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October 16, 2012

HAND-DELIVERED

Environmental Planning Commission
c/o Ms. Carmen Marrone
Division Manager, Current Planning
City of Albuquerque Planning Department
600 2nd Street NW
Albuquerque, New Mexico 87102

RE: Project No. 1003859

Dear Ms. Marrone:

Please find enclosed the following additional documents:

1. Proposed findings concerning the TIS which Taylor Ranch Neighborhood Association (TRNA) believes are consistent with but more detailed than Staff's on that issue.
2. A summary in graphic form of Staff's recommended findings.
3. A letter and some documents related to a Terry Brown Traffic Impact Study for a Montano Shoppes Development in which at page 33 under the heading General Access he refers to the development for the properties at issue:

"The primary access to the commercial component at the extreme northwest corner of the project will be via an extension of Winterhaven Rd. to the south of Montano Rd. and a proposed new right-turn-in, right-turn-out, left-turn-in driveway (Driveway "A") on Coors Blvd. approximately midway between Montano Rd. and Dellyne Ave. (Learning Rd.)"

Just as in the TIS for this development Learning Road is not considered the primary access.

Environmental Planning Commission
c/o Ms. Carmen Marrone
October 16, 2012
Page 2 of 2

Very truly yours,



Timothy V. Flynn-O'Brien

TVFOB/mlg

Enclosures as stated

cc: Susan Lubar, Acting Director
Kevin Curran/Anita Miller
Michelle Henrie
Catalina Lehner
Rene' Horvath
Jolene Wolfley
Joe Valles

Suggested transportation findings for October 18 hearing:

- a. The TIS reports moderate impacts to the Coors/Montano, 4th/Montano, and Coors/Dellyne intersections for the pm peak hour and moderate impacts to the 4th/Montano intersection for the am peak hour.**
- b. Proposed mitigations to deal with these moderate impacts are very limited and focus on signal timing, pedestrian push buttons, and lengthening some turn bays. The feasibility of lengthening turn bays is not fully analyzed.**
- c. The updated TIS of November 2011 is for the Site Plan for Building Permit and does not completely fulfill the Zoning Ordinance requirement for an updated TIS for the Site Plan Extension approved in January 2012.**

Summary of Staff Findings of Compliance with City Regulations/Policies
of Request for Site Plan Amendment and Building Permit
for a Walmart at North Andalusia

	Meets	Does not Meet
Large Retail Facilities Ordinance		
Adjacent to at least collector with 4 travel lanes	X	
Has primary and full access to collector		X
No LRF traffic on local roads/protect residential uses		X
Block sizes/Driveways separating blocks		X
Distribute parking to reduce visual impact		X
Truck bay extension		X
Tree spacing		X
Water reuse/water harvesting		X
Limit impervious surfaces		X
Bldg. articulation w/ retail liner suites		X
Coors Corridor Plan		
View Regulations	X	Tower?
Development Intensity		X
Cluster design/preserve views/create open space/pedestrian		X
Building near street/parking behind		X
Andalusia Master Plan Guidelines		
Primary goal to create village-type character		X
Contribute to high density land uses		X
Foster walkability		X
Respect natural site conditions		X
Highlight spectacular views		X
Leave significant areas of open space		X
Complementary to La Luz and Bosque School		X
Westside Strategic Plan		
Cluster buildings/public plaza		X
Environmental impact on Bosque		X
Promote alternatives to cars		X
Pedestrian scale/parking areas		X
Accessible to transit/bldg near street frontage		X
Comprehensive Plan		
Activity Center Goal		X
Neighborhood values/environmental conditions/carrying capacity/resources.		X
Harmful traffic effects/protect existing neighborhoods		X
Structures/located in Activity Centers		X
Accessibility for auto traffic		X
Limited floor area per building		X
Moderate floor area ratios		X
Environment/unique features/Bosque		X

CITY OF ALBUQUERQUE



November 15, 2011

Terry Brown, P.E.
P.O. Box 92051
Albuquerque, New Mexico 87199

**Subject: Andalucia Tract 6 (Montano/Coors) Traffic Impact Study Update,
Dated November 7, 2011**

Dear Mr. Brown,

Following are my comments for the above referenced subject:

