
SB	R	1	A - 0.0	1	A - 9.1	R	1	A - 0.0	1	C - 16.2	
Intersection:		*u - 0.0*		*u - 0.0*			*u - 0.0*		*u - 0.1*		

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

Driveway "J" on Los Picaros Rd. is proposed as a right-in, right-out only unsignalized intersection. The analysis demonstrates that the projected levels-of-service and delays are acceptable for all conditions analyzed. Therefore, no recommendations are made for the intersection of Driveway "J" / Los Picaros Rd.

Intersection #27 –Driveway "K" / University Blvd. - Pages A-282 thru A-380c

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

Intersection: 27 - DRIVEWAY "K" / UNIVERSITY BLVD.

		2040 AM Peak Hour BUILD							2040 PM Peak Hour BUILD						
		(EXIST. GEOM.)				(MIT. GEOM.)			(EXIST. GEOM.)				(MIT. GEOM.)		
		NO BUILD		BUILD		BUILD			NO BUILD		BUILD		BUILD		
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay	
EB	R	1	A - 0.0	1	B - 19.8	1	C - 22.4	R	1	A - 0.0	1	F - 824	1	F - 1026	
NB	T	2	A - 0.0	2	A - 0.0	3	A - 0.0	T	2	A - 0.0	2	A - 0.0	3	A - 0.0	
SB	T	2	A - 0.0	2	A - 0.0	3	A - 0.0	T	2	A - 0.0	2	A - 0.0	3	A - 0.0	
	R	>	A - 0.0	>	A - 0.0	>	A - 0.0	R	>	A - 0.0	>	A - 0.0	>	A - 0.0	
Intersection:		*A - 0.0*		*A - 0.1*		*A - 0.1*			*A - 0.0*		*B - 10.4*		*B - 12.9*		

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

Driveway "K" on University Blvd. is proposed as a right-in, right-out only unsignalized intersection. The analysis demonstrates that the projected levels-of-service and delays are acceptable for the AM Peak Hour; however, the eastbound right turn will experience excessive delays during the PM Peak Hour. Adding capacity to this intersection by constructing University Blvd. as a 6-lane facility should, intuitively, allow for northbound and southbound thru traffic to move more quickly thru the intersection, thus allowing eastbound right turns to move with greater ease onto University Blvd. However, the Synchro 8 results show the opposite. This does not make sense and perhaps demonstrates a problem with the methodology used in Synchro 8 for such a situation. This driveway will operate at acceptable levels-of-service and delays for the AM Peak Hour and for the rest of the day, except for the PM Peak Hour. Therefore, this study recommends providing internal roads to access Driveway "C" thus allowing the right turns onto University Blvd. to be made at the signalized intersection of Driveway "C" (Crick Ave.) / University Blvd. during the PM Peak Hour.

Intersection #28 –Driveway "L" / University Blvd. - Pages A-282 thru A-380c

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

Intersection: 28 - DRIVEWAY "L" / UNIVERSITY BLVD.

2040 AM Peak Hour BUILD

		(EXIST. GEOM.) NO BUILD		(EXIST. GEOM.) BUILD		(MIT. GEOM.) BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	R	1	A - 0.0	1	C - 21.0	>	C - 23.9
NB	T	2	A - 0.0	2	A - 0.0	1	A - 0.0
SB	T	2	A - 0.0	2	A - 0.0	1	A - 0.0
	R	>	A - 0.0	>	A - 0.0	>	A - 0.0
Intersection:			***A - 0.0***		***A - 0.1***		***A - 0.1***

2040 PM Peak Hour BUILD

		(EXIST. GEOM.) NO BUILD		(EXIST. GEOM.) BUILD		(MIT. GEOM.) BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	R	1	A - 0.0	1	F - 796	>	F - 1027
NB	T	2	A - 0.0	2	A - 0.0	1	A - 0.0
SB	T	2	A - 0.0	2	A - 0.0	1	A - 0.0
	R	>	A - 0.0	>	A - 0.0	>	A - 0.0
Intersection:			***A - 0.0***		***B - 16.6***		***B - 16.2***

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

Driveway "L" on University Blvd. is proposed as a right-in, right-out only unsignalized intersection. The analysis demonstrates that the projected levels-of-service and delays are acceptable for the AM Peak Hour; however, the eastbound right turn will experience excessive delays during the PM Peak Hour. Similar to the previous intersection, adding capacity to this intersection by constructing University Blvd. as a 6-lane facility should, intuitively, allow for northbound and southbound thru traffic to move more quickly thru the intersection, thus allowing eastbound right turns to move with greater ease onto University Blvd. However, the Synchro 8 results show the opposite. This does not make sense and perhaps demonstrates a problem with the methodology used in Synchro 8 for such a situation. This driveway will operate at acceptable levels-of-service and delays for the AM Peak Hour and for the rest of the day, except for the PM Peak Hour. Therefore, this study recommends providing internal roads to access Driveway "C" thus allowing the right turns onto University Blvd. to be made at the signalized intersection of Driveway "C" (Crick Ave.) / University Blvd. during the PM Peak Hour.

