Terry O. Brown P.E.

Maverik Gas / Convenience Store

(Comanche Rd. / Princeton Dr.)

Traffic Impact Study

January 22, 2019

F I N A L

Presented to:

City of Albuquerque
Transportation Development Section

NM Dept. of Transportation
District 3

Prepared for:

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Maverik Gas / Convenience Store
(Comanche Rd. / Princeton Dr.)
Traffic Impact Study

Executive Summary

The purpose of this study is to evaluate the transportation conditions before and after implementation of the proposed Maverik Gas / Convenience Store, 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 City of Albuquerque Transportation Dev. Section, Planning Dept. and the New Mexico Department of Transportation (NMDOT) associated with its review of the Maverik Gas / Convenience Store.

The proposed development is located at the southwest corner of Comanche Rd. / Princeton Dr. The study area includes the intersections of Comanche Rd. / Carlisle Bd., Candelaria Bd. / Princeton Dr., Candelaria Bd. / University Bd., Comanche Rd. / I-25 W. Ramp, Comanche Rd. / I-25 E. Ramp, Comanche Rd. / Princeton Dr. and the two re-aligned driveways for the project.

The North I-25 Freeway Operations Study (2011) demonstrates that a new westbound right turn lane is planned on Comanche Rd. at the I-25 East Ramp. The new right turn lane should reduce westbound queuing on Comanche at the East Ramp.

The proposed development is to be developed as a 20 fueling position gas station w/ convenience store. The anticipated implementation year for this site is the year 2019. According to the Institute of Traffic Engineers' (ITE) trip generation rates, the weekday AM Peak Hour period is anticipated to generate approximately 145 entering trips and 139 exiting trips. During the weekday PM Peak Hour period, it is anticipated that it will generate approximately 143 entering trips and 137 exiting trips.

There is an existing office use on the property (Rock Gap Engineering, Inc.). The comparative trip generation rates for the existing use and the proposed use are summarized in the following table:

Proposed C-Store (Comanche Rd. / Princeton)

Trip Generation Data (ITE Trip Generation Manual - 10th 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					
Proposed	Gasoline / Service Station w/ Convenience Market (945)	20.00	4,208	145	139	143	137
Existing	Small Office Building (712)	17.00	275	27	6	13	28
	Increase (Decrease) in Trips Generated		3,933	118	133	130	109

The development will be accessed via two re-aligned driveways for this parcel of land, both on Princeton Dr. See the Appendix, Page A-3 for more details.

Analysis results for the implementation year (2019) are included in the following table:

EXECUTIVE SUMMARY RESULTS TABLE

INTERSECTION NO. & NAME	SIGNALIZATION	2019 AM(PM) PEAK HOUR NO BUILD	BUILD	MITIGATED	2019 RECOMMENDATIONS
1 - Comanche Rd. / Carlisle Blvd.	Signalized	C- 25.9 (C- 28.7)	C- 26.4 (C- 29.2)		No Recommendation
2 - Candelaria Rd. / Princeton Dr.	Signalized	B- 14.1 (B- 10.9)	B- 13.7 (B- 10.9)		No Recommendation
3 - Candelaria Rd. / University Blvd.	Signalized	B- 16.2 (C- 25.1)	B- 16.2 (C- 25.2)		No Recommendation
4 - Comanche Rd. / I-25 W. Ramp	Signalized	C- 22.9 (C- 32.0)	C- 23.2 (C- 32.4)	C- 23.2 (C- 27.1)	Adjust Signal timing (+2 seconds EBLT; -2 seconds WBT)
5 - Comanche Rd. / I-25 E. Ramp	Signalized	C- 21.2 (C- 23.6)	C- 21.1 (C- 24.0)		No Recommendation
6 - Comanche Rd. / Princeton Dr.	Unsignalized	u- 1.1 (u- 1.2)	u- 3.2 (u- 3.0)		No Recommendation
7 - Driveway "A" / Princeton Dr.	Unsignalized	u- 0.3 (u- 0.5)	u- 1.0 (u- 1.1)		No Recommendation
8 - Driveway "B" / Princeton Dr.	Unsignalized	u- 0.3 (u- 0.7)	u- 3.9 (u- 3.8)		No Recommendation

In summary, the proposed development does not have a significant adverse impact to the adjacent transportation system and the minimal impact to the transportation system can be mitigated by the recommended measures described in this report and summarized in the table above. In summary, the recommendations of this study are:

Recommendations:

Construction of all improvements associated with the proposed Maverik Store including driveways and landscaping shall preserve adequate sight distances along Princeton Dr. and along Comanche Rd. to the extent feasible.

Comanche Rd. / **Carlisle Blvd.** – Lengthen northbound left turn lane from 85 feet long to 130 feet long.

Comanche Rd. / **I-25 West Ramp** - Adjust signal timing during the PM Peak Hour period to add two (2) seconds to the westbound left turn phase and subtract 2 seconds from the eastbound thru phase.

Comanche Rd. / **Princeton Dr.** – Stripe the Princeton St. approach (northbound) to Comanche Rd. to provide a 100 feet long northbound left turn lane. Construct an eastbound right turn deceleration lane on Comanche Rd. at Princeton Dr. The eastbound right turn deceleration lane should be designed and constructed to a length of a minimum of 124 feet plus transition.

Design and construct project to incorporate two full access driveways onto Princeton Dr. as depicted on the site development plan on Page A-3 in the Appendix of this report.

Maverik Gas / Convenience Store
(Comanche Rd. / Princeton Dr.)
Traffic Impact Study

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(Comanche Rd. / Princeton Dr.)
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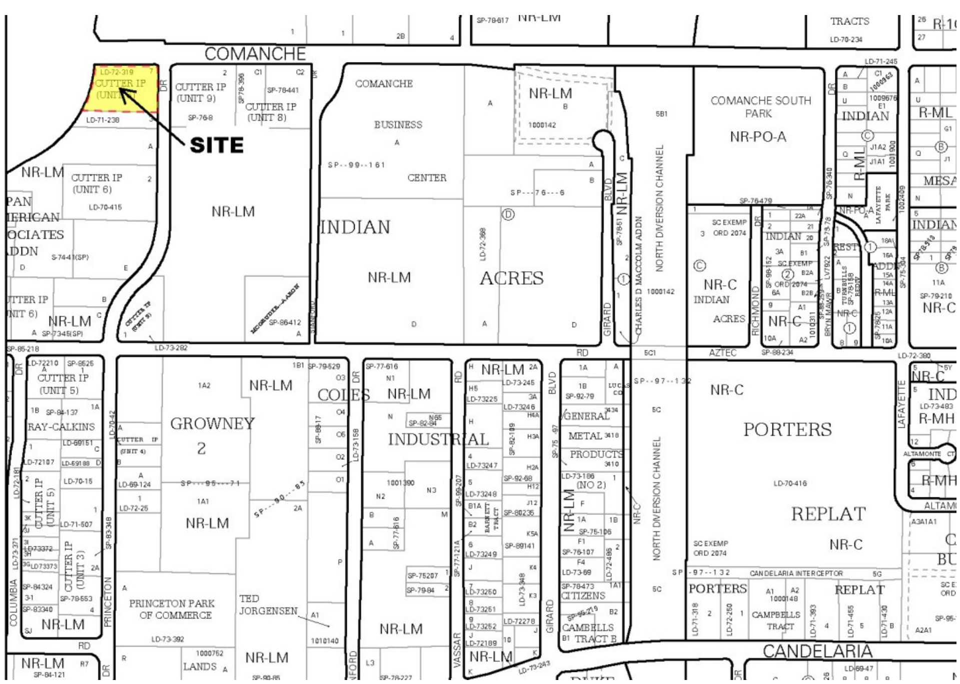
Introduction

The purpose of this study is to evaluate the transportation conditions before and after implementation of the proposed Maverik Convenience Store 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 City of Albuquerque Transportation Development Section, Planning Department and the New Mexico Department of Transportation District 3 Traffic Engineer associated with their review of the Maverik Convenience Store as shown on the plan (Page A-3) in the Appendix of this report.

The proposed development is located at the southwest corner of Comanche Rd. / Princeton Dr. in Albuquerque, New Mexico. If the property was to develop in a manner significantly different than the proposed plan considered in this report such that the number of generated trips is significantly greater, then an update to this study may be required by the City of Albuquerque Transportation Development Section and / or the New Mexico Department of Transportation.

Following is a vicinity map depicting the location of the proposed project:



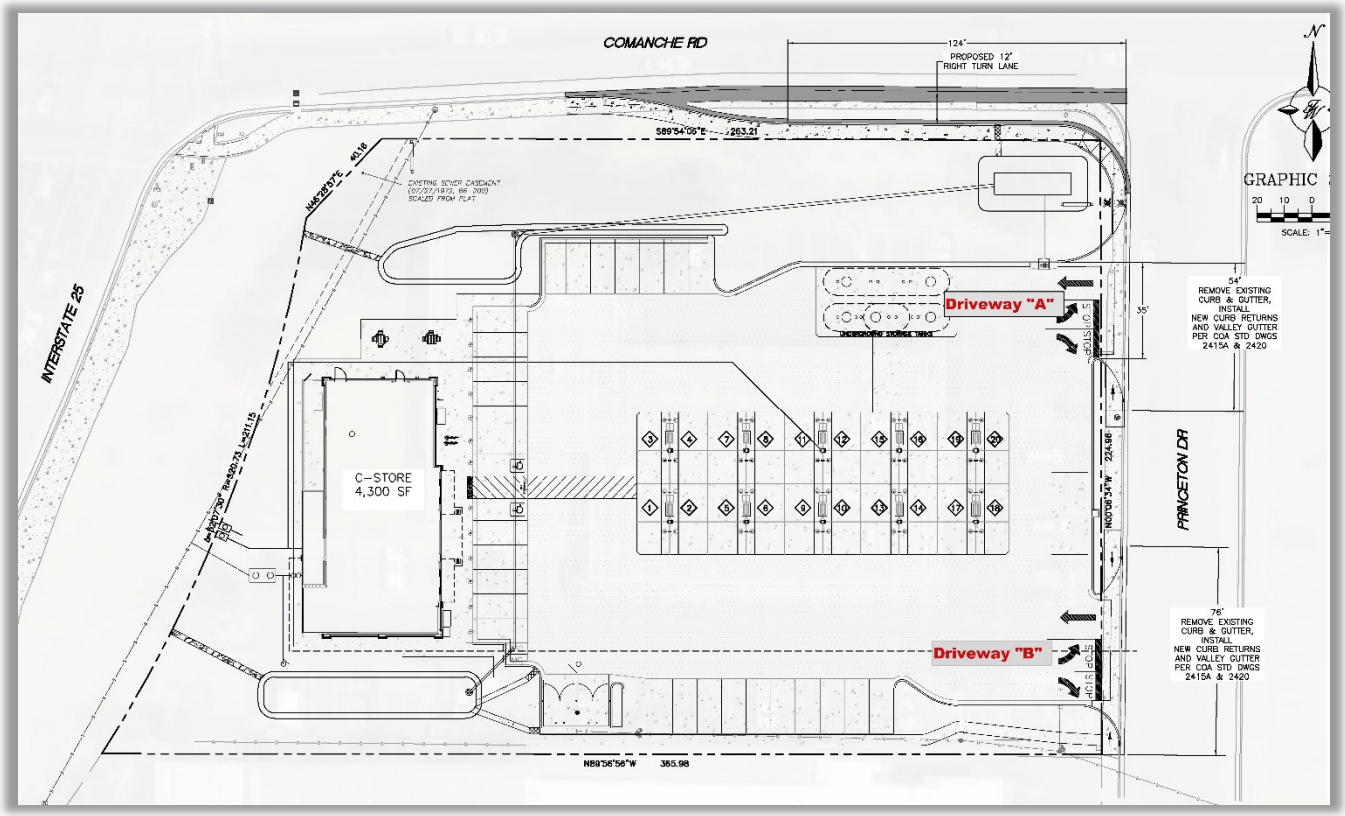
Description of Proposed Development

The proposed project is described as a 20 fueling position gas station w/ convenience store at the southwest corner of Comanche Rd. / Princeton Dr. The project lies in the city limits of Albuquerque, NM. The project will be required to comply with the requirements of the City of Albuquerque with regard to the overall development. The project includes the analysis of two ramps for Interstate 25 which is maintained by the New Mexico Department of Transportation. Therefore, the project will be required to comply with the requirements of the City of Albuquerque with regard to the overall development and with the requirements of the New Mexico Department of Transportation with regard to transportation issues along Interstate 25.

This development will be constructed in one phase. This study will analyze an implementation year of 2019. No horizon year analysis is required for this development.

The development will be accessed via two existing driveways for this parcel of land, which will be re-aligned as shown on the site plan.

Following is the proposed site development plan depicting driveway (access) locations (also, see Appendix Page A-3 for a more complete version of the proposed site development plan):



Study Area Conditions

A Traffic Impact Study Scoping Meeting was held with the City of Albuquerque Transportation Dev. Section, Planning Dept. with staff (Racquel Michel) and with the New Mexico Department of Transportation staff (Nancy Perea, District 3 Traffic Engineer and Margaret Haynes, Assistant District 3 Traffic Engineer). During the meeting, it was determined that the study area would include the following list of intersections to be analyzed in the Traffic Impact Study:

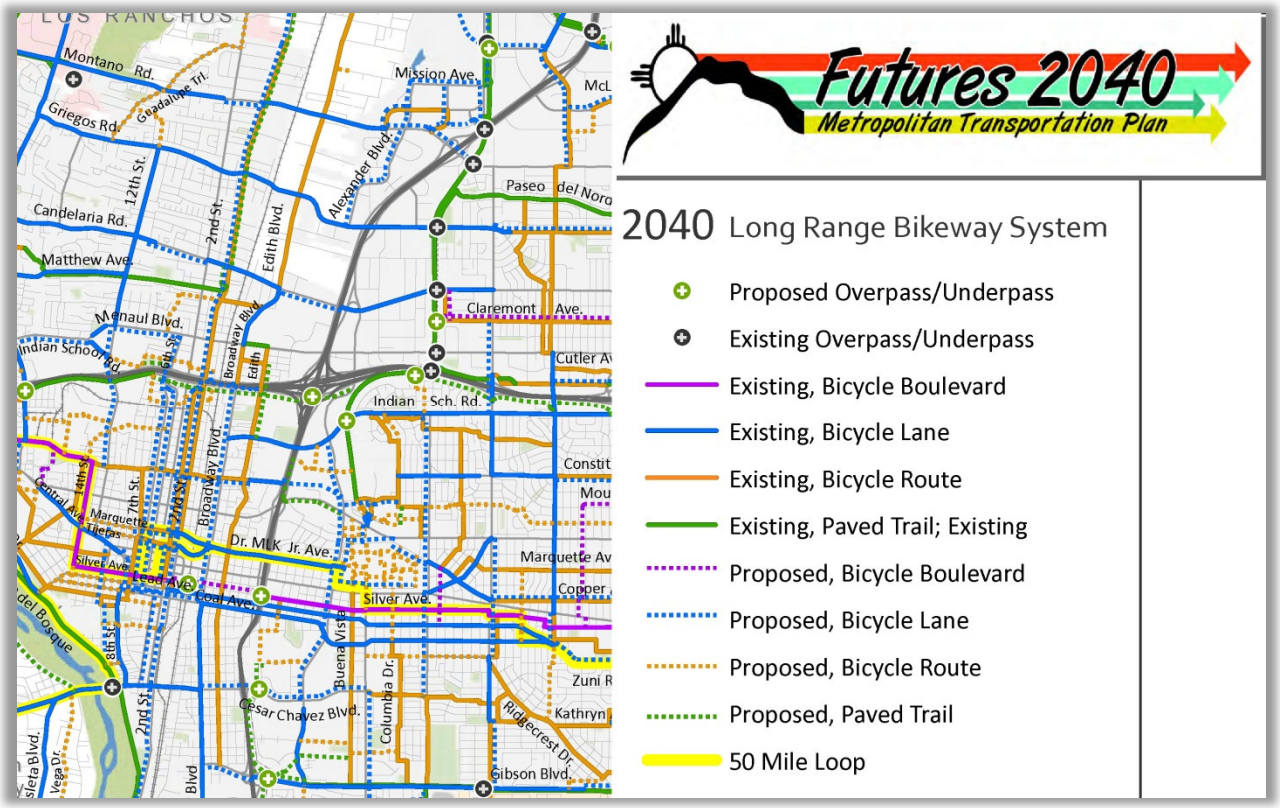
1. Comanche Rd. / Carlisle Bd.
2. Candelaria Bd. / Princeton Dr.
3. Candelaria Bd. / University Bd.
4. Comanche Rd. / I-25 W. Ramp
5. Comanche Rd. / I-25 E. Ramp
6. Comanche Rd. / Princeton Dr.

This scope of study was based on the assumption that the parcel in question would be developed as a 20 fueling position gas station w/ convenience store as shown on the proposed site plan.

There are no other known land development projects in the area which need to be incorporated into the background traffic model for this study. However, an existing diesel service center is located across Princeton Dr. & was included in the driveway analyses. There are no known Transportation Improvement Program projects in the area that need to be considered in the Traffic Impact Study.

This project is served by public transit services in the area; specifically Routes #5, 7 and 13. These routes run along Carlisle Bd. (5), Candelaria Bd. (7) and Comanche Rd. (13). The last two routes are commuter routes which run during the peak hours only.

Comanche Rd. and Candelaria Rd. are designated on the Futures 2040 Metropolitan Transportation Plan (2040 Long Range Bikeway System) as either Proposed or Existing Bicycle Routes or Lanes as shown on the following portion of the map.



There are pedestrian facilities in the project area – curb & gutter and sidewalks along the roads, as well as raised medians for pedestrians & bicyclists crossing against traffic.

Comanche Rd., Carlisle Bd. & University Bd. are classified as Minor Arterial Roadways on the Mid-Region Council of Government's Futures 2040 Long Range Roadway System Map. They are four-lane urban-type roadways with curb and gutter & sidewalks and some raised medians. Comanche Rd. & University Bd. become Major Collectors in the vicinity of this project. The posted speed limit along Carlisle Bd. is 35 MPH, along Comanche Rd. is 40 MPH and along University Bd. is 45 MPH.

Candelaria Rd. is classified as a Community Principal Arterial Roadway on the Mid-Region Council of Government's Futures 2040 Long Range Roadway System Map. Candelaria Rd. is a four-lane roadway with curb & gutter and sidewalks. The posted speed limit along this section of Candelaria Rd. is 40 MPH.

Analysis of Existing Conditions

Due to the fact that the Implementation Year is only one year in the future, no existing analysis was performed. The 2019 NO BUILD analysis results should closely approximate the analysis of existing conditions. Existing traffic volumes (turning movement counts) were collected at the

intersections targeted for analysis in this study in July 2018 and are included on Appendix Pages A-95 thru A-100.

Analysis of Implementation Year Conditions

Traffic Projections

This study assumes that the development will be implemented in one final phase with an implementation year of 2019.

Projected trips were calculated based on the Institute of Traffic Engineers (ITE) Trip Generation Manual (10th Edition). Trips for the development were determined based on land use defined on the Conceptual Site Development Plan on Page A-3 in the Appendix of this report. The following table summarized the trip generation rate for the project compared to the existing trip generation rate of the existing use (17,000 s.f. office) on the site:

Proposed C-Store (Comanche Rd. / Princeton)

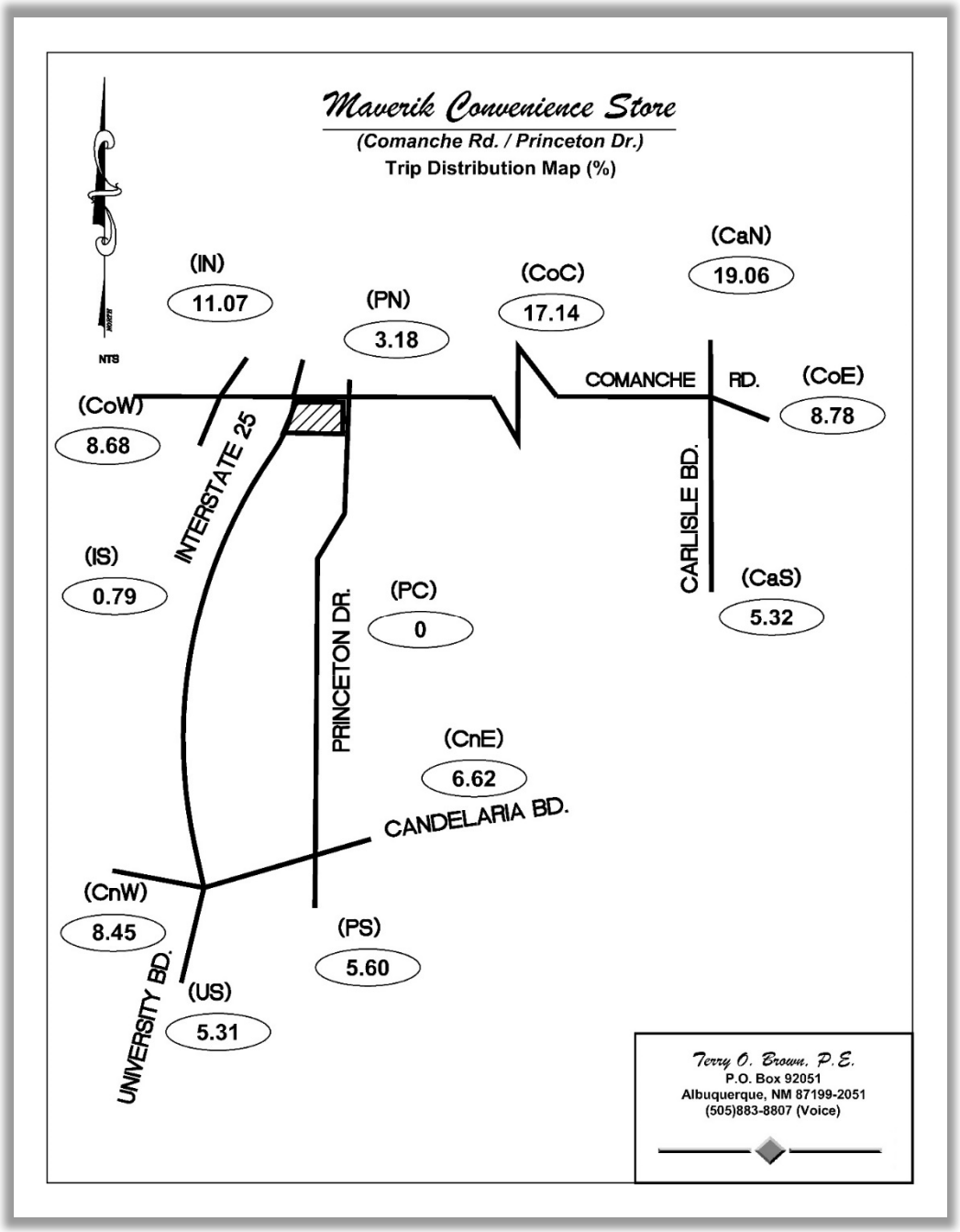
Trip Generation Data (ITE Trip Generation Manual - 10th Edition)

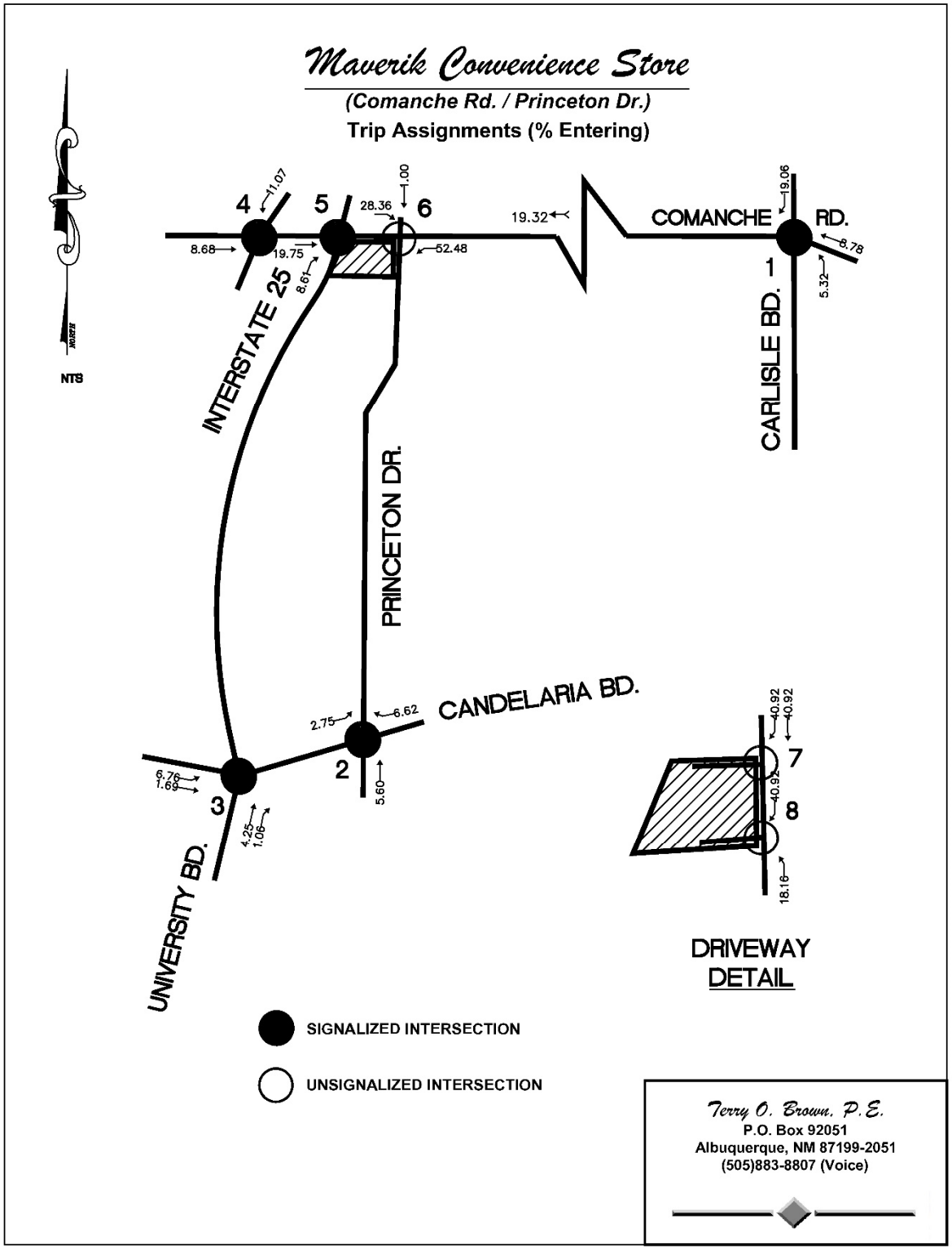
	USE (ITE CODE)		24 HR VOL	A. M. PEAK HR.		P. M. PEAK HR.	
COMMENT	DESCRIPTION		GROSS	ENTER	EXIT	ENTER	EXIT
	Summary Sheet	Units					
Proposed	Gasoline / Service Station w/ Convenience Market (945)	20	4,208	145	139	143	137
Existing	Small Office Building (712)	17.00	275	27	6	13	28
	Increase (Decrease) in Trips Generated		3,933	118	133	130	109

Pass-by trips were not applied to this project. A pass-by trip reduction of 50% could be supported based on ITE data, but was not applied to this analysis since the proposed driveways are located on Princeton Dr. with relatively low volumes. Pass-by trips for this project would more aptly be classified as diverted link trips, so were not applied. See Appendix Page A-7 for more information regarding the trip generation.

The Gravity Model was used to determine trip distribution where primary trips for the commercial land use development were distributed proportionally to the 2019 projected population of Data Analysis Subzones (DASZ) within a 1.5-mile radius. Population data for the years 2012 and 2040 were taken from the 2040 Socioeconomic Forecasts by Subareas for the Mid-Region of New Mexico supplied by the Mid-Region Council of Governments (MRCOG). Population data from the years 2012 and 2040 was interpolated linearly to obtain 2019 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 data analysis subzones are shown in the Appendix on Pages A-12 thru A-20.

Trip assignments are first made on a percentage basis derived from data established in the trip distribution determination process and logical routing. Those percentages are then applied to the projected trips to determine individual traffic movements. Percentage trip assignments for commercial trips are shown below and in the Appendix on Pages A-18 thru A-20. No adjustments for pass-by trips on this project were applied. Additionally, Trip Distribution Map and Trip Assignments Maps are located on the following pages.




Maverik Convenience Store
(Comanche Rd. / Princeton Dr.)
Trip Assignments (% Entering)
NORTH
NTS
4
5
6
1
2
3
7
8
11.07
1.00
28.36
19.32
19.06
COMANCHE RD.
8.78
5.32
8.68
19.75
8.61
52.48
INTERSTATE 25
CARLISLE BD.
PRINCETON DR.
CANDELARIA BD.
2.75
6.62
5.60
6.76
1.69
4.25
1.06
UNIVERSITY BD.
40.92
40.92
40.92
18.16
DRIVEWAY
DETAIL
SIGNALIZED INTERSECTION
UNSIGNALIZED INTERSECTION
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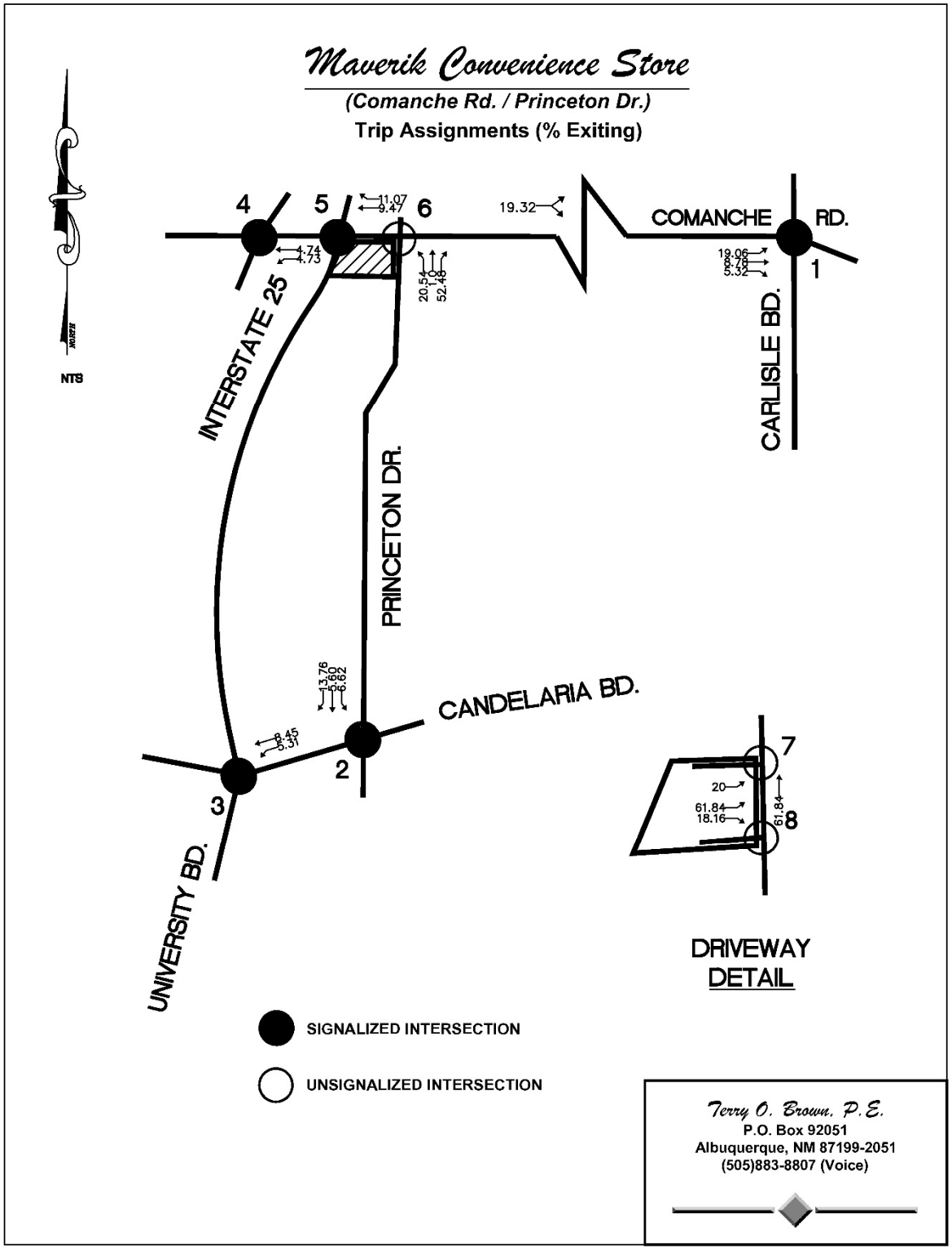
Maverik Convenience Store
(Comanche Rd. / Princeton Dr.)
Trip Assignments (% Exiting)
NORTH
NTS
4
5
6
1
2
3
7
8
11.07
9.47
19.32
COMANCHE
RD.
19.06
8.75
5.32
4.74
4.73
20.54
1.0
52.48
INTERSTATE 25
CARLISLE BD.
PRINCETON DR.
13.76
5.60
6.62
CANDELARIA BD.
8.45
6.31
UNIVERSITY BD.
20
61.84
18.16
61.84
DRIVEWAY
DETAIL
SIGNALIZED INTERSECTION
UNSIGNALIZED INTERSECTION
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Background traffic growth rates were considered for each individual approach to an intersection that was targeted for analysis based on data from the 2007 through 2016 Traffic Flow maps prepared by the Mid-Region Council of Governments. Most of the Traffic Flow Data for those years taken from the MRCOG Traffic Flow Maps were Standard Data. The data from those years for each approach was plotted on a graph and a linear "regression trend line" calculated using the equation format y=mx+b. The growth rate was determined by calculating the average volume increase per year during the time period considered and dividing that volume into the most recent AWDT used in the analysis from which future volumes will be calculated. The rate of growth of that trend line was utilized as the annual growth rate for each approach if that calculated rate appeared feasible. However, in every roadway segment considered in this analysis, the rate indicated either an inconsistent or a negative growth trend; therefore, the growth rate was considered to be a generic 0.5%. Historical Growth Rate Graphs with linear regression trend lines are shown in the Appendix on Pages A-18 thru A-27. 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-31 thru A-46).

Traffic Analysis

A capacity analysis using existing traffic signal timing (see Appendix Pages A-50 thru A-82) was conducted for the Implementation Year (2019) NO BUILD and BUILD Conditions and the results are summarized as follows:

#1 – Comanche Rd. / Carlisle Bd. - Pages A-50 thru A-82

The results of the 2019 analyses of the signalized intersection of Comanche Rd. / Carlisle Bd. are summarized in the following table:

Intersection: **1 - Comanche Rd. / Carlisle Blvd.**

		2019 AM Peak Hour BUILD					**2019 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 - 38.5	1	D - 37.7	L	1	C - 27.9	1	C - 28.4	L
	T	1	D - 47.1	1	D - 45.0	T	1	D - 45.8	1	D - 47.1	T
	R	1	D - 39.1	1	D - 36.9	R	1	D - 36.8	1	D - 36.4	R
WB	L	1	D - 38.0	1	D - 37.2	L	1	C - 31.1	1	C - 31.7	L
	T	2	D - 49.2	2	D - 48.9	T	2	C - 34.9	2	D - 36.0	T
	R	>	D - 49.8	>	D - 49.4	R	>	C - 35.0	>	D - 36.1	R
NB	L	1	A - 9.7	1	B - 10.7	L	1	B - 17.4	1	B - 17.2	L
	T	3	B - 11.6	3	B - 12.6	T	3	C - 20.9	3	C - 21.2	T
	R	>	B - 11.8	>	B - 12.8	R	>	C - 21.6	>	C - 21.9	R
SB	L	1	A - 9.1	1	B - 10.2	L	1	B - 17.5	1	B - 17.9	L
	T	3	B - 12.7	3	B - 14.2	T	3	C - 23.1	3	C - 22.7	T
	R	>	B - 13.0	>	B - 14.8	R	>	C - 23.9	>	C - 22.7	R
Intersection:		***C - 25.9***		***C - 26.4***			***C - 28.7***		***C - 29.2***		

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

No Recommendation

The 2019 analysis of the intersection of Comanche Rd. / Carlisle Bd. demonstrates that the level-of-service will be acceptable for both the AM Peak Hour and PM Peak Hour NO BUILD and BUILD conditions analyzed in this report. The implementation of the proposed development increases the delay at the intersection by 0.5 seconds during the AM Peak Hour and by 0.5 seconds during the PM Peak Hour. Therefore, no recommendations are made for the intersection of Comanche Rd. / Carlisle Bd.

The following table summarizes the results of the queuing analysis for the auxiliary lanes at the intersection:

Queueing Analysis Summary Sheet

Project: Maverik Convenience Store (Comanche Rd. / Princeton Dr.)
Intersection: **Comanche Rd. / Carlisle Bd.**

2019

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*70*	*115*	*1*	*156*	*Cont*	*1*	*133*	*999*
AM NO BUILD Queue	1	71	87	1	158	215	1	135	172
AM BUILD Queue	**1**	**97**	**118**	**1**	**170**	**223**	**1**	**142**	**174**
Existing Lane Length	*1*	*111*	*115*	*1*	*377*	*Cont*	*1*	*376*	*999*
PM NO BUILD Queue	1	112	**108**	1	382	**433**	1	381	**397**
PM BUILD Queue	**1**	**138**	**133**	**1**	**394**	**451**	**1**	**388**	**399**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*76*	*30*	*1*	*287*	*Cont*	*0*	*62*	*0*
AM NO BUILD Queue	1	76	92	1	288	238	0	62	241
AM BUILD Queue	**1**	**76**	**90**	**1**	**301**	**243**	**0**	**62**	**248**
Existing Lane Length	*1*	*90*	*30*	*1*	*342*	*Cont*	*0*	*58*	*0*
PM NO BUILD Queue	1	90	90	1	344	**218**	0	58	**220**
PM BUILD Queue	**1**	**90**	**90**	**1**	**357**	**228**	**0**	**58**	**230**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*156*	*85*	*2*	*408*	*Cont*	*0*	*25*	*0*
AM NO BUILD Queue	1	157	84	2	410	87	0	25	97
AM BUILD Queue	**1**	**165**	**95**	**2**	**410**	**92**	**0**	**25**	**102**
Existing Lane Length	*1*	*160*	*85*	*2*	*670*	*Cont*	*0*	*91*	*0*
PM NO BUILD Queue	1	161	**115**	2	673	**210**	0	91	**223**
PM BUILD Queue	**1**	**169**	**123**	**2**	**673**	**212**	**0**	**91**	**225**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*9*	*60*	*3*	*381*	*Cont*	*0*	*90*	*0*
AM NO BUILD Queue	1	9	5	3	386	102	0	91	110
AM BUILD Queue	**1**	**9**	**5**	**3**	**386**	**118**	**0**	**119**	**123**
Existing Lane Length	*1*	*76*	*60*	*3*	*628*	*Cont*	*0*	*102*	*0*
PM NO BUILD Queue	1	77	56	3	636	**215**	0	103	**225**
PM BUILD Queue	**1**	**77**	**56**	**3**	**636**	**189**	**0**	**130**	**189**

NOTE: **Queue Lengths are in feet.**
Queue Lengths are 95th percentile confidence level.
Queue Lengths are based on Synchro 10 (HCM6) methodology.

Queuing Recommendations: Extend northbound left turn lane from 85 feet long to 130 feet long.

#2 – Candelaria Rd. / Princeton Dr. - Pages A-50 thru A-82

The results of the 2019 analyses of the full access signalized intersection of Candelaria Rd. / Princeton Dr. are summarized in the following tables:

Intersection: 2 - Candelaria Rd. / Princeton Dr.

		2019 AM Peak Hour BUILD					2019 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 - 17.9	1	B - 17.7	L	1	B - 10.4	1	B - 10.4	L
	T	2	B - 13.5	2	B - 13.0	T	2	A - 4.9	2	A - 4.7	T
	R	>	B - 13.5	>	B - 13.0	R	>	A - 4.9	>	A - 4.7	R
WB	L	1	B - 19.2	1	B - 18.7	L	1	B - 13.9	1	B - 13.8	L
	T	2	B - 16.6	2	B - 16.7	T	2	B - 15.7	2	B - 15.7	T
	R	>	B - 16.5	>	B - 16.2	R	>	B - 15.7	>	B - 15.7	R
NB	L	1	A - 8.6	1	A - 9.3	L	1	B - 11.4	1	B - 11.6	L
	T	1	A - 7.9	1	A - 8.2	T	1	A - 9.4	1	A - 9.6	T
	R	>	A - 7.9	>	A - 8.2	R	>	A - 9.4	>	A - 9.6	R
SB	L	1	A - 8.6	1	A - 9.1	L	1	B - 10.3	1	B - 10.8	L
	T	1	A - 8.0	1	A - 8.6	T	1	B - 10.6	1	B - 10.9	T
	R	>	A - 8.0	>	A - 8.6	R	>	B - 10.6	>	B - 10.9	R
Intersection:		***B - 14.1***		***B - 13.7***			***B - 10.9***		***B - 10.9***		

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

No Recommendation

The 2019 analysis of the intersection of Candelaria Rd. / Princeton Dr. demonstrates that the delays will be acceptable for all conditions analyzed in this report. Therefore, no recommendations are made for the intersection of Candelaria Rd. / Princeton Dr.

The following table summarizes the results of the queuing analysis for the auxiliary lanes at the intersection:

Queueing Analysis Summary Sheet

Project: Maverik Convenience Store (Comanche Rd. / Princeton Dr.)
Intersection: **Candelaria Rd. / Princeton Dr.**

2019

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*31*	*80*	*2*	*557*	*Cont*	*0*	*36*	*0*
AM NO BUILD Queue	1	31	15	2	560	123	0	36	128
AM BUILD Queue	**1**	**51**	**18**	**2**	**560**	**120**	**0**	**36**	**123**
Existing Lane Length	*1*	*17*	*80*	*2*	*750*	*Cont*	*0*	*23*	*0*
PM NO BUILD Queue	1	17	5	2	754	**51**	0	23	51
PM BUILD Queue	**1**	**37**	**5**	**2**	**754**	**49**	**0**	**23**	**51**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*2*	*22*	*120*	*2*	*557*	*Cont*	*0*	*60*	*0*
AM NO BUILD Queue	2	22	13	2	560	161	0	60	164
AM BUILD Queue	**2**	**22**	**13**	**2**	**560**	**161**	**0**	**70**	**164**
Existing Lane Length	*2*	*22*	*120*	*2*	*971*	*Cont*	*0*	*28*	*0*
PM NO BUILD Queue	2	22	8	2	976	**212**	0	28	**218**
PM BUILD Queue	**2**	**22**	**8**	**2**	**976**	**215**	**0**	**37**	**225**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*32*	*130*	*1*	*47*	*Cont*	*0*	*26*	*0*
AM NO BUILD Queue	1	32	10	1	47	23	0	26	23
AM BUILD Queue	**1**	**32**	**13**	**1**	**55**	**26**	**0**	**26**	**26**
Existing Lane Length	*1*	*35*	*130*	*1*	*12*	*Cont*	*0*	*34*	*0*
PM NO BUILD Queue	1	35	13	1	12	**15**	0	34	**15**
PM BUILD Queue	**1**	**35**	**13**	**1**	**20**	**18**	**0**	**34**	**18**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*50*	*190*	*0*	*28*	*Cont*	*0*	*59*	*0*
AM NO BUILD Queue	1	50	18	0	28	28	0	59	28
AM BUILD Queue	**1**	**59**	**20**	**0**	**36**	**38**	**0**	**78**	**38**
Existing Lane Length	*1*	*66*	*190*	*0*	*27*	*Cont*	*0*	*123*	*0*
PM NO BUILD Queue	1	66	**23**	0	27	**51**	0	124	**51**
PM BUILD Queue	**1**	**75**	**26**	**0**	**35**	**56**	**0**	**143**	**56**

NOTE: Queue Lengths are in feet.
Queue Lengths are 95th percentile confidence level.
Queue Lengths are based on Synchro 10 (HCM6) methodology.

Queuing Recommendations: None.

#3 – Candelaria Rd. / University Bd. - Pages A-50 thru A-82

The results of the 2019 analyses of the full access signalized intersection of Candelaria Rd. / University Bd. are summarized in the following tables:

Intersection: 3 - Candelaria Rd. / University Blvd.

		2019 AM Peak Hour BUILD					2019 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 - 9.2	>	A - 9.4	L	>	B - 16.0	>	B - 16.1	L
	T	1	B - 12.8	1	B - 13.0	T	1	C - 22.6	1	C - 22.7	T
	R	>	A - 8.3	>	A - 8.4	R	>	B - 13.8	>	B - 13.9	R
WB	L	>	A - 9.4	>	A - 9.6	L	>	B - 16.1	>	B - 16.1	L
	T	1	A - 0.1	1	A - 0.1	T	1	B - 14.3	1	B - 14.8	T
	R	>	A - 0.4	>	A - 0.4	R	>	B - 12.5	>	B - 13.0	R
NB	L	>	D - 37.9	>	D - 37.6	L	>	C - 28.8	>	C - 28.7	L
	T	1	D - 48.2	1	D - 48.0	T	1	D - 48.3	1	D - 48.3	T
	R	>	D - 50.2	>	D - 50.0	R	>	D - 49.1	>	D - 49.2	R
SB	L	>	D - 50.6	>	D - 50.6	L	>	D - 52.0	>	D - 52.0	L
	T	1	D - 43.7	1	D - 43.4	T	1	D - 35.2	1	D - 35.2	T
	R	>	A - 0.1	>	A - 0.1	R	>	A - 0.0	>	A - 0.1	R
Intersection:		***B - 16.2***		***B - 16.2***			***C - 25.1***		***C - 25.2***		

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

No Recommendation

The 2019 analysis of the intersection of Candelaria Rd. / University Bd. demonstrates that the delays will be acceptable for all conditions analyzed in this report. Therefore, no recommendations are made for the intersection of Candelaria Rd. / University Bd.

The following table summarizes the results of the queuing analysis for the auxiliary lanes at the intersection (Note: Queuing calculations and LOS / Delay analysis based on 10% heavy commercial traffic):

Queueing Analysis Summary Sheet

Project: Maverik Convenience Store (Comanche Rd. / Princeton Dr.)

Intersection: **Candelaria Rd. / University Bd.**

2019

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*169*	*275*	*2*	*527*	*Cont*	*1*	*204*	*275*
AM NO BUILD Queue	1	170	92	2	530	186	1	205	108
AM BUILD Queue	**1**	**170**	**100**	**2**	**542**	**189**	**1**	**205**	**108**
Existing Lane Length	*1*	*111*	*275*	*2*	*601*	*Cont*	*1*	*173*	*275*
PM NO BUILD Queue	1	112	**84**	2	604	278	1	174	127
PM BUILD Queue	**1**	**112**	**92**	**2**	**616**	**278**	**1**	**174**	**127**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*108*	*150*	*3*	*388*	*Cont*	*1*	*158*	*200*
AM NO BUILD Queue	1	109	57	3	390	5	1	159	5
AM BUILD Queue	**1**	**109**	**57**	**3**	**402**	**5**	**1**	**166**	**5**
Existing Lane Length	*1*	*144*	*150*	*3*	*770*	*Cont*	*1*	*226*	*200*
PM NO BUILD Queue	1	145	103	3	774	**162**	1	227	**135**
PM BUILD Queue	**1**	**145**	**103**	**3**	**786**	**219**	**1**	**234**	**143**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*115*	*130*	*2*	*244*	*Cont*	*0*	*85*	*0*
AM NO BUILD Queue	1	116	149	2	247	240	0	86	243
AM BUILD Queue	**1**	**116**	**149**	**2**	**247**	**246**	**0**	**94**	**246**
Existing Lane Length	*1*	*162*	*130*	*2*	*470*	*Cont*	*0*	*166*	*0*
PM NO BUILD Queue	1	164	**181**	2	476	**427**	0	168	**413**
PM BUILD Queue	**1**	**164**	**178**	**2**	**476**	**424**	**0**	**176**	**416**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*2*	*13*	*225*	*2*	*2*	*Cont*	*1*	*4*	*50*
AM NO BUILD Queue	2	13	11	2	2	0	1	4	0
AM BUILD Queue	**2**	**13**	**11**	**2**	**2**	**0**	**1**	**4**	**0**
Existing Lane Length	*2*	*41*	*225*	*2*	*7*	*Cont*	*1*	*12*	*50*
PM NO BUILD Queue	2	41	30	2	7	**5**	1	12	0
PM BUILD Queue	**2**	**41**	**30**	**2**	**7**	**3**	**1**	**12**	**0**

NOTE: Queue Lengths are in feet.

Queue Lengths are 95th percentile confidence level.

Queue Lengths are based on Synchro 10 (HCM6) methodology.

Queuing Recommendations: None. The northbound left turn lane cannot be lengthened without adversely affecting the southbound left turn lane into Claremont Ave.

