UNM North Campus Access Update
(Mountain Rd. / Interstate 25)
TRAFFIC IMPACT STUDY

TABLE OF CONTENTS

STUDY PURPOSE 1

STUDY PROCEDURES 1

PREVIOUS RELATED TRAFFIC IMPACT STUDIES 3

AREA STREET NETWORK 3

EXISTING TRAFFIC VOLUMES 4

EXISTING (2012) LEVELS OF SERVICE 5

PROPOSED DEVELOPMENT 5

TRIP GENERATION 6

TRIP DISTRIBUTION 7

Office / Laboratory Land Uses 7

Commercial Land Uses 7

TRIP ASSIGNMENTS 8

BACKGROUND TRAFFIC GROWTH 8

PROJECTED PEAK HOUR TURNING MOVEMENTS FOR 2015, 2020 & 2035 BUILDOUT 8

INTERSECTION CAPACITY ANALYSIS 8

RESULTS OF SIGNALIZED INTERSECTION CAPACITY ANALYSES 10

Intersection #1 – Mountain Rd. / I-25 W. Frontage Rd. 10

Intersection #2 – Mountain Rd. / I-25 E. Frontage Rd. 13

Intersection #3 – Lomas Blvd. / I-25 W. Frontage Rd. 16

Intersection #4 – Lomas Blvd. / I-25 E. Frontage Rd. 19

Intersection #5 – Lomas Blvd. / University Blvd. 22

Intersection #6 – Camino de Salud / University Blvd. 25

Intersection #7 – Indian School Rd. / University Blvd. 28

Intersection #8 – Indian School Rd. / Locust Pl. 31

Intersection #9 – Indian School Rd. / Edith Blvd. 34

RESULTS OF UNSIGNALIZED INTERSECTION CAPACITY ANALYSES 37

Intersection #10 - Lomas Blvd. / Legion Dr. 37
Intersection #11 - Indian School Rd. / St. Paul's access 40
Intersection #12 - Lomas Blvd. / Woodward Pl. ..... **Error! Bookmark not defined.**
Intersection #13 - Camino de Salud / I-25 E. Frontage Rd....41
Intersection #14 - Driveway 'A' / University Blvd 45
Intersection #15 - Driveway "B" / University Blvd 46
Intersection #16 - Driveway "C" / University Blvd 47
Intersection #17 - Driveway "D" / University Blvd 48
Intersection #18 - Indian School Rd / Driveway "E"....49
Intersection #19 - Lomas Blvd. / Driveway "F" 50
WARRANTS FOR DECELERATION LANES 51
CONCLUSIONS 51
RECOMMENDATIONS 52
Appendix..... 55

UNM North Campus Access Update
(Mountain Rd. / I-25)
TRAFFIC IMPACT STUDY

STUDY PURPOSE

The study is being conducted in conjunction with a request for approval of a site development plan for implementation of the UNM North Campus such as the one shown in the Appendix (Page A-2) of this report. The purpose of this study is to identify the impact of the proposed development on the adjacent transportation system, and to make recommendations to mitigate any significant adverse impact on the adjacent transportation system resulting from the implementation of this development. The project will be studied in several different phases as well as alternative access scenarios for determination of the best alternative. The initial phase will be construction of a 100 hospital bed addition (approximately 240,000 S.F. of gross building area). Then the study will consist of implementation year construction and additional construction in the horizon year. (See Trip Generation worksheets in the Appendix). This study is being submitted to satisfy the requirements of the New Mexico Department of Transportation, District 3 Office. A copy of the study will also be submitted to the City of Albuquerque Transportation Development Section.

STUDY PROCEDURES

The scope of this Traffic Impact Study / Access Study is consistent with that of the previous study based on a similar plan in 2009. This study analyzes the new development plan of the UNM North area west of University Blvd. and north of Lomas Blvd. using the recently released data from the Mid-Region Council of Governments Regional Transportation Model (2035 data set). The analysis consists of the following cases:

1) First 100 Beds – Initial hospital building containing 100 beds to be constructed and implemented in approximately the year 2015.
2) Phase 1 – projected implementation year – 2020
    a. Case “N” – Existing Access
    b. Case “M” – Existing Access plus new extension of Mountain Rd. east of I-25.
    c. Case “B” – Existing Access plus new extension of Mountain Rd. east of I-25 and new access to Indian School Rd. at the existing St. Paul’s Methodist driveway.
3) Phase 2 – projected Full Buildout year – 2035
    a. Case “N” – Existing Access
    b. Case “M” – Existing Access plus new extension of Mountain Rd. east of I-25.
    c. Case “B” – Existing Access plus new extension of Mountain Rd. east of I-25 and new access to Indian School Rd. at the existing St. Paul’s Methodist driveway.

The basic procedure followed is described as follows:

1) Calculate the generated trips for the proposed development consisting of the following described land uses:

Initial Phase (2015)

a. A 240,000 S.F. Hospital Addition

Phase 1 – Implementation Year (2020)

b. 219,900 S.F. Medical Dental Office Buildings
c. 1,011,990 S.F. Hospital Buildings
d. 169,370 S.F. Clinic Buildings
e. 60,000 S.F. Research & Development Centers

Phase 2 – Horizon Year (2035)

a. 307,300 S.F. Medical Dental Office Buildings
b. 240,000 S.F. Shopping Center
c. 60,000 S.F. General Office Buildings
d. 1,000,000 S.F. Hospital Buildings

See the Site Plan and Trip Generation Tables in the Appendix for specific building numbers and land uses.

2) Calculate trip distribution for the newly generated trips for this development by phase & access case. The new UNM North Campus trips will be distributed based on year 2020 population citywide for Office trips and 2020 population within a 2 mile radius for Commercial trips.
3) Determine Trip Assignments for the newly generated trips based on the results of the Trip Distribution Analysis and logical routing to and from the site.
4) Acquire recent traffic counts for all intersections to be analyzed in this report.
5) Calculate growth rate for the area utilizing 2035 Data Set Volumes from the Mid-Region Council of Governments to define area traffic growth rates.
6) Determine 2015, 2020 & 2035 NO BUILD Volumes by growing the existing turning movement counts to the year 2015, 2020 & 2035 utilizing the calculated annual growth rate for the area based on the Mid-Region Council of Governments' Regional Transportation Model (2035 data set).
7) Add in data from Trip Assignments Maps and Tables to the 2015, 2020 & 2035 NO BUILD Volumes to obtain 2015, 2020 & 2035 BUILD Volumes for this project.
8) Provide signalized / unsignalized intersection analyses for the following intersections:

INTERSECTION	TYPE CONTROL	BUILD
1) Mountain Rd. / I-25 SB Frontage Rd.	Traffic Signal	2015, 2020 & 2035
2) Mountain Rd. / I-25 NB Frontage Rd.	Traffic Signal	2015, 2020 & 2035
3) Lomas Blvd. / I-25 SB Frontage Rd.	Traffic Signal	2015, 2020 & 2035
4) Lomas Blvd. / I-25 NB Frontage Rd.	Traffic Signal	2015, 2020 & 2035
5) Lomas Blvd. / University Blvd.	Traffic Signal	2015, 2020 & 2035
6) Camino del Salud / University Blvd.	Traffic Signal	2015, 2020 & 2035
7) Indian School Rd / University Blvd.	Traffic Signal	2015, 2020 & 2035
8) Indian School Rd / Locust Pl.	Traffic Signal	2015, 2020 & 2035
9) Indian School Rd / Edith Blvd.	Traffic Signal	2015, 2020 & 2035

10) Lomas Blvd. / Legion Rd.	Stop Sign	2015, 2020 & 2035
11) Indian School Rd / St. Paul's entrance	Stop Sign	2015, 2020 & 2035
12) Lomas Blvd / Woodward Pl.	Stop Sign	2015, 2020 & 2035
13) Camino de Salud / I-25 NB Frontage Rd.	Stop Sign	2015, 2020 & 2035

The 2015 analysis will consider only the First 100 Beds hospital addition with assumed access at Camino de Salud / University Blvd., Lomas Blvd. / Legion Rd., and Camino de Salud / I-25 East Frontage Rd. The Implementation Year (2020) & Horizon Year (2035) BUILD Conditions will be analyzed for Case "N", "M" and "B" as described later in this report.

PREVIOUS RELATED TRAFFIC IMPACT STUDIES

There are no other developments under consideration in this area that need to be considered in the background traffic in this study.

GENERAL AREA CHARACTERISTICS

The proposed requested site development plan is for a property bounded on the west by the I-25 NB Frontage Rd., on the south by Lomas Blvd., on the east by University Blvd., and on the north by Indian School Rd. as shown on the Vicinity Map on Page A-1 of the Appendix of this report. Most of the surrounding development is commercial in nature.

AREA STREET NETWORK

The impacted adjacent street network was defined at the scoping meeting as follows:

1) Mountain Rd. / I-25 SB Frontage Rd.
2) Mountain Rd. / I-25 NB Frontage Rd.
3) Lomas Blvd. / I-25 SB Frontage Rd.
4) Lomas Blvd. / I-25 NB Frontage Rd.
5) Lomas Blvd. / University Blvd.
6) Camino de Salud / University Blvd.
7) Indian School Rd. / University Blvd.
8) Indian School Rd. / Locust Pl.
9) Indian School Rd. / Edith Blvd.
10) Lomas Blvd. Legion Dr.
11) Indian School Rd. / St. Paul's access
12) Lomas Blvd. / Woodward Pl.
13) Camino de Salud / Interstate 25 NB Frontage Rd.

In addition, the analysis will evaluate the operation of the following new driveways:

14) Driveway "A" / University Blvd.
15) Driveway "B" / University Blvd.
16) Driveway "C" / University Blvd.
17) Driveway "D" / University Blvd.
18) Indian School Rd. / Driveway "E"
19) Lomas Blvd. / Driveway "F"

The I-25 NB Frontage Rd. and the I-25 SB Frontage Rd. are one-way frontage roads along the east and west sides of Interstate 25.

Lomas Blvd. is an Urban Principal Roadway on the Long Range Roadway Plan for the Albuquerque Urban Area. Lomas Blvd. in the vicinity of this project is a six lane urban facility with a posted speed limit of 35 MPH.

University Blvd and Indian School Rd are classified as Urban Minor Arterial Roadways on the Long Range Roadway Plan for the Albuquerque Urban Area. They are generally four-lane urban roadways in the vicinity of this project.

Mountain Rd. is an Urban Collector Street on the Long Range Roadway Plan for the Albuquerque Urban Area. Mountain Rd. extends west from the I-25 NB Frontage Rd.

Camino de Salud is not classified on the Long Range Roadway Plan for the Albuquerque Urban Area.

EXISTING TRAFFIC VOLUMES

2010 Average Weekday Traffic Volumes (AWDT) for major streets in the site plan area are shown on Pages A-4 and A-5 of the Appendix.

Current turning movement volumes obtained during the AM and PM Peak Hours for this project were acquired from very recent field counts conducted for this study. New counts were conducted for this project at the following intersections:

Lomas Blvd. / I-25 SB Frontage Rd.
Lomas Blvd. / I-25 NB Frontage Rd.
Mountain Rd. / I-25 NB Frontage Rd.
Mountain Rd. / I-25 SB Frontage Rd.
Lomas Blvd. / University Blvd.
Camino de Salud / University Blvd.
Indian School Rd. / University Blvd.
Indian School Rd. / Locust Pl.
Indian School Rd. / Edith Blvd.
Lomas Blvd. Legion Dr.
Indian School Rd. / St. Paul's access
Lomas Blvd. / Woodward Pl.
Camino Salud / I-25 NB Frontage Rd.

The counts are included in this report at the end of the Appendix.

EXISTING (2012) LEVELS OF SERVICE

The Highway Capacity Manual (2010) defines Level of Service (LOS) for signalized intersections in terms of average controlled delay per vehicle as follows:

LOS A	10.0" or less	Most Vehicles do not stop
LOS B	10.1 to 20.0"	Some Vehicles stop
LOS C	20.1 to 35.0"	Significant number of vehicles stop.
LOS D	35.1 to 55.0"	Many vehicles stop.
LOS E	55.1 to 80.0"	Limit of acceptable delay.
LOS F	> 80.0"	Unacceptable delay.

Levels-of-service and delay thresholds for unsignalized intersections are different than that of signalized intersections. The Highway Capacity Manual (2010) defines Level of Service (LOS) for unsignalized intersections in terms of average controlled delay per vehicle as follows:

LOS A	10.0" or less	Most Vehicles do not stop
LOS B	10.1 to 15.0"	Some Vehicles stop
LOS C	15.1 to 25.0"	Significant number of vehicles stop.
LOS D	25.1 to 35.0"	Many vehicles stop.
LOS E	35.1 to 50.0"	Limit of acceptable delay.
LOS F	> 50.0"	Unacceptable delay.

Level of Service D is generally considered acceptable in urban areas and is the desirable base condition for analysis in a traffic study. In addition to consideration of the overall level-of-service of the signalized intersection, the levels-of-service of each individual movement should be considered.

The existing levels-of-service of the intersections analyzed in this project were not determined.

PROPOSED DEVELOPMENT

The proposed conceptual site development plan associated with this project consists of different land use facilities summarized in the following list:

Initial Phase (2015)

a. A 240,000 S.F. Hospital Addition

Phase 1 – Implementation Year (2020)

b. 219,900 S.F. Medical Dental Office Buildings
c. 1,011,990 S.F. Hospital Buildings
d. 169,370 S.F. Clinic Buildings
e. 60,000 S.F. Research & Development Centers

Phase 2 – Horizon Year (2035)

e. 307,300 S.F. Medical Dental Office Buildings
f. 240,000 S.F. Shopping Center
g. 60,000 S.F. General Office Buildings
h. 1,000,000 S.F. Hospital Buildings

See the conceptual site development plan on Page A-2 in the Appendix of this report to acquire more detailed information about the proposed development. This site plan is conceptual at this point in time and is subject to some changes as progress takes place in the design process. The plan should, however, provide a reliable basis upon which to analyze the impact of the development on the adjacent transportation system and provide guidelines for mitigating the impact and establishing access criteria. The conceptual site plan as it is shown in this report proposes three existing access points into the site: Camino de Salud / University Blvd, Lomas Blvd / Legion Dr and Camino de Salud / I-25 NB Frontage Rd. Existing access to the area is insufficient. However, access to the site is proposed to be considered from two additional access points resulting in three different alternatives for the 2020 & 2035 analyses.

The first access alternative (**Case "N"**) proposes no new access to the site. The second access alternative (**Case "M"**) proposes that Mountain Rd be extended east of the Interstate 25 frontage road. The intersection of Mountain Rd / I-25 E. Frontage Rd would be limited to a right-in / right-out / eastbound thru only intersection. The third access alternative (**Case "B"**) proposes that both the Mountain Rd. extension be built (partial access) as well as the St. Paul's Lutheran Church driveway at Indian School Rd. be extended to the south to Camino de Salud. All three access scenarios are shown on the conceptual site plan on Page A-2 in the Appendix.

TRIP GENERATION

Projected trips were calculated from data in the Institute of Transportation Engineers Trip Generation report (8th Edition, 2008). Trips for the development were determined based on land uses defined on the Conceptual Site Development Plan on Page A-2 in the Appendix of this report and the three phases as discussed earlier.

The resulting trips generated for the proposed development are summarized in the following tables:

UNM - First 100 Beds (Lomas Blvd. / University Blvd.)
Trip Generation Data (ITE Trip Generation Manual - 8th Edition)

USE (ITE CODE)		24 HOUR TWO-WAY VOLUME	A.M. PEAK HOUR		P.M. PEAK HOUR	
		GROSS	ENTER	EXIT	ENTER	EXIT
	Units					
Hospital (610)	*240.00*	4,623	201	140	157	217
	1,000 S.F.					

UNM North (West of University Blvd.) - Update

Trip Generation Data (ITE Trip Generation Manual - 8th 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					
Bldg No. 33	Medical-Dental Office Building (720)	99.90	3,870	182	48	76	206
Bldg No. 36	Hospital (610)	845.29	10,755	512	356	355	491
Bldg No. 56	Clinic (630)	66.82	2,101	-	-	173	173
Bldg No. 59	Clinic (630)	22.80	717	-	-	59	59
Bldg No. 107	Hospital (610)	166.70	3,880	164	114	133	184
Bldg No. 88	Research and Development Center (760)	50.00	571	61	12	11	63
Bldg No. 89	Research and Development Center (760)	10.00	153	15	3	3	17
Bldg No. 110	Clinic (630)	79.75	2,508	-	-	207	207
Southeast Bldgs "B", "C", "D"	Medical-Dental Office Building (720)	120.00	4,692	218	58	89	242
	Subtotal Phase 1		**29,247**	**1,152**	**591**	**1,106**	**1,642**
Building No. 38	Medical-Dental Office Building (720)	267.30	10,715	486	129	181	489
North Bldg. "A"	Medical-Dental Office Building (720)	40.00	1,421	73	19	34	92
Southeast Retail	Shopping Center (820)	240.00	11,997	157	101	560	583
Southwest Bldgs	General Office Building (710)	60.00	900	110	15	25	121
Horizon Year Addition	Hospital (610)	1,000.00	12,322	591	411	406	561
	Total Phase 2		**37,355**	**1,417**	**675**	**1,206**	**1,846**
	Total Phase 1 and Phase 2		**66,602**	**2,569**	**1,266**	**2,312**	**3,488**

* - Land uses are designated by 1,000 S. F. Gross Leaseable Floor Space. No adjustments are made for Pass-By Trips.

TRIP DISTRIBUTION

Primary and Diverted Linked Trips:

Office / Hospital / Clinic Land Uses

Primary and diverted linked trips for the hospital, clinic, office, medical-dental office & research laboratory land use developments were distributed proportionally to the 2015, 2020 & 2035 projected population / employment of Subareas citywide inversely proportional to the distance from the project to the subarea. Population data for the years 2015 and 2025 were taken from the 2035 Socioeconomic Forecasts for Data Analysis Subzones for the Mid Region Council of Governments (MRCOG). Population / employment data from the years 2015 and 2025 was interpolated linearly to obtain 2020 population data to utilize for this analysis. Population Subzones were grouped based on the most likely major street(s) or route(s) to the subject development. The trip distribution worksheets and associated map of subareas and data analysis subzones is shown in the Appendix (Pages A-103 thru A-108).

Commercial Land Uses

Primary and diverted linked trips for the commercial land use development were distributed proportionally to the 2020 projected population of Data Analysis Subzones within a two mile radius of the proposed development. Population data for the years 2015 and 2025 were taken from the 2035 Socioeconomic Forecasts for Data Analysis Subzones for the Mid Region Council of Governments (MRCOG). Population / employment data from the years 2015 and 2025 was interpolated linearly to obtain 2020 population data to utilize for this analysis. Population Subzones were grouped based on the most likely major street(s) or route(s) to the subject development. The trip distribution worksheets and associated map of subareas and data analysis subzones is shown in the Appendix (Pages A-109 – A-120).

TRIP ASSIGNMENTS

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 assignment maps are shown in the Appendix on Pages A-26 thru A-27 for the Initial Project (First 100 Beds), Pages A-122 thru A-123 for Case "N", Pages A-124 thru A-125 for Case "M" and Pages A-126 thru A-127 for Case "B". Commercial Trip Assignments maps are shown in the Appendix on Pages A-129 thru A-130.

BACKGROUND TRAFFIC GROWTH

Background traffic growth rates were considered for each individual approach to an intersection that was targeted for analysis based on AM and PM Peak Hour 2035 forecast volumes derived from the Regional Transportation Model (2035 data set) created by the Mid-Region Council of Governments (MRCOG). The annual growth rates utilized in this study are consistent with the Mid-Region Council of Governments' Regional Model Forecasts so that the 2035 AM and PM Peak Hour NO BUILD volumes derived in this report match the 2035 AM and PM Peak Hour forecasts in the Regional Transportation Model.

PROJECTED PEAK HOUR TURNING MOVEMENTS FOR 2015, 2020 & 2035 BUILDOUT

The calculated growth rates were applied to the most recent peak hour traffic counts purchased or conducted for this study to establish the 2015, 2020 & 2035 background NO BUILD traffic volumes. To these volumes, the generated trips based on implementation of the proposed UNM North Campus for the different phases were added to obtain 2015, 2020 & 2035 BUILD volumes for the intersection analyses. See Turning Movements Volumes Worksheets on Appendix Pages A-29 thru A-57 (for Initial Case), Pages A-131 thru A-195 (for 2020 Case "N", "M", and "B"), and Pages A-271 thru A-315 (for 2035 Case "N", "M", and "B") for further information regarding 2015, 2020 & 2035 turning movement counts.