Due to the high volumes along University Blvd. in general, this analysis recommends that all of the right-in, right-out only driveways along University Blvd. have internal access to a road that is signalized at University Blvd. for use during the times of excessive delays for the eastbound right turn movements.

Intersection #29 –Driveway "M" / University Blvd. - Pages A-282 thru A-380c

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

Intersection: 29 - DRIVEWAY "M" / UNIVERSITY BLVD.

2040 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 - 0.0	1	C - 24.1	>	D - 32.0
	R	>	A - 0.0	>	C - 24.1	>	D - 32.0
NB	L	>	A - 0.0	>	A - 0.0	>	A - 0.0
	T	2	A - 0.0	2	A - 0.0	1	A - 0.0
SB	T	2	A - 0.0	2	A - 0.0	1	A - 0.0
	R	>	A - 0.0	>	A - 0.0	>	A - 0.0
Intersection:			***u - 0.0***		***u - 0.1***		***u - 0.1***

2040 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	A - 0.0	1	F - 1027	>	F - 1274
	R	>	A - 0.0	>	F - 1027	>	F - 1274
NB	L	>	A - 0.0	>	A - 0.0	>	A - 0.0
	T	2	A - 0.0	2	A - 0.0	1	A - 0.0
SB	T	2	A - 0.0	2	A - 0.0	1	A - 0.0
	R	>	A - 0.0	>	A - 0.0	>	A - 0.0
Intersection:			***u - 0.0***		***u - 16.2***		***u - 0.0***

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

Driveway "M" on University Blvd. is proposed as a right-in, right-out only unsignalized intersection. The analysis demonstrates that the projected levels-of-service and delays are acceptable for the AM Peak Hour; however, the eastbound right turn will experience excessive delays during the PM Peak Hour. Similar to the previous two intersections, adding capacity to this intersection by constructing University Blvd. as a 6-lane facility should, intuitively, allow for northbound and southbound thru traffic to move more quickly thru the intersection, thus allowing eastbound right turns to move with greater ease onto University Blvd. However, the Synchro 8 results show the opposite. This does not make sense and perhaps demonstrates a problem with the methodology used in Synchro 8 for such a situation. This driveway will operate at acceptable levels-of-service and delays for the AM Peak Hour and for the rest of the day, except for the PM Peak Hour. Therefore, this study recommends providing internal roads to access Driveways "A" and / or "B" thus allowing the right turns onto University Blvd. to be made at the signalized intersections of Driveway "A" / University Blvd. or Driveway "B" / University Blvd. during the PM Peak Hour.

Access Design Specifications

Access along the University Blvd. and along Los Picaros Rd. 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. University Blvd. is considered an Urban Principal Arterial Roadway. Spacing of signalized intersections along University Blvd. is required to be 2,640 feet minimum with full access points spaced at a minimum of 1,320 feet and partial access points

spaced at 325 feet minimum (based on posted speed of 40 MPH). All proposed driveways along University Blvd. meet these criteria.

A Determination of Warrants for Auxiliary Lanes for the full access driveways along University Blvd. determined that a southbound right turn deceleration lane (325 feet with a 10.5:1 taper ratio) and a northbound left turn deceleration lane (400 feet with a 10.5:1 taper ratio) is warranted at Driveway "A". A southbound right turn deceleration lane (325 feet with a 10.5:1 taper ratio) and a northbound left turn deceleration lane (450 feet with a 10.5:1 taper ratio) is warranted at Driveway "B" / University Blvd. A northbound left turn deceleration lane (425 feet [or the maximum length feasible due to the proximity of Driveway "K" to the north] with a 10.5:1 taper ratio) is warranted at Driveway "C". The proposed deceleration lanes should be constructed as recommended in this analysis. See Appendix Pages A-409 thru A-416 for further information regarding the Determination of Warrants for Auxiliary Lanes.

Findings and Conclusions

The proposed retail commercial and office development at Los Picaros Rd. / University Blvd. is a large 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 University Blvd. are regional issues mostly attributable to large background traffic volumes forecast for the year 2040. This analysis indicated that, generally speaking, the Rio Bravo Blvd. corridor in the study area would be at approximately capacity (or below) during the 2025 AM and PM Peak Hour periods (implementation year) and beyond capacity for the 2040 AM and PM Peak Hour periods (horizon year).

This report finds that the impact of the proposed retail commercial and office development at the intersection of Los Picaros Rd. / University 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. 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*. Sidewalks should be constructed to a minimum of six feet in width.

