Vista Vieja Subdivision

(Molten Rock Rd. / Unser Blvd.)

Traffic Impact Study

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Transportation Development Division
City of Albuquerque

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TRAFFIC IMPACT STUDY

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TRAFFIC IMPACT STUDY

STUDY PURPOSE

The study is being conducted in conjunction with a request for approval of a residential development plan such as the one shown in the Appendix (Page A-2) of this report. The purpose of this study is to identify the impact of the 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 proposed plan. This report is being prepared to meet the requirements of the City of Albuquerque Transportation Development Division in association with the development of Vista Vieja Subdivision located west of Unser Blvd. south of Scenic Rd.

STUDY PROCEDURES

A scoping meeting was held on January 16, 2005 with City of Albuquerque Transportation 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 in letter dated February 16, 2004 (See Appendix Z, Pages Z-1 thru Z-3). Specific items included format, intersections to be studied, intersection analysis procedures, existing traffic counts, trip distribution methodology, and implementation and horizon year definition.

The basic procedure followed is described as follows:

1) Calculate the generated trips for the proposed development consisting of approximately 612 residential single-family detached lots. (See Appendix B). Lot configuration shall be approximately as shown on Appendix Page A-2.
2) Calculate trip distribution for the newly generated trips by this development. The new commercial trips will be distributed based on year 2008 employment citywide inversely proportional to the distance of the employment subarea from the site (See Appendix C).
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. Trip Assignments will be determined based on the projected 2008 configuration of the transportation system (See 2008 Northwest Roadway System Traffic Map at end of Appendix Z.
4) Utilize 2008 Traffic Count forecast volumes from Paragon Subdivision Traffic Impact Study which includes trips generated by Black Mountain Ranch and Ventana West Subdivisions.
5) Calculate historic growth rate from trend established by past five years of data from the Mid-Region Council of Governments' Traffic Flow Maps (See Appendix D).
6) Consider trips generated from the recently approved Ventana Ranch West Development TIS, Black Mountain Ranch Development TIS, and La Cuentista Subdivision that have not been fully implemented at this time. Develop trip assignments for S.A.D. 227 which has not been fully implemented at this time.

7) Utilizing Trip Assignment data, analyze the transportation network system for the 2008 NO BUILD and 2008 BUILD Conditions based on a 50% buildout of the development. Also, analyze the transportation network system for the 2011 NO BUILD and 2011 BUILD Conditions based on a 100% buildout of the development.
8) Provide signalized and / or unsignalized intersection analyses for the following intersections:

INTERSECTION	TYPE CONTROL	NO BUILD	BUILD
1) Montano Rd. / Unser Blvd.	Traffic Signal	2008 / 2011	2008 / 2011
2) Molten Rock Rd. (Vista Vieja Blvd.) / Unser Blvd.	Unsignalized	2008 / 2011	2008 / 2011
3) Universe Blvd. / Unser Blvd.	Unsignalized	2008 / 2011	2008 / 2011
4) Universe Blvd. / Rainbow Rd.	Unsignalized	2008 / 2011	2008 / 2011
5) Scenic Rd. / Driveway "A"	Unsignalized	N/A	2008 / 2011
6) Rainbow Rd. / Unser Blvd.	Unsignalized	N/A	2008 / 2011
7) Molten Rock Rd. / SAD 227 Access	Unsignalized	N/A	2008 / 2011

GENERAL AREA CHARACTERISTICS

The proposed development plan is located along the west side of Unser Blvd. south of Scenic Dr. as shown on the Vicinity Map on Page A-1 of the Appendix of this report. The property in the vicinity of this site is primarily residential with some commercial near major intersections. This project is located in the midst of a relatively active development area.

AREA STREET NETWORK

The affected major streets addressed in this study are Unser Blvd. (Lyon Blvd.), Universe Blvd., Montano Rd., Rainbow (Atrisco) Blvd., and Scenic Dr.

Unser Blvd. is classified as a Limited Access Principal Arterial Roadway on the Long Range Roadway System Map for the Albuquerque Metropolitan Planning Area. Unser Blvd. from Montano Rd. to Irving Blvd. is only partially constructed. The segments that exist are primarily two-lane streets. The segment from Montano connecting to Paradise Blvd. does not currently exist, but is planned as a part of the 2006 Transportation Network System analyzed in this study.

Universe Blvd. is classified as a Minor Arterial Roadway on the Long Range Roadway System Map for the Albuquerque Metropolitan Planning Area.

Montano Rd. east of Unser Blvd. is classified as a Principal Arterial Roadway on the Long Range Roadway System Map for the Albuquerque Metropolitan Planning Area.

Rainbow (Atrisco) Blvd. is classified as a Principal Arterial Roadway from Unser Blvd. to Paseo del Norte on the Long Range Roadway System Map for the Albuquerque Metropolitan Planning Area.

Scenic Dr. is not classified on the Long Range Roadway System Map for the Albuquerque Metropolitan Planning Area.

EXISTING TRAFFIC VOLUMES

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

Existing traffic counts were not analyzed in this study since many of the intersections either do not exist or will be significantly re-aligned in the future.

EXISTING (2005) LEVELS OF SERVICE

Existing Levels-of-Service were not determined in this study.

PROPOSED DEVELOPMENT

The subject area of land targeted for this project totals approximately 167 acres total. The project consists of approximately 612 residential single-family detached home lots to be developed in four phases. This study will analyzed the 50% development level and the 100% development level. The proposed conceptual site plan associated with this project can be found on Page A-2 in Appendix "A".

TRIP GENERATION

Projected trips were calculated from data in the Institute of Transportation Engineers Trip Generation report (7th Edition). Trips for the development were determined based on land uses defined on the Conceptual Site Development Plan on Page A-2 in the Appendix of this report.

The resulting number of trips generated for the proposed development are summarized in the following table:

Vista Vieja Subdivision

Trip Generation Data

USE (ITE CODE)		24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR	
		GROSS	ENTER	EXIT	ENTER	EXIT
	Units					
Single-Family Detached Housing (210)	*612.00*	5,488	109	328	351	198
	Dwelling Units					

No adjustments were made to the trip generation rates for Pass-by Trips or Multi-Use Development since those adjustments do not apply in this case.

TRIP DISTRIBUTION

Primary and Diverted Linked Trips:

Trips were distributed as follows:

Residential Land Uses

Residential Land Use

Primary and diverted linked trips for residential development have been distributed proportionally to the 2008 projected employment of Subareas citywide. Employment data for 2005 and 2025 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 2005 and 2020 data to obtain 2008 values and adjusted for distance from the proposed new facility. The trip distribution worksheets and associated map of subareas are shown in Appendix "C".

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. Trips were assigned based upon the projected 2008 transportation network being in place. Percentage trip assignments are shown in Appendix C.

BACKGROUND TRAFFIC GROWTH

Background traffic growth rates were assigned by the City of Albuquerque for this project. Background traffic growth rates utilized in this study are shown on the Growth Map at the end of Appendix "D".

PROJECTED PEAK HOUR TURNING MOVEMENTS FOR 2008 and 2011 BUILDOUT

The projected peak hour turning movement volumes for the 2008 and 2011 buildout were determine under the projected 2008 transportation network (See discussion on Page 3 and map of transportation network at the end of Appendix "Z"). See Appendix E for further information regarding turning movement counts.

The 2008 NO BUILD Turning Movement Volumes for the Existing Transportation Network were determined by beginning with the 2008 forecast volumes in the Paragon Subdivision Traffic Impact Study (which included trips generated by Black Mountain Ranch and Ventana West Subdivisions. In addition, trips generated by La Cuentista Subdivision were added into the background traffic volumes defined in the NO BUILD Conditions in this report.

The 2001 NO BUILD Turning Movement Volumes were determined by growing the 2008 base volumes to the year 2011 at the historic growth rate calculated in this report.

INTERSECTION CAPACITY ANALYSIS

Intersection capacity analyses were performed in accordance with the procedures for signalized and unsignalized intersections in the Highway Capacity Manual, Transportation Research Board, 2000, using TEAPAC Signal 2000 Signalized Intersection Analysis Software for signalized intersections and HiCAP 2000, Version 2.0 for unsignalized intersections. For signalized intersections, the operational method of analysis was used for 2008 and 2011 conditions (NO BUILD and BUILD). In addition to utilizing the operational analysis for the intersections, the planning method may also used to provide additional information at the intersection to help define critical lane volumes and to help analyze a solution. (The Highway Capacity Software does not include the planning analysis).

Analysis Based on 2008 Transportation Network System:

2008 without development of the subject property (2008 NO BUILD)
2008 with 50% development as per the Proposed Site Plan (2008 BUILD).

Analysis Based on 2011 Transportation Network System:

2011 without development of the subject property (2011 NO BUILD)
2011 with 100% development as per the Proposed Site Plan (2011 BUILD).

The results of the 2008 NO BUILD and 2008 BUILD as well as the 2011 NO BUILD and 2011 BUILD capacity analyses are summarized in the following sections - *Results and Discussion of Intersection Capacity Analyses.*

RESULTS OF SIGNALIZED INTERSECTION CAPACITY ANALYSES

Montano Rd. / Unser Blvd. – Appendix "F"

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

50% Buildout

Montano Rd. / Unser Blvd.	2008 NO BUILD		2008 BUILD	
	A.M.	P.M.	A.M.	P.M.
Existing Geometry	***F – 159.4***	***F – 113.2***	***F – 181.9***	***F – 128.9***
Add WB Left Turn Lane			***F – 120.00***	***F – 111.0***
Add WB, SB Left Turn Lane			***E – 61.3***	***F – 93.2***
Add WB, SB Left Turn, NB Thru Lane			D – 35.8	D – 35.1

100% Buildout

Montano Rd. / Unser Blvd.	2011 NO BUILD		2011 BUILD	
	A.M.	P.M.	A.M.	P.M.
Existing Geometry	***F – 214.3***	***F – 149.0***	***F – 260.8***	***F – 184.3***
Add WB Left Turn Lane			***F – 185.2***	***F – 165.8***
Add WB, SB Left Turn Lane			***F – 93.6***	***D – 147.1***
Add WB, SB Left Turn, NB Thru Lane			***D – 48.9***	***D – 50.6***

D – 39.8 – Bold Italicized LOS indicates that one or more movements are at Level-of-Service "E" or worse.

The preceding tables demonstrate that the impact of this development (50% development level) on the intersection of Montano Rd. / Unser Blvd. can be mitigated by constructing dual westbound left turn lanes on Montano Rd. at Unser Blvd. The implementation of the dual westbound left turn lanes will restore the intersection back to the level-of-service and associated average delay as would be experienced by the 2008 NO BUILD Condition. The impact of this development (100% level) on the intersection of Montano Rd. / Unser Blvd. can be mitigated by constructing dual westbound left turn lanes and dual southbound left turn lanes. Implementation of the dual westbound and dual southbound left turn lanes will restore the intersection back to the level-of-service and associated average delay as would be experienced by the 2011 NO BUILD Condition.

Improvements required which would cause the intersection of Montano Rd. / Unser Blvd. to operate at LOS "D" or better include construction of dual westbound left turn lanes, dual southbound left turn lanes, and a second northbound thru lane.

The queuing analysis for this intersection are summarized in the following table:

Queueing Analysis Summary Sheet

Project: Vista Vieja Subdivision (Scenic Dr / Atrisco Dr)
Intersection: Montaño Rd / Unser Blvd

Eastbound Approach	Left Turns # Lanes	Left Turns Vol.	Left Turns Length (Ft.)	Thru Movements # Lanes	Thru Movements Vol.	Thru Movements Length (Ft.)	Right Turns # Lanes	Right Turns Vol.	Right Turns Length (Ft.)
Existing Lane Length	*1*	*12*	*120*	*2*	*106*	*N/A*	*0*	*12*	*0*
AM NO BUILD Queue	1	14	50	2	122	125	0	14	50
AM BUILD Queue	**1**	**14**	**50**	**2**	**122**	**125**	**0**	**14**	**50**
Existing Lane Length	*1*	*17*	*120*	*2*	*106*	*N/A*	*0*	*9*	*0*
PM NO BUILD Queue	1	20	50	2	122	125	0	10	50
PM BUILD Queue	**1**	**21**	**50**	**2**	**122**	**125**	**0**	**10**	**50**

Westbound Approach	Left Turns # Lanes	Left Turns Vol.	Left Turns Length (Ft.)	Thru Movements # Lanes	Thru Movements Vol.	Thru Movements Length (Ft.)	Right Turns # Lanes	Right Turns Vol.	Right Turns Length (Ft.)
Existing Lane Length	*2*	*577*	*150*	*1*	*33*	*N/A*	*1*	*101*	*125*
AM NO BUILD Queue	2	664	475	1	38	100	1	180	275
AM BUILD Queue	**2**	**664**	**475**	**1**	**38**	**100**	**1**	**206**	**300**
Existing Lane Length	*2*	*421*	*150*	*1*	*176*	*N/A*	*1*	*346*	*125*
PM NO BUILD Queue	2	484	375	1	202	300	1	614	750
PM BUILD Queue	**2**	**484**	**375**	**1**	**202**	**300**	**1**	**699**	**850**

Northbound Approach	Left Turns # Lanes	Left Turns Vol.	Left Turns Length (Ft.)	Thru Movements # Lanes	Thru Movements Vol.	Thru Movements Length (Ft.)	Right Turns # Lanes	Right Turns Vol.	Right Turns Length (Ft.)
Existing Lane Length	*1*	*5*	*140*	*2*	*301*	*N/A*	*1*	*351*	*0*
AM NO BUILD Queue	1	6	25	2	427	350	1	404	525
AM BUILD Queue	**1**	**6**	**25**	**2**	**476**	**375**	**1**	**404**	**525**
Existing Lane Length	*1*	*14*	*140*	*2*	*736*	*N/A*	*1*	*571*	*0*
PM NO BUILD Queue	1	16	50	2	1,118	**750**	1	657	800
PM BUILD Queue	**1**	**16**	**50**	**2**	**1,277**	**850**	**1**	**657**	**800**

Southbound Approach	Left Turns # Lanes	Left Turns Vol.	Left Turns Length (Ft.)	Thru Movements # Lanes	Thru Movements Vol.	Thru Movements Length (Ft.)	Right Turns # Lanes	Right Turns Vol.	Right Turns Length (Ft.)
Existing Lane Length	*2*	*454*	*75*	*1*	*450*	*N/A*	*1*	*8*	*75*
AM NO BUILD Queue	2	707	500	1	751	900	1	9	25
AM BUILD Queue	**2**	**786**	**550**	**1**	**899**	**0**	**1**	**10**	**50**
Existing Lane Length	*2*	*279*	*75*	*1*	*223*	*N/A*	*1*	*21*	*75*
PM NO BUILD Queue	2	439	**350**	1	404	**525**	1	24	75
PM BUILD Queue	**2**	**487**	**375**	**1**	**493**	**625**	**1**	**25**	**75**

	AM	PM
Cycle Length:	130	130

The above queuing analysis summary table utilizes projected 2011 volumes.

RESULTS OF UNSIGNALIZED INTERSECTION CAPACITY ANALYSES

Molten Rock Rd. / Unser Blvd. – Appendix "G"

The results of the analysis of the unsignalized intersection of Molten Rock Rd. / Unser Blvd. are summarized in the following table:

50% Buildout

	2008 NO BUILD		2008 BUILD	
	AM	PM	AM	PM
Molten Rock / Unser Blvd.				
Minor Street (Molten Rock Rd.)				
WB Left	C - 21	E – 39	E - 35	F - 67
WB Thru / Right	B - 12	C - 17	B - 13	C - 20
Minor Street (Molten Rock Rd.)				
EB Left	D - 30	C - 25	E - 40	E - 46
EB Thru / Right	B - 15	B - 11	C - 20	B - 12
Major Street (Unser Blvd.)				
NB Left (Unser Blvd.)	B - 11	A - 9	B - 12	A - 10
SB Left (Unser Blvd.)	A - 8	B - 11	A - 8	B - 11

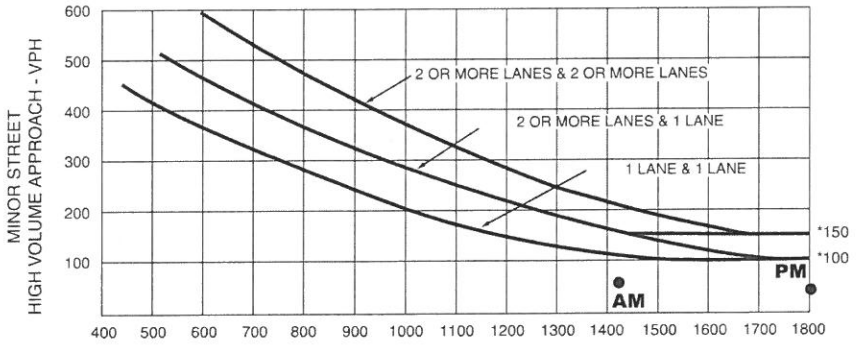
100% Buildout

	2011 NO BUILD		2011 BUILD	
	AM	PM	AM	PM
Molten Rock / Unser Blvd.				
Minor Street (Molten Rock Rd.)				
WB Left	C – 24	E - 50	F - *	F - *
WB Thru / Right	B – 13	C - 19	C - 16	F - 39
Minor Street (Molten Rock Rd.)				
EB Left	E – 39	D - 29	F - 97	F - *
EB Thru / Right	B – 16	B - 11	E - 49	B - 14
Major Street (Unser Blvd.)				
NB Left (Unser Blvd.)	B – 12	A - 10	B – 14	B – 12
SB Left (Unser Blvd.)	A – 9	B - 12	A - 9	B – 12

Since there are projected failing movements associated with the unsignalized intersection of Molten Rock Rd. / Unser Blvd., then a Peak Hour Signal Warrant test was applied to the intersection to determine if the warrant for a traffic signal was met. The analysis indicated that the 2008 volumes (50% development level) fell short of warranting a traffic signal. The analysis for the 50% development level excluded all right turn volumes from the side street since they were analyzed at LOS "C" or better.

Furthermore, the analysis indicated that the 2011 volumes (100% development level) would meet the warrant for a traffic signal based on the Peak Hour Warrant. One-half of the right turn volume was included in the Peak Hour Warrant Analysis since the LOS for the eastbound thru / right was "E".
Following are the Peak Hour Warrant Graphs for the 2008 and 2011 conditions considered in this study:

Figure 4C-3. Warrant 3, Peak Hour



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.

2008 BUILD VOLUMES	Major	Minor
AM	1419	64
PM	1934	40

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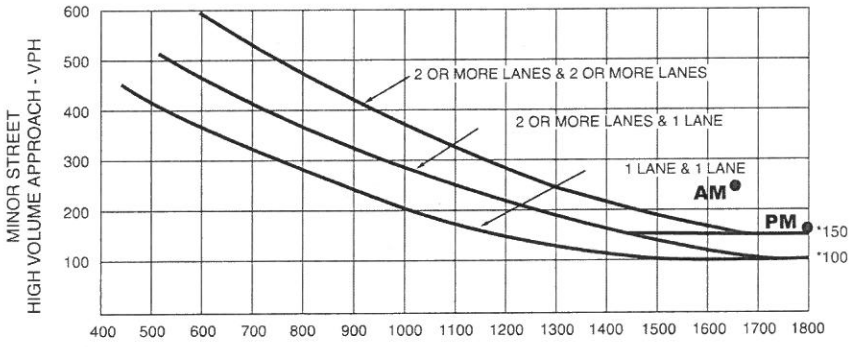
Figure 4C-3. Warrant 3, Peak Hour



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.

2011 BUILD VOLUMES	Major	Minor
AM	1664	249
PM	2325	153

Implementing a signal at the intersection of Molten Rock Rd. / Unser Blvd. will result in an operation at LOS "B" (15.5 seconds average delay) during the projected 2011 AM Peak Hour and at LOS "A" (9.9 seconds average delay) during the projected 2011 PM Peak Hour.

Universe (Atrisco) Blvd. / Unser Blvd. – Appendix "G"

The results of the analysis of the unsignalized intersection of Universe (Atrisco) Blvd. / Unser Blvd. are summarized in the following table:

50% Buildout

	2008 NO BUILD		2008 BUILD	
	AM	PM	AM	PM
Universe (Atrisco) Blvd. / Unser Blvd.				
Minor Street (Universe – Atrisco Blvd.)				
NB Left	C - 19	D - 35	C - 20	E - 37
NB Right	C - 19	D - 35	C - 20	E - 37
Major Street (Unser Blvd.)				
WB Left (Unser Blvd.)	B - 11	A - 9	B - 11	A - 9

100% Buildout

	2011 NO BUILD		2011 BUILD	
	AM	PM	AM	PM
Universe (Atrisco) Blvd. / Unser Blvd.				
Minor Street (Universe – Atrisco Blvd.)				
NB Left	D - 30	E - 49	E - 40	F - 57
NB Right	D - 30	E - 49	E - 40	F - 57
Major Street (Unser Blvd.)				
WB Left (Unser Blvd.)	B - 12	A - 9	B - 13	A – 9

The above analysis assumes that Unser Blvd. at Universe (Atrisco) Blvd. will be a four lane divided section with a raised median and left turn lanes. The wide raised medians will provide a buffer zone for staged left turns from the side street to provide less delays.

Also, the intersection of Universe (Atrisco) Blvd. / Unser Blvd. is not shown on the 2008 Northwest Roadway System Traffic Map (at the end of Appendix "Z"), but is shown on the Long Range Roadway System Map for the Albuquerque Metropolitan Planning Area.

Universe Blvd. / Rainbow Rd. – Appendix "G"

The results of the analysis of the unsignalized intersection of Universe Blvd. / Rainbow Dr. are summarized in the following table:

50% Buildout

	2008 NO BUILD		2008 BUILD	
	AM	PM	AM	PM
Universe Blvd. / Rainbow Rd.				
Minor Street (Rainbow Rd.)				
NB Left / Thru / Right	B – 11	B - 13	B – 14	B - 15
Minor Street (Rainbow Rd.)				
SB Left / Thru / Right	E - 35	C - 17	E – 38	C - 16
Major Street (Universe Blvd.)				
EB Left	A - 7	A – 7	A – 7	A – 7
WB Left	A - 8	A - 8	A - 9	A - 8

100% Buildout

	2011 NO BUILD		2011 BUILD	
	AM	PM	AM	PM
Universe Blvd. / Rainbow Rd.				
Minor Street (Rainbow Rd.)				
NB Left / Thru / Right	B – 12	B - 14	D – 26	D - 25
Minor Street (Rainbow Rd.)				
SB Left / Thru / Right	E – 48	C - 20	F - 51	C - 17
Major Street (Universe Blvd.)				
EB Left	A – 7	A – 7	A – 7	A – 7
WB Left	A - 9	A - 8	A - 9	A - 8

Scenic Dr. / Driveway "A" – Appendix "G"

The results of the analysis of the unsignalized intersection of Scenic Dr. / Driveway "A" are summarized in the following table:

50% Buildout

	2008 NO BUILD		2008 BUILD	
	AM	PM	AM	PM
Scenic Dr. / Driveway "A"				
Minor Street (Driveway "A")				
NB Left / Right	N/A	N/A	A - 8	A - 8
Major Street (Universe Blvd.)				
WB Left	N/A	N/A	A - 7	A - 7

100% Buildout

	2011 NO BUILD		2011 BUILD	
	AM	PM	AM	PM
Scenic Dr. / Driveway "A"				
Minor Street (Driveway "A")				
NB Left / Right	N/A	N/A	A - 9	A - 9
Major Street (Universe Blvd.)				
WB Left	N/A	N/A	A - 7	A - 7

Rainbow Rd. / Unser Blvd. – Appendix "G"

The results of the analysis of the unsignalized intersection of Rainbow Rd. / Unser Blvd. are summarized in the following table:

50% Buildout

	2008 NO BUILD		2008 BUILD	
	AM	PM	AM	PM
Rainbow Rd. / Unser Blvd.				
Minor Street (Rainbow Rd.)				
EB Left / Right	N/A	N/A	D - 27	B - 11
Major Street (Unser Blvd.)				
NB Left	N/A	N/A	C - 18	A - 8

100% Buildout

	2011 NO BUILD		2011 BUILD	
	AM	PM	AM	PM
Scenic Dr. / Driveway "A"				
Minor Street (Rainbow Rd.)				
EB Left / Right	N/A	N/A	F - 61	B - 12
Major Street (Unser Blvd.)				
NB Left	N/A	N/A	D - 26	A - 8

Molten Rock Rd. / SAD 227 Driveway. – Appendix "G"

The results of the analysis of the unsignalized intersection of Molten Rock Rd. / SAD 227 Driveway are summarized in the following table:

50% Buildout

	2008 NO BUILD		2008 BUILD	
	AM	PM	AM	PM
Molten Rock Rd. / SAD 227 Driveway				
Minor Street (Rainbow Rd.)				
EB Left / Right	N/A	N/A	A - 10	A - 9
Major Street (Unser Blvd.)				
NB Left	N/A	N/A	A - 8	A - 8

100% Buildout

	2011 NO BUILD		2011 BUILD	
	AM	PM	AM	PM
Molten Rock Rd. / SAD 227 Driveway				
Minor Street (Rainbow Rd.)				
EB Left / Right	N/A	N/A	B - 12	A - 10
Major Street (Unser Blvd.)				
NB Left	N/A	N/A	A - 8	A - 8

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 (secs)	Level-of-Service
≤ 5	A
> 5 and ≤ 10	B
> 10 and ≤ 20	C
> 20 and ≤ 30	D
> 30 and ≤ 45	E
> 45	F

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

CONCLUSIONS

This analysis was conducted using the following methodology: Trip Generation was established using the Institute of Transportation Engineers' (ITE's) Trip Generation Manual (7th Edition). Generated Trips were distributed proportionately based on the Employment Data citywide; Growth rate of background traffic volumes was established from Mid-Region Council of Governments' Traffic Flow Maps from 1999 through 2003; and the intersection analyses were performed in accordance with the 2000 Highway Capacity Manual. The Traffic Impact Study showed a moderate increase in traffic congestion for the adjacent transportation network based on 50% buildout of the proposed project (projected year 2008) significant increase in traffic congestion for the adjacent transportation network based on 100% buildout of the proposed project (projected year 2011).

In summary, the proposed subdivision development plan for residential type of development presents no significant adverse impact to the adjacent transportation system provided that the following recommendations are followed:

RECOMMENDATIONS

- All design and construction for this project shall insure that adequate site distances at the proposed access points.
- Driveways and access intersections shall be constructed using a minimum of 25-foot radius curb returns.
- It is recommended that this subdivision be access via at least three access points (one on Unser Blvd. and two on Scenic Dr.) similar to that shown on the proposed subdivision plan on Page A-2 of this study. The access intersection on Unser Blvd. at Molten Rock Rd. should be designed to provide primary access. Molten Rock Rd. at Unser Blvd. should be designed with two exiting lanes (one for left turns and one for thru / right turns). Remaining access points may be designed with one exiting lane (serving both left and right turns) and one entering lane. All access points should have left turn lanes from the major roadway for traffic turning into the development. Left turn lanes should be designed and constructed to comply with the City of Albuquerque's Development Process Manual, current edition.

Mitigation Recommendations based on 50% Buildout of Vista Vieja:

- **Montano Rd. / Unser Blvd.** – To the existing geometry, add a westbound left turn lane in order that the intersection would operate with dual westbound left turn lanes. This will require the signal to operate with protected left turns only for the westbound left turn movement.
- **Molten Rock Rd. / Unser Blvd.** – Construct the intersection of Molten Rock Rd. / Unser Blvd. to incorporate raised median on Unser Blvd. to provide a left turn refuge for eastbound left turn movements from Molten Rock Rd. The eastbound left turn movement from Molten Rock Rd. onto northbound Unser Blvd. will need to be a staged left turn requiring a refuge area created by the raised median. Minimum median width is 16 feet (or 4 feet wide median plus 12 wide left turn lane).

Mitigation Recommendations based on 100% Buildout of Vista Vieja:

- **Montano Rd. / Unser Blvd.** – To the existing geometry, add a westbound left turn lane and a southbound left turn lane in order that the intersection would operate with dual westbound left turn lanes and dual southbound left turn lanes. This will require the signal to operate with protected left turns only for the westbound left turn movement and southbound left turn movement.

- **Molten Rock Rd. / Unser Blvd.** – A traffic signal is expected to be warranted at the intersection of Molten Rock Rd. / Unser Blvd. based on volumes generated by 100% buildout of Vista Vieja Subdivision plus background traffic volumes. The signal can be operated as a two phase signal to accommodate the projected 2011 AM and PM Peak Hour Volumes associated with full development of Vista Vieja Subdivision. All four legs of the intersection should incorporate left turn lanes. The east-west leg (Molten Rock Rd.) should be constructed with a thru / right turn lane in addition to the left turn lanes.

Appendix

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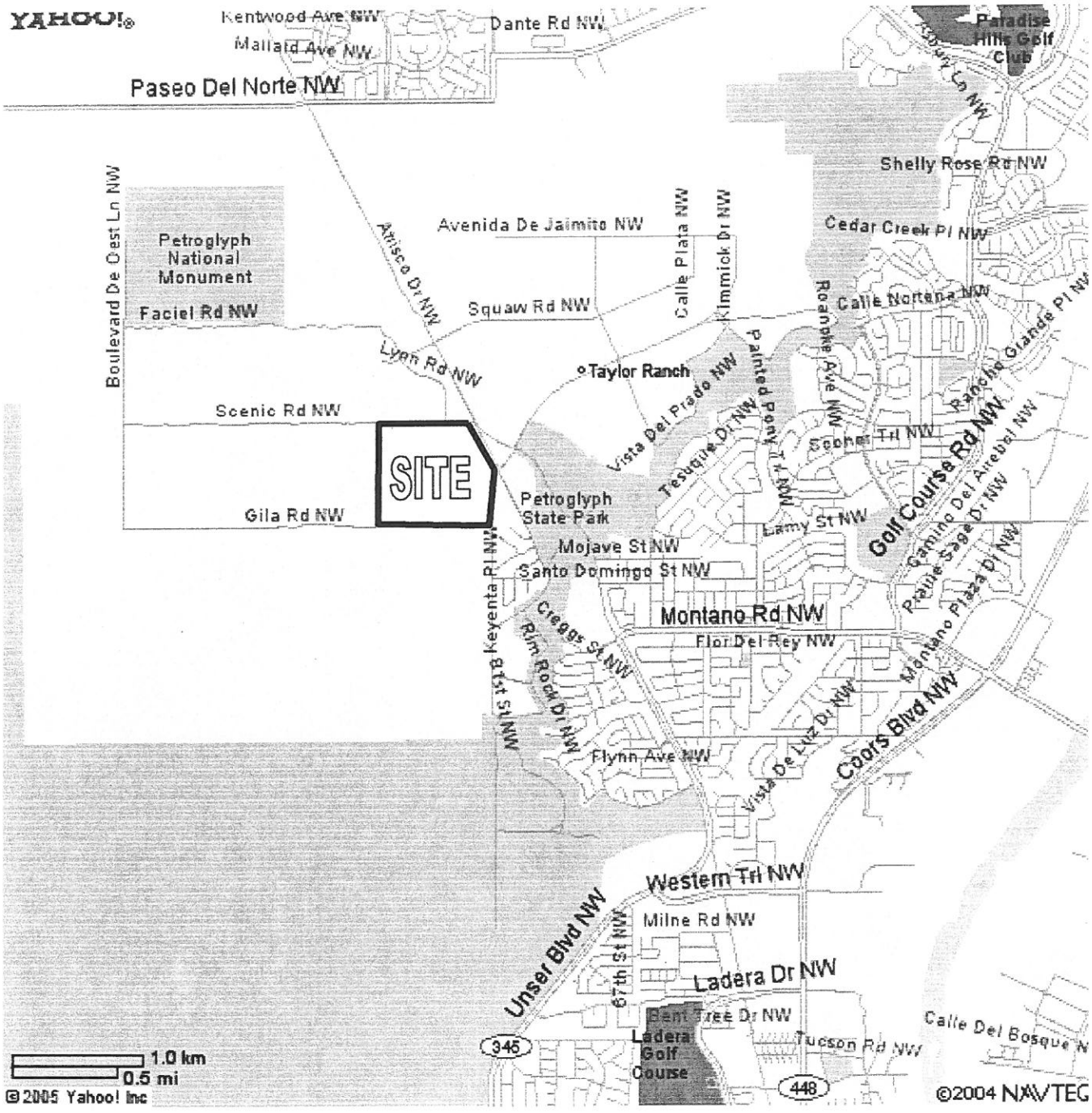
Appendix

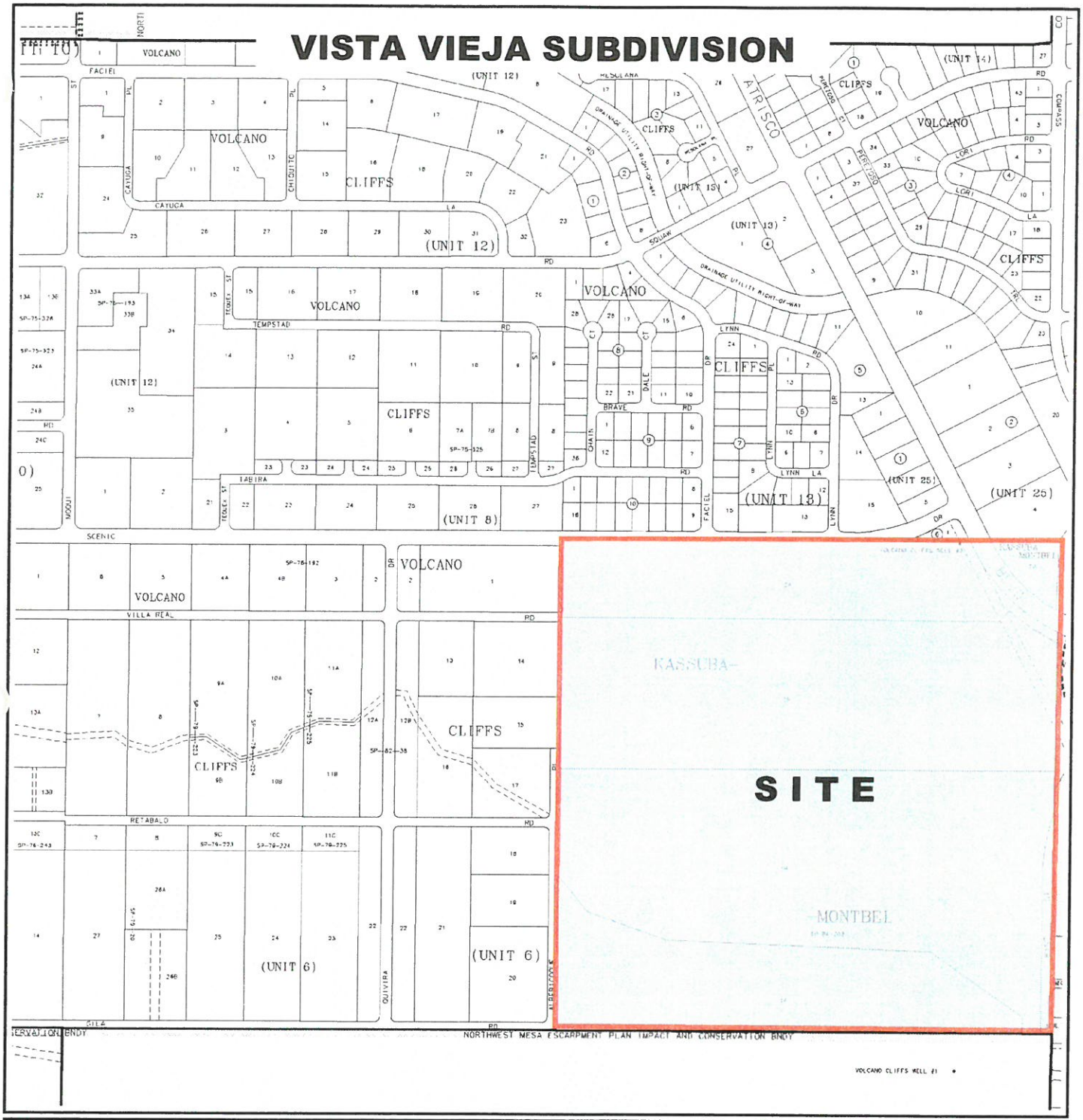


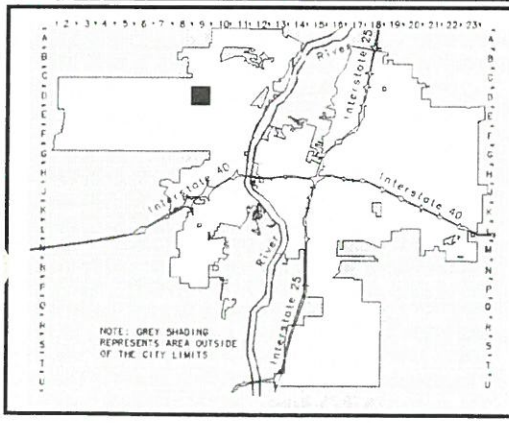
Vista Vieja Subdivision

Scenic Dr. / Atrisco Dr.