#4 – Comanche Rd. / I-25 W. Ramp - Pages A-50 thru A-82

The results of the 2019 analyses of the full access signalized intersection of Comanche Rd. / I-25 W. Ramp are summarized in the following tables:

Intersection: 4 - Comanche Rd. / I-25 W. Ramp

2019 AM Peak Hour BUILD **2019 PM Peak Hour BUILD**

		(EXIST. GEOM.) NO BUILD		(EXIST. GEOM.) BUILD			(EXIST. GEOM.) NO BUILD		(EXIST. GEOM.) BUILD		(MIT. GEOM.) BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L		A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0	0	A - 0.0
	T	2	C - 28.1	2	C - 29.7	T	2	C - 24.7	2	C - 25.2	2	C - 27.9
	R	>	C - 28.6	>	C - 30.3	R	>	C - 34.7	>	C - 34.8	>	D - 41.0
WB	L	2	D - 35.5	2	D - 35.4	L	2	**F** - 92.5	2	**F** - 93.8	2	D - 42.8
	T	2	A - 0.9	2	A - 0.9	T	2	A - 0.2	2	A - 0.1	2	A - 0.1
	R		A - 0.0	0	A - 0.0	R	0	A - 0.0	0	A - 0.0	0	A - 0.0
NB	L		A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0	0	A - 0.0
	T		A - 0.0	0	A - 0.0	T	0	A - 0.0	0	A - 0.0	0	A - 0.0
	R		A - 0.0	0	A - 0.0	R	0	A - 0.0	0	A - 0.0	0	A - 0.0
SB	L	1	C - 32.9	1	C - 33.3	L	1	C - 30.8	1	C - 31.9	1	C - 31.9
	T	1	C - 31.0	1	C - 30.1	T	1	C - 31.5	1	C - 31.4	1	C - 31.4
	R	1	C - 25.9	1	C - 25.3	R	1	C - 26.2	1	C - 26.1	1	C - 26.1
Intersection:		***C - 22.9***		***C - 23.2***			***C - 32.0***		***C - 32.4***		***C - 27.1***	

Note: ">" designates a shared right or left turn lane.
Adjust Signal timing (+2 seconds EBLT; -2 seconds WBT)

There are limitations to displaying the correct geometry in the table above. The actual geometry for the southbound approach in the field and in the analysis is comprised of a left turn lane, a thru lane, a thru / right turn lane, and a right turn lane.

The 2019 analysis of the intersection of Comanche Rd. / I-25 W. Ramp demonstrates that the delays will be acceptable for the 2019 AM Peak Hour conditions analyzed in this report. The 2019 PM Peak Hour conditions will experience long delays for the westbound left turn movement for both the NO BUILD and the BUILD conditions. The long delays for the westbound left turn movement can be mitigated with a signal timing adjustment adding two seconds to the westbound left turn movement green phase and reducing the green time for the eastbound thru movement by 2 seconds.

The following table summarizes the results of the queuing analysis for the auxiliary lanes at the intersection:

Queueing Analysis Summary Sheet

Project: Maverik Convenience Store (Comanche Rd. / Princeton Dr.)
Intersection: **Comanche Rd. / I-25 W.Ramp**

2019

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*0*	*0*	*0*	*2*	*0*	*Cont*	*0*	*378*	*0*
AM NO BUILD Queue	0	0	0	2	510	381	0	380	356
AM BUILD Queue	**0**	**0**	**0**	**2**	**523**	**397**	**0**	**380**	**371**
Existing Lane Length	*0*	*0*	*0*	*2*	*0*	*Cont*	*0*	*532*	*0*
PM NO BUILD Queue	0	0	0	2	462	**340**	0	535	456
PM BUILD Queue	**0**	**0**	**0**	**2**	**474**	**351**	**0**	**535**	**456**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*2*	*360*	*220*	*2*	*0*	*Cont*	*0*	*0*	*0*
AM NO BUILD Queue	2	362	164	2	865	13	0	0	0
AM BUILD Queue	**2**	**363**	**161**	**2**	**877**	**13**	**0**	**0**	**0**
Existing Lane Length	*2*	*441*	*220*	*2*	*0*	*Cont*	*0*	*0*	*0*
PM NO BUILD Queue	2	443	**266**	2	720	3	0	0	0
PM BUILD Queue	**2**	**444**	**264**	**2**	**732**	**3**	**0**	**0**	**0**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*0*	*0*	*0*	*0*	*0*	*Cont*	*0*	*0*	*0*
AM NO BUILD Queue	0	0	0	0	0	0	0	0	0
AM BUILD Queue	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Existing Lane Length	*0*	*0*	*0*	*0*	*0*	*Cont*	*0*	*0*	*0*
PM NO BUILD Queue	0	0	0	0	0	0	0	0	0
PM BUILD Queue	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*341*	*425*	*2*	*714*	*Cont*	*2*	*133*	*425*
AM NO BUILD Queue	1	343	312	2	718	317	2	134	115
AM BUILD Queue	**1**	**359**	**328**	**2**	**718**	**312**	**2**	**134**	**113**
Existing Lane Length	*1*	*331*	*425*	*2*	*774*	*Cont*	*2*	*158*	*425*
PM NO BUILD Queue	1	333	**282**	2	778	325	2	159	131
PM BUILD Queue	**1**	**349**	**300**	**2**	**778**	**325**	**2**	**159**	**131**

NOTE: Queue Lengths are in feet.
Queue Lengths are 95th percentile confidence level.
Queue Lengths are based on Synchro 10 (HCM6) methodolog

Queuing Recommendations: None. However, modification of signal timing recommended in this report will reduce the westbound left turn queue length under the interchange.

#5 – Comanche Rd. / I-25 E. Ramp - Pages A-50 thru A-82

The results of the 2019 analyses of the full access signalized intersection of Comanche Rd. / I-25 E. Ramp are summarized in the following tables:

Intersection: 5 - Comanche Rd. / I-25 E. Ramp

		2019 AM Peak Hour BUILD					2019 PM Peak Hour BUILD				
		(EXIST. GEOM.)					(EXIST. GEOM.)				
		NO BUILD		BUILD			NO BUILD		BUILD		
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay	
EB	L	2	D - 37.7	2	D - 38.0	L	2	D - 37.8	2	D - 37.7	
	T	2	A - 0.2	2	A - 0.3	T	2	A - 1.5	2	A - 1.6	
	R		A - 0.0	0	A - 0.0	R	0	A - 0.0	0	A - 0.0	
WB	L		A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0	
	T	2	C - 25.5	2	C - 26.8	T	2	D - 35.8	2	D - 38.2	
	R	>	C - 25.6	>	C - 26.7	R	>	D - 36.1	>	D - 38.5	
NB	L	2	C - 23.1	2	C - 22.7	L	2	C - 25.2	2	C - 24.9	
	T	3	C - 23.8	3	C - 23.4	T	3	C - 22.8	3	C - 22.5	
	R	1	C - 27.5	1	C - 27.8	R	1	C - 26.0	1	C - 26.5	
SB	L		A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0	
	T		A - 0.0	0	A - 0.0	T	0	A - 0.0	0	A - 0.0	
	R		A - 0.0	0	A - 0.0	R	0	A - 0.0	0	A - 0.0	
Intersection:		***C - 21.2***		***C - 21.1***			***C - 23.6***		***C - 24.0***		

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

No Recommendation

There are limitations to displaying the correct geometry in the table above. The actual geometry for the northbound approach in the field and in the analysis is comprised of a left turn lane, a thru / left turn lane, two thru lanes, and a right turn lane.

The 2019 analysis of the intersection of Comanche Rd. / I-25 E. Ramp demonstrates that the delays will be acceptable for all conditions analyzed in this report. Therefore, no recommendations are made for the intersection of Comanche Rd. / I-25 E. Ramp.

It should be noted that the westbound approach to the I-25 East Ramp on Comanche currently experiences queues that back up through the intersection of Comanche Rd. / Princeton Dr. However, the queues are able to clear the signalized intersection during the green interval. The following table summarizes the results of the queuing analysis for the auxiliary lanes at the intersection:

Queueing Analysis Summary Sheet

Project: Maverik Convenience Store (Comanche Rd. / Princeton Dr.)
Intersection: **Comanche Rd. / I-25 E.Ramp**

2019

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*2*	*241*	*60*	*2*	*608*	*Cont*	*0*	*0*	*0*
AM NO BUILD Queue	2	242	113	2	611	3	0	0	0
AM BUILD Queue	**2**	**242**	**113**	**2**	**640**	**3**	**0**	**0**	**0**
Existing Lane Length	*2*	*205*	*60*	*2*	*586*	*Cont*	*0*	*0*	*0*
PM NO BUILD Queue	2	206	**102**	2	589	**18**	0	0	0
PM BUILD Queue	**2**	**206**	**100**	**2**	**617**	**20**	**0**	**0**	**0**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*0*	*0*	*0*	*2*	*499*	*Cont*	*0*	*96*	*0*
AM NO BUILD Queue	0	0	0	2	501	246	0	96	248
AM BUILD Queue	**0**	**0**	**0**	**2**	**514**	**264**	**0**	**111**	**261**
Existing Lane Length	*0*	*0*	*0*	*2*	*611*	*Cont*	*0*	*165*	*0*
PM NO BUILD Queue	0	0	0	2	614	**376**	0	166	**371**
PM BUILD Queue	**0**	**0**	**0**	**2**	**627**	**402**	**0**	**181**	**1,162**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*2*	*717*	*375*	*3*	*814*	*Cont*	*1*	*392*	*150*
AM NO BUILD Queue	2	726	274	3	824	312	1	397	328
AM BUILD Queue	**2**	**726**	**274**	**3**	**824**	**310**	**1**	**398**	**338**
Existing Lane Length	*2*	*542*	*375*	*3*	*1,314*	*Cont*	*1*	*419*	*150*
PM NO BUILD Queue	2	549	**374**	3	1,330	**361**	1	424	**348**
PM BUILD Queue	**2**	**549**	**371**	**3**	**1,330**	**358**	**1**	**425**	**361**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*0*	*0*	*0*	*0*	*0*	*Cont*	*0*	*0*	*0*
AM NO BUILD Queue	0	0	0	0	0	0	0	0	0
AM BUILD Queue	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Existing Lane Length	*0*	*0*	*0*	*0*	*0*	*Cont*	*0*	*0*	*0*
PM NO BUILD Queue	0	0	0	0	0	0	0	0	0
PM BUILD Queue	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

NOTE: **Queue Lengths are in feet.**
Queue Lengths are 95th percentile confidence level.
Queue Lengths are based on Synchro 10 (HCM6) methodology.

Queuing Recommendations: None. The eastbound left turn lanes cannot be extended due to physical constraints.

#6 – Comanche Rd. / Princeton Dr. – Pages A-50 thru A-82

The results of the analysis of the full access signalized intersection of Comanche Rd. / Princeton Dr. are summarized in the following table:

Intersection: 6 - Comanche Rd. / Princeton Dr.

		2019 AM Peak Hour BUILD					2019 PM Peak Hour BUILD				
		(EXIST. GEOM.)					(EXIST. GEOM.)				
		NO BUILD		BUILD			NO BUILD		BUILD		
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay	
EB	L	1	A - 8.8	1	A - 8.8	L	1	A - 9.3	1	A - 9.3	L
	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
WB	L	1	A - 9.8	1	B - 10.7	L	1	A - 8.7	1	A - 9.2	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	>	C - 17.4	>	D - 26.8	L	>	C - 16.4	>	C - 24.0	L
	T	1	C - 17.4	1	D - 26.8	T	1	C - 16.4	1	C - 24.0	T
	R	>	C - 17.4	>	D - 26.8	R	>	C - 16.4	>	C - 24.0	R
SB	L	>	B - 13.8	>	C - 16.1	L	>	B - 13.4	>	C - 15.2	L
	T	1	B - 13.8	1	C - 16.1	T	1	B - 13.4	1	C - 15.2	T
	R	>	B - 13.8	>	C - 16.1	R	>	B - 13.4	>	C - 15.2	R
Intersection:		***u - 1.1***		***u - 3.2***			***u - 1.2***		***u - 3.0***		

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

No Recommendation

The 2019 analysis of the intersection of Comanche Rd. / Princeton Dr. demonstrates that the delays will be acceptable for all conditions analyzed in this report. Therefore, no recommendations are made for the intersection of Comanche Rd. / Princeton Dr. based on the levels-of-service analyses. However, it should be noted that the westbound queuing on Comanche Rd. at the I-25 East Ramp spills back through the intersection of Princeton Dr. This aspect of the intersection during the Peak Hour period makes the northbound left turn movement from Princeton Dr. onto Comanche westbound difficult. The northbound left turn movement off of Princeton Dr. will experience long delays during the Peak Hour period. Therefore, it is advisable to re-stripe the Princeton Dr. approach to Comanche with an exclusive left turn lane so as to allow the northbound right turn movement to occur more readily. The anticipated 95th Percentile northbound left turn queue length is just under 4 vehicles, so the northbound left turn lane should be designed and constructed to a length of 100 feet plus transition.

An eastbound right turn deceleration lane is warranted at the unsignalized intersection of Comanche Rd. / Princeton Dr. based on City of Albuquerque D.P.M. criteria. The eastbound right turn lane should be designed and constructed to a length of at least 124 feet plus transition.

Additionally, it should be noted that the North I-25 Freeway Operations Study (2011) shows that the Comanche Rd. / I-25 Interchange is intended to be reconstructed in the future. The new configuration incorporates a new westbound right turn lane on Comanche Rd. at the east ramp. This new right turn lane will reduce westbound queuing.

#7 – Driveway "A" / Princeton Dr. - Pages A-50 thru A-82

The results of the 2019 analyses of the signalized intersection of Driveway "A" / Princeton Dr. are summarized in the following tables:

Intersection: 7 - Driveway "A" / Princeton Dr.

		2019 AM Peak Hour BUILD					2019 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	1	C - 19.1	L	>	A - 0.0	1	B - 12.3	L
	T		A - 0.0	1	B - 14.3	T	0	A - 0.0	1	B - 10.8	T
	R	>	A - 0.0	>	B - 14.3	R	>	A - 0.0	>	B - 10.8	R
WB	L	>	A - 9.7	1	C - 17.3	L	>	A - 9.0	1	B - 11.8	L
	T		A - 0.0	1	B - 11.4	T	0	A - 0.0	1	A - 9.6	T
	R	>	A - 9.7	>	B - 11.4	R	>	A - 9.0	>	A - 9.6	R
NB	L	>	A - 0.0	>	A - 8.7	L	>	A - 0.0	>	A - 7.8	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
SB	L	>	A - 7.4	>	A - 7.7	L	>	A - 7.4	>	A - 7.6	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
Intersection:		***u - 0.3***		***u - 1.0***			***u - 0.5***		***u - 1.1***		

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

No Recommendation

Driveway "A" is proposed as a full access unsignalized driveway. The 2019 analysis of the intersection of Driveway "A" / Princeton Dr. demonstrates that the level-of-service will be acceptable for both the AM Peak Hour and PM Peak Hour NO BUILD and BUILD conditions analyzed in this report. Therefore, no recommendations are made for the intersection of Driveway "A" / Princeton Dr.

#8 – Driveway "B" / Princeton Dr. - Pages A-50 thru A-82

The results of the 2019 analyses of the full access signalized intersection of Driveway "B" / Princeton Dr. are summarized in the following tables:

Intersection: 8 - Driveway "B" / Princeton Dr.

		2019 AM Peak Hour BUILD						2019 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		1	C - 20.0	L	>	A - 0.0		1	B - 12.0	
	T		A - 0.0		1	A - 0.0	T	0	A - 0.0		1	A - 9.3	
	R	>	A - 0.0		>	B - 11.7	R	>	A - 0.0		>	A - 9.3	
WB	L	>	B - 10.7		1	C - 16.1	L	>	A - 9.2		1	B - 11.3	
	T		A - 0.0		1	A - 0.0	T	0	A - 0.0		1	A - 9.1	
	R	>	B - 10.7		>	B - 10.5	R	>	A - 9.2		>	A - 9.1	
NB	L	>	A - 0.0		>	A - 8.6	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	
	R	>	A - 0.0		1	A - 0.0	R	>	A - 0.0		>	A - 0.0	
SB	L	>	A - 7.4		>	A - 7.4	L	>	A - 7.4		>	A - 7.4	
	T	1	A - 0.0		1	A - 0.0	T	1	A - 0.0		1	A - 0.0	
	R	>	A - 0.0		1	A - 0.0	R	>	A - 0.0		>	A - 0.0	
Intersection:		***u - 0.3***			***u - 3.9***			***u - 0.7***			***u - 3.8***		

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

No Recommendation

The 2019 analysis of the intersection of Driveway "B" / Princeton Dr. demonstrates that the delays will be acceptable for all conditions analyzed in this report. Therefore, no recommendations are made for the intersection of Driveway "B" / Princeton Dr.

Impact Assessment

The proposed development will have minimal adverse impact on the adjacent transportation system. All the levels-of-service were determined to be acceptable for the overall intersections. A summary of Levels-of-Service / Volumes / Intersection Geometry maps are included in the pages following the Recommendations for this study.

Access Design Specifications

Both proposed driveways for this development fall under the jurisdiction of the City of Albuquerque.

Comanche Rd. & Candelaria Rd. are also City of Albuquerque roadway facilities. The intersection of Comanche Rd. / Princeton is a long existing public roadway located approximately 400 feet east of the I-25 East Ramp (centerline to centerline). Comanche Rd. is classified as a Minor Arterial Roadway with a posted speed limit of 40 mph in the City of Albuquerque. Based on Table 18.C-1 (Access Spacing Standards for Intersections and Driveways) in the New Mexico Department of Transportation's State Access Management Manual, minimum intersection spacing along Comanche Rd. near the I-25 East Ramp should be a minimum of 325 feet (centerline to centerline). The intersection of Comanche Rd. / Princeton Dr. meets this minimum requirement.

Access to this retail commercial development is solely onto Princeton Dr. Princeton Dr. is required to be classified by the City as a major local roadway in order to provide access for a retail commercial facility. In order to qualify as a major local roadway the daily volumes on Princeton Dr. need to be in excess of 1,000 average daily traffic. Based on the volume data collected recently for Princeton Dr., the average daily traffic on Princeton Dr. south of Comanche is between 1,600 vpd and 2,400 vpd. New trips generated by the proposed Maverik Store will increase that volume slightly.

Summary of Deficiencies, Anticipated Impacts, and Recommendations

The existing 2019 analysis did not determine any significant deficiencies in the adjacent transportation system.

Recommendations:

Construction of all improvements associated with the proposed Maverik Store including driveways and landscaping shall preserve adequate sight distances along Princeton Dr. and along Comanche Rd. to the extent feasible.

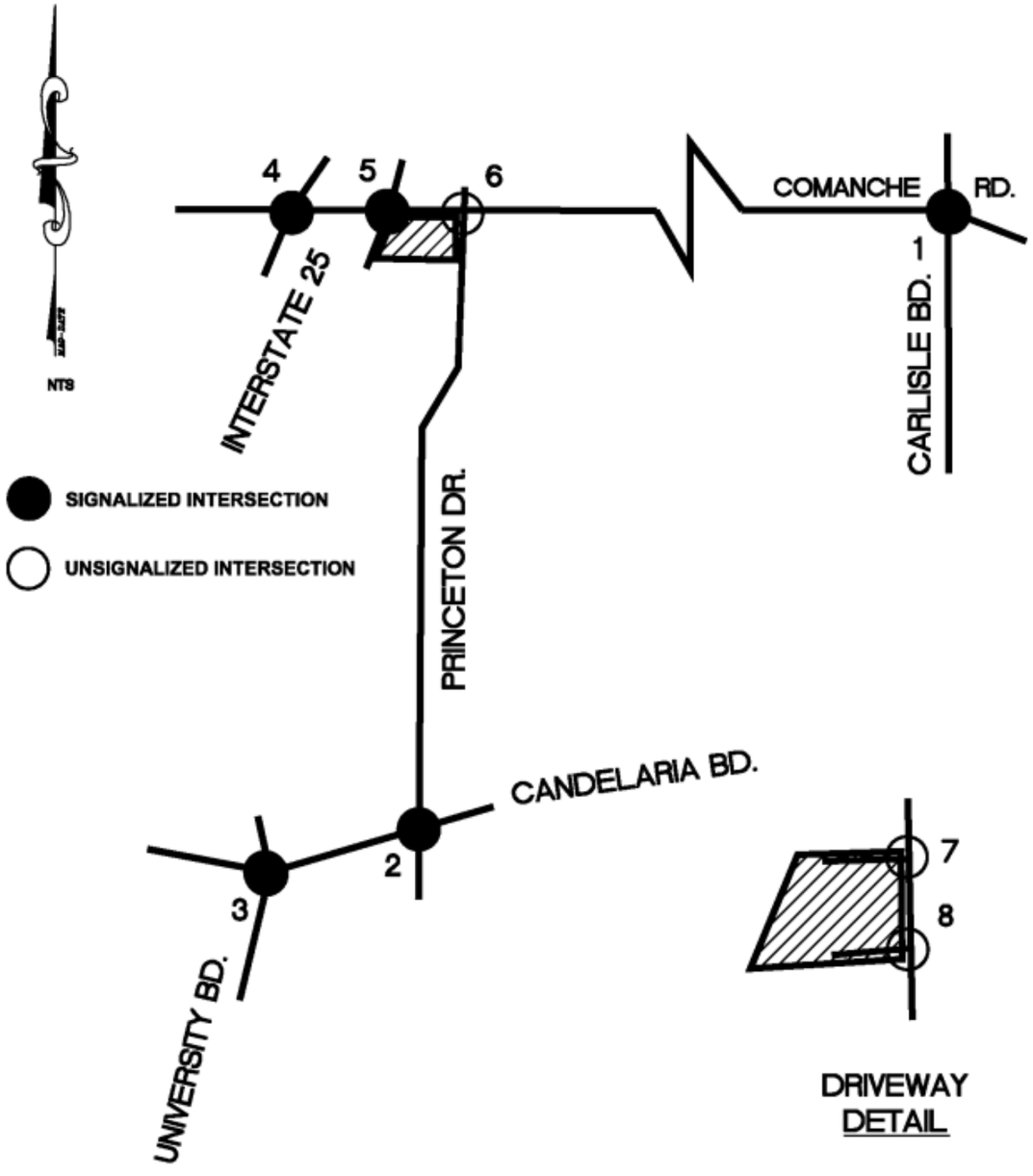
Comanche Rd. / **Carlisle Blvd.** – Lengthen northbound left turn lane from 85 feet long to 130 feet long.

Comanche Rd. / **I-25 West Ramp** - Adjust signal timing during the PM Peak Hour period to add two (2) seconds to the westbound left turn phase and subtract 2 seconds from the eastbound thru phase.

Comanche Rd. / **Princeton Dr.** – Stripe the Princeton St. approach (northbound) to Comanche Rd. to provide a 100 feet long northbound left turn lane. Construct an eastbound right turn deceleration lane on Comanche Rd. at Princeton Dr. The eastbound right turn deceleration lane should be designed and constructed to a length of a minimum of 124 feet plus transition.

Design and construct project to incorporate two full access driveways onto Princeton Dr. as depicted on the site development plan on Page A-3 in the Appendix of this report.

LOS / Volume Analysis Maps



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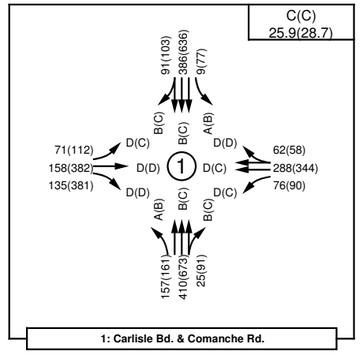
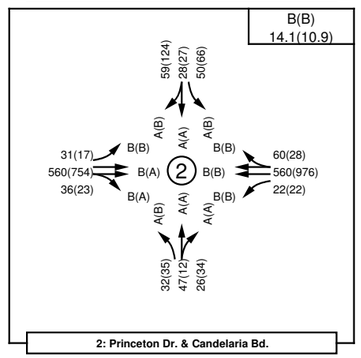
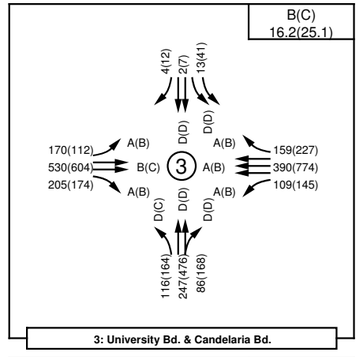
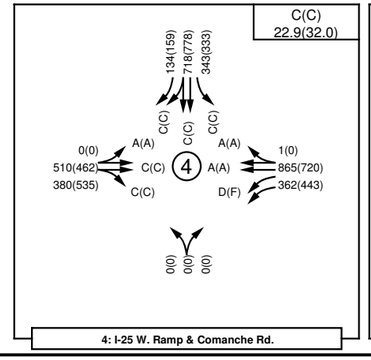
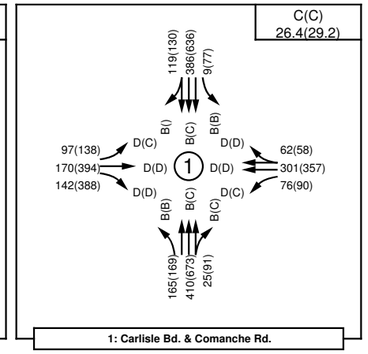


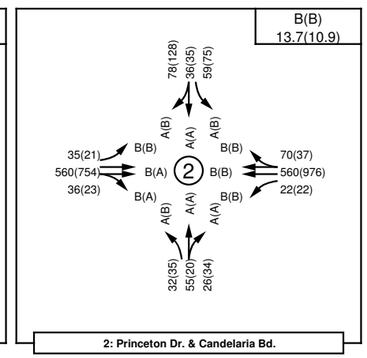


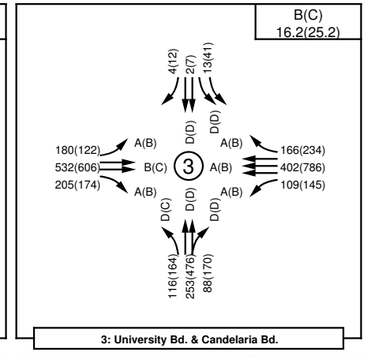


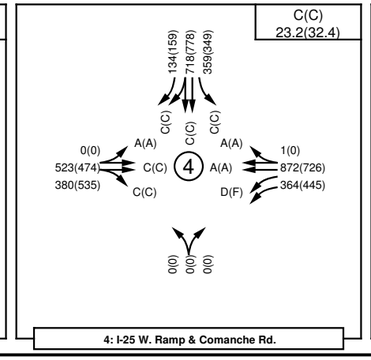


2019 BUILD Conditions







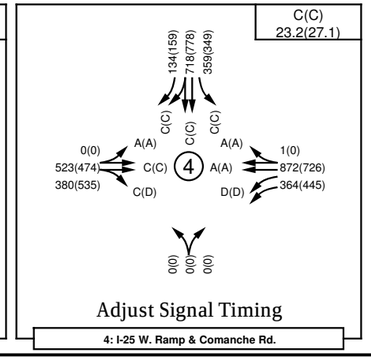


2019 BUILD Conditions (MITIGATED)

NO RECOMMENDATION

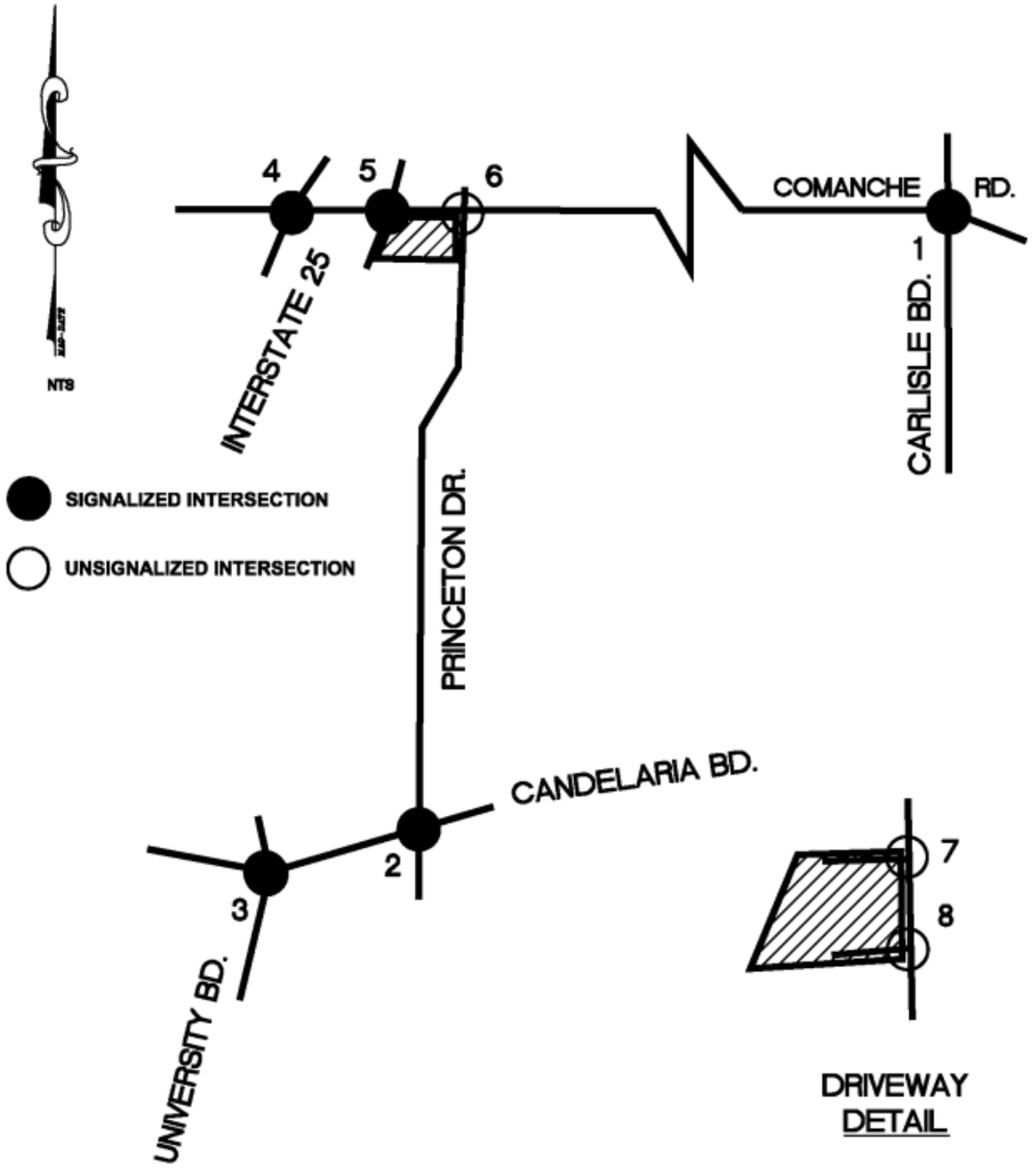
NO RECOMMENDATION

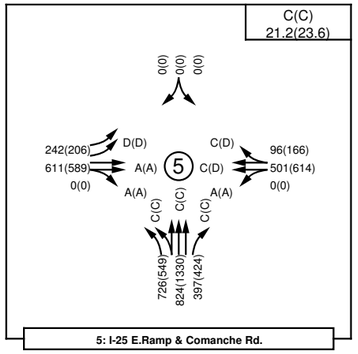
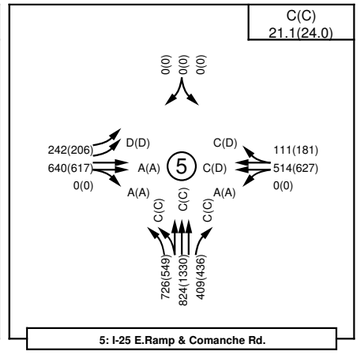
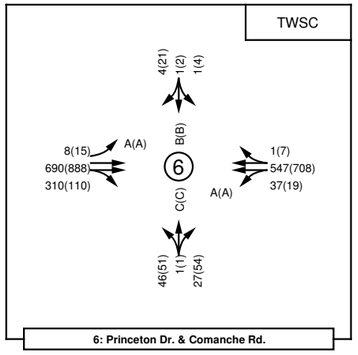
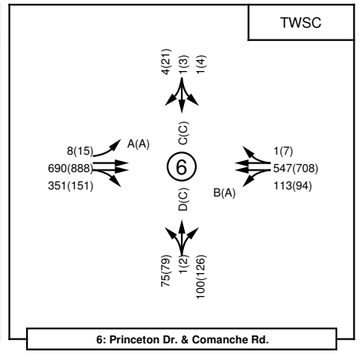
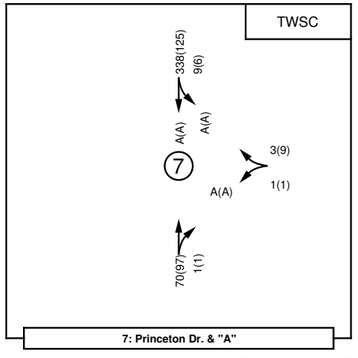
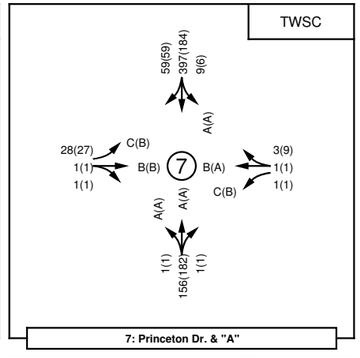
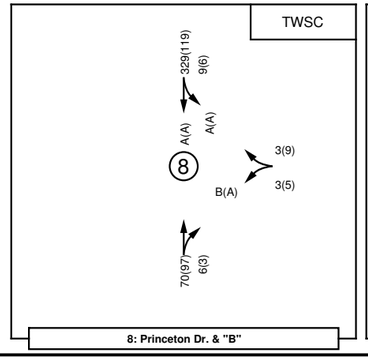
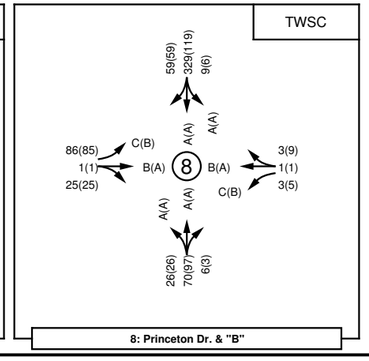
NO RECOMMENDATION



Maverik Store
Comanche Rd. / Princeton Dr.
LOS / Volume Analysis Map

AM(PM)



2019 NO BUILD Conditions	2019 BUILD Conditions	2019 BUILD Conditions (MITIGATED)
		NO RECOMMENDATION
		NO RECOMMENDATION
		NO RECOMMENDATION
		NO RECOMMENDATION

Maverik Store
Comanche Rd. / Princeton Dr.
LOS / Volume Analysis Map

AM(PM)

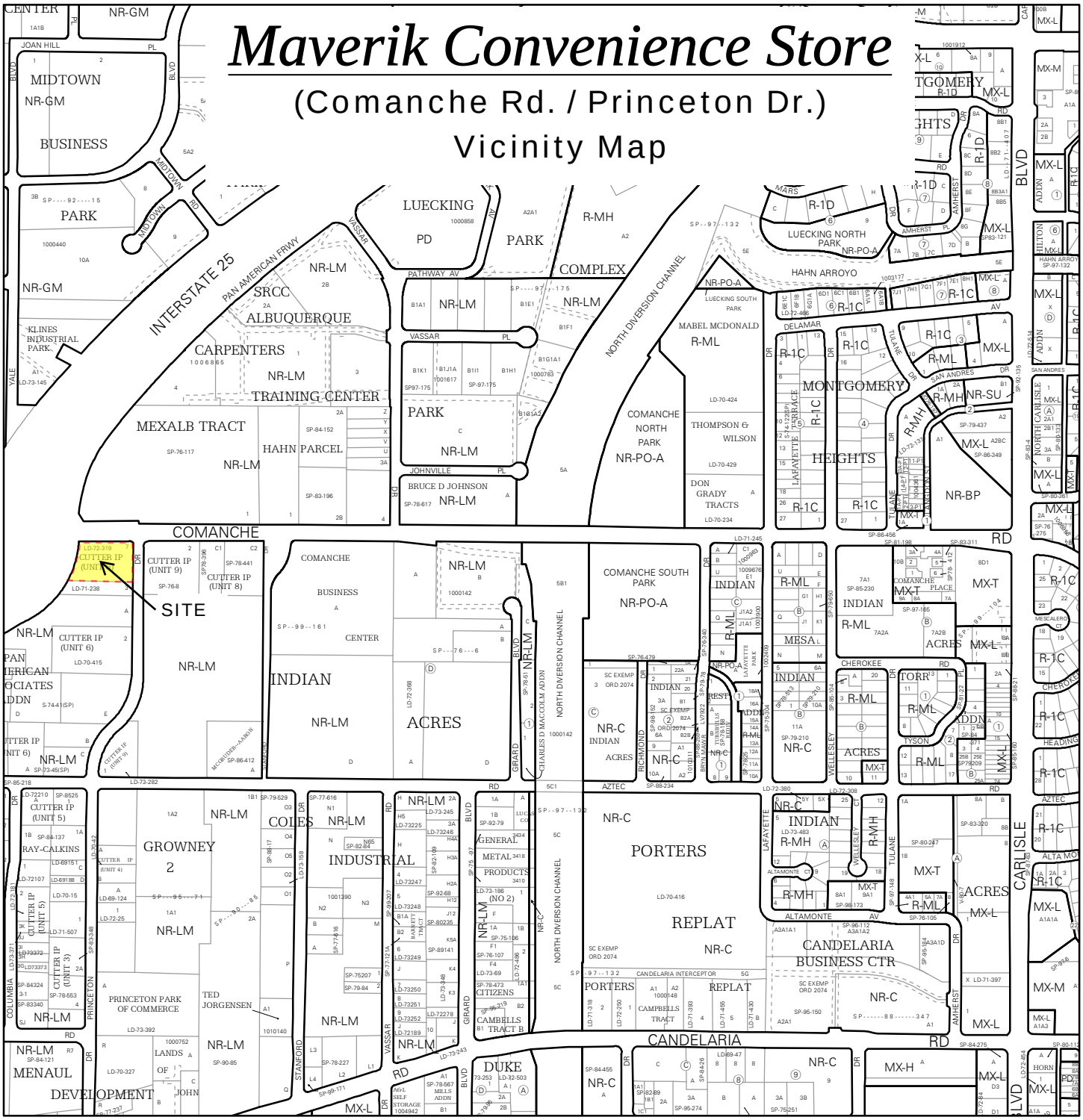
Appendix

APPENDIX

Maverik Convenience Store

(Comanche Rd. / Princeton Dr.)

Vicinity Map



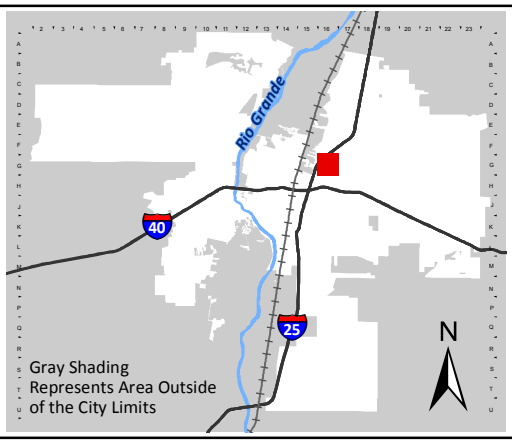
For more details about the Integrated Development Ordinance visit: http://www.cabq.gov/planning/codes-policies-regulations/integrated-development-ordinance

IDO Zone Atlas
May 2018

Albuquerque Geographic Information System

IDO Zoning information as of May 17, 2018

The Zone Districts and Overlay Zones are established by the Integrated Development Ordinance (IDO).



Zone Atlas Page:

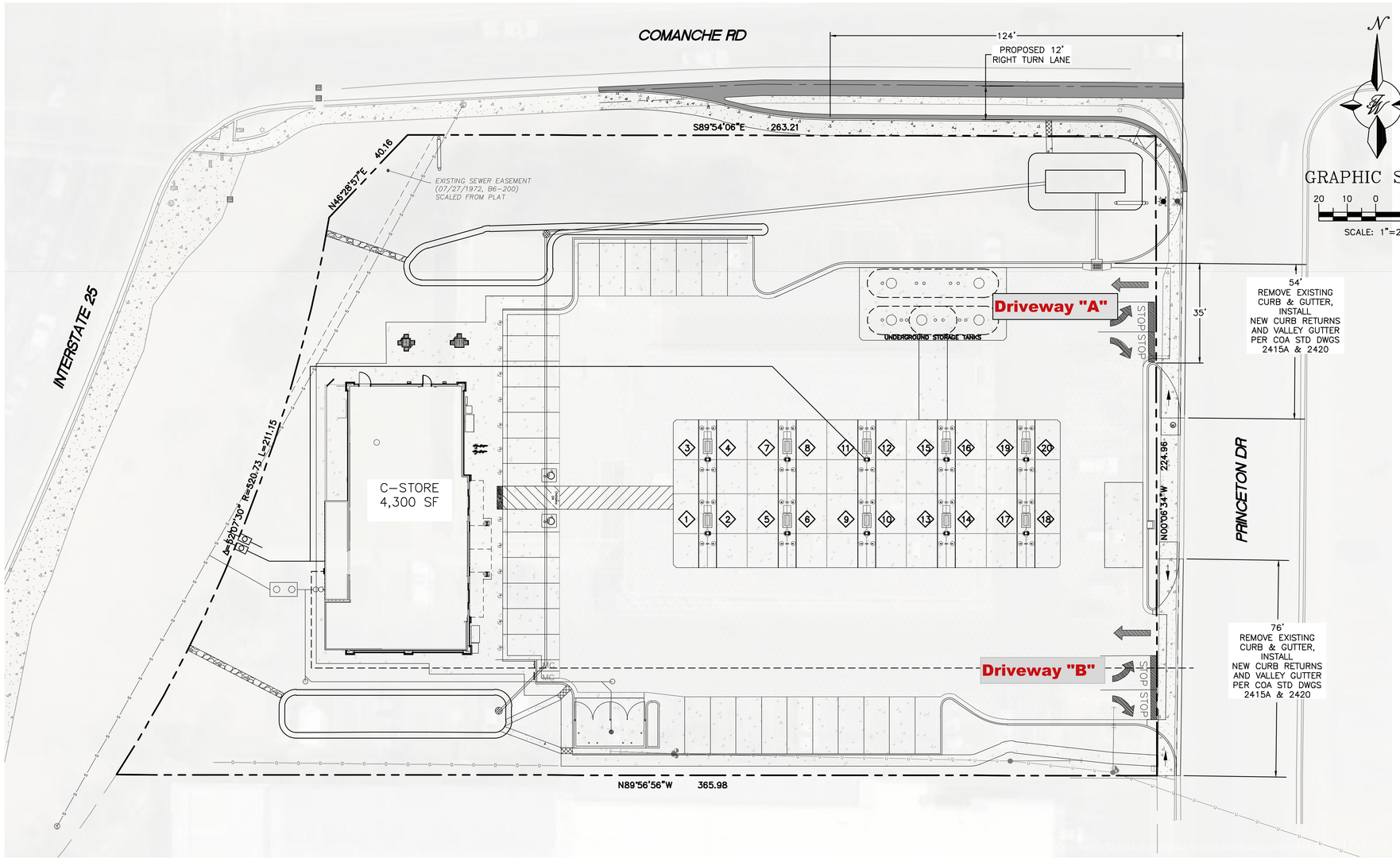
G-16-Z

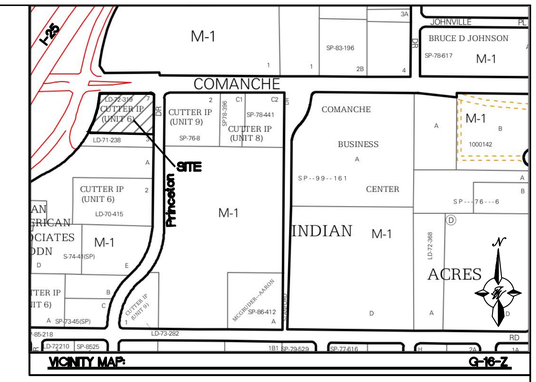
- Easement
- Escarpment
- Petroglyph National Monument
- Areas Outside of City Limits
- Airport Protection Overlay (APO) Zone
- Character Protection Overlay (CPO) Zone
- Historic Protection Overlay (HPO) Zone
- View Protection Overlay (VPO) Zone

Feet: 0 250 500 1,000

Maverik Convenience Store
(Comanche Rd. / Princeton Dr.)
Aerial Map

A-2





LEGAL DESCRIPTION:

*0007 UNIT 6 SUBD OF POR CUTTER INDUSTRIAL PARK

SITE DATA

PROPOSED USAGE:	GAS CONVENIENCE STORE
IDO CLASSIFICATION:	LIGHT VEHICLE FUELING STATION
LOT AREA:	70,937 SF (1.62 ACRES)
ADDRESS:	3737 PRINCETON DR NE ALBUQUERQUE NM 87107
BUILDING AREA:	4,300 SF
STACK:	2X5 (20 UNITS)
ASPHALT AREA:	22,662 SF
PARKING REQUIRED:	17 SPACES (4 SPACES PER 1,000 SF)
PARKING PROVIDED:	31 SPACES
HC PARKING REQUIRED:	2 SPACES
HC PARKING PROVIDED:	2 SPACES (1 VAN ACCESSIBLE)
MC PARKING REQUIRED:	2 SPACES
MC PARKING PROVIDED:	2 SPACES
BICYCLE PARKING REQUIRED:	2 SPACES
BICYCLE PARKING PROVIDED:	2 SPACES
LANDSCAPE AREA REQUIRED:	10,640 SF
LANDSCAPE AREA PROVIDED:	22,940 SF

PROJECT NUMBER: _____

APPLICATION NUMBER: _____

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

DRB SITE DEVELOPMENT PLAN APPROVAL:

Traffic Engineer, Transportation Division	Date
ABCWUA	Date
Parks & Recreation Department	Date
City Engineer/Hydrology	Date
Code Enforcement	Date
*Environmental Health Department (conditional)	Date
Solid Waste Management	Date
DRB Chairperson, Planning Department	Date

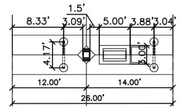
* Environmental Health, if necessary

LEGEND

- CURB & GUTTER
- BOUNDARY LINE
- EASEMENT
- CENTERLINE
- RIGHT-OF-WAY
- BUILDING
- SIDEWALK/CONCRETE
- ASPHALT
- EXISTING CURB & GUTTER
- STREET LIGHTS

KEYED NOTES

1. ACCESSIBLE PARKING PER ADA STANDARDS WITH SIGN SEE DETAIL SHT. C5
2. MOTORCYCLE PARKING WITH SIGN
3. ON-SITE CURB & GUTTER (SEE DETAIL SHT. C5)
4. MODIFIED OIL-WATER SEPARATOR: SINGLE TYPE C INLET COA STD DWG 2205. SNOUT DETAIL SEE SHEET C8.
5. CONCRETE SIDEWALK (SEE DETAIL SHT. C6)
6. BOLLARDS (SEE DETAIL SHT. C2)
7. EXISTING WALL (TO REMAIN)
8. DUMPSTER (SEE DETAIL SHT. C7)
9. GAS PUMP ISLAND (TYP)
10. MAVERIK MONUMENT SIGN (SEE ARCH. PLANS)
11. 2.0' STOP BAR
12. BICYCLE RACKS (SEE DETAIL SHT. C7)
13. UNIDIRECTIONAL ACCESSIBLE RAMP (SEE DETAIL SHT. C7)
14. CONCRETE SLAB W/CHAMFERED CORNERS
15. 4' CONCRETE SIDEWALK (SEE DETAIL SHT. C6)
16. POWER POLE TO BE REMOVED (BY OTHERS)
17. ADA PICNIC TABLE (SEE ARCH. PLANS)
18. PICNIC TABLE (SEE ARCH. PLANS)
19. CONCRETE PARKING STALL (SEE DETAIL SHT. C5)
20. PETROLEUM TRENCH CAP SECTION (SEE DETAIL SHT. C5)
21. XACTAIR AIR STATION (SEE DETAIL SHT. C5)
22. TRUNCATED DOMES (SEE DETAIL SHT. C7)
23. "HOOP" BOLLARD (SEE DETAIL SHT. C4)
24. ASPHALT PAVING (SEE GEOTECH REPORT)
25. MAVERIK D/F ILLUMINATED PYLON SIGN (SEE ARCH. PLANS)
26. UNDERGROUND STORAGE FUEL TANKS (REFER MECH. PLANS)
27. SIDEWALK CULVERT COA STD DWG 2236
28. CURB & GUTTER (PER COA STD 2415A)



FUEL ISLAND LAYOUT
SCALE: NONE

Curb Transition
SCALE: NONE

NOTES:

1. SEE ELECTRICAL PLANS FOR ALL LIGHT POLES & LIGHT POLE LOCATIONS. ALL LIGHT POLES BASES SHALL BE STRAIGHT AND PLASTERED SMOOTH. TOP OF LIGHT BASE SHALL BE 2'-6" ABOVE TOP OF CURB/SIDEWALK. BASES PROVIDED BY G.C., TYP.
2. XACTAIR STATION ON 30"X36" CONCRETE PAD. EQUIPMENT PROVIDED BY OWNER. G.C. TO PROVIDE ELECTRICAL SERVICE AND INSTALL AIR STATION EQUIPMENT.
3. ALL UTILITY DIGGING OR OTHER EXCAVATION SHALL TAKE IN CONSIDERATION EXISTING SIDEWALKS, CURB & GUTTERS AND OTHER STRUCTURES THAT MAY NEED TO BE REMOVED AND/OR REPLACED AS PART OF THE G.C. BID.
4. ALL RETAIL PRODUCT AREAS ARE TO BE UNDER THE BUILDINGS PERMANENT ROOF

INDEX TO DRAWINGS

MAVERIK

ENGINEER'S SEAL	MAVERIK INC. STORE 3737 PRINCETON DR. NE	DRAWN BY: BF
	SITE PLAN FOR BUILDING PERMIT	DATE: 1-17-19
		DRAWING: 201809-SPB
RONALD R. BOHANNAN P.E. #7868	TIERRA WEST, LLC 5571 MIDWAY PARK PL NE ALBUQUERQUE, NEW MEXICO 87109 (505) 858-3100 www.tierrawestllc.com	SHEET #: C1
		JOB #: 2018039

Z:\2018\2018039 Maverick Comanche & Princeton\dwg\DRB\2018039_SPB.dwg Jan 17, 2019 - 7:20am

Futures 2040
Metropolitan Transportation Plan

MRMPO
Mid-Region Metropolitan Planning Organization

2040 Long Range Roadway System

- Interchange/Crossing
- Interchange/Crossing, Post 2040
- Freeways
- Regional Principal Arterial
- Community Principal Arterial
- Minor Arterial
- Major Collector
- Minor Collector
- Proposed Regional Principal Arterial
- Proposed Community Principal Arterial
- Proposed Minor Arterial
- Proposed Major Collector
- Proposed Minor Collector
- Proposed Regional Principal Arterial, Post 2040
- Proposed Community Principal Arterial, Post 2040
- Proposed Minor Arterial, Post 2040
- Proposed Major Collector, Post 2040
- Proposed Minor Collector, Post 2040
- Classification TBD, Post 2040

The Long Range Roadway System (LRRS) provides future recommended roadways and their regional role. This network includes roadways that are not expected to be constructed in the timeframe of the 2040 MTP, however they are included to in order to identify future needed connections.