Recommendations for improvements to the adjacent transportation system for the 2025 (30% development) Implementation year include:

Rio Bravo Blvd. / University Blvd. – construct a third northbound left turn lane along University Blvd. and re-stripe the inside eastbound right turn lane along Rio Bravo Blvd. to create a third eastbound left turn lane. Construct a third northbound receiving lane on University Blvd. north of Rio Bravo Blvd. for at least 1,000 feet and then transition.

Rio Bravo / I-25 Interchange – include queue lane lengths at least as long as what is shown in the table on Page 20 in the reconfigured design.

Rio Bravo Blvd. / Broadway Blvd. - construct a second northbound left turn lane on Broadway Blvd.

Rio Bravo Blvd. / Second St. - construct a second northbound left turn lane on Second St.

Bobby Foster Rd. / Broadway Blvd. – consider constructing a traffic signal after conducting a full traffic signal warrant.

Los Picaros Rd. / University Blvd. Ramps – construct as a diamond interchange with east and west ramps (unsignalized).

Driveway "B" / University Blvd. - consider constructing a traffic signal after conducting a full traffic signal warrant (around 2028). Use the lane geometry described on Page 39.

Driveway "C" / University Blvd. - consider constructing a traffic signal after conducting a full traffic signal warrant (around 2030). Use the lane geometry described on Page 41.

Access – It is recommended that six driveways be constructed to access this project along University Blvd. - Driveway "A" (full access), which is the northernmost driveway, Driveway "M" (right-in, right-out only), Driveway "B" (full access), Driveway "L" (right-in, right-out only), Driveway "K" (right-in, right-out only) and Driveway "C" (full access), which is the southernmost driveway and the west leg of the existing intersection of Crick Ave. / University Blvd. It is also recommended that seven driveways be constructed to access this project along Los Picaros Rd. – Driveway "J" (right-in, right-out only) which is the westernmost driveway, Driveway "D" (right-in, right-out only), Driveway "I" (right-in, right-out only), Driveway "E" (full access), Driveway "H" (right-in, right-out only), Driveway "G" (right-in, right-out only) and Driveway "F" (full access), which is the easternmost driveway. Construct all driveways with the lane configurations shown in the tables on Pages 38 thru 50.

Driveway "A" / University Blvd. – construct a southbound right turn deceleration lane that is 325 feet with a 10.5:1 taper ratio and a northbound left turn deceleration lane that is 400 feet with a 10.5:1 taper ratio.

Driveway "B" / University Blvd. – construct a southbound right turn deceleration lane that is 325 feet with a 10.5:1 taper ratio and as northbound left turn deceleration lane that is 450 feet with a 10.5:1 taper ratio.

Driveway "C" / University Blvd. - construct a northbound left turn deceleration lane that is 425 feet (or the maximum length feasible) with a 10.5:1 taper ratio.

Recommendations for improvements to the adjacent transportation system for the 2040 (100% development) Horizon year include:

University Blvd. – construct three lanes northbound and three lanes southbound from Rio Bravo Blvd. to 1000 feet south of Driveway "C" (Crick Ave.).

Los Picaros Rd. – construct two lanes eastbound and two lanes westbound from 1000 feet west of Driveway "J" to Driveway "G".

Randolph Rd. / Yale Blvd. – add left turn arrows and a right turn arrow to the traffic signals in order to make the eastbound, northbound and southbound left turns operate as permitted plus protected and the southbound right turn operate as permitted plus overlap.

Rio Bravo Blvd. / University Blvd. – reconfigure it to make the south leg of University Blvd. an extension of Rio Bravo Blvd. and make University Blvd. tee into Rio Bravo Blvd. and this new extension from the north. Please see the graphic on Page 56.

Rio Bravo Blvd. / Isleta Blvd. – add right turn arrows to the traffic signals in order to make the westbound, northbound and southbound right turns operate as permitted plus overlap.

Bobby Foster Rd. / Broadway Blvd. – construct a second westbound left turn lane and add right turn arrows and a left turn arrow to the traffic signals in order to make the westbound and northbound right turns operate as permitted plus overlap and the southbound left turn operate as permitted plus protected.

Los Picaros Rd. / University Blvd. W. Ramp – consider constructing a traffic signal with the lane geometry shown in the above on Page 65.

Los Picaros Rd. / University Blvd. E. Ramp – consider constructing a traffic signal with the lane geometry shown in the table on Page 66.

Driveway "A" / University Blvd. – consider constructing a traffic signal with the lane geometry shown in the table on Page 67.

Driveway "B" / University Blvd. – consider constructing a traffic signal with the lane geometry shown in the table on Page 68.

Driveway "C" / University Blvd. – consider constructing a traffic signal with the lane geometry shown in the table on Page 69.

Los Picaros Rd. / Driveway "D" – construct separate eastbound and southbound left turn lanes and westbound and southbound right turn lanes.

Los Picaros Rd. / Driveway "E" – construct a two-lane circulating roundabout.