- 1) Provide an Executive Summary.
- 2) Provide an explanation for your intersection numbering system.
- 3) Table of Contents should be labeled as Page i.
- 4) Page 1 –
 - a. 2005 Plan should be referenced in the Appendix as Page A-81;
 - b. Delete "and the impact fee administrator" from STUDY PROCEDURES text;
 - c. Delete reference to horizon year analysis. There is no City requirement for this analysis;
 - d. Add explanation of why Supermarket and Free-Standing Discount Store were utilized to calculate the trip generation rate for the new Wal-Mart store.
- 5) Page 2 – change "building" to "build".
- 6) Page 4 – Add explanation of why Supermarket and Free-Standing Discount Store were utilized to calculate the trip generation rate for the new Wal-Mart store.
- 7) Page 5 –
 - a. Add text denoting that the second driveway on Montano Rd. requires TCC Approval;
 - b. "Page A-2" should read "Page A-3" with reference to the Conceptual Site Development Plan;
 - c. Change "plan proposed and approved in 2005" to read "trips generated in the 2007 TIS";
 - d. Last sentence parenthetical phrase – add "in the 2007 TIS" at end.

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8) Page 6 and Appendix A-6 –

- a. Use pass-by trip reduction of 30% consistent with the 2005 Plan;
- b. Add explanation of why Supermarket and Free-Standing Discount Store were utilized to calculate the trip generation rate for the new Wal-Mart store.

9) Page 9 –

- a. Clarify Note under Montano Rd. / Coors Blvd. Existing Geometry Table (i.e. NB thru lanes vs. NB dual rt. turn lanes);
- b. Clarify description of developer's improvements at bottom of page (i.e. NB thru lanes vs. NB dual rt. turn lanes).

10) Page 13 – Second paragraph – "Montano Rd." should read "Dellyne Ave."

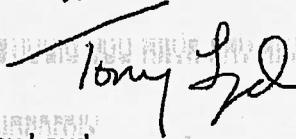
11) Page 15 – Explain why the description of percentage contribution of traffic to Montano / 4th St. is in report.

12) Page 21 – Revise wording of first sentence as discussed (i.e. approved and constructed under 2005 plan).

13) Page 22 – Clarify that you are comparing the 2015 NO BUILD with the BUILD conditions in the Conclusions (i.e. minimal operational problems along Coors Blvd. such as LOS and Delays are relatively consistent between proposals when 2015 No Build vs. Build are compared).

Should you have any questions, please feel free to contact me at 924-3934.

Sincerely,



Tony Loyd
Impact Fee Administrator
Planning Department
Development Services Division
For Transportation Development Section

Andalucia, Tract 6 / Montano Shoppes Developments TRAFFIC IMPACT STUDY

STUDY PURPOSE

The study is being conducted in conjunction with a request for approval of two site development plans proposing two new commercial centers as shown conceptually in the Appendix (Pages A-2 & A-3) of this report. The purpose of this study is to identify the impact of the Developments 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.

STUDY PROCEDURES

A scoping meeting was held on Friday, September 24, 2004 with City of Albuquerque staff (Tony Loyd and Steele Nowak) prior to beginning the study to discuss scope and methodology to be utilized within the report. Tony Loyd summarized the meeting and defined the requirements and procedures for the study his in letter dated September XX, 2004 (See Appendix Page Z-1 thru Z-3). 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 described lane uses:
 - Montano Shoppes Development
 - *Approximately 25,000 S.F. of retail commercial building floor space.*
 - *An automobile parts store (7,000 S.F. Floor Area)*
 - *Drive-In Bank (4 Drive-In Windows)*
 - Andalucia, Tract 6
 - *An approximately 44,000 S.F. Supermarket*
 - *Approximately 46,000 S.F. of Specialty Retail Commercial Floor Space*
 - *A Drive-In Bank (4 Drive-In Windows)*
 - *Approximately 134,000 S.F. of retail commercial building floor space.*
 - *A Drive-In Bank (5 Drive-In Windows)*
 - *High Turnover Sit-Down Restaurants (Approximately 38,000 S.F.)*
- 2) Analysis included in this Traffic Impact Study will consist of considering two implementation years. The first implementation year will be the anticipated year of full implementation of the Montano Shoppes (2006). It will consider 100% implementation of the Montano Shoppes development and 10% development of Andalucia, Tract 6. The second implementation year will be the anticipated year of full development of Andalucia, Tract 6. It will consider 100% implementation of both the Montano Shoppes and Andalucia, Tract 6.
- 3) Calculate trip distribution for the newly generated trips by these developments. The new commercial trips will be distributed based on year 2006 population within a two