Vicinity Map

VISTA VIEJA SUBDIVISION





CITY OF ALBUQUERQUE · NEW MEXICO · 1706

Albuquerque Geographic Information System
PLANNING DEPARTMENT

GRAPHIC SCALE IN FEET

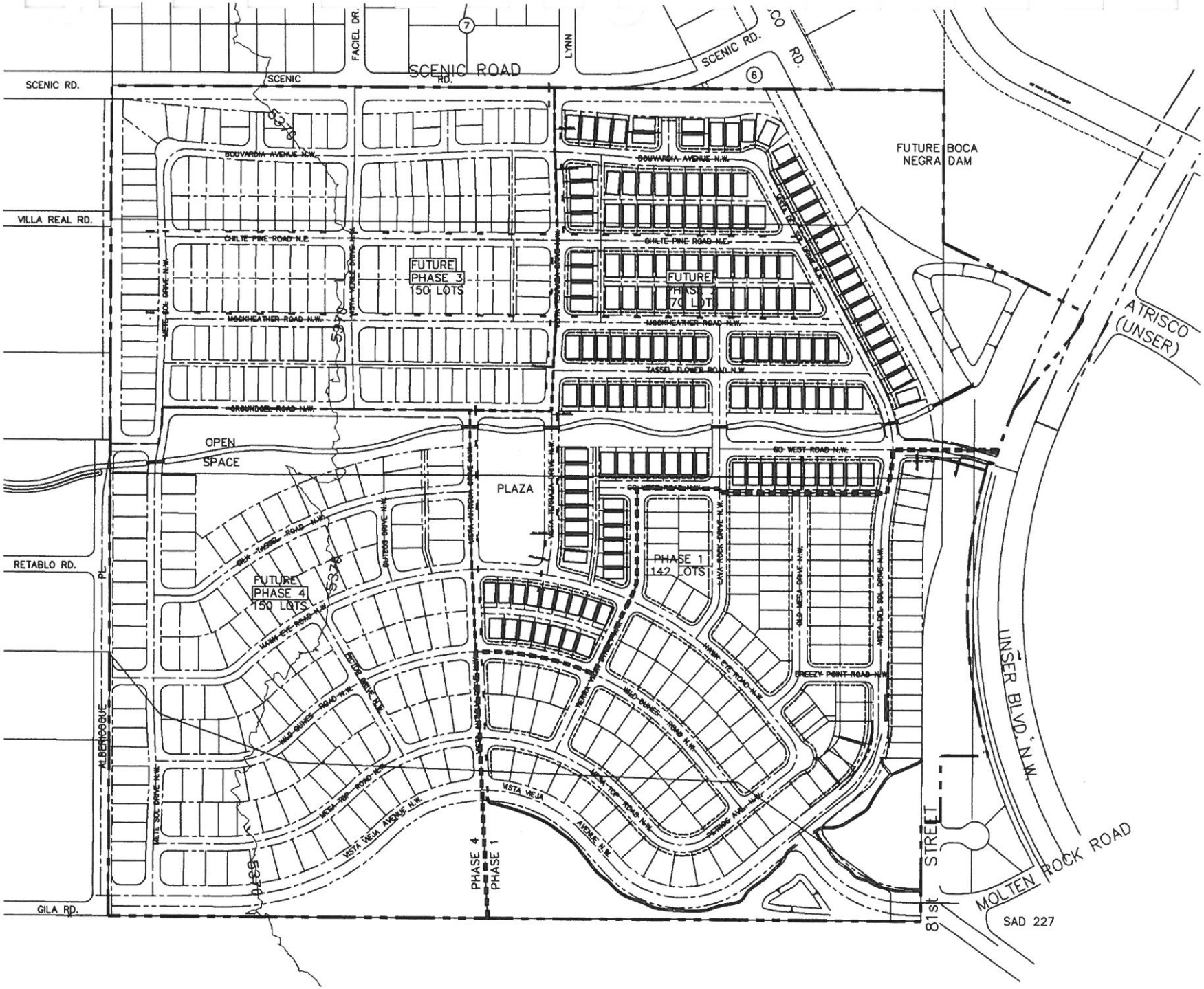
250 0 750 1000

Zone Atlas Page

D-9-Z

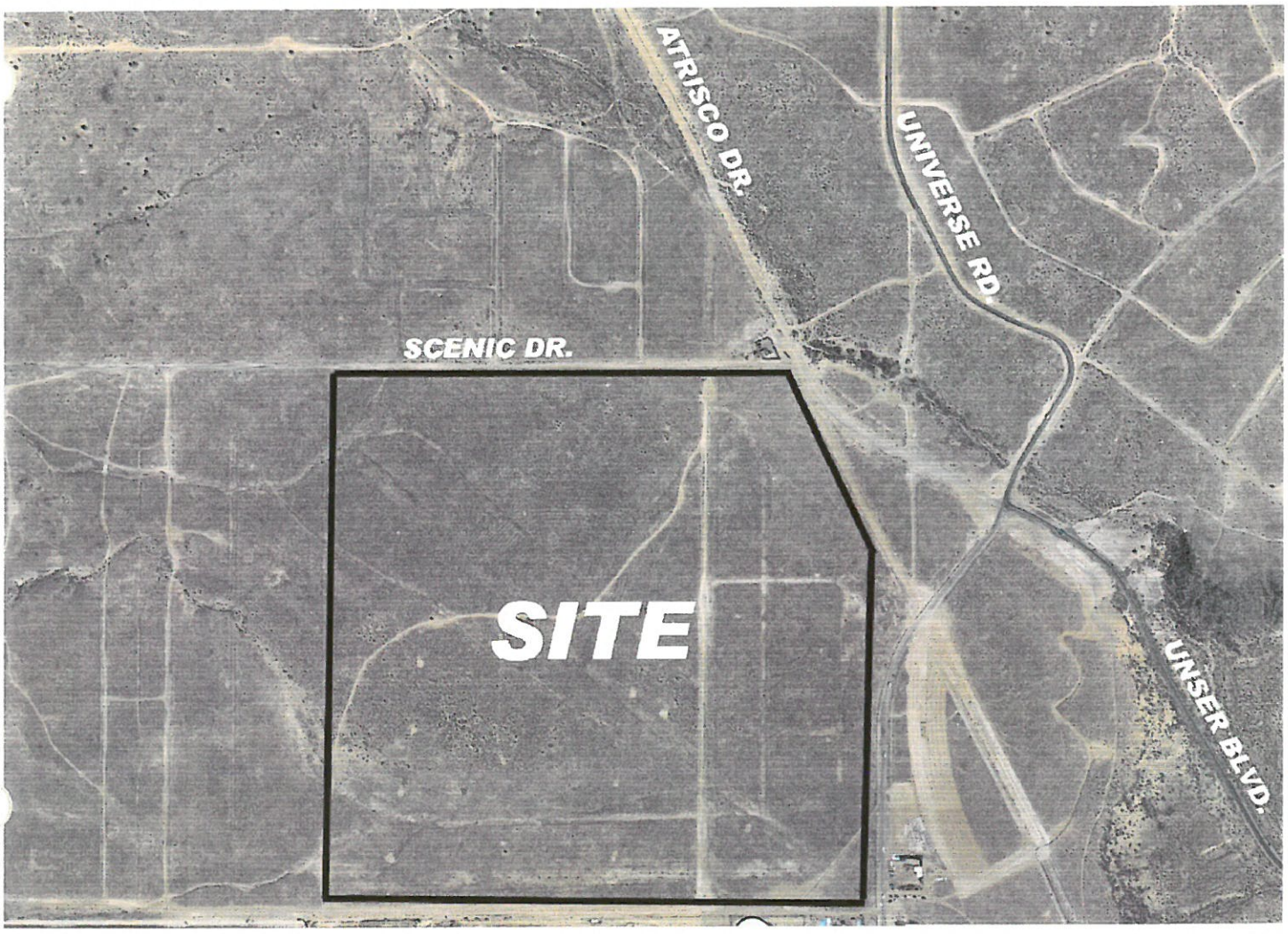
Map Amended through September 01, 2004

A-1a



VISTA VIEJA OVERALL PLAN

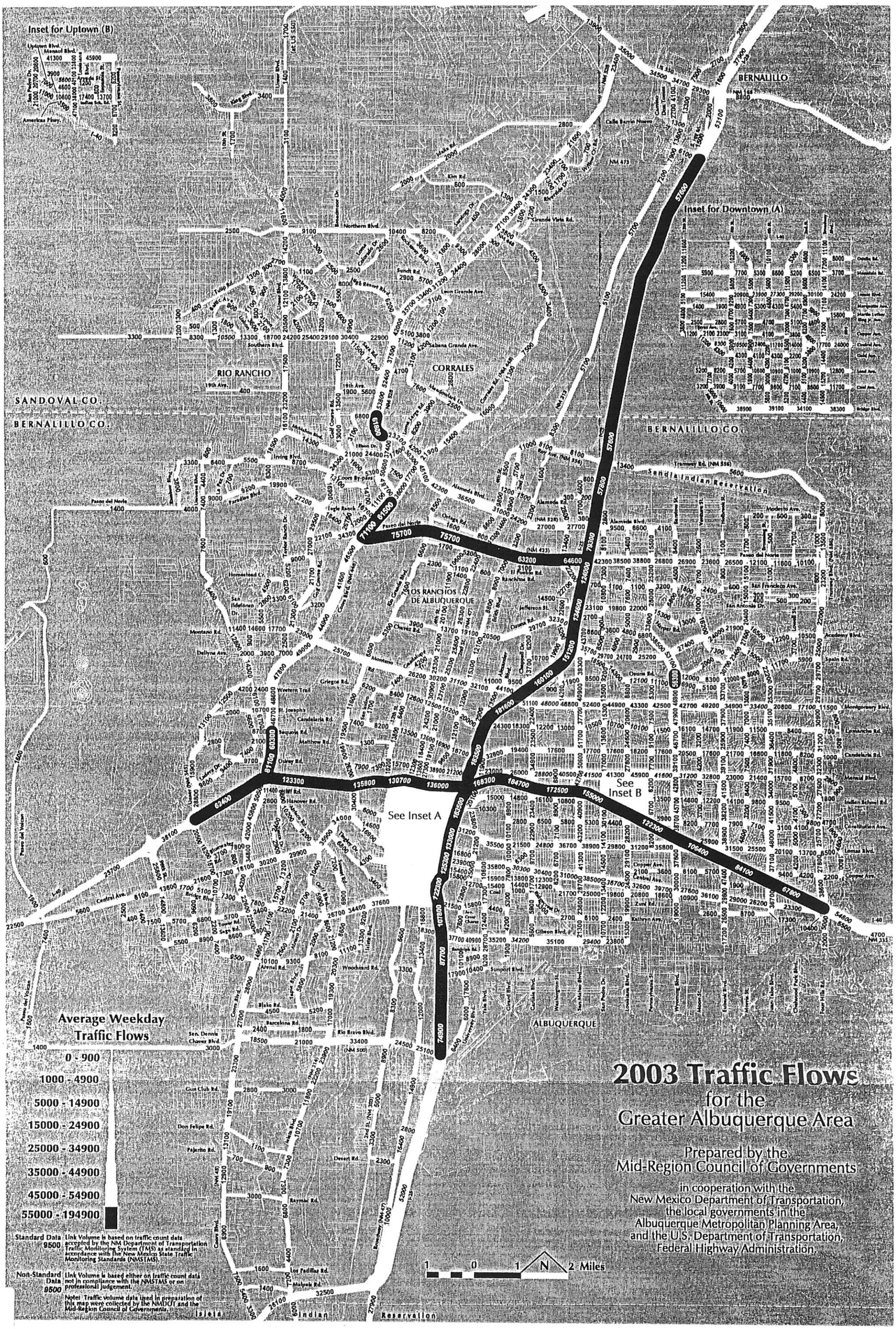
VOLCANO CLIFFS
RESERVOIRS
& PUMP STATIONS



Vista Vieja Subdivision

Scenic Dr / Atrisco Dr

Aerial Photo - 2004



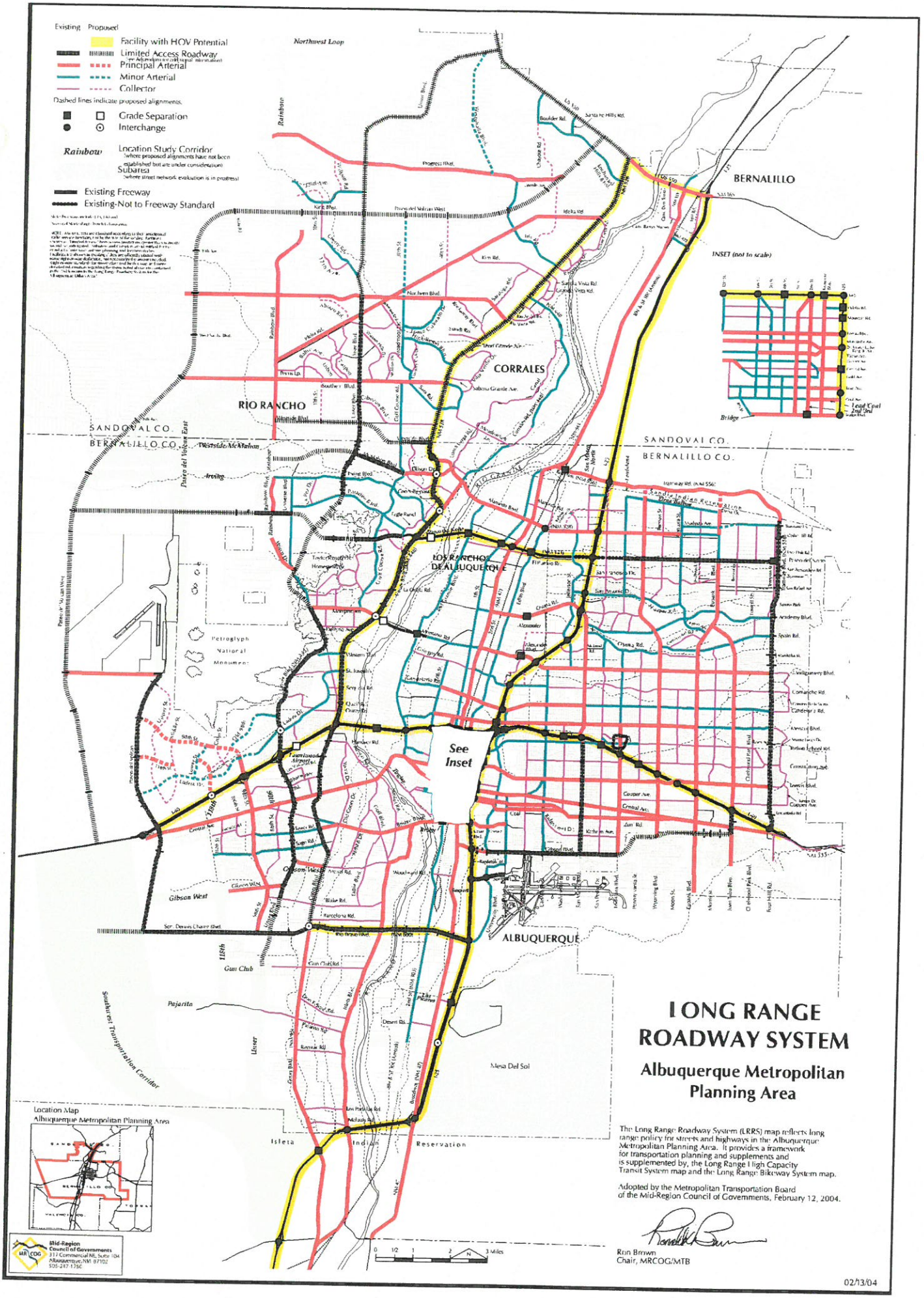
2003 Traffic Flows for the Greater Albuquerque Area

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.

Mid-Region Council of Governments
317 Commercial NE, Suite 104
Albuquerque, NM 87102
505-247-1750

Revised 9/01/2004



LONG RANGE ROADWAY SYSTEM

Albuquerque Metropolitan Planning Area

The Long Range Roadway System (LRRS) map reflects long range policy for streets and highways in the Albuquerque Metropolitan Planning Area. It provides a framework for transportation planning and supplements and is supplemented by, the Long Range High Capacity Transit System map and the Long Range Bikeway System map.

Adopted by the Metropolitan Transportation Board of the Mid-Region Council of Governments, February 12, 2004.

Ron Brown
Chair, MRCOG/MTB

02/13/04

SHADOW RIDGE DR
BUENOS AIRES PL
DONNA AV
BLACK RIDGE DR
UNSER BLVD
MONTANO RD
BOGART ST

Document8

Vista Vieja Subdivision
Trip Generation Data

USE (ITE CODE)		24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR	
		GROSS	ENTER	EXIT	ENTER	EXIT
Single-Family Detached Housing (210)	Units ***612.00*** **Dwelling Units**	5,488	109	328	351	198

ITE Trip Generation Equations:

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

Ln(T) = ***0.92*** **Ln(X) +** ***2.707***
50% Enter, ***50%*** Exit

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

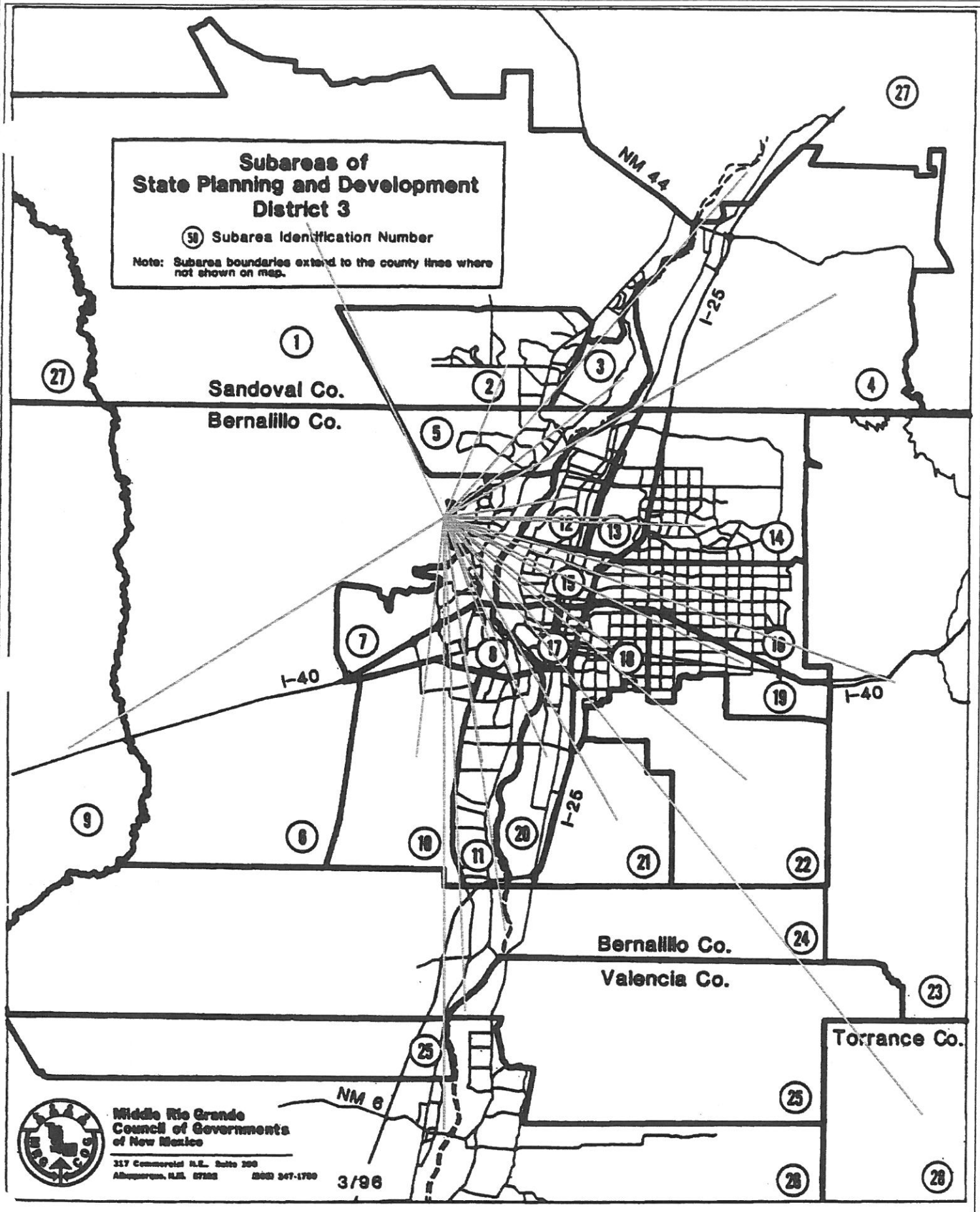
T = ***0.7*** **(X) +** ***9.477***
25% Enter, ***75%*** Exit

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

Ln(T) = ***0.901*** **Ln(X) +** ***0.527***
64% Enter, ***36%*** Exit

Comments:
Tract No.

Based on ITE Trip Generation Manual - 7th Edition



Vista Vieja Subdivision (Scenic Dr / Atrisco Blvd)
Trip Distribution - Subarea Map

Figure 4

Trip Distribution Table

Vista Vieja Subdivision (Scenic Dr / Atrisco Dr)

Sub Area Employment Data:
For determination of Trip Distribution for Proposed Residential Development

Data Taken from Middle Rio Grande Council of Governments' 2020 Socioeconomic Forecasts for Data Analysis Subzones in State Planning and Development District 3 (TR-125) - Appendix "B"

									(RN) Rainbow Rd. North			(UN) Universe Blvd. North			(UrN) Unser Blvd. North		
Sub Area I.D.#	**% Sub Area In Study**	2005 Employment	**2020 Employment**	**Interpolated Employment for the Year**	Employment in Study	Dist. (Mi.)	**Employment / Distance**	**% Employment / Distance**	% Utilizing	% Employment / Dist. Utilizing	Employment	% Utilizing	% Employment / Dist. Utilizing	Employment	% Utilizing	% Employment / Dist. Utilizing	Employment
		2005	**2020**	**2008**													
1	100%	4,763	16,600	5,994	5,994	12.25	**489**	**0.82%**	25%	0.20%	122	0%	0.00%	0	75%	0.61%	367
2	100%	22,575	32,605	24,870	24,870	6.2	**4,011**	**6.70%**	25%	1.68%	1,003	0%	0.00%	0	75%	5.03%	3,008
3	100%	1,222	1,848	1,293	1,293	8.55	**151**	**0.25%**	0%	0.00%	0	0%	0.00%	0	100%	0.25%	151
4	100%	2,694	6,189	2,763	2,763	16.9	**164**	**0.27%**	0%	0.00%	0	0%	0.00%	0	100%	0.27%	164
5	100%	12,928	20,104	15,371	15,371	3.95	**3,891**	**6.50%**	25%	1.63%	973	25%	1.63%	973	50%	3.25%	1,946
6	100%	147	7,303	157	157	1	**157**	**0.26%**	45%	0.12%	71	0%	0.00%	0	0%	0.00%	0
7	100%	10,257	20,047	11,581	11,581	2.9	**3,993**	**6.67%**	0%	0.00%	0	0%	0.00%	0	10%	0.67%	399
8	100%	8,137	12,270	8,954	8,954	4.99	**1,794**	**3.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
9	100%	69	86	71	71	16.55	**4**	**0.01%**	0%	0.00%	0	20%	0.00%	1	0%	0.00%	0
10	100%	2,680	6,414	3,018	3,018	9.05	**333**	**0.56%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
11	100%	5,776	6,756	6,105	6,105	9.35	**853**	**1.09%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
12	100%	6,883	7,658	7,244	7,244	5.05	**1,434**	**2.40%**	0%	0.00%	0	0%	0.00%	0	75%	1.80%	1,076
13	100%	45,105	54,419	50,123	50,123	6.6	**7,594**	**12.69%**	0%	0.00%	0	0%	0.00%	0	75%	9.52%	5,696
14	100%	36,361	38,809	38,419	38,419	9.85	**3,900**	**6.52%**	0%	0.00%	0	0%	0.00%	0	50%	3.26%	1,950
15	100%	19,266	20,968	20,498	20,498	4.65	**4,408**	**7.37%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
16	100%	78,155	81,679	82,268	82,268	11.7	**7,031**	**11.75%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
17	100%	39,496	43,333	40,312	40,312	6	**6,719**	**11.23%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
18	100%	49,531	52,058	52,362	52,362	8.05	**6,505**	**10.87%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
19	100%	31,549	33,664	32,504	32,504	12.6	**2,580**	**4.31%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
20	100%	7,979	10,472	8,737	8,737	9.8	**892**	**1.49%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
21	100%	29	7,936	31	31	13.15	**2**	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
22	100%	23,679	24,086	23,617	23,617	15.1	**1,564**	**2.61%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
23	100%	2,308	4,139	2,536	2,536	18.1	**140**	**0.23%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
24	100%	2,351	2,784	2,790	2,790	15.75	**177**	**0.30%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
25	100%	128	200	139	139	18.6	**7**	**0.01%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
26	100%	19,073	30,802	21,086	21,086	23.05	**915**	**1.53%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
27	100%	3,291	8,536	3,549	3,549	17.2	**206**	**0.34%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
28	100%	3,344	5,109	3,573	3,573	28.85	**124**	**0.21%**	0%	0.00%	0	50%	0.17%	103	50%	0.17%	103
		439,776	556,874	469,965	469,965		**59,841**	**100.00%**		3.62%	**2,169**	0%	0.00%	0	0%	0.00%	0
											3.62%		1.80%	**1,077**		24.83%	**14,860**
														1.80%			24.83%

Trip Distribution Table

Vista Vieja Subdivision (Scenic Dr / Atrisco Dr)

Sub Area Employment Data:
For determination of Trip Distribution for Proposed Residential Development

Data Taken from Middle Rio Grande Council of Governments' 2020 Socioeconomic Forecasts for Data Analysis Subzones in State Planning and Development District 3 (TR-125) - Appendix "B"

								(ME) Montano Rd. East			(US) Unser Blvd. South		
Sub Area I.D.#	**% Sub Area In Study**	2005 Employment	**2020 Employment**	**Interpolated Employment for the Year**	Employment in Study	Dist. (Mi.)	**Employment / Distance**	% Utilizing	% Employment / Dist. Utilizing	Employment	% Utilizing	% Employment / Dist. Utilizing	Employment
		2005	**2020**	**2008**									
1	100%	4,763	16,600	5,994	5,994	12.25	**489**	0%	0.00%	0	0%	0.00%	0
2	100%	22,575	32,605	24,870	24,870	6.2	**4,011**	0%	0.00%	0	0%	0.00%	0
3	100%	1,222	1,848	1,293	1,293	8.55	**151**	0%	0.00%	0	0%	0.00%	0
4	100%	2,694	6,189	2,763	2,763	16.9	**164**	0%	0.00%	0	0%	0.00%	0
5	100%	12,928	20,104	15,371	15,371	3.95	**3,891**	0%	0.00%	0	0%	0.00%	0
6	100%	147	7,303	157	157	1	**157**	0%	0.00%	0	45%	0.12%	71
7	100%	10,257	20,047	11,581	11,581	2.9	**3,993**	10%	0.67%	399	75%	5.00%	2,995
8	100%	8,137	12,270	8,954	8,954	4.99	**1,794**	0%	0.00%	0	100%	3.00%	1,794
9	100%	69	86	71	71	16.55	**4**	0%	0.00%	0	80%	0.01%	3
10	100%	2,680	6,414	3,018	3,018	9.05	**333**	0%	0.00%	0	100%	0.56%	333
11	100%	5,776	6,756	6,105	6,105	9.35	**653**	0%	0.00%	0	100%	1.09%	653
12	100%	6,883	7,658	7,244	7,244	5.05	**1,434**	25%	0.60%	359	0%	0.00%	0
13	100%	45,105	54,419	50,123	50,123	6.6	**7,594**	25%	3.17%	1,899	0%	0.00%	0
14	100%	36,361	38,809	38,419	38,419	9.85	**3,900**	50%	3.26%	1,950	0%	0.00%	0
15	100%	19,266	20,968	20,498	20,498	4.65	**4,408**	100%	7.37%	4,408	0%	0.00%	0
16	100%	78,155	81,679	82,268	82,268	11.7	**7,031**	50%	5.88%	3,516	50%	5.88%	3,516
17	100%	39,496	43,333	40,312	40,312	6	**6,719**	10%	1.12%	672	90%	10.10%	6,047
18	100%	49,531	52,058	52,362	52,362	8.05	**6,505**	10%	1.09%	650	90%	9.78%	5,854
19	100%	31,549	33,664	32,504	32,504	12.6	**2,580**	10%	0.43%	258	90%	3.88%	2,322
20	100%	7,979	10,472	8,737	8,737	9.8	**892**	10%	0.15%	89	90%	1.34%	802
21	100%	29	7,936	31	31	13.15	**2**	10%	0.00%	0	90%	0.00%	2
22	100%	23,679	24,086	23,617	23,617	15.1	**1,564**	10%	0.26%	156	90%	2.35%	1,408
23	100%	2,308	4,139	2,536	2,536	18.1	**140**	10%	0.02%	14	90%	0.21%	126
24	100%	2,351	2,784	2,790	2,790	15.75	**177**	10%	0.03%	18	90%	0.27%	159
25	100%	128	200	139	139	18.6	**7**	10%	0.00%	1	90%	0.01%	7
26	100%	19,073	30,802	21,086	21,086	23.05	**915**	10%	0.15%	91	90%	1.38%	823
27	100%	3,291	8,536	3,549	3,549	17.2	**206**	0%	0.00%	0	0%	0.00%	0
28	100%	3,344	5,109	3,573	3,573	28.85	**124**	10%	0.02%	12	90%	0.19%	111
		439,776	556,874	469,965	469,965		**59,841**		24.22%	**14,493**		45.16%	**27,027**
										24.22%			45.16%

* - Subarea in which the site it located.

Trip Distribution Table

Vista Vieja Subdivision (Scenic Dr / Atrisco Dr)

Sub Area Employment Data:
For determination of Trip Distribution for Proposed Residential Development

Data Taken from Middle Rio Grande Council of Governments' 2020 Socioeconomic Forecasts for Data Analysis Subzones in State Planning and Development District 3 (TR-125) - Appendix "B"

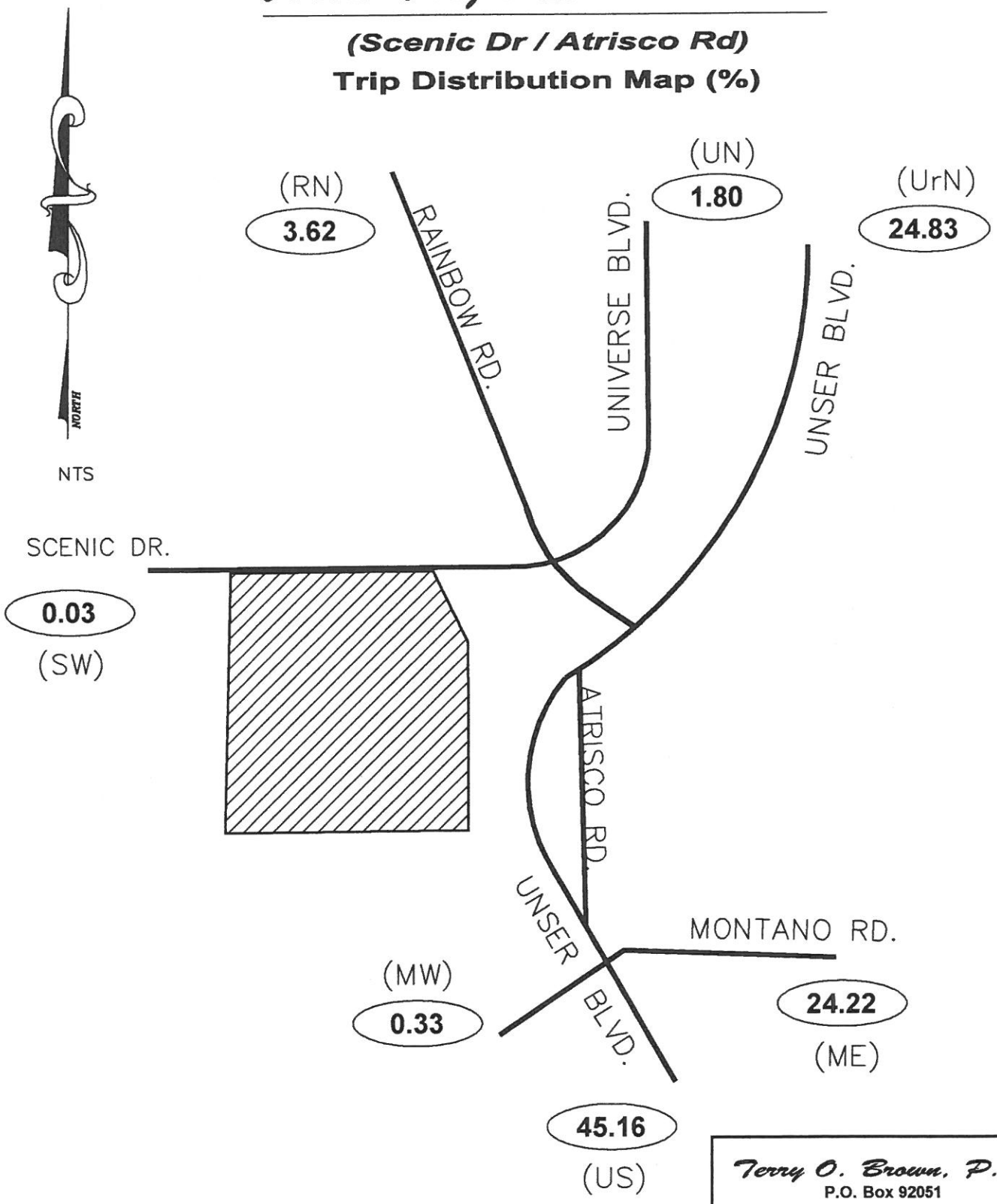
								(MW) Montano Rd. West			(SW) Scenic Dr. West		
Sub Area I.D.#	**% Sub Area In Study**	2005 Employment	**2020 Employment**	**Interpolated Employment for the Year**	Employment in Study	Dist. (Mi.)	**Employment / Distance**	% Utilizing	% Employment / Dist. Utilizing	Employment	% Utilizing	% Employment / Dist. Utilizing	Employment
		2005	**2020**	2008									
1	100%	4,763	16,600	5,994	5,994	12.25	**489**	0%	0.00%	0	0%	0.00%	0
2	100%	22,575	32,605	24,870	24,870	6.2	**4,011**	0%	0.00%	0	0%	0.00%	0
3	100%	1,222	1,848	1,293	1,293	8.55	**151**	0%	0.00%	0	0%	0.00%	0
4	100%	2,694	6,189	2,763	2,763	16.9	**164**	0%	0.00%	0	0%	0.00%	0
5	100%	12,928	20,104	15,371	15,371	3.95	**3,891**	0%	0.00%	0	0%	0.00%	0
6	100%	147	7,303	157	157	1	**157**	0%	0.00%	0	10%	0.03%	16
7	100%	10,257	20,047	11,581	11,581	2.9	**3,993**	5%	0.33%	200	0%	0.00%	0
8	100%	8,137	12,270	8,954	8,954	4.99	**1,794**	0%	0.00%	0	0%	0.00%	0
9	100%	69	86	71	71	16.55	**4**	0%	0.00%	0	0%	0.00%	0
10	100%	2,680	6,414	3,018	3,018	9.05	**333**	0%	0.00%	0	0%	0.00%	0
11	100%	5,776	6,756	6,105	6,105	9.35	**653**	0%	0.00%	0	0%	0.00%	0
12	100%	6,883	7,658	7,244	7,244	5.05	**1,434**	0%	0.00%	0	0%	0.00%	0
13	100%	45,105	54,419	50,123	50,123	6.6	**7,594**	0%	0.00%	0	0%	0.00%	0
14	100%	36,361	38,809	38,419	38,419	9.85	**3,900**	0%	0.00%	0	0%	0.00%	0
15	100%	19,266	20,968	20,498	20,498	4.65	**4,408**	0%	0.00%	0	0%	0.00%	0
16	100%	78,155	81,679	82,268	82,268	11.7	**7,031**	0%	0.00%	0	0%	0.00%	0
17	100%	39,496	43,333	40,312	40,312	6	**6,719**	0%	0.00%	0	0%	0.00%	0
18	100%	49,531	52,058	52,362	52,362	8.05	**6,505**	0%	0.00%	0	0%	0.00%	0
19	100%	31,549	33,664	32,504	32,504	12.6	**2,580**	0%	0.00%	0	0%	0.00%	0
20	100%	7,979	10,472	8,737	8,737	9.8	**892**	0%	0.00%	0	0%	0.00%	0
21	100%	29	7,936	31	31	13.15	**2**	0%	0.00%	0	0%	0.00%	0
22	100%	23,679	24,086	23,617	23,617	15.1	**1,564**	0%	0.00%	0	0%	0.00%	0
23	100%	2,308	4,139	2,536	2,536	18.1	**140**	0%	0.00%	0	0%	0.00%	0
24	100%	2,351	2,784	2,790	2,790	15.75	**177**	0%	0.00%	0	0%	0.00%	0
25	100%	128	200	139	139	18.6	**7**	0%	0.00%	0	0%	0.00%	0
26	100%	19,073	30,802	21,086	21,086	23.05	**915**	0%	0.00%	0	0%	0.00%	0
27	100%	3,291	8,536	3,549	3,549	17.2	**206**	0%	0.00%	0	0%	0.00%	0
28	100%	3,344	5,109	3,573	3,573	28.85	**124**	0%	0.00%	0	0%	0.00%	0
		439,776	556,874	469,965	469,965		**59,841**		0.33%	**200**		0.03%	**16**
										0.33%			0.03%

* - Subarea in which the site it located.

Vista Vieja Subdivision

(Scenic Dr / Atrisco Rd)

Trip Distribution Map (%)



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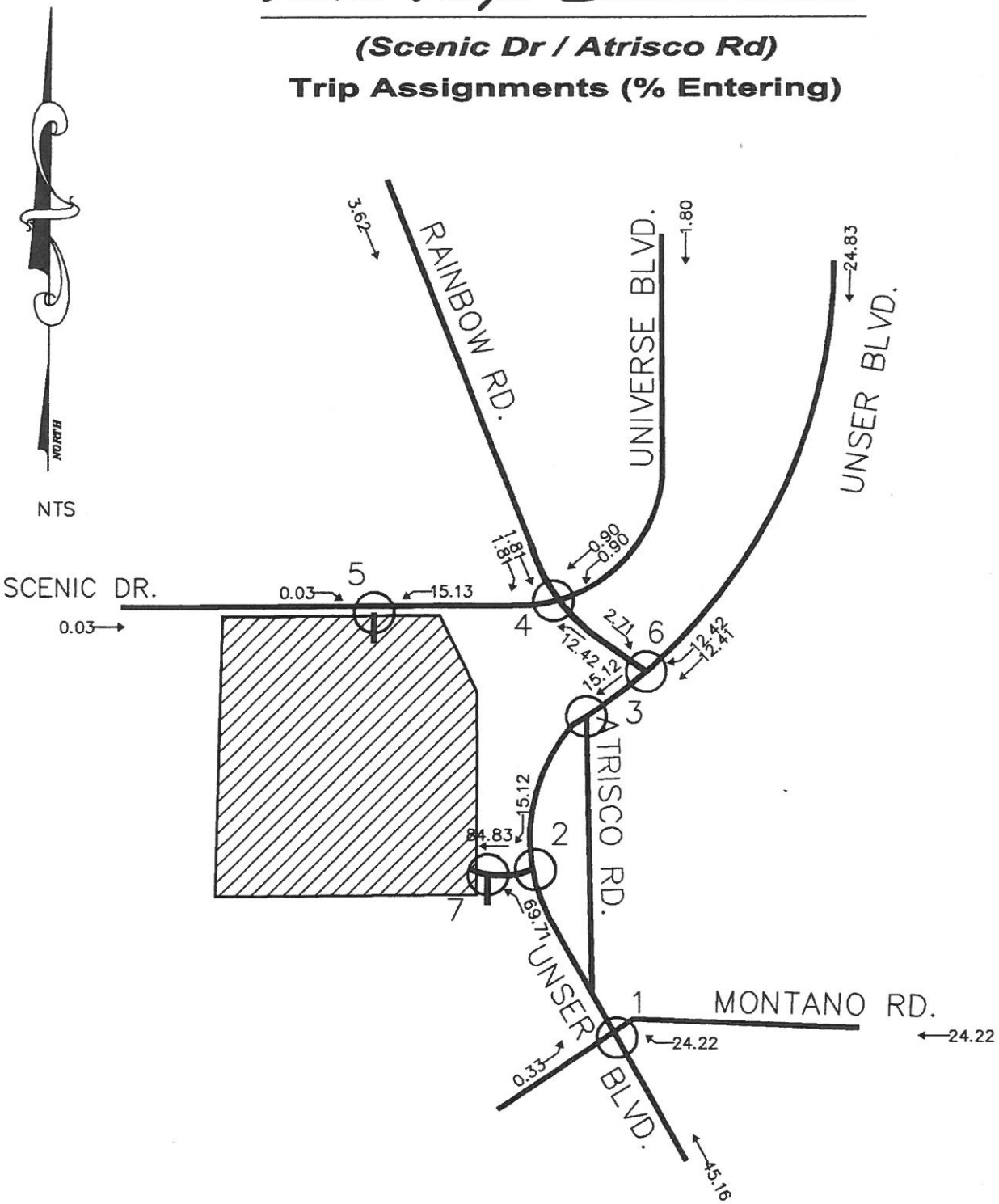
Vista Vieja Subdivision

(Scenic Dr / Atrisco Rd)

Trip Assignments (% Entering)



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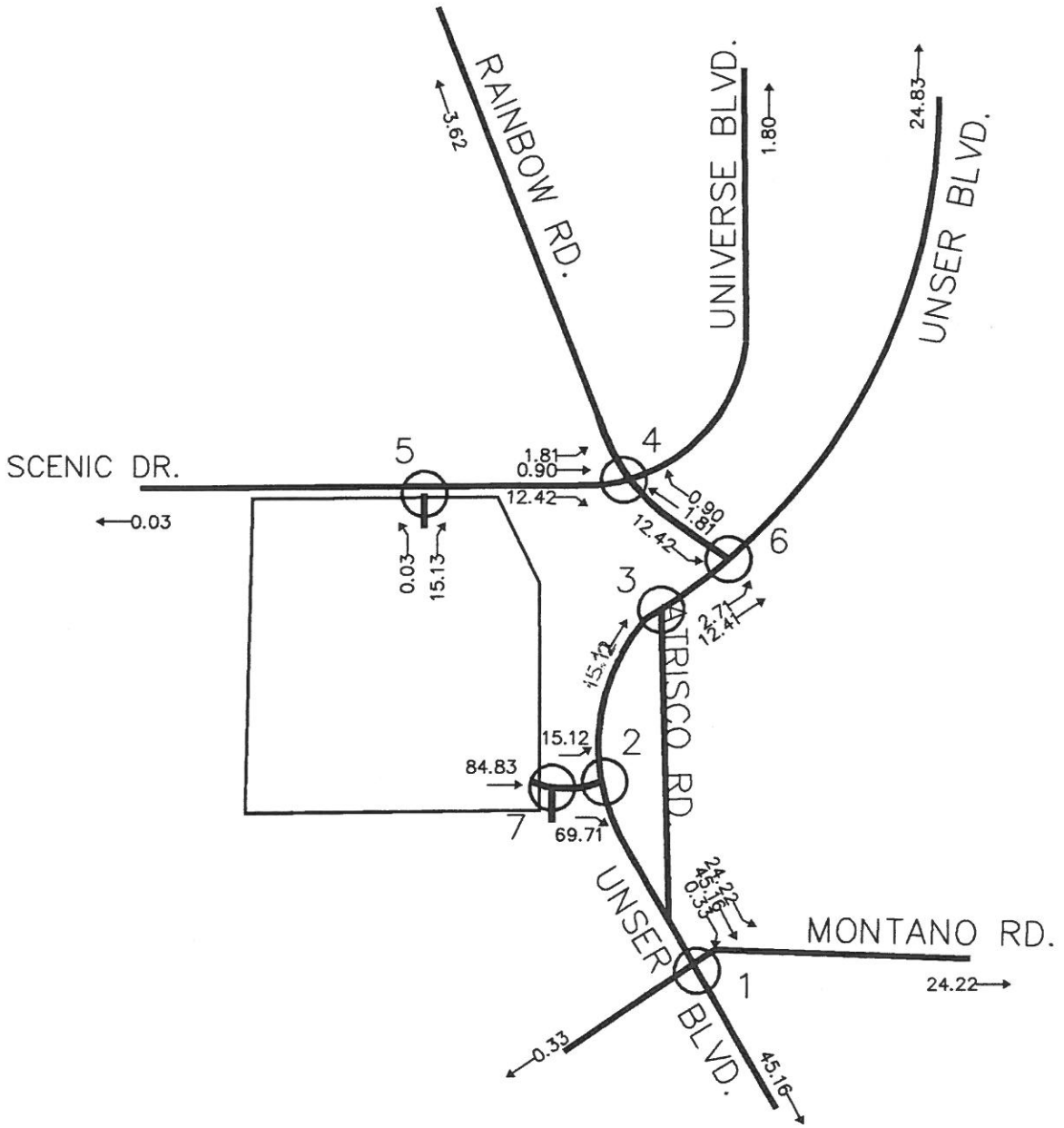
Vista Vieja Subdivision

(Scenic Dr / Atrisco Rd)

Trip Assignments (% Exiting)



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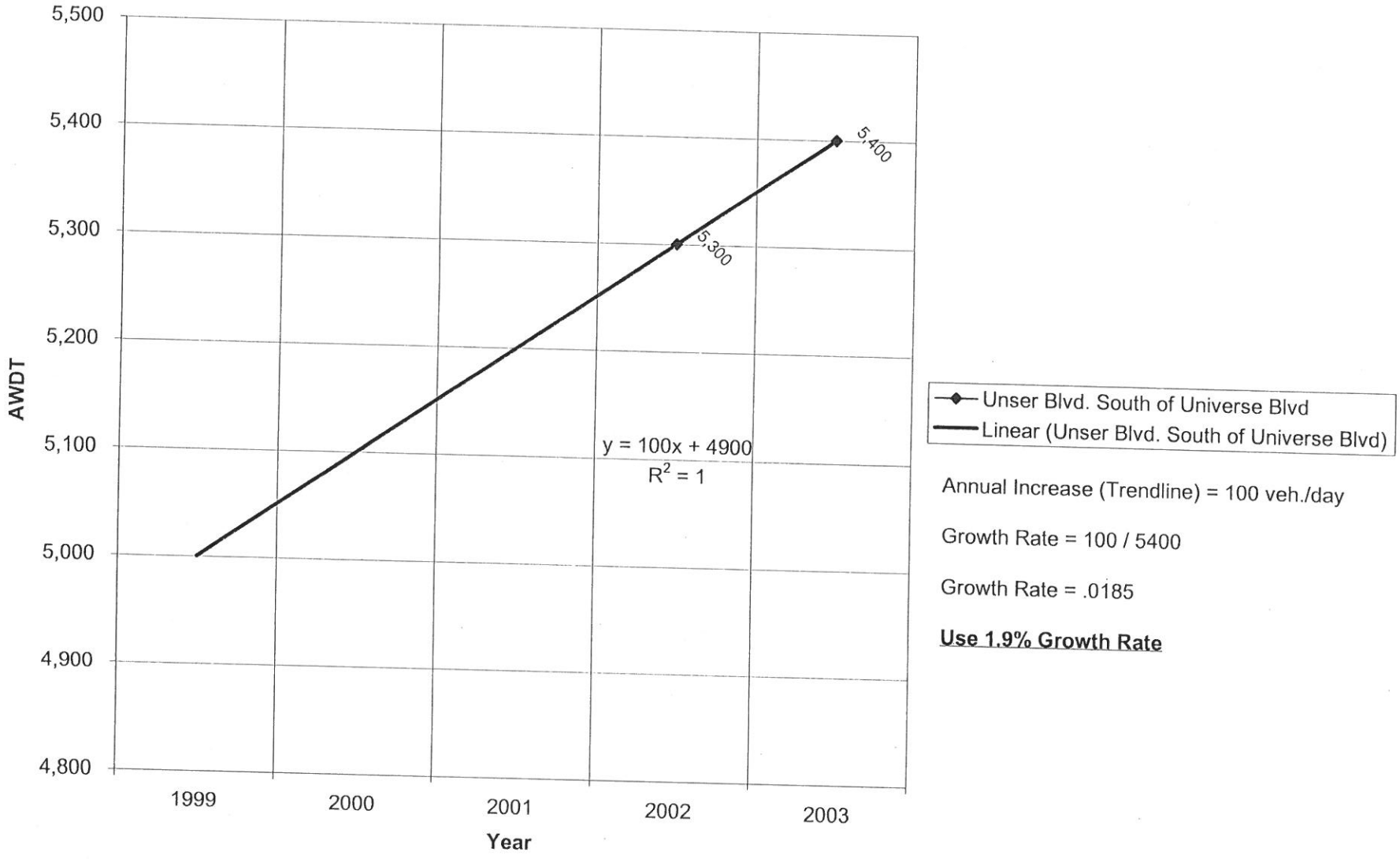
Vista Vieja Subdivision (Scenic Dr. / Atrisco Dr.)