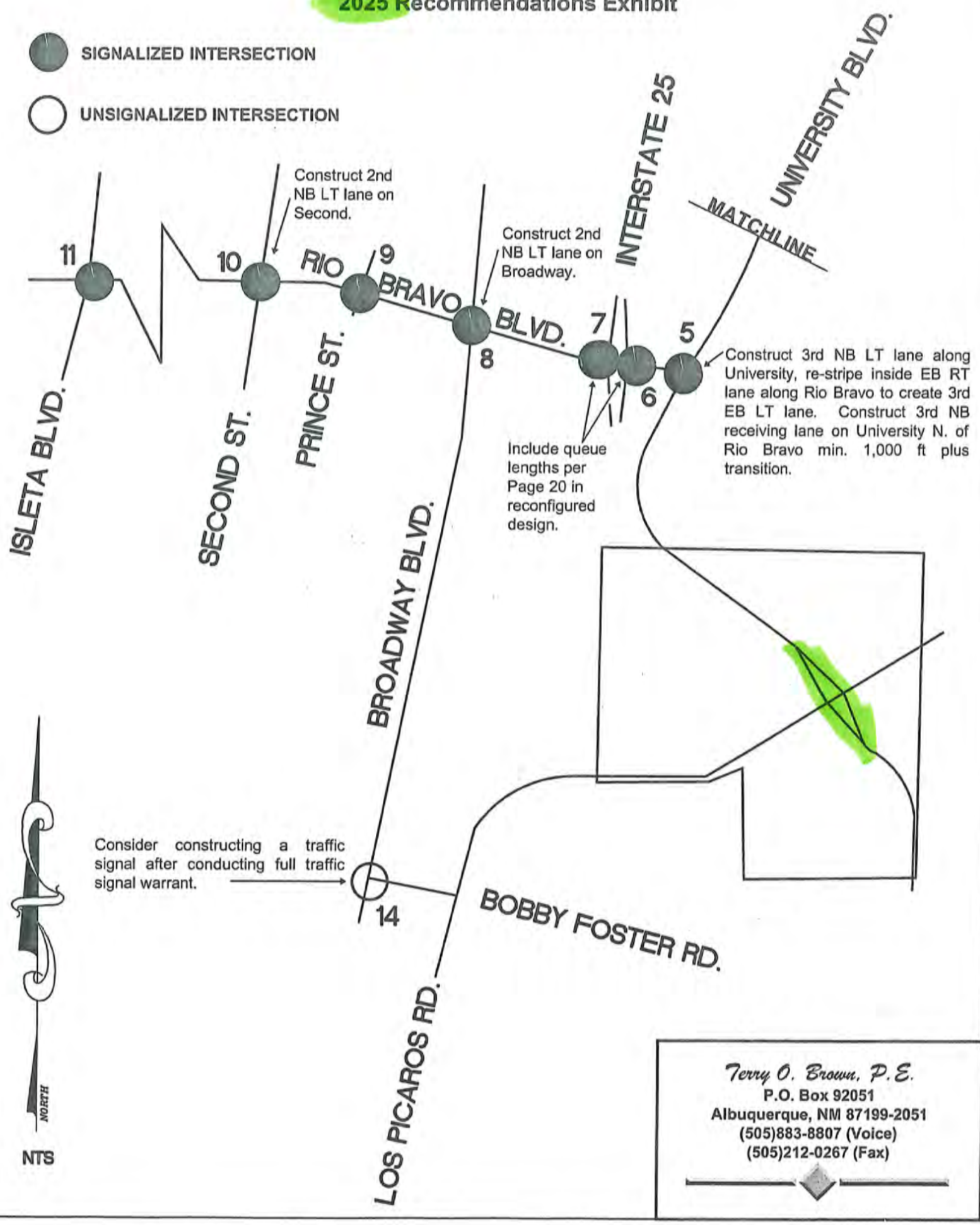
Los Picaros Rd. / Driveway "F" – construct a two-way left turn lane along Los Picaros Rd. from Driveway "G" to 500 feet east of Driveway "F".

Driveways "M", "L" and "K" – construct internal cross access roads that allow access to the nearest signalized intersections along University Blvd.

Valle del Sol Development - 2015

(Los Picaros Rd. / University Blvd.)