INTERSECTION CAPACITY ANALYSIS

Intersection capacity analyses were performed in accordance with the procedures for signalized and unsignalized intersections in the Highway Capacity Manual, Special Report 209, Transportation Research Board, 2000, using Trafficware's Synchro version 7 Highway Capacity Software for signalized and unsignalized intersections. For signalized intersections, the operational method of analysis was used for 2015, 2020, & 2035 conditions (BUILD).

It should be noted that Synchro 8 was not utilized in this analysis since there are numerous problematic issues related to the new software. Synchro 8 was recently released, but there have been problems with the software that Trafficware is trying to address, but have not yet done so. Therefore, Synchro 7 was utilized for this study.

Capacity analyses were performed for the following traffic conditions.

2015 NO BUILD Condition
2015 with development as per the Conceptual Site Development Plan – INITIAL PHASE

2020 NO BUILD Conditions, Case "N"
2020 with development as per the Conceptual Site Development Plan – CASE "N"
2020 with development as per the Conceptual Site Development Plan – CASE "M"
2020 with development as per the Conceptual Site Development Plan – CASE "B"

2035 NO BUILD Conditions, Case "N"
2035 with development as per the Conceptual Site Development Plan – CASE "N"
2035 with development as per the Conceptual Site Development Plan – CASE "M"
2035 with development as per the Conceptual Site Development Plan – CASE "B"

The results of the 2015, 2020 & 2035 and 2035 BUILD capacity analyses are summarized in the following sections - *Results and Discussion of Intersection Capacity Analyses*.

RESULTS OF SIGNALIZED INTERSECTION CAPACITY ANALYSES

IMPLEMENTATION YEAR (2015, 2020 & 2035) & HORIZON YEAR (2035)

Intersection #1 – Mountain Rd. / I-25 W. Frontage Rd.

The results of the various analyses of the signalized intersection of Mountain Rd. / I-25 W. Frontage Rd. are summarized in the following tables:

For 2015 (First 100-Beds):

Intersection: 1 - Mountain Rd. / I-25 W. Frntg. Rd.

		2015 AM Peak Hour BUILD (EXIST. GEOM.)					2015 PM Peak Hour BUILD (EXIST. GEOM.)				
		NO BUILD		BUILD			NO BUILD		BUILD		
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay	
EB	L	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0	
	T	2	C - 29.0	2	C - 29.5	T	2	A - 8.5	2	A - 8.7	
	R	>	C - 29.0	>	C - 29.5	R	>	A - 8.5	>	A - 8.7	
WB	L	>	C - 24.3	>	C - 24.2	L	>	A - 7.7	>	A - 8.0	
	T	2	C - 24.3	2	C - 24.2	T	2	A - 7.7	2	A - 8.0	
	R	0	A - 0.0	0	A - 0.0	R	0	A - 0.0	0	A - 0.0	
SB	L	>	B - 10.5	>	B - 10.3	L	>	C - 28.3	>	C - 28.1	
	T	3	B - 10.5	3	B - 10.3	T	3	C - 28.3	3	C - 28.1	
	R	>	B - 10.5	>	B - 10.3	R	>	C - 28.3	>	C - 28.1	
Intersection:		***B - 13.4***		***B - 13.4***			***C - 21.9***		***C - 21.9***		

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

For 2020 (Phase 1):

Intersection: 1 - Mountain Rd. / I-25 W. Frntg. Rd.

		2020 AM Peak Hour BUILD (Case "N")					2020 PM Peak Hour BUILD (Case "N")				
		NO BUILD		BUILD			NO BUILD		BUILD		
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay	
EB	L	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0	
	T	2	C - 30.2	2	D - 36.0	T	2	B - 15.9	2	C - 20.7	
	R	>	C - 30.2	>	D - 36.0	R	>	B - 15.9	>	C - 20.7	
WB	L	>	B - 12.9	>	B - 17.1	L	>	B - 14.0	>	B - 12.4	
	T	2	B - 12.9	2	B - 17.1	T	2	B - 14.0	2	B - 12.4	
	R	0	A - 0.0	0	A - 0.0	R	0	A - 0.0	0	A - 0.0	
SB	L	>	A - 9.6	>	A - 9.1	L	>	B - 19.6	>	C - 21.8	
	T	3	A - 9.6	3	A - 9.1	T	3	B - 19.6	3	C - 21.8	
	R	>	A - 9.6	>	A - 9.1	R	>	B - 19.6	>	C - 21.8	
Intersection:		***B - 11.7***		***B - 12.2***			***B - 18.5***		***C - 20.8***		

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

For 2035 (Full Buildout):

Intersection: 1 - Mountain Rd. / I-25 W. Frntg. Rd.

		2035 AM Peak Hour BUILD (Case "N")					2035 PM Peak Hour BUILD (Case "N")				
		NO BUILD		BUILD			NO BUILD		BUILD		
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay	
EB	L	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0	
	T	2	D - 43.7	2	D - 40.9	T	2	D - 36.0	2	D - 45.0	
	R	>	D - 43.7	>	D - 40.9	R	>	D - 36.0	>	D - 45.0	
WB	L	>	D - 36.3	>	D - 36.1	L	>	D - 42.1	>	E - 59.7	
	T	2	D - 36.3	2	D - 36.1	T	2	D - 42.1	2	E - 59.7	
	R	0	A - 0.0	0	A - 0.0	R	0	A - 0.0	0	A - 0.0	
SB	L	>	A - 9.6	>	B - 10.5	L	>	B - 13.4	>	C - 20.5	
	T	3	A - 9.6	3	B - 10.5	T	3	B - 13.4	3	C - 20.5	
	R	>	A - 9.6	>	B - 10.5	R	>	B - 13.4	>	C - 20.5	
Intersection:		***B - 15.0***		***B - 15.6***			***B - 18.9***		***C - 28.0***		

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

This study demonstrates that this signalized intersection will operate at acceptable levels-of-service for the 2015, 2020 & 2035 AM and PM Peak Hour NO BUILD and BUILD Conditions considered in this report and that the newly generated traffic from this development will not have a significant adverse impact on this intersection.

The queuing analysis (based on Poisson's Arrival Method – 95th Percentile confidence level) for the projected 2020 volumes at this intersection is summarized in the following table:

Queueing Analysis Summary Sheet

Project: UNM North Campus Access (Mountain Rd / I-25)

Intersection: **Mountain Rd / SB I-25 ramp**

2020

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*0*	*0*	*0*	*1*	*111*	*Cont*	*1*	*94*	*200*
AM NO BUILD Queue	0	0	0	1	122	175	1	104	150
AM BUILD Queue	**0**	**0**	**0**	**1**	**143**	**200**	**1**	**104**	**150**
Existing Lane Length	*0*	*0*	*0*	*1*	*190*	*Cont*	*1*	*77*	*200*
PM NO BUILD Queue	0	0	0	1	203	**300**	1	82	150
PM BUILD Queue	**0**	**0**	**0**	**1**	**223**	**325**	**1**	**82**	**150**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*0*	*125*	*1*	*127*	*Cont*	*0*	*0*	*0*
AM NO BUILD Queue	1	0	0	1	183	250	0	0	0
AM BUILD Queue	**1**	**0**	**0**	**1**	**194**	**250**	**0**	**0**	**0**
Existing Lane Length	*1*	*2*	*125*	*1*	*66*	*Cont*	*0*	*0*	*0*
PM NO BUILD Queue	1	6	25	1	188	**275**	0	0	0
PM BUILD Queue	**1**	**6**	**25**	**1**	**218**	**325**	**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*	*219*	*999*	*3*	*1,326*	*Cont*	*0*	*354*	*0*
AM NO BUILD Queue	1	245	300	3	1,484	600	0	396	450
AM BUILD Queue	**1**	**360**	**425**	**3**	**1,484**	**600**	**0**	**396**	**450**
Existing Lane Length	*1*	*21*	*999*	*3*	*556*	*Cont*	*0*	*113*	*0*
PM NO BUILD Queue	1	43	**100**	3	1,146	575	0	233	325
PM BUILD Queue	**1**	**154**	**250**	**3**	**1,146**	**575**	**0**	**233**	**325**

	AM	PM
Cycle Length:	110	130

NOTE: Queue lengths are in feet.

The preceding queuing summary table demonstrates that there are no significant queuing issues that need to be addressed at this intersection.

Intersection #2 – Mountain Rd. / I-25 E. Frontage Rd.

The results of the various analyses of the signalized intersection of Mountain Rd. / I-25 E. Frontage Rd. are summarized in the following tables:

For 2015 (First 100-Beds):

Intersection: 2 - Mountain Rd. / I-25 E. Frntg. Rd.

		2015 AM Peak Hour BUILD					**2015 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	B - 10.7	2	B - 11.2	L	2	B - 11.5	2	B - 11.3	
	T	0	A - 0.0	0	A - 0.0	T	0	A - 0.0	0	A - 0.0	
	R	0	A - 0.0	0	A - 0.0	R	0	A - 0.0	0	A - 0.0	
NB	L	1	B - 19.8	1	B - 19.7	L	1	B - 16.3	1	B - 16.4	
	T	2	C - 24.4	2	C - 24.2	T	2	C - 21.6	2	C - 21.6	
	R	0	A - 0.0	0	A - 0.0	R	0	A - 0.0	0	A - 0.0	
Intersection:		***B - 19.7***		***B - 19.6***			***B - 18.9***		***B - 18.7***		

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

For 2020 (Phase 1):

Intersection: 2 - Mountain Rd. / I-25 E. Frntg. Rd.

		2020 AM Peak Hour BUILD						**2020 PM Peak Hour BUILD**					
		(Case "N")				(Case "M")		(Case "N")				(Case "M")	
		NO BUILD		BUILD		BUILD		NO BUILD		BUILD		BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	2	B - 11.8	2	B - 14.0	2	B - 18.3	2	C - 25.5	2	C - 24.5	2	C - 24.8
	T	0	A - 0.0	0	A - 0.0	>	B - 18.2	0	A - 0.0	0	A - 0.0	>	C - 24.8
	R	0	A - 0.0	0	A - 0.0	0	A - 0.0	0	A - 0.0	0	A - 0.0	0	A - 0.0
WB	L	0	A - 0.0	0	A - 0.0	0	A - 0.0	0	A - 0.0	0	A - 0.0	0	A - 0.0
	T	0	A - 0.0	0	A - 0.0	0	A - 0.0	0	A - 0.0	0	A - 0.0	0	A - 0.0
	R	0	A - 0.0	0	A - 0.0	1	A - 0.1	0	A - 0.0	0	A - 0.0	1	A - 0.2
NB	L	1	B - 17.0	1	B - 17.5	1	C - 21.9	1	A - 9.1	1	B - 10.2	1	B - 11.4
	T	2	C - 21.2	2	C - 22.8	2	C - 27.2	2	B - 14.7	2	B - 16.7	2	B - 17.9
	R	0	A - 0.0	0	A - 0.0	1	B - 20.0	0	A - 0.0	0	A - 0.0	1	A - 9.7
Intersection:		***B - 18.4***		***B - 19.6***		***C - 22.6***		***B - 15.8***		***B - 17.6***		***B - 16.2***	

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

The proposed east leg of the Mountain Rd. extension is right-in, right-out, thru-in only. Westbound thru movements will be prohibited.

For 2035 (Full Buildout):

Intersection: 2 - Mountain Rd. / I-25 E. Frntg. Rd.

2035 AM Peak Hour BUILD

		(Case "N") NO BUILD Lanes	LOS-Delay	(Case "N") BUILD Lanes	LOS-Delay	(Case "M") BUILD Lanes	LOS-Delay
EB	L	2	D - 45.0	2	D - 40.5	2	D - 38.9
	T	0	A - 0.0	0	A - 0.0	1	C - 32.1
	R	0	A - 0.0	0	A - 0.0	0	A - 0.0
WB	L	0	A - 0.0	0	A - 0.0	0	A - 0.0
	T	0	A - 0.0	0	A - 0.0	0	A - 0.0
	R	0	A - 0.0	0	A - 0.0	1	A - 0.2
NB	L	1	A - 5.1	1	A - 6.7	1	A - 6.1
	T	2	A - 8.2	2	B - 18.3	2	B - 13.0
	R	0	A - 0.0	0	A - 0.0	1	A - 3.5
Intersection:			***B - 13.2***		***C - 21.0***		***B - 15.8***

2035 PM Peak Hour BUILD

		(Case "N") NO BUILD Lanes	LOS-Delay	(Case "N") BUILD Lanes	LOS-Delay	(Case "M") BUILD Lanes	LOS-Delay
EB	L	2	E - 55.7	2	D - 53.6	2	E - 65.1
	T	0	A - 0.0	0	A - 0.0	1	D - 49.8
	R	0	A - 0.0	0	A - 0.0	0	A - 0.0
WB	L	0	A - 0.0	0	A - 0.0	0	A - 0.0
	T	0	A - 0.0	0	A - 0.0	0	A - 0.0
	R	0	A - 0.0	0	A - 0.0	1	A - 0.5
NB	L	1	A - 2.2	1	A - 3.8	1	A - 3.8
	T	2	B - 10.6	2	C - 21.4	2	B - 16.1
	R	0	A - 0.0	0	A - 0.0	1	A - 3.1
Intersection:			***B - 13.6***		***C - 23.9***		***B - 18.4***

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

The proposed east leg of the Mountain Rd. extension is right-in, right-out, thru-in only. Westbound thru movements will be prohibited.

The 2015 (First 100 Beds) analysis demonstrates that the impact of the initial construction of the 100-bed hospital facility will have no adverse impact on the intersection of Mountain Rd. / I-25 East Frontage Rd. Subsequent to the construction of the First 100-Bed phase of the UNM North Campus project, application is made to implement an extension of Mountain Rd. east of the I-25 East Frontage Rd. to connect to and serve as access to a new parking facility for the new development. It is expected that the east leg of Mountain Rd. will be constructed subsequent to the year 2015. The proposed east leg of Mountain Rd. will be signalized and is proposed to be restricted to right-in, right-out, eastbound thru-in only movements. In other words, the westbound thru movement on the Mountain Rd. extension will be prohibited.

With regard to the justification for the Mountain Rd. extension east of the I-25 East Frontage Rd. (Case "M"), note that in the 2020 analysis and in the 2035 analysis, the calculated delays are reduced in both the AM analysis and the PM analysis by implementing the new Mountain Rd. extension. This is probably due to the fact that, with the new extensions, some of the eastbound left turning movements at Mountain Rd. / I-25 East Frontage Rd. will be converted to thru movements, and a new thru lane will be added to allow more eastbound traffic to flow through the signalized intersection.

The queuing analysis (based on Poisson's Arrival Method – 95th Percentile confidence level) for the projected 2020 volumes at this intersection is summarized in the following table:

Queueing Analysis Summary Sheet

Project: UNM North Campus Access (Mountain Rd / I-25)

Intersection: **Mountain Rd / NB I-25 frntg rd**

2020

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*2*	*330*	*240*	*1*	*0*	*Cont*	*0*	*0*	*0*
AM NO BUILD Queue	2	343	250	1	0	0	0	0	0
AM BUILD Queue	**2**	**411**	**275**	**1**	**68**	**125**	**0**	**0**	**0**
Existing Lane Length	*2*	*211*	*240*	*1*	*0*	*Cont*	*0*	*0*	*0*
PM NO BUILD Queue	2	219	**200**	1	0	**0**	0	0	0
PM BUILD Queue	**2**	**284**	**250**	**1**	**65**	**125**	**0**	**0**	**0**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*0*	*0*	*0*	*0*	*0*	*Cont*	*1*	*0*	*350*
AM NO BUILD Queue	0	0	0	0	0	0	1	0	0
AM BUILD Queue	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**89**	**150**
Existing Lane Length	*0*	*0*	*0*	*0*	*0*	*Cont*	*1*	*0*	*350*
PM NO BUILD Queue	0	0	0	0	0	0	1	0	**0**
PM BUILD Queue	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**246**	**350**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*127*	*500*	*2*	*460*	*Cont*	*0*	*0*	*0*
AM NO BUILD Queue	1	256	325	2	927	550	0	0	0
AM BUILD Queue	**1**	**267**	**325**	**2**	**960**	**575**	**0**	**33**	**75**
Existing Lane Length	*1*	*68*	*500*	*2*	*579*	*Cont*	*0*	*0*	*0*
PM NO BUILD Queue	1	137	**225**	2	1,164	**775**	0	0	**0**
PM BUILD Queue	**1**	**167**	**250**	**2**	**1,196**	**800**	**0**	**32**	**75**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*0*	*0*	*0*	*0*	*0*	*Cont*	*0*	*0*	*0*
AM NO BUILD Queue	0	0	0	0	0	0	0	0	0
AM BUILD Queue	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Existing Lane Length	*0*	*0*	*0*	*0*	*0*	*Cont*	*0*	*0*	*0*
PM NO BUILD Queue	0	0	0	0	0	0	0	0	0
PM BUILD Queue	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	AM	PM
Cycle Length:	110	130

NOTE: Queue lengths are in feet.

The Poisson's Arrival Method is known to provide conservatively high results since it considers only cycle length and does not take into account g/c ratios. The calculated queuing distance for the eastbound left turn reported above is based on the Poisson's Method. However, the Synchro 7 queuing analysis (which has been show to correlate best with actual field conditions) reports that the eastbound queue length is 145 feet. Regardless, the queuing associated with Case "M" will be less than that of Case "N".

Intersection #3 – Lomas Blvd. / I-25 W. Frontage Rd.

The results of the various analyses of the signalized intersection of Lomas Blvd. / I-25 W. Frontage Rd. are summarized in the following tables:

For 2015 (First 100-Beds):

Intersection: 3 - Lomas Blvd. / I-25 W. Frntg. Rd.

		2015 AM Peak Hour BUILD					2015 PM Peak Hour BUILD				
		(EXIST. GEOM.)					(EXIST. GEOM.)				
		NO BUILD		BUILD			NO BUILD		BUILD		
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay	
EB	L	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0	
	T	3	C - 24.9	3	C - 25.8	T	3	B - 19.0	3	C - 20.2	
	R	1	B - 19.4	1	B - 19.6	R	1	B - 14.4	1	B - 15.2	
WB	L	1	B - 10.5	1	B - 14.1	L	1	B - 20.0	1	C - 23.9	
	T	3	A - 6.4	3	A - 6.5	T	3	A - 5.2	3	A - 4.9	
	R	0	A - 0.0	0	A - 0.0	R	0	A - 0.0	0	A - 0.0	
SB	L	2	C - 21.5	2	C - 21.4	L	2	B - 18.8	2	B - 18.4	
	T	2	B - 19.6	2	B - 19.6	T	2	B - 17.2	2	B - 16.8	
	R	2	B - 18.7	2	B - 18.8	R	2	A - 5.1	2	A - 5.2	
Intersection:		***B - 17.8***		***B - 18.0***			***B - 13.9***		***B - 14.5***		

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

For 2020 (Phase 1):

Intersection: 3 - Lomas Blvd. / I-25 W. Frntg. Rd.

		2020 AM Peak Hour BUILD					2020 PM Peak Hour BUILD				
		(Case "N")					(Case "N")				
		NO BUILD		BUILD			NO BUILD		BUILD		
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay	
EB	L	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0	
	T	3	C - 28.0	3	C - 31.2	T	3	C - 25.9	3	D - 40.1	
	R	1	C - 20.8	1	C - 23.1	R	1	B - 19.6	1	C - 28.8	
WB	L	1	B - 11.3	1	C - 20.5	L	1	C - 23.3	1	C - 28.2	
	T	3	A - 9.4	3	B - 11.7	T	3	A - 5.5	3	A - 5.1	
	R	0	A - 0.0	0	A - 0.0	R	0	A - 0.0	0	A - 0.0	
SB	L	2	C - 21.0	2	C - 28.0	L	2	C - 20.9	2	D - 37.1	
	T	2	B - 19.0	2	C - 25.5	T	2	B - 19.5	2	D - 36.1	
	R	2	B - 18.9	2	C - 24.0	R	2	B - 13.9	2	C - 22.0	
Intersection:		***B - 19.2***		***C - 23.7***			***B - 17.5***		***C - 27.1***		

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

For 2035 (Full Buildout):

Intersection: 3 - Lomas Blvd. / I-25 W. Frntg. Rd.