Historic Growth Rate Table

Traffic Flows from MRCOG Map

	1999	2000	2001	2002	2003
Unser Blvd. South of Universe Blvd				5,300	5,400
Montaño Rd East of Unser Blvd	10,200	10,600	11,000	11,100	11,400
Unser Blvd. South of Montaño Rd	8,600	9,000	9,300	12,600	12,800

Historic Growth Chart Unser Blvd. South of Universe Blvd (1999-2003)



Annual Increase (Trendline) = 100 veh./day

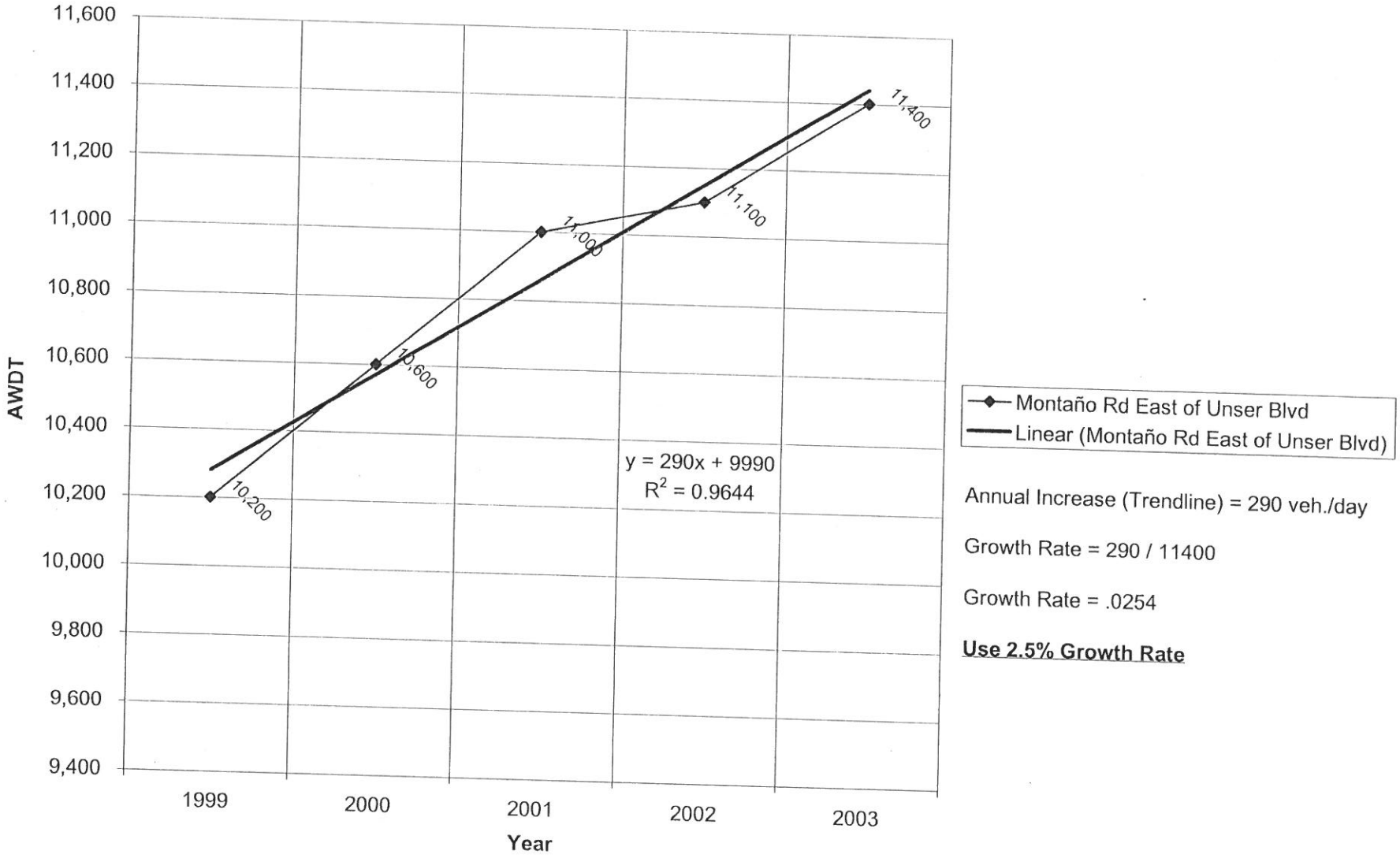
Growth Rate = 100 / 5400

Growth Rate = .0185

Use 1.9% Growth Rate

VVieja_Growth.xls

Historic Growth Chart Montaño Rd East of Unser Blvd (1999-2003)



Annual Increase (Trendline) = 290 veh./day

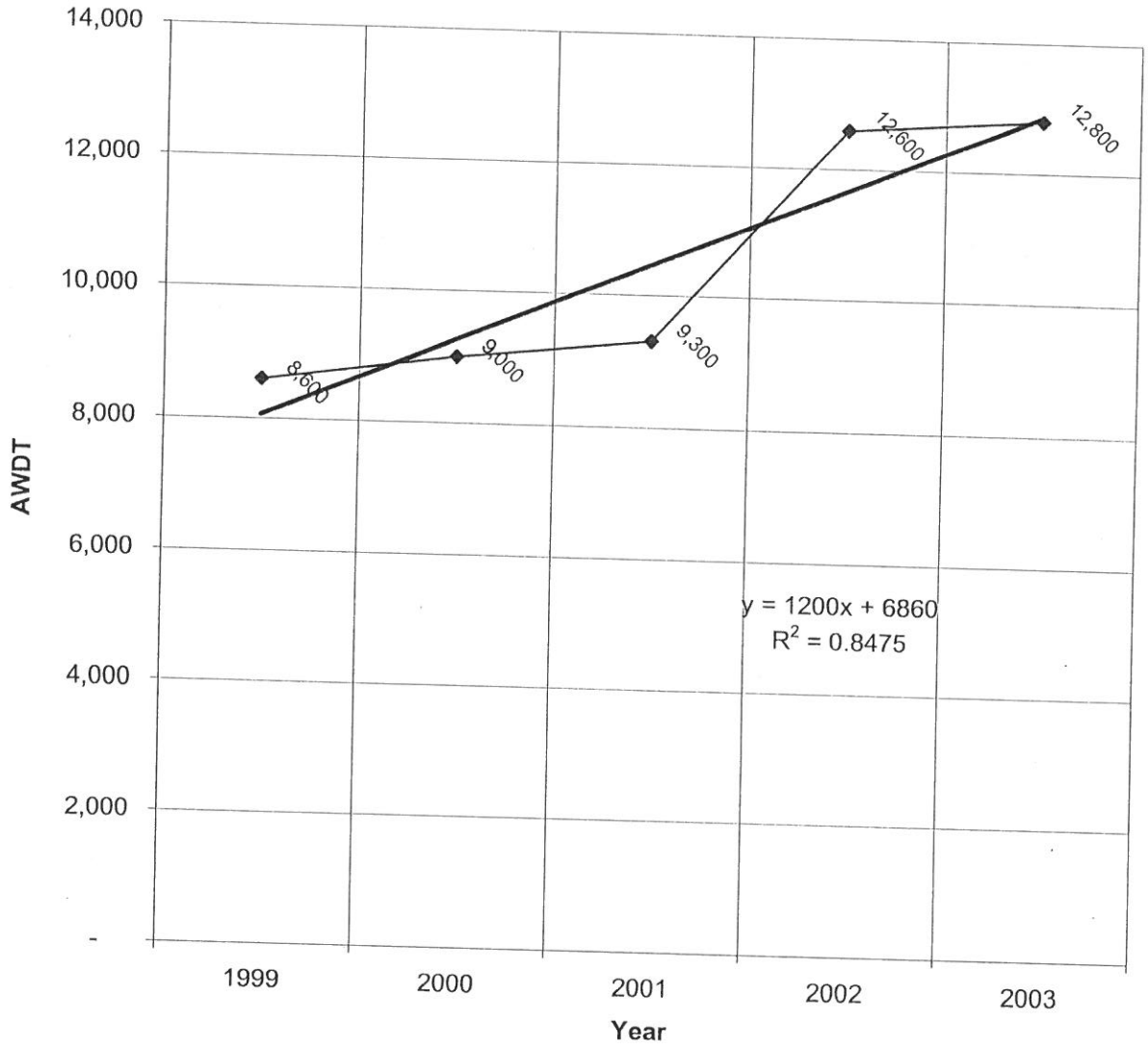
Growth Rate = 290 / 11400

Growth Rate = .0254

Use 2.5% Growth Rate

VVieja_Growth.xls

Historic Growth Chart Unser Blvd. South of Montaño Rd (1999-2003)



Annual Increase (Trendline) = 1200 veh./day

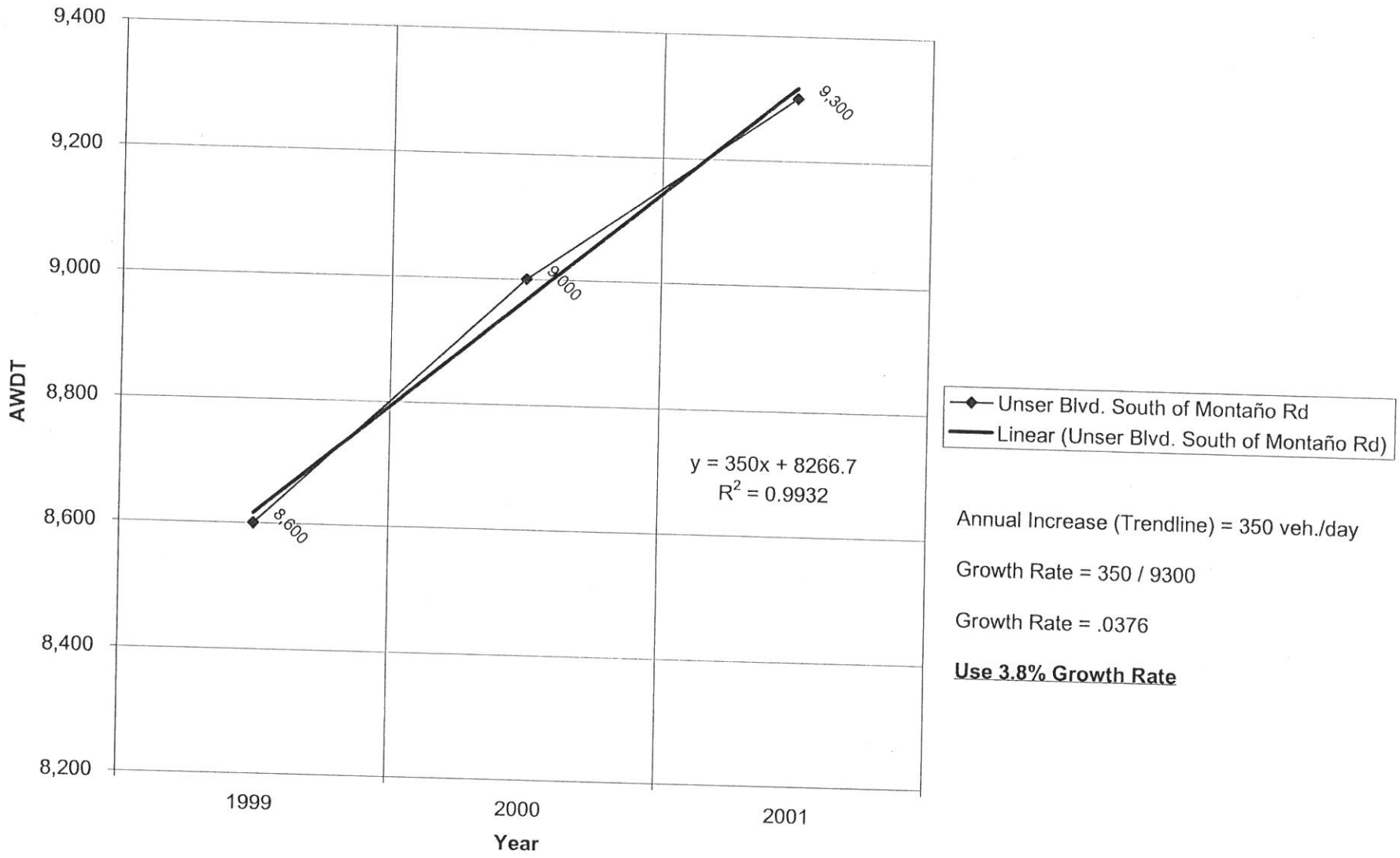
Growth Rate = 1200 / 12800

Growth Rate = .0937

9.4% Growth Rate is too high - try 1999-

VVieja_Growth.xls

Historic Growth Chart Unser Blvd. South of Montaño Rd (1999-2001)



Annual Increase (Trendline) = 350 veh./day

Growth Rate = 350 / 9300

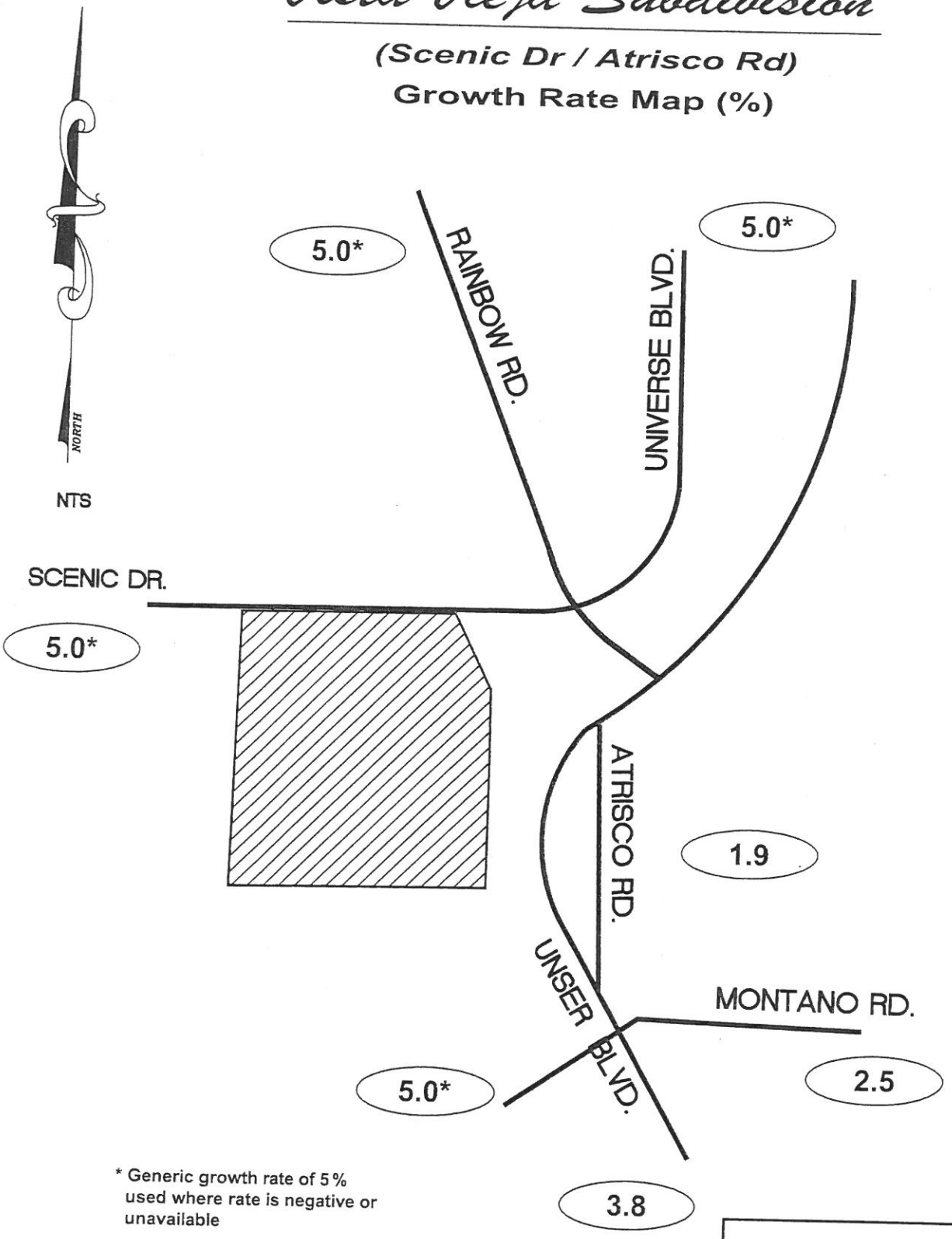
Growth Rate = .0376

Use 3.8% Growth Rate

VVieja_Growth.xls

Vista Vieja Subdivision

(Scenic Dr / Atrisco Rd)
Growth Rate Map (%)



* Generic growth rate of 5 % used where rate is negative or unavailable

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Vista Vieja Subdivision (Scenic Dr / Atrisco Dr)

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2008) - 50% Development

INTERSECTION: **Summary**

Montaño Rd / Unser Blvd

(1)

2.0% Truck

	0.70			0.80			0.83			0.85		PHF
	Eastbound (Montaño Rd)			Westbound (Montaño Rd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2005)	10	90	10	490	28	86	4	256	298	386	382	7
2008 (NO BUILD - A.M.)	*12*	*106*	*12*	*577*	*33*	*165*	*5*	*382*	*351*	*639*	*683*	*8*
2008 (BUILD - A.M.)	***12***	***106***	***12***	***577***	***33***	***178***	***5***	***407***	***351***	***679***	***757***	***9***

	0.70			0.92			0.93			0.95		PHF
	Eastbound (Montaño Rd)			Westbound (Montaño Rd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2005)	14	90	8	358	150	294	12	626	485	237	190	18
2008 (NO BUILD - P.M.)	*17*	*106*	*9*	*421*	*176*	*562*	*14*	*1,008*	*571*	*397*	*371*	*21*
2008 (BUILD - P.M.)	***18***	***106***	***9***	***421***	***176***	***605***	***14***	***1,087***	***571***	***421***	***416***	***21***

Molten Rock Rd. / Unser Blvd

(2)

2.0% Truck

	0.85			0.85			0.85			0.85		PHF
	Eastbound (Molten Rock Rd.)			Westbound (Molten Rock Rd.)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2005)	0	0	0	0	0	0	0	352	0	0	775	0
2008 (NO BUILD - A.M.)	*39*	*0*	*90*	*10*	*0*	*4*	*30*	*414*	*3*	*1*	*912*	*13*
2008 (BUILD - A.M.)	***64***	***0***	***204***	***10***	***0***	***4***	***68***	***414***	***3***	***1***	***912***	***21***

	0.85			0.85			0.95			0.95		PHF
	Eastbound (Molten Rock Rd.)			Westbound (Molten Rock Rd.)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2005)	0	0	0	0	0	0	0	934	0	0	445	0
2008 (NO BUILD - P.M.)	*25*	*0*	*57*	*6*	*0*	*3*	*102*	*1,099*	*11*	*5*	*523*	*44*
2008 (BUILD - P.M.)	***40***	***0***	***126***	***6***	***0***	***3***	***225***	***1,099***	***11***	***5***	***523***	***71***

Universe Blvd. / Unser Blvd.

(3)

2.0% Truck

	0.75			0.86			0.78			0.85		PHF
	Eastbound (Universe Blvd.)			Westbound (Universe Blvd.)			Northbound (Unser Blvd.)			Southbound (Unser Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2005)	2	5	2	438	2	0	5	1	191	0	0	0
2008 (NO BUILD - A.M.)	*2*	*21*	*2*	*824*	*46*	*0*	*6*	*1*	*332*	*0*	*0*	*0*
2008 (BUILD - A.M.)	***2***	***46***	***2***	***824***	***54***	***0***	***6***	***1***	***332***	***0***	***0***	***0***

	0.80			0.85			0.94			0.85		PHF
	Eastbound (Universe Blvd.)			Westbound (Universe Blvd.)			Northbound (Unser Blvd.)			Southbound (Unser Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2005)	0	6	10	199	4	1	4	1	430	0	0	0
2008 (NO BUILD - P.M.)	*0*	*56*	*12*	*433*	*33*	*1*	*5*	*1*	*872*	*0*	*0*	*0*
2008 (BUILD - P.M.)	***0***	***71***	***12***	***433***	***60***	***1***	***5***	***1***	***872***	***0***	***0***	***0***

Vista Vieja Subdivision (Scenic Dr / Atrisco Dr)

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2008) - 50% Development

INTERSECTION: **Summary**

Universe Blvd. / Rainbow Rd.

(4)

2.0% Truck

	0.85			0.85			0.85			0.85		PHF
	Eastbound (Universe Blvd.)			Westbound (Universe Blvd.)			Northbound (Rainbow Rd.)			Southbound (Rainbow Rd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2005)	0	0	0	440	0	0	0	0	192	0	0	0
2008 (NO BUILD - A.M.)	*0*	*0*	*0*	*507*	*0*	*0*	*0*	*5*	*224*	*0*	*2*	*0*
2008 (BUILD - A.M.)	***3***	***1***	***20***	***507***	***0***	***0***	***7***	***8***	***225***	***0***	***3***	***1***

	0.85			0.85			0.85			0.85		PHF
	Eastbound (Universe Blvd.)			Westbound (Universe Blvd.)			Northbound (Rainbow Rd.)			Southbound (Rainbow Rd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2005)	0	0	0	204	0	0	0	0	431	0	0	0
2008 (NO BUILD - P.M.)	*0*	*0*	*0*	*238*	*0*	*0*	*0*	*3*	*498*	*0*	*6*	*0*
2008 (BUILD - P.M.)	***2***	***1***	***12***	***240***	***2***	***0***	***22***	***5***	***499***	***0***	***9***	***3***

Scenic Dr. / Driveway "A"

(5)

2.0% Truck

	0.85			0.85			0.85			0.85		PHF
	Eastbound (Scenic Dr.)			Westbound (Scenic Dr.)			Northbound (Driveway "A")			Southbound (Driveway "A")		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2005)	0	0	0	0	0	0	0	0	0	0	0	0
2008 (NO BUILD - A.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
2008 (BUILD - A.M.)	***0***	***0***	***0***	***8***	***0***	***0***	***0***	***0***	***25***	***0***	***0***	***0***

	0.85			0.85			0.85			0.85		PHF
	Eastbound (Scenic Dr.)			Westbound (Scenic Dr.)			Northbound (Driveway "A")			Southbound (Driveway "A")		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2005)	0	0	0	0	0	0	0	0	0	0	0	0
2008 (NO BUILD - P.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
2008 (BUILD - P.M.)	***0***	***0***	***0***	***27***	***0***	***0***	***0***	***0***	***15***	***0***	***0***	***0***

Rainbow Rd. / Unser Blvd.

(6)

2.0% Truck

	0.85			0.85			0.86			0.86		PHF
	Eastbound (Rainbow Rd.)			Westbound (Rainbow Rd.)			Northbound (Unser Blvd.)			Southbound (Unser Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2005)	0	0	0	0	0	0	196	196	0	0	440	440
2008 (NO BUILD - A.M.)	*0*	*0*	*3*	*0*	*0*	*0*	*233*	*261*	*0*	*0*	*518*	*506*
2008 (BUILD - A.M.)	***20***	***0***	***4***	***0***	***0***	***0***	***237***	***281***	***0***	***0***	***525***	***513***

	0.85			0.85			0.85			0.85		PHF
	Eastbound (Rainbow Rd.)			Westbound (Rainbow Rd.)			Northbound (Unser Blvd.)			Southbound (Unser Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2005)	0	0	0	0	0	0	0	436	0	0	204	0
2008 (NO BUILD - P.M.)	*0*	*0*	*9*	*0*	*0*	*0*	*5*	*524*	*0*	*0*	*275*	*0*
2008 (BUILD - P.M.)	***12***	***0***	***14***	***0***	***0***	***0***	***8***	***536***	***0***	***0***	***297***	***22***

Molten Rock Rd. / SAD227 driveway

(7)

2.0% Truck

	0.85			0.85			0.85			0.85		PHF
	Eastbound (Molten Rock Rd.)			Westbound (Molten Rock Rd.)			Northbound (SAD227 driveway)			Southbound (SAD227 driveway)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2005)	0	0	0	0	0	0	0	0	0	0	0	0
2008 (NO BUILD - A.M.)	*0*	*0*	*0*	*43*	*0*	*0*	*0*	*0*	*130*	*0*	*0*	*0*
2008 (BUILD - A.M.)	***0***	***139***	***0***	***43***	***47***	***0***	***0***	***0***	***130***	***0***	***0***	***0***

	0.85			0.85			0.85			0.85		PHF
	Eastbound (Molten Rock Rd.)			Westbound (Molten Rock Rd.)			Northbound (SAD227 driveway)			Southbound (SAD227 driveway)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2005)	0	0	0	0	0	0	0	0	0	0	0	0
2008 (NO BUILD - P.M.)	*0*	*0*	*0*	*147*	*0*	*0*	*0*	*0*	*82*	*0*	*0*	*0*
2008 (BUILD - P.M.)	***0***	***84***	***0***	***147***	***149***	***0***	***0***	***0***	***82***	***0***	***0***	***0***

Vista Vieja Subdivision (Scenic Dr / Atrisco Dr)

Projected Turning Movements Worksheet

Montaño Rd / Unser Blvd

INTERSECTION: E-W Street: **Montaño Rd** (1)

N-S Street: **Unser Blvd**

Year of Existing Counts 2008 Existing volumes taken from Paragon Properties TIS 2008 BUILD volumes which include

Implementation Year **2008** Paragon Properties, Black Mtn. Ranch and Ventana West generated trips (included in appendix)

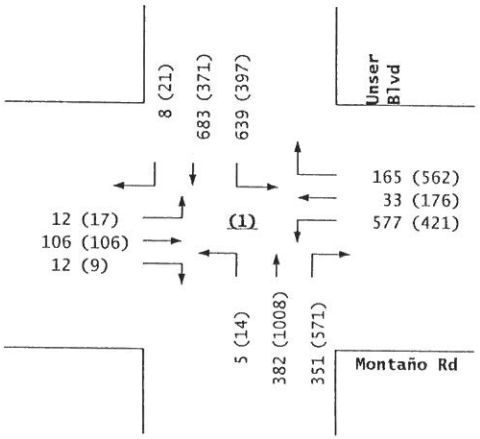
	Growth Rates	5.00%			5.00%			5.00%			5.00%		
		Eastbound (Montaño Rd)			Westbound (Montaño Rd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes		12	106	12	577	33	101	5	301	351	454	450	8
Background Traffic Growth		0	0	0	0	0	0	0	0	0	0	0	0
Subtotal		12	106	12	577	33	101	5	301	351	454	450	8
SAD 227		0	0	0	0	0	12	0	22	0	35	65	0
La Cuentista Subdivision		0	0	0	0	0	52	0	59	0	150	168	0
Subtotal (NO BUILD - A.M.)		***12***	***106***	***12***	***577***	***33***	***165***	***5***	***382***	***351***	***639***	***683***	***8***
Percent Residential Trips Generated(Entering)		*0.33%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*24.22%*	*0.00%*	*45.16%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Residential Trips Generated(Exiting)		*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*24.22%*	*45.16%*	*0.33%*
Total Trips Generated		0	0	0	0	0	13	0	25	0	40	74	1
Total AM Peak Hour BUILD Volumes		**12**	**106**	**12**	**577**	**33**	**178**	**5**	**407**	**351**	**679**	**757**	**9**

	Eastbound (Montaño Rd)			Westbound (Montaño Rd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	17	106	9	421	176	346	14	736	571	279	223	21
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	17	106	9	421	176	346	14	736	571	279	223	21
SAD 227	0	0	0	0	0	39	0	74	0	22	41	0
La Cuentista Subdivision	0	0	0	0	0	177	0	198	0	96	107	0
Subtotal (NO BUILD - P.M.)	***17***	***106***	***9***	***421***	***176***	***562***	***14***	***1,008***	***571***	***397***	***371***	***21***
Percent Residential Trips Generated(Entering)	*0.33%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*24.22%*	*0.00%*	*45.16%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Residential Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*24.22%*	*45.16%*	*0.33%*
Total Trips Generated	1	0	0	0	0	43	0	79	0	24	45	0
Total PM Peak Hour BUILD Volumes	**18**	**106**	**9**	**421**	**176**	**605**	**14**	**1,087**	**571**	**421**	**416**	**21**

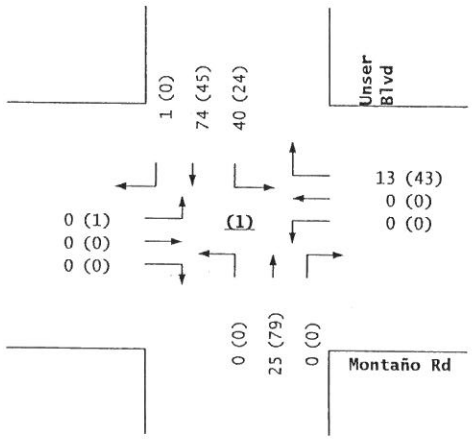
	Entering	Exiting		
Number of Residential Trips Generated	**55**	**164**	A.M.	50% Residential Development
	176	**99**	P.M.	

	Eastbound (Montaño Rd)			Westbound (Montaño Rd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
2005 AM Peak Hr. Volumes	10	90	10	490	28	86	4	256	298	386	382	7
2005 PM Peak Hr. Volumes	14	90	8	358	150	294	12	626	485	237	190	18

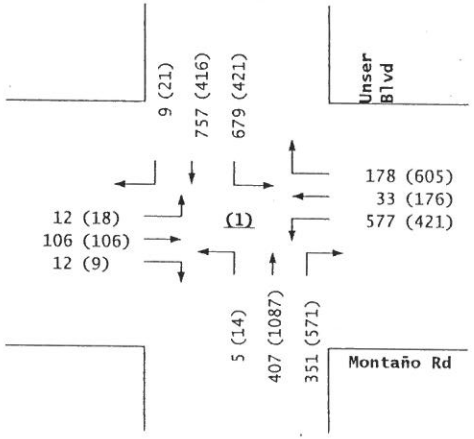
2008
NO BUILD



Trips



2008
BUILD



Montaño Rd / Unser Blvd

Vista Vieja Subdivision (Scenic Dr / Atrisco Dr)

Projected Turning Movements Worksheet

Molten Rock Rd. / Unser Blvd

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

N-S Street: **Unser Blvd**

Year of Existing Counts 2008

Implementation Year **2008**

Growth Rates 5.00% 5.00% 5.00% 5.00%

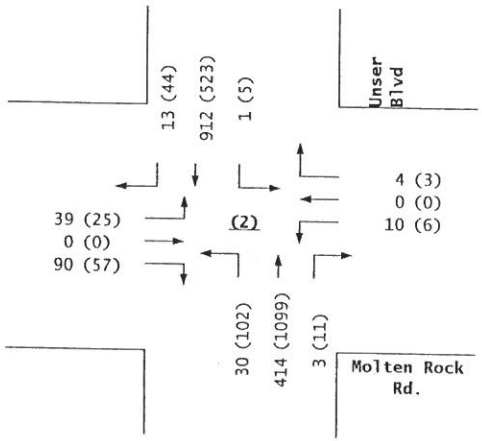
	Eastbound (Molten Rock Rd.)			Westbound (Molten Rock Rd.)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	414	0	0	912	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	0	0	0	0	0	0	0	414	0	0	912	0
SAD 227	39	0	90	10	0	4	30	0	3	1	0	13
Subtotal (NO BUILD - A.M.)	***39***	***0***	***90***	***10***	***0***	***4***	***30***	***414***	***3***	***1***	***912***	***13***
Percent Residential Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***69.71%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***15.12%***
Percent Residential Trips Generated(Exiting)	***15.12%***	*0.00%*	***69.71%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	25	0	114	0	0	0	38	0	0	0	0	8
Total AM Peak Hour BUILD Volumes	**64**	**0**	**204**	**10**	**0**	**4**	**68**	**414**	**3**	**1**	**912**	**21**

	Eastbound (Molten Rock Rd.)			Westbound (Molten Rock Rd.)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	1,099	0	0	523	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	0	0	0	0	0	0	0	1,099	0	0	523	0
SAD 227	25	0	57	6	0	3	102	0	11	5	0	44
Subtotal (NO BUILD - P.M.)	***25***	***0***	***57***	***6***	***0***	***3***	***102***	***1,099***	***11***	***5***	***523***	***44***
Percent Residential Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***69.71%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***15.12%***
Percent Residential Trips Generated(Exiting)	***15.12%***	*0.00%*	***69.71%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	15	0	69	0	0	0	123	0	0	0	0	27
Total PM Peak Hour BUILD Volumes	**40**	**0**	**126**	**6**	**0**	**3**	**225**	**1,099**	**11**	**5**	**523**	**71**

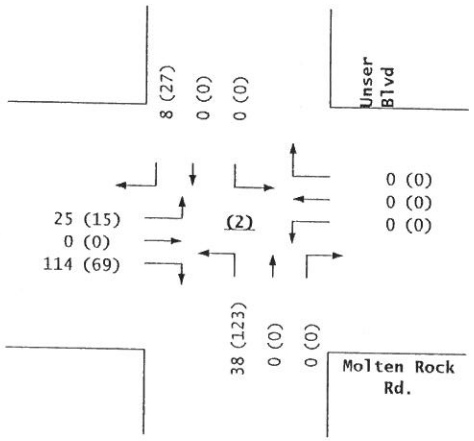
	Entering	Exiting		
Number of Residential Trips Generated	55	164	A.M.	50% Residential Development
	176	99	P.M.	

	Eastbound (Molten Rock Rd.)			Westbound (Molten Rock Rd.)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
2005 AM Peak Hr. Volumes	0	0	0	0	0	0	0	352	0	0	775	0
2005 PM Peak Hr. Volumes	0	0	0	0	0	0	0	934	0	0	445	0

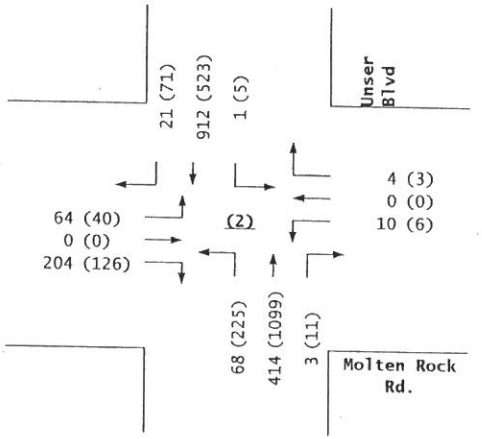
2008
NO BUILD



Trips



2008
BUILD



Molten Rock Rd. / Unser Blvd

Vista Vieja Subdivision (Scenic Dr / Atrisco Dr)

Projected Turning Movements Worksheet

Universe Blvd. / Unser Blvd.

INTERSECTION: E-W Street: **Universe Blvd.** (3)

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

Year of Existing Counts 2005

Implementation Year **2008**

NOTE: WB left traffic and NB right traffic was split between Universe / Unser and Universe / Rainbow and distributed through Unser / Rainbow to simulate 2008 traffic conditions

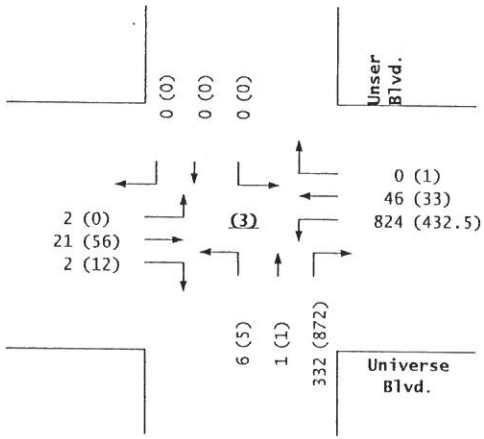
Growth Rates	5.00%			5.00%			5.00%			5.00%		
	Eastbound (Universe Blvd.)			Westbound (Universe Blvd.)			Northbound (Unser Blvd.)			Southbound (Unser Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	2	5	2	438	2	0	5	1	191	0	0	0
Background Traffic Growth	0	1	0	66	0	0	1	0	29	0	0	0
Subtotal	2	6	2	504	2	0	6	1	220	0	0	0
SAD 227	0	15	0	0	44	0	0	0	0	0	0	0
La Cuentista Subdivision	0	0	0	320	0	0	0	0	112	0	0	0
Subtotal (NO BUILD - A.M.)	***2***	***21***	***2***	***824***	***46***	***0***	***6***	***1***	***332***	***0***	***0***	***0***
Percent Residential Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*15.12%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Residential Trips Generated(Exiting)	*0.00%*	*15.12%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	25	0	0	8	0	0	0	0	0	0	0
Total AM Peak Hour BUILD Volumes	**2**	**46**	**2**	**824**	**54**	**0**	**6**	**1**	**332**	**0**	**0**	**0**

	Eastbound (Universe Blvd.)			Westbound (Universe Blvd.)			Northbound (Unser Blvd.)			Southbound (Unser Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	6	10	199	4	1	4	1	430	0	0	0
Background Traffic Growth	0	1	2	30	1	0	1	0	65	0	0	0
Subtotal	0	7	12	229	5	1	5	1	495	0	0	0
SAD 227	0	49	0	0	28	0	0	0	0	0	0	0
La Cuentista Subdivision	0	0	0	204	0	0	0	0	377	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***56***	***12***	***433***	***33***	***1***	***5***	***1***	***872***	***0***	***0***	***0***
Percent Residential Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*15.12%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Residential Trips Generated(Exiting)	*0.00%*	*15.12%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	15	0	0	27	0	0	0	0	0	0	0
Total PM Peak Hour BUILD Volumes	**0**	**71**	**12**	**433**	**60**	**1**	**5**	**1**	**872**	**0**	**0**	**0**

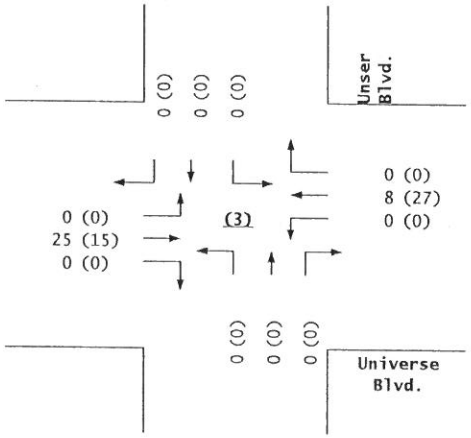
	Entering	Exiting		
Number of Residential Trips Generated	**55**	**164**	A.M.	50% Residential Development
	176	**99**	P.M.	