2025 Recommendations Exhibit



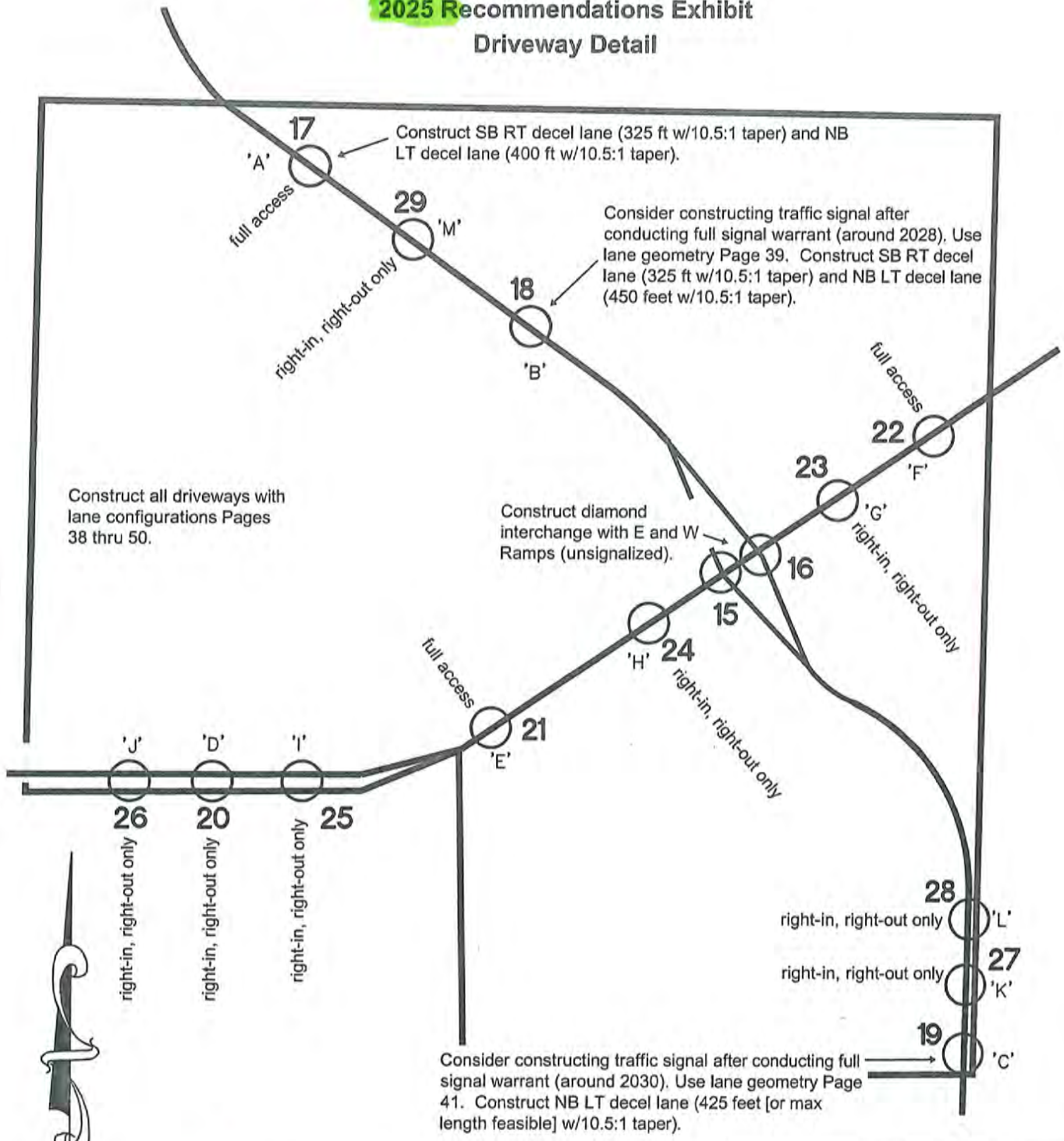
Terry O. Brown, P.E.
P.O. Box 92051
Albuquerque, NM 87199-2051
(505)883-8807 (Voice)
(505)212-0267 (Fax)

Valle del Sol Development- 2015

(Los Picaros Rd. / University Blvd.)