The LRRS builds upon functional classification, by considering the character of the roadway, its role in the regional network, the types of trips taken, and the needs to all users.

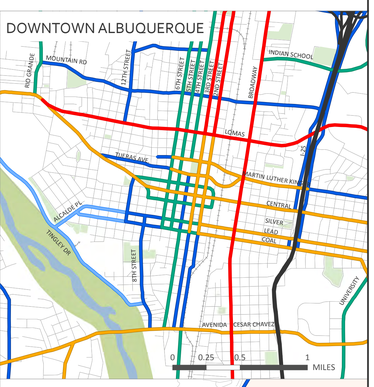
REGIONAL PRINCIPAL ARTERIAL
Trips on regional principal arterials are primarily for traveling longer distances across the region. Regional principal arterials prioritize passenger vehicles and freight. These roadways should have high levels of access management.

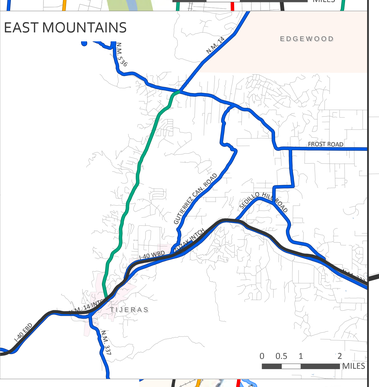
COMMUNITY PRINCIPAL ARTERIAL
Community principal arterial include many destinations with direct access from the arterial. Travel on community principal arterials tends to be over relatively short distances. Community principal arterials do not prioritize one mode over another; instead, they strive to achieve a balance for different user needs.

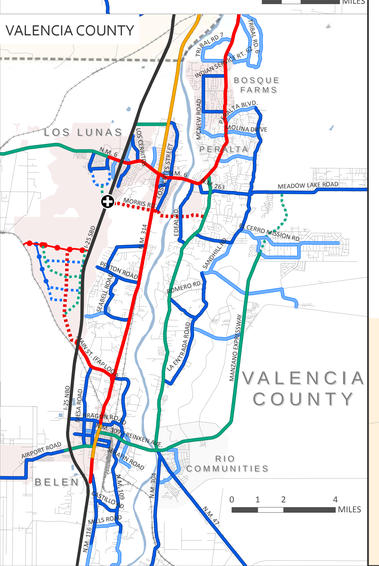
MINOR ARTERIAL
Minor arterials provide the connectivity of principal arterials, but they prioritize slower moving traffic, including bicyclists and pedestrians, to allow these modes additional options to reach destinations without needing to be on a principal arterial.

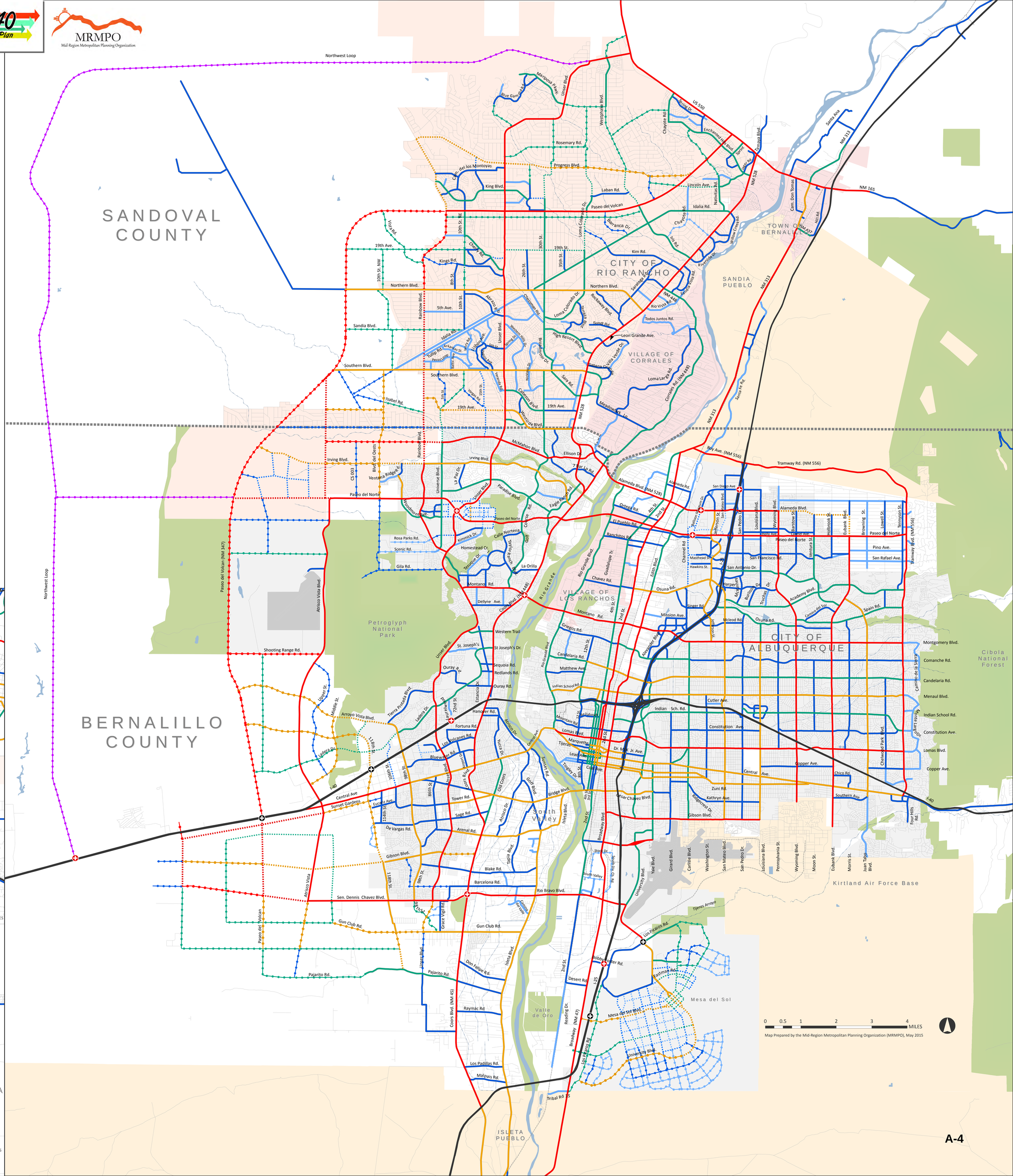
MAJOR COLLECTOR
Major collectors provide additional connectivity between destinations on arterials and neighborhoods. They prioritize bicyclists and pedestrians. Bicyclists should be able to use collectors for long segments of their trips while motorists primarily use them for short segments of their trips.

MINOR COLLECTOR
Minor collectors provide additional connectivity between destinations on arterials and neighborhoods.





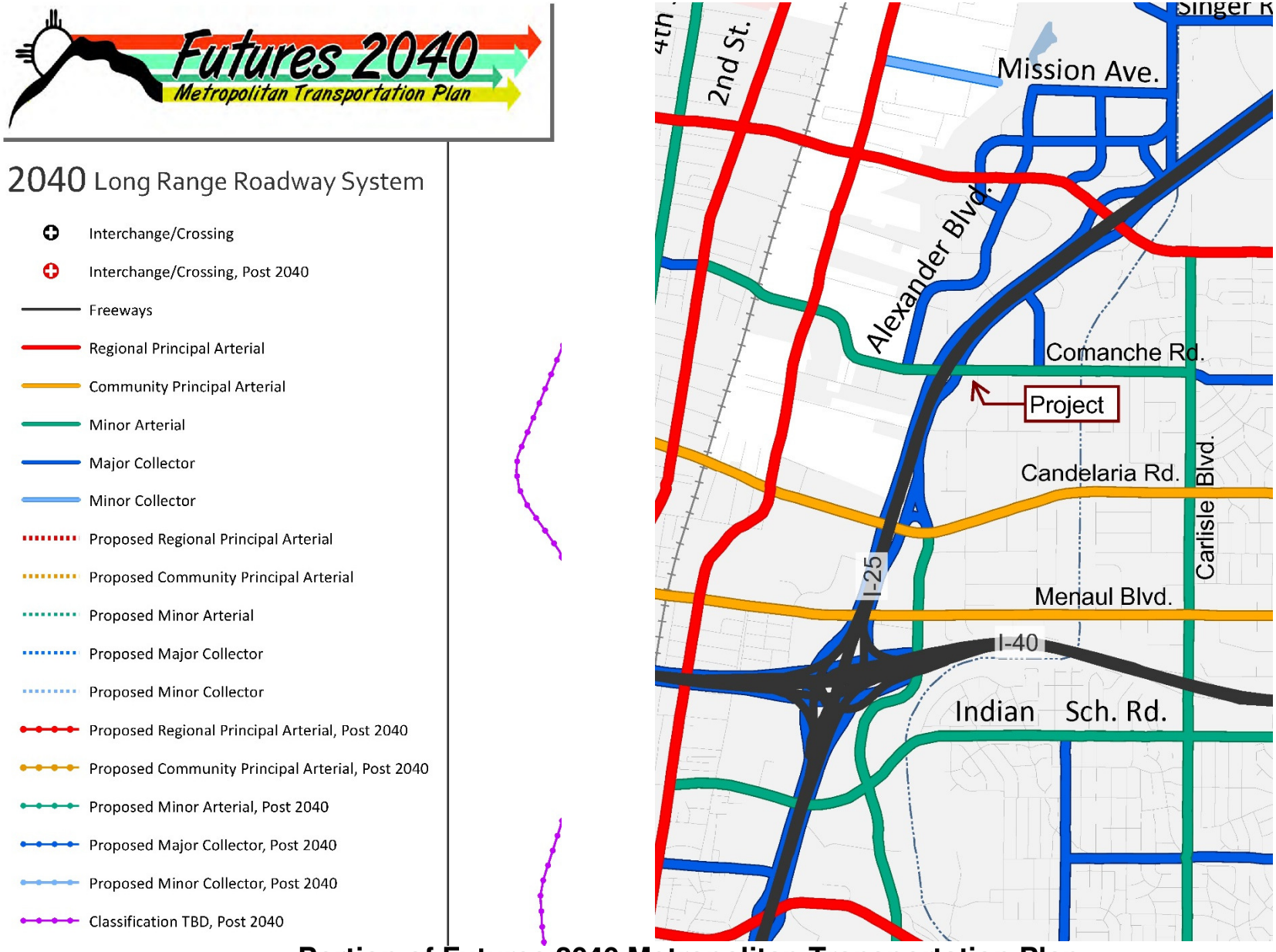




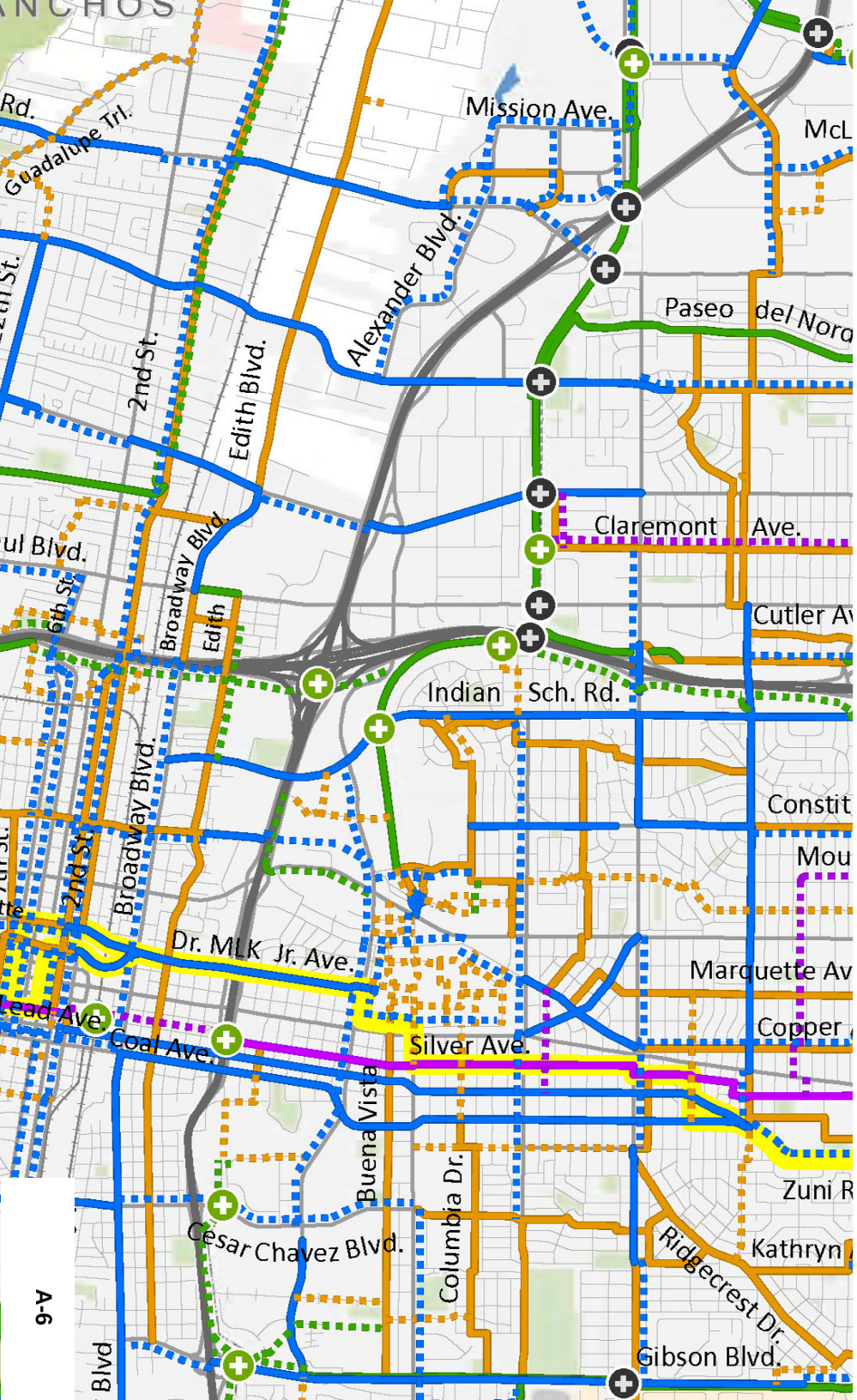
0 0.5 1 2 3 4 MILES

Map Prepared by the Mid-Region Metropolitan Planning Organization (MRMPO), May 2015

A-4



Portion of Futures 2040 Metropolitan Transportation Plan



Futures 2040

Metropolitan Transportation Plan

2040 Long Range Bikeway System

- Proposed Overpass/Underpass
- Existing Overpass/Underpass
- Existing, Bicycle Boulevard
- Existing, Bicycle Lane
- Existing, Bicycle Route
- Existing, Paved Trail; Existing
- Proposed, Bicycle Boulevard
- Proposed, Bicycle Lane
- Proposed, Bicycle Route
- Proposed, Paved Trail
- 50 Mile Loop

Proposed C-Store (Comanche Rd. / Princeton)
Trip Generation Data (ITE Trip Generation Manual - 10th Edition)

USE (ITE CODE)		24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR	
		GROSS	ENTER	EXIT	ENTER	EXIT
	Units					
Gasoline / Service Station w/ Convenience Market (945)	***20***	4,208	145	139	143	137
	Fueling Positions					

ITE Trip Generation Equations:

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

T = ***268.46*** **(X) +** ***-1161***
50% Enter, ***50%*** Exit

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

T = ***19*** **(X) +** ***-96.53***
51% Enter, ***49%*** Exit

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

T = ***13.99*** **(X) +** ***0***
51% Enter, ***49%*** Exit

Comments:
Tract No.

Based on ITE Trip Generation Manual - 10th Edition

Table E.36 Pass-By and Non-Pass-By Trips Weekday, PM Peak Period Land Use Code 944—Gasoline/Service Station

SIZE (1,000 SQ. FT. GFA)	VEHICLE FUELING POSITIONS	LOCATION	WEEKDAY SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PASS-BY TRIP (%)	NON-PASS-BY TRIPS (%)			ADJ. STREET PEAK HOUR VOLUME	SOURCE
							PRIMARY	DIVERTED	TOTAL		
—	—	Chicago suburbs, IL	1987	48	3:00–7:00 p.m.	21	—	—	79	—	Kenig, O'Hara, Humes, Flock
—	—	Chicago suburbs, IL	1987	34	3:00–6:00 p.m.	25	—	—	75	—	Kenig, O'Hara, Humes, Flock
—	—	Chicago suburbs, IL	1987	42	3:00–6:00 p.m.	20	—	—	80	—	Kenig, O'Hara, Humes, Flock
2.3	6	Gaithersburg, MD	1992	55	4:00–6:00 p.m.	40	11	49	60	2,760	RBA
2.1	6	Bethesda, MD	1992	30	4:00–6:00 p.m.	53	20	27	47	1,060	RBA
1.7	6	Wheaton, MD	1992	18	4:00–6:00 p.m.	61	6	33	39	2,510	RBA
2.0	8	Gaithersburg, MD	1992	47	4:00–6:00 p.m.	62	23	15	38	2,635	RBA
1.2	6	Damascus, MD	1992	26	4:00–6:00 p.m.	58	11	31	42	1,020	RBA
0.3	12	Wheaton, MD	1992	52	4:00–6:00 p.m.	38	10	52	62	3,835	RBA

Average Pass-By Trip Percentage: 42
"—" means no data were provided

Table E.37 Pass-By and Non-Pass-By Trips Weekday, AM Peak Period Land Use Code 945—Gasoline/Service Station with Convenience Market

SIZE (1,000 SQ. FT. GFA)	VEHICLE FUELING POSITIONS	LOCATION	WEEKDAY SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PASS-BY TRIP (%)	NON-PASS-BY TRIPS (%)			ADJ. STREET PEAK HOUR VOLUME	SOURCE
							PRIMARY	DIVERTED	TOTAL		
0.8	8	Louisville area, KY	1993	61	7:00–9:00 a.m.	60	15	25	40	4,000	Barton-Aschman Assoc.
0.6	8	Louisville, KY	1993	48	7:00–9:00 a.m.	68	13	19	32	1,307	Barton-Aschman Assoc.
0.7	10	Louisville, KY	1993	47	7:00–9:00 a.m.	67	11	22	33	1,105	Barton-Aschman Assoc.
0.7	8	Louisville area, KY	1993	—	7:00–9:00 a.m.	56	22	22	44	1,211	Barton-Aschman Assoc.
0.7	10	Louisville area, KY	1993	—	7:00–9:00 a.m.	46	42	12	54	1,211	Barton-Aschman Assoc.
0.3	—	Louisville area, KY	1993	75	7:00–9:00 a.m.	72	15	13	28	—	Barton-Aschman Assoc.
0.8	8	Silver Spring, MD	1992	36	7:00–9:00 a.m.	47	14	39	53	3,095	RBA
0.4	8	Derwood, MD	1992	46	7:00–9:00 a.m.	75	0	25	25	3,770	RBA
2.2	8	Kensington, MD	1992	31	7:00–9:00 a.m.	47	34	19	53	1,785	RBA
1	8	Silver Spring, MD	1992	35	7:00–9:00 a.m.	78	9	13	22	7,080	RBA

Average Pass-By Trip Percentage: 62
"—" means no data were provided

Figure E.18 Gasoline/Service Station with Convenience Market (945)

Average Pass-ByTrip Percentage vs: **1,000 Sq. Ft. Gross Floor Area**
On a: **Weekday, AM Peak Period**
Number of Studies: 10
Average 1,000 Sq. Ft. GFA: 0.8

Data Plot

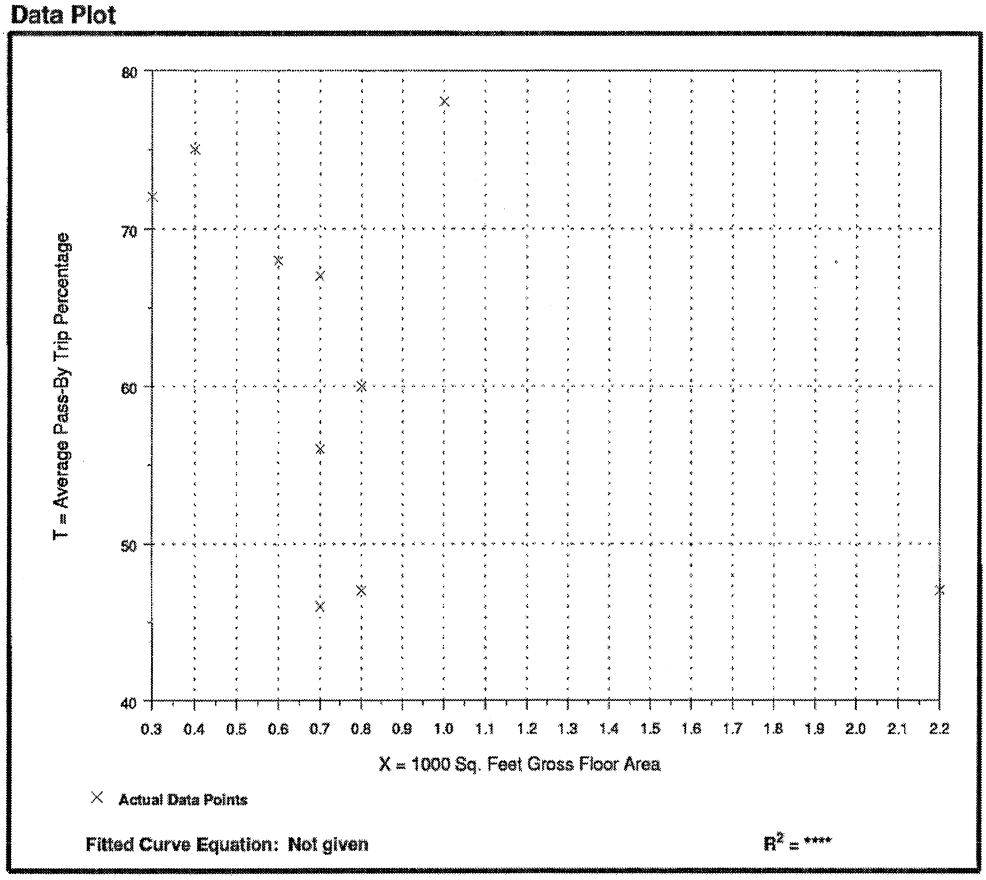


Table E.38 Pass-By and Non-Pass-By Trips Weekday, PM Peak Period
Land Use Code 945—Gasoline/Service Station with Convenience Market

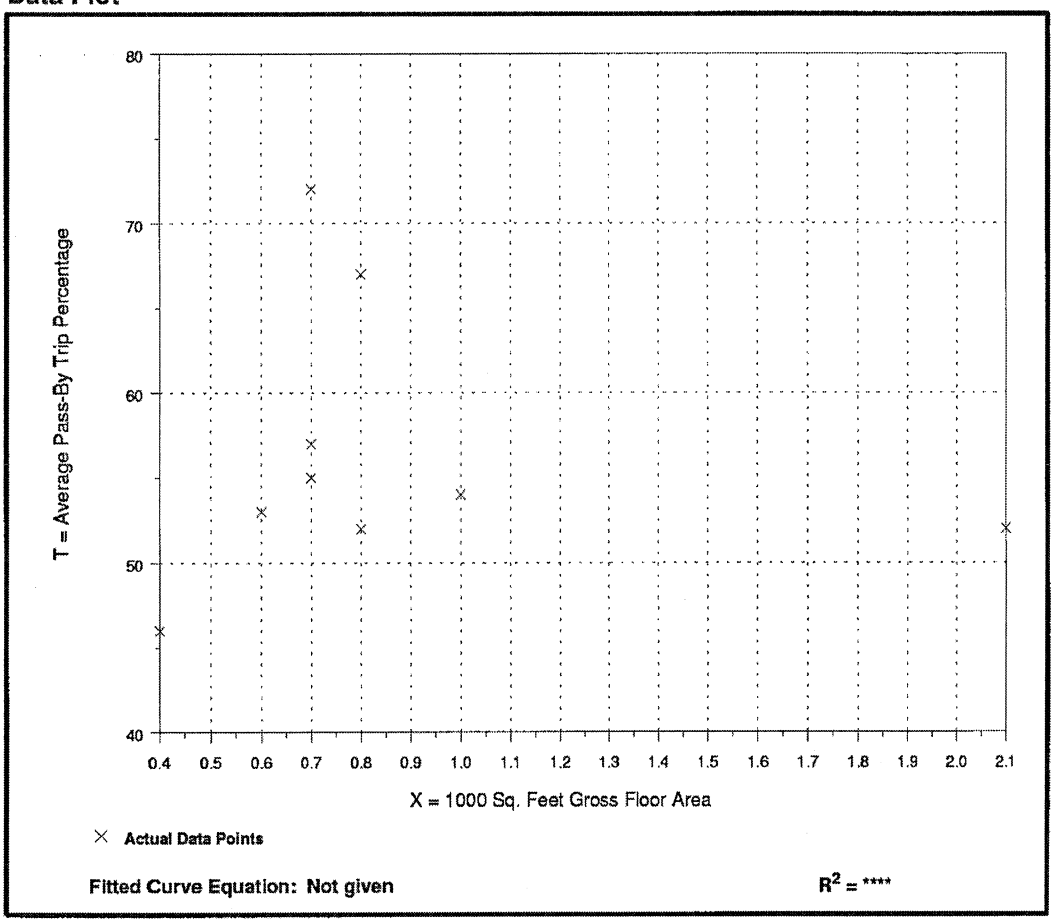
SIZE (1,000 SQ. FT. GFA)	VEHICLE FUELING POSITIONS	LOCATION	WEEKDAY SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PASS-BY TRIP (%)	NON-PASS-BY TRIPS (%)			ADJ. STREET PEAK HOUR VOLUME	SOURCE
							PRIMARY	DIVERTED	TOTAL		
0.8	8	Louisville area, KY	1993	83	4:00–6:00 p.m.	52	8	40	48	4,965	Barton-Aschman Assoc.
0.6	8	Louisville, KY	1993	60	4:00–6:00 p.m.	53	20	27	47	1,491	Barton-Aschman Assoc.
0.7	10	Louisville, KY	1993	—	4:00–6:00 p.m.	57	19	24	43	1,812	Barton-Aschman Assoc.
0.7	8	Louisville area, KY	1993	—	4:00–6:00 p.m.	72	7	21	28	2,657	Barton-Aschman Assoc.
0.7	10	Louisville area, KY	1993	—	4:00–6:00 p.m.	55	16	29	45	2,657	Barton-Aschman Assoc.
0.8	8	Silver Spring, MD	1992	36	4:00–6:00 p.m.	67	14	19	33	3,095	RBA
0.4	8	Derwood, MD	1992	46	4:00–6:00 p.m.	46	11	43	54	3,770	RBA
2.1	8	Kensington, MD	1992	31	4:00–6:00 p.m.	52	13	35	48	1,785	RBA
1	8	Silver Spring, MD	1992	35	4:00–6:00 p.m.	54	3	43	46	7,080	RBA

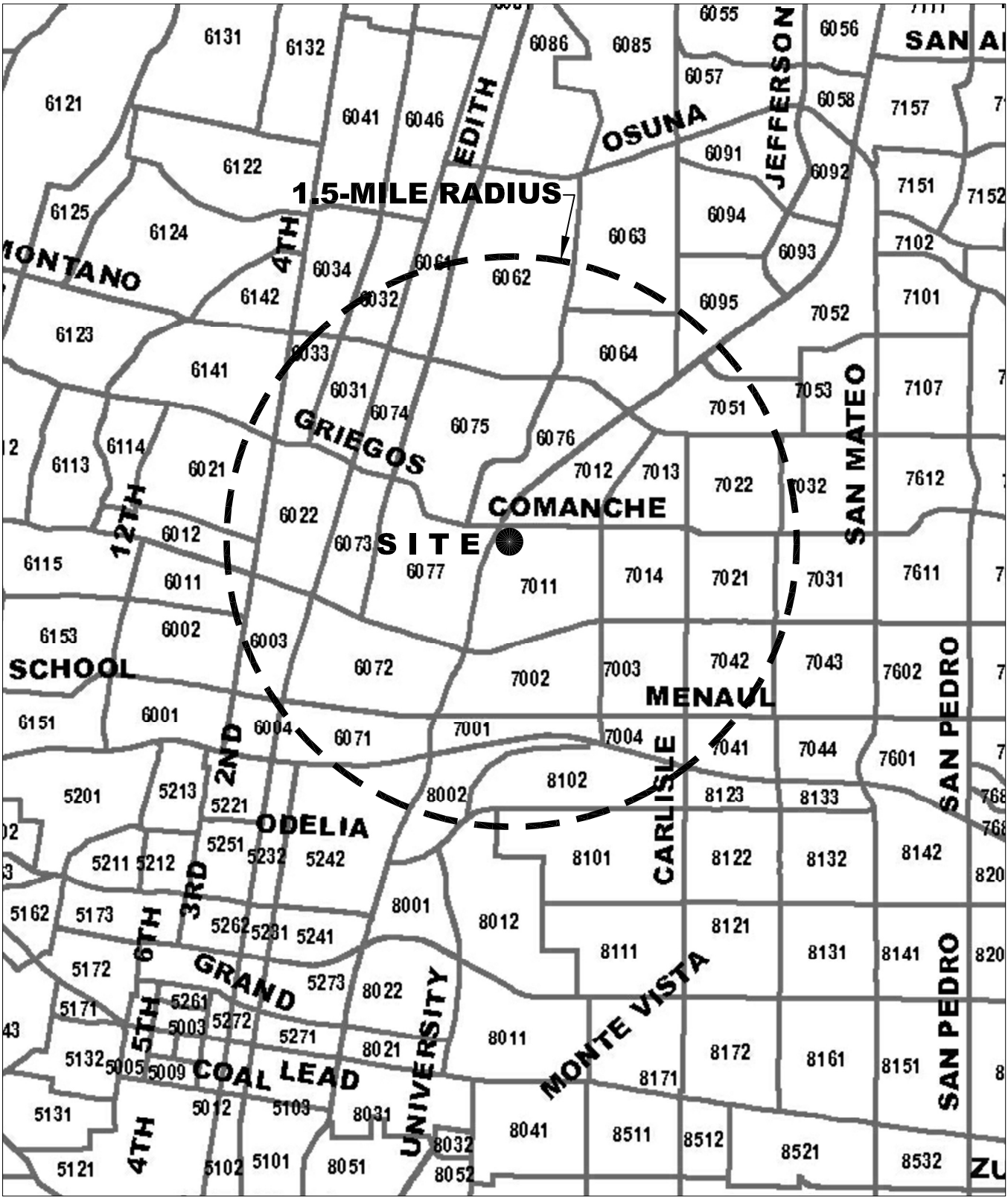
Average Pass-By Trip Percentage: 56
"—" means no data were provided

Figure E.19 Gasoline/Service Station with Convenience Market (945)

Average Pass-ByTrip Percentage vs: **1,000 Sq. Ft. Gross Floor Area**
On a: **Weekday, PM Peak Period**
Number of Studies: 9
Average 1,000 Sq. Ft. GFA: 0.9

Data Plot





DATA ANALYSIS SUBZONE (DASZ) MAP

Maverik Convenience Store (Comanche Rd. / Princeton Dr.)

Trip Distribution Table

Maverik Convenience Store (Comanche Rd. / Princeton Dr.)

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

2012 and 2040 Data Taken from Mid-Region Council of Governments'
2040 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

							(CaN) Carlisle Bd. North			(CoE) Comanche Rd. East			(CaS) Carlisle Bd. South		
DASZ #	% Sub Area in Study	2012 Population	2040 Population	Interpolated Population for the Year	**Population in Study**	**Percent Population**	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
		2012	**2040**	**2019**											
Boundary Specified on DASZ Map															
5242	10%	1473	1958	1,594	159	**0.79%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6003	85%	607	723	636	541	**2.70%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6011	10%	545	678	578	58	**0.29%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6012	10%	1031	1031	1,031	103	**0.51%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6021	20%	2060	2275	2,114	423	**2.11%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6022	100%	997	1079	1,018	1,018	**5.09%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6031	100%	322	301	317	317	**1.58%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6032	35%	597	626	604	211	**1.05%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6033	95%	617	592	611	580	**2.90%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6034	5%	583	600	587	29	**0.14%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6061	50%	354	378	360	180	**0.90%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6062	60%	1323	1733	1,426	856	**4.28%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6063	15%	0	0	0	0	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6064	100%	0	1967	492	492	**2.46%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6071	85%	463	563	488	415	**2.07%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6072	100%	471	550	491	491	**2.45%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6073	100%	44	54	47	47	**0.23%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6074	100%	42	43	42	42	**0.21%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6075	100%	82	101	87	87	**0.43%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6076	100%	0	0	0	0	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6077	100%	290	377	312	312	**1.56%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6095	10%	0	0	0	0	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6141	5%	1999	2222	2,055	103	**0.51%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7001	100%	0	16	4	4	**0.02%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7002	100%	55	103	67	67	**0.33%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7003	100%	125	201	144	144	**0.72%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7004	100%	0	4	1	1	**0.00%**	0%	0.00%	0	0%	0.00%	0	**100%**	0.00%	1
7011	100%	0	0	0	0	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7012	100%	582	799	636	636	**3.18%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7013	100%	1198	1230	1,206	1,206	**6.02%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7014	100%	2145	2460	2,224	2,224	**11.11%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7021	100%	1285	1217	1,268	1,268	**6.33%**	0%	0.00%	0	**50%**	3.17%	634	**50%**	3.17%	634
7022	100%	1668	1742	1,687	1,687	**8.43%**	**50%**	4.21%	844	**50%**	4.21%	844	0%	0.00%	0
7031	10%	1976	2439	2,092	209	**1.04%**	0%	0.00%	0	**50%**	0.52%	105	0%	0.00%	0
7032	10%	1649	2056	1,751	175	**0.87%**	0%	0.00%	0	**100%**	0.87%	175	0%	0.00%	0
7041	20%	201	236	210	42	**0.21%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7042	90%	1104	1608	1,230	1,107	**5.53%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7051	85%	3374	3860	3,496	2,972	**14.85%**	**100%**	14.85%	2,972	0%	0.00%	0	0%	0.00%	0
7052	5%	0	3	1	0	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8002	75%	418	745	500	375	**1.87%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8102	90%	1540	1760	1,595	1,436	**7.17%**	0%	0.00%	0	0%	0.00%	0	**30%**	2.15%	431
				33,002	20,017	100.00%			**3,816** 19.06%			**1,757** 8.78%			**1,066** 5.32%

Trip Distribution Table

Maverik Convenience Store (Comanche Rd. / Princeton Dr.)

Data Analysis Subzone Population Data for determination of Local Trip Distribution for Proposed **Retail Commercial 1**

2012 and 2040 Data Taken from Mid-Region Council of Governments'
2040 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

							(CnE) Candelaria Rd. East			(PS) Princeton Dr. South			(US) University Bd. South		
DASZ #	% Sub Area in Study	2012 Population	2040 Population	Interpolated Population for the Year	**Population in Study**	**Percent Population**	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
		2012	**2040**	**2019**											
Boundary Specified on DASZ Map															
5242	10%	1473	1958	1,594	159	**0.79%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6003	85%	607	723	636	541	**2.70%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6011	10%	545	678	578	58	**0.29%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6012	10%	1031	1031	1,031	103	**0.51%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6021	20%	2060	2275	2,114	423	**2.11%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6022	100%	997	1079	1,018	1,018	**5.09%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6031	100%	322	301	317	317	**1.58%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6032	35%	597	626	604	211	**1.05%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6033	95%	617	592	611	580	**2.90%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6034	5%	583	600	587	29	**0.14%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6061	50%	354	378	360	180	**0.90%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6062	60%	1323	1733	1,426	856	**4.28%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6063	15%	0	0	0	0	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6064	100%	0	1967	492	492	**2.46%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6071	85%	463	563	488	415	**2.07%**	0%	0.00%	0	0%	0.00%	0	**100%**	2.07%	415
6072	100%	471	550	491	491	**2.45%**	0%	0.00%	0	0%	0.00%	0	**50%**	1.23%	246
6073	100%	44	54	47	47	**0.23%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6074	100%	42	43	42	42	**0.21%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6075	100%	82	101	87	87	**0.43%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6076	100%	0	0	0	0	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6077	100%	290	377	312	312	**1.56%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6095	10%	0	0	0	0	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6141	5%	1999	2222	2,055	103	**0.51%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7001	100%	0	16	4	4	**0.02%**	0%	0.00%	0	0%	0.00%	0	**100%**	0.02%	4
7002	100%	55	103	67	67	**0.33%**	**30%**	0.10%	20	**35%**	0.12%	23	**35%**	0.12%	23
7003	100%	125	201	144	144	**0.72%**	**100%**	0.72%	144	0%	0.00%	0	0%	0.00%	0
7004	100%	0	4	1	1	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7011	100%	0	0	0	0	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7012	100%	582	799	636	636	**3.18%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7013	100%	1198	1230	1,206	1,206	**6.02%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7014	100%	2145	2460	2,224	2,224	**11.11%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7021	100%	1285	1217	1,268	1,268	**6.33%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7022	100%	1668	1742	1,687	1,687	**8.43%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7031	10%	1976	2439	2,092	209	**1.04%**	**50%**	0.52%	105	0%	0.00%	0	0%	0.00%	0
7032	10%	1649	2056	1,751	175	**0.87%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7041	20%	201	236	210	42	**0.21%**	0%	0.00%	0	**100%**	0.21%	42	0%	0.00%	0
7042	90%	1104	1608	1,230	1,107	**5.53%**	**50%**	2.77%	554	**50%**	2.77%	554	0%	0.00%	0
7051	85%	3374	3860	3,496	2,972	**14.85%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7052	5%	0	3	1	0	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8002	75%	418	745	500	375	**1.87%**	0%	0.00%	0	0%	0.00%	0	**100%**	1.87%	375
8102	90%	1540	1760	1,595	1,436	**7.17%**	**35%**	2.51%	503	**35%**	2.51%	503	0%	0.00%	0
				33,002	20,017	100.00%			**1,325**			**1,122**			**1,063**
									6.62%			5.60%			5.31%

Trip Distribution Table

Maverik Convenience Store (Comanche Rd. / Princeton Dr.)

Data Analysis Subzone Population Data for determination of Local Trip Distribution for Proposed **Retail Commercial 1**

2012 and 2040 Data Taken from Mid-Region Council of Governments'
2040 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

							(CnW) Candelaria Bd. West			(UN) University Bd. North			(IS) Interstate 25 South		
DASZ #	% Sub Area in Study	2012 Population	2040 Population	Interpolated Population for the Year	**Population in Study**	**Percent Population**	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
		2012	**2040**	**2019**											
Boundary Specified on DASZ Map															
5242	10%	1473	1958	1,594	159	**0.79%**	0%	0.00%	0	0%	0.00%	0	**100%**	0.79%	159
6003	85%	607	723	636	541	**2.70%**	**100%**	2.70%	541	0%	0.00%	0	0%	0.00%	0
6011	10%	545	678	578	58	**0.29%**	**100%**	0.29%	58	0%	0.00%	0	0%	0.00%	0
6012	10%	1031	1031	1,031	103	**0.51%**	**100%**	0.51%	103	0%	0.00%	0	0%	0.00%	0
6021	20%	2060	2275	2,114	423	**2.11%**	**50%**	1.06%	212	0%	0.00%	0	0%	0.00%	0
6022	100%	997	1079	1,018	1,018	**5.09%**	**50%**	2.54%	509	0%	0.00%	0	0%	0.00%	0
6031	100%	322	301	317	317	**1.58%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6032	35%	597	626	604	211	**1.05%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6033	95%	617	592	611	580	**2.90%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6034	5%	583	600	587	29	**0.14%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6061	50%	354	378	360	180	**0.90%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6062	60%	1323	1733	1,426	856	**4.28%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6063	15%	0	0	0	0	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6064	100%	0	1967	492	492	**2.46%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6071	85%	463	563	488	415	**2.07%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6072	100%	471	550	491	491	**2.45%**	**50%**	1.23%	246	0%	0.00%	0	0%	0.00%	0
6073	100%	44	54	47	47	**0.23%**	**50%**	0.12%	24	0%	0.00%	0	0%	0.00%	0
6074	100%	42	43	42	42	**0.21%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6075	100%	82	101	87	87	**0.43%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6076	100%	0	0	0	0	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6077	100%	290	377	312	312	**1.56%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6095	10%	0	0	0	0	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6141	5%	1999	2222	2,055	103	**0.51%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7001	100%	0	16	4	4	**0.02%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7002	100%	55	103	67	67	**0.33%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7003	100%	125	201	144	144	**0.72%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7004	100%	0	4	1	1	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7011	100%	0	0	0	0	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7012	100%	582	799	636	636	**3.18%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7013	100%	1198	1230	1,206	1,206	**6.02%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7014	100%	2145	2460	2,224	2,224	**11.11%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7021	100%	1285	1217	1,268	1,268	**6.33%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7022	100%	1668	1742	1,687	1,687	**8.43%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7031	10%	1976	2439	2,092	209	**1.04%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7032	10%	1649	2056	1,751	175	**0.87%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7041	20%	201	236	210	42	**0.21%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7042	90%	1104	1608	1,230	1,107	**5.53%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7051	85%	3374	3860	3,496	2,972	**14.85%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7052	5%	0	3	1	0	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8002	75%	418	745	500	375	**1.87%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8102	90%	1540	1760	1,595	1,436	**7.17%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
				33,002	20,017	100.00%			**1,692**			**-**			**159**
									8.45%			0.00%			0.79%

Trip Distribution Table

Maverik Convenience Store (Comanche Rd. / Princeton Dr.)

Data Analysis Subzone Population Data for determination of Local Trip Distribution for Proposed **Retail Commercial 1**

2012 and 2040 Data Taken from Mid-Region Council of Governments'
2040 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

							(CoW) Comanche Rd. West			(IN) Interstate 25 North			(PN) Princeton Dr. North		
DASZ #	% Sub Area in Study	2012 Population	2040 Population	Interpolated Population for the Year	**Population in Study**	**Percent Population**	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
		2012	**2040**	**2019**											
Boundary Specified on DASZ Map															
5242	10%	1473	1958	1,594	159	**0.79%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6003	85%	607	723	636	541	**2.70%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6011	10%	545	678	578	58	**0.29%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6012	10%	1031	1031	1,031	103	**0.51%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6021	20%	2060	2275	2,114	423	**2.11%**	**50%**	1.06%	212	0%	0.00%	0	0%	0.00%	0
6022	100%	997	1079	1,018	1,018	**5.09%**	**50%**	2.54%	509	0%	0.00%	0	0%	0.00%	0
6031	100%	322	301	317	317	**1.58%**	**50%**	0.79%	159	**50%**	0.79%	159	0%	0.00%	0
6032	35%	597	626	604	211	**1.05%**	0%	0.00%	0	**100%**	1.05%	211	0%	0.00%	0
6033	95%	617	592	611	580	**2.90%**	**50%**	1.45%	290	**50%**	1.45%	290	0%	0.00%	0
6034	5%	583	600	587	29	**0.14%**	0%	0.00%	0	**100%**	0.14%	29	0%	0.00%	0
6061	50%	354	378	360	180	**0.90%**	0%	0.00%	0	**100%**	0.90%	180	0%	0.00%	0
6062	60%	1323	1733	1,426	856	**4.28%**	0%	0.00%	0	**100%**	4.28%	856	0%	0.00%	0
6063	15%	0	0	0	0	**0.00%**	0%	0.00%	0	**100%**	0.00%	0	0%	0.00%	0
6064	100%	0	1967	492	492	**2.46%**	0%	0.00%	0	**100%**	2.46%	492	0%	0.00%	0
6071	85%	463	563	488	415	**2.07%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6072	100%	471	550	491	491	**2.45%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6073	100%	44	54	47	47	**0.23%**	**50%**	0.12%	24	0%	0.00%	0	0%	0.00%	0
6074	100%	42	43	42	42	**0.21%**	**100%**	0.21%	42	0%	0.00%	0	0%	0.00%	0
6075	100%	82	101	87	87	**0.43%**	**100%**	0.43%	87	0%	0.00%	0	0%	0.00%	0
6076	100%	0	0	0	0	**0.00%**	0%	0.00%	0	**100%**	0.00%	0	0%	0.00%	0
6077	100%	290	377	312	312	**1.56%**	**100%**	1.56%	312	0%	0.00%	0	0%	0.00%	0
6095	10%	0	0	0	0	**0.00%**	0%	0.00%	0	**100%**	0.00%	0	0%	0.00%	0
6141	5%	1999	2222	2,055	103	**0.51%**	**100%**	0.51%	103	0%	0.00%	0	0%	0.00%	0
7001	100%	0	16	4	4	**0.02%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7002	100%	55	103	67	67	**0.33%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7003	100%	125	201	144	144	**0.72%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7004	100%	0	4	1	1	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7011	100%	0	0	0	0	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7012	100%	582	799	636	636	**3.18%**	0%	0.00%	0	0%	0.00%	0	**100%**	3.18%	636
7013	100%	1198	1230	1,206	1,206	**6.02%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7014	100%	2145	2460	2,224	2,224	**11.11%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7021	100%	1285	1217	1,268	1,268	**6.33%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7022	100%	1668	1742	1,687	1,687	**8.43%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7031	10%	1976	2439	2,092	209	**1.04%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7032	10%	1649	2056	1,751	175	**0.87%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7041	20%	201	236	210	42	**0.21%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7042	90%	1104	1608	1,230	1,107	**5.53%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7051	85%	3374	3860	3,496	2,972	**14.85%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7052	5%	0	3	1	0	**0.00%**	0%	0.00%	0	**100%**	0.00%	0	0%	0.00%	0
8002	75%	418	745	500	375	**1.87%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
8102	90%	1540	1760	1,595	1,436	**7.17%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
				33,002	20,017	100.00%			**1,737**			**2,217**			**636**
									8.68%			11.07%			3.18%

Trip Distribution Table

Maverik Convenience Store (Comanche Rd. / Princeton Dr.)