	Eastbound (Universe Blvd.)			Westbound (Universe Blvd.)			Northbound (Unser Blvd.)			Southbound (Unser Blvd.)		
2005 AM Peak Hr. Volumes	2	5	2	438	2	0	5	1	191	0	0	0
2005 PM Peak Hr. Volumes	0	6	10	199	4	1	4	1	430	0	0	0

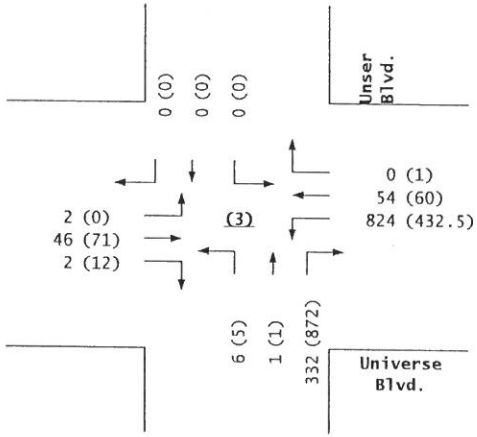
2008
NO BUILD



Trips



2008
BUILD



Universe Blvd. / Unser Blvd.

Vista Vieja Subdivision (Scenic Dr / Atrisco Dr)

Projected Turning Movements Worksheet

Universe Blvd. / Rainbow Rd.

INTERSECTION: E-W Street: **Universe Blvd.** (4)

N-S Street: **Rainbow Rd.**

Year of Existing Counts 2005

Implementation Year **2008**

NOTE: WB left traffic and NB right traffic was split between Universe / Unser and Universe / Rainbow and distributed through Unser / Rainbow to simulate 2008 traffic conditions

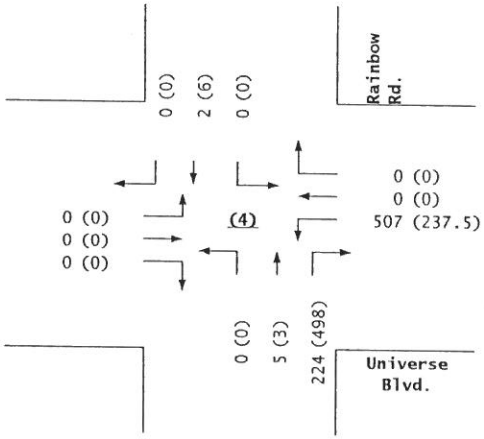
Growth Rates	5.00%			5.00%			5.00%			5.00%		
	Eastbound (Universe Blvd.)			Westbound (Universe Blvd.)			Northbound (Rainbow Rd.)			Southbound (Rainbow Rd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	440	0	0	0	0	192	0	0	0
Background Traffic Growth	0	0	0	66	0	0	0	0	29	0	0	0
Subtotal	0	0	0	506	0	0	0	0	221	0	0	0
SAD 227	0	0	0	1	0	0	0	5	3	0	2	0
Subtotal (NO BUILD - A.M.)	***0***	***0***	***0***	***507***	***0***	***0***	***0***	***5***	***224***	***0***	***2***	***0***
Percent Residential Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.90%*	*0.90%*	*0.00%*	*12.42%*	*0.00%*	*0.00%*	*0.00%*	*1.81%*	*1.81%*
Percent Residential Trips Generated(Exiting)	*1.81%*	*0.90%*	*12.42%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*1.81%*	*0.90%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	3	1	20	0	0	0	7	3	1	0	1	1
Total AM Peak Hour BUILD Volumes	**3**	**1**	**20**	**507**	**0**	**0**	**7**	**8**	**225**	**0**	**3**	**1**

	Eastbound (Universe Blvd.)			Westbound (Universe Blvd.)			Northbound (Rainbow Rd.)			Southbound (Rainbow Rd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	204	0	0	0	0	431	0	0	0
Background Traffic Growth	0	0	0	31	0	0	0	0	65	0	0	0
Subtotal	0	0	0	235	0	0	0	0	496	0	0	0
SAD 227	0	0	0	3	0	0	0	3	2	0	6	0
Subtotal (NO BUILD - P.M.)	***0***	***0***	***0***	***238***	***0***	***0***	***0***	***3***	***498***	***0***	***6***	***0***
Percent Residential Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.90%*	*0.90%*	*0.00%*	*12.42%*	*0.00%*	*0.00%*	*0.00%*	*1.81%*	*1.81%*
Percent Residential Trips Generated(Exiting)	*1.81%*	*0.90%*	*12.42%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*1.81%*	*0.90%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	2	1	12	2	2	0	22	2	1	0	3	3
Total PM Peak Hour BUILD Volumes	**2**	**1**	**12**	**240**	**2**	**0**	**22**	**5**	**499**	**0**	**9**	**3**

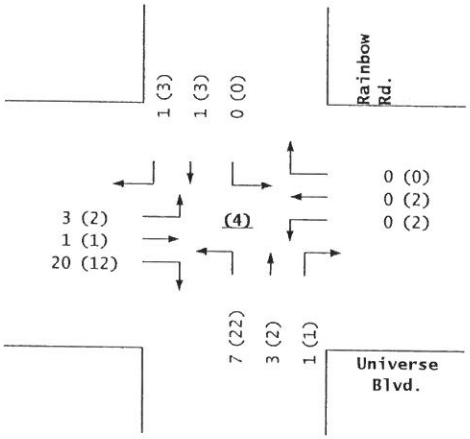
Number of Residential Trips Generated	Entering	Exiting		
	55	**164**	A.M.	50% Residential Development
	176	**99**	P.M.	

	Eastbound (Universe Blvd.)			Westbound (Universe Blvd.)			Northbound (Rainbow Rd.)			Southbound (Rainbow Rd.)		
2005 AM Peak Hr. Volumes	0	0	0	440	0	0	0	0	192	0	0	0
2005 PM Peak Hr. Volumes	0	0	0	204	0	0	0	0	431	0	0	0

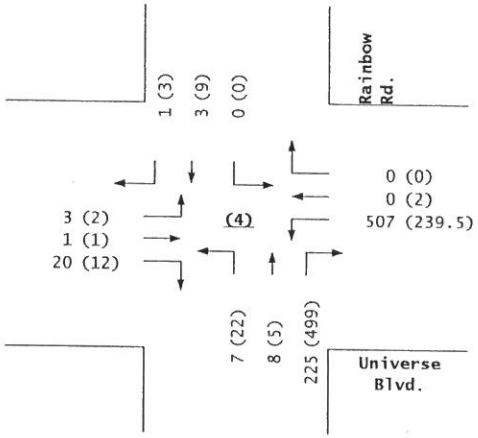
2008
NO BUILD



Trips



2008
BUILD



Universe Blvd. / Rainbow Rd.

Vista Vieja Subdivision (Scenic Dr / Atrisco Dr)

Projected Turning Movements Worksheet

Scenic Dr. / Driveway "A"

INTERSECTION: E-W Street: **Scenic Dr.** (5)

N-S Street: **Driveway "A"**

Year of Existing Counts 2005

Implementation Year **2008**

Growth Rates 5.00% 5.00% 5.00% 5.00%

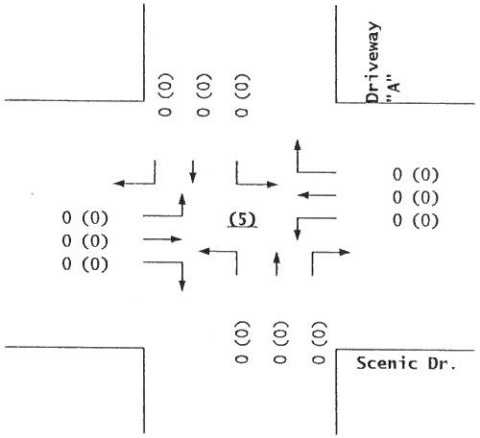
	Eastbound (Scenic Dr.)			Westbound (Scenic Dr.)			Northbound (Driveway "A")			Southbound (Driveway "A")		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Residential Trips Generated(Entering)	*0.00%*	*0.00%*	*0.03%*	*15.13%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Residential Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.03%*	*0.00%*	*15.13%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	8	0	0	0	0	25	0	0	0
Total AM Peak Hour BUILD Volumes	**0**	**0**	**0**	**8**	**0**	**0**	**0**	**0**	**25**	**0**	**0**	**0**

	Eastbound (Scenic Dr.)			Westbound (Scenic Dr.)			Northbound (Driveway "A")			Southbound (Driveway "A")		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Residential Trips Generated(Entering)	*0.00%*	*0.00%*	*0.03%*	*15.13%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Residential Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.03%*	*0.00%*	*15.13%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	27	0	0	0	0	15	0	0	0
Total PM Peak Hour BUILD Volumes	**0**	**0**	**0**	**27**	**0**	**0**	**0**	**0**	**15**	**0**	**0**	**0**

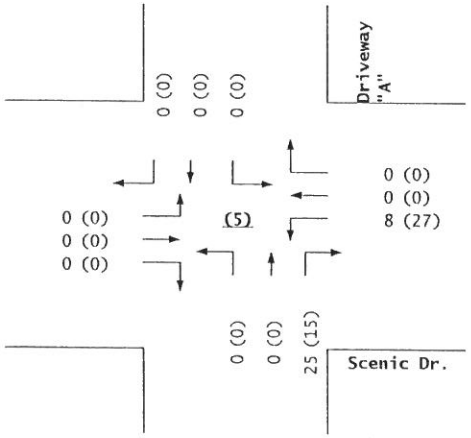
	Entering	Exiting		
Number of Residential Trips Generated	**55**	**164**	A.M.	50% Residential Development
	176	**99**	P.M.	

	Eastbound (Scenic Dr.)			Westbound (Scenic Dr.)			Northbound (Driveway "A")			Southbound (Driveway "A")		
2005 AM Peak Hr. Volumes	0	0	0	0	0	0	0	0	0	0	0	0
2005 PM Peak Hr. Volumes	0	0	0	0	0	0	0	0	0	0	0	0

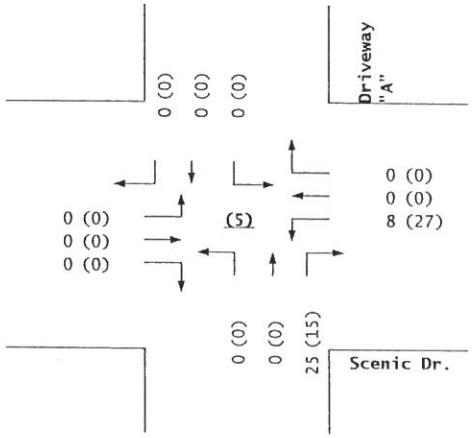
2008
NO BUILD



Trips



2008
BUILD



Scenic Dr. / Driveway "A"

Vista Vieja Subdivision (Scenic Dr / Atrisco Dr)

Projected Turning Movements Worksheet

Rainbow Rd. / Unser Blvd.

INTERSECTION: E-W Street: **Rainbow Rd.** (6)

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

Year of Existing Counts 2005

Implementation Year **2008**

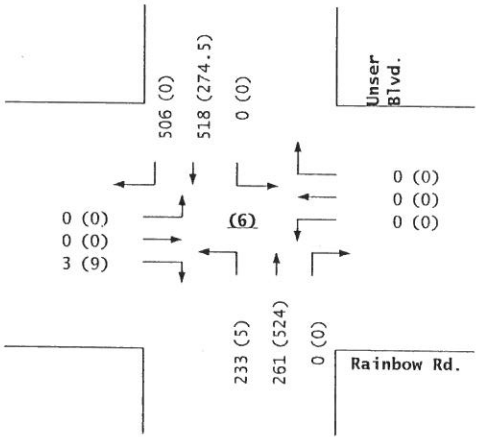
Growth Rates	5.00%			5.00%			5.00%			5.00%		
	Eastbound (Rainbow Rd.)			Westbound (Rainbow Rd.)			Northbound (Unser Blvd.)			Southbound (Unser Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	196	196	0	0	440	440
Background Traffic Growth	0	0	0	0	0	0	29	29	0	0	66	66
Subtotal	0	0	0	0	0	0	225	225	0	0	506	506
SAD 227	0	0	3	0	0	0	8	36	0	0	12	0
Subtotal (NO BUILD - A.M.)	***0***	***0***	***3***	***0***	***0***	***0***	***233***	***261***	***0***	***0***	***518***	***506***
Percent Residential Trips Generated(Entering)	*0.00%*	*0.00%*	*2.71%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*12.41%*	*12.42%*
Percent Residential Trips Generated(Exiting)	*12.42%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*2.71%*	*12.41%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	20	0	1	0	0	0	4	20	0	0	7	7
Total AM Peak Hour BUILD Volumes	**20**	**0**	**4**	**0**	**0**	**0**	**237**	**281**	**0**	**0**	**525**	**513**

	Eastbound (Rainbow Rd.)			Westbound (Rainbow Rd.)			Northbound (Unser Blvd.)			Southbound (Unser Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	436	0	0	204	0
Background Traffic Growth	0	0	0	0	0	0	0	65	0	0	31	0
Subtotal	0	0	0	0	0	0	0	501	0	0	235	0
SAD 227	0	0	9	0	0	0	5	23	0	0	40	0
Subtotal (NO BUILD - P.M.)	***0***	***0***	***9***	***0***	***0***	***0***	***5***	***524***	***0***	***0***	***275***	***0***
Percent Residential Trips Generated(Entering)	*0.00%*	*0.00%*	*2.71%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*12.41%*	*12.42%*
Percent Residential Trips Generated(Exiting)	*12.42%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*2.71%*	*12.41%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	12	0	5	0	0	0	3	12	0	0	22	22
Total PM Peak Hour BUILD Volumes	**12**	**0**	**14**	**0**	**0**	**0**	**8**	**536**	**0**	**0**	**297**	**22**

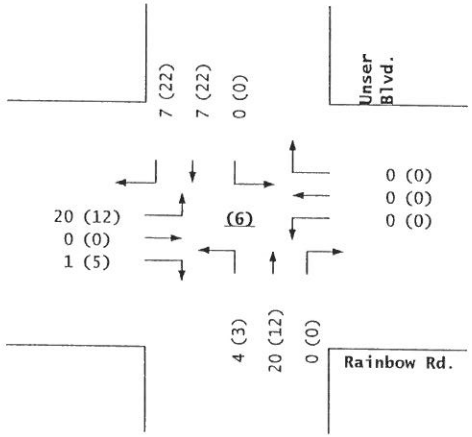
	Entering	Exiting		
Number of Residential Trips Generated	**55**	**164**	A.M.	50% Residential Development
	176	**99**	P.M.	

	Eastbound (Rainbow Rd.)			Westbound (Rainbow Rd.)			Northbound (Unser Blvd.)			Southbound (Unser Blvd.)		
2005 AM Peak Hr. Volumes	0	0	0	0	0	0	196	196	0	0	440	440
2005 PM Peak Hr. Volumes	0	0	0	0	0	0	0	436	0	0	204	0

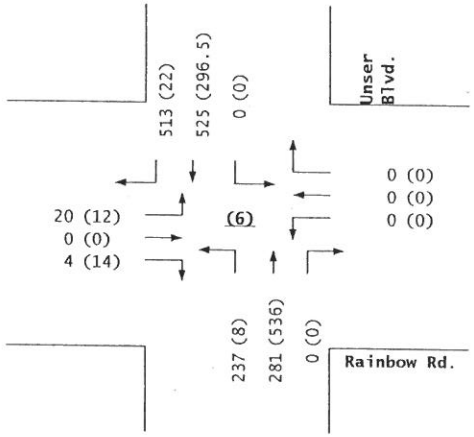
2008
NO BUILD



Trips



2008
BUILD



Rainbow Rd. / Unser Blvd.

Vista Vieja Subdivision (Scenic Dr / Atrisco Dr)

Projected Turning Movements Worksheet

Molten Rock Rd. / SAD227 driveway

INTERSECTION: E-W Street: **Molten Rock Rd.** (7)

N-S Street: **SAD227 driveway**

Year of Existing Counts 2008

Implementation Year **2008**

Growth Rates 5.00% 5.00% 5.00% 5.00%

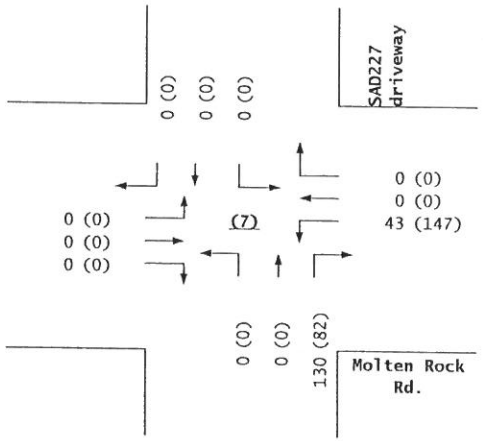
	Eastbound (Molten Rock Rd.)			Westbound (Molten Rock Rd.)			Northbound (SAD227 driveway)			Southbound (SAD227 driveway)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
SAD 227	0	0	0	43	0	0	0	0	130	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***0***	***0***	***43***	***0***	***0***	***0***	***0***	***130***	***0***	***0***	***0***
Percent Residential Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***84.83%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Residential Trips Generated(Exiting)	*0.00%*	***84.83%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	139	0	0	47	0	0	0	0	0	0	0
Total AM Peak Hour BUILD Volumes	**0**	**139**	**0**	**43**	**47**	**0**	**0**	**0**	**130**	**0**	**0**	**0**

	Eastbound (Molten Rock Rd.)			Westbound (Molten Rock Rd.)			Northbound (SAD227 driveway)			Southbound (SAD227 driveway)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
SAD 227	0	0	0	147	0	0	0	0	82	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***0***	***0***	***147***	***0***	***0***	***0***	***0***	***82***	***0***	***0***	***0***
Percent Residential Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***84.83%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Residential Trips Generated(Exiting)	*0.00%*	***84.83%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	84	0	0	149	0	0	0	0	0	0	0
Total PM Peak Hour BUILD Volumes	**0**	**84**	**0**	**147**	**149**	**0**	**0**	**0**	**82**	**0**	**0**	**0**

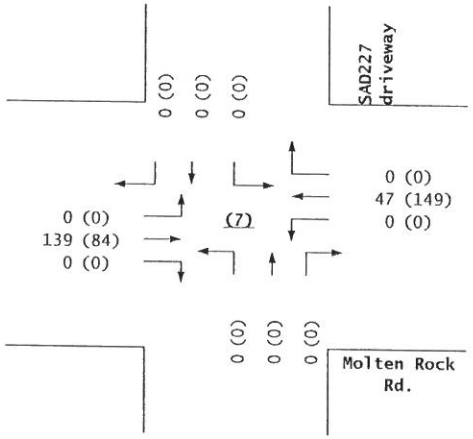
	Entering	Exiting		
Number of Residential Trips Generated	**55**	**164**	A.M.	50% Residential Development
	176	**99**	P.M.	

	Eastbound (Molten Rock Rd.)			Westbound (Molten Rock Rd.)			Northbound (SAD227 driveway)			Southbound (SAD227 driveway)		
2005 AM Peak Hr. Volumes	0	0	0	0	0	0	0	0	0	0	0	0
2005 PM Peak Hr. Volumes	0	0	0	0	0	0	0	0	0	0	0	0

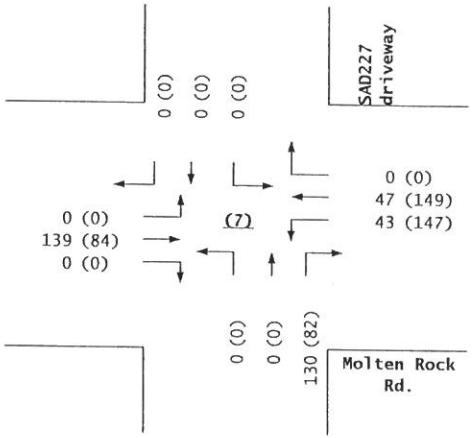
2008
NO BUILD



Trips



2008
BUILD



Molten Rock Rd. / SAD227 driveway

Vista Vieja Subdivision (Scenic Dr / Atrisco Dr)

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2011) - 100% Development

INTERSECTION: **Summary**

Montaño Rd / Unser Blvd (1)

2.0% Truck	0.70			0.80			0.83			0.85			PHF
	Eastbound (Montaño Rd)			Westbound (Montaño Rd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2005)	10	90	10	490	28	86	4	256	298	386	382	7	
2011 (NO BUILD - A.M.)	14	122	14	664	38	180	6	427	404	707	751	9	
2011 (BUILD - A.M.)	**14**	**122**	**14**	**664**	**38**	**206**	**6**	**476**	**404**	**786**	**899**	**10**	

	0.70			0.92			0.93			0.95			PHF
	Eastbound (Montaño Rd)			Westbound (Montaño Rd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2005)	14	90	8	358	150	294	12	626	485	237	190	18	
2011 (NO BUILD - P.M.)	20	122	10	484	202	614	16	1,118	657	439	404	24	
2011 (BUILD - P.M.)	**21**	**122**	**10**	**484**	**202**	**699**	**16**	**1,277**	**657**	**487**	**493**	**25**	

Molten Rock Rd. / Unser Blvd (2)

2.0% Truck	0.85			0.85			0.85			0.85			PHF
	Eastbound (Molten Rock Rd.)			Westbound (Molten Rock Rd.)			Northbound (Unser Blvd)			Southbound (Unser Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2005)	0	0	0	0	0	0	0	352	0	0	775	0	
2011 (NO BUILD - A.M.)	39	0	90	10	0	4	30	476	3	1	1,049	13	
2011 (BUILD - A.M.)	**89**	**0**	**319**	**10**	**0**	**4**	**106**	**476**	**3**	**1**	**1,049**	**29**	

	0.85			0.85			0.95			0.95			PHF
	Eastbound (Molten Rock Rd.)			Westbound (Molten Rock Rd.)			Northbound (Unser Blvd)			Southbound (Unser Blvd)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2005)	0	0	0	0	0	0	0	934	0	0	445	0	
2011 (NO BUILD - P.M.)	25	0	57	6	0	3	102	1,264	11	5	601	44	
2011 (BUILD - P.M.)	**55**	**0**	**195**	**6**	**0**	**3**	**347**	**1,264**	**11**	**5**	**601**	**97**	

Universe Blvd. / Unser Blvd. (3)

2.0% Truck	0.75			0.86			0.78			0.85			PHF
	Eastbound (Universe Blvd.)			Westbound (Universe Blvd.)			Northbound (Unser Blvd.)			Southbound (Unser Blvd.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2005)	2	5	2	438	2	0	5	1	191	0	0	0	
2011 (NO BUILD - A.M.)	3	22	3	889	47	0	7	1	360	0	0	0	
2011 (BUILD - A.M.)	**3**	**72**	**3**	**889**	**63**	**0**	**7**	**1**	**360**	**0**	**0**	**0**	

	0.80			0.85			0.94			0.85			PHF
	Eastbound (Universe Blvd.)			Westbound (Universe Blvd.)			Northbound (Unser Blvd.)			Southbound (Unser Blvd.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2005)	0	6	10	199	4	1	4	1	430	0	0	0	
2011 (NO BUILD - P.M.)	0	57	13	463	33	1	5	1	936	0	0	0	
2011 (BUILD - P.M.)	**0**	**87**	**13**	**463**	**86**	**1**	**5**	**1**	**936**	**0**	**0**	**0**	

Universe Blvd. / Rainbow Rd. (4)

2.0% Truck	0.85			0.85			0.85			0.85			PHF
	Eastbound (Universe Blvd.)			Westbound (Universe Blvd.)			Northbound (Rainbow Rd.)			Southbound (Rainbow Rd.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2005)	0	0	0	440	0	0	0	0	192	0	0	0	
2011 (NO BUILD - A.M.)	0	0	0	573	0	0	0	5	252	0	2	0	
2011 (BUILD - A.M.)	**6**	**3**	**41**	**574**	**1**	**0**	**14**	**11**	**255**	**0**	**4**	**2**	

	0.85			0.85			0.85			0.85			PHF
	Eastbound (Universe Blvd.)			Westbound (Universe Blvd.)			Northbound (Rainbow Rd.)			Southbound (Rainbow Rd.)			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2005)	0	0	0	204	0	0	0	0	431	0	0	0	
2011 (NO BUILD - P.M.)	0	0	0	268	0	0	0	3	562	0	6	0	
2011 (BUILD - P.M.)	**4**	**2**	**25**	**271**	**3**	**0**	**44**	**7**	**564**	**0**	**12**	**6**	

Vista Vieja Subdivision (Scenic Dr / Atrisco Dr)

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2011) - 100% Development

INTERSECTION: **Summary**

Scenic Dr. / Driveway "A"

(5)

2.0% Truck

	0.85			0.85			0.85			0.85		PHF
	Eastbound (Scenic Dr.)			Westbound (Scenic Dr.)			Northbound (Driveway "A")			Southbound (Driveway "A")		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2005)	0	0	0	0	0	0	0	0	0	0	0	0
2011 (NO BUILD - A.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
2011 (BUILD - A.M.)	***0***	***0***	***0***	***16***	***0***	***0***	***0***	***0***	***50***	***0***	***0***	***0***

	0.85			0.85			0.85			0.85		PHF
	Eastbound (Scenic Dr.)			Westbound (Scenic Dr.)			Northbound (Driveway "A")			Southbound (Driveway "A")		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2005)	0	0	0	0	0	0	0	0	0	0	0	0
2011 (NO BUILD - P.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
2011 (BUILD - P.M.)	***0***	***0***	***0***	***53***	***0***	***0***	***0***	***0***	***30***	***0***	***0***	***0***

Rainbow Rd. / Unser Blvd.

(6)

2.0% Truck

	0.85			0.85			0.86			0.86		PHF
	Eastbound (Rainbow Rd.)			Westbound (Rainbow Rd.)			Northbound (Unser Blvd.)			Southbound (Unser Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2005)	0	0	0	0	0	0	196	196	0	0	440	440
2011 (NO BUILD - A.M.)	*0*	*0*	*3*	*0*	*0*	*0*	*263*	*291*	*0*	*0*	*584*	*572*
2011 (BUILD - A.M.)	***41***	***0***	***6***	***0***	***0***	***0***	***272***	***332***	***0***	***0***	***598***	***586***

	0.85			0.85			0.85			0.85		PHF
	Eastbound (Rainbow Rd.)			Westbound (Rainbow Rd.)			Northbound (Unser Blvd.)			Southbound (Unser Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2005)	0	0	0	0	0	0	0	436	0	0	204	0
2011 (NO BUILD - P.M.)	*0*	*0*	*9*	*0*	*0*	*0*	*5*	*590*	*0*	*0*	*305*	*0*
2011 (BUILD - P.M.)	***25***	***0***	***19***	***0***	***0***	***0***	***10***	***615***	***0***	***0***	***349***	***44***

Molten Rock Rd. / SAD227 driveway

(7)

2.0% Truck

	0.85			0.85			0.85			0.85		PHF
	Eastbound (Molten Rock Rd.)			Westbound (Molten Rock Rd.)			Northbound (SAD227 driveway)			Southbound (SAD227 driveway)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2005)	0	0	0	0	0	0	0	0	0	0	0	0
2011 (NO BUILD - A.M.)	*0*	*0*	*0*	*43*	*0*	*0*	*0*	*0*	*130*	*0*	*0*	*0*
2011 (BUILD - A.M.)	***0***	***278***	***0***	***43***	***92***	***0***	***0***	***0***	***130***	***0***	***0***	***0***

	0.85			0.85			0.85			0.85		PHF
	Eastbound (Molten Rock Rd.)			Westbound (Molten Rock Rd.)			Northbound (SAD227 driveway)			Southbound (SAD227 driveway)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2005)	0	0	0	0	0	0	0	0	0	0	0	0
2011 (NO BUILD - P.M.)	*0*	*0*	*0*	*147*	*0*	*0*	*0*	*0*	*82*	*0*	*0*	*0*
2011 (BUILD - P.M.)	***0***	***168***	***0***	***147***	***298***	***0***	***0***	***0***	***82***	***0***	***0***	***0***

Vista Vieja Subdivision (Scenic Dr / Atrisco Dr)

Projected Turning Movements Worksheet

Montaño Rd / Unser Blvd

INTERSECTION: E-W Street: **Montaño Rd** (1)

N-S Street: **Unser Blvd**

Year of Existing Counts 2008 — Existing volumes taken from Paragon Properties TIS 2008 BUILD volumes which include

Implementation Year **2011** — Paragon Properties, Black Mtn. Ranch and Ventana West generated trips (included in appendix)

Growth Rates 5.00% 5.00% 5.00% 5.00%

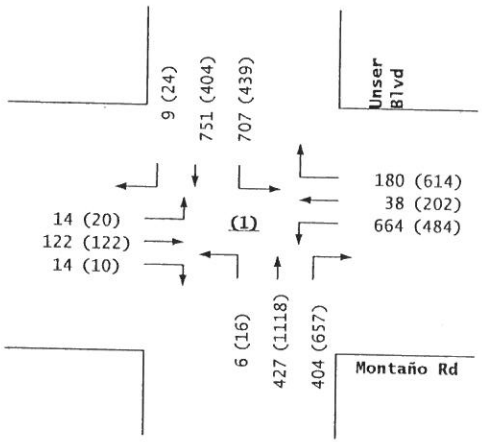
	Eastbound (Montaño Rd)			Westbound (Montaño Rd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	12	106	12	577	33	101	5	301	351	454	450	8
Background Traffic Growth	2	16	2	87	5	15	1	45	53	68	68	1
Subtotal	14	122	14	664	38	116	6	346	404	522	518	9
SAD 227	0	0	0	0	0	12	0	22	0	35	65	0
La Cuentista Subdivision	0	0	0	0	0	52	0	59	0	150	168	0
Subtotal (NO BUILD - A.M.)	***14***	***122***	***14***	***664***	***38***	***180***	***6***	***427***	***404***	***707***	***751***	***9***
Percent Residential Trips Generated(Entering)	*0.33%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*24.22%*	*0.00%*	*45.16%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Residential Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*24.22%*	*45.16%*	*0.33%*
Total Trips Generated	0	0	0	0	0	26	0	49	0	79	148	1
Total AM Peak Hour BUILD Volumes	**14**	**122**	**14**	**664**	**38**	**206**	**6**	**476**	**404**	**786**	**899**	**10**

	Eastbound (Montaño Rd)			Westbound (Montaño Rd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	17	106	9	421	176	346	14	736	571	279	223	21
Background Traffic Growth	3	16	1	63	26	52	2	110	86	42	33	3
Subtotal	20	122	10	484	202	398	16	846	657	321	256	24
SAD 227	0	0	0	0	0	39	0	74	0	22	41	0
La Cuentista Subdivision	0	0	0	0	0	177	0	198	0	96	107	0
Subtotal (NO BUILD - P.M.)	***20***	***122***	***10***	***484***	***202***	***614***	***16***	***1,118***	***657***	***439***	***404***	***24***
Percent Residential Trips Generated(Entering)	*0.33%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*24.22%*	*0.00%*	*45.16%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Residential Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*24.22%*	*45.16%*	*0.33%*
Total Trips Generated	1	0	0	0	0	85	0	159	0	48	89	1
Total PM Peak Hour BUILD Volumes	**21**	**122**	**10**	**484**	**202**	**699**	**16**	**1,277**	**657**	**487**	**493**	**25**

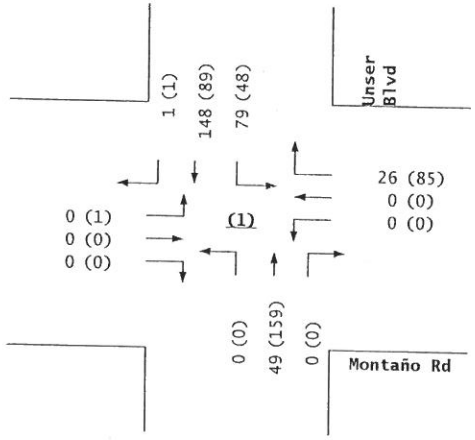
	Entering	Exiting		
Number of Residential Trips Generated	**109**	**328**	A.M.	100% Residential Development
	351	**198**	P.M.	

	Eastbound (Montaño Rd)			Westbound (Montaño Rd)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
2005 AM Peak Hr. Volumes	10	90	10	490	28	86	4	256	298	386	382	7
2005 PM Peak Hr. Volumes	14	90	8	358	150	294	12	626	485	237	190	18

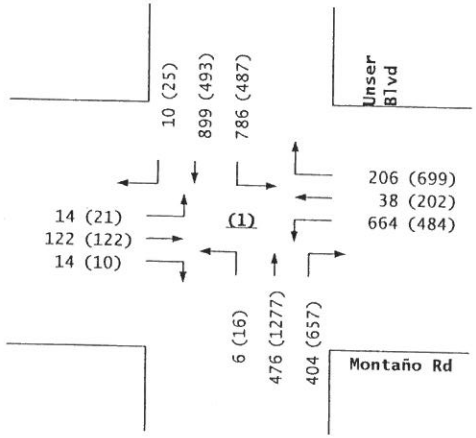
2011
NO BUILD



Trips



2011
BUILD



Montaño Rd / Unser Blvd

Vista Vieja Subdivision (Scenic Dr / Atrisco Dr)

Projected Turning Movements Worksheet

Molten Rock Rd. / Unser Blvd

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

N-S Street: **Unser Blvd**

Year of Existing Counts 2008

Implementation Year **2011**

Growth Rates 5.00% 5.00% 5.00% 5.00%

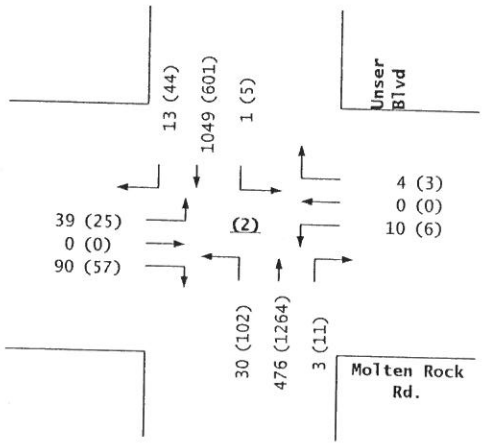
	Eastbound (Molten Rock Rd.)			Westbound (Molten Rock Rd.)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	414	0	0	912	0
Background Traffic Growth	0	0	0	0	0	0	0	62	0	0	137	0
Subtotal	0	0	0	0	0	0	0	476	0	0	1,049	0
SAD 227	39	0	90	10	0	4	30	0	3	1	0	13
Subtotal (NO BUILD - A.M.)	***39***	***0***	***90***	***10***	***0***	***4***	***30***	***476***	***3***	***1***	***1,049***	***13***
Percent Residential Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*69.71%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*15.12%*
Percent Residential Trips Generated(Exiting)	*15.12%*	*0.00%*	*69.71%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	50	0	229	0	0	0	76	0	0	0	0	16
Total AM Peak Hour BUILD Volumes	**89**	**0**	**319**	**10**	**0**	**4**	**106**	**476**	**3**	**1**	**1,049**	**29**

	Eastbound (Molten Rock Rd.)			Westbound (Molten Rock Rd.)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	1,099	0	0	523	0
Background Traffic Growth	0	0	0	0	0	0	0	165	0	0	78	0
Subtotal	0	0	0	0	0	0	0	1,264	0	0	601	0
SAD 227	25	0	57	6	0	3	102	0	11	5	0	44
Subtotal (NO BUILD - P.M.)	***25***	***0***	***57***	***6***	***0***	***3***	***102***	***1,264***	***11***	***5***	***601***	***44***
Percent Residential Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*69.71%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*15.12%*
Percent Residential Trips Generated(Exiting)	*15.12%*	*0.00%*	*69.71%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	30	0	138	0	0	0	245	0	0	0	0	53
Total PM Peak Hour BUILD Volumes	**55**	**0**	**195**	**6**	**0**	**3**	**347**	**1,264**	**11**	**5**	**601**	**97**

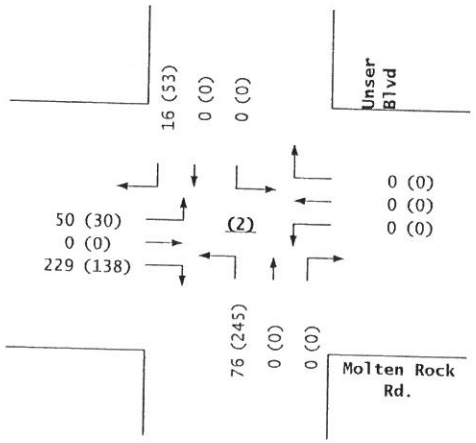
Number of Residential Trips Generated	Entering	Exiting		
	109	**328**	A.M.	100% Residential Development
	351	**198**	P.M.	

	Eastbound (Molten Rock Rd.)			Westbound (Molten Rock Rd.)			Northbound (Unser Blvd)			Southbound (Unser Blvd)		
2005 AM Peak Hr. Volumes	0	0	0	0	0	0	0	352	0	0	775	0
2005 PM Peak Hr. Volumes	0	0	0	0	0	0	0	934	0	0	445	0

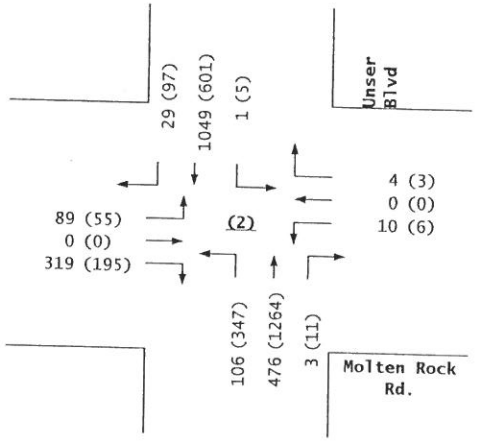
2011
NO BUILD



Trips



2011
BUILD



Molten Rock Rd. / Unser Blvd

Vista Vieja Subdivision (Scenic Dr / Atrisco Dr)

Projected Turning Movements Worksheet

Universe Blvd. / Unser Blvd.

INTERSECTION: E-W Street: **Universe Blvd.** (3)

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

Year of Existing Counts: 2005

Implementation Year: **2011**

NOTE: WB left traffic and NB right traffic was split between Universe / Unser and Universe / Rainbow and distributed through Unser / Rainbow to simulate 2008 traffic conditions

Growth Rates

	Eastbound (Universe Blvd.) 5.00%			Westbound (Universe Blvd.) 5.00%			Northbound (Unser Blvd.) 5.00%			Southbound (Unser Blvd.) 5.00%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	2	5	2	438	2	0	5	1	191	0	0	0
Background Traffic Growth	1	2	1	131	1	0	2	0	57	0	0	0
Subtotal	3	7	3	569	3	0	7	1	248	0	0	0
SAD 227	0	15	0	0	44	0	0	0	0	0	0	0
La Cuentista Subdivision	0	0	0	320	0	0	0	0	112	0	0	0
Subtotal (NO BUILD - A.M.)	***3***	***22***	***3***	***889***	***47***	***0***	***7***	***1***	***360***	***0***	***0***	***0***
Percent Residential Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*15.12%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Residential Trips Generated(Exiting)	*0.00%*	*15.12%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	50	0	0	16	0	0	0	0	0	0	0
Total AM Peak Hour BUILD Volumes	**3**	**72**	**3**	**889**	**63**	**0**	**7**	**1**	**360**	**0**	**0**	**0**

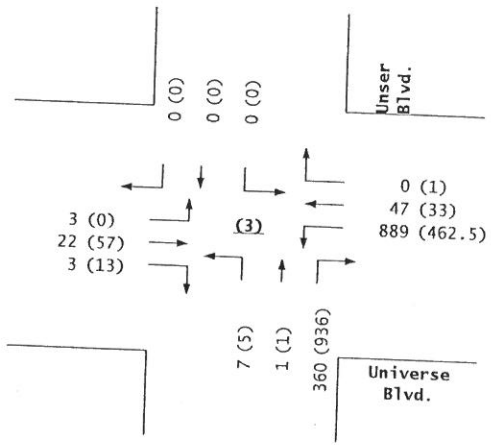
	Eastbound (Universe Blvd.)			Westbound (Universe Blvd.)			Northbound (Unser Blvd.)			Southbound (Unser Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	6	10	199	4	1	4	1	430	0	0	0
Background Traffic Growth	0	2	3	60	1	0	1	0	129	0	0	0
Subtotal	0	8	13	259	5	1	5	1	559	0	0	0
SAD 227	0	49	0	0	28	0	0	0	0	0	0	0
La Cuentista Subdivision	0	0	0	204	0	0	0	0	377	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***57***	***13***	***463***	***33***	***1***	***5***	***1***	***936***	***0***	***0***	***0***
Percent Residential Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*15.12%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Residential Trips Generated(Exiting)	*0.00%*	*15.12%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	30	0	0	53	0	0	0	0	0	0	0
Total PM Peak Hour BUILD Volumes	**0**	**87**	**13**	**463**	**86**	**1**	**5**	**1**	**936**	**0**	**0**	**0**

Number of Residential Trips Generated

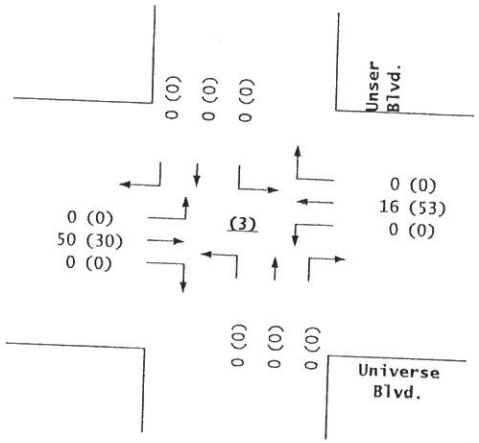
Entering	Exiting		
109	**328**	A.M.	100% Residential Development
351	**198**	P.M.	