2035 AM Peak Hour BUILD

		(Case "N") NO BUILD		(Case "N") BUILD		MITIGATED BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	0	A - 0.0	0	A - 0.0	0	A - 0.0
	T	3	D - 44.7	3	D - 53.8	4	C - 33.2
	R	1	C - 26.3	1	C - 21.8	1	C - 22.9
WB	L	1	**F** - 86.9	1	**F** - 167	2	C - 23.9
	T	3	C - 22.7	3	A - 4.8	3	B - 12.9
	R	0	A - 0.0	0	A - 0.0	0	A - 0.0
SB	L	2	D - 43.0	2	**F** - 92.6	2	C - 24.5
	T	2	D - 41.9	2	**F** - 104	2	B - 16.7
	R	2	D - 38.5	2	**F** - 82.1	2	B - 19.7
Intersection:		***D - 39.3***		***E - 68.0***		***C - 23.1***	

2035 PM Peak Hour BUILD

		(Case "N") NO BUILD		(Case "N") BUILD		MITIGATED BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	0	A - 0.0	0	A - 0.0	0	A - 0.0
	T	3	E - 56.1	3	**F** - 177	4	E - 72.3
	R	1	C - 29.0	1	D - 43.5	1	D - 43.8
WB	L	1	**F** - 138	1	**F** - 330	2	E - 71.2
	T	3	B - 12.9	3	A - 2.4	3	A - 6.4
	R	0	A - 0.0	0	A - 0.0	0	A - 0.0
SB	L	2	E - 64.1	2	**F** - 235	2	D - 36.7
	T	2	**F** - 83.8	2	**F** - 260	2	E - 76.9
	R	2	D - 47.0	2	**F** - 172	2	E - 79.5
Intersection:		***E - 56.7***		***F - 178***		***D - 52.3***	

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

The 2015 (First 100 Beds) analysis demonstrates that the impact of the initial construction of the 100-bed hospital facility will have no adverse impact on the intersection of Lomas Blvd. / I-25 West Frontage Rd.

The 2020 (Phase 1) analysis similarly demonstrates that the current geometry of the signalized intersection of Lomas Blvd. / I-25 West Frontage Rd. will adequately handle the projected 2020 traffic volumes. Therefore, no recommendation is made for the 2015 nor the 2020 conditions.

The 2035 analysis indicates that the signalized intersection as currently configured will be congested, and the projected delays unacceptable. Mitigation of the excessive delays at the intersection associated with the 2035 forecast volumes consists of adding an eastbound thru lane near the existing median (which will be an extension of the eastbound left turn lane at the I-25 East Frontage Rd. on Lomas), constructing dual westbound left turn lanes, and constructing dual southbound left turn lanes. These improvements will provide operation of the signalized intersection of Lomas Blvd. / I-25 West Frontage Rd. at LOS "C" during the 2035 AM Peak Hour and LOS "D" during the 2035 PM Peak Hour.

The queuing analysis (based on Poisson's Arrival Method – 95th Percentile confidence level) for the projected 2020 volumes at this intersection is summarized in the following table:

Queueing Analysis Summary Sheet

Project: UNM North Campus Access (Mountain Rd / I-25)

Intersection: **Lomas Blvd / SB I-25 frntg**

2020

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*0*	*0*	*0*	*3*	*921*	*Cont*	*1*	*112*	*250*
AM NO BUILD Queue	0	0	0	3	1,132	500	1	138	200
AM BUILD Queue	**0**	**0**	**0**	**3**	**1,175**	**500**	**1**	**138**	**200**
Existing Lane Length	*0*	*0*	*0*	*3*	*1,122*	*Cont*	*1*	*154*	*250*
PM NO BUILD Queue	0	0	0	3	1,167	**575**	1	160	250
PM BUILD Queue	**0**	**0**	**0**	**3**	**1,208**	**600**	**1**	**160**	**250**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*116*	*350*	*3*	*941*	*Cont*	*0*	*0*	*0*
AM NO BUILD Queue	1	121	175	3	979	425	0	0	0
AM BUILD Queue	**1**	**201**	**250**	**3**	**1,001**	**450**	**0**	**0**	**0**
Existing Lane Length	*1*	*231*	*350*	*3*	*961*	*Cont*	*0*	*0*	*0*
PM NO BUILD Queue	1	265	**375**	3	1,103	**550**	0	0	0
PM BUILD Queue	**1**	**486**	**625**	**3**	**1,164**	**575**	**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*	*713*	*250*	*2*	*252*	*Cont*	*1*	*519*	*999*
AM NO BUILD Queue	1	885	900	2	313	225	1	644	675
AM BUILD Queue	**1**	**885**	**900**	**2**	**313**	**225**	**1**	**644**	**675**
Existing Lane Length	*1*	*250*	*250*	*2*	*265*	*Cont*	*1*	*163*	*999*
PM NO BUILD Queue	1	527	650	2	559	425	1	344	450
PM BUILD Queue	**1**	**527**	**650**	**2**	**559**	**425**	**1**	**344**	**450**

	AM	PM
Cycle Length:	110	130

NOTE: Queue lengths are in feet.

The Poisson's Arrival Method is known to provide conservatively high results since it considers only cycle length and does not take into account g/c ratios. The calculated queuing distance for the westbound left turn reported above is based on the Poisson's Method. However, the Synchro 7 queuing analysis (which has been show to correlate best with actual field conditions) reports that the westbound left turn queue length is 380 feet. The SimTraffic model indicates that westbound left turn queues will not extend into the east frontage road.

Intersection #4 – Lomas Blvd. / I-25 E. Frontage Rd.

The results of the various analyses of the signalized intersection of Lomas Blvd. / I-25 E. Frontage Rd. are summarized in the following tables:

For 2015 (First 100-Beds):

Intersection: 4 - Lomas Blvd. / I-25 E. Frntg. Rd.

2015 AM Peak Hour BUILD **2015 PM Peak Hour BUILD**

		(EXIST. GEOM.) NO BUILD Lanes	LOS-Delay	BUILD Lanes	LOS-Delay		(EXIST. GEOM.) NO BUILD Lanes	LOS-Delay	BUILD Lanes	LOS-Delay
EB	L	1	B - 10.6	1	B - 11.1	L	1	B - 14.3	1	B - 15.2
	T	3	B - 16.1	3	B - 16.8	T	3	A - 4.2	3	A - 3.9
	R	0	A - 0.0	0	A - 0.0	R	0	A - 0.0	0	A - 0.0
WB	L	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0
	T	3	B - 12.3	3	B - 13.1	T	3	A - 10.0	3	B - 10.7
	R	1	A - 5.8	1	A - 6.2	R	1	A - 9.7	1	B - 10.6
NB	L	1	C - 20.1	1	B - 19.7	L	1	D - 35.9	1	D - 35.5
	T	3	B - 19.9	3	B - 19.5	T	3	C - 34.8	3	C - 34.5
	R	1	C - 33.9	1	C - 35.0	R	1	D - 41.2	1	D - 43.5
Intersection:			***B - 17.4***		***B - 18.0***			***B - 13.7***		***B - 14.2***

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

For 2020 (Phase 1):

Intersection: 4 - Lomas Blvd. / I-25 E. Frntg. Rd.

2020 AM Peak Hour BUILD **2020 PM Peak Hour BUILD**

		(Case "N") NO BUILD Lanes	LOS-Delay	BUILD Lanes	LOS-Delay	(Case "M") BUILD Lanes	LOS-Delay		(Case "N") NO BUILD Lanes	LOS-Delay	BUILD Lanes	LOS-Delay	(Case "M") BUILD Lanes	LOS-Delay
EB	L	1	B - 12.0	1	C - 20.9	1	C - 20.9	L	1	C - 31.8	1	D - 41.6	1	D - 41.6
	T	3	B - 19.0	3	C - 25.3	3	C - 25.3	T	3	A - 4.2	3	A - 4.1	3	A - 4.1
	R	0	A - 0.0	0	A - 0.0	0	A - 0.0	R	0	A - 0.0	0	A - 0.0	0	A - 0.0
WB	L	0	A - 0.0	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0	0	A - 0.0
	T	3	B - 16.5	3	B - 17.6	3	B - 17.6	T	3	B - 11.6	3	C - 33.3	3	C - 33.3
	R	1	B - 12.8	1	A - 5.8	1	A - 5.8	R	1	B - 15.6	1	D - 47.6	1	D - 47.6
NB	L	2	B - 18.6	2	B - 17.7	2	B - 17.7	L	2	C - 34.3	2	D - 35.9	2	D - 35.9
	T	3	B - 18.4	3	B - 17.6	3	B - 17.6	T	3	C - 32.8	3	C - 34.4	3	C - 34.4
	R	1	D - 40.2	1	D - 51.0	1	D - 51.0	R	1	D - 52.7	1	E - 75.9	1	E - 75.9
Intersection:			***C - 20.5***		***C - 25.1***		***C - 25.1***			***B - 18.1***		***C - 32.8***		***C - 32.8***

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

For 2035 (Full Buildout):

Intersection: 4 - Lomas Blvd. / I-25 E. Frntg. Rd.

2035 AM Peak Hour BUILD

		(Case "N") NO BUILD		(Case "N") BUILD		MITIGATED BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	1	D - 35.5	1	**F** - 97.8	2	B - 16.5
	T	3	**F** - 114	3	**F** - 197	3	D - 47.3
	R	0	A - 0.0	0	A - 0.0	0	A - 0.0
WB	L	0	A - 0.0	0	A - 0.0	0	A - 0.0
	T	3	B - 18.1	3	C - 27.8	3	B - 10.1
	R	1	A - 4.9	1	B - 18.7	2	A - 5.3
NB	L	2	C - 21.9	2	B - 16.4	2	C - 24.4
	T	3	C - 21.5	3	B - 16.1	2	C - 31.7
	R	1	**F** - 167	1	**F** - 292	3	E - 65.0
Intersection:		**F - *83.4***		**F - *141***		***D - 38.2***	

2035 PM Peak Hour BUILD

		(Case "N") NO BUILD		(Case "N") BUILD		MITIGATED BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	1	**F** - 158	1	**F** - 354	2	E - 73.9
	T	3	A - 5.4	3	C - 24.4	3	C - 22.9
	R	0	A - 0.0	0	A - 0.0	0	A - 0.0
WB	L	0	A - 0.0	0	A - 0.0	0	A - 0.0
	T	3	C - 21.5	3	**F** - 235	3	**F** - 80.5
	R	1	**F** - 135	1	**F** - 285	2	C - 28.0
NB	L	2	C - 34.5	2	C - 30.8	2	D - 38.5
	T	3	C - 30.8	3	C - 29.9	2	**F** - 97.4
	R	1	**F** - 197	1	**F** - 335	3	E - 74.2
Intersection:		***E - 60.9***		**F - *187***		***E - 62.2***	

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

The 2015 (First 100 Beds) analysis demonstrates that the impact of the initial construction of the 100-bed hospital facility will have no adverse impact on the intersection of Lomas Blvd. / I-25 East Frontage Rd.

The 2020 (Phase 1) analysis similarly demonstrates that the current geometry of the signalized intersection of Lomas Blvd. / I-25 East Frontage Rd. will adequately handle the projected 2020 traffic volumes. Therefore, no recommendation is made for the 2015 nor the 2020 conditions.

The 2035 analysis indicates that the signalized intersection as currently configured will be congested, and the projected delays unacceptable. Mitigation of the excessive delays at the intersection associated with the 2035 forecast volumes consists of adding an eastbound left turn lane (to create dual eastbound left turn lanes), constructing dual northbound left turn lanes, and constructing triple northbound right turn lanes. These improvements will provide operation of the signalized intersection of Lomas Blvd. / I-25 East Frontage Rd. at LOS "D" during the 2035 AM Peak Hour and LOS "E" during the 2035 PM Peak Hour. No other improvements can be added to this intersection within existing right-of-way. The 2035 PM Peak Hour critical movements are the westbound thru movements and the northbound thru movements.

The queuing analysis (based on Poisson's Arrival Method – 95th Percentile confidence level) for the projected 2020 volumes at this intersection is summarized in the following table:

Queueing Analysis Summary Sheet

Project: UNM North Campus Access (Mountain Rd / I-25)

Intersection: **Lomas Blvd / NB I-25 frntg**

2020

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*135*	*375*	*3*	*1,518*	*Cont*	*0*	*0*	*0*
AM NO BUILD Queue	1	170	225	3	1,913	750	0	0	0
AM BUILD Queue	**1**	**184**	**250**	**3**	**1,941**	**775**	**0**	**0**	**0**
Existing Lane Length	*1*	*327*	*375*	*3*	*1,060*	*Cont*	*0*	*0*	*0*
PM NO BUILD Queue	1	340	**450**	3	1,102	550	0	0	0
PM BUILD Queue	**1**	**354**	**475**	**3**	**1,129**	**550**	**0**	**0**	**0**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*0*	*0*	*0*	*3*	*779*	*Cont*	*1*	*138*	*100*
AM NO BUILD Queue	0	0	0	3	810	375	1	144	200
AM BUILD Queue	**0**	**0**	**0**	**3**	**911**	**400**	**1**	**155**	**225**
Existing Lane Length	*0*	*0*	*0*	*3*	*1,088*	*Cont*	*1*	*455*	*100*
PM NO BUILD Queue	0	0	0	3	1,379	**675**	1	577	**725**
PM BUILD Queue	**0**	**0**	**0**	**3**	**1,661**	**775**	**1**	**607**	**750**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*2*	*190*	*300*	*3*	*318*	*Cont*	*2*	*368*	*999*
AM NO BUILD Queue	2	270	200	3	451	225	2	522	350
AM BUILD Queue	**2**	**270**	**200**	**3**	**503**	**250**	**2**	**625**	**400**
Existing Lane Length	*2*	*116*	*300*	*3*	*250*	*Cont*	*2*	*186*	*999*
PM NO BUILD Queue	2	204	200	3	439	**250**	2	327	**275**
PM BUILD Queue	**2**	**204**	**200**	**3**	**489**	**275**	**2**	**426**	**325**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*0*	*0*	*0*	*0*	*0*	*Cont*	*0*	*0*	*0*
AM NO BUILD Queue	0	0	0	0	0	0	0	0	0
AM BUILD Queue	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Existing Lane Length	*0*	*0*	*0*	*0*	*0*	*Cont*	*0*	*0*	*0*
PM NO BUILD Queue	0	0	0	0	0	0	0	0	0
PM BUILD Queue	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

	AM	PM
Cycle Length:	110	130

NOTE: Queue lengths are in feet.

Based on the 2020 queuing analysis, the westbound right turn lane on Lomas Blvd. at the I-25 East Frontage Rd. should be lengthened from 100 feet long to 400 feet long (note that calculated right turn queues can be cut in half to account for right turns on red). Also, the calculated queuing distance for the eastbound left turn reported above is based on the Poisson's Method. Synchro 7 queuing analysis (which has been show to correlate best with actual field conditions) reports that the eastbound left turn queue length is 300 feet or more. The SimTraffic model indicates that eastbound left turn queues will not extend into the west frontage road.

Intersection #5 – Lomas Blvd. / University Blvd.

The results of the various analyses of the signalized intersection of Lomas Blvd. / University Blvd. are summarized in the following tables:

For 2015 (First 100-Beds):

Intersection: 5 - Lomas Blvd. / University Blvd.

		2015 AM Peak Hour BUILD (EXIST. GEOM.)					2015 PM Peak Hour BUILD (EXIST. GEOM.)				
		NO BUILD		BUILD			NO BUILD		BUILD		
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay	
EB	L	1	D - 48.0	1	D - 48.0	L	1	D - 41.6	1	D - 42.0	
	T	3	B - 19.3	3	B - 19.4	T	3	D - 40.3	3	D - 41.0	
	R	>	B - 19.3	>	B - 19.4	R	>	D - 40.3	>	D - 41.0	
WB	L	1	C - 31.4	1	C - 31.4	L	1	D - 43.0	1	D - 43.1	
	T	3	C - 31.8	3	C - 32.0	T	3	D - 38.1	3	D - 38.5	
	R	>	C - 31.8	>	C - 32.0	R	>	D - 38.1	>	D - 38.5	
NB	L	1	C - 29.3	1	C - 30.2	L	1	D - 53.3	1	E - 57.4	
	T	2	D - 37.1	2	D - 37.4	T	2	D - 36.8	2	D - 37.1	
	R	1	C - 22.8	1	C - 22.8	R	1	C - 23.6	1	C - 23.6	
SB	L	1	C - 21.0	1	C - 21.9	L	1	E - 58.2	1	E - 62.9	
	T	2	C - 27.7	2	C - 27.1	T	2	E - 57.7	2	E - 58.2	
	R	>	C - 27.7	>	C - 27.1	R	>	E - 57.7	>	E - 58.2	
Intersection:		***C - 28.2***		***C - 28.3***			***D - 42.5***		***D - 43.3***		

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

For 2020 (Phase 1):

Intersection: 5 - Lomas Blvd. / University Blvd.

		2020 AM Peak Hour BUILD (Case "N")					2020 PM Peak Hour BUILD (Case "N")				
		NO BUILD		BUILD			NO BUILD		BUILD		
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay	
EB	L	1	D - 48.5	1	D - 49.4	L	1	D - 43.1	1	**F** - 82.2	
	T	3	B - 17.9	3	B - 17.9	T	3	D - 45.2	3	D - 39.5	
	R	>	B - 17.9	>	B - 17.9	R	>	D - 45.2	>	D - 39.5	
WB	L	1	C - 31.0	1	D - 35.5	L	1	D - 48.6	1	E - 71.1	
	T	3	C - 30.7	3	C - 34.0	T	3	E - 58.2	3	D - 54.6	
	R	>	C - 30.7	>	C - 34.0	R	>	E - 58.2	>	D - 54.6	
NB	L	1	C - 30.2	1	C - 34.5	L	1	D - 54.0	1	E - 79.8	
	T	2	D - 37.1	2	D - 39.9	T	2	D - 37.2	2	D - 49.6	
	R	1	C - 23.3	1	C - 24.9	R	1	C - 22.5	1	D - 38.6	
SB	L	1	C - 20.7	1	B - 17.2	L	1	E - 58.4	1	D - 48.5	
	T	2	C - 28.1	2	C - 26.5	T	2	E - 58.2	2	E - 64.6	
	R	>	C - 28.1	>	C - 26.5	R	>	E - 58.2	>	E - 64.6	
Intersection:		***C - 27.5***		***C - 28.6***			***D - 49.4***		***D - 52.8***		

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

For 2035 (Full Buildout):

Intersection: 5 - Lomas Blvd. / University Blvd.

2035 AM Peak Hour BUILD

		(Case "N") NO BUILD		(Case "N") BUILD		MITIGATED BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	1	D - 37.4	1	D - 41.7	1	D - 39.4
	T	3	B - 15.7	3	C - 21.7	3	C - 26.9
	R	>	B - 15.7	>	C - 21.7	1	C - 21.8
WB	L	1	D - 41.6	1	D - 44.6	1	D - 39.0
	T	3	C - 34.8	3	C - 33.7	3	C - 30.5
	R	>	C - 34.8	>	C - 33.7	1	C - 25.0
NB	L	1	D - 38.8	1	D - 46.1	1	D - 37.4
	T	2	D - 45.3	2	D - 39.1	2	D - 42.2
	R	1	C - 28.7	1	C - 24.3	1	C - 24.6
SB	L	1	C - 27.4	1	C - 21.8	1	C - 24.5
	T	2	D - 41.0	2	C - 23.0	2	C - 23.9
	R	>	D - 41.0	>	C - 23.0	1	B - 13.8
Intersection:			***C - 30.1***		***C - 29.5***		***C - 29.7***

2035 PM Peak Hour BUILD

		(Case "N") NO BUILD		(Case "N") BUILD		MITIGATED BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	1	**F** - 133	1	**F** - 168	1	**F** - 95.5
	T	3	D - 39.1	3	**F** - 113	3	E - 68.6
	R	>	D - 39.1	>	**F** - 113	1	B - 14.5
WB	L	1	**F** - 128	1	**F** - 168	1	**F** - 107
	T	3	**F** - 88.7	3	**F** - 176	3	E - 68.1
	R	>	**F** - 88.7	>	**F** - 176	1	C - 26.5
NB	L	1	**F** - 120	1	**F** - 186	1	**F** - 101
	T	2	E - 67.5	2	D - 51.8	2	E - 74.0
	R	1	C - 26.7	1	C - 29.3	1	C - 29.9
SB	L	1	E - 62.1	1	**F** - 206	1	**F** - 91.4
	T	2	**F** - 125	2	**F** - 84.0	2	C - 23.8
	R	>	**F** - 125	>	**F** - 84.0	1	A - 4.7
Intersection:			***F - 80.4***		***F - 129***		***E - 59.2***

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

The 2015 (First 100 Beds) analysis demonstrates that the impact of the initial construction of the 100-bed hospital facility will have no adverse impact on the intersection of Lomas Blvd. / University Blvd.

