

Bosquecito Commercial Development

(Bosque Meadows Rd. / Coors Blvd.)

Traffic Impact Study

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Presented to:

***Transportation Development Division
City of Albuquerque
&
New Mexico Department of Transportation
District No. 3***

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Bosquecito Commercial Development (Bosque Meadows Rd. / Coors Blvd.) TRAFFIC IMPACT STUDY

STUDY PURPOSE

The study is being conducted in conjunction with a request for approval of a zone change request proposing a new commercial center at the location shown in the Appendix (Page A-1) of this report. The purpose of this study is to identify the impact of the 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 the site development plan. This study is being prepared to meet the requirements of the City of Albuquerque Transportation Development Section and the New Mexico Department of Transportation (NMDOT).

STUDY PROCEDURES

The scope of this study was established via an exchange of e-mail with NMDOT staff (Tony Abbo) prior to beginning the study to discuss scope and methodology to be utilized within the report. In addition, a more formal scoping meeting was held with the City of Albuquerque Transportation Development Section (Tony Loyd and Steele Nowak) to establish the requirements of this study from the City's perspective. Specific items included format, intersections to be studied, intersection analysis procedures, existing traffic counts, trip distribution methodology, and implementation year definition. A horizon year analysis was not required for this study.

The basic procedure followed is described as follows:

- 1) Calculate the generated trips for the proposed development consisting of the following assumed lane uses based on a Floor-Area Ratio of 0.30 for this property:
 - *Shopping Center (79,250 SF Floor Area)*
 - *High Turnover Sit-Down Restaurant (10,000 S.F. Floor Area)*
- 2) Calculate trip distribution for the new trips generated by this development. The new trips will be distributed based on year 2008 population within a two (2) mile radius boundary of the proposed site as shown in the Appendix of this report (Page A-6).
- 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 (See Appendix Pages A-11 thru A-13 of this report).
- 4) Acquire recent traffic counts for the intersections of La Orilla Rd. / Coors Blvd., Montano Rd. / Coors Blvd., Montano Plaza / Coors Blvd. Eagle Ranch Rd. / Coors Blvd., SIPI Entrance / Coors Blvd., Paseo del Norte / Coors Blvd., and Bosque Meadows Rd. / Coors Blvd.
- 5) Calculate annual growth rates for the area based Mid-Region Council of Governments' Traffic Flow data from 2001 thru 2005 (See Appendix Pages A-14 thru A-25 of this report).

- 6) Consider trips generated from the following recently approved developments that have not been fully implemented at this time
 - a) Andalucia / Montañó Shoppes
 - b) NE & SE corners of La Orilla / Coors Blvd
 - c) NW corner of La Orilla Rd. / Coors Blvd.
- 7) Determine 2008 NO BUILD Volumes by growing the existing turning movement counts to the year 200 utilizing the calculated annual historic growth rate for the area, and then adding in generated traffic volumes from the other approved projects.
- 8) Add in data from Trip Assignments Maps and Tables to the 2008 NO BUILD Volumes to obtain 2008 BUILD Volumes for this project.
- 9) Provide signalized and / or unsignalized intersection analyses for the following intersections:

INTERSECTION	TYPE CONTROL	NO BUILD	BUILD
1) Montano Rd. / Coors Blvd.	Traffic Signal	2008	2008
2) Montano Plaza Dr. / Coors Blvd.	Traffic Signal	2008	2008
3) La Orilla Rd. / Coors Blvd.	Traffic Signal	2008	2008
4) Eagle Ranch Rd. / Coors Blvd.	Traffic Signal	2008	2008
5) SIPI Entrance / Coors Blvd.	Traffic Signal	2008	2008
6) Paseo del Norte / Coors Blvd.	Traffic Signal	2008	2008
7) Bosque Meadows Rd. / Coors Blvd.	Traffic Signal?	N/A	2008
8) Bosque Meadows Rd. / Bosque Meadows Pl.	Stop Sign	N/A	2008
9) Bosque Meadows Rd. / Driveway "A"	Stop Sign	N/A	2008
10) Driveway "B" / Coors Blvd.	Stop Sign	2008	2008

PREVIOUS RELATED TRAFFIC IMPACT STUDIES

Base data for this Traffic Impact Study were obtained from the previous Traffic Impact Study:

- 1) *Andalucia / Montañó Shoppes Traffic Impact Study by the consulting engineer.*
- 2) *NE & SE Corners of La Orilla / Coors Traffic Impact Study by the consulting engineer.*
- 3) *SW Corner of La Orilla / Coors Traffic Impact Study by the consulting engineer.*

The Implementation Year Trips Generated Volumes from those reports were added into the 2008 Background Subtotal Volumes in this report to obtain the 2008 NO BUILD Volumes.

GENERAL AREA CHARACTERISTICS

The proposed request is a zone change request and there is no site development plan for the project yet. Properties surrounding this site are a mix of commercial and residential uses. The property across to the west of Coors Blvd. is zoned County A-1. Most of the land south of this site is substantially developed. More detailed zoning information may be obtained upon inspection of the Vicinity Map on Page A-1 in the Appendix.

AREA STREET NETWORK

Coors Boulevard is classified as a Limited Access Principal Arterial roadway on the Long Range Roadway System for the Albuquerque Urban Area. It is currently a six lane paved urban roadway with no curbs and gutters on either side of the roadway and raised medians in the center. There is a paved shoulder on each side of Coors Blvd and the posted speed limit is 45 MPH.

Paseo del Norte is classified as an existing freeway with flyover lanes on the Long Range Roadway System for the Albuquerque Urban Area. It has four flyover lanes with curb & gutter and medians. There is a paved shoulder on each side of Paseo del Norte and the posted speed limit is 55 MPH.

Montano Road is classified as a Principal Arterial Roadway on the Long Range Roadway System for the Albuquerque Urban Area. It is a four lane paved urban section roadway with curbs and gutters on both side of the street and a raised median. The posted speed limit on Montano Rd. at Coors Blvd. is 40 MPH.

La Orilla Rd., Dellyne Ave. and Eagle Ranch Rd. are classified as Collector Streets on the Long Range Roadway System for the Albuquerque Metropolitan Area. All three streets are currently two lane paved facilities. Near Coors Blvd., La Orilla Rd is paved with a temporary pavement section. The speed limit on all three streets is 35 MPH. median. The speed limit on Western Trail is 35 MPH.

Montano Plaza Drive is not classified on the Long Range Roadway System for the Albuquerque Urban Area. Montano Plaza Drive is currently a paved urban roadway with curbs and gutters on both sides of the street and no median. The speed limit is 30 MPH.

SIPPI Entrance Rd. and Bosque Meadows Rd. are not classified on the Long Range Roadway System Map for the Albuquerque Metropolitan Planning Area.

EXISTING TRAFFIC VOLUMES

2005 Average Weekday Traffic Volumes (AWDT) for major streets in the site plan area are shown on Page A-2a in the Appendix.

Current turning movement volumes obtained during the AM and PM Peak Hours for this project were acquired from recent field counts conducted by the Mid-Region Council of Governments (M.R.C.O.G.).

Existing AM and PM Peak Hour turning movement counts were provided by the City of Albuquerque for the following intersections:

Montano Rd. / Coors Blvd. (2003)
Montano Plaza Dr. / Coors Blvd. (2002)
La Orilla Rd. / Coors Blvd. (2005)
Eagle Ranch Rd. / Coors Blvd. (2002)
SIFI Entrance / Coors Blvd. (2001)

AM and PM Peak Hour turning movement counts for 2003 were obtained by field traffic counts taken for the following intersections:

Paseo del Norte / Coors Blvd.

Additionally, new field traffic counts were taken for the intersections of Bosque Meadows Rd. / Coors Blvd. and Bosque Meadows Rd. / Bosque Meadows Pl. to utilize in this Traffic Impact Study.

The counts are included in Appendix "Z".

EXISTING (2006) LEVELS OF SERVICE

The Highway Capacity Manual 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.

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.

An analysis of the current (2006) levels-of-service for the intersections targeted for analysis are not reported in this study.

PROPOSED DEVELOPMENT

This proposed development is approximately 6.82 acres developed into approximately 70,200 S.F. of retail commercial floor space. The floor-area ratio is approximately 0.30. The following uses are proposed for this property:

- *Shopping Center (79,250 SF Floor Area)*
- *High Turnover Sit-Down Restaurant (10,000 S.F. Floor Area)*

The assumed land uses are very conceptual at this point in time and are subject to some changes as progress takes place in the development review process. The assumed uses should, however, provide a reliable basis upon which to analyze the impact of the zone change on the adjacent transportation system and provide guidelines for mitigating the impact and establishing access criteria. The conceptual plan for this commercial project proposes two (2) primary access points or driveways into the site. One of these driveways accesses Coors Blvd. near the north property line of the development and the other driveway accesses Bosque Meadows Rd. near the southeast corner of the development. Driveway "A" is a proposed full access driveway on the north side of Bosque Meadows Rd. located east of Coors Blvd. Driveway "B" is a proposed right-turn-in, right-turn-out access driveway on the east side of Coors Blvd. located near the north end of the project. A graphical depiction of the proposed driveway configuration can be seen on Page A-12 in the Appendix of this study.

TRIP GENERATION

Projected trips were calculated from data in the Institute of Transportation Engineers Trip Generation report (7th Edition, 2003). Trips for the development were determined based on land uses assumed considering the project is 6.82 acres of commercial development with a 0.30 floor-area ratio. The resulting number of trips generated for the proposed development is summarized in the following tables:

Bosquecito Commercial (Bosque Meadows Rd. / Coors Blvd.) **Trip Generation Data**

	USE (ITE CODE)	24 HR VOL	A. M. PEAK HR.		P. M. PEAK HR.	
	DESCRIPTION	GROSS	ENTER	EXIT	ENTER	EXIT
Summary Sheet		Units				
	Shopping Center (820)	79.25	5,838	83	53	259 280
	High Turnover (Sit-Down) Restaurant (932)	10.00	1,272	60	55	67 43
	Subtotal		7,110	143	108	326 323
	Pass-by Trip Credit	20%	(1,422)	(29)	(22)	(65) (65)
	Net New Trips to Offsite System		5,688	114	86	261 258

A 20% pass-by trip reduction was taken for this project based on the commercial uses proposed.

TRIP DISTRIBUTION

Primary and Diverted Linked Trips:

Trips were distributed as follows:

Commercial Land Use

Primary and diverted linked trips for the commercial land use development were distributed proportionally to the 2008 projected population of Data Analysis Subzones within a two mile radius of the proposed development. Population data for the years 2000 and 2025 were taken from the 2025 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico, S-03-01 (2000), Appendix B and Appendix C, supplied by the Mid-Region Council of Governments (MRCOG). Population data from the years 2000 and 2025 was interpolated linearly to obtain 2008 population data to utilize for this analysis. Population Subzones were grouped based on the most likely major street(s) or route(s) to the subject development. The trip distribution worksheets and associated map of data analysis subzones is shown in the Appendix. The Trip Distribution map can be found in the Appendix on Page A-11.

TRIP ASSIGNMENT

Trip assignments are first made on a percentage basis derived from data established in the trip distribution determination process and logical routing. Those percentages are then applied to the projected trips to determine individual traffic movements. Percentage trip assignments are shown on Appendix Pages A-12 thru A-13.

BACKGROUND TRAFFIC GROWTH

Recent Traffic Impact Studies performed in the area have utilized a consistent annual growth of 3.3% for about the past three years. New data is now available (including 2005 Traffic Flow rates) and, therefore, this study calculated the historic annual growth rate based on the new data. It results in significantly lower growth rates in most parts of the transportation system than the 3.3% utilized in the previous studies. The annual growth rate based on the most recent data is utilized in this study.

PROJECTED PEAK HOUR TURNING MOVEMENTS FOR 2008 BUILDOUT

The established growth rates were applied to the most recent peak hour traffic counts (furnished by the City of Albuquerque for this study), and then the trips from the *Andalucia Traffic Impact Study* and the *NE & SE Corners and the SW Corner of La Orilla / Coors Blvd Traffic Impact Study* were added in to establish the 2008 background NO BUILD traffic volumes. To these volumes, the generated trips based on implementation of the proposed Bosquecito Commercial Development were added to obtain 2008 BUILD volumes for the intersection analyses. See Appendix Pages A-26 thru A-48 for further information regarding 2008 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 Synchro Version 6 software by Trafficware for both signalized and unsignalized intersections. For signalized intersections, the operational method of analysis was used for forecast 2008 conditions (NO BUILD and BUILD). In addition to utilizing the operational analysis for the intersections, the 1985 planning method was also used to provide additional information at the intersection to help define critical lane volumes and to help analyze a solution.

Capacity analyses were performed for the following traffic conditions.

Implementation Year (2008) - NO BUILD

Implementation Year (2008) - BUILD

The results of the implementation year (2008) capacity analyses are summarized in the following sections - *Results and Discussion of Intersection Capacity Analyses*.

RESULTS OF SIGNALIZED INTERSECTION CAPACITY ANALYSES

Intersection #1 - Montano Road / Coors Blvd.

The results of the analysis of the signalized intersection of Montano Rd. / Coors Blvd. are summarized in the following table:

Montano Rd. / Coors Blvd.		AM Peak Hour		PM Peak Hour	
	2008	<u>NO BUILD</u>	<u>BUILD</u>	<u>NO BUILD</u>	<u>BUILD</u>
Existing Geometry		<i>E - 78.4</i>	<i>E - 78.7</i>	<i>F - 123</i>	<i>F - 134</i>

C - 23.2 - Bold Italicized LOS denotes that one or more movements in the analysis run operated at Level-of-Service "E" or worse.

The intersection of Montano Rd. / Coors Blvd. is moderately impacted by the implementation of Bosquecito Commercial Development. The analysis in the study assumes that the developer of the Andalucia, Tract 6 development at the southeast corner of Montano Rd. / Coors Blvd. will construct a fourth northbound thru lane on Coors Blvd. at Montano Rd. That being constructed, there are no more improvements that can be constructed for the intersection of Montano Rd. / Coors Blvd. within the existing right-of-way.

The Queuing Analysis for this intersection results in the lanes length changes summarized in the following table:

Queueing Analysis Summary Sheet

Project: Bosquecito Commercial Development (Bosque Meadows Rd. / Coors Blvd.)
 Intersection: Montano Rd. / Coors Blvd.

2008

Eastbound				Left Turns			Thru Movements			Right Turns		
Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	2	74	300	2	743	Cont	2	743	Cont	1	274	250
AM NO BUILD Queue	2	150	150	2	1,000	675	2	1,000	675	1	392	525
AM BUILD Queue	2	172	175	2	1,000	675	2	1,000	675	1	392	525
Existing Lane Length	2	268	300	2	312	Cont	2	312	Cont	1	245	250
PM NO BUILD Queue	2	441	350	2	658	475	2	658	475	1	432	550
PM BUILD Queue	2	492	375	2	658	475	2	658	475	1	432	550

Westbound				Left Turns			Thru Movements			Right Turns		
Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	2	166	450	2	252	Cont	2	252	Cont	0	59	0
AM NO BUILD Queue	2	227	200	2	395	325	2	395	325	0	141	225
AM BUILD Queue	2	227	200	2	395	325	2	395	325	0	155	250
Existing Lane Length	2	369	450	2	837	Cont	2	837	Cont	0	105	0
PM NO BUILD Queue	2	556	425	2	1,217	825	2	1,217	825	0	273	375
PM BUILD Queue	2	556	425	2	1,217	825	2	1,217	825	0	304	425

Northbound				Left Turns			Thru Movements			Right Turns		
Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	2	213	775	4	1,238	Cont	4	1,238	Cont	1	310	570
AM NO BUILD Queue	2	318	275	4	1,452	575	4	1,452	575	1	388	500
AM BUILD Queue	2	318	275	4	1,454	575	4	1,454	575	1	388	500
Existing Lane Length	2	649	775	4	1,658	Cont	4	1,658	Cont	1	225	570
PM NO BUILD Queue	2	846	600	4	1,927	725	4	1,927	725	1	322	425
PM BUILD Queue	2	846	600	4	1,932	725	4	1,932	725	1	322	425

Southbound				Left Turns			Thru Movements			Right Turns		
Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	2	286	450	3	1,288	Cont	3	1,288	Cont	1	56	375
AM NO BUILD Queue	2	373	300	3	1,473	700	3	1,473	700	1	111	200
AM BUILD Queue	2	383	300	3	1,475	700	3	1,475	700	1	128	200
Existing Lane Length	2	162	450	3	1,301	Cont	3	1,301	Cont	1	126	375
PM NO BUILD Queue	2	315	275	3	1,644	775	3	1,644	775	1	269	375
PM BUILD Queue	2	346	275	3	1,649	775	3	1,649	775	1	319	425

AM PM
 Cycle Length: 130 130

It is acceptable to reduce the calculated queue length for right turn lanes by one-half to account for right-turns-on-red and overlap phases.

Intersection #2 - Montano Plaza Drive / Coors Blvd.

The results of the analysis of the signalized intersection of Montano Plaza / Coors Blvd. are summarized in the following table:

Montano Plaza / Coors Blvd.	AM Peak Hour		PM Peak Hour	
2008	<u>NO BUILD</u>	<u>BUILD</u>	<u>NO BUILD</u>	<u>BUILD</u>
Existing Geometry	B - 10.2	B - 10.4	C - 27.5	C - 32.4

C - 23.2 - Bold Italicized LOS denotes that one or more movements in the analysis run operated at Level-of-Service "E" or worse.

The intersection of Montano Plaza / Coors Blvd. is moderately impacted by the implementation of the Bosquecito Commercial Development. This study does not recommend improvements for the intersection of Montano Plaza / Coors Blvd.

The Queuing Analysis for this intersection results in the lanes length changes summarized in the following table:

Queueing Analysis Summary Sheet

Project: Bosquecito Commercial Development (Bosque Meadows Rd. / Coors Blvd.)
 Intersection: Montano Plaza / Coors Blvd.

2008

Eastbound				Left Turns			Thru Movements			Right Turns		
Approach				# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
<i>Existing Lane Length</i>				1	105	115	1	17	Cont	1	69	150
AM NO BUILD Queue				1	142	225	1	22	50	1	90	150
AM BUILD Queue				1	150	225	1	22	50	1	90	150
<i>Existing Lane Length</i>				1	32	115	1	33	Cont	1	16	150
PM NO BUILD Queue				1	98	175	1	44	100	1	51	100
PM BUILD Queue				1	116	200	1	44	100	1	51	100
Westbound				# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
<i>Existing Lane Length</i>				1	64	225	2	11	Cont	0	53	225
AM NO BUILD Queue				1	67	125	2	15	25	0	70	125
AM BUILD Queue				1	67	125	2	15	25	0	70	125
<i>Existing Lane Length</i>				1	251	225	2	168	Cont	0	156	225
PM NO BUILD Queue				1	264	375	2	187	175	0	213	325
PM BUILD Queue				1	264	375	2	187	175	0	214	325
Northbound				# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
<i>Existing Lane Length</i>				1	5	325	3	1,307	Cont	1	44	275
AM NO BUILD Queue				1	21	50	3	1,667	775	1	47	100
AM BUILD Queue				1	21	50	3	1,705	800	1	47	100
<i>Existing Lane Length</i>				1	35	325	3	1,835	Cont	1	124	275
PM NO BUILD Queue				1	68	125	3	2,395	>1,000	1	132	225
PM BUILD Queue				1	68	125	3	2,482	>1,000	1	132	225
Southbound				# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
<i>Existing Lane Length</i>				1	59	550	3	1,649	Cont	0	16	0
AM NO BUILD Queue				1	75	150	3	1,956	900	0	42	100
AM BUILD Queue				1	75	150	3	1,985	900	0	48	100
<i>Existing Lane Length</i>				1	310	550	3	1,488	Cont	0	27	0
PM NO BUILD Queue				1	364	475	3	2,084	>1,000	0	93	175
PM BUILD Queue				1	365	475	3	2,170	>1,000	0	111	200

AM PM
 Cycle Length: 130 130

It is acceptable to reduce the calculated right turn queue length by one-half to account for right-turns-on-red and overlap phases.

Intersection #3 - La Orilla Rd. / Coors Blvd.

The results of the analysis of the signalized intersection of La Orilla Rd. / Coors Blvd. are summarized in the following table:

La Orilla Rd. / Coors Blvd.		AM Peak Hour		PM Peak Hour	
	2008	<u>NO BUILD</u>	<u>BUILD</u>	<u>NO BUILD</u>	<u>BUILD</u>
Existing Geometry		B - 13.9	B - 15.6	<i>D - 42.3</i>	<i>D - 49.2</i>

C - 23.2 - Bold Italicized LOS denotes that one or more movements in the analysis run operated at Level-of-Service "E" or worse.

The existing geometry for the intersection is La Orilla Rd. / Coors Blvd. is based on the recommended geometry from the La Orilla / Coors Commercial Development (SW Corner) Traffic Impact Study and is outlined in the following table:

Recommended Geometry (La Orilla Rd. / Coors Blvd.)

Approach	Left Turn Lanes	Thru/Lefts	Thru Lanes	Thru/Rights	Right Turn Lanes
EB La Orilla Rd.	1	0	1	0	1
WB La Orilla Rd.	1	0	1	1	0
NB Coors Blvd.	2	0	3	1	0
SB Coors Blvd.	2	0	3	0	1

The Queuing Analysis for this intersection results in the lanes length changes summarized in the following table:

Queueing Analysis Summary Sheet

Project: Bosquecito Commercial Development (Bosque Meadows Rd. / Coors Blvd.)
 Intersection: La Orilla Rd. / Coors Blvd.

2008

Eastbound				Left Turns			Thru Movements			Right Turns		
Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	1	154	350	1	154	350	1	1	Cont	1	87	200
AM NO BUILD Queue	1	224	325	1	224	325	1	216	325	1	112	200
AM BUILD Queue	1	246	350	1	246	350	1	216	325	1	112	200
Existing Lane Length	1	57	350	1	57	350	1	0	Cont	1	25	200
PM NO BUILD Queue	1	195	300	1	195	300	1	425	550	1	69	125
PM BUILD Queue	1	245	350	1	245	350	1	425	550	1	69	125

Westbound				Left Turns			Thru Movements			Right Turns		
Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	1	1	300	1	1	300	2	2	Cont	0	0	225
AM NO BUILD Queue	1	76	150	1	76	150	2	198	175	0	36	75
AM BUILD Queue	1	76	150	1	76	150	2	198	175	0	36	75
Existing Lane Length	1	3	300	1	3	300	2	2	Cont	0	0	225
PM NO BUILD Queue	1	200	300	1	200	300	2	523	400	0	99	175
PM BUILD Queue	1	200	300	1	200	300	2	523	400	0	100	175

Northbound				Left Turns			Thru Movements			Right Turns		
Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	2	27	300	2	27	300	4	1,711	Cont	0	2	540
AM NO BUILD Queue	2	116	125	2	116	125	4	1,956	725	0	29	75
AM BUILD Queue	2	116	125	2	116	125	4	2,003	750	0	29	75
Existing Lane Length	2	159	300	2	159	300	4	2,286	Cont	0	1	540
PM NO BUILD Queue	2	364	300	2	364	300	4	2,586	>1,000	0	53	100
PM BUILD Queue	2	364	300	2	364	300	4	2,693	>1,000	0	53	100

Southbound				Left Turns			Thru Movements			Right Turns		
Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	2	6	150	2	6	150	3	1,230	Cont	0	36	350
AM NO BUILD Queue	2	107	125	2	107	125	3	1,434	675	0	54	100
AM BUILD Queue	2	107	125	2	107	125	3	1,469	700	0	70	125
Existing Lane Length	2	3	150	2	3	150	3	1,818	Cont	0	136	350
PM NO BUILD Queue	2	198	175	2	198	175	3	2,176	>1,000	0	182	275
PM BUILD Queue	2	199	175	2	199	175	3	2,281	>1,000	0	231	325

AM
PM
 Cycle Length: 130 130

It is acceptable to reduce the calculated queue length by one-half to account for right-turns-on-red and overlap phases.

Intersection #4 – Eagle Ranch Rd. / Coors Blvd.

The results of the analysis of the signalized intersection of Eagle Ranch Rd. / Coors Blvd. are summarized in the following table:

Eagle Ranch Rd. / Coors Blvd.	AM Peak Hour		PM Peak Hour	
2008	<u>NO BUILD</u>	<u>BUILD</u>	<u>NO BUILD</u>	<u>BUILD</u>
Existing Geometry	A – 9.8	A – 9.4	C - 22.9	C - 24.4

C - 23.2 - Bold Italicized LOS denotes that one or more movements in the analysis run operated at Level-of-Service “E” or worse.

The intersection of Eagle Ranch Rd. / Coors Blvd. is not significantly impacted by the implementation of the Bosquecito Commercial Development. This study does not recommend major improvements for the intersection of Eagle Ranch Rd. / Coors Blvd.

The Queuing Analysis for this intersection results in the lanes length changes summarized in the following table:

Queueing Analysis Summary Sheet

Project: Bosquecito Commercial Development (Bosque Meadows Rd. / Coors Blvd.)
 Intersection: Eagle Ranch Rd. / Coors Blvd.

2008

Eastbound				Left Turns			Thru Movements			Right Turns		
Approach				# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
<i>Existing Lane Length</i>				1	14	140	1	8	Cont	1	217	140
AM NO BUILD Queue				1	16	50	1	9	25	1	259	375
AM BUILD Queue				1	16	50	1	9	25	1	273	375
<i>Existing Lane Length</i>				1	6	140	1	22	Cont	1	185	140
PM NO BUILD Queue				1	7	25	1	25	75	1	236	350
PM BUILD Queue				1	7	25	1	25	75	1	269	375
Westbound				# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
<i>Existing Lane Length</i>				1	19	900	1	1	Cont	0	41	0
AM NO BUILD Queue				1	31	75	1	1	0	0	48	100
AM BUILD Queue				1	35	75	1	1	0	0	48	100
<i>Existing Lane Length</i>				1	71	900	1	52	Cont	0	94	0
PM NO BUILD Queue				1	102	175	1	61	125	0	111	200
PM BUILD Queue				1	112	200	1	61	125	0	111	200
Northbound				# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
<i>Existing Lane Length</i>				1	106	300	3	1,339	Cont	1	4	450
AM NO BUILD Queue				1	129	200	3	1,591	750	1	11	50
AM BUILD Queue				1	140	225	3	1,610	750	1	14	50
<i>Existing Lane Length</i>				1	325	300	3	1,614	Cont	1	36	450
PM NO BUILD Queue				1	394	525	3	2,022	>1,000	1	58	125
PM BUILD Queue				1	427	550	3	2,078	>1,000	1	68	125
Southbound				# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
<i>Existing Lane Length</i>				1	29	175	3	962	Cont	0	5	0
AM NO BUILD Queue				1	31	75	3	1,115	550	0	5	25
AM BUILD Queue				1	31	75	3	1,140	575	0	5	25
<i>Existing Lane Length</i>				1	152	175	3	1,900	Cont	0	11	0
PM NO BUILD Queue				1	161	250	3	2,205	>1,000	0	12	50
PM BUILD Queue				1	161	250	3	2,262	>1,000	0	12	50

AM
PM
 Cycle Length: 130 130

It is acceptable to reduce the calculated queue length for right turn movements by one-half to account for right-turns-on-red and overlap phases.

The length of the northbound left turn lane on Coors Blvd. at Eagle Ranch Rd. should be increased from 300 feet long to 550 feet long.

Intersection #5 - SIPI Entrance / Coors Blvd.

The results of the analysis of the signalized intersection of SIPI Entrance / Coors Blvd. are summarized in the following table:

SIPI Entrance / Coors Blvd.	AM Peak Hour		PM Peak Hour	
	2008			
Existing Geometry		<u>NO BUILD</u>	<u>BUILD</u>	<u>NO BUILD</u>
		A - 7.8	A - 7.7	A - 8.9
				A - 9.4

C - 23.2 - Bold Italicized LOS denotes that one or more movements in the analysis run operated at Level-of-Service "E" or worse.

The intersection of SIPI Entrance / Coors Blvd. is insignificantly impacted by the implementation of the Bosquecito Commercial Development. This study does not recommend improvements for the intersection of SIPI Entrance / Coors Blvd. The intersection is projected to operate at satisfactory levels-of-service for all conditions analyzed in this study.

It should be noted that, according to the current Coors Corridor Plan, the intersection of the SIPI Entrance / Coors Blvd. is designated to become a right-turn-in, right-turn-out driveway at some time in the future. The signal at the intersection of the SIPI Entrance / Coors Blvd. is temporary based on the stipulations of the Coors Corridor Plan.

The Queuing Analysis for this intersection results in the lanes length changes summarized in the following table:

Queueing Analysis Summary Sheet

Project: Bosquecito Commercial Development (Bosque Meadows Rd. / Coors Blvd.)
 Intersection: SIPPI Entr. / Coors Blvd.

2008

Eastbound				Left Turns			Thru Movements			Right Turns		
Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	0	0	0	0	0	0	0	0	Cont	0	0	0
AM NO BUILD Queue	0	0	0	0	0	0	0	0	0	0	0	0
AM BUILD Queue	0	0	0	0	0	0	0	0	0	0	0	0
Existing Lane Length	0	0	0	0	0	0	0	0	Cont	0	0	0
PM NO BUILD Queue	0	0	0	0	0	0	0	0	0	0	0	0
PM BUILD Queue	0	0	0	0	0	0	0	0	0	0	0	0
Westbound				Left Turns			Thru Movements			Right Turns		
Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	1	68	115	0	0	0	0	0	Cont	1	179	150
AM NO BUILD Queue	1	83	150	0	0	0	0	0	0	1	217	325
AM BUILD Queue	1	84	150	0	0	0	0	0	0	1	217	325
Existing Lane Length	1	128	115	0	0	0	0	0	Cont	1	109	150
PM NO BUILD Queue	1	158	250	0	0	0	0	0	0	1	132	225
PM BUILD Queue	1	160	250	0	0	0	0	0	0	1	132	225
Northbound				Left Turns			Thru Movements			Right Turns		
Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	0	0	0	3	1,402	Cont	3	1,402	Cont	1	115	500
AM NO BUILD Queue	0	0	0	3	1,627	775	3	1,627	775	1	134	225
AM BUILD Queue	0	0	0	3	1,645	775	3	1,645	775	1	135	225
Existing Lane Length	0	0	0	3	1,378	Cont	3	1,378	Cont	1	89	500
PM NO BUILD Queue	0	0	0	3	1,614	750	3	1,614	750	1	106	175
PM BUILD Queue	0	0	0	3	1,668	775	3	1,668	775	1	108	175
Southbound				Left Turns			Thru Movements			Right Turns		
Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	1	215	300	3	955	Cont	3	955	Cont	0	0	0
AM NO BUILD Queue	1	230	325	3	1,033	525	3	1,033	525	0	0	0
AM BUILD Queue	1	230	325	3	1,057	525	3	1,057	525	0	0	0
Existing Lane Length	1	225	300	3	1,897	Cont	3	1,897	Cont	0	0	0
PM NO BUILD Queue	1	241	350	3	2,055	>1,000	3	2,055	>1,000	0	0	0
PM BUILD Queue	1	241	350	3	2,110	>1,000	3	2,110	>1,000	0	0	0

AM
PM
 Cycle Length: 130 130

It is acceptable to reduce the calculated queue length of the right turn movement by one-half to account for right-turns-on-red and overlap phases.

Intersection #6 - Paseo del Norte / Coors Blvd.

The results of the analysis of the signalized intersection of Paseo del Norte / Coors Blvd. are summarized in the following table:

Paseo del Norte / Coors Blvd.		AM Peak Hour		PM Peak Hour	
	2008	NO BUILD	BUILD	NO BUILD	BUILD
Existing Geometry		<i>F - 121</i>	<i>F - 121</i>	<i>D - 50.9</i>	<i>D - 53.1</i>

C - 23.2 - Bold Italicized LOS denotes that one or more movements in the analysis run operated at Level-of-Service "E" or worse.

The intersection of Paseo del Norte / Coors Blvd. is on the extreme north edge of the market area for this project. As a result, there is very little traffic generated by the proposed Bosquecito Commercial Development that travels through the intersection of Paseo del Norte / Coors Blvd. Therefore, the impact is minimal.

The Queuing Analysis for this intersection results in the lanes length changes summarized in the following table:

RESULTS OF UNSIGNALIZED INTERSECTION (DRIVEWAY) CAPACITY ANALYSES

Intersection #7 – Bosque Meadows Rd. / Coors Blvd.

The results of the analysis of the unsignalized intersection of Bosque Meadows Rd. / Coors Blvd. are summarized in the following table:

	2008 BUILD		2008 BUILD	
	AM	PM	AM	PM
Bosque Meadows Rd. / Coors Blvd.				
Minor Street (Bosque Meadows Rd.)				
WB Left	N/A	N/A	F - *	F - *
WB Right	N/A	N/A	C - 16.4	D - 26.4
Major Street (La Orilla Rd.)				
SB Left	N/A	N/A	E - 39.6	F - *

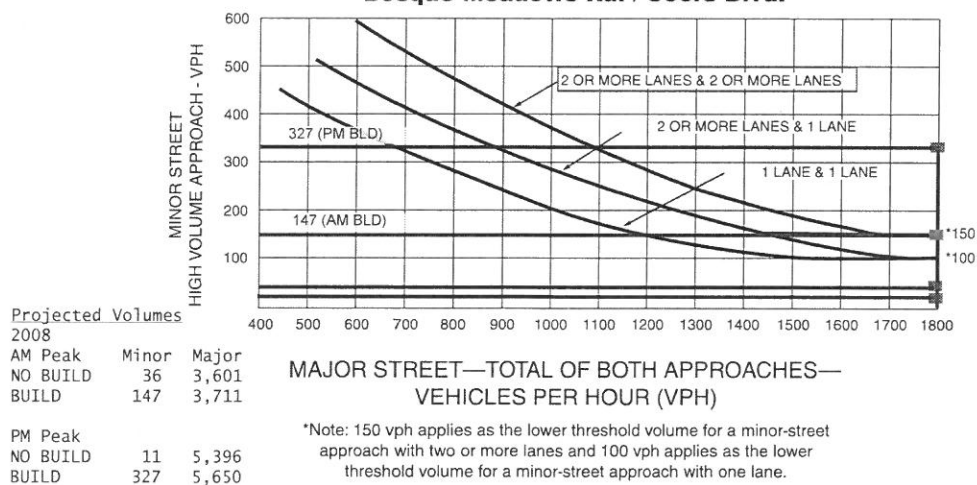
The westbound left turn from Driveway "A" is projected to operate at LOS "F" for the 2008 AM and PM Peak Hour BUILD Conditions associated with this project. Since the delays at this intersection are projected to be excessive, a traffic signal warrant analysis was performed utilizing the Peak Hour Warrant Criteria from the Manual on Uniform Traffic Control Devices (2003 Edition). Following is the Peak Hour Warrant Graph with the projected 2008 NO BUILD and BUILD Volumes plotted:

December 2000

Bosquecito Commercial Development

Page 4C-9

**Figure 4C-3. Warrant 3, Peak Hour
Bosque Meadows Rd. / Coors Blvd.**



Traffic Signal is Warranted based on Projected 2008 Volumes

A traffic signal is warranted based on the projected 2008 PM Peak Hour Volumes at the intersection of Bosque Meadows Rd. / Coors Blvd.

The intersection of Bosque Meadows Rd. / Coors is located approximately 2,850 feet to the north of the signalized intersection of La Orilla Rd. / Coors Blvd. It is located

approximately 2,750 feet south of the signalized intersection of Eagle Ranch Rd. / Coors Blvd. The location of Bosque Meadows Rd. is favorable for signalization due to its spacing between La Orilla Rd. and Eagle Ranch Rd.

This study recommends that the City and the New Mexico Department of Transportation consider permitting the construction of a new traffic signal at this location. Signalization of the intersection will result in the following operational delays and levels-of-service:

Bosque Meadows Rd. / Coors Blvd. 2008	AM Peak Hour		PM Peak Hour	
	NO BUILD	BUILD	NO BUILD	BUILD
Recommended Geometry	N/A	A - 4.0	N/A	B - 14.4

C - 23.2 - Bold Italicized LOS denotes that one or more movements in the analysis run operated at Level-of-Service "E" or worse.

The Queuing Analysis for this intersection results in the lanes length changes summarized in the following table:

Queueing Analysis Summary Sheet

Project: Bosquecito Commercial Development (Bosque Meadows Rd. / Coors Blvd.)
 Intersection: Bosque Meadows / Coors Blvd.

2008

<u>Eastbound</u>				<u>Left Turns</u>			<u>Thru Movements</u>			<u>Right Turns</u>		
<u>Approach</u>	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	0	0	0	0	0	Cont	0	0	0	0	0	0
AM NO BUILD Queue	0	0	0	0	0	0	0	0	0	0	0	0
AM BUILD Queue	0	0	0	0	0	0	0	0	0	0	0	0
Existing Lane Length	0	0	0	0	0	Cont	0	0	0	0	0	0
PM NO BUILD Queue	0	0	0	0	0	0	0	0	0	0	0	0
PM BUILD Queue	0	0	0	0	0	0	0	0	0	0	0	0
<u>Westbound</u>				<u>Left Turns</u>			<u>Thru Movements</u>			<u>Right Turns</u>		
<u>Approach</u>	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	2	21	N/A	0	0	Cont	0	0	0	1	26	N/A
AM NO BUILD Queue	2	22	50	0	0	0	0	0	0	1	28	75
AM BUILD Queue	2	117	125	0	0	0	0	0	0	1	59	125
Existing Lane Length	2	7	N/A	0	0	Cont	0	0	0	1	8	N/A
PM NO BUILD Queue	2	7	25	0	0	0	0	0	0	1	8	25
PM BUILD Queue	2	291	250	0	0	0	0	0	0	1	71	125
<u>Northbound</u>				<u>Left Turns</u>			<u>Thru Movements</u>			<u>Right Turns</u>		
<u>Approach</u>	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	0	0	0	4	1,635	Cont	0	5	225			
AM NO BUILD Queue	0	0	0	4	1,797	675	0	5	25			
AM BUILD Queue	0	0	0	4	1,762	675	0	108	175			
Existing Lane Length	0	0	0	4	2,223	Cont	0	21	225			
PM NO BUILD Queue	0	0	0	4	2,559	>1,000	0	22	50			
PM BUILD Queue	0	0	0	4	2,480	900	0	258	375			
<u>Southbound</u>				<u>Left Turns</u>			<u>Thru Movements</u>			<u>Right Turns</u>		
<u>Approach</u>	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	1	14	225	3	1,598	Cont	0	0	0			
AM NO BUILD Queue	1	15	50	3	1,784	825	0	0	0			
AM BUILD Queue	1	114	200	3	1,727	800	0	0	0			
Existing Lane Length	1	25	225	3	2,447	Cont	0	0	0			
PM NO BUILD Queue	1	26	75	3	2,789	>1,000	0	0	0			
PM BUILD Queue	1	254	350	3	2,658	>1,000	0	0	0			

AM
PM
 Cycle Length: 130 130

The intersection of Bosque Meadows Rd. / Coors Blvd., if reconstructed and signalized, should be constructed with left turn and right turn auxiliary lanes that will accommodate the calculated queue lengths defined in the preceding table. The calculated right turn queue length can be reduced by one-half to account for right-turns-on-red and overlap phases. However, the minimum length of right turn lane should be 150 feet.

Intersection #8 – Bosque Meadows Rd. / Bosque Meadows Pl.

The results of the analysis of the unsignalized intersection of Bosque Meadows Rd. / Bosque Meadows Pl. are summarized in the following table:

	2008 NO BUILD		2008 BUILD	
	AM	PM	AM	PM
Bosque Meadows Rd. / Bosque Meadows Pl.				
Minor Street (Bosque Meadows Pl.)				
NB Left	N/A	N/A	B – 11.6	C – 19.2
NB Right	N/A	N/A	B – 11.6	C – 19.2
Major Street (Bosque Meadows Rd.)				
WB Left	N/A	N/A	A – 1	A – 1

Intersection #9 – Bosque Meadows Rd. / Driveway "A"

The results of the analysis of the unsignalized intersection of Bosque Meadows Rd. / Driveway "A" are summarized in the following table:

	2008 BUILD	
	AM	PM
Bosque Meadows Rd. / Driveway "A"		
Minor Street (Driveway "A")		
SB Left	B – 12.8	D – 28.9
SB Right	A – 8.9	B – 10.4
Major Street (Bosque Meadows Rd.)		
EB Left	A – 7.6	A – 8.4

Intersection #10 – Driveway “B” / Coors Blvd.

The results of the analysis of the unsignalized intersection of Driveway “B” / Coors Blvd. are summarized in the following table:

Right-in, right-out only

	2008 BUILD	
	AM	PM
Driveway “C” / Coors Blvd.		
Minor Street (Driveway “C”)		
WB Right	B – 10.7	C – 15.0
Major Street (Coors Blvd.)		
SB Left	N/A	N/A

The approved Coors Corridor Plan adopted by the City of Albuquerque in 1989 states that “driveways shall not be permitted within 400 feet on the approach to a major signalized intersection and within 150 feet on the departure side.” Driveway “C” should, therefore, be located a minimum of 150 feet south of La Orilla Rd (on the west side of Coors, or the departure side) to meet the requirements of the Coors Corridor Plan.

However, the New Mexico Department of Transportation’s State Access Management Manual requires a northbound right turn deceleration lane into Driveway “B” that is required to be constructed to a length of 550 feet plus a 16.5:1 transition taper. Therefore, the new right-turn-in, right-turn-out Driveway “B” should be constructed a minimum distance of 800 feet north of Bosque Meadows Rd. to accommodate the northbound right turn deceleration lane.

It should be noted that Levels of Service (LOS) for unsignalized intersections cannot be compared directly with Levels of Service for signalized intersections.

LEVEL-OF-SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS

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

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

COORS CORRIDOR PLAN UPDATE

Recently, efforts have been made to update the Coors Corridor Plan to address modern Transit linkages, respect the river Bosque as it abuts the Rio Grande Valley State Park, recognize Coors as a commuter route with limited access, provide updated guidelines for pedestrian crossings and pedestrian safety, and provide a plan that is easy to follow. Since November, 2005, there have been four public hearings relative to the Coors Corridor Plan Update. A report on the first meeting held on November 1, 2005 and the second meeting (Design Workshop) held on December 9, 2005 are included at the back of the Appendix of this report. Also, a copy of Pages 50 through 59 of the draft report is included in the back of the Appendix of this report. Section C on Page 53 of the report

states that 'Driveways shall not be permitted within 400 feet of the approach and departure sides of a signalized intersection. Since this report finds that a traffic signal is warranted at the intersection of Bosque Meadows Rd. / Coors, then it is considered possible that the intersection may be signalized in the future. A right-turn-in, right-turn-out driveway is proposed on this project approximately 800 feet north of Bosque Meadows Rd. which meets the new criteria in the updated plan. However, on Page 56 of the draft report, Section E (Intersection Spacing) states that "Partial intersections shall be spaced a minimum distance of approximately one-quarter mile from full access intersections or from other partial-access intersections." This statement seems inconsistent with the previous statement regarding the location of driveways relative to signalized intersections. Since the document is in draft form at this time, it is assumed that the matter will be resolved in the final version which closely approximates one of the two statements in the draft.

The proposed right-turn-in, right-turn-out driveway on this project at a distance of approximately 800 feet north of Bosque Meadows Rd. which locates it approximately midway between Bosque Meadows Rd. and Caminito Coors to the north. Locating the driveway at a distance of one-quarter mile north of Bosque Meadows Rd. will push the driveway too close to the next intersection to the north.

CONCLUSIONS

The results of this analysis of the adjacent transportation system associated with this proposed commercial development indicates that there will be moderate operational problems along Coors Blvd. at the intersections analyzed in this study. The major factor contributing to these problems is the shortage of thru lanes on Coors Blvd. from Dellyne Ave. to Paseo del Norte. Coors Blvd. should be an eight-lane facility north of Dellyne. This analysis indicated that the impact of this development at Bosque Meadows Rd. / Coors Blvd. caused minimal impact at the intersections of Montano Rd. / Coors Blvd., Montano Plaza / Coors Blvd., Eagle Ranch Rd. / Coors Blvd., and Paseo del Norte / Coors Blvd. Therefore, no major improvements will be recommended for those intersections.

The impact of this development on the intersection of Bosque Meadows Rd. / Coors Blvd. is significant. This study recommends that the City of Albuquerque and the New Mexico Department of Transportation consider approving the installation of a traffic signal at the intersection of Bosque Meadows Rd. / Coors Blvd. since the Peak Hour Warrant criteria was satisfied by the projected 2008 PM Peak Hour BUILD Volumes.

In summary, the proposed site development plan for this development present minimized adverse impact to the adjacent transportation system if the recommendations (for the year 2008) are implemented as follows:

RECOMMENDATIONS

- All design and construction for this project shall maintain adequate site distances at the proposed driveways along Bosque Meadows Rd. and along Coors Blvd. to the extent possible.
- Driveways shall be constructed using a minimum of 25-foot radius curb returns or larger if required for delivery trucks.

- The proposed driveway (Driveway "B") on Coors Blvd. shall be restricted to a right-turn-in, right-turn-out movements only. To comply with the current Coors Corridor Plan, it should be located a minimum of 150 feet south of La Orilla Rd. However, a northbound right turn deceleration lane is warranted on Coors Blvd. at Driveway "B". The right turn deceleration lane will be required to be constructed to the standards established by the New Mexico Department of Transportation's State Access Management Manual. The minimum length of the southbound right turn deceleration lane required by the New Mexico Department of Transportation is 550 feet plus transition (16.5:1 taper). Therefore, Driveway "B" should be located a minimum of approximately 800 feet north of Bosque Meadows Rd.
- The proposed driveway (Driveway "A") on Bosque Meadows Rd. should be a full access unsignalized driveway designed to serve as primary access to this project. An eastbound left turn lane should be constructed on Bosque Meadows Rd. at Driveway "A". The eastbound left turn lane should be constructed to a length of 150 feet plus transition if possible. The north leg of Driveway "A" should be constructed with two southbound approach lanes (one for left turns and one for right turns) and one northbound lane.
- The City of Albuquerque and the New Mexico Department of Transportation should consider approving the installation of a new traffic signal at Bosque Meadows Rd. / Coors Blvd. If signalized, intersection of Bosque Meadows Rd. / Coors Blvd. should be modified to provide the geometry summarized in the following table:

Recommended Geometry (Bosque Meadows Rd. / Coors Blvd.)

Approach	Left Turn Lanes	Thru/Lefts	Thru Lanes	Thru/Rights	Right Turn Lanes
EB N/A	0	0	0	0	0
WB Bosque Meadows Rd.	2	0	0	0	1
NB Coors Blvd.	0	0	3	0	1
SB Coors Blvd.	1	0	3	0	0

Also, right turn overlaps should be provided at the signal for the westbound right turn movements at the intersection.

The length of the existing northbound left turn lane on Coors Blvd. at Eagle Ranch Rd. should be lengthened to achieve a total length for a single left turn lane of 550 feet.

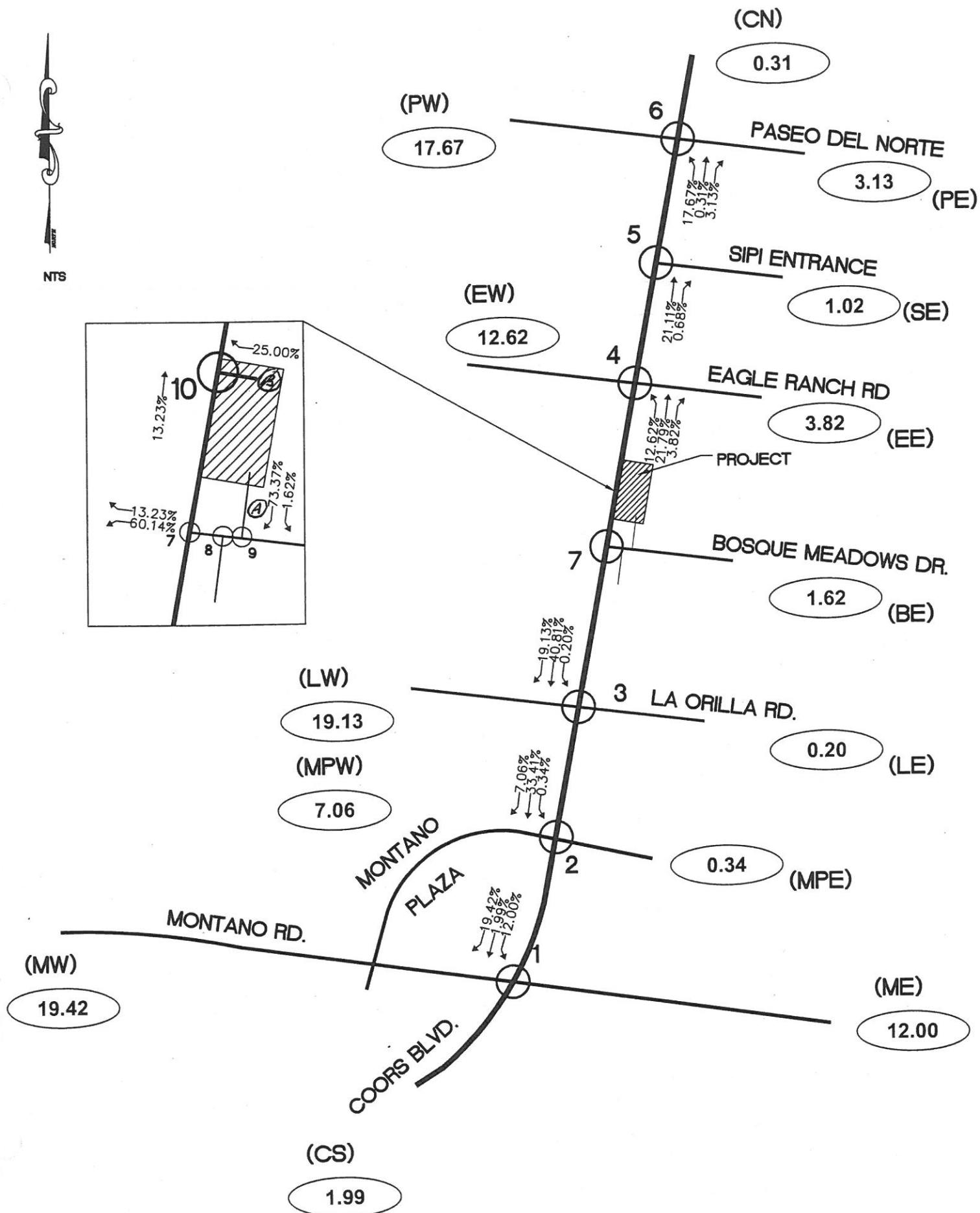
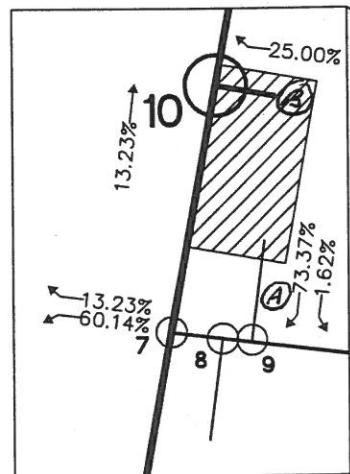
Appendix

<u>SITE INFORMATION</u>	
Vicinity Maps	A-1 thru A-2
2005 AWDT Map	A-2a
Long Range Roadway System for the Albuquerque Urban Area	A-2b
<u>TRIP GENERATION / TRIP DISTRIBUTION / TRIP ASSIGNMENTS</u>	
Trip Generation Summary Table	A-3
Trip Generation Worksheets	A-4 thru A-5
<u>TRIP DISTRIBUTION</u>	
Data Analysis Subzone Map (Commercial Trip Distribution)	A-6
Trip Distribution Worksheet for Commercial Trips	A-7 thru A-10
Commercial Trip Distribution Map	A-11
Commercial Trip Assignments (% Entering)	A-12
Commercial Trip Assignments (% Exiting)	A-13
<u>ANNUAL GROWTH RATE</u>	
Traffic Flow Table for Bosquecito Development	A-14
Growth Charts for Roadway Segments	A-15 thru A-24
Annual Growth Rate Map	A-25
<u>TURNING MOVEMENT VOLUMES</u>	
2008 Turning Movement Volumes Summary Sheets	A-26 thru A-28
2008 Turning Movement Volumes Worksheets	A-29 thru A-48
<u>SIGNALIZED / UNSIGNALIZED INTERSECTION ANALYSES</u>	
2008 AM Peak Hour NO BUILD Analysis	A-49 thru A-55
2008 AM Peak Hour BUILD Analysis	A-56 thru A-64
2008 PM Peak Hour NO BUILD Analysis	A-65 thru A-71
2008 PM Peak Hour BUILD Analysis	A-72 thru A-82
Peak Hour Signal Warrant Graph – Bosque Meadows Rd. / Coors Blvd.	A-83
<u>AUXILIARY LANE WARRANT ANALYSES</u>	
Auxiliary Lane Warrants and Supporting Tables	A-84 thru A-85
<u>Supporting Data</u>	
Scoping Letter from City of Albuquerque	
Supporting Hourly Traffic Count Data and Intersection Geometry Data	A-86 thru A-104
Information Related to New Coors Corridor Plan Update	A-105 thru A-124

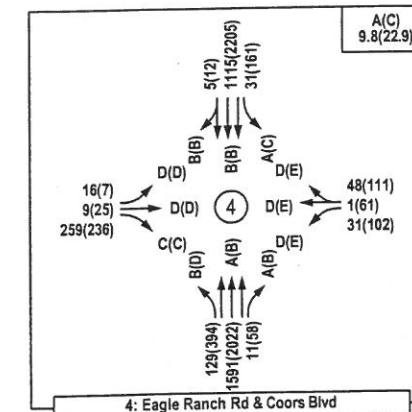
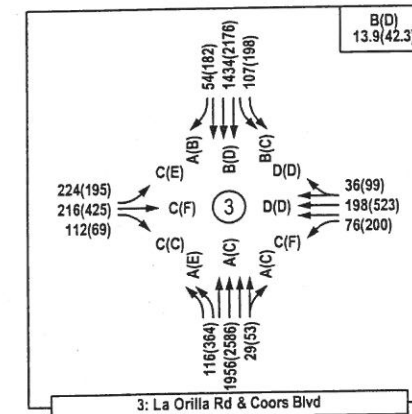
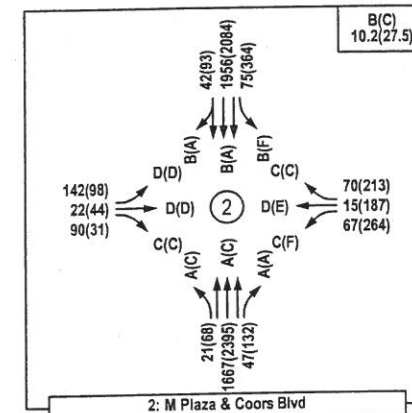
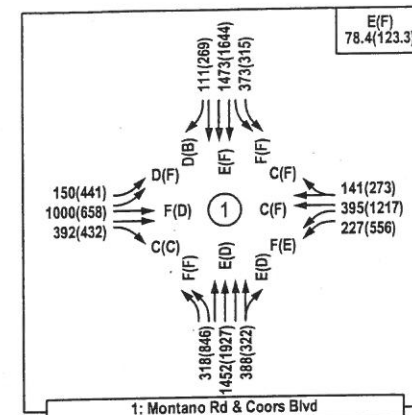
Appendix



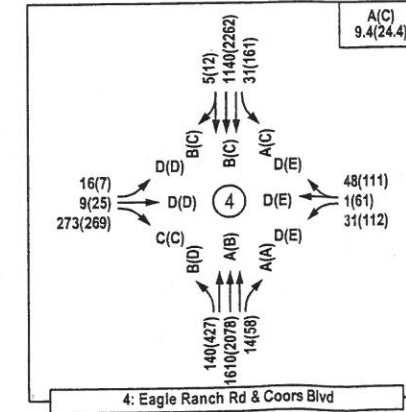
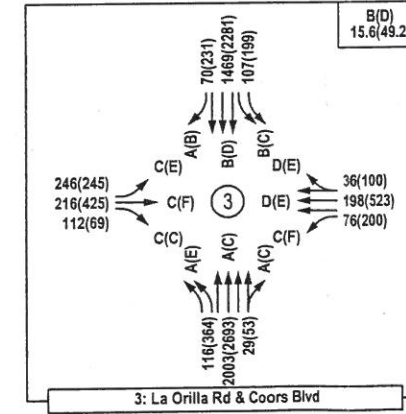
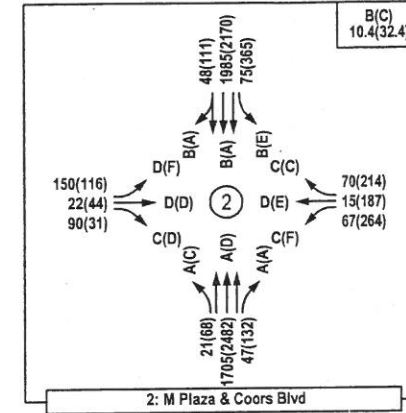
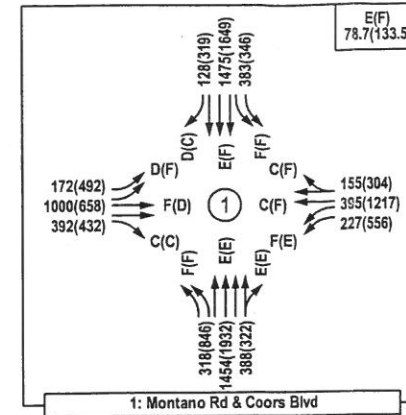
NTS



NO BUILD Analysis



BUILD Analysis



BUILD Analysis (Mitigated)

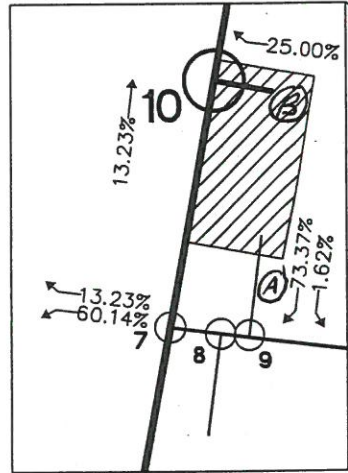
NO MITIGATION
RECOMMENDED

NO MITIGATION
RECOMMENDED

NO MITIGATION
RECOMMENDED

NO MITIGATION
RECOMMENDED

Basqueita Commercial Development
Bosque Meadows Rd. / Coors Blvd.
2008 AM (PM) LOS / Volume Analysis Map



(PW)

17.67

4)
1)

(E)

A(B)
0.2(1.1)

7(165)

(0)

BUILD Analysis
(Mitigated)

PROPOSED DRIVEWAY

PROPOSED DRIVEWAY

(LW)

19.13

(MPW)

7.06

MONTANO
PLAZA

(MW)

19.42

MONTANO RD.