	Eastbound (Universe Blvd.)			Westbound (Universe Blvd.)			Northbound (Unser Blvd.)			Southbound (Unser Blvd.)		
2005 AM Peak Hr. Volumes	2	5	2	438	2	0	5	1	191	0	0	0
2005 PM Peak Hr. Volumes	0	6	10	199	4	1	4	1	430	0	0	0

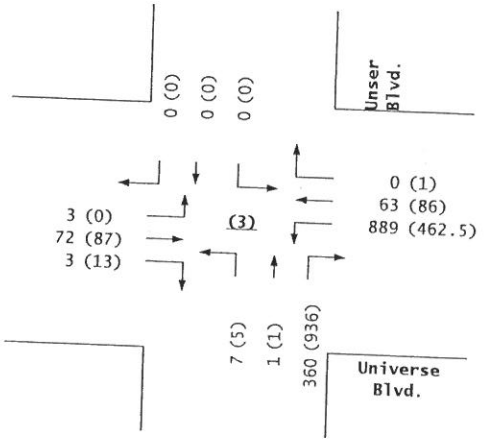
2011
NO BUILD



Trips



2011
BUILD



Universe Blvd. / Unser Blvd.

Vista Vieja Subdivision (Scenic Dr / Atrisco Dr)

Projected Turning Movements Worksheet

Universe Blvd. / Rainbow Rd.

INTERSECTION: E-W Street: **Universe Blvd.** (4)

N-S Street: **Rainbow Rd.**

Year of Existing Counts: 2005

Implementation Year: **2011**

NOTE: WB left traffic and NB right traffic was split between Universe / Unser and Universe / Rainbow and distributed through Unser / Rainbow to simulate 2008 traffic conditions

	Eastbound (Universe Blvd.)			Westbound (Universe Blvd.)			Northbound (Rainbow Rd.)			Southbound (Rainbow Rd.)		
Growth Rates	5.00%			5.00%			5.00%			5.00%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	440	0	0	0	0	192	0	0	0
Background Traffic Growth	0	0	0	132	0	0	0	0	57	0	0	0
Subtotal	0	0	0	572	0	0	0	0	249	0	0	0
SAD 227	0	0	0	1	0	0	0	5	3	0	2	0
Subtotal (NO BUILD - A.M.)	***0***	***0***	***0***	***573***	***0***	***0***	***0***	***5***	***252***	***0***	***2***	***0***
Percent Residential Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.90%*	*0.90%*	*0.00%*	*12.42%*	*0.00%*	*0.00%*	*0.00%*	*1.81%*	*1.81%*
Percent Residential Trips Generated(Exiting)	*1.81%*	*0.90%*	*12.42%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*1.81%*	*0.90%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	6	3	41	1	1	0	14	6	3	0	2	2
Total AM Peak Hour BUILD Volumes	**6**	**3**	**41**	**574**	**1**	**0**	**14**	**11**	**255**	**0**	**4**	**2**

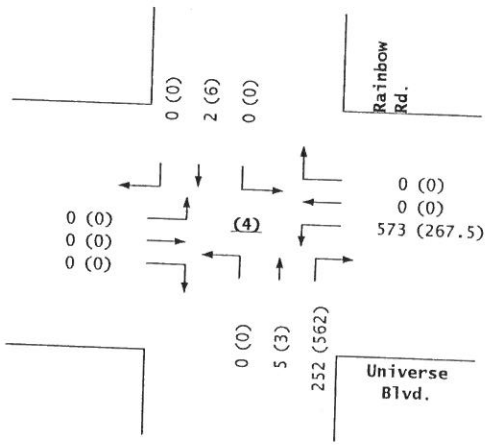
	Eastbound (Universe Blvd.)			Westbound (Universe Blvd.)			Northbound (Rainbow Rd.)			Southbound (Rainbow Rd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	204	0	0	0	0	431	0	0	0
Background Traffic Growth	0	0	0	61	0	0	0	0	129	0	0	0
Subtotal	0	0	0	265	0	0	0	0	560	0	0	0
SAD 227	0	0	0	3	0	0	0	3	2	0	6	0
Subtotal (NO BUILD - P.M.)	***0***	***0***	***0***	***268***	***0***	***0***	***0***	***3***	***562***	***0***	***6***	***0***
Percent Residential Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.90%*	*0.90%*	*0.00%*	*12.42%*	*0.00%*	*0.00%*	*0.00%*	*1.81%*	*1.81%*
Percent Residential Trips Generated(Exiting)	*1.81%*	*0.90%*	*12.42%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*1.81%*	*0.90%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	4	2	25	3	3	0	44	4	2	0	6	6
Total PM Peak Hour BUILD Volumes	**4**	**2**	**25**	**271**	**3**	**0**	**44**	**7**	**564**	**0**	**12**	**6**

Number of Residential Trips Generated

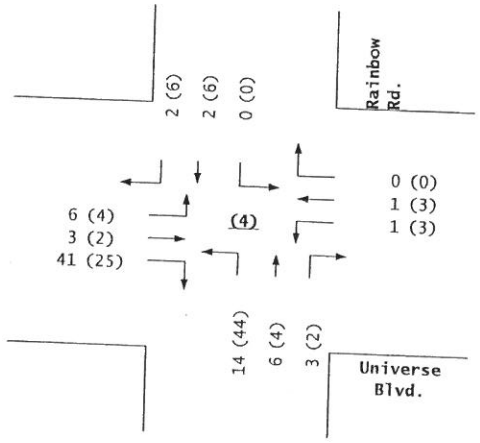
Entering	Exiting		
109	**328**	A.M.	100% Residential Development
351	**198**	P.M.	

	Eastbound (Universe Blvd.)			Westbound (Universe Blvd.)			Northbound (Rainbow Rd.)			Southbound (Rainbow Rd.)		
2005 AM Peak Hr. Volumes	0	0	0	440	0	0	0	0	192	0	0	0
2005 PM Peak Hr. Volumes	0	0	0	204	0	0	0	0	431	0	0	0

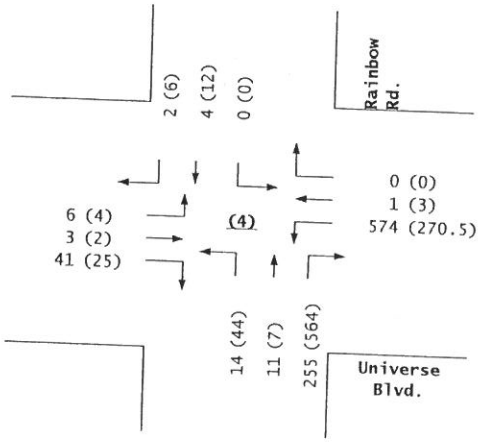
2011
NO BUILD



Trips



2011
BUILD



Universe Blvd. / Rainbow Rd.

Vista Vieja Subdivision (Scenic Dr / Atrisco Dr)

Projected Turning Movements Worksheet

Scenic Dr. / Driveway "A"

INTERSECTION: E-W Street: Scenic Dr. (5)

N-S Street: Driveway "A"

Year of Existing Counts: 2005

Implementation Year: 2011

Growth Rates: 5.00% | 5.00% | 5.00% | 5.00%

	Eastbound (Scenic Dr.)			Westbound (Scenic Dr.)			Northbound (Driveway "A")			Southbound (Driveway "A")		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Residential Trips Generated(Entering)	*0.00%*	*0.00%*	*0.03%*	*15.13%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Residential Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.03%*	*0.00%*	*15.13%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	16	0	0	0	0	50	0	0	0
Total AM Peak Hour BUILD Volumes	**0**	**0**	**0**	**16**	**0**	**0**	**0**	**0**	**50**	**0**	**0**	**0**

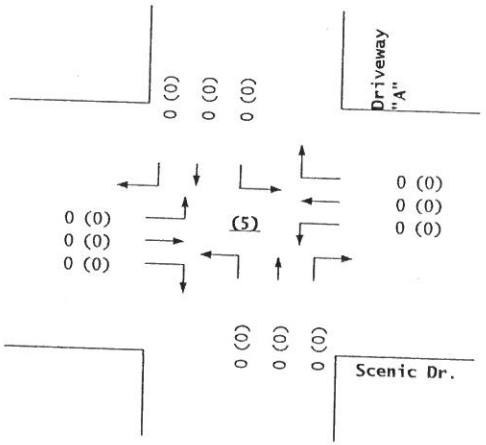
	Eastbound (Scenic Dr.)			Westbound (Scenic Dr.)			Northbound (Driveway "A")			Southbound (Driveway "A")		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Residential Trips Generated(Entering)	*0.00%*	*0.00%*	*0.03%*	*15.13%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Residential Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.03%*	*0.00%*	*15.13%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	53	0	0	0	0	30	0	0	0
Total PM Peak Hour BUILD Volumes	**0**	**0**	**0**	**53**	**0**	**0**	**0**	**0**	**30**	**0**	**0**	**0**

Number of Residential Trips Generated

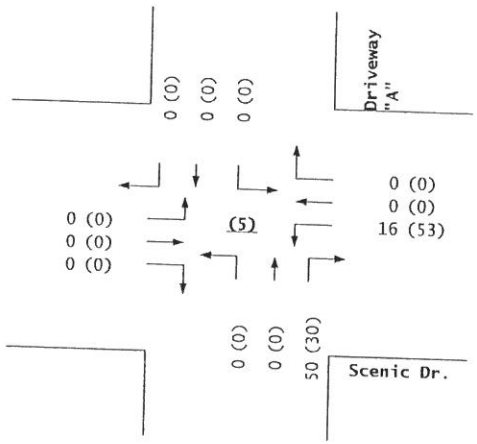
Entering	Exiting		
109	**328**	A.M.	100% Residential Development
351	**198**	P.M.	

	Eastbound (Scenic Dr.)			Westbound (Scenic Dr.)			Northbound (Driveway "A")			Southbound (Driveway "A")		
2005 AM Peak Hr. Volumes	0	0	0	0	0	0	0	0	0	0	0	0
2005 PM Peak Hr. Volumes	0	0	0	0	0	0	0	0	0	0	0	0

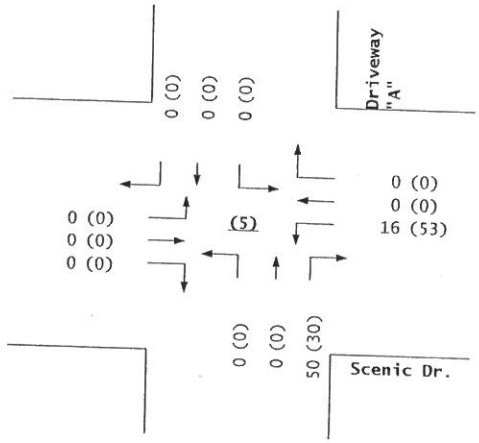
2011
NO BUILD



Trips



2011
BUILD



Scenic Dr. / Driveway "A"

Vista Vieja Subdivision (Scenic Dr / Atrisco Dr)

Projected Turning Movements Worksheet

Rainbow Rd. / Unser Blvd.

INTERSECTION: E-W Street: **Rainbow Rd.** (6)
N-S Street: **Unser Blvd.**

Year of Existing Counts: 2005
Implementation Year: **2011**

	Growth Rates	Eastbound (Rainbow Rd.)			Westbound (Rainbow Rd.)			Northbound (Unser Blvd.)			Southbound (Unser Blvd.)		
		5.00%			5.00%			5.00%			5.00%		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes		0	0	0	0	0	0	196	196	0	0	440	440
Background Traffic Growth		0	0	0	0	0	0	59	59	0	0	132	132
Subtotal		0	0	0	0	0	0	255	255	0	0	572	572
SAD 227		0	0	3	0	0	0	8	36	0	0	12	0
Subtotal (NO BUILD - A.M.)		***0***	***0***	***3***	***0***	***0***	***0***	***263***	***291***	***0***	***0***	***584***	***572***
Percent Residential Trips Generated(Entering)		*0.00%*	*0.00%*	*2.71%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*12.41%*	*12.42%*
Percent Residential Trips Generated(Exiting)		*12.42%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*2.71%*	*12.41%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated		41	0	3	0	0	0	9	41	0	0	14	14
Total AM Peak Hour BUILD Volumes		**41**	**0**	**6**	**0**	**0**	**0**	**272**	**332**	**0**	**0**	**598**	**586**

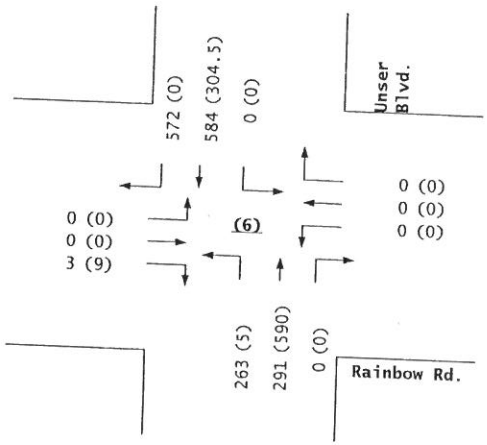
	Eastbound (Rainbow Rd.)			Westbound (Rainbow Rd.)			Northbound (Unser Blvd.)			Southbound (Unser Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	436	0	0	204	0
Background Traffic Growth	0	0	0	0	0	0	0	131	0	0	61	0
Subtotal	0	0	0	0	0	0	0	567	0	0	265	0
SAD 227	0	0	9	0	0	0	5	23	0	0	40	0
Subtotal (NO BUILD - P.M.)	***0***	***0***	***9***	***0***	***0***	***0***	***5***	***590***	***0***	***0***	***305***	***0***
Percent Residential Trips Generated(Entering)	*0.00%*	*0.00%*	*2.71%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*12.41%*	*12.42%*
Percent Residential Trips Generated(Exiting)	*12.42%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*2.71%*	*12.41%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	25	0	10	0	0	0	5	25	0	0	44	44
Total PM Peak Hour BUILD Volumes	**25**	**0**	**19**	**0**	**0**	**0**	**10**	**615**	**0**	**0**	**349**	**44**

Number of Residential Trips Generated

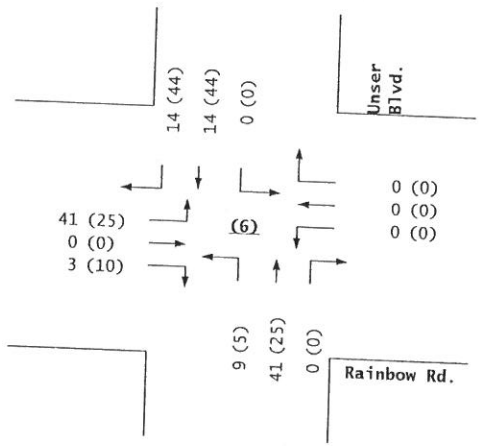
Entering	Exiting		
109	**328**	A.M.	100% Residential Development
351	**198**	P.M.	

	Eastbound (Rainbow Rd.)			Westbound (Rainbow Rd.)			Northbound (Unser Blvd.)			Southbound (Unser Blvd.)		
2005 AM Peak Hr. Volumes	0	0	0	0	0	0	196	196	0	0	440	440
2005 PM Peak Hr. Volumes	0	0	0	0	0	0	0	436	0	0	204	0

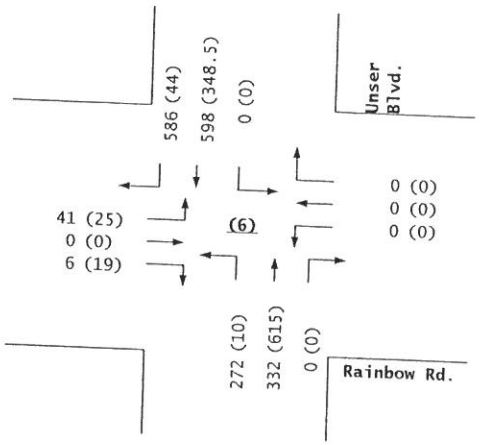
2011
NO BUILD



Trips



2011
BUILD



Rainbow Rd. / Unser Blvd.

Vista Vieja Subdivision (Scenic Dr / Atrisco Dr)

Projected Turning Movements Worksheet

Molten Rock Rd. / SAD227 driveway

INTERSECTION: E-W Street: **Molten Rock Rd.** (7)
N-S Street: **SAD227 driveway**

Year of Existing Counts: 2008
Implementation Year: **2011**
Growth Rates: 5.00% | 5.00% | 5.00% | 5.00%

	Eastbound (Molten Rock Rd.)			Westbound (Molten Rock Rd.)			Northbound (SAD227 driveway)			Southbound (SAD227 driveway)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
SAD 227	0	0	0	43	0	0	0	0	130	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***0***	***0***	***43***	***0***	***0***	***0***	***0***	***130***	***0***	***0***	***0***
Percent Residential Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*84.83%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Residential Trips Generated(Exiting)	*0.00%*	*84.83%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	278	0	0	92	0	0	0	0	0	0	0
Total AM Peak Hour BUILD Volumes	**0**	**278**	**0**	**43**	**92**	**0**	**0**	**0**	**130**	**0**	**0**	**0**

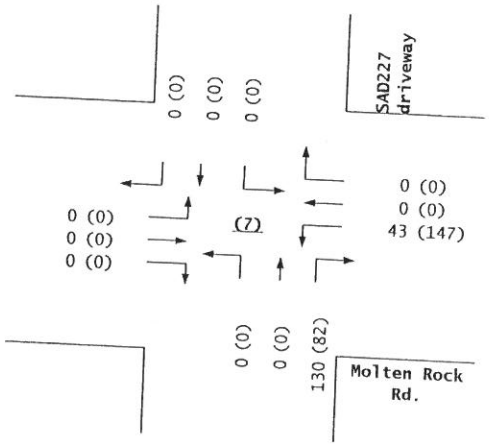
	Eastbound (Molten Rock Rd.)			Westbound (Molten Rock Rd.)			Northbound (SAD227 driveway)			Southbound (SAD227 driveway)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	0	0	0	0	0
Background Traffic Growth	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal	0	0	0	0	0	0	0	0	0	0	0	0
SAD 227	0	0	0	147	0	0	0	0	82	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***0***	***0***	***147***	***0***	***0***	***0***	***0***	***82***	***0***	***0***	***0***
Percent Residential Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*84.83%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Residential Trips Generated(Exiting)	*0.00%*	*84.83%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	168	0	0	298	0	0	0	0	0	0	0
Total PM Peak Hour BUILD Volumes	**0**	**168**	**0**	**147**	**298**	**0**	**0**	**0**	**82**	**0**	**0**	**0**

Number of Residential Trips Generated

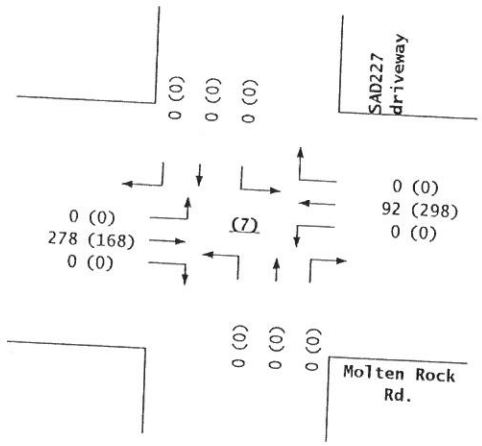
Entering	Exiting		
109	**328**	A.M.	100% Residential Development
351	**198**	P.M.	

	Eastbound (Molten Rock Rd.)			Westbound (Molten Rock Rd.)			Northbound (SAD227 driveway)			Southbound (SAD227 driveway)		
2005 AM Peak Hr. Volumes	0	0	0	0	0	0	0	0	0	0	0	0
2005 PM Peak Hr. Volumes	0	0	0	0	0	0	0	0	0	0	0	0

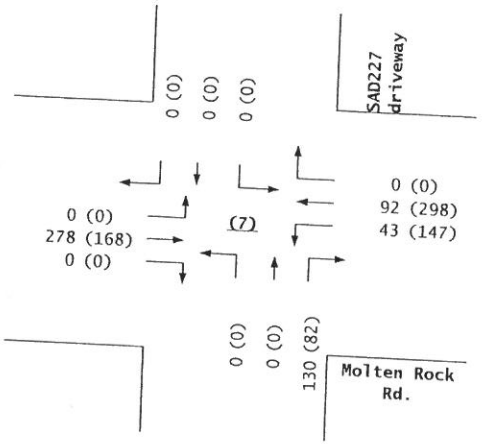
2011
NO BUILD



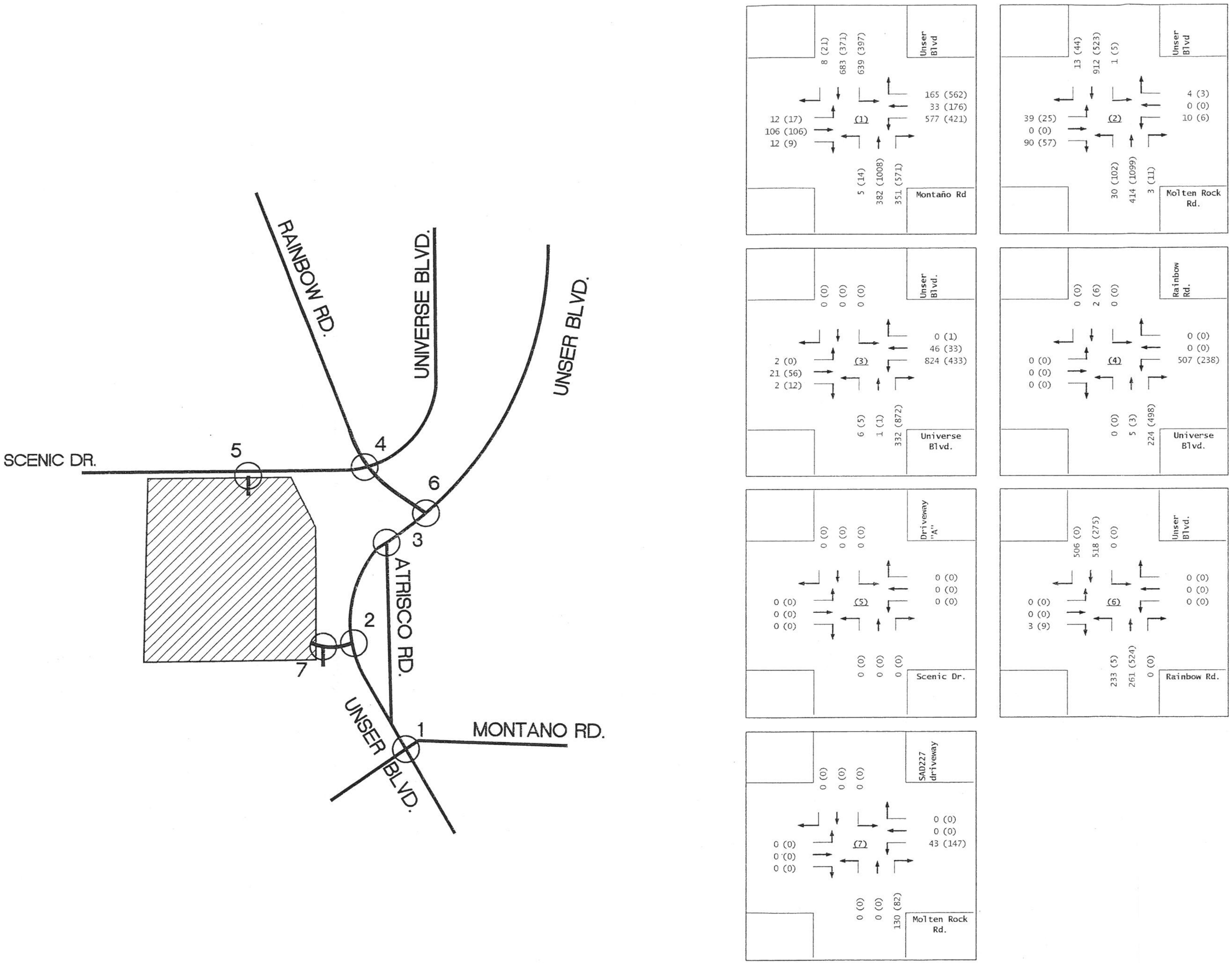
Trips



2011
BUILD



Molten Rock Rd. / SAD227 driveway

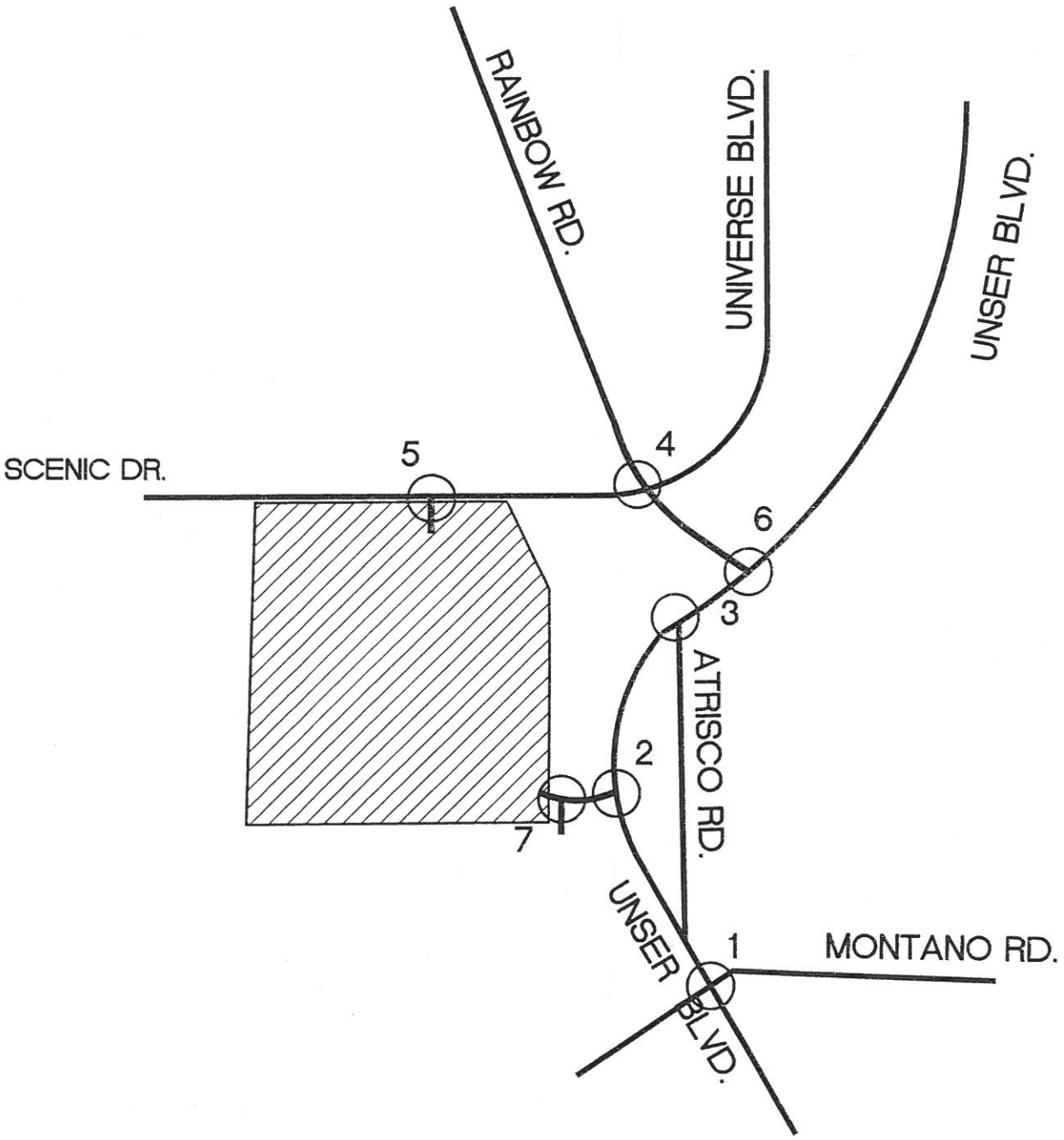


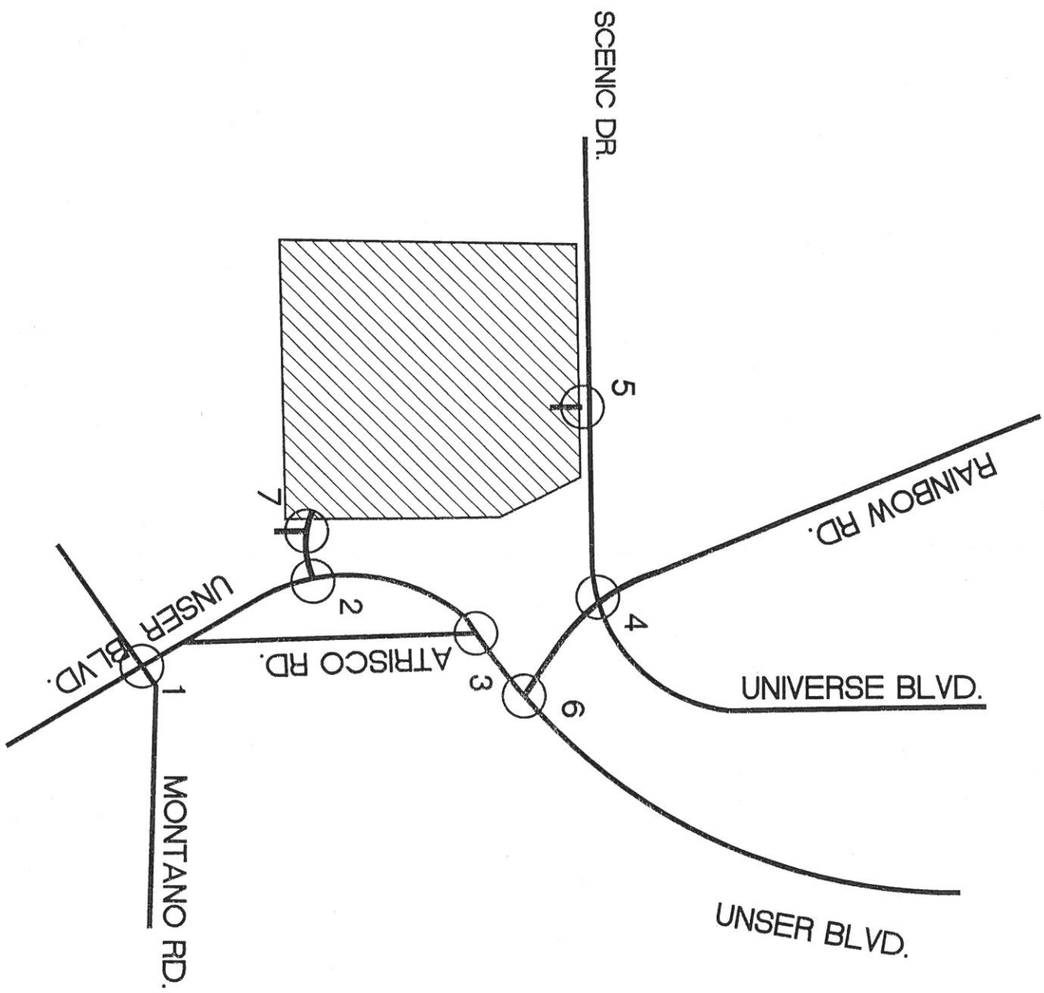
Vista Vieja Subdivision

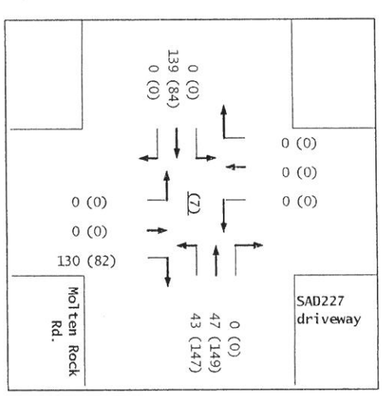
(Scenic Dr / Atrisco Rd)

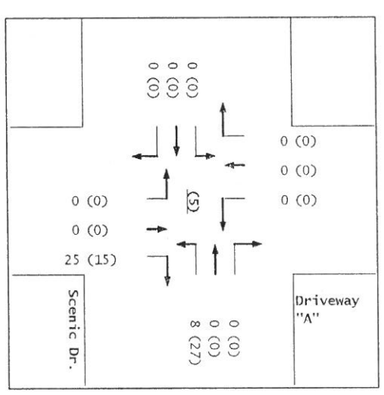
2008 NO BUILD Volumes - AM(PM)

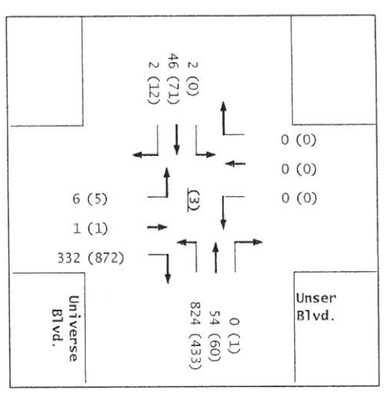
Terry O. Brown, P.E.
P.O. Box 92051
Albuquerque, NM 87199-2051
(505)883-8807 (Voice)

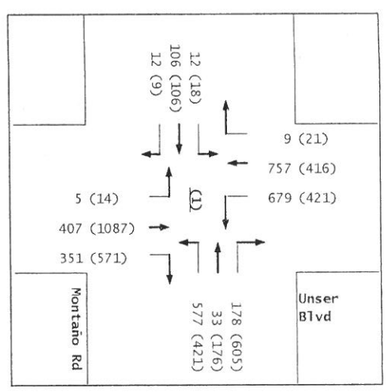

RAINBOW RD.
UNIVERSE BLVD.
UNSER BLVD.
SCENIC DR.
5
4
6
3
ATRISCO RD.
2
7
UNSER BLVD.
1
MONTANO RD.

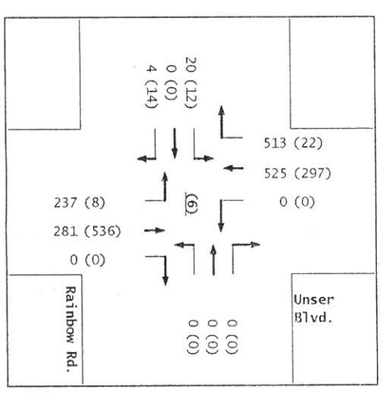


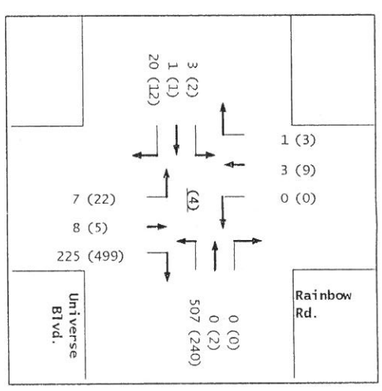


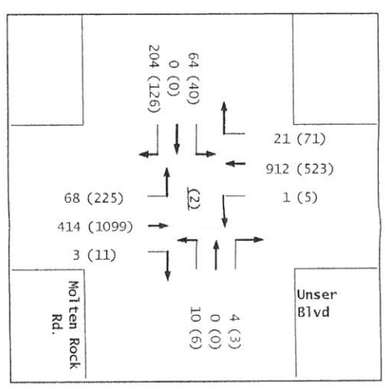










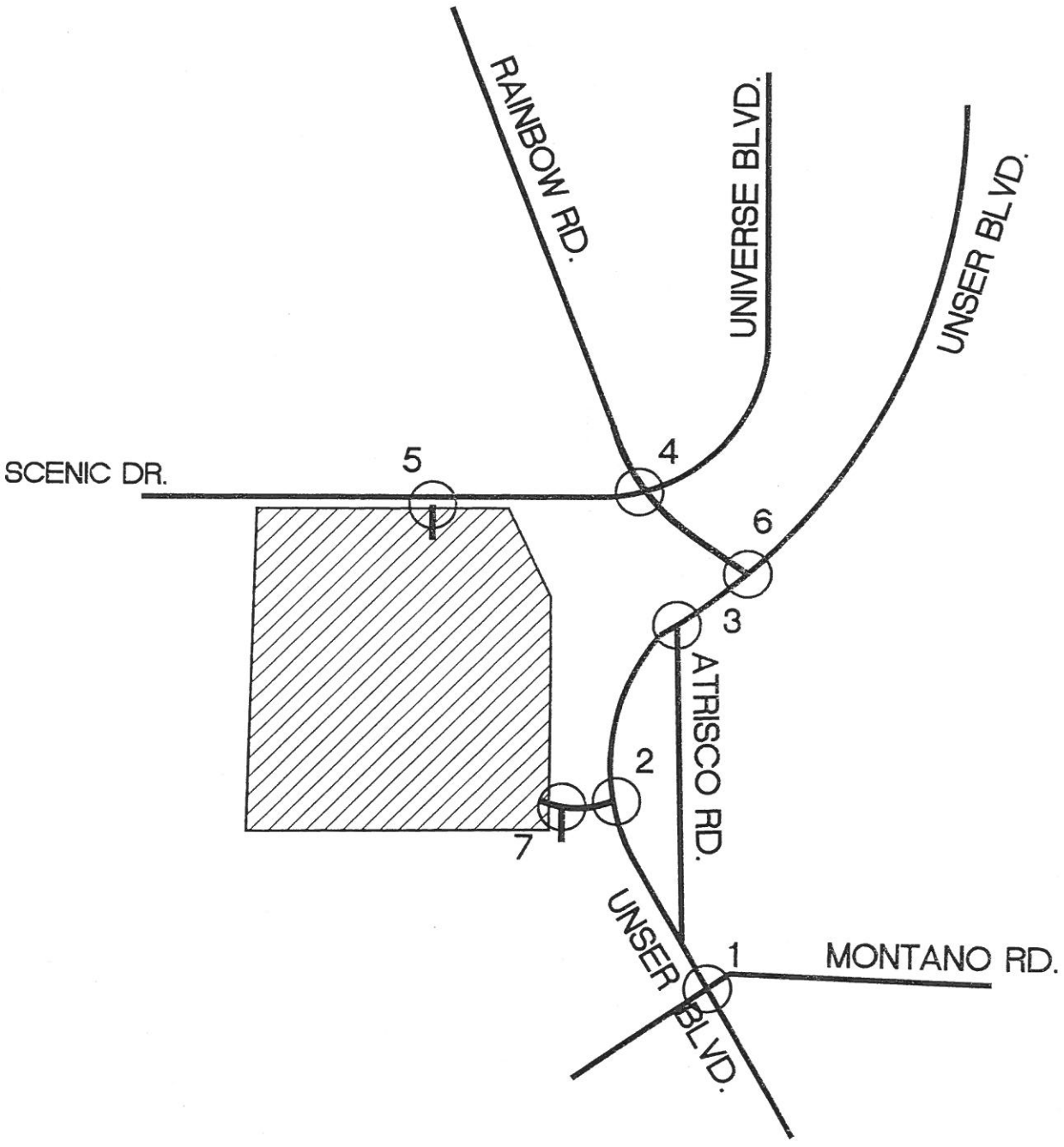


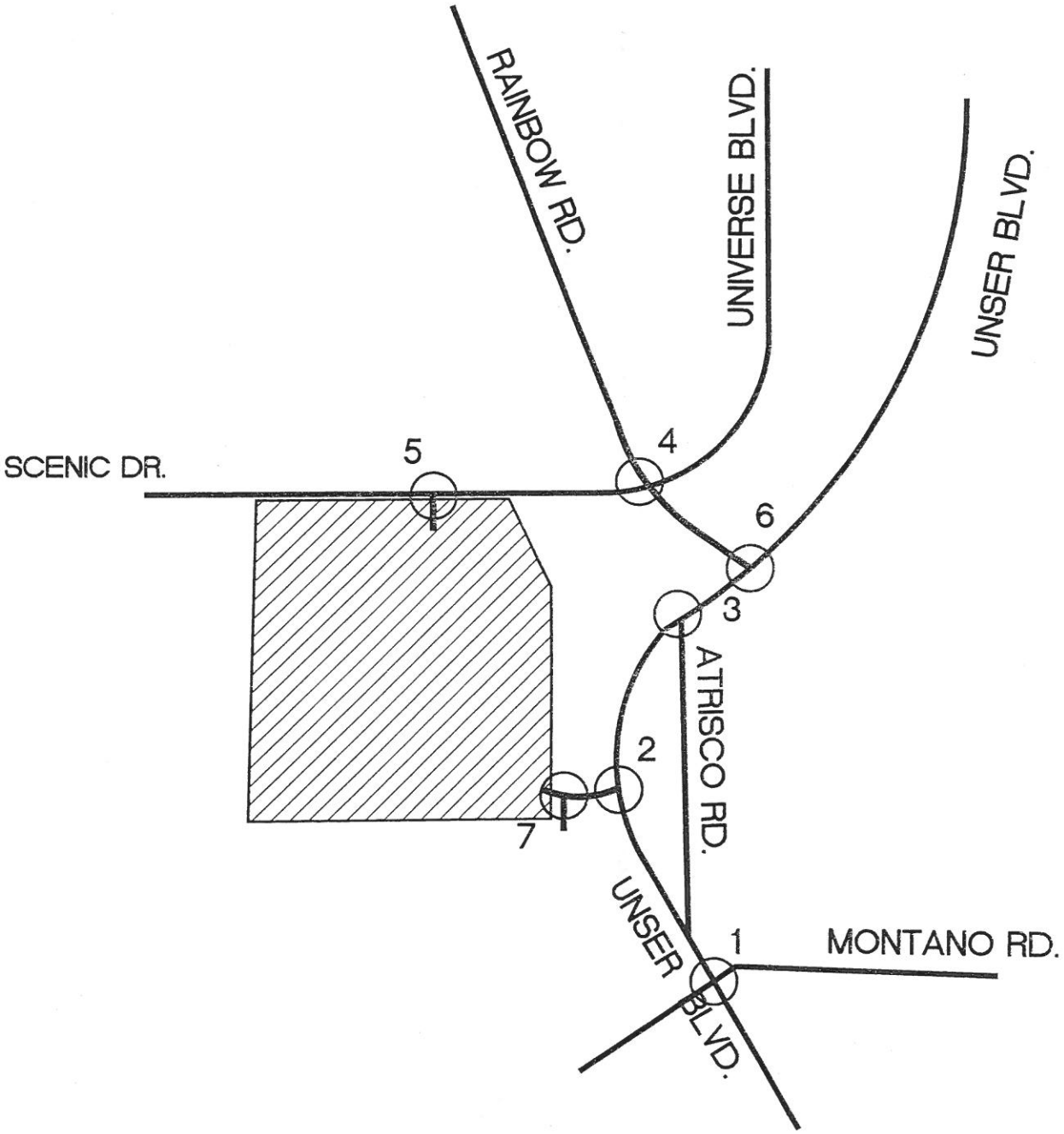
Vista Vieja Subdivision

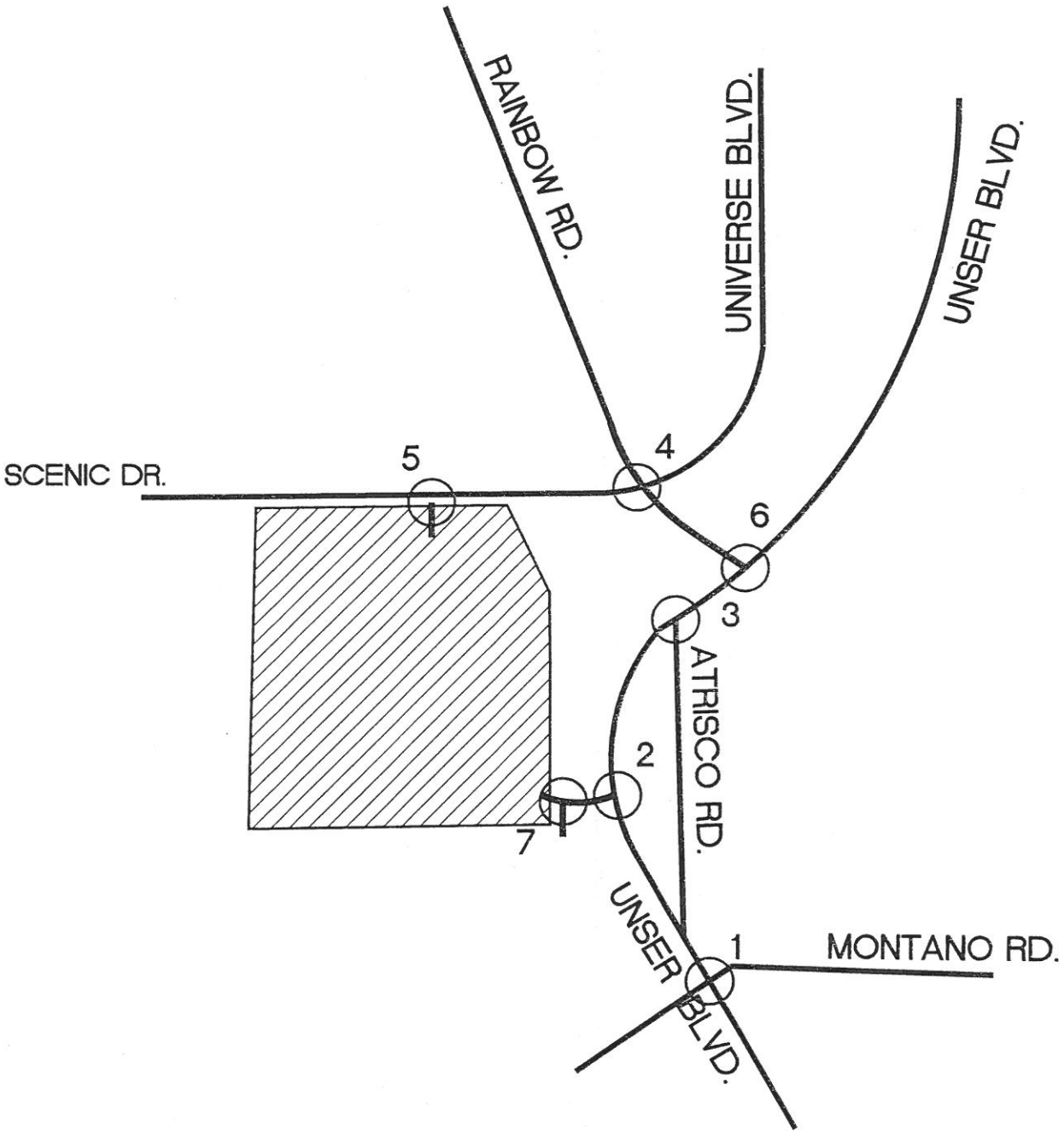
(Scenic Dr / Atrisco Rd)

2008 BUILD Volumes - AM(PM)

Terry O. Braun, P.E.
P.O. Box 92051
Albuquerque, NM 87199-2051
(505)883-8807 (Voice)


RAINBOW RD.
UNIVERSE BLVD.
UNSER BLVD.
SCENIC DR.
5
4
6
3
ATRISCO RD.
2
7
UNSER BLVD.
1
MONTANO RD.