The 2020 (Phase 1) analysis similarly demonstrates that the current geometry of the signalized intersection of Lomas Blvd. / University Blvd. will adequately handle the projected 2020 traffic volumes with the minor exception of the eastbound left turn lane during the 2020 PM Peak Hour. Therefore, no recommendation is made for the 2015 nor the 2020 conditions.

The 2035 analysis indicates that the signalized intersection as currently configured will be congested, and the projected delays unacceptable. Mitigation of the excessive delays at the intersection associated with the 2035 forecast volumes consists of adding an eastbound right turn lane, constructing a westbound right turn lane, and constructing a westbound right turn lane. These improvements will provide operation of the signalized intersection of Lomas Blvd. / University Blvd. at LOS "C" during the 2035 AM Peak Hour and LOS "E" during the 2035 PM Peak Hour, and will restore the intersection back to the approximate 2035 NO BUILD delays. No other improvements can be added to this intersection within existing right-of-way. The 2035 PM Peak Hour critical movements are the westbound left turn movements and the southbound left turn movements.

The queuing analysis (based on Poisson's Arrival Method – 95th Percentile confidence level) for the projected 2020 volumes at this intersection is summarized in the following table:

Queueing Analysis Summary Sheet

Project: UNM North Campus Access (Mountain Rd / I-25)

Intersection: **Lomas Blvd / University Blvd**

2020

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*341*	*150*	*3*	*1,192*	*Cont*	*0*	*137*	*0*
AM NO BUILD Queue	1	363	425	3	1,267	525	0	146	200
AM BUILD Queue	**1**	**363**	**425**	**3**	**1,279**	**550**	**0**	**159**	**225**
Existing Lane Length	*1*	*197*	*150*	*3*	*1,087*	*Cont*	*0*	*175*	*0*
PM NO BUILD Queue	1	213	325	3	1,175	**575**	0	189	**275**
PM BUILD Queue	**1**	**213**	**325**	**3**	**1,208**	**600**	**0**	**226**	**325**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*233*	*150*	*3*	*782*	*Cont*	*0*	*177*	*0*
AM NO BUILD Queue	1	233	300	3	782	350	0	177	225
AM BUILD Queue	**1**	**233**	**300**	**3**	**805**	**375**	**0**	**200**	**250**
Existing Lane Length	*1*	*207*	*150*	*3*	*947*	*Cont*	*0*	*337*	*0*
PM NO BUILD Queue	1	249	350	3	1,139	575	0	405	**525**
PM BUILD Queue	**1**	**249**	**350**	**3**	**1,161**	**575**	**0**	**427**	**550**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*85*	*100*	*2*	*375*	*Cont*	*1*	*164*	*500*
AM NO BUILD Queue	1	85	125	2	375	275	1	164	225
AM BUILD Queue	**1**	**111**	**175**	**2**	**401**	**275**	**1**	**164**	**225**
Existing Lane Length	*1*	*210*	*100*	*2*	*662*	*Cont*	*1*	*349*	*500*
PM NO BUILD Queue	1	210	**300**	2	662	**475**	1	349	475
PM BUILD Queue	**1**	**235**	**350**	**2**	**687**	**500**	**1**	**349**	**475**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*203*	*170*	*3*	*546*	*Cont*	*0*	*93*	*0*
AM NO BUILD Queue	1	203	275	3	546	275	0	93	150
AM BUILD Queue	**1**	**215**	**275**	**3**	**559**	**275**	**0**	**93**	**150**
Existing Lane Length	*1*	*233*	*170*	*3*	*643*	*Cont*	*0*	*225*	*0*
PM NO BUILD Queue	1	242	**350**	3	668	375	0	234	325
PM BUILD Queue	**1**	**275**	**375**	**3**	**705**	**375**	**0**	**234**	**325**

	AM	PM
Cycle Length:	110	130

NOTE: Queue lengths are in feet.

The existing left turn lanes at the intersection are not long enough to contain the calculated 95th percentile queuing associated with the 2020 BUILD volumes. Synchro 7 queuing reports and SimTraffic models also indicate that there will be some spillover in the left turn lanes at the intersection during the 2020 PM Peak Hour period. However, there is no latitude to lengthen the existing left turn lanes without impact access to other properties.

Intersection #6 – Camino de Salud / University Blvd.

The results of the various analyses of the signalized intersection of Camino de Salud / University Blvd. are summarized in the following tables:

For 2015 (First 100-Beds):

Intersection: 6 - Camino de Salud / University Blvd.

		2015 AM Peak Hour BUILD (EXIST. GEOM.)				2015 PM Peak Hour BUILD (EXIST. GEOM.)			
		NO BUILD		BUILD		NO BUILD		BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	1	C - 29.2	1	C - 33.5	1	D - 44.0	1	E - 56.4
	T	1	D - 54.2	1	D - 52.0	1	C - 23.8	1	C - 21.1
	R	>	D - 54.2	>	D - 52.0	>	C - 23.8	>	C - 21.1
WB	L	1	E - 57.1	1	E - 56.6	1	C - 28.2	1	C - 24.2
	T	1	C - 34.7	1	C - 34.0	1	C - 23.3	1	C - 20.9
	R	>	C - 34.7	>	C - 34.0	>	C - 23.3	>	C - 20.9
NB	L	1	C - 31.9	>	D - 38.3	1	A - 6.9	>	A - 8.4
	T	2	A - 5.4	2	A - 5.2	2	B - 17.1	2	C - 20.3
	R	1	A - 3.8	1	A - 4.0	1	A - 6.7	1	A - 7.9
SB	L	1	A - 3.2	>	A - 3.3	1	A - 7.5	>	A - 8.6
	T	2	A - 7.4	2	A - 8.1	2	B - 12.8	2	B - 15.3
	R	1	A - 3.5	1	A - 3.3	1	B - 15.6	1	C - 25.5
Intersection:		***B - 13.4***		***B - 14.1***		***B - 19.5***		***C - 23.2***	

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

For 2020 (Phase 1):

Intersection: 6 - Camino de Salud / University Blvd.

		2020 AM Peak Hour BUILD (Case "N")				(Case "B")		MITIGATED		2020 PM Peak Hour BUILD (Case "N")				(Case "B")		MITIGATED	
		NO BUILD		BUILD		BUILD		BUILD		NO BUILD		BUILD		BUILD		BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	1	D - 37.5	1	E - 65.2	1	D - 53.1	2	D - 53.0	1	D - 42.4	1	**F** - 161	1	E - 63.3	2	D - 52.5
	T	1	D - 43.0	1	D - 35.9	1	D - 36.0	1	D - 42.8	1	B - 19.8	1	B - 16.7	1	B - 17.7	1	D - 41.8
	R	>	D - 43.0	>	D - 35.9	>	D - 36.0	>	D - 42.8	>	B - 19.8	>	B - 16.7	>	B - 17.7	>	D - 41.8
WB	L	1	D - 46.1	1	D - 35.1	1	D - 38.6	1	D - 49.6	1	C - 29.4	1	B - 15.4	1	B - 15.9	1	D - 50.9
	T	1	D - 35.3	1	C - 32.4	1	C - 34.6	1	D - 43.2	1	C - 25.2	1	B - 14.4	1	B - 14.9	1	D - 48.4
	R	>	D - 35.3	>	C - 32.4	>	C - 34.6	>	D - 43.2	>	C - 25.5	>	B - 14.4	>	B - 14.9	>	D - 48.4
NB	L	1	C - 28.1	1	E - 64.2	1	D - 51.2	1	D - 36.7	1	A - 6.2	1	D - 53.5	1	E - 62.0	1	B - 15.7
	T	2	A - 4.6	2	A - 7.2	2	A - 7.7	2	A - 9.4	2	B - 16.2	2	**F** - 109	2	**F** - 106	2	C - 27.6
	R	1	A - 3.0	1	A - 5.7	1	A - 6.5	1	A - 5.8	1	A - 5.8	1	B - 16.9	1	C - 23.9	1	B - 10.1
SB	L	1	A - 3.2	1	A - 4.4	1	A - 3.9	1	A - 9.0	1	A - 6.7	1	B - 17.9	1	B - 16.7	1	B - 11.6
	T	2	A - 8.4	2	B - 11.7	2	B - 10.9	2	C - 26.0	2	B - 12.6	2	D - 36.0	2	C - 31.5	2	B - 16.6
	R	1	A - 3.3	1	A - 4.0	1	A - 4.3	1	C - 29.5	1	B - 17.1	1	B - 14.4	1	B - 12.7	1	B - 18.9
Intersection:		***B - 12.4***		***B - 19.5***		***B - 17.1***		***C - 27.2***		***B - 17.8***		***E - 79.9***		***E - 60.2***		***C - 29.2***	

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

For 2035 (Full Buildout):

Intersection: 6 - Camino de Salud / University Blvd.

2035 AM Peak Hour BUILD

		(Case "N") NO BUILD		(Case "N") BUILD		(Case "B") BUILD		MITIGATED BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	1	D - 44.9	1	**F** - 150	1	**F** - 123	2	E - 56.9
	T	1	D - 47.5	1	C - 27.1	1	D - 42.6	1	D - 39.4
	R	>	D - 47.5	>	C - 27.1	>	D - 42.6	1	C - 26.8
WB	L	1	**F** - 80.3	1	C - 26.5	1	D - 44.8	1	E - 74.7
	T	1	D - 43.2	1	C - 24.9	1	D - 40.9	1	E - 59.1
	R	>	D - 43.2	>	C - 24.9	>	D - 40.9	1	D - 53.2
NB	L	1	D - 43.2	1	**F** - 210	1	**F** - 117	1	**F** - 92.0
	T	2	A - 4.4	2	B - 10.1	2	A - 9.7	2	B - 11.1
	R	1	A - 2.5	1	A - 8.6	1	A - 8.0	1	A - 9.1
SB	L	1	A - 4.5	1	A - 4.9	1	A - 7.3	1	B - 19.0
	T	2	A - 9.7	2	E - 73.3	2	D - 38.9	2	**F** - 89.6
	R	1	A - 5.3	1	A - 5.5	1	A - 9.2	1	B - 19.9
Intersection:		***B - 15.5***		***E - 65.6***		***D - 42.3***		***E - 60.0***	

2035 PM Peak Hour BUILD

		(Case "N") NO BUILD		(Case "N") BUILD		(Case "B") BUILD		MITIGATED BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	1	D - 49.9	1	**F** - 415	1	**F** - 261	2	D - 53.2
	T	1	C - 30.2	1	B - 16.7	1	C - 22.5	1	C - 33.1
	R	>	C - 30.2	>	B - 16.7	>	C - 22.5	1	C - 33.1
WB	L	1	C - 29.4	1	B - 14.7	1	B - 19.7	1	E - 57.7
	T	1	C - 24.6	1	B - 13.8	1	B - 18.1	1	E - 60.8
	R	>	C - 24.6	>	B - 13.8	>	B - 18.1	1	E - 61.5
NB	L	1	B - 15.8	1	**F** - 193	1	**F** - 201	1	E - 78.3
	T	2	B - 13.6	2	**F** - 213	2	**F** - 124	2	D - 44.9
	R	1	A - 9.3	1	C - 24.5	1	C - 25.7	1	B - 14.7
SB	L	1	B - 10.6	1	C - 23.4	1	C - 22.4	1	D - 40.4
	T	2	B - 16.8	2	**F** - 293	2	**F** - 194	2	**F** - 99.8
	R	1	A - 7.4	1	D - 35.8	1	C - 21.4	1	A - 2.5
Intersection:		***B - 19.2***		***F - 242***		***F - 153***		***E - 61.0***	

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

The 2015 (First 100 Beds) analysis demonstrates that the impact of the initial construction of the 100-bed hospital facility will have no adverse impact on the intersection of Camino de Salud / University Blvd.

The 2020 (Phase 1) analysis demonstrates that the current geometry of the signalized intersection of Camino de Salud / University Blvd. will be somewhat congested based on the projected 2020 traffic volumes during the PM Peak Hour. The PM Peak Hour congestion can be mitigated by constructing dual eastbound left turn lanes on Camino de Salud at University Blvd.

The 2035 analysis indicates that the signalized intersection as currently configured will be congested, and the projected delays unacceptable. Mitigation of the excessive delays at the intersection associated with the 2035 forecast volumes consists of adding an eastbound right turn lane on Camino de Salud, and a westbound right turn lane on Camino de Salud. These improvements will provide operation of the signalized intersection of Camino de Salud / University Blvd. at LOS "E" during the 2035 AM Peak Hour and LOS "E" during the 2035 PM Peak Hour.

The queuing analysis (based on Poisson's Arrival Method – 95th Percentile confidence level) for the projected 2020 volumes at this intersection is summarized in the following table:

Queueing Analysis Summary Sheet

Project: UNM North Campus Access (Mountain Rd / I-25)

Intersection: **Cam. de Salud / University Blvd**

2020

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*2*	*46*	*150*	*1*	*18*	*Cont*	*0*	*156*	*0*
AM NO BUILD Queue	2	48	50	1	19	50	0	162	225
AM BUILD Queue	**2**	**166**	**150**	**1**	**22**	**50**	**0**	**170**	**225**
Existing Lane Length	*2*	*246*	*150*	*1*	*8*	*Cont*	*0*	*254*	*0*
PM NO BUILD Queue	2	256	**225**	1	8	**25**	0	264	**375**
PM BUILD Queue	**2**	**583**	**425**	**1**	**15**	**50**	**0**	**285**	**400**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*40*	*150*	*1*	*5*	*Cont*	*0*	*5*	*0*
AM NO BUILD Queue	1	42	75	1	5	25	0	5	25
AM BUILD Queue	**1**	**42**	**75**	**1**	**10**	**25**	**0**	**5**	**25**
Existing Lane Length	*1*	*62*	*150*	*1*	*2*	*Cont*	*0*	*61*	*0*
PM NO BUILD Queue	1	64	125	1	2	**0**	0	63	125
PM BUILD Queue	**1**	**64**	**125**	**1**	**7**	**25**	**0**	**63**	**125**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*200*	*100*	*2*	*478*	*Cont*	*1*	*35*	*500*
AM NO BUILD Queue	1	209	275	2	499	325	1	37	75
AM BUILD Queue	**1**	**258**	**325**	**2**	**499**	**325**	**1**	**37**	**75**
Existing Lane Length	*1*	*74*	*100*	*2*	*1,268*	*Cont*	*1*	*54*	*500*
PM NO BUILD Queue	1	76	**150**	2	1,295	850	1	55	125
PM BUILD Queue	**1**	**123**	**200**	**2**	**1,295**	**850**	**1**	**55**	**125**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*30*	*180*	*2*	*1,193*	*Cont*	*1*	*213*	*120*
AM NO BUILD Queue	1	32	75	2	1,256	725	1	224	275
AM BUILD Queue	**1**	**32**	**75**	**2**	**1,432**	**800**	**1**	**408**	**475**
Existing Lane Length	*1*	*21*	*180*	*2*	*553*	*Cont*	*1*	*35*	*120*
PM NO BUILD Queue	1	30	75	2	785	**550**	1	50	**100**
PM BUILD Queue	**1**	**30**	**75**	**2**	**975**	**675**	**1**	**227**	**325**

	AM	PM
Cycle Length:	110	130

NOTE: Queue lengths are in feet.

Note that the projected queuing for the eastbound left turn lane is 425 feet. Synchro 7 queuing report indicates somewhat more than 300 feet. Any future driveway configurations on Camino de Salud near University Blvd. should take this into account. The northbound left turn lane median should be reconfigured to allow more northbound left turn storage into the center left turn lane.

Intersection #7 – Indian School Rd. / University Blvd.

The results of the various analyses of the signalized intersection of Indian School Rd. / University Blvd. are summarized in the following tables:

For 2015 (First 100-Beds):

Intersection: 7 - Indian School Rd. / University Blvd.

2015 AM Peak Hour BUILD **2015 PM Peak Hour BUILD**

		(EXIST. GEOM.) NO BUILD Lanes	LOS-Delay	BUILD Lanes	LOS-Delay		(EXIST. GEOM.) NO BUILD Lanes	LOS-Delay	BUILD Lanes	LOS-Delay
EB	L	1	C - 28.3	>	C - 28.4	L	1	C - 34.3	>	D - 35.2
	T	2	E - 55.8	2	E - 57.4	T	2	C - 31.6	2	C - 32.1
	R	>	E - 55.8	>	E - 57.4	R	>	C - 31.6	>	C - 32.1
WB	L	1	D - 41.4	1	D - 44.1	L	1	D - 37.7	1	D - 40.9
	T	2	C - 29.1	2	C - 29.0	T	2	D - 44.8	2	D - 45.1
	R	>	C - 29.1	>	C - 29.0	R	>	D - 44.8	>	D - 45.1
NB	L	1	C - 25.2	1	C - 25.5	L	1	A - 6.0	1	A - 8.6
	T	2	B - 18.9	2	B - 18.4	T	2	C - 20.5	2	C - 23.2
	R	>	B - 18.9	>	B - 18.4	R	>	C - 20.5	>	C - 23.2
SB	L	1	B - 12.5	1	B - 12.6	L	1	B - 18.8	1	B - 19.5
	T	2	C - 30.8	2	D - 40.0	T	2	B - 19.0	2	B - 19.8
	R	>	C - 30.8	>	D - 40.0	R	>	B - 19.0	>	B - 19.8
Intersection:			***C - 33.8***		***D - 37.7***			***C - 25.7***		***C - 27.1***

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

For 2020 (Phase 1):

Intersection: 7 - Indian School Rd. / University Blvd.

2020 AM Peak Hour BUILD **2020 PM Peak Hour BUILD**

		(Case "N") NO BUILD Lanes	LOS-Delay	BUILD Lanes	LOS-Delay	(Case "B") BUILD Lanes	LOS-Delay	MITIGATED BUILD Lanes	LOS-Delay		(Case "N") NO BUILD Lanes	LOS-Delay	BUILD Lanes	LOS-Delay	(Case "B") BUILD Lanes	LOS-Delay	MITIGATED BUILD Lanes	LOS-Delay
EB	L	1	C - 26.5	1	C - 33.3	1	D - 38.1	1	D - 46.2	L	1	D - 36.7	1	**F** - 96.1	1	**F** - 126	1	E - 63.8
	T	2	E - 55.8	2	**F** - 118	2	**F** - 117	2	D - 45.6	T	2	D - 36.0	2	E - 63.7	2	D - 44.2	2	D - 38.2
	R	>	E - 55.8	>	**F** - 118	>	**F** - 117	1	E - 58.9	R	>	D - 36.0	>	E - 63.7	>	D - 44.2	1	C - 25.4
WB	L	1	D - 38.4	1	**F** - 140	1	**F** - 140	1	E - 69.2	L	1	D - 40.9	1	**F** - 100	1	D - 43.8	1	C - 33.7
	T	2	C - 28.9	2	D - 37.4	2	D - 37.9	2	D - 39.7	T	2	D - 43.0	2	**F** - 80.1	2	**F** - 80.1	2	E - 72.4
	R	>	C - 28.9	>	D - 37.4	>	D - 37.9	>	D - 39.7	R	>	D - 43.0	>	**F** - 80.1	>	**F** - 80.1	>	E - 72.4
NB	L	1	B - 18.9	1	D - 35.5	1	D - 42.0	1	C - 31.9	L	1	A - 7.1	1	C - 26.4	1	D - 41.8	1	D - 38.6
	T	2	B - 15.9	2	B - 18.0	2	C - 20.4	2	B - 14.3	T	2	C - 23.9	2	E - 68.5	2	**F** - 101	2	E - 58.9
	R	>	B - 15.9	>	B - 18.0	>	C - 20.4	1	A - 3.5	R	>	C - 23.9	>	E - 68.5	>	**F** - 101	1	B - 10.4
SB	L	1	B - 12.7	1	B - 10.7	1	B - 10.5	1	B - 10.8	L	1	B - 19.4	1	C - 27.9	1	C - 27.4	1	C - 27.9
	T	2	C - 33.6	2	**F** - 110	2	**F** - 113	2	E - 62.7	T	2	B - 18.4	2	C - 26.3	2	D - 40.1	2	D - 36.6
	R	>	C - 33.6	>	**F** - 110	>	**F** - 113	1	A - 10.0	R	>	B - 18.4	>	C - 26.3	>	D - 40.1	1	B - 12.2
Intersection:			***C - 33.8***		***F - 86.7***		**F** ***- 89.1***		***D - 46.4***			***C - 27.1***		***E - 57.8***		***E - 73.9***		***D - 45.9***

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

For 2035 (Full Buildout):

Intersection: 7 - Indian School Rd. / University Blvd.