- (2) mile radius boundary of the proposed site as shown in Appendix "C" of this report. The new Residential trips will be distributed based on year 2006 employment citywide inversely proportional to the distance of the employment subarea from the proposed project location.
- 4) 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 C of this report).
 - 5) Acquire recent traffic counts for the intersections of Western Trail / Coors Blvd., Dellyne Ave. / Coors Blvd., Montano Rd. / Coors Blvd., Montano Plaza / Coors Blvd., La Orilla Rd. / Coors Blvd., Montano Rd. / Taylor Ranch Rd., and Montano Rd. / 4th St.
 - 6) Perform new traffic counts (turning movement counts) for the intersections of Montano Rd. / Winterhaven Rd. and Montano Rd. / existing driveway west of Winterhaven Rd.
 - 7) Calculate historic growth rates based on 1999 – 2003 Traffic Flow Data from the Mid-Region Council of Governments (MRCOG) or by utilizing established growth rate for the area (3.3% per year) from the Fortis Development Traffic Impact Study (DRAFT) dated March 11, 2004.
 - 8) Consider trips generated from the following recently approved developments that have not been fully implemented at this time
 - a) Andalucia, Phase 1
 - b) Fortis Development
 - c) La Orilla / Coors Commercial Developments
 - 9) Determine 2006 NO BUILD Volumes by growing the existing turning movement counts to the year 2006 utilizing the appropriate annual historic growth rate for the area, and then adding in generated traffic volumes from the other two approved projects.
 - 10) Add in data from Trip Assignments Maps and Tables to the 2006 NO BUILD Volumes to obtain 2006 BUILD Volumes for this project. The 2006 BUILD Volumes will include 100% of the traffic generated by the Montano Shoppes project plus 10% of the total trips generated by Andalucia, Tract 6.
 - 11) Determine 2010 NO BUILD Volumes by growing the existing turning movement counts to the year 2010 utilizing the appropriate annual historic growth rate for the area, and then adding in generated traffic volumes from the other two approved projects.
 - 12) Add in data from Trip Assignments Maps and Tables to the 2010 NO BUILD Volumes to obtain 2010 BUILD Volumes for this project. The 2010 BUILD Volumes will include 100% of the traffic generated by the Montano Shoppes project plus 100% of the total trips generated by Andalucia, Tract 6.

- 13) Provide signalized and / or unsignalized intersection analyses for the following intersections:

INTERSECTION	TYPE CONTROL	NO BUILD	BUILD
1) Western Trail / Coors Blvd.	Traffic Signal	2006 / 2010	2006 / 2010
2) Dellyne Ave. / Coors Blvd.	Traffic Signal	2006 / 2010	2006 / 2010
3) Montano Rd. / Coors Blvd.	Traffic Signal	2006 / 2010	2006 / 2010
4) Montano Plaza / Coors Blvd.	Traffic Signal	2006 / 2010	2006 / 2010
5) La Orilla Rd. / Coors Blvd.	Traffic Signal	2006 / 2010	2006 / 2010
6) Montano Rd. / Taylor Ranch Rd.	Traffic Signal	2006 / 2010	2006 / 2010
7) Montano Rd. / 4 th St.	Traffic Signal	2006 / 2010	2006 / 2010
8) New Signal / Coors Blvd.*	Traffic Signal	2006 / 2010	2006 / 2010
9) Montano Rd. / Winterhaven Rd.	Stop Sign	2006 / 2010	2006 / 2010
10) Driveway "A" / Coors Blvd.	Stop Sign	2006 / 2010	2006 / 2010

* New Signal installed with Andalucia, Phase 1

- 14) Evaluate the intersection of Montano Rd. / Winterhaven Rd. to determine if it is appropriate to construct a new traffic signal at the intersection. ←
- 15) Evaluate the intersection of Driveway "A" / Coors Blvd. to determine if it is appropriate to construct the new driveway as a right-turn-in, right-turn-out, left-turn-in only intersection.

PREVIOUS RELATED TRAFFIC IMPACT STUDIES

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

- 1) *Andalucia Traffic Impact Study* by BHI.
- 2) *Fortis Development Traffic Impact Study (DRAFT)* by BHI dated March 11, 2004.
- 3) *La Orilla / Coors Commercial Developments (DRAFT)* by Terry O. Brown, P.E. dated August 19, 2004.