COORS BLVD.

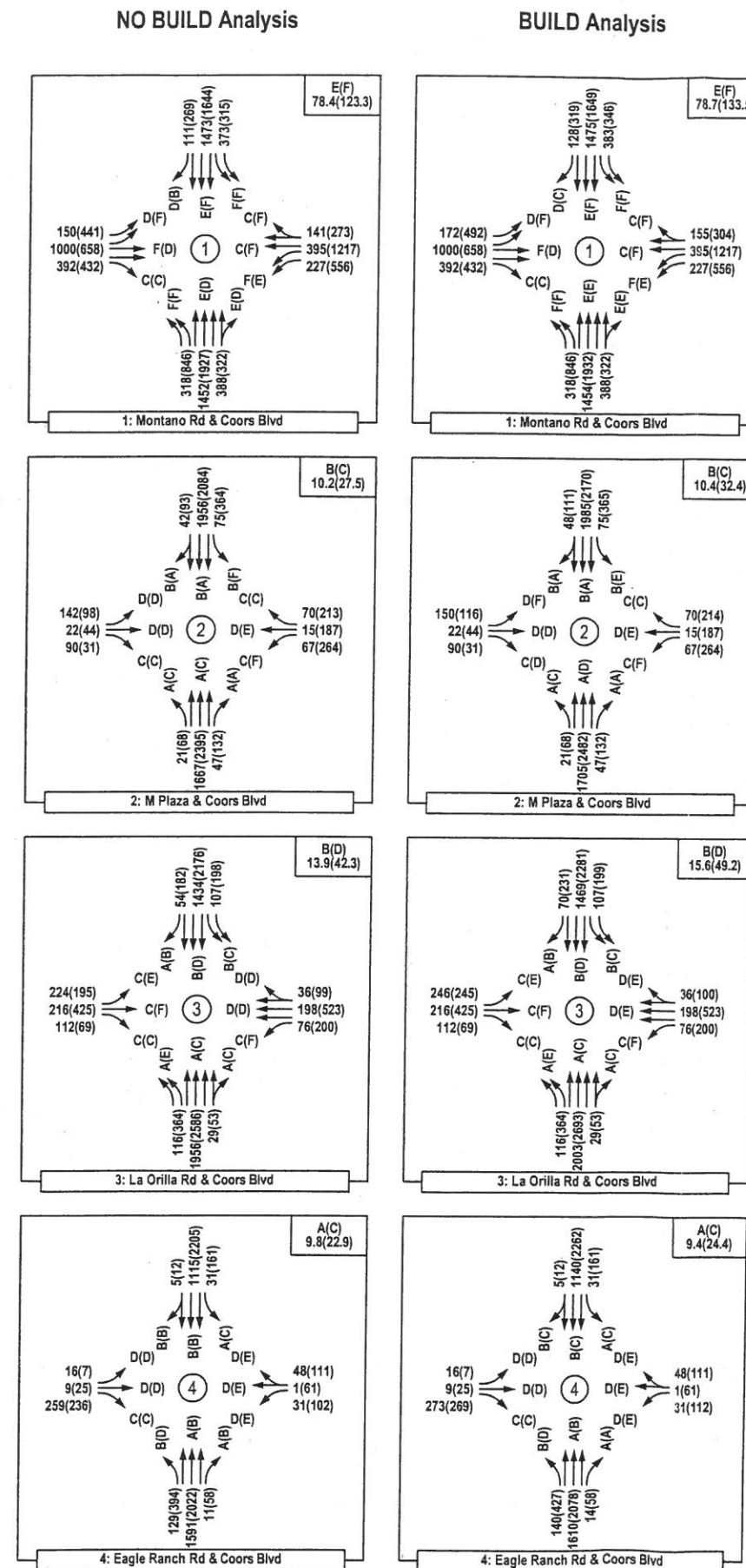
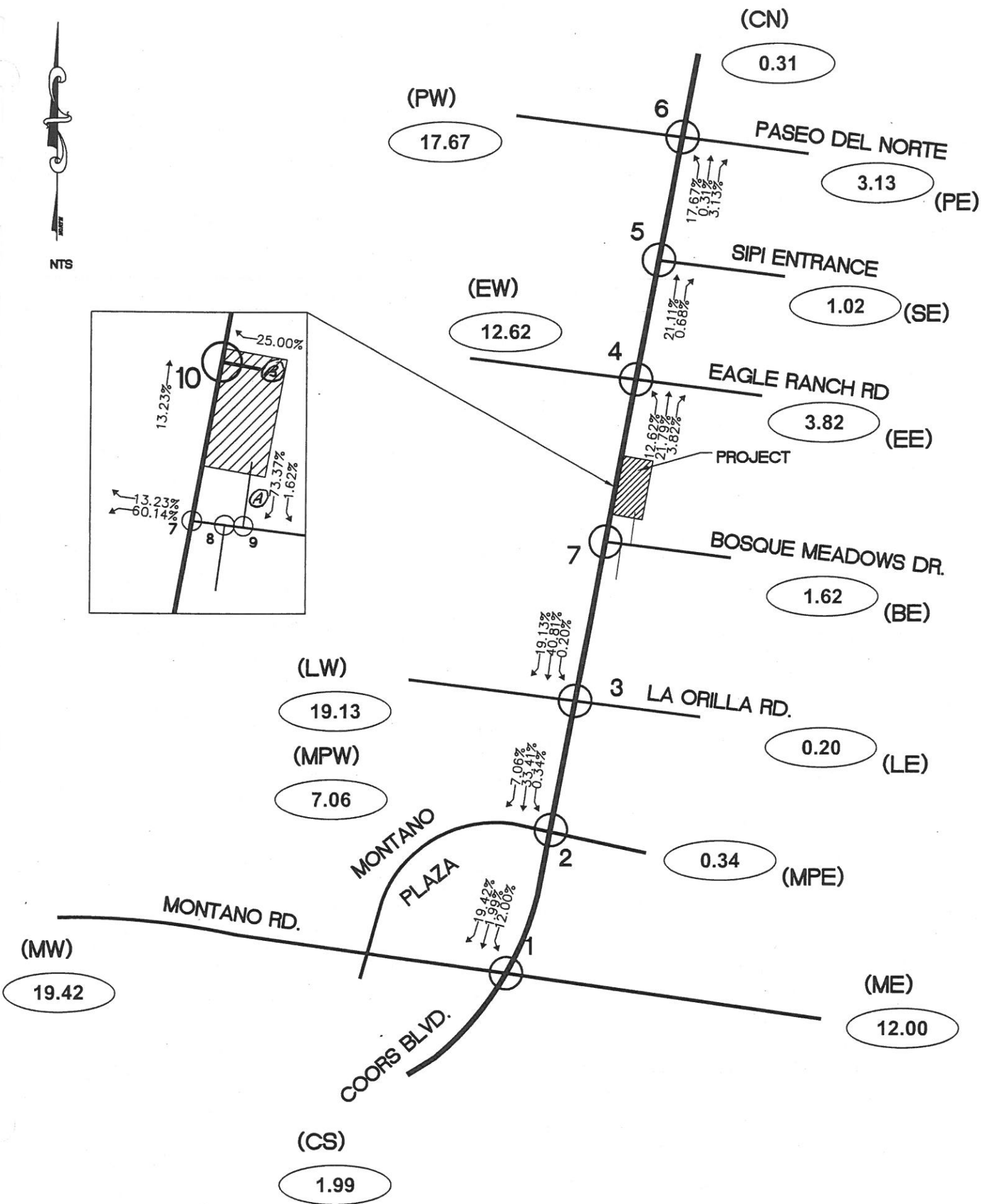
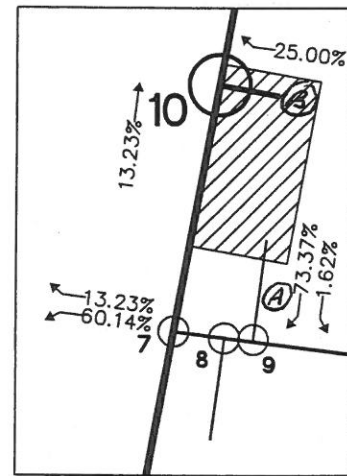
(CS)

1.99

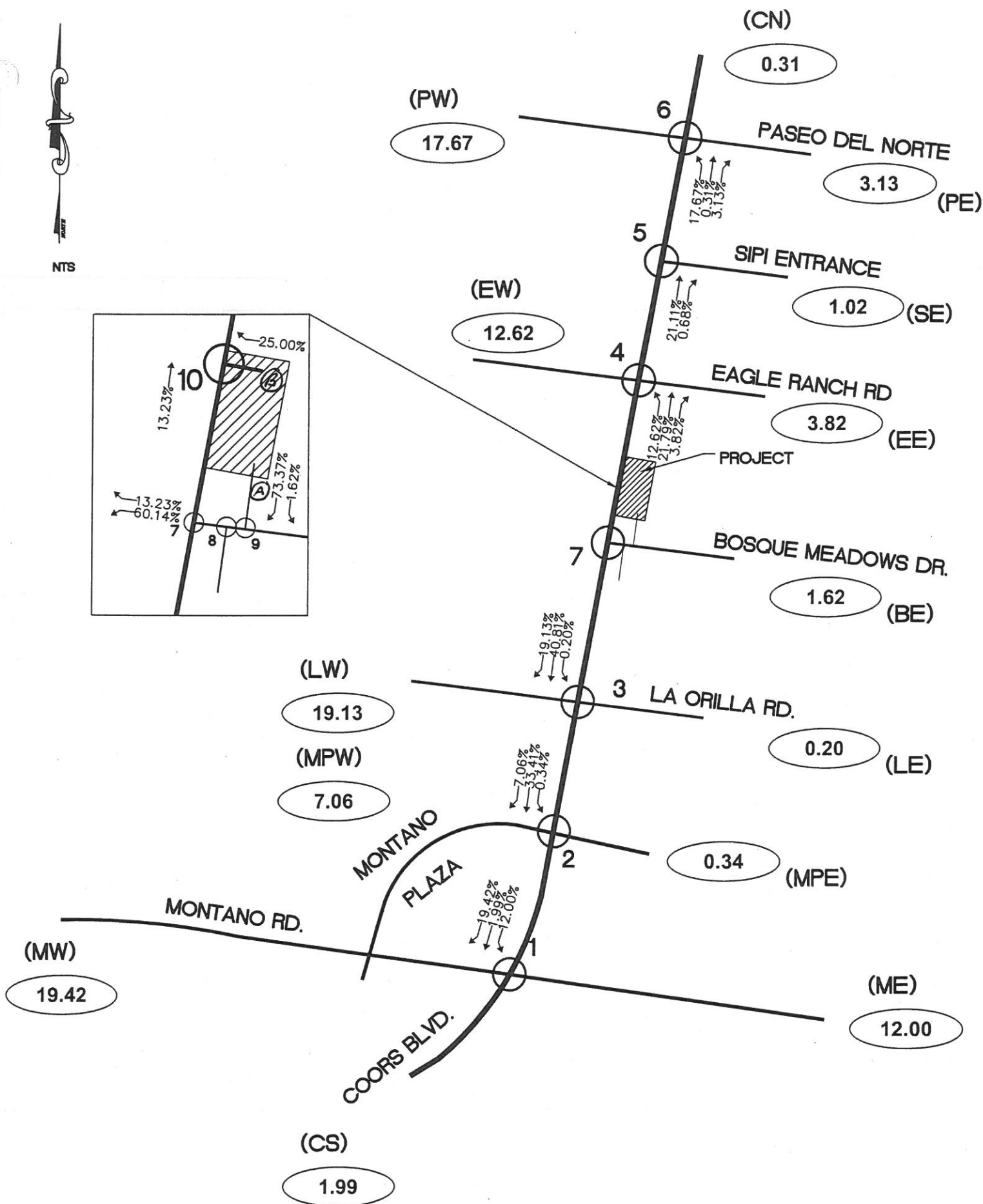
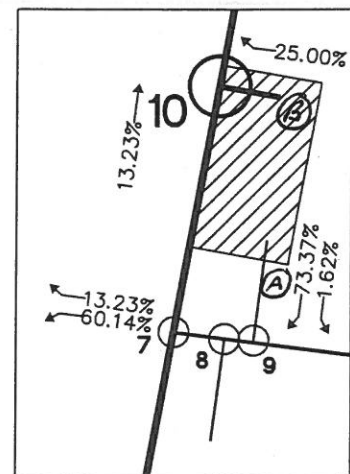
Bosquecita Commercial Development

Bosque Meadows Rd. / Coors Blvd.

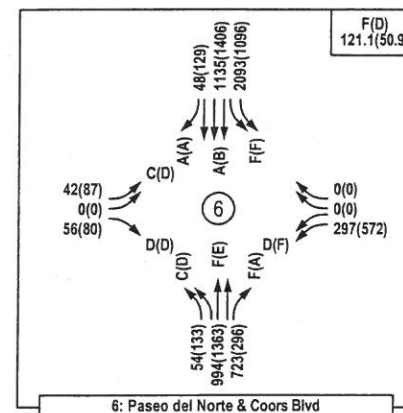
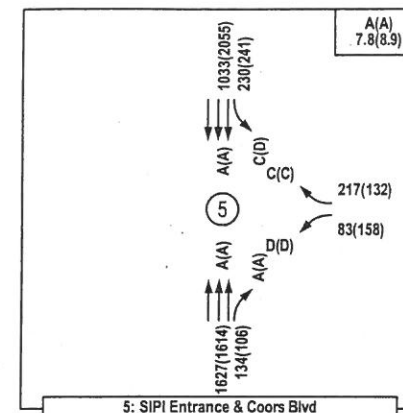
2008 AM (PM) LOS / Volume Analysis Map



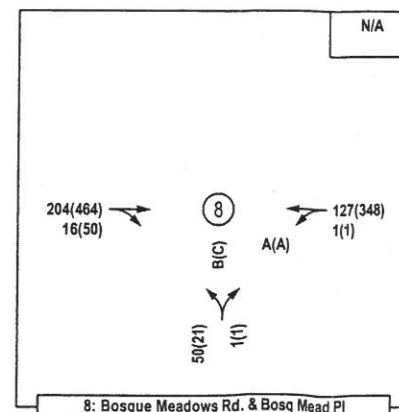
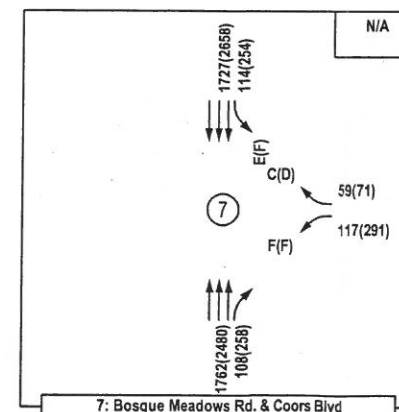
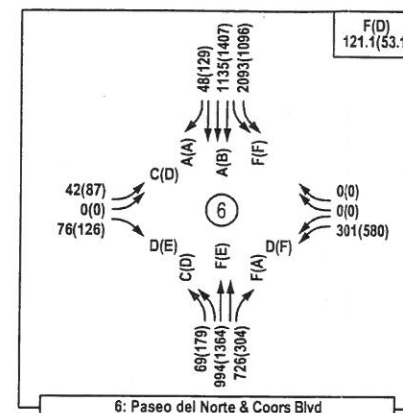
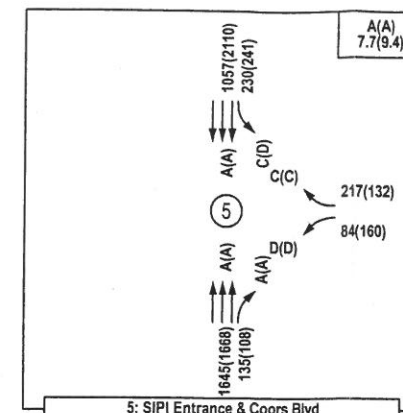
Basqueita Commercial Development
 Bosque Meadows Rd. / Coors Blvd.
 2008 AM (PM) LOS / Volume Analysis Map



NO BUILD Analysis



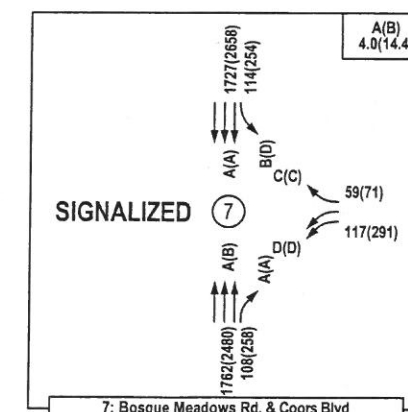
BUILD Analysis



BUILD Analysis (Mitigated)

NO MITIGATION RECOMMENDED

NO MITIGATION RECOMMENDED

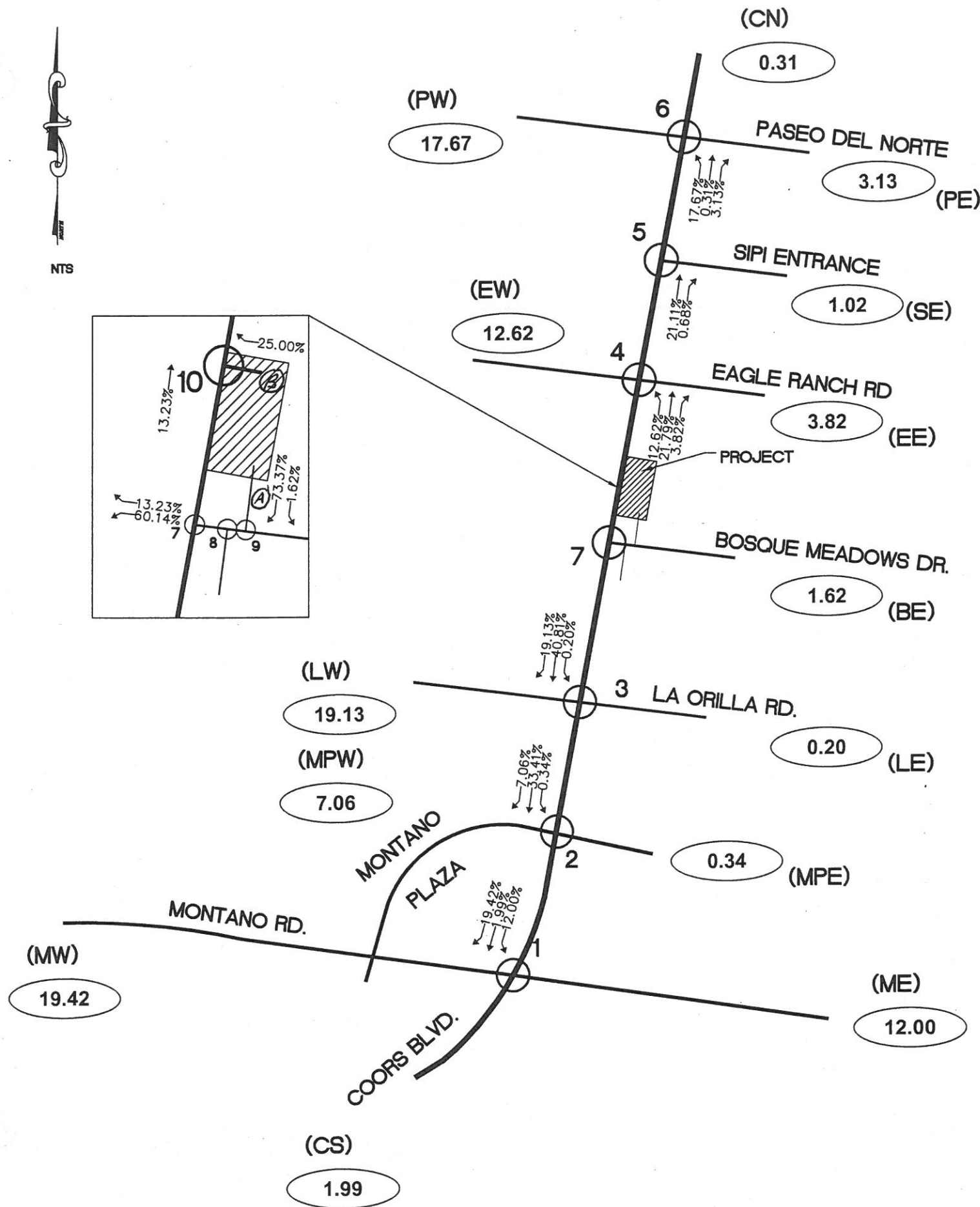
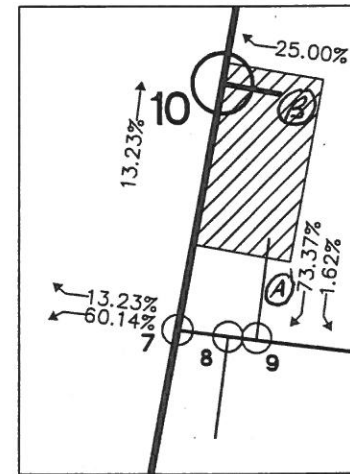


NO MITIGATION RECOMMENDED

Bosque Meadows Commercial Development

Bosque Meadows Rd. / Coors Blvd.

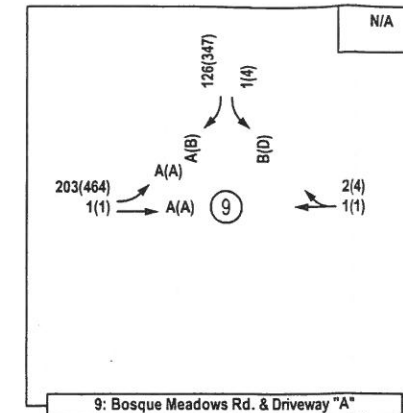
2008 AM (PM) LOS / Volume Analysis Map



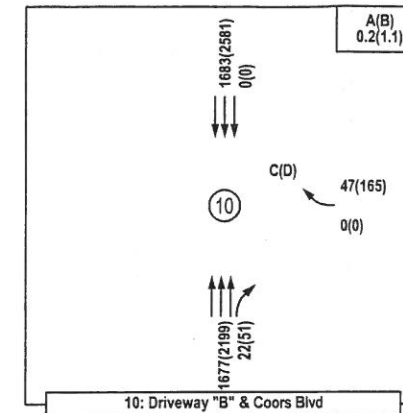
NO BUILD Analysis

BUILD Analysis

BUILD Analysis
(Mitigated)

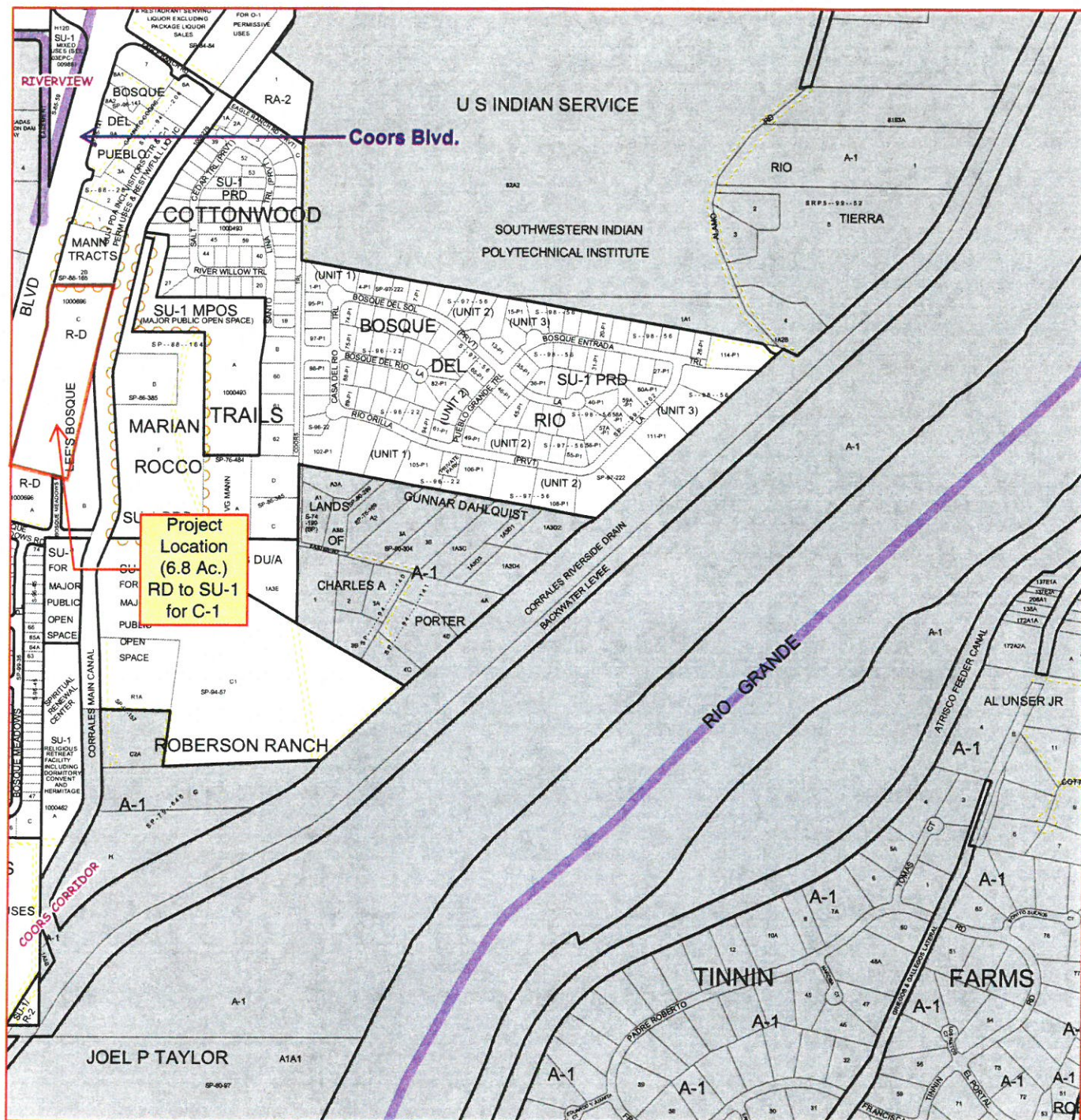


PROPOSED DRIVEWAY

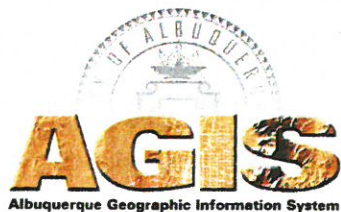


PROPOSED DRIVEWAY

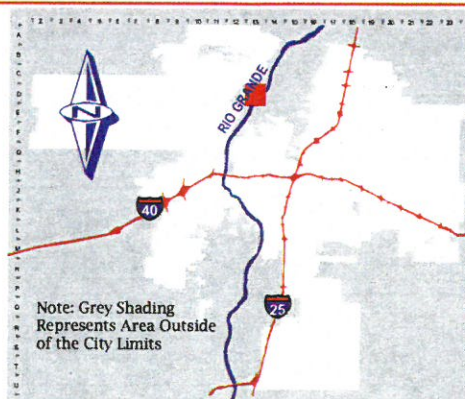
Bosque Meadows Commercial Development
Bosque Meadows Rd. / Coors Blvd.
2008 AM (PM) LOS / Volume Analysis Map



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



Map amended through: 11/2/2005

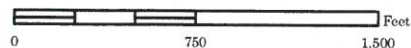


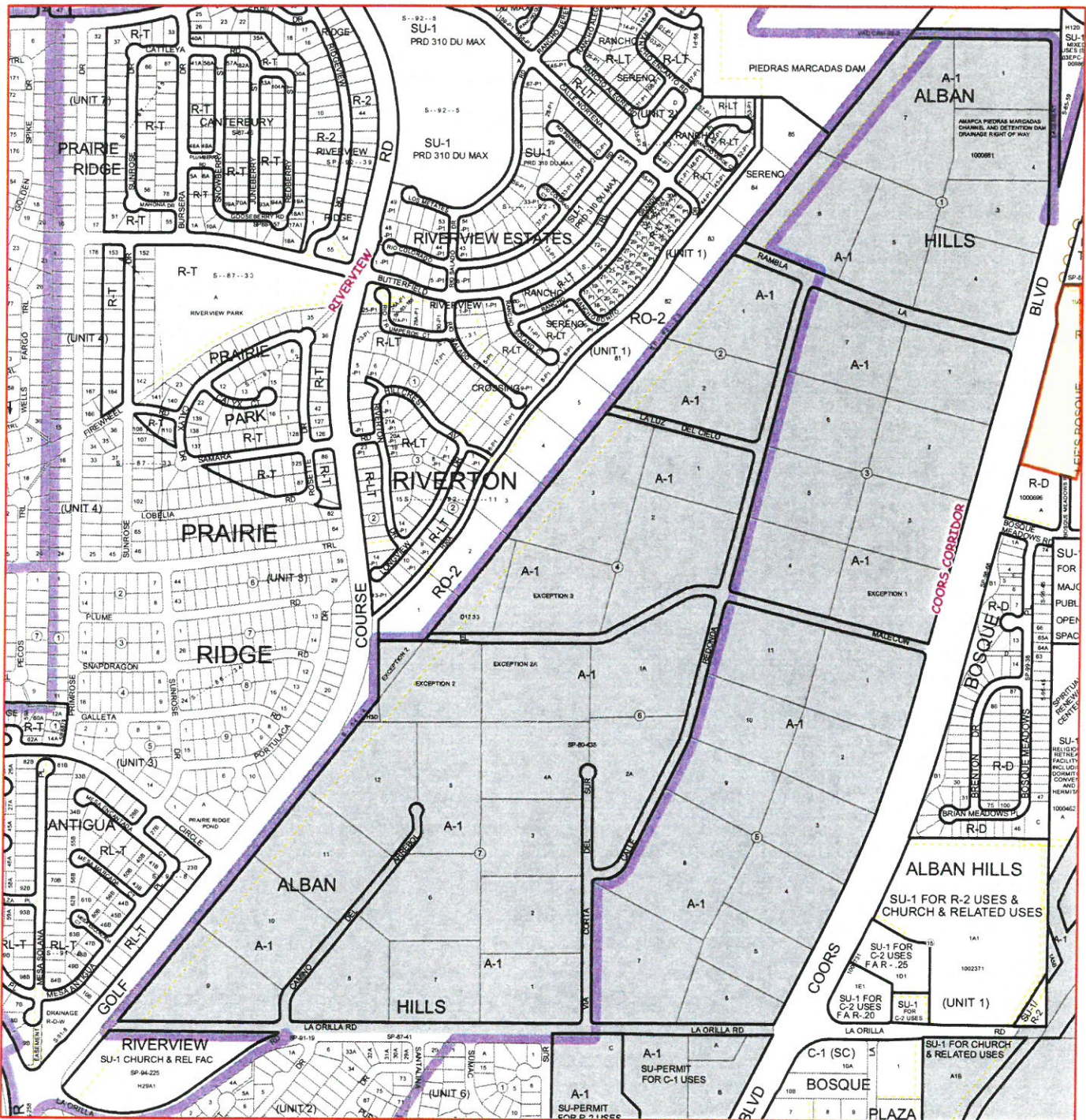
Zone Atlas Page:

D-13-Z

Selected Symbols

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





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

Zone Atlas Page:

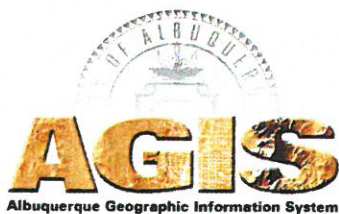
D-12-Z

Selected Symbols

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

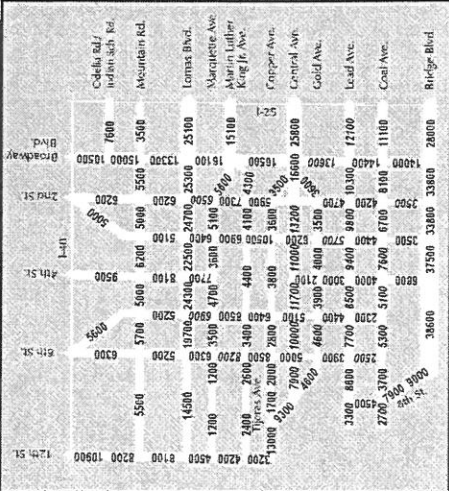
Note: Grey Shading
Represents Area Outside
of the City Limits

0 750 1,500 Feet

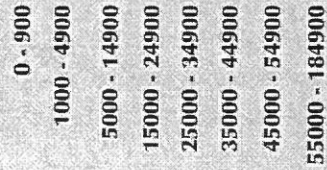
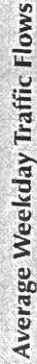
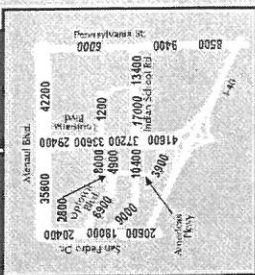


Map amended through: 11/2/2005

Inset for Downtown



Inset for Uptown



Standard Data Link Volume is based on traffic count data accepted by the NM Department of Transportation **9500** Traffic Monitoring System (TMS) as standard in accordance with the New Mexico State Traffic Monitoring Standards (NMSTMS).

Non-Standard Data 9500

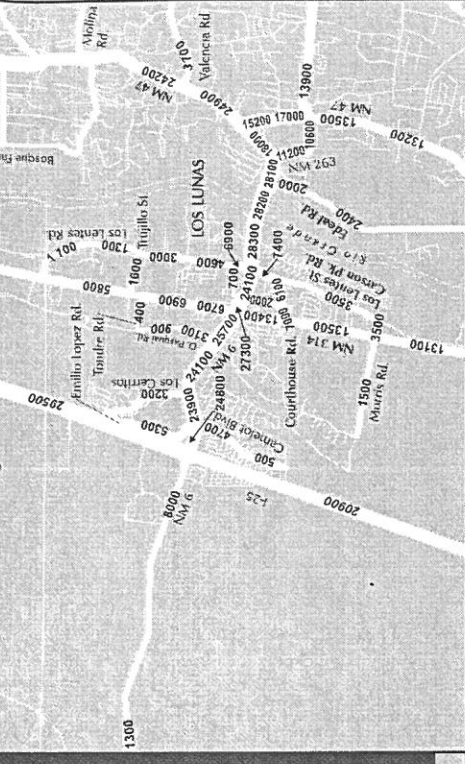


Map prepared by the Mid-Region Council of Governments in cooperation with the New Mexico Department of Transportation, the local governments in the Albuquerque Metropolitan Planning Area, and the U.S. Department of Transportation, Federal Highway Administration.

2005 Traffic Flows for the Greater Albuquerque Area

Inset for Los Lunas, Valencia County

Los Lunas is approximately 12 miles south of the I-25/NM 47 interchange.



Bosquecito Commercial (Bosque Meadows Rd. / Coors Blvd.)
Trip Generation Data

USE (ITE CODE)	DESCRIPTION	24 HR VOL		A. M. PEAK HR.		P. M. PEAK HR.	
		GROSS	ENTER	EXIT	ENTER	EXIT	
Summary Sheet		Units					
	Shopping Center (820)	79.25	5,838	83	53	259	280
	High Turnover (Sit-Down) Restaurant (932)	10.00	1,272	60	55	67	43
	Subtotal		7,110	143	108	326	323
	Pass-by Trip Credit						
		20%	(1,422)	(29)	(22)	(65)	(65)
	Net New Trips to Offsite System		5,688	114	86	261	258

Bosquecito Commercial (Bosque Meadows Rd. / Coors Blvd.)

Trip Generation Data

USE (ITE CODE)	24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR	
		ENTER	EXIT	ENTER	EXIT
Units					
	79.25	83	53	259	280
1,000 S.F.					

Shopping Center (820)

ITE Trip Generation Equations:

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

$$\text{Ln}(T) = 0.65 \text{ Ln}(X) + 5.83$$

50% Enter, 50% Exit

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

$$\text{Ln}(T) = 0.6 \text{ Ln}(X) + 2.29$$

61% Enter, 39% Exit

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

$$\text{Ln}(T) = 0.66 \text{ Ln}(X) + 3.403$$

48% Enter, 52% Exit

Comments:

0.30 F.A.R. Commercial

Based on ITE Trip Generation Manual - 7th Edition

Bosquecito Commercial (Bosque Meadows Rd. / Coors Blvd.)
Trip Generation Data

USE (ITE CODE)	24 HOUR TWO-WAY VOLUME	A.M. PEAK HOUR		P.M. PEAK HOUR	
	GROSS	ENTER	EXIT	ENTER	EXIT
High Turnover (Sit-Down) Restaurant (932)	1,272	60	55	67	43

Units
 10.00
 1,000 S.F.

ITE Trip Generation Equations:

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

$$T = \frac{127.15 (X) + 0}{50\% \text{ Enter, } 50\% \text{ Exit}}$$

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

$$T = \frac{11.52 (X) + 0}{52\% \text{ Enter, } 48\% \text{ Exit}}$$

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

$$T = \frac{10.92 (X) + 0}{61\% \text{ Enter, } 39\% \text{ Exit}}$$

Comments:

Tract No.

Based on ITE Trip Generation Manual - 7th Edition

Trip Distribution Table

Bosquecito Commercial Development (Bosque Meadows Rd. / Coors Blvd.)

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

2000 and 2025 Data Taken from Mid-Region Council of Governments' 2025 Socioeconomic
2025 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico (S-03-01)

								(CN) Coors Blvd. N	
DASZ #	% Sub Area in Study	2000 Population	2025 Population	Interpolated Population for the Year 2008	Population in Study	Population / Distance	Percent Population	% Utilizing	% Populatic Utilizing
		2000	2025	2008					
Boundary Specified on DASZ Map									
6111	50%	1080	1081	1,080	540	540	1.87%	0%	0.00
6121	100%	672	690	678	678	678	2.35%	0%	0.00
6122	80%	868	851	863	690	690	2.39%	0%	0.00
6123	50%	657	766	692	346	346	1.20%	0%	0.00
6124	70%	727	796	749	524	524	1.81%	0%	0.00
6125	100%	79	167	107	107	107	0.37%	0%	0.00
6131	100%	483	591	518	518	518	1.79%	0%	0.00
6132	80%	716	711	714	571	571	1.98%	0%	0.00
6211	10%	1125	2073	1,428	143	143	0.49%	0%	0.00
6221	100%	2719	2624	2,689	2,689	2,689	9.30%	0%	0.00
6222	100%	3377	3107	3,291	3,291	3,291	11.39%	0%	0.00
6223	100%	924	864	905	905	905	3.13%	0%	0.00
6224	100%	2421	3356	2,720	2,720	2,720	9.41%	0%	0.00
6225	100%	2045	1882	1,993	1,993	1,993	6.90%	0%	0.00
6226	100%	1728	1629	1,696	1,696	1,696	5.87%	0%	0.00
6227	20%	1097	1500	1,226	245	245	0.85%	0%	0.00
6228	30%	1561	1597	1,573	472	472	1.63%	0%	0.00
6231	100%	40	529	196	196	196	0.68%	0%	0.00
6232	100%	339	1378	671	671	671	2.32%	0%	0.00
6233	100%	937	1077	982	982	982	3.40%	0%	0.00
6242	20%	2072	2036	2,060	412	412	1.43%	0%	0.00
6243	100%	2096	1942	2,047	2,047	2,047	7.08%	0%	0.00
6253	70%	145	1622	618	433	433	1.50%	0%	0.00
6261	100%	3	451	146	146	146	0.51%	0%	0.00
6262	100%	82	144	102	102	102	0.35%	0%	0.00
6312	30%	1	1053	338	101	101	0.35%	0%	0.00
6381	70%	3454	5850	4,221	2,955	2,955	10.22%	0%	0.00
6382	100%	770	1298	939	939	939	3.25%	0%	0.00
6383	100%	647	1413	892	892	892	3.09%	0%	0.00
6384	100%	58	161	91	91	91	0.31%	100%	0.31
6394	100%	399	652	480	480	480	1.66%	0%	0.00
6395	90%	0	0	0	0	0	0.00%	0%	0.00
6396	20%	0	3	1	0	0	0.00%	0%	0.00
6541	100%	129	161	139	139	139	0.48%	0%	0.00
6542	30%	522	882	637	191	191	0.66%	0%	0.00
					37,482	28,905	28,905	100.00%	

Trip Distribution Table
Bosquecito Commercial Development (Bosque Meadows Rd. / Coors Blvd.)

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

2000 and 2025 Data Taken from Mid-Region Council of Governments' 2025 Socioeconomic
2025 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico (S-03-01)

								(BE)			(LE)			(MPE)			(ME)		
								Bosque Meadows Rd. East			La Orilla Rd. East			Montano Plaza East			Montano Rd. East		
DASZ #	% Sub Area in Study	2000 Population	2025 Population	Interpolated Population for the Year	Population in Study	Population / Distance	Percent Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
		2000	2025	2008															
Boundary Specified on DASZ Map																			
6111	50%	1080	1081	1,080	540	540	1.87%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	100%	1.87%	540
6121	100%	672	690	678	678	678	2.35%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	100%	2.35%	678
6122	80%	868	851	863	690	690	2.39%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	100%	2.39%	690
6123	50%	657	766	692	346	346	1.20%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	100%	1.20%	346
6124	70%	727	796	749	524	524	1.81%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	100%	1.81%	524
6125	100%	79	167	107	107	107	0.37%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	100%	0.37%	107
6131	100%	483	591	518	518	518	1.79%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	50%	0.90%	259
6132	80%	716	711	714	571	571	1.98%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	50%	0.99%	286
6211	10%	1125	2073	1,428	143	143	0.49%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6221	100%	2719	2624	2,689	2,689	2,689	9.30%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6222	100%	3377	3107	3,291	3,291	3,291	11.39%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6223	100%	924	864	905	905	905	3.13%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6224	100%	2421	3356	2,720	2,720	2,720	9.41%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6225	100%	2045	1882	1,993	1,993	1,993	6.90%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6226	100%	1728	1629	1,696	1,696	1,696	5.87%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6227	20%	1097	1500	1,226	245	245	0.85%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6228	30%	1561	1597	1,573	472	472	1.63%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6231	100%	40	529	196	196	196	0.68%	0%	0.00%	0	30%	0.20%	59	50%	0.34%	98	20%	0.14%	39
6232	100%	339	1378	671	671	671	2.32%	70%	1.62%	470	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6233	100%	937	1077	982	982	982	3.40%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6242	20%	2072	2036	2,060	412	412	1.43%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6243	100%	2096	1942	2,047	2,047	2,047	7.08%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6253	70%	145	1622	618	433	433	1.50%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6261	100%	3	451	146	146	146	0.51%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6262	100%	82	144	102	102	102	0.35%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6312	30%	1	1053	338	101	101	0.35%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6381	70%	3454	5850	4,221	2,955	2,955	10.22%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6382	100%	770	1298	939	939	939	3.25%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6383	100%	647	1413	892	892	892	3.09%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6384	100%	58	161	91	91	91	0.31%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6394	100%	399	652	480	480	480	1.66%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6395	90%	0	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6396	20%	0	3	1	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6541	100%	129	161	139	139	139	0.48%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6542	30%	522	882	637	191	191	0.66%	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
								37,482			28,905			28,905			100.00%		
											470			59			98		
											1.62%			0.20%			0.34%		
																	3,469		
																	12.00%		

Trip Distribution Table

Bosquecito Commercial Development (Bosque Meadows Rd. / Coors Blvd.)

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

2000 and 2025 Data Taken from Mid-Region Council of Governments' 2025 Socioeconomic

2025 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico (S-03-01)

DASZ #	% Sub Area in Study	2000 Population	2025 Population	Interpolated Population for the Year	Population in Study	Population / Distance	Percent Population	(CS) Coors Sou	
								% Utilizing	% Population Utilizing
		2000	2025	2008					
Boundary Specified on DASZ Map									
6111	50%	1080	1081	1,080	540	540	1.87%	0%	0.00%
6121	100%	672	690	678	678	678	2.35%	0%	0.00%
6122	80%	868	851	863	690	690	2.39%	0%	0.00%
6123	50%	657	766	692	346	346	1.20%	0%	0.00%
6124	70%	727	796	749	524	524	1.81%	0%	0.00%
6125	100%	79	167	107	107	107	0.37%	0%	0.00%
6131	100%	483	591	518	518	518	1.79%	0%	0.00%
6132	80%	716	711	714	571	571	1.98%	0%	0.00%
6211	10%	1125	2073	1,428	143	143	0.49%	100%	0.49%
6221	100%	2719	2624	2,689	2,689	2,689	9.30%	0%	0.00%
6222	100%	3377	3107	3,291	3,291	3,291	11.39%	0%	0.00%
6223	100%	924	864	905	905	905	3.13%	0%	0.00%
6224	100%	2421	3356	2,720	2,720	2,720	9.41%	0%	0.00%
6225	100%	2045	1882	1,993	1,993	1,993	6.90%	0%	0.00%
6226	100%	1728	1629	1,696	1,696	1,696	5.87%	0%	0.00%
6227	20%	1097	1500	1,226	245	245	0.85%	0%	0.00%
6228	30%	1561	1597	1,573	472	472	1.63%	0%	0.00%
6231	100%	40	529	196	196	196	0.68%	0%	0.00%
6232	100%	339	1378	671	671	671	2.32%	0%	0.00%
6233	100%	937	1077	982	982	982	3.40%	0%	0.00%
6242	20%	2072	2036	2,060	412	412	1.43%	0%	0.00%
6243	100%	2096	1942	2,047	2,047	2,047	7.08%	0%	0.00%
6253	70%	145	1622	618	433	433	1.50%	100%	1.50%
6261	100%	3	451	146	146	146	0.51%	0%	0.00%
6262	100%	82	144	102	102	102	0.35%	0%	0.00%
6312	30%	1	1053	338	101	101	0.35%	0%	0.00%
6381	70%	3454	5850	4,221	2,955	2,955	10.22%	0%	0.00%
6382	100%	770	1298	939	939	939	3.25%	0%	0.00%
6383	100%	647	1413	892	892	892	3.09%	0%	0.00%
6384	100%	58	161	91	91	91	0.31%	0%	0.00%
6394	100%	399	652	480	480	480	1.66%	0%	0.00%
6395	90%	0	0	0	0	0	0.00%	0%	0.00%
6396	20%	0	3	1	0	0	0.00%	0%	0.00%
6541	100%	129	161	139	139	139	0.48%	0%	0.00%
6542	30%	522	882	637	191	191	0.66%	0%	0.00%
				37,482	28,905	28,905	100.00%		

Trip Distribution Table

Bosquecito Commercial Development (Bosque Meadows Rd. / Coors Blvd.)