2035 AM Peak Hour BUILD

		(Case "N") NO BUILD		(Case "N") BUILD		(Case "B") BUILD		MITIGATED BUILD		
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay	
EB	L	1	C - 29.8	1	C - 28.8	1	E - 74.0	2	**F** - 198	L
	T	2	**F** - 99.6	2	**F** - 219	2	**F** - 278	2	**F** - 97.7	T
	R	>	**F** - 99.6	>	**F** - 219	>	**F** - 278	1	**F** - 208	R
WB	L	1	E - 76.5	1	**F** - 355	1	**F** - 318	2	**F** - 208	L
	T	2	C - 31.7	2	C - 32.6	2	E - 57.2	2	E - 60.7	T
	R	>	C - 31.7	>	C - 32.6	>	E - 57.2	>	E - 60.7	R
NB	L	1	E - 57.8	1	D - 37.7	1	**F** - 127	1	D - 42.2	L
	T	2	C - 26.2	2	B - 18.7	2	B - 17.7	2	B - 13.8	T
	R	>	C - 26.2	>	B - 18.7	>	B - 17.7	1	B - 14.6	R
SB	L	1	B - 17.4	1	B - 13.8	1	B - 14.5	1	B - 12.2	L
	T	2	E - 61.0	2	**F** - 404	2	**F** - 331	2	**F** - 175	T
	R	>	E - 61.0	>	**F** - 404	>	**F** - 331	1	B - 12.8	R
Intersection:		***E - 60.6***		***F - 259***		**F - *236***		**F - *126***		

2035 PM Peak Hour BUILD

		(Case "N") NO BUILD		(Case "N") BUILD		(Case "B") BUILD		MITIGATED BUILD		
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay	
EB	L	1	E - 56.7	1	**F** - 212	1	**F** - 310	2	**F** - 138	L
	T	2	E - 67.3	2	**F** - 176	2	E - 75.9	2	D - 54.3	T
	R	>	E - 67.3	>	**F** - 176	>	E - 75.9	1	D - 37.1	R
WB	L	1	E - 55.9	1	**F** - 259	1	**F** - 159	2	E - 67.9	L
	T	2	E - 56.1	2	**F** - 97.8	2	**F** - 187	2	**F** - 159	T
	R	>	E - 56.1	>	**F** - 97.8	>	**F** - 187	>	**F** - 159	R
NB	L	1	B - 11.7	1	**F** - 176	1	**F** - 180	1	E - 79.2	L
	T	2	D - 51.7	2	**F** - 230	2	**F** - 236	2	**F** - 87.4	T
	R	>	D - 51.7	>	**F** - 230	>	**F** - 236	1	B - 12.3	R
SB	L	1	C - 21.8	1	C - 32.7	1	D - 38.2	1	D - 38.3	L
	T	2	C - 21.6	2	E - 55.9	2	**F** - 130	2	D - 45.3	T
	R	>	C - 21.6	>	E - 55.9	>	**F** - 130	1	B - 13.1	R
Intersection:		***D - 47.5***		**F - *162***		**F - *186***		***E - 74.0***		

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

The 2015 (First 100 Beds) analysis demonstrates that the impact of the initial construction of the 100-bed hospital facility will have no adverse impact on the intersection of Indian School Rd. / University Blvd.

The 2020 (Phase 1) analysis demonstrates that the current geometry of the signalized intersection of Indian School Rd. / University Blvd. will be considerably congested based on the projected 2020 traffic volumes during the AM and PM Peak Hour. The Peak Hour congestion can be mitigated by constructing an eastbound right turn lane on Indian School Rd., a northbound right turn lane, and a southbound right turn lane at the intersection. The resulting projected level-of-service at the intersection will be LOS "D" for both the 2020 AM and PM Peak Hour periods. Right-of-way concerns need to be resolved before these improvements can be constructed.

The 2035 analysis indicates that the signalized intersection as currently configured will be congested, and the projected delays unacceptable. Mitigation of the excessive delays at the intersection associated with the 2035 forecast volumes consists of constructing dual eastbound and westbound left turn lanes. These improvements will provide operation of the signalized intersection of Indian School Rd. / University Blvd. at LOS "F" during the 2035 AM Peak Hour and LOS "E" during the 2035 PM Peak Hour.

As expressed earlier, there are right-of-way concerns associated with mitigation improvements to this intersection. Also, it should be noted that the critical movements at this intersection and the intersection of Camino del Salud are either University Blvd. northbound thru movements or University Blvd. southbound thru movements or both. This implies that University Blvd. needs to be a six lane facility through this part of the corridor. Mitigation of these issues will require a partnership between the City of Albuquerque and the University of New Mexico since the requirements are so extensive and should consider more than just local traffic parameters.

The queuing analysis (based on Poisson's Arrival Method – 95th Percentile confidence level) for the projected 2020 volumes at this intersection is summarized in the following table:

Queueing Analysis Summary Sheet

Project: UNM North Campus Access (Mountain Rd / I-25)

Intersection: **Indian School Rd / University Blvd**

2020

Approach	Left Turns			Thru Movements				Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*1*	*83*	*120*	*2*	*196*	*Cont*		*0*	*254*	*0*
AM NO BUILD Queue	1	112	175	2	265	200		0	343	400
AM BUILD Queue	**1**	**187**	**250**	**2**	**265**	**200**		**0**	**343**	**400**
Existing Lane Length	*1*	*108*	*120*	*2*	*255*	*Cont*		*0*	*109*	*0*
PM NO BUILD Queue	1	137	**225**	2	323	275		0	138	225
PM BUILD Queue	**1**	**347**	**475**	**2**	**323**	**275**		**0**	**138**	**225**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*1*	*218*	*125*	*2*	*197*	*Cont*		*0*	*70*	*0*
AM NO BUILD Queue	1	227	300	2	205	175		0	73	125
AM BUILD Queue	**1**	**255**	**325**	**2**	**205**	**175**		**0**	**73**	**125**
Existing Lane Length	*1*	*128*	*125*	*2*	*314*	*Cont*		*0*	*110*	*0*
PM NO BUILD Queue	1	141	**225**	2	346	275		0	121	200
PM BUILD Queue	**1**	**168**	**250**	**2**	**346**	**275**		**0**	**121**	**200**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*1*	*76*	*100*	*2*	*374*	*Cont*		*0*	*86*	*0*
AM NO BUILD Queue	1	88	150	2	431	300		0	99	150
AM BUILD Queue	**1**	**88**	**150**	**2**	**534**	**350**		**0**	**113**	**175**
Existing Lane Length	*1*	*194*	*100*	*2*	*1,235*	*Cont*		*0*	*245*	*0*
PM NO BUILD Queue	1	202	300	2	1,284	**850**		0	255	**350**
PM BUILD Queue	**1**	**202**	**300**	**2**	**1,571**	**>1,000**	*	**0**	**295**	**400**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*1*	*56*	*75*	*2*	*1,148*	*Cont*		*0*	*76*	*0*
AM NO BUILD Queue	1	58	100	2	1,194	700		0	79	125
AM BUILD Queue	**1**	**58**	**100**	**2**	**1,685**	**>1,000**	*	**0**	**272**	**325**
Existing Lane Length	*1*	*52*	*75*	*2*	*514*	*Cont*		*0*	*77*	*0*
PM NO BUILD Queue	1	55	125	2	545	**400**		0	82	**150**
PM BUILD Queue	**1**	**55**	**125**	**2**	**1,016**	**700**		**0**	**267**	**375**

	AM	PM
Cycle Length:	110	130

NOTE: Queue lengths are in feet.

The queuing analysis indicates that the left turn lanes at the intersection should be lengthened. However, this is not possible to do without impacting access to other properties at or near the intersection. Therefore, no recommendation is made.

Intersection #8 – Indian School Rd. / Locust Pl.

The results of the various analyses of the signalized intersection of Indian School Rd. / Locust Pl. are summarized in the following tables:

For 2015 (First 100-Beds):

Intersection: 8 - Locust Pl. / Indian School Rd.

		2015 AM Peak Hour BUILD (EXIST. GEOM.)					2015 PM Peak Hour BUILD (EXIST. GEOM.)				
		NO BUILD		BUILD			NO BUILD		BUILD		
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay	
EB	L	1	B - 10.2	>	B - 10.2	L	1	A - 5.7	>	A - 5.7	
	T	2	B - 10.8	2	B - 10.8	T	2	A - 5.5	2	A - 5.5	
	R	>	B - 10.8	>	B - 10.8	R	>	A - 5.5	>	A - 5.5	
WB	L	1	A - 8.0	>	A - 8.2	L	1	A - 1.9	>	A - 2.0	
	T	2	A - 3.7	2	A - 3.9	T	2	A - 2.0	2	A - 2.2	
	R	>	A - 3.7	>	A - 3.9	R	>	A - 2.0	>	A - 2.2	
NB	L	>	D - 44.9	>	D - 44.9	L	>	D - 37.3	>	D - 37.3	
	T	1	D - 44.9	1	D - 44.9	T	1	D - 37.3	1	D - 37.3	
	R	1	C - 29.5	1	C - 29.5	R	1	C - 34.3	1	C - 34.3	
SB	L	1	C - 33.0	>	C - 33.0	L	1	D - 40.2	>	D - 40.2	
	T	1	C - 29.8	1	C - 29.8	T	1	C - 34.3	1	C - 34.3	
	R	>	C - 29.8	1	C - 29.8	R	>	C - 34.3	1	C - 34.3	
Intersection:		***B - 16.3***		***B - 16.4***			***A - 9.1***		***A - 9.2***		

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

For 2020 (Phase 1):

Intersection: 8 - Indian School Rd. / Locust St.

		2020 AM Peak Hour BUILD (Case "N")					2020 PM Peak Hour BUILD (Case "N")				
		NO BUILD		BUILD			NO BUILD		BUILD		
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay	
EB	L	1	A - 8.2	1	A - 8.0	L	1	A - 6.0	1	A - 5.4	
	T	2	A - 8.8	2	A - 9.6	T	2	A - 5.4	2	A - 5.0	
	R	>	A - 8.8	>	A - 9.6	R	>	A - 5.4	>	A - 5.0	
WB	L	1	A - 5.8	1	A - 5.4	L	1	A - 2.3	1	A - 1.5	
	T	2	A - 3.0	2	A - 3.1	T	2	A - 2.9	2	A - 1.9	
	R	>	A - 3.0	>	A - 3.1	R	>	A - 2.9	>	A - 1.9	
NB	L	>	D - 42.1	>	D - 48.6	L	>	D - 37.1	>	D - 46.3	
	T	1	D - 42.1	1	D - 48.6	T	1	D - 37.1	1	D - 46.3	
	R	1	C - 31.1	1	C - 35.0	R	1	C - 34.5	1	D - 43.2	
SB	L	1	C - 33.9	1	D - 38.5	L	1	D - 39.8	1	D - 51.3	
	T	1	C - 31.5	1	D - 35.4	T	1	C - 34.6	1	D - 43.2	
	R	>	C - 31.5	>	D - 35.4	R	>	C - 34.6	>	D - 43.2	
Intersection:		***B - 14.7***		***B - 16.2***			***A - 8.2***		***A - 8.8***		

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

For 2035 (Full Buildout):

Intersection: 8 - Indian School Rd. / Locust St.

		2035 AM Peak Hour BUILD (Case "N")					2035 PM Peak Hour BUILD (Case "N")				
		NO BUILD		BUILD			NO BUILD		BUILD		
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay	
EB	L	1	A - 9.0	1	A - 7.9	L	1	B - 13.5	1	D - 49.7	L
	T	2	B - 14.3	2	B - 11.7	T	2	A - 6.1	2	A - 9.7	T
	R	>	B - 14.3	>	B - 11.7	R	>	A - 6.1	>	A - 9.7	R
WB	L	1	C - 25.0	1	C - 22.6	L	1	A - 3.0	1	A - 9.8	L
	T	2	A - 3.0	2	A - 4.0	T	2	A - 3.5	2	B - 10.8	T
	R	>	A - 3.0	>	A - 4.0	R	>	A - 3.5	>	B - 10.8	R
NB	L	>	E - 61.0	>	D - 48.1	L	>	D - 37.0	>	C - 31.4	L
	T	1	E - 61.0	1	D - 48.1	T	1	D - 37.0	1	C - 31.4	T
	R	1	D - 38.4	1	C - 31.5	R	1	C - 34.4	1	C - 29.8	R
SB	L	1	D - 43.3	1	D - 35.3	L	1	D - 40.8	1	C - 33.3	L
	T	1	D - 39.1	1	C - 31.9	T	1	C - 34.4	1	C - 29.8	T
	R	>	D - 39.1	>	C - 31.9	R	>	C - 34.4	>	C - 29.8	R
Intersection:		***C - 20.8***		***B - 17.2***			***A - 7.9***		***B - 14.1***		

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

This study demonstrates that this signalized intersection will operate at acceptable levels-of-service for the 2015, 2020 & 2035 AM and PM Peak Hour NO BUILD and BUILD Conditions considered in this report and that the newly generated traffic from this development will not have a significant adverse impact on this intersection.

The queuing analysis (based on Poisson's Arrival Method – 95th Percentile confidence level) for the projected 2020 volumes at this intersection is summarized in the following table:

Queueing Analysis Summary Sheet

Project: UNM North Campus Access (Mountain Rd / I-25)

Intersection: **Indian School Rd / Locust Pl**

2020

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*41*	*200*	*2*	*266*	*Cont*	*0*	*292*	*0*
AM NO BUILD Queue	1	59	100	2	383	275	0	421	475
AM BUILD Queue	**1**	**59**	**100**	**2**	**385**	**275**	**0**	**421**	**475**
Existing Lane Length	*1*	*48*	*200*	*2*	*317*	*Cont*	*0*	*30*	*0*
PM NO BUILD Queue	1	75	150	2	495	375	0	47	100
PM BUILD Queue	**1**	**75**	**150**	**2**	**497**	**375**	**0**	**47**	**100**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*197*	*170*	*2*	*217*	*Cont*	*0*	*34*	*0*
AM NO BUILD Queue	1	202	275	2	222	175	0	35	75
AM BUILD Queue	**1**	**202**	**275**	**2**	**223**	**175**	**0**	**35**	**75**
Existing Lane Length	*1*	*25*	*170*	*2*	*453*	*Cont*	*0*	*84*	*0*
PM NO BUILD Queue	1	36	75	2	654	475	0	121	200
PM BUILD Queue	**1**	**36**	**75**	**2**	**657**	**475**	**0**	**122**	**200**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*0*	*127*	*0*	*1*	*6*	*Cont*	*1*	*187*	*50*
AM NO BUILD Queue	0	132	200	1	6	25	1	194	250
AM BUILD Queue	**0**	**132**	**200**	**1**	**6**	**25**	**1**	**194**	**250**
Existing Lane Length	*0*	*46*	*0*	*1*	*0*	*Cont*	*1*	*38*	*50*
PM NO BUILD Queue	0	48	100	1	0	0	1	40	100
PM BUILD Queue	**0**	**48**	**100**	**1**	**0**	**0**	**1**	**40**	**100**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*68*	*60*	*1*	*42*	*Cont*	*0*	*43*	*0*
AM NO BUILD Queue	1	71	125	1	44	75	0	45	100
AM BUILD Queue	**1**	**72**	**125**	**1**	**44**	**75**	**0**	**45**	**100**
Existing Lane Length	*1*	*78*	*60*	*1*	*0*	*Cont*	*0*	*34*	*0*
PM NO BUILD Queue	1	81	150	1	0	0	0	35	75
PM BUILD Queue	**1**	**82**	**150**	**1**	**0**	**0**	**0**	**35**	**75**

	AM	PM
Cycle Length:	110	130

NOTE: Queue lengths are in feet.

There are no significant queuing issues attributable to the new traffic generated by the UNM project that need to be addressed. The City may opt to lengthen the westbound left turn lane the next time they are scheduled to re-stripe Indian School Rd. in this area.

Intersection #9 – Indian School Rd. / Edith Blvd.

The results of the various analyses of the signalized intersection of Indian School Rd. / Edith Blvd. are summarized in the following tables:

For 2015 (First 100-Beds):

Intersection: 9 - Edith Blvd. / Indian School Rd.

		2015 AM Peak Hour BUILD (EXIST. GEOM.)					2015 PM Peak Hour BUILD (EXIST. GEOM.)				
		NO BUILD		BUILD			NO BUILD		BUILD		
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay	
EB	L	1	A - 3.8	>	A - 3.8	L	1	A - 3.4	>	A - 3.4	
	T	2	A - 4.4	2	A - 4.4	T	2	A - 3.9	2	A - 3.9	
	R	>	A - 4.4	1	A - 4.4	R	>	A - 3.9	1	A - 3.9	
WB	L	1	A - 5.3	>	A - 5.3	L	1	A - 1.8	>	A - 1.6	
	T	2	A - 5.4	2	A - 5.4	T	2	A - 2.4	2	A - 2.0	
	R	>	A - 5.4	1	A - 5.4	R	>	A - 2.4	1	A - 2.0	
NB	L	>	C - 30.7	1	C - 30.7	L	>	C - 32.6	1	C - 32.6	
	T	1	C - 30.7	1	C - 30.7	T	1	C - 32.6	1	C - 32.6	
	R	1	C - 30.0	>	C - 30.0	R	1	C - 31.5	>	C - 31.5	
SB	L	>	D - 40.8	>	D - 40.8	L	>	D - 41.4	>	D - 41.4	
	T	1	D - 40.8	1	D - 40.8	T	1	D - 41.4	1	D - 41.4	
	R	1	C - 29.7	1	C - 29.7	R	1	C - 31.2	1	C - 31.2	
Intersection:		***B - 13.3***		***B - 13.3***			***B - 10.8***		***B - 10.7***		

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

For 2020 (Phase 1):

Intersection: 9 - Indian School Rd. / Edith Blvd.