Data Analysis Subzone Population Data for determination of Local Trip Distribution for Proposed **Retail Commercial 1**

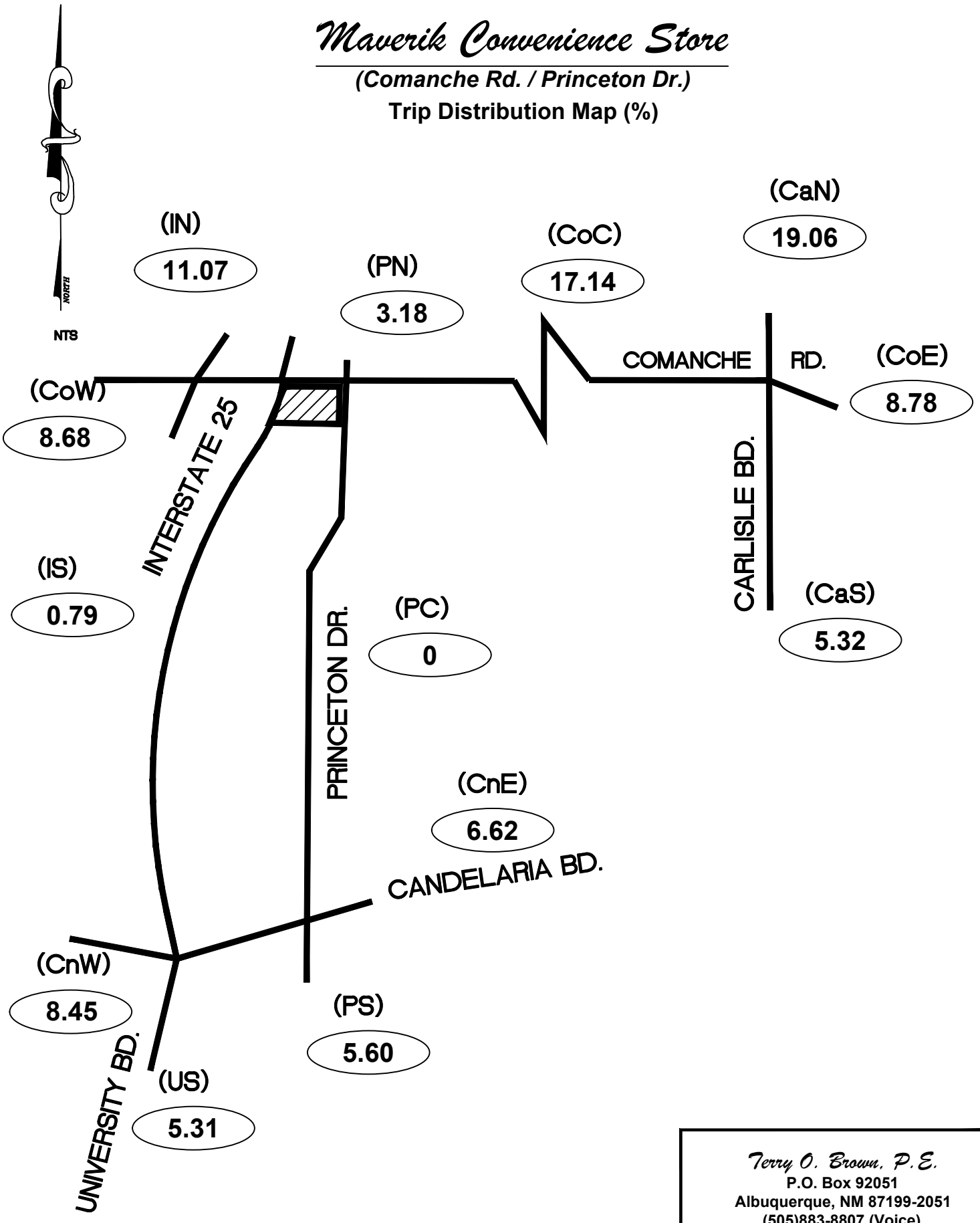
2012 and 2040 Data Taken from Mid-Region Council of Governments'
2040 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico

							(PC) Princeton Dr. Central			(CoC) Comanche Rd. Central		
DASZ #	% Sub Area in Study	2012 Population	2040 Population	Interpolated Population for the Year	**Population in Study**	**Percent Population**	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
		2012	**2040**	**2019**								
Boundary Specified on DASZ Map												
5242	10%	1473	1958	1,594	159	**0.79%**	0%	0.00%	0	0%	0.00%	0
6003	85%	607	723	636	541	**2.70%**	0%	0.00%	0	0%	0.00%	0
6011	10%	545	678	578	58	**0.29%**	0%	0.00%	0	0%	0.00%	0
6012	10%	1031	1031	1,031	103	**0.51%**	0%	0.00%	0	0%	0.00%	0
6021	20%	2060	2275	2,114	423	**2.11%**	0%	0.00%	0	0%	0.00%	0
6022	100%	997	1079	1,018	1,018	**5.09%**	0%	0.00%	0	0%	0.00%	0
6031	100%	322	301	317	317	**1.58%**	0%	0.00%	0	0%	0.00%	0
6032	35%	597	626	604	211	**1.05%**	0%	0.00%	0	0%	0.00%	0
6033	95%	617	592	611	580	**2.90%**	0%	0.00%	0	0%	0.00%	0
6034	5%	583	600	587	29	**0.14%**	0%	0.00%	0	0%	0.00%	0
6061	50%	354	378	360	180	**0.90%**	0%	0.00%	0	0%	0.00%	0
6062	60%	1323	1733	1,426	856	**4.28%**	0%	0.00%	0	0%	0.00%	0
6063	15%	0	0	0	0	**0.00%**	0%	0.00%	0	0%	0.00%	0
6064	100%	0	1967	492	492	**2.46%**	0%	0.00%	0	0%	0.00%	0
6071	85%	463	563	488	415	**2.07%**	0%	0.00%	0	0%	0.00%	0
6072	100%	471	550	491	491	**2.45%**	0%	0.00%	0	0%	0.00%	0
6073	100%	44	54	47	47	**0.23%**	0%	0.00%	0	0%	0.00%	0
6074	100%	42	43	42	42	**0.21%**	0%	0.00%	0	0%	0.00%	0
6075	100%	82	101	87	87	**0.43%**	0%	0.00%	0	0%	0.00%	0
6076	100%	0	0	0	0	**0.00%**	0%	0.00%	0	0%	0.00%	0
6077	100%	290	377	312	312	**1.56%**	0%	0.00%	0	0%	0.00%	0
6095	10%	0	0	0	0	**0.00%**	0%	0.00%	0	0%	0.00%	0
6141	5%	1999	2222	2,055	103	**0.51%**	0%	0.00%	0	0%	0.00%	0
7001	100%	0	16	4	4	**0.02%**	0%	0.00%	0	0%	0.00%	0
7002	100%	55	103	67	67	**0.33%**	0%	0.00%	0	0%	0.00%	0
7003	100%	125	201	144	144	**0.72%**	0%	0.00%	0	0%	0.00%	0
7004	100%	0	4	1	1	**0.00%**	0%	0.00%	0	0%	0.00%	0
7011	100%	0	0	0	0	**0.00%**	**100%**	0.00%	0	0%	0.00%	0
7012	100%	582	799	636	636	**3.18%**	0%	0.00%	0	0%	0.00%	0
7013	100%	1198	1230	1,206	1,206	**6.02%**	0%	0.00%	0	**100%**	6.02%	1,206
7014	100%	2145	2460	2,224	2,224	**11.11%**	0%	0.00%	0	**100%**	11.11%	2,224
7021	100%	1285	1217	1,268	1,268	**6.33%**	0%	0.00%	0	0%	0.00%	0
7022	100%	1668	1742	1,687	1,687	**8.43%**	0%	0.00%	0	0%	0.00%	0
7031	10%	1976	2439	2,092	209	**1.04%**	0%	0.00%	0	0%	0.00%	0
7032	10%	1649	2056	1,751	175	**0.87%**	0%	0.00%	0	0%	0.00%	0
7041	20%	201	236	210	42	**0.21%**	0%	0.00%	0	0%	0.00%	0
7042	90%	1104	1608	1,230	1,107	**5.53%**	0%	0.00%	0	0%	0.00%	0
7051	85%	3374	3860	3,496	2,972	**14.85%**	0%	0.00%	0	0%	0.00%	0
7052	5%	0	3	1	0	**0.00%**	0%	0.00%	0	0%	0.00%	0
8002	75%	418	745	500	375	**1.87%**	0%	0.00%	0	0%	0.00%	0
8102	90%	1540	1760	1,595	1,436	**7.17%**	0%	0.00%	0	0%	0.00%	0
				33,002	20,017	100.00%			**-**			**3,430**
									0.00%			17.14%

Maverik Convenience Store

(Comanche Rd. / Princeton Dr.)

Trip Distribution Map (%)



Terry O. Brown, P.E.
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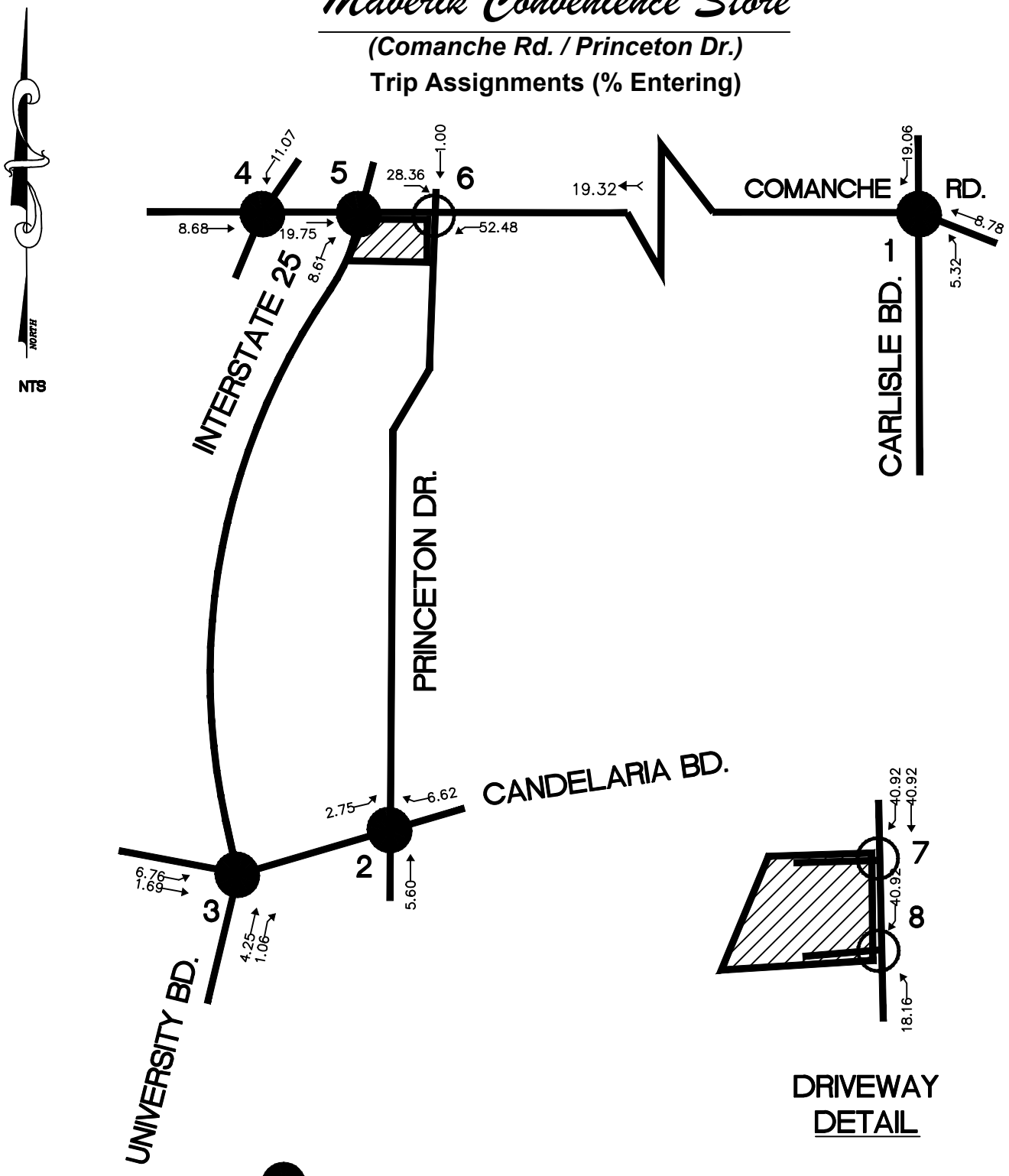
Albuquerque, NM 87199-2051
(505)883-8807 (Voice)

Maverik Convenience Store

(Comanche Rd. / Princeton Dr.)

Trip Assignments (% Entering)



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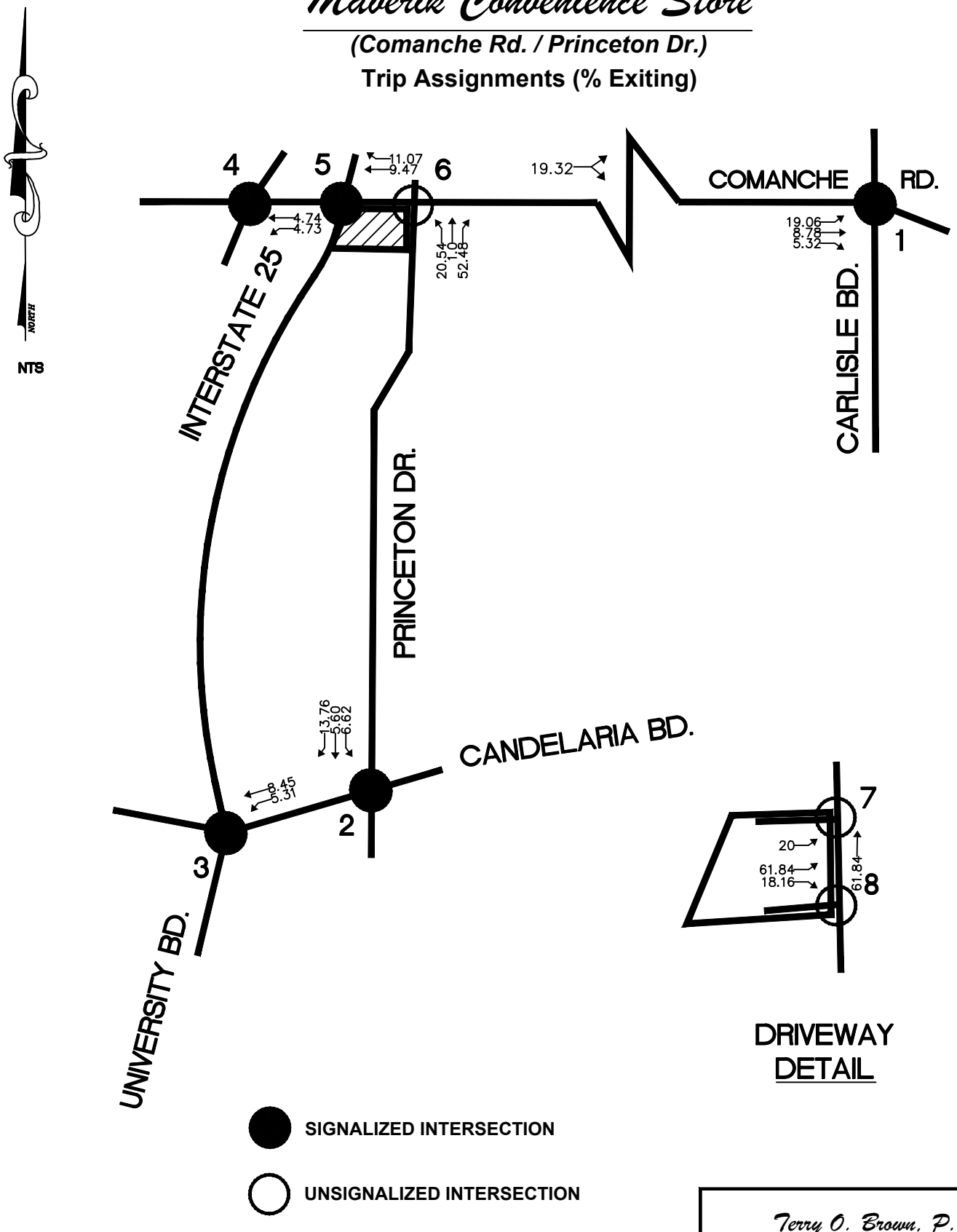
Maverik Convenience Store

(Comanche Rd. / Princeton Dr.)

Trip Assignments (% Exiting)



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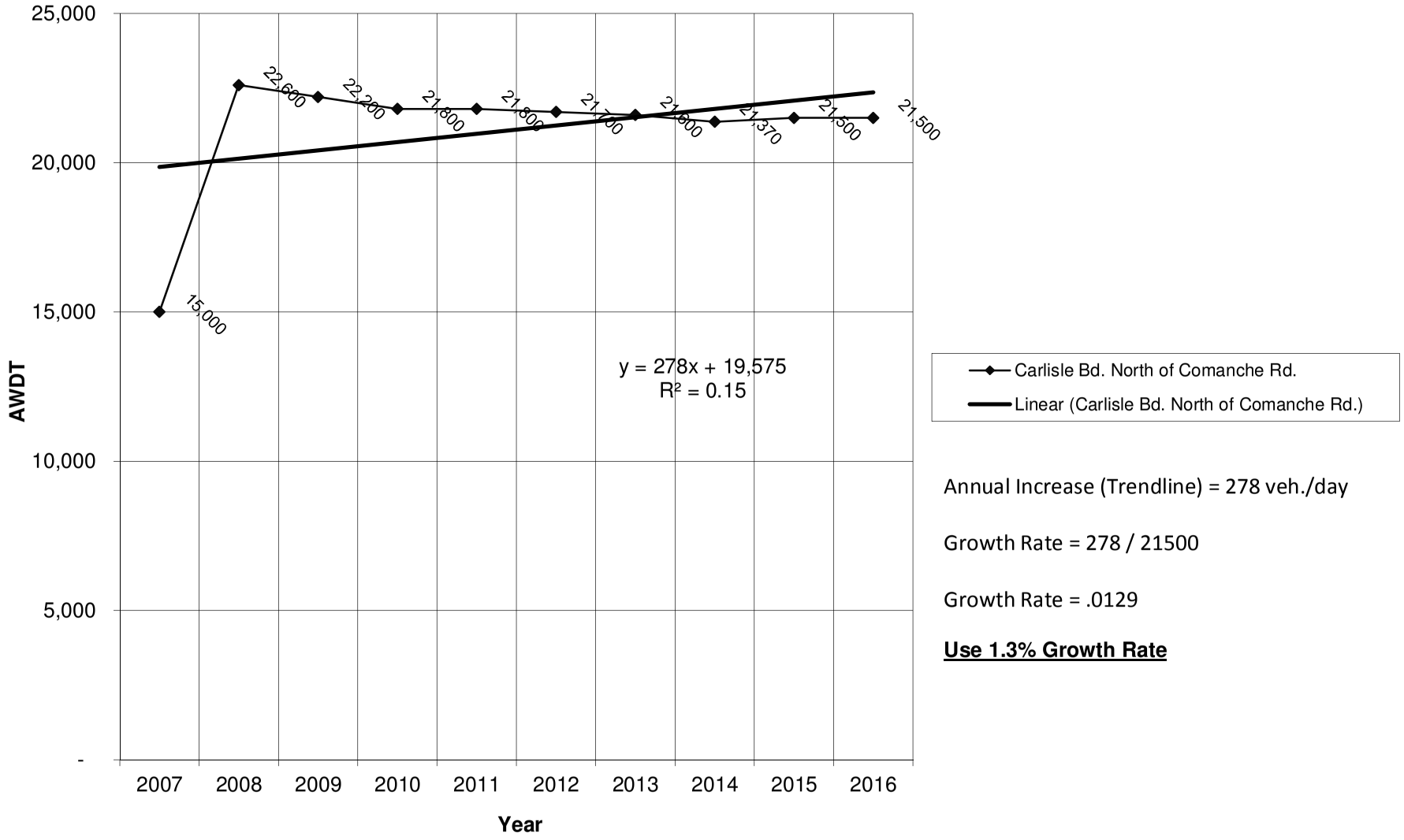
Maverik Gas Station / Convenience Store (Comanche Rd. / Princeton Dr.)

Historic Growth Rate Table

Traffic Flows from MRCOG Map

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Carlisle Bd. North of Comanche Rd.	15,000	22,600	22,200	21,800	21,800	21,700	21,600	21,370	21,500	21,500
Comanche Rd. East of Carlisle Bd.	8,300	8,700	8,500	8,400	8,400	8,300	8,300	8,780	8,800	8,800
Carlisle Bd. South of Comanche Rd.	24,900	24,000	23,600	22,400	22,500	23,100	23,000	22,400	22,100	22,200
Comanche Rd. West of Carlisle Bd.	14,500	15,200	14,900	14,700	14,700	14,600	14,600	16,330	16,400	16,400
Comanche Rd. East of Interstate 25	24,000	24,100	23,700	23,400	20,400	20,300	20,300	20,700	20,800	20,800
Candelaria Rd. East of Princeton Dr.	19,300	17,900	17,600	17,400	16,100	16,000	16,000	17,900	18,000	18,000
Interstate 25 South of Candelaria Rd.	189,700	174,000	172,700	168,300	193,900	188,100	190,100	176,300	204,000	202,000
Interstate 25 btwn Candelaria & Comanche	189,700	174,000	172,700	168,300	193,900	188,100	190,100	176,300	204,000	202,000
Comanche Rd. West of Interstate 25	17,500	18,800	18,700	18,500	16,900	16,700	16,500	16,300	19,600	19,700
Interstate 25 North of Comanche Rd.	193,100	182,700	180,800	174,900	182,800	182,100	179,400	164,300	176,100	179,800

Historic Growth Chart Carlisle Bd. North of Comanche Rd. (2007-2016)



Annual Increase (Trendline) = 278 veh./day

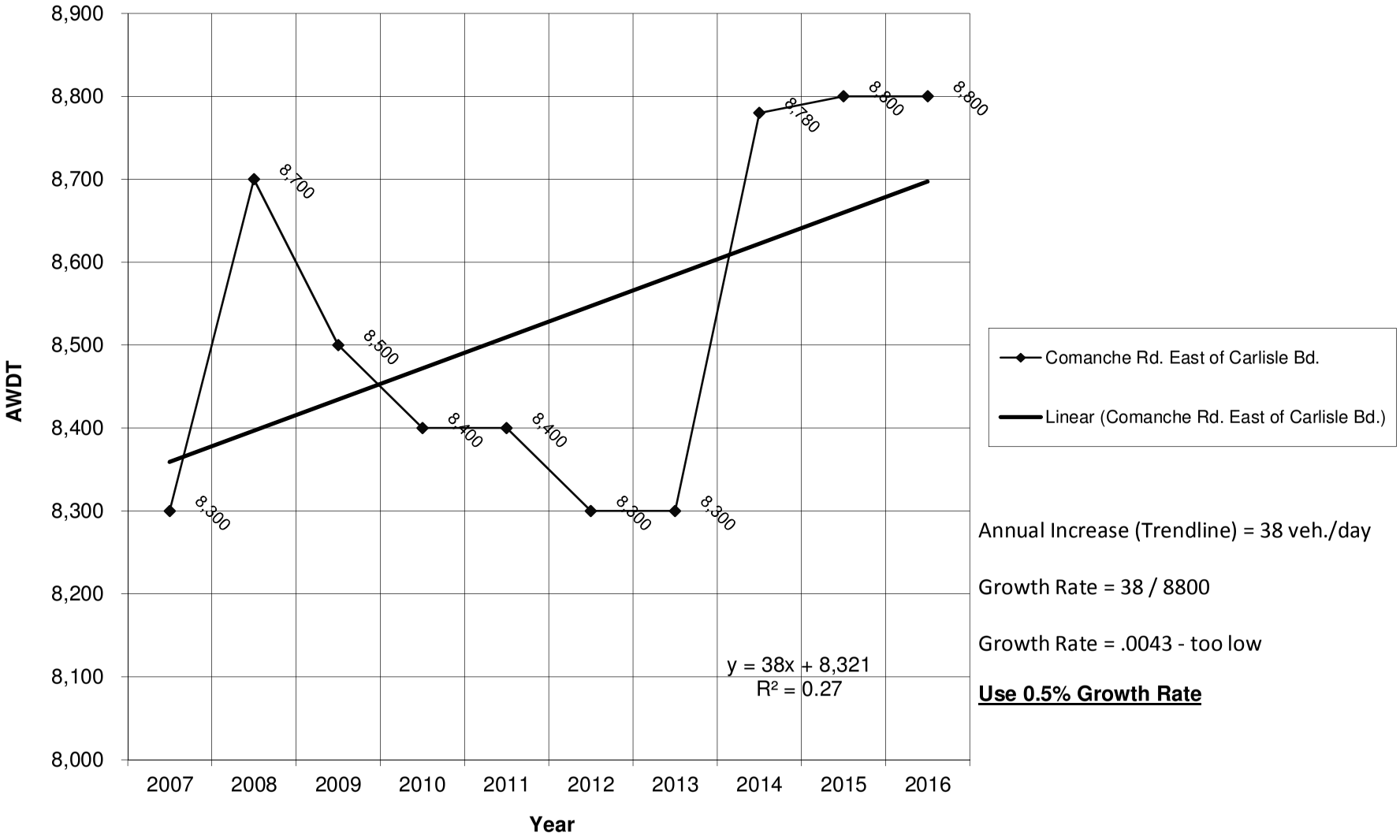
Growth Rate = 278 / 21500

Growth Rate = .0129

Use 1.3% Growth Rate

Maverick_Growth.xlsx

Historic Growth Chart Comanche Rd. East of Carlisle Blvd. (2007-2016)



Annual Increase (Trendline) = 38 veh./day

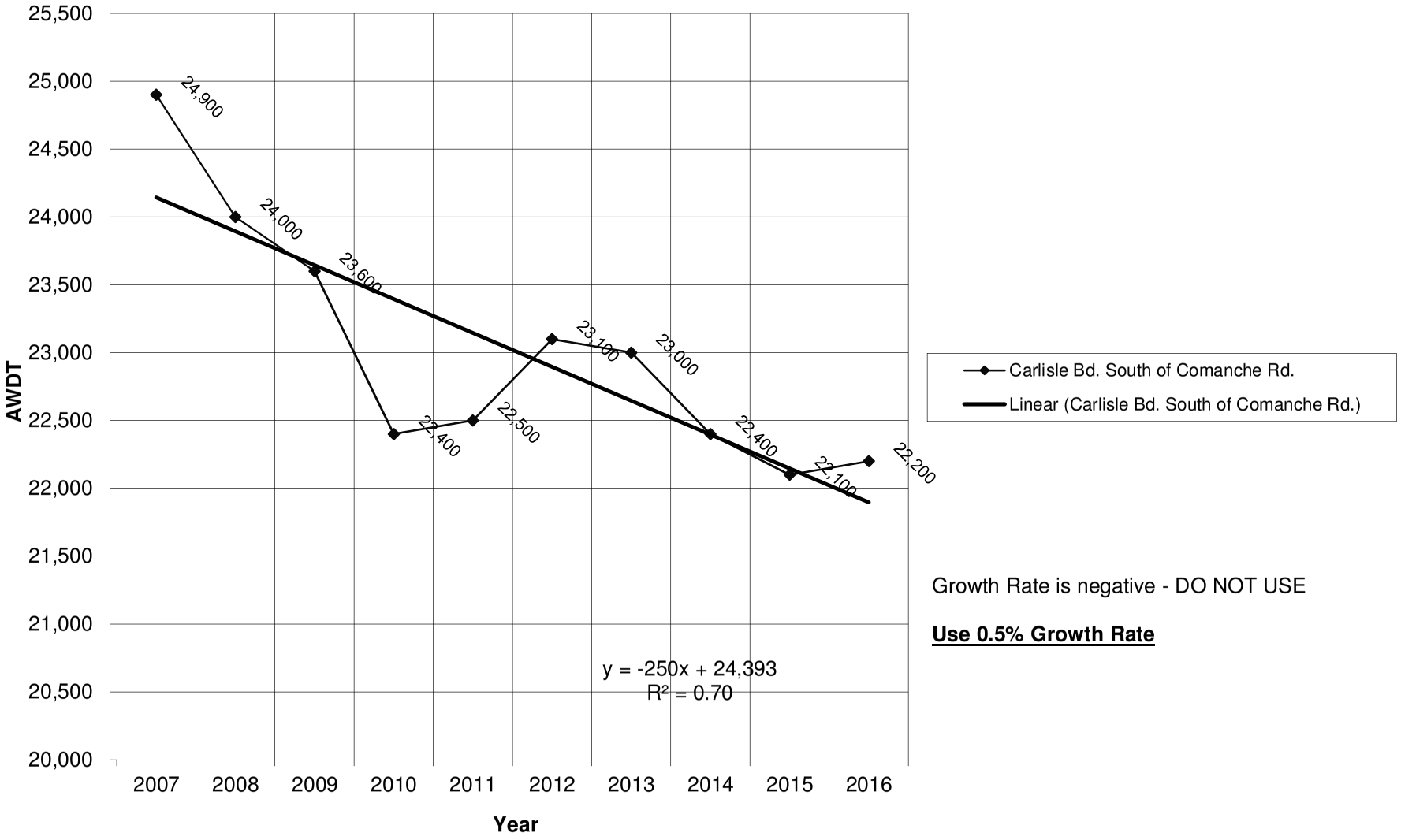
Growth Rate = 38 / 8800

Growth Rate = .0043 - too low

Use 0.5% Growth Rate

Maverick_Growth.xlsx

Historic Growth Chart Carlisle Blvd. South of Comanche Rd. (2007-2016)

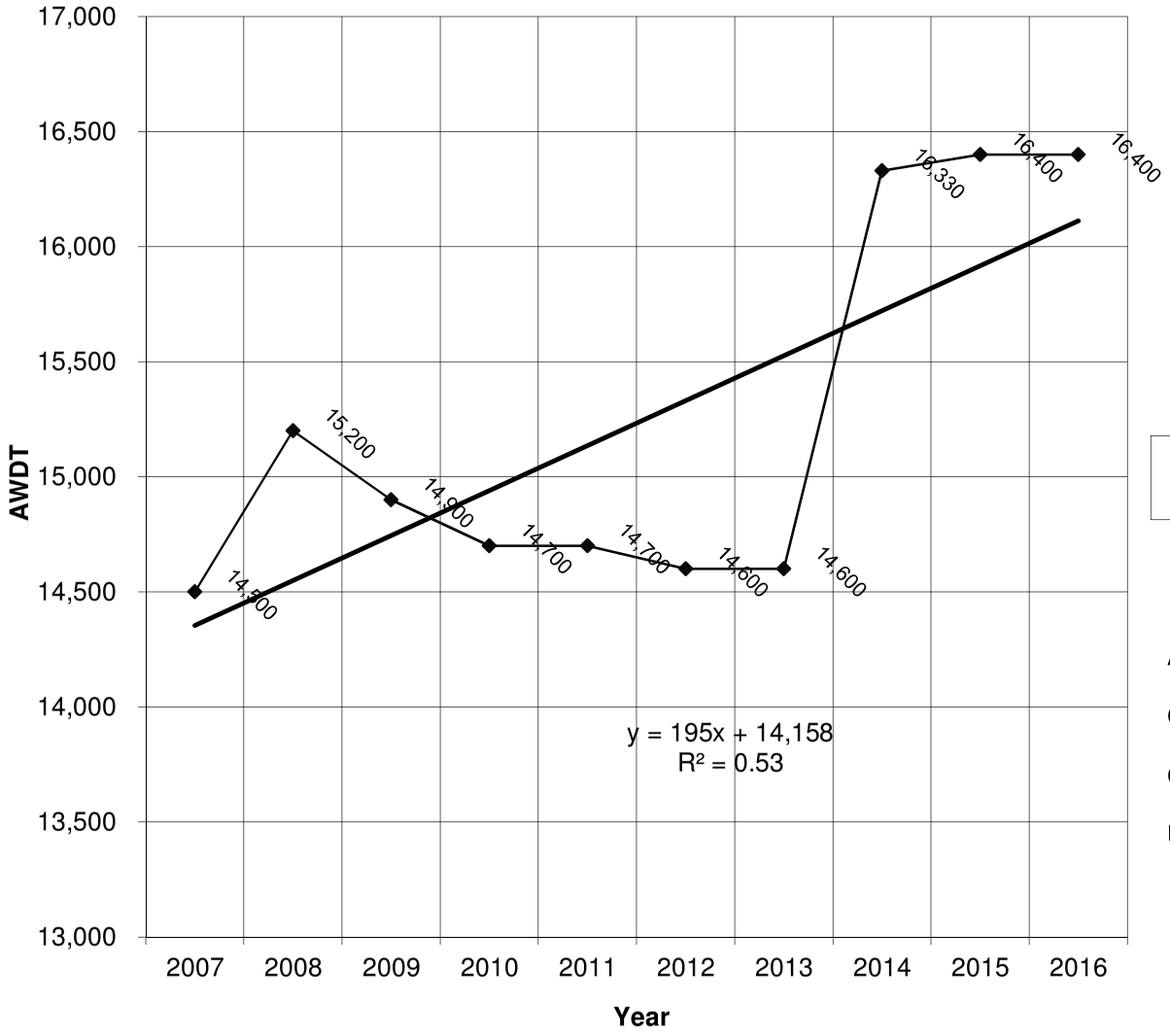


Growth Rate is negative - DO NOT USE

Use 0.5% Growth Rate

Maverick_Growth.xlsx

Historic Growth Chart Comance Rd. West of Carlisle Blvd. (2007-2016)



Annual Increase (Trendline) = 195 veh./day

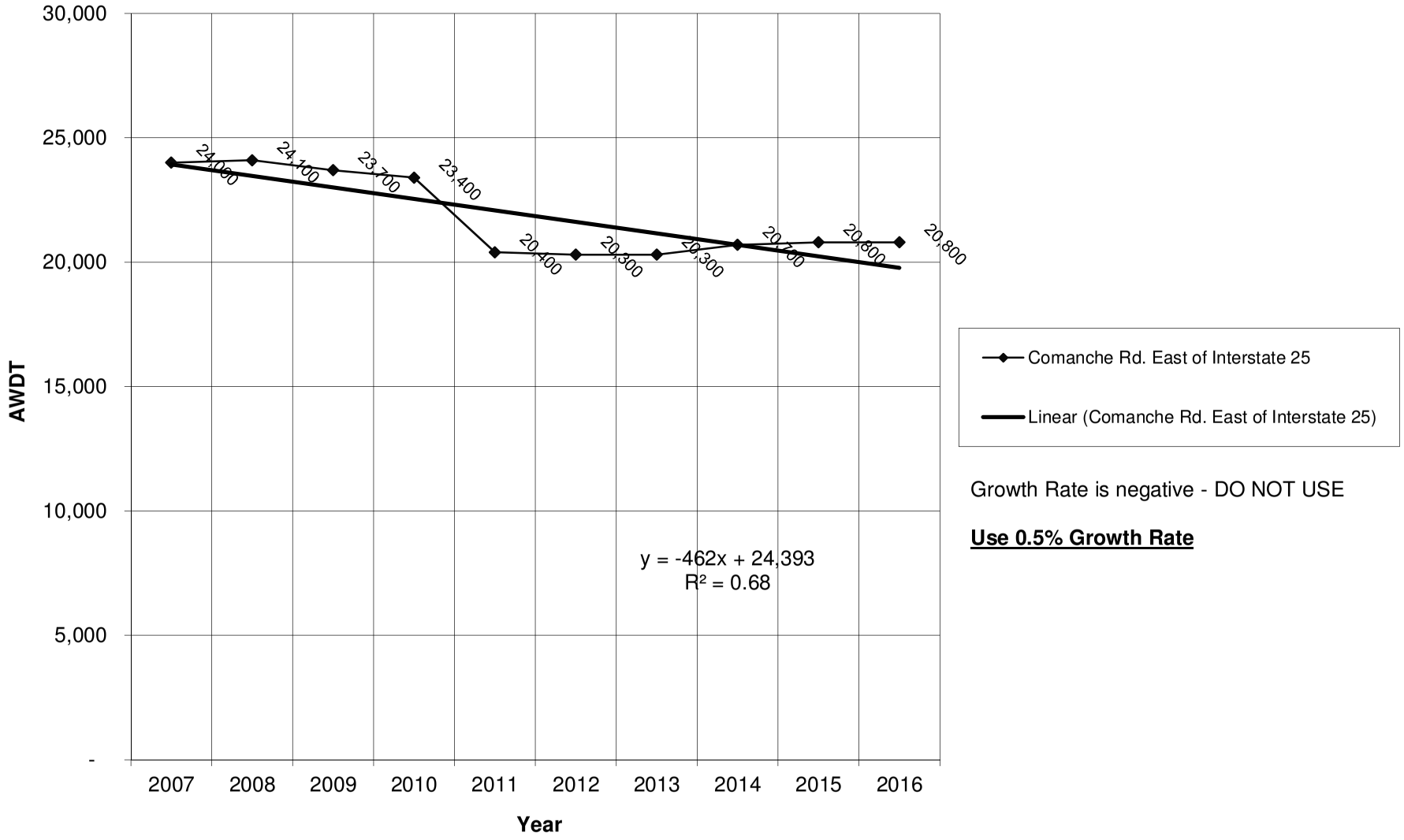
Growth Rate = 195 / 16400

Growth Rate = .0118

Use 1.2% Growth Rate

Maverick_Growth.xlsx

Historic Growth Chart Comanche Rd. East of Interstate 25 (2007-2016)

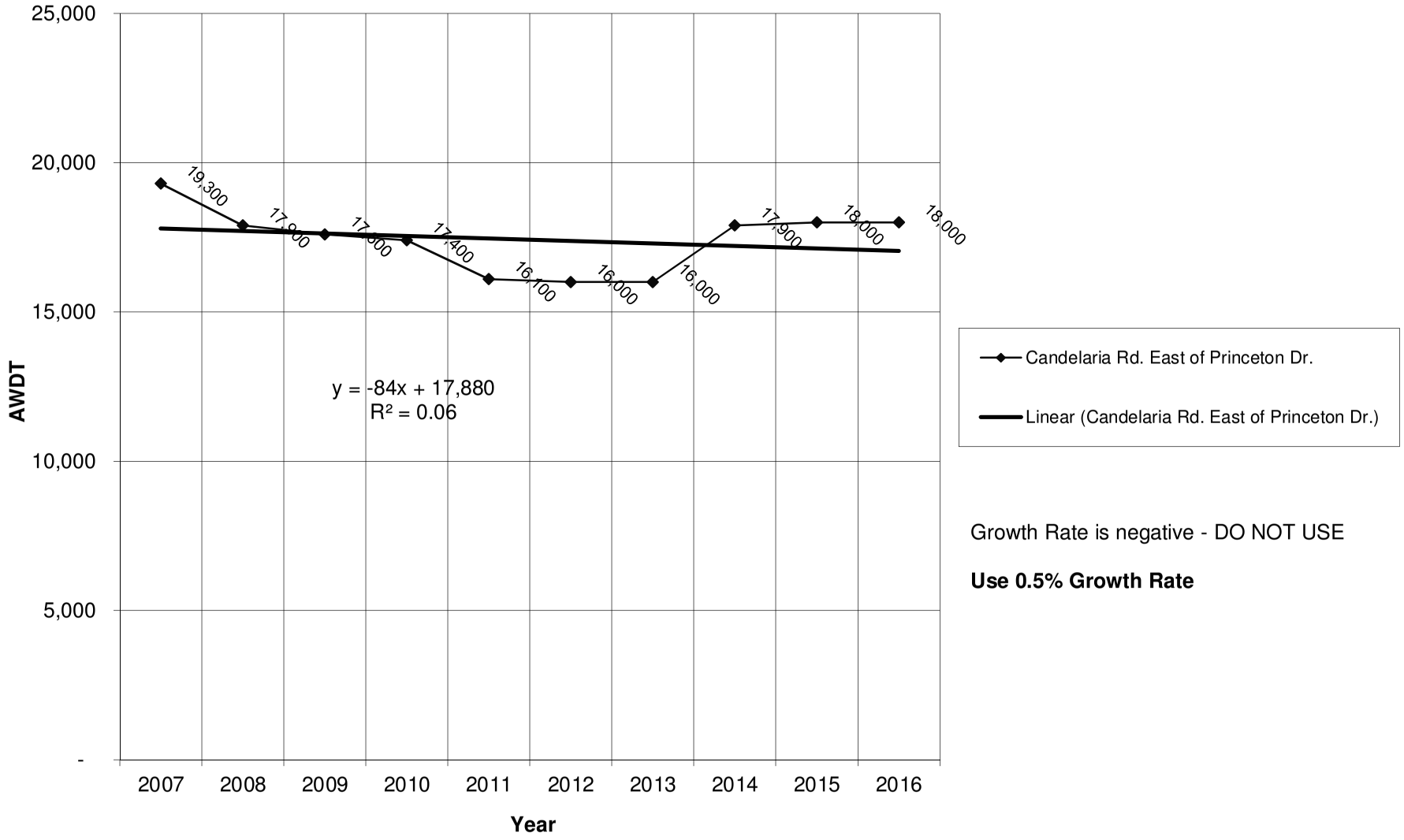


Growth Rate is negative - DO NOT USE

Use 0.5% Growth Rate

Maverick_Growth.xlsx

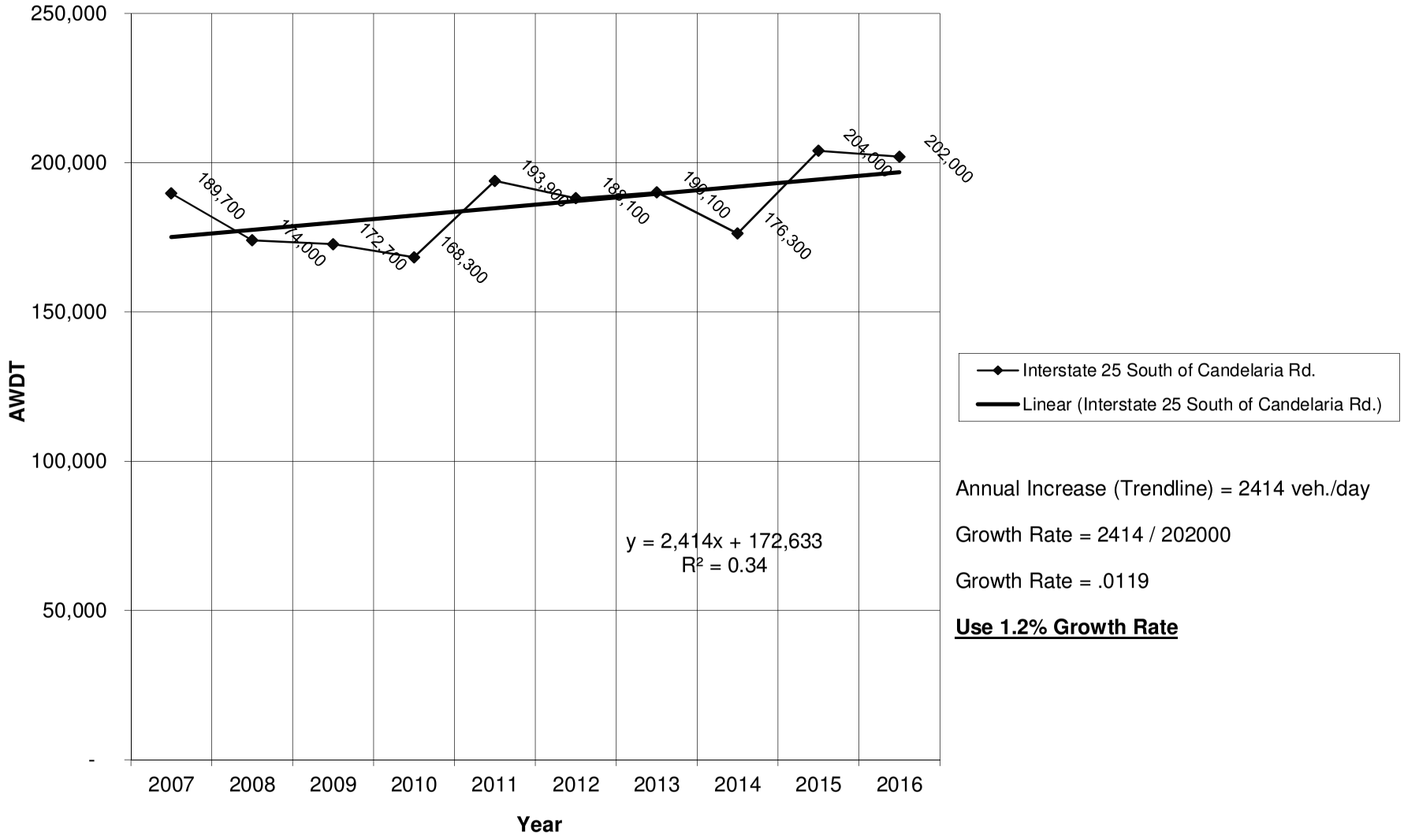
Historic Growth Chart Candelaria Rd. East of Princeton Dr. (2007-2016)



Growth Rate is negative - DO NOT USE

Use 0.5% Growth Rate

Historic Growth Chart Interstate 25 South of Candelaria Rd. (2007-2016)



Annual Increase (Trendline) = 2414 veh./day

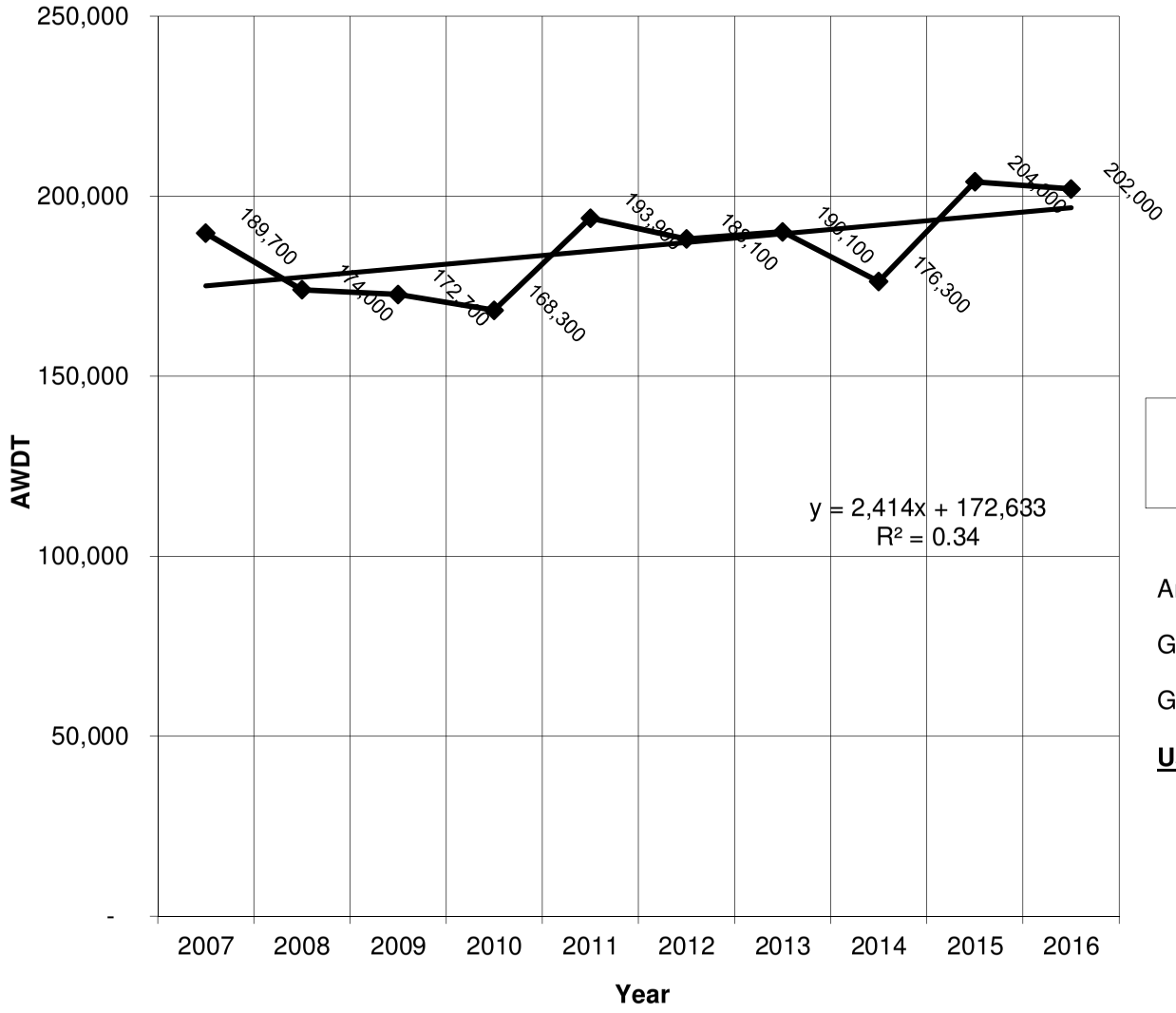
Growth Rate = 2414 / 202000

Growth Rate = .0119

Use 1.2% Growth Rate

Maverick_Growth.xlsx

Historic Growth Chart Interstate 25 btwn Candelaria & Comanche (2007-2016)