RAINBOW RD.
UNIVERSE BLVD.
UNSER BLVD.
SCENIC DR.
5
4
6
3
ATRISCO RD.
2
7
UNSER BLVD.
1
MONTANO RD.


RAINBOW RD.
UNIVERSE BLVD.
UNSER BLVD.
SCENIC DR.
5
4
6
3
ATRISCO RD.
2
7
UNSER BLVD.
1
MONTANO RD.

Analysis of Intersection #1

Montano Rd / Unser Blvd

Queueing Analysis Summary Sheet

Project: Vista Vieja Subdivision (Scenic Dr / Atrisco Dr)
Intersection: Montaño Rd / Unser Blvd
2011 VOLUMES

Eastbound Approach	Left Turns # Lanes	Left Turns Vol.	Left Turns Length (Ft.)	Thru Movements # Lanes	Thru Movements Vol.	Thru Movements Length (Ft.)	Right Turns # Lanes	Right Turns Vol.	Right Turns Length (Ft.)
Existing Lane Length	*1*	*12*	*120*	*2*	*106*	*N/A*	*0*	*12*	*0*
AM NO BUILD Queue	1	14	50	2	122	125	0	14	50
AM BUILD Queue	**1**	**14**	**50**	**2**	**122**	**125**	**0**	**14**	**50**
Existing Lane Length	*1*	*17*	*120*	*2*	*106*	*N/A*	*0*	*9*	*0*
PM NO BUILD Queue	1	20	50	2	122	125	0	10	50
PM BUILD Queue	**1**	**21**	**50**	**2**	**122**	**125**	**0**	**10**	**50**

Westbound Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	*2*	*577*	*150*	*1*	*33*	*N/A*	*1*	*101*	*125*
AM NO BUILD Queue	2	664	475	1	38	100	1	180	275
AM BUILD Queue	**2**	**664**	**475**	**1**	**38**	**100**	**1**	**206**	**300**
Existing Lane Length	*2*	*421*	*150*	*1*	*176*	*N/A*	*1*	*346*	*125*
PM NO BUILD Queue	2	484	375	1	202	300	1	614	750
PM BUILD Queue	**2**	**484**	**375**	**1**	**202**	**300**	**1**	**699**	**850**

Northbound Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	*1*	*5*	*140*	*2*	*301*	*N/A*	*1*	*351*	*0*
AM NO BUILD Queue	1	6	25	2	427	350	1	404	525
AM BUILD Queue	**1**	**6**	**25**	**2**	**476**	**375**	**1**	**404**	**525**
Existing Lane Length	*1*	*14*	*140*	*2*	*736*	*N/A*	*1*	*571*	*0*
PM NO BUILD Queue	1	16	50	2	1,118	750	1	657	800
PM BUILD Queue	**1**	**16**	**50**	**2**	**1,277**	**850**	**1**	**657**	**800**

Southbound Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	*2*	*454*	*75*	*1*	*450*	*N/A*	*1*	*8*	*75*
AM NO BUILD Queue	2	707	500	1	751	900	1	9	25
AM BUILD Queue	**2**	**786**	**550**	**1**	**899**	**0**	**1**	**10**	**50**
Existing Lane Length	*2*	*279*	*75*	*1*	*223*	*N/A*	*1*	*21*	*75*
PM NO BUILD Queue	2	439	350	1	404	525	1	24	75
PM BUILD Queue	**2**	**487**	**375**	**1**	**493**	**625**	**1**	**25**	**75**

	AM	PM
Cycle Length:	130	130

SIGNALIZED INTERSECTION
PLANNING APPLICATION WORKSHEET

Intersection: Montaño Rd / Unser Blvd
Analyst: TOB
Project: Vista Vieja Subdivision (Scenic Dr / Atrisco Dr)
Condition: 2011 NO BUILD

Date: 23-May-05
Time Period Analyzed: AM Peak Hr.
City / State: Albuquerque, NM

Unser Blvd (N-S STREET)

SB TOTAL: 1,467
9 RIGHT | 751 THRU | 707 LEFT

TR? N

R	T	L
1	1	2

180 RIGHT
38 THRU
664 LEFT
882 WB TOTAL

NO. LANES
1 L
2 T
0 R
TR? Y

1 R
1 T
2 L
TR? N
NO. LANES

L	T	R
1	2	1

TR? N

Montaño Rd (E-W STREET)

150 EB TOTAL
14 LEFT
122 THRU
14 RIGHT

6 LEFT | 427 THRU | 404 RIGHT
837 NB TOTAL

EB LT =	14	MAXIMUM SUM OF CRITICAL VALUES	CAPACITY LEVEL	NB LT = 6
WB TH =	38			SB TH = 751
	52	0 TO 1,200	UNDER	757 *
WB LT =	332	1,201 TO 1,400	NEAR	SB LT = 354
EB TH =	68	>1,400	OVER	NB TH = 214
	400 *			567

400 E-W CRITICAL + 757 N-S CRITICAL = 1,157 STATUS? UNDER

NOTES: Mitigated Geometry (2010)

SIGNALIZED INTERSECTION
PLANNING APPLICATION WORKSHEET

Intersection: **Montaño Rd / Unser Blvd**
Analyst: TOB
Project: Vista Vieja Subdivision (Scenic Dr / Atrisco Dr)
Condition: **2011 BUILD**

Date: 23-May-05
Time Period Analyzed: **AM** Peak Hr.
City / State: Albuquerque, NM

Unser Blvd (N-S STREET)

SB TOTAL: 1,695
RIGHT: 10
THRU: 899
LEFT: 786
TR?: N
R: 1 | T: 1 | L: 2
RIGHT: 206
THRU: 38
LEFT: 664
WB TOTAL: 908

NO. LANES
L: 1
T: 2
R: 0
TR?: Y

L: 1
T: 1
R: 1
TR?: N
NO. LANES: 2

Montaño Rd (E-W STREET)

EB TOTAL: 150
LEFT: 14
THRU: 122
RIGHT: 14
L: 1 | T: 2 | R: 1
TR?: N
LEFT: 6
THRU: 476
RIGHT: 404
NB TOTAL: 886

EB LT =	14	MAXIMUM SUM OF CRITICAL VALUES	CAPACITY LEVEL	NB LT = 6
WB TH =	38			SB TH = 899
	52	0 TO 1,200	UNDER	905 *
WB LT =	332	1,201 TO 1,400	NEAR	
EB TH =	68	>1,400	OVER	SB LT = 393
	400 *			NB TH = 238
				631

400 (E-W CRITICAL) + 905 (N-S CRITICAL) = 1,305 STATUS? N E A R

NOTES: Mitigated Geometry (2010)

SIGNALIZED INTERSECTION
PLANNING APPLICATION WORKSHEET

Intersection: **Montaño Rd / Unser Blvd**
Analyst: TOB
Project: Vista Vieja Subdivision (Scenic Dr / Atrisco Dr)
Condition: **2011 NO BUILD**

Date: 23-May-05
Time Period Analyzed: **PM** Peak Hr.
City / State: Albuquerque, NM

Unser Blvd (N-S STREET)

SB TOTAL: 867
- RIGHT: 24
- THRU: 404
- LEFT: 439

NO. LANES: 1 L, 2 T, 0 R
TR? Y

TR? N

R	T	L
1	1	2

NO. LANES: 1 R, 1 T, 2 L
TR? N

- RIGHT: 614
- THRU: 202
- LEFT: 484

WB TOTAL: 1,300

Montaño Rd (E-W STREET)

EB TOTAL: 152
- LEFT: 20
- THRU: 122
- RIGHT: 10

L	T	R
1	2	1

TR? N

- LEFT: 16
- THRU: 1,118
- RIGHT: 657

NB TOTAL: 1,791

EB LT =	20	MAXIMUM SUM OF CRITICAL VALUES	CAPACITY LEVEL	NB LT =	16
WB TH =	202			SB TH =	404
	222	0 TO 1,200	UNDER		420
		1,201 TO 1,400	NEAR		
WB LT =	242	>1,400	OVER	SB LT =	220
EB TH =	66			NB TH =	559
	308 *				779 *

E-W CRITICAL	+	N-S CRITICAL	=		STATUS?
308	+	779	=	1,087	UNDER

NOTES: Mitigated Geometry (2010)

SIGNALIZED INTERSECTION
PLANNING APPLICATION WORKSHEET

Intersection: Montaño Rd / Unser Blvd
Analyst: TOB
Project: Vista Vieja Subdivision (Scenic Dr / Atrisco Dr)
Condition: 2011 BUILD

Date: 23-May-05
Time Period Analyzed: PM Peak Hr.
City / State: Albuquerque, NM

Unser Blvd (N-S STREET)

SB TOTAL: 1,005
25 RIGHT
493 THRU
487 LEFT

TR? N

R	T	L
1	1	2

699 RIGHT
202 THRU
484 LEFT
1,385 WB TOTAL

NO. LANES
1 L
2 T
0 R
TR? Y

1 R
1 T
2 L
NO. LANES
TR? N

153 EB TOTAL
21 LEFT
122 THRU
10 RIGHT

L	T	R
1	2	1

TR? N

Montaño Rd (E-W STREET)

16 LEFT
1,277 THRU
657 RIGHT
1,950 NB TOTAL

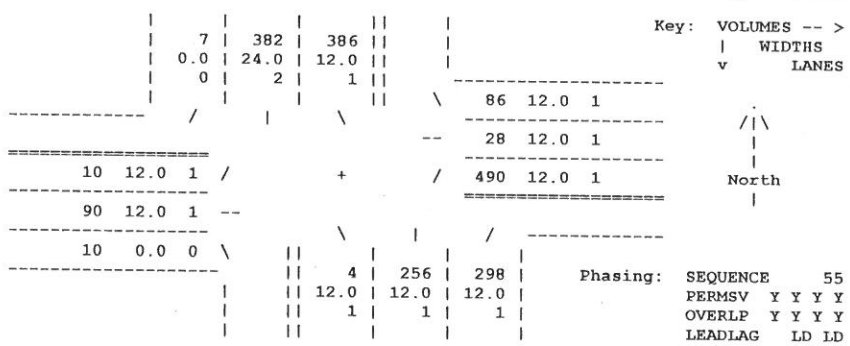
EB LT =	21	MAXIMUM SUM OF CRITICAL VALUES	CAPACITY LEVEL	NB LT = 16
WB TH =	202			SB TH = 493
	223	0 TO 1,200	UNDER	509
WB LT =	242	1,201 TO 1,400	NEAR	SB LT = 244
EB TH =	66	>1,400	OVER	NB TH = 639
	308 *			882 *

308 E-W CRITICAL + 882 N-S CRITICAL = 1,190 STATUS? UNDER

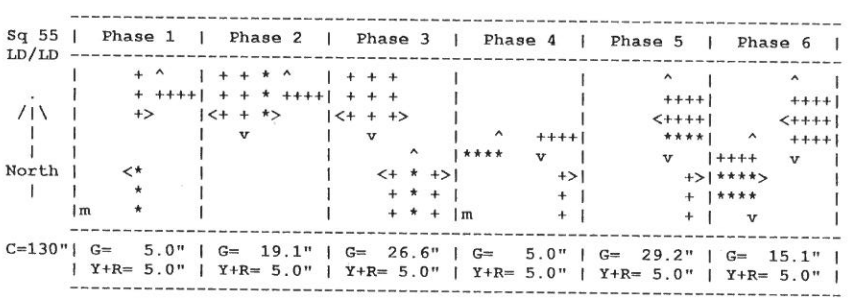
NOTES: Mitigated Geometry (2010)

SIGNAL2000/TEAPAC[Ver 2.02.16] - HCM Input Worksheet

Intersection # 1 - Area Location Type: NONCBD

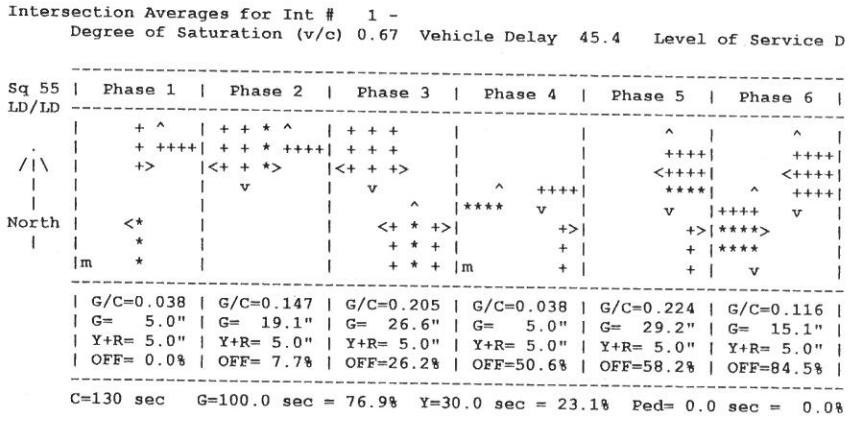


	SB			WB			NB			EB		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
Heavy veh, %HV	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Pk-hr fact, PHF	.85	.85	.85	.80	.80	.80	.83	.83	.83	.70	.70	.70
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff grn, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3	3	3	3	3
Ped vol, vped		0			0			0			0	
Bike vol, vbic		0			0			0			0	
Parking locatns		NO			NO			NO			NO	
Park mnvrs, Nm		0			0			0			0	
Bus stops, NB		0			0			0			0	
Grade, %G		.0			.0			.0			.0	



SIGNAL2000/TEAPAC[Ver 2.02.16] - Capacity Analysis Summary

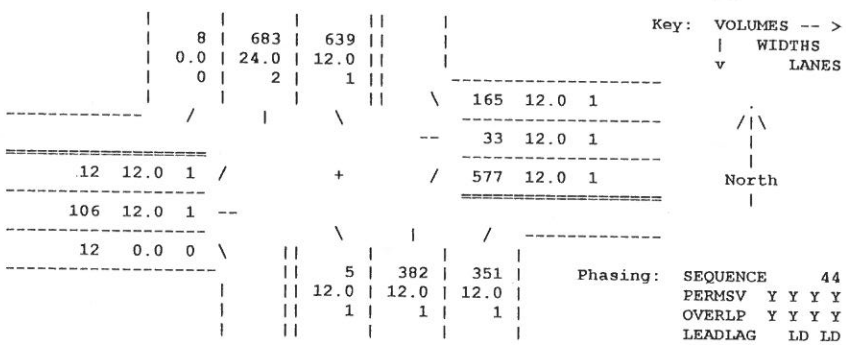
Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.67 Vehicle Delay 45.4 Level of Service D



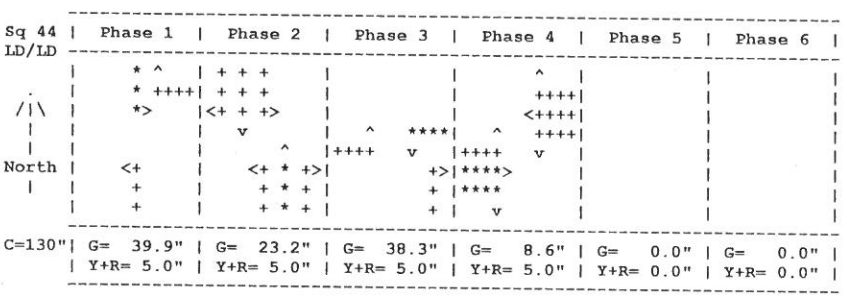
Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @D (vph)	@E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								44.2	D+	
RT+TH	24/2	0.177	0.390	1327	1377	457	0.332	27.9	C	275 ft
LT	12/1	0.231	0.224	442	481	454	0.944	60.6	*E+	776 ft
NB Approach								37.8	D+	
RT	12/1	0.278	0.545	847	862	359	0.416	17.8	B	345 ft
TH	12/1	0.220	0.205	278	356	308	0.806	61.2	*E+	503 ft
LT	12/1	0.000	0.038	191	233	5	0.020	37.3	*D+	7 ft
WB Approach								50.2	D	
RT	12/1	0.130	0.641	1015	1015	107	0.105	9.0	A	71 ft
TH	12/1	0.094	0.379	647	706	35	0.050	25.6	C+	38 ft
LT	12/1	0.307	0.301	602	630	612	0.971	58.9	*E+	1048 ft
EB Approach								61.6	E+	
RT+TH	12/1	0.139	0.116	95	178	143	0.671	63.0	*E+	241 ft
LT	12/1	0.000	0.038	137	196	14	0.062	46.9	*D	21 ft

SIGNAL2000/TEAPAC[Ver 2.02.16] - HCM Input Worksheet

Intersection # 1 - Area Location Type: NONCBD



	SB			WB			NB			EB		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
Heavy veh, %HV	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Pk-hr fact, PHF	.85	.85	.85	.80	.80	.80	.83	.83	.83	.70	.70	.70
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff grn, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3	3	3	3	3
Ped vol, vped		0			0			0			0	
Bike vol, vbic		0			0			0			0	
Parking locatns		NO			NO			NO			NO	
Park mnvrs, Nm		0			0			0			0	
Bus stops, NB		0			0			0			0	
Grade, %G		.0			.0			.0			.0	

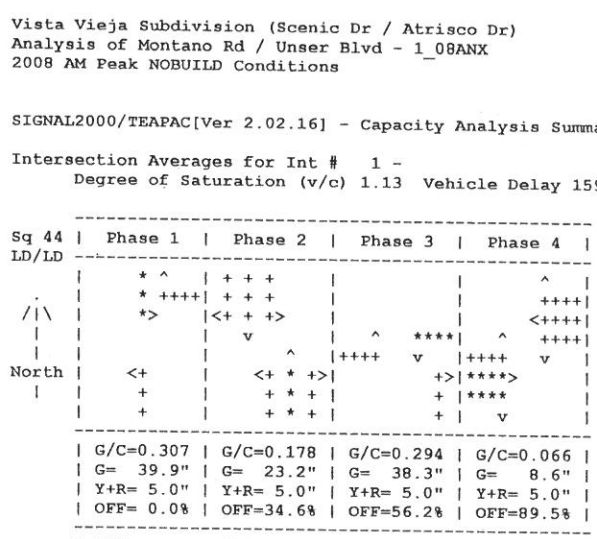


Vista Vieja Subdivision (Scenic Dr / Atrisco Dr)
Analysis of Montano Rd / Unser Blvd - 1_08ANX
2008 AM Peak NOBUILD Conditions

05/23/05
22:23:19

SIGNAL2000/TEAPAC[Ver 2.02.16] - Capacity Analysis Summary

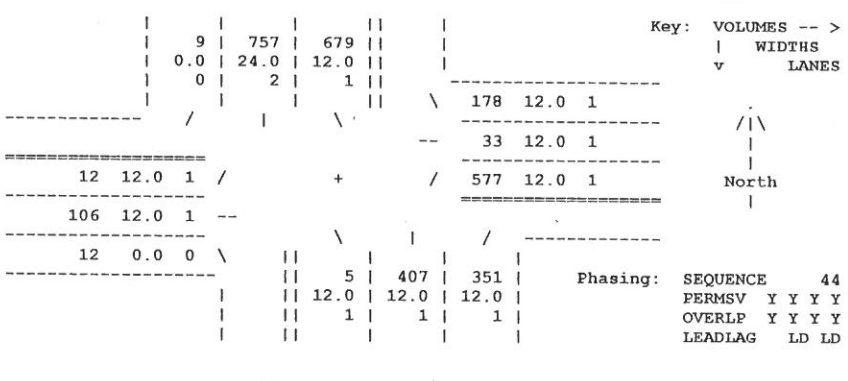
Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 1.13 Vehicle Delay 159.4 Level of Service F



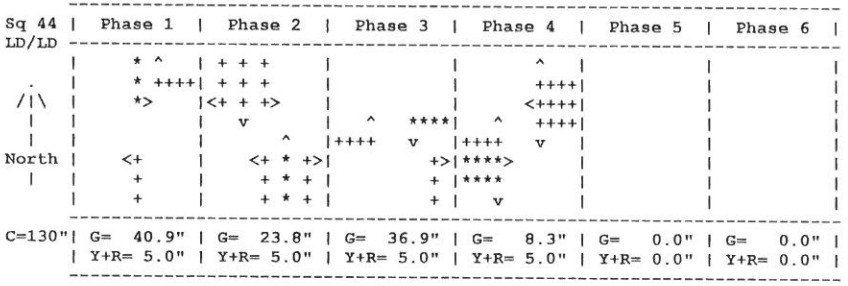
Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @D (vph)	@E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								180.2	F	
RT+TH	24/2	0.263	0.178	465	609	813	1.288	194.9	F	1101 ft
LT	12/1	0.409	0.307	555	600	752	1.253	164.3	*F	1775 ft
NB Approach								137.0	F	
RT	12/1	0.314	0.511	786	810	423	0.522	21.8	C+	454 ft
TH	12/1	0.292	0.178	223	302	460	1.386	244.6	*F	1270 ft
LT	12/1	0.001	0.307	555	600	6	0.010	17.0	B	5 ft
WB Approach								128.2	F	
RT	12/1	0.191	0.412	602	652	206	0.316	26.1	C+	230 ft
TH	12/1	0.096	0.066	1	91	41	0.333	59.6	E+	69 ft
LT	12/1	0.391	0.294	535	578	721	1.247	161.3	*F	1697 ft
EB Approach								254.8	F	
RT+TH	12/1	0.152	0.066	1	89	168	1.388	278.2	*F	518 ft
LT	12/1	0.002	0.294	588	634	17	0.027	23.7	C+	18 ft

SIGNAL2000/TEAPAC[Ver 2.02.16] - HCM Input Worksheet

Intersection # 1 - Area Location Type: NONCBD



	SB			WB			NB			EB		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
Heavy veh, %HV	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Pk-hr fact, PHF	.85	.85	.85	.80	.80	.80	.83	.83	.83	.70	.70	.70
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff grn, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3	3	3	3	3
Ped vol, vped		0			0			0			0	
Bike vol, vbic		0			0			0			0	
Parking locatns		NO			NO			NO			NO	
Park mnvrs, Nm		0			0			0			0	
Bus stops, NB		0			0			0			0	
Grade, %G		.0			.0			.0			.0	



SIGNAL2000/TEAPAC[Ver 2.02.16] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 1.18 Vehicle Delay 181.9 Level of Service F

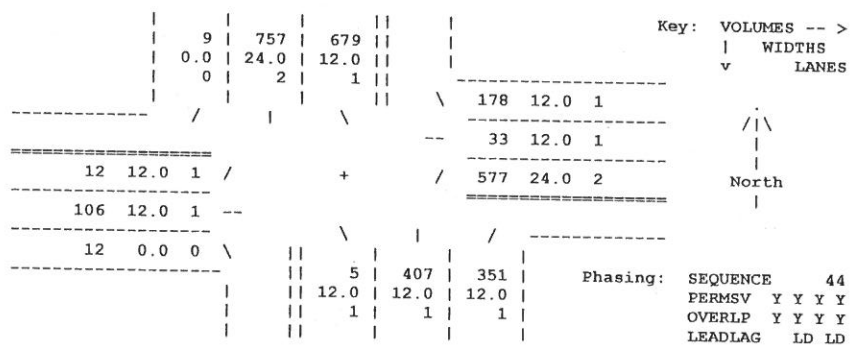
C=130 sec G=110.0 sec = 84.6% Y=20.0 sec = 15.4% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @D (vph)	@E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								213.1	F	
RT+TH	24/2	0.285	0.183	485	627	902	1.392	238.8	F	1312 ft
LT	12/1	0.433	0.315	569	614	799	1.301	184.0	*F	1966 ft
NB Approach								151.1	F	
RT	12/1	0.314	0.506	775	801	423	0.528	22.3	C+	459 ft
TH	12/1	0.306	0.183	234	313	490	1.433	263.9	*F	1389 ft
LT	12/1	0.001	0.315	569	614	6	0.010	16.4	B	5 ft
WB Approach								139.3	F	
RT	12/1	0.201	0.417	611	660	222	0.336	26.0	C+	248 ft
TH	12/1	0.096	0.064	1	87	41	0.345	60.0	E+	69 ft
LT	12/1	0.391	0.284	514	560	721	1.288	178.7	*F	1764 ft
EB Approach								273.6	F	
RT+TH	12/1	0.152	0.064	1	86	168	1.436	298.8	*F	535 ft
LT	12/1	0.003	0.284	564	613	17	0.028	24.8	C+	18 ft

SIGNAL2000/TEAPAC[Ver 2.02.16] - HCM Input Worksheet

Intersection # 1 -

Area Location Type: NONCBD



	SB			WB			NB			EB		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
Heavy veh, %HV	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Pk-hr fact, PHF	.85	.85	.85	.80	.80	.80	.83	.83	.83	.70	.70	.70
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, ll	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff grn, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3	3	3	3	3
Ped vol, vped		0			0			0			0	
Bike vol, vbic		0			0			0			0	
Parking locatns		NO			NO			NO			NO	
Park mnvrs, Nm		0			0			0			0	
Bus stops, NB		0			0			0			0	
Grade, %G		.0			.0			.0			.0	

Sq 44 LD/LD	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
	* ^	+ + +		^		
	* ++++	+ + +		++++		
	*>	<+ + +>		<++++		
		v	^ ****	^		
		^	++++ v	++++		
North	<+	<+ * +>		+>|****>		
	+	+ * +		+ |****		
	+	+ * +		+ | v		
C=130"	G= 48.9"	G= 28.5"	G= 22.7"	G= 9.9"	G= 0.0"	G= 0.0"
	Y+R= 5.0"	Y+R= 5.0"	Y+R= 5.0"	Y+R= 5.0"	Y+R= 0.0"	Y+R= 0.0"

SIGNAL2000/TEAPAC[Ver 2.02.16] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 1.04 Vehicle Delay 120.0 Level of Service F

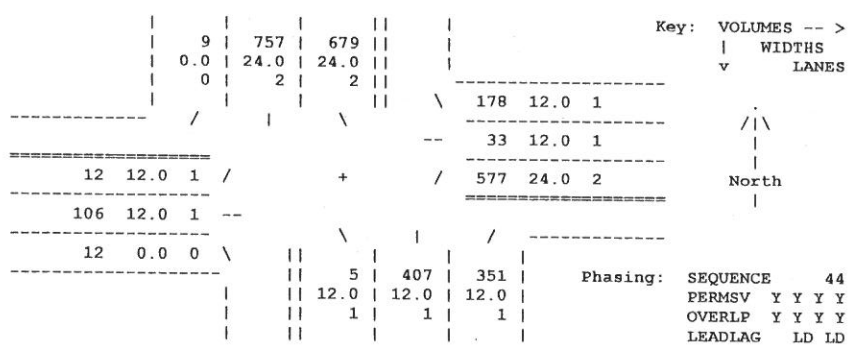
Sq 44 LD/LD	Phase 1	Phase 2	Phase 3	Phase 4
	* ^	+ + +		^
	* ++++	+ + +		++++
	*>	<+ + +>		<++++
		v	^ ****	^
		^	++++ v	++++
North	<+	<+ * +>		+>|****>
	+	+ * +		+ |****
	+	+ * +		+ | v
	G/C=0.376	G/C=0.219	G/C=0.175	G/C=0.076
	G= 48.9"	G= 28.5"	G= 22.7"	G= 9.9"
	Y+R= 5.0"	Y+R= 5.0"	Y+R= 5.0"	Y+R= 5.0"
	OFF= 0.0%	OFF=41.4%	OFF=67.2%	OFF=88.5%

C=130 sec G=110.0 sec = 84.6% Y=20.0 sec = 15.4% Ped= 0.0 sec = 0.0%

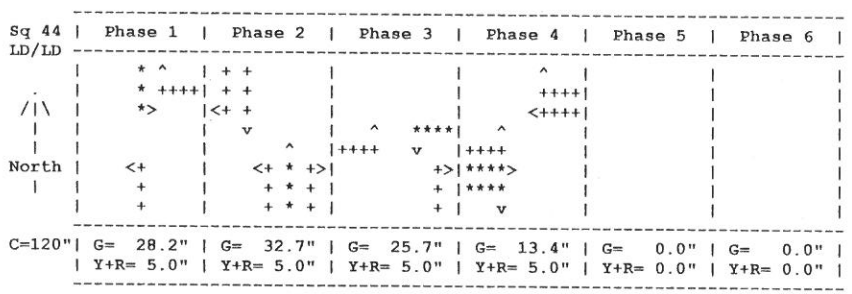
Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @D (vph)	@E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								121.3	F	
RT+TH	24/2	0.285	0.219	631	766	902	1.165	139.0	F	1070 ft
LT	12/1	0.434	0.376	686	722	799	1.107	101.3	*F	1586 ft
NB Approach								100.7	F	
RT	12/1	0.314	0.432	640	685	423	0.618	30.3	C	525 ft
TH	12/1	0.306	0.219	306	385	490	1.201	162.5	*F	1143 ft
LT	12/1	0.001	0.376	686	722	6	0.008	12.1	B+	4 ft
WB Approach								123.9	F	
RT	12/1	0.201	0.491	747	777	222	0.286	19.8	B	218 ft
TH	12/1	0.096	0.076	1	109	41	0.289	57.8	E+	67 ft
LT	24/2	0.247	0.175	435	576	721	1.202	159.7	*F	896 ft
EB Approach								184.4	F	
RT+TH	12/1	0.152	0.076	1	107	168	1.200	199.7	*F	444 ft
LT	12/1	0.000	0.175	366	425	17	0.039	33.2	C	21 ft

SIGNAL2000/TEAPAC[Ver 2.02.16] - HCM Input Worksheet

Intersection # 1 - Area Location Type: NONCBD

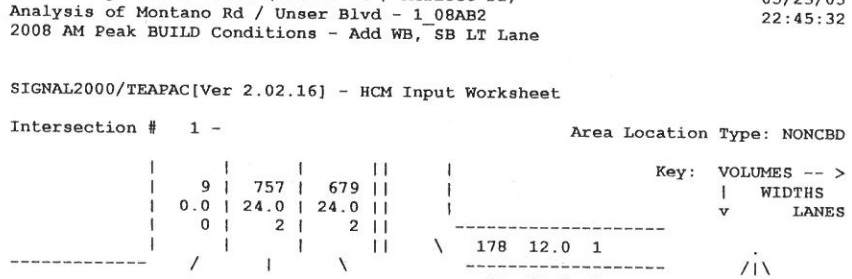


	SB			WB			NB			EB		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
Heavy veh, %HV	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Pk-hr fact, PHF	.85	.85	.85	.80	.80	.80	.83	.83	.83	.70	.70	.70
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff grn, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3	3	3	3	3
Ped vol, vped		0			0			0			0	
Bike vol, vbic		0			0			0			0	
Parking locatns		NO			NO			NO			NO	
Park mnvrs, Nm		0			0			0			0	
Bus stops, NB		0			0			0			0	
Grade, %G		.0			.0			.0			.0	



SIGNAL2000/TEAPAC[Ver 2.02.16] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.86 Vehicle Delay 61.3 Level of Service E+

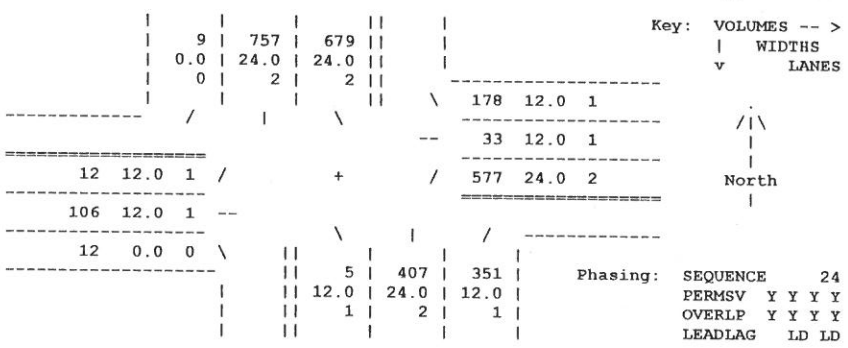


Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @D (vph)	Service Rate @E (vph)	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								66.4	E+	
RT+TH	24/2	0.278	0.272	877	961	902	0.939	59.0	E+	766 ft
LT	24/2	0.259	0.235	708	807	799	0.990	74.9	*E	727 ft
NB Approach								48.5	D	
RT	12/1	0.307	0.528	823	836	423	0.506	18.7	B	409 ft
TH	12/1	0.299	0.272	435	501	490	0.966	74.6	*E	816 ft
LT	12/1	0.000	0.235	433	478	6	0.013	16.4	B	4 ft
WB Approach								62.9	E+	
RT	12/1	0.190	0.388	569	615	222	0.361	26.5	C+	241 ft
TH	12/1	0.067	0.112	123	178	41	0.197	48.9	D	59 ft
LT	24/2	0.238	0.214	629	736	721	0.980	74.9	*E	657 ft
EB Approach								69.9	E	
RT+TH	12/1	0.139	0.112	121	175	168	0.820	74.6	*E	283 ft
LT	12/1	0.000	0.214	515	559	17	0.030	24.3	C+	17 ft

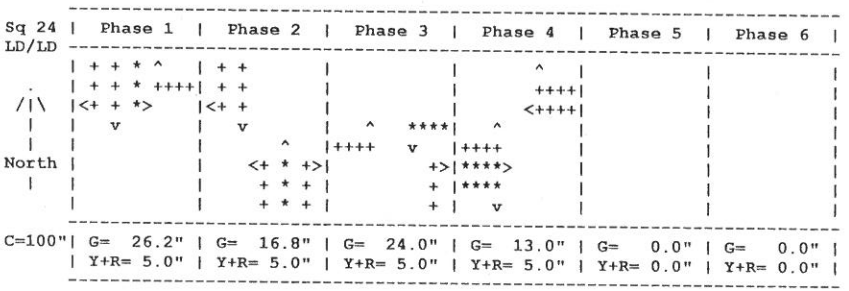
Vista Vieja Subdivision (Scenic Dr / Atrisco Dr) 05/23/05
Analysis of Montano Rd / Unser Blvd - 1_08AB3 22:47:54
2008 AM Peak BUILD Conditions - Add WB, SB LT, NB Thru Lane

SIGNAL2000/TEAPAC[Ver 2.02.16] - HCM Input Worksheet

Intersection # 1 - Area Location Type: NONCBD



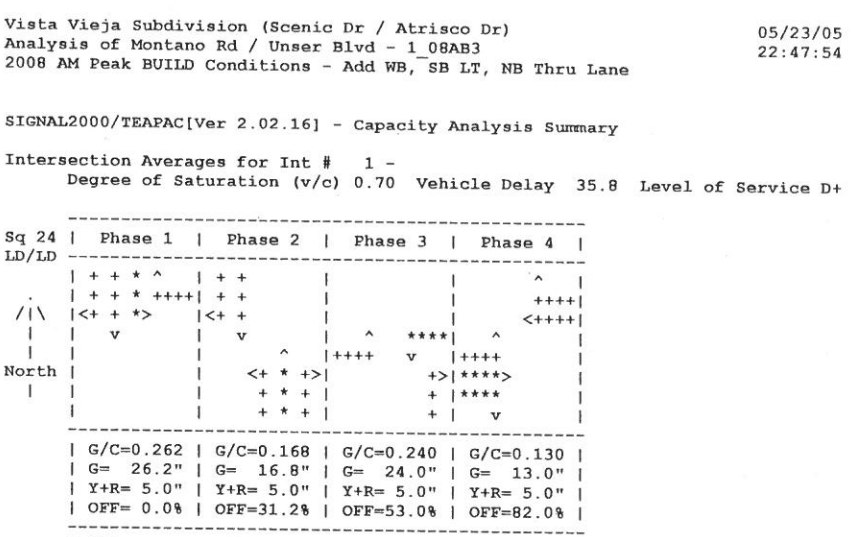
	SB			WB			NB			EB		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
Heavy veh, %HV	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Pk-hr fact, PHF	.85	.85	.85	.80	.80	.80	.83	.83	.83	.70	.70	.70
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff grn, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3	3	3	3	3
Ped vol, vped		0			0			0			0	
Bike vol, vbic		0			0			0			0	
Parking locatns		NO			NO			NO			NO	
Park mnvrs, Nm		0			0			0			0	
Bus stops, NB		0			0			0			0	
Grade, %G		.0			.0			.0			.0	