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

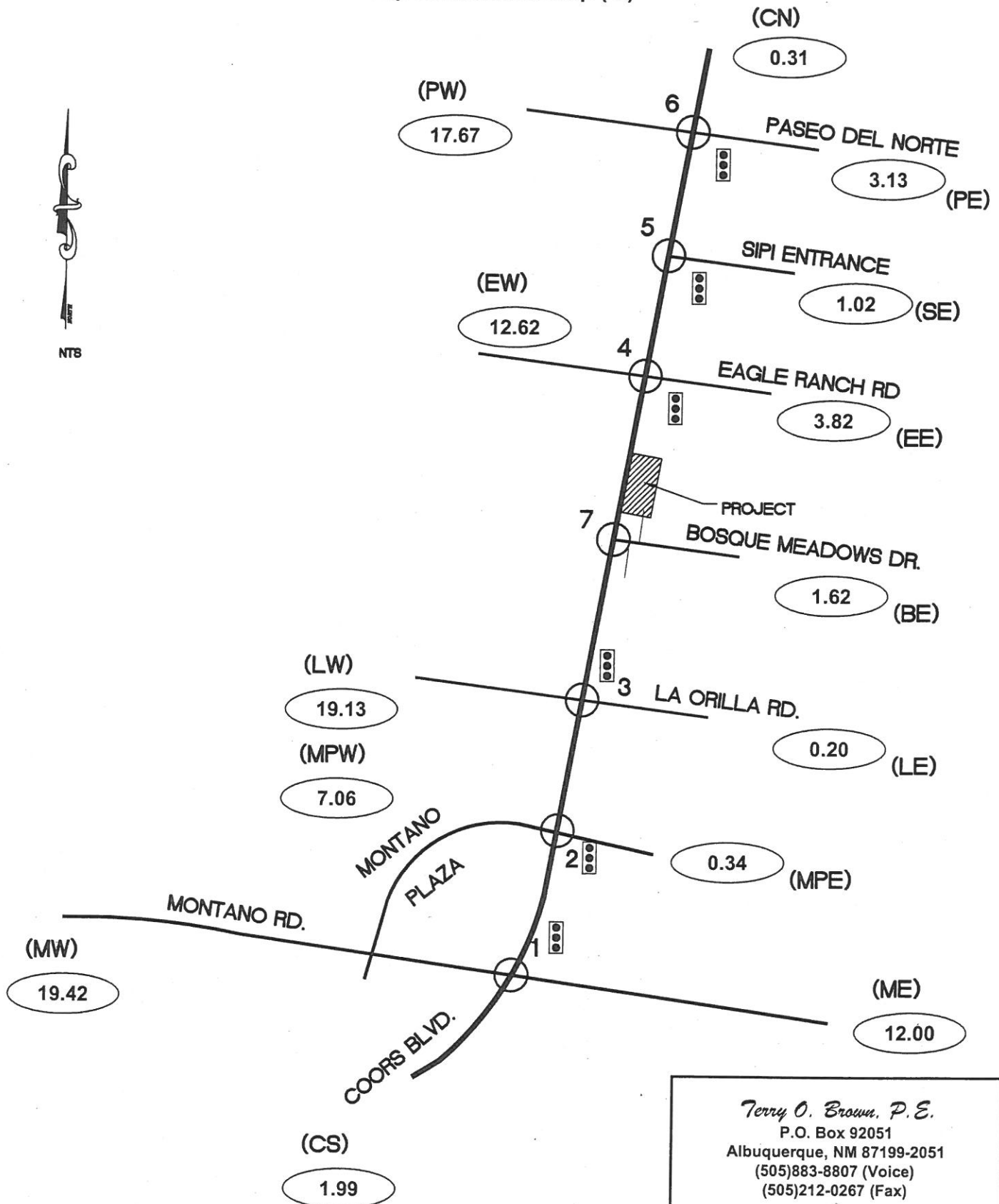
2000 and 2025 Data Taken from Mid-Region Council of Governments' 2025 Socioeconomic

2025 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico (S-03-01)

DASZ #	% Sub Area in Study	2000 Population	2025 Population	Interpolated Population for the Year	Population in Study	Population / Distance
		2000	2025	2008		
Boundary Specified on DASZ Map						
6111	50%	1080	1081	1,080	540	54
6121	100%	672	690	678	678	67
6122	80%	868	851	863	690	69
6123	50%	657	766	692	346	34
6124	70%	727	796	749	524	52
6125	100%	79	167	107	107	10
6131	100%	483	591	518	518	51
6132	80%	716	711	714	571	57
6211	10%	1125	2073	1,428	143	14
6221	100%	2719	2624	2,689	2,689	2,68
6222	100%	3377	3107	3,291	3,291	3,29
6223	100%	924	864	905	905	90
6224	100%	2421	3356	2,720	2,720	2,72
6225	100%	2045	1882	1,993	1,993	1,99
6226	100%	1728	1629	1,696	1,696	1,69
6227	20%	1097	1500	1,226	245	24
6228	30%	1561	1597	1,573	472	47
6231	100%	40	529	196	196	19
6232	100%	339	1378	671	671	67
6233	100%	937	1077	982	982	98
6242	20%	2072	2036	2,060	412	41
6243	100%	2096	1942	2,047	2,047	2,04
6253	70%	145	1622	618	433	43
6261	100%	3	451	146	146	14
6262	100%	82	144	102	102	10
6312	30%	1	1053	338	101	10
6381	70%	3454	5850	4,221	2,955	2,95
6382	100%	770	1298	939	939	93
6383	100%	647	1413	892	892	89
6384	100%	58	161	91	91	9
6394	100%	399	652	480	480	48
6395	90%	0	0	0	0	0
6396	20%	0	3	1	0	0
6541	100%	129	161	139	139	13
6542	30%	522	882	637	191	19
				37,482	28,905	28,905

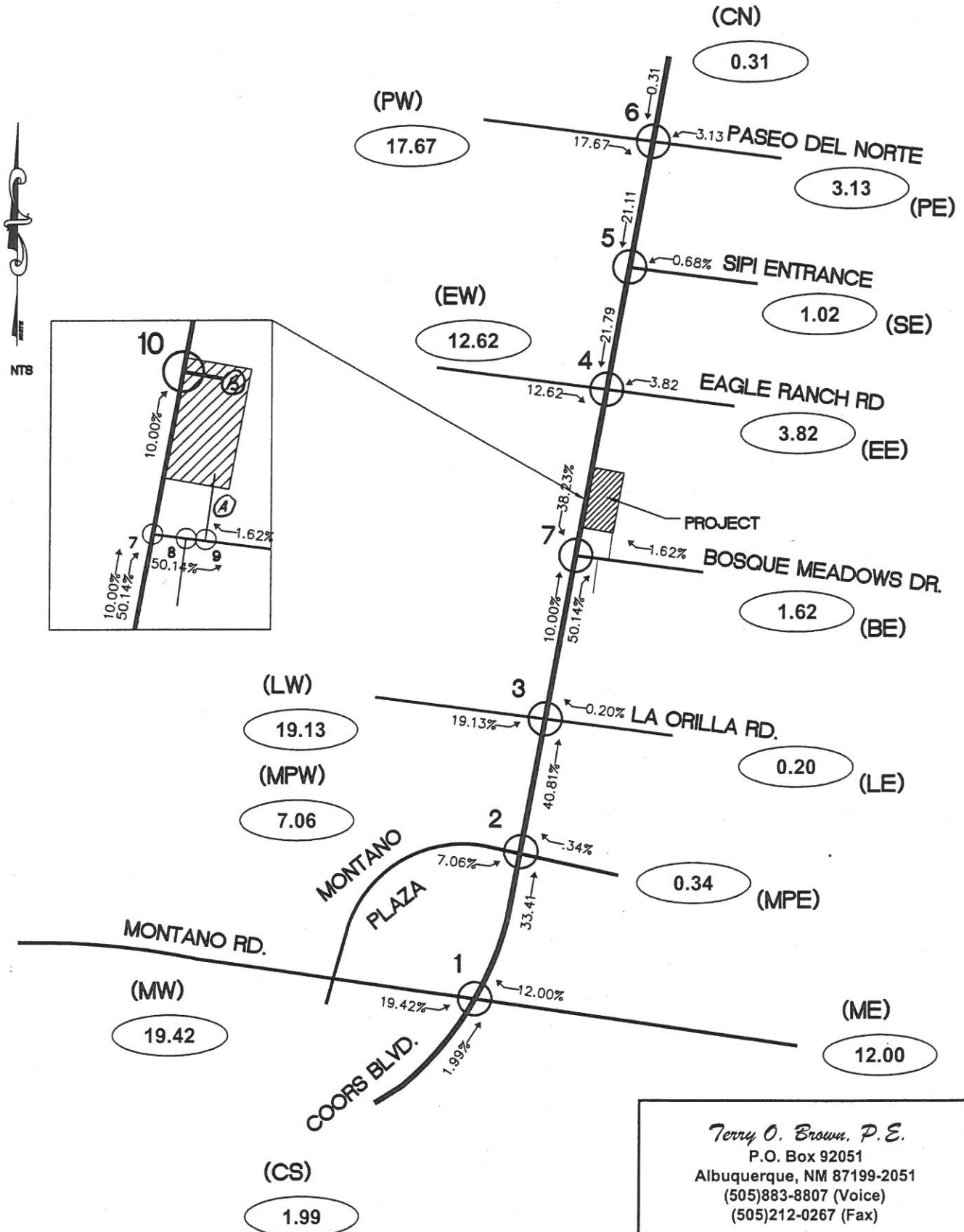
Bosquecito Commercial Development

Trip Distribution Map (%)



Bosquecito Commercial Development

Trip Distribution Assignments (% Entering)

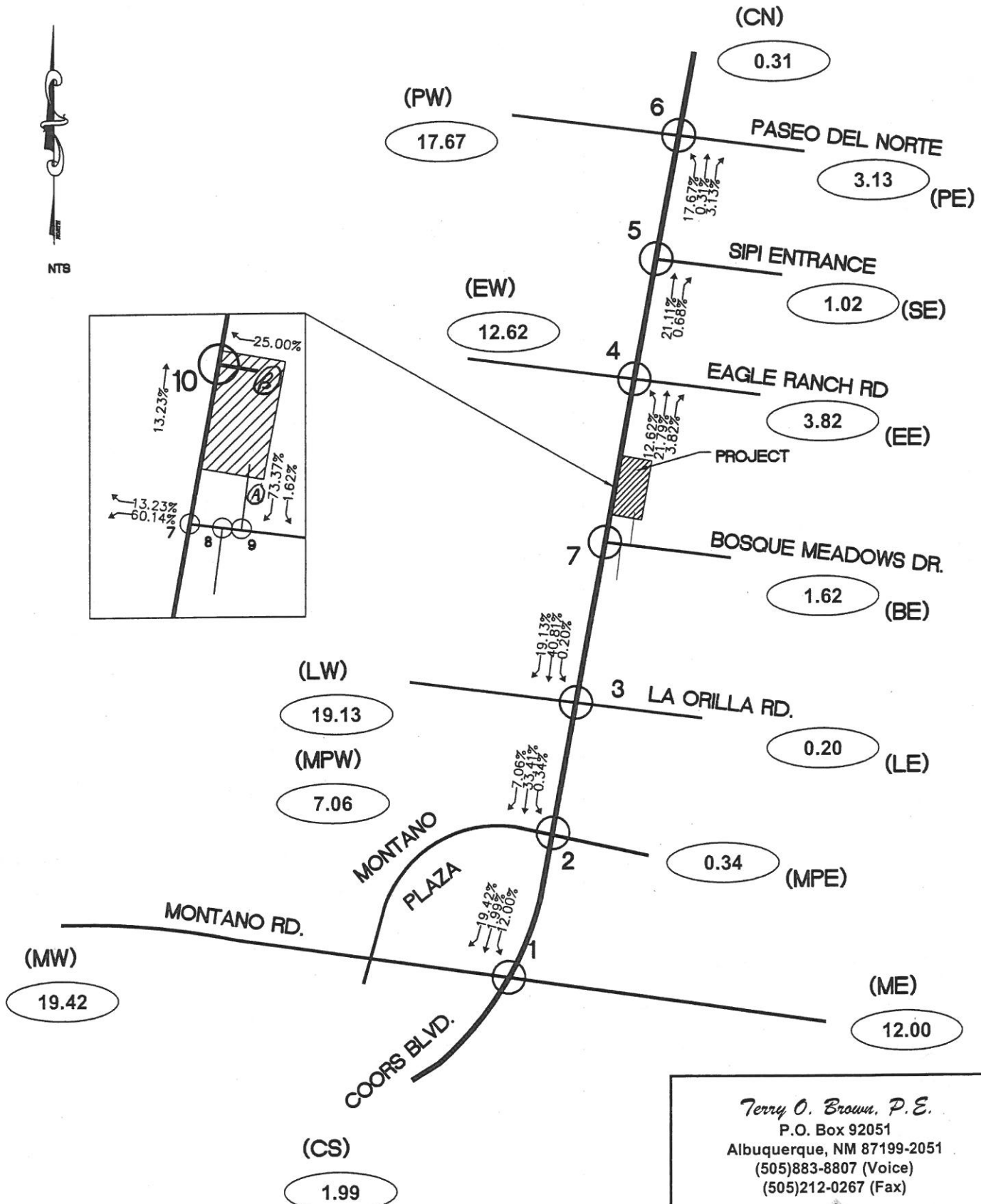
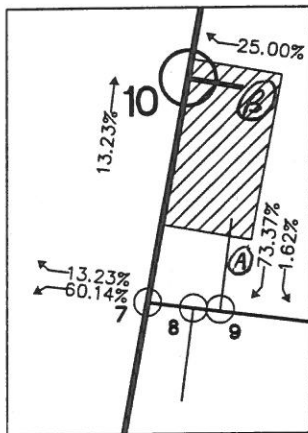


Bosquecito Commercial Development

Trip Distribution Assignments (% Exiting)



NTS



Terry O. Brown, P.E.

P.O. Box 92051

Albuquerque, NM 87199-2051

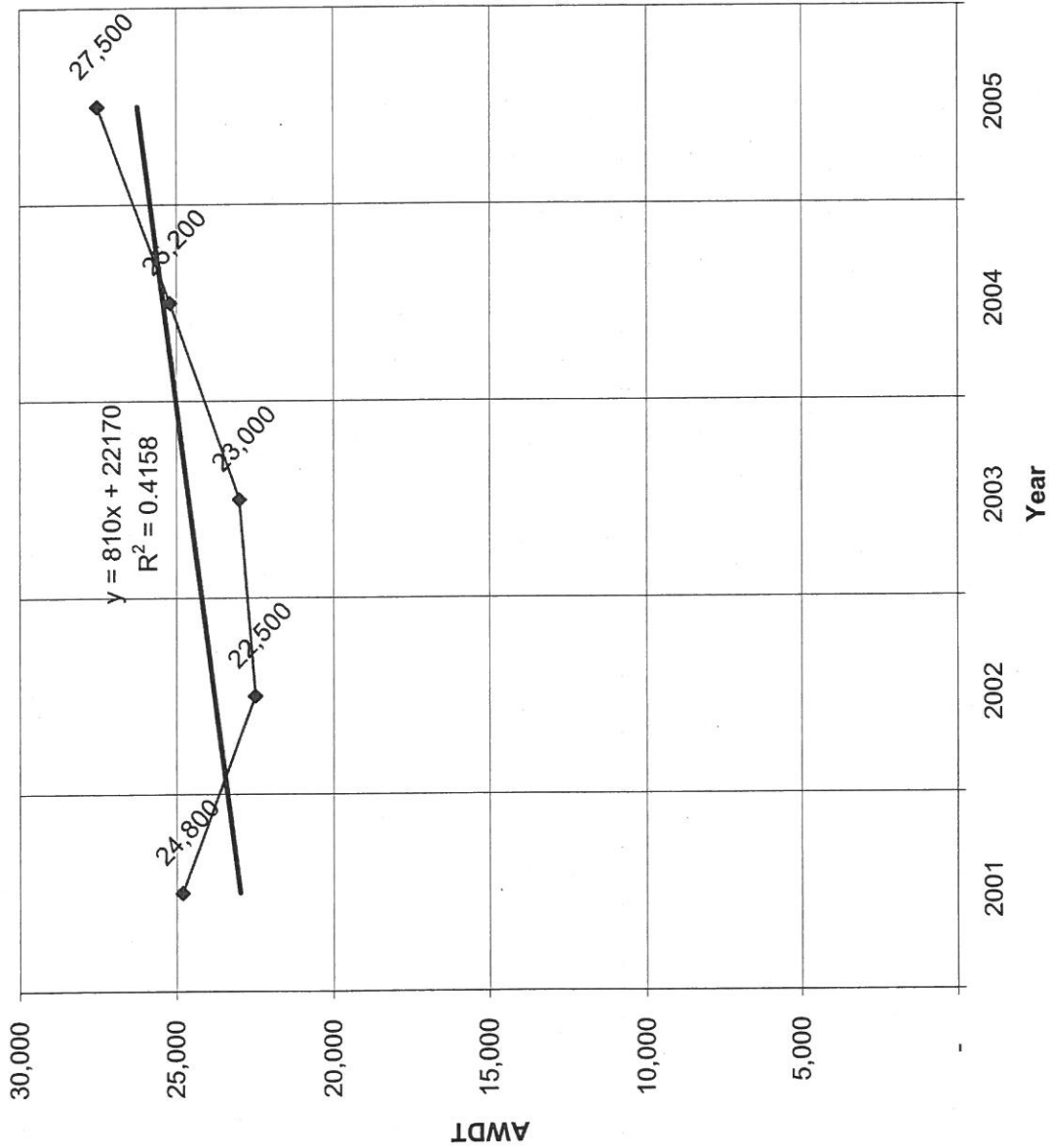
(505)883-8807 (Voice)

(505)212-0267 (Fax)

Traffic Flow Table for Bosquecito Development

	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>
Montano Rd. West of Coors Blvd.	24,800	22,500	23,000	25,200	27,500
Coors Blvd. North of Montano Rd.	44,100	43,900	44,900	44,900	46,500
Montano Rd. East of Coors Blvd.	26,400	25,600	25,700	26,600	29,900
Coors Blvd. South of Montano Rd.	48,400	49,800	49,000	48,600	48,500
La Orilla Rd. West of Coors Blvd.	3,500	3,600	3,200	3,300	3,800
Coors Blvd. North of La Orilla Rd.	40,900	40,600	41,600	43,000	44,500
PdN West of Coors Blvd.	33,200	34,100	34,300	35,500	36,700
Coors Blvd. North of PdN	73,900	69,500	71,100	73,500	68,300
PdN East of Coors Blvd.	70,200	73,100	75,700	77,800	81,800
Coors Blvd. South of PdN	N/A	45,500	46,500	40,000	41,400
Eagle Ranch Rd. West of Coors	N/A	N/A	N/A	N/A	7,000

Growth Chart for Montano Rd. West of Coors Blvd.



◆ Montano Rd. West of Coors Blvd.
 — Linear (Montano Rd. West of Coors Blvd.)

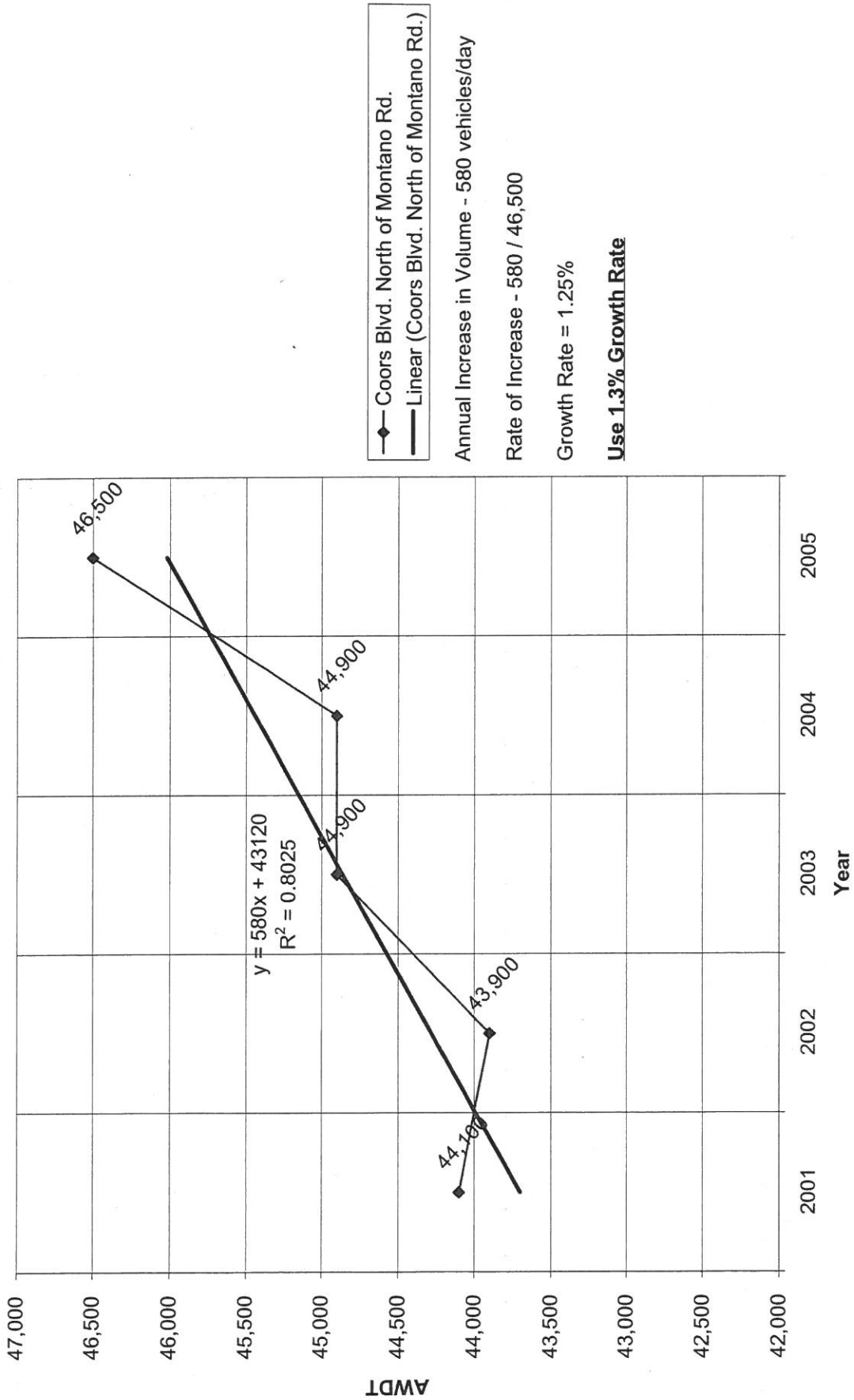
Annual Increase in Volume - 810
vehicles/day

Rate of Increase - 810 / 27,500

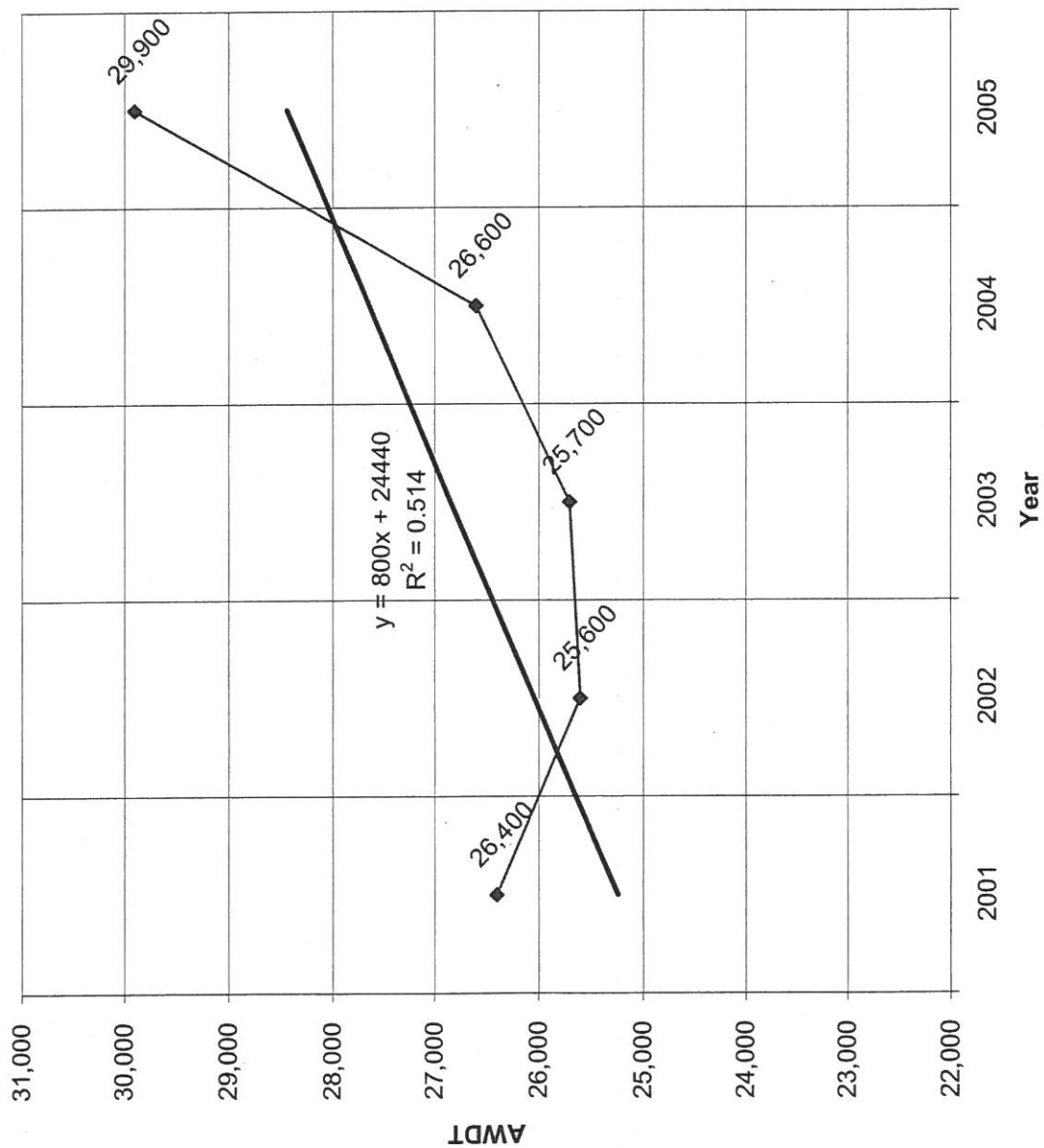
Growth Rate = 2.95%

Use 3.0% Growth Rate

Growth Chart for Coors Blvd. North of Montano Rd.



Growth Chart for Montano Rd. East of Coors Blvd.



◆ Montano Rd. East of Coors Blvd.
 — Linear (Montano Rd. East of Coors Blvd.)

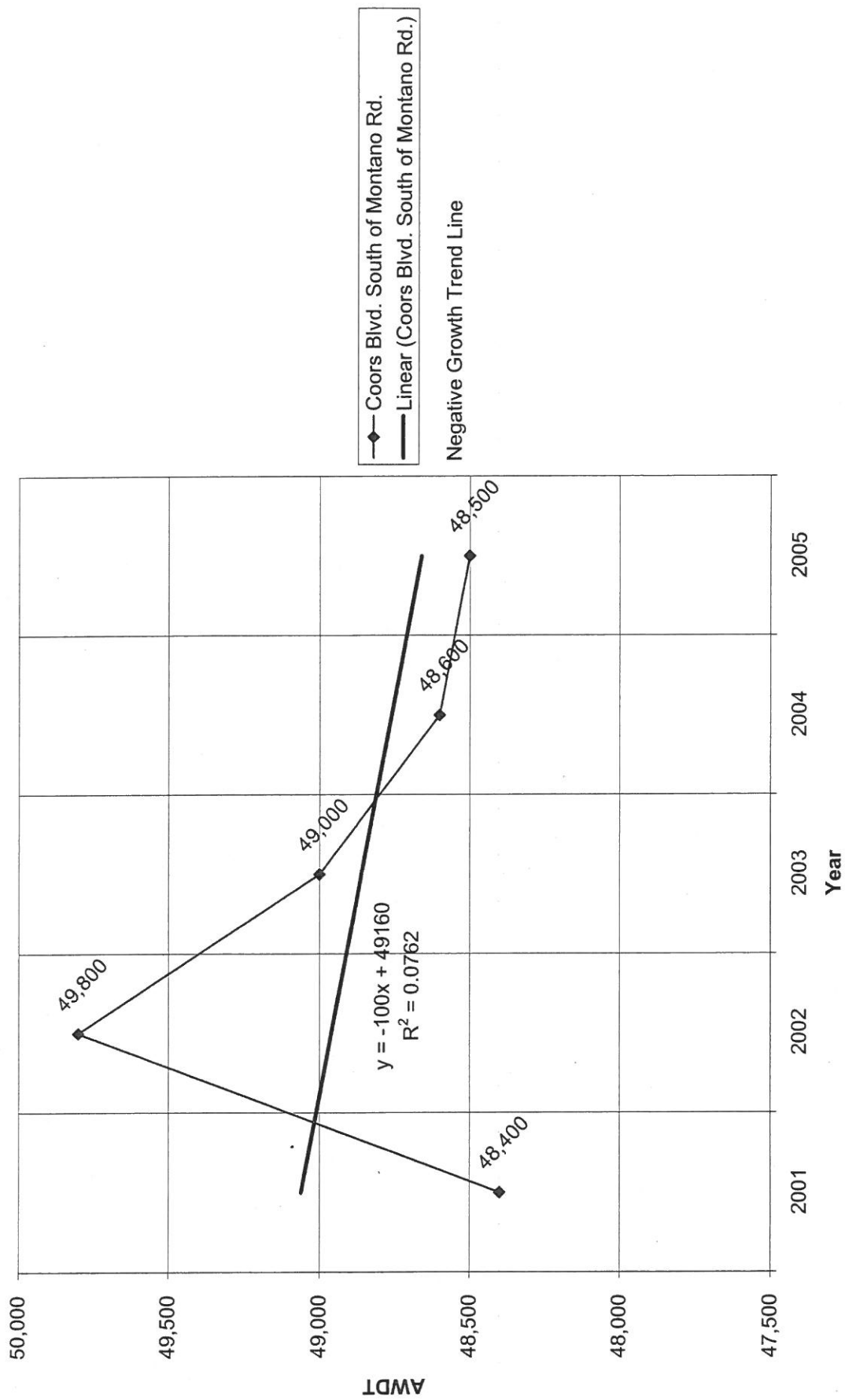
Annual Increase in Volume - 800 vehicles/day

Rate of Increase - 800 / 29,900

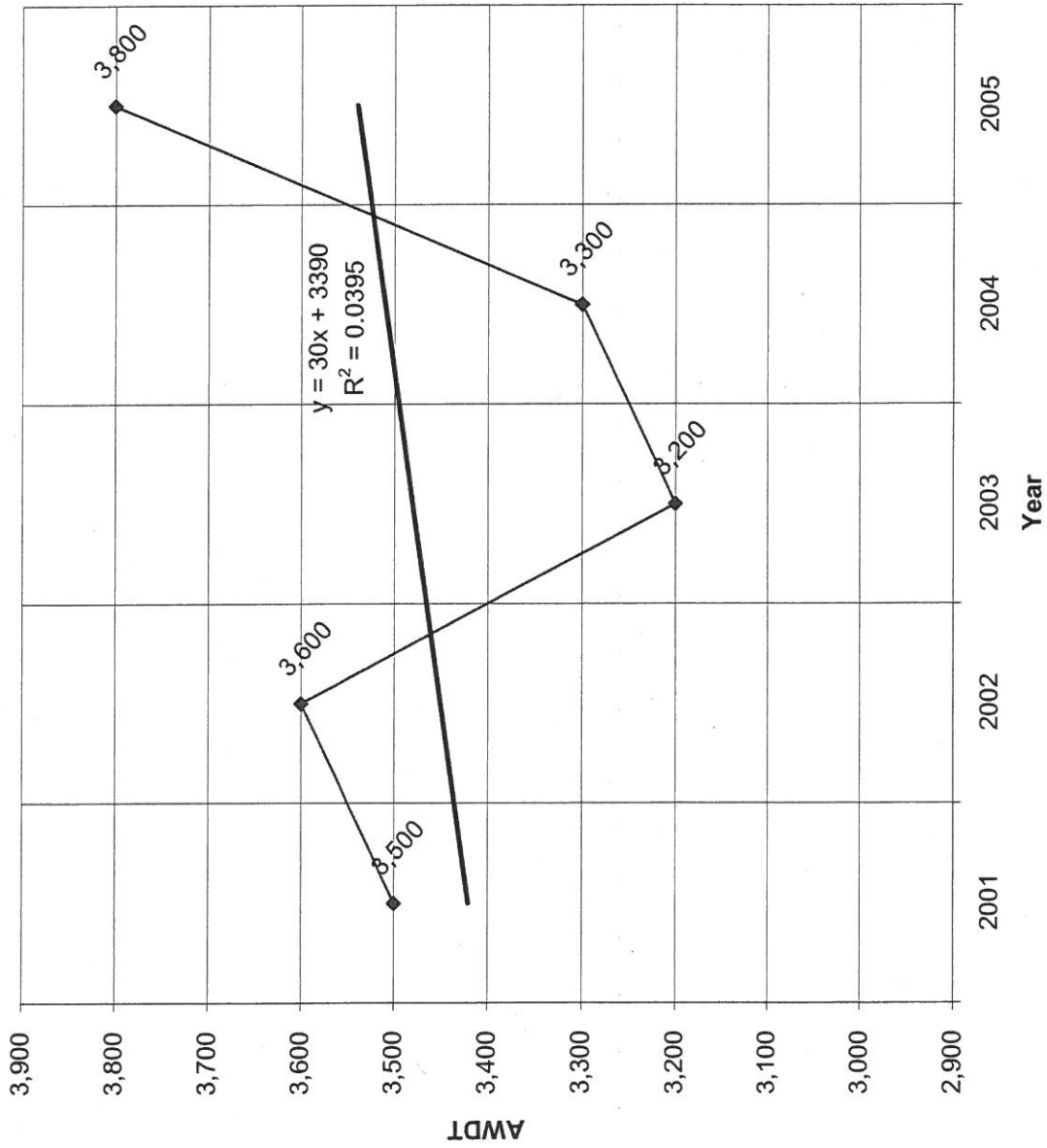
Growth Rate = 2.68%

Use 2.7% Growth Rate

Growth Chart for Coors Blvd. South of Montano Rd.



Growth Chart for La Orilla Rd. West of Coors Blvd.



—◆— La Orilla Rd. West of Coors Blvd.
 — Linear (La Orilla Rd. West of Coors Blvd.)

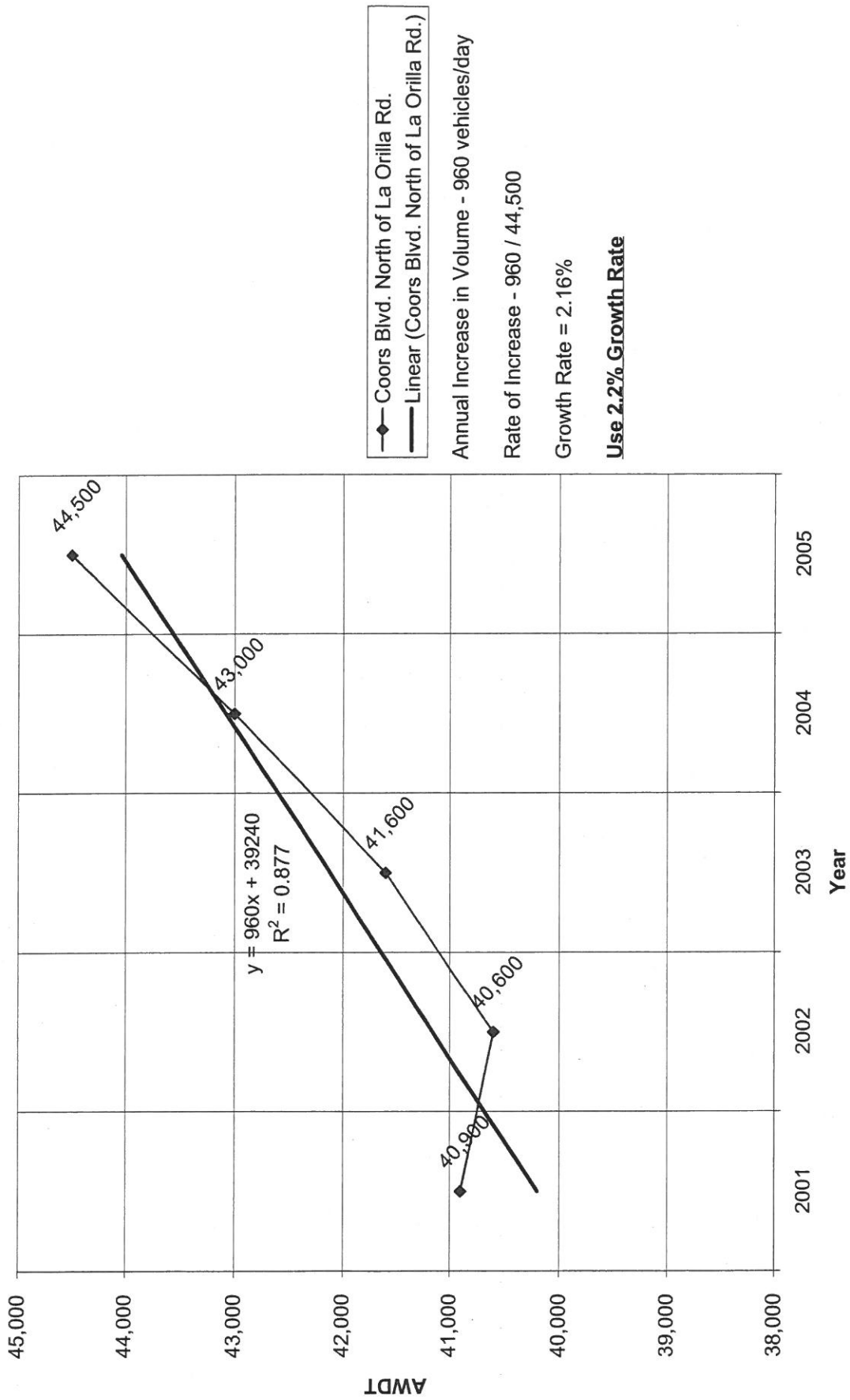
Annual Increase in Volume - 30 vehicles/day

Rate of Increase - 30 / 3,800

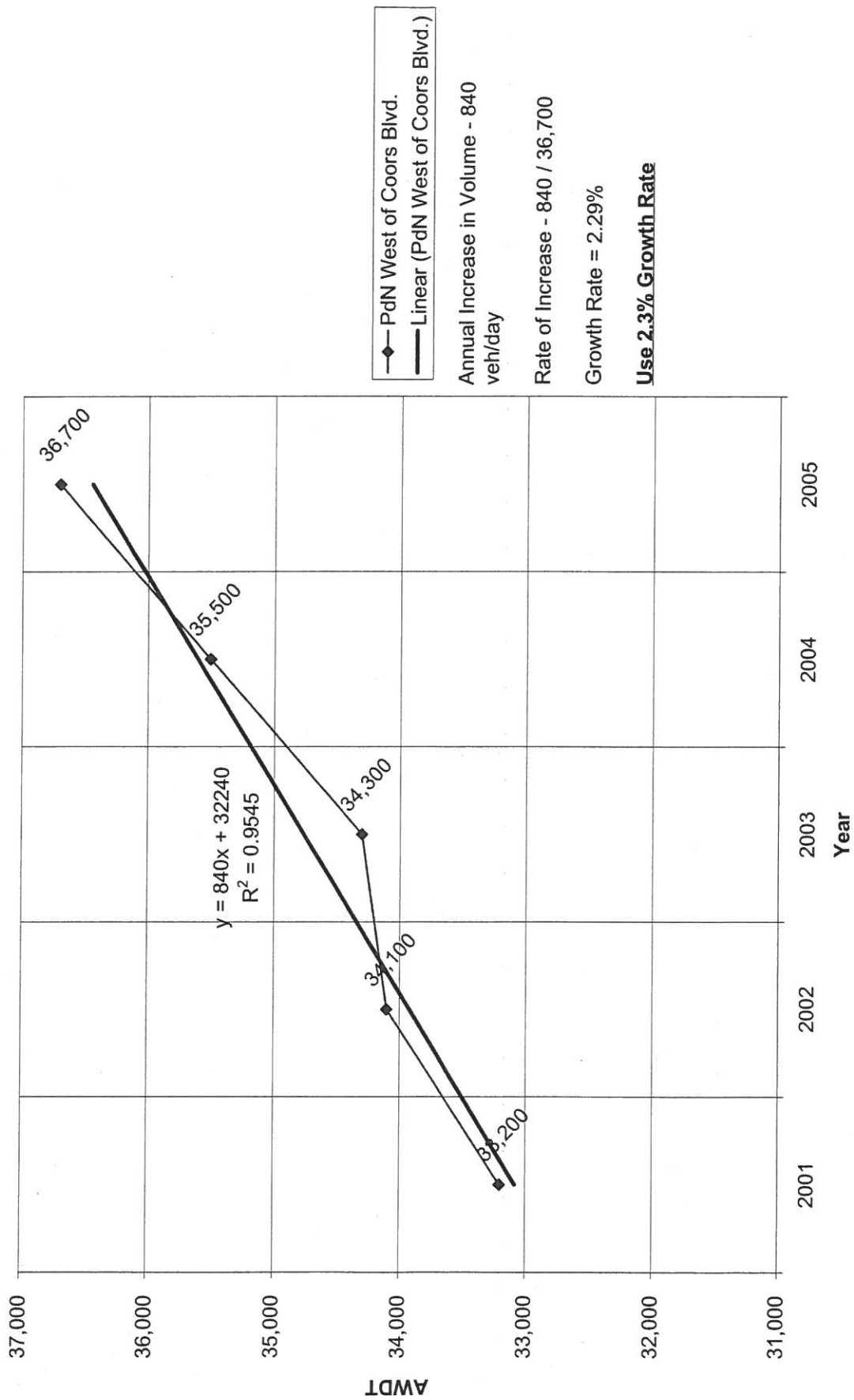
Growth Rate = 0.79%

Use 1.0% Growth Rate

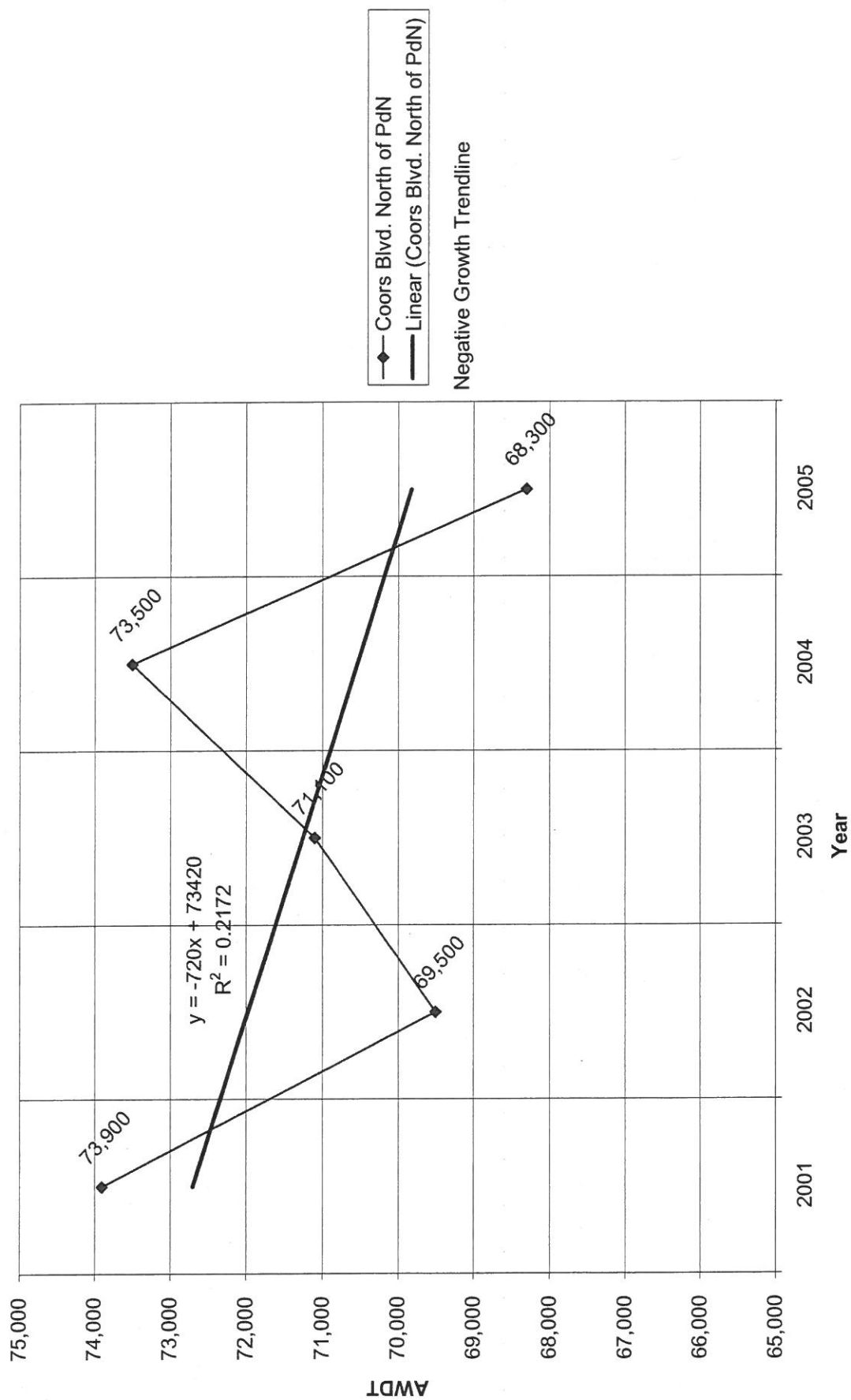
Growth Chart for Coors Blvd. North of La Orilla Rd.



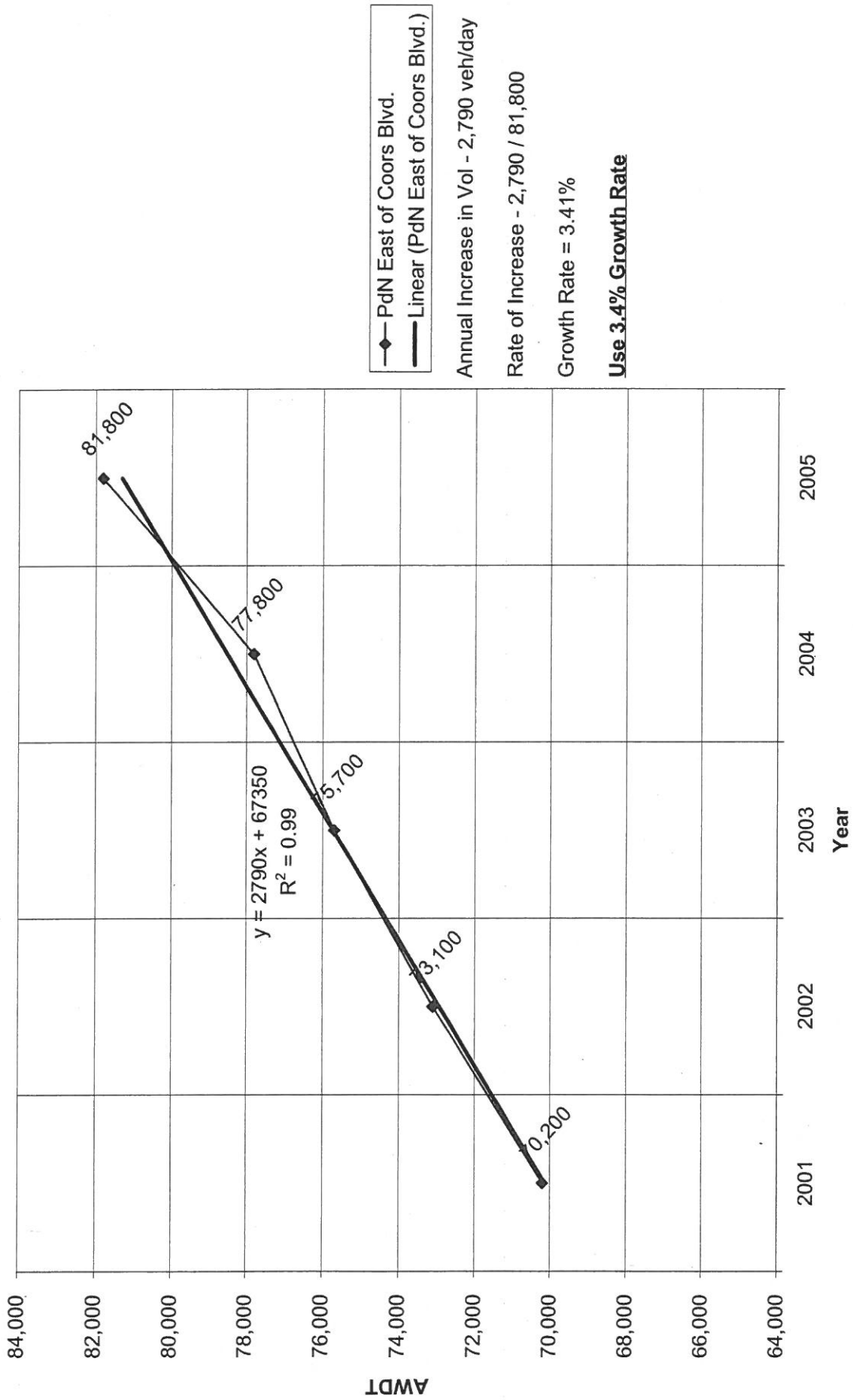
Growth Chart for Paseo del Norte West Coors Blvd.



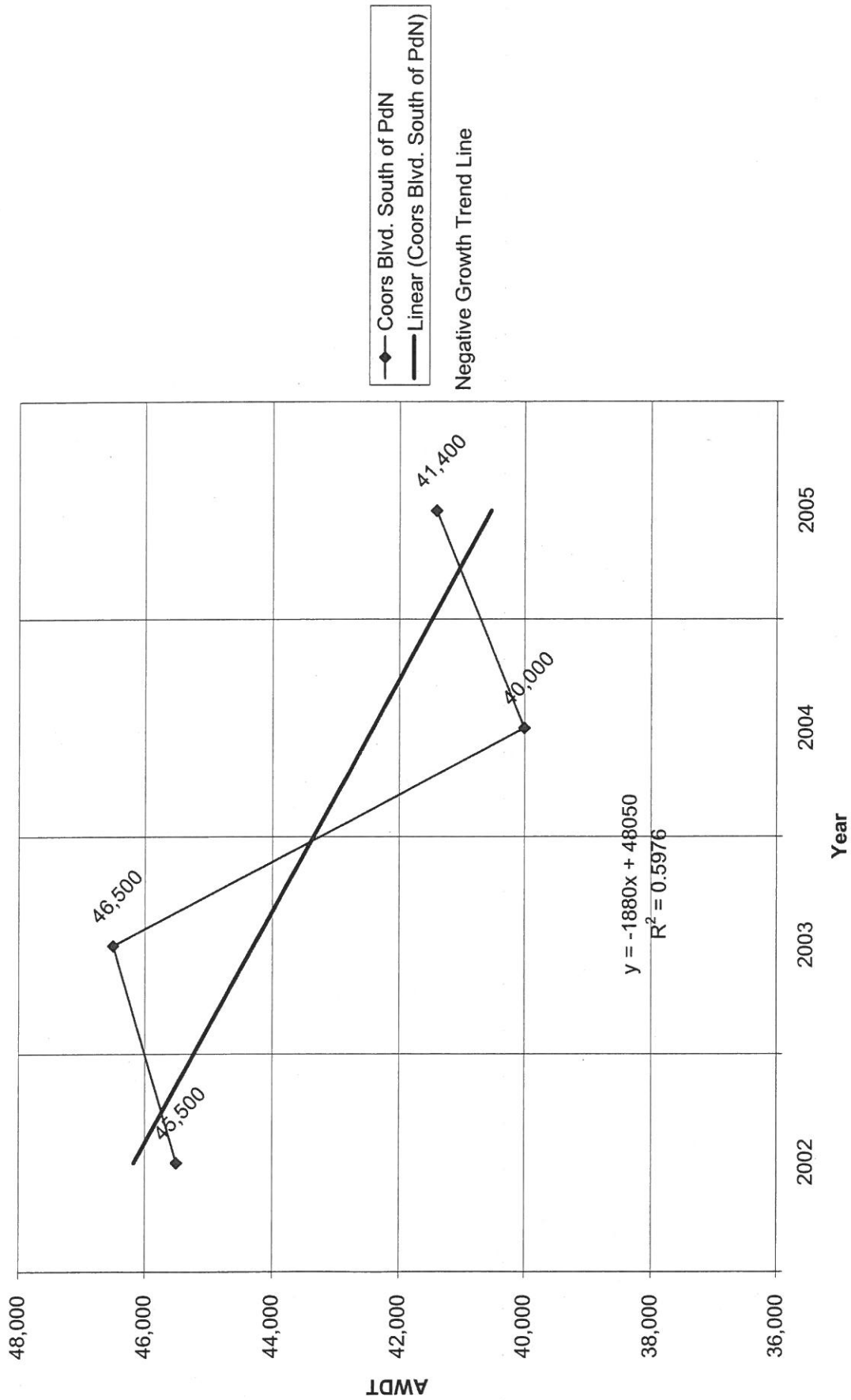
Growth Chart for Coors Blvd. North of Paseo del Norte



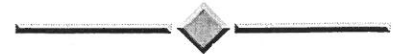
Growth Chart for Paseo del Norte East of Coors Blvd.



Growth Chart for Coors Blvd. South of Paseo del Norte



Historic Growth Rate Map (%)



Bosquecito Commercial Development (Bosque Meadows Rd. / Coors Blvd.)

Projected Turning Movements SUMMARY PROPOSED DEVELOPMENT (2008) - 100% Development

INTERSECTION: Summary

Montano Rd. / Coors Blvd.

(1) 1.6% Truck Existing (2006) 2008 (NO BUILD - A.M.) 2008 (BUILD - A.M.)	0.66			0.77			0.84			0.85			PHF
	Eastbound (Montano Rd.)			Westbound (Montano Rd.)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	81	810	299	179	272	64	219	1,275	319	297	1,338	58	
Existing (2006) 2008 (NO BUILD - P.M.) 2008 (BUILD - P.M.)	0.97			0.96			0.90			0.96			PHF
	Eastbound (Montano Rd.)			Westbound (Montano Rd.)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	292	340	267	399	905	114	668	1,708	232	168	1,352	131	
Existing (2006) 2008 (NO BUILD - P.M.) 2008 (BUILD - P.M.)	0.97			0.96			0.90			0.96			PHF
	Eastbound (Montano Rd.)			Westbound (Montano Rd.)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	441	658	432	556	1,217	273	846	1,927	322	315	1,644	269	
Existing (2006) 2008 (NO BUILD - P.M.) 2008 (BUILD - P.M.)	0.97			0.96			0.90			0.96			PHF
	Eastbound (Montano Rd.)			Westbound (Montano Rd.)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	492	658	432	556	1,217	304	846	1,932	322	346	1,649	319	

Montano Plaza / Coors Blvd.

(2) 2.2% Truck Existing (2006) 2008 (NO BUILD - A.M.) 2008 (BUILD - A.M.)	0.90			0.89			0.82			0.81			PHF
	Eastbound (Montano Plaza)			Westbound (Montano Plaza)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	108	18	71	66	11	55	5	1,358	46	61	1,713	17	
Existing (2006) 2008 (NO BUILD - P.M.) 2008 (BUILD - P.M.)	0.83			0.75			0.93			0.94			PHF
	Eastbound (Montano Plaza)			Westbound (Montano Plaza)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	33	34	16	259	173	161	36	1,907	129	322	1,546	28	
Existing (2006) 2008 (NO BUILD - P.M.) 2008 (BUILD - P.M.)	0.83			0.75			0.93			0.94			PHF
	Eastbound (Montano Plaza)			Westbound (Montano Plaza)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	98	44	51	264	187	213	68	2,395	132	364	2,084	93	
Existing (2006) 2008 (NO BUILD - P.M.) 2008 (BUILD - P.M.)	0.83			0.75			0.93			0.94			PHF
	Eastbound (Montano Plaza)			Westbound (Montano Plaza)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	116	44	51	264	187	214	68	2,482	132	365	2,170	111	

La Orilla Rd. / Coors Blvd.

(3) 4.4% Truck Existing (2006) 2008 (NO BUILD - A.M.) 2008 (BUILD - A.M.)	0.83			0.75			0.93			0.94			PHF
	Eastbound (La Orilla Rd.)			Westbound (La Orilla Rd.)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	157	1	89	1	2	0	28	1,755	2	6	1,284	38	
Existing (2006) 2008 (NO BUILD - P.M.) 2008 (BUILD - P.M.)	0.82			0.75			0.93			0.96			PHF
	Eastbound (La Orilla Rd.)			Westbound (La Orilla Rd.)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	58	0	26	3	2	0	163	2,345	1	3	1,898	142	
Existing (2006) 2008 (NO BUILD - P.M.) 2008 (BUILD - P.M.)	0.82			0.75			0.93			0.96			PHF
	Eastbound (La Orilla Rd.)			Westbound (La Orilla Rd.)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	195	425	69	200	523	99	364	2,586	53	198	2,176	182	
Existing (2006) 2008 (NO BUILD - P.M.) 2008 (BUILD - P.M.)	0.82			0.75			0.93			0.96			PHF
	Eastbound (La Orilla Rd.)			Westbound (La Orilla Rd.)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	245	425	69	200	523	100	364	2,693	53	199	2,281	231	

Eagle Ranch Rd. / Coors Blvd.

(4) 3.4% Truck Existing (2006) 2008 (NO BUILD - A.M.) 2008 (BUILD - A.M.)	0.72			0.80			0.88			0.91			PHF
	Eastbound (Eagle Ranch Rd.)			Westbound (Eagle Ranch Rd.)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	15	9	237	21	1	46	115	1,457	4	30	1,000	5	
Existing (2006) 2008 (NO BUILD - P.M.) 2008 (BUILD - P.M.)	0.90			0.73			0.93			0.92			PHF
	Eastbound (Eagle Ranch Rd.)			Westbound (Eagle Ranch Rd.)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	16	9	259	31	1	48	129	1,591	11	31	1,115	5	
Existing (2006) 2008 (NO BUILD - P.M.) 2008 (BUILD - P.M.)	0.90			0.73			0.93			0.92			PHF
	Eastbound (Eagle Ranch Rd.)			Westbound (Eagle Ranch Rd.)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	16	9	273	35	1	48	140	1,610	14	31	1,140	5	
Existing (2006) 2008 (NO BUILD - P.M.) 2008 (BUILD - P.M.)	0.90			0.73			0.93			0.92			PHF
	Eastbound (Eagle Ranch Rd.)			Westbound (Eagle Ranch Rd.)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	7	24	202	80	58	105	354	1,756	39	158	1,976	11	
Existing (2006) 2008 (NO BUILD - P.M.) 2008 (BUILD - P.M.)	0.90			0.73			0.93			0.92			PHF
	Eastbound (Eagle Ranch Rd.)			Westbound (Eagle Ranch Rd.)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	7	25	236	102	61	111	394	2,022	58	161	2,205	12	
Existing (2006) 2008 (NO BUILD - P.M.) 2008 (BUILD - P.M.)	0.90			0.73			0.93			0.92			PHF
	Eastbound (Eagle Ranch Rd.)			Westbound (Eagle Ranch Rd.)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
	7	25	269	112	61	111	427	2,078	68	161	2,262	12	

Bosquecito Commercial Development (Bosque Meadows Rd. / Coors Blvd.)

Projected Turning Movements SUMMARY
PROPOSED DEVELOPMENT (2008) - 100% Development

INTERSECTION: Summary

SIPPI Entr. / Coors Blvd.

(5)

3.4% Truck

Existing (2006)

2008 (NO BUILD - A.M.)

2008 (BUILD - A.M.)

0.85			0.86			0.82			0.89			PHF
Eastbound (SIPPI Entr.)			Westbound (SIPPI Entr.)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	0	0	78	0	206	0	1,556	128	226	1,003	0	
0	0	0	83	0	217	0	1,627	134	230	1,033	0	
0	0	0	84	0	217	0	1,645	135	230	1,057	0	

Existing (2006)

2008 (NO BUILD - P.M.)

2008 (BUILD - P.M.)

0.85			0.80			0.89			0.96			PHF
Eastbound (SIPPI Entr.)			Westbound (SIPPI Entr.)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	0	0	147	0	125	0	1,530	99	236	1,992	0	
0	0	0	158	0	132	0	1,614	106	241	2,055	0	
0	0	0	160	0	132	0	1,668	108	241	2,110	0	

PdN / Coors Blvd.

(6)

3.0% Truck

Existing (2006)

2008 (NO BUILD - A.M.)

2008 (BUILD - A.M.)

0.73			0.76			0.93			0.87			PHF
Eastbound (PdN)			Westbound (PdN)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
41	0	47	279	0	0	47	972	709	2,053	1,110	47	
42	0	56	297	0	0	54	994	723	2,093	1,135	48	
42	0	76	301	0	0	69	994	726	2,093	1,135	48	

Existing (2006)

2008 (NO BUILD - P.M.)

2008 (BUILD - P.M.)

0.91			0.78			0.93			0.96			PHF
Eastbound (PdN)			Westbound (PdN)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
83	0	61	537	0	0	114	1,330	288	1,075	1,372	127	
87	0	80	572	0	0	133	1,363	296	1,096	1,406	129	
87	0	126	580	0	0	179	1,364	304	1,096	1,407	129	

Bosque Meadows / Coors Blvd.

(7)

3.0% Truck

Existing (2006)

2008 (NO BUILD - A.M.)

2008 (BUILD - A.M.)

0.85			0.85			0.95			0.90			PHF
Eastbound (Bosque Meadows)			Westbound (Bosque Meadows)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	0	0	21	0	26	0	1,635	5	14	1,598	0	
0	0	0	22	0	28	0	1,797	5	15	1,784	0	
0	0	0	117	0	59	0	1,762	108	114	1,727	0	

Existing (2006)

2008 (NO BUILD - P.M.)

2008 (BUILD - P.M.)

0.85			0.85			0.95			0.95			PHF
Eastbound (Bosque Meadows)			Westbound (Bosque Meadows)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	0	0	7	0	8	0	2,223	21	25	2,447	0	
0	0	0	7	0	8	0	2,559	22	26	2,789	0	
0	0	0	291	0	71	0	2,480	258	254	2,658	0	

Bosque Meadows / Bosq. Mead. Pl.