Annual Increase (Trendline) = 2414 veh. / day

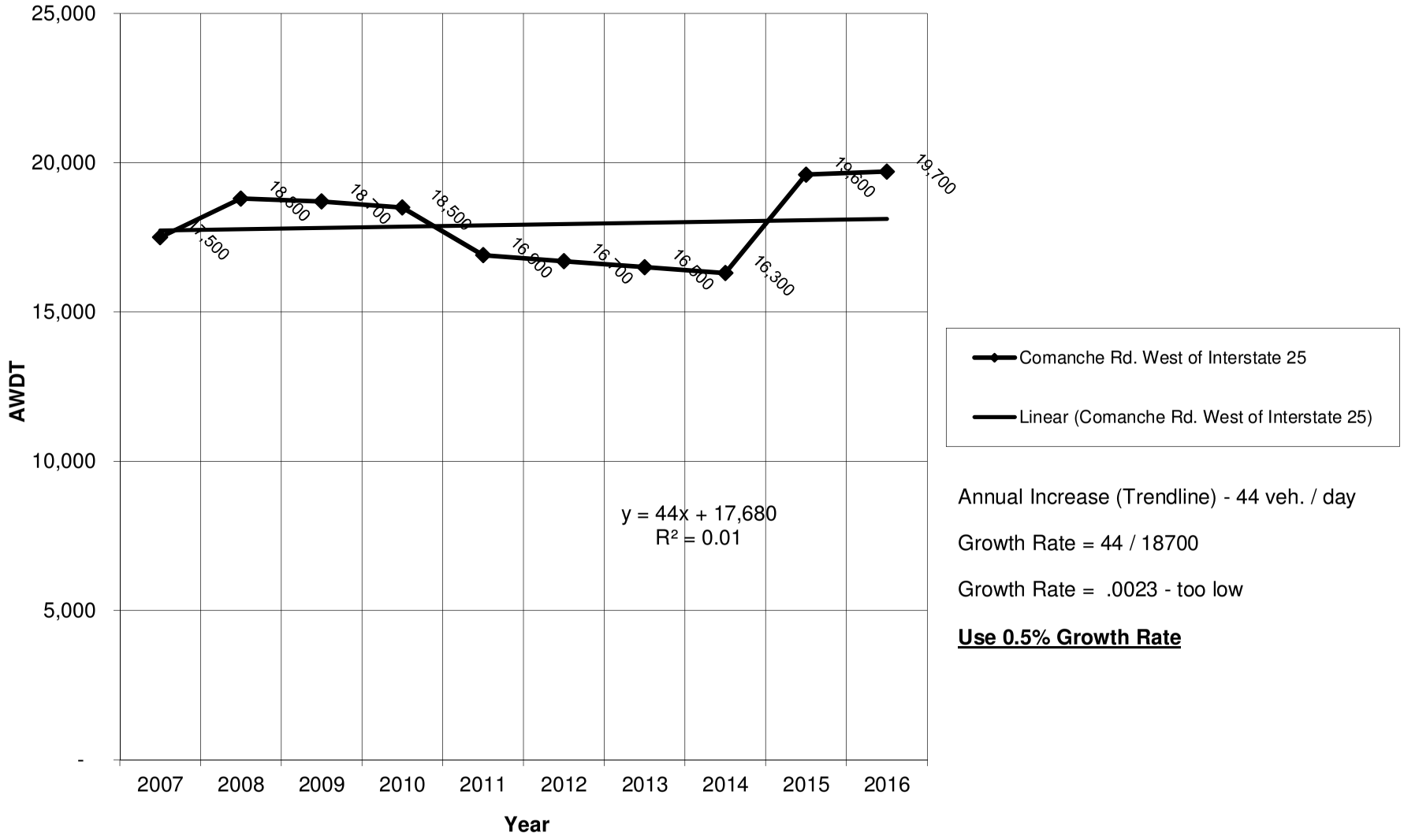
Growth Rate = 2414 / 202000

Growth Rate - .0119

Use 1.2% Growth Rate

Maverick_Growth.xlsx

Historic Growth Chart Comanche Rd. West of Interstate 25 (2007-2016)



Annual Increase (Trendline) - 44 veh. / day

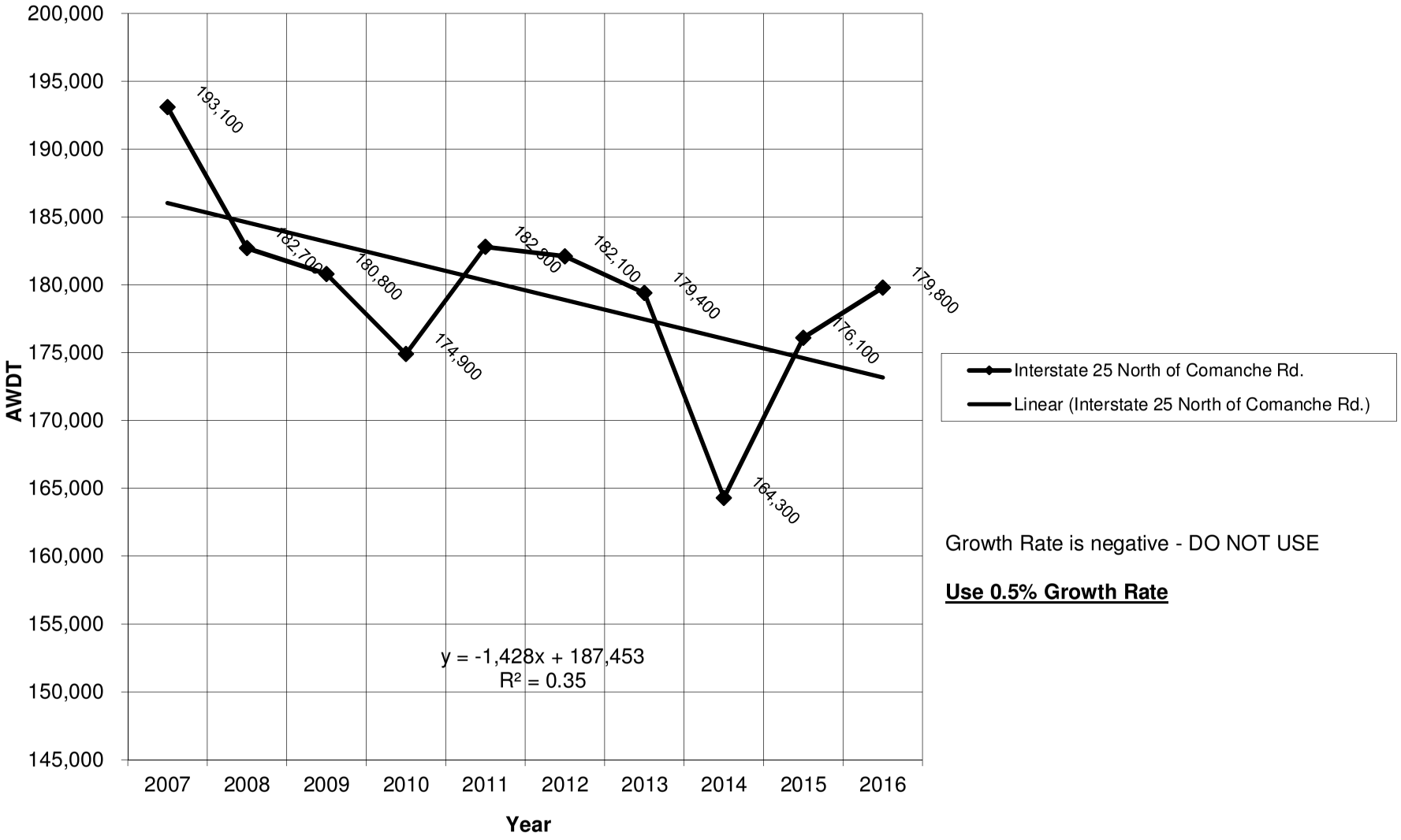
Growth Rate = 44 / 18700

Growth Rate = .0023 - too low

Use 0.5% Growth Rate

Maverick_Growth.xlsx

Historic Growth Chart Interstate 25 North of Comanche rd. (2007-2016)



Growth Rate is negative - DO NOT USE

Use 0.5% Growth Rate

Maverick_Growth.xlsx

Maverik Convenience Store (Comanche Rd. / Princeton Dr.)

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2019) - 100% Development

INTERSECTION: **Summary**

Comanche Rd. / Carlisle Bd.

(1)	0.88			0.88			0.88			0.88			PHF
	Eastbound (Comanche Rd.)			Westbound (Comanche Rd.)			Northbound (Carlisle Bd.)			Southbound (Carlisle Bd.)			
3.0% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2019)	71	158	135	76	288	62	157	410	25	9	386	91	
2019 (NO BUILD - A.M.)	*71*	*158*	*135*	*76*	*288*	*62*	*157*	*410*	*25*	*9*	*386*	*91*	
2019 (BUILD - A.M.)	***97***	***170***	***142***	***76***	***301***	***62***	***165***	***410***	***25***	***9***	***386***	***119***	

	0.93			0.93			0.93			0.93			PHF
	Eastbound (Comanche Rd.)			Westbound (Comanche Rd.)			Northbound (Carlisle Bd.)			Southbound (Carlisle Bd.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2019)	112	382	381	90	344	58	161	673	91	77	636	103	
2019 (NO BUILD - P.M.)	*112*	*382*	*381*	*90*	*344*	*58*	*161*	*673*	*91*	*77*	*636*	*103*	
2019 (BUILD - P.M.)	***138***	***394***	***388***	***90***	***357***	***58***	***169***	***673***	***91***	***77***	***636***	***130***	

Candelaria Rd. / Princeton Dr.

(2)	0.85			0.85			0.85			0.85			PHF
	Eastbound (Candelaria Rd.)			Westbound (Candelaria Rd.)			Northbound (Princeton Dr.)			Southbound (Princeton Dr.)			
3.0% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2019)	31	560	36	22	560	60	32	47	26	50	28	59	
2019 (NO BUILD - A.M.)	*31*	*560*	*36*	*22*	*560*	*60*	*32*	*47*	*26*	*50*	*28*	*59*	
2019 (BUILD - A.M.)	***35***	***560***	***36***	***22***	***560***	***70***	***32***	***55***	***26***	***59***	***36***	***63***	

	0.99			0.99			0.99			0.99			PHF
	Eastbound (Candelaria Rd.)			Westbound (Candelaria Rd.)			Northbound (Princeton Dr.)			Southbound (Princeton Dr.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2019)	17	754	23	22	976	28	35	12	34	66	27	124	
2019 (NO BUILD - P.M.)	*17*	*754*	*23*	*22*	*976*	*28*	*35*	*12*	*34*	*66*	*27*	*124*	
2019 (BUILD - P.M.)	***21***	***754***	***23***	***22***	***976***	***37***	***35***	***20***	***34***	***75***	***35***	***128***	

Candelaria Rd. / University Bd.

(3)	0.89			0.89			0.89			0.89			PHF
	Eastbound (Candelaria Rd.)			Westbound (Candelaria Rd.)			Northbound (University Bd.)			Southbound (University Bd.)			
3.0% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2019)	170	530	205	109	390	159	116	247	86	13	2	4	
2019 (NO BUILD - A.M.)	*170*	*530*	*205*	*109*	*390*	*159*	*116*	*247*	*86*	*13*	*2*	*4*	
2019 (BUILD - A.M.)	***180***	***532***	***205***	***109***	***402***	***166***	***116***	***253***	***88***	***13***	***2***	***4***	

	0.90			0.90			0.90			0.90			PHF
	Eastbound (Candelaria Rd.)			Westbound (Candelaria Rd.)			Northbound (University Bd.)			Southbound (University Bd.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2019)	112	604	174	145	774	227	164	476	168	41	7	12	
2019 (NO BUILD - P.M.)	*112*	*604*	*174*	*145*	*774*	*227*	*164*	*476*	*168*	*41*	*7*	*12*	
2019 (BUILD - P.M.)	***122***	***606***	***174***	***145***	***786***	***234***	***164***	***482***	***170***	***41***	***7***	***12***	

Comanche Rd. / I-25 W.Ramp

(4)	0.91			0.91			0.91			0.91			PHF
	Eastbound (Comanche Rd.)			Westbound (Comanche Rd.)			Northbound (I-25 W.Ramp)			Southbound (I-25 W.Ramp)			
3.0% Truck	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2019)	0	0	380	362	0	0	0	0	0	343	718	134	
2019 (NO BUILD - A.M.)	*0*	*510*	*380*	*362*	*865*	*0*	*0*	*0*	*0*	*343*	*718*	*134*	
2019 (BUILD - A.M.)	***0***	***523***	***380***	***364***	***872***	***0***	***0***	***0***	***0***	***359***	***718***	***134***	

	0.96			0.96			0.96			0.96			PHF
	Eastbound (Comanche Rd.)			Westbound (Comanche Rd.)			Northbound (I-25 W.Ramp)			Southbound (I-25 W.Ramp)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2019)	0	0	535	443	0	0	0	0	0	333	778	159	
2019 (NO BUILD - P.M.)	*0*	*462*	*535*	*443*	*720*	*0*	*0*	*0*	*0*	*333*	*778*	*159*	
2019 (BUILD - P.M.)	***0***	***474***	***535***	***445***	***726***	***0***	***0***	***0***	***0***	***349***	***778***	***159***	

Maverik Convenience Store (Comanche Rd. / Princeton Dr.)

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2019) - 100% Development

INTERSECTION: **Summary**

Comanche Rd. / I-25 E.Ramp

(5)	0.92			0.92			0.92			0.92			PHF
3.0% Truck	Eastbound (Comanche Rd.)			Westbound (Comanche Rd.)			Northbound (I-25 E.Ramp)			Southbound (I-25 E.Ramp)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2019)	242	611	0	0	501	96	726	824	397	0	0	0	
2019 (NO BUILD - A.M.)	*242*	*611*	*0*	*0*	*501*	*96*	*726*	*824*	*397*	*0*	*0*	*0*	
2019 (BUILD - A.M.)	***242***	***640***	***0***	***0***	***514***	***111***	***726***	***824***	***409***	***0***	***0***	***0***	
	0.89			*0.89*			*0.89*			*0.89*			*PHF*
	Eastbound (Comanche Rd.)			Westbound (Comanche Rd.)			Northbound (I-25 E.Ramp)			Southbound (I-25 E.Ramp)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2019)	206	589	0	0	614	166	549	1,330	424	0	0	0	
2019 (NO BUILD - P.M.)	*206*	*589*	*0*	*0*	*614*	*166*	*549*	*1,330*	*424*	*0*	*0*	*0*	
2019 (BUILD - P.M.)	***206***	***617***	***0***	***0***	***627***	***181***	***549***	***1,330***	***436***	***0***	***0***	***0***	

Comanche Rd. / Princeton Dr.

(6)	0.75			0.75			0.75			0.75			PHF
3.0% Truck	Eastbound (Comanche Rd.)			Westbound (Comanche Rd.)			Northbound (Princeton Dr.)			Southbound (Princeton Dr.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2019)	8	0	310	37	0	0	46	0	27	1	0	4	
2019 (NO BUILD - A.M.)	*8*	*690*	*310*	*37*	*547*	*0*	*46*	*0*	*27*	*1*	*0*	*4*	
2019 (BUILD - A.M.)	***8***	***690***	***351***	***113***	***547***	***0***	***75***	***1***	***100***	***1***	***1***	***4***	
	0.95			*0.95*			*0.95*			*0.95*			*PHF*
	Eastbound (Comanche Rd.)			Westbound (Comanche Rd.)			Northbound (Princeton Dr.)			Southbound (Princeton Dr.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2019)	15	0	110	19	0	7	51	1	54	4	2	21	
2019 (NO BUILD - P.M.)	*15*	*888*	*110*	*19*	*708*	*7*	*51*	*1*	*54*	*4*	*2*	*21*	
2019 (BUILD - P.M.)	***15***	***888***	***151***	***94***	***708***	***7***	***79***	***2***	***126***	***4***	***3***	***21***	

Driveway "A" / Princeton Dr.

(7)	0.75			0.75			0.75			0.75			PHF
3.0% Truck	Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (Princeton Dr.)			Southbound (Princeton Dr.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2019)	0	0	0	0	0	0	0	0	0	0	0	0	
2019 (NO BUILD - A.M.)	*0*	*0*	*0*	*0*	*0*	*3*	*0*	*70*	*0*	*9*	*338*	*0*	
2019 (BUILD - A.M.)	***28***	***0***	***0***	***0***	***0***	***3***	***0***	***156***	***0***	***9***	***397***	***59***	
	0.95			*0.95*			*0.95*			*0.95*			*PHF*
	Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (Princeton Dr.)			Southbound (Princeton Dr.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2019)	0	0	0	0	0	0	0	0	0	0	0	0	
2019 (NO BUILD - P.M.)	*0*	*0*	*0*	*0*	*0*	*9*	*0*	*97*	*0*	*6*	*125*	*0*	
2019 (BUILD - P.M.)	***27***	***0***	***0***	***0***	***0***	***9***	***0***	***182***	***0***	***6***	***184***	***59***	

Driveway "B" / Princeton Dr.

(8)	0.75			0.75			0.75			0.75			PHF
3.0% Truck	Eastbound (Driveway "B")			Westbound (Driveway "B")			Northbound (Princeton Dr.)			Southbound (Princeton Dr.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2019)	0	0	0	0	0	0	0	0	0	0	0	0	
2019 (NO BUILD - A.M.)	*0*	*0*	*0*	*3*	*0*	*3*	*0*	*70*	*6*	*9*	*329*	*0*	
2019 (BUILD - A.M.)	***86***	***0***	***25***	***3***	***0***	***3***	***26***	***70***	***6***	***9***	***329***	***59***	
	0.95			*0.95*			*0.95*			*0.95*			*PHF*
	Eastbound (Driveway "B")			Westbound (Driveway "B")			Northbound (Princeton Dr.)			Southbound (Princeton Dr.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2019)	0	0	0	0	0	0	0	0	0	0	0	0	
2019 (NO BUILD - P.M.)	*0*	*0*	*0*	*5*	*0*	*9*	*0*	*97*	*3*	*6*	*119*	*0*	
2019 (BUILD - P.M.)	***85***	***0***	***25***	***5***	***0***	***9***	***26***	***97***	***3***	***6***	***119***	***59***	

Maverik Convenience Store (Comanche Rd. / Princeton Dr.)

Projected Turning Movements Worksheet

Comanche Rd. / Carlisle Bd.

INTERSECTION: E-W Street: **Comanche Rd.** (1)

N-S Street: **Carlisle Bd.**

Year of Existing Counts 2018

Implementation Year **2019**

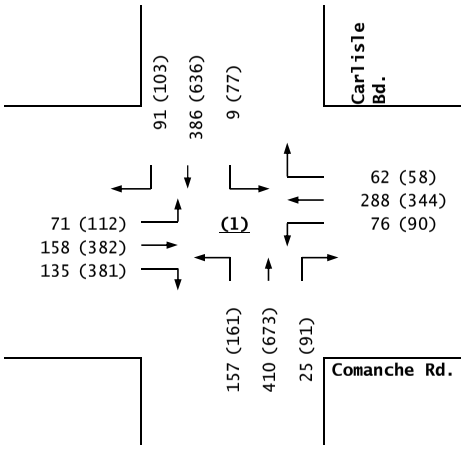
Growth Rates	**1.20%**			**0.50%**			**0.50%**			**1.30%**		
	Eastbound (Comanche Rd.)			**Westbound (Comanche Rd.)**			**Northbound (Carlisle Bd.)**			**Southbound (Carlisle Bd.)**		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	70	156	133	76	287	62	156	408	25	9	381	90
Background Traffic Growth	1	2	2	0	1	0	1	2	0	0	5	1
Subtotal (NO BUILD - A.M.)	***71***	***158***	***135***	***76***	***288***	***62***	***157***	***410***	***25***	***9***	***386***	***91***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***8.78%***	*0.00%*	***5.32%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***19.06%***
Percent Commercial Trips Generated(Exiting)	***19.06%***	***8.78%***	***5.32%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	26	12	7	0	13	0	8	0	0	0	0	28
Total AM Peak Hour BUILD Volumes	**97**	**170**	**142**	**76**	**301**	**62**	**165**	**410**	**25**	**9**	**386**	**119**

	Eastbound (Comanche Rd.)			**Westbound (Comanche Rd.)**			**Northbound (Carlisle Bd.)**			**Southbound (Carlisle Bd.)**		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	111	377	376	90	342	58	160	670	91	76	628	102
Background Traffic Growth	1	5	5	0	2	0	1	3	0	1	8	1
Subtotal (NO BUILD - P.M.)	***112***	***382***	***381***	***90***	***344***	***58***	***161***	***673***	***91***	***77***	***636***	***103***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***8.78%***	*0.00%*	***5.32%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***19.06%***
Percent Commercial Trips Generated(Exiting)	***19.06%***	***8.78%***	***5.32%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	26	12	7	0	13	0	8	0	0	0	0	27
Total PM Peak Hour BUILD Volumes	**138**	**394**	**388**	**90**	**357**	**58**	**169**	**673**	**91**	**77**	**636**	**130**

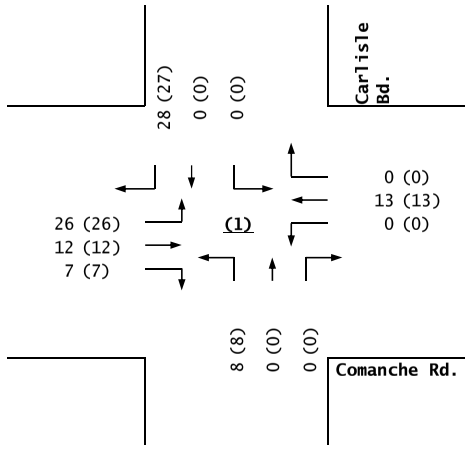
	Entering	Exiting		
Number of Commercial Trips Generated	**145**	**139**	A.M.	100% Commercial Development
	143	**137**	P.M.	

	Eastbound (Comanche Rd.)			**Westbound (Comanche Rd.)**			**Northbound (Carlisle Bd.)**			**Southbound (Carlisle Bd.)**		
2019 AM Peak Hr. Volumes	71	158	135	76	288	62	157	410	25	9	386	91
2019 PM Peak Hr. Volumes	112	382	381	90	344	58	161	673	91	77	636	103

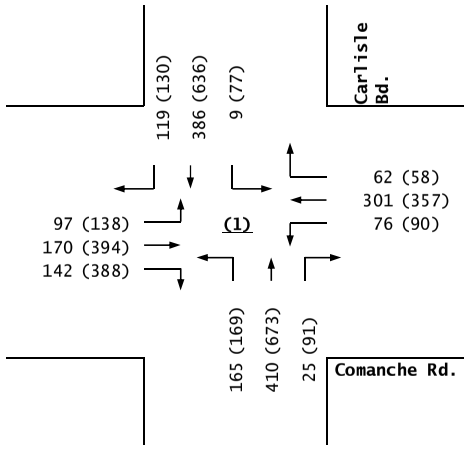
2019
NO BUILD



Trips



2019
BUILD



Comanche Rd. / Carlisle Bd.

Maverik Convenience Store (Comanche Rd. / Princeton Dr.)

Projected Turning Movements Worksheet

Candelaria Rd. / Princeton Dr.

INTERSECTION: E-W Street: **Candelaria Rd.** (2)

N-S Street: **Princeton Dr.**

Year of Existing Counts 2018

Implementation Year **2019**

Growth Rates 0.50% 0.50% 0.50% 0.50%

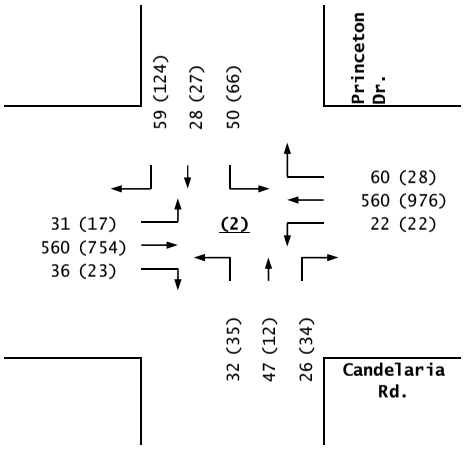
	Eastbound (Candelaria Rd.)			Westbound (Candelaria Rd.)			Northbound (Princeton Dr.)			Southbound (Princeton Dr.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	31	557	36	22	557	60	32	47	26	50	28	59
Background Traffic Growth	0	3	0	0	3	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***31***	***560***	***36***	***22***	***560***	***60***	***32***	***47***	***26***	***50***	***28***	***59***
Percent Commercial Trips Generated(Entering)	***2.75%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***6.62%***	*0.00%*	***5.60%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***6.62%***	***5.60%***	***2.75%***
Total Trips Generated	4	0	0	0	0	10	0	8	0	9	8	4
Total AM Peak Hour BUILD Volumes	**35**	**560**	**36**	**22**	**560**	**70**	**32**	**55**	**26**	**59**	**36**	**63**

	Eastbound (Candelaria Rd.)			Westbound (Candelaria Rd.)			Northbound (Princeton Dr.)			Southbound (Princeton Dr.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	17	750	23	22	971	28	35	12	34	66	27	123
Background Traffic Growth	0	4	0	0	5	0	0	0	0	0	0	1
Subtotal (NO BUILD - P.M.)	***17***	***754***	***23***	***22***	***976***	***28***	***35***	***12***	***34***	***66***	***27***	***124***
Percent Commercial Trips Generated(Entering)	***2.75%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***6.62%***	*0.00%*	***5.60%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***6.62%***	***5.60%***	***2.75%***
Total Trips Generated	4	0	0	0	0	9	0	8	0	9	8	4
Total PM Peak Hour BUILD Volumes	**21**	**754**	**23**	**22**	**976**	**37**	**35**	**20**	**34**	**75**	**35**	**128**

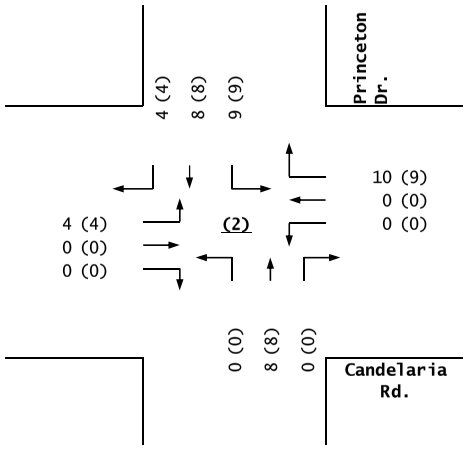
	Entering	Exiting		
Number of Commercial Trips Generated	**145**	**139**	A.M.	100% Commercial Development
	143	**137**	P.M.	

	Eastbound (Candelaria Rd.)			Westbound (Candelaria Rd.)			Northbound (Princeton Dr.)			Southbound (Princeton Dr.)		
2019 AM Peak Hr. Volumes	31	560	36	22	560	60	32	47	26	50	28	59
2019 PM Peak Hr. Volumes	17	754	23	22	976	28	35	12	34	66	27	124

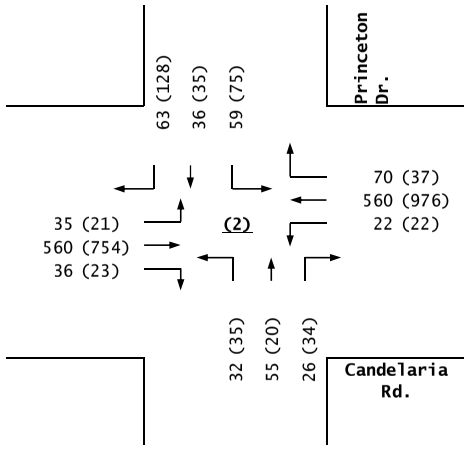
2019
NO BUILD



Trips



2019
BUILD



Candelaria Rd. / Princeton Dr.

Maverik Convenience Store (Comanche Rd. / Princeton Dr.)

Projected Turning Movements Worksheet

Candelaria Rd. / University Bd.

INTERSECTION: E-W Street: **Candelaria Rd.** (3)

N-S Street: **University Bd.**

Year of Existing Counts 2018

Implementation Year **2019**

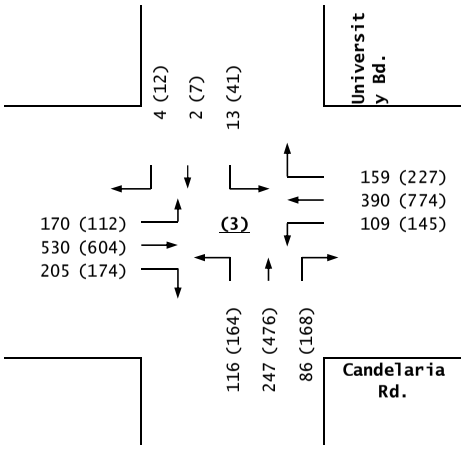
Growth Rates	**0.50%**			**0.50%**			**1.20%**			**1.20%**		
	Eastbound (Candelaria Rd.)			**Westbound (Candelaria Rd.)**			**Northbound (University Bd.)**			**Southbound (University Bd.)**		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	169	527	204	108	388	158	115	244	85	13	2	4
Background Traffic Growth	1	3	1	1	2	1	1	3	1	0	0	0
Subtotal (NO BUILD - A.M.)	***170***	***530***	***205***	***109***	***390***	***159***	***116***	***247***	***86***	***13***	***2***	***4***
Percent Commercial Trips Generated(Entering)	***6.76%***	***1.69%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***4.25%***	***1.06%***	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***8.45%***	***5.31%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	10	2	0	0	12	7	0	6	2	0	0	0
Total AM Peak Hour BUILD Volumes	**180**	**532**	**205**	**109**	**402**	**166**	**116**	**253**	**88**	**13**	**2**	**4**

	Eastbound (Candelaria Rd.)			**Westbound (Candelaria Rd.)**			**Northbound (University Bd.)**			**Southbound (University Bd.)**		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	111	601	173	144	770	226	162	470	166	41	7	12
Background Traffic Growth	1	3	1	1	4	1	2	6	2	0	0	0
Subtotal (NO BUILD - P.M.)	***112***	***604***	***174***	***145***	***774***	***227***	***164***	***476***	***168***	***41***	***7***	***12***
Percent Commercial Trips Generated(Entering)	***6.76%***	***1.69%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***4.25%***	***1.06%***	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***8.45%***	***5.31%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	10	2	0	0	12	7	0	6	2	0	0	0
Total PM Peak Hour BUILD Volumes	**122**	**606**	**174**	**145**	**786**	**234**	**164**	**482**	**170**	**41**	**7**	**12**

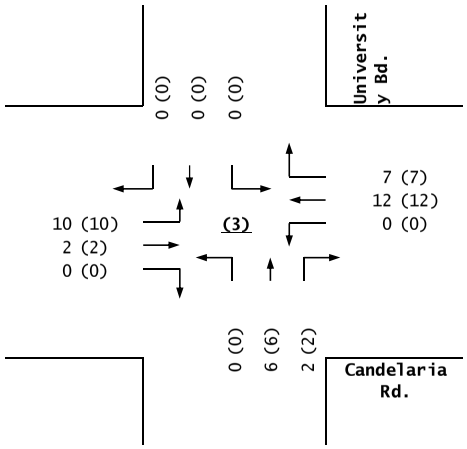
	Entering	Exiting		
Number of Commercial Trips Generated	**145**	**139**	A.M.	100% Commercial Development
	143	**137**	P.M.	

	Eastbound (Candelaria Rd.)			**Westbound (Candelaria Rd.)**			**Northbound (University Bd.)**			**Southbound (University Bd.)**		
2019 AM Peak Hr. Volumes	170	530	205	109	390	159	116	247	86	13	2	4
2019 PM Peak Hr. Volumes	112	604	174	145	774	227	164	476	168	41	7	12

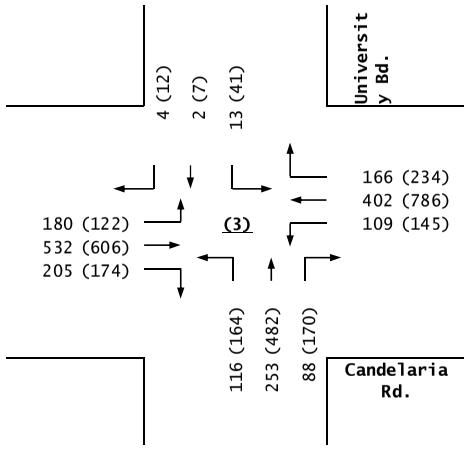
2019
NO BUILD



Trips



2019
BUILD



Candelaria Rd. / University Bd.

Maverik Convenience Store (Comanche Rd. / Princeton Dr.)

Projected Turning Movements Worksheet

Comanche Rd. / I-25 W.Ramp

INTERSECTION: E-W Street: **Comanche Rd.** (4) Due to the close proximity to the I-25 E.Ramp,
N-S Street: **I-25 W.Ramp** these volumes were balanced with Intersection #5

Year of Existing Counts 2018
Implementation Year **2019**

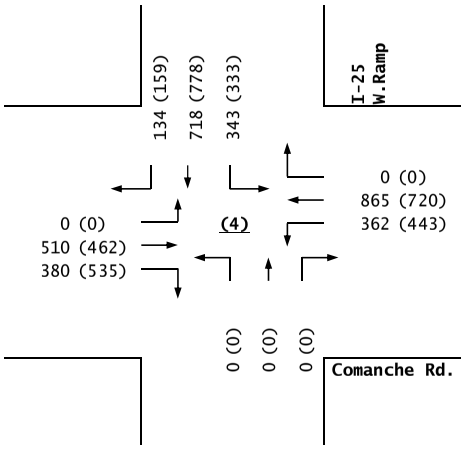
Growth Rates	**0.50%**			**0.50%**			**0.50%**			**0.50%**		
	Eastbound (Comanche Rd.)			**Westbound (Comanche Rd.)**			**Northbound (I-25 W.Ramp)**			**Southbound (I-25 W.Ramp)**		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	378	360	0	0	0	0	0	341	714	133
Background Traffic Growth	0	0	2	2	0	0	0	0	0	2	4	1
Subtotal (NO BUILD - A.M.)	***0***	***510***	***380***	***362***	***865***	***0***	***0***	***0***	***0***	***343***	***718***	***134***
Percent Commercial Trips Generated(Entering)	*0.00%*	***8.68%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***11.07%***	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	***1.73%***	***4.74%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	13	0	2	7	0	0	0	0	16	0	0
Total AM Peak Hour BUILD Volumes	**0**	**523**	**380**	**364**	**872**	**0**	**0**	**0**	**0**	**359**	**718**	**134**

	Eastbound (Comanche Rd.)			**Westbound (Comanche Rd.)**			**Northbound (I-25 W.Ramp)**			**Southbound (I-25 W.Ramp)**		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	532	441	0	0	0	0	0	331	774	158
Background Traffic Growth	0	0	3	2	0	0	0	0	0	2	4	1
Subtotal (NO BUILD - P.M.)	***0***	***462***	***535***	***443***	***720***	***0***	***0***	***0***	***0***	***333***	***778***	***159***
Percent Commercial Trips Generated(Entering)	*0.00%*	***8.68%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***11.07%***	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	***1.73%***	***4.74%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	12	0	2	6	0	0	0	0	16	0	0
Total PM Peak Hour BUILD Volumes	**0**	**474**	**535**	**445**	**726**	**0**	**0**	**0**	**0**	**349**	**778**	**159**

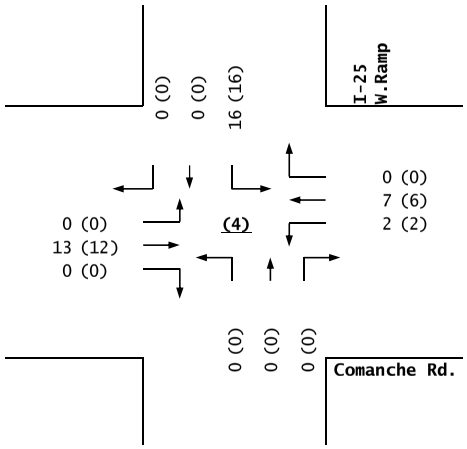
	Entering	Exiting		
Number of Commercial Trips Generated	**145**	**139**	A.M.	100% Commercial Development
	143	**137**	P.M.	

	Eastbound (Comanche Rd.)			**Westbound (Comanche Rd.)**			**Northbound (I-25 W.Ramp)**			**Southbound (I-25 W.Ramp)**		
2019 AM Peak Hr. Volumes	0	0	380	362	0	0	0	0	0	343	718	134
2019 PM Peak Hr. Volumes	0	0	535	443	0	0	0	0	0	333	778	159

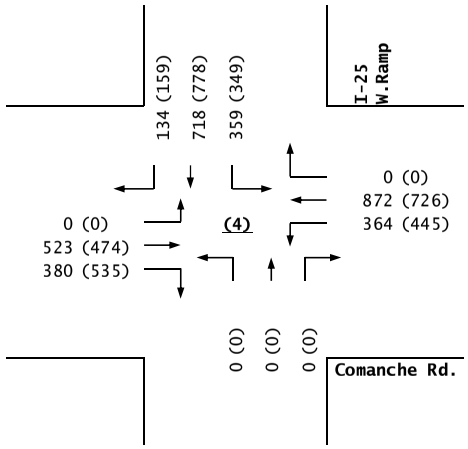
2019
NO BUILD



Trips



2019
BUILD



Comanche Rd. / I-25 W.Ramp

Maverik Convenience Store (Comanche Rd. / Princeton Dr.)

Projected Turning Movements Worksheet

Comanche Rd. / I-25 E.Ramp

INTERSECTION: E-W Street: **Comanche Rd.** (5)

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

Year of Existing Counts 2018

Implementation Year **2019**

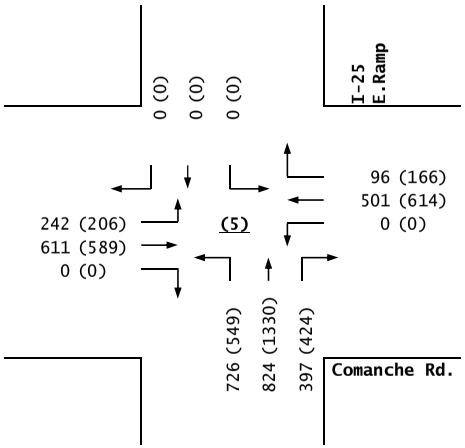
Growth Rates	**0.50%**			**0.50%**			**1.20%**			**0.50%**		
	Eastbound (Comanche Rd.)			**Westbound (Comanche Rd.)**			**Northbound (I-25 E.Ramp)**			**Southbound (I-25 E.Ramp)**		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	241	608	0	0	499	96	717	814	392	0	0	0
Background Traffic Growth	1	3	0	0	2	0	9	10	5	0	0	0
Subtotal (NO BUILD - A.M.)	***242***	***611***	***0***	***0***	***501***	***96***	***726***	***824***	***397***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	***19.75%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***8.61%***	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***9.47%***	***11.07%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	29	0	0	13	15	0	0	12	0	0	0
Total AM Peak Hour BUILD Volumes	**242**	**640**	**0**	**0**	**514**	**111**	**726**	**824**	**409**	**0**	**0**	**0**

	Eastbound (Comanche Rd.)			**Westbound (Comanche Rd.)**			**Northbound (I-25 E.Ramp)**			**Southbound (I-25 E.Ramp)**		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	205	586	0	0	611	165	542	1,314	419	0	0	0
Background Traffic Growth	1	3	0	0	3	1	7	16	5	0	0	0
Subtotal (NO BUILD - P.M.)	***206***	***589***	***0***	***0***	***614***	***166***	***549***	***1,330***	***424***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	***19.75%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***8.61%***	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***9.47%***	***11.07%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	28	0	0	13	15	0	0	12	0	0	0
Total PM Peak Hour BUILD Volumes	**206**	**617**	**0**	**0**	**627**	**181**	**549**	**1,330**	**436**	**0**	**0**	**0**

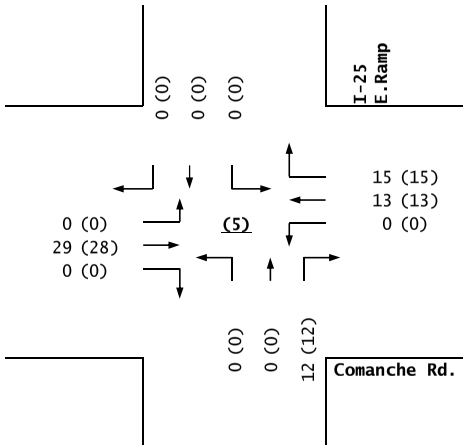
	Entering	Exiting		
Number of Commercial Trips Generated	**145**	**139**	A.M.	100% Commercial Development
	143	**137**	P.M.	

	Eastbound (Comanche Rd.)			**Westbound (Comanche Rd.)**			**Northbound (I-25 E.Ramp)**			**Southbound (I-25 E.Ramp)**		
2019 AM Peak Hr. Volumes	242	611	0	0	501	96	726	824	397	0	0	0
2019 PM Peak Hr. Volumes	206	589	0	0	614	166	549	1,330	424	0	0	0

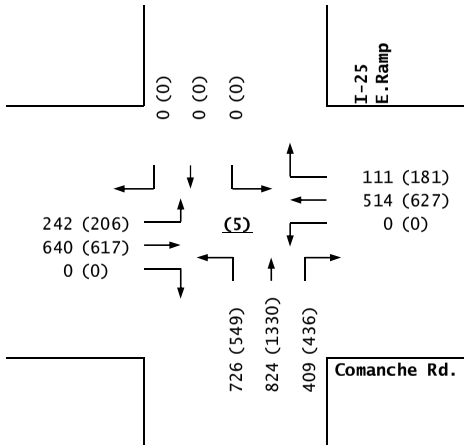
2019
NO BUILD



Trips



2019
BUILD



Comanche Rd. / I-25 E.Ramp

Maverik Convenience Store (Comanche Rd. / Princeton Dr.)

Projected Turning Movements Worksheet

Comanche Rd. / Princeton Dr.

INTERSECTION: E-W Street: **Comanche Rd.** (6) Due to the close proximity to the I-25 E.Ramp,
N-S Street: **Princeton Dr.** these volumes were balanced with Intersection #5

Year of Existing Counts 2018
Implementation Year **2019**

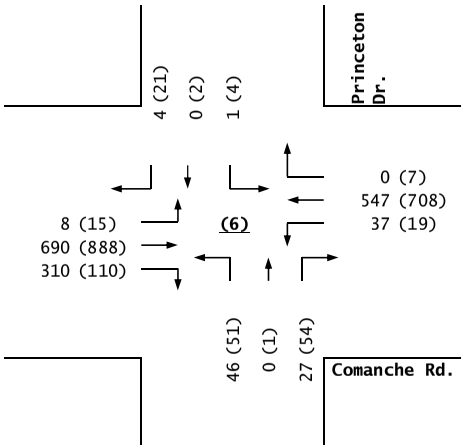
Growth Rates	**0.50%**			**0.50%**			**0.50%**			**0.50%**		
	Eastbound (Comanche Rd.)			**Westbound (Comanche Rd.)**			**Northbound (Princeton Dr.)**			**Southbound (Princeton Dr.)**		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	8	0	308	37	0	0	46	0	27	1	0	4
Background Traffic Growth	0	0	2	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***8***	***690***	***310***	***37***	***547***	***0***	***46***	***0***	***27***	***1***	***0***	***4***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	***28.36%***	***52.48%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***1.00%***	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***20.54%***	***1.00%***	***52.48%***	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	41	76	0	0	29	1	73	0	1	0
Total AM Peak Hour BUILD Volumes	**8**	**690**	**351**	**113**	**547**	**0**	**75**	**1**	**100**	**1**	**1**	**4**

	Eastbound (Comanche Rd.)			**Westbound (Comanche Rd.)**			**Northbound (Princeton Dr.)**			**Southbound (Princeton Dr.)**		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	15	0	109	19	0	7	51	1	54	4	2	21
Background Traffic Growth	0	0	1	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***15***	***888***	***110***	***19***	***708***	***7***	***51***	***1***	***54***	***4***	***2***	***21***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	***28.36%***	***52.48%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***1.00%***	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***20.54%***	***1.00%***	***52.48%***	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	41	75	0	0	28	1	72	0	1	0
Total PM Peak Hour BUILD Volumes	**15**	**888**	**151**	**94**	**708**	**7**	**79**	**2**	**126**	**4**	**3**	**21**

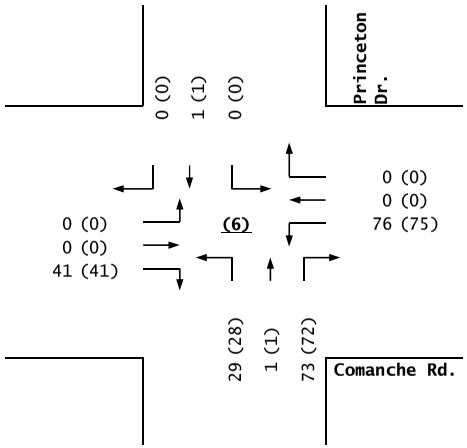
	Entering	Exiting		
Number of Commercial Trips Generated	**145**	**139**	A.M.	100% Commercial Development
	143	**137**	P.M.	

	Eastbound (Comanche Rd.)			**Westbound (Comanche Rd.)**			**Northbound (Princeton Dr.)**			**Southbound (Princeton Dr.)**		
2019 AM Peak Hr. Volumes	8	0	310	37	0	0	46	0	27	1	0	4
2019 PM Peak Hr. Volumes	15	0	110	19	0	7	51	1	54	4	2	21

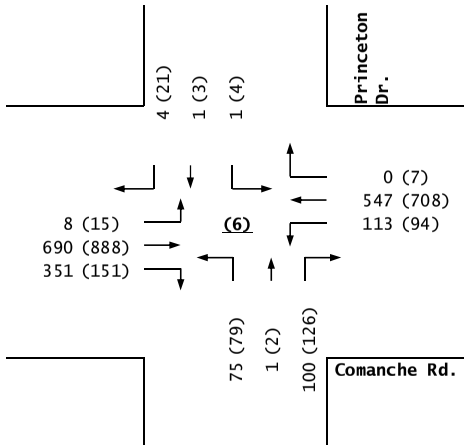
2019
NO BUILD



Trips



2019
BUILD



Comanche Rd. / Princeton Dr.

Maverik Convenience Store (Comanche Rd. / Princeton Dr.)

Projected Turning Movements Worksheet

Driveway "A" / Princeton Dr.

INTERSECTION: E-W Street: **Driveway "A"** (7)

N-S Street: **Princeton Dr.**

Year of Existing Counts 2018

Implementation Year **2019**

Growth Rates 0.50% 0.50% 0.50% 0.50%

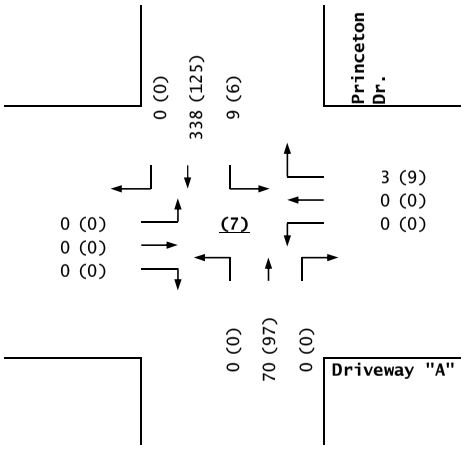
	Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (Princeton Dr.)			Southbound (Princeton Dr.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
Diesel Service Center	0	0	0	0	0	3	0	3	0	9	9	0
Subtotal (NO BUILD - A.M.)	***0***	***0***	***0***	***0***	***0***	***3***	***0***	***70***	***0***	***9***	***338***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***40.92%***	***40.92%***
Percent Commercial Trips Generated(Exiting)	***20.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***61.84%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	28	0	0	0	0	0	0	86	0	0	59	59
Total AM Peak Hour BUILD Volumes	**28**	**0**	**0**	**0**	**0**	**3**	**0**	**156**	**0**	**9**	**397**	**59**

	Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (Princeton Dr.)			Southbound (Princeton Dr.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
Diesel Service Center	0	0	0	0	0	9	0	9	0	6	6	0
Subtotal (NO BUILD - P.M.)	***0***	***0***	***0***	***0***	***0***	***9***	***0***	***97***	***0***	***6***	***125***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***40.92%***	***40.92%***
Percent Commercial Trips Generated(Exiting)	***20.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***61.84%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	27	0	0	0	0	0	0	85	0	0	59	59
Total PM Peak Hour BUILD Volumes	**27**	**0**	**0**	**0**	**0**	**9**	**0**	**182**	**0**	**6**	**184**	**59**

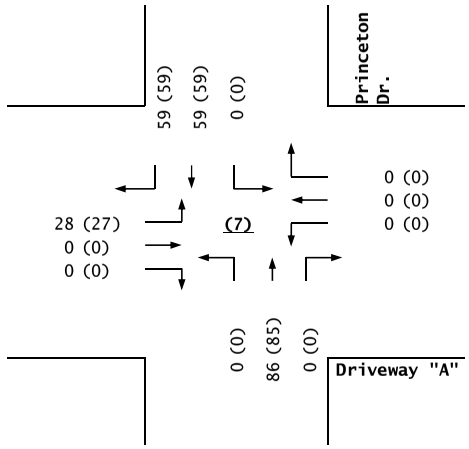
	Entering	Exiting		
Number of Commercial Trips Generated	**145**	**139**	A.M.	100% Commercial Development
	143	**137**	P.M.	