Vista Vieja Subdivision (Scenic Dr / Atrisco Dr) 05/23/05
Analysis of Montano Rd / Unser Blvd - 1_08AB3 22:47:54
2008 AM Peak BUILD Conditions - Add WB, SB LT, NB Thru Lane

SIGNAL2000/TEAPAC[Ver 2.02.16] - Capacity Analysis Summary

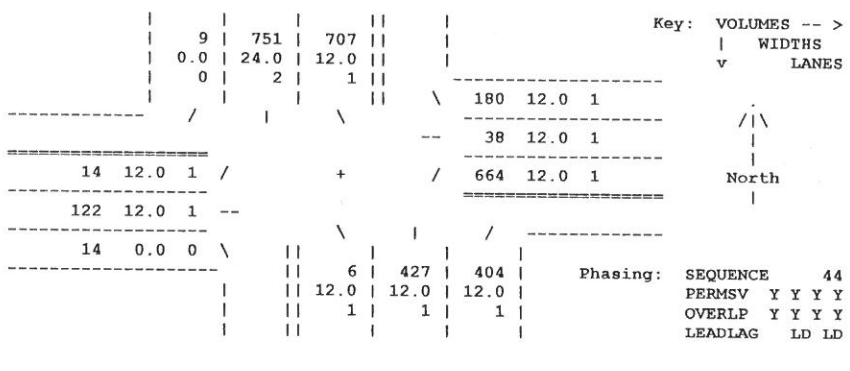
Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.70 Vehicle Delay 35.8 Level of Service D+



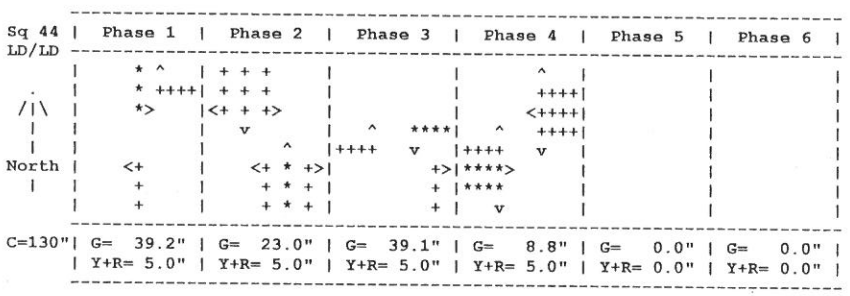
Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @D (vph)	@E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								31.6	C	
RT+TH	24/2	0.268	0.480	1696	1696	902	0.532	18.5	B	415 ft
LT	24/2	0.247	0.262	853	899	799	0.889	46.4	*D	553 ft
NB Approach								36.3	D+	
RT	12/1	0.295	0.458	711	725	423	0.583	21.3	C+	397 ft
TH	24/2	0.159	0.168	525	595	490	0.824	49.3	*D	351 ft
LT	12/1	0.000	0.168	67	82	6	0.061	35.2	D+	7 ft
WB Approach								40.3	D+	
RT	12/1	0.175	0.442	683	700	222	0.317	18.4	B	186 ft
TH	12/1	0.041	0.130	184	223	41	0.169	39.0	D+	48 ft
LT	24/2	0.226	0.240	771	823	721	0.876	47.1	*D	501 ft
EB Approach								47.5	D	
RT+TH	12/1	0.123	0.130	181	220	168	0.703	50.6	*D	223 ft
LT	12/1	0.000	0.240	623	641	17	0.027	17.0	B	13 ft

SIGNAL2000/TEAPAC[Ver 2.02.16] - HCM Input Worksheet

Intersection # 1 - Area Location Type: NONCBD

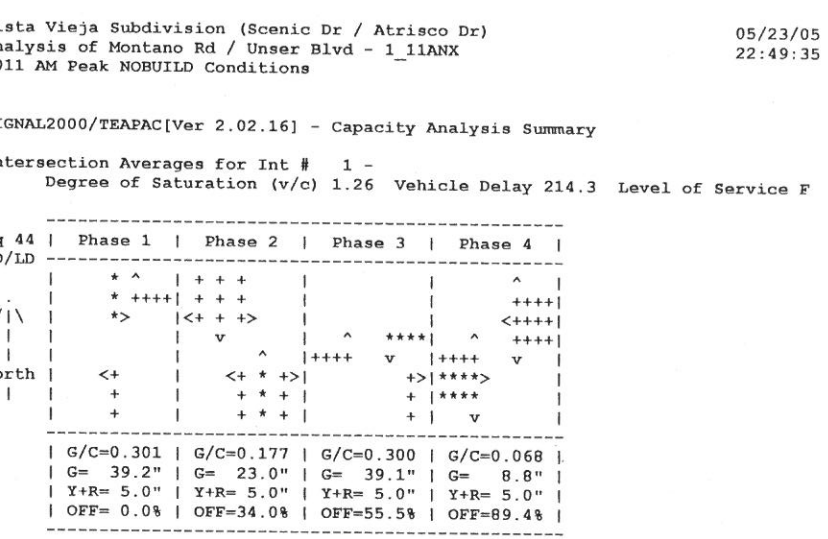


	SB			WB			NB			EB		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
Heavy veh, %HV	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Pk-hr fact, PHF	.85	.85	.85	.80	.80	.80	.83	.83	.83	.70	.70	.70
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, ll	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff grn, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3	3	3	3	3
Ped vol, vped		0			0			0			0	
Bike vol, vbic		0			0			0			0	
Parking locatns		NO			NO			NO			NO	
Park mnvrs, Nm		0			0			0			0	
Bus stops, NB		0			0			0			0	
Grade, %G		.0			.0			.0			.0	



SIGNAL2000/TEAPAC[Ver 2.02.16] - Capacity Analysis Summary

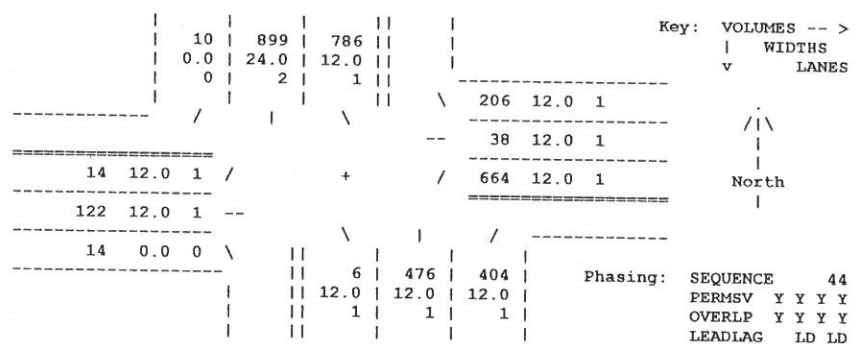
Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 1.26 Vehicle Delay 214.3 Level of Service F



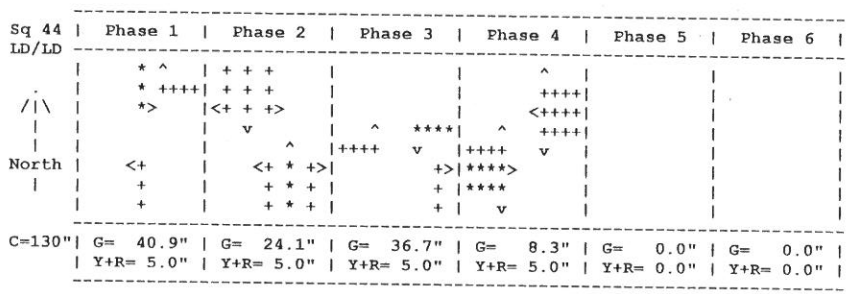
Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @D (vph)	@E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								245.4	F	
RT+TH	24/2	0.284	0.177	457	601	895	1.434	258.0	F	1342 ft
LT	12/1	0.450	0.301	544	590	832	1.410	231.7	*F	2235 ft
NB Approach								175.0	F	
RT	12/1	0.349	0.516	793	816	487	0.597	23.2	C+	544 ft
TH	12/1	0.318	0.177	220	299	514	1.562	320.9	*F	1569 ft
LT	12/1	0.001	0.301	544	590	7	0.012	17.5	B	6 ft
WB Approach								181.3	F	
RT	12/1	0.202	0.407	594	645	225	0.349	26.9	C+	256 ft
TH	12/1	0.098	0.068	1	94	47	0.373	59.8	E+	79 ft
LT	12/1	0.447	0.300	547	589	830	1.409	230.0	*F	2228 ft
EB Approach								319.4	F	
RT+TH	12/1	0.166	0.068	1	92	194	1.565	349.9	*F	654 ft
LT	12/1	0.003	0.300	598	642	20	0.031	23.2	C+	21 ft

SIGNAL2000/TEAPAC[Ver 2.02.16] - HCM Input Worksheet

Intersection # 1 - Area Location Type: NONCBD



	SB			WB			NB			EB		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
Heavy veh, %HV	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Pk-hr fact, PHF	.85	.85	.85	.80	.80	.80	.83	.83	.83	.70	.70	.70
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff grn, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3	3	3	3	3
Ped vol, vped		0			0			0			0	
Bike vol, vbic		0			0			0			0	
Parking locatns		NO			NO			NO			NO	
Park mnvrs, Nm		0			0			0			0	
Bus stops, NB		0			0			0			0	
Grade, %G		.0			.0			.0			.0	

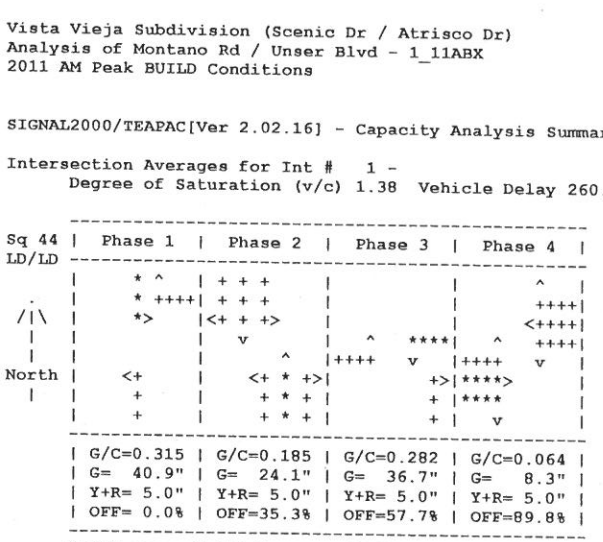


Vista Vieja Subdivision (Scenic Dr / Atrisco Dr)
Analysis of Montano Rd / Unser Blvd - 1_11ABX
2011 AM Peak BUILD Conditions

05/23/05
22:50:57

SIGNAL2000/TEAPAC[Ver 2.02.16] - Capacity Analysis Summary

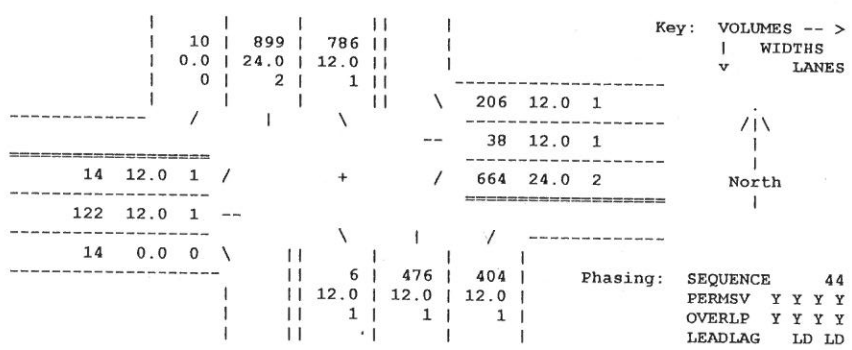
Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 1.38 Vehicle Delay 260.8 Level of Service F



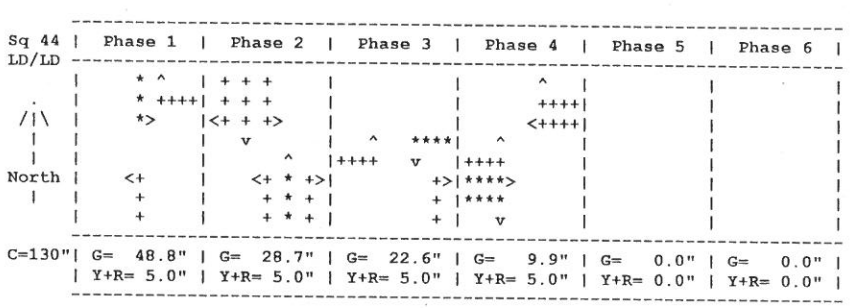
Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @D (vph)	Service Rate @E (vph)	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								312.3	F	
RT+TH	24/2	0.326	0.185	492	634	1070	1.636	346.1	F	1772 ft
LT	12/1	0.496	0.315	569	614	925	1.507	273.2	*F	2643 ft
NB Approach								206.1	F	
RT	12/1	0.349	0.506	775	801	487	0.608	24.2	C+	554 ft
TH	12/1	0.345	0.185	237	316	573	1.661	362.9	*F	1822 ft
LT	12/1	0.001	0.315	569	614	7	0.011	16.3	B	6 ft
WB Approach								203.5	F	
RT	12/1	0.221	0.417	611	660	257	0.389	26.8	C+	293 ft
TH	12/1	0.098	0.064	1	87	47	0.395	60.6	E+	80 ft
LT	12/1	0.447	0.282	511	557	830	1.490	266.4	*F	2357 ft
EB Approach								357.4	F	
RT+TH	12/1	0.166	0.064	1	86	194	1.658	391.7	*F	683 ft
LT	12/1	0.004	0.282	555	604	20	0.033	25.0	C+	21 ft

SIGNAL2000/TEAPAC[Ver 2.02.16] - HCM Input Worksheet

Intersection # 1 - Area Location Type: NONCBD

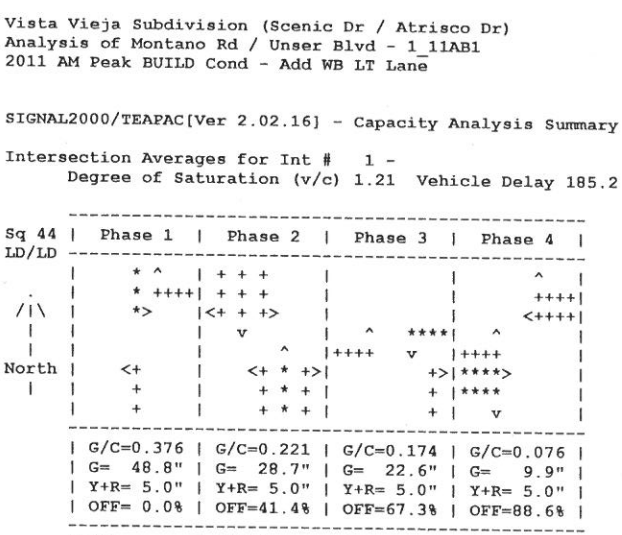


	SB			WB			NB			EB		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
Heavy veh, %HV	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Pk-hr fact, PHF	.85	.85	.85	.80	.80	.80	.83	.83	.83	.70	.70	.70
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff grn, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3	3	3	3	3
Ped vol, vped		0			0			0			0	
Bike vol, vbic		0			0			0			0	
Parking locatns		NO			NO			NO			NO	
Park mnvrs, Nm		0			0			0			0	
Bus stops, NB		0			0			0			0	
Grade, %G		.0			.0			.0			.0	



SIGNAL2000/TEAPAC[Ver 2.02.16] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 1.21 Vehicle Delay 185.2 Level of Service F



C=130 sec G=110.0 sec = 84.6% Y=20.0 sec = 15.4% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @D (vph)	@E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								200.8	F	
RT+TH	24/2	0.326	0.221	639	773	1070	1.370	225.3	F	1508 ft
LT	12/1	0.496	0.376	684	721	925	1.283	172.5	*F	2217 ft
NB Approach								144.8	F	
RT	12/1	0.349	0.433	641	686	487	0.710	33.6	C	639 ft
TH	12/1	0.345	0.221	311	389	573	1.391	240.9	*F	1556 ft
LT	12/1	0.001	0.376	684	721	7	0.010	12.1	B+	5 ft
WB Approach								183.1	F	
RT	12/1	0.221	0.490	746	776	257	0.331	20.4	C+	258 ft
TH	12/1	0.098	0.076	1	109	47	0.331	58.3	E+	78 ft
LT	24/2	0.274	0.174	430	572	830	1.393	240.5	*F	1196 ft
EB Approach								253.2	F	
RT+TH	12/1	0.166	0.076	1	106	194	1.396	275.8	*F	592 ft
LT	12/1	0.001	0.174	358	416	20	0.047	33.4	C	25 ft

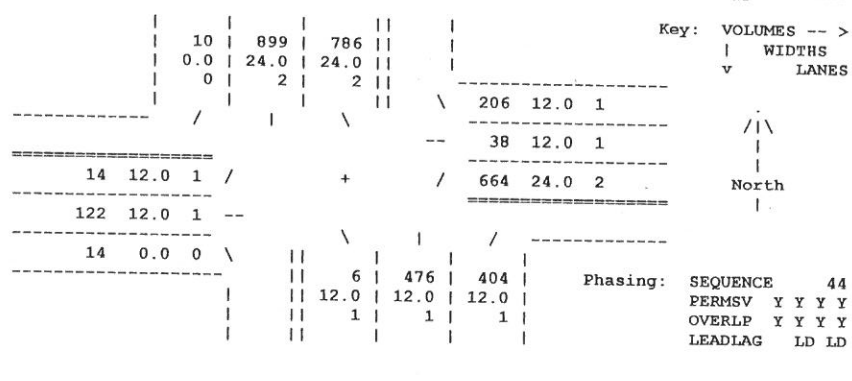
Vista Vieja Subdivision (Scenic Dr / Atrisco Dr)
Analysis of Montano Rd / Unser Blvd - 1_11AB2
2011 AM Peak BUILD Cond - Add WB, SB LT Lane

05/23/05
22:55:01

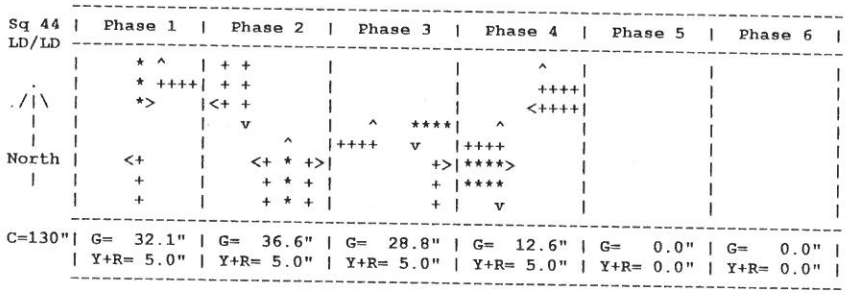
SIGNAL2000/TEAPAC[Ver 2.02.16] - HCM Input Worksheet

Intersection # 1 -

Area Location Type: NONCBD



	SB			WB			NB			EB		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
Heavy veh, %HV	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Pk-hr fact, PHF	.85	.85	.85	.80	.80	.80	.83	.83	.83	.70	.70	.70
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, ll	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff grn, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3	3	3	3	3
Ped vol, vped		0			0			0			0	
Bike vol, vbic		0			0			0			0	
Parking locatns		NO			NO			NO			NO	
Park mnvrs, Nm		0			0			0			0	
Bus stops, NB		0			0			0			0	
Grade, %G		.0			.0			.0			.0	

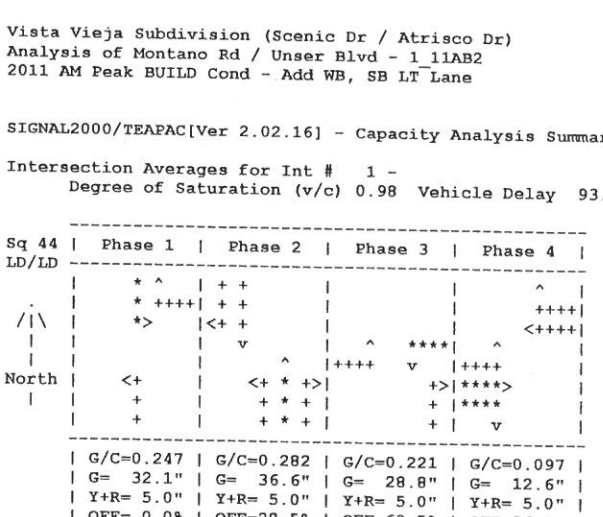


Vista Vieja Subdivision (Scenic Dr / Atrisco Dr)
Analysis of Montano Rd / Unser Blvd - 1_11AB2
2011 AM Peak BUILD Cond - Add WB, SB LT Lane

05/23/05
22:55:01

SIGNAL2000/TEAPAC[Ver 2.02.16] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.98 Vehicle Delay 93.6 Level of Service F

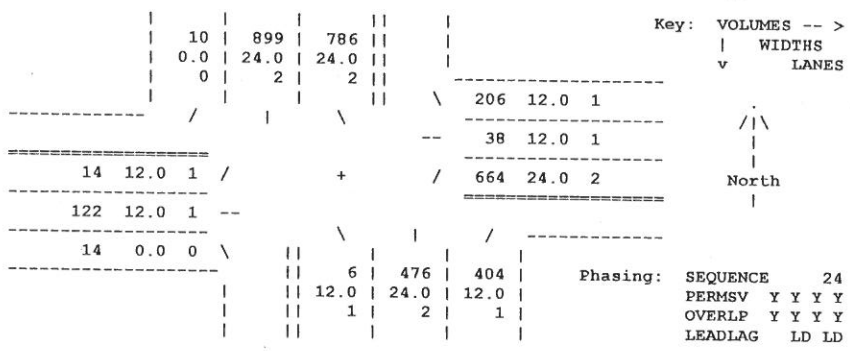


Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @D (vph)	@E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								102.5	F	
RT+TH	24/2	0.326	0.282	887	995	1070	1.075	97.8	F	1119 ft
LT	24/2	0.298	0.247	721	847	925	1.092	108.1	*F	988 ft
NB Approach								70.7	E	
RT	12/1	0.349	0.541	841	857	487	0.568	20.7	C+	517 ft
TH	12/1	0.345	0.282	438	513	573	1.094	113.9	*F	1162 ft
LT	12/1	0.001	0.247	438	492	7	0.014	17.7	B	5 ft
WB Approach								90.5	F	
RT	12/1	0.221	0.382	547	605	257	0.425	30.1	C	310 ft
TH	12/1	0.098	0.097	44	145	47	0.261	55.2	E+	75 ft
LT	24/2	0.274	0.221	620	751	830	1.092	111.3	*F	899 ft
EB Approach								140.5	F	
RT+TH	12/1	0.166	0.097	43	143	194	1.090	152.2	*F	450 ft
LT	12/1	0.000	0.221	486	542	20	0.037	27.3	C+	22 ft

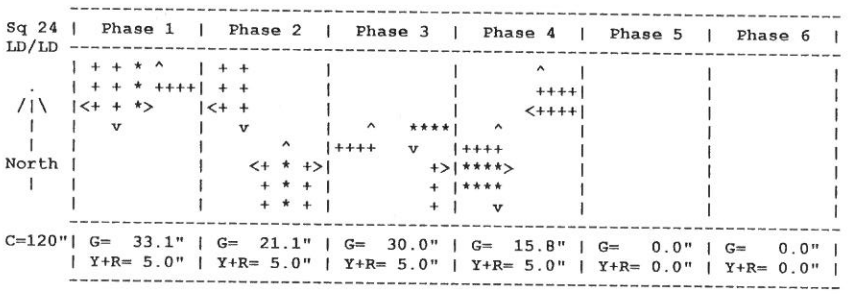
Vista Vieja Subdivision (Scenic Dr / Atrisco Dr) 05/23/05
Analysis of Montano Rd / Unser Blvd - 1_11AB3 22:56:53
2011 AM Peak BUILD Cond - Add WB, SB LT, NB Thru Lane

SIGNAL2000/TEAPAC[Ver 2.02.16] - HCM Input Worksheet

Intersection # 1 - Area Location Type: NONCBD



	SB			WB			NB			EB		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
Heavy veh, %HV	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Pk-hr fact, PHF	.85	.85	.85	.80	.80	.80	.83	.83	.83	.70	.70	.70
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, ll	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff grn, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3	3	3	3	3
Ped vol, vped		0			0			0			0	
Bike vol, vbic		0			0			0			0	
Parking locatns		NO			NO			NO			NO	
Park mnvrs, Nm		0			0			0			0	
Bus stops, NB		0			0			0			0	
Grade, %G		.0			.0			.0			.0	



Vista Vieja Subdivision (Scenic Dr / Atrisco Dr) 05/23/05
Analysis of Montano Rd / Unser Blvd - 1_11AB3 22:56:53
2011 AM Peak BUILD Cond - Add WB, SB LT, NB Thru Lane

SIGNAL2000/TEAPAC[Ver 2.02.16] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.79 Vehicle Delay 48.9 Level of Service D

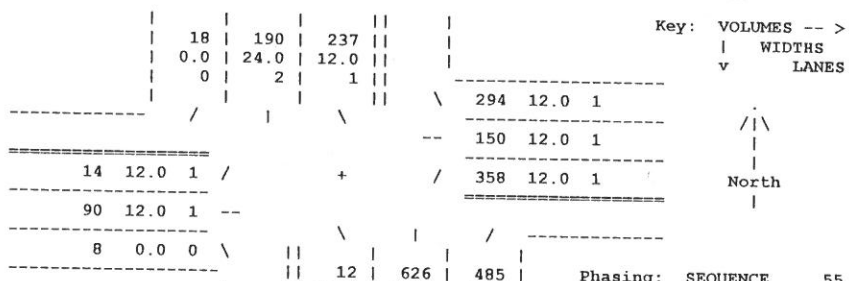
Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @D (vph)	@E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								43.3	D+	
RT+TH	24/2	0.321	0.493	1743	1743	1070	0.614	22.8	C+	598 ft
LT	24/2	0.291	0.276	864	946	925	0.978	67.0	*E+	810 ft
NB Approach								48.7	D	
RT	12/1	0.343	0.468	714	741	487	0.657	26.7	C+	557 ft
TH	24/2	0.195	0.176	501	611	573	0.920	67.6	*E	512 ft
LT	12/1	0.053	0.176	52	68	7	0.080	41.7	D+	10 ft
WB Approach								56.2	E+	
RT	12/1	0.211	0.449	679	711	257	0.361	22.1	C+	258 ft
TH	12/1	0.070	0.132	158	216	47	0.192	46.8	D	66 ft
LT	24/2	0.267	0.250	766	859	830	0.966	67.2	*E+	727 ft
EB Approach								63.9	E+	
RT+TH	12/1	0.154	0.132	155	212	194	0.805	68.4	*E	317 ft
LT	12/1	0.000	0.250	614	646	20	0.031	20.2	C+	19 ft

Vista Vieja Subdivision (Scenic Dr / Atrisco Dr)
Analysis of Montano Rd / Unser Blvd - 1_05PX
2005 PM Peak Existing Conditions

05/24/05
08:13:07

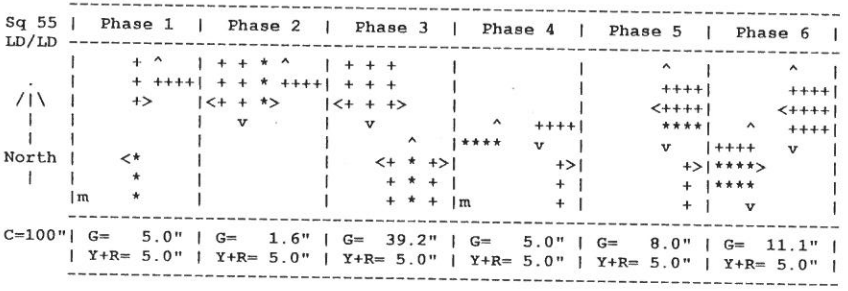
SIGNAL2000/TEAPAC[Ver 2.02.16] - HCM Input Worksheet

Intersection # 1 - Area Location Type: NONCBD



Phasing: SEQUENCE 55
PERMSV Y Y Y Y
OVERLP Y Y Y Y
LEADLAG LD LD

	SB RT	SB TH	SB LT	WB RT	WB TH	WB LT	NB RT	NB TH	NB LT	EB RT	EB TH	EB LT
Heavy veh, %HV	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Pk-hr fact, PHF	.95	.95	.95	.92	.92	.92	.93	.93	.93	.70	.70	.70
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, ll	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff grn, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3	3	3	3	3
Ped vol, vped		0			0			0			0	
Bike vol, vbic		0			0			0			0	
Parking locatns		NO			NO			NO			NO	
Park mnvrs, Nm		0			0			0			0	
Bus stops, NB		0			0			0			0	
Grade, %G		.0			.0			.0			.0	

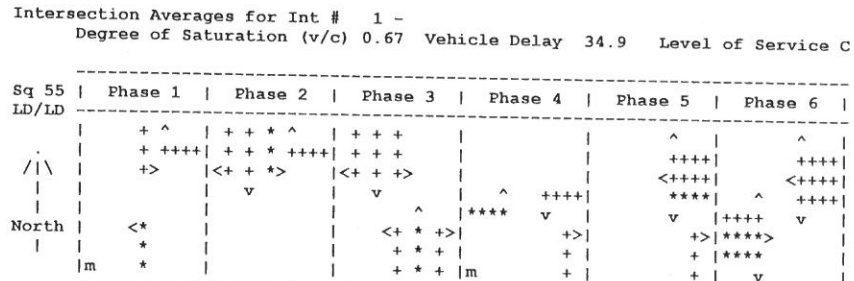


Vista Vieja Subdivision (Scenic Dr / Atrisco Dr)
Analysis of Montano Rd / Unser Blvd - 1_05PX
2005 PM Peak Existing Conditions

05/24/05
08:13:07

SIGNAL2000/TEAPAC[Ver 2.02.16] - Capacity Analysis Summary

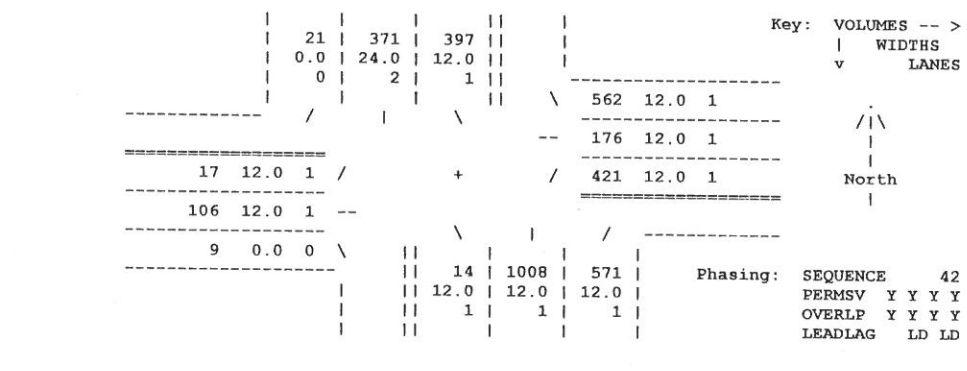
Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.67 Vehicle Delay 34.9 Level of Service C



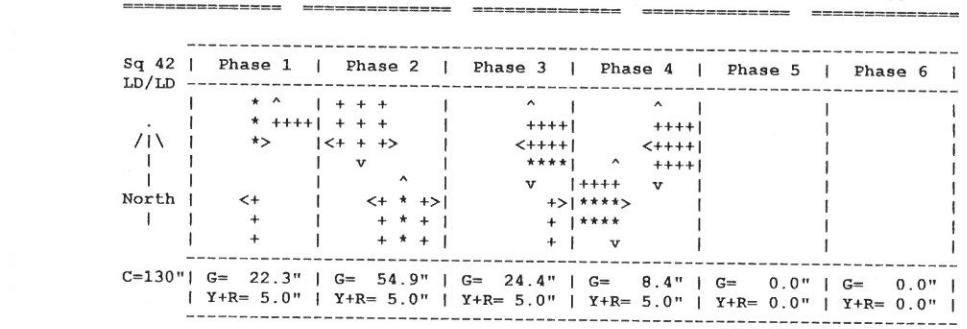
Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @D (vph)	@E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								36.2	D+	
RT+TH	24/2	0.084	0.459	1602	1602	219	0.137	15.7	B	87 ft
LT	12/1	0.116	0.116	250	278	249	0.886	54.3	*D	333 ft
NB Approach								30.6	C	
RT	12/1	0.352	0.623	986	986	522	0.529	11.2	B+	376 ft
TH	12/1	0.376	0.392	707	731	673	0.921	45.9	*D	860 ft
LT	12/1	0.000	0.050	517	537	13	0.024	15.7	*B	10 ft
WB Approach								37.6	D+	
RT	12/1	0.235	0.408	622	646	320	0.495	22.6	C+	304 ft
TH	12/1	0.118	0.241	397	449	163	0.363	32.0	C	176 ft
LT	12/1	0.177	0.180	395	426	389	0.913	52.3	*D	537 ft
EB Approach								50.0	D	
RT+TH	12/1	0.106	0.111	148	183	140	0.686	52.0	*D	188 ft
LT	12/1	0.000	0.050	173	206	20	0.090	35.8	*D+	23 ft

SIGNAL2000/TEAPAC[Ver 2.02.16] - HCM Input Worksheet

Intersection # 1 - Area Location Type: NONCBD

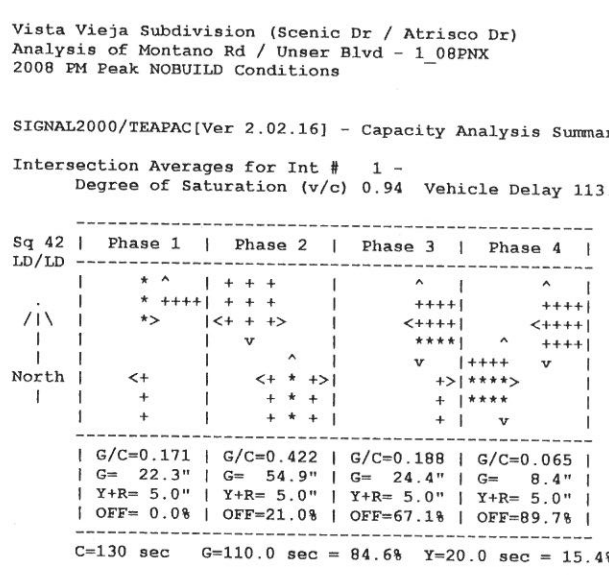


	SB			WB			NB			EB		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
Heavy veh, %HV	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Pk-hr fact, PHF	.95	.95	.95	.92	.92	.92	.93	.93	.93	.70	.70	.70
Pretimed or Act		A	A		A	A		A	A		A	A
Strtup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff grn, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT		3	3		3	3		3	3		3	3
Ped vol, vped		0			0			0			0	
Bike vol, vbic		0			0			0			0	
Parking locatns		NO			NO			NO			NO	
Park mnvrs, Nm		0			0			0			0	
Bus stops, NB		0			0			0			0	
Grade, %G		.0			.0			.0			.0	



SIGNAL2000/TEAPAC[Ver 2.02.16] - Capacity Analysis Summary

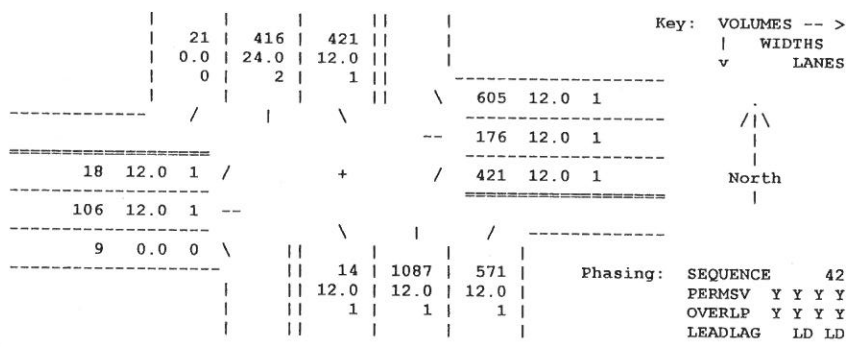
Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.94 Vehicle Delay 113.2 Level of Service F



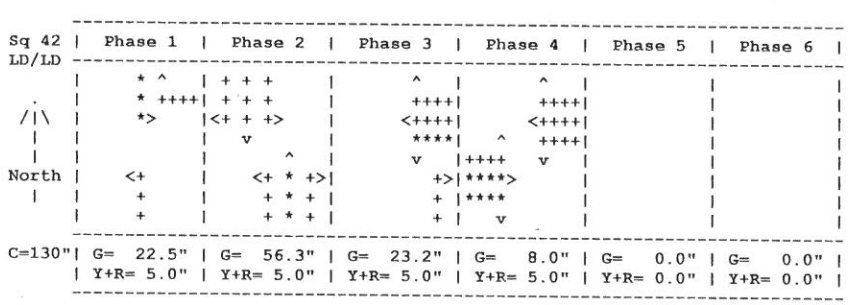
Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @D (vph)	Service Rate @E (vph)	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								84.2	F	
RT+TH	24/2	0.167	0.422	1449	1483	413	0.278	24.7	C+	234 ft
LT	12/1	0.240	0.171	298	346	418	1.161	143.0	*F	953 ft
NB Approach								141.4	F	
RT	12/1	0.419	0.649	1027	1027	614	0.598	14.1	B+	566 ft
TH	12/1	0.581	0.422	740	787	1084	1.377	215.3	*F	2807 ft
LT	12/1	0.000	0.171	665	665	15	0.023	9.3	A	10 ft
WB Approach								73.8	E	
RT	12/1	0.417	0.501	766	793	611	0.770	31.1	C	791 ft
TH	12/1	0.162	0.291	458	533	191	0.352	36.8	D+	248 ft
LT	12/1	0.256	0.188	325	378	458	1.177	146.3	*F	1050 ft
EB Approach								247.4	F	
RT+TH	12/1	0.150	0.065	1	87	164	1.378	274.8	*F	504 ft
LT	12/1	0.097	0.065	1	52	24	0.312	60.3	E+	41 ft

SIGNAL2000/TEAPAC[Ver 2.02.16] - HCM Input Worksheet

Intersection # 1 - Area Location Type: NONCBD



	SB			WB			NB			EB		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
Heavy veh, %HV	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Pk-hr fact, PHF	.95	.95	.95	.92	.92	.92	.93	.93	.93	.70	.70	.70
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff grn, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3	3	3	3	3
Ped vol, vped		0			0			0			0	
Bike vol, vbic		0			0			0			0	
Parking locatns		NO			NO			NO			NO	
Park mnvrs, Nm		0			0			0			0	
Bus stops, NB		0			0			0			0	
Grade, %G		.0			.0			.0			.0	

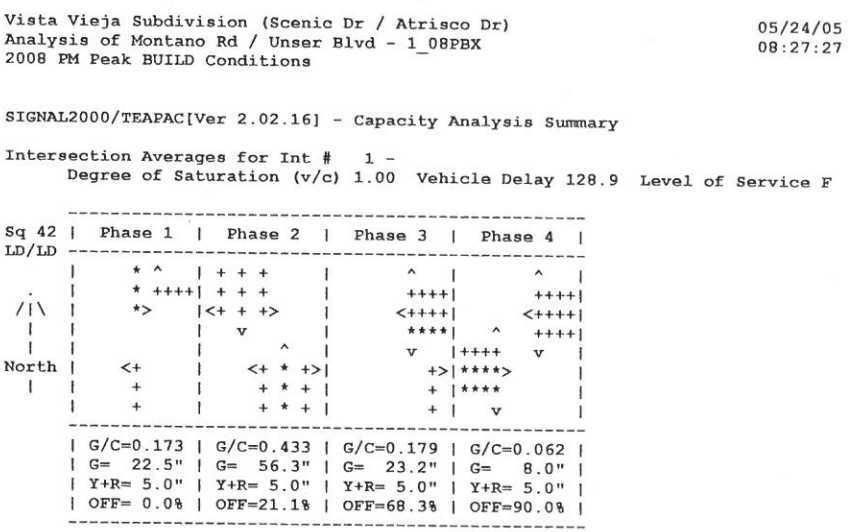


Vista Vieja Subdivision (Scenic Dr / Atrisco Dr)
Analysis of Montano Rd / Unser Blvd - 1_08PBX
2008 PM Peak BUILD Conditions

05/24/05
08:27:27

SIGNAL2000/TEAPAC[Ver 2.02.16] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 1.00 Vehicle Delay 128.9 Level of Service F