(8)

2.0% Truck

Existing (2006)

2008 (NO BUILD - A.M.)

2008 (BUILD - A.M.)

0.85			0.85			0.85			0.85			PHF
Eastbound (Bosque Meadows)			Westbound (Bosque Meadows)			Northbound (Bosq. Mead. Pl.)			Southbound (Bosq. Mead. Pl.)			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	1	15	0	1	0	47	0	0	0	0	0	
0	1	16	0	1	0	50	0	0	0	0	0	
0	204	16	0	127	0	50	0	0	0	0	0	

Existing (2006)

2008 (NO BUILD - P.M.)

2008 (BUILD - P.M.)

0.85			0.85			0.85			0.85			PHF
Eastbound (Bosque Meadows)			Westbound (Bosque Meadows)			Northbound (Bosq. Mead. Pl.)			Southbound (Bosq. Mead. Pl.)			
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
0	0	47	0	1	0	20	0	0	0	0	0	
0	0	50	0	1	0	21	0	0	0	0	0	
0	464	50	0	348	0	21	0	0	0	0	0	

Bosquecito Commercial Development (Bosque Meadows Rd. / Coors Blvd.)

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2008) - 100% Development

INTERSECTION: Summary

Bosque Meadows / Bosq Mead North			0.85			0.85			0.85			0.85			PHF
(9) 2.0% Truck	Eastbound (Bosque Meadows)			Westbound (Bosque Meadows)			Northbound (Bosq Mead North)			Southbound (Bosq Mead North)					
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right			
	0	1	0	0	1	0	0	0	0	0	0	0			
	Existing (2006)	0	1	0	0	1	0	0	0	0	0	0			
	2008 (NO BUILD - A.M.)	203	1	0	0	1	2	0	0	0	1	0			
															126
			0.85			0.85			0.85			0.85			PHF
	Eastbound (Bosque Meadows)			Westbound (Bosque Meadows)			Northbound (Bosq Mead North)			Southbound (Bosq Mead North)					
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right			
	0	0	0	0	1	0	0	0	0	0	0	0			
	Existing (2006)	0	0	0	0	1	0	0	0	0	0	0			
	2008 (NO BUILD - P.M.)	464	0	0	0	1	4	0	0	0	4	0			
															347

Bosquecito Commercial Development (Bosque Meadows Rd. / Coors Blvd.)
Projected Turning Movements Worksheet
Montano Rd. / Coors Blvd.

INTERSECTION:E-W Street: **Montano Rd.** (1)N-S Street: **Coors Blvd.**

Year of Existing Counts 2003

Implementation Year 2008

Growth Rates

	3.00%			2.70%			1.00%			1.30%		
	Eastbound (Montano Rd.)			Westbound (Montano Rd.)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	74	743	274	166	252	59	213	1,238	310	286	1,288	56
Background Traffic Growth	11	111	41	22	34	8	11	62	16	19	84	4
Subtotal	85	854	315	188	286	67	224	1,300	326	305	1,372	60
La Orilla / Coors corners Trips	46	0	0	0	0	0	0	27	0	0	21	35
Andalucia / Montaño Shoppes Trips	0	146	77	39	109	53	94	106	62	50	64	0
La Orilla / Coors SW Corner Trips	19	0	0	0	0	21	0	19	0	18	16	16
Subtotal (NO BUILD - A.M.)	150	1,000	392	227	395	141	318	1,452	388	373	1,473	111
Percent Commercial Trips Generated(Entering)	19.42%	0.00%	0.00%	0.00%	0.00%	12.00%	0.00%	1.99%	0.00%	0.00%	0.00%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.00%	1.99%	19.42%
Total Trips Generated	22	0	0	0	0	14	0	2	0	10	2	17
Total AM Peak Hour BUILD Volumes	172	1,000	392	227	395	155	318	1,454	388	383	1,475	128

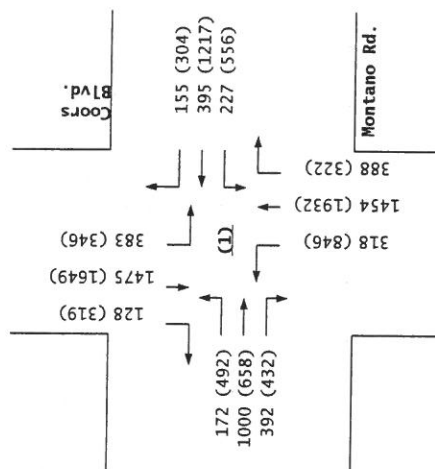
	Eastbound (Montano Rd.)			Westbound (Montano Rd.)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	268	312	245	369	837	105	649	1,658	225	162	1,301	126
Background Traffic Growth	40	47	37	50	113	14	32	83	11	11	85	8
Subtotal	308	359	282	419	950	119	681	1,741	236	173	1,386	134
La Orilla / Coors corners Trips	90	0	0	0	0	0	0	53	0	0	55	93
Andalucia / Montaño Shoppes Trips	0	299	150	137	267	106	165	91	86	95	163	0
La Orilla / Coors SW Corner Trips	43	0	0	0	0	48	0	42	0	47	40	42
Subtotal (NO BUILD - P.M.)	441	658	432	556	1,217	273	846	1,927	322	315	1,644	269
Percent Commercial Trips Generated(Entering)	19.42%	0.00%	0.00%	0.00%	0.00%	12.00%	0.00%	1.99%	0.00%	0.00%	0.00%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.00%	1.99%	19.42%
Total Trips Generated	51	0	0	0	0	31	0	5	0	31	5	50
Total PM Peak Hour BUILD Volumes	492	658	432	556	1,217	304	846	1,932	322	346	1,649	319

Number of Commercial Trips Generated

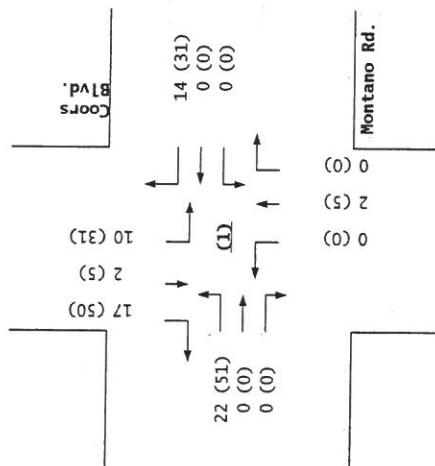
Entering	114	86	A.M.	100% Commercial Development
Exiting	261	258	P.M.	

	Eastbound (Montano Rd.)			Westbound (Montano Rd.)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2006 AM Peak Hr. Volumes	81	810	299	179	272	64	219	1,275	319	297	1,338	58
2006 PM Peak Hr. Volumes	292	340	267	399	905	114	668	1,708	232	168	1,352	131

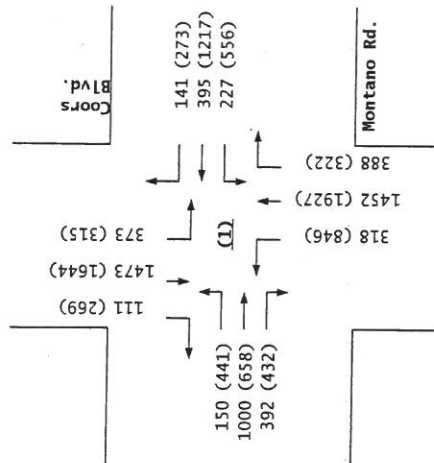
2008
BUILD



Trips



2008
NO BUILD



Montano Rd. / Coors Blvd.

Bosquecito Commercial Development (Bosque Meadows Rd. / Coors Blvd.)

Projected Turning Movements Worksheet

Montano Plaza / Coors Blvd.

INTERSECTION:

E-W Street: **Montano Plaza** (2)

N-S Street: **Coors Blvd.**

Year of Existing Counts **2003 (Late 2002)**

Implementation Year **2008**

	1.00%			1.00%			1.30%			1.30%		
	Eastbound (Montano Plaza)			Westbound (Montano Plaza)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	105	17	69	64	11	53	5	1,307	44	59	1,649	16
Background Traffic Growth	5	1	3	3	1	3	0	85	3	4	107	1
Subtotal	110	18	72	67	12	56	5	1,392	47	63	1,756	17
La Orilla / Coors corners Trips	22	0	0	0	0	3	0	74	0	2	56	17
Andalucia / Montano Shoppes Trips	0	4	18	0	3	11	16	142	0	10	94	0
La Orilla / Coors SW Corner Trips	10	0	0	0	0	0	0	59	0	0	50	8
Subtotal (NO BUILD - A.M.)	142	22	90	67	15	70	21	1,667	47	75	1,956	42
Percent Commercial Trips Generated(Entering)	7.06%	0.00%	0.00%	0.00%	0.00%	0.34%	0.00%	33.41%	0.00%	0.00%	0.00%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.34%	33.41%	7.06%
Total Trips Generated	8	0	0	0	0	0	0	38	0	0	29	6
Total AM Peak Hour BUILD Volumes	150	22	90	67	15	70	21	1,705	47	75	1,985	48

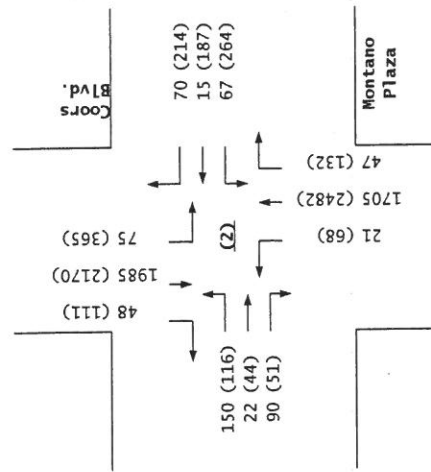
	Eastbound (Montano Plaza)			Westbound (Montano Plaza)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	32	33	16	251	168	156	35	1,835	124	310	1,488	27
Background Traffic Growth	2	2	1	13	8	8	2	119	8	20	97	2
Subtotal	34	35	17	264	176	164	37	1,954	132	330	1,585	29
La Orilla / Coors corners Trips	42	0	0	0	0	7	0	143	0	7	147	43
Andalucia / Montano Shoppes Trips	0	9	34	0	11	42	31	165	0	27	223	0
La Orilla / Coors SW Corner Trips	22	0	0	0	0	0	0	133	0	0	129	21
Subtotal (NO BUILD - P.M.)	98	44	51	264	187	213	68	2,395	132	364	2,084	93
Percent Commercial Trips Generated(Entering)	7.06%	0.00%	0.00%	0.00%	0.00%	0.34%	0.00%	33.41%	0.00%	0.00%	0.00%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.34%	33.41%	7.06%
Total Trips Generated	18	0	0	0	0	1	0	87	0	1	86	18
Total PM Peak Hour BUILD Volumes	116	44	51	264	187	214	68	2,482	132	365	2,170	111

Number of Commercial Trips Generated

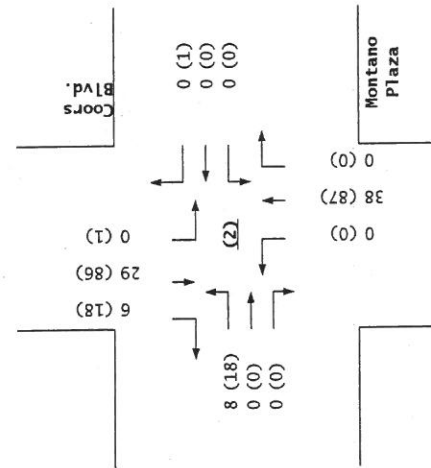
Entering	114	86	A.M.	100% Commercial Development
Exiting	261	258	P.M.	

	Eastbound (Montano Plaza)			Westbound (Montano Plaza)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2006 AM Peak Hr. Volumes	108	18	71	66	11	55	5	1,358	46	61	1,713	17
2006 PM Peak Hr. Volumes	33	34	16	259	173	161	36	1,907	129	322	1,546	28

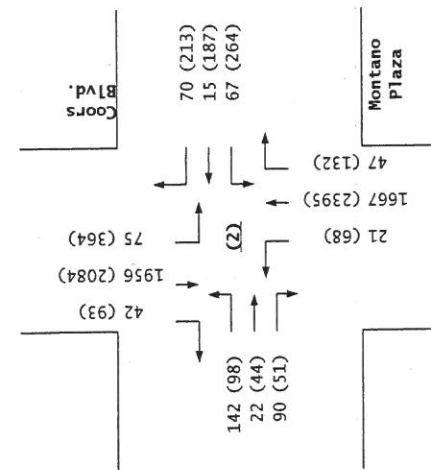
2008
BUILD



Trips



2008
NO BUILD



Montano Plaza / Coors Blvd.

Bosquecito Commercial Development (Bosque Meadows Rd. / Coors Blvd.)
 Projected Turning Movements Worksheet
La Orilla Rd. / Coors Blvd.

INTERSECTION: E-W Street: **La Orilla Rd.** (3)
 N-S Street: **Coors Blvd.**
 Year of Existing Counts: **2004**
 Implementation Year: **2008**
 Growth Rates

	1.00%			1.00%			1.30%			2.20%		
	Eastbound (La Orilla Rd.)			Westbound (La Orilla Rd.)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	154	1	87	1	2	0	27	1,711	2	6	1,230	36
Background Traffic Growth	6	0	3	0	0	0	1	89	0	1	108	3
Subtotal	160	1	90	1	2	0	28	1,800	2	7	1,338	39
La Orilla / Coors corners Trips	39	215	0	75	196	36	0	22	27	100	0	0
Andalucia / Montañño Shoppes Trips	0	0	22	0	0	0	19	134	0	0	81	0
La Orilla / Coors SW Corner Trips	25	0	0	0	0	0	69	0	0	0	15	15
Subtotal (NO BUILD - A.M.)	224	216	112	76	198	36	116	1,956	29	107	1,434	54
Percent Commercial Trips Generated(Entering)	19.13%	0.00%	0.00%	0.00%	0.00%	0.20%	0.00%	40.81%	0.00%	0.00%	0.00%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.20%	40.81%	19.13%
Total Trips Generated	22	0	0	0	0	0	0	47	0	0	35	16
Total AM Peak Hour BUILD Volumes	246	216	112	76	198	36	116	2,003	29	107	1,469	70

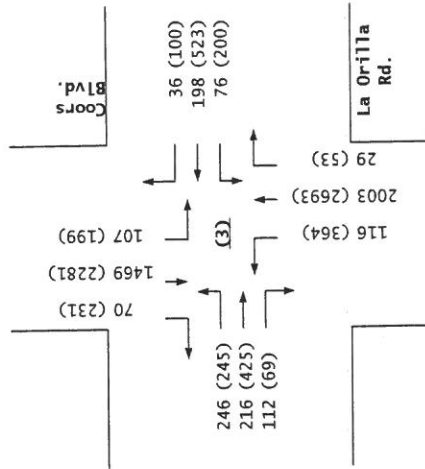
	Eastbound (La Orilla Rd.)			Westbound (La Orilla Rd.)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	57	0	25	3	2	0	159	2,286	1	3	1,818	136
Background Traffic Growth	2	0	1	0	0	0	8	119	0	0	160	12
Subtotal	59	0	26	3	2	0	167	2,405	1	3	1,978	148
La Orilla / Coors corners Trips	71	425	0	197	521	99	0	41	52	195	0	0
Andalucia / Montañño Shoppes Trips	0	0	43	0	0	0	42	140	0	0	164	0
La Orilla / Coors SW Corner Trips	65	0	0	0	0	0	155	0	0	0	34	34
Subtotal (NO BUILD - P.M.)	195	425	69	200	523	99	364	2,586	53	198	2,176	182
Percent Commercial Trips Generated(Entering)	19.13%	0.00%	0.00%	0.00%	0.00%	0.20%	0.00%	40.81%	0.00%	0.00%	0.00%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.20%	40.81%	19.13%
Total Trips Generated	50	0	0	0	0	1	0	107	0	1	105	49
Total PM Peak Hour BUILD Volumes	245	425	69	200	523	100	364	2,693	53	199	2,281	231

Number of Commercial Trips Generated

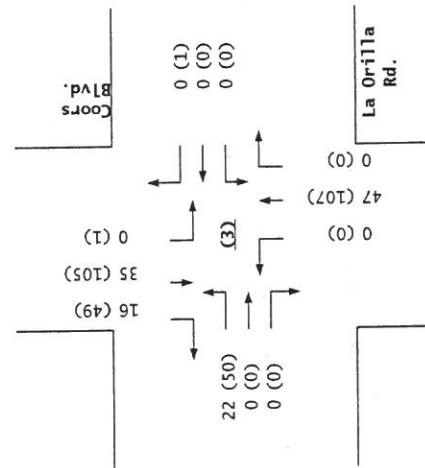
Entering	114	86	A.M.	100% Commercial Development
Exiting	261	258	P.M.	

	Eastbound (La Orilla Rd.)			Westbound (La Orilla Rd.)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2006 AM Peak Hr. Volumes	157	1	89	1	2	0	28	1,755	2	6	1,284	38
2006 PM Peak Hr. Volumes	58	0	26	3	2	0	163	2,345	1	3	1,898	142

2008
BUILD

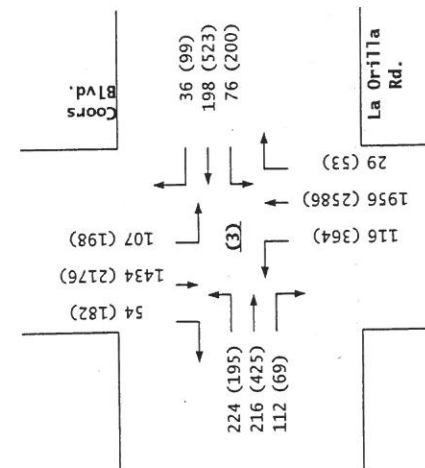


Trips



La Orilla Rd. / Coors Blvd.

2008
NO BUILD



Bosquecito Commercial Development (Bosque Meadows Rd. / Coors Blvd.)
Projected Turning Movements Worksheet
Eagle Ranch Rd. / Coors Blvd.

INTERSECTION: E-W Street: **Eagle Ranch Rd.** (4)
 N-S Street: **Coors Blvd.**
 Year of Existing Counts: **2002**
 Implementation Year: **2008**
 Growth Rates

	2.30%			3.00%			2.20%			1.00%		
	Eastbound (Eagle Ranch Rd.)			Westbound (Eagle Ranch Rd.)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	14	8	217	19	1	41	106	1,339	4	29	962	5
Background Traffic Growth	2	1	30	3	0	7	14	177	1	2	58	0
Subtotal	16	9	247	22	1	48	120	1,516	5	31	1,020	5
La Orilla / Coors corners Trips	0	0	0	0	0	0	0	0	0	0	0	0
Andalucia / Montaño Shoppes Trips	0	0	6	4	0	0	4	64	2	0	83	0
La Orilla / Coors SW Corner Trips	0	0	6	5	0	0	5	11	4	0	12	0
Subtotal (NO BUILD - A.M.)	16	9	259	31	1	48	129	1,591	11	31	1,115	5
Percent Commercial Trips Generated(Entering)	0.00%	0.00%	12.62%	3.82%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	21.79%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.62%	21.79%	3.82%	0.00%	0.00%	0.00%
Total Trips Generated	0	0	14	4	0	0	11	19	3	0	25	0
Total AM Peak Hour BUILD Volumes	16	9	273	35	1	48	140	1,610	14	31	1,140	5

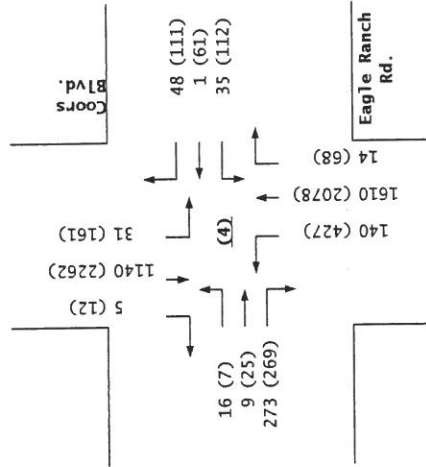
	Eastbound (Eagle Ranch Rd.)			Westbound (Eagle Ranch Rd.)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	6	22	185	71	52	94	325	1,614	36	152	1,900	11
Background Traffic Growth	1	3	26	13	9	17	43	213	5	9	114	1
Subtotal	7	25	211	84	61	111	368	1,827	41	161	2,014	12
La Orilla / Coors corners Trips	0	0	0	0	0	0	0	0	0	0	0	0
Andalucia / Montaño Shoppes Trips	0	0	11	7	0	0	12	168	7	0	163	0
La Orilla / Coors SW Corner Trips	0	0	14	11	0	0	14	27	10	0	28	0
Subtotal (NO BUILD - P.M.)	7	25	236	102	61	111	394	2,022	58	161	2,205	12
Percent Commercial Trips Generated(Entering)	0.00%	0.00%	12.62%	3.82%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	21.79%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.62%	21.79%	3.82%	0.00%	0.00%	0.00%
Total Trips Generated	0	0	33	10	0	0	33	56	10	0	57	0
Total PM Peak Hour BUILD Volumes	7	25	269	112	61	111	427	2,078	68	161	2,262	12

Number of Commercial Trips Generated

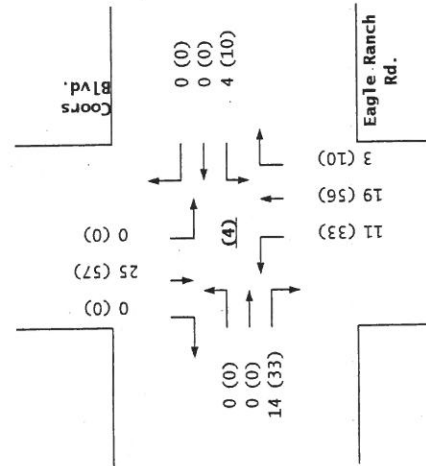
Entering	Exiting		
114	86	A.M.	100% Commercial Development
261	258	P.M.	

	Eastbound (Eagle Ranch Rd.)			Westbound (Eagle Ranch Rd.)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2006 AM Peak Hr. Volumes	15	9	237	21	1	46	115	1,457	4	30	1,000	5
2006 PM Peak Hr. Volumes	7	24	202	80	58	105	354	1,756	39	158	1,976	11

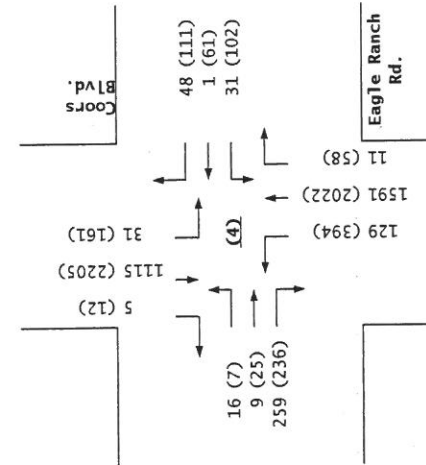
2008
BUILD



Trips



2008
NO BUILD



Eagle Ranch Rd. / Coors Blvd.

Bosquecito Commercial Development (Bosque Meadows Rd. / Coors Blvd.)
Projected Turning Movements Worksheet
SIPPI Entr. / Coors Blvd.

INTERSECTION:E-W Street: **SIPPI Entr.** (5)N-S Street: **Coors Blvd.**

Year of Existing Counts

2001

Implementation Year

2008

Growth Rates

	0.00%			3.00%			2.20%			1.00%		
	Eastbound (SIPPI Entr.)			Westbound (SIPPI Entr.)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	68	0	179	0	1,402	115	215	955	0
Background Traffic Growth	0	0	0	14	0	38	0	216	18	15	67	0
Subtotal	0	0	0	82	0	217	0	1,618	133	230	1,022	0
La Orilla / Coors comers Trips	0	0	0	0	0	0	0	0	0	0	0	0
Andalucia / Montaño Shoppes Trips	0	0	0	0	0	0	0	0	0	0	0	0
La Orilla / Coors SW Corner Trips	0	0	0	1	0	0	0	9	1	0	11	0
Subtotal (NO BUILD - A.M.)	0	0	0	83	0	217	0	1,627	134	230	1,033	0
Percent Commercial Trips Generated(Entering)	0.00%	0.00%	0.00%	0.68%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	21.11%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	21.11%	0.68%	0.00%	0.00%	0.00%
Total Trips Generated	0	0	0	1	0	0	0	18	1	0	24	0
Total AM Peak Hour BUILD Volumes	0	0	0	84	0	217	0	1,645	135	230	1,057	0

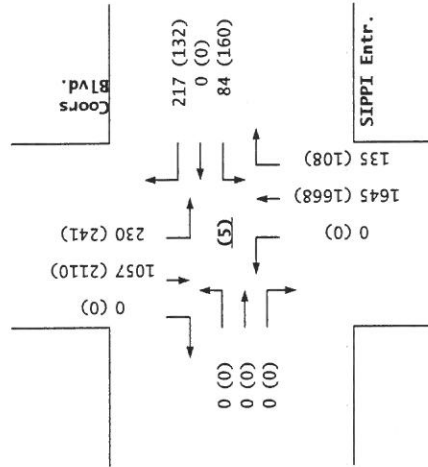
	Eastbound (SIPPI Entr.)			Westbound (SIPPI Entr.)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	128	0	109	0	1,378	89	225	1,897	0
Background Traffic Growth	0	0	0	27	0	23	0	212	14	16	133	0
Subtotal	0	0	0	155	0	132	0	1,590	103	241	2,030	0
La Orilla / Coors comers Trips	0	0	0	0	0	0	0	0	0	0	0	0
Andalucia / Montaño Shoppes Trips	0	0	0	0	0	0	0	0	0	0	0	0
La Orilla / Coors SW Corner Trips	0	0	0	3	0	0	0	24	3	0	25	0
Subtotal (NO BUILD - P.M.)	0	0	0	158	0	132	0	1,614	106	241	2,055	0
Percent Commercial Trips Generated(Entering)	0.00%	0.00%	0.00%	0.68%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	21.11%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	21.11%	0.68%	0.00%	0.00%	0.00%
Total Trips Generated	0	0	0	2	0	0	0	54	2	0	55	0
Total PM Peak Hour BUILD Volumes	0	0	0	160	0	132	0	1,668	108	241	2,110	0

Number of Commercial Trips Generated

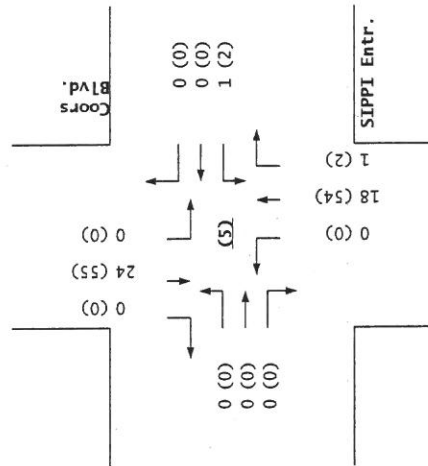
Entering	114	86	A.M.	100% Commercial Development
Exiting	261	258	P.M.	

	Eastbound (SIPPI Entr.)			Westbound (SIPPI Entr.)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2006 AM Peak Hr. Volumes	0	0	0	78	0	206	0	1,556	128	226	1,003	0
2006 PM Peak Hr. Volumes	0	0	0	147	0	125	0	1,530	99	236	1,992	0

2008
BUILD



Trips



2008
NO BUILD

SIPPI Entr. / Coors Blvd.

Bosquecito Commercial Development (Bosque Meadows Rd. / Coors Blvd.)

Projected Turning Movements Worksheet

PdN / Coors Blvd.

INTERSECTION:

E-W Street: **PdN**
N-S Street: **Coors Blvd.**

(6)

Year of Existing Counts: 2003
Implementation Year: 2008

Growth Rates

	2.30%			3.40%			1.00%			1.00%		
	Eastbound (PdN)			Westbound (PdN)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	38	0	44	253	0	0	46	944	688	1,993	1,078	46
Background Traffic Growth	4	0	5	43	0	0	2	47	34	100	54	2
Subtotal	42	0	49	296	0	0	48	991	722	2,093	1,132	48
La Orilla / Coors corners Trips	0	0	0	0	0	0	0	0	0	0	0	0
Andalucia / Montañio Shoppes Trips	0	0	0	0	0	0	0	0	0	0	0	0
La Orilla / Coors SW Corner Trips	0	0	7	1	0	0	6	3	1	0	3	0
Subtotal (NO BUILD - A.M.)	42	0	56	297	0	0	54	994	723	2,093	1,135	48
Percent Commercial Trips Generated(Entering)	0.00%	0.00%	17.67%	3.13%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.31%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	17.67%	0.31%	3.13%	0.00%	0.00%	0.00%
Total Trips Generated	0	0	20	4	0	0	15	0	3	0	0	0
Total AM Peak Hour BUILD Volumes	42	0	76	301	0	0	69	994	726	2,093	1,135	48

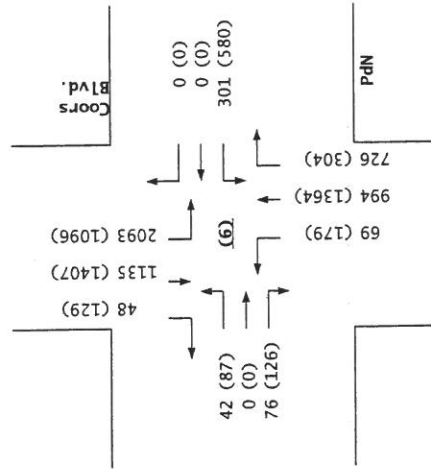
	Eastbound (PdN)			Westbound (PdN)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	78	0	57	487	0	0	111	1,291	280	1,044	1,332	123
Background Traffic Growth	9	0	7	83	0	0	6	65	14	52	67	6
Subtotal	87	0	64	570	0	0	117	1,356	294	1,096	1,399	129
La Orilla / Coors corners Trips	0	0	0	0	0	0	0	0	0	0	0	0
Andalucia / Montañio Shoppes Trips	0	0	0	0	0	0	0	0	0	0	0	0
La Orilla / Coors SW Corner Trips	0	0	16	2	0	0	16	7	2	0	7	0
Subtotal (NO BUILD - P.M.)	87	0	80	572	0	0	133	1,363	296	1,096	1,406	129
Percent Commercial Trips Generated(Entering)	0.00%	0.00%	17.67%	3.13%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.31%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	17.67%	0.31%	3.13%	0.00%	0.00%	0.00%
Total Trips Generated	0	0	46	8	0	0	46	1	8	0	1	0
Total PM Peak Hour BUILD Volumes	87	0	126	580	0	0	179	1,364	304	1,096	1,407	129

Number of Commercial Trips Generated

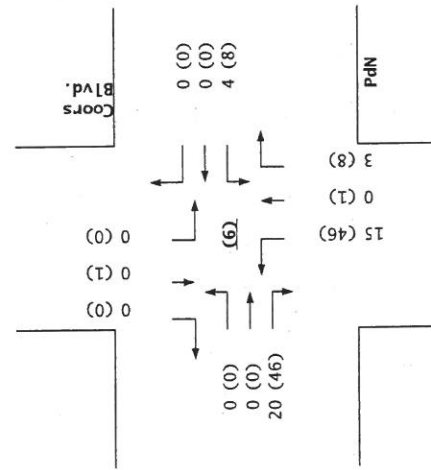
Entering	Exiting	A.M.	100% Commercial Development
114	86		
261	258	P.M.	

	Eastbound (PdN)			Westbound (PdN)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2006 AM Peak Hr. Volumes	41	0	47	279	0	0	47	972	709	2,053	1,110	47
2006 PM Peak Hr. Volumes	83	0	61	537	0	0	114	1,330	288	1,075	1,372	127

2008
BUILD

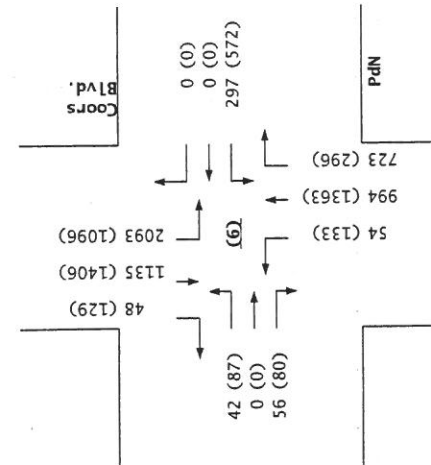


Trips



PdN / Coors Blvd.

2008
NO BUILD



Bosquecito Commercial Development (Bosque Meadows Rd. / Coors Blvd.)
Projected Turning Movements Worksheet
Bosque Meadows / Coors Blvd.

INTERSECTION :E-W Street: **Bosque Meadows** (7)N-S Street: **Coors Blvd.**Year of Existing Counts **2006**Implementation Year **2008**

Growth Rates

3.00%

3.00%

2.20%

2.20%

Existing Volumes
 Background Traffic Growth
 Subtotal
 La Orilla / Coors corners Trips
 Andalucia / Montaño Shoppes Trips
 La Orilla / Coors SW Corner Trips
 Subtotal (NO BUILD - A.M.)
 Percent Commercial Trips Generated(Entering)
 Percent Commercial Trips Generated(Exiting)
 Total Trips Generated
 Subtotal AM Pk Hr. BUILD Volumes
 Pass-by Trip Adjustments
 Total AM Peak Hour BUILD Volumes

Eastbound (Bosque Meadows)			Westbound (Bosque Meadows)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	0	0	21	0	26	0	1,635	5	14	1,598	0
0	0	0	1	0	2	0	72	0	1	70	0
0	0	0	22	0	28	0	1,707	5	15	1,668	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	70	0	0	93	0
0	0	0	0	0	0	0	20	0	0	23	0
0	0	0	22	0	28	0	1,797	5	15	1,784	0
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%	50.14%	37.23%	0.00%	0.00%
0.00%	0.00%	0.00%	60.14%	0.00%	13.23%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
0	0	0	52	0	11	0	11	57	42	0	0
0	0	0	74	0	39	0	1,808	62	57	1,784	0
0	0	0	43	0	20	0	-46	46	57	-57	0
0	0	0	117	0	59	0	1,762	108	114	1,727	0

Existing Volumes
 Background Traffic Growth
 Subtotal
 La Orilla / Coors corners Trips
 Andalucia / Montaño Shoppes Trips
 La Orilla / Coors SW Corner Trips
 Subtotal (NO BUILD - P.M.)
 Percent Commercial Trips Generated(Entering)
 Percent Commercial Trips Generated(Exiting)
 Total Trips Generated
 Subtotal PM Pk Hr. BUILD Volumes
 Pass-by Trip Adjustments
 Total PM Peak Hour BUILD Volumes

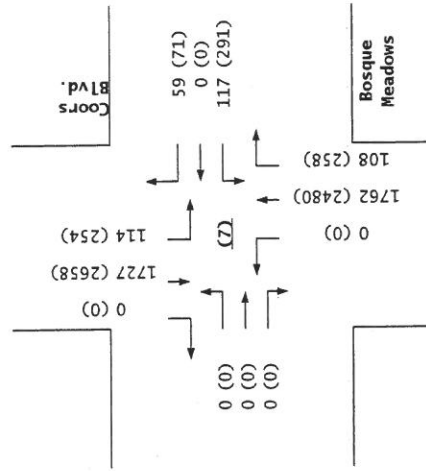
Eastbound (Bosque Meadows)			Westbound (Bosque Meadows)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)		
Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
0	0	0	7	0	8	0	2,223	21	25	2,447	0
0	0	0	0	0	0	0	98	1	1	108	0
0	0	0	7	0	8	0	2,321	22	26	2,555	0
0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	187	0	0	181	0
0	0	0	0	0	0	0	51	0	0	53	0
0	0	0	7	0	8	0	2,559	22	26	2,789	0
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%	50.14%	37.23%	0.00%	0.00%
0.00%	0.00%	0.00%	60.14%	0.00%	13.23%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
0	0	0	155	0	34	0	26	131	97	0	0
0	0	0	162	0	42	0	2,585	153	123	2,789	0
0	0	0	129	0	29	0	-105	105	131	-131	0
0	0	0	291	0	71	0	2,480	258	254	2,658	0

Number of Commercial Trips Generated

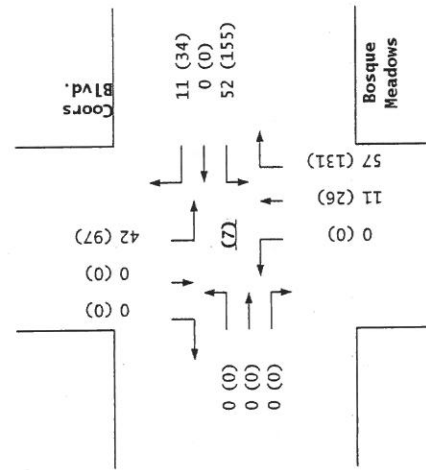
Entering	Exiting		
114	86	A.M.	100% Commercial Development
261	258	P.M.	

	Eastbound (Bosque Meadows)			Westbound (Bosque Meadows)			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2006 AM Peak Hr. Volumes	0	0	0	21	0	26	0	1,635	5	14	1,598	0
2006 PM Peak Hr. Volumes	0	0	0	7	0	8	0	2,223	21	25	2,447	0

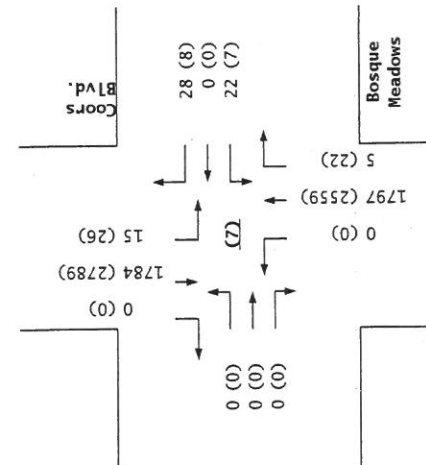
2008
BUILD



Trips



2008
NO BUILD



Bosque Meadows / Coors Blvd.

Bosquecito Commercial Development (Bosque Meadows Rd. / Coors Blvd.)
Projected Turning Movements Worksheet
Bosque Meadows / Bosq. Mead. Pl.

INTERSECTION:

E-W Street: **Bosque Meadows** (8)
 N-S Street: **Bosq. Mead. Pl.**

Year of Existing Counts: **2006**
 Implementation Year: **2008**

	3.00%			3.00%			3.00%			3.00%		
	Eastbound (Bosque Meadows)			Westbound (Bosque Meadows)			Northbound (Bosq. Mead. Pl.)			Southbound (Bosq. Mead. Pl.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	1	15	0	1	0	47	0	0	0	0	0
Background Traffic Growth	0	0	1	0	0	0	3	0	0	0	0	0
Subtotal	0	1	16	0	1	0	50	0	0	0	0	0
La Orilla / Coors corners Trips	0	0	0	0	0	0	0	0	0	0	0	0
Andalucia / Montañio Shoppes Trips	0	0	0	0	0	0	0	0	0	0	0	0
La Orilla / Coors SW Corner Trips	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	0	1	16	0	1	0	50	0	0	0	0	0
Percent Commercial Trips Generated(Entering)	0.00%	87.37%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	73.37%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	0	100	0	0	63	0	0	0	0	0	0	0
Subtotal AM Pk Hr. BUILD Volumes	0	101	16	0	64	0	50	0	0	0	0	0
Pass-by Trip Adjustments	0	103	0	0	63	0	0	0	0	0	0	0
Total AM Peak Hour BUILD Volumes	0	204	16	0	127	0	50	0	0	0	0	0

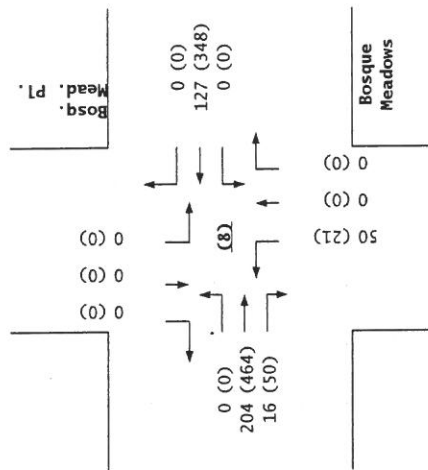
	Eastbound (Bosque Meadows)			Westbound (Bosque Meadows)			Northbound (Bosq. Mead. Pl.)			Southbound (Bosq. Mead. Pl.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	47	0	1	0	20	0	0	0	0	0
Background Traffic Growth	0	0	3	0	0	0	1	0	0	0	0	0
Subtotal	0	0	50	0	1	0	21	0	0	0	0	0
La Orilla / Coors corners Trips	0	0	0	0	0	0	0	0	0	0	0	0
Andalucia / Montañio Shoppes Trips	0	0	0	0	0	0	0	0	0	0	0	0
La Orilla / Coors SW Corner Trips	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	0	0	50	0	1	0	21	0	0	0	0	0
Percent Commercial Trips Generated(Entering)	0.00%	87.37%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	73.37%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	0	228	0	0	189	0	0	0	0	0	0	0
Subtotal PM Pk Hr. BUILD Volumes	0	228	50	0	190	0	21	0	0	0	0	0
Pass-by Trip Adjustments	0	236	0	0	158	0	0	0	0	0	0	0
Total PM Peak Hour BUILD Volumes	0	464	50	0	348	0	21	0	0	0	0	0

Number of Commercial Trips Generated

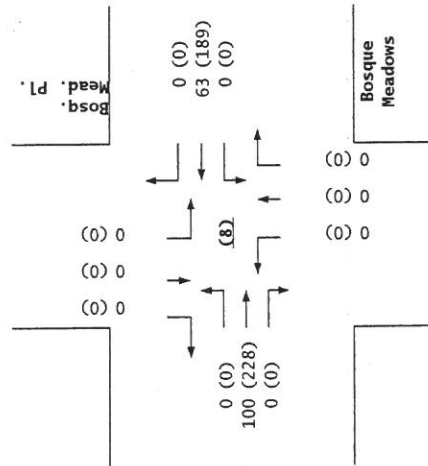
Entering	114	86	A.M.	100% Commercial Development
Exiting	261	258	P.M.	

	Eastbound (Bosque Meadows)			Westbound (Bosque Meadows)			Northbound (Bosq. Mead. Pl.)			Southbound (Bosq. Mead. Pl.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2006 AM Peak Hr. Volumes	0	1	15	0	1	0	47	0	0	0	0	0
2006 PM Peak Hr. Volumes	0	0	47	0	1	0	20	0	0	0	0	0

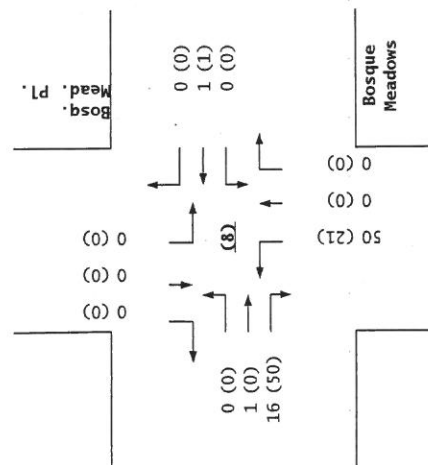
2008
BUILD



Trips



2008
NO BUILD



Bosque Meadows / Bosq. Mead. Pl.

Bosquecito Commercial Development (Bosque Meadows Rd. / Coors Blvd.)
Projected Turning Movements Worksheet
Bosque Meadows / Bosq Mead North

INTERSECTION: E-W Street: **Bosque Meadows** (9)
 N-S Street: **Bosq Mead North**
 Year of Existing Counts: **2006**
 Implementation Year: **2008**

	3.00%			3.00%			3.00%			3.00%		
	Eastbound (Bosque Meadows)			Westbound (Bosque Meadows)			Northbound (Bosq Mead North)			Southbound (Bosq Mead North)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	1	0	0	1	0	0	0	0	0	0	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	0	1	0	0	1	0	0	0	0	0	0	0
La Orilla / Coors corners Trips	0	0	0	0	0	0	0	0	0	0	0	0
Andalucia / Montañio Shoppes Trips	0	0	0	0	0	0	0	0	0	0	0	0
La Orilla / Coors SW Corner Trips	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	0	1	0	0	1	0	0	0	0	0	0	0
Percent Commercial Trips Generated(Entering)	87.37%	0.00%	0.00%	0.00%	0.00%	1.62%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.62%	0.00%	73.37%
Total Trips Generated	100	0	0	0	0	2	0	0	0	1	0	63
Subtotal AM Pk Hr. BUILD Volumes	100	1	0	0	1	2	0	0	0	1	0	63
Pass-by Trip Adjustments	103	0	0	0	0	0	0	0	0	0	0	63
Total AM Peak Hour BUILD Volumes	203	1	0	0	1	2	0	0	0	1	0	126

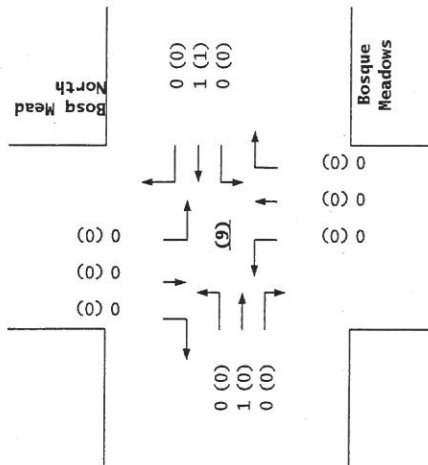
	Eastbound (Bosque Meadows)			Westbound (Bosque Meadows)			Northbound (Bosq Mead North)			Southbound (Bosq Mead North)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	1	0	0	0	0	0	0	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	0	0	0	0	1	0	0	0	0	0	0	0
La Orilla / Coors corners Trips	0	0	0	0	0	0	0	0	0	0	0	0
Andalucia / Montañio Shoppes Trips	0	0	0	0	0	0	0	0	0	0	0	0
La Orilla / Coors SW Corner Trips	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	0	0	0	0	1	0	0	0	0	0	0	0
Percent Commercial Trips Generated(Entering)	87.37%	0.00%	0.00%	0.00%	0.00%	1.62%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.62%	0.00%	73.37%
Total Trips Generated	228	0	0	0	0	4	0	0	0	4	0	189
Subtotal PM Pk Hr. BUILD Volumes	228	0	0	0	1	4	0	0	0	4	0	189
Pass-by Trip Adjustments	236	0	0	0	0	0	0	0	0	0	0	158
Total PM Peak Hour BUILD Volumes	464	0	0	0	1	4	0	0	0	4	0	347

Number of Commercial Trips Generated

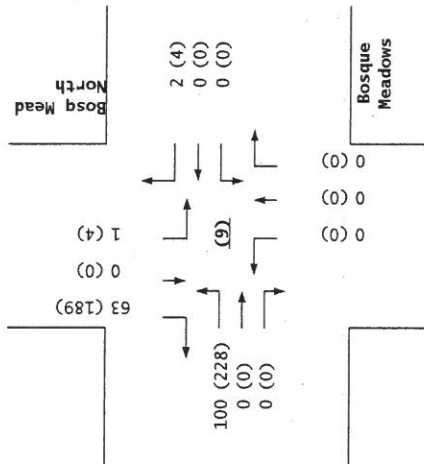
Entering	114	86	A.M.	100% Commercial Development
Exiting	261	258	P.M.	

	Eastbound (Bosque Meadows)			Westbound (Bosque Meadows)			Northbound (Bosq Mead North)			Southbound (Bosq Mead North)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2006 AM Peak Hr. Volumes	0	1	0	0	1	0	0	0	0	0	0	0
2006 PM Peak Hr. Volumes	0	0	0	0	1	0	0	0	0	0	0	0

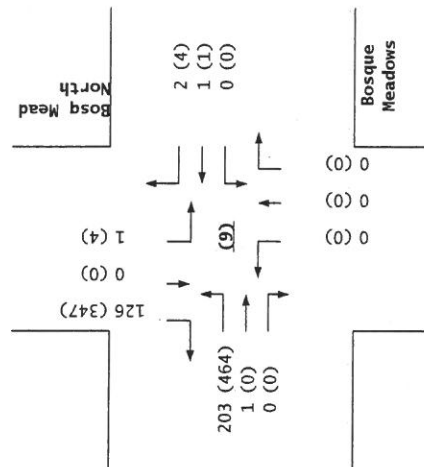
2008
NO BUILD



Trips



2008
BUILD



Bosque Meadows / Bosq Mead North

Bosquecito Commercial Development (Bosque Meadows Rd. / Coors Blvd.)
Projected Turning Movements Worksheet
Driveway "B" / Coors Blvd.

INTERSECTION:

E-W Street: Driveway "B" (10)
 N-S Street: Coors Blvd.

Year of Existing Counts 2006
 Implementation Year 2008

	3.00%			3.00%			2.20%			2.20%		
	Eastbound (Driveway "B")			Westbound (Driveway "B")			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	1,661	0	0	1,612	0
Background Traffic Growth	0	0	0	0	0	0	0	73	0	0	71	0
Subtotal	0	0	0	0	0	0	0	1,734	0	0	1,683	0
La Orilla / Coors corners Trips	0	0	0	0	0	0	0	0	0	0	0	0
Andalucia / Montañño Shoppes Trips	0	0	0	0	0	0	0	0	0	0	0	0
La Orilla / Coors SW Corner Trips	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	0	0	0	0	0	0	0	1,734	0	0	1,683	0
Percent Commercial Trips Generated(Entering)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	0.00%	25.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	0	0	0	0	0	22	0	0	11	0	0	0
Subtotal AM Pk Hr. BUILD Volumes	0	0	0	0	0	22	0	1,734	11	0	1,683	0
Pass-by Trip Adjustments	0	0	0	0	0	25	0	-57	11	0	0	0
Total AM Peak Hour BUILD Volumes	0	0	0	0	0	47	0	1,677	22	0	1,683	0

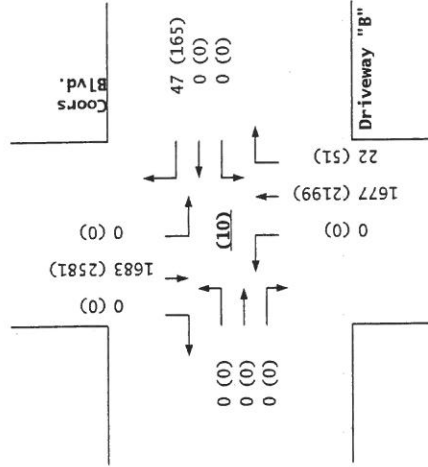
	Eastbound (Driveway "B")			Westbound (Driveway "B")			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	2,231	0	0	2,472	0
Background Traffic Growth	0	0	0	0	0	0	0	98	0	0	109	0
Subtotal	0	0	0	0	0	0	0	2,329	0	0	2,581	0
La Orilla / Coors corners Trips	0	0	0	0	0	0	0	0	0	0	0	0
Andalucia / Montañño Shoppes Trips	0	0	0	0	0	0	0	0	0	0	0	0
La Orilla / Coors SW Corner Trips	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	0	0	0	0	0	0	0	2,329	0	0	2,581	0
Percent Commercial Trips Generated(Entering)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.00%	0.00%	0.00%	0.00%
Percent Commercial Trips Generated(Exiting)	0.00%	0.00%	0.00%	0.00%	0.00%	25.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Trips Generated	0	0	0	0	0	65	0	0	26	0	0	0
Subtotal PM Pk Hr. BUILD Volumes	0	0	0	0	0	65	0	2,329	26	0	2,581	0
Pass-by Trip Adjustments	0	0	0	0	0	100	0	-130	25	0	0	0
Total PM Peak Hour BUILD Volumes	0	0	0	0	0	165	0	2,199	51	0	2,581	0

Number of Commercial Trips Generated

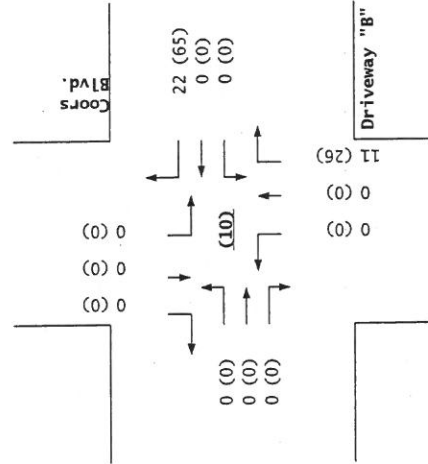
Entering	114	86	A.M.	100% Commercial Development
Exiting	261	258	P.M.	

	Eastbound (Driveway "B")			Westbound (Driveway "B")			Northbound (Coors Blvd.)			Southbound (Coors Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2006 AM Peak Hr. Volumes	0	0	0	0	0	0	0	1,661	0	0	1,612	0
2006 PM Peak Hr. Volumes	0	0	0	0	0	0	0	2,231	0	0	2,472	0

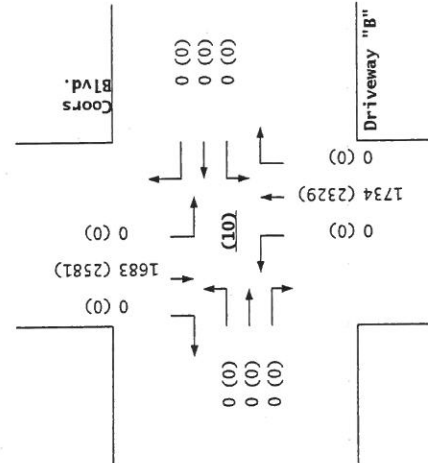
2008
BUILD



Trips



2008
NO BUILD

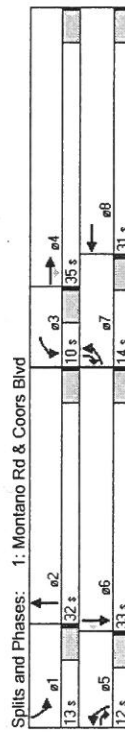


Driveway "B" / Coors Blvd.