The Implementation Year Trips Generated Volumes from those reports were added into the 2006 and 2010 Background Subtotal Volumes in this report to obtain the 2006 and 2010 NO BUILD Volumes.

GENERAL AREA CHARACTERISTICS

The proposed requested site development plans are for two different properties. One is at the northwest corner of Montano Rd. / Winterhaven Rd. as shown on the Vicinity Map on Page A-1 of Appendix A of this report. The second one is at the southeast corner of Montano Rd. / Coors Blvd. as shown on the Vicinity Map on Page A-1 of Appendix A of this report. Properties surrounding this site are a mix of commercial, school, and residential uses. The property to the east of Andalucia, Tract 6 is the existing Bosque Prep Private School. Most of the land surrounding this site is substantially developed or being developed. More detailed zoning information may be obtained upon inspection of the Vicinity Maps on Page A-1 in Appendix A.

AREA STREET NETWORK

Coors Boulevard is classified as a Principal Arterial roadway south of Alameda Blvd. 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.

Montano Road is classified as a Limited Access 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. from Taylor Ranch Rd. to Coors Blvd, is 40 MPH.

Dellyne Ave. is classified as a Collector Street on the Long Range Roadway System for the Albuquerque Metropolitan Area. It is currently a two lane paved facility west of Coors Blvd.

Taylor Ranch Rd. / Golf Course Rd. from Montano Rd. to Paseo del Norte is classified as a Minor Arterial Roadway on the Long Range Roadway System for the Albuquerque Metropolitan Area. It is currently a four lane urban roadway with curbs and gutters on both sides of the street and raised medians.

4th St. from Central Ave. to Alameda Blvd. is classified as a Minor Arterial Roadway on the Long Range Roadway System for the Albuquerque Metropolitan Area. It is currently a four lane urban roadway with curbs and gutters on both sides of the street and raised medians.

Montano Plaza Drive and Bosque Meadows are 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. Bosque Meadows is a two-lane paved roadway with curbs and gutters on both sides of the street and no medians.

EXISTING TRAFFIC VOLUMES

2003 Average Weekday Traffic Volumes (AWDT) for major streets in the site plan area are shown on Page A-4 of 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:

- Western Trail / Coors Blvd. (2003)*
- Dellyne Ave. / Coors Blvd. (2003)*
- Montano Rd. / Coors Blvd. (2003)*
- Montano Plaza Dr. / Coors Blvd. (2002)*
- Montano Rd. / Taylor Ranch Rd. (2001)*
- Montano Rd. / 4th St. (2002)*

Additionally, AM and PM Peak Hour turning movement counts for 2004 were obtained by field traffic counts taken for the following intersections:

- Montano Rd. / Winterhaven Rd.*
- Montano Rd. / Walgreen's Driveway*

The counts are included after the City of Albuquerque Transportation Development Division Scoping Letter in Appendix Z.

EXISTING (2004) 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.

Following is a series of tables indicating the current (2004) levels-of-service being experienced by the intersections targeted for analysis in this report:

Existing Geometry (Western Trail / Coors Blvd.)

Approach	Left Turn Lanes	Thru/Lefts	Thru Lanes	Thru/Rights	Right Turn Lanes
EB Western Trail	1	0	0	1	0
WB Namaste	1	0	0	1	0
NB Coors Blvd.	1	0	3	0	1
SB Coors Blvd.	1	0	3	0	1

Western Trail / Coors Blvd.	Existing Conditions (2004)	
	A.M.	P.M.
Existing Geometry	A-4.0	A-9.0

D - 30.7 - Bold Italicized Level-of-Service indicates that one or more individual turning movements is Level-of-Service E or worse.

Existing Geometry (Dellyne Ave. / Coors Blvd.)

Approach	Left Turn Lanes	Thru/Lefts	Thru Lanes	Thru/Rights	Right Turn Lanes
EB Dellyne Blvd.	1	0	0	1	0
WB Learning Dr.	1	0	1	0	1
NB Coors Blvd.	1	0	3	0	1
SB Coors Blvd.	1	0	3	0	1

Dellyne Ave. / Coors Blvd.	Existing Conditions (2004)	
	A.M.	P.M.
Existing Geometry	C-30.2	C-29.1

D - 30.7 - Bold Italicized Level-of-Service indicates that one or more individual turning movements is Level-of-Service E or worse.