	Eastbound (Driveway "A")			Westbound (Driveway "A")			Northbound (Princeton Dr.)			Southbound (Princeton Dr.)		
2019 AM Peak Hr. Volumes	0	0	0	0	0	0	0	0	0	0	0	0
2019 PM Peak Hr. Volumes	0	0	0	0	0	0	0	0	0	0	0	0

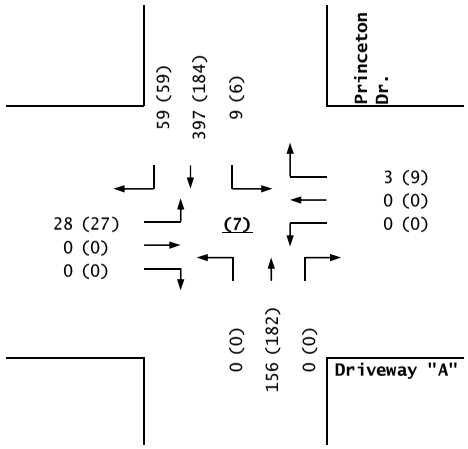
2019
NO BUILD



Trips



2019
BUILD



Driveway "A" / Princeton Dr.

Maverik Convenience Store (Comanche Rd. / Princeton Dr.)

Projected Turning Movements Worksheet

Driveway "B" / Princeton Dr.

INTERSECTION: E-W Street: **Driveway "B"** (8)

N-S Street: **Princeton Dr.**

Year of Existing Counts 2018

Implementation Year **2019**

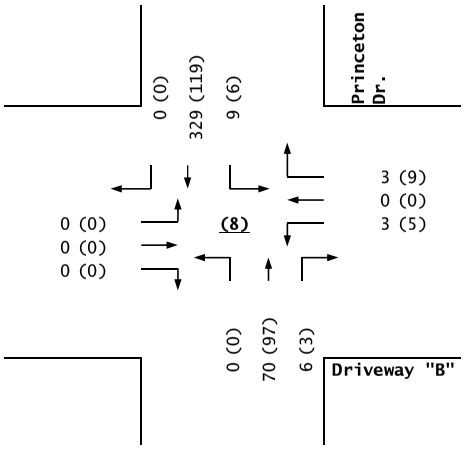
Growth Rates	**0.50%**			**0.50%**			**0.50%**			**0.50%**		
	Eastbound (Driveway "B")			**Westbound (Driveway "B")**			**Northbound (Princeton Dr.)**			**Southbound (Princeton Dr.)**		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
Diesel Service Center	0	0	0	3	0	3	0	0	6	9	0	0
Subtotal (NO BUILD - A.M.)	***0***	***0***	***0***	***3***	***0***	***3***	***0***	***70***	***6***	***9***	***329***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***18.16%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***40.92%***
Percent Commercial Trips Generated(Exiting)	***61.84%***	*0.00%*	***18.16%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	86	0	25	0	0	0	26	0	0	0	0	59
Total AM Peak Hour BUILD Volumes	**86**	**0**	**25**	**3**	**0**	**3**	**26**	**70**	**6**	**9**	**329**	**59**

	Eastbound (Driveway "B")			**Westbound (Driveway "B")**			**Northbound (Princeton Dr.)**			**Southbound (Princeton Dr.)**		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
Diesel Service Center	0	0	0	5	0	9	0	0	3	6	0	0
Subtotal (NO BUILD - P.M.)	***0***	***0***	***0***	***5***	***0***	***9***	***0***	***97***	***3***	***6***	***119***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***18.16%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***40.92%***
Percent Commercial Trips Generated(Exiting)	***61.84%***	*0.00%*	***18.16%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	85	0	25	0	0	0	26	0	0	0	0	59
Total PM Peak Hour BUILD Volumes	**85**	**0**	**25**	**5**	**0**	**9**	**26**	**97**	**3**	**6**	**119**	**59**

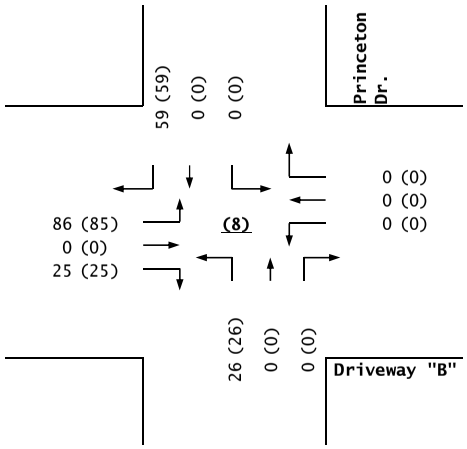
	Entering	Exiting		
Number of Commercial Trips Generated	**145**	**139**	A.M.	100% Commercial Development
	143	**137**	P.M.	

	Eastbound (Driveway "B")			**Westbound (Driveway "B")**			**Northbound (Princeton Dr.)**			**Southbound (Princeton Dr.)**		
2019 AM Peak Hr. Volumes	0	0	0	0	0	0	0	0	0	0	0	0
2019 PM Peak Hr. Volumes	0	0	0	0	0	0	0	0	0	0	0	0

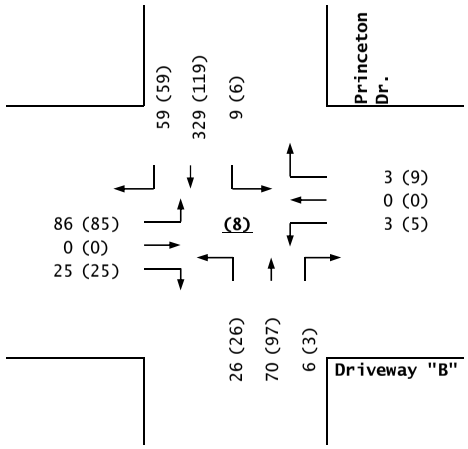
2019
NO BUILD



Trips



2019
BUILD



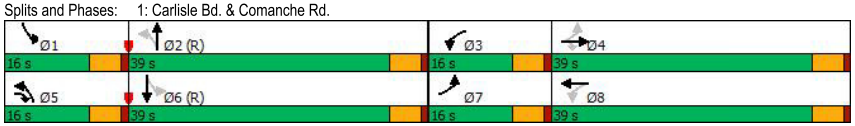
Driveway "B" / Princeton Dr.

HCM Levels-of-Service Analyses

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	71	158	135	76	288	157	410	9	386
Future Volume (vph)	71	158	135	76	288	157	410	9	386
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	5	3	8	5	2	1	6
Permitted Phases	4		4	8		2		6	
Detector Phase	7	4	5	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	21.0	10.0	21.0
Total Split (s)	16.0	39.0	16.0	16.0	39.0	16.0	39.0	16.0	39.0
Total Split (%)	14.5%	35.5%	14.5%	14.5%	35.5%	14.5%	35.5%	14.5%	35.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	Min	Min	Min	Min	Min	Min	C-Min	Min	C-Min
Act Effct Green (s)	26.5	17.4	32.9	27.1	17.6	67.1	57.4	58.4	52.6
Actuated g/C Ratio	0.24	0.16	0.30	0.25	0.16	0.61	0.52	0.53	0.48
v/c Ratio	0.34	0.62	0.27	0.31	0.70	0.33	0.19	0.02	0.23
Control Delay	31.4	52.2	5.0	30.4	47.5	11.8	14.9	11.0	16.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.4	52.2	5.0	30.4	47.5	11.8	14.9	11.0	16.8
LOS	C	D	A	C	D	B	B	B	B
Approach Delay		30.7			44.5		14.0		16.7
Approach LOS		C			D		B		B

Intersection Summary		
Cycle Length: 110		
Actuated Cycle Length: 110		
Offset: 55 (50%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green		
Natural Cycle: 65		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.70		
Intersection Signal Delay: 24.9	Intersection LOS: C	
Intersection Capacity Utilization 49.0%	ICU Level of Service A	
Analysis Period (min) 15		

Splits and Phases: 1: Carlisle Bd. & Comanche Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	158	135	76	288	62	157	410	25	9	386	91
Future Volume (veh/h)	71	158	135	76	288	62	157	410	25	9	386	91
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	81	180	153	86	327	70	178	466	28	10	439	103
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	204	272	329	227	431	91	600	2772	165	613	2265	516
Arrive On Green	0.06	0.15	0.15	0.06	0.15	0.15	0.06	0.57	0.57	0.05	0.55	0.55
Sat Flow, veh/h	1767	1856	1572	1767	2896	612	1767	4889	291	1767	4124	939
Grp Volume(v), veh/h	81	180	153	86	197	200	178	321	173	10	357	185
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1767	1763	1745	1767	1689	1803	1767	1689	1686
Q Serve(g_s), s	4.2	10.1	9.4	4.5	11.8	12.1	4.8	5.0	5.1	0.3	5.9	6.1
Cycle Q Clear(g_c), s	4.2	10.1	9.4	4.5	11.8	12.1	4.8	5.0	5.1	0.3	5.9	6.1
Prop In Lane	1.00		1.00	1.00		0.35	1.00		0.16	1.00		0.56
Lane Grp Cap(c), veh/h	204	272	329	227	262	260	600	1915	1022	613	1855	926
V/C Ratio(X)	0.40	0.66	0.46	0.38	0.75	0.77	0.30	0.17	0.17	0.02	0.19	0.20
Avail Cap(c_a), veh/h	280	574	585	299	545	539	665	1915	1022	709	1855	926
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.3	44.4	38.1	37.0	44.9	45.0	9.4	11.4	11.4	9.1	12.5	12.6
Incr Delay (d2), s/veh	1.2	2.8	1.0	1.0	4.3	4.8	0.3	0.2	0.4	0.0	0.2	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.4	8.4	6.7	3.6	9.3	9.4	3.3	3.4	3.8	0.2	4.0	4.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.5	47.1	39.1	38.0	49.2	49.8	9.7	11.6	11.8	9.1	12.7	13.0
LnGrp LOS	D	D	D	D	D	D	A	B	B	A	B	B
Approach Vol, veh/h		414			483			672			552	
Approach Delay, s/veh		42.5			47.5			11.1			12.8	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	67.4	11.5	21.1	12.0	65.4	11.3	21.4
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	11.0	34.0	11.0	34.0	11.0	34.0	11.0	34.0
Max Q Clear Time (g_c+I1), s	2.3	7.1	6.5	12.1	6.8	8.1	6.2	14.1
Green Ext Time (p_c), s	0.0	3.3	0.1	1.5	0.2	3.7	0.1	2.3

Intersection Summary		
HCM 6th Ctrl Delay	25.9	
HCM 6th LOS	C	

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	31	560	22	560	32	47	50	28
Future Volume (vph)	31	560	22	560	32	47	50	28
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
Total Split (s)	36.0	36.0	36.0	36.0	19.0	19.0	19.0	19.0
Total Split (%)	65.5%	65.5%	65.5%	65.5%	34.5%	34.5%	34.5%	34.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	Min	Min	Min	Min	C-Min	C-Min	C-Min	C-Min
Act Effct Green (s)	18.6	18.6	18.6	18.6	26.4	26.4	26.4	26.4
Actuated g/C Ratio	0.34	0.34	0.34	0.34	0.48	0.48	0.48	0.48
v/c Ratio	0.21	0.59	0.14	0.61	0.06	0.10	0.10	0.12
Control Delay	18.6	21.8	12.2	16.1	10.5	7.7	10.1	4.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.6	21.8	12.2	16.1	10.5	7.7	10.1	4.5
LOS	B	C	B	B	B	A	B	A
Approach Delay		21.7		15.9		8.6		6.5
Approach LOS		C		B		A		A

Intersection Summary			
Cycle Length: 55			
Actuated Cycle Length: 55			
Offset: 27.5 (50%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.61			
Intersection Signal Delay: 17.0		Intersection LOS: B	
Intersection Capacity Utilization 43.5%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: Princeton Dr. & Candelaria Bd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	560	36	22	560	60	32	47	26	50	28	59
Future Volume (veh/h)	31	560	36	22	560	60	32	47	26	50	28	59
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	36	659	42	26	659	71	38	55	31	59	33	69
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	245	1115	71	266	1063	114	712	543	306	730	261	545
Arrive On Green	0.44	0.44	0.44	0.33	0.33	0.33	0.49	0.49	0.49	0.49	0.49	0.49
Sat Flow, veh/h	720	3365	214	740	3211	346	1282	1114	628	1301	535	1119
Grp Volume(v), veh/h	36	345	356	26	361	369	38	0	86	59	0	102
Grp Sat Flow(s),veh/h/ln	720	1763	1817	740	1763	1793	1282	0	1742	1301	0	1654
Q Serve(g_s), s	2.3	8.1	8.2	1.6	9.5	9.5	0.9	0.0	1.5	1.4	0.0	1.9
Cycle Q Clear(g_c), s	11.8	8.1	8.2	9.8	9.5	9.5	2.8	0.0	1.5	2.9	0.0	1.9
Prop In Lane	1.00		0.12	1.00		0.19	1.00		0.36	1.00		0.68
Lane Grp Cap(c), veh/h	245	584	602	266	584	594	712	0	849	730	0	806
V/C Ratio(X)	0.15	0.59	0.59	0.10	0.62	0.62	0.05	0.00	0.10	0.08	0.00	0.13
Avail Cap(c_a), veh/h	412	994	1024	438	994	1011	712	0	849	730	0	806
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.6	12.6	12.6	19.0	15.5	15.5	8.5	0.0	7.6	8.4	0.0	7.7
Incr Delay (d2), s/veh	0.3	0.9	0.9	0.2	1.1	1.1	0.1	0.0	0.2	0.2	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.6	4.8	5.0	0.5	6.3	6.4	0.4	0.0	0.9	0.7	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.9	13.5	13.5	19.2	16.6	16.5	8.6	0.0	7.9	8.6	0.0	8.0
LnGrp LOS	B	B	B	B	B	B	A	A	A	A	A	A
Approach Vol, veh/h		737			756			124			161	
Approach Delay, s/veh		13.7			16.6			8.1			8.2	
Approach LOS		B			B			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		31.8		23.2		31.8		23.2				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		14.0		31.0		14.0		31.0				
Max Q Clear Time (g_c+I1), s		4.8		13.8		4.9		11.8				
Green Ext Time (p_c), s		0.3		4.4		0.4		4.7				

Intersection Summary			
HCM 6th Ctrl Delay		14.1	
HCM 6th LOS		B	

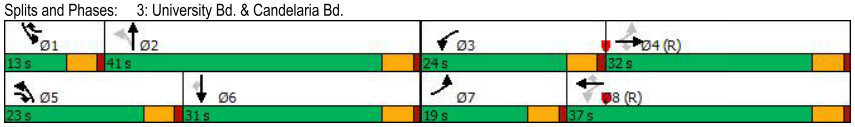
Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	170	530	205	109	390	159	116	247	13	2	4
Future Volume (vph)	170	530	205	109	390	159	116	247	13	2	4
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	Prot	NA	Perm
Protected Phases	7	4	5	3	8	1	5	2	1	6	
Permitted Phases	4		4	8		8	2				6
Detector Phase	7	4	5	3	8	1	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	21.0	21.0
Total Split (s)	19.0	32.0	23.0	24.0	37.0	13.0	23.0	41.0	13.0	31.0	31.0
Total Split (%)	17.3%	29.1%	20.9%	21.8%	33.6%	11.8%	20.9%	37.3%	11.8%	28.2%	28.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?											
Recall Mode	Min	C-Min	Min	Min	C-Min	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	68.5	57.7	75.1	65.0	55.9	67.0	27.8	17.2	6.1	10.8	10.8
Actuated g/C Ratio	0.62	0.52	0.68	0.59	0.51	0.61	0.25	0.16	0.06	0.10	0.10
v/c Ratio	0.32	0.35	0.21	0.25	0.18	0.19	0.42	0.70	0.09	0.01	0.01
Control Delay	10.0	17.1	1.5	10.6	17.5	8.9	36.2	45.4	50.1	43.5	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.0	17.1	1.5	10.6	17.5	8.9	36.2	45.4	50.1	43.5	0.0
LOS	A	B	A	B	B	A	D	D	D	D	A
Approach Delay		12.2			14.3			43.0		39.9	
Approach LOS		B			B			D		D	

Intersection Summary		
Cycle Length: 110		
Actuated Cycle Length: 110		
Offset: 24.2 (22%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green		
Natural Cycle: 65		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.70		
Intersection Signal Delay: 20.0	Intersection LOS: B	
Intersection Capacity Utilization 46.3%	ICU Level of Service A	
Analysis Period (min) 15		

Splits and Phases: 3: University Bd. & Candelaria Bd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	530	205	109	390	159	116	247	86	13	2	4
Future Volume (veh/h)	170	530	205	109	390	159	116	247	86	13	2	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	191	596	230	122	438	179	130	278	97	15	2	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	599	1896	975	448	2642	888	354	367	125	147	364	
Arrive On Green	0.07	0.57	0.57	0.10	1.00	1.00	0.09	0.15	0.15	0.05	0.11	0.00
Sat Flow, veh/h	1668	3328	1485	1668	4782	1485	1668	2435	831	3237	3328	1485
Grp Volume(v), veh/h	191	596	230	122	438	179	130	188	187	15	2	0
Grp Sat Flow(s),veh/h/ln	1668	1664	1485	1668	1594	1485	1668	1664	1602	1618	1664	1485
Q Serve(g_s), s	5.4	10.3	6.9	3.5	0.0	0.0	7.3	11.9	12.3	0.5	0.1	0.0
Cycle Q Clear(g_c), s	5.4	10.3	6.9	3.5	0.0	0.0	7.3	11.9	12.3	0.5	0.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.52	1.00		1.00
Lane Grp Cap(c), veh/h	599	1896	975	448	2642	888	354	251	241	147	364	
V/C Ratio(X)	0.32	0.31	0.24	0.27	0.17	0.20	0.37	0.75	0.77	0.10	0.01	
Avail Cap(c_a), veh/h	695	1896	975	649	2642	888	483	545	524	235	787	
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.78	0.78	0.78	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	8.9	12.4	7.7	9.1	0.0	0.0	37.2	44.7	44.9	50.3	43.6	0.0
Incr Delay (d2), s/veh	0.3	0.4	0.6	0.3	0.1	0.4	0.6	4.5	5.3	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.4	6.9	4.0	2.1	0.0	0.2	5.5	8.9	9.0	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.2	12.8	8.3	9.4	0.1	0.4	37.9	49.2	50.2	50.6	43.7	0.0
LnGrp LOS	A	B	A	A	A	A	D	D	D	D	D	
Approach Vol, veh/h		1017			739			505			17	A
Approach Delay, s/veh		11.1			1.7			46.6			49.8	
Approach LOS		B			A			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	21.6	10.8	67.7	14.5	17.0	12.7	65.8
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	8.0	36.0	19.0	27.0	18.0	26.0	14.0	32.0
Max Q Clear Time (g_c+I1), s	2.5	14.3	5.5	12.3	9.3	2.1	7.4	2.0
Green Ext Time (p_c), s	0.0	2.2	0.2	4.3	0.2	0.0	0.3	3.9

Intersection Summary		
HCM 6th Ctrl Delay	16.2	
HCM 6th LOS	B	

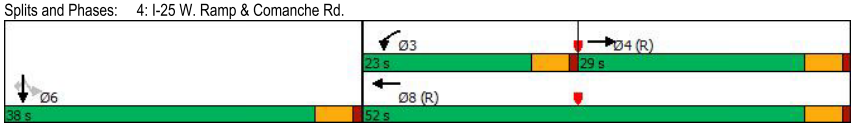
Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	510	362	865	343	718	134
Future Volume (vph)	510	362	865	343	718	134
Turn Type	NA	Prot	NA	Perm	NA	Perm
Protected Phases	4	3	8		6	
Permitted Phases				6		6
Detector Phase	4	3	8	6	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	21.0	10.0	21.0	21.0	21.0	21.0
Total Split (s)	29.0	23.0	52.0	38.0	38.0	38.0
Total Split (%)	32.2%	25.6%	57.8%	42.2%	42.2%	42.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lead				
Lead-Lag Optimize?						
Recall Mode	C-Min	Min	C-Min	Min	Min	Min
Act Effct Green (s)	29.4	15.3	49.8	30.2	30.2	30.2
Actuated g/C Ratio	0.33	0.17	0.55	0.34	0.34	0.34
v/c Ratio	0.87	0.69	0.49	0.64	0.71	0.24
Control Delay	39.0	32.8	21.4	30.4	29.7	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.0	32.8	21.4	30.4	29.7	8.0
LOS	D	C	C	C	C	A
Approach Delay	39.0		24.7		27.7	
Approach LOS	D		C		C	

Intersection Summary		
Cycle Length: 90		
Actuated Cycle Length: 90		
Offset: 41.4 (46%), Referenced to phase 4:EBT and 8:WBT, Start of Green		
Natural Cycle: 60		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.87		
Intersection Signal Delay: 29.6	Intersection LOS: C	
Intersection Capacity Utilization 70.4%	ICU Level of Service C	
Analysis Period (min) 15		

Splits and Phases: 4: I-25 W. Ramp & Comanche Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	510	380	362	865	1	0	0	0	343	718	134
Future Volume (veh/h)	0	510	380	362	865	1	0	0	0	343	718	134
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1856	1856	1856	1856	1856				1856	1856	1856
Adj Flow Rate, veh/h	0	560	418	398	951	1				377	789	147
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	3	3	3	3	3				3	3	3
Cap, veh/h	0	787	587	480	2185	2				502	1055	447
Arrive On Green	0.00	0.41	0.41	0.28	1.00	1.00				0.28	0.28	0.28
Sat Flow, veh/h	0	2017	1436	3428	3614	4				1767	3711	1572
Grp Volume(v), veh/h	0	513	465	398	464	488				377	789	147
Grp Sat Flow(s),veh/h/ln	0	1763	1597	1714	1763	1855				1767	1856	1572
Q Serve(g_s), s	0.0	21.8	21.8	9.8	0.0	0.0				17.5	17.4	6.6
Cycle Q Clear(g_c), s	0.0	21.8	21.8	9.8	0.0	0.0				17.5	17.4	6.6
Prop In Lane	0.00		0.90	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	721	653	480	1066	1121				502	1055	447
V/C Ratio(X)	0.00	0.71	0.71	0.83	0.44	0.44				0.75	0.75	0.33
Avail Cap(c_a), veh/h	0	721	653	686	1066	1121				648	1361	577
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.70	0.70	0.70				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	22.2	22.2	31.4	0.0	0.0				29.3	29.3	25.4
Incr Delay (d2), s/veh	0.0	5.9	6.5	4.2	0.9	0.9				3.6	1.7	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	14.9	13.9	6.4	0.5	0.5				12.2	12.4	4.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	28.1	28.6	35.5	0.9	0.9				32.9	31.0	25.9
LnGrp LOS	A	C	C	D	A	A				C	C	C
Approach Vol, veh/h		978			1350						1313	
Approach Delay, s/veh		28.3			11.1						31.0	
Approach LOS		C			B						C	

Timer - Assigned Phs			3	4		6		8				
Phs Duration (G+Y+Rc), s			17.6	41.8		30.6		59.4				
Change Period (Y+Rc), s			5.0	5.0		5.0		5.0				
Max Green Setting (Gmax), s			18.0	24.0		33.0		47.0				
Max Q Clear Time (g_c+I1), s			11.8	23.8		19.5		2.0				
Green Ext Time (p_c), s			0.8	0.1		6.1		7.6				

Intersection Summary	
HCM 6th Ctrl Delay	22.9
HCM 6th LOS	C

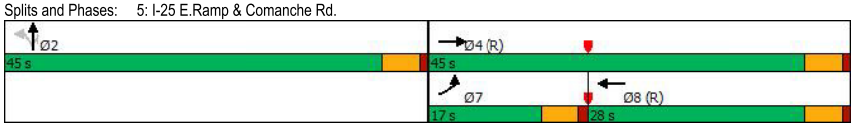
Notes

User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR
Lane Configurations						
Traffic Volume (vph)	242	611	501	726	824	397
Future Volume (vph)	242	611	501	726	824	397
Turn Type	Prot	NA	NA	Perm	NA	Perm
Protected Phases	7	4	8		2	
Permitted Phases				2		2
Detector Phase	7	4	8	2	2	2
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	21.0	21.0	21.0	21.0
Total Split (s)	17.0	45.0	28.0	45.0	45.0	45.0
Total Split (%)	18.9%	50.0%	31.1%	50.0%	50.0%	50.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?						
Recall Mode	Min	C-Min	C-Min	Min	Min	Min
Act Effct Green (s)	11.1	40.7	24.5	39.3	39.3	39.3
Actuated g/C Ratio	0.12	0.45	0.27	0.44	0.44	0.44
v/c Ratio	0.63	0.42	0.68	0.62	0.62	0.56
Control Delay	51.8	19.5	33.2	24.4	21.1	14.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.8	19.5	33.2	24.4	21.1	14.7
LOS	D	B	C	C	C	B
Approach Delay		28.7	33.2		20.4	
Approach LOS		C	C		C	

Intersection Summary		
Cycle Length: 90		
Actuated Cycle Length: 90		
Offset: 47.7 (53%), Referenced to phase 4:EBT and 8:WBT, Start of Green		
Natural Cycle: 60		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.68		
Intersection Signal Delay: 24.7	Intersection LOS: C	
Intersection Capacity Utilization 59.3%	ICU Level of Service B	
Analysis Period (min) 15		

Splits and Phases: 5: I-25 E.Ramp & Comanche Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	242	611	0	0	501	96	726	824	397	0	0	0
Future Volume (veh/h)	242	611	0	0	501	96	726	824	397	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1856	1856	0	0	1856	1856	1856	1856	1856			
Adj Flow Rate, veh/h	263	664	0	0	545	104	789	896	432			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	337	1812	0	0	1064	202	1325	1391	589			
Arrive On Green	0.20	1.00	0.00	0.00	0.36	0.36	0.37	0.37	0.37			
Sat Flow, veh/h	3428	3618	0	0	3048	562	3534	3711	1572			
Grp Volume(v), veh/h	263	664	0	0	324	325	789	896	432			
Grp Sat Flow(s),veh/h/ln	1714	1763	0	0	1763	1754	1767	1856	1572			
Q Serve(g_s), s	6.6	0.0	0.0	0.0	13.0	13.1	16.2	17.9	21.3			
Cycle Q Clear(g_c), s	6.6	0.0	0.0	0.0	13.0	13.1	16.2	17.9	21.3			
Prop In Lane	1.00		0.00	0.00		0.32	1.00		1.00			
Lane Grp Cap(c), veh/h	337	1812	0	0	635	632	1325	1391	589			
V/C Ratio(X)	0.78	0.37	0.00	0.00	0.51	0.51	0.60	0.64	0.73			
Avail Cap(c_a), veh/h	457	1812	0	0	635	632	1571	1649	699			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.48	0.48	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	35.2	0.0	0.0	0.0	22.6	22.6	22.6	23.2	24.3			
Incr Delay (d2), s/veh	3.0	0.3	0.0	0.0	2.9	3.0	0.4	0.7	3.3			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	4.4	0.1	0.0	0.0	9.6	9.7	10.7	12.2	12.8			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.2	0.3	0.0	0.0	25.5	25.6	23.1	23.8	27.5			
LnGrp LOS	D	A	A	A	C	C	C	C	C			
Approach Vol, veh/h		927			649			2117				
Approach Delay, s/veh		11.0			25.5			24.3				
Approach LOS		B			C			C				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		38.7		51.3			13.8	37.4				
Change Period (Y+Rc), s		5.0		5.0			5.0	5.0				
Max Green Setting (Gmax), s		40.0		40.0			12.0	23.0				
Max Q Clear Time (g_c+I1), s		23.3		2.0			8.6	15.1				
Green Ext Time (p_c), s		10.4		5.3			0.3	2.5				

Intersection Summary		
HCM 6th Ctrl Delay	21.2	
HCM 6th LOS	C	

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	690	310	37	547	1	46	1	27	1	1	4
Future Vol, veh/h	8	690	310	37	547	1	46	1	27	1	1	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	60	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	9	784	352	42	622	1	52	1	31	1	1	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	623	0	0	1136	0	0	1374	1685	568	1118	1861	312
Stage 1	-	-	-	-	-	-	978	978	-	707	707	-
Stage 2	-	-	-	-	-	-	396	707	-	411	1154	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.56	6.56	6.96	7.56	6.56	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-	6.56	5.56	-	6.56	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.56	5.56	-	6.56	5.56	-
Follow-up Hdwy	2.23	-	-	2.23	-	-	3.53	4.03	3.33	3.53	4.03	3.33
Pot Cap-1 Maneuver	947	-	-	799	-	-	104	92	*792	*160	72	681
Stage 1	-	-	-	-	-	-	538	513	-	*390	434	-
Stage 2	-	-	-	-	-	-	598	434	-	*747	402	-
Platoon blocked, %		-	-	1	-	-			1			
Mov Cap-1 Maneuver	947	-	-	799	-	-	96	84	*792	*143	66	681
Mov Cap-2 Maneuver	-	-	-	-	-	-	288	239	-	*282	202	-
Stage 1	-	-	-	-	-	-	533	508	-	*386	399	-
Stage 2	-	-	-	-	-	-	545	399	-	*710	398	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.6	17.4	13.8
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	374	947	-	-	799	-	-	418
HCM Lane V/C Ratio	0.225	0.01	-	-	0.053	-	-	0.016
HCM Control Delay (s)	17.4	8.8	-	-	9.8	-	-	13.8
HCM Lane LOS	C	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.8	0	-	-	0.2	-	-	0.1

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	3	70	1	9	338
Future Vol, veh/h	1	3	70	1	9	338
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1	4	93	1	12	451

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	569	94	0	0	94	0
Stage 1	94	-	-	-	-	-
Stage 2	475	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	482	960	-	-	1494	-
Stage 1	927	-	-	-	-	-
Stage 2	624	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	477	960	-	-	1494	-
Mov Cap-2 Maneuver	477	-	-	-	-	-
Stage 1	927	-	-	-	-	-
Stage 2	617	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	0.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	766	1494	-
HCM Lane V/C Ratio	-	-	0.007	0.008	-
HCM Control Delay (s)	-	-	9.7	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	3	70	6	9	329
Future Vol, veh/h	3	3	70	6	9	329
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	4	4	93	8	12	439

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	560	97	0	0	101	0
Stage 1	97	-	-	-	-	-
Stage 2	463	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	488	956	-	-	1485	-
Stage 1	924	-	-	-	-	-
Stage 2	632	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	483	956	-	-	1485	-
Mov Cap-2 Maneuver	483	-	-	-	-	-
Stage 1	924	-	-	-	-	-
Stage 2	625	-	-	-	-	-

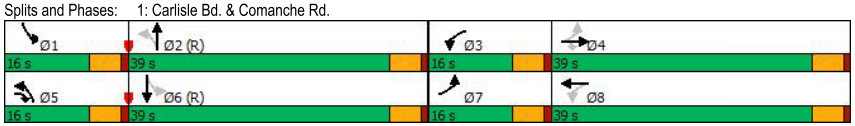
Approach	WB	NB	SB
HCM Control Delay, s	10.7	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	642	1485	-
HCM Lane V/C Ratio	-	-	0.012	0.008	-
HCM Control Delay (s)	-	-	10.7	7.4	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	97	170	142	76	301	165	410	9	386
Future Volume (vph)	97	170	142	76	301	165	410	9	386
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	5	3	8	5	2	1	6
Permitted Phases	4		4	8		2		6	
Detector Phase	7	4	5	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	21.0	10.0	21.0
Total Split (s)	16.0	39.0	16.0	16.0	39.0	16.0	39.0	16.0	39.0
Total Split (%)	14.5%	35.5%	14.5%	14.5%	35.5%	14.5%	35.5%	14.5%	35.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	Min	Min	Min	Min	Min	Min	C-Min	Min	C-Min
Act Effct Green (s)	30.1	19.5	35.6	27.7	18.3	65.2	55.3	55.8	50.0
Actuated g/C Ratio	0.27	0.18	0.32	0.25	0.17	0.59	0.50	0.51	0.45
v/c Ratio	0.42	0.59	0.26	0.29	0.70	0.37	0.20	0.02	0.26
Control Delay	31.5	48.6	4.4	28.5	47.1	13.3	16.1	12.2	17.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	31.5	48.6	4.4	28.5	47.1	13.3	16.1	12.2	17.9
LOS	C	D	A	C	D	B	B	B	B
Approach Delay		29.2			43.9		15.4		17.8
Approach LOS		C			D		B		B

Intersection Summary		
Cycle Length: 110		
Actuated Cycle Length: 110		
Offset: 55 (50%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green		
Natural Cycle: 65		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.70		
Intersection Signal Delay: 25.3	Intersection LOS: C	
Intersection Capacity Utilization 51.6%	ICU Level of Service A	
Analysis Period (min) 15		

Splits and Phases: 1: Carlisle Bd. & Comanche Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	170	142	76	301	62	165	410	25	9	386	119
Future Volume (veh/h)	97	170	142	76	301	62	165	410	25	9	386	119
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	110	193	161	86	342	70	188	466	28	10	439	135
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	228	305	366	239	448	91	571	2684	160	595	2041	605
Arrive On Green	0.07	0.16	0.16	0.06	0.15	0.15	0.07	0.55	0.55	0.05	0.53	0.53
Sat Flow, veh/h	1767	1856	1572	1767	2921	591	1767	4889	291	1767	3876	1149
Grp Volume(v), veh/h	110	193	161	86	205	207	188	321	173	10	380	194
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1767	1763	1749	1767	1689	1803	1767	1689	1649
Q Serve(g_s), s	5.7	10.7	9.6	4.4	12.2	12.5	5.3	5.2	5.3	0.3	6.6	6.9
Cycle Q Clear(g_c), s	5.7	10.7	9.6	4.4	12.2	12.5	5.3	5.2	5.3	0.3	6.6	6.9
Prop In Lane	1.00		1.00	1.00		0.34	1.00		0.16	1.00		0.70
Lane Grp Cap(c), veh/h	228	305	366	239	270	268	571	1854	990	595	1778	868
V/C Ratio(X)	0.48	0.63	0.44	0.36	0.76	0.77	0.33	0.17	0.18	0.02	0.21	0.22
Avail Cap(c_a), veh/h	280	574	593	311	545	541	628	1854	990	691	1778	868
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.2	42.8	36.1	36.3	44.6	44.7	10.4	12.4	12.4	10.2	13.9	14.0
Incr Delay (d2), s/veh	1.6	2.2	0.8	0.9	4.3	4.7	0.3	0.2	0.4	0.0	0.3	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.6	8.7	6.8	3.5	9.5	9.7	3.7	3.6	4.0	0.2	4.6	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.7	45.0	36.9	37.2	48.9	49.4	10.7	12.6	12.8	10.2	14.2	14.6
LnGrp LOS	D	D	D	D	D	D	B	B	B	B	B	B
Approach Vol, veh/h		464			498			682			584	
Approach Delay, s/veh		40.5			47.1			12.1			14.2	
Approach LOS		D			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	65.4	11.5	23.1	12.5	62.9	12.7	21.9
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	11.0	34.0	11.0	34.0	11.0	34.0	11.0	34.0
Max Q Clear Time (g_c+I1), s	2.3	7.3	6.4	12.7	7.3	8.9	7.7	14.5
Green Ext Time (p_c), s	0.0	3.3	0.1	1.6	0.2	4.0	0.1	2.4

Intersection Summary	
HCM 6th Ctrl Delay	26.4
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	35	560	22	560	32	55	59	36
Future Volume (vph)	35	560	22	560	32	55	59	36
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
Total Split (s)	36.0	36.0	36.0	36.0	19.0	19.0	19.0	19.0
Total Split (%)	65.5%	65.5%	65.5%	65.5%	34.5%	34.5%	34.5%	34.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	Min	Min	Min	Min	C-Min	C-Min	C-Min	C-Min
Act Effct Green (s)	18.9	18.9	18.9	18.9	26.1	26.1	26.1	26.1
Actuated g/C Ratio	0.34	0.34	0.34	0.34	0.47	0.47	0.47	0.47
v/c Ratio	0.24	0.58	0.14	0.61	0.06	0.11	0.11	0.16
Control Delay	19.4	21.8	11.9	15.7	10.8	8.2	10.2	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.4	21.8	11.9	15.7	10.8	8.2	10.2	4.2
LOS	B	C	B	B	B	A	B	A
Approach Delay		21.7		15.6		8.9		6.3
Approach LOS		C		B		A		A

Intersection Summary		
Cycle Length: 55		
Actuated Cycle Length: 55		
Offset: 27.5 (50%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green		
Natural Cycle: 45		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.61		
Intersection Signal Delay: 16.6	Intersection LOS: B	
Intersection Capacity Utilization 44.3%	ICU Level of Service A	
Analysis Period (min) 15		

Splits and Phases: 2: Princeton Dr. & Candelaria Bd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	560	36	22	560	70	32	55	26	59	36	78
Future Volume (veh/h)	35	560	36	22	560	70	32	55	26	59	36	78
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	41	659	42	26	659	82	38	65	31	69	42	92
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	248	1141	73	274	1070	133	670	569	271	710	248	543
Arrive On Green	0.45	0.45	0.45	0.34	0.34	0.34	0.48	0.48	0.48	0.48	0.48	0.48
Sat Flow, veh/h	712	3365	214	740	3156	392	1246	1187	566	1289	518	1134
Grp Volume(v), veh/h	41	345	356	26	368	373	38	0	96	69	0	134
Grp Sat Flow(s),veh/h/ln	712	1763	1817	740	1763	1785	1246	0	1754	1289	0	1651
Q Serve(g_s), s	2.7	8.0	8.0	1.6	9.6	9.6	1.0	0.0	1.7	1.7	0.0	2.5
Cycle Q Clear(g_c), s	12.3	8.0	8.0	9.6	9.6	9.6	3.5	0.0	1.7	3.4	0.0	2.5
Prop In Lane	1.00		0.12	1.00		0.22	1.00		0.32	1.00		0.69
Lane Grp Cap(c), veh/h	248	598	616	274	598	605	670	0	840	710	0	791
V/C Ratio(X)	0.17	0.58	0.58	0.09	0.62	0.62	0.06	0.00	0.11	0.10	0.00	0.17
Avail Cap(c_a), veh/h	408	994	1024	440	994	1006	670	0	840	710	0	791
HCM Platoon Ratio	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.95	0.95	0.95	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.4	12.2	12.2	18.5	15.2	15.2	9.1	0.0	7.9	8.8	0.0	8.1
Incr Delay (d2), s/veh	0.3	0.8	0.8	0.1	1.0	1.0	0.2	0.0	0.3	0.3	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.7	4.7	4.8	0.5	6.3	6.4	0.5	0.0	1.0	0.8	0.0	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.7	13.0	13.0	18.7	16.2	16.2	9.3	0.0	8.2	9.1	0.0	8.6
LnGrp LOS	B	B	B	B	B	B	A	A	A	A	A	A
Approach Vol, veh/h		742			767			134			203	
Approach Delay, s/veh		13.3			16.3			8.5			8.8	
Approach LOS		B			B			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		31.3		23.7		31.3		23.7				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		14.0		31.0		14.0		31.0				
Max Q Clear Time (g_c+I1), s		5.5		14.3		5.4		11.6				
Green Ext Time (p_c), s		0.3		4.4		0.6		4.8				

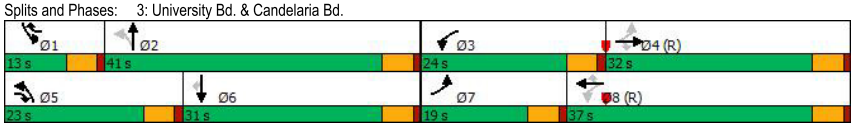
Intersection Summary		
HCM 6th Ctrl Delay	13.7	
HCM 6th LOS	B	

Notes
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	180	532	205	109	402	166	116	253	13	2	4
Future Volume (vph)	180	532	205	109	402	166	116	253	13	2	4
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	Prot	NA	Perm
Protected Phases	7	4	5	3	8	1	5	2	1	6	
Permitted Phases	4		4	8		8	2				6
Detector Phase	7	4	5	3	8	1	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	21.0	21.0
Total Split (s)	19.0	32.0	23.0	24.0	37.0	13.0	23.0	41.0	13.0	31.0	31.0
Total Split (%)	17.3%	29.1%	20.9%	21.8%	33.6%	11.8%	20.9%	37.3%	11.8%	28.2%	28.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?											
Recall Mode	Min	C-Min	Min	Min	C-Min	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	68.6	57.4	74.8	64.3	55.2	66.3	28.1	17.5	6.1	11.1	11.1
Actuated g/C Ratio	0.62	0.52	0.68	0.58	0.50	0.60	0.26	0.16	0.06	0.10	0.10
v/c Ratio	0.35	0.35	0.21	0.26	0.19	0.19	0.42	0.71	0.09	0.01	0.01
Control Delay	10.3	17.3	1.5	10.5	17.6	8.9	35.8	45.4	50.1	43.0	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.3	17.3	1.5	10.5	17.6	8.9	35.8	45.4	50.1	43.0	0.0
LOS	B	B	A	B	B	A	D	D	D	D	A
Approach Delay		12.4			14.3			43.0		39.9	
Approach LOS		B			B			D		D	

Intersection Summary		
Cycle Length: 110		
Actuated Cycle Length: 110		
Offset: 24.2 (22%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green		
Natural Cycle: 65		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.71		
Intersection Signal Delay: 20.0	Intersection LOS: C	
Intersection Capacity Utilization 46.3%	ICU Level of Service A	
Analysis Period (min) 15		

Splits and Phases: 3: University Bd. & Candelaria Bd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	180	532	205	109	402	166	116	253	88	13	2	4
Future Volume (veh/h)	180	532	205	109	402	166	116	253	88	13	2	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	202	598	230	122	452	187	130	284	99	15	2	0
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	592	1886	970	446	2612	878	358	374	127	147	374	
Arrive On Green	0.07	0.57	0.57	0.11	1.00	1.00	0.09	0.15	0.15	0.05	0.11	0.00
Sat Flow, veh/h	1668	3328	1485	1668	4782	1485	1668	2436	831	3237	3328	1485
Grp Volume(v), veh/h	202	598	230	122	452	187	130	192	191	15	2	0
Grp Sat Flow(s),veh/h/ln	1668	1664	1485	1668	1594	1485	1668	1664	1602	1618	1664	1485
Q Serve(g_s), s	5.8	10.4	7.0	3.6	0.0	0.0	7.3	12.2	12.6	0.5	0.1	0.0
Cycle Q Clear(g_c), s	5.8	10.4	7.0	3.6	0.0	0.0	7.3	12.2	12.6	0.5	0.1	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.52	1.00		1.00
Lane Grp Cap(c), veh/h	592	1886	970	446	2612	878	358	255	246	147	374	
V/C Ratio(X)	0.34	0.32	0.24	0.27	0.17	0.21	0.36	0.75	0.78	0.10	0.01	
Avail Cap(c_a), veh/h	682	1886	970	646	2612	878	487	545	524	235	787	
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.78	0.78	0.78	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	9.1	12.6	7.8	9.4	0.0	0.0	37.0	44.6	44.8	50.3	43.4	0.0
Incr Delay (d2), s/veh	0.3	0.4	0.6	0.3	0.1	0.4	0.6	4.5	5.2	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.7	7.0	4.0	2.1	0.0	0.2	5.5	9.1	9.1	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.4	13.0	8.4	9.6	0.1	0.4	37.6	49.0	50.0	50.6	43.4	0.0
LnGrp LOS	A	B	A	A	A	A	D	D	D	D	D	
Approach Vol, veh/h		1030			761			513			17	A
Approach Delay, s/veh		11.3			1.7			46.5			49.8	
Approach LOS		B			A			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	21.9	10.8	67.3	14.5	17.4	13.1	65.1
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	8.0	36.0	19.0	27.0	18.0	26.0	14.0	32.0
Max Q Clear Time (g_c+I1), s	2.5	14.6	5.6	12.4	9.3	2.1	7.8	2.0
Green Ext Time (p_c), s	0.0	2.3	0.2	4.3	0.2	0.0	0.3	4.0

Intersection Summary		
HCM 6th Ctrl Delay		16.2
HCM 6th LOS		B

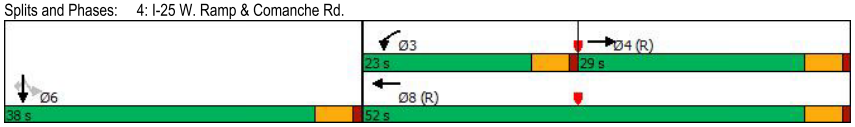
Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	523	364	872	359	718	134
Future Volume (vph)	523	364	872	359	718	134
Turn Type	NA	Prot	NA	Perm	NA	Perm
Protected Phases	4	3	8		6	
Permitted Phases				6		6
Detector Phase	4	3	8	6	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	21.0	10.0	21.0	21.0	21.0	21.0
Total Split (s)	29.0	23.0	52.0	38.0	38.0	38.0
Total Split (%)	32.2%	25.6%	57.8%	42.2%	42.2%	42.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lead				
Lead-Lag Optimize?						
Recall Mode	C-Min	Min	C-Min	Min	Min	Min
Act Effct Green (s)	29.4	15.3	49.8	30.2	30.2	30.2
Actuated g/C Ratio	0.33	0.17	0.55	0.34	0.34	0.34
v/c Ratio	0.89	0.69	0.49	0.67	0.71	0.24
Control Delay	40.2	32.6	21.5	31.4	29.7	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.2	32.6	21.5	31.4	29.7	8.1
LOS	D	C	C	C	C	A
Approach Delay	40.2		24.8		28.1	
Approach LOS	D		C		C	

Intersection Summary		
Cycle Length: 90		
Actuated Cycle Length: 90		
Offset: 41.4 (46%), Referenced to phase 4:EBT and 8:WBT, Start of Green		
Natural Cycle: 60		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.89		
Intersection Signal Delay: 30.1	Intersection LOS: C	
Intersection Capacity Utilization 70.8%	ICU Level of Service C	
Analysis Period (min) 15		

Splits and Phases: 4: I-25 W. Ramp & Comanche Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	523	380	364	872	1	0	0	0	359	718	134
Future Volume (veh/h)	0	523	380	364	872	1	0	0	0	359	718	134
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1856	1856	1856	1856	1856				1856	1856	1856
Adj Flow Rate, veh/h	0	575	418	400	958	1				395	789	147
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91				0.91	0.91	0.91
Percent Heavy Veh, %	0	3	3	3	3	3				3	3	3
Cap, veh/h	0	781	567	482	2157	2				516	1084	459
Arrive On Green	0.00	0.40	0.40	0.28	1.00	1.00				0.29	0.29	0.29
Sat Flow, veh/h	0	2040	1416	3428	3614	4				1767	3711	1572
Grp Volume(v), veh/h	0	520	473	400	467	492				395	789	147
Grp Sat Flow(s),veh/h/ln	0	1763	1601	1714	1763	1855				1767	1856	1572
Q Serve(g_s), s	0.0	22.6	22.6	9.8	0.0	0.0				18.3	17.2	6.6
Cycle Q Clear(g_c), s	0.0	22.6	22.6	9.8	0.0	0.0				18.3	17.2	6.6
Prop In Lane	0.00		0.88	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	707	642	482	1052	1107				516	1084	459
V/C Ratio(X)	0.00	0.74	0.74	0.83	0.44	0.44				0.77	0.73	0.32
Avail Cap(c_a), veh/h	0	707	642	686	1052	1107				648	1361	577
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.68	0.68	0.68				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	22.9	22.9	31.4	0.0	0.0				29.0	28.6	24.9
Incr Delay (d2), s/veh	0.0	6.7	7.4	4.1	0.9	0.9				4.2	1.5	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	15.5	14.5	6.3	0.5	0.5				12.8	12.2	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	29.7	30.3	35.4	0.9	0.9				33.3	30.1	25.3
LnGrp LOS	A	C	C	D	A	A				C	C	C
Approach Vol, veh/h		993			1359						1331	
Approach Delay, s/veh		30.0			11.1						30.5	
Approach LOS		C			B						C	

Timer - Assigned Phs		3	4		6		8				
Phs Duration (G+Y+Rc), s		17.6	41.1		31.3		58.7				
Change Period (Y+Rc), s		5.0	5.0		5.0		5.0				
Max Green Setting (Gmax), s		18.0	24.0		33.0		47.0				
Max Q Clear Time (g_c+I1), s		11.8	24.6		20.3		2.0				
Green Ext Time (p_c), s		0.8	0.0		5.9		7.7				

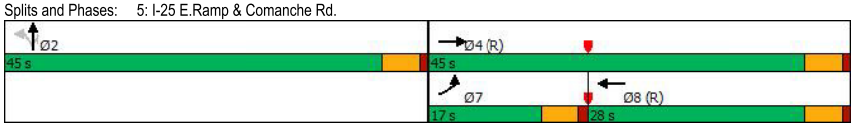
Intersection Summary	
HCM 6th Ctrl Delay	23.2
HCM 6th LOS	C