Analysis of
2008 AM Peak Hour NO BUILD Conditions

Timings
1: Montano Rd & Coors Blvd
Terry O. Brown, P.E.
7/31/2006

Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	150	1000	392	227	395	318	1452	373	1473	111
Volume (vph)	Prot	pm+ov	Prot	pm+ov	Prot	pm+ov	Prot	pm+ov	Prot	pm+ov
Turn Type	7	4	5	3	8	5	2	1	6	7
Permitted Phases	7	4	5	3	8	5	2	1	6	7
Detector Phases	7	4	5	3	8	5	2	1	6	7
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	20.5	9.5	9.5	20.5	9.5	20.5	9.5	20.5	9.5
Total Split (s)	14.0	35.0	12.0	10.0	31.0	12.0	32.0	13.0	33.0	14.0
Total Split (%)	16.6%	38.9%	13.3%	11.1%	34.4%	13.3%	35.6%	14.4%	36.7%	15.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead-Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Effect Green (s)	10.7	32.0	44.0	7.0	28.3	9.0	29.0	10.0	30.0	43.7
Actuated g/c Ratio	0.12	0.36	0.49	0.08	0.31	0.10	0.32	0.11	0.33	0.49
v/c Ratio	0.56	1.20	0.77	1.10	0.63	1.10	0.77	1.15	1.02	0.16
Control Delay	42.9	128.2	26.9	126.6	27.1	119.4	70.5	114.6	62.3	14.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.9	128.2	26.9	126.6	27.1	119.4	70.5	114.6	62.3	14.9
LOS	D	F	C	F	C	F	E	F	E	B
Approach Delay	94.2									69.5
Approach LOS	F						E			E



2008 AM Peak NOBUILD Conditions
D:\AT0BE\PROJECTS\Bosqueito_Commercial\Synchro2008\ANX.s7
Existing Geometry

HCM Signalized Intersection Capacity Analysis
1: Montano Rd & Coors Blvd
Terry O. Brown, P.E.
7/31/2006

Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	150	1000	392	227	395	318	1452	373	1473	111
Volume (vph)	Prot	pm+ov	Prot	pm+ov	Prot	pm+ov	Prot	pm+ov	Prot	pm+ov
Turn Type	7	4	5	3	8	5	2	1	6	7
Permitted Phases	7	4	5	3	8	5	2	1	6	7
Actuated Green, G (s)	9.2	30.5	38.0	5.5	26.8	7.5	27.5	8.5	28.5	37.7
Effective Green, g (s)	10.7	32.0	44.0	7.0	28.3	9.0	29.0	10.0	30.0	43.7
Actuated g/c Ratio	0.12	0.36	0.46	0.08	0.31	0.10	0.32	0.11	0.33	0.45
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	408	1258	774	267	1069	343	1999	381	1695	769
v/s Ratio Prot	c0.07	c0.43	0.08	c0.09	0.19	0.11	c0.34	c0.13	0.34	0.01
v/s Ratio Perm	0.56	1.20	0.77	1.10	0.61	1.10	1.07	1.15	1.02	0.10
Uniform Delay, d1	37.4	29.0	20.5	41.5	26.2	40.5	30.5	40.0	30.0	14.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.64	1.30	3.31
Incremental Delay, d2	1.6	99.7	4.6	86.1	1.1	79.9	41.6	86.7	23.5	0.0
Delay (s)	39.1	128.7	25.0	127.6	27.3	120.4	72.1	112.5	62.4	46.9
Level of Service	D	F	C	F	C	F	E	F	E	D
Approach Delay (s)	93.6									71.1
Approach LOS	F						E			E

Intersection Summary	
HCM Average Control Delay	78.4
HCM Volume to Capacity ratio	1.09
Actuated Cycle Length (s)	90.0
Intersection Capacity Utilization	85.6%
Analysis Period (min)	15
c Critical Lane Group	

2008 AM Peak NOBUILD Conditions
D:\AT0BE\PROJECTS\Bosqueito_Commercial\Synchro2008\ANX.s7
Existing Geometry

Timings
2: M Plaza & Coors Blvd
Terry O. Brown, P.E.
7/31/2006

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Volume (vph)	142	22	90	67	15	70	21	1667	47	75	1956
Turn Type	pm+pt	pm+pt	pm+ov	pm+pt	pm+ov	pm+pt	pm+ov	pm+pt	pm+ov	pm+pt	pm+pt
Protected Phases	7	4	5	3	8	1	5	2	3	1	6
Permitted Phases	4	4	4	8	8	2	2	2	2	6	6
Detector Phases	7	4	5	3	8	1	5	2	3	1	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	20.5	9.5	9.5	20.5	9.5	20.5	9.5	9.5	20.5	20.5
Total Split (s)	9.5	20.5	9.5	9.5	20.5	10.2	9.5	49.8	9.5	10.2	50.5
Total Split (%)	10.6%	22.8%	10.6%	10.6%	22.8%	11.3%	10.6%	55.3%	10.6%	11.3%	56.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lead
Lead-Lag Optimize?											
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	15.6	8.6	15.2	14.8	8.2	19.5	54.4	54.4	64.1	56.2	56.2
Actuated g/c Ratio	0.17	0.10	0.17	0.16	0.09	0.22	0.60	0.60	0.71	0.62	0.62
v/c Ratio	0.58	0.14	0.30	0.29	0.10	0.21	0.11	0.66	0.05	0.35	0.78
Control Delay	41.8	38.9	10.7	33.3	38.3	13.8	2.6	3.5	0.0	9.4	11.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.8	38.9	10.7	33.3	38.3	13.8	2.6	3.5	0.0	9.4	11.9
LOS	D	D	B	C	D	B	A	A	A	A	B
Approach Delay	30.5										11.8
Approach LOS	C										B
Intersection Summary											
Cycle Length: 90											
Actuated Cycle Length: 90											
Offset: 31 (34%), Referenced to phase 2:NBT and 6:SBTL, Start of Green											
Natural Cycle: 90											
Control Type: Actuated-Coordinated											
Maximum v/c Ratio: 0.78											
Intersection Signal Delay: 9.8											
Intersection Capacity Utilization 67.4%											
Analysis Period (min) 15											
Intersection LOS: A											
ICU Level of Service C											
Spits and Phases: 2: M Plaza & Coors Blvd											
	e1	e2	e3	e4	e5	e6	e7	e8	e9	e10	e11
	10.2 s	49.8 s	9.5 s	20.5 s	9.5 s	20.5 s	9.5 s	20.5 s	9.5 s	20.5 s	50.5 s

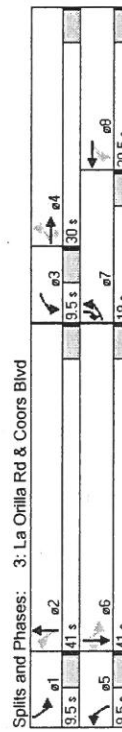
2008 AM Peak NOBUILD Conditions
D:\ATOBEP\PROJECTS\Bosqueito_Commercial\Synchro\2008ANX.sy7
Existing Geometry

HCM Signalized Intersection Capacity Analysis
2: M Plaza & Coors Blvd
Terry O. Brown, P.E.
7/31/2006

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.71	1.00	1.00	0.74	1.00	0.74	1.00	0.74	1.00	0.74	1.00	1.00
Satd. Flow (perm)	1326	1863	1583	1381	1863	1583	1326	1863	1583	1326	1863	1583
Volume (vph)	142	22	90	67	15	70	21	1667	47	75	1956	42
Peak-hour factor, PHF	0.90	0.90	0.90	0.89	0.89	0.89	0.82	0.82	0.82	0.81	0.81	0.81
Adj. Flow (vph)	158	24	100	75	17	79	26	2033	57	93	2415	52
RTOR Reduction (vph)	0	0	65	0	0	42	0	0	18	0	2	0
Lane Group Flow (vph)	158	24	35	75	17	37	26	2033	39	93	2465	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt	pm+pt	pm+ov	pm+pt	pm+ov	pm+pt	pm+ov	pm+pt	pm+ov	pm+pt	pm+pt	pm+pt
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	6
Permitted Phases	4	4	4	8	8	2	2	2	2	6	6	6
Actuated Green, G (s)	12.6	7.1	12.2	11.8	6.7	13.6	52.9	52.9	58.0	54.7	54.7	54.7
Effective Green, g (s)	15.6	8.6	15.2	14.8	8.2	16.6	54.4	54.4	61.0	56.2	56.2	56.2
Actuated g/c Ratio	0.17	0.10	0.17	0.16	0.09	0.18	0.60	0.60	0.68	0.62	0.62	0.62
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	264	178	267	256	170	345	213	3074	1126	248	3165	1126
v/s Ratio Prot	c0.05	0.01	0.01	0.02	0.01	0.01	0.01	c0.40	0.00	0.04	c0.49	0.00
v/s Ratio Perm	c0.06	0.01	0.01	0.03	0.01	0.01	0.06	0.02	0.02	0.20	0.20	0.02
v/c Ratio	0.60	0.13	0.13	0.29	0.10	0.11	0.12	0.66	0.03	0.38	0.78	0.03
Uniform Delay, d1	33.8	37.3	31.8	32.8	37.5	30.5	18.8	11.7	4.8	11.6	12.4	11.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.22	0.26	0.00	0.88	0.80	0.00
Incremental Delay, d2	3.6	0.3	0.2	0.6	0.3	0.1	0.1	0.3	0.0	0.9	1.8	0.0
Delay (s)	37.4	37.6	32.0	33.4	37.8	30.7	4.1	3.4	0.0	11.1	11.7	11.7
Level of Service	D	D	C	C	D	C	A	A	A	B	B	B
Approach Delay (s)	35.5											
Approach LOS	D											
Intersection Summary												
HCM Average Control Delay	10.2											
HCM Volume to Capacity ratio	0.70											
Actuated Cycle Length (s)	90.0											
Intersection Capacity Utilization	67.4%											
Analysis Period (min)	15											
c Critical Lane Group												

2008 AM Peak NOBUILD Conditions
D:\ATOBEP\PROJECTS\Bosqueito_Commercial\Synchro\2008ANX.sy7
Existing Geometry

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Volume (vph)	224	216	112	76	198	116	1956	107	1434	54
Turn Type	pm+pt	pm+pt	Perm	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+ov	pm+ov
Protected Phases	7	4	4	3	8	5	2	1	6	7
Permitted Phases	4	4	4	8	8	2	6	6	6	6
Detector Phases	7	4	4	3	8	5	2	1	6	7
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	20.5	20.5	9.5	20.5	9.5	20.5	9.5	20.5	9.5
Total Split (s)	19.0	30.0	30.0	9.5	20.5	9.5	41.0	9.5	41.0	19.0
Total Split (%)	21.1%	33.3%	33.3%	10.6%	22.8%	10.6%	45.6%	10.6%	45.6%	21.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Recall Mode	32.5	22.8	20.9	14.2	48.1	41.0	48.9	41.4	59.7	59.7
Act Effd Green (s)	0.36	0.25	0.23	0.16	0.53	0.46	0.54	0.46	0.66	0.66
Actuated g/c Ratio	0.64	0.56	0.27	0.33	0.57	0.29	0.75	0.25	0.67	0.05
Control Delay	28.6	33.6	6.0	22.5	36.4	7.8	8.0	8.8	12.3	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	28.6	33.6	6.0	22.5	36.4	7.8	8.0	8.8	12.3	1.1
LOS	C	C	A	C	D	A	A	A	B	A
Approach Delay	26.0				33.0				11.7	
Approach LOS	C				C				B	
Intersection Summary										
Cycle Length: 90										
Actuated Cycle Length: 90										
Offset: 66 (73%), Referenced to phase 2:NBT and 6:SBTL, Start of Green										
Natural Cycle: 70										
Control Type: Actuated-Coordinated										
Maximum v/c Ratio: 0.75										
Intersection Signal Delay: 13.7										
Intersection Capacity Utilization 65.4%										
Analysis Period (min) 15										



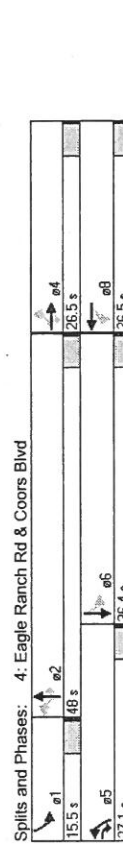
Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fit	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fit Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1736	1827	1553	1736	3391	3367	6271	3367	4988	1553
Fit Permitted	0.31	1.00	1.00	0.60	1.00	0.10	1.00	0.10	1.00	1.00
Satd. Flow (perm)	573	1827	1553	1093	3391	346	6271	342	4988	1553
Volume (vph)	224	216	112	76	198	36	116	29	107	1434
Peak-hour factor, PHF	0.83	0.83	0.83	0.75	0.75	0.75	0.93	0.93	0.94	0.94
Adj. Flow (vph)	270	260	135	101	264	48	125	2103	31	114
RTOR Reduction (vph)	0	0	101	0	18	0	0	0	0	0
Lane Group Flow (vph)	270	260	34	101	294	0	125	2132	0	114
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	pm+pt	pm+pt	Perm	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+ov
Protected Phases	7	4	4	3	8	5	2	1	6	7
Permitted Phases	4	4	4	8	8	2	6	6	6	6
Actuated Green, G (s)	31.0	21.3	21.3	17.9	12.7	45.1	39.5	45.9	39.9	53.7
Effective Green, g (s)	32.5	22.8	22.8	20.9	14.2	48.1	41.0	48.9	41.4	56.7
Actuated g/c Ratio	0.36	0.25	0.25	0.23	0.16	0.53	0.46	0.54	0.46	0.63
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	405	463	393	302	535	423	2857	438	2294	1030
v/s Ratio Prot	c0.11	0.14	0.02	0.02	0.09	c0.02	c0.34	0.02	0.31	0.01
v/s Ratio Perm	c0.13		0.02	0.05		0.13		0.12	0.02	
v/c Ratio	0.67	0.56	0.09	0.33	0.55	0.30	0.75	0.26	0.67	0.03
Uniform Delay, d1	22.2	29.2	25.7	28.2	35.0	12.5	20.2	13.2	18.9	6.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	0.69	0.31	0.80	0.55	0.57
Incremental Delay, d2	4.1	1.6	0.1	0.7	1.2	0.3	1.4	0.3	1.4	0.0
Level of Service	C	C	C	C	C	D	A	B	B	A
Approach Delay (s)	28.0				34.4		7.8		11.5	
Approach LOS	C				C		A		B	
Intersection Summary										
HCM Average Control Delay	13.9									
HCM Volume to Capacity ratio	0.67									
Actuated Cycle Length (s)	90.0									
Intersection Capacity Utilization	65.4%									
Analysis Period (min)	15									
C Critical Lane Group										

Timings
4: Eagle Ranch Rd & Coors Blvd

Terry O. Brown, P.E.
7/31/2006

Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBT	SBT
Lane Configurations	16	9	259	31	1	129	1591	11	31	1115
Volume (vph)	16	9	259	31	1	129	1591	11	31	1115
Turn Type	Perm	pm+ov	Perm	pm+pt	Perm	pm+pt	Perm	pm+pt	Perm	pm+pt
Permitted Phases	4	4	8	8	5	2	2	2	6	6
Detector Phases	4	4	8	8	5	2	2	2	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.5	20.5	9.5	20.5	20.5	20.5	20.5	9.5	20.5	20.5
Total Split (s)	26.5	26.5	27.1	26.5	26.5	27.1	48.0	48.0	15.5	36.4
Total Split (%)	29.4%	29.4%	30.1%	29.4%	30.1%	53.3%	53.3%	17.2%	40.4%	40.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lead	Lag
Lead/Lag Optimize?										
Recall Mode	Min	Min	Min	Min	Min	Min	C-Min	C-Min	Min	C-Min
Act Eff Green (s)	9.4	9.4	28.4	9.4	9.4	74.4	64.1	64.1	63.1	55.6
Actuated g/C Ratio	0.10	0.10	0.32	0.10	0.10	0.83	0.71	0.71	0.70	0.62
v/c Ratio	0.16	0.06	0.72	0.27	0.28	0.33	0.50	0.01	0.12	0.40
Control Delay	38.3	35.7	33.7	41.1	13.7	12.7	1.4	0.0	5.5	14.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.3	35.7	33.7	41.1	13.7	12.7	1.4	0.0	5.5	14.3
LOS	D	D	C	D	B	B	A	A	A	B
Approach Delay	34.0									14.0
Approach LOS	C						A			B

Intersection Summary	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBT	SBT
Cycle Length: 90										
Actuated Cycle Length: 90										
Offset: 1 (1%), Referenced to phase 2:NBT and 6:SBT, Start of Green										
Natural Cycle: 60										
Control Type: Actuated-Coordinated										
Maximum v/c Ratio: 0.72										
Intersection Signal Delay: 10.2										
Intersection Capacity Utilization 53.3%										
Analysis Period (min) 15										



2008 AM Peak NOBUILD Conditions
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Existing Geometry

HCM Signalized Intersection Capacity Analysis
4: Eagle Ranch Rd & Coors Blvd

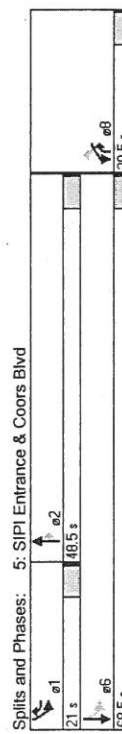
Terry O. Brown, P.E.
7/31/2006

Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBT	SBT
Lane Configurations	16	9	259	31	1	129	1591	11	31	1115
Volume (vph)	16	9	259	31	1	129	1591	11	31	1115
Turn Type	Perm	pm+ov	Perm	pm+pt	Perm	pm+pt	Perm	pm+pt	Perm	pm+pt
Permitted Phases	4	4	8	8	5	2	2	2	6	6
Detector Phases	4	4	8	8	5	2	2	2	6	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.5	20.5	9.5	20.5	20.5	20.5	20.5	9.5	20.5	20.5
Total Split (s)	26.5	26.5	27.1	26.5	26.5	27.1	48.0	48.0	15.5	36.4
Total Split (%)	29.4%	29.4%	30.1%	29.4%	30.1%	53.3%	53.3%	17.2%	40.4%	40.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lead	Lead	Lead	Lead	Lead	Lag	Lag	Lead	Lag
Lead/Lag Optimize?										
Recall Mode	Min	Min	Min	Min	Min	Min	C-Min	C-Min	Min	C-Min
Act Eff Green (s)	9.4	9.4	28.4	9.4	9.4	74.4	64.1	64.1	63.1	55.6
Actuated g/C Ratio	0.10	0.10	0.32	0.10	0.10	0.83	0.71	0.71	0.70	0.62
v/c Ratio	0.16	0.06	0.72	0.27	0.28	0.33	0.50	0.01	0.12	0.40
Control Delay	38.3	35.7	33.7	41.1	13.7	12.7	1.4	0.0	5.5	14.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.3	35.7	33.7	41.1	13.7	12.7	1.4	0.0	5.5	14.3
LOS	D	D	C	D	B	B	A	A	A	B
Approach Delay	34.0									14.0
Approach LOS	C						A			B

Intersection Summary	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBT	SBT
Cycle Length: 90										
Actuated Cycle Length: 90										
Offset: 1 (1%), Referenced to phase 2:NBT and 6:SBT, Start of Green										
Natural Cycle: 60										
Control Type: Actuated-Coordinated										
Maximum v/c Ratio: 0.72										
Intersection Signal Delay: 10.2										
Intersection Capacity Utilization 53.3%										
Analysis Period (min) 15										

2008 AM Peak NOBUILD Conditions
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Existing Geometry

	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	83	217	1627	134	230	1033
Volume (vph)	83	217	1627	134	230	1033
Turn Type	pm+ov	pm+ov	pm+ov	pm+ov	pm+ov	pm+ov
Protected Phases	8	1	2	8	1	6
Permitted Phases	8	1	2	8	1	6
Detector Phases	8	1	2	8	1	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.5	9.5	20.5	20.5	9.5	20.5
Total Split (s)	20.5	21.0	48.5	20.5	21.0	69.5
Total Split (%)	22.8%	23.3%	53.9%	22.8%	23.3%	77.2%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Min	Min	Min	Min	Min	Min
Recall Mode	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	11.5	29.5	54.5	69.1	72.5	72.5
Actuated g/C Ratio	0.13	0.33	0.61	0.77	0.81	0.81
v/c Ratio	0.43	0.49	0.65	0.13	0.67	0.29
Control Delay	41.5	25.6	5.1	0.2	28.4	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.5	25.6	5.1	0.2	28.4	1.9
LOS	D	C	A	A	C	A
Approach Delay	30.0	4.7	A	A	C	6.7
Approach LOS	C	A	A	A	C	A
Intersection Summary						
Cycle Length: 90						
Actuated Cycle Length: 90						
Offset: 88 (98%), Referenced to phase 2:NBT and 6:SBTL, Start of Green						
Natural Cycle: 65						
Control Type: Actuated-Coordinated						
Maximum v/c Ratio: 0.67						
Intersection Signal Delay: 7.7						
Intersection Capacity Utilization 58.8%						
Analysis Period (min) 15						

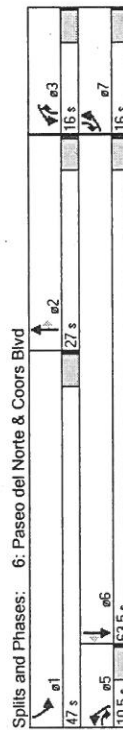


Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↵	↵	↵↵↵	↵	↵	↵↵↵
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	1.00	1.00	0.91	1.00	1.00	0.91
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1752	1568	5036	1568	1752	5036
Flt Permitted	0.95	1.00	1.00	1.00	0.07	1.00
Satd. Flow (perm)	1752	1568	5036	1568	128	5036
Volume (vph)	83	217	1627	134	230	1033
Peak-hour factor, PHF	0.86	0.86	0.82	0.82	0.89	0.89
Adj. Flow (vph)	97	252	1984	163	258	1161
RTOR Reduction (vph)	0	4	0	43	0	0
Lane Group Flow (vph)	97	248	1984	120	258	1161
Turn Type	pm+ov pm+pt					
Protected Phases	8	1	2	8	1	6
Permitted Phases	8 2 6					
Actuated Green, G (s)	10.0	23.4	53.1	63.1	71.0	71.0
Effective Green, g (s)	11.5	26.4	54.6	66.1	72.5	72.5
Actuated g/C Ratio	0.13	0.29	0.61	0.73	0.81	0.81
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	224	512	3055	1204	372	4057
v/s Ratio Prot	0.06	c0.08	0.39	0.01	c0.11	0.23
v/s Ratio Perm	0.08	0.08	0.06	0.06	c0.44	
v/c Ratio	0.43	0.49	0.65	0.10	0.69	0.29
Uniform Delay, d1	36.2	26.2	11.5	3.4	22.5	2.2
Progression Factor	1.00	1.00	0.31	0.01	1.31	0.70
Incremental Delay, d2	1.3	0.7	1.0	0.0	5.0	0.2
Delay (s)	37.6	26.9	4.6	0.1	34.4	1.7
Level of Service	D	C	A	A	C	A
Approach Delay (s)	29.9	4.2	A	A	7.7	A
Approach LOS	C	A	A	A	A	A
Intersection Summary						
HCM Average Control Delay	7.8			HCM Level of Service A		
HCM Volume to Capacity ratio	0.66			Sum of lost time (s) 6.0		
Actuated Cycle Length (s)	90.0			ICU Level of Service B		
Intersection Capacity Utilization	58.8%			Analysis Period (min) 15		
Analysis Period (min)	15			c Critical Lane Group		

Timings Terry O. Brown, P.E.
7/31/2006

6: Paseo del Norte & Coors Blvd

Lane Group	EBL	EBR	WBL	NBL	NBT	NBR	SBT	SBR
Lane Configurations	W	W	W	W	W	W	W	W
Volume (vph)	42	56	297	54	994	723	2093	1135
Turn Type	Prot	Over	Prot	Prot	pm+ov	Prot	pm+ov	7
Permitted Phases	7	5	3	5	2	3	1	6
Protected Phases								
Detector Phases	7	5	3	5	2	3	1	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	9.5	9.5	9.5	20.5	9.5	20.5	9.5
Total Split (s)	16.0	10.5	16.0	10.5	27.0	16.0	47.0	63.5
Total Split (%)	17.8%	11.7%	17.8%	11.7%	30.0%	17.8%	52.2%	70.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lag	Lag
Lead-Lag Optimize?								
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	13.0	7.4	13.0	7.4	24.0	40.0	44.0	60.6
Actuated g/C Ratio	0.14	0.08	0.14	0.08	0.27	0.44	0.49	0.67
v/c Ratio	0.12	0.39	0.80	0.21	1.14	1.11	1.45	0.38
Control Delay	34.3	17.3	50.7	33.6	99.7	85.3	228.7	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.3	17.3	50.7	33.6	99.7	85.3	228.7	6.9
LOS	C	B	D	C	F	F	F	A
Approach Delay					91.8			148.5
Approach LOS					F			F
Intersection Summary								
Cycle Length: 90								
Actuated Cycle Length: 90								
Offset: 21 (23%), Referenced to phase 2:NBT and 6:SBT, Start of Green								
Natural Cycle: 110								
Control Type: Actuated-Coordinated								
Maximum v/c Ratio: 1.45								
Intersection Signal Delay: 122.2								
Intersection Capacity Utilization 111.1%								
Analysis Period (min) 15								



2008 AM Peak NOBUILD Conditions Existing Geometry
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HCM Signalized Intersection Capacity Analysis Terry O. Brown, P.E.
7/31/2006

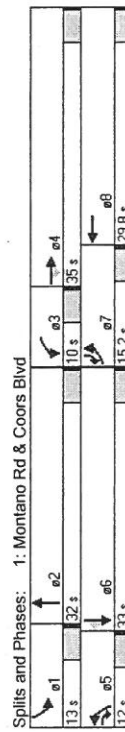
6: Paseo del Norte & Coors Blvd

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBR
Lane Configurations	W	W	W	W	W	W	W	W	W	W	W
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	0.97	1.00	0.97	1.00	0.97	1.00	0.97	0.95	1.00	0.97	0.91
Frt	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95
Satd. Flow (prot)	3400	1568	3400	3400	1568	3400	3400	3505	1568	3400	5036
Flt Permitted	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95
Satd. Flow (perm)	3400	1568	3400	3400	1568	3400	3400	3505	1568	3400	5036
Volume (vph)	42	0	56	297	0	54	994	723	2093	1135	48
Peak-hour factor, PHF	0.73	0.73	0.73	0.76	0.76	0.76	0.93	0.93	0.93	0.87	0.87
Adj. Flow (vph)	58	0	77	391	0	58	1069	777	2406	1305	55
RTOR Reduction (vph)	0	0	67	0	0	0	0	0	1	0	0
Lane Group Flow (vph)	58	0	10	391	0	58	1069	776	2406	1305	45
Turn Type	Prot	Over	Prot	Prot	Free	Prot	pm+ov	Prot	pm+ov	Prot	pm+ov
Protected Phases	7	5	3	3	5	2	3	1	6	7	6
Permitted Phases											
Actuated Green, G (s)	11.5	5.9	11.5	5.9	22.5	34.0	42.5	59.1	70.6	6	
Effective Green, g (s)	13.0	7.4	13.0	7.4	24.0	37.0	44.0	60.6	73.6		
Actuated g/C Ratio	0.14	0.08	0.14	0.08	0.27	0.41	0.49	0.67	0.82		
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		
Lane Grp Cap (vph)	491	129	491	280	935	697	1662	3391	1335		
v/s Ratio Prot	0.02	0.01	0.12	0.02	0.02	0.02	0.02	0.02	0.02		
v/c Ratio Perm											
v/c Ratio	0.12	0.08	0.80	0.21	1.14	1.11	1.45	0.38	0.03		
Uniform Delay, d1	33.5	38.1	37.2	38.6	33.0	26.5	23.0	6.5	1.5		
Progression Factor	1.00	1.00	1.00	0.83	0.70	0.59	1.00	1.00	1.00		
Incremental Delay, d2	0.1	0.3	8.7	0.3	74.7	66.4	204.9	0.3	0.0		
Delay (s)	33.6	38.4	45.9	32.4	97.9	81.9	227.9	6.8	1.5		
Level of Service	C	D	D	C	F	F	F	F	A		
Approach Delay (s)		36.3			45.9						
Approach LOS		D			D						
							89.4		148.0		
							F		F		
Intersection Summary											
HCM Average Control Delay	121.1										
HCM Volume to Capacity ratio	1.29										
Actuated Cycle Length (s)	90.0										
Intersection Capacity Utilization	111.1%										
Analysis Period (min)	15										
c Critical Lane Group											

2008 AM Peak NOBUILD Conditions Existing Geometry
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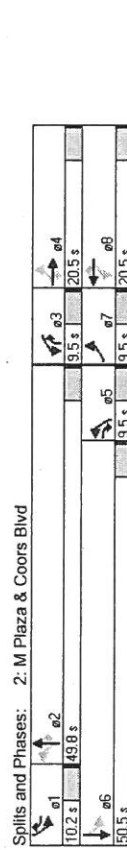
Analysis of
2008 AM Peak Hour BUILD Conditions

Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Volume (vph)	172	1000	392	227	395	318	1454	383	1475	128
Turn Type	Prot	pm+ov	Prot	Prot	Prot	Prot	Prot	Prot	pm+ov	Prot
Protected Phases	7	4	5	3	8	5	2	1	6	7
Permitted Phases	7	4	5	3	8	5	2	1	6	7
Detector Phases	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Initial (s)	9.5	20.5	9.5	9.5	20.5	9.5	20.5	9.5	20.5	9.5
Minimum Split (s)	15.2	35.0	12.0	10.0	29.8	12.0	32.0	13.0	33.0	15.2
Total Split (%)	16.9%	38.9%	13.3%	11.1%	33.1%	13.3%	35.6%	14.4%	36.7%	16.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Eff Green (s)	11.8	32.0	44.0	7.0	27.2	9.0	29.0	10.0	30.0	44.8
Actuated g/c Ratio	0.13	0.36	0.49	0.08	0.30	0.10	0.32	0.11	0.33	0.50
v/c Ratio	0.58	1.20	0.77	1.10	0.67	1.10	0.77	1.18	1.02	0.18
Control Delay	42.3	128.2	26.9	126.6	28.6	119.4	70.8	126.3	62.1	16.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.3	128.2	26.9	126.6	28.6	119.4	70.8	126.3	62.1	16.0
LOS	D	F	C	F	C	F	E	F	E	B
Approach Delay	93.4	F	F	57.2	E	E	E	71.5	E	E
Approach LOS	F	F	F	E	E	E	E	E	E	E
Intersection Summary										
Cycle Length: 90										
Actuated Cycle Length: 90										
Offset: 86 (96%), Referenced to phase 2 NBT and 6 SBT, Start of Green										
Natural Cycle: 90										
Control Type: Actuated-Coordinated										
Maximum v/c Ratio: 1.20										
Intersection Signal Delay: 78.0										
Intersection LOS: E										
Intersection Capacity Utilization 65.9%										
Analysis Period (min) 15										



Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Volume (vph)	172	1000	392	227	395	318	1454	383	1475	128
Turn Type	Prot	pm+ov	Prot	Prot	Prot	Prot	Prot	Prot	pm+ov	Prot
Protected Phases	7	4	5	3	8	5	2	1	6	7
Permitted Phases	7	4	5	3	8	5	2	1	6	7
Actuated Green, G (s)	10.3	30.5	38.0	5.5	25.7	7.5	27.5	8.5	28.5	38.8
Effective Green, g (s)	11.8	32.0	41.0	7.0	27.2	9.0	29.0	10.0	30.0	41.8
Actuated g/c Ratio	0.13	0.36	0.46	0.08	0.30	0.10	0.32	0.11	0.33	0.46
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	450	1258	774	267	1025	343	1999	381	1695	788
v/s Ratio Prot	0.08	c0.43	0.08	c0.09	0.20	0.11	c0.34	c0.13	0.34	0.02
v/s Ratio Perm	0.58	1.20	0.77	1.10	0.65	1.10	1.07	1.18	1.02	0.13
Uniform Delay, d1	36.8	29.0	20.5	41.5	27.3	40.5	30.5	40.0	30.0	13.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.64	1.29	2.78
Incremental Delay, d2	1.8	99.7	4.6	86.1	1.5	79.9	42.0	98.8	23.7	0.0
Delay (s)	38.6	128.7	25.0	127.6	28.8	120.4	72.5	124.6	62.3	38.2
Level of Service	D	F	C	F	C	F	E	F	E	D
Approach Delay (s)	92.8	F	F	57.7	E	79.5	E	72.7	E	E
Approach LOS	F	F	F	E	E	E	E	E	E	E
Intersection Summary										
HCM Average Control Delay	78.7									
HCM Volume to Capacity ratio	1.13									
Actuated Cycle Length (s)	90.0									
Intersection Capacity Utilization	85.9%									
Analysis Period (min)	15									
c Critical Lane Group										

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	150	22	90	67	15	70	21	1705	47	75	1985
Volume (vph)	150	22	90	67	15	70	21	1705	47	75	1985
Turn Type	pm+pt	pm+ov	pm+pt	pm+ov	pm+pt	pm+ov	pm+pt	pm+ov	pm+pt	pm+ov	pm+pt
Protected Phases	4	4	4	4	4	4	4	4	4	4	4
Permitted Phases	4	4	4	4	4	4	4	4	4	4	4
Detector Phases	4	4	4	4	4	4	4	4	4	4	4
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	20.5	9.5	20.5	9.5	20.5	9.5	20.5	9.5	20.5	9.5
Total Split (s)	9.5	20.5	9.5	20.5	9.5	20.5	9.5	20.5	9.5	20.5	9.5
Total Split (%)	10.6%	22.8%	10.6%	22.8%	10.6%	22.8%	10.6%	22.8%	10.6%	22.8%	10.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead	Lead	Lag	Lag
Lead-Lag Optimize?											
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Effd Green (s)	15.0	8.2	14.8	8.2	19.4	54.8	64.5	56.5	56.5	56.5	56.5
Actuated g/c Ratio	0.17	0.09	0.16	0.16	0.09	0.22	0.61	0.61	0.72	0.63	0.63
v/c Ratio	0.64	0.14	0.31	0.29	0.10	0.21	0.11	0.67	0.05	0.36	0.79
Control Delay	45.0	39.0	10.8	33.3	38.3	14.5	2.9	3.8	0.0	9.8	11.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	45.0	39.0	10.8	33.3	38.3	14.5	2.9	3.8	0.0	9.8	11.9
LOS	D	D	B	C	D	B	A	A	A	A	B
Approach Delay	32.8				25.1						11.8
Approach LOS	C				C						B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	150	22	90	67	15	70	21	1705	47	75	1985	1900
Volume (vph)	150	22	90	67	15	70	21	1705	47	75	1985	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.74	1.00	1.00	0.74	1.00	1.00	0.74	1.00	1.00	0.74	1.00	1.00
Satd. Flow (perm)	1374	1863	1583	1381	1863	1583	1374	1863	1583	1374	1863	1583
Volume (vph)	150	22	90	67	15	70	21	1705	47	75	1985	1900
Peak-hour factor, PHF	0.90	0.90	0.90	0.89	0.89	0.89	0.82	0.82	0.82	0.81	0.81	0.81
Adj. Flow (vph)	167	24	100	75	17	79	26	2079	57	93	2451	59
RTOR Reduction (vph)	0	0	65	0	0	40	0	0	18	0	2	0
Lane Group Flow (vph)	167	24	35	75	17	39	26	2079	39	93	2508	0
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	6
Permitted Phases	4	4	4	4	4	4	4	4	4	4	4	4
Actuated Green, G (s)	12.0	6.8	11.9	11.8	6.7	13.5	53.3	53.3	58.4	55.0	55.0	55.0
Effective Green, g (s)	15.0	8.3	14.9	14.8	8.2	16.5	54.8	54.8	61.4	56.5	56.5	56.5
Actuated g/c Ratio	0.17	0.09	0.17	0.16	0.09	0.18	0.61	0.61	0.68	0.63	0.63	0.63
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	258	172	262	256	170	343	213	3096	1133	246	3181	0
vis Ratio Prot	c0.05	0.01	0.01	0.02	0.01	0.01	0.01	c0.41	0.00	c0.03	c0.49	0
vis Ratio Perm	c0.06	0.01	0.03	0.03	0.01	0.01	0.07	0.02	0.02	0.20	0.20	0
v/c Ratio	0.65	0.14	0.13	0.29	0.10	0.11	0.12	0.67	0.03	0.38	0.79	0
Uniform Delay, d1	34.5	37.6	32.0	32.8	37.5	30.7	19.2	11.6	4.7	11.7	12.3	0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.24	0.28	0.00	0.94	0.79	0
Incremental Delay, d2	5.5	0.4	0.2	0.6	0.3	0.1	0.1	0.3	0.0	0.9	1.9	0
Delay (s)	40.0	37.9	32.3	33.4	37.8	30.8	4.7	3.6	0.0	11.9	11.6	0
Level of Service	D	D	C	C	D	C	A	A	A	B	B	B
Approach Delay (s)	37.2				32.7						11.6	0
Approach LOS	D				C						A	B

c Critical Lane Group

Intersection Summary												
HCM Average Control Delay	10.4											
HCM Volume to Capacity ratio	0.72											
Actuated Cycle Length (s)	90.0											
Intersection Capacity Utilization	68.6%											
Analysis Period (min)	15											

Timings
3: La Orilla Rd & Coors Blvd
Terry O. Brown, P.E.
7/31/2006

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	246	216	112	76	198	116	2003	107	1469	70
Turn Type	pm+pt		Perm	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+ov	
Protected Phases	7	4	3	8	5	2	1	6	7	
Permitted Phases	4	4	4	8	2			6	6	
Detector Phases	7	4	4	3	8	5	2	1	6	7
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	20.5	20.5	9.5	20.5	9.5	20.5	9.5	20.5	9.5
Total Split (s)	19.0	30.0	30.0	9.5	20.5	9.5	41.0	9.5	41.0	19.0
Total Split (%)	21.1%	33.3%	33.3%	10.6%	22.8%	10.6%	45.6%	10.6%	45.6%	21.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead-Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Min	Min	Min	Min	Min	Min	C-Min	Min	C-Min	Min
Recall Mode	32.7	23.0	23.0	20.9	14.2	47.9	40.8	48.7	41.2	59.7
Act Eff Green (s)	0.36	0.26	0.26	0.23	0.16	0.53	0.45	0.54	0.46	0.66
Actuated g/c Ratio	0.69	0.56	0.27	0.33	0.57	0.29	0.77	0.25	0.68	0.07
v/c Ratio	30.8	33.4	6.0	22.5	36.4	7.4	8.9	8.3	16.6	1.0
Control Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.8	33.4	6.0	22.5	36.4	7.4	8.9	8.3	16.6	1.0
LOS	C	C	A	C	D	A	A	A	B	A
Approach Delay	26.9				33.0		8.8		15.4	
Approach LOS	C				C		A		B	
Intersection Summary										
Cycle Length: 90										
Actuated Cycle Length: 90										
Offset: 64 (71%), Referenced to phase 2:NBT and 6:SBTL, Start of Green										
Natural Cycle: 70										
Control Type: Actuated-Coordinated										
Maximum v/c Ratio: 0.77										
Intersection Signal Delay: 15.4										
Intersection Capacity Utilization 67.3%										
Analysis Period (min) 15										
Spills and Phases: 3: La Orilla Rd & Coors Blvd										
	e1		e2		e3		e4		e5	
	9.5 s		41 s		9.5 s		30 s		9.5 s	
	e6		e7		e8		e9		e10	
	9.5 s		41 s		9.5 s		30 s		9.5 s	

2008 AM Peak BUILD Conditions
Existing Geometry
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HCM Signalized Intersection Capacity Analysis
3: La Orilla Rd & Coors Blvd
Terry O. Brown, P.E.
7/31/2006

Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Total Lost time (s)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1736	1827	1553	1736	3391	3367	6271	3367	4988	1553
Flt Permitted	0.31	1.00	1.00	0.60	1.00	0.10	1.00	0.10	1.00	1.00
Satd. Flow (perm)	573	1827	1553	1093	3391	347	6271	344	4988	1553
Volume (vph)	246	216	112	76	198	36	116	2003	29	107
Peak-hour factor, PHF	0.83	0.83	0.83	0.75	0.75	0.75	0.93	0.93	0.94	0.94
Adj. Flow (vph)	296	260	135	101	264	48	125	2154	31	114
RTOR Reduction (vph)	0	0	101	0	18	0	0	2	0	0
Lane Group Flow (vph)	296	260	35	101	294	0	125	2183	0	114
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	pm+pt	Perm	pm+pt	Perm	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+ov
Protected Phases	7	4	4	3	8	5	2	1	6	7
Permitted Phases	4	4	4	8	2	2	2	6	6	6
Actuated Green, G (s)	31.2	21.5	21.5	17.9	12.7	44.9	39.3	45.7	39.7	53.7
Effective Green, g (s)	32.7	23.0	23.0	20.9	14.2	47.9	40.8	48.7	41.2	56.7
Actuated g/c Ratio	0.36	0.26	0.26	0.23	0.16	0.53	0.45	0.54	0.46	0.63
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	408	467	397	302	535	423	2843	438	2283	1030
v/s Ratio Prot	c0.12	0.14	0.02	0.02	0.09	c0.02	c0.35	0.02	0.31	0.01
v/s Ratio Perm	c0.14	0.02	0.02	0.05	0.13	0.13	0.13	0.12	0.02	0.02
v/c Ratio	0.73	0.56	0.09	0.33	0.55	0.30	0.77	0.26	0.68	0.05
Uniform Delay, d1	22.4	29.1	25.5	28.2	35.0	12.8	20.6	13.6	19.3	6.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	0.64	0.34	0.74	0.75	0.52
Incremental Delay, d2	6.3	1.4	0.1	0.7	1.2	0.3	1.6	0.3	1.6	0.0
Delay (s)	28.7	30.5	25.6	28.8	36.2	8.5	8.7	10.4	16.0	3.3
Level of Service	C	C	C	C	D	A	A	B	B	A
Approach Delay (s)	28.8				34.4		8.6		15.1	
Approach LOS	C				C		A		B	
Intersection Summary										
HCM Average Control Delay	15.6									
HCM Volume to Capacity ratio	0.70									
Actuated Cycle Length (s)	90.0									
Intersection Capacity Utilization	67.3%									
Analysis Period (min)	15									
c Critical Lane Group										

2008 AM Peak BUILD Conditions
Existing Geometry
D:\ATOB\PROJECTS\Bosqueito_Commercial\Synchro\2008ABX.s77

Timings
4: Eagle Ranch Rd & Coors Blvd

Terry O. Brown, P.E.
7/31/2006

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBT
Lane Configurations	16	9	273	31	1	140	1610	14	31 1140
Volume (vph)	Perm	4	5	8	5	2	2	2	6
Turn Type	Perm	4	5	8	5	2	2	2	6
Protected Phases	4	4	5	8	5	2	2	2	6
Detector Phases	4	4	5	8	5	2	2	2	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.5	20.5	9.5	20.5	20.5	20.5	20.5	9.5	20.5
Total Split (s)	25.5	25.5	27.7	25.5	25.5	50.0	50.0	14.5	36.8
Total Split (%)	28.3%	28.3%	30.8%	28.3%	30.8%	55.6%	55.6%	16.1%	40.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lag
Lead-Lag Optimize?	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lag
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	C-Min
Act Effect Green (s)	9.4	9.4	29.5	9.4	9.4	74.5	64.2	61.9	54.5
Actuated g/C Ratio	0.10	0.10	0.33	0.10	0.10	0.83	0.71	0.71	0.69
v/c Ratio	0.16	0.06	0.73	0.27	0.28	0.34	0.51	0.01	0.12
Control Delay	38.3	35.7	33.2	41.1	13.7	15.0	1.4	0.0	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.3	35.7	33.2	41.1	13.7	15.0	1.4	0.0	3.7
LOS	D	D	C	D	B	B	A	A	B
Approach Delay	33.6	C	C	C	C	24.4	2.5	A	12.2
Approach LOS	C	C	C	C	C	A	A	A	B
Intersection Summary									
Cycle Length: 90									
Actuated Cycle Length: 90									
Offset: 86 (96%), Referenced to phase 2:NBT and 6:SBTL, Start of Green									
Natural Cycle: 60									
Control Type: Actuated-Coordinated									
Maximum v/c Ratio: 0.73									
Intersection Signal Delay: 9.7									
Intersection Capacity Utilization 53.7%									
Analysis Period (min) 15									
Split and Phases:									
4: Eagle Ranch Rd & Coors Blvd									
Diagram									

HCM Signalized Intersection Capacity Analysis
4: Eagle Ranch Rd & Coors Blvd

Terry O. Brown, P.E.
7/31/2006

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	→	↗	↖	→	↗	↖	→	↗	↖	→	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	
Flt Protected	1.00	1.00	0.85	1.00	0.85	1.00	1.00	1.00	0.85	1.00	1.00	
Satd. Flow (prot)	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1752	1845	1568	1752	1572	1752	1568	1752	1568	1752	1568	
Flt Permitted	0.72	1.00	1.00	0.75	1.00	0.75	1.00	1.00	0.75	1.00	1.00	
Satd. Flow (perm)	1323	1845	1568	1383	1572	1323	1568	1383	1568	1323	1568	
Volume (vph)	16	9	273	31	1	48	140	1610	14	31	1140	5
Peak-hour factor, PHF	0.72	0.72	0.72	0.80	0.80	0.80	0.88	0.88	0.88	0.91	0.91	0.91
Adj. Flow (vph)	22	12	379	39	1	60	159	1830	16	34	1253	5
RTOR Reduction (vph)	0	0	8	0	54	0	0	0	0	5	0	0
Lane Group Flow (vph)	22	12	371	39	7	0	159	1830	11	34	1258	0
Turn Type	Perm	pm+ov	Perm	pm+ov	Perm	pm+pt	pm+pt	Perm	pm+pt	Perm	pm+pt	
Protected Phases	4	4	5	8	5	2	2	2	2	1	6	
Permitted Phases	4	7.9	23.5	7.9	7.9	73.1	62.7	62.7	62.7	58.9	53.0	
Actuated Green, G (s)	9.4	9.4	26.5	9.4	9.4	74.6	64.2	64.2	64.2	61.9	54.5	
Effective Green, g (s)	0.10	0.10	0.29	0.10	0.10	0.83	0.71	0.71	0.71	0.69	0.61	
Actuated g/C Ratio	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Clearance Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Vehicle Extension (s)	138	193	514	144	164	527	3592	1119	265	3048		
Lane Grp Cap (vph)	0.02	0.01	c0.14	0.03	0.03	0.06	c0.36	0.01	0.08	0.01	0.25	
v/s Ratio Prot	0.16	0.06	0.72	0.27	0.04	0.30	0.51	0.01	0.13	0.41		
v/c Ratio	36.7	36.3	28.5	37.1	36.3	2.9	5.8	3.7	4.5	9.3		
Uniform Delay, d1	1.00	1.00	1.00	1.00	1.00	4.03	0.17	0.00	0.70	1.12		
Progression Factor	0.5	0.1	5.0	1.0	0.1	0.2	0.4	0.0	0.2	0.4		
Incremental Delay, d2	37.2	36.5	33.4	38.2	36.4	11.7	1.4	0.0	3.4	10.9		
Delay (s)	D	D	C	D	D	B	A	A	A	A		
Level of Service	D	D	C	D	D	B	A	A	A	A		
Approach Delay (s)	33.7	C	C	37.1	D	2.2	A	A	A	10.7		
Approach LOS	C	C	C	D	D	A	A	A	A	B		
Intersection Summary												
HCM Average Control Delay	9.4		HCM Level of Service									
HCM Volume to Capacity ratio	0.58		A									
Actuated Cycle Length (s)	90.0		Sum of lost time (s)									
Intersection Capacity Utilization	53.7%		ICU Level of Service									
Analysis Period (min)	15		A									
c Critical Lane Group												

2008 AM Peak BUILD Conditions
Existing Geometry
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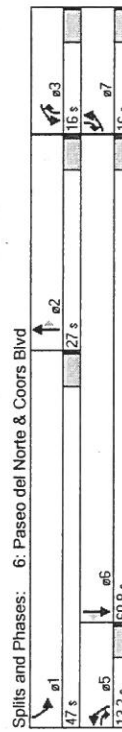
2008 AM Peak BUILD Conditions
Existing Geometry
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WBL	WBR	NBT	NBR	SBT
84	217	1645	135	230
1057				
Volume (vph)				
Turn Type				
Protected Phases				
Permitted Phases				
Detector Phases				
Minimum Initial (s)				
Minimum Split (s)				
Total Split (s)				
Total Split (%)				
Yellow Time (s)				
All-Red Time (s)				
Lead/Lag				
Lead				
Lag				
Recall Mode				
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Intersection Summary				
Cycle Length: 90				
Actuated Cycle Length: 90				
Offset: 84 (93%), Referenced to phase 2:NBT and 6:SBTL, Start of Green				
Natural Cycle: 65				
Control Type: Actuated-Coordinated				
Maximum v/c Ratio: 0.68				
Intersection Signal Delay: 7.7				
Intersection Capacity Utilization 59.2%				
Analysis Period (min) 15				
Intersection LOS: A				
ICU Level of Service B				
Splits and Phases: 5: SIPI Entrance & Coors Blvd				
21 s	48.5 s	20.5 s	20.5 s	20.5 s
63.5 s				

WBL	WBR	NBT	NBR	SBT
1900	1900	1900	1900	1900
1900				
Volume (vph)				
Turn Type				
Protected Phases				
Permitted Phases				
Detector Phases				
Minimum Initial (s)				
Minimum Split (s)				
Total Split (s)				
Total Split (%)				
Yellow Time (s)				
All-Red Time (s)				
Lead/Lag				
Lead				
Lag				
Recall Mode				
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				
Intersection Summary				
Cycle Length: 90				
Actuated Cycle Length: 90				
Offset: 84 (93%), Referenced to phase 2:NBT and 6:SBTL, Start of Green				
Natural Cycle: 65				
Control Type: Actuated-Coordinated				
Maximum v/c Ratio: 0.68				
Intersection Signal Delay: 7.7				
Intersection Capacity Utilization 59.2%				
Analysis Period (min) 15				
Intersection LOS: A				
ICU Level of Service B				
Splits and Phases: 5: SIPI Entrance & Coors Blvd				
21 s	48.5 s	20.5 s	20.5 s	20.5 s
63.5 s				

Timings
6: Paseo del Norte & Coors Blvd
Terry O. Brown, P.E.
7/31/2006

Lane Group	EBL	EBR	WBL	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	TT	TT	TT	TT	TT	TT	TT	TT	TT
Volume (vph)	42	76	301	69	994	726	2093	1135	48
Turn Type	Prot	Over	Prot	Prot	pm+ov	Prot	pm+ov	Prot	pm+ov
Protected Phases	7	5	3	5	2	3	1	6	7
Permitted Phases									
Detector Phases	7	5	3	5	2	3	1	6	7
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	9.5	9.5	9.5	20.5	9.5	9.5	20.5	9.5
Total Split (s)	16.0	13.2	16.0	13.2	27.0	16.0	47.0	60.8	16.0
Total Split (%)	17.8%	14.7%	17.8%	14.7%	30.0%	17.8%	52.2%	67.6%	17.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead-Lag	Lead	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?									
Recall Mode	Min	Min	Min	Min	C-Min	Min	Min	C-Min	Min
Act Effct Green (s)	13.0	9.0	13.0	9.0	24.0	40.0	44.0	59.0	75.0
Actuated g/c Ratio	0.14	0.10	0.14	0.10	0.27	0.44	0.49	0.66	0.83
v/c Ratio	0.12	0.49	0.81	0.22	1.14	1.12	1.45	0.39	0.04
Control Delay	34.3	25.4	51.4	33.3	99.7	88.7	228.7	7.7	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.3	25.4	51.4	33.3	99.7	88.7	228.7	7.7	0.5
LOS	C	C	D	C	F	F	F	A	A
Approach Delay									
Approach LOS									
Intersection Summary									
Cycle Length: 90									
Actuated Cycle Length: 90									
Offset: 20 (22%), Referenced to phase 2:NBT and 6:SBT, Start of Green									
Natural Cycle: 120									
Control Type: Actuated-Coordinated									
Maximum v/c Ratio: 1.45									
Intersection Signal Delay: 122.2									
Intersection Capacity Utilization 111.3%									
Analysis Period (min) 15									



2008 AM Peak BUILD Conditions
Existing Geometry
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HCM Signalized Intersection Capacity Analysis
6: Paseo del Norte & Coors Blvd
Terry O. Brown, P.E.
7/31/2006

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	TT	TT	TT	TT	TT	TT	TT	TT	TT	TT	TT	TT
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	0.97	1.00	0.97	1.00	0.97	1.00	0.97	1.00	0.97	1.00	0.97	1.00
Flt	1.00	1.00	0.85	1.00	1.00	1.00	1.00	0.85	1.00	1.00	0.85	1.00
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Satd. Flow (prot)	3400	1568	3400	3400	3400	3400	3400	3400	3400	3400	3400	3400
Flt Permitted	0.95	1.00	0.95	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Satd. Flow (perm)	3400	1568	3400	3400	3400	3400	3400	3400	3400	3400	3400	3400
Volume (vph)	42	0	76	301	0	0	69	994	726	2093	1135	48
Peak-hour factor, PHF	0.73	0.73	0.73	0.76	0.76	0.76	0.93	0.93	0.93	0.87	0.87	0.87
Adj. Flow (vph)	58	0	104	396	0	0	74	1069	781	2406	1305	55
RTOR Reduction (vph)	0	0	58	0	0	0	0	0	0	0	0	11
Lane Group Flow (vph)	58	0	46	396	0	0	74	1069	780	2406	1305	44
Turn Type	Prot	Over	Prot	Prot	Free	Free	Prot	pm+ov	Prot	pm+ov	Prot	pm+ov
Protected Phases	7	5	3	5	5	5	2	3	1	6	7	7
Permitted Phases												
Actuated Green, G (s)	11.5	7.5	11.5	11.5	7.5	22.5	34.0	42.5	57.5	69.0	6	6
Effective Green, g (s)	13.0	9.0	13.0	13.0	9.0	24.0	37.0	44.0	59.0	72.0	7.2	1.8
Actuated g/c Ratio	0.14	0.10	0.14	0.10	0.10	0.27	0.41	0.49	0.66	0.80	0.0	0.0
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	491	157	491	157	491	340	935	697	1662	3301	1307	1307
v/s Ratio Prot	0.02	0.03	0.12	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
v/c Ratio	0.12	0.30	0.81	0.30	0.81	0.22	1.14	1.12	1.45	0.40	0.02	0.02
Uniform Delay, d1	33.5	37.6	37.3	37.6	37.3	37.3	33.0	26.5	23.0	0.0	0.0	0.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	0.87	0.70	0.65	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1	1.1	9.4	1.1	9.4	0.2	74.7	68.5	204.9	0.4	0.0	0.0
Delay (s)	33.6	38.6	46.7	38.6	46.7	32.7	97.9	85.8	227.9	7.6	1.9	1.9
Level of Service	C	D	D	D	D	C	F	F	F	F	A	A
Approach Delay (s)												
Approach LOS												
Intersection Summary												
HCM Average Control Delay	121.1											
HCM Volume to Capacity ratio	1.29											
Actuated Cycle Length (s)	90.0											
Intersection Capacity Utilization	111.3%											
Analysis Period (min)	15											
c Critical Lane Group												

2008 AM Peak BUILD Conditions
Existing Geometry
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HCM Unsignalized Intersection Capacity Analysis
7: Bosque Meadows Rd. & Coors Blvd

Terry O. Brown, P.E.
7/31/2006

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔	↔	↔	↔	↔	↔
Sign Control	Stop	Stop	Free	Free	Free	Free
Grade	0%	0%	0%	0%	0%	0%
Volume (veh/h)	117	59	1762	108	114	1727
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	138	69	2073	127	134	2032
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	Raised					
Median storage (veh)	1					
Upstream signal (ft)						
pX, platoon unblocked						
VC, conflicting volume	3018	691			2200	
VC1, stage 1 conf vol	2073					
VC2, stage 2 conf vol	945					
VCu, unblocked vol	3018	691			2200	
IC, single (s)	6.9	7.0			4.2	
IC, 2 stage (s)	5.9					
IF (s)	3.5	3.3			2.2	
p0 queue free %	0	82			42	
cM capacity (veh/h)	49	385			233	
Direction, Lane #	WB 1	WB 2	NB 1	NB 2	NB 3	NB 4
Volume Total	138	69	691	691	127	134
Volume Left	138	0	0	0	0	134
Volume Right	0	69	0	0	0	0
cSH	49	385	1700	1700	1700	1700
Volume to Capacity	2.80	0.18	0.41	0.41	0.07	0.58
Queue Length 95th (ft)	365	16	0	0	0	81
Control Delay (s)	989.3	16.4	0.0	0.0	0.0	39.6
Lane LOS	F	C	E	E	E	E
Approach Delay (s)	663.2				2.5	
Approach LOS	F				B	
Intersection Summary						
Average Delay			31.2			
Intersection Capacity Utilization			56.8%			
Analysis Period (min)			15			
ICU Level of Service			B			

2008 AM Peak BUILD Conditions

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Existing Geometry

HCM Unsignalized Intersection Capacity Analysis
8: Bosque Meadows Rd. & Bosq Mead Pl

Terry O. Brown, P.E.
7/31/2006

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔	↔	↔	↔	↔	↔
Sign Control	Free	Free	Free	Free	Stop	Stop
Grade	0%	0%	0%	0%	0%	0%
Volume (veh/h)	204	16	1	127	50	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	240	19	1	149	59	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
VC, conflicting volume						
VC1, stage 1 conf vol						
VC2, stage 2 conf vol						
VCu, unblocked vol						
IC, single (s)						
IC, 2 stage (s)						
IF (s)						
p0 queue free %						
cM capacity (veh/h)						
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	259	151	60			
Volume Left	0	1	59			
Volume Right	19	0	1			
cSH	1700	1300	605			
Volume to Capacity	0.15	0.00	0.10			
Queue Length 95th (ft)	0	0	8			
Control Delay (s)	0.0	0.1	11.6			
Lane LOS	A	B	B			
Approach Delay (s)	0.0	0.1	11.6			
Approach LOS	B					
Intersection Summary						
Average Delay			1.5			
Intersection Capacity Utilization			21.7%			
Analysis Period (min)			15			
ICU Level of Service			A			