Existing Geometry (Montano Rd. / Coors Blvd.)

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

Montano Plaza Dr. / Coors Blvd.	Existing Conditions (2004)	
	A.M.	P.M.
Existing Geometry	<i>D - 54.1</i>	<i>E - 65.7</i>

D - 30.7 - Bold Italicized Level-of-Service indicates that one or more individual turning movements is Level-of-Service E or worse.

Existing Geometry (Montano Plaza / Coors Blvd.)

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

* - Right turns are free rights that are subject to a Yield sign and not the signal.

Montano Plaza / Coors Blvd.	Existing Conditions (2004)	
	A.M.	P.M.
Existing Geometry	<i>B - 12.3</i>	<i>D - 43.6</i>

D - 30.7 - Bold Italicized Level-of-Service indicates that one or more individual turning movements is Level-of-Service E or worse.

Existing 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	0	1	0
WB La Orilla Rd.	1	0	0	1	0
NB Coors Blvd.	1	0	2	1	0
SB Coors Blvd.	1	0	3	0	1

La Orilla Rd. / Coors Blvd.	Existing Conditions (2004)	
	A.M.	P.M.
Existing Geometry	<i>B - 14.7</i>	<i>A - 8.2</i>

D - 30.7 - Bold Italicized Level-of-Service indicates that one or more individual turning movements is Level-of-Service E or worse.

Existing Geometry (Montano Rd. / Taylor Ranch Rd.)

Approach	Left Turn Lanes	Thru/Lefts	Thru Lanes	Thru/Rights	Right Turn Lanes
EB Montano Rd.	2	0	1	1	0
WB Montano Rd.	1	0	2	0	1
NB Taylor Ranch Rd.	1	0	1	0	1
SB Taylor Ranch Rd.	2	0	1	0	1

Montano Rd. / Taylor Ranch Rd.	Existing Conditions (2004)	
	A.M.	P.M.
Existing Geometry	C - 29.7	D - 36.5

D - 30.7 - Bold Italicized Level-of-Service indicates that one or more individual turning movements is Level-of-Service E or worse.

Existing Geometry (Montano Rd. / 4th St.)

Approach	Left Turn Lanes	Thru/Lefts	Thru Lanes	Thru/Rights	Right Turn Lanes
EB Montano Rd.	1	0	2	0	1
WB Montano Rd.	1	0	1	1	0
NB 4 th St.	1	0	2	0	1
SB 4 th St.	1	0	1	1	0

Montano Rd. / 4 th St.	Existing Conditions (2004)	
	A.M.	P.M.
Existing Geometry	D - 39.2	F - 105

D - 30.7 - Bold Italicized Level-of-Service indicates that one or more individual turning movements is Level-of-Service E or worse.

PROPOSED DEVELOPMENT

There are two separate locations of land proposed for development addressed by this study. The first location is at the northwest corner of the existing unsignalized intersection of Montano Rd. / Winterhaven Rd. This proposed development is approximately 4.0 acres developed into approximately 38,000 S.F. of retail commercial floor space. The floor-area ratio is approximately 0.22. The following uses are proposed for this property:

- a) *A Banking Facility with 4 Drive-In Windows*
- b) *An Auto Parts Store (7,000 S.F. Floor Area)*
- c) *Various retail commercial businesses (25,000 S.F.)*

See the conceptual site development plan on Page A-2 in the Appendix of this report to acquire more detailed information about the proposed development at the northwest corner of Montano Rd. / Winterhaven Rd.

The second location is at the southeast corner of the existing signalized intersection of Montano Rd. / Coors Blvd. It is called Andalucia, Tract 6 in this study. This proposed development is approximately 51 acres developed into approximately 275,000 S.F. of retail commercial floor space plus approximately 500 residential apartments. The following uses are proposed likely land uses for this property:

- a) *A Supermarket (44,000 S.F. Floor Area)*
- b) *Specialty Retail Floor Space (46,000 S.F. Floor Area)*
- c) *Drive-In Bank Facility with 4 Drive-In Windows*
- d) *General Retail Commercial Businesses (134,000 S.F. Floor Area)*
- e) *Drive-In Bank Facility with 5 Drive-In Windows*
- f) *High Turnover Sit-Down Restaurants (38,000 S.F. Floor Area Total)*

See the conceptual site development plan on Page A-3 in the Appendix of this report to acquire more detailed information about the proposed development of Andalucia, Tract 6 at the southeast corner of Montano Rd. / Coors Blvd.