		2020 AM Peak Hour BUILD (Case "N")					2020 PM Peak Hour BUILD (Case "N")				
		NO BUILD		BUILD			NO BUILD		BUILD		
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay	
EB	L	1	A - 3.3	1	A - 3.3	L	1	A - 3.3	1	A - 3.2	
	T	2	A - 4.3	2	A - 4.3	T	2	A - 3.8	2	A - 3.7	
	R	>	A - 4.3	>	A - 4.3	R	>	A - 3.8	>	A - 3.7	
WB	L	1	A - 4.8	1	A - 3.1	L	1	A - 1.6	1	A - 2.2	
	T	2	A - 4.8	2	A - 3.5	T	2	A - 2.0	2	A - 2.8	
	R	>	A - 4.8	>	A - 3.5	R	>	A - 2.0	>	A - 2.8	
NB	L	>	C - 32.3	>	D - 36.3	L	>	C - 34.1	>	D - 42.5	
	T	1	C - 32.3	1	D - 36.3	T	1	C - 34.1	1	D - 42.5	
	R	1	C - 31.5	1	D - 35.4	R	1	C - 32.3	1	D - 40.3	
SB	L	>	D - 41.2	>	D - 47.2	L	>	D - 41.8	>	D - 54.9	
	T	1	D - 41.2	1	D - 47.2	T	1	D - 41.8	1	D - 54.9	
	R	1	C - 31.2	1	D - 35.1	R	1	C - 32.0	1	D - 39.9	
Intersection:		***B - 11.2***		***B - 11.9***			***A - 9.8***		***B - 12.3***		

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

For 2035 (Full Buildout):

Intersection: **9 - Indian School Rd. / Edith Blvd.**

		2035 AM Peak Hour BUILD (Case "N")					2035 PM Peak Hour BUILD (Case "N")				
		NO BUILD		BUILD			NO BUILD		BUILD		
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay	
EB	L	1	A - 3.6	1	A - 3.7	L	1	A - 5.4	1	B - 19.6	L
	T	2	A - 7.1	2	A - 7.3	T	2	A - 5.3	2	B - 19.6	T
	R	>	A - 7.1	>	A - 7.3	R	>	A - 5.3	>	B - 19.6	R
WB	L	1	A - 8.5	1	A - 9.0	L	1	A - 3.0	1	B - 11.5	L
	T	2	A - 3.6	2	A - 3.4	T	2	A - 4.0	2	B - 13.9	T
	R	>	A - 3.6	>	A - 3.4	R	>	A - 4.0	>	B - 13.9	R
NB	L	>	D - 40.5	>	C - 32.3	L	>	D - 35.3	>	C - 24.3	L
	T	1	D - 40.5	1	C - 32.3	T	1	D - 35.3	1	C - 24.3	T
	R	1	D - 41.1	1	C - 32.9	R	1	C - 33.7	1	C - 24.3	R
SB	L	>	D - 53.8	>	D - 42.6	L	>	E - 59.0	>	C - 25.7	L
	T	1	D - 53.8	1	D - 42.6	T	1	E - 59.0	1	C - 25.7	T
	R	1	D - 38.2	1	C - 30.5	R	1	C - 30.6	1	C - 21.6	R
Intersection:		***B - 12.3***		***B - 11.0***			***B - 11.4***		***B - 17.8***		

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

This study demonstrates that this signalized intersection will operate at acceptable levels-of-service for the 2015, 2020 & 2035 AM and PM Peak Hour NO BUILD and BUILD Conditions considered in this report and that the newly generated traffic from this development will not have a significant adverse impact on this intersection.

The queuing analysis (based on Poisson's Arrival Method – 95th Percentile confidence level) for the projected 2020 volumes at this intersection is summarized in the following table:

Queueing Analysis Summary Sheet

Project: UNM North Campus Access (Mountain Rd / I-25)

Intersection: **Indian School Rd / Edith Blvd**

2020

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*4*	*75*	*2*	*225*	*Cont*	*0*	*5*	*0*
AM NO BUILD Queue	1	11	25	2	629	400	0	14	50
AM BUILD Queue	**1**	**11**	**25**	**2**	**630**	**400**	**0**	**14**	**50**
Existing Lane Length	*1*	*10*	*75*	*2*	*292*	*Cont*	*0*	*2*	*0*
PM NO BUILD Queue	1	17	50	2	509	400	0	3	25
PM BUILD Queue	**1**	**17**	**50**	**2**	**510**	**400**	**0**	**3**	**25**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*22*	*100*	*2*	*199*	*Cont*	*0*	*28*	*0*
AM NO BUILD Queue	1	29	75	2	263	200	0	37	75
AM BUILD Queue	**1**	**29**	**75**	**2**	**263**	**200**	**0**	**38**	**75**
Existing Lane Length	*1*	*15*	*100*	*2*	*378*	*Cont*	*0*	*58*	*0*
PM NO BUILD Queue	1	25	75	2	620	450	0	95	175
PM BUILD Queue	**1**	**26**	**75**	**2**	**621**	**450**	**0**	**97**	**175**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*0*	*6*	*0*	*1*	*23*	*Cont*	*1*	*48*	*70*
AM NO BUILD Queue	0	9	25	1	35	75	1	72	125
AM BUILD Queue	**0**	**9**	**25**	**1**	**35**	**75**	**1**	**73**	**125**
Existing Lane Length	*0*	*4*	*0*	*1*	*37*	*Cont*	*1*	*53*	*70*
PM NO BUILD Queue	0	8	25	1	73	150	1	104	175
PM BUILD Queue	**0**	**8**	**25**	**1**	**73**	**150**	**1**	**105**	**175**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*0*	*106*	*0*	*1*	*24*	*Cont*	*1*	*8*	*100*
AM NO BUILD Queue	0	110	175	1	25	50	1	8	25
AM BUILD Queue	**0**	**111**	**175**	**1**	**25**	**50**	**1**	**8**	**25**
Existing Lane Length	*0*	*84*	*0*	*1*	*39*	*Cont*	*1*	*26*	*100*
PM NO BUILD Queue	0	87	150	1	41	100	1	27	75
PM BUILD Queue	**0**	**88**	**150**	**1**	**41**	**100**	**1**	**27**	**75**

	AM	PM
Cycle Length:	110	130

NOTE: Queue lengths are in feet.

There are no queuing issues at this intersection that need to be addressed. Therefore, no recommendations are made.

RESULTS OF UNSIGNALIZED INTERSECTION CAPACITY ANALYSES

IMPLEMENTATION YEAR (2015, 2020 & 2035) & HORIZON YEAR (2035)

Intersection #10 - Lomas Blvd. / Legion Rd.

The results of the various analyses of the unsignalized intersection of Lomas Blvd. / Legion Rd. are summarized in the following tables:

For 2015 (First 100-Beds):

Intersection: 10 - Lomas Blvd. / Legion Rd.

2015 AM Peak Hour BUILD **2015 PM Peak Hour BUILD**

		(EXIST. GEOM.) NO BUILD Lanes	LOS-Delay		BUILD Lanes	LOS-Delay		(EXIST. GEOM.) NO BUILD Lanes	LOS-Delay		BUILD Lanes	LOS-Delay
EB	L	1	A - 0.0		>	A - 10.0	L	1	A - 0.0		>	B - 14.7
	T	3	A - 0.0		3	A - 0.0	T	3	A - 0.0		3	A - 0.0
	R		A - 0.0		>	A - 0.0	R	0	A - 0.0		>	A - 0.0
WB	L	0	A - 0.0		>	A - 0.0	L	0	A - 0.0		>	A - 0.0
	T	3	A - 0.0		3	A - 0.0	T	3	A - 0.0		3	A - 0.0
	R	>	A - 0.0		>	A - 0.0	R	>	A - 0.0		>	A - 0.0
SB	L	>	A - 0.0		>	C - 17.3	L	>	A - 0.0		>	E - 38.7
	T	1	A - 0.0		1	A - 0.0	T	1	A - 0.0		1	A - 0.0
	R	>	A - 0.0		>	C - 17.3	R	>	A - 0.0		>	E - 38.7
Intersection:			***u - 0.0***			***u - 0.0***			***u - 0.0***			***u - 0.0***

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

For 2020 (Phase 1):

Intersection: 10 - Lomas Blvd. / Legion Rd.

2020 AM Peak Hour BUILD **2020 PM Peak Hour BUILD**

		(Case "N") NO BUILD Lanes	LOS-Delay		BUILD Lanes	LOS-Delay		(Case "N") NO BUILD Lanes	LOS-Delay		BUILD Lanes	LOS-Delay
EB	L	1	A - 0.0		1	B - 10.9	L	1	A - 0.0		1	D - 25.3
	T	3	A - 0.0		3	A - 0.0	T	3	A - 0.0		3	A - 0.0
	R	0	A - 0.0		0	A - 0.0	R	0	A - 0.0		0	A - 0.0
WB	L	0	A - 0.0		0	A - 0.0	L	0	A - 0.0		0	A - 0.0
	T	3	A - 0.0		3	A - 0.0	T	3	A - 0.0		3	A - 0.0
	R	>	A - 0.0		>	A - 0.0	R	>	A - 0.0		>	A - 0.0
SB	L	>	A - 0.0		>	A - 0.0	L	>	A - 0.0		>	E - 43.6
	T	0	A - 0.0		0	A - 0.0	T	0	A - 0.0		0	A - 0.0
	R	>	A - 0.0		>	B - 11.7	R	>	A - 0.0		>	E - 43.6
Intersection:			***u - 0.0***			***u - 0.0***			***u - 0.0***			***u - 0.0***

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

For 2035 (Full Buildout):

Intersection: 10 - Lomas Blvd. / Legion Rd.

2035 AM Peak Hour BUILD

		(Case "N") NO BUILD		(Case "N") BUILD		MITIGATED BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	1	B - 10.1	1	C - 22.6	2	D - 38.6
	T	3	A - 0.0	3	A - 0.0	3	A - 6.8
	R	0	A - 0.0	0	A - 0.0	0	A - 0.0
WB	L	0	A - 0.0	0	A - 0.0	0	A - 0.0
	T	3	A - 0.0	3	A - 0.0	3	C - 30.2
	R	>	A - 0.0	>	A - 0.0	>	E - 61.4
SB	L	>	C - 15.3	>	**F** - 999	1	C - 32.5
	T	0	A - 0.0	0	A - 0.0	0	A - 0.0
	R	>	C - 15.3	>	**F** - 999	2	C - 23.4
Intersection:		***u - 0.0***		***u - 0.0***		***B - 17.7***	

2035 PM Peak Hour BUILD

		(Case "N") NO BUILD		(Case "N") BUILD		MITIGATED BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	1	E - 39.3	1	**F** - 999	2	E - 59.9
	T	3	A - 0.0	3	A - 0.0	3	A - 5.2
	R	0	A - 0.0	0	A - 0.0	0	A - 0.0
WB	L	0	A - 0.0	0	A - 0.0	0	A - 0.0
	T	3	A - 0.0	3	A - 0.0	3	E - 55.3
	R	>	A - 0.0	>	A - 0.0	>	A - 2.0
SB	L	>	**F** - 193	>	**F** - 999	1	E - 76.6
	T	0	A - 0.0	0	A - 0.0	0	A - 0.0
	R	>	**F** - 193	>	**F** - 999	2	E - 67.4
Intersection:		***u - 0.0***		***u - 0.0***		***D - 44.4***	

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

This study demonstrates that this unsignalized intersection will operate at acceptable levels-of-service for the 2015 and 2020 AM and PM Peak Hour NO BUILD and BUILD Conditions considered in this report and that the newly generated traffic from this development will not have a significant adverse impact on this intersection.

This study recommends that shortly after the implementation of Phase 1, the intersection of Lomas Blvd. / Legion Rd. will need to be signalized. Therefore, the 2035 analysis (full buildout) evaluates the intersection of Lomas Blvd. / Legion Rd. as a signalized intersection. The intersection geometry will require dual eastbound left turn lanes, and dual southbound right turn lanes.

The queuing analysis (based on Poisson's Arrival Method – 95th Percentile confidence level) for the projected 2020 volumes at this intersection is summarized in the following table:

Queueing Analysis Summary Sheet

Project: UNM North Campus Access (Mountain Rd / I-25)

Intersection: **Lomas Blvd / Legion Rd**

2035

Approach	Left Turns			Thru Movements				Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*2*	*21*	*TBD*	*3*	*1,654*	*Cont*		*0*	*1*	*0*
AM NO BUILD Queue	2	33	50	3	2,621	>1,000	*	0	2	0
AM BUILD Queue	**2**	**348**	**250**	**3**	**2,644**	**>1,000**	*	**0**	**2**	**0**
Existing Lane Length	*2*	*35*	*TBD*	*3*	*1,280*	*Cont*		*0*	*0*	*0*
PM NO BUILD Queue	2	39	**50**	3	1,427	**675**		0	0	0
PM BUILD Queue	**2**	**516**	**400**	**3**	**1,485**	**700**		**0**	**0**	**0**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length		# Lanes	Vol.	Length
Existing Lane Length	*0*	*0*	*0*	*3*	*961*	*Cont*		*1*	*7*	*150*
AM NO BUILD Queue	0	0	0	3	1,072	475		1	8	25
AM BUILD Queue	**0**	**0**	**0**	**3**	**1,241**	**525**		**1**	**90**	**150**
Existing Lane Length	*0*	*2*	*0*	*3*	*1,584*	*Cont*		*1*	*5*	*150*
PM NO BUILD Queue	0	3	25	3	2,734	>1,000	*	1	9	**25**
PM BUILD Queue	**0**	**3**	**25**	**3**	**2,857**	**>1,000**	*	**1**	**146**	**225**
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*	*1*	*300*	*0*	*0*	*Cont*		*2*	*9*	*300*
AM NO BUILD Queue	1	1	0	0	0	0		2	10	25
AM BUILD Queue	**1**	**45**	**100**	**0**	**0**	**0**		**2**	**264**	**200**
Existing Lane Length	*1*	*3*	*300*	*0*	*0*	*Cont*		*2*	*46*	*300*
PM NO BUILD Queue	1	3	**25**	0	0	0		2	51	**75**
PM BUILD Queue	**1**	**170**	**250**	**0**	**0**	**0**		**2**	**869**	**600**

	AM	PM
Cycle Length:	110	130

NOTE: Queue lengths are in feet.

The calculated queue lengths in the preceding table (based on 95th percentile Poisson's Arrival Method) can be utilized as a guideline for future design of the signalized intersection of Lomas Blvd. / Legion Rd.

Intersection #11 - Indian School Rd. / St. Paul's access

The results of the various analyses (2020 and 2035 Case "B") of the unsignalized intersection of Indian School Rd. / St. Paul's Access are summarized in the following table:

For 2015 (First 100-Beds), there is no analysis of the Indian School Rd. / St. Paul's Access since it is not proposed as an access point for this phase of the project.

For 2020 (Phase 1):

Intersection: 11 - Indian School Rd. / St. Paul's Access

2020 AM Peak Hour BUILD | **2020 PM Peak Hour BUILD**

		(Case "B") NO BUILD Lanes	LOS-Delay	BUILD Lanes	LOS-Delay		(Case "B") NO BUILD Lanes	LOS-Delay	BUILD Lanes	LOS-Delay
EB	L	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0
	T	2	A - 0.0	2	A - 0.0	T	2	A - 0.0	2	A - 0.0
	R	1	A - 0.0	1	A - 0.0	R	1	A - 0.0	1	A - 0.0
WB	L	1	A - 0.0	1	B - 10.5	L	1	A - 0.0	1	A - 10.0
	T	2	A - 0.0	2	A - 0.0	T	2	A - 0.0	2	A - 0.0
	R	>	A - 0.0	>	A - 0.0	R	>	A - 0.0	>	A - 0.0
NB	L	1	A - 0.0	1	B - 16.6	L	1	A - 0.0	1	C - 17.3
	T	0	A - 0.0	0	A - 0.0	T	0	A - 0.0	0	A - 0.0
	R	1	A - 0.0	1	B - 11.8	R	1	A - 0.0	1	B - 13.0
Intersection:		***u - 0.0***		***A - 0.0***			***u - 0.0***		***u - 0.0***	

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

For 2035 (Full Buildout):

Intersection: 11 - Indian School Rd. / St. Paul's Access

2035 AM Peak Hour BUILD | **2035 PM Peak Hour BUILD**

		(Case "B") NO BUILD Lanes	LOS-Delay	BUILD Lanes	LOS-Delay		(Case "B") NO BUILD Lanes	LOS-Delay	BUILD Lanes	LOS-Delay
EB	L	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0
	T	2	A - 0.0	2	A - 0.0	T	2	A - 0.0	2	A - 0.0
	R	1	A - 0.0	1	A - 0.0	R	1	A - 0.0	1	A - 0.0
WB	L	1	A - 0.0	1	C - 20.6	L	1	A - 0.0	1	C - 16.3
	T	2	A - 0.0	2	A - 0.0	T	2	A - 0.0	2	A - 0.0
	R	>	A - 0.0	>	A - 0.0	R	>	A - 0.0	>	A - 0.0
NB	L	1	A - 0.0	1	E - 35.3	L	1	A - 0.0	1	D - 31.9
	T	0	A - 0.0	0	A - 0.0	T	0	A - 0.0	0	A - 0.0
	R	1	A - 0.0	1	C - 17.0	R	1	A - 0.0	1	E - 37.0
Intersection:		***u - 0.0***		***u - 0.0***			***u - 0.0***		***u - 0.0***	

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

This report finds that the intersection of Indian School Rd. / St. Paul's Access will operate satisfactorily for all conditions analyzed.

Intersection #12 – Lomas Blvd. / Woodward

The results of the various analyses of the unsignalized intersection of Lomas Blvd. / Woodward are summarized in the following tables:

For 2015 (First 100-Beds), there is no analysis since volumes generate by this phase are low.

For 2020 (Phase 1):

Intersection: 12 - Lomas Blvd / Woodward

2020 AM Peak Hour BUILD

		(Case "N") NO BUILD Lanes	LOS-Delay	BUILD Lanes	LOS-Delay
EB	L	2	A - 0.0	2	B - 13.4
	T	2	A - 0.0	2	A - 0.0
	R	>	A - 0.0	>	A - 0.0
WB	L	1	A - 0.0	1	B - 12.2
	T	2	A - 0.0	2	A - 0.0
	R	1	A - 0.0	1	A - 0.0
NB	L	1	A - 0.0	1	D - 33.8
	T	1	A - 0.0	1	C - 17.4
	R	>	A - 0.0	>	C - 17.4
SB	L	2	A - 0.0	2	E - 38.5
	T	1	A - 0.0	1	E - 38.5
	R	1	A - 0.0	1	E - 38.5
Intersection:			***u - 0.0***		***u - 0.0***

2020 PM Peak Hour BUILD

		(Case "N") NO BUILD Lanes	LOS-Delay	BUILD Lanes	LOS-Delay
EB	L	2	A - 0.0	2	B - 14.0
	T	2	A - 0.0	2	A - 0.0
	R	>	A - 0.0	>	A - 0.0
WB	L	1	A - 0.0	1	B - 12.5
	T	2	A - 0.0	2	A - 0.0
	R	1	A - 0.0	1	A - 0.0
NB	L	1	A - 0.0	1	E - 38.0
	T	1	A - 0.0	1	C - 17.1
	R	>	A - 0.0	>	C - 17.1
SB	L	2	A - 0.0	2	E - 39.8
	T	1	A - 0.0	1	E - 39.8
	R	1	A - 0.0	1	E - 39.8
Intersection:			***u - 0.0***		***u - 0.0***

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

(See next page)

For 2035 (Full Buildout):

Intersection: 12 - Lomas Blvd / Woodward

		2035 AM Peak Hour BUILD (Case "N")					2035 PM Peak Hour BUILD (Case "N")				
		NO BUILD		BUILD			NO BUILD		BUILD		
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay	
EB	L	2	B - 14.8	2	C - 15.7	L	2	C - 22.4	2	D - 28.5	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	C - 17.2	1	C - 18.7	L	1	B - 13.0	1	B - 13.4	L
	T	2	A - 0.0	2	A - 0.0	T	2	A - 0.0	2	A - 0.0	T
	R	1	A - 0.0	1	A - 0.0	R	1	A - 0.0	1	A - 0.0	R
NB	L	1	**F** - 999	1	**F** - 999	L	1	**F** - 999	1	**F** - 999	L
	T	1	**F** - 259	1	**F** - 405	T	1	**F** - 417	1	**F** - 677	T
	R	>	**F** - 259	>	**F** - 405	R	>	**F** - 417	>	**F** - 677	R
SB	L	2	**F** - 999	2	**F** - 999	L	2	**F** - 999	2	**F** - 999	L
	T	1	**F** - 999	1	**F** - 999	T	1	**F** - 999	1	**F** - 999	T
	R	1	**F** - 999	1	**F** - 999	R	1	**F** - 999	1	**F** - 999	R
Intersection:		***u - 0.0***		***u - 0.0***			***u - 0.0***		***u - 0.0***		

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

This study demonstrates that this unsignalized intersection will operate at acceptable levels-of-service for the 2020 AM and PM Peak Hour NO BUILD and BUILD Conditions considered in this report and that the newly generated traffic from this development will not have a significant adverse impact on this intersection.

Also, the projected 2035 volumes at the intersection of Lomas Blvd. / Woodward yield high delays for traffic on Woodward desiring to enter onto Lomas Blvd. during the 2035 AM and PM Peak Hour periods for both the NO BUILD and the BUILD conditions. This is indicative that the long delays are inherent with the background traffic volumes and are not a result of the impact of this development. Therefore, no recommendation is made.