2008 AM Peak BUILD Conditions

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Existing Geometry

HCM Unsignalized Intersection Capacity Analysis
9: Bosque Meadows Rd. & Driveway A

Terry O. Brown, P.E.
7/31/2006

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Sign Control	Free	Free	Free	Free	Stop	Stop
Grade	0%	0%	0%	0%	0%	0%
Volume (veh/h)	203	1	1	2	1	126
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	239	1	1	2	1	148
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type						None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
VC, conflicting volume	4				481	2
VC1, stage 1 conf vol						
VC2, stage 2 conf vol	4				481	2
VCu, unblocked vol	4.1				6.4	6.2
IC, single (s)						
IC, 2 stage (s)						
IF (s)	2.2				3.5	3.3
p0 queue free %	85				100	86
cM capacity (veh/h)	1612				462	1079
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	SB 2
Volume Total	239	1	4	1	148	
Volume Left	239	0	0	1	0	
Volume Right	0	0	2	0	148	
cSH	1612	1700	1700	462	1079	
Volume to Capacity	0.15	0.00	0.00	0.00	0.14	
Queue Length 95th (ft)	13	0	0	0	12	
Control Delay (s)	7.6	0.0	0.0	12.8	8.9	
Lane LOS	A			B	A	
Approach Delay (s)	7.6		0.0	8.9		
Approach LOS			A			
Intersection Summary						
Average Delay			8.0			
Intersection Capacity Utilization			27.9%			
Analysis Period (min)			15			
ICU Level of Service						A

2008 AM Peak BUILD Conditions

D:\ATOBEP\PROJECTS\Bosque Meadows Commercial\Synchro\2008ABX.sy7

Existing Geometry

HCM Unsignalized Intersection Capacity Analysis
14: Coors Blvd & Driveway B

Terry O. Brown, P.E.
7/31/2006

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑	↑	↑	↑	↑	↑
Sign Control	Stop	Free	Free	Free	Free	Free
Grade	0%	0%	0%	0%	0%	0%
Volume (veh/h)	0	47	1677	22	0	1683
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	0	55	1973	26	0	1980
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type						None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
VC, conflicting volume	2633	658			1999	
VC1, stage 1 conf vol						
VC2, stage 2 conf vol						
VCu, unblocked vol	2633	658			1999	
IC, single (s)	6.9	7.0			4.2	
IC, 2 stage (s)						
IF (s)	3.5	3.3			2.2	
p0 queue free %	100	86			100	
cM capacity (veh/h)	19	405			279	
Direction, Lane #	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	55	658	658	658	26	660
Volume Left	0	0	0	0	0	0
Volume Right	55	0	0	0	26	0
cSH	405	1700	1700	1700	1700	1700
Volume to Capacity	0.14	0.39	0.39	0.39	0.02	0.39
Queue Length 95th (ft)	12	0	0	0	0	0
Control Delay (s)	15.3	0.0	0.0	0.0	0.0	0.0
Lane LOS	C					
Approach Delay (s)	15.3	0.0				
Approach LOS	C					
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utilization			42.4%			
Analysis Period (min)			15			
ICU Level of Service						A

2008 AM Peak BUILD Conditions

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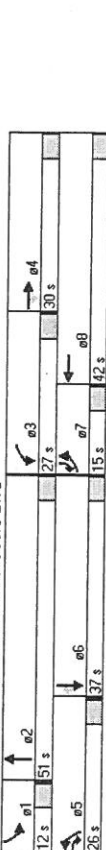
Existing Geometry

Analysis of
2008 PM Peak Hour NO BUILD Conditions

Timings 1: Montano Rd & Coors Blvd Terry O. Brown, P.E. 7/30/2006

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	441	658	432	556	1217	846	1927	315	1644	269
Turn Type	Prot	pm+ov	Prot	Prot	Prot	Prot	Prot	Prot	pm+ov	Prot
Protected Phases	7	4	5	3	8	5	2	1	6	7
Permitted Phases	7	4	5	3	8	5	2	1	6	7
Detector Phases	7	4	5	3	8	5	2	1	6	7
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	20.5	9.5	20.5	9.5	20.5	9.5	20.5	9.5	9.5
Total Split (s)	15.0	30.0	26.0	27.0	42.0	26.0	51.0	12.0	37.0	15.0
Total Split (%)	12.5%	25.0%	21.7%	22.5%	35.0%	21.7%	42.5%	10.0%	30.8%	12.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag	Lead
Lead-Lag Optimize?										
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Effect Green (s)	12.0	27.6	53.6	23.4	39.0	23.0	48.0	9.0	34.0	49.0
Actuated g/C Ratio	0.10	0.23	0.45	0.20	0.32	0.19	0.40	0.08	0.28	0.41
v/c Ratio	1.33	0.83	0.62	0.86	1.37	1.43	0.99	1.28	1.19	0.43
Control Delay	207.6	54.4	30.0	60.8	203.5	237.9	50.2	187.5	125.2	18.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	207.6	54.4	30.0	60.8	203.5	237.9	50.2	187.5	125.2	18.2
LOS	F	D	C	E	F	F	D	F	F	B
Approach Delay	91.7									
Approach LOS	F									

Intersection Summary
Cycle Length: 120
Actuated Cycle Length: 120
Offset: 34 (28%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.43
Intersection Signal Delay: 118.9
Intersection Capacity Utilization 124.2%
Analysis Period (min) 15



2008 PM Peak NOBUILD Conditions
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Existing Geometry

HCM Signalized Intersection Capacity Analysis 1: Montano Rd & Coors Blvd Terry O. Brown, P.E. 7/30/2006

Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.86	0.97	1.00
Flt	1.00	1.00	0.85	1.00	0.97	1.00	0.98	1.00	0.91	1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	3433	3442	3433	6270	3433	5085	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	3433	3442	3433	6270	3433	5085	1583
Volume (vph)	441	658	432	556	1217	273	846	1927	315	1644
Peak-hour factor, PHF	0.97	0.97	0.97	0.96	0.96	0.96	0.90	0.90	0.96	0.96
Adj. Flow (vph)	455	678	445	579	1268	284	940	2141	358	1712
RTOR Reduction (vph)	0	0	5	0	16	0	0	25	0	0
Lane Group Flow (vph)	455	678	440	579	1536	0	940	2474	0	328
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	pm+ov	Prot	Prot	Prot	Prot	Prot	Prot	pm+ov	Prot
Protected Phases	7	4	5	3	8	5	2	1	6	7
Permitted Phases	7	4	5	3	8	5	2	1	6	7
Actuated Green, G (s)	10.5	26.1	47.6	21.9	37.5	21.5	46.5	7.5	32.5	43.0
Effective Green, g (s)	12.0	27.6	50.6	23.4	39.0	23.0	48.0	9.0	34.0	46.0
Actuated g/C Ratio	0.10	0.23	0.42	0.19	0.32	0.19	0.40	0.08	0.28	0.38
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	343	814	707	669	1119	658	2508	257	1441	646
v/s Ratio Prot	c0.13	0.19	0.12	0.17	c0.45	c0.27	0.39	0.10	c0.34	0.04
v/s Ratio Perm	1.33	0.83	0.62	0.87	1.37	1.43	0.99	1.28	1.19	0.43
Uniform Delay, d1	54.0	44.0	27.2	46.8	40.5	48.5	35.7	55.5	43.0	27.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.94	0.67
Incremental Delay, d2	165.8	7.3	1.7	11.3	173.3	201.6	15.0	139.2	88.5	0.2
Delay (s)	219.8	51.3	28.9	58.1	213.8	250.1	50.7	201.6	129.0	18.5
Level of Service	F	D	C	E	F	F	D	F	F	B
Approach Delay (s)	93.6									
Approach LOS	F									

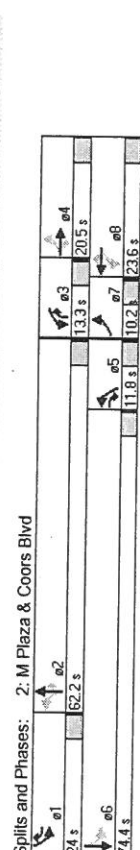
Intersection Summary			
HCM Average Control Delay	123.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.32		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	124.2%	ICU Level of Service	H
Analysis Period (min)	15		
Critical Lane Group			

2008 PM Peak NOBUILD Conditions
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Existing Geometry

Timings
2: M Plaza & Coors Blvd

Terry O. Brown, P.E.
7/30/2006

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	98	44	31	264	187	213	68	2395	132	364	2084
Volume (vph)	pm+pt	pm+ov	pm+pt	pm+ov	pm+pt	pm+ov	pm+pt	pm+ov	pm+pt	pm+ov	pm+pt
Turn Type	7	4	5	3	8	1	5	2	3	1	6
Permitted Phases	4	4	5	3	8	8	2	2	2	6	6
Detector Phases	7	4	5	3	8	1	5	2	3	1	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	20.5	9.5	9.5	20.5	9.5	9.5	20.5	9.5	9.5	20.5
Total Split (s)	10.2	20.5	11.8	13.3	23.6	24.0	11.8	62.2	13.3	24.0	74.4
Total Split (%)	8.5%	17.1%	9.8%	11.1%	19.7%	20.0%	9.8%	51.8%	11.1%	20.0%	62.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lead	Lead
Lead-Lag Optimize?	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Effect Green (s)	23.6	16.4	31.1	29.7	19.5	44.6	59.2	59.2	72.5	66.6	66.6
Actuated g/C Ratio	0.20	0.14	0.26	0.25	0.16	0.37	0.49	0.49	0.60	0.56	0.56
v/c Ratio	0.68	0.21	0.09	1.02	0.80	0.46	0.26	1.02	0.14	1.02	0.82
Control Delay	57.7	47.7	18.5	98.5	68.6	29.0	19.8	26.4	0.1	75.1	5.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.7	47.7	18.5	98.5	68.6	29.0	19.8	26.4	0.1	75.1	5.0
LOS	E	D	B	F	E	C	B	C	A	E	A
Approach Delay	48.2	D	B	F	E	C	B	C	A	E	A
Approach LOS	D	D	B	F	E	C	B	C	A	E	B



2008 PM Peak NOBUILD Conditions
D:\VATOBEP\PROJECTS\Bosqueito_Commercial\Synchro\2008PNX.sv7
Existing Geometry

HCM Signalized Intersection Capacity Analysis
2: M Plaza & Coors Blvd

Terry O. Brown, P.E.
7/30/2006

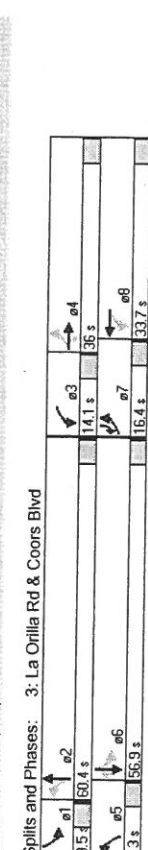
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Total Lost time (s)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Flt. Protected	1770	1863	1583	1770	1863	1583	1770	1863	1583	1770	1863	1583
Satd. Flow (prot)	0.25	1.00	1.00	0.60	1.00	1.00	0.09	1.00	1.00	0.09	1.00	1.00
Flt. Permitted	471	1863	1583	1122	1863	1583	168	5085	1583	168	5085	1583
Satd. Flow (perm)	98	44	31	264	187	213	68	2395	132	364	2084	93
Volume (vph)	0.81	0.81	0.81	0.77	0.77	0.77	0.94	0.94	0.94	0.94	0.94	0.94
Peak-hour factor, PHF	121	54	38	343	243	277	72	2548	140	387	2217	99
Adj. Flow (vph)	0	0	10	0	0	0	15	0	0	57	0	4
RTOR Reduction (vph)	121	54	28	343	243	262	72	2548	83	387	2312	0
Lane Group Flow (vph)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Heavy Vehicles (%)	7	4	5	3	8	1	5	2	3	1	6	6
Turn Type	pm+pt	pm+ov	pm+pt	pm+ov	pm+pt	pm+ov	pm+pt	pm+ov	pm+pt	pm+ov	pm+pt	pm+ov
Protected Phases	4	4	5	3	8	1	5	2	3	1	6	6
Permitted Phases	20.6	14.9	28.2	26.8	18.0	38.6	57.7	57.7	66.5	65.0	65.0	65.0
Actuated Green, G (s)	23.6	16.4	31.2	29.7	19.5	41.6	59.2	59.2	69.5	66.5	66.5	66.5
Effective Green, g (s)	0.20	0.14	0.26	0.25	0.16	0.35	0.49	0.49	0.58	0.55	0.55	0.55
Actuated g/C Ratio	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Clearance Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Vehicle Extension (s)	171	255	412	333	303	588	280	2509	956	388	2800	0
Lane Grp Cap (vph)	0.04	0.03	0.01	c0.09	0.13	0.08	0.03	c0.50	0.01	c0.18	0.46	0
v/s Ratio Prot	0.10	0.01	0.01	c0.17	0.08	0.10	0.01	c0.37	0.04	c0.37	0.04	0
v/s Ratio Perm	0.71	0.21	0.07	1.03	0.80	0.45	0.26	1.02	0.09	1.00	0.83	0
Uniform Delay, d1	42.0	46.1	33.4	44.4	48.4	30.3	35.3	30.4	11.2	51.1	22.0	0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.58	0.49	0.03	1.23	0
Incremental Delay, d2	12.6	0.4	0.1	57.3	14.1	0.5	0.0	10.0	0.0	26.1	1.0	0
Delay (s)	54.5	46.5	33.5	101.7	62.5	30.8	20.6	24.9	0.3	89.1	5.0	0
Level of Service	D	D	C	F	E	C	C	C	A	F	A	0
Approach Delay (s)	48.7	D	B	F	E	C	B	C	A	F	A	0
Approach LOS	D	D	B	F	E	C	B	C	A	F	A	0

Intersection Summary
HCM Average Control Delay: 27.5
HCM Level of Service: C
HCM Volume to Capacity ratio: 1.00
Actuated Cycle Length (s): 120.0
Sum of lost time (s): 6.0
Intersection Capacity Utilization: 98.6%
ICU Level of Service: F
Analysis Period (min): 15
Critical Lane Group: C

2008 PM Peak NOBUILD Conditions
D:\VATOBEP\PROJECTS\Bosqueito_Commercial\Synchro\2008PNX.sv7
Existing Geometry

Timings
3: La Orilla Rd & Coors Blvd
Terry O. Brown, P.E.
7/30/2006

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Volume (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Turn Type	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt
Protected Phases	4	4	4	4	4	4	4	4	4	4	4
Permitted Phases	4	4	4	4	4	4	4	4	4	4	4
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	20.5	20.5	9.5	20.5	20.5	9.5	20.5	20.5	20.5	9.5
Total Split (s)	16.4	36.0	36.0	14.1	33.7	33.0	60.4	9.5	56.9	16.4	13.7%
Total Split (%)	13.7%	30.0%	30.0%	11.8%	28.1%	10.8%	50.3%	7.9%	47.4%	13.7%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead
Lead-Lag Optimize?											
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Eff Green (s)	46.4	33.0	33.0	41.8	30.7	66.9	57.4	60.4	53.9	70.3	
Actuated g/C Ratio	0.39	0.28	0.28	0.35	0.26	0.56	0.48	0.50	0.45	0.59	
v/c Ratio	0.92	1.03	1.03	1.00	0.79	0.98	0.95	0.69	1.01	0.20	
Control Delay	67.7	91.6	10.2	93.4	48.0	60.3	26.9	26.9	42.0	7.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	67.7	91.6	10.2	93.4	48.0	60.3	26.9	26.9	42.0	7.8	
LOS	E	F	B	F	D	E	C	C	D	A	
Approach Delay	76.7										
Approach LOS	E										
Intersection Summary											
Cycle Length: 120											
Offset: 98 (82%), Referenced to phase 2:NBT, Start of Green											
Natural Cycle: 110											
Control Type: Actuated-Coordinated											
Maximum v/c Ratio: 1.03											
Intersection Signal Delay: 41.9											
Intersection Capacity Utilization 99.2%											
Analysis Period (min) 15											



2008 PM Peak NOBUILD Conditions
D:\VTOBE\PROJECTS\Bosquecillo_Commercial\Synchro\2008PNX.s77
Existing Geometry

HCM Signalized Intersection Capacity Analysis
3: La Orilla Rd & Coors Blvd
Terry O. Brown, P.E.
7/30/2006

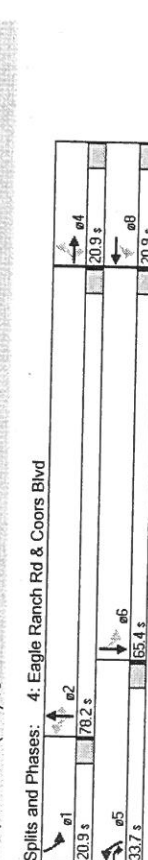
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Volume (vph)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Turn Type	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt	pm+pt
Protected Phases	4	4	4	4	4	4	4	4	4	4	4
Permitted Phases	4	4	4	4	4	4	4	4	4	4	4
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	20.5	20.5	9.5	20.5	20.5	9.5	20.5	20.5	20.5	9.5
Total Split (s)	16.4	36.0	36.0	14.1	33.7	33.0	60.4	9.5	56.9	16.4	13.7%
Total Split (%)	13.7%	30.0%	30.0%	11.8%	28.1%	10.8%	50.3%	7.9%	47.4%	13.7%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lag	Lead
Lead-Lag Optimize?											
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Eff Green (s)	46.4	33.0	33.0	41.8	30.7	66.9	57.4	60.4	53.9	70.3	
Actuated g/C Ratio	0.39	0.28	0.28	0.35	0.26	0.56	0.48	0.50	0.45	0.59	
v/c Ratio	0.92	1.03	1.03	1.00	0.79	0.98	0.95	0.69	1.01	0.20	
Control Delay	67.7	91.6	10.2	93.4	48.0	60.3	26.9	26.9	42.0	7.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	67.7	91.6	10.2	93.4	48.0	60.3	26.9	26.9	42.0	7.8	
LOS	E	F	B	F	D	E	C	C	D	A	
Approach Delay	76.7										
Approach LOS	E										
Intersection Summary											
Cycle Length: 120											
Offset: 98 (82%), Referenced to phase 2:NBT, Start of Green											
Natural Cycle: 110											
Control Type: Actuated-Coordinated											
Maximum v/c Ratio: 1.03											
Intersection Signal Delay: 41.9											
Intersection Capacity Utilization 99.2%											
Analysis Period (min) 15											



2008 PM Peak NOBUILD Conditions
D:\VTOBE\PROJECTS\Bosquecillo_Commercial\Synchro\2008PNX.s77
Existing Geometry

Timings
4: Eagle Ranch Rd & Coors Blvd
Terry O. Brown, P.E.
7/30/2006

Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBT
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Volume (vph)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turn Type	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Protected Phases	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Permitted Phases	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Detector Phases	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Minimum Initial (s)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Minimum Split (s)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Split (s)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Split (%)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Yellow Time (s)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
All-Red Time (s)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lead/Lag	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Recall Mode	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Act Effct Green (s)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Actuated g/C Ratio	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
v/c Ratio	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Control Delay	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Queue Delay	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Delay	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
LOS	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Approach Delay	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Approach LOS	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900



2008 PM Peak NOBUILD Conditions
D:\ATOBEP\PROJECTS\Bosquesito_Commercial\Synchro\2008PNX.sy7
Existing Geometry

HCM Signalized Intersection Capacity Analysis
4: Eagle Ranch Rd & Coors Blvd
Terry O. Brown, P.E.
7/30/2006

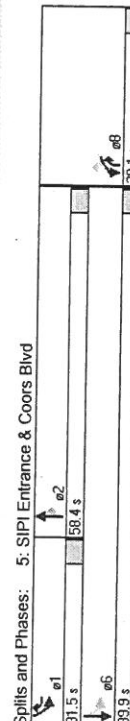
Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBT
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Volume (vph)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Turn Type	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Protected Phases	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Permitted Phases	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Detector Phases	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Minimum Initial (s)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Minimum Split (s)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Split (s)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Split (%)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Yellow Time (s)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
All-Red Time (s)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lead/Lag	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Recall Mode	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Act Effct Green (s)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Actuated g/C Ratio	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
v/c Ratio	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Control Delay	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Queue Delay	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Delay	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
LOS	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Approach Delay	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Approach LOS	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900

2008 PM Peak NOBUILD Conditions
D:\ATOBEP\PROJECTS\Bosquesito_Commercial\Synchro\2008PNX.sy7
Existing Geometry

Timings
5: SIPI Entrance & Coors Blvd

Terry O. Brown, P.E.
7/30/2006

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	←	→	←	→	←	→
Volume (vph)	158	132	1614	106	241	2055
Turn Type	pm+ov	pm+ov	pm+ov	pm+pt	pm+pt	pm+pt
Protected Phases	8	1	2	8	1	6
Permitted Phases	8	1	2	8	1	6
Detector Phases	8	1	2	8	1	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.5	9.5	20.5	20.5	9.5	20.5
Total Split (s)	30.1	31.5	58.4	30.1	31.5	89.9
Total Split (%)	25.1%	26.3%	48.7%	25.1%	26.3%	74.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?						
Recall Mode	Min	Min	C-Min	Min	Min	C-Min
Act Effect Green (s)	19.5	40.8	73.2	95.7	94.5	94.5
Actuated g/C Ratio	0.16	0.34	0.61	0.80	0.79	0.79
v/c Ratio	0.69	0.31	0.59	0.09	0.73	0.54
Control Delay	59.7	27.5	3.4	0.1	40.1	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.7	27.5	3.4	0.1	40.1	5.3
LOS	E	C	A	A	D	A
Approach Delay	45.1	3.2	A	A	D	9.0
Approach LOS	D	A	A	A	D	A
Intersection Summary						
Cycle Length: 120						
Actuated Cycle Length: 120						
Offset: 4 (3%) Referenced to phase 2:NBT and 6:SBTL, Start of Green						
Natural Cycle: 60						
Control Type: Actuated-Coordinated						
Maximum v/c Ratio: 0.73						
Intersection Signal Delay: 9.4						
Intersection Capacity Utilization 63.3%						
Analysis Period (min) 15						
Intersection LOS: A						
ICU Level of Service B						



2008 PM Peak NOBUILD Conditions
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Existing Geometry

HCM Signalized Intersection Capacity Analysis
5: SIPI Entrance & Coors Blvd

Terry O. Brown, P.E.
7/30/2006

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	←	→	←	→	←	→
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	1.00	1.00	0.91	1.00	1.00	0.91
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1752	1568	5036	1568	1752	5036
Flt Permitted	0.95	1.00	1.00	1.00	0.07	1.00
Satd. Flow (perm)	1752	1568	5036	1568	137	5036
Volume (vph)	158	132	1614	106	241	2055
Peak-hour factor, PHF	0.80	0.80	0.89	0.89	0.96	0.96
Adj. Flow (vph)	198	165	1813	119	251	2141
RTOR Reduction (vph)	0	3	0	27	0	0
Lane Group Flow (vph)	198	162	1813	92	251	2141
Turn Type	pm+ov	pm+ov	pm+pt	pm+pt	pm+pt	pm+pt
Protected Phases	8	1	2	8	1	6
Permitted Phases	8	1	2	8	1	6
Actuated Green, G (s)	18.0	34.8	71.7	89.7	93.0	93.0
Effective Green, g (s)	19.5	37.8	73.2	92.7	94.5	94.5
Actuated g/C Ratio	0.16	0.31	0.61	0.77	0.79	0.79
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	285	533	3072	1250	354	3966
v/s Ratio Prot	c0.11	0.05	0.36	0.01	c0.11	0.43
v/s Ratio Perm	0.06	0.06	0.05	0.05	c0.45	0.45
v/c Ratio	0.69	0.30	0.59	0.07	0.71	0.54
Uniform Delay, d1	47.4	31.1	14.3	3.3	28.3	4.7
Progression Factor	1.00	1.00	0.17	0.00	1.20	0.93
Incremental Delay, d2	7.2	0.3	0.6	0.0	5.1	0.4
Delay (s)	54.6	31.4	3.1	0.0	39.1	4.8
Level of Service	D	C	A	A	D	A
Approach Delay (s)	44.1	2.9	A	A	8.4	A
Approach LOS	D	A	A	A	A	A
Intersection Summary						
HCM Average Control Delay			8.9			HCM Level of Service A
HCM Volume to Capacity ratio			0.70			
Actuated Cycle Length (s)			120.0			Sum of lost time (s) 6.0
Intersection Capacity Utilization			63.3%			ICU Level of Service B
Analysis Period (min)			15			
c Critical Lane Group						

2008 PM Peak NOBUILD Conditions

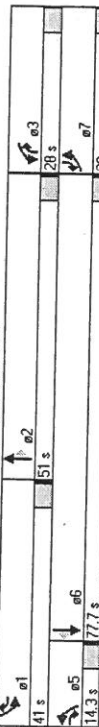
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Existing Geometry

Timings

6: Paseo del Norte & Coors Blvd
Terry O. Brown, P.E.
7/30/2006

Lane Group	EBL	EBR	WBL	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	11	11	11	11	11	11	11	11	11
Volume (vph)	87	80	572	133	1363	296	1086	1406	129
Turn Type	Prot	Over	Prot	Prot	pm+ov	Prot	pm+ov	Prot	pm+ov
Protected Phases	7	5	3	5	2	3	1	6	7
Permitted Phases									
Detector Phases									
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	9.5	9.5	20.5	9.5	9.5	20.5	9.5	9.5
Total Split (s)	28.0	14.3	28.0	14.3	51.0	28.0	41.0	77.7	28.0
Total Split (%)	23.3%	11.9%	23.3%	11.9%	42.5%	23.3%	34.2%	64.8%	23.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Eff Green (s)	25.0	10.7	25.0	10.7	48.0	76.0	38.0	75.3	103.3
Actuated g/C Ratio	0.21	0.09	0.21	0.09	0.40	0.63	0.32	0.63	0.86
v/c Ratio	0.14	0.51	1.04	0.47	1.05	0.32	1.06	0.46	0.10
Control Delay	39.3	42.1	89.7	48.7	59.6	3.1	84.7	12.4	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.3	42.1	89.7	48.7	59.6	3.1	84.7	12.4	0.4
LOS	D	D	F	D	E	A	F	B	A
Approach Delay									
Approach LOS									
Intersection Summary									
Cycle Length: 120									
Actuated Cycle Length: 120									
Offset: 4 (3%) Referenced to phase 2NBT and 6:SBT, Start of Green									
Natural Cycle: 110									
Control Type: Actuated-Coordinated									
Maximum v/c Ratio: 1.06									
Intersection Signal Delay: 50.8									
Intersection Capacity Utilization 95.3%									
Analysis Period (min) 15									
Intersection LOS: D									
ICU Level of Service F									

Splits and Phases: 6: Paseo del Norte & Coors Blvd



2008 PM Peak NOBUILD Conditions

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Existing Geometry

HCM Signalized Intersection Capacity Analysis

6: Paseo del Norte & Coors Blvd
Terry O. Brown, P.E.
7/30/2006

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	11	11	11	11	11	11	11	11	11	11	11	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Total Util. Factor	0.97	1.00	0.97	0.97	0.95	0.97	0.95	1.00	0.97	0.91	1.00	1.00
Flt Protected	0.95	1.00	0.85	1.00	0.95	1.00	0.95	1.00	0.85	1.00	0.85	1.00
Satd. Flow (prot)	3400	1568	3400	3400	3400	3400	3400	3400	3400	3400	3400	3400
Flt Permitted	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3400	1568	3400	3400	3400	3400	3400	3400	3400	3400	3400	3400
Volume (vph)	87	0	80	572	0	0	133	1363	296	1086	1406	129
Peak-hour factor, PHF	0.91	0.91	0.91	0.78	0.78	0.78	0.93	0.93	0.93	0.96	0.96	0.96
Adj. Flow (vph)	96	0	88	733	0	0	143	1466	318	1142	1465	134
RTOR Reduction (vph)	0	0	34	0	0	0	0	0	3	0	0	22
Lane Group Flow (vph)	96	0	54	733	0	0	143	1466	315	1142	1465	112
Turn Type	Prot	Over	Prot	Prot	Over	Prot	Prot	pm+ov	Prot	pm+ov	Prot	pm+ov
Protected Phases	7	5	3	3	1	5	2	3	1	6	7	6
Permitted Phases												
Actuated Green, G (s)	23.5	9.2	23.5	23.5	9.2	23.5	9.2	46.5	70.0	36.5	73.8	97.3
Effective Green, g (s)	25.0	10.7	25.0	25.0	10.7	25.0	10.7	48.0	73.0	38.0	75.3	100.3
Actuated g/C Ratio	0.21	0.09	0.21	0.09	0.21	0.09	0.09	0.40	0.61	0.32	0.63	0.84
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	708	140	708	708	140	708	303	1402	993	1077	3160	1350
v/s Ratio Prot	0.03	0.03	0.03	0.03	0.03	0.03	0.04	0.42	0.07	0.34	0.29	0.02
v/s Ratio Perm	0.14	0.39	1.04	1.04	0.39	1.04	0.47	1.05	0.32	1.06	0.46	0.08
Uniform Delay, d1	38.7	51.6	47.5	47.5	51.6	47.5	52.0	36.0	11.4	41.0	11.7	1.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.85	0.65	0.24	1.00	1.00	1.00
Incremental Delay, d2	0.1	1.8	43.3	43.3	1.8	43.3	1.0	34.9	0.2	44.9	0.5	0.0
Delay (s)	38.8	53.3	90.8	90.8	53.3	90.8	45.3	58.3	2.8	85.9	12.2	1.8
Level of Service	D	D	F	F	D	F	D	E	A	F	B	A
Approach Delay (s)	45.7				90.8			48.2			42.4	
Approach LOS	D				F			D			D	
Intersection Summary												
HCM Average Control Delay	50.9											
HCM Volume to Capacity ratio	1.05											
Actuated Cycle Length (s)	120.0											
Intersection Capacity Utilization	95.3%											
Analysis Period (min)	15											
c Critical Lane Group												

2008 PM Peak NOBUILD Conditions

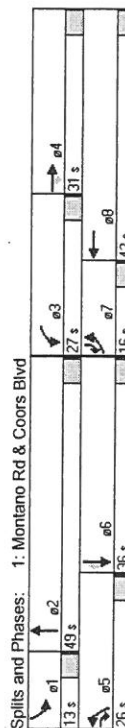
D:\ATOBEL\PROJECTS\Bosquesito_Commercial\Synchro\2008PNX.sv7
Existing Geometry

Analysis of
2008 PM Peak Hour BUILD Conditions

Timings
1: Montano Rd & Coors Blvd

Terry O. Brown, P.E.
7/30/2006

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Volume (vph)	492	658	432	556	1217	846	1932	346	1649	319
Turn Type	Prot	pm+ov	Prot	Prot	Prot	Prot	Prot	Prot	pm+ov	Prot
Protected Phases	7	4	5	3	8	5	2	1	6	7
Permitted Phases	4	5	4	5	3	8	5	2	1	6
Detector Phases	7	4	5	3	8	5	2	1	6	7
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	20.5	9.5	9.5	20.5	9.5	20.5	9.5	20.5	9.5
Total Split (s)	16.0	31.0	26.0	27.0	42.0	26.0	49.0	13.0	36.0	16.0
Total Split (%)	13.3%	25.8%	21.7%	22.5%	35.0%	21.7%	40.8%	10.8%	30.0%	13.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag	Lead
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Effct Green (s)	13.0	28.6	54.6	23.4	39.0	23.0	46.0	10.0	33.0	49.0
Actuated g/C Ratio	0.11	0.24	0.46	0.32	0.19	0.38	0.08	0.28	0.41	0.41
v/c Ratio	1.36	0.80	0.61	0.86	1.40	1.43	1.03	1.26	1.23	0.51
Control Delay	220.3	51.7	29.0	60.8	216.8	237.9	62.8	178.4	144.4	21.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	220.3	51.7	29.0	60.8	216.8	237.9	62.8	178.4	144.4	21.3
LOS	F	D	C	E	F	F	E	F	F	C
Approach Delay	98.0			175.1			110.6		132.5	
Approach LOS	F			F			F		F	
Intersection Summary										
Cycle Length: 120										
Actuated Cycle Length: 120										
Offset: 36 (30%), Referenced to phase 2:NBT and 6:SBT, Start of Green										
Natural Cycle: 130										
Control Type: Actuated-Coordinated										
Maximum v/c Ratio: 1.43										
Intersection Signal Delay: 128.4										
Intersection LOS: F										
Intersection Capacity Utilization 126.7%										
Analysis Period (min) 15										



2008 PM Peak BUILD Conditions
Existing Geometry
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HCM Signalized Intersection Capacity Analysis
1: Montano Rd & Coors Blvd

Terry O. Brown, P.E.
7/30/2006

Movement	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations	↔	↔	↔	↔	↔	↔	↔	↔	↔	↔
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	0.97	0.86	0.97	0.91	1.00
Fit	1.00	1.00	1.00	0.85	1.00	0.97	1.00	0.98	1.00	1.00
Fit Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1583	3433	3433	3433	6270	3433	5085	1583
Fit Permitted	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1583	3433	3433	3433	6270	3433	5085	1583
Volume (vph)	492	658	432	556	1217	304	846	1932	346	1649
Peak-hour factor, PHF	0.97	0.97	0.97	0.96	0.96	0.90	0.90	0.90	0.96	0.96
Adj. Flow (vph)	507	678	445	579	1268	317	940	2147	358	1718
RTOR Reduction (vph)	0	0	5	0	18	0	25	0	0	0
Lane Group Flow (vph)	507	678	440	579	1567	0	940	2480	0	360
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	pm+ov	Prot	Prot	Prot	Prot	2	2	2	pm+ov
Protected Phases	7	4	5	3	8	5	2	1	6	7
Permitted Phases	4	5	4	5	3	8	5	2	1	6
Actuated Green, G (s)	11.5	27.1	48.6	21.9	37.5	21.5	44.5	8.5	31.5	43.0
Effective Green, g (s)	13.0	28.6	51.6	23.4	39.0	23.0	46.0	10.0	33.0	46.0
Actuated g/C Ratio	0.11	0.24	0.43	0.19	0.32	0.19	0.38	0.08	0.28	0.38
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	372	843	720	669	1116	658	2404	286	1398	646
v/s Ratio Prot	c0.15	0.19	0.12	0.17	c0.46	c0.27	0.40	0.10	c0.34	0.06
v/s Ratio Perm	1.36	0.80	0.61	0.87	1.40	1.43	1.03	1.26	1.23	0.51
Uniform Delay, d1	53.5	43.1	26.5	46.8	40.5	48.5	37.0	55.0	43.5	28.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.11	1.01	0.74
Incremental Delay, d2	179.8	5.6	1.5	11.3	187.2	201.6	27.0	130.2	106.4	0.3
Delay (s)	233.3	48.7	28.0	58.1	227.7	250.1	64.0	191.3	150.1	21.3
Level of Service	F	D	C	E	F	F	E	F	F	C
Approach Delay (s)	100.5			182.3			114.8		138.6	
Approach LOS	F			F			F		F	
Intersection Summary										
HCM Average Control Delay	133.5									
HCM Volume to Capacity ratio	1.35									
Actuated Cycle Length (s)	120.0									
Intersection Capacity Utilization	126.7%									
Analysis Period (min)	15									
Critical Lane Group										

2008 PM Peak BUILD Conditions
Existing Geometry
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Timings
2: M Plaza & Coors Blvd

HCM Signalized Intersection Capacity Analysis
2: M Plaza & Coors Blvd

Terry O. Brown, P.E.
7/30/2006

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	116	44	31	264	187	214	68	2482	132	365	2170	111
Volume (vph)	pm+pt	pm+pt	pm+ov	pm+pt	pm+ov	pm+pt	pm+ov	pm+pt	pm+ov	pm+pt	pm+ov	pm+pt
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	
Permitted Phases	4	4	4	8	8	8	2	2	2	6		
Actuated Green (s)	7	4	5	3	8	1	5	2	3	1	6	
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Minimum Split (s)	9.5	20.5	9.5	9.5	20.5	9.5	9.5	20.5	9.5	9.5	20.5	
Total Split (s)	9.5	20.5	11.8	13.2	24.2	24.0	11.8	62.3	13.2	24.0	74.5	
Total Split (%)	7.9%	17.1%	9.8%	11.0%	20.2%	20.0%	9.8%	51.9%	11.0%	20.0%	62.1%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lead	
Lead-Lag Optimize?												
Recall Mode	Min	Min	Min	Min	Min	Min	Min	C-Min	Min	Min	C-Min	
Act Effct Green (s)	22.5	16.0	28.4	29.2	19.7	45.2	59.3	59.3	72.5	69.4	69.4	
Actuated g/C Ratio	0.19	0.13	0.24	0.24	0.16	0.38	0.49	0.49	0.60	0.58	0.58	
v/c Ratio	0.83	0.22	0.10	1.04	0.79	0.46	0.30	1.05	0.14	1.00	0.83	
Control Delay	76.2	47.8	20.3	102.2	67.1	29.6	20.1	41.1	0.1	69.9	4.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	76.2	47.8	20.3	102.2	67.1	29.6	20.1	41.1	0.1	69.9	4.1	
LOS	E	D	C	F	E	C	C	D	A	E	A	
Approach Delay												
Approach LOS	E											
Intersection Summary												
Cycle Length: 120												
Actuated Cycle Length: 120												
Offset: 38 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green												
Natural Cycle: 130												
Control Type: Actuated-Coordinated												
Maximum v/c Ratio: 1.05												
Intersection Signal Delay: 32.7												
Intersection Capacity Utilization 100.3%												
Analysis Period (min) 15												
Spplits and Phases: 2: M Plaza & Coors Blvd												
	e1	e2	e3	e4	e5	e6	e7	e8				
	24 s	62.3 s	13.2 s	20.5 s	11.8 s	9.5 s	24.2 s	24.2 s				
	74.5 s											

2008 PM Peak BUILD Conditions
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2008 PM Peak BUILD Conditions
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Existing Geometry

Timings
3: La Orilla Rd & Coors Blvd

HCM Signalized Intersection Capacity Analysis
3: La Orilla Rd & Coors Blvd

Terry O. Brown, P.E.
7/30/2006

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBR
Lane Configurations	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBR
Volume (vph)	245	425	69	200	523	364	2693	199	2281	231
Turn Type	pm+pt	7	4	3	8	5	2	1	6	7
Protected Phases	4	4	4	8	2	2	6	6	6	6
Detector Phases	7	4	4	3	8	5	2	1	6	7
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	9.5	20.5	20.5	9.5	20.5	9.5	20.5	9.5	20.5	9.5
Total Split (s)	20.7	35.0	35.0	14.0	28.3	12.7	61.5	9.5	58.3	20.7
Total Split (%)	17.3%	29.2%	29.2%	11.7%	23.6%	10.6%	51.3%	7.9%	48.6%	17.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	Min
Act Ert Green (s)	46.0	32.0	32.0	25.3	68.0	58.5	61.8	55.3	76.0	6.3
Act Ert Green Ratio	0.38	0.27	0.27	0.30	0.21	0.57	0.49	0.52	0.46	0.63
v/c Ratio	0.94	1.06	0.18	1.01	0.95	1.00	0.97	0.69	1.03	0.24
Control Delay	70.8	101.3	10.7	95.2	69.2	62.1	28.4	28.1	53.1	9.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.8	101.3	10.7	95.2	69.2	62.1	28.4	28.1	53.1	9.5
LOS	E	F	B	F	E	E	C	C	D	A
Approach Delay	82.7				75.5		32.4		47.5	
Approach LOS	F				E		C		D	

Intersection Summary	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBR
Cycle Length: 120										
Actuated Cycle Length: 120										
Offset: 101 (84%), Referenced to phase 2: NBT and 6: SBT, Start of Green										
Natural Cycle: 120										
Control Type: Actuated-Coordinated										
Maximum v/c Ratio: 1.06										
Intersection Signal Delay: 48.3										
Intersection Capacity Utilization 101.2%										
Analysis Period (min) 15										

Splits and Phases:	3: La Orilla Rd & Coors Blvd
EBL	12.7 s
EBT	61.5 s
EBR	14 s
WBL	20.7 s
WBT	28.3 s
WBR	28.3 s
NBL	28.3 s
NBT	28.3 s
NBR	28.3 s
SBL	28.3 s
SBR	28.3 s

2008 PM Peak BUILD Conditions
Existing Geometry
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBR
Lane Configurations	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBR
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1736	1827	1553	1736	1827	1553	3367	3367	4988	1553
Flt Permitted	0.14	1.00	1.00	0.16	1.00	0.16	0.07	1.00	0.07	1.00
Satd. Flow (perm)	258	1827	1553	289	3388	243	6266	6266	256	4988
Volume (vph)	245	425	69	200	523	364	2693	199	2281	231
Peak-hour factor, PHF	0.82	0.82	0.82	0.90	0.90	0.90	0.93	0.93	0.96	0.96
Adj. Flow (vph)	299	518	84	222	581	411	391	2896	57	207
RTOR Reduction (vph)	0	0	54	0	13	0	0	2	0	0
Lane Group Flow (vph)	299	518	30	222	679	0	391	2951	0	207
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	pm+pt	7	4	3	8	5	2	1	6	7
Protected Phases	4	4	4	8	2	2	6	6	6	6
Permitted Phases	4	4	4	8	2	2	6	6	6	6
Actuated Green, G (s)	44.5	30.5	30.5	33.3	23.8	65.2	57.0	58.8	53.8	70.0
Effective Green, g (s)	46.0	32.0	32.0	36.3	25.3	68.0	58.5	61.8	55.3	73.0
Actuated g/C Ratio	0.38	0.27	0.27	0.30	0.21	0.57	0.49	0.51	0.46	0.61
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	317	487	414	220	714	390	3055	300	2299	984
v/s Ratio Prot	c0.14	c0.28	c0.09	0.20	c0.08	0.47	0.04	0.48	0.03	0.11
v/s Ratio Perm	0.22	0.02	0.21	0.21	c0.49	1.00	0.97	0.69	1.03	0.24
v/c Ratio	0.94	1.06	0.07	1.01	0.95	1.00	0.97	0.69	1.03	0.24
Uniform Delay, d1	33.4	44.0	32.9	37.7	46.7	37.9	29.8	26.3	32.4	10.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.17	0.77	1.08	0.83	1.04
Incremental Delay, d2	35.6	58.8	0.1	63.0	22.3	29.8	5.1	4.9	25.6	0.1
Delay (s)	69.0	102.8	33.0	100.8	69.0	74.0	27.9	33.4	52.5	11.3
Level of Service	E	F	C	F	E	E	C	C	D	B
Approach Delay (s)	85.0				76.7		33.3		47.6	
Approach LOS	F				E		C		D	

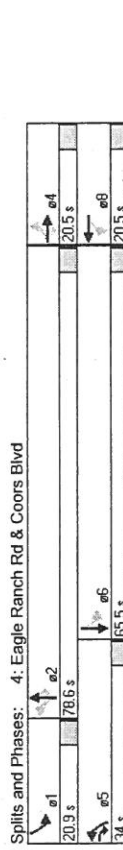
Intersection Summary	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBR
HCM Average Control Delay	49.2									
HCM Volume to Capacity ratio	1.00									
Actuated Cycle Length (s)	120.0									
Intersection Capacity Utilization	101.2%									
Analysis Period (min)	15									
c Critical Lane Group										

2008 PM Peak BUILD Conditions
Existing Geometry
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Timings
4: Eagle Ranch Rd & Coors Blvd

Terry O. Brown, P.E.
7/30/2006

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Volume (vph)	7	25	269	112	61	427	2078	58	161	2262
Turn Type	Perm	pm+ov	Perm	pm+pt	Perm	pm+pt	Perm	pm+pt	Perm	pm+pt
Protected Phases	4	4	5	8	5	2	2	2	6	6
Permitted Phases	4	4	5	8	5	2	2	2	1	6
Detector Phases	4	4	5	8	5	2	2	2	1	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.5	20.5	9.5	20.5	20.5	9.5	20.5	20.5	9.5	20.5
Total Split (s)	20.5	20.5	34.0	20.5	20.5	34.0	20.5	20.5	34.0	20.5
Total Split (%)	17.1%	17.1%	28.3%	17.1%	17.1%	28.3%	65.5%	17.4%	54.6%	17.4%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lead	Lag
Lead-Lag Optimize?	Min	Min	Min	Min	Min	Min	Min	Min	Min	C-Min
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min	C-Min
Act Effct Green (s)	16.7	16.7	49.7	16.7	16.7	97.3	80.5	80.5	78.1	64.3
Actuated g/C Ratio	0.14	0.14	0.41	0.14	0.14	0.81	0.67	0.67	0.65	0.54
v/c Ratio	0.14	0.11	0.46	0.81	0.82	0.91	0.66	0.66	0.66	0.92
Control Delay	50.9	45.8	27.6	80.2	59.4	40.1	16.8	2.9	39.1	22.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.9	45.8	27.6	80.2	59.4	40.1	16.8	2.9	39.1	22.4
LOS	D	D	C	F	E	D	B	A	D	C
Approach Delay	29.7	C	67.6	E	E	C	C	C	23.5	C
Approach LOS	C	C	E	E	E	C	C	C	C	C
Intersection Summary										
Cycle Length: 120										
Actuated Cycle Length: 120										
Offset: 104 (87%), Referenced to phase 2:NBTL and 6:SBTL Start of Green										
Natural Cycle: 90										
Control Type: Actuated-Coordinated										
Maximum v/c Ratio: 0.92										
Intersection Signal Delay: 25.2										
Intersection Capacity Utilization 90.5%										
Analysis Period (min) 15										



2008 PM Peak BUILD Conditions
Existing Geometry
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HCM Signalized Intersection Capacity Analysis
4: Eagle Ranch Rd & Coors Blvd

Terry O. Brown, P.E.
7/30/2006

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↑	↗	↖	↑	↗	↖	↑	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Flt	1.00	1.00	0.85	1.00	0.90	1.00	1.00	1.00	0.85	1.00	1.00	1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	1845	1568	1752	1666	1752	5036	1568	1752	5032	1752	5032
Flt Permitted	0.24	1.00	1.00	0.74	1.00	1.00	0.06	1.00	1.00	0.06	1.00	1.00
Satd. Flow (perm)	442	1845	1568	1363	1666	110	5036	1568	115	5032	115	5032
Volume (vph)	7	25	269	112	61	111	427	2078	58	161	2262	12
Peak-hour factor, PHF	0.90	0.90	0.90	0.73	0.73	0.73	0.93	0.93	0.93	0.92	0.92	0.92
Adj. Flow (vph)	8	28	299	153	84	152	459	2234	62	175	2459	13
RTOR Reduction (vph)	0	0	1	0	55	0	0	0	20	0	0	0
Lane Group Flow (vph)	8	28	298	153	181	0	459	2234	42	175	2472	0
Turn Type	Perm	pm+ov	Perm	pm+pt	Perm	pm+pt	5	2	1	6		
Protected Phases	4	4	5	8	8	2	2	2	6			
Permitted Phases	4	4	4	8	8	2	2	2	6			
Actuated Green, G (s)	15.2	15.2	43.8	15.2	15.2	95.8	79.0	79.0	75.0	75.0	62.7	
Effective Green, g (s)	16.7	16.7	46.8	16.7	16.7	97.3	80.5	80.5	78.0	78.0	64.2	
Actuated g/C Ratio	0.14	0.14	0.39	0.14	0.14	0.81	0.67	0.67	0.67	0.65	0.54	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	62	257	651	190	232	501	3378	1052	263	2692		
v/s Ratio Prot	0.02	0.12	0.08	c0.11	0.11	c0.23	0.44	0.03	0.36	0.49		
v/c Ratio	0.13	0.11	0.46	0.81	0.78	0.92	0.66	0.64	0.67	0.92		
Uniform Delay, d1	45.3	45.1	27.2	50.1	49.9	38.0	11.7	6.7	25.2	25.5		
Progression Factor	1.00	1.00	1.00	1.00	1.00	0.85	1.31	1.35	0.98	0.63		
Incremental Delay, d2	0.9	0.2	0.5	21.4	15.2	9.4	0.4	0.4	0.4	5.7		
Delay (s)	46.2	45.3	27.7	71.5	65.1	41.6	15.7	9.0	30.2	21.6		
Level of Service	D	D	C	E	E	D	B	A	C	C		
Approach Delay (s)	29.6	C	67.6	E	E	19.9	B	B	22.2	C		
Approach LOS	C	C	E	E	E	B	B	B	C	C		
Intersection Summary												
HCM Average Control Delay	24.4											
HCM Volume to Capacity ratio	0.90											
Actuated Cycle Length (s)	120.0											
Intersection Capacity Utilization	90.5%											
Analysis Period (min)	15											
Critical Lane Group												

2008 PM Peak BUILD Conditions
Existing Geometry
D:\ATOB\PROJECTS\Bosquesito_Commercial\Synchro\2008PBX.sv7

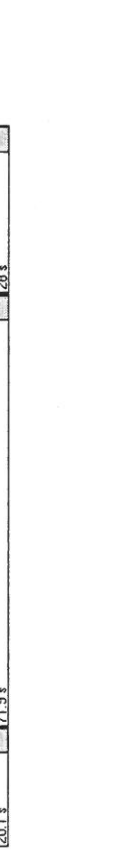
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	160	132	1668	108	241	2110
Volume (vph)	160	132	1668	108	241	2110
Turn Type	pm+ov	pm+ov	pm+ov	pm+ov	pm+ov	pm+ov
Protected Phases	8	1	2	8	1	6
Permitted Phases	8	1	2	8	1	6
Detector Phases	8	1	2	8	1	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.5	9.5	20.5	20.5	9.5	20.5
Total Split (s)	29.3	30.4	60.3	29.3	30.4	90.7
Total Split (%)	24.4%	25.3%	50.3%	24.4%	25.3%	75.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?						
Recall Mode	Min	Min	C-Min	Min	Min	C-Min
Act Eff Green (s)	19.6	41.0	73.0	95.6	94.4	94.4
Actuated g/c Ratio	0.16	0.34	0.61	0.80	0.79	0.79
v/c Ratio	0.70	0.31	0.61	0.10	0.73	0.55
Control Delay	60.0	27.3	3.9	0.1	41.2	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	60.0	27.3	3.9	0.1	41.2	5.8
LOS	E	C	A	A	D	A
Approach Delay	45.2		3.7			9.4
Approach LOS	D		A			A
Intersection Summary						
Cycle Length: 120						
Actuated Cycle Length: 120						
Offset: 3 (3%), Referenced to phase 2:NBT and 6:SBTL, Start of Green						
Natural Cycle: 60						
Control Type: Actuated-Coordinated						
Maximum v/c Ratio: 0.73						
Intersection Signal Delay: 9.7						
Intersection LOS: A						
Intersection Capacity Utilization 64.4%						
Analysis Period (min) 15						
Splits and Phases: 5: SIPI Entrance & Coors Blvd						
	30.4 s	60.3 s				29.3 s
	30.7 s					

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	1.00	1.00	0.91	1.00	1.00	0.91
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1752	1568	5036	1568	1752	5036
Flt Permitted	0.95	1.00	1.00	1.00	0.07	1.00
Satd. Flow (perm)	1752	1568	5036	1568	124	5036
Volume (vph)	160	132	1668	108	241	2110
Peak-hour factor, PHF	0.80	0.80	0.89	0.89	0.96	0.96
Adj. Flow (vph)	200	165	1874	121	251	2198
RTOR Reduction (vph)	0	3	0	28	0	0
Lane Group Flow (vph)	200	162	1874	93	251	2198
Turn Type	pm+ov	pm+ov	pm+ov	pm+ov	pm+ov	pm+ov
Protected Phases	8	1	2	8	1	6
Permitted Phases	8	1	2	8	1	6
Actuated Green, G (s)	18.1	35.0	71.5	89.6	92.9	92.9
Effective Green, g (s)	19.6	38.0	73.0	92.6	94.4	94.4
Actuated g/C Ratio	0.16	0.32	0.61	0.77	0.79	0.79
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	286	536	3064	1249	347	3962
v/s Ratio Prot	c0.11	0.05	0.37	0.01	c0.11	0.44
v/s Ratio Perm	0.06			0.05	c0.46	
v/c Ratio	0.70	0.30	0.61	0.07	0.72	0.55
Uniform Delay, d1	47.4	31.0	14.7	3.3	30.5	4.8
Progression Factor	1.00	1.00	0.19	0.00	1.24	0.99
Incremental Delay, d2	7.3	0.3	0.7	0.0	5.6	0.4
Delay (s)	54.7	31.3	3.5	0.0	43.4	5.2
Level of Service	D	C	A	A	D	A
Approach Delay (s)	44.1		3.3			9.1
Approach LOS	D		A			A
Intersection Summary						
HCM Average Control Delay			9.4			A
HCM Volume to Capacity ratio			0.72			A
Actuated Cycle Length (s)			120.0			6.0
Intersection Capacity Utilization			64.4%			C
Analysis Period (min)			15			
c Critical Lane Group						

Timings
6: Paseo del Norte & Coors Blvd

Terry O. Brown, P.E.
7/30/2006

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Volume (vph)	87	126	580	179	1364	304	1096	1407	129			
Turn Type	Prot	Over	Prot	Prot	Prot	pm+ov	Prot	pm+ov	Prot			
Protected Phases	7	5	3	5	2	3	1	6	7			
Permitted Phases	7	5	3	5	2	3	1	6	7			
Detector Phases	7	5	3	5	2	3	1	6	7			
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0			
Minimum Split (s)	9.5	9.5	9.5	9.5	20.5	9.5	9.5	20.5	9.5			
Total Split (s)	28.0	20.1	28.0	20.1	51.0	28.0	41.0	71.9	28.0			
Total Split (%)	23.3%	16.8%	23.3%	16.8%	42.5%	23.3%	34.2%	59.9%	23.3%			
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5			
Lead/Lag	Lead	Lead	Lead	Lead	Lag	Lead	Lag	Lead	Lag			
Lead-Lag Optimize?												
Recall Mode	Min	Min	Min	Min	Min	Min	Min	Min	Min			
Act Eff Green (s)	25.0	14.5	25.0	14.5	48.0	76.0	38.0	71.5	99.5			
Actuated g/c Ratio	0.21	0.12	0.21	0.12	0.40	0.63	0.32	0.60	0.83			
v/c Ratio	0.14	0.65	1.05	0.47	1.05	0.33	1.06	0.49	0.10			
Control Delay	39.3	54.4	93.8	43.9	63.3	3.4	84.7	14.8	0.6			
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Total Delay	39.3	54.4	93.8	43.9	63.3	3.4	84.7	14.8	0.6			
LOS	D	D	F	D	E	A	F	B	A			
Approach Delay												
Approach LOS												
Intersection Summary												
Cycle Length: 120												
Actuated Cycle Length: 120												
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green												
Natural Cycle: 100												
Control Type: Actuated-Coordinated												
Maximum v/c Ratio: 1.06												
Intersection Signal Delay: 52.9												
Intersection Capacity Utilization 95.5%												
Analysis Period (min) 15												



2008 PM Peak BUILD Conditions
Existing Geometry
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HCM Signalized Intersection Capacity Analysis
6: Paseo del Norte & Coors Blvd

Terry O. Brown, P.E.
7/30/2006

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Util. Factor	0.97	1.00	0.97	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.91	1.00
Frt	1.00	0.85	1.00	1.00	0.95	1.00	1.00	0.85	1.00	0.95	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00	0.85
Satd. Flow (prot)	3400	1568	3400	3400	3400	3400	3505	1568	3400	5036	1568	1568
Flt Permitted	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	0.95	1.00	1.00	0.85
Satd. Flow (perm)	3400	1568	3400	3400	3400	3400	3505	1568	3400	5036	1568	1568
Volume (vph)	87	0	126	580	0	0	179	1364	304	1096	1407	129
Peak-hour factor, PHF	0.91	0.91	0.91	0.78	0.78	0.78	0.93	0.93	0.93	0.96	0.96	0.96
Adj. Flow (vph)	96	0	138	744	0	0	192	1467	327	1142	1466	134
RTOR Reduction (vph)	0	0	24	0	0	0	0	0	0	3	0	26
Lane Group Flow (vph)	96	0	114	744	0	0	192	1467	324	1142	1466	108
Turn Type	Prot	Prot	Over	Prot	Prot	Over	Prot	pm+ov	Prot	pm+ov	Prot	pm+ov
Protected Phases	7	7	5	3	3	1	5	2	3	1	6	7
Permitted Phases	7	7	5	3	3	1	5	2	3	1	6	7
Actuated Green, G(s)	23.5	23.5	13.0	23.5	23.5	13.0	46.5	70.0	36.5	70.0	93.5	93.5
Effective Green, g(s)	25.0	25.0	14.5	25.0	25.0	14.5	48.0	73.0	38.0	71.5	96.5	96.5
Actuated g/c Ratio	0.21	0.21	0.12	0.21	0.21	0.12	0.40	0.61	0.32	0.60	0.80	0.80
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	708	708	189	708	708	189	1402	993	1077	3001	1300	1300
v/s Ratio Prot	0.03	0.03	0.07	0.22	0.22	0.06	0.42	0.07	0.34	0.29	0.02	0.02
v/s Ratio Perm	0.14	0.14	0.60	1.05	1.05	0.47	1.05	0.33	1.06	0.49	0.05	0.05
Uniform Delay, d1	38.7	38.7	50.0	47.5	47.5	49.2	36.0	11.5	41.0	13.8	2.5	2.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	0.84	0.77	0.27	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.1	0.1	5.4	48.0	48.0	0.7	34.9	0.2	44.9	0.6	0.0	0.0
Delay (s)	38.8	38.8	55.4	95.5	95.5	41.9	62.6	3.2	85.9	14.4	2.5	2.5
Level of Service	D	D	E	F	F	D	E	A	F	B	A	A
Approach Delay (s)												
Approach LOS												
Intersection Summary												
HCM Average Control Delay												
HCM Volume to Capacity ratio												
Actuated Cycle Length (s)												
Intersection Capacity Utilization												
Analysis Period (min)												
c Critical Lane Group												

2008 PM Peak BUILD Conditions
Existing Geometry
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HCM Unsignalized Intersection Capacity Analysis
7: Bosque Meadows Rd. & Coors Blvd

Terry O. Brown, P.E.
7/30/2006

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑	↑	↑↑↑	↑	↑	↑↑↑
Sign Control	Stop	Free	Free	Free	Free	Free
Grade	0%	0%	0%	0%	0%	0%
Volume (veh/h)	291	71	2480	258	254	2658
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	342	84	2918	304	299	3127
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type						
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	4558	973			3221	
vC1, stage 1 conf vol	2918					
vC2, stage 2 conf vol	1640					
vCu, unblocked vol	4558	973			3221	
tC, single (s)	6.9	7.0			4.2	
tC, 2 stage (s)	5.9					
tF (s)	3.5	3.3			2.2	
p0 queue free %	0	67			0	
cM capacity (veh/h)	0	250			90	
Direction, Lane #	WB 1	WB 2	NB 1	NB 2	NB 3	NB 4
Volume Total	342	84	973	304	299	1042
Volume Left	342	0	0	0	299	0
Volume Right	0	84	0	0	0	0
cSH	0	250	1700	1700	90	1700
Volume to Capacity	Err	0.33	0.57	0.57	0.18	3.31
Queue Length 95th (ft)	Err	35	0	0	0	0
Control Delay (s)	Err	26.4	0.0	0.0	0.0	1141.0
Lane LOS	F	D			F	
Approach Delay (s)	Err		0.0		99.5	
Approach LOS	F				F	
Intersection Summary						
Average Delay	Err			Err		
Intersection Capacity Utilization	88.1%			E		
Analysis Period (min)	15			15		

2008 PM Peak BUILD Conditions
Existing Geometry
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HCM Unsignalized Intersection Capacity Analysis
8: Bosque Meadows Rd. & Bosq. Mead. Pl.