Both site plans are conceptual at this point in time and are subject to some changes as progress takes place in the design process. The plans should, however, provide a reliable basis upon which to analyze the impact of the development on the adjacent transportation system and provide guidelines for mitigating the impact and establishing access criteria. The conceptual site plans as they are shown in this report propose four (4) primary access points or driveways into the sites.

The Montano Shoppes project will be access from Montano Rd. at Winterhaven and at the existing driveway to the west of Winterhaven next to the existing Walgreen's store. Additionally, the Montano Shoppes can be access from within the Montano Plaza Shopping Center parking lot. However, that is not assumed in this study. The intersection of Montano Rd. / Winterhaven Rd. is a full access unsignalized intersection. The driveway to the west of Montano Rd. / Winterhaven Rd. is a right-turn-in, right-turn-out driveway onto Montano Rd.

Andalucia, Tract 6 will be access from Montano Rd. at Winterhaven Rd. and from Coors Blvd. at Learning Drive (Dellyne Ave.) and at a proposed right-turn-in, right-turn-out, left-

turn-in only driveway located approximately midway between Dellyne Ave. and Montano Rd.

The proposed driveway configuration can be seen on two site development plans on Pages A-2 and A-3 in Appendix "A" 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 defined on the Conceptual Site Development Plan on Pages A-2 and A-3 in the Appendix of this report. The resulting number of trips generated for the proposed development are summarized in the following tables:

Montano Shops (Montano Rd. / Winterhaven Dr.) Trip Generation Data

USE (ITE CODE)	DESCRIPTION	24 HR VOL GROSS	A. M. PEAK HR.		P. M. PEAK HR.		
			ENTER	EXIT	ENTER	EXIT	
Summary Sheet		Units					
	Shopping Center (820)	25.00	2,758	42	27	121	131
	Automobile Parts Sales (843)	7.00	416	7	7	20	21
	Drive-In Bank (912)	4.00	1,563	54	41	127	127
	Subtotal		4,737	103	75	268	279

Andalucia Tract 6 - Daskalos Development Trip Generation Data

COMMENT	USE (ITE CODE)	DESCRIPTION	24 HR VOL GROSS	A. M. PEAK HR.		P. M. PEAK HR.		
				ENTER	EXIT	ENTER	EXIT	
	Summary Sheet		Units					
Bldg. A		Supermarket (850)	44.00	4,337	92	59	249	239
Bldg. B, C, E, H, M		Specialty Retail Center (814)	46.00	2,006	150	191	58	74
Bldg. D		Drive-In Bank (912)	4.00	1,563	54	41	127	127
Bldg. F, G, L		Shopping Center (820)	134.00	8,214	114	79	366	396
Bldg. S		Drive-In Bank (912)	5.00	2,101	87	51	158	158
Bldg. J, K, N, P, Q, R		High Turnover (Sit-Down) Restaurant (832)	38.00	4,953	183	169	248	165
		Subtotal Commercial		23,174	660	584	1,206	1,159
		Pass-by Trip Adjustment	30%	(6,962)	(198)	(175)	(362)	(348)
		Adjusted Commercial Trips		16,222	462	409	844	811
Residential		Apartment, Post-1973 (220)	500.00	3,131	40	211	194	95
		Total New Trips		19,353	502	620	1,038	906

Pass-by trip credits were taken for the 2010 analysis but not the 2006 analysis due to the size of the development considered at those levels.

TRIP DISTRIBUTION

Primary and Diverted Linked Trips:

Trips were distributed as follows:

Commercial Land Use

Primary and diverted linked trips for the both the commercial land use development were distributed proportionally to the 2006 projected population of Data Analysis Subzones within a two mile radius of the proposed development. Population data for the years 2005 and 2020 were taken from the 2020 Socioeconomic Forecasts for Data Analysis Subzones in State Planning and Development District 3, TR-125 (March, 1997), Appendix C and Appendix D, supplied by the Middle Rio Grande Council of Governments (MRGCOG). Population data from the years 2005 and 2020 was interpolated linearly to obtain 2006 population data to utilize for this analysis. Population Subzones were grouped based on the most likely major street(s) or route(s) to the subject development. The trip distribution worksheets and associated map of subareas and data analysis subzones is shown in Appendix C.