Intersection #13 - Camino de Salud / I-25 E. Frontage Rd

The results of the various analyses of the unsignalized intersection of Camino de Salud / I-25 E. Frontage Rd. are summarized in the following tables:

For 2015 (First 100-Beds):

Intersection: 13 - Camino de Salud / NB I-25 Frontage Rd.

2015 AM Peak Hour BUILD

		(EXIST. GEOM.) NO BUILD Lanes	LOS-Delay	BUILD Lanes	LOS-Delay
WB	L	1	B - 10.6	>	B - 11.3
	T	0	A - 0.0	0	A - 0.0
	R	0	A - 0.0	0	A - 0.0
NB	L	0	A - 0.0	>	A - 0.0
	T	2	A - 0.0	1	A - 0.0
	R	1	A - 0.0	>	A - 0.0
Intersection:			***u - 0.0***		***u - 0.0***

2015 PM Peak Hour BUILD

		(EXIST. GEOM.) NO BUILD Lanes	LOS-Delay	BUILD Lanes	LOS-Delay
WB	L	1	B - 11.6	>	B - 13.4
	T	0	A - 0.0	0	A - 0.0
	R	0	A - 0.0	0	A - 0.0
NB	L	0	A - 0.0	>	A - 0.0
	T	2	A - 0.0	1	A - 0.0
	R	1	A - 0.0	>	A - 0.0
Intersection:			***u - 0.0***		***u - 0.0***

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

For 2020 (Phase 1):

Intersection: 13 - Camino de Salud / I-25 E. Frntg. Rd.

2020 AM Peak Hour BUILD

		(Case "N") NO BUILD Lanes	LOS-Delay	(Case "N") BUILD Lanes	LOS-Delay	(Case "M") BUILD Lanes	LOS-Delay
WB	L	0	A - 0.0	0	A - 0.0	0	A - 0.0
	T	0	A - 0.0	0	A - 0.0	0	A - 0.0
	R	1	B - 11.1	1	C - 15.6	1	B - 14.2
NB	L	0	A - 0.0	0	A - 0.0	0	A - 0.0
	T	2	A - 0.0	2	A - 0.0	2	A - 0.0
	R	1	A - 0.0	1	A - 0.0	1	A - 0.0
Intersection:			***u - 0.0***		***u - 0.0***		***u - 0.0***

2020 PM Peak Hour BUILD

		(Case "N") NO BUILD Lanes	LOS-Delay	(Case "N") BUILD Lanes	LOS-Delay	(Case "M") BUILD Lanes	LOS-Delay
WB	L	0	A - 0.0	0	A - 0.0	0	A - 0.0
	T	0	A - 0.0	0	A - 0.0	0	A - 0.0
	R	1	B - 10.2	1	**F** - 53.3	1	C - 24.6
NB	L	0	A - 0.0	0	A - 0.0	0	A - 0.0
	T	2	A - 0.0	2	A - 0.0	2	A - 0.0
	R	1	A - 0.0	1	A - 0.0	1	A - 0.0
Intersection:			***u - 0.0***		***u - 0.0***		***u - 0.0***

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

For 2035 (Full Buildout):

Intersection: **13 - Camino de Salud / I-25 E. Frntg. Rd.**

2035 AM Peak Hour BUILD

		(Case "N") NO BUILD Lanes	LOS-Delay	(Case "N") BUILD Lanes	LOS-Delay	(Case "M") BUILD Lanes	LOS-Delay	MITIGATED BUILD Lanes	LOS-Delay
WB	L	0	A - 0.0	0	A - 0.0	0	A - 0.0	0	A - 0.0
	T	0	A - 0.0	0	A - 0.0	0	A - 0.0	0	A - 0.0
	R	1	B - 14.1	1	**F** - 180	1	**F** - 68.2	2	D - 54.0
NB	L	0	A - 0.0	0	A - 0.0	0	A - 0.0	0	A - 0.0
	T	2	A - 0.0	2	A - 0.0	2	A - 0.0	3	A - 1.4
	R	1	A - 0.0	1	A - 0.0	1	A - 0.0	1	A - 9.2
Intersection:			***u - 0.0***		***u - 0.0***		***u - 0.0***		***A - 9.7***

2035 PM Peak Hour BUILD

		(Case "N") NO BUILD Lanes	LOS-Delay	(Case "N") BUILD Lanes	LOS-Delay	(Case "M") BUILD Lanes	LOS-Delay	MITIGATED BUILD Lanes	LOS-Delay
WB	L	0	A - 0.0	0	A - 0.0	0	A - 0.0	0	A - 0.0
	T	0	A - 0.0	0	A - 0.0	0	A - 0.0	0	A - 0.0
	R	1	C - 20.9	1	**F** - 999	1	**F** - 999	2	E - 57.3
NB	L	0	A - 0.0	0	A - 0.0	0	A - 0.0	0	A - 0.0
	T	2	A - 0.0	2	A - 0.0	2	A - 0.0	3	C - 29.8
	R	1	A - 0.0	1	A - 0.0	1	A - 0.0	1	B - 17.6
Intersection:			***u - 0.0***		***u - 0.0***		***u - 0.0***		***C - 35.0***

This study demonstrates that this unsignalized intersection will operate at acceptable levels-of-service for the 2015 and 2020 AM and PM Peak Hour NO BUILD and BUILD Conditions (Case “M”) considered in this report and that the newly generated traffic from this development will not have a significant adverse impact on this intersection. The intersection would experience excessive delays if the Mountain Rd. extension east of the I-25 East Frontage Rd. were not implemented.

The 2035 analysis indicates that the intersection will no longer function as currently configured. The westbound right turning movement experiences excessive delay. Thus, there are two options:

1) Construct a third northbound thru lane on the I-25 East Frontage Rd. north of Camino de Salud so that the westbound right turn movement is a free right turn movement with an add lane of sufficient length that the westbound to northbound right turn movement will be able to merge back into the two northbound lanes near the I-40 South Frontage Rd. This option is very difficult to implement since there are right-of-way and physical constraints in the field to widen the I-25 East Frontage Rd. north of Camino de Salud. In this option, there is no analysis required since there are no conflicting movements and no movements required to stop.
2) Construct a signal at the intersection of Camino de Salud / I-25 East Frontage Rd. and construct dual westbound right turn lanes and a third northbound thru lane between the Mountain Rd. extension and Camino de Salud. The third northbound thru lane on the frontage road would allow the westbound right turn movement from Mountain Rd. to the frontage road to be a free right turn movement with an add lane. The third northbound thru lane on the frontage road would still need to extend north of Camino de Salud, but perhaps not quite as far as in the previous option. Implementation of this option would yield LOS “A” for the 2035 AM Peak Hour and LOS “C” for the 2035 PM Peak Hour.

The existing operation of the intersection of Camino de Salud / I-25 East Frontage Rd. is right-in, limited right-out only. In a former attempt to obtain a full right-in, right-out access at this intersection in 2006, the right-out access was restricted due to concerns that the horizon year volumes at Camino de Salud / I-25 East Frontage Rd. could not be handled. Now we are considering the 2035 volumes which are approaching 2,600 vehicles per hour on a two lane roadway. This volume alone is problematic for any intersection along the frontage road. Full right-in, right-out access is critical to the function of the UNM North Campus development.

Intersection #14 - Driveway 'A' / University Blvd

The results of the various analyses of the unsignalized intersection of Driveway "A" / University Blvd. are summarized in the following tables:

For 2015 (First 100-Beds),no analysis was performed since the Driveway will not access the First Hundred Beds phase.

For 2020 (Phase 1), no analysis was performed since the Driveway will not access Phase 1.

For 2035 (Full Buildout):

Intersection: 14 - Driveway "A" / University Blvd.

		2035 AM Peak Hour BUILD (Case "N")				2035 PM Peak Hour BUILD (Case "N")			
		NO BUILD		BUILD		NO BUILD		BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	1	A - 0.0	1	E - 45.8	1	A - 0.0	1	**F** - 999
	T	0	A - 0.0	0	A - 0.0	0	A - 0.0	0	A - 0.0
	R	1	A - 0.0	1	A - 9.3	1	A - 0.0	1	C - 22.5
WB	L	>	A - 0.0	>	A - 0.0	>	A - 0.0	>	A - 0.0
	T	1	A - 0.0	1	A - 0.0	1	A - 0.0	1	A - 0.0
	R	>	A - 0.0	>	A - 0.0	>	A - 0.0	>	A - 0.0
NB	L	>	A - 0.0	>	B - 10.6	>	A - 0.0	>	C - 21.0
	T	1	A - 0.0	1	A - 0.0	1	A - 0.0	1	A - 0.0
	R	>	A - 0.0	>	A - 0.0	>	A - 0.0	>	A - 0.0
SB	L	>	A - 0.0	>	A - 0.0	>	A - 0.0	>	A - 0.0
	T	1	A - 0.0	1	A - 0.0	1	A - 0.0	1	A - 0.0
	R	>	A - 0.0	>	A - 0.0	>	A - 0.0	>	A - 0.0
Intersection:		***u - 0.0***			***u - 0.0***		***u - 0.0***		***u - 0.0***

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

The table above demonstrates that Driveway "A" / University Blvd. will operate at acceptable levels-of-service as an unsignalized intersection except that the eastbound to northbound left turn movement will experience excessive delays during the PM Peak period. That being the case, then it is likely that the subject left turn traffic will opt to turn right during the PM Peak period and travel a different route to achieve their destination.

Intersection #15 - Driveway "B" / University Blvd

The results of the various analyses of the unsignalized intersection of Driveway "B" / University Blvd. are summarized in the following tables:

For 2015 (First 100-Beds),no analysis was performed since the Driveway will not access the First Hundred Beds phase.

For 2020 (Phase 1):

Intersection: 15 - Driveway "B" / University Blvd.

2020 AM Peak Hour BUILD — **2020 PM Peak Hour BUILD**

		(Case "N")					(Case "N")			
		NO BUILD		BUILD			NO BUILD		BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0
	T	0	A - 0.0	0	A - 0.0	T	0	A - 0.0	0	A - 0.0
	R	1	A - 0.0	1	B - 10.5	R	1	A - 0.0	1	A - 9.7
NB	L	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0
	T	2	A - 0.0	2	A - 0.0	T	2	A - 0.0	2	A - 0.0
	R	0	A - 0.0	0	A - 0.0	R	0	A - 0.0	0	A - 0.0
SB	L	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0
	T	2	A - 0.0	2	A - 0.0	T	2	A - 0.0	2	A - 0.0
	R	1	A - 0.0	1	A - 0.0	R	1	A - 0.0	1	A - 0.0
Intersection:		***u - 0.0***		***u - 0.0***			***u - 0.0***		***u - 0.0***	

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

For 2035 (Full Buildout):

Intersection: 15 - Driveway "B" / University Blvd.

2035 AM Peak Hour BUILD — **2035 PM Peak Hour BUILD**

		(Case "N")					(Case "N")			
		NO BUILD		BUILD			NO BUILD		BUILD	
		Lanes	LOS-Delay	Lanes	LOS-Delay		Lanes	LOS-Delay	Lanes	LOS-Delay
EB	L	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0
	T	0	A - 0.0	0	A - 0.0	T	0	A - 0.0	0	A - 0.0
	R	1	A - 0.0	1	B - 11.4	R	1	A - 0.0	1	B - 10.7
NB	L	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0
	T	2	A - 0.0	2	A - 0.0	T	2	A - 0.0	2	A - 0.0
	R	0	A - 0.0	0	A - 0.0	R	0	A - 0.0	0	A - 0.0
SB	L	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0
	T	2	A - 0.0	2	A - 0.0	T	2	A - 0.0	2	A - 0.0
	R	1	A - 0.0	1	A - 0.0	R	1	A - 0.0	1	A - 0.0
Intersection:		***u - 0.0***		***u - 0.0***			***u - 0.0***		***u - 0.0***	

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

Driveway "B" is projected to function at acceptable levels-of-service for all conditions analyzed in this study.

Intersection #16 - Driveway "C" / University Blvd

The results of the various analyses of the unsignalized intersection of Driveway "C" / University Blvd. are summarized in the following tables:

For 2015 (First 100-Beds),no analysis was performed since the Driveway will not access the First Hundred Beds phase.

For 2020 (Phase 1):

Intersection: 16 - Driveway "C" / University Blvd.

2020 AM Peak Hour BUILD | **2020 PM Peak Hour BUILD**

		(Case "N") NO BUILD Lanes	LOS-Delay	(Case "N") BUILD Lanes	LOS-Delay	(Case "B") BUILD Lanes	LOS-Delay		(Case "N") NO BUILD Lanes	LOS-Delay	(Case "N") BUILD Lanes	LOS-Delay	(Case "B") BUILD Lanes	LOS-Delay
EB	L	0	A - 0.0	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0	0	A - 0.0
	T	0	A - 0.0	0	A - 0.0	0	A - 0.0	T	0	A - 0.0	0	A - 0.0	0	A - 0.0
	R	1	A - 0.0	1	B - 11.5	1	B - 11.4	R	1	A - 0.0	1	A - 9.7	1	A - 9.9
NB	L	0	A - 0.0	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0	0	A - 0.0
	T	2	A - 0.0	2	A - 0.0	2	A - 0.0	T	2	A - 0.0	2	A - 0.0	2	A - 0.0
	R	0	A - 0.0	0	A - 0.0	0	A - 0.0	R	0	A - 0.0	0	A - 0.0	0	A - 0.0
SB	L	0	A - 0.0	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0	0	A - 0.0
	T	2	A - 0.0	2	A - 0.0	2	A - 0.0	T	2	A - 0.0	2	A - 0.0	2	A - 0.0
	R	1	A - 0.0	1	A - 0.0	1	A - 0.0	R	1	A - 0.0	1	A - 0.0	1	A - 0.0
Intersection:			***u - 0.0***		***u - 0.0***		***u - 0.0***			***u - 0.0***		***u - 0.0***		***u - 0.0***

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

For 2035 (Full Buildout):

Intersection: 16 - Driveway "C" / University Blvd.

2035 AM Peak Hour BUILD | **2035 PM Peak Hour BUILD**

		(Case "N") NO BUILD Lanes	LOS-Delay	(Case "N") BUILD Lanes	LOS-Delay		(Case "N") NO BUILD Lanes	LOS-Delay	(Case "N") BUILD Lanes	LOS-Delay
EB	L	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0
	T	0	A - 0.0	0	A - 0.0	T	0	A - 0.0	0	A - 0.0
	R	1	A - 0.0	1	B - 14.4	R	1	A - 0.0	1	B - 11.7
NB	L	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0
	T	2	A - 0.0	2	A - 0.0	T	2	A - 0.0	2	A - 0.0
	R	0	A - 0.0	0	A - 0.0	R	0	A - 0.0	0	A - 0.0
SB	L	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0
	T	2	A - 0.0	2	A - 0.0	T	2	A - 0.0	2	A - 0.0
	R	1	A - 0.0	1	A - 0.0	R	1	A - 0.0	1	A - 0.0
Intersection:			***u - 0.0***		***u - 0.0***			***u - 0.0***		***u - 0.0***

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

Driveway "C" is projected to function at acceptable levels-of-service for all conditions analyzed in this study.

Intersection #17 - Driveway "D" / University Blvd

The results of the various analyses of the unsignalized intersection of Driveway "D" / University Blvd. are summarized in the following tables:

For 2015 (First 100-Beds),no analysis was performed since the Driveway will not access the First Hundred Beds phase.

For 2020 (Phase 1):

Intersection: 17 - Driveway "D" / University Blvd.

2020 AM Peak Hour BUILD | **2020 PM Peak Hour BUILD**

		(Case "N") NO BUILD Lanes	LOS-Delay	(Case "N") BUILD Lanes	LOS-Delay	(Case "B") BUILD Lanes	LOS-Delay		(Case "N") NO BUILD Lanes	LOS-Delay	(Case "N") BUILD Lanes	LOS-Delay	(Case "B") BUILD Lanes	LOS-Delay
EB	L	0	A - 0.0	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0	0	A - 0.0
	T	0	A - 0.0	0	A - 0.0	0	A - 0.0	T	0	A - 0.0	0	A - 0.0	0	A - 0.0
	R	1	A - 0.0	1	B - 11.8	1	B - 11.8	R	1	A - 0.0	1	A - 10.0	1	B - 10.3
NB	L	0	A - 0.0	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0	0	A - 0.0
	T	2	A - 0.0	2	A - 0.0	2	A - 0.0	T	2	A - 0.0	2	A - 0.0	2	A - 0.0
	R	0	A - 0.0	0	A - 0.0	0	A - 0.0	R	0	A - 0.0	0	A - 0.0	0	A - 0.0
SB	L	0	A - 0.0	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0	0	A - 0.0
	T	2	A - 0.0	2	A - 0.0	2	A - 0.0	T	2	A - 0.0	2	A - 0.0	2	A - 0.0
	R	1	A - 0.0	1	A - 0.0	1	A - 0.0	R	1	A - 0.0	1	A - 0.0	1	A - 0.0
Intersection:		***u - 0.0***		***u - 0.0***		***u - 0.0***			***u - 0.0***		***u - 0.0***		***u - 0.0***	

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

For 2035 (Full Buildout):

Intersection: 17 - Driveway "D" / University Blvd.

2035 AM Peak Hour BUILD | **2035 PM Peak Hour BUILD**

		(Case "N") NO BUILD Lanes	LOS-Delay	(Case "N") BUILD Lanes	LOS-Delay		(Case "N") NO BUILD Lanes	LOS-Delay	(Case "N") BUILD Lanes	LOS-Delay
EB	L	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0
	T	0	A - 0.0	0	A - 0.0	T	0	A - 0.0	0	A - 0.0
	R	1	A - 0.0	1	C - 16.7	R	1	A - 0.0	1	B - 12.3
NB	L	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0
	T	2	A - 0.0	2	A - 0.0	T	2	A - 0.0	2	A - 0.0
	R	0	A - 0.0	0	A - 0.0	R	0	A - 0.0	0	A - 0.0
SB	L	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0
	T	2	A - 0.0	2	A - 0.0	T	2	A - 0.0	2	A - 0.0
	R	1	A - 0.0	1	A - 0.0	R	1	A - 0.0	1	A - 0.0
Intersection:		***u - 0.0***		***u - 0.0***			***u - 0.0***		***u - 0.0***	

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

Driveway "D" is projected to function at acceptable levels-of-service for all conditions analyzed in this study.

Intersection #18 - Indian School Rd / Driveway "E"

The results of the various analyses of the unsignalized intersection of Indian School Rd. / Driveway "E" are summarized in the following tables:

For 2015 (First 100-Beds),no analysis was performed since the Driveway will not access the First Hundred Beds phase.