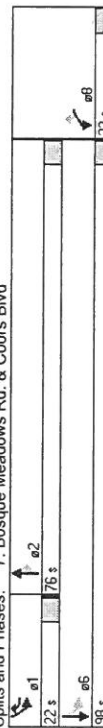
Terry O. Brown, P.E.
7/30/2006

Movement	EBT	EBR	WBT	WBR	NBT	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Sign Control	Free	Free	Free	Free	Free	Free
Grade	0%	0%	0%	0%	0%	0%
Volume (veh/h)	464	50	1	348	21	1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	546	59	1	409	25	1
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type						
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume						
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol						
tC, single (s)						
tC, 2 stage (s)						
tF (s)						
p0 queue free %						
cM capacity (veh/h)						
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	605	411	26			
Volume Left	0	1	25			
Volume Right	59	0	1			
cSH	1700	968	279			
Volume to Capacity	0.36	0.00	0.09			
Queue Length 95th (ft)	0	0	8			
Control Delay (s)	0.0	0.0	19.2			
Lane LOS	A	A	C			
Approach Delay (s)	0.0	0.0	19.2			
Approach LOS	C	C	C			
Intersection Summary						
Average Delay	0.5			A		
Intersection Capacity Utilization	37.5%			15		
Analysis Period (min)	15			15		

2008 PM Peak BUILD Conditions
Existing Geometry
D:\ATOB\PROJECTS\Bosquesito_Commercial\Synchro\2008PBX.sy7

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	N	N	S	S
Volume (vph)	291	71	2480	258	254	2658
Turn Type	pm+ov	pm+ov	pm+ov	pm+ov	pm+ov	pm+ov
Protected Phases	8	1	2	2	1	6
Permitted Phases						
Detector Phases	8	1	2	2	1	6
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	20.5	9.5	20.5	20.5	9.5	20.5
Total Split (s)	22.0	22.0	76.0	76.0	22.0	98.0
Total Split (%)	18.3%	18.3%	63.3%	63.3%	18.3%	81.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lead/Lag	Lead	Lag	Lag	Lag	Lead	Lead
Lead-Lag Optimize?						
Recall Mode	None	None	C-Min	C-Min	None	C-Min
Act Effect Green (s)	17.5	39.7	74.3	74.3	96.5	96.5
Actuated g/C Ratio	0.15	0.33	0.62	0.62	0.80	0.80
v/c Ratio	0.69	0.16	0.94	0.28	0.87	0.77
Control Delay	56.3	28.4	14.3	0.6	51.6	8.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.3	28.4	14.3	0.6	51.6	8.6
LOS	E	C	B	A	D	A
Approach Delay	50.8		13.0			12.3
Approach LOS	D		B			B
Intersection Summary						
Cycle Length: 120						
Actuated Cycle Length: 120						
Offset: 0 (0%), Referenced to phase 2 NBT and 6 SBT, Start of Green						
Natural Cycle: 90						
Control Type: Actuated-Coordinated						
Maximum v/c Ratio: 0.94						
Intersection Signal Delay: 15.0						
Intersection Capacity Utilization 80.3%						
Analysis Period (min) 15						

Splits and Phases: 7: Bosque Meadows Rd. & Coors Blvd



HCM Unsignalized Intersection Capacity Analysis
 9: Bosque Meadows Rd. & Driveway "A"

Terry O. Brown, P.E.
 7/30/2006

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↑	↗	↖	↗	↑
Sign Control	Free	Free	Free	Stop	Stop	Stop
Grade	0%	0%	0%	0%	0%	0%
Volume (veh/h)	464	1	1	4	4	347
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	546	1	1	5	5	408
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
VC, conflicting volume	6				1096	4
VC1, stage 1 conf vol						
VC2, stage 2 conf vol	6				1096	4
VCu, unblocked vol	4.1				6.4	6.2
IC, single (s)						
IC, 2 stage (s)						
IF (s)	2.2				3.5	3.3
p0 queue free %	66				97	62
cM capacity (veh/h)	1609				155	1077
Direction Lane #	EB 1	EB 2	WB 1	SB 1	SB 2	
Volume Total	546	1	6	5	408	
Volume Left	546	0	0	5	0	
Volume Right	0	0	5	0	408	
cSH	1609	1700	1700	155	1077	
Volume to Capacity	0.34	0.00	0.00	0.03	0.38	
Queue Length 95th (ft)	38	0	0	2	45	
Control Delay (s)	8.4	0.0	0.0	28.9	10.4	
Lane LOS	A			D	B	
Approach Delay (s)	8.4		0.0	10.6		
Approach LOS			B			
Intersection Summary						
Average Delay			9.3			
Intersection Capacity Utilization			42.4%			A
Analysis Period (min)			15			

2008 PM Peak BUILD Conditions
 Existing Geometry
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HCM Unsignalized Intersection Capacity Analysis

Terry O. Brown, P.E.

14: Coors Blvd & *Driveway 'B'*

7/31/2006



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↑	↑↑↑	↑		↑↑↑
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Volume (veh/h)	0	47	1677	22	0	1683
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	0	55	1973	26	0	1980
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	2633	658			1999	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	2633	658			1999	
tC, single (s)	6.9	7.0			4.2	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	86			100	
cM capacity (veh/h)	19	405			279	

Direction, Lane #	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3
Volume Total	55	658	658	658	26	660	660	660
Volume Left	0	0	0	0	0	0	0	0
Volume Right	55	0	0	0	26	0	0	0
cSH	405	1700	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.14	0.39	0.39	0.39	0.02	0.39	0.39	0.39
Queue Length 95th (ft)	12	0	0	0	0	0	0	0
Control Delay (s)	15.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	C							
Approach Delay (s)	15.3	0.0				0.0		
Approach LOS	C							

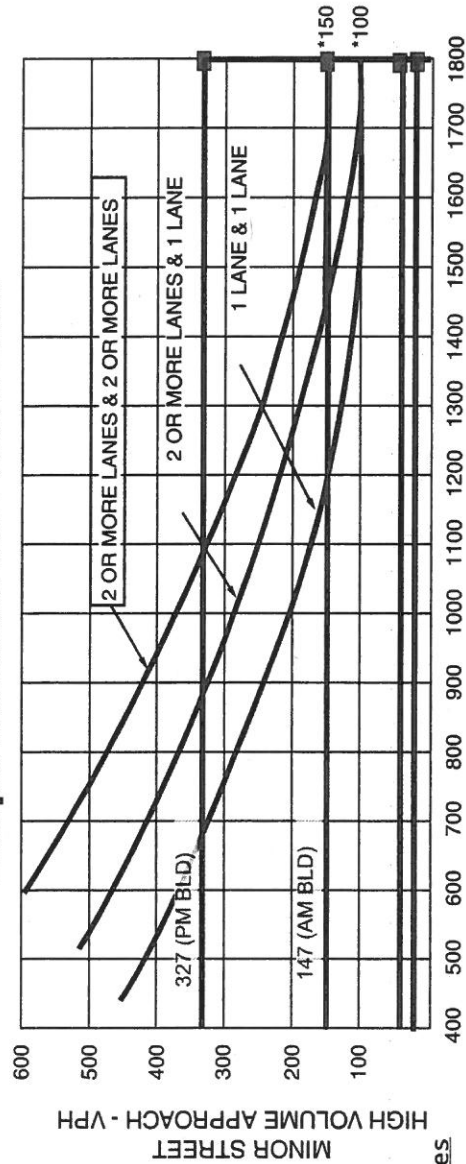
Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	42.4%	ICU Level of Service	A
Analysis Period (min)	15		

2009 AM Peak BUILD Conditions

Existing Geometry

D:\ATOB\PROJECTS\Bosquecito_Commercial\Synchro\2008ABX.sy7

**Figure 4C-3. Warrant 3, Peak Hour
Bosque Meadows Rd. / Coors Blvd.**



Projected Volumes
2008

AM Peak	Minor	Major
NO BUILD	36	3,601
BUILD	147	3,711

PM Peak	Minor	Major
NO BUILD	11	5,396
BUILD	327	5,650

**MAJOR STREET—TOTAL OF BOTH APPROACHES—
VEHICLES PER HOUR (VPH)**

*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Traffic Signal is Warranted based on Projected 2008 Volumes

Data Entry Sheet
Determination of Warrants for Deceleration Lanes
NM DOT State Access Management Manual Criteria
Driveway "B" / Coors Blvd.

Project Information:

Project Name: Bosquecito Commercial Development
 Project Location: Bosque Meadows Rd. / Coors Blvd.
 Implementation Year: 2008
 Project Environment: Urban Multi-Lane

Street Information:

Major Street Name: Coors Blvd.
 Minor Street Name: Driveway "B"

Intersection Information:

	Orientation	Prevailing Speed	No. Lanes Each Direction
Driveway "B"	Westbound	25	N/A
Coors Blvd.	North-South	55	2

Determine Case:

Case

- 1 Urban Two-Lane Highway - Use Table 17.B.1
- 2 Urban Multi-Lane Highway - Use Table 17.B-2
- 3 Rural Two Lane Highway - Use Table 17.B-3 and 17.B-5
- 4 Rural Multi-Lane Highway - Use Table 17.B-4 and 17.B-6

Coors Blvd. is Case 2
 Speed Category 45 to 55

NB Right Turn Volumes

2008 AM Pk. Hr. NO BUILD	0
2008 AM Pk. Hr. BUILD	22
2008 PM Pk. Hr. NO BUILD	0
2008 PM Pk. Hr. BUILD	51

NB Thru Volumes

1734
1677
2329
2199

SB Left Turn Volumes

2008 AM Pk. Hr. NO BUILD	0
2008 AM Pk. Hr. BUILD	0
2008 PM Pk. Hr. NO BUILD	0
2008 PM Pk. Hr. BUILD	0

SB Thru Volumes

1683
1683
2581
2581

Determination of Warrants for Auxiliary Lanes

Project Name: **Bosquecito Commercial Development**
 Name of Highway: **Coors Blvd.**
 Name of Cross Street: **Driveway "B"**

Determination of Warrants for: Westbound Driveway

Implementation Year Volumes - **2008** Posted Speed Limit: **55**

Right Turn Deceleration Lane - Implementation Year Volumes

Condition	Year	Projected Right Turn Volume	Warrant Volume in thru Lane	Projected Volume in thru Lane	✓ if Met	Lane Length (Deceleration)*	Adjustment Factor for Grade**	Lane Length (Storage)***	Total Lane Length	Taper Ratio
AM Peak Hour NO BUILD	2008	-	-	867		N/A		-	N/A	N/A
AM Peak Hour BUILD	2008	22	168	839	✓	550	1.00	-	550	16.5:1
PM Peak Hour NO BUILD	2008	-	-	1,165		N/A		-	N/A	N/A
PM Peak Hour BUILD	2008	51	1	1,100	✓	550	1.00	-	550	16.5:1

Based on Table 17.B-2 (Criteria for Deceleration Lanes on Urban Multi-Lane Highways)

Left Turn Deceleration Lane - Implementation Year Volumes

Condition	Year	Projected Left Turn Volume	Warrant Volume in thru Lane	Projected Volume in thru Lane	✓ if Met	Lane Length (Deceleration)*	Adjustment Factor for Grade**	Lane Length (Storage)***	Total Lane Length	Taper Ratio
AM Peak Hour NO BUILD	2008	-	-	842		N/A		N/A	N/A	N/A
AM Peak Hour BUILD	2008	-	-	842		N/A		N/A	N/A	N/A
PM Peak Hour NO BUILD	2008	-	-	1,291		N/A		N/A	N/A	N/A
PM Peak Hour BUILD	2008	-	-	1,291		N/A		N/A	N/A	N/A

Based on Table 17.B-2 (Criteria for Deceleration Lanes on Urban Multi-Lane Highways)

* Lane Length Requirements based on Table 18.K-1 (Deceleration and Acceleration Lengths)

** Enter Grade Adjustment Factor from Table 18.K-2 or other criteria.

*** Lane Storage Length is Based on a calculated 3-minute queue based on average arrival rate per minute.

= Volume/Hr. divided by 60 times three (rounded) times 25 feet per vehicle.

Lane Storage Length for right turn decel lanes is zero unless there is a stop condition.

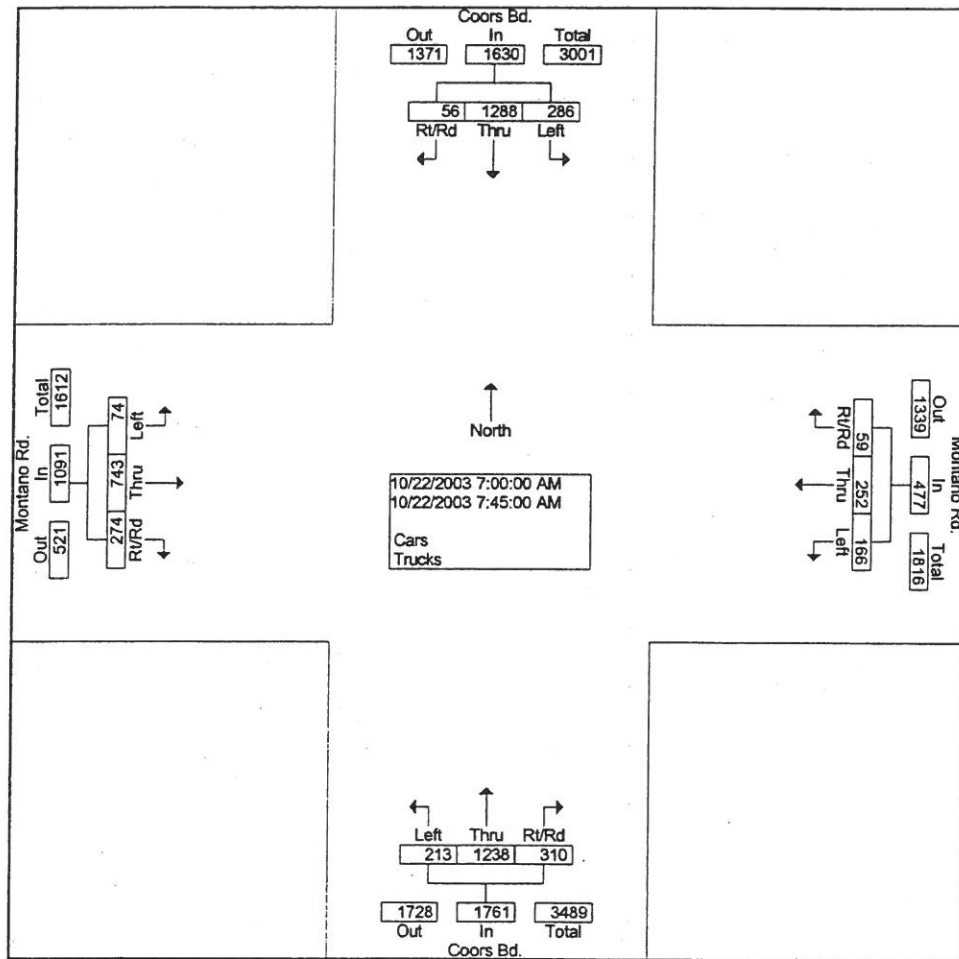
Notes and Comments:

1. This warrant sheet is for the northbound Edeal Rd at 100% Development of the Project

Mid-Region Council of Governments
Intersection Turning Movement Analysis

File Name : Montano Rd. and Coors Bd.
Site Code : 00025335
Start Date : 10/22/2003
Page No : 3

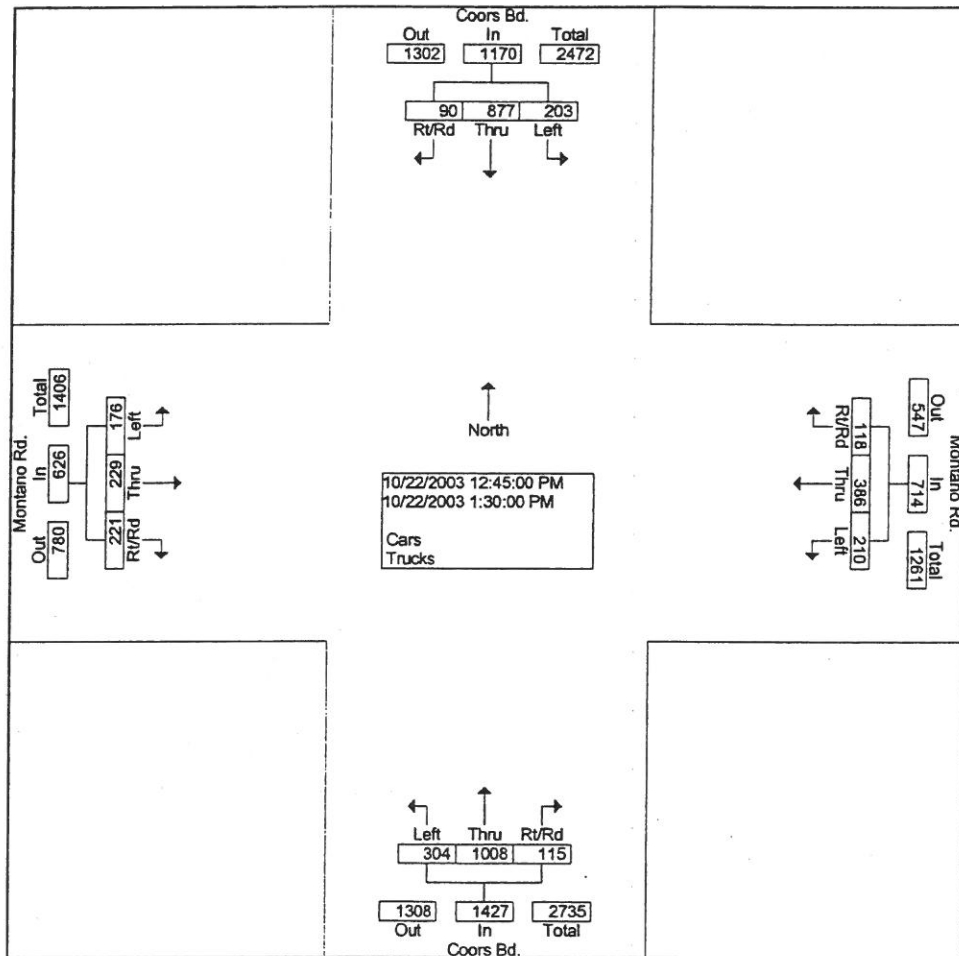
	Coors Bd. From North					Montano Rd. From East					Coors Bd. From South					Montano Rd. From West					
Start Time	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Int. Total
Peak Hour From 06:45 to 09:30 - Peak 1 of 1																					
Intersection 07:00																					
Volume	286	128	30	26	1630	166	252	46	13	477	213	123	271	39	1761	74	743	230	44	1091	4959
Percent	17.5	79.0	1.8	1.6		34.8	52.8	9.6	2.7		12.1	70.3	15.4	2.2		6.8	68.1	21.1	4.0		
Volume	286	128	30	26	1630	166	252	46	13	477	213	123	271	39	1761	74	743	230	44	1091	4959
Volume	79	386	9	7	481	48	53	11	5	117	50	254	72	12	388	13	209	96	13	331	1317
Peak Factor																					0.941
High Int. 07:15						07:30					07:30					07:00					
Volume	79	386	9	7	481	57	79	17	2	155	50	405	60	15	530	31	274	77	31	413	
Peak Factor					0.847					0.769					0.831						0.660



Mid-Region Council of Governments
Intersection Turning Movement Analysis

File Name : Montano Rd. and Coors Bd.
Site Code : 00025335
Start Date : 10/22/2003
Page No : 4

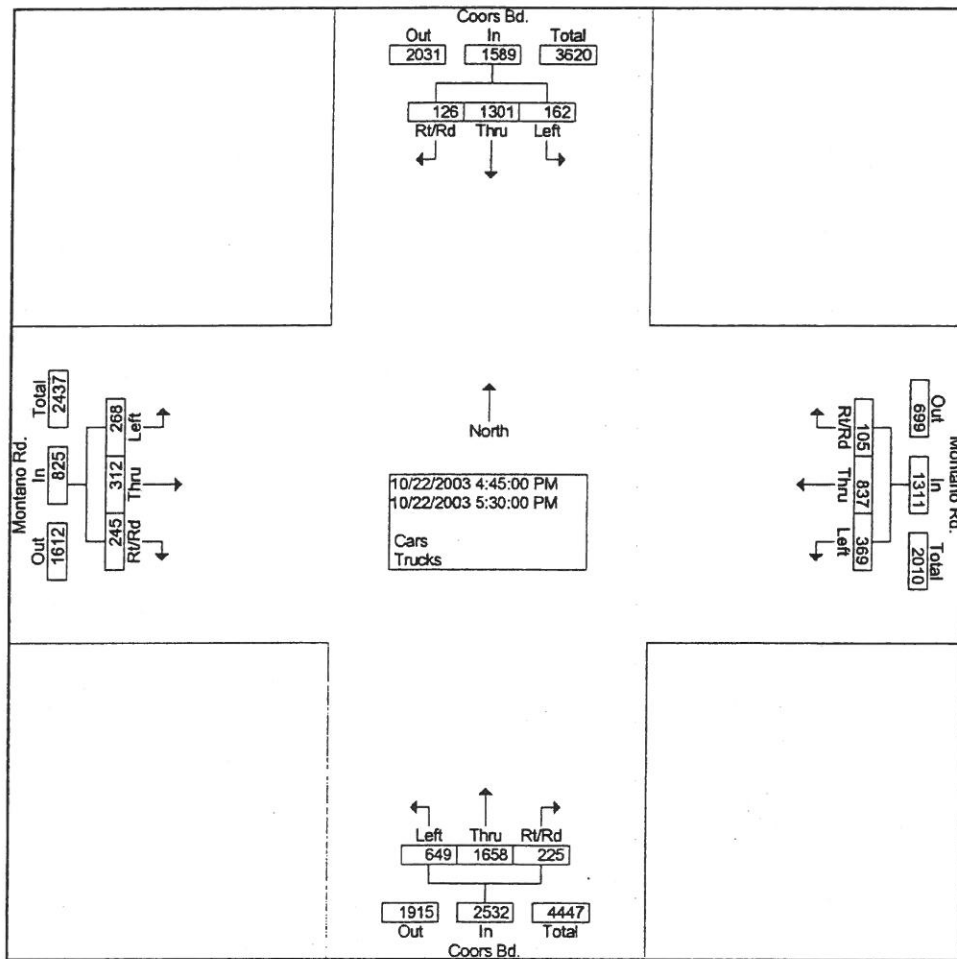
	Coors Bd. From North					Montano Rd. From East					Coors Bd. From South					Montano Rd. From West					
Start Time	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Int. Total
Peak Hour From 11:00 to 13:45 - Peak 1 of 1 Intersection 12:45																					
Volume	203	877	83	7	1170	210	386	110	8	714	304	1008	69	46	1427	176	229	122	99	626	3937
Percent	17.4	75.0	7.1	0.6		29.4	54.1	15.4	1.1		21.3	70.6	4.8	3.2		28.1	36.6	19.5	15.8		
Volume	203	877	83	7	1170	210	386	110	8	714	304	1008	69	46	1427	176	229	122	99	626	3937
Volume	58	209	11	1	279	58	129	23	2	212	82	249	23	20	374	49	59	35	28	171	1036
Peak Factor																					0.950
High Int. 13:00						13:30					13:30					13:00					
Volume	48	258	32	0	338	58	129	23	2	212	82	249	23	20	374	46	73	35	22	176	
Peak Factor					0.865					0.842					0.954					0.889	



Mid-Region Council of Governments
Intersection Turning Movement Analysis

File Name : Montano Rd. and Coors Bd.
Site Code : 00025335
Start Date : 10/22/2003
Page No : 5

	Coors Bd. From North					Montano Rd. From East					Coors Bd. From South					Montano Rd. From West					
Start Time	Left	Thru	Right	Rt/R d	App. Total	Left	Thru	Right	Rt/R d	App. Total	Left	Thru	Right	Rt/R d	App. Total	Left	Thru	Right	Rt/R d	App. Total	Int. Total
Peak Hour From 15:00 to 17:45 - Peak 1 of 1 Intersection 16:45																					
Volume	162	130 1	113	13	1589	369	837	90	15	1311	649	165 8	167	58	2532	268	312	203	42	825	6257
Percent	10.2	81.9	7.1	0.8		28.1	63.8	6.9	1.1		25.6	65.5	6.6	2.3		32.5	37.8	24.6	5.1		
Volume	162	130 1	113	13	1589	369	837	90	15	1311	649	165 8	167	58	2532	268	312	203	42	825	6257
Volume	32	329	32	4	397	104	207	23	1	335	160	482	46	13	701	74	68	55	15	212	1645
Peak Factor																					0.951
High Int. 16:45						17:30					17:15					17:15					
Volume	54	331	25	4	414	94	227	18	4	343	160	482	46	13	701	74	68	55	15	212	
Peak Factor					0.960					0.956					0.903					0.973	



BICYCLE AND PEDESTRIAN CROSSINGS

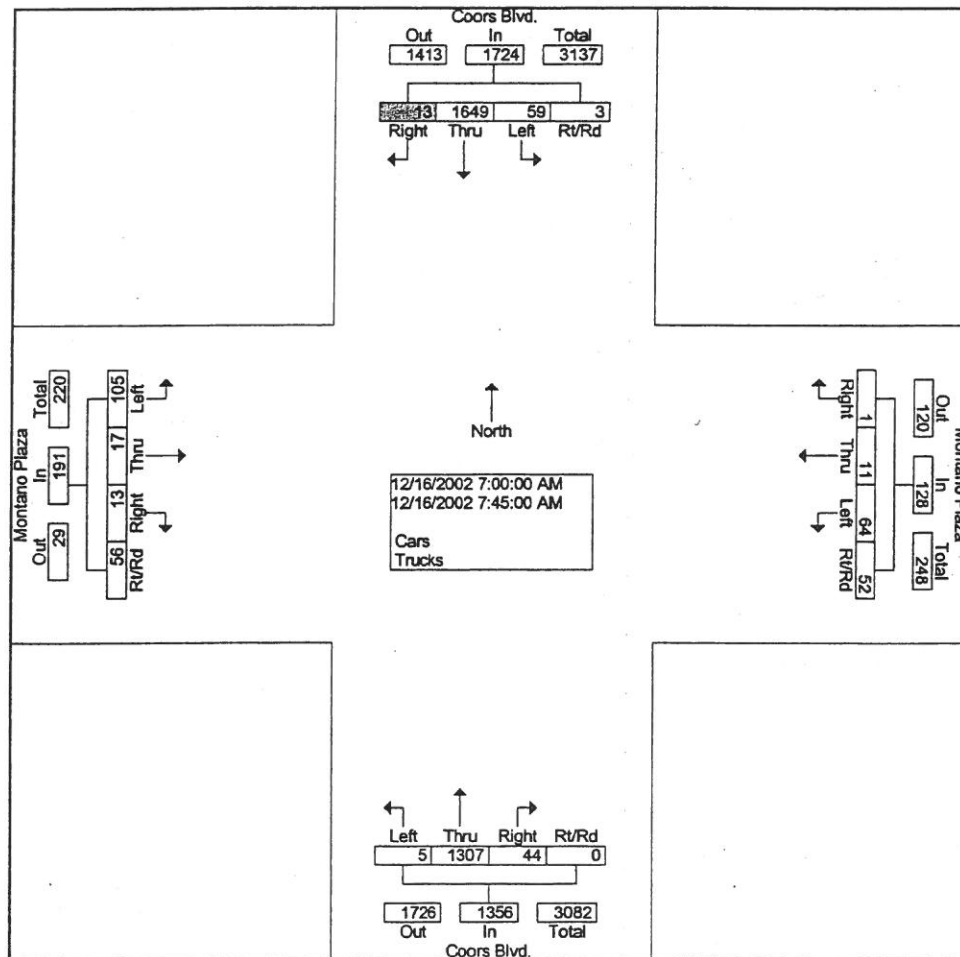
Location MONTANO RD - COOKS RD COGID 25335
 Date 10 / 21 / 03 Operator LAN CM Machine Number 2389

Time	North ↓ South		North ↑ South		West ← East		West → East	
	Bikes	Peds	Bikes	Peds	Bikes	Peds	Bikes	Peds
Morning Peak Period 6:45 - 9:45								
	TOTAL # BIKES 1	TOTAL # PEDS	TOTAL # BIKES	TOTAL # PEDS	TOTAL # BIKES 1	TOTAL # PEDS	TOTAL # BIKES 6	TOTAL # PEDS
Midday Peak Period 11:00 - 2:00								
	TOTAL # BIKES 1	TOTAL # PEDS 1	TOTAL # BIKES	TOTAL # PEDS 2	TOTAL # BIKES 3	TOTAL # PEDS 4	TOTAL # BIKES 3	TOTAL # PEDS 3
Afternoon Peak Period 3:00 - 6:00								
	TOTAL # BIKES	TOTAL # PEDS 1	TOTAL # BIKES 1	TOTAL # PEDS 3	TOTAL # BIKES 5	TOTAL # PEDS 3	TOTAL # BIKES 8	TOTAL # PEDS 2

Mid-Region Council of Governments
Intersection Turning Movement Analysis

File Name : Montano Plaza and Coors Bd.
Site Code : 00025341
Start Date : 12/16/2002
Page No : 4

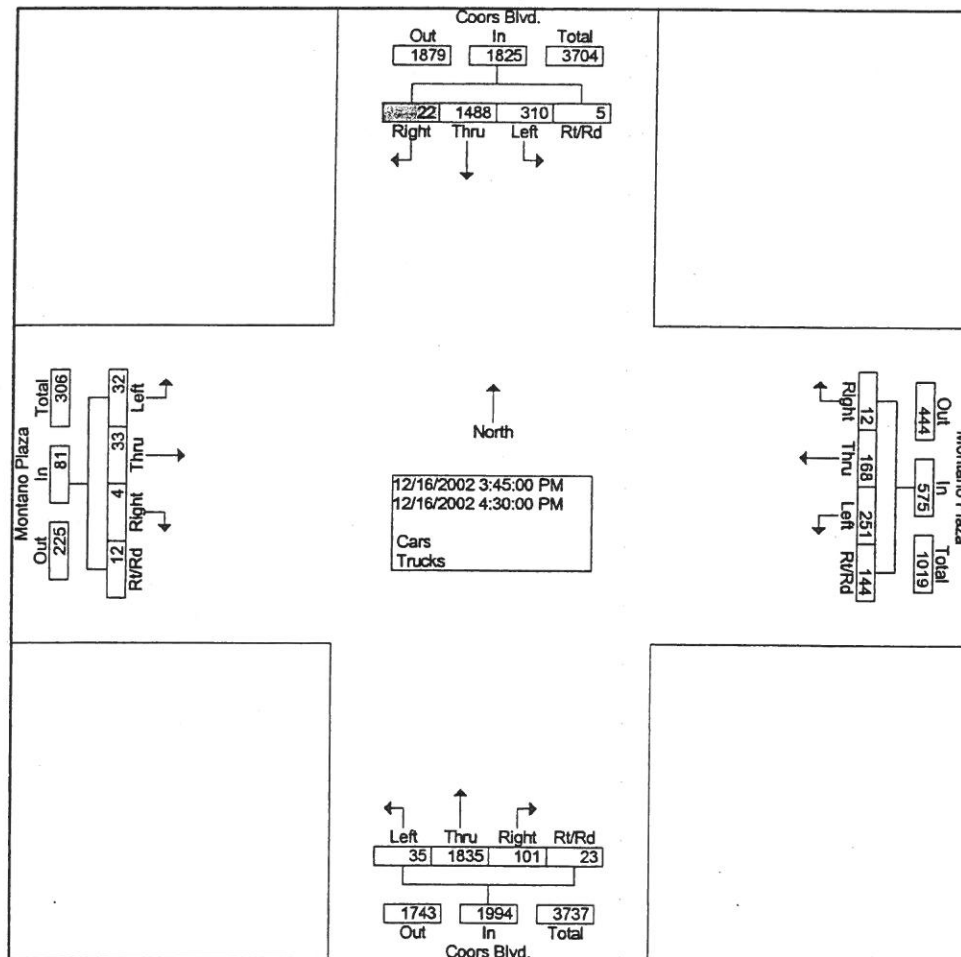
	Coors Blvd. From North					Montano Plaza From East					Coors Blvd. From South					Montano Plaza From West					
Start Time	Left	Thru	Right	Rt/R d	App. Total	Left	Thru	Right	Rt/R d	App. Total	Left	Thru	Right	Rt/R d	App. Total	Left	Thru	Right	Rt/R d	App. Total	Int. Total
Peak Hour From 06:45 to 09:45 - Peak 1 of 1																					
Intersection	07:00																				
Volume	59	1649	13	3	1724	64	11	1	52	128	5	1307	44	0	1356	105	17	13	56	191	3399
Percent	3.4	95.6	0.8	0.2		50.0	8.6	0.8	40.6		0.4	96.4	3.2	0.0		55.0	8.9	6.8	29.3		
Volume	59	1649	13	3	1724	64	11	1	52	128	5	1307	44	0	1356	105	17	13	56	191	3399
Volume	17	512	5	1	535	20	3	0	13	36	1	360	10	0	371	29	3	1	13	46	988
Peak Factor																					0.860
High Int.	07:30					07:30					07:45					07:00					
Volume	17	512	5	1	535	20	3	0	13	36	1	398	13	0	412	23	4	5	21	53	
Peak Factor					0.806					0.889					0.823					0.901	



Mid-Region Council of Governments
Intersection Turning Movement Analysis

File Name : Montano Plaza and Coors Bd.
Site Code : 00025341
Start Date : 12/16/2002
Page No : 6

	Coors Blvd. From North					Montano Plaza From East					Coors Blvd. From South					Montano Plaza From West					
Start Time	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Int. Total
Peak Hour From 14:00 to 17:45 - Peak 1 of 1																					
Intersection 15:45																					
Volume	310	1488	22	5	1825	251	168	12	144	575	35	1835	101	23	1994	32	33	4	12	81	4475
Percent	17.0	81.5	1.2	0.3		43.7	29.2	2.1	25.0		1.8	92.0	5.1	1.2		39.5	40.7	4.9	14.8		
Volume	310	1488	22	5	1825	251	168	12	144	575	35	1835	101	23	1994	32	33	4	12	81	4475
Volume	83	331	10	1	425	90	55	5	36	186	8	478	35	8	529	9	10	3	3	25	1165
Peak Factor																					0.960
High Int. 15:45						16:00					16:00					16:00					
Volume	96	386	3	0	485	90	55	5	36	186	8	478	35	8	529	9	10	3	3	25	
Peak Factor					0.941					0.773					0.942						0.810



BICYCLE AND PEDESTRIAN CROSSINGS

Location Montano PL. DA-Cares Rd. COGID 25341
 Date 12/16/02 Operator RN Machine Number 2386

Time	North ↓ South		North ↑ South		West ← East		West → East	
	Bikes	Peds	Bikes	Peds	Bikes	Peds	Bikes	Peds
Morning Peak Period 6:45 - 9:45	1	1			1	1111		
	TOTAL # BIKES	TOTAL # PEDS	TOTAL # BIKES	TOTAL # PEDS	TOTAL # BIKES	TOTAL # PEDS	TOTAL # BIKES	TOTAL # PEDS
Midday Peak Period 11:00 - 2:00	1	1			1	1		
	TOTAL # BIKES	TOTAL # PEDS	TOTAL # BIKES	TOTAL # PEDS	TOTAL # BIKES	TOTAL # PEDS	TOTAL # BIKES	TOTAL # PEDS
Afternoon Peak Period 3:00 - 6:00	1	11			1			
	TOTAL # BIKES	TOTAL # PEDS	TOTAL # BIKES	TOTAL # PEDS	TOTAL # BIKES	TOTAL # PEDS	TOTAL # BIKES	TOTAL # PEDS

BICYCLE AND PEDESTRIAN CROSSINGS

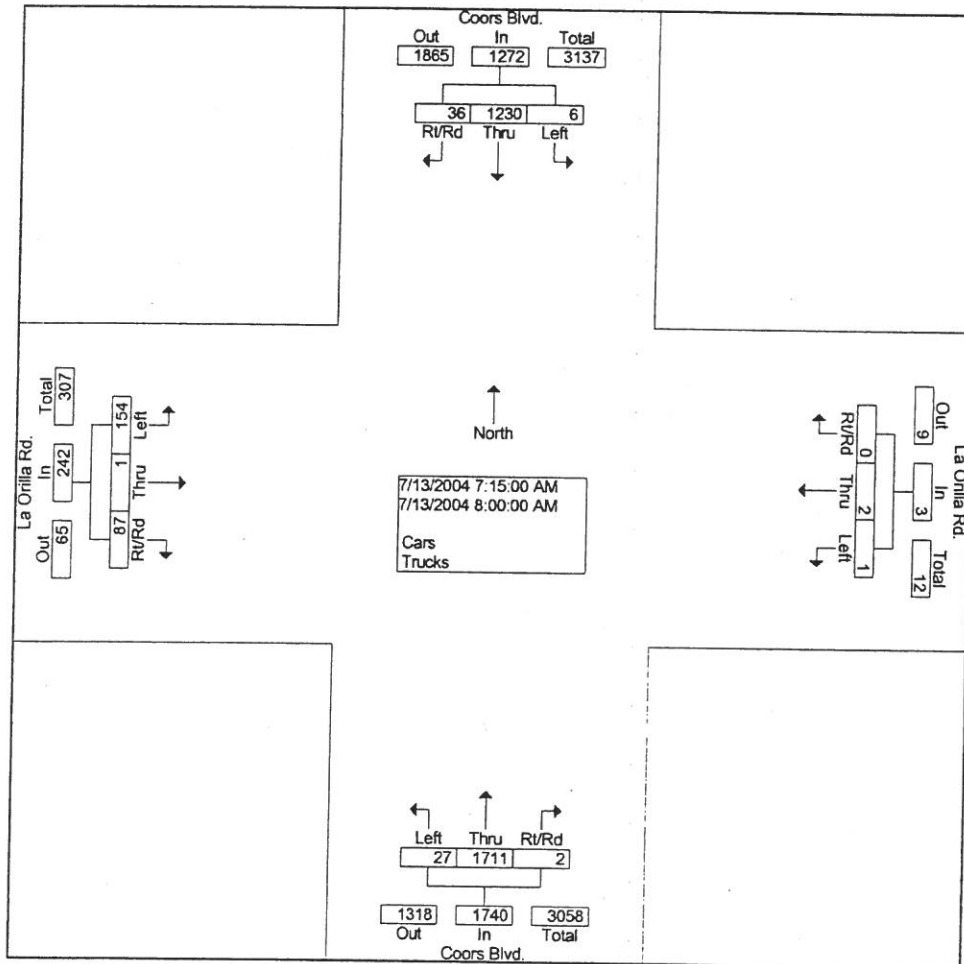
Location MONTANO PLAZA-COURS BLVD 25341
 Date 12/16/02 Operator Chape

Time	North ↓ South		North ↑ South		West ← East		West → East	
	Bikes	Peds	Bikes	Peds	Bikes	Peds	Bikes	Peds
Morning Peak Period 6:45 - 9:45						1	111	1111
	TOTAL # BIKES	TOTAL # PEDS	TOTAL # BIKES	TOTAL # PEDS	TOTAL # BIKES	TOTAL # PEDS	TOTAL # BIKES 3	TOTAL # PEDS 4
Midday Peak Period 11:00 - 2:00			1	1			11	
	TOTAL # BIKES	TOTAL # PEDS	TOTAL # BIKES 1	TOTAL # PEDS 1	TOTAL # BIKES	TOTAL # PEDS	TOTAL # BIKES 2	TOTAL # PEDS
Afternoon Peak Period 3:00 - 6:00							1	11
	TOTAL # BIKES	TOTAL # PEDS	TOTAL # BIKES	TOTAL # PEDS	TOTAL # BIKES	TOTAL # PEDS	TOTAL # BIKES	TOTAL # PEDS

Mid-Region Council of Governments
Intersection Turning Movement Analysis

File Name : La Orilla Rd. and Coors Bd.
Site Code : 00025245
Start Date : 07/13/2004
Page No : 3

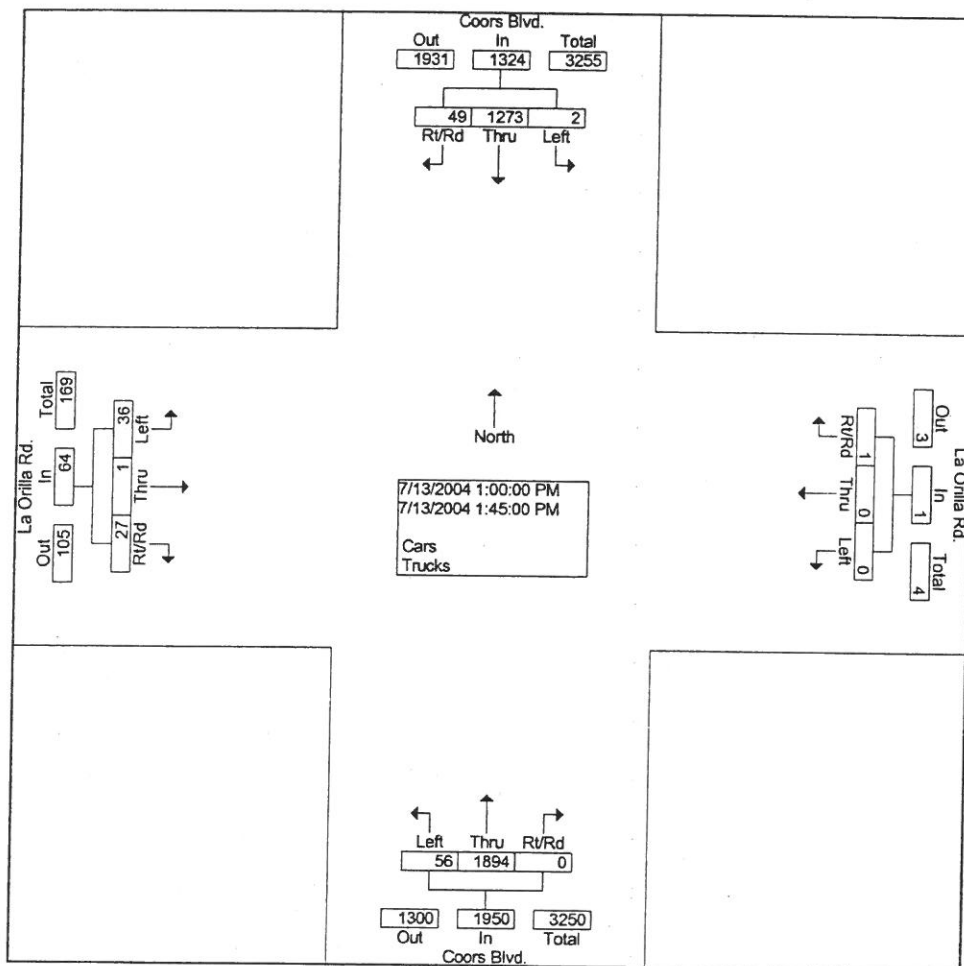
	Coors Blvd. From North					La Orilla Rd. From East					Coors Blvd. From South					La Orilla Rd. From West					
Start Time	Left	Thru	Right	Rt/R d	App. Total	Left	Thru	Right	Rt/R d	App. Total	Left	Thru	Right	Rt/R d	App. Total	Left	Thru	Right	Rt/R d	App. Total	Int. Total
Peak Hour From 06:45 to 09:30 - Peak 1 of 1																					
Intersection	07:15																				
Volume	6	1230	34	2	1272	1	2	0	0	3	27	1711	2	0	1740	154	1	44	43	242	3257
Percent	0.5	96.7	2.7	0.2		33.3	66.7	0.0	0.0		1.6	98.3	0.1	0.0		63.6	0.4	18.2	17.8		
Volume	6	1230	34	2	1272	1	2	0	0	3	27	1711	2	0	1740	154	1	44	43	242	3257
Volume	5	327	4	1	337	0	1	0	0	1	8	456	2	0	466	49	1	12	11	73	877
Peak Factor																					0.928
High Int.	07:30					07:30					07:30					07:30					
Volume	5	327	4	1	337	0	1	0	0	1	8	456	2	0	466	49	1	12	11	73	
Peak Factor	0.944					0.750					0.933					0.829					



Mid-Region Council of Governments
Intersection Turning Movement Analysis

File Name : La Orilla Rd. and Coors Bd.
Site Code : 00025245
Start Date : 07/13/2004
Page No : 4

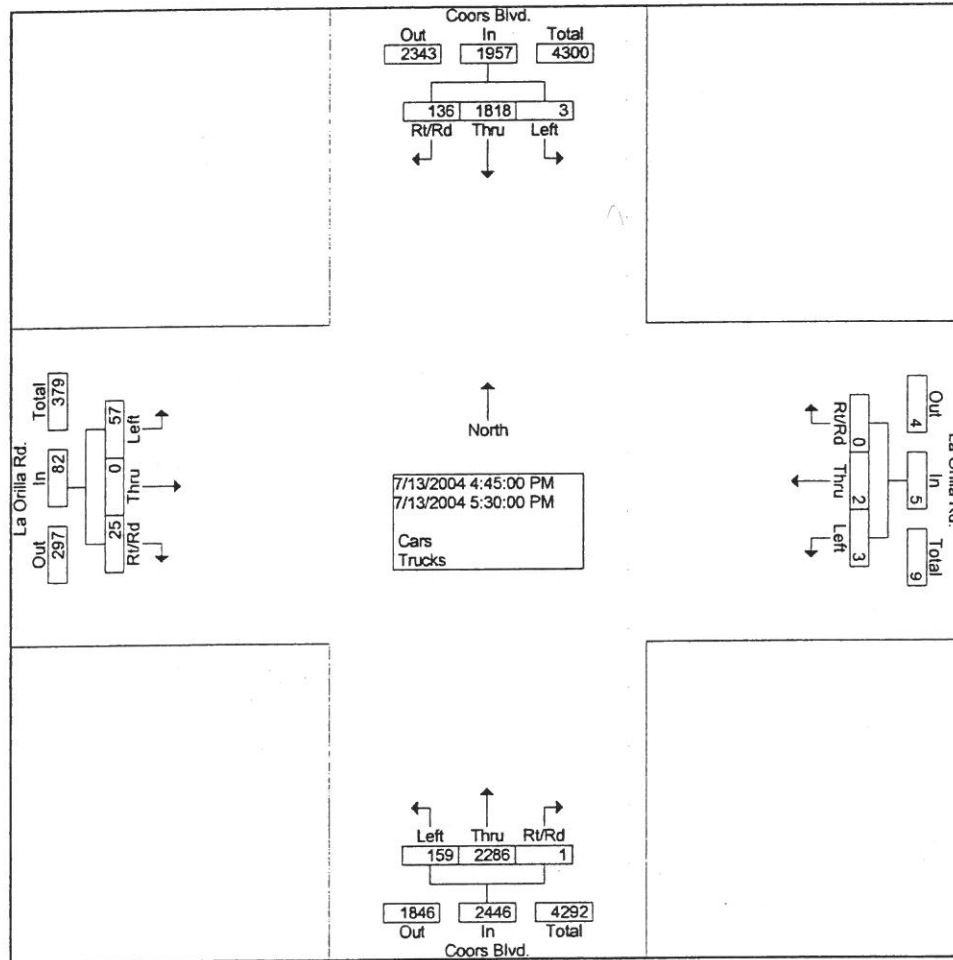
Start Time	Coors Blvd. From North					La Orilla Rd. From East					Coors Blvd. From South					La Orilla Rd. From West					Int. Total
	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	
Peak Hour From 11:00 to 13:45 - Peak 1 of 1																					
Intersection 13:00																					
Volume	2	1273	48	1	1324	0	0	1	0	1	56	1894	0	0	1950	36	1	20	7	64	3339
Percent	0.2	96.1	3.6	0.1		0.0	0.0	100.0	0.0		2.9	97.1	0.0	0.0		56.3	1.6	31.3	10.9		
Volume	2	1273	48	1	1324	0	0	1	0	1	56	1894	0	0	1950	36	1	20	7	64	3339
Volume	0	337	18	1	356	0	0	1	0	1	13	487	0	0	500	7	1	8	3	19	876
Peak Factor																					0.953
High Int. 13:15						13:15					13:45					13:15					
Volume	0	337	18	1	356	0	0	1	0	1	15	501	0	0	516	7	1	8	3	19	
Peak Factor					0.930					0.250				0.945						0.842	



Mid-Region Council of Governments
Intersection Turning Movement Analysis

File Name : La Orilla Rd. and Coors Bd.
Site Code : 00025245
Start Date : 07/13/2004
Page No : 5

	Coors Blvd. From North					La Orilla Rd. From East					Coors Blvd. From South					La Orilla Rd. From West					
Start Time	Left	Thru	Right	Rt/R d	App. Total	Left	Thru	Right	Rt/R d	App. Total	Left	Thru	Right	Rt/R d	App. Total	Left	Thru	Right	Rt/R d	App. Total	Int. Total
Peak Hour From 15:00 to 17:45 - Peak 1 of 1																					
Intersection	16:45																				
Volume	3	1818	130	6	1957	3	2	0	0	5	159	2286	1	0	2446	57	0	11	14	82	4490
Percent	0.2	92.9	6.6	0.3		60.0	40.0	0.0	0.0		6.5	93.5	0.0	0.0		69.5	0.0	13.4	17.1		
Volume	3	1818	130	6	1957	3	2	0	0	5	159	2286	1	0	2446	57	0	11	14	82	4490
Volume	2	467	29	0	498	0	0	0	0	0	44	611	0	0	655	7	0	4	4	15	1168
Peak Factor																					0.961
High Int.	17:30					16:45					17:15					17:30					
Volume	0	480	30	1	511	3	2	0	0	5	44	611	0	0	655	18	0	5	2	25	
Peak Factor	0.957					0.250					0.934					0.820					



DIGITAL TRAFFIC SYSTEMS, INC.
 3600 CERRILLOS ROAD #205
 SANTA FE, NM 87505
 PH. (505)474-4922 FAX (505)424-8704

Study Name: COR-PAS2
 Site Code : 00001112
 Start Date: 08/27/03
 Page : 3

Cars, Trucks

Paseo del Norte From East					Coors From South					Paseo del Norte From West					Intvl. Total
Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other			
Approach for the Period: 07:00 on 08/27/03 to 09:45 on 08/27/03															
	07:15				07:00				07:45						
43	3	262	0	0	0	46	944	688	0	62	0	49	0		
1.3	9.6	100.0	0.0	0.0	0.0	2.7	56.2	41.0	0.0	55.8	0.0	44.1	0.0		
	262				1678					111					
	07:30				07:30				08:00						
13	0	83	0	0	0	13	235	201	0	19	0	17	0		
		83				449				36					
		0.789				0.934				0.770					

By Entire Intersection for the Period: 07:00 on 08/27/03 to 09:45 on 08/27/03															
07:00					07:00					07:00					
1078	43	3			253	0	0	0		46	944	688	0	38	0
34.5	1.3	9.6			100.0	0.0	0.0	0.0		2.7	56.2	41.0	0.0	46.3	0.0
					253					1678				82	
07:30					07:30					07:45					
318	13	0			83	0	0	0		13	235	201	0	13	0
					83					449				28	
0.872					0.762					0.934				0.732	

Hour Analysis By Individual Approach for the Period: 11:00 on 08/27/03 to 13:45 on 08/27/03															
Time	12:15				13:00					12:45				13:00	
Vol.	974	1047	97	1	177	0	0	0		91	933	230	0	63	0
Pct.	45.9	49.4	4.5	4.7	100.0	0.0	0.0	0.0		7.2	74.4	18.3	0.0	57.2	0.0
Total	2119				177					1254				110	
High	13:00				13:15					13:30				13:30	
Vol.	256	276	22	0	55	0	0	0		24	261	68	0	21	0
Total	554				55					353				32	
PHF	0.956				0.804					0.888				0.859	

Peak Hour Analysis By Entire Intersection for the Period: 11:00 on 08/27/03 to 13:45 on 08/27/03															
Time	13:00				13:00					13:00				13:00	
Vol.	972	1005	115	0	177	0	0	0		86	950	212	0	63	0
Pct.	45.4	48.0	5.4	0.0	100.0	0.0	0.0	0.0		6.8	76.1	16.9	0.0	57.2	0.0
Total	2092				177					1248				110	
High	13:00				13:15					13:30				13:30	
Vol.	256	276	22	0	55	0	0	0		24	261	68	0	21	0
Total	554				55					353				32	
PHF	0.944				0.804					0.883				0.859	

DIGITAL TRAFFIC SYSTEMS, INC.