Residential Land Use

Primary and diverted linked trips for residential development have been distributed proportionally to the 2006 projected employment of Subareas citywide. Employment data for 1995 and 2005 were taken from the 2020 Socioeconomic Forecasts for Data Analysis Subzones in State Planning and Development District 3, TR-125 (March, 1997), Appendix B, supplied by the Middle Rio Grande Council of Governments (MRGCOG). Employment Data was interpolated linearly between the 1995 and 2005 data to obtain 2006 values and adjusted for distance from the proposed new facility. The trip distribution worksheets and associated map of subareas and data analysis subzones are shown in Appendix C.

TRIP ASSIGNMENT

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

BACKGROUND TRAFFIC GROWTH

In order to remain consistent with recent Traffic Impact Studies performed in the area, the established annual growth rate from the Fortis Development Traffic Impact Study was utilized for this study. The annual growth rate utilized in the Fortis Development Traffic Impact Study and for this study is 3.3% annually. Historic growth rates were calculated for this project specifically using 1999 thru 2003 traffic flow data. The results were substantially consistent with the 3.3% area rate utilized in the Fortis Development Traffic Impact Study.

PROJECTED PEAK HOUR TURNING MOVEMENTS FOR 2006 and 2010 BUILDOUT

The established growth rates were applied to the most recent peak hour traffic counts (furnished by the City of Albuquerque and conducted for this study), and then the trips from the *Andalucia Traffic Impact Study*, *Fortis Development Traffic Impact Study*, and the *La Orilla / Coors Commercial Development Traffic Impact Study* were added in to establish the 2006 and then the 2010 background NO BUILD traffic volumes. To these volumes, the generated trips based on implementation of the proposed Montano Shoppes and Andalucia, Tract 6 developments were added to obtain 2006 and 2010 BUILD volumes for the intersection analyses. See Appendix E for further information regarding 2006 and 2010 turning movement counts. The 2006 BUILD Conditions turning movement counts include trips generated by 100% implementation of the Montano Shoppes development plus 10% of the Andalucia, Tract 6 development. The 2010 BUILD Conditions turning movement counts include trips generated by 100% implementation of the Montano Shoppes development plus 100% of the Andalucia, Tract 6 development.

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 TEAPAC Signal 2000, Version 2.02 for signalized intersections and HiCAP2000 version 2.0 for unsignalized intersections. For signalized intersections, the operational method of analysis was used for implementation year (2007) conditions (NO BUILD and BUILD).

Capacity analyses were performed for the following traffic conditions.

Montano Shoppes Implementation Year – 2006:
Implementation Year (2006) - NO BUILD
Implementation Year (2006) – BUILD

Andalucia, Tract 6 Implementation Year – 2010
Implementation Year (2010) - NO BUILD
Implementation Year (2010) – BUILD

The results of the implementation year (2006 and 2010) for the Montano Shoppes / Andalucia, Tract 6 developments' capacity analyses are summarized in the following sections - *Results and Discussion of Intersection Capacity Analyses*.

CONCLUSIONS

The results of this analysis of the adjacent transportation system associated with these two proposed commercial / residential developments indicate 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 Western Trail to accommodate 2010 NO BUILD volumes. Most of the capacity shortfalls revealed in this study were as a result of the NO BUILD Volumes. The Montano Shoppes Commercial Development is a smaller project that will generate significantly less traffic than will Andalucia, Tract 6. Therefore, the impact of the Montano Shoppes Commercial Development will be significantly less than the impact of Andalucia, Tract 6.

In summary, the proposed site development plans for these developments present minimized adverse impact to the adjacent transportation system if the recommendations (for the years 2006 and 2010) are implemented as follows:

RECOMMENDATIONS

- All design and construction for this project shall insure that adequate site distances at the proposed driveways along La Orilla Rd. and along Coors Blvd. are provided.
- Driveways shall be constructed using a minimum of 25-foot radius curb returns or the minimum required by the City of Albuquerque Development Process Manual (D.P.M.).