2025 Recommendations Exhibit

Driveway Detail



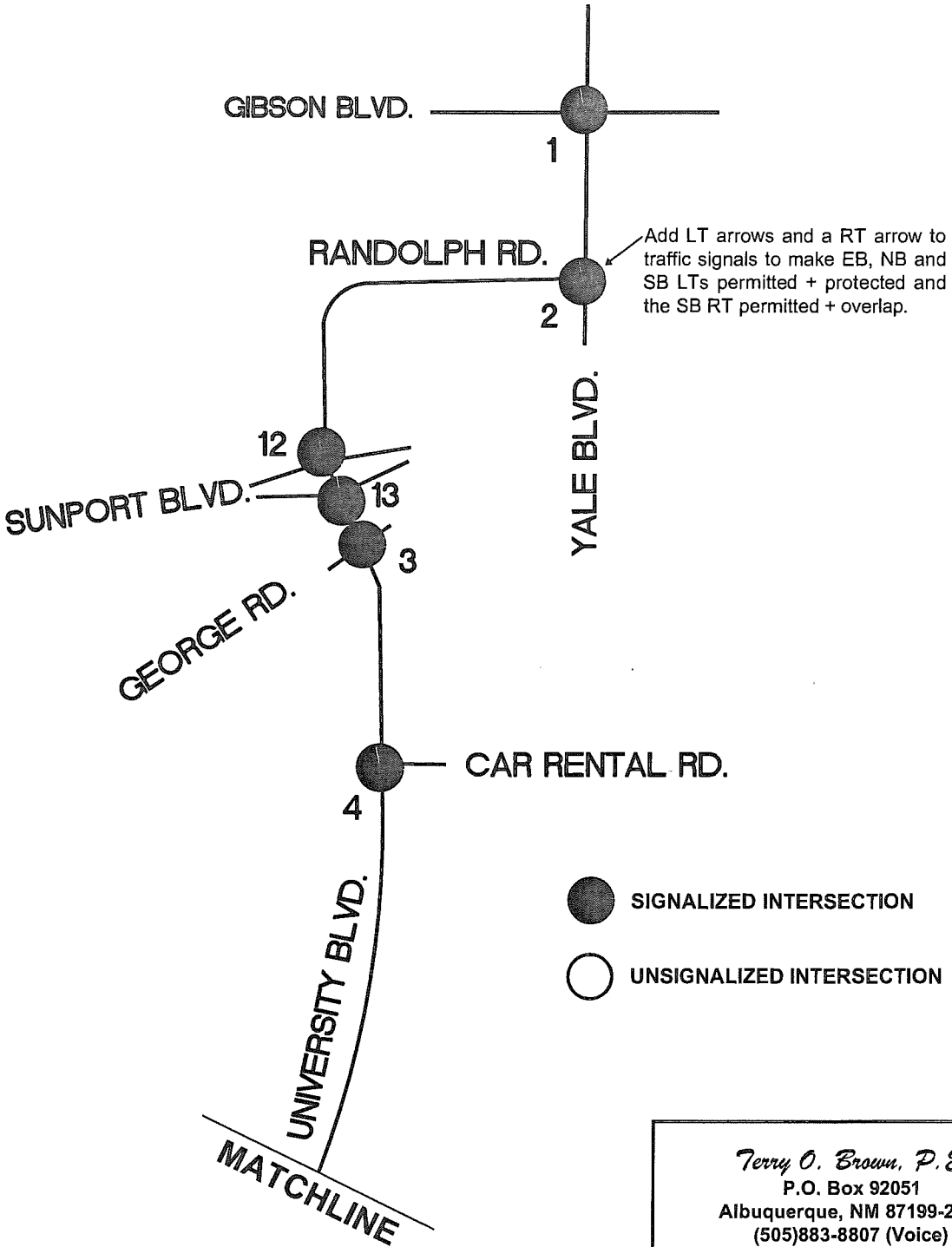
Terry O. Brown, P.E.
P.O. Box 92051
Albuquerque, NM 87199-2051
(505)883-8807 (Voice)
(505)212-0267 (Fax)

Valle del Sol Development- 2015

(Los Picaros Rd. / University Blvd.)