For 2020 (Phase 1):

Intersection: 18 - Indian School Rd. / Driveway "E"

2020 AM Peak Hour BUILD

		(Case "N") NO BUILD Lanes	LOS-Delay	(Case "N") BUILD Lanes	LOS-Delay	(Case "M") BUILD Lanes	LOS-Delay
EB	L	0	A - 0.0	0	A - 0.0	0	A - 0.0
	T	2	A - 0.0	2	A - 0.0	2	A - 0.0
	R	1	A - 0.0	1	A - 0.0	1	A - 0.0
WB	L	1	A - 0.0	1	B - 10.7	1	B - 10.7
	T	2	A - 0.0	2	A - 0.0	2	A - 0.0
	R	0	A - 0.0	0	A - 0.0	0	A - 0.0
NB	L	>	A - 0.0	>	B - 12.3	>	B - 12.7
	T	0	A - 0.0	0	A - 0.0	0	A - 0.0
	R	>	A - 0.0	>	B - 12.3	>	B - 12.7
Intersection:			***u - 0.0***		***u - 0.0***		***u - 0.0***

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

2020 PM Peak Hour BUILD

		(Case "N") NO BUILD Lanes	LOS-Delay	(Case "N") BUILD Lanes	LOS-Delay	(Case "M") BUILD Lanes	LOS-Delay
EB	L	0	A - 0.0	0	A - 0.0	0	A - 0.0
	T	2	A - 0.0	2	A - 0.0	2	A - 0.0
	R	1	A - 0.0	1	A - 0.0	1	A - 0.0
WB	L	1	A - 0.0	1	A - 9.4	1	B - 10.1
	T	2	A - 0.0	2	A - 0.0	2	A - 0.0
	R	0	A - 0.0	0	A - 0.0	0	A - 0.0
NB	L	>	A - 0.0	>	B - 11.4	>	B - 12.0
	T	0	A - 0.0	0	A - 0.0	0	A - 0.0
	R	>	A - 0.0	>	B - 11.4	>	B - 12.0
Intersection:			***u - 0.0***		***u - 0.0***		***u - 0.0***

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

For 2035 (Full Buildout):

Intersection: 18 - Indian School Rd. / Driveway "E"

2035 AM Peak Hour BUILD

		(Case "N") NO BUILD Lanes	LOS-Delay	(Case "N") BUILD Lanes	LOS-Delay
EB	L	0	A - 0.0	0	A - 0.0
	T	2	A - 0.0	2	A - 0.0
	R	1	A - 0.0	1	A - 0.0
WB	L	1	A - 0.0	1	C - 21.5
	T	2	A - 0.0	2	A - 0.0
	R	0	A - 0.0	0	A - 0.0
NB	L	>	A - 0.0	>	C - 19.8
	T	0	A - 0.0	0	A - 0.0
	R	>	A - 0.0	>	C - 19.8
Intersection:			***u - 0.0***		***u - 0.0***

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

2035 PM Peak Hour BUILD

		(Case "N") NO BUILD Lanes	LOS-Delay	(Case "N") BUILD Lanes	LOS-Delay
EB	L	0	A - 0.0	0	A - 0.0
	T	2	A - 0.0	2	A - 0.0
	R	1	A - 0.0	1	A - 0.0
WB	L	1	A - 0.0	1	B - 11.7
	T	2	A - 0.0	2	A - 0.0
	R	0	A - 0.0	0	A - 0.0
NB	L	>	A - 0.0	>	C - 15.1
	T	0	A - 0.0	0	A - 0.0
	R	>	A - 0.0	>	C - 15.1
Intersection:			***u - 0.0***		***u - 0.0***

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

Driveway "E" is projected to function at acceptable levels-of-service for all conditions analyzed in this study.

Intersection #19 - Lomas Blvd. / Driveway "F"

The results of the various analyses of the unsignalized intersection of Lomas Blvd. / Driveway "F" are summarized in the following tables:

For 2015 (First 100-Beds),no analysis was performed since the Driveway will not access the First Hundred Beds phase.

For 2020 (Phase 1):

Intersection: 19 - Lomas Blvd. / Driveway "F"

2020 AM Peak Hour BUILD — **2020 PM Peak Hour BUILD**

		(Case "N") NO BUILD Lanes	LOS-Delay	BUILD Lanes	LOS-Delay		(Case "N") NO BUILD Lanes	LOS-Delay	BUILD Lanes	LOS-Delay
EB	L	1	A - 0.0	1	B - 11.8	L	1	A - 0.0	1	C - 21.3
	T	3	A - 0.0	3	A - 0.0	T	3	A - 0.0	3	A - 0.0
	R	0	A - 0.0	0	A - 0.0	R	0	A - 0.0	0	A - 0.0
WB	L	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0
	T	3	A - 0.0	3	A - 0.0	T	3	A - 0.0	3	A - 0.0
	R	1	A - 0.0	1	A - 0.0	R	1	A - 0.0	1	A - 0.0
SB	L	>	A - 0.0	>	C - 15.7	L	>	A - 0.0	>	**F** - 59.6
	T	0	A - 0.0	0	A - 0.0	T	0	A - 0.0	0	A - 0.0
	R	>	A - 0.0	>	C - 15.7	R	>	A - 0.0	>	**F** - 59.6
Intersection:		***u - 0.0***		***u - 0.0***			***u - 0.0***		***u - 0.0***	

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

For 2035 (Full Buildout):

Intersection: 19 - Lomas Blvd. / Driveway "F"

2035 AM Peak Hour BUILD — **2035 PM Peak Hour BUILD**

		(Case "N") NO BUILD Lanes	LOS-Delay	BUILD Lanes	LOS-Delay		(Case "N") NO BUILD Lanes	LOS-Delay	BUILD Lanes	LOS-Delay
EB	L	1	A - 0.0	1	B - 15.0	L	1	A - 0.0	1	E - 49.0
	T	3	A - 0.0	3	A - 0.0	T	3	A - 0.0	3	A - 0.0
	R	0	A - 0.0	0	A - 0.0	R	0	A - 0.0	0	A - 0.0
WB	L	0	A - 0.0	0	A - 0.0	L	0	A - 0.0	0	A - 0.0
	T	3	A - 0.0	3	A - 0.0	T	3	A - 0.0	3	A - 0.0
	R	1	A - 0.0	1	A - 0.0	R	1	A - 0.0	1	A - 0.0
SB	L	>	A - 0.0	>	D - 29.1	L	>	A - 0.0	>	**F** - 999
	T	0	A - 0.0	0	A - 0.0	T	0	A - 0.0	0	A - 0.0
	R	>	A - 0.0	>	D - 29.1	R	>	A - 0.0	>	**F** - 999
Intersection:		***u - 0.0***		***u - 0.0***			***u - 0.0***		***u - 0.0***	

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

Driveway "F" is projected to function at acceptable levels-of-service for all conditions analyzed in this study.

WARRANTS FOR DECELERATION LANES

Design and construction of any intersection or driveway must meet the requirements of the New Mexico Department of Transportation if the access is on a State roadway facility and must meet the requirements of the City of Albuquerque if the access is on a City roadway facility. A right turn deceleration lane is warranted for Driveways "A", "B", "C", and "D" along University Blvd., and for Driveway "E" and St. Paul's Access along Indian School Rd., and for Driveway "F" and Legion Rd. along Lomas Blvd. A left turn lane is warranted for Driveway "A" on University Blvd., for Driveway "F" on Lomas Blvd., and for the St. Paul's Access on Indian School Rd.

CONCLUSIONS

This analysis was conducted using the following methodology: Trip Generation was established using the Institute of Transportation Engineers' (ITE's) Trip Generation Manual (7h Edition). Generated Trips were distributed proportionately based on the Population / Employment data citywide; NO BUILD volumes were established based on recent traffic count data grown at historical growth rate; and the intersection analyses were performed in accordance with the 2000 Highway Capacity Manual, Special Report 209. The Traffic Impact Study showed a substantial increase in traffic volumes for the adjacent transportation network based on 100% buildout of the proposed project. Analysis of the adjacent transportation system revealed capacity issues, especially during the projected 2035 conditions.

The proposed UNM North Development Project is a substantially large project that will generate a significant volume of traffic. Adequate access to and from the project is critical. The current access from the I-25 East Frontage Rd. is extremely limited. In order to develop the property, additional access will be required along the I-25 East Frontage Rd. corridor. The first request for additional access along the I-25 East Frontage Rd. is for additional access at the intersection at Camino de Salud. It is currently designated as a right-in only with limited right-out movements. The limitation was imposed in 2006 due to the fact that there was concern regarding horizon year operation of the intersection, and there was insufficient data by which to address those concerns. This study attempts to address those concerns, and request is made to designate the intersection of Camino de Salud / I-25 East Frontage Rd. to a full right-in, right-out intersection.

The second request for additional access onto the I-25 East Frontage Rd. is for an extension of Mountain Rd. east of the frontage road to provide access to the proposed parking garage for the hospital facility. This study demonstrated that implementation of the Mountain Rd. extension east of the frontage road provides a reduction in average delay at the intersection of Mountain Rd. / I-25 East Frontage Rd. and provides some relief to the volume of traffic that would otherwise need to travel northbound on the frontage road to turn right onto Camino de Salud.

Additionally, an emergency only right-in, right-out access directly to the hospital facility directly is being requested. This access will be primarily for ambulatory service. No analysis was performed for that driveway since volumes are expected to be minimal.

The comparative analysis of CASE "N" (no additional access) with CASE "M" (Mountain Rd. extension) demonstrated a benefit to permitting the Mountain Rd. extension. Also, additional

requested access at Camino de Salud / I-25 East Frontage Rd. will prevent the intersection of Mountain Rd. / I-25 East Frontage Rd. from being overloaded.

Of the three phases considered in this study (First 100-Beds, Phase 1, and Full Buildout), it is clear that the First 100-Bed phase has only minimal impact on the adjacent transportation system. Primary access to the First 100-Bed facility is primarily via the requested right-in right-out at Camino de Salud / I-25 East Frontage Rd., Camino de Salud / University Blvd., and Lomas Blvd. / Legion Rd. Secondary access is via Lomas Blvd. / Driveway "F" and Driveway "B" / University Blvd. It was found that no significant adverse impact resulted from implementation of the First 100-Bed phase, and the only recommended improvements will be those necessary to establish the access defined above.

The Phase 1 analysis (2020) showed significant impact to the adjacent transportation system. The Phase 1 analysis demonstrates a need for the Mountain Rd. extension, the full right-in, right-out access at Camino de Salud / I-25 East Frontage Rd., and additional access via Indian School Rd. / St. Paul's Access. Improvements to those intersections and street connections will be required as per the recommendations of this study and the requirements of the New Mexico Department of Transportation and the City of Albuquerque. The 2020 analysis demonstrated capacity concerns at the intersections of Camino de Salud / University Blvd. and at Indian School Rd. / University Blvd. Recommendations will be included for those two intersections associated with the 2020 Phase 1 conditions.

The Final Buildout analysis (2035) presented substantial impact to the adjacent transportation system. The Final Buildout analysis still demonstrated a need for the Mountain Rd. extension and the full right-in, right-out access at Camino de Salud / I-25 East Frontage Rd. The 2035 analysis also demonstrated capacity issues at the intersections of Lomas Blvd. / I-25 West Frontage Rd., Lomas Blvd. / I-25 East Frontage Rd., Lomas Blvd. / University Blvd., Camino de Salud / University Blvd., and Indian School Rd. / University Blvd. Additionally, it was demonstrated that the intersection of Lomas Blvd. / Legion Rd. needed to be signalized. The intersection of Camino de Salud / I-25 East Frontage Rd. may need to be signalized.

In summary, the proposed plan for this medical / medical office / clinic / commercial type development present no significant adverse impact to the adjacent transportation system provided that the following recommendations are followed:

RECOMMENDATIONS

- All site design and construction including driveways and landscaping shall maintain adequate sight distances at proposed driveways and existing intersections.
- **First 100-Beds Phase:**
  - Construct a full right-in, right-out intersection at Camino de Salud / I-25 East Frontage Rd.
  - Construct a right-in, right-out driveway on the I-25 East Frontage Rd. north of Mountain Rd. restricted to ambulatory service for the new hospital.
  - Construct a westbound right turn lane on Lomas Blvd. at Legion Rd.
- **Phase 1 (2020 Analysis):**
  - Construct the extension of Mountain Rd. east of the I-25 East Frontage Rd. in accordance with standards that meet the requirements of the New Mexico Department of Transportation District 3 Office. The new east leg of Mountain will be signalized and will be restricted to right-in, right-out, and eastbound thru movements only. Westbound thru movements will be prohibited.

- Reconfigure the eastbound approach on Mountain Rd. at the I-25 East Frontage Rd. to incorporate an eastbound thru movement with the outside left turn lane.
- Construct a northbound right turn lane on the I-25 East Frontage Rd. at the Mountain Rd. extension.
- Maintain the intersection of Camino de Salud / I-25 East Frontage Rd. as a full right-in, right-out unsignalized intersection.
- Construct dual eastbound left turn lanes on Camino de Salud at University Blvd.
- Construct an eastbound right turn lane, a northbound right turn lane, and a southbound right turn lane at the intersection of Indian School Rd. / University Blvd.
- Construct a new connection to Indian School Rd. via the St. Paul's access and maintain a westbound left turn lane area on Indian School Rd.

❖ **Full Buldout (2035 Analysis):**

- Maintain the extension of Mountain Rd. east of the I-25 East Frontage Rd.
  - Maintain the intersection of Camino de Salud / I-25 East Frontage Rd. as a full right-in, right-out intersection with one of two options:
    - Construct a third northbound thru lane on the I-25 East Frontage Rd. north of Camino de Salud so that the westbound right turn movement is a free right turn movement with an add lane of sufficient length that the westbound to northbound right turn movement will be able to merge back into the two northbound lanes near the I-40 South Frontage Rd. This option is very difficult to implement since there are right-of-way and physical constraints in the field to widen the I-25 East Frontage Rd. north of Camino de Salud.
    - Construct a signal at the intersection of Camino de Salud / I-25 East Frontage Rd. and construct dual westbound right turn lanes and a third northbound thru lane between the Mountain Rd. extension and Camino de Salud. The third northbound thru lane on the frontage road would allow the westbound right turn movement from Mountain Rd. to the frontage road to be a free right turn movement with an add lane. The third northbound thru lane on the frontage road would still need to extend north of Camino de Salud, but perhaps not quite as far as in the previous option.
- Lomas Blvd. / I-25 West Frontage Rd. Mitigation:
  - Construct a fourth eastbound thru lane on Lomas Blvd. at the I-25 West Frontage Rd. as a new inside lane adjacent to the existing raised median. This new fourth thru lane would serve as an extension to the eastbound left turn lane at the I-25 East Frontage Rd. Median modifications will probably be required.
  - Construct dual southbound left turn lanes (separate from any thru lane)
  - Construct dual westbound left turn lanes on Lomas Blvd. at the I-25 West Frontage Rd. Westbound left turns should operate as protected only.
- Lomas Blvd. / I-25 East Frontage Rd. Mitigation:
  - Construct dual eastbound left turn lanes on Lomas Blvd. at the I-25 East Frontage Rd. Eastbound left turns should operate as protected only.
  - Construct dual westbound right turn lanes on Lomas Blvd. at the I-25 East Frontage Rd.
  - Construct exclusive dual northbound left turn lanes, exclusive dual thru lanes, and exclusive triple right turn lanes on the south leg of the I-25 East Frontage Rd. at Lomas Blvd.
- Lomas Blvd. / University Blvd. Mitigation:

    - Construct an eastbound right turn lane, a westbound right turn lane, and a southbound right turn lane at the intersection of Lomas Blvd. / University Blvd.
- Camino del Salud / University Blvd. Mitigation:
    - Construct a new eastbound right turn lane on Camino de Salud at University Blvd.
    - Construct a new westbound right turn lane on Camino de Salud at University Blvd.
    - Camino del Salud / University Blvd. Mitigation:
- Indian School Rd. / University Blvd. Mitigation:
    - Construct dual eastbound and dual westbound left turn lanes on Indian School Rd. at Indian School Rd.
- Lomas Blvd. / Legion Rd. Mitigation:
    - Construct a traffic signal at the intersection of Lomas Blvd. / Legion Rd.
    - Construct dual eastbound left turn lanes on Lomas Blvd. at Legion Rd.
    - Construct exclusive southbound left turn lane on Legion Rd. at Lomas Blvd.
    - Construct exclusive dual southbound right turn lanes on Legion Rd. at Lomas Blvd.
    - Construct interconnect of new signal at Lomas Blvd. / Legion Rd. with existing signals at Lomas / I-25 and Lomas / University Blvd.
- Driveway “A” / University Blvd. Mitigation:
    - Construct a southbound right turn deceleration lane on University Blvd. at Driveway “A”.
    - Construct a northbound left turn deceleration lane on University Blvd. at Driveway “A”
- Driveway “B” / University Blvd. Mitigation:
    - Construct a southbound right turn deceleration lane on University Blvd. at Driveway “B”.
- Driveway “C” / University Blvd. Mitigation:
    - Construct a southbound right turn deceleration lane on University Blvd. at Driveway “C”.
- Driveway “D” / University Blvd. Mitigation:
    - Construct a southbound right turn deceleration lane on University Blvd. at Driveway “D”.
- Indian School Rd. / Driveway “E”
    - Construct an eastbound right turn deceleration lane on Indian School Rd. at Driveway “E”.
- Lomas Blvd. / Driveway “F”
    - Construct a westbound right turn deceleration lane on Lomas Blvd. at Driveway “F”.
    - Construct an eastbound left turn deceleration lane on Lomas Blvd. at Driveway “F”.

Appendix

SITE INFORMATION	
Vicinity Map / Transportation System	A-1
Conceptual Site Development Plan	A-2
Aerial Photo – Adjacent Transportation Network	A-3
2010 AWDT Map	A-4 thru A-5
Long Range Roadway Plan for the Albuquerque Urban Area	A-6
TRIP GENERATION	
Individual Trip Generation Worksheet – 100 Hospital Beds	A-6
Trip Generation Summary Table – Phases 1 & 2	A-7
Individual Trip Generation Worksheets – Phases 1 & 2	A-8 thru A-23
HISTORIC GROWTH RATE	
MRCOG 2035 AM(PM) Peak Hour Volumes Map	A-24
TRIP DISTRIBUTION	
Subarea Map - Trip Distribution Area (Office Trips)	
Office Trip Distribution Worksheets	
Office Trip Distribution Map	
Initial Phase – 100 Hospital Beds	
Trip Assignments Map - Office Trips (% Entering)	
Trip Assignments Map - Office Trips (% Exiting)	
TURNING MOVEMENT COUNTS	
Summary Table of Intersection Counts	
Individual Intersection Turning Movement Counts Tables	
MAP – 2015 NO BUILD Volumes – INITIAL PHASE	
MAP – Trips Generated Volumes – INITIAL PHASE	
Map - 2015 BUILD Volumes – INITIAL PHASE	
Implementation Year (2020) & Horizon Year (2035)	
Data Analysis Subzone (DASZ) Maps (Commercial Trips)	
Commercial Trip Distribution Worksheets	
Commercial Trip Distribution Map	
Trip Assignments Map - Commercial Trips (% Entering)	
Trip Assignments Map - Commercial Trips (% Exiting)	
CASE "N" – No New Access	
Trip Assignments Map - Office Trips (% Entering)	
Trip Assignments Map - Office Trips (% Exiting)	
TURNING MOVEMENT COUNTS	
2020 Summary Table of Intersection Counts	
2020 Individual Intersection Turning Movement Counts Tables	
MAP – 2020 NO BUILD Volumes – CASE "N"	
MAP – Trips Generated Volumes – CASE "N"	
Map - 2020 BUILD Volumes – CASE "N"	
2035 Summary Table of Intersection Counts	
2035 Individual Intersection Turning Movement Counts Tables	
MAP – 2035 NO BUILD Volumes – CASE "N"	
MAP – Trips Generated Volumes – CASE "N"	
Map - 2035 BUILD Volumes – CASE "N"	

CASE "M" – Mountain Rd Access	
Trip Assignments Map - Office Trips (% Entering)	
Trip Assignments Map - Office Trips (% Exiting)	
TURNING MOVEMENT COUNTS	
2020 Summary Table of Intersection Counts	
2020 Individual Intersection Turning Movement Counts Tables	
MAP – 2020 NO BUILD Volumes – CASE "M"	
MAP – Trips Generated Volumes – CASE "M"	
Map - 2020 BUILD Volumes – CASE "M"	
2035 Summary Table of Intersection Counts	
2035 Individual Intersection Turning Movement Counts Tables	
MAP – 2035 NO BUILD Volumes – CASE "M"	
MAP – Trips Generated Volumes – CASE "M"	
Map - 2035 BUILD Volumes – CASE "M"	
CASE "B" – Both Mountain Rd & St. Paul's Access	
Trip Assignments Map - Office Trips (% Entering)	
Trip Assignments Map - Office Trips (% Exiting)	
TURNING MOVEMENT COUNTS	
2020 Summary Table of Intersection Counts	
2020 Individual Intersection Turning Movement Counts Tables	
MAP – 2020 NO BUILD Volumes – CASE "B"	
MAP – Trips Generated Volumes – CASE "B"	
Map - 2020 BUILD Volumes – CASE "B"	
2035 Summary Table of Intersection Counts	
2035 Individual Intersection Turning Movement Counts Tables	
MAP – 2035 NO BUILD Volumes – CASE "B"	
MAP – Trips Generated Volumes – CASE "B"	
Map - 2035 BUILD Volumes – CASE "B"	
INTERSECTION ANALYSES	
2015 NO BUILD Analysis	
2015 BUILD Analysis	
2020 NO BUILD Analysis	
2020 BUILD Analysis	
2035 NO BUILD Analysis	
2035 BUILD Analysis	
Traffic Count / Intersection Data	

APPENDIX