3600 CERRILLOS ROAD #205

SANTA FE, NM 87505

PH. (505)474-4922 FAX (505)424-8704

Study Name: COR-PAS2

Site Code : 00001112

Start Date: 08/27/03

Page : 4

Weather : Okay

Counted by: DS, JO

Card # : 1146, 1143

Other : COULD NOT SEE ALL RAMPS

Cars, Trucks

Start Time	Coors From North				Paseo del Norte From East				Coors From South				Paseo del Norte From West				Intvl. Total
	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	
Peak Hour Analysis By Individual Approach for the Period: 15:00 on 08/27/03 to 17:45 on 08/27/03																	
Time	17:00				17:00				17:00				15:45				
Vol.	1044	1332	123	0	487	0	0	0	111	1291	280	0	70	0	79	0	
Pct.	41.7	53.3	4.9	0.0	100.0	0.0	0.0	0.0	6.5	76.7	16.6	0.0	45.9	0.0	53.0	0.0	
Total	2499				487				1682				149				
High	17:30				17:15				17:15				16:15				
Vol.	270	360	20	0	156	0	0	0	35	349	69	0	23	0	20	0	
Total	650				156				453				43				
PHF	0.961				0.780				0.928				0.866				

Peak Hour Analysis By Entire Intersection for the Period: 15:00 on 08/27/03 to 17:45 on 08/27/03

Time	17:00				17:00				17:00				17:00				
Vol.	1044	1332	123	0	487	0	0	0	111	1291	280	0	78	0	57	0	
Pct.	41.7	53.3	4.9	0.0	100.0	0.0	0.0	0.0	6.5	76.7	16.6	0.0	57.7	0.0	42.2	0.0	
Total	2499				487				1682				135				
High	17:30				17:15				17:15				17:00				
Vol.	270	360	20	0	156	0	0	0	35	349	69	0	23	0	14	0	
Total	650				156				453				37				
PHF	0.961				0.780				0.928				0.912				

Page: 4
Date: 7/19/2002

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Starts : 07/15/02 at 06:45:00
Ends   : 07/15/02 at 18:00:00
Interval : 15 min Intervals: 45
S/N : 169155 Type: C,Tr,Ped-rt/red
Correction: 1.00

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		From North				From South				From East				From West								
		Rt	Red	Left	Thru	Right	Rt	Red	Left	Thru	Right	Rt	Red	Left	Thru	Right	Rt	Red	Left	Thru	Right	Total
Grand																						
Total	Auto	0	707	10617	62	29	1416	10818	233	503	522	203	282	1103	77	179	232	26983 <				
	%	0.0	2.5	38.0	0.2	0.1	5.1	38.7	0.8	1.8	1.9	0.7	1.0	4.0	0.3	0.6	0.8	96.6%				
Truck		0	12	400	0	0	35	460	2	7	7	3	0	9	1	1	1	938				
	%	0.0	0.0	1.4	0.0	0.0	0.1	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4%				
All		0	719	11017	62	29	1451	11278	235	510	529	206	282	1112	78	180	233	27921				
	%	0.0	2.6	39.5	0.2	0.1	5.2	40.4	0.8	1.8	1.9	0.7	1.0	4.0	0.3	0.6	0.8	100.0%				

TURNING MOVEMENTS FOR TOTAL INTERSECTION

		From North			
		(Peds = 1)			
		Total 23946			
		Approach 11798		Depart 12148	
		Rt/red Right	Thru Left		
	0	62	11017	719	78 11278 792
	62				510 Rt/Red
					282 Right
Depart 1719	206				206 Thru Approach 1527
	1451				529 Left
Total 3322					Total 2690
From West					From East
	Left	78			719
Approach 1603	Thru	180			180 Depart 1163
	Right	233			264
	Rt/Red	1112			
	1345	11017	529	1451 11278 235 29	
				Left Thru Right Rt/Red	
	Depart 12891			Approach 12993	
				Total 25884	
				From South	
				(Peds = 1)	

MIDDLE RIO GRANDE COG
Two Vehicle Analysis with Right on Red

Page: 2
Date: 7/19/2002

Location: 026100 Starts : 07/15/02 at 06:45:00
Notes : EAGLE RANCH RD - COORS BD Ends : 07/15/02 at 18:00:00
Study ID: 00 Interval : 15 min Intervals: 45
Operator: RN 169 CM 155 S/N : 169155 Type: C,Tr,Ped-rt/red
Weather : BERNALILLO Correction: 1.00

TOTAL INTERSECTION PEAK HOUR ANALYSIS

Total Intersection Peak is: Mon Jul 15 07:15:00 2002

DIRECTION	VOLUME						Peak Factor	PERCENTS				
	Peds	Rt/Red	Left	Thru	Right	Total		Rt/Red	Left	Thru	Right	Total
From North	0	0	29	962	5	996	0.91	0.0%	2.9%	96.6%	0.5%	100.0%
From South	0	0	106	1339	4	1449	0.88	0.0%	7.3%	92.4%	0.3%	100.0%
From East	0	34	19	1	7	61	0.80	55.7%	31.1%	1.6%	11.5%	100.0%
From West	0	175	14	8	42	239	0.72	73.2%	5.9%	3.3%	17.6%	100.0%
Totals	0	209	168	2310	58	2745	0.91	7.6%	6.1%	84.2%	2.1%	100.0%

		From North			
		.			
		Total 2390			
		Approach 996		Depart 1394	
		.			
		Rt/red Right Thru Left			
		0 5 962 29		14 1339 41	
				34 Rt/Red	
		5		7 Right	
Depart 112		1		1 Thru Approach 61	
		106		19 Left	
Total 351		N		Total 102	
		W + E			
From West		S		From East	
		Left 14		29	
Approach 239		Thru 8		8 Depart 41	
		Right 42		4	
		Rt/Red 175			
		217 962 19		106 1339 4 0	
				Left Thru Right Rt/Red	
		Depart 1198		Approach 1449	
		Total 2647			
		From South			

MIDDLE RIO GRANDE COG
Two Vehicle Analysis with Right on Red

Page: 2
Date: 7/19/2002

Location: 026100 Starts : 07/15/02 at 06:45:00
Notes : EAGLE RANCH RD - COORS BD Ends : 07/15/02 at 18:00:00
Study ID: 00 Interval : 15 min Intervals: 45
Operator: RN 169 CM 155 S/N : 169155 Type: C,Tr,Ped-rt/red
Weather : BERNALILLO Correction: 1.00

TOTAL INTERSECTION PEAK HOUR ANALYSIS

Total Intersection Peak is: Mon Jul 15 12:15:00 2002

DIRECTION	VOLUME						Peak Factor	PERCENTS				
	Peds	Rt/Red	Left	Thru	Right	Total		Rt/Red	Left	Thru	Right	Total
From North	0	0	99	1140	7	1246	0.84	0.0%	7.9%	91.5%	0.6%	100.0%
From South	1	8	169	1323	33	1533	0.91	0.5%	11.0%	86.3%	2.2%	100.0%
From East	0	68	76	23	29	196	0.83	34.7%	38.8%	11.7%	14.8%	100.0%
From West	0	90	12	26	25	153	0.89	58.8%	7.8%	17.0%	16.3%	100.0%
Totals	1	166	356	2512	94	3128	0.92	5.3%	11.4%	80.3%	3.0%	100.0%

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MIDDLE RIO GRANDE COG
Two Vehicle Analysis with Right on Red

Page: 5
Date: 7/19/2002

culation: 026100 Starts : 07/15/02 at 06:45:00
Notes : EAGLE RANCH RD - COORS BD Ends : 07/15/02 at 18:00:00
Study ID: 00 Interval : 15 min Intervals: 45
Operator: RN 169 CM 155 S/N : 169155 Type: C,Tr,Ped-rt/red
Weather : BERNALILLO Correction: 1.00

TOTAL INTERSECTION PEAK HOUR ANALYSIS

Total Intersection Peak is: Mon Jul 15 16:30:00 2002

DIRECTION	VOLUME						Peak Factor	PERCENTS				
	Peds	Rt/Red	Left	Thru	Right	Total		Rt/Red	Left	Thru	Right	Total
From North	0	0	152	1900	11	2063	0.92	0.0%	7.4%	92.1%	0.5%	100.0%
From South	0	5	325	1614	31	1975	0.93	0.3%	16.5%	81.7%	1.6%	100.0%
From East	0	51	71	52	43	217	0.73	23.5%	32.7%	24.0%	19.8%	100.0%
From West	0	157	6	22	28	213	0.90	73.7%	2.8%	10.3%	13.1%	100.0%
Totals	0	213	554	3588	113	4468	0.97	4.8%	12.4%	80.3%	2.5%	100.0%

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Traffic Count Data Sheet

Year Counts Taken: 2006		Bosquecito Commercial Development (Bosque Meadows Rd. / Coors)			
		E-W Street Bosque Meadows		Speed Limit (Bosque Meadows)= 25 MPH	
		N-S Street: Bosque Meadows PI		Speed Limit (Bosque Meadows PI)= 25 MPH	
		UN SIGNALIZED		Date of Count: 7/13/06	

Begin Time	End Time	Eastbound (Bosque Meadows)			Westbound (Bosque Meadows)			Northbound (Bosque Meadows)			Southbound (Bosque Meadows)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	0	0	4	0	0	0	7	0	0	0	0	0
7:15 AM	7:30 AM	0	1	4	0	1	0	13	0	0	0	0	0
7:30 AM	7:45 AM	0	0	4	0	0	0	15	0	0	0	0	0
7:45 AM	8:00 AM	0	0	2	0	0	0	11	0	0	0	0	0
8:00 AM	8:15 AM	0	0	5	0	0	0	8	0	0	0	0	0
8:15 AM	8:30 AM	0	0	3	0	0	0	7	0	0	0	0	0
8:30 AM	8:45 AM	0	0	5	0	0	0	7	0	0	0	0	0
8:45 AM	9:00 AM	0	0	3	0	0	0	8	0	0	0	0	0
AM Peak Hour Volumes		0	1	15	0	1	0	47	0	0	0	0	0
% of Total Traffic		0.0%	1.6%	23.4%	0.0%	1.6%	0.0%	73.4%	0.0%	0.0%	0.0%	0.0%	0.0%
% Directional			25.0%			1.6%		73.4%					
AM Peak Hour Factor			0.80			0.25		0.78					

Begin Time	End Time	Eastbound (Bosque Meadows)			Westbound (Bosque Meadows)			Northbound (Bosque Meadows)			Southbound (Bosque Meadows)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	0	0	7	0	0	0	3	0	0	0	0	0
4:15 PM	4:30 PM	0	0	5	0	0	0	2	0	0	0	0	0
4:30 PM	4:45 PM	0	0	8	0	0	0	4	0	0	0	0	0
4:45 PM	5:00 PM	0	0	10	0	0	0	6	0	0	0	0	0
5:00 PM	5:15 PM	0	0	17	0	0	0	4	0	0	0	0	0
5:15 PM	5:30 PM	0	0	12	0	1	0	5	0	0	0	0	0
5:30 PM	5:45 PM	0	0	8	0	0	0	5	0	0	0	0	0
5:45 PM	6:00 PM	0	0	9	0	0	0	4	0	0	0	0	0
PM Peak Hour Volumes		0	0	47	0	1	0	20	0	0	0	0	0
% of Total Traffic		0.0%	0.0%	69.1%	0.0%	1.5%	0.0%	29.4%	0.0%	0.0%	0.0%	0.0%	0.0%
% Directional			69.1%			1.5%		29.4%					
PM Peak Hour Factor			0.69			0.25		0.83					

Traffic Count Data Sheet

Project Name

Bosquecito Commercial Development (Bosque Meadows Dr. / Coors)

Year Counts Taken:

2006

E-W Street Bosque Meadows

Speed Limit (Bosque Meadows)=

25 MPH

N-S Street: Coors

Speed Limit (Coors)=

45 MPH

UN SIGNALIZED

Date of Count:

7/12/06

Begin Time	End Time	Eastbound (Bosque Meadows)			Westbound (Bosque Meadows)			Northbound (Coors)			Southbound (Coors)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	0	0	0	5	0	2	0	296	0	0	311	0
7:15 AM	7:30 AM	0	0	0	7	0	6	0	381	2	3	372	0
7:30 AM	7:45 AM	0	0	0	6	0	9	0	524	1	3	453	0
7:45 AM	8:00 AM	0	0	0	5	0	6	0	397	1	4	417	0
8:00 AM	8:15 AM	0	0	0	3	0	5	0	333	1	4	356	0
8:15 AM	8:30 AM	0	0	0	3	0	4	0	340	1	2	373	0
8:30 AM	8:45 AM	0	0	0	3	0	4	0	354	2	3	346	0
8:45 AM	9:00 AM	0	0	0	3	0	5	0	350	4	2	353	0
AM Peak Hour Volumes		0	0	0	21	0	26	0	1635	5	14	1598	0
% of Total Traffic		0.0%	0.0%	0.0%	0.6%	0.0%	0.8%	0.0%	49.6%	0.2%	0.4%	48.4%	0.0%
% Directional		0.0%	0.0%	0.0%	1.4%	0.0%	0.0%	0.0%	49.7%	0.0%	0.0%	48.9%	0.0%
AM Peak Hour Factor		0.78											

Begin Time	End Time	Eastbound (Bosque Meadows)			Westbound (Bosque Meadows)			Northbound (Coors)			Southbound (Coors)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	0	0	0	0	0	3	0	492	4	6	573	0
4:15 PM	4:30 PM	0	0	0	0	0	2	0	442	1	10	584	0
4:30 PM	4:45 PM	0	0	0	1	0	3	0	522	4	4	575	0
4:45 PM	5:00 PM	0	0	0	3	0	3	0	491	3	7	496	0
5:00 PM	5:15 PM	0	0	0	2	0	1	0	585	8	8	642	0
5:15 PM	5:30 PM	0	0	0	2	0	2	0	591	6	7	653	0
5:30 PM	5:45 PM	0	0	0	2	0	3	0	521	3	5	581	0
5:45 PM	6:00 PM	0	0	0	1	0	2	0	526	4	5	571	0
PM Peak Hour Volumes		0	0	0	7	0	8	0	2223	21	25	2447	0
% of Total Traffic		0.0%	0.0%	0.0%	0.1%	0.0%	0.2%	0.0%	47.0%	0.4%	0.5%	51.7%	0.0%
% Directional		0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	47.4%	0.0%	0.0%	52.3%	0.0%
PM Peak Hour Factor		0.75											

Coors Corridor Plan Update

Report on Community Kick-Off Meeting

November 1, 2005

Paradise Hills Community Center



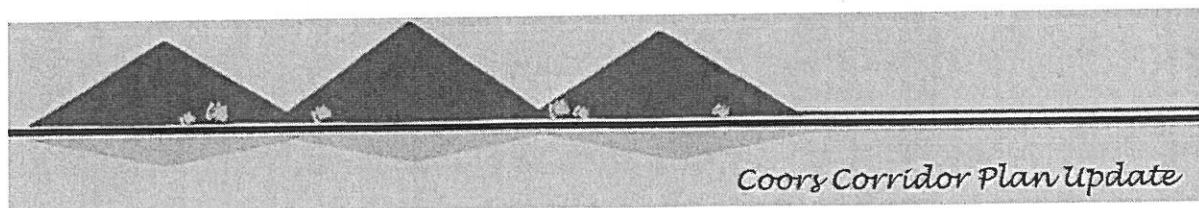
MEETING PROCESS

Approximately 40 people attended the meeting to begin the process of amending the Coors Corridor Plan (the "Plan"). The purpose of the meeting was to gain an understanding of community preferences for pedestrian improvements and visual character of the Coors Corridor from Western Trail to Alameda (segments C and D in the original Plan).

The planning team, consisting of City Planning Department planners, HDR planning consultants, and Shared Vision, an Albuquerque community process organization, described the process for community involvement to be followed over the next several months. The schedule includes a design workshop on December 9, an open house in late January or early February, interest group presentations in early March, and presentations to the Environmental Planning Commission and City Council in spring of 2006.

The team sought the opinions of the participants on the visual characteristics they would like to see through two facilitated discussion groups, one for the section of Coors from Eagle Ranch Rd. to south of Paseo del Norte, the other for the section running from Paseo to Alameda. These groups discussed and wrote on large aerial maps and photographic images of areas adjacent to Coors prepared by HDR. At the end of the evening, the groups reconvened and reported out their findings.

These preferences will be used by the City Planning Department and HDR consultants to guide plan revisions and prepare for the next workshop.



PLAN GOALS

At the beginning of the meeting, District 5 Councilor Michael Cadigan described to the group his goals for the plan revision:

- Transit linkages
- Respect for the river Bosque as it abuts the Rio Grande Valley State Park
- Recognition of Coors as a commuter route with limited access
- Pedestrian crossings and safety for pedestrians
- "A plan that is easy to follow"

KEY FINDINGS

1. *Issues with the existing plan*

There is general agreement that the existing Coors Corridor Plan adopted in 1984 has not been very effective. It is viewed as inconsistent with cumbersome regulations that are difficult to administer. Many participants believed that the Plan has not been properly enforced by those governmental agencies and commissions charged with that responsibility. "The plan has been ignored. What the community wanted in 1984 did not happen."

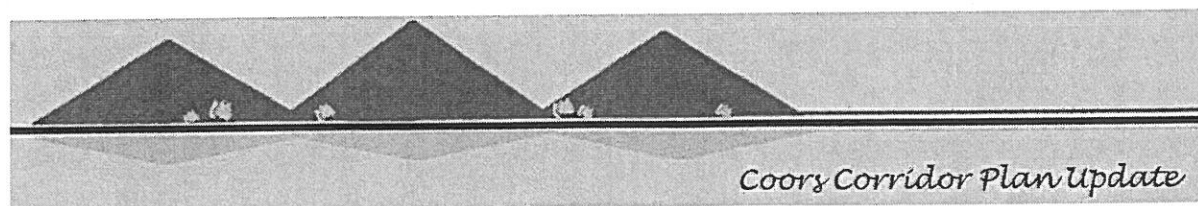
A positive aspect of the existing Plan is that it addresses the need to preserve views to the east through excavations and dropping of floor elevations in new development.

Many thought that the character of Coors has suffered as a result of the Plan's failures and that revisions are happening after the fact. "It's too late; revisions should have happened 10 years ago." "What can be influenced now? How do you undo what's been done badly?"

At the same time, community participants are looking to the Plan Update to set new, *enforceable* standards that can influence the limited developable land that remains. For this reason, the group expressed a sense of urgency in completing the Plan update quickly.

2. *Development Character and Preferences*

People view Coors as dangerous, congested, inhospitable to pedestrians, and marred with buildings and walls too close to the street that often obstruct views to the bosque and mountains on the east side. When asked about places they disliked, one group said "Coors." They avoid driving there and use it only when necessary to get somewhere else.



Commercial development is seen as problematic as it necessitates left turns which cause more congestion. Left-turn access onto Coors from adjacent development and from intersecting streets (e.g. Winter Haven) is often dangerous. Other intersections mentioned as problems include Coors and Paseo del Norte, where traffic backs up north of Paseo, Coors and Irving, and Coors and Montaña.

Desired character: “Whatever will improve the flow of traffic”

- More emphasis on access control, with fewer access points allowed.
- Less commercial development permitted between centers.
- Lower densities between centers

B. Pedestrian environment

Coors is not designed as a walking environment. Not only are pedestrian facilities lacking along the street, the character of adjacent developments also discourages walking. Many buildings are spaced too far apart, adjacent buildings lack direct pedestrian connections to Coors, and there are few places for people to sit. One person commented on the character: “It’s all commercial.”

Desired character:

- Shade, comfortable places to sit and wait for a bus
- Some public spaces
- Landscaped buffer areas between Coors and development

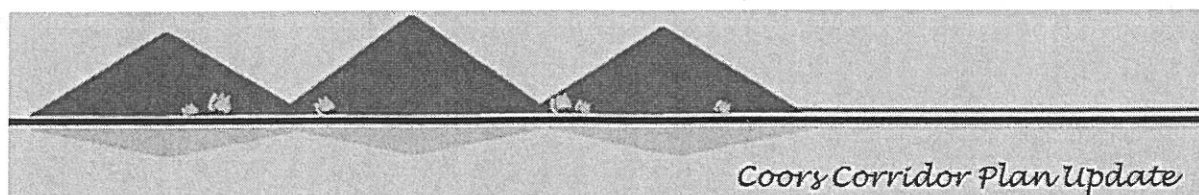
C. Pedestrian Circulation

Pedestrian travel across Coors is very difficult. Furthermore, subdivisions bordering Coors have no pedestrian access out onto Coors, e.g. to catch a bus. Subdivisions to the west of Coors along Montaña in particular were mentioned as lacking these kinds of connections. This is a problem if the city wishes to encourage use of transit.

Although the groups wanted better access to buses with comfortable waiting areas along Coors itself, they favored clear separation of walkways, trails and bicycle paths from auto traffic.

Desired Improvements:

- Ways to cross Coors - preference for underpasses, not overpasses. Participants cited the underpass and trail crossing Rio Grande Blvd. as an example where walkers feel safe.
- Pedestrian connections from buildings to the street
- Pedestrian connections from subdivisions to transit stops on Coors and to the bosque
- Along Coors – walking, bicycling trails “off roadway”



D. Visual Qualities

Walls - Participants complained about the residential development north of Western Trails on the west side of Coors where walls are too high (15 ft.) and too close to the road

Lighting - Too high, too bright

Architectural style and Colors - "junky buildings" - architecture that doesn't fit with the natural setting (e.g. angled rooflines at Coors and La Orilla); requests for loud colors and neon signage

Setbacks - Participants did not like buildings fronting on or too close to Coors. Residential development on the west side of Coors north of Montano Plaza Drive is seen as an area where houses are too close to the road and too close to each other.

Participants wanted to avoid a "downtown look." At the same time, they do not want to see parking in front of buildings.

Desired character.

- Buildings set back from the street and buffered with landscaping.
- Architectural features and colors that blend with the natural setting, e.g. low Territorial style buildings and low key signage
- Need for controls on lighting - lower, softer lighting
- Limiting height of walls

E. View preservation

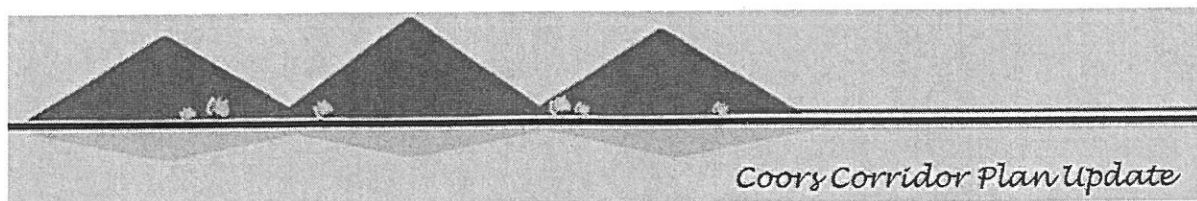
Participants were concerned about commercial buildings that are too tall blocking views from the roadway. They liked the idea of requiring site excavation, and identified Montano Plaza (Raleys) as a good example of preserving views to the treetops of the river bosque and the Sandia mountains with "sunken" buildings.

Desired Character:

- Buildings as seen from Coors should not block views to the mountains and bosque tree lines. View preservation should be required, not just a guideline
- Raley's (excavation) lying below the street grade is an example of good design - other buildings should follow this example

F. Open Space and Trails

Many were disappointed that so much open space has been lost to development. They would like to see more of the bosque preserved and harmonious treatment of areas that are transitional to open space, with attention to colors and architectural style. They saw opportunities for preserving open spaces north of Dellyne/Learning Rd. east of Coors. North of La Orilla views and open space could be preserved through lower density, high quality development.



Desired character:

- Preservation of the river bosque; no development should be allowed within a 100-foot buffer zone from the bosque.
- Preserve existing trailheads and provide trail connections for good access to walking and hiking trails in the state park, e.g. off Namaste, La Orilla, Montano

G. Urban places

Places that people like to visit are those developments that are most walkable.

Specific places that people like:

Row of Restaurants – north of Paseo between Coors bypass and Alameda

People appreciate having choices of places to eat concentrated in one place, and enjoy the views to the east.

Montaño Plaza (Raleys) and Riverside Plaza

Participants cited the attractive Territorial-style architecture, buildings “broken up”, and pleasant places for people to walk, especially in newer Riverside Plaza which offers outdoor seating and interesting interior shopping streets.

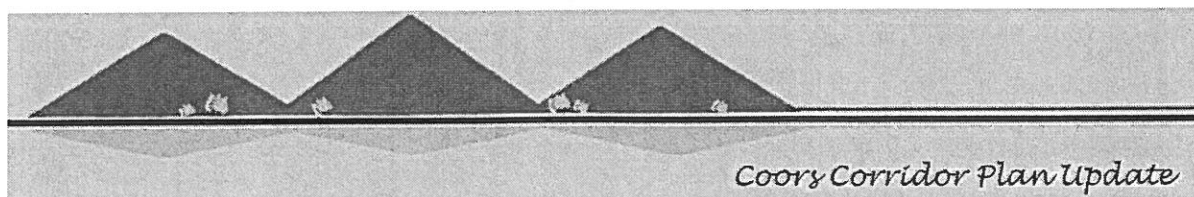
These commercial developments are set back and buffered from the roadway with landscaping. They provide an environment where people feel safe and can comfortably enjoy walking between restaurants and stores and sitting outdoors.

These developments are successful examples of combining walkability, appropriate architectural character, and view preservation.

Desired Character:

Based on these “favorite places” the desired character of commercial areas can be summarized as follows:

- Walkable areas separated from the main roadway
- Cohesive architectural style that fits with the natural setting
- Compatible shopping and restaurant activities that attract people to one destination
- Fountains, landscaping and outdoor seating
- Small interior walking streets
- Excavation for “sunken” buildings to protect views



Coors Corridor Plan Update
Report on Design Workshop December 9, 2005



1. PROCESS

The first meeting on the Coors Corridor Plan Update identified goals and desired character for Coors. The second charrette workshop consisted of a collaborative hands-on design session among residents, representatives of neighborhood associations, and a planning team including HDR planning consultants and the City Planning Department. The planning team made presentations on design character and strategies for view preservation, site design, landscape enhancements, and pedestrian orientation. Participants applied these strategies to the Coors corridor, drawing on large aerial maps to identify *where* and *how* to achieve the goals outlined in the first meeting.

2. CHARACTER

Limited-access roadway

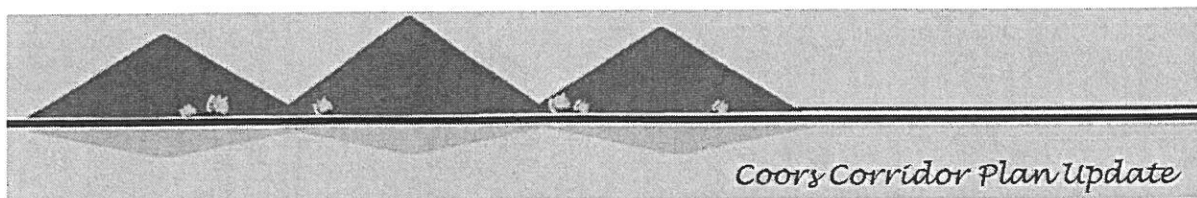
As the only North-South connector on the West Side between the escarpment and the Rio Grande, Coors will remain a major, high-volume arterial street. Whereas 20 years ago Coors serviced mostly local traffic, it now carries ever-increasing amounts of through traffic from the growing northwest population centers across the Rio Grande to employment and services east of the river. The type of land use and development adjacent to Coors must "facilitate the flow of traffic."

Results of the second workshop were consistent with the first. Those who attended wanted to see Coors evolve into a "landscaped parkway" consistent with its designation as a limited-access roadway. Making Coors a limited-access roadway impacts conditions and choices for development along the corridor.

Character areas

Car Culture - Coors developed as an oversized, car-oriented landscape reflecting suburban environments of the past thirty years. Typical patterns include strip commercial centers, stand-alone buildings, segregated land uses, and single-family subdivisions that require driving long distances from home to work to shopping. This type of development is the trend along Coors and will likely continue unless other types of character are encouraged.

Open Space Oriented. Low density residential areas help to preserve a sense of open space and views; this type of development is found primarily between Coors and the river bosque, below the Corrales drain, around Piedras Marcadas, La Luz, Andalucia, and the area adjacent to Oxbow at the



end of Namaste. These areas should be preserved and protected from noise and other impacts of high-traffic volumes.

Walkable Compact. More recently, compact mixed-use commercial villages with a more walkable scale emerged separate from Coors. Riverside Plaza at Coors and Montañño is viewed as an attractive example, with its sense of enclosure, double-loaded shopping streets, outdoor seating, fountains and landscaping. People want more of those kinds of places. One comment was to "make everything like Riverside Plaza."

A car-oriented land use pattern will increase traffic congestion and result in a homogeneous car-oriented strip that most people dislike. Workshop discussions focused on how to re-orient Coors as a place for people. Walkable compact areas should be encouraged. A network of trails can reinforce low density open areas and encourage walking and bicycling. As Coors develops, these three character areas should be differentiated and co-exist as places with very distinctive, memorable attributes.

Views

The Westside is characterized by dramatic views to the bosque, river, and Sandias. Especially in Zone 3, views to the bosque are critical. The existing 4-foot view plane in the current Coors Corridor Plan aims at views from automobiles traveling along Coors. Given the changing nature of Coors from local destination to a major carrier of through traffic, discussion focused on how to orient views not only from cars but from pedestrian places and trails, how and where to create view overlooks and identify essential view corridors.

3. STRATEGIES

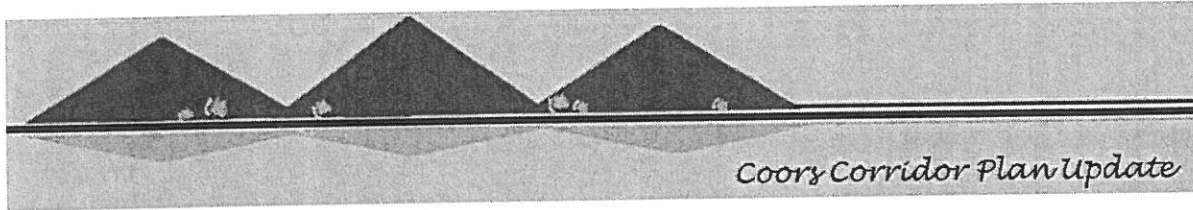
Develop Coors as a landscaped parkway

Landscape enhancements should preserve a sense of the special qualities of the West Side with its unique views of the edge of the river, bosque, and mountains

- ✦ Create a Parkway with the feel and look of the bosque
- ✦ Use landscaped buffer close to the street to hide parking
- ✦ Use trees to provide comfortable, shaded walking environments
- ✦ Preserve the visual connection to the bosque in the foreground and mountains in the background through landscape treatments along Coors; bring the bosque plant palette up to Coors and create microclimate symbolic connections to the bosque and river

Buildings should be set back from the roadway, buffered with landscaping

The existing design guidelines encourage buildings to front on the street. Guidelines requiring excavation have not been applied consistently and as a result, pad sites on the street often block views and discourage pedestrian orientation. Participants want to avoid a "canyon effect" and do not want to see the back sides of buildings facing the street. Commercial development should not define the street. "Coors is not a pedestrian environment."



Character of buildings and massing

- ✦ Place building massing and heights away from the roadway; no parapet intrusions along the street
- ✦ Prevent more entrances on Coors
- ✦ Break up parking lots through terracing
- ✦ Work with the topography – buildings step down with the contours, slope down the terrain to maintain the view line
- ✦ Place parking lots higher than buildings
- ✦ Require flat roof architectural styles

Create walkable village commercial areas off the roadway

Following the example of Riverside Plaza, areas along Coors should be re-scaled and re-oriented to create places with a more intimate walkable scale. Retail should be clustered rather than developed in a continuous strip to encourage walkability and preserve open space and views. One participant said “apply the La Luz concept to commercial areas.”

Characteristics.

- ✦ Sense of safety and feeling of enclosure for outdoor spaces
- ✦ Village (human scale) versus Big Box
- ✦ Architectural style - Territorial or village look that blends with the landscape
- ✦ Height restrictions, natural color, signage
- ✦ Central plaza feel
- ✦ Double-sided for shopping streets
- ✦ Breaks in building forms to create view windows
- ✦ Parking hidden with landscaping
- ✦ No drive-throughs

Future opportunities for walkable compact centers to consider:

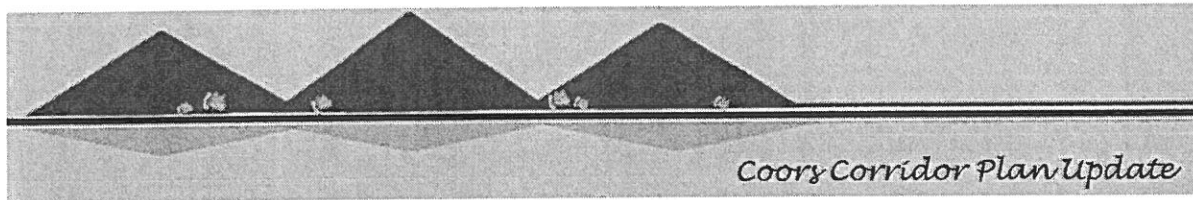
- ✦ La Orilla – tie together multiple owners
- ✦ Southeast corner of Coors and Montaña – new retail and apartments
- ✦ Plaza at Paseo – could be made more walkable, connections to adjacent residential
- ✦ Southeast corner of Coors and Paseo – (SIPI has 2000 students)
- ✦ South of Alameda, west of Old Coors

Develop a comprehensive walkway system “off roadway” separate from auto traffic

Given its role as a major traffic carrier, participants thought that Coors itself would never be a comfortable pedestrian environment. Instead they recommended wide, off-road walkways buffered from the road with landscaping.

Important landscaped walkway connections:

- ✦ From residential areas to and from shopping and to and from bus stops along Coors
- ✦ Through the community to connect separate developments (not along Coors)



- ✦ From bus stops to shopping destinations
- ✦ To and from Cottonwood Mall

Develop a system of recreational trails along arroyos connecting to open spaces

East-West linear trail system can connect the two major open space elements paralleling the Coors Corridor: the river bosque and the Petroglyph National Monument escarpment and volcanoes. Within the corridor, the bosque is the main destination for pedestrians.

Important Trail System connections

- ✦ San Antonio Arroyo – trail on berm ridge connecting to La Mariposa Recreation Trail, Mariposa Basin, and Petroglyphs
- ✦ Off-road trails along Eagle Ranch – bicycle connections to Alameda, shopping
- ✦ La Orilla complete the off-road trail, connect to bosque
- ✦ Calabacillas Arroyo trail– access east side of river
- ✦ Alameda – pedestrian connection to Corrales bosque

Improve pedestrian crossings to enhance pedestrian travel and safety:

Participants suggested use of signalized intersections away from the corners with intersecting streets. Both underpasses and overpasses were suggested as safer ways for pedestrians to cross Coors. La Orilla was mentioned as a good underpass design.

Intersections for pedestrian improvement:

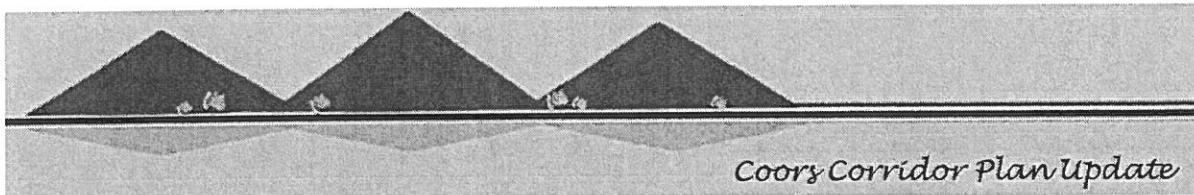
- ✦ Dellyne and Coors – improve for pedestrian safety (curve hides pedestrians)
- ✦ Montano across Coors (underpass)
- ✦ Across Montano at Winter Haven (east of Montano Plaza) – connect with Pueblo Montano trailhead and Paseo del Bosque trail east of River
- ✦ Montano Plaza, Irving
- ✦ Calabacillas Arroyo
- ✦ Paseo east of Coors – North-South pedestrian crossings to connect with Piedras Mercadas

Encourage use of various types of public transit and improve pedestrian orientation of transit stops

- ✦ Locate bus stops to take advantage of view points, provide walking access to commercial areas, and that are near cross streets
- ✦ Provide more comfortable transit shelters that are covered and landscaped
- ✦ Consider running trolleys or shuttles along Coors to connect places

Develop view overlooks at strategic locations

- ✦ Place mountains, river and bosque in the same frame; preserve views to line of trees
- ✦ Identify view origins at key high points and from the edge of the corridor



Potential framed view opportunities

- ✦ Southeast and northeast corners of Learning Rd. and Coors have excellent views, slope with 35 ft drop (retirement center?)
- ✦ Namaste overlooking Bosque
- ✦ City park south of Montano, west of Coors – amphitheater opportunity
- ✦ View corridor at SIPI

Require new developments to frame view planes through placement of buildings and creation of internal view corridors

- ✦ Create breaks in the built form to create *view windows*

Examples are:

- ✦ Corner of La Orilla east of Coors - Bosque Plaza, near Hoffmantown Baptist Church
- ✦ Along west side of Coors at key intersections

Identify and preserve view corridors from major E-W streets and drainage channels

Streets that feed into Coors from the west offer dramatic panoramic views to east-bound pedestrians and drivers as they come down the hill. These views have historical reference to the natural drainageways which forged passageways down the west mesa through the escarpment. Views encompass the entire landscape of bosque, river, and mountains. These view corridors should be respected and strengthened through regulations that keep buildings from blocking the views and by creating windows in the urban form

Important E-W corridors:

- ✦ Western Trail, Montano, La Orilla, Paseo
- ✦ San Antonio and Calabacillas arroyos

IV. STREET DESIGN: CIRCULATION AND ACCESS

Continuing improvements to Coors Boulevard (Coors) is required to safely and efficiently serve current and projected travel demand. Uncontrolled and unlimited access onto Coors causes safety hazards and degrades the carrying capacity of the street.

Appropriate design within the Coors public right-of-way (ROW) will create a street corridor that is efficient in its traffic-carrying capacity, increase safety, provides reasonable access to adjacent properties, and complements the scenic values of the Coors Corridor.

A. Limited-Access Principle Arterial

Coors is a major north-south arterial for the Northwest Mesa. It is the only northwest arterial west of the Rio Grande that connects US I-25 with US 550. It shall be

designed to improve its ability to serve regional and local travel demand with a range of auto and multi-modal travel options.

Coors is presently designated a Limited Access Principal Arterial High Occupancy Vehicle (HOV) Potential on the MRCOG's Long-Range Roadway System map.

Design considerations for improving Coors Boulevard are based on the fact that Coors is and will continue to be a major arterial for north-south travel with links to major facilities and destinations west of the Rio Grande. Currently, users experience congestion during peak-traffic travel periods along Coors, and projections from the MRCOG indicate that the travel demand is expected to increase approximately 40 percent by the year 2025.

B. Right-Of-Way

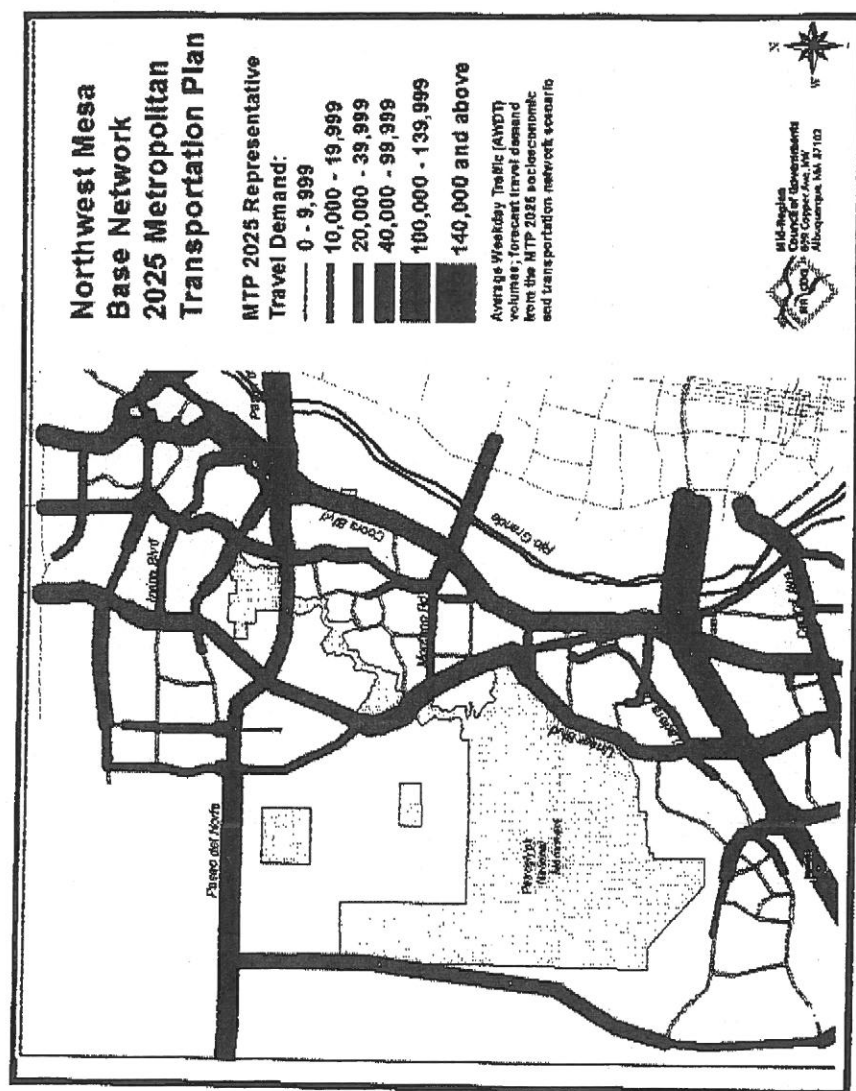
The City shall continue its efforts to acquire additional ROW for Coors between Central to the Coors Bypass to achieve a minimum ROW of 156 feet, and between Coors Bypass and Alameda to achieve a minimum ROW of 124 feet.

Additional ROW may be required at signalized intersections, major unsignalized intersections and driveways to major developments as determined by NM DOT or the City, for the purpose of constructing an exclusive right-turn auxiliary lane.

An additional 18 feet of ROW (12-foot turn lane plus 6-foot bike lane) shall be required to provide an exclusive right-turn lane for driveways which are expected to serve high volumes of traffic. NM DOT or the City will determine appropriate

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MAP 4.1 NORTHWEST MESA BASE NETWORK 2025 METROPOLITAN TRANSPORTATION PLAN



driveway design, length of turn lanes, and their locations.

An additional six feet of ROW shall be acquired to provide for on-street bicycle lanes between St. Joseph's Drive and Alameda Boulevard.

The Metropolitan Transportation Board (MTB) has adopted a policy stating that Coors Boulevard (from I-25 to Alameda via the Coors Bypass alignment) be a Principal Arterial, high-capacity, limited-access facility, having a minimum 156-foot wide right-of-way.

With the completion of the Coors Bypass, the minimum ROW for the segment of Coors between Coors Bypass and Alameda is reduced to 124 feet.

The Long Range Roadway System map, Map 4.2, is included on page 52.

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Timely acquisition and dedication of ROW can reduce future capital expenditures and facilitate timely initiation of improvements.

C. Access Control and Driveways

Vehicular access to Coors Boulevard shall be limited to protect its primary function as a major traffic carrier.

Driveways shall not be permitted within 400 feet of the approach and departure sides of a signalized intersection and unsignalized roadway intersections. The intent of this policy is to limit the number of allowable driveways and to encourage the use of shared driveway access between property owners. Driveways shall be spaced no less than 400 feet apart.

In a typical quarter-mile segment, no more than three driveways shall be permitted per side of the Corridor. Driveway spacing within the jurisdiction of NM DOT shall conform to the driveway requirements as listed in the latest edition of the State Access Management Manual. If this driveway design does not provide sufficient access to a property, then consultation should occur with NM DOT and the City to consider alternatives to provide access to that property.

NM DOT and/or the City shall make the final determination.

NM DOT and/or the City may deny an access even though it may conform to the spacing criteria if it is determined that sufficient access exists to adequately serve the development. Exceptions will require prior approval by NM DOT and/or the City.

The City shall work with property owners, developers, neighborhood associations, groups, and residents to establish a circulation system to provide alternate access opportunities to properties from facilities other than Coors Boulevard. Alternative access for adjacent properties shall be developed before direct access points to Coors Boulevard are closed.

Controlled access provides for better traffic flow and safer traffic operations. The anticipated volume of traffic flow on Coors requires that design solutions favor the safe and effective movement of vehicles. [Jon ?]

Alternative entrances to a property may be considered by NM DOT and the City. Frontage roads and circulation roads are preferred to avoid additional entrances along Coors Boulevard. Illustrations of

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FIGURE 4.1 CIRCULATION ROAD ACCESS

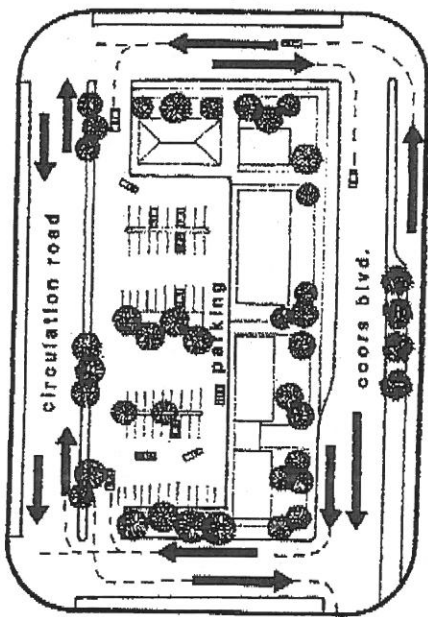
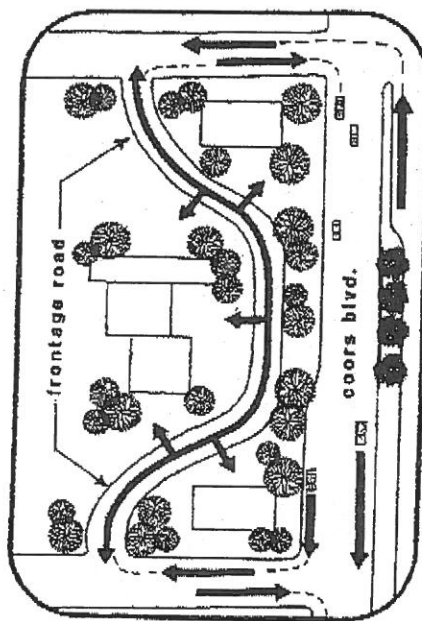


FIGURE 4.2 FRONTAGE ROAD ACCESS



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[WHY AREN'T WE INCLUDING THE "FRONTAGE ACCESS" FIGURE?]

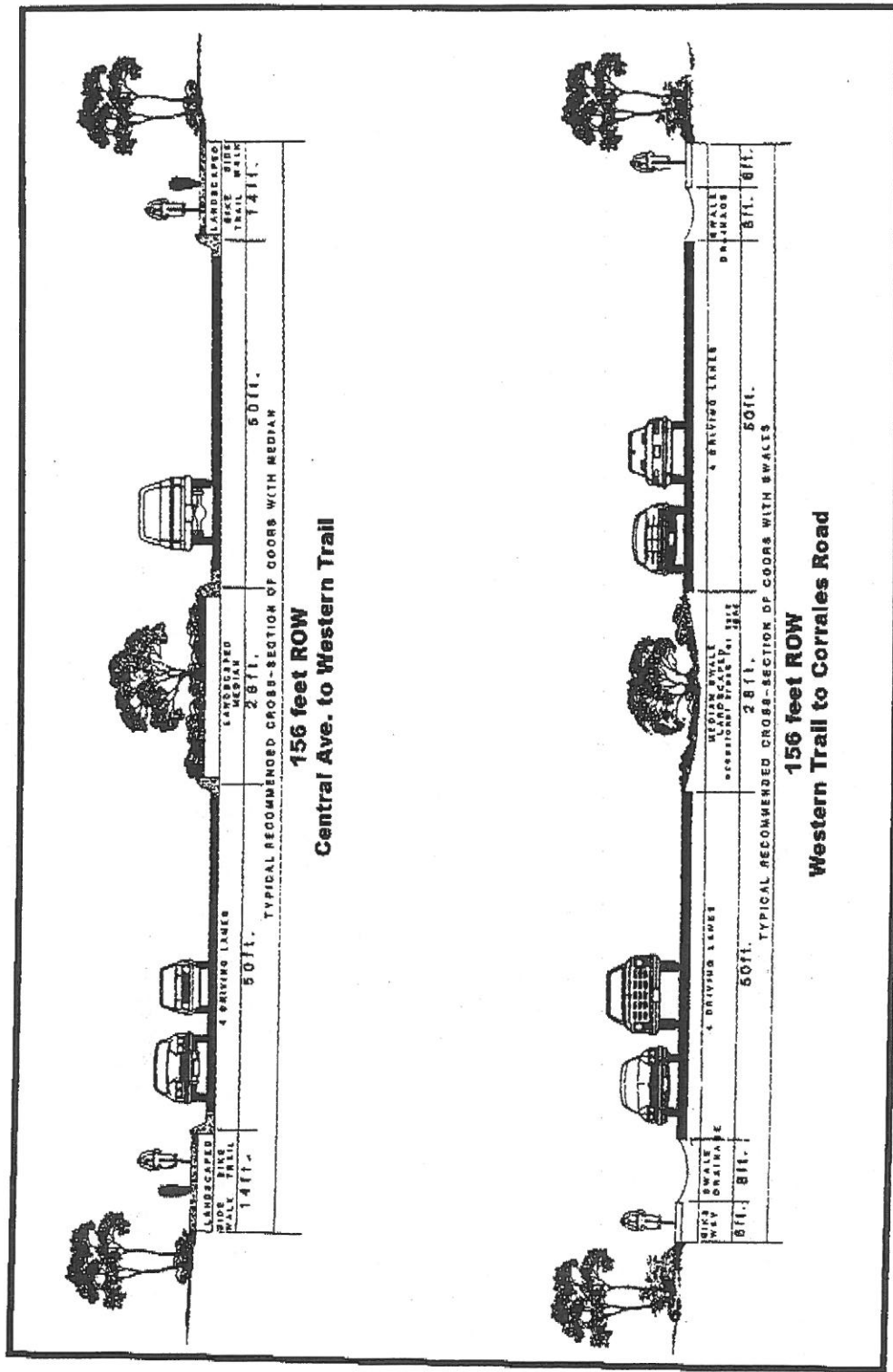
acceptable alternative entrances are shown in Figures 4.1 and 4.2, left.

D. Median Openings

In exceptional cases, as determined by the MTB in consultation with the City and NM DOT, directional median openings may be permitted or removed if the median cut openings are in the public's best interest and will relieve a safety or capacity problem.

Medians shall be installed from north of Irving Boulevard to Alameda, consistent with the recommended roadway cross-sections illustrated in Figure 4.3 on page 55. The left turn is the most disruptive movement along any traffic-carrying facility. To encourage and maintain a reasonable traffic flow on a major traffic-carrying facility, this movement must be limited and controlled to ensure smooth and safe operation of the street with high traffic volumes.

FIGURE 4.3 RECOMMENDED STREET CROSS SECTIONS



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JUANITA: ARE WE LEAVING OUT THE EXISTING CROSS SECTIONS DELIBERATELY? - yes, they are moot.

E. Intersection Spacing

There shall be a distance of approximately one-half mile between full access intersections. Unsignalized, partial-access intersections shall be placed with careful consideration for proximity to full intersections and to provide reasonable access to properties within the Corridor. Partial intersections shall be spaced a minimum distance of approximately one-quarter mile from full access intersections or from other partial-access intersections.

An exclusive right-turn lane shall be provided at all major one-half mile, signalized intersections and one-quarter mile, partial-access intersections.

Median openings will be permitted only at the major one-half mile signalized intersections. At major intersections, medians shall be built to a 28-foot width

to provide an area for dual left turns, landscaping, drainage, and other necessary improvements.

In exceptional cases as determined by the MTB in consultation with the City and NM DOT, additional access or changes in the location of an access may be permitted if the access is in the public's best interest and will relieve a safety or capacity problem.

All signalized intersections shall contain a radius sufficient to accommodate the turning radius of the design vehicle which will be using the side street. Channelized right turns will enhance vehicular operation and, improve pedestrian

crossing conditions by reducing crossing time and by providing a pedestrian refuge area. The specific design shall be determined by the City and NM DOT. [See Map 4.3 on page 57.]

The proposed traffic signals shown [WHERE?] along Coors shall be installed when the signal warrants contained in the latest edition of The Manual on Uniform Traffic Control Devices (MUTCD) are met.

Maximum practical distance between traffic signals and points of limited access is essential to accomplish the best possible traffic flow to accommodate the anticipated traffic volumes on Coors. One-half mile spacing for major signalized intersections will allow speeds in the range of 35 to 40 miles per hour in both directions along Coors Boulevard.

Figures 4.5 - 4.7 illustrate existing roadway conditions and specific recommendations for design of traffic movement and access. These illustrations are found on pages 55 - 57. The matrix text should be read as continuous numbers and contains additional information not shown on

the maps. The left map shows existing conditions for the entire segment; the right map shows the recommendations. Further, the matrix contains additional information not shown on the maps. [ADD APPROPRIATE MAPS LIST; MOVE THIS TEXT TO THE MAPS.]

F. Noise Standards

The City shall coordinate with NM DOT to perform a noise level analysis at the time of the street engineering design phase. These departments shall also recommend and coordinate noise mitigation measures that represent a reasonable balance between public expenditure and social, economic, and environmental values of the community [Jon—who decides reasonable balance? What criteria?]. Mitigation measures shall be consistent with the design guidelines contained in the Coors Corridor Plan.

Traffic noise is a nuisance to those who live or work near busy streets. Coors Boulevard should be so designed and constructed that noise levels are controlled within acceptable standards.

G. Transit

The City's Transit Department will work with MRCOG, stakeholders, and agency groups to identify and implement viable transit types and routes for the West Side. Transit types and routes will integrate ridership and destinations within the Corridor.

1. Transit Routes and Types

An express transit route will be developed for Coors Boulevard. Transit options include:

- Express bus (e.g. Rapid Ride)
- Light rail
- Street car

This route will connect to existing express routes that have stops at Coors and Alameda, Coors, Central Avenue, and a proposed express route at Montaña Boulevard.

Local transit routes shall be developed that connect to express transit routes along Coors, which use primary and secondary arterials, including Golf Course, Eagle Ranch Road, Irving Boulevard, Western Trail, Quail Road, Fortuna, and Blue Water.

Transit routes shall be coordinated and integrated with municipal systems to develop a regional-transit system.

2. Transit Stops

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Transit stops shall be developed along the Corridor to maximize ridership by making stops attractive and safe to riders.

Transfer stations will consist of a park-and-ride lot and a small transit stop facility.

Transfer stations with park-and-ride facilities shall be studied and developed at the following locations, if appropriate:

- Cottonwood Mall
- Montaño/Riverside Plaza
- Intel Corp. in Sandoval County
- Quail Road

An express stop will include a pull-off area for the bus to permit traffic flow and a shelter. Express stops shall be considered for development in the following locations:

- Coors Bypass/Calabacillas
- Andaluca/Montaño

- Piedras Marcadas
- Eagle Ranch Road
- Western Trail/Andaluca
- St. Joseph's
- Quail Road
- Fortuna
- Central Avenue

3. Park-and-Ride and Pedestrian Facilities

Transit stops shall be fully integrated into pedestrian facilities for the Corridor, and where possible, with proposed view points. Where possible, express stops will be integrated with park-and-ride facilities.

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