General Access:

- The Montano Shoppes Commercial Development should be accessed via the existing unsignalized full access intersection of Montano Rd. / Winterhaven Rd. and the existing unsignalized right-turn-in, right-turn-out driveway onto Montano Rd. east of Coors Blvd. Site specific driveways to the Montano Shoppes site should intersect with Winterhaven Rd. north of Montano Rd. and the driveway east of Coors north of Montano Rd. Proposed access is demonstrated on the site plan on Page A-2 in Appendix "A" of this study.
- The Andalucia, Tract 6 Commercial / Residential Development should be accessed via four existing or proposed intersections / driveways along Coors Blvd. or Montano Rd. The primary access to the commercial component at the extreme northwest corner of the project will be via an extension of Winterhaven Rd. to the south of Montano Rd. and a proposed new right-turn-in, right-turn-out, left-turn-in driveway (Driveway "A") on Coors Blvd. approximately midway between Montano Rd. and Dellyne Ave. (Learning Rd.). Driveway "A" should be located approximately 1,425 feet south of Montano Rd. (centerline to centerline). Additionally a right-turn-in, right-turn-out driveway is proposed approximately midway between Driveway "A" and Montano Rd. along the east side of Coors Blvd. that will serve the commercial component of this development. The residential component (multi-family) of Andalucia, Tract 6 is access primarily via the existing signalized intersection of Dellyne Ave. (Learning Rd.) / Coors Blvd. as well as the previously mentioned right-turn-in, right-turn-out, left-turn-in driveway (Driveway "A"). Proposed access is demonstrated on the site plan on Page A-3 in Appendix "A" of this study.

Lots of Mitigations

For the 2006 Analysis:

- **Montano Rd. / Coors Blvd.** – Construct a fourth northbound and southbound thru lane on Coors Blvd. and a third eastbound and westbound thru lane on Montano Rd. This recommendation is consistent with the mitigation measures considered in the Andalucia, Phase 1 Traffic Impact Study dated March 21, 2004.
- **Montano Rd. / 4th St.** – Construct a third eastbound, westbound, northbound, and southbound thru lane at each of the four legs of the intersection. Also, construction dual northbound left turn lanes on 4th St. at Montano Rd.

For the 2010 Analysis:

- **Western Trail (Namaste) / Coors Blvd.** – Construct a fourth northbound thru lane on Coors Blvd. at Western Trail (Namaste). This recommendation is similar to, but somewhat different than the mitigation measures considered in the Andalucia, Phase 1 Traffic Impact Study dated March 21, 2004. The major difference appears to stem from the fact that the Andalucia, Phase 1 Traffic Impact Study utilized 2000 traffic count data as a basis for their analysis. This study utilized October, 2003 traffic count data.
- **Dellyne Ave. (Learning Rd.) / Coors Blvd.** - Modify the existing intersection to provide the geometry summarized in the following table:

Existing Geometry (Dellyne Ave. / Coors Blvd.)

Approach	Left Turn Lanes	Thru/Lefts	Thru Lanes	Thru/Rights	Right Turn Lanes
EB Dellyne Ave.	2	0	1	0	1
WB Learning Rd.	2	0	1	0	1
NB Coors Blvd.	2	0	4	0	1
SB Coors Blvd.	2	0	4	0	1

- **Montano Rd. / Coors Blvd.** - Modify the existing intersection to provide the geometry summarized in the following table:

Existing Geometry (Montano Rd. / Coors Blvd.)

Approach	Left Turn Lanes	Thru/Lefts	Thru Lanes	Thru/Rights	Right Turn Lanes
EB Montano Rd.	3	0	3	0	1
WB Montano Rd.	3	0	2	1	0
NB Coors Blvd.	3	0	4	0	1
SB Coors Blvd.	2	0	4	0	1

It is important to note that the intersection of Montano Rd. / Coors Blvd. is designated as a future interchange on the Long Range Roadway System Map for the Albuquerque Metropolitan Planning Area.

- **Montano Plaza / Coors Blvd.** - Construct a 4th northbound thru lane and dual southbound left turn lanes at the intersection of Montano Plaza / Coors Blvd.
- **Montano Rd. / Taylor Ranch Rd.** - Convert the northbound right turn lane on Taylor Ranch Rd. to a northbound thru / right turn lane and construct dual westbound right turn lanes at the intersection of Montano Rd. / Taylor Ranch Rd. An alternative to constructing dual westbound right turn lanes would be to construct a westbound free right turn with a northbound add lane.

- **Montano Rd. / 4th St.** – Construct a third eastbound, westbound, northbound, and southbound thru lane at each of the four legs of the intersection. Also, construct dual northbound left turn lanes on 4th St. at Montano Rd., dual eastbound left turn lane on Montano Rd. at 4th St., and westbound and southbound exclusive right turn lanes.