Notes
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR
Lane Configurations						
Traffic Volume (vph)	242	640	514	726	824	409
Future Volume (vph)	242	640	514	726	824	409
Turn Type	Prot	NA	NA	Perm	NA	Perm
Protected Phases	7	4	8		2	
Permitted Phases				2		2
Detector Phase	7	4	8	2	2	2
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	21.0	21.0	21.0	21.0
Total Split (s)	17.0	45.0	28.0	45.0	45.0	45.0
Total Split (%)	18.9%	50.0%	31.1%	50.0%	50.0%	50.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?						
Recall Mode	Min	C-Min	C-Min	Min	Min	Min
Act Effct Green (s)	11.1	40.8	24.7	39.2	39.2	39.2
Actuated g/C Ratio	0.12	0.45	0.27	0.44	0.44	0.44
v/c Ratio	0.63	0.44	0.71	0.62	0.62	0.59
Control Delay	51.6	19.7	33.8	24.5	21.2	16.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.6	19.7	33.8	24.5	21.2	16.2
LOS	D	B	C	C	C	B
Approach Delay		28.4	33.8		20.8	
Approach LOS		C	C		C	

Intersection Summary		
Cycle Length: 90		
Actuated Cycle Length: 90		
Offset: 47.7 (53%), Referenced to phase 4:EBT and 8:WBT, Start of Green		
Natural Cycle: 60		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.71		
Intersection Signal Delay: 25.1	Intersection LOS: C	
Intersection Capacity Utilization 60.2%	ICU Level of Service B	
Analysis Period (min) 15		

Splits and Phases: 5: I-25 E.Ramp & Comanche Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	242	640	0	0	514	111	726	824	409	0	0	0
Future Volume (veh/h)	242	640	0	0	514	111	726	824	409	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1856	1856	0	0	1856	1856	1856	1856	1856			
Adj Flow Rate, veh/h	263	696	0	0	559	121	789	896	445			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	337	1794	0	0	1024	221	1343	1410	597			
Arrive On Green	0.20	1.00	0.00	0.00	0.36	0.36	0.38	0.38	0.38			
Sat Flow, veh/h	3428	3618	0	0	2977	622	3534	3711	1572			
Grp Volume(v), veh/h	263	696	0	0	341	339	789	896	445			
Grp Sat Flow(s),veh/h/ln	1714	1763	0	0	1763	1744	1767	1856	1572			
Q Serve(g_s), s	6.6	0.0	0.0	0.0	13.9	14.0	16.0	17.8	22.0			
Cycle Q Clear(g_c), s	6.6	0.0	0.0	0.0	13.9	14.0	16.0	17.8	22.0			
Prop In Lane	1.00		0.00	0.00		0.36	1.00		1.00			
Lane Grp Cap(c), veh/h	337	1794	0	0	626	619	1343	1410	597			
V/C Ratio(X)	0.78	0.39	0.00	0.00	0.54	0.55	0.59	0.64	0.74			
Avail Cap(c_a), veh/h	457	1794	0	0	626	619	1571	1649	699			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.45	0.45	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	35.2	0.0	0.0	0.0	23.2	23.2	22.3	22.8	24.1			
Incr Delay (d2), s/veh	2.8	0.3	0.0	0.0	3.4	3.5	0.4	0.6	3.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	4.4	0.1	0.0	0.0	10.3	10.2	10.7	12.1	13.2			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.0	0.3	0.0	0.0	26.6	26.7	22.7	23.4	27.8			
LnGrp LOS	D	A	A	A	C	C	C	C	C			
Approach Vol, veh/h		959			680			2130				
Approach Delay, s/veh		10.6			26.6			24.1				
Approach LOS		B			C			C				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		39.2		50.8			13.8	37.0				
Change Period (Y+Rc), s		5.0		5.0			5.0	5.0				
Max Green Setting (Gmax), s		40.0		40.0			12.0	23.0				
Max Q Clear Time (g_c+I1), s		24.0		2.0			8.6	16.0				
Green Ext Time (p_c), s		10.2		5.6			0.3	2.4				

Intersection Summary		
HCM 6th Ctrl Delay	21.1	
HCM 6th LOS	C	

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	690	351	113	547	1	75	1	100	1	1	4
Future Vol, veh/h	8	690	351	113	547	1	75	1	100	1	1	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	60	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	9	784	399	128	622	1	85	1	114	1	1	5

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	623	0	0	1183	0	0	1570	1881	592	1290	2080	312
Stage 1	-	-	-	-	-	-	1002	1002	-	879	879	-
Stage 2	-	-	-	-	-	-	568	879	-	411	1201	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.56	6.56	6.96	7.56	6.56	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-	6.56	5.56	-	6.56	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.56	5.56	-	6.56	5.56	-
Follow-up Hdwy	2.23	-	-	2.23	-	-	3.53	4.03	3.33	3.53	4.03	3.33
Pot Cap-1 Maneuver	947	-	-	757	-	-	~ 74	70	*792	*120	52	681
Stage 1	-	-	-	-	-	-	515	496	-	*307	361	-
Stage 2	-	-	-	-	-	-	472	361	-	*747	376	-
Platoon blocked, %		-	-	1	-	-			1			
Mov Cap-1 Maneuver	947	-	-	757	-	-	~ 58	51	*792	*81	38	681
Mov Cap-2 Maneuver	-	-	-	-	-	-	210	175	-	*207	134	-
Stage 1	-	-	-	-	-	-	510	491	-	*304	268	-
Stage 2	-	-	-	-	-	-	346	268	-	*633	372	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.8	26.8	16.1
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	360	947	-	-	757	-	-	330
HCM Lane V/C Ratio	0.556	0.01	-	-	0.17	-	-	0.021
HCM Control Delay (s)	26.8	8.8	-	-	10.7	-	-	16.1
HCM Lane LOS	D	A	-	-	B	-	-	C
HCM 95th %tile Q(veh)	3.2	0	-	-	0.6	-	-	0.1

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	28	1	1	1	1	3	1	156	1	9	397	59
Future Vol, veh/h	28	1	1	1	1	3	1	156	1	9	397	59
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	-	-	-	-	-	-
Veh in Median Storage,-#	0	-	-	0	-	-	0	-	-	0	-	
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	37	1	1	1	1	4	1	208	1	12	529	79

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	806	804	569	805	843	209	608	0	0	209	0	0
Stage 1	593	593	-	211	211	-	-	-	-	-	-	-
Stage 2	213	211	-	594	632	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	299	315	520	300	299	829	966	-	-	1356	-	-
Stage 1	490	492	-	789	726	-	-	-	-	-	-	-
Stage 2	787	726	-	490	472	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	293	310	520	295	295	829	966	-	-	1356	-	-
Mov Cap-2 Maneuver	293	310	-	295	295	-	-	-	-	-	-	-
Stage 1	490	485	-	788	725	-	-	-	-	-	-	-
Stage 2	781	725	-	481	465	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.8	12.6	0.1	0.1
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	966	-	-	293	388	295	571	1356	-	-
HCM Lane V/C Ratio	0.001	-	-	0.127	0.007	0.005	0.009	0.009	-	-
HCM Control Delay (s)	8.7	0	-	19.1	14.3	17.3	11.4	7.7	-	-
HCM Lane LOS	A	A	-	C	B	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0	0	0	0	-	-

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	86	1	25	3	1	3	26	70	6	9	329	59
Future Vol, veh/h	86	1	25	3	1	3	26	70	6	9	329	59
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	-	-	0	-	-	0	-	
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	75	75	75	75	75	75	75	75	75	75	75	75
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	115	1	33	4	1	4	35	93	8	12	439	79

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	673	674	479	687	709	97	518	0	0	101	0	0
Stage 1	503	503	-	167	167	-	-	-	-	-	-	-
Stage 2	170	171	-	520	542	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	368	375	585	360	358	956	1043	-	-	1485	-	-
Stage 1	549	540	-	833	758	-	-	-	-	-	-	-
Stage 2	830	755	-	537	519	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	353	357	585	327	341	956	1043	-	-	1485	-	-
Mov Cap-2 Maneuver	353	357	-	327	341	-	-	-	-	-	-	-
Stage 1	529	534	-	803	731	-	-	-	-	-	-	-
Stage 2	795	728	-	500	513	-	-	-	-	-	-	-

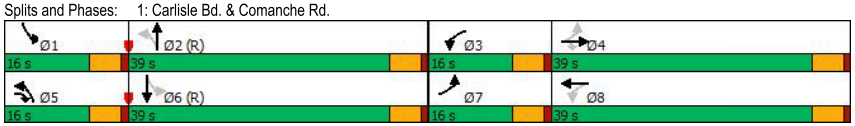
Approach	EB	WB	NB	SB
HCM Control Delay, s	8.1	12.9	2.2	0.2
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1043	-	-	353	571	327	659	1485	-	-
HCM Lane V/C Ratio	0.033	-	-	0.325	0.061	0.012	0.008	0.008	-	-
HCM Control Delay (s)	8.6	0	-	20	11.7	16.1	10.5	7.4	0	-
HCM Lane LOS	A	A	-	C	B	C	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1.4	0.2	0	0	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	112	382	381	90	344	161	673	77	636
Future Volume (vph)	112	382	381	90	344	161	673	77	636
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	5	3	8	5	2	1	6
Permitted Phases	4		4	8		2		6	
Detector Phase	7	4	5	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	21.0	10.0	21.0
Total Split (s)	16.0	39.0	16.0	16.0	39.0	16.0	39.0	16.0	39.0
Total Split (%)	14.5%	35.5%	14.5%	14.5%	35.5%	14.5%	35.5%	14.5%	35.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	Min	Min	Min	Min	Min	Min	C-Min	Min	C-Min
Act Effct Green (s)	39.5	29.3	44.9	37.5	28.3	53.8	43.2	49.2	40.9
Actuated g/C Ratio	0.36	0.27	0.41	0.34	0.26	0.49	0.39	0.45	0.37
v/c Ratio	0.35	0.84	0.56	0.41	0.48	0.49	0.42	0.26	0.43
Control Delay	22.9	53.1	16.2	24.9	34.2	21.4	26.1	18.3	27.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.9	53.1	16.2	24.9	34.2	21.4	26.1	18.3	27.4
LOS	C	D	B	C	C	C	C	B	C
Approach Delay		33.2			32.5		25.3		26.5
Approach LOS		C			C		C		C

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 55 (50%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 29.0	Intersection LOS: C
Intersection Capacity Utilization 65.3%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 1: Carlisle Bd. & Comanche Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	382	381	90	344	58	161	673	91	77	636	103
Future Volume (veh/h)	112	382	381	90	344	58	161	673	91	77	636	103
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	120	411	410	97	370	62	173	724	98	83	684	111
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	334	502	542	210	790	131	404	2005	269	368	1825	293
Arrive On Green	0.07	0.27	0.27	0.06	0.26	0.26	0.07	0.44	0.44	0.05	0.41	0.41
Sat Flow, veh/h	1767	1856	1572	1767	3025	503	1767	4517	606	1767	4399	706
Grp Volume(v), veh/h	120	411	410	97	214	218	173	540	282	83	523	272
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1767	1763	1765	1767	1689	1746	1767	1689	1728
Q Serve(g_s), s	5.4	22.8	25.4	4.3	11.2	11.4	6.1	11.6	11.8	2.9	11.8	12.0
Cycle Q Clear(g_c), s	5.4	22.8	25.4	4.3	11.2	11.4	6.1	11.6	11.8	2.9	11.8	12.0
Prop In Lane	1.00		1.00	1.00		0.28	1.00		0.35	1.00		0.41
Lane Grp Cap(c), veh/h	334	502	542	210	460	461	404	1499	775	368	1401	717
V/C Ratio(X)	0.36	0.82	0.76	0.46	0.47	0.47	0.43	0.36	0.36	0.23	0.37	0.38
Avail Cap(c_a), veh/h	391	574	603	284	545	546	449	1499	775	465	1401	717
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.3	37.6	31.9	29.5	34.2	34.3	16.7	20.2	20.3	17.2	22.3	22.3
Incr Delay (d2), s/veh	0.7	8.2	4.9	1.6	0.7	0.8	0.7	0.7	1.3	0.3	0.8	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.2	16.9	15.5	3.5	8.5	8.6	4.5	8.2	8.7	2.2	8.4	8.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.9	45.8	36.8	31.1	34.9	35.0	17.4	20.9	21.6	17.5	23.1	23.9
LnGrp LOS	C	D	D	C	C	D	B	C	C	B	C	C
Approach Vol, veh/h		941			529			995			878	
Approach Delay, s/veh		39.6			34.3			20.5			22.8	
Approach LOS		D			C			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	53.8	11.4	34.7	13.2	50.6	12.5	33.7
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	11.0	34.0	11.0	34.0	11.0	34.0	11.0	34.0
Max Q Clear Time (g_c+I1), s	4.9	13.8	6.3	27.4	8.1	14.0	7.4	13.4
Green Ext Time (p_c), s	0.1	5.5	0.1	2.3	0.1	5.3	0.1	2.5

Intersection Summary	
HCM 6th Ctrl Delay	28.7
HCM 6th LOS	C

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	17	754	22	976	35	12	66	27
Future Volume (vph)	17	754	22	976	35	12	66	27
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
Total Split (s)	36.0	36.0	36.0	36.0	19.0	19.0	19.0	19.0
Total Split (%)	65.5%	65.5%	65.5%	65.5%	34.5%	34.5%	34.5%	34.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	Min	Min	Min	Min	C-Min	C-Min	C-Min	C-Min
Act Effct Green (s)	24.9	24.9	24.9	24.9	20.1	20.1	20.1	20.1
Actuated g/C Ratio	0.45	0.45	0.45	0.45	0.37	0.37	0.37	0.37
v/c Ratio	0.10	0.49	0.09	0.64	0.08	0.07	0.14	0.23
Control Delay	3.8	9.3	7.4	12.9	15.0	8.2	14.5	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.8	9.3	7.4	12.9	15.0	8.2	14.5	5.8
LOS	A	A	A	B	B	A	B	A
Approach Delay		9.2		12.8		11.2		8.4
Approach LOS		A		B		B		A

Intersection Summary

Cycle Length: 55
Actuated Cycle Length: 55
Offset: 27.5 (50%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 45
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.64
Intersection Signal Delay: 11.0 Intersection LOS: B
Intersection Capacity Utilization 53.6% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 2: Princeton Dr. & Candelaria Bd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	754	23	22	976	28	35	12	34	66	27	124
Future Volume (veh/h)	17	754	23	22	976	28	35	12	34	66	27	124
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	17	762	23	22	986	28	35	12	34	67	27	125
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	214	1360	41	338	1363	39	584	183	519	687	123	570
Arrive On Green	0.78	0.78	0.78	0.39	0.39	0.39	0.43	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	552	3494	105	684	3501	99	1225	427	1210	1349	287	1329
Grp Volume(v), veh/h	17	384	401	22	496	518	35	0	46	67	0	152
Grp Sat Flow(s),veh/h/ln	552	1763	1837	684	1763	1838	1225	0	1638	1349	0	1616
Q Serve(g_s), s	1.3	4.7	4.7	1.3	13.2	13.2	1.0	0.0	0.9	1.7	0.0	3.3
Cycle Q Clear(g_c), s	14.4	4.7	4.7	6.0	13.2	13.2	4.3	0.0	0.9	2.6	0.0	3.3
Prop In Lane	1.00		0.06	1.00		0.05	1.00		0.74	1.00		0.82
Lane Grp Cap(c), veh/h	214	686	715	338	686	715	584	0	702	687	0	693
V/C Ratio(X)	0.08	0.56	0.56	0.06	0.72	0.72	0.06	0.00	0.07	0.10	0.00	0.22
Avail Cap(c_a), veh/h	310	994	1035	458	994	1036	584	0	702	687	0	693
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.84	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.2	4.2	4.2	13.8	14.3	14.3	11.2	0.0	9.2	10.0	0.0	9.9
Incr Delay (d2), s/veh	0.1	0.6	0.6	0.1	1.5	1.4	0.2	0.0	0.2	0.3	0.0	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.2	2.0	2.0	0.3	8.3	8.5	0.5	0.0	0.6	0.9	0.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.4	4.8	4.8	13.9	15.7	15.7	11.4	0.0	9.4	10.3	0.0	10.6
LnGrp LOS	B	A	A	B	B	B	B	A	A	B	A	B
Approach Vol, veh/h		802			1036			81			219	
Approach Delay, s/veh		5.0			15.7			10.3			10.5	
Approach LOS		A			B			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		28.6		26.4		28.6		26.4				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		14.0		31.0		14.0		31.0				
Max Q Clear Time (g_c+I1), s		6.3		16.4		5.3		15.2				
Green Ext Time (p_c), s		0.1		4.5		0.7		6.2				

Intersection Summary												
HCM 6th Ctrl Delay			10.9									
HCM 6th LOS			B									

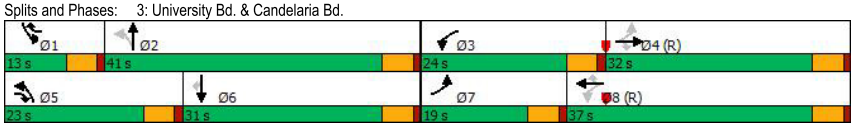
Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	112	604	174	145	774	227	164	476	41	7	12
Future Volume (vph)	112	604	174	145	774	227	164	476	41	7	12
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	Prot	NA	Perm
Protected Phases	7	4	5	3	8	1	5	2	1	6	
Permitted Phases	4		4	8		8	2				6
Detector Phase	7	4	5	3	8	1	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	21.0	21.0
Total Split (s)	19.0	32.0	23.0	24.0	37.0	13.0	23.0	41.0	13.0	31.0	31.0
Total Split (%)	17.3%	29.1%	20.9%	21.8%	33.6%	11.8%	20.9%	37.3%	11.8%	28.2%	28.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?											
Recall Mode	Min	C-Min	Min	Min	C-Min	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	51.1	41.1	59.9	54.7	42.9	54.8	41.9	30.2	6.9	23.3	23.3
Actuated g/C Ratio	0.46	0.37	0.54	0.50	0.39	0.50	0.38	0.27	0.06	0.21	0.21
v/c Ratio	0.39	0.55	0.22	0.45	0.47	0.30	0.38	0.79	0.23	0.01	0.03
Control Delay	19.1	31.3	2.9	20.9	29.6	9.7	24.9	41.1	51.5	32.6	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.1	31.3	2.9	20.9	29.6	9.7	24.9	41.1	51.5	32.6	0.1
LOS	B	C	A	C	C	A	C	D	D	C	A
Approach Delay		24.3			24.6			37.8		39.2	
Approach LOS		C			C			D		D	

Intersection Summary		
Cycle Length: 110		
Actuated Cycle Length: 110		
Offset: 24.2 (22%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green		
Natural Cycle: 65		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.79		
Intersection Signal Delay: 28.5	Intersection LOS: C	
Intersection Capacity Utilization 55.8%	ICU Level of Service B	
Analysis Period (min) 15		

Splits and Phases: 3: University Bd. & Candelaria Bd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	604	174	145	774	227	164	476	168	41	7	12
Future Volume (veh/h)	112	604	174	145	774	227	164	476	168	41	7	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	124	671	193	161	860	252	182	529	187	46	8	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	336	1466	807	367	2171	741	500	625	220	147	669	
Arrive On Green	0.06	0.44	0.44	0.10	0.60	0.60	0.10	0.26	0.26	0.05	0.20	0.00
Sat Flow, veh/h	1668	3328	1485	1668	4782	1485	1668	2414	850	3237	3328	1485
Grp Volume(v), veh/h	124	671	193	161	860	252	182	364	352	46	8	0
Grp Sat Flow(s),veh/h/ln	1668	1664	1485	1668	1594	1485	1668	1664	1599	1618	1664	1485
Q Serve(g_s), s	4.4	15.5	7.5	5.8	10.3	8.8	9.1	22.8	23.0	1.5	0.2	0.0
Cycle Q Clear(g_c), s	4.4	15.5	7.5	5.8	10.3	8.8	9.1	22.8	23.0	1.5	0.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.53	1.00		1.00
Lane Grp Cap(c), veh/h	336	1466	807	367	2171	741	500	431	414	147	669	
V/C Ratio(X)	0.37	0.46	0.24	0.44	0.40	0.34	0.36	0.84	0.85	0.31	0.01	
Avail Cap(c_a), veh/h	449	1466	807	533	2171	741	601	545	523	235	787	
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.75	0.75	0.75	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	15.3	21.6	13.2	15.5	13.9	11.6	28.4	38.7	38.7	50.8	35.2	0.0
Incr Delay (d2), s/veh	0.7	1.0	0.7	0.6	0.4	0.9	0.4	9.6	10.4	1.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.1	10.3	4.7	3.8	6.0	5.0	6.7	15.6	15.3	1.1	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.0	22.6	13.8	16.1	14.3	12.5	28.8	48.3	49.1	52.0	35.2	0.0
LnGrp LOS	B	C	B	B	B	B	C	D	D	D	D	
Approach Vol, veh/h		988			1273			898			54	A
Approach Delay, s/veh		20.1			14.2			44.7			49.5	
Approach LOS		C			B			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	33.5	13.1	53.4	16.4	27.1	11.6	54.9
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	8.0	36.0	19.0	27.0	18.0	26.0	14.0	32.0
Max Q Clear Time (g_c+I1), s	3.5	25.0	7.8	17.5	11.1	2.2	6.4	12.3
Green Ext Time (p_c), s	0.0	3.5	0.3	3.7	0.3	0.0	0.2	7.1

Intersection Summary		
HCM 6th Ctrl Delay		25.1
HCM 6th LOS		C

Notes

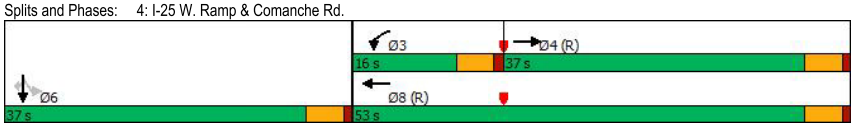
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	462	443	720	333	778	159
Future Volume (vph)	462	443	720	333	778	159
Turn Type	NA	Prot	NA	Perm	NA	Perm
Protected Phases	4	3	8		6	
Permitted Phases				6		6
Detector Phase	4	3	8	6	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	21.0	10.0	21.0	21.0	21.0	21.0
Total Split (s)	37.0	16.0	53.0	37.0	37.0	37.0
Total Split (%)	41.1%	17.8%	58.9%	41.1%	41.1%	41.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lead				
Lead-Lag Optimize?						
Recall Mode	C-Min	Min	C-Min	Min	Min	Min
Act Effct Green (s)	31.4	13.8	50.2	29.8	29.8	29.8
Actuated g/C Ratio	0.35	0.15	0.56	0.33	0.33	0.33
v/c Ratio	0.96dr	0.89	0.38	0.60	0.75	0.26
Control Delay	38.8	48.2	16.2	29.5	31.1	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.8	48.2	16.2	29.5	31.1	4.9
LOS	D	D	B	C	C	A
Approach Delay	38.8		28.4		27.7	
Approach LOS	D		C		C	

Intersection Summary		
Cycle Length: 90		
Actuated Cycle Length: 90		
Offset: 80.1 (89%), Referenced to phase 4:EBT and 8:WBT, Start of Green		
Natural Cycle: 60		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.90		
Intersection Signal Delay: 31.1	Intersection LOS: C	
Intersection Capacity Utilization 78.3%	ICU Level of Service D	
Analysis Period (min) 15		

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 4: I-25 W. Ramp & Comanche Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	462	535	443	720	0	0	0	0	333	778	159
Future Volume (veh/h)	0	462	535	443	720	0	0	0	0	333	778	159
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1856	1856	1856	1856	0				1856	1856	1856
Adj Flow Rate, veh/h	0	481	557	461	750	0				347	810	166
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	3	3	3	3	0				3	3	3
Cap, veh/h	0	749	668	419	2125	0				505	1061	450
Arrive On Green	0.00	0.43	0.43	0.24	1.00	0.00				0.29	0.29	0.29
Sat Flow, veh/h	0	1856	1572	3428	3618	0				1767	3711	1572
Grp Volume(v), veh/h	0	481	557	461	750	0				347	810	166
Grp Sat Flow(s),veh/h/ln	0	1763	1572	1714	1763	0				1767	1856	1572
Q Serve(g_s), s	0.0	19.4	28.4	11.0	0.0	0.0				15.7	17.9	7.6
Cycle Q Clear(g_c), s	0.0	19.4	28.4	11.0	0.0	0.0				15.7	17.9	7.6
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	749	668	419	2125	0				505	1061	450
V/C Ratio(X)	0.00	0.64	0.83	1.10	0.35	0.00				0.69	0.76	0.37
Avail Cap(c_a), veh/h	0	749	668	419	2125	0				628	1319	559
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.37	0.37	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	20.5	23.0	34.0	0.0	0.0				28.5	29.3	25.6
Incr Delay (d2), s/veh	0.0	4.2	11.6	58.5	0.2	0.0				2.3	2.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	13.3	17.8	10.4	0.1	0.0				11.0	12.7	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	24.7	34.7	92.5	0.2	0.0				30.8	31.5	26.2
LnGrp LOS	A	C	C	F	A	A				C	C	C
Approach Vol, veh/h		1038			1211						1323	
Approach Delay, s/veh		30.0			35.3						30.6	
Approach LOS		C			D						C	

Timer - Assigned Phs		3	4		6		8				
Phs Duration (G+Y+Rc), s		16.0	43.3		30.7		59.3				
Change Period (Y+Rc), s		5.0	5.0		5.0		5.0				
Max Green Setting (Gmax), s		11.0	32.0		32.0		48.0				
Max Q Clear Time (g_c+I1), s		13.0	30.4		19.9		2.0				
Green Ext Time (p_c), s		0.0	1.1		5.8		6.3				

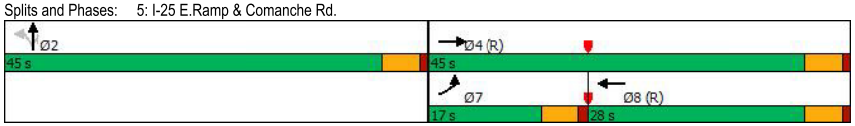
Intersection Summary	
HCM 6th Ctrl Delay	32.0
HCM 6th LOS	C

Notes
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR
Lane Configurations						
Traffic Volume (vph)	206	589	614	549	1330	424
Future Volume (vph)	206	589	614	549	1330	424
Turn Type	Prot	NA	NA	Perm	NA	Perm
Protected Phases	7	4	8		2	
Permitted Phases				2		2
Detector Phase	7	4	8	2	2	2
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	21.0	21.0	21.0	21.0
Total Split (s)	17.0	45.0	28.0	45.0	45.0	45.0
Total Split (%)	18.9%	50.0%	31.1%	50.0%	50.0%	50.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?						
Recall Mode	Min	C-Min	C-Min	Min	Min	Min
Act Effct Green (s)	10.7	40.0	24.3	40.0	40.0	40.0
Actuated g/C Ratio	0.12	0.44	0.27	0.44	0.44	0.44
v/c Ratio	0.57	0.43	0.93	0.77	0.76	0.61
Control Delay	47.7	21.0	49.6	30.3	23.9	16.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.7	21.0	49.6	30.3	23.9	16.3
LOS	D	C	D	C	C	B
Approach Delay		27.9	49.6		23.8	
Approach LOS		C	D		C	

Intersection Summary		
Cycle Length: 90		
Actuated Cycle Length: 90		
Offset: 88.2 (98%), Referenced to phase 4:EBT and 8:WBT, Start of Green		
Natural Cycle: 60		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.93		
Intersection Signal Delay: 29.8	Intersection LOS: C	
Intersection Capacity Utilization 78.3%	ICU Level of Service D	
Analysis Period (min) 15		

Splits and Phases: 5: I-25 E.Ramp & Comanche Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	206	589	0	0	614	166	549	1330	424	0	0	0
Future Volume (veh/h)	206	589	0	0	614	166	549	1330	424	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1856	1856	0	0	1856	1856	1856	1856	1856			
Adj Flow Rate, veh/h	231	662	0	0	690	187	528	1619	476			
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	307	1680	0	0	909	246	729	2296	649			
Arrive On Green	0.18	0.95	0.00	0.00	0.33	0.33	0.41	0.41	0.41			
Sat Flow, veh/h	3428	3618	0	0	2835	743	1767	5567	1572			
Grp Volume(v), veh/h	231	662	0	0	443	434	528	1619	476			
Grp Sat Flow(s),veh/h/ln	1714	1763	0	0	1763	1722	1767	1856	1572			
Q Serve(g_s), s	5.8	1.3	0.0	0.0	20.2	20.2	22.5	21.7	23.0			
Cycle Q Clear(g_c), s	5.8	1.3	0.0	0.0	20.2	20.2	22.5	21.7	23.0			
Prop In Lane	1.00		0.00	0.00		0.43	1.00		1.00			
Lane Grp Cap(c), veh/h	307	1680	0	0	584	571	729	2296	649			
V/C Ratio(X)	0.75	0.39	0.00	0.00	0.76	0.76	0.72	0.71	0.73			
Avail Cap(c_a), veh/h	457	1680	0	0	584	571	785	2474	699			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.46	0.46	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	36.0	1.1	0.0	0.0	26.9	26.9	22.2	21.9	22.3			
Incr Delay (d2), s/veh	1.8	0.3	0.0	0.0	9.0	9.2	3.1	0.9	3.7			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	4.0	0.7	0.0	0.0	14.7	14.5	14.6	14.1	13.6			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.8	1.5	0.0	0.0	35.8	36.1	25.2	22.8	26.0			
LnGrp LOS	D	A	A	A	D	D	C	C	C			
Approach Vol, veh/h		893			877			2623				
Approach Delay, s/veh		10.9			36.0			23.8				
Approach LOS		B			D			C				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		42.1		47.9			13.0	34.8				
Change Period (Y+Rc), s		5.0		5.0			5.0	5.0				
Max Green Setting (Gmax), s		40.0		40.0			12.0	23.0				
Max Q Clear Time (g_c+I1), s		25.0		3.3			7.8	22.2				
Green Ext Time (p_c), s		12.2		5.2			0.3	0.4				

Intersection Summary		
HCM 6th Ctrl Delay	23.6	
HCM 6th LOS	C	

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	888	110	19	708	7	51	1	54	4	2	21
Future Vol, veh/h	15	888	110	19	708	7	51	1	54	4	2	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	60	-	-	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	16	935	116	20	745	7	54	1	57	4	2	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	752	0	0	1051	0	0	1439	1817	526	1289	1872	376
Stage 1	-	-	-	-	-	-	1025	1025	-	789	789	-
Stage 2	-	-	-	-	-	-	414	792	-	500	1083	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.56	6.56	6.96	7.56	6.56	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-	6.56	5.56	-	6.56	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.56	5.56	-	6.56	5.56	-
Follow-up Hdwy	2.23	-	-	2.23	-	-	3.53	4.03	3.33	3.53	4.03	3.33
Pot Cap-1 Maneuver	847	-	-	1001	-	-	93	76	*723	*120	70	619
Stage 1	-	-	-	-	-	-	637	568	-	*348	398	-
Stage 2	-	-	-	-	-	-	584	396	-	*682	521	-
Platoon blocked, %		-	-	1	-	-			1			
Mov Cap-1 Maneuver	847	-	-	1001	-	-	86	73	*723	*107	67	619
Mov Cap-2 Maneuver	-	-	-	-	-	-	302	235	-	*242	229	-
Stage 1	-	-	-	-	-	-	625	557	-	*341	390	-
Stage 2	-	-	-	-	-	-	549	388	-	*615	511	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.2	16.4	13.4
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	428	847	-	-	1001	-	-	456
HCM Lane V/C Ratio	0.261	0.019	-	-	0.02	-	-	0.062
HCM Control Delay (s)	16.4	9.3	-	-	8.7	-	-	13.4
HCM Lane LOS	C	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	1	0.1	-	-	0.1	-	-	0.2

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	9	97	1	6	125
Future Vol, veh/h	1	9	97	1	6	125
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	1	9	102	1	6	132

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	247	103	0	0	103	0
Stage 1	103	-	-	-	-	-
Stage 2	144	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	739	949	-	-	1483	-
Stage 1	919	-	-	-	-	-
Stage 2	881	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	736	949	-	-	1483	-
Mov Cap-2 Maneuver	736	-	-	-	-	-
Stage 1	919	-	-	-	-	-
Stage 2	877	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	0.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	922	1483	-
HCM Lane V/C Ratio	-	-	0.011	0.004	-
HCM Control Delay (s)	-	-	9	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	9	97	3	6	119
Future Vol, veh/h	5	9	97	3	6	119
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	5	9	102	3	6	125

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	241	104	0	0	105	0
Stage 1	104	-	-	-	-	-
Stage 2	137	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.13	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.227	-
Pot Cap-1 Maneuver	745	948	-	-	1480	-
Stage 1	918	-	-	-	-	-
Stage 2	887	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	742	948	-	-	1480	-
Mov Cap-2 Maneuver	742	-	-	-	-	-
Stage 1	918	-	-	-	-	-
Stage 2	883	-	-	-	-	-

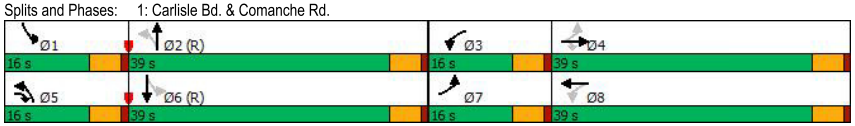
Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	0.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	862	1480	-
HCM Lane V/C Ratio	-	-	0.017	0.004	-
HCM Control Delay (s)	-	-	9.2	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	138	394	388	90	357	169	673	77	636
Future Volume (vph)	138	394	388	90	357	169	673	77	636
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+pt	NA	pm+pt	NA
Protected Phases	7	4	5	3	8	5	2	1	6
Permitted Phases	4		4	8		2		6	
Detector Phase	7	4	5	3	8	5	2	1	6
Switch Phase									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	21.0	10.0	21.0
Total Split (s)	16.0	39.0	16.0	16.0	39.0	16.0	39.0	16.0	39.0
Total Split (%)	14.5%	35.5%	14.5%	14.5%	35.5%	14.5%	35.5%	14.5%	35.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	Min	Min	Min	Min	Min	Min	C-Min	Min	C-Min
Act Effct Green (s)	41.1	29.9	45.8	37.1	27.9	53.5	42.6	48.4	40.1
Actuated g/C Ratio	0.37	0.27	0.42	0.34	0.25	0.49	0.39	0.44	0.36
v/c Ratio	0.43	0.85	0.56	0.41	0.51	0.53	0.43	0.26	0.45
Control Delay	24.0	53.5	16.1	24.8	35.1	23.0	26.5	18.6	27.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.0	53.5	16.1	24.8	35.1	23.0	26.5	18.6	27.8
LOS	C	D	B	C	D	C	C	B	C
Approach Delay		33.3			33.3		25.8		27.0
Approach LOS		C			C		C		C

Intersection Summary		
Cycle Length: 110		
Actuated Cycle Length: 110		
Offset: 55 (50%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green		
Natural Cycle: 65		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.85		
Intersection Signal Delay: 29.5	Intersection LOS: C	
Intersection Capacity Utilization 66.9%	ICU Level of Service C	
Analysis Period (min) 15		

Splits and Phases: 1: Carlisle Bd. & Comanche Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	138	394	388	90	357	58	169	673	91	77	636	130
Future Volume (veh/h)	138	394	388	90	357	58	169	673	91	77	636	130
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	148	424	417	97	384	62	182	724	98	83	684	0
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	341	507	552	207	768	123	440	1988	267	366	2068	
Arrive On Green	0.08	0.27	0.27	0.06	0.25	0.25	0.08	0.44	0.44	0.05	0.41	0.00
Sat Flow, veh/h	1767	1856	1572	1767	3043	487	1767	4517	606	1767	5233	0
Grp Volume(v), veh/h	148	424	417	97	221	225	182	540	282	83	684	0
Grp Sat Flow(s),veh/h/ln	1767	1856	1572	1767	1763	1768	1767	1689	1746	1767	1689	0
Q Serve(g_s), s	6.7	23.7	25.8	4.4	11.8	12.0	6.4	11.7	11.9	3.0	10.2	0.0
Cycle Q Clear(g_c), s	6.7	23.7	25.8	4.4	11.8	12.0	6.4	11.7	11.9	3.0	10.2	0.0
Prop In Lane	1.00		1.00	1.00		0.28	1.00		0.35	1.00		0.00
Lane Grp Cap(c), veh/h	341	507	552	207	445	446	440	1487	769	366	2068	
V/C Ratio(X)	0.43	0.84	0.76	0.47	0.50	0.50	0.41	0.36	0.37	0.23	0.33	
Avail Cap(c_a), veh/h	376	574	608	280	545	546	479	1487	769	462	2068	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	27.5	37.6	31.5	30.0	35.2	35.2	16.6	20.5	20.6	17.6	22.3	0.0
Incr Delay (d2), s/veh	0.9	9.5	4.9	1.6	0.9	0.9	0.6	0.7	1.4	0.3	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.2	17.6	15.6	3.5	8.9	9.0	4.8	8.3	8.8	2.2	7.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.4	47.1	36.4	31.7	36.0	36.1	17.2	21.2	21.9	17.9	22.7	0.0
LnGrp LOS	C	D	D	C	D	D	B	C	C	B	C	
Approach Vol, veh/h		989			543			1004			767	A
Approach Delay, s/veh		39.8			35.3			20.7			22.2	
Approach LOS		D			D			C			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	53.4	11.5	35.1	13.6	49.9	13.8	32.8
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	11.0	34.0	11.0	34.0	11.0	34.0	11.0	34.0
Max Q Clear Time (g_c+I1), s	5.0	13.9	6.4	27.8	8.4	12.2	8.7	14.0
Green Ext Time (p_c), s	0.1	5.5	0.1	2.3	0.1	4.9	0.1	2.6

Intersection Summary		
HCM 6th Ctrl Delay	29.2	
HCM 6th LOS	C	

Notes

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	21	754	22	976	35	20	75	35
Future Volume (vph)	21	754	22	976	35	20	75	35
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		2		6
Permitted Phases	4		8		2		6	
Detector Phase	4	4	8	8	2	2	6	6
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
Total Split (s)	36.0	36.0	36.0	36.0	19.0	19.0	19.0	19.0
Total Split (%)	65.5%	65.5%	65.5%	65.5%	34.5%	34.5%	34.5%	34.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	Min	Min	Min	Min	C-Min	C-Min	C-Min	C-Min
Act Effct Green (s)	25.1	25.1	25.1	25.1	19.9	19.9	19.9	19.9
Actuated g/C Ratio	0.46	0.46	0.46	0.46	0.36	0.36	0.36	0.36
v/c Ratio	0.13	0.49	0.09	0.64	0.08	0.09	0.16	0.25
Control Delay	4.3	9.4	7.2	12.8	15.3	9.0	14.1	6.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.3	9.4	7.2	12.8	15.3	9.0	14.1	6.0
LOS	A	A	A	B	B	A	B	A
Approach Delay		9.3		12.7		11.5		8.5
Approach LOS		A		B		B		A

Intersection Summary		
Cycle Length: 55		
Actuated Cycle Length: 55		
Offset: 27.5 (50%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green		
Natural Cycle: 45		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.64		
Intersection Signal Delay: 10.9	Intersection LOS: B	
Intersection Capacity Utilization 54.5%	ICU Level of Service A	
Analysis Period (min) 15		

Splits and Phases: 2: Princeton Dr. & Candelaria Bd.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	754	23	22	976	37	35	20	34	75	35	128
Future Volume (veh/h)	21	754	23	22	976	37	35	20	34	75	35	128
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	21	762	23	22	986	37	35	20	34	76	35	129
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	213	1371	41	342	1359	51	569	263	447	676	148	544
Arrive On Green	0.78	0.78	0.78	0.39	0.39	0.39	0.43	0.43	0.43	0.43	0.43	0.43
Sat Flow, veh/h	547	3494	105	684	3465	130	1212	617	1049	1339	347	1279
Grp Volume(v), veh/h	21	384	401	22	502	521	35	0	54	76	0	164
Grp Sat Flow(s),veh/h/ln	547	1763	1837	684	1763	1832	1212	0	1667	1339	0	1625
Q Serve(g_s), s	1.6	4.6	4.6	1.3	13.3	13.3	1.0	0.0	1.1	2.0	0.0	3.5
Cycle Q Clear(g_c), s	14.9	4.6	4.6	5.8	13.3	13.3	4.6	0.0	1.1	3.0	0.0	3.5
Prop In Lane	1.00		0.06	1.00		0.07	1.00		0.63	1.00		0.79
Lane Grp Cap(c), veh/h	213	692	720	342	692	719	569	0	710	676	0	692
V/C Ratio(X)	0.10	0.56	0.56	0.06	0.73	0.73	0.06	0.00	0.08	0.11	0.00	0.24
Avail Cap(c_a), veh/h	307	994	1035	459	994	1033	569	0	710	676	0	692
HCM Platoon Ratio	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.84	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.2	4.1	4.1	13.6	14.2	14.2	11.5	0.0	9.4	10.3	0.0	10.1
Incr Delay (d2), s/veh	0.2	0.6	0.6	0.1	1.5	1.5	0.2	0.0	0.2	0.3	0.0	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.2	1.9	2.0	0.3	8.4	8.6	0.5	0.0	0.7	1.0	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.4	4.7	4.7	13.6	15.7	15.7	11.8	0.0	9.6	10.6	0.0	10.9
LnGrp LOS	B	A	A	B	B	B	B	A	A	B	A	B
Approach Vol, veh/h		806			1045			89			240	
Approach Delay, s/veh		4.8			15.6			10.4			10.8	
Approach LOS		A			B			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		28.4		26.6		28.4		26.6				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		14.0		31.0		14.0		31.0				
Max Q Clear Time (g_c+I1), s		6.6		16.9		5.5		15.3				
Green Ext Time (p_c), s		0.2		4.5		0.7		6.3				

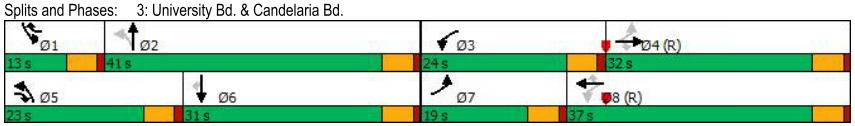
Intersection Summary		
HCM 6th Ctrl Delay	10.9	
HCM 6th LOS	B	

Notes
User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	122	606	174	145	786	234	164	476	41	7	12
Future Volume (vph)	122	606	174	145	786	234	164	476	41	7	12
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA	pm+ov	pm+pt	NA	Prot	NA	Perm
Protected Phases	7	4	5	3	8	1	5	2	1	6	
Permitted Phases	4		4	8		8	2				6
Detector Phase	7	4	5	3	8	1	5	2	1	6	6
Switch Phase											
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	10.0	10.0	21.0	10.0	10.0	21.0	10.0	21.0	21.0
Total Split (s)	19.0	32.0	23.0	24.0	37.0	13.0	23.0	41.0	13.0	31.0	31.0
Total Split (%)	17.3%	29.1%	20.9%	21.8%	33.6%	11.8%	20.9%	37.3%	11.8%	28.2%	28.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lag
Lead-Lag Optimize?											
Recall Mode	Min	C-Min	Min	Min	C-Min	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	51.4	41.1	59.9	54.3	42.5	54.4	41.9	30.2	6.9	23.3	23.3
Actuated g/C Ratio	0.47	0.37	0.54	0.49	0.39	0.49	0.38	0.27	0.06	0.21	0.21
v/c Ratio	0.43	0.55	0.22	0.45	0.48	0.31	0.38	0.80	0.23	0.01	0.03
Control Delay	19.8	31.4	2.9	20.8	29.8	10.9	24.9	41.2	51.5	32.6	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.8	31.4	2.9	20.8	29.8	10.9	24.9	41.2	51.5	32.6	0.1
LOS	B	C	A	C	C	B	C	D	D	C	A
Approach Delay		24.3			24.9			37.9		39.2	
Approach LOS		C			C			D		D	

Intersection Summary		
Cycle Length: 110		
Actuated Cycle Length: 110		
Offset: 24.2 (22%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green		
Natural Cycle: 65		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.80		
Intersection Signal Delay: 28.6	Intersection LOS: C	
Intersection Capacity Utilization 55.9%	ICU Level of Service B	
Analysis Period (min) 15		

Splits and Phases: 3: University Bd. & Candelaria Bd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	122	606	174	145	786	234	164	476	170	41	7	12
Future Volume (veh/h)	122	606	174	145	786	234	164	476	170	41	7	12
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752	1752
Adj Flow Rate, veh/h	136	673	193	161	873	260	182	529	189	46	8	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	10	10	10	10	10	10	10	10	10	10	10	10
Cap, veh/h	336	1463	806	366	2149	734	501	625	222	147	671	
Arrive On Green	0.06	0.44	0.44	0.10	0.60	0.60	0.10	0.26	0.26	0.05	0.20	0.00
Sat Flow, veh/h	1668	3328	1485	1668	4782	1485	1668	2406	856	3237	3328	1485
Grp Volume(v), veh/h	136	673	193	161	873	260	182	365	353	46	8	0
Grp Sat Flow(s),veh/h/ln	1668	1664	1485	1668	1594	1485	1668	1664	1598	1618	1664	1485
Q Serve(g_s), s	4.8	15.6	7.5	5.8	10.7	9.3	9.1	22.9	23.1	1.5	0.2	0.0
Cycle Q Clear(g_c), s	4.8	15.6	7.5	5.8	10.7	9.3	9.1	22.9	23.1	1.5	0.2	0.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.54	1.00		1.00
Lane Grp Cap(c), veh/h	336	1463	806	366	2149	734	501	432	415	147	671	
V/C Ratio(X)	0.40	0.46	0.24	0.44	0.41	0.35	0.36	0.85	0.85	0.31	0.01	
Avail Cap(c_a), veh/h	442	1463	806	532	2149	734	602	545	523	235	787	
HCM Platoon Ratio	1.00	1.00	1.00	1.33	1.33	1.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.74	0.74	0.74	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	15.4	21.6	13.2	15.5	14.3	12.0	28.3	38.6	38.7	50.8	35.1	0.0
Incr Delay (d2), s/veh	0.8	1.0	0.7	0.6	0.4	1.0	0.4	9.7	10.5	1.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.4	10.3	4.7	3.8	6.1	5.3	6.6	15.7	15.4	1.1	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.1	22.7	13.9	16.1	14.8	13.0	28.7	48.3	49.2	52.0	35.2	0.0
LnGrp LOS	B	C	B	B	B	B	C	D	D	D	D	
Approach Vol, veh/h		1002			1294			900			54	A
Approach Delay, s/veh		20.1			14.6			44.7			49.5	
Approach LOS		C			B			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.0	33.6	13.1	53.4	16.4	27.2	12.0	54.4
Change Period (Y+Rc), s	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Max Green Setting (Gmax), s	8.0	36.0	19.0	27.0	18.0	26.0	14.0	32.0
Max Q Clear Time (g_c+I1), s	3.5	25.1	7.8	17.6	11.1	2.2	6.8	12.7
Green Ext Time (p_c), s	0.0	3.5	0.3	3.6	0.3	0.0	0.2	7.1

Intersection Summary	
HCM 6th Ctrl Delay	25.2
HCM 6th LOS	C

Notes

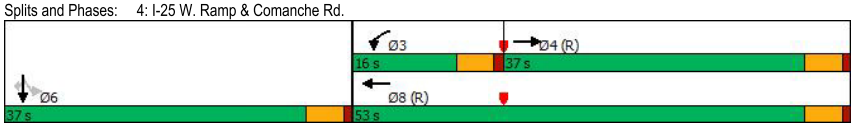
Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	474	445	726	349	778	159
Future Volume (vph)	474	445	726	349	778	159
Turn Type	NA	Prot	NA	Perm	NA	Perm
Protected Phases	4	3	8		6	
Permitted Phases				6		6
Detector Phase	4	3	8	6	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	21.0	10.0	21.0	21.0	21.0	21.0
Total Split (s)	37.0	16.0	53.0	37.0	37.0	37.0
Total Split (%)	41.1%	17.8%	58.9%	41.1%	41.1%	41.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lead				
Lead-Lag Optimize?						
Recall Mode	C-Min	Min	C-Min	Min	Min	Min
Act Effct Green (s)	31.5	13.7	50.2	29.8	29.8	29.8
Actuated g/C Ratio	0.35	0.15	0.56	0.33	0.33	0.33
v/c Ratio	0.95dr	0.90	0.39	0.63	0.75	0.26
Control Delay	39.8	48.5	16.4	30.4	31.1	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.8	48.5	16.4	30.4	31.1	4.9
LOS	D	D	B	C	C	A
Approach Delay	39.8		28.6		28.0	
Approach LOS	D		C		C	

Intersection Summary			
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 80.1 (89%), Referenced to phase 4:EBT and 8:WBT, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.91			
Intersection Signal Delay: 31.6		Intersection LOS: C	
Intersection Capacity Utilization 78.7%		ICU Level of Service D	
Analysis Period (min) 15			

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 4: I-25 W. Ramp & Comanche Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	474	535	445	726	0	0	0	0	349	778	159
Future Volume (veh/h)	0	474	535	445	726	0	0	0	0	349	778	159
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1856	1856	1856	1856	0				1856	1856	1856
Adj Flow Rate, veh/h	0	494	557	464	756	0				364	810	166
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	3	3	3	3	0				3	3	3
Cap, veh/h	0	749	668	419	2124	0				506	1063	450
Arrive On Green	0.00	0.42	0.42	0.24	1.00	0.00				0.29	0.29	0.29
Sat Flow, veh/h	0	1856	1572	3428	3618	0				1767	3711	1572
Grp Volume(v), veh/h	0	494	557	464	756	0				364	810	166
Grp Sat Flow(s),veh/h/ln	0	1763	1572	1714	1763	0				1767	1856	1572
Q Serve(g_s), s	0.0	20.2	28.4	11.0	0.0	0.0				16.7	17.9	7.6
Cycle Q Clear(g_c), s	0.0	20.2	28.4	11.0	0.0	0.0				16.7	17.9	7.6
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	749	668	419	2124	0				506	1063	450
V/C Ratio(X)	0.00	0.66	0.83	1.11	0.36	0.00				0.72	0.76	0.37
Avail Cap(c_a), veh/h	0	749	668	419	2124	0				628	1319	559
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.32	0.32	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	20.7	23.1	34.0	0.0	0.0				28.9	29.3	25.6
Incr Delay (d2), s/veh	0.0	4.5	11.7	59.8	0.1	0.0				3.0	2.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	13.7	17.8	10.3	0.1	0.0				11.7	12.7	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	25.2	34.8	93.8	0.1	0.0				31.9	31.4	26.1
LnGrp LOS	A	C	C	F	A	A				C	C	C
Approach Vol, veh/h		1051			1220						1340	
Approach Delay, s/veh		30.3			35.8						30.9	
Approach LOS		C			D						C	

Timer - Assigned Phs		3	4		6		8				
Phs Duration (G+Y+Rc), s		16.0	43.2		30.8		59.2				
Change Period (Y+Rc), s		5.0	5.0		5.0		5.0				
Max Green Setting (Gmax), s		11.0	32.0		32.0		48.0				
Max Q Clear Time (g_c+I1), s		13.0	30.4		19.9		2.0				
Green Ext Time (p_c), s		0.0	1.1		5.8		6.3				

Intersection Summary		
HCM 6th Ctrl Delay	32.4	
HCM 6th LOS	C	

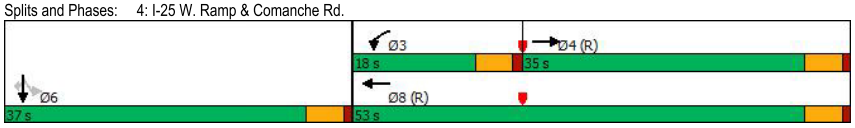
Notes
User approved volume balancing among the lanes for turning movement.