2040 Recommendations Exhibit

NTS

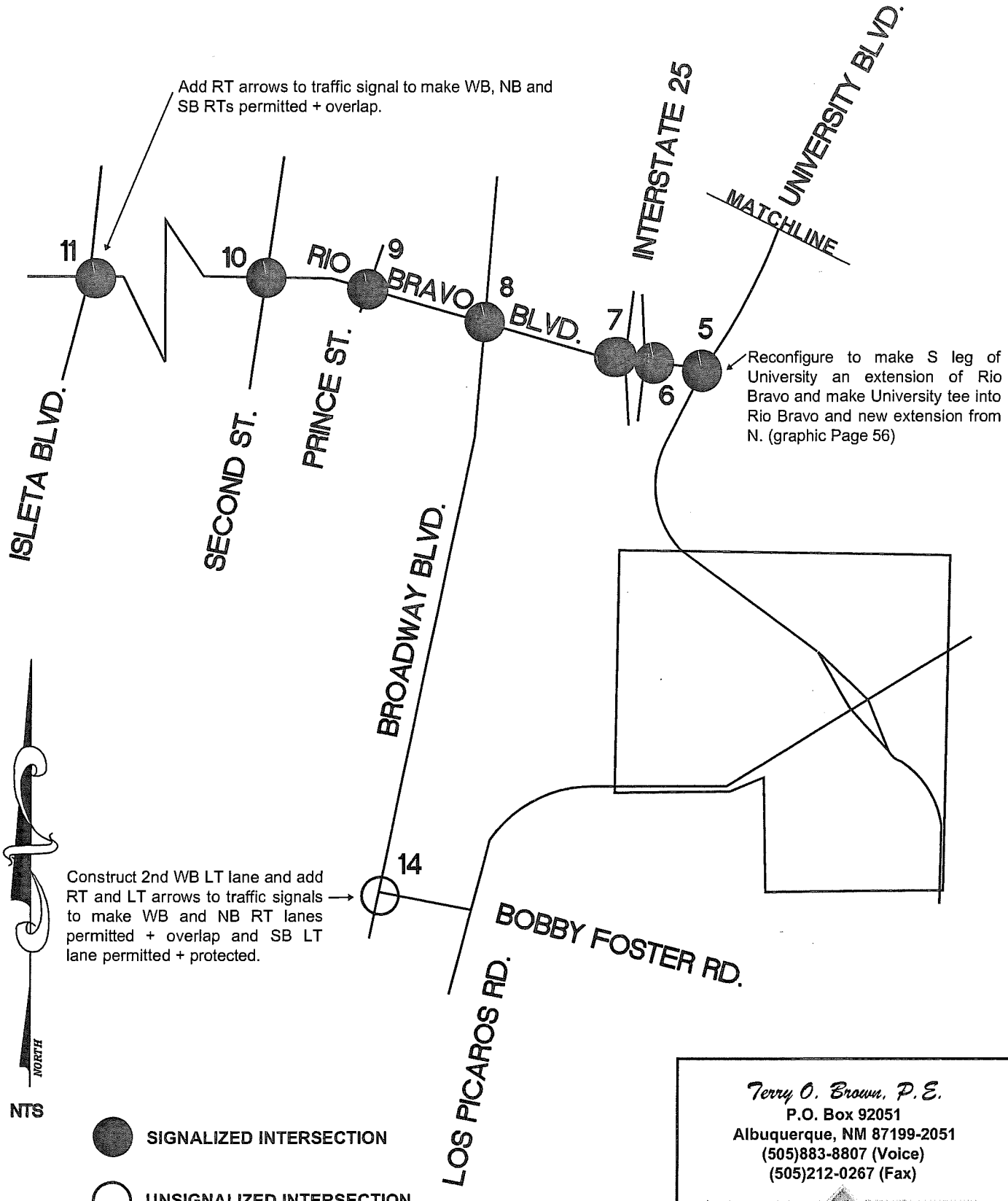


Terry O. Brown, P.E.
P.O. Box 92051
Albuquerque, NM 87199-2051
(505)883-8807 (Voice)
(505)212-0267 (Fax)

Valle del Sol Development- 2015

(Los Picaros Rd. / University Blvd.)

2040 Recommendations Exhibit



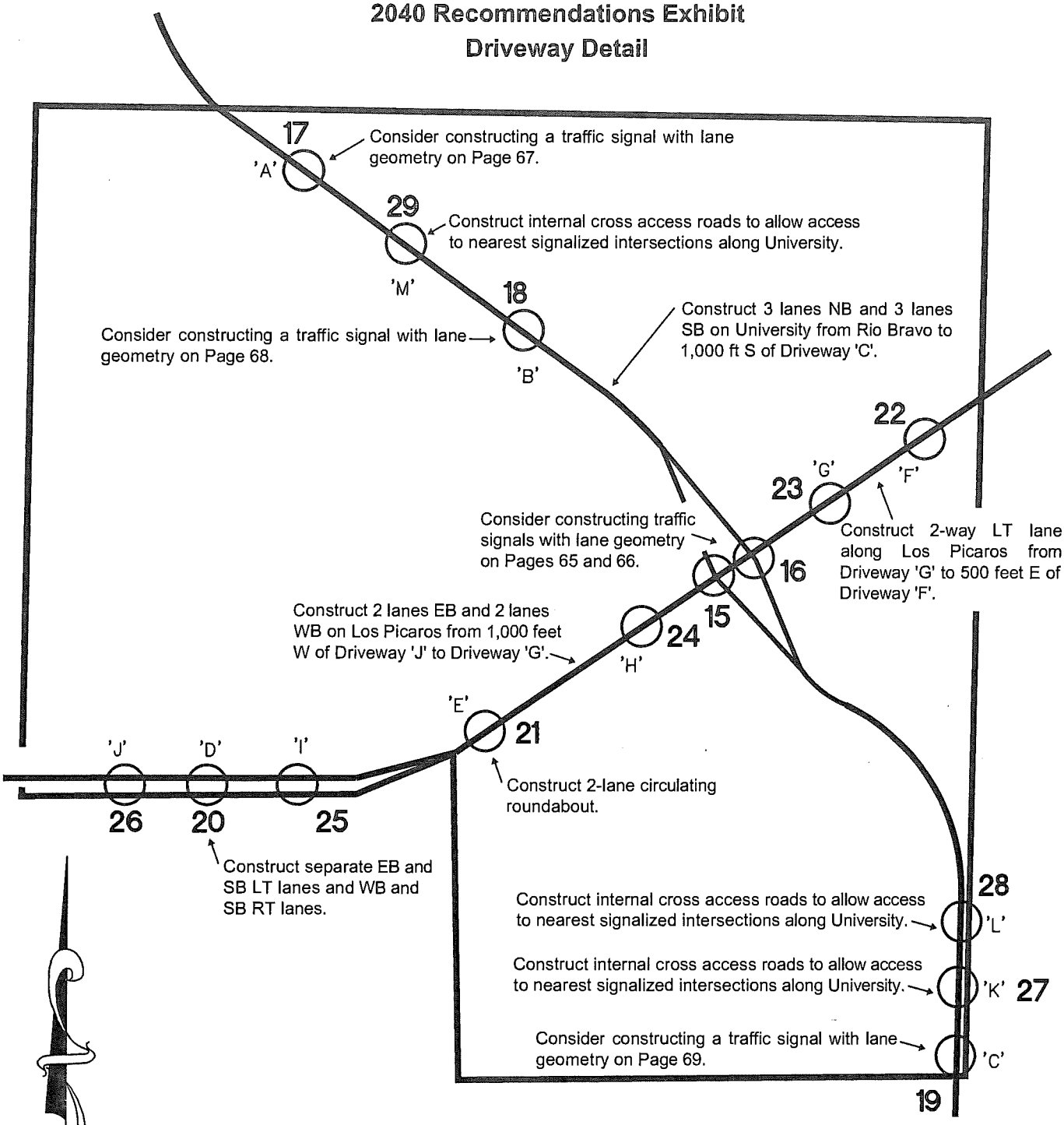
Terry O. Brown, P.E.
P.O. Box 92051
Albuquerque, NM 87199-2051
(505)883-8807 (Voice)
(505)212-0267 (Fax)