Lane Group	EBT	WBL	WBT	SBL	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	474	445	726	349	778	159
Future Volume (vph)	474	445	726	349	778	159
Turn Type	NA	Prot	NA	Perm	NA	Perm
Protected Phases	4	3	8		6	
Permitted Phases				6		6
Detector Phase	4	3	8	6	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	21.0	10.0	21.0	21.0	21.0	21.0
Total Split (s)	35.0	18.0	53.0	37.0	37.0	37.0
Total Split (%)	38.9%	20.0%	58.9%	41.1%	41.1%	41.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lead				
Lead-Lag Optimize?						
Recall Mode	C-Min	Min	C-Min	Min	Min	Min
Act Effct Green (s)	31.3	13.9	50.2	29.8	29.8	29.8
Actuated g/C Ratio	0.35	0.15	0.56	0.33	0.33	0.33
v/c Ratio	0.96dr	0.88	0.39	0.63	0.75	0.26
Control Delay	41.4	44.4	17.4	30.4	31.1	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.4	44.4	17.4	30.4	31.1	4.9
LOS	D	D	B	C	C	A
Approach Delay	41.4		27.7		28.0	
Approach LOS	D		C		C	

Intersection Summary			
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 80.1 (89%), Referenced to phase 4:EBT and 8:WBT, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 31.8		Intersection LOS: C	
Intersection Capacity Utilization 78.7%		ICU Level of Service D	
Analysis Period (min) 15			

dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 4: I-25 W. Ramp & Comanche Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	474	535	445	726	0	0	0	0	349	778	159
Future Volume (veh/h)	0	474	535	445	726	0	0	0	0	349	778	159
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1856	1856	1856	1856	0				1856	1856	1856
Adj Flow Rate, veh/h	0	494	557	464	756	0				364	810	166
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96				0.96	0.96	0.96
Percent Heavy Veh, %	0	3	3	3	3	0				3	3	3
Cap, veh/h	0	709	633	495	2124	0				506	1063	450
Arrive On Green	0.00	0.40	0.40	0.29	1.00	0.00				0.29	0.29	0.29
Sat Flow, veh/h	0	1856	1572	3428	3618	0				1767	3711	1572
Grp Volume(v), veh/h	0	494	557	464	756	0				364	810	166
Grp Sat Flow(s),veh/h/ln	0	1763	1572	1714	1763	0				1767	1856	1572
Q Serve(g_s), s	0.0	20.9	29.5	11.9	0.0	0.0				16.7	17.9	7.6
Cycle Q Clear(g_c), s	0.0	20.9	29.5	11.9	0.0	0.0				16.7	17.9	7.6
Prop In Lane	0.00		1.00	1.00		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	709	633	495	2124	0				506	1063	450
V/C Ratio(X)	0.00	0.70	0.88	0.94	0.36	0.00				0.72	0.76	0.37
Avail Cap(c_a), veh/h	0	709	633	495	2124	0				628	1319	559
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.32	0.32	0.00				1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	22.3	24.9	31.6	0.0	0.0				28.9	29.3	25.6
Incr Delay (d2), s/veh	0.0	5.6	16.1	11.2	0.1	0.0				3.0	2.1	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	14.4	19.2	6.8	0.1	0.0				11.7	12.7	5.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	27.9	41.0	42.8	0.1	0.0				31.9	31.4	26.1
LnGrp LOS	A	C	D	D	A	A				C	C	C
Approach Vol, veh/h		1051			1220						1340	
Approach Delay, s/veh		34.8			16.4						30.9	
Approach LOS		C			B						C	

Timer - Assigned Phs		3	4		6		8				
Phs Duration (G+Y+Rc), s		18.0	41.2		30.8		59.2				
Change Period (Y+Rc), s		5.0	5.0		5.0		5.0				
Max Green Setting (Gmax), s		13.0	30.0		32.0		48.0				
Max Q Clear Time (g_c+I1), s		13.9	31.5		19.9		2.0				
Green Ext Time (p_c), s		0.0	0.0		5.8		6.3				

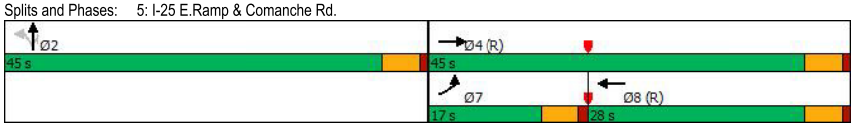
Intersection Summary		
HCM 6th Ctrl Delay	27.1	
HCM 6th LOS	C	

Notes
User approved volume balancing among the lanes for turning movement.

Lane Group	EBL	EBT	WBT	NBL	NBT	NBR
Lane Configurations						
Traffic Volume (vph)	206	617	627	549	1330	436
Future Volume (vph)	206	617	627	549	1330	436
Turn Type	Prot	NA	NA	Perm	NA	Perm
Protected Phases	7	4	8		2	
Permitted Phases				2		2
Detector Phase	7	4	8	2	2	2
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	10.0	21.0	21.0	21.0	21.0	21.0
Total Split (s)	17.0	45.0	28.0	45.0	45.0	45.0
Total Split (%)	18.9%	50.0%	31.1%	50.0%	50.0%	50.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead		Lag			
Lead-Lag Optimize?						
Recall Mode	Min	C-Min	C-Min	Min	Min	Min
Act Effct Green (s)	10.7	40.0	24.3	40.0	40.0	40.0
Actuated g/C Ratio	0.12	0.44	0.27	0.44	0.44	0.44
v/c Ratio	0.57	0.45	0.97	0.77	0.76	0.63
Control Delay	47.3	21.3	55.6	30.3	23.9	17.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.3	21.3	55.6	30.3	23.9	17.8
LOS	D	C	E	C	C	B
Approach Delay		27.8	55.6		24.0	
Approach LOS		C	E		C	

Intersection Summary		
Cycle Length: 90		
Actuated Cycle Length: 90		
Offset: 88.2 (98%), Referenced to phase 4:EBT and 8:WBT, Start of Green		
Natural Cycle: 60		
Control Type: Actuated-Coordinated		
Maximum v/c Ratio: 0.97		
Intersection Signal Delay: 31.3	Intersection LOS: C	
Intersection Capacity Utilization 78.7%	ICU Level of Service D	
Analysis Period (min) 15		

Splits and Phases: 5: I-25 E.Ramp & Comanche Rd.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	206	617	0	0	627	181	549	1330	436	0	0	0
Future Volume (veh/h)	206	617	0	0	627	181	549	1330	436	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0			
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00			
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach		No			No			No				
Adj Sat Flow, veh/h/ln	1856	1856	0	0	1856	1856	1856	1856	1856			
Adj Flow Rate, veh/h	231	693	0	0	704	203	528	1619	490			
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89			
Percent Heavy Veh, %	3	3	0	0	3	3	3	3	3			
Cap, veh/h	307	1668	0	0	886	255	735	2314	654			
Arrive On Green	0.18	0.95	0.00	0.00	0.33	0.33	0.42	0.42	0.42			
Sat Flow, veh/h	3428	3618	0	0	2793	778	1767	5567	1572			
Grp Volume(v), veh/h	231	693	0	0	460	447	528	1619	490			
Grp Sat Flow(s),veh/h/ln	1714	1763	0	0	1763	1715	1767	1856	1572			
Q Serve(g_s), s	5.8	1.6	0.0	0.0	21.3	21.3	22.4	21.6	23.8			
Cycle Q Clear(g_c), s	5.8	1.6	0.0	0.0	21.3	21.3	22.4	21.6	23.8			
Prop In Lane	1.00		0.00	0.00		0.45	1.00		1.00			
Lane Grp Cap(c), veh/h	307	1668	0	0	578	563	735	2314	654			
V/C Ratio(X)	0.75	0.42	0.00	0.00	0.79	0.79	0.72	0.70	0.75			
Avail Cap(c_a), veh/h	457	1668	0	0	578	563	785	2474	699			
HCM Platoon Ratio	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00			
Upstream Filter(I)	0.43	0.43	0.00	0.00	1.00	1.00	1.00	1.00	1.00			
Uniform Delay (d), s/veh	36.0	1.3	0.0	0.0	27.5	27.5	21.9	21.7	22.3			
Incr Delay (d2), s/veh	1.7	0.3	0.0	0.0	10.8	11.1	3.0	0.8	4.2			
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
%ile BackOfQ(95%),veh/ln	3.9	0.8	0.0	0.0	15.7	15.4	14.5	14.0	14.1			
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.7	1.6	0.0	0.0	38.2	38.5	24.9	22.5	26.5			
LnGrp LOS	D	A	A	A	D	D	C	C	C			
Approach Vol, veh/h		924			907			2637				
Approach Delay, s/veh		10.7			38.4			23.7				
Approach LOS		B			D			C				
Timer - Assigned Phs		2		4			7	8				
Phs Duration (G+Y+Rc), s		42.4		47.6			13.0	34.5				
Change Period (Y+Rc), s		5.0		5.0			5.0	5.0				
Max Green Setting (Gmax), s		40.0		40.0			12.0	23.0				
Max Q Clear Time (g_c+I1), s		25.8		3.6			7.8	23.3				
Green Ext Time (p_c), s		11.6		5.5			0.3	0.0				

Intersection Summary		
HCM 6th Ctrl Delay	24.0	
HCM 6th LOS	C	

Notes

User approved volume balancing among the lanes for turning movement.

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	888	151	94	708	7	79	2	126	4	3	21
Future Vol, veh/h	15	888	151	94	708	7	79	2	126	4	3	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	60	-	-	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	1	-	-	1	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	16	935	159	99	745	7	83	2	133	4	3	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	752	0	0	1094	0	0	1619	1997	547	1448	2073	376
Stage 1	-	-	-	-	-	-	1047	1047	-	947	947	-
Stage 2	-	-	-	-	-	-	572	950	-	501	1126	-
Critical Hdwy	4.16	-	-	4.16	-	-	7.56	6.56	6.96	7.56	6.56	6.96
Critical Hdwy Stg 1	-	-	-	-	-	-	6.56	5.56	-	6.56	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.56	5.56	-	6.56	5.56	-
Follow-up Hdwy	2.23	-	-	2.23	-	-	3.53	4.03	3.33	3.53	4.03	3.33
Pot Cap-1 Maneuver	847	-	-	948	-	-	~ 68	59	*723	*91	53	619
Stage 1	-	-	-	-	-	-	610	550	-	*279	336	-
Stage 2	-	-	-	-	-	-	470	335	-	*682	489	-
Platoon blocked, %		-	-	1	-	-			1			
Mov Cap-1 Maneuver	847	-	-	948	-	-	~ 59	52	*723	*67	47	619
Mov Cap-2 Maneuver	-	-	-	-	-	-	240	191	-	*183	175	-
Stage 1	-	-	-	-	-	-	598	540	-	*274	301	-
Stage 2	-	-	-	-	-	-	402	300	-	*544	480	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.1	24	15.2
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	403	847	-	-	948	-	-	384
HCM Lane V/C Ratio	0.541	0.019	-	-	0.104	-	-	0.077
HCM Control Delay (s)	24	9.3	-	-	9.2	-	-	15.2
HCM Lane LOS	C	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	3.1	0.1	-	-	0.3	-	-	0.2

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	27	1	1	1	1	9	1	182	1	6	184	59
Future Vol, veh/h	27	1	1	1	1	9	1	182	1	6	184	59
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	-	-	-	-	-	-
Veh in Median Storage,-#		0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	28	1	1	1	1	9	1	192	1	6	194	62

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	437	432	225	433	463	193	256	0	0	193	0	0
Stage 1	237	237	-	195	195	-	-	-	-	-	-	-
Stage 2	200	195	-	238	268	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	528	515	812	531	495	846	1303	-	-	1374	-	-
Stage 1	764	707	-	804	737	-	-	-	-	-	-	-
Stage 2	800	737	-	763	685	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	519	512	812	527	492	846	1303	-	-	1374	-	-
Mov Cap-2 Maneuver	519	512	-	527	492	-	-	-	-	-	-	-
Stage 1	763	703	-	803	736	-	-	-	-	-	-	-
Stage 2	789	736	-	757	682	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.2	9.8	0	0.2
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1303	-	-	519	628	527	789	1374	-	-
HCM Lane V/C Ratio	0.001	-	-	0.055	0.003	0.002	0.013	0.005	-	-
HCM Control Delay (s)	7.8	0	-	12.3	10.8	11.8	9.6	7.6	-	-
HCM Lane LOS	A	A	-	B	B	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0	0	0	0	-	-

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	85	1	25	5	1	9	26	97	3	6	119	59
Future Vol, veh/h	85	1	25	5	1	9	26	97	3	6	119	59
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	-	-	-	-	-	-
Veh in Median Storage,-#		0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	89	1	26	5	1	9	27	102	3	6	125	62

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	331	327	156	340	357	104	187	0	0	105	0	0
Stage 1	168	168	-	158	158	-	-	-	-	-	-	-
Stage 2	163	159	-	182	199	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.53	6.23	7.13	6.53	6.23	4.13	-	-	4.13	-	-
Critical Hdwy Stg 1	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.53	-	6.13	5.53	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.027	3.327	3.527	4.027	3.327	2.227	-	-	2.227	-	-
Pot Cap-1 Maneuver	620	590	887	612	567	948	1381	-	-	1480	-	-
Stage 1	832	758	-	842	765	-	-	-	-	-	-	-
Stage 2	837	764	-	817	735	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	601	575	887	581	552	948	1381	-	-	1480	-	-
Mov Cap-2 Maneuver	601	575	-	581	552	-	-	-	-	-	-	-
Stage 1	815	754	-	824	749	-	-	-	-	-	-	-
Stage 2	810	748	-	788	731	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.4	9.8	1.6	0.2
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1381	-	-	601	869	581	885	1480	-	-
HCM Lane V/C Ratio	0.02	-	-	0.149	0.031	0.009	0.012	0.004	-	-
HCM Control Delay (s)	7.7	0	-	12	9.3	11.3	9.1	7.4	0	-
HCM Lane LOS	A	A	-	B	A	B	A	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	0.1	0	0	0	-	-

Traffic Count Data Sheet

Year Counts Taken: **2018**

E-W Street: **Comanche Rd.**

N-S Street: **Carlisle Bd.**

Speed Limit (Comanche Rd.)= **40** MPH

Speed Limit (Carlisle Bd.)= **35** MPH

Signalized

8/2/18

Begin Time	End Time	Eastbound (Comanche Rd.)				Westbound (Comanche Rd.)				Northbound (Carlisle Bd.)				Southbound (Carlisle Bd.)			
		L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians
7:00 AM	7:15 AM	~~13~~	~~33~~	~~24~~	~~1~~	~~9~~	~~49~~	~~8~~	~~0~~	~~29~~	~~66~~	~~3~~	~~0~~	~~3~~	~~65~~	~~22~~	~~0~~
7:15 AM	7:30 AM	~~22~~	~~23~~	~~26~~	~~0~~	~~13~~	~~55~~	~~8~~	~~0~~	~~27~~	~~77~~	~~4~~	~~0~~	~~4~~	~~82~~	~~16~~	~~0~~
7:30 AM	7:45 AM	~~25~~	~~28~~	~~25~~	~~0~~	~~19~~	~~69~~	~~12~~	~~0~~	~~46~~	~~93~~	~~10~~	~~0~~	~~4~~	~~98~~	~~21~~	~~1~~
7:45 AM	8:00 AM	19	35	35	1	20	85	21	2	50	136	5	0	2	92	26	1
8:00 AM	8:15 AM	18	35	31	2	17	84	13	0	44	93	7	0	0	91	22	0
8:15 AM	8:30 AM	20	42	23	0	22	56	13	0	30	97	7	3	5	83	20	0
8:30 AM	8:45 AM	13	44	44	0	17	62	15	1	32	82	6	0	2	115	22	2
8:45 AM	9:00 AM	~~22~~	~~45~~	~~42~~	~~0~~	~~16~~	~~62~~	~~13~~	~~0~~	~~38~~	~~92~~	~~9~~	~~0~~	~~9~~	~~131~~	~~31~~	~~0~~
AM Peak Hour Volumes		**70**	**156**	**133**	**3**	**76**	**287**	**62**	**3**	**156**	**408**	**25**	**3**	**9**	**381**	**90**	**3**
% of Total Traffic		3.8%	8.4%	7.2%		4.1%	15.4%	3.3%		8.4%	21.9%	1.3%		0.5%	20.5%	4.8%	
% Directional			19.3%				22.9%	**Intersection**			31.7%				25.8%		
AM Peak Hour Factor			*0.89*				*0.84*	0.88			*0.77*				*0.86*		

Begin Time	End Time	Eastbound (Comanche Rd.)				Westbound (Comanche Rd.)				Northbound (Carlisle Bd.)				Southbound (Carlisle Bd.)			
		L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians
4:00 PM	4:15 PM	~~23~~	~~96~~	~~79~~	~~1~~	~~12~~	~~84~~	~~14~~	~~0~~	~~31~~	~~191~~	~~13~~	~~1~~	~~16~~	~~188~~	~~35~~	~~1~~
4:15 PM	4:30 PM	~~16~~	~~81~~	~~88~~	~~2~~	~~22~~	~~72~~	~~19~~	~~1~~	~~23~~	~~164~~	~~14~~	~~2~~	~~12~~	~~156~~	~~21~~	~~0~~
4:30 PM	4:45 PM	34	86	77	5	18	67	13	0	32	166	17	3	20	148	20	0
4:45 PM	5:00 PM	22	94	68	0	20	94	15	3	44	155	19	0	19	154	34	3
5:00 PM	5:15 PM	15	83	122	1	21	73	13	0	54	186	31	0	18	180	25	0
5:15 PM	5:30 PM	40	114	109	2	31	108	17	0	30	163	24	0	19	146	23	0
5:30 PM	5:45 PM	~~18~~	~~84~~	~~69~~	~~0~~	~~16~~	~~75~~	~~14~~	~~0~~	~~35~~	~~176~~	~~25~~	~~0~~	~~23~~	~~130~~	~~12~~	~~1~~
5:45 PM	6:00 PM	~~15~~	~~82~~	~~57~~	~~3~~	~~24~~	~~76~~	~~19~~	~~2~~	~~31~~	~~122~~	~~22~~	~~1~~	~~19~~	~~139~~	~~22~~	~~0~~
PM Peak Hour Volumes		**111**	**377**	**376**	**8**	**90**	**342**	**58**	**3**	**160**	**670**	**91**	**3**	**76**	**628**	**102**	**3**
% of Total Traffic		3.6%	12.2%	12.2%		2.9%	11.1%	1.9%		5.2%	21.7%	2.9%		2.5%	20.3%	3.3%	
% Directional			28.0%				15.9%	**Intersection**			29.8%				26.1%		
PM Peak Hour Factor			*0.82*				*0.79*	0.93			*0.85*				*0.90*		

Traffic Count Data Sheet

Year Counts Taken: **2018**

E-W Street: **Comanche Rd.**

N-S Street: **Princeton Dr.**

Speed Limit (Comanche Rd.)= **40** MPH

Speed Limit (Princeton Dr.)= **25** MPH

Unsignalized

7/9/18

Begin Time	End Time	Eastbound (Comanche Rd.)				Westbound (Comanche Rd.)				Northbound (Princeton Dr.)				Southbound (Princeton Dr.)			
		L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians
7:00 AM	7:15 AM	~~3~~	~~140~~	~~64~~	~~0~~	~~5~~	~~100~~	~~1~~	~~0~~	~~5~~	~~0~~	~~0~~	~~0~~	~~1~~	~~0~~	~~1~~	~~0~~
7:15 AM	7:30 AM	~~2~~	~~142~~	~~62~~	~~0~~	~~10~~	~~148~~	~~0~~	~~0~~	~~3~~	~~0~~	~~2~~	~~0~~	~~1~~	~~0~~	~~1~~	~~0~~
7:30 AM	7:45 AM	~~0~~	~~144~~	~~76~~	~~1~~	~~7~~	~~137~~	~~0~~	~~0~~	~~4~~	~~0~~	~~2~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~
7:45 AM	8:00 AM	0	187	77	0	9	167	0	0	6	0	5	0	0	0	0	0
8:00 AM	8:15 AM	4	328	114	0	18	247	0	1	13	0	6	0	1	0	2	0
8:15 AM	8:30 AM	1	186	56	0	3	124	0	0	11	0	6	0	0	0	1	0
8:30 AM	8:45 AM	3	191	61	0	7	120	0	0	16	0	10	0	0	0	1	0
8:45 AM	9:00 AM	~~4~~	~~143~~	~~62~~	~~0~~	~~7~~	~~120~~	~~4~~	~~0~~	~~13~~	~~0~~	~~10~~	~~0~~	~~2~~	~~0~~	~~4~~	~~0~~
AM Peak Hour Volumes		8	892	308	0	37	658	0	1	46	0	27	0	1	0	4	0
% of Total Traffic		0.4%	45.0%	15.5%		1.9%	33.2%	0.0%		2.3%	0.0%	1.4%		0.1%	0.0%	0.2%	
% Directional			60.9%				35.1%	Intersection			3.7%				0.3%		
AM Peak Hour Factor			*0.68*				*0.66*	0.68			*0.70*				*0.42*		

Begin Time	End Time	Eastbound (Comanche Rd.)				Westbound (Comanche Rd.)				Northbound (Princeton Dr.)				Southbound (Princeton Dr.)			
		L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians
4:00 PM	4:15 PM	~~1~~	~~111~~	~~19~~	~~0~~	~~0~~	~~88~~	~~3~~	~~0~~	~~9~~	~~0~~	~~4~~	~~0~~	~~1~~	~~0~~	~~4~~	~~0~~
4:15 PM	4:30 PM	~~6~~	~~173~~	~~31~~	~~0~~	~~3~~	~~160~~	~~3~~	~~0~~	~~7~~	~~0~~	~~5~~	~~0~~	~~2~~	~~1~~	~~9~~	~~0~~
4:30 PM	4:45 PM	3	190	30	0	4	178	1	0	12	0	12	0	0	2	4	0
4:45 PM	5:00 PM	6	219	27	0	6	163	2	0	16	0	12	1	0	0	4	1
5:00 PM	5:15 PM	2	222	25	0	4	191	2	0	13	1	16	0	3	0	7	0
5:15 PM	5:30 PM	4	229	27	0	5	173	2	0	10	0	14	0	1	0	6	0
5:30 PM	5:45 PM	~~7~~	~~187~~	~~27~~	~~0~~	~~9~~	~~161~~	~~3~~	~~0~~	~~10~~	~~0~~	~~4~~	~~0~~	~~3~~	~~0~~	~~4~~	~~0~~
5:45 PM	6:00 PM	~~10~~	~~153~~	~~17~~	~~0~~	~~6~~	~~144~~	~~2~~	~~0~~	~~4~~	~~1~~	~~9~~	~~0~~	~~1~~	~~2~~	~~9~~	~~0~~
PM Peak Hour Volumes		15	860	109	0	19	705	7	0	51	1	54	1	4	2	21	1
% of Total Traffic		0.8%	46.5%	5.9%		1.0%	38.1%	0.4%		2.8%	0.1%	2.9%		0.2%	0.1%	1.1%	
% Directional			53.2%				39.5%	Intersection			5.7%				1.5%		
PM Peak Hour Factor			*0.95*				*0.93*	0.95			*0.88*				*0.68*		

Traffic Count Data Sheet

Year Counts Taken: **2018**

E-W Street: **Candelaria Rd.**

N-S Street: **Princeton Dr.**

Speed Limit (Candelaria Rd.)= **40** MPH

Speed Limit (Princeton Dr.)= **25** MPH

Signalized

7/9/18

Begin Time	End Time	Eastbound (Candelaria Rd.)				Westbound (Candelaria Rd.)				Northbound (Princeton Dr.)				Southbound (Princeton Dr.)			
		L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians
7:00 AM	7:15 AM	~~7~~	~~95~~	~~13~~	~~0~~	~~2~~	~~87~~	~~4~~	~~0~~	~~7~~	~~4~~	~~6~~	~~1~~	~~6~~	~~6~~	~~5~~	~~0~~
7:15 AM	7:30 AM	~~10~~	~~133~~	~~11~~	~~0~~	~~5~~	~~97~~	~~12~~	~~3~~	~~6~~	~~7~~	~~8~~	~~0~~	~~7~~	~~8~~	~~10~~	~~0~~
7:30 AM	7:45 AM	5	126	10	0	1	145	18	0	8	17	8	0	8	9	19	0
7:45 AM	8:00 AM	9	182	9	0	3	157	16	0	7	17	7	0	13	6	15	0
8:00 AM	8:15 AM	12	125	10	0	6	127	14	0	7	6	5	3	15	8	13	0
8:15 AM	8:30 AM	5	124	7	0	12	128	12	0	10	7	6	0	14	5	12	0
8:30 AM	8:45 AM	~~8~~	~~94~~	~~10~~	~~0~~	~~8~~	~~118~~	~~7~~	~~0~~	~~8~~	~~6~~	~~7~~	~~0~~	~~21~~	~~11~~	~~17~~	~~1~~
8:45 AM	9:00 AM	~~5~~	~~140~~	~~26~~	~~0~~	~~4~~	~~149~~	~~16~~	~~0~~	~~5~~	~~9~~	~~6~~	~~0~~	~~9~~	~~9~~	~~17~~	~~0~~
AM Peak Hour Volumes		31	557	36	0	22	557	60	0	32	47	26	3	50	28	59	0
% of Total Traffic		2.1%	36.9%	2.4%		1.5%	36.9%	4.0%		2.1%	3.1%	1.7%		3.3%	1.9%	3.9%	
% Directional			41.4%				42.4%	**Intersection**			7.0%				9.1%		
AM Peak Hour Factor			*0.78*				*0.91*	0.85			*0.80*				*0.95*		

Begin Time	End Time	Eastbound (Candelaria Rd.)				Westbound (Candelaria Rd.)				Northbound (Princeton Dr.)				Southbound (Princeton Dr.)			
		L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians
4:00 PM	4:15 PM	~~7~~	~~174~~	~~5~~	~~0~~	~~4~~	~~182~~	~~7~~	~~1~~	~~7~~	~~7~~	~~7~~	~~0~~	~~23~~	~~8~~	~~21~~	~~0~~
4:15 PM	4:30 PM	~~12~~	~~144~~	~~8~~	~~0~~	~~4~~	~~213~~	~~10~~	~~0~~	~~16~~	~~11~~	~~11~~	~~0~~	~~19~~	~~13~~	~~26~~	~~0~~
4:30 PM	4:45 PM	3	191	5	1	6	233	8	0	8	6	8	0	19	10	38	0
4:45 PM	5:00 PM	7	198	8	0	6	234	6	0	11	1	11	0	14	12	27	0
5:00 PM	5:15 PM	5	175	4	0	6	233	10	0	6	2	9	1	22	4	28	0
5:15 PM	5:30 PM	2	186	6	0	4	271	4	0	10	3	6	0	11	1	30	0
5:30 PM	5:45 PM	~~1~~	~~193~~	~~3~~	~~0~~	~~1~~	~~212~~	~~8~~	~~0~~	~~2~~	~~2~~	~~7~~	~~0~~	~~10~~	~~5~~	~~14~~	~~0~~
5:45 PM	6:00 PM	~~3~~	~~126~~	~~1~~	~~0~~	~~2~~	~~178~~	~~3~~	~~0~~	~~5~~	~~1~~	~~8~~	~~0~~	~~6~~	~~5~~	~~10~~	~~0~~
PM Peak Hour Volumes		17	750	23	1	22	971	28	0	35	12	34	1	66	27	123	0
% of Total Traffic		0.8%	35.6%	1.1%		1.0%	46.0%	1.3%		1.7%	0.6%	1.6%		3.1%	1.3%	5.8%	
% Directional			37.5%				48.4%	**Intersection**			3.8%				10.2%		
PM Peak Hour Factor			*0.93*				*0.91*	0.99			*0.88*				*0.81*		

Traffic Count Data Sheet

Year Counts Taken: **2018** E-W Street: **Candelaria Bd.** Speed Limit (Candelaria Bd.)= **40** MPH

N-S Street: **University Bd.** Speed Limit (University Bd.)= **45** MPH

Signalized **8/2/18**

Begin Time	End Time	Eastbound (Candelaria Bd.)				Westbound (Candelaria Bd.)				Northbound (University Bd.)				Southbound (University Bd.)			
		L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians
7:00 AM	7:15 AM	~~27~~	~~99~~	~~30~~	~~0~~	~~15~~	~~62~~	~~30~~	~~0~~	~~17~~	~~51~~	~~16~~	~~0~~	~~2~~	~~0~~	~~3~~	~~0~~
7:15 AM	7:30 AM	~~38~~	~~136~~	~~43~~	~~2~~	~~21~~	~~63~~	~~29~~	~~1~~	~~20~~	~~50~~	~~20~~	~~0~~	~~2~~	~~0~~	~~0~~	~~0~~
7:30 AM	7:45 AM	36	140	50	0	33	91	43	2	42	63	21	0	3	0	0	2
7:45 AM	8:00 AM	54	162	55	0	26	111	39	0	33	58	26	1	3	0	1	0
8:00 AM	8:15 AM	45	110	37	0	28	92	36	0	20	64	22	0	5	1	2	0
8:15 AM	8:30 AM	34	115	62	1	21	94	40	0	20	59	16	1	2	1	1	0
8:30 AM	8:45 AM	~~46~~	~~102~~	~~29~~	~~0~~	~~23~~	~~96~~	~~31~~	~~0~~	~~23~~	~~64~~	~~24~~	~~0~~	~~1~~	~~0~~	~~2~~	~~0~~
8:45 AM	9:00 AM	~~32~~	~~133~~	~~36~~	~~0~~	~~36~~	~~97~~	~~40~~	~~0~~	~~21~~	~~54~~	~~20~~	~~3~~	~~8~~	~~1~~	~~0~~	~~0~~
AM Peak Hour Volumes		169	527	204	1	108	388	158	2	115	244	85	2	13	2	4	2
% of Total Traffic		8.4%	26.1%	10.1%		5.3%	19.2%	7.8%		5.7%	12.1%	4.2%		0.6%	0.1%	0.2%	
% Directional			44.6%				32.4%	**Intersection**			22.0%				0.9%		
AM Peak Hour Factor			*0.83*				*0.93*	0.89			*0.88*				*0.59*		

Begin Time	End Time	Eastbound (Candelaria Bd.)				Westbound (Candelaria Bd.)				Northbound (University Bd.)				Southbound (University Bd.)			
		L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians
4:00 PM	4:15 PM	~~26~~	~~163~~	~~34~~	~~0~~	~~35~~	~~139~~	~~54~~	~~0~~	~~25~~	~~93~~	~~27~~	~~0~~	~~6~~	~~0~~	~~4~~	~~1~~
4:15 PM	4:30 PM	~~38~~	~~143~~	~~47~~	~~0~~	~~25~~	~~158~~	~~55~~	~~0~~	~~48~~	~~109~~	~~30~~	~~2~~	~~13~~	~~1~~	~~2~~	~~0~~
4:30 PM	4:45 PM	~~32~~	~~155~~	~~34~~	~~0~~	~~33~~	~~185~~	~~51~~	~~0~~	~~27~~	~~96~~	~~35~~	~~2~~	~~6~~	~~3~~	~~6~~	~~0~~
4:45 PM	5:00 PM	26	137	70	1	39	186	60	0	43	128	39	0	10	0	3	1
5:00 PM	5:15 PM	32	152	28	0	33	171	58	0	50	89	51	2	7	2	1	2
5:15 PM	5:30 PM	32	137	43	2	47	225	75	1	44	138	43	1	14	3	2	4
5:30 PM	5:45 PM	21	175	32	0	25	188	33	0	25	115	33	0	10	2	6	2
5:45 PM	6:00 PM	~~32~~	~~115~~	~~31~~	~~0~~	~~28~~	~~155~~	~~44~~	~~1~~	~~41~~	~~110~~	~~28~~	~~1~~	~~9~~	~~0~~	~~3~~	~~0~~
PM Peak Hour Volumes		111	601	173	3	144	770	226	1	162	470	166	3	41	7	12	9
% of Total Traffic		3.8%	20.8%	6.0%		5.0%	26.7%	7.8%		5.6%	16.3%	5.7%		1.4%	0.2%	0.4%	
% Directional			30.6%				39.5%	**Intersection**			27.6%				2.1%		
PM Peak Hour Factor			*0.95*				*0.82*	0.90			*0.89*				*0.79*		

Traffic Count Data Sheet

Year Counts Taken: **2018**

E-W Street: **Comanche Rd.**

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

Speed Limit (Comanche Rd.)= **40** MPH

Speed Limit (I-25 E.Ramp)= **45** MPH

Signalized

7/9/18

Begin Time	End Time	Eastbound (Comanche Rd.)				Westbound (Comanche Rd.)				Northbound (I-25 E.Ramp)				Southbound (I-25 E.Ramp)			
		L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians
7:00 AM	7:15 AM	~~39~~	~~132~~	~~0~~	~~0~~	~~0~~	~~92~~	~~23~~	~~0~~	~~190~~	~~137~~	~~97~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~
7:15 AM	7:30 AM	**62**	**140**	**0**	**0**	**0**	**126**	**18**	**0**	**216**	**186**	**81**	**0**	**0**	**0**	**0**	**0**
7:30 AM	7:45 AM	**53**	**151**	**0**	**0**	**0**	**116**	**29**	**0**	**178**	**203**	**94**	**0**	**0**	**0**	**0**	**0**
7:45 AM	8:00 AM	**61**	**170**	**0**	**0**	**0**	**146**	**26**	**0**	**184**	**215**	**117**	**0**	**0**	**0**	**0**	**0**
8:00 AM	8:15 AM	**65**	**147**	**0**	**0**	**0**	**111**	**23**	**0**	**139**	**210**	**100**	**0**	**0**	**0**	**0**	**0**
8:15 AM	8:30 AM	~~64~~	~~153~~	~~0~~	~~0~~	~~0~~	~~100~~	~~36~~	~~0~~	~~137~~	~~192~~	~~111~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~
8:30 AM	8:45 AM	~~52~~	~~166~~	~~0~~	~~0~~	~~0~~	~~90~~	~~39~~	~~0~~	~~126~~	~~185~~	~~105~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~
8:45 AM	9:00 AM	~~50~~	~~180~~	~~0~~	~~1~~	~~0~~	~~106~~	~~26~~	~~0~~	~~133~~	~~188~~	~~105~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~
AM Peak Hour Volumes		**241**	**608**	**0**	**0**	**0**	**499**	**96**	**0**	**717**	**814**	**392**	**0**	**0**	**0**	**0**	**0**
% of Total Traffic		7.2%	18.1%	0.0%		0.0%	14.8%	2.9%		21.3%	24.2%	11.6%		0.0%	0.0%	0.0%	
% Directional			25.2%				17.7%	**Intersection**			57.1%				0.0%		
AM Peak Hour Factor			*0.92*				*0.86*	**0.92**			*0.93*				*#DIV/0!*		

Begin Time	End Time	Eastbound (Comanche Rd.)				Westbound (Comanche Rd.)				Northbound (I-25 E.Ramp)				Southbound (I-25 E.Ramp)			
		L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians
4:00 PM	4:15 PM	~~41~~	~~137~~	~~16~~	~~0~~	~~0~~	~~124~~	~~46~~	~~0~~	~~127~~	~~303~~	~~86~~	~~1~~	~~1~~	~~1~~	~~1~~	~~1~~
4:15 PM	4:30 PM	~~46~~	~~135~~	~~0~~	~~0~~	~~0~~	~~131~~	~~54~~	~~0~~	~~142~~	~~291~~	~~83~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~
4:30 PM	4:45 PM	**52**	**135**	**0**	**0**	**0**	**138**	**44**	**0**	**149**	**318**	**94**	**1**	**0**	**0**	**0**	**0**
4:45 PM	5:00 PM	**44**	**139**	**0**	**0**	**0**	**162**	**43**	**0**	**129**	**306**	**116**	**0**	**0**	**0**	**0**	**0**
5:00 PM	5:15 PM	**72**	**170**	**0**	**0**	**0**	**168**	**45**	**0**	**132**	**385**	**103**	**0**	**0**	**0**	**0**	**0**
5:15 PM	5:30 PM	**37**	**142**	**0**	**0**	**0**	**143**	**33**	**0**	**132**	**305**	**106**	**0**	**0**	**0**	**0**	**0**
5:30 PM	5:45 PM	~~39~~	~~133~~	~~0~~	~~0~~	~~6~~	~~130~~	~~43~~	~~0~~	~~104~~	~~238~~	~~79~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~
5:45 PM	6:00 PM	~~42~~	~~78~~	~~0~~	~~0~~	~~0~~	~~115~~	~~29~~	~~0~~	~~104~~	~~217~~	~~71~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~
PM Peak Hour Volumes		**205**	**586**	**0**	**0**	**0**	**611**	**165**	**0**	**542**	**1314**	**419**	**1**	**0**	**0**	**0**	**0**
% of Total Traffic		5.3%	15.3%	0.0%		0.0%	15.9%	4.3%		14.1%	34.2%	10.9%		0.0%	0.0%	0.0%	
% Directional			20.6%				20.2%	**Intersection**			59.2%				0.0%		
PM Peak Hour Factor			*0.82*				*0.91*	**0.89**			*0.92*				*#DIV/0!*		

Traffic Count Data Sheet

Year Counts Taken: **2018**

E-W Street: **Comanche Rd.**

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

Signalized

Speed Limit (Comanche Rd.)= **40** MPH

Speed Limit (I-25 W.Ramp)= **45** MPH

8/2/18

Begin Time	End Time	Eastbound (Comanche Rd.)				Westbound (Comanche Rd.)				Northbound (I-25 W.Ramp)				Southbound (I-25 W.Ramp)			
		L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians
7:00 AM	7:15 AM	~~0~~	~~84~~	~~75~~	~~0~~	~~66~~	~~208~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~81~~	~~112~~	~~27~~	~~0~~
7:15 AM	7:30 AM	~~0~~	~~95~~	~~117~~	~~0~~	~~78~~	~~208~~	~~0~~	~~1~~	~~0~~	~~0~~	~~0~~	~~0~~	~~63~~	~~150~~	~~17~~	~~0~~
7:30 AM	7:45 AM	0	86	93	2	94	234	0	0	0	0	0	0	67	156	41	0
7:45 AM	8:00 AM	0	110	87	0	91	254	0	0	0	0	0	0	86	211	45	0
8:00 AM	8:15 AM	0	120	99	0	76	205	0	0	0	0	0	0	99	177	18	0
8:15 AM	8:30 AM	0	120	99	2	99	166	0	0	0	0	0	0	89	170	29	0
8:30 AM	8:45 AM	~~0~~	~~100~~	~~103~~	~~0~~	~~70~~	~~167~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~78~~	~~161~~	~~31~~	~~0~~
8:45 AM	9:00 AM	~~0~~	~~87~~	~~72~~	~~0~~	~~78~~	~~172~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~71~~	~~171~~	~~31~~	~~0~~
AM Peak Hour Volumes		0	436	378	4	360	859	0	0	0	0	0	0	341	714	133	0
% of Total Traffic		0.0%	13.5%	11.7%		11.2%	26.7%	0.0%		0.0%	0.0%	0.0%		10.6%	22.2%	4.1%	
% Directional			25.3%				37.8%	Intersection			0.0%				36.9%		
AM Peak Hour Factor			*0.93*				*0.88*	0.91			*#DIV/0!*				*0.87*		

Begin Time	End Time	Eastbound (Comanche Rd.)				Westbound (Comanche Rd.)				Northbound (I-25 W.Ramp)				Southbound (I-25 W.Ramp)			
		L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians	L	T	R	Pedestrians
4:00 PM	4:15 PM	~~0~~	~~131~~	~~116~~	~~0~~	~~109~~	~~200~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~89~~	~~189~~	~~43~~	~~0~~
4:15 PM	4:30 PM	0	128	130	2	108	228	0	0	0	0	0	0	78	164	39	0
4:30 PM	4:45 PM	0	125	152	0	95	180	0	0	0	0	0	0	86	211	36	0
4:45 PM	5:00 PM	0	133	112	0	107	223	0	0	0	0	0	0	80	194	49	0
5:00 PM	5:15 PM	0	108	138	0	131	227	0	1	0	0	0	0	87	205	34	0
5:15 PM	5:30 PM	~~0~~	~~125~~	~~103~~	~~0~~	~~105~~	~~199~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~90~~	~~213~~	~~40~~	~~0~~
5:30 PM	5:45 PM	~~0~~	~~99~~	~~102~~	~~1~~	~~97~~	~~222~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~70~~	~~231~~	~~30~~	~~6~~
5:45 PM	6:00 PM	~~0~~	~~84~~	~~97~~	~~6~~	~~96~~	~~180~~	~~5~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~73~~	~~165~~	~~27~~	~~0~~
PM Peak Hour Volumes		0	494	532	2	441	858	0	1	0	0	0	0	331	774	158	0
% of Total Traffic		0.0%	13.8%	14.8%		12.3%	23.9%	0.0%		0.0%	0.0%	0.0%		9.2%	21.6%	4.4%	
% Directional			28.6%				36.2%	Intersection			0.0%				35.2%		
PM Peak Hour Factor			*0.93*				*0.91*	0.96			*#DIV/0!*				*0.95*		

SCOPE OF TRAFFIC IMPACT STUDY (TIS)

TO: Terry Brown

MEETING DATE: July 26, 2018

ATTENDEES: Consultant Team; COA Transportation Development Review; NMDOT

PROJECT: C-Store Comanche Rd. & Princeton, Zone Atlas # G-16

REQUESTED CITY ACTION: ___ Zone Change ___ Site Development Plan

___ Subdivision _X_ Building Permit ___ Sector Plan ___ Sector Plan Amendment

___ Curb Cut Permit ___ Conditional Use ___ Annexation ___ Site Plan Amendment

ASSOCIATED APPLICATION: New 20 pump gas convenience market at SW corner of Comanche Rd. and Princeton Dr. 1.56 acre site.

SCOPE OF REPORT:
The Traffic Impact Study should follow the standard report format, which is outlined in the DPM. The following supplemental information is provided for the preparation of this specific study.

1. Trip Generation - Use Trip Generation Manual, 10th Edition.
   Local data may be used for certain land use types as determined by staff.
   Consultant to provide.

2. Appropriate study area:
   Signalized Intersections;
   a. I-25 and Comanche ramps (both sides)
   b. Princeton and Comanche
   c. Comanche and Carlisle
   d. Princeton and Candelaria
   e. Candelaria and University

   Unsignalized Intersections;
   a. None

   Driveway Intersections: all site drives.

3. Intersection turning movement counts
   Study Time – 7-9 a.m. peak hour, 4-6 p.m. peak hour
   Consultant to provide for all intersections listed above.

4. Type of intersection progression and factors to be used.
Type III arrival type (see “2016 Highway Capacity Manual” or equivalent as approved by staff). Unless otherwise justified, peak hour factors and % heavy commercial should be taken directly from the MRCOG turning movement data provided or as calculated from current count data by consultant.

5. Boundaries of area to be used for trip distribution.
   1.5 mile radius – commercial;

6. Basis for trip distribution.

Residential – Use inverse relationship based upon distance and employment. Use employment data from 2040 Socioeconomic Forecasts, MRCOG – See MRCOG website for most current data.

Office/Industrial - Use inverse relationship based upon distance and population. Use population data from 2040 Socioeconomic Forecasts, MRCOG – See MRCOG website for most current data.

Commercial - Use relationship based upon population. Use population data from 2040 Socioeconomic Forecasts, MRCOG – See MRCOG website for most current data.

Residential - $Ts = (Tt) (Se / D) / (Se / D)$
Ts = Development to Individual Subarea Trips
Tt = Total Trips
Se = Subarea Employment
D = Distance from Development to Subarea

Office/Industrial - $Ts = (Tt) (Sp / D) / (Sp / D)$
Ts = Development to Individual Subarea Trips
Tt = Total Trips
Sp = Subarea Population
D = Distance from Development to Subarea

Commercial -
$Ts = (Tt) (Sp) / (Sp)$
Ts = Development to Individual Subarea Trips
Tt = Total Trips
Sp = Subarea Population

7. Traffic Assignment. Logical routing on the major street system.

8. Method of intersection capacity analysis - planning or operational (see "2016 Highway Capacity Manual" or equivalent [i.e. HCS, Synchro, Teapac, etc.] as approved by staff). Must use latest version of design software and/or current edition of design manual.
   Implementation Year:

9. Traffic conditions for analysis:
   a. Existing analysis __ yes _X_ no - year ();
   b. Phase implementation year(s) without proposed development – 2019
   c. Phase implementation year(s) with proposed development – 2019
   d. Project completion year without proposed development – 2029
   e. Project completion year with proposed development – 2029

f. Other –

10. Background traffic growth.
    Method: use 10-year historical growth based on standard data from the MRCOG Traffic Flow Maps. Minimum growth rate to be used is 1/2%.

11. Items to be included in the study:
    a. Intersection analysis.
    b. Signal progression - An analysis is required if the driveway analysis indicates a traffic signal is possibly warranted. Analysis Method:
    c. Arterial LOS analysis;
    d. Recommended street, intersection and signal improvements.
    e. Site design features such as turning lanes, median cuts, queuing requirements and site circulation, including driveway signalization and visibility.
    f. Transportation system impacts.
    g. Other mitigating measures.
    h. Accident analyses __ yes _X_ no; Location(s):
    i. Weaving analyses __ yes _X_ no; Location(s):

12. Other:

SUBMITTAL REQUIREMENTS:

1. Number of copies of report required
   a. 1 paper copy
   b. 1 digital copy
2. Submittal Fee – $1300 for up to 3 reviews

The Traffic Impact Study for this development proposal, project name, shall be performed in accordance with the above criteria. If there are any questions regarding the above items, please contact me at 924-3633.

_____ **8/23/18**

Ernest Armijo, P.E. Date
Senior Engineer for
Transportation Development Section

via: email

C: TIS Task Force Attendees, file