Valle del Sol Development - 2015

(Los Picaros Rd. / University Blvd.)

2040 Recommendations Exhibit

Driveway Detail



Terry O. Brown, P.E.
P.O. Box 92051
Albuquerque, NM 87199-2051
(505)883-8807 (Voice)
(505)212-0267 (Fax)

Appendix

Intersection #11 – Rio Bravo Blvd. / Isleta Blvd.	
Intersection #12 – Sunport N. Ramp / University Blvd.	
Intersection #13 – Sunport S. Ramp / University Blvd.	
Intersection #14 –Bobby Foster Rd. / Broadway Blvd.	
Intersection #15 –Los Picaros W.Ramp / University Blvd.	
Intersection #16 –Los Picaros E.Ramp / University Blvd.	
Intersection #17 –Driveway "A" / University Blvd.	
Intersection #18 –Driveway "B" / University Blvd.	
Intersection #19 –Driveway "C" / University Blvd.	
Intersection #20 –Los Picaros Rd. / Driveway "D"	
Intersection #21 –Los Picaros Rd. / Driveway "E"	
Intersection #22 –Los Picaros Rd. / Driveway "F"	
Intersection #23 –Los Picaros Rd. / Driveway "G"	
Intersection #24 –Los Picaros Rd. / Driveway "H"	
Intersection #25 –Los Picaros Rd. / Driveway "I"	
Intersection #26 –Los Picaros Rd. / Driveway "J"	
Intersection #27 –Driveway "K" / University Blvd.	
Intersection #28 –Driveway "L" / University Blvd.	
Intersection #29 –Driveway "M" / University Blvd.	
HORIZON YEAR (2040)	A-282 thru A-380c
Intersection #1 – Gibson Blvd. / Yale Blvd.	
Intersection #2 – Randolph Rd. Blvd. / Yale Blvd.	
Intersection #3 – George Rd. / University Blvd.	
Intersection #4 – Car Rental Rd. / University Blvd.	
Intersection #5 – Rio Bravo Blvd. / University Blvd.	
Intersection #7 – Rio Bravo Blvd. / I-25 W. Ramp	
Intersection #8 – Rio Bravo Blvd. / Broadway Blvd.	
Intersection #9 – Rio Bravo Blvd. / Prince St.	
Intersection #10 – Rio Bravo Blvd. /Second St.	
Intersection #11 – Rio Bravo Blvd. / Isleta Blvd.	
Intersection #12 – Sunport N. Ramp / University Blvd.	
Intersection #13 – Sunport S. Ramp / University Blvd.	
Intersection #14 –Bobby Foster Rd. / Broadway Blvd.	
Intersection #15 –Los Picaros W.Ramp / University Blvd.	
Intersection #16 –Los Picaros E.Ramp / University Blvd.	
Intersection #17 –Driveway "A" / University Blvd.	
Intersection #18 –Driveway "B" / University Blvd.	
Intersection #19 –Driveway "C" / University Blvd.	
Intersection #20 –Los Picaros Rd. / Driveway "D"	
Intersection #21 –Los Picaros Rd. / Driveway "E"	
Intersection #22 –Los Picaros Rd. / Driveway "F"	
Intersection #23 –Los Picaros Rd. / Driveway "G"	
Intersection #24 –Los Picaros Rd. / Driveway "H"	
Intersection #25 –Los Picaros Rd. / Driveway "I"	