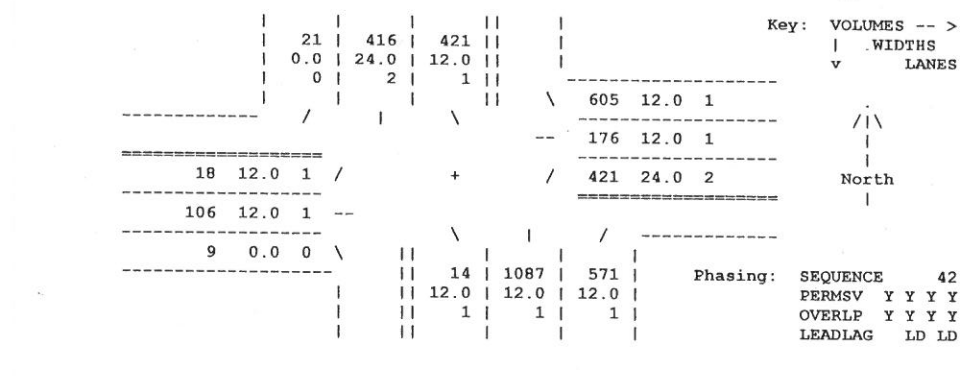
C=130 sec G=110.0 sec = 84.6% Y=20.0 sec = 15.4% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @D (vph)	Service Rate @E (vph)	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								93.7	F	
RT+TH	24/2	0.178	0.433	1494	1522	460	0.302	24.1	C+	259 ft
LT	12/1	0.255	0.173	300	349	443	1.220	166.0	*F	1066 ft
NB Approach								164.6	F	
RT	12/1	0.419	0.650	1030	1030	614	0.596	13.9	B+	563 ft
TH	12/1	0.619	0.433	763	807	1169	1.449	245.7	*F	3190 ft
LT	12/1	0.000	0.173	654	654	15	0.023	8.8	A	10 ft
WB Approach								83.4	F	
RT	12/1	0.442	0.490	746	776	658	0.848	37.7	D+	926 ft
TH	12/1	0.162	0.279	432	508	191	0.368	38.1	D+	253 ft
LT	12/1	0.257	0.179	307	360	458	1.228	167.9	*F	1106 ft
EB Approach								273.0	F	
RT+TH	12/1	0.150	0.062	1	82	164	1.451	306.5	*F	528 ft
LT	12/1	0.098	0.062	1	49	26	0.356	61.5	E+	45 ft

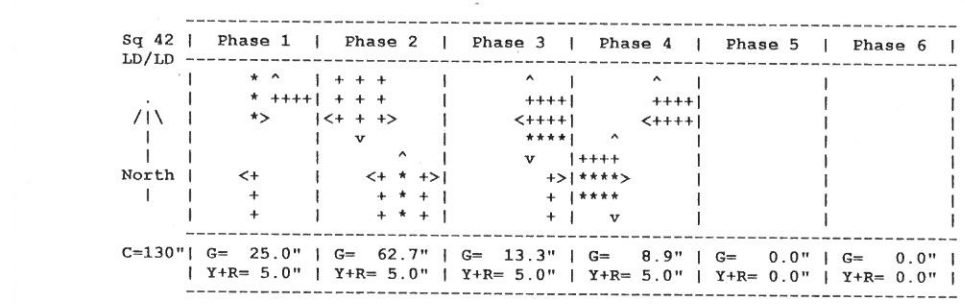
Vista Vieja Subdivision (Scenic Dr / Atrisco Dr) 05/24/05
Analysis of Montano Rd / Unser Blvd - 1_08PB1 08:29:54
2008 PM Peak BUILD Conditions - Add WB LT Lane

SIGNAL2000/TEAPAC[Ver 2.02.16] - HCM Input Worksheet

Intersection # 1 - Area Location Type: NONCBD



	SB			WB			NB			EB		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
Heavy veh, %HV	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Pk-hr fact, PHF	.95	.95	.95	.92	.92	.92	.93	.93	.93	.70	.70	.70
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff grn, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3	3	3	3	3
Ped vol, vped		0			0			0			0	
Bike vol, vbic		0			0			0			0	
Parking locatns		NO			NO			NO			NO	
Park mnvrs, Nm		0			0			0			0	
Bus stops, NB		0			0			0			0	
Grade, %G		.0			.0			.0			.0	



Vista Vieja Subdivision (Scenic Dr / Atrisco Dr) 05/24/05
Analysis of Montano Rd / Unser Blvd - 1_08PB1 08:29:54
2008 PM Peak BUILD Conditions - Add WB LT Lane

SIGNAL2000/TEAPAC[Ver 2.02.16] - Capacity Analysis Summary

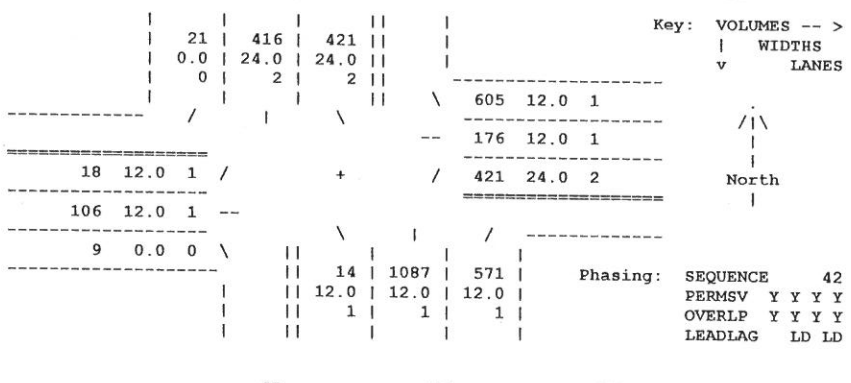
Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.97 Vehicle Delay 111.0 Level of Service F

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @D (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								71.3	E	
RT+TH	24/2	0.178	0.483	1694	1696	460	0.271	20.1	C+	237 ft
LT	12/1	0.256	0.192	330	384	443	1.113	124.4	*F	949 ft
NB Approach								120.7	F	
RT	12/1	0.419	0.624	987	987	614	0.622	16.3	B	603 ft
TH	12/1	0.619	0.483	870	899	1169	1.300	177.0	*F	2819 ft
LT	12/1	0.000	0.192	741	741	15	0.020	5.8	A	8 ft
WB Approach								109.8	F	
RT	12/1	0.442	0.441	654	697	658	0.944	56.3	E+	1070 ft
TH	12/1	0.162	0.210	287	365	191	0.490	46.2	D	279 ft
LT	24/2	0.181	0.103	128	312	458	1.301	213.2	*F	658 ft
EB Approach								217.3	F	
RT+TH	12/1	0.150	0.069	1	94	164	1.302	242.3	*F	476 ft
LT	12/1	0.098	0.069	1	56	26	0.321	60.0	E+	44 ft

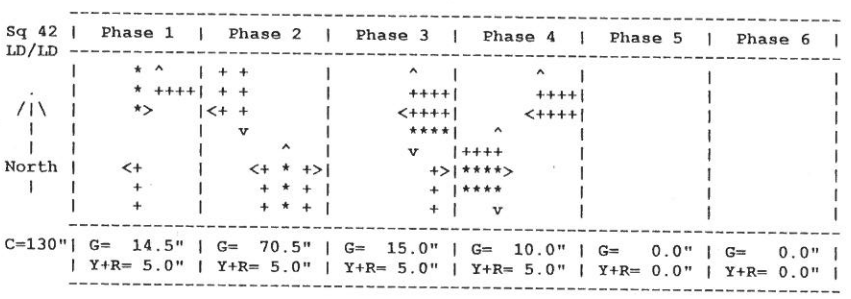
Vista Vieja Subdivision (Scenic Dr / Atrisco Dr) 05/24/05
Analysis of Montano Rd / Unser Blvd - 1_08PB2 08:31:40
2008 PM Peak BUILD Conditions - Add WB, SB LT Lane

SIGNAL2000/TEAPAC[Ver 2.02.16] - HCM Input Worksheet

Intersection # 1 - Area Location Type: NONCBD



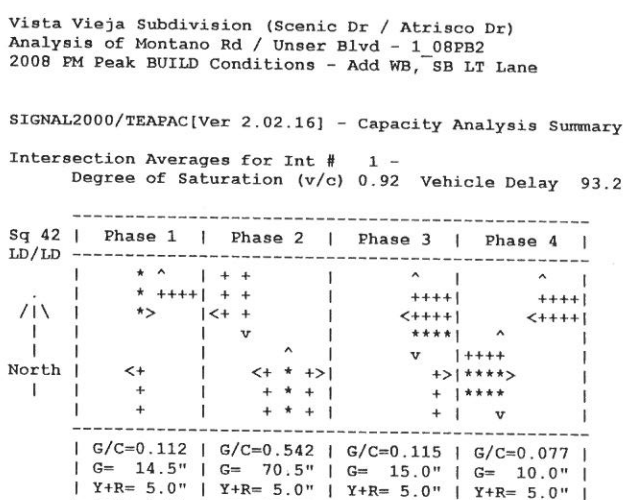
	SB			WB			NB			EB		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
Heavy veh, %HV	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Pk-hr fact, PHF	.95	.95	.95	.92	.92	.92	.93	.93	.93	.70	.70	.70
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff grn, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3	3	3	3	3
Ped vol, vped		0			0			0			0	
Bike vol, vbic		0			0			0			0	
Parking locatns		NO			NO			NO			NO	
Park mnvrs, Nm		0			0			0			0	
Bus stops, NB		0			0			0			0	
Grade, %G		.0			.0			.0			.0	



Vista Vieja Subdivision (Scenic Dr / Atrisco Dr) 05/24/05
Analysis of Montano Rd / Unser Blvd - 1_08PB2 08:31:40
2008 PM Peak BUILD Conditions - Add WB, SB LT Lane

SIGNAL2000/TEAPAC[Ver 2.02.16] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.92 Vehicle Delay 93.2 Level of Service F



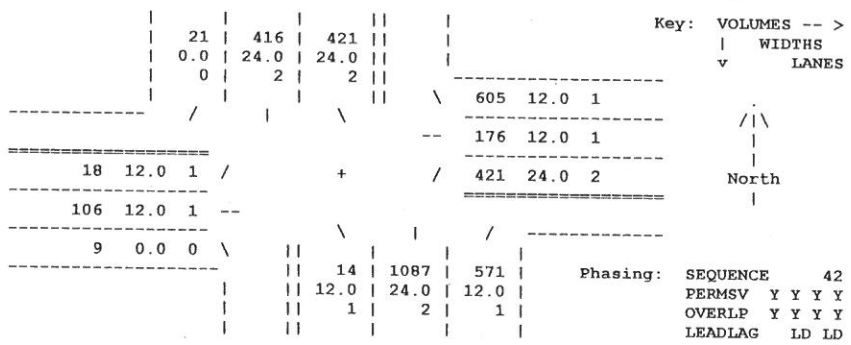
C=130 sec G=110.0 sec = 84.6% Y=20.0 sec = 15.4% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @D (vph)	Service Rate @E (vph)	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								83.4	F	
RT+TH	24/2	0.178	0.542	1906	1906	460	0.241	15.7	B	211 ft
LT	24/2	0.177	0.112	178	344	443	1.157	153.7	*F	558 ft
NB Approach								76.4	E	
RT	12/1	0.419	0.696	1102	1102	614	0.557	10.4	B+	497 ft
TH	12/1	0.619	0.542	1000	1010	1169	1.157	111.9	*F	2402 ft
LT	12/1	0.000	0.112	660	660	15	0.023	6.6	A	8 ft
WB Approach								112.4	F	
RT	12/1	0.442	0.381	545	603	658	1.091	104.2	F	1308 ft
TH	12/1	0.162	0.231	331	409	191	0.444	43.6	D+	270 ft
LT	24/2	0.181	0.115	199	358	458	1.157	152.8	*F	575 ft
EB Approach								166.1	F	
RT+TH	12/1	0.150	0.077	1	109	164	1.155	183.2	*F	416 ft
LT	12/1	0.098	0.077	1	64	26	0.286	58.4	E+	44 ft

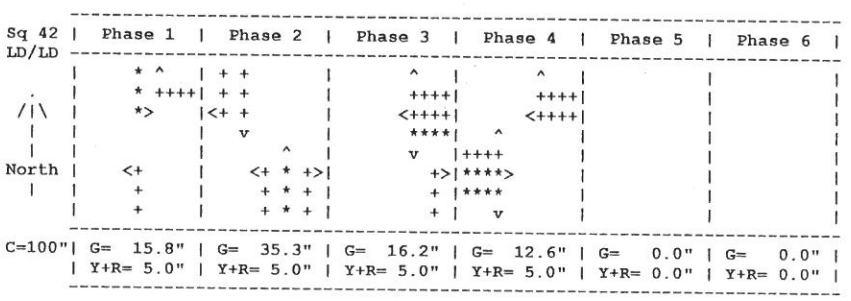
Vista Vieja Subdivision (Scenic Dr / Atrisco Dr) 05/24/05
Analysis of Montano Rd / Unser Blvd - 1_08PB3 08:35:20
2008 PM Peak BUILD Conditions - Add WB, SB LT, NB Thru Lane

SIGNAL2000/TEAPAC[Ver 2.02.16] - HCM Input Worksheet

Intersection # 1 - Area Location Type: NONCBD



	SB			WB			NB			EB		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
Heavy veh, %HV	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Pk-hr fact, PHF	.95	.95	.95	.92	.92	.92	.93	.93	.93	.70	.70	.70
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff grn, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3	3	3	3	3
Ped vol, vped		0			0			0			0	
Bike vol, vbic		0			0			0			0	
Parking locatns		NO			NO			NO			NO	
Park mnvrs, Nm		0			0			0			0	
Bus stops, NB		0			0			0			0	
Grade, %G		.0			.0			.0			.0	



Vista Vieja Subdivision (Scenic Dr / Atrisco Dr) 05/24/05
Analysis of Montano Rd / Unser Blvd - 1_08PB3 08:35:20
2008 PM Peak BUILD Conditions - Add WB, SB LT, NB Thru Lane

SIGNAL2000/TEAPAC[Ver 2.02.16] - Capacity Analysis Summary

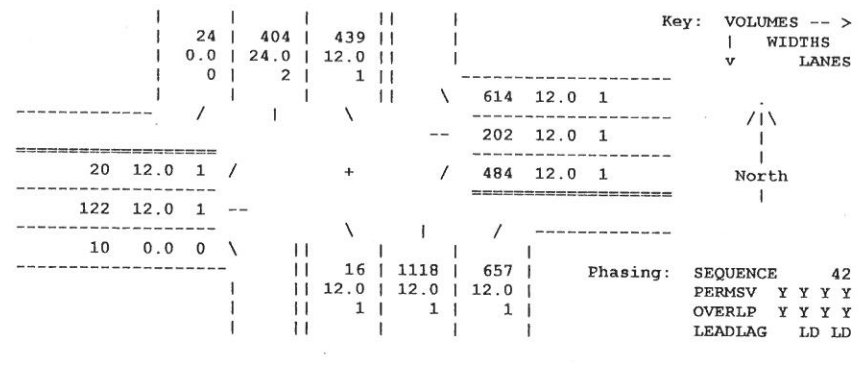
Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.74 Vehicle Delay 35.1 Level of Service D+

C=100 sec G= 80.0 sec = 80.0% Y=20.0 sec = 20.0% Ped= 0.0 sec = 0.0%

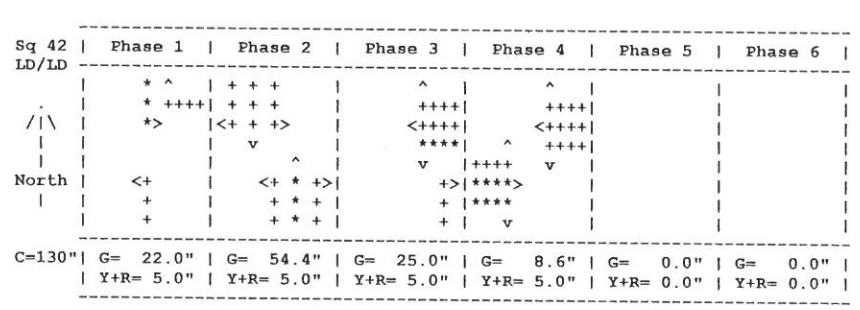
Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @D (vph)	Service Rate @E (vph)	Adj Volume	v/c	HCM Delay	LOS	Queue Model 1
SB Approach								36.9	D+	
RT+TH	24/2	0.152	0.353	1227	1240	460	0.371	24.3	C+	231 ft
LT	24/2	0.150	0.158	471	542	443	0.816	50.1	*D	314 ft
NB Approach								34.9	C	
RT	12/1	0.404	0.565	895	895	614	0.686	17.6	B	550 ft
TH	24/2	0.336	0.353	1236	1249	1169	0.936	44.3	*D+	819 ft
LT	12/1	0.000	0.158	552	554	15	0.027	10.2	B+	9 ft
WB Approach								32.0	C	
RT	12/1	0.429	0.547	866	866	658	0.760	21.5	C+	645 ft
TH	12/1	0.134	0.339	596	631	191	0.303	24.6	C+	181 ft
LT	24/2	0.155	0.162	487	558	458	0.821	50.0	*D	324 ft
EB Approach								49.5	D	
RT+TH	12/1	0.120	0.126	176	214	164	0.704	51.1	*D	218 ft
LT	12/1	0.000	0.126	105	130	26	0.173	39.6	D+	31 ft

SIGNAL2000/TEAPAC[Ver 2.02.16] - HCM Input Worksheet

Intersection # 1 - Area Location Type: NONCBD

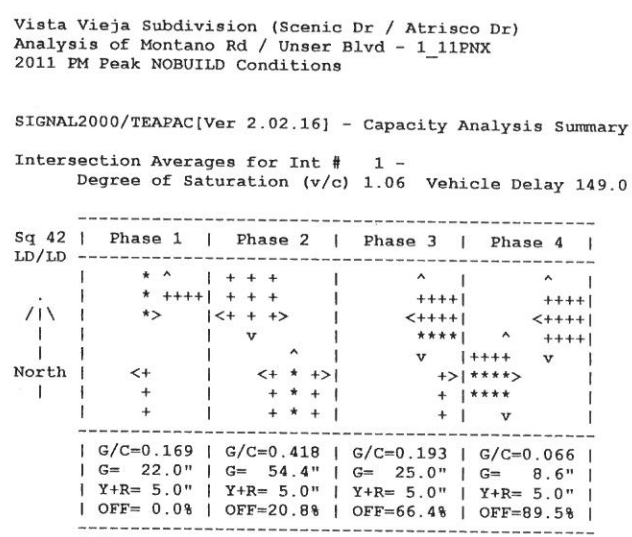


	SB			WB			NB			EB		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
Heavy veh, %HV	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Pk-hr fact, PHF	.95	.95	.95	.92	.92	.92	.93	.93	.93	.70	.70	.70
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, 11	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff grn, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3	3	3	3	3
Ped vol, vped		0			0			0			0	
Bike vol, vbic		0			0			0			0	
Parking locatns		NO			NO			NO			NO	
Park mnvrs, Nm		0			0			0			0	
Bus stops, NB		0			0			0			0	
Grade, %G		.0			.0			.0			.0	



SIGNAL2000/TEAPAC[Ver 2.02.16] - Capacity Analysis Summary

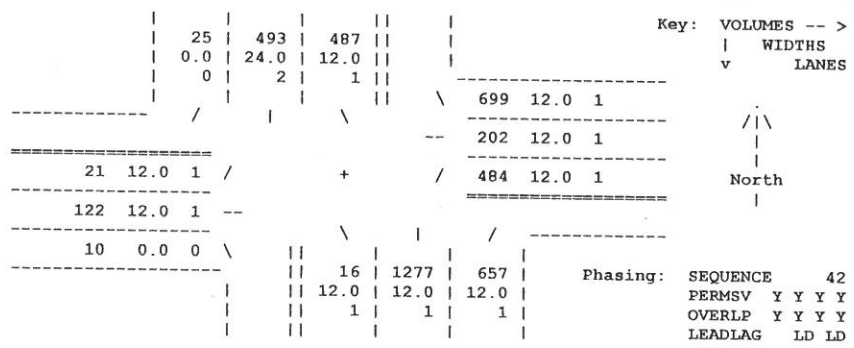
Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 1.06 Vehicle Delay 149.0 Level of Service F



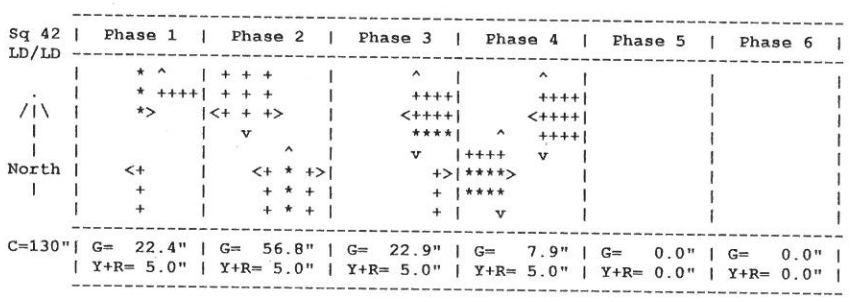
Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @D (vph)	Service Rate @E (vph)	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								112.5	F	
RT+TH	24/2	0.176	0.418	1432	1468	450	0.307	25.4	C+	259 ft
LT	12/1	0.264	0.169	295	342	462	1.298	197.3	*F	1189 ft
NB Approach								186.3	F	
RT	12/1	0.469	0.649	1028	1028	706	0.687	16.4	B	711 ft
TH	12/1	0.633	0.418	731	779	1202	1.543	288.6	*F	3489 ft
LT	12/1	0.000	0.169	637	637	17	0.027	9.7	A	11 ft
WB Approach								98.2	F	
RT	12/1	0.447	0.505	773	799	667	0.835	35.2	D+	916 ft
TH	12/1	0.177	0.297	472	547	220	0.397	36.9	D+	287 ft
LT	12/1	0.290	0.193	336	388	526	1.322	203.7	*F	1363 ft
EB Approach								303.4	F	
RT+TH	12/1	0.162	0.066	1	90	188	1.541	340.7	*F	628 ft
LT	12/1	0.101	0.066	1	52	29	0.382	61.3	E+	50 ft

SIGNAL2000/TEAPAC[Ver 2.02.16] - HCM Input Worksheet

Intersection # 1 - Area Location Type: NONCBD

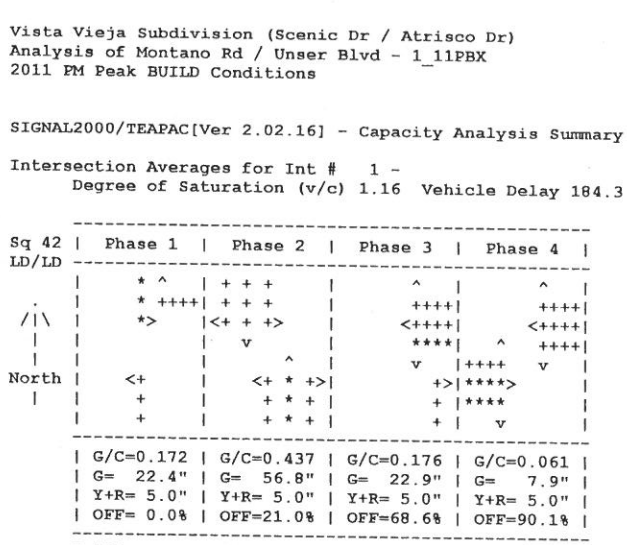


	SB			WB			NB			EB		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
Heavy veh, %HV	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Pk-hr fact, PHF	.95	.95	.95	.92	.92	.92	.93	.93	.93	.70	.70	.70
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff grn, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3	3	3	3	3
Ped vol, vped		0			0			0			0	
Bike vol, vbic		0			0			0			0	
Parking locatns		NO			NO			NO			NO	
Park mnvrs, Nm		0			0			0			0	
Bus stops, NB		0			0			0			0	
Grade, %G		.0			.0			.0			.0	



SIGNAL2000/TEAPAC[Ver 2.02.16] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 1.16 Vehicle Delay 184.3 Level of Service F



C=130 sec G=110.0 sec = 84.6% Y=20.0 sec = 15.4% Ped= 0.0 sec = 0.0%

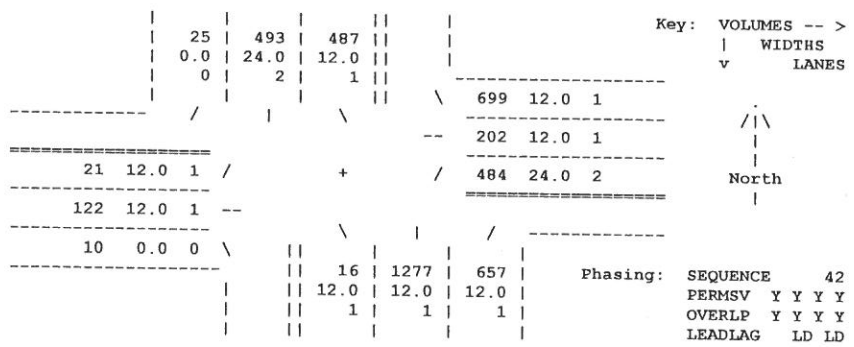
Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @D (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								133.6	F	
RT+TH	24/2	0.199	0.437	1511	1537	545	0.355	24.5	C+	310 ft
LT	12/1	0.292	0.172	298	346	513	1.421	249.5	*F	1437 ft
NB Approach								234.8	F	
RT	12/1	0.469	0.652	1032	1032	706	0.684	16.1	B	706 ft
TH	12/1	0.708	0.437	773	815	1373	1.685	350.0	*F	4294 ft
LT	12/1	0.000	0.172	612	612	17	0.028	8.9	A	11 ft
WB Approach								124.8	F	
RT	12/1	0.498	0.486	738	769	760	0.988	62.5	E+	1300 ft
TH	12/1	0.177	0.275	425	501	220	0.429	39.3	D+	296 ft
LT	12/1	0.291	0.176	302	355	526	1.425	250.7	*F	1475 ft
EB Approach								355.4	F	
RT+TH	12/1	0.162	0.061	1	81	188	1.679	402.0	*F	669 ft
LT	12/1	0.102	0.061	1	46	30	0.429	63.1	E+	53 ft

Vista Vieja Subdivision (Scenic Dr / Atrisco Dr)
Analysis of Montano Rd / Unser Blvd - 1_11PB1
2011 PM Peak BUILD Conditions - Add WB LT Lane

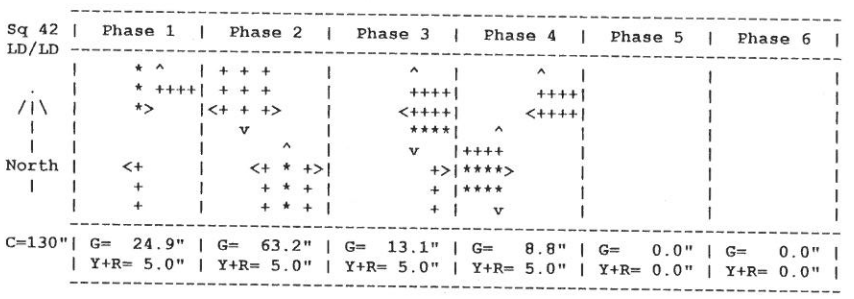
05/24/05
08:39:38

SIGNAL2000/TEAPAC[Ver 2.02.16] - HCM Input Worksheet

Intersection # 1 - Area Location Type: NONCBD



	SB RT	SB TH	SB LT	WB RT	WB TH	WB LT	NB RT	NB TH	NB LT	EB RT	EB TH	EB LT
Heavy veh, %HV	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Pk-hr fact, PHF	.95	.95	.95	.92	.92	.92	.93	.93	.93	.70	.70	.70
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff grn, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3	3	3	3	3
Ped vol, vped		0			0			0			0	
Bike vol, vbic		0			0			0			0	
Parking locatns		NO			NO			NO			NO	
Park mnvrs, Nm		0			0			0			0	
Bus stops, NB		0			0			0			0	
Grade, %G		.0			.0			.0			.0	

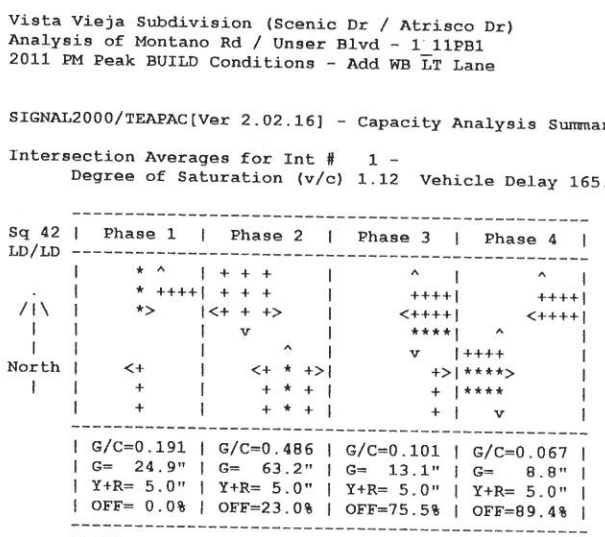


Vista Vieja Subdivision (Scenic Dr / Atrisco Dr)
Analysis of Montano Rd / Unser Blvd - 1_11PB1
2011 PM Peak BUILD Conditions - Add WB LT Lane

05/24/05
08:39:38

SIGNAL2000/TEAPAC[Ver 2.02.16] - Capacity Analysis Summary

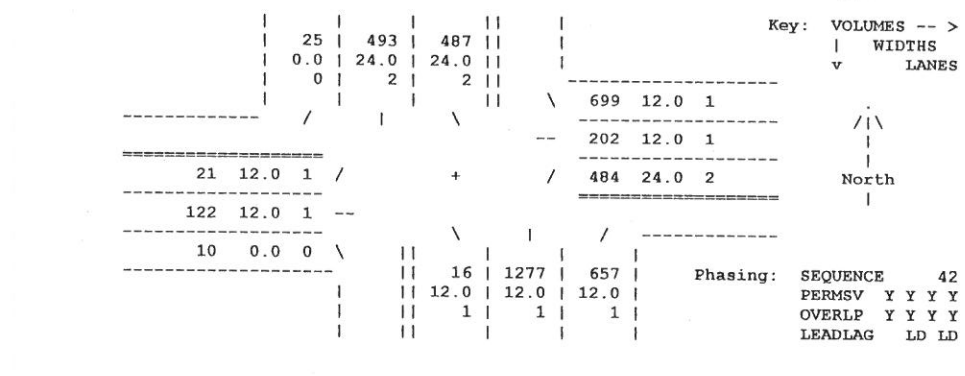
Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 1.12 Vehicle Delay 165.8 Level of Service F



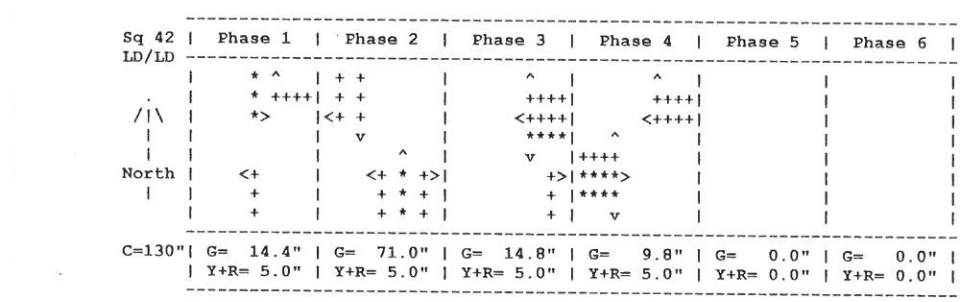
Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @D (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								105.4	F	
RT+TH	24/2	0.199	0.486	1709	1709	545	0.319	20.4	C+	285 ft
LT	12/1	0.293	0.191	327	382	513	1.295	195.7	*F	1303 ft
NB Approach								183.9	F	
RT	12/1	0.469	0.626	991	991	706	0.712	18.8	B	755 ft
TH	12/1	0.708	0.486	878	906	1373	1.515	271.0	*F	3910 ft
LT	12/1	0.000	0.191	696	696	17	0.024	5.9	A	9 ft
WB Approach								164.8	F	
RT	12/1	0.498	0.437	647	691	760	1.100	101.4	F	1503 ft
TH	12/1	0.177	0.207	281	359	220	0.571	48.4	D	329 ft
LT	24/2	0.198	0.101	119	307	526	1.516	304.9	*F	859 ft
EB Approach								292.7	F	
RT+TH	12/1	0.162	0.067	1	92	188	1.516	329.7	*F	620 ft
LT	12/1	0.102	0.067	1	53	30	0.385	61.2	E+	52 ft

SIGNAL2000/TEAPAC[Ver 2.02.16] - HCM Input Worksheet

Intersection # 1 - Area Location Type: NONCBD



	SB			WB			NB			EB		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
Heavy veh, %HV	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Pk-hr fact, PHF	.95	.95	.95	.92	.92	.92	.93	.93	.93	.70	.70	.70
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff grn, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3	3	3	3	3
Ped vol, vped		0			0			0			0	
Bike vol, vbic		0			0			0			0	
Parking locatns		NO			NO			NO			NO	
Park mnvrs, Nm		0			0			0			0	
Bus stops, NB		0			0			0			0	
Grade, %G		.0			.0			.0			.0	



SIGNAL2000/TEAPAC[Ver 2.02.16] - Capacity Analysis Summary

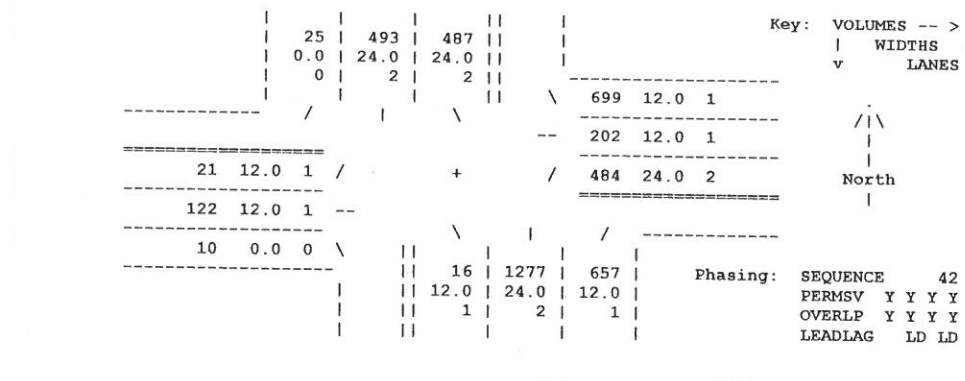
Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 1.07 Vehicle Delay 147.1 Level of Service F

C=130 sec G=110.0 sec = 84.6% Y=20.0 sec = 15.4% Ped= 0.0 sec = 0.0%

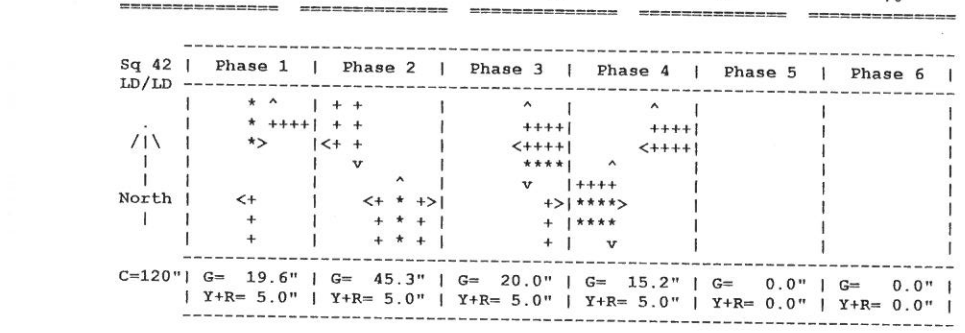
Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @D (vph)	Service Rate @E (vph)	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								120.6	F	
RT+TH	24/2	0.199	0.546	1919	1919	545	0.284	15.9	B	254 ft
LT	24/2	0.194	0.111	174	341	513	1.350	231.8	*F	755 ft
NB Approach								130.9	F	
RT	12/1	0.469	0.698	1106	1106	706	0.638	11.9	B+	619 ft
TH	12/1	0.708	0.546	1008	1017	1373	1.350	193.6	*F	3451 ft
LT	12/1	0.000	0.111	613	613	17	0.028	6.6	A	9 ft
WB Approach								176.0	F	
RT	12/1	0.498	0.377	538	597	760	1.273	176.1	F	1827 ft
TH	12/1	0.177	0.228	324	402	220	0.519	45.1	D	318 ft
LT	24/2	0.198	0.114	189	351	526	1.349	230.7	*F	771 ft
EB Approach								231.1	F	
RT+TH	12/1	0.162	0.076	1	106	188	1.353	258.4	*F	559 ft
LT	12/1	0.102	0.076	1	61	30	0.345	59.4	E+	51 ft

SIGNAL2000/TEAPAC[Ver 2.02.16] - HCM Input Worksheet

Intersection # 1 - Area Location Type: NONCBD



	SB			WB			NB			EB		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
Heavy veh, %HV	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Pk-hr fact, PHF	.95	.95	.95	.92	.92	.92	.93	.93	.93	.70	.70	.70
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, ll	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff grn, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3	3	3	3	3
Ped vol, vped		0			0			0			0	
Bike vol, vbic		0			0			0			0	
Parking locatns		NO			NO			NO			NO	
Park mnvrs, Nm		0			0			0			0	
Bus stops, NB		0			0			0			0	
Grade, %G		.0			.0			.0			.0	

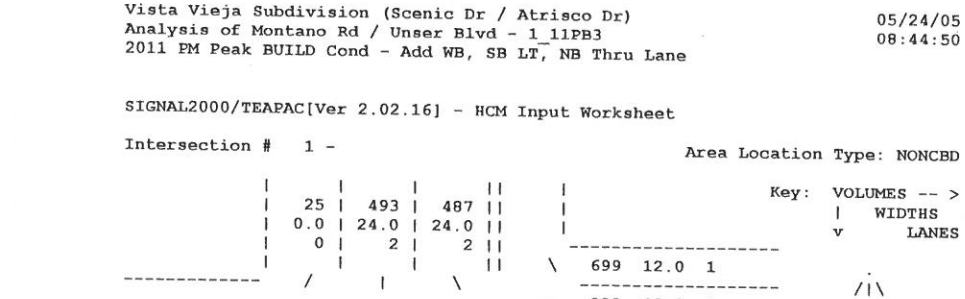


Vista Vieja Subdivision (Scenic Dr / Atrisco Dr)
Analysis of Montano Rd / Unser Blvd - 1_11PB3
2011 PM Peak BUILD Cond - Add WB, SB LT, NB Thru Lane

05/24/05
08:44:50

SIGNAL2000/TEAPAC[Ver 2.02.16] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.83 Vehicle Delay 50.6 Level of Service D

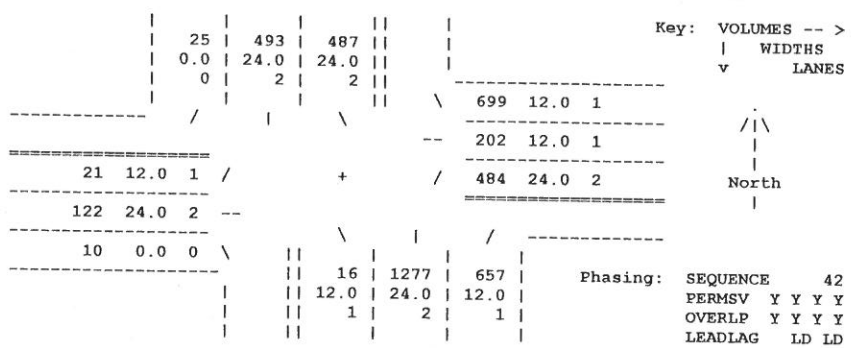


C=120 sec G=100.0 sec = 83.3% Y=20.0 sec = 16.7% Ped= 0.0 sec = 0.0%

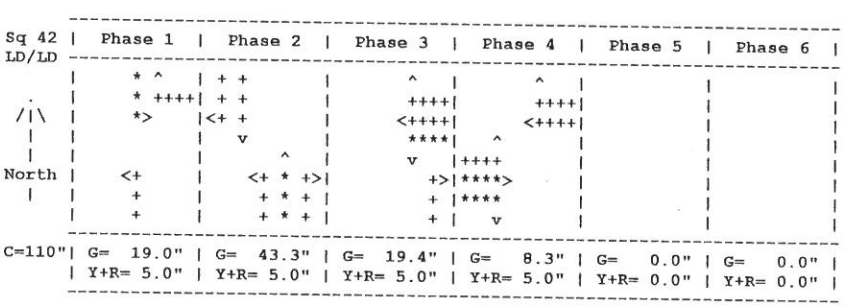
Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @D (vph)	Service Rate @E (vph)	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								48.1	D	
RT+TH	24/2	0.189	0.377	1289	1326	545	0.411	27.7	C	318 ft
LT	24/2	0.184	0.163	435	542	513	0.918	69.7	*E	457 ft
NB Approach								53.0	D	
RT	12/1	0.464	0.586	927	927	706	0.762	22.4	C+	780 ft
TH	24/2	0.396	0.377	1299	1336	1373	1.028	69.3	*E	1238 ft
LT	12/1	0.000	0.163	535	540	17	0.031	11.5	B+	12 ft
WB Approach								46.8	D	
RT	12/1	0.494	0.539	844	854	760	0.890	36.0	D+	1021 ft
TH	12/1	0.166	0.335	565	623	220	0.353	30.5	C	252 ft
LT	24/2	0.187	0.166	449	556	526	0.920	69.4	*E	467 ft
EB Approach								66.6	E+	
RT+TH	12/1	0.150	0.126	147	204	188	0.807	69.6	*E	309 ft
LT	12/1	0.076	0.126	85	120	30	0.205	47.7	D	43 ft

SIGNAL2000/TEAPAC[Ver 2.02.16] - HCM Input Worksheet

Intersection # 1 - Area Location Type: NONCBD



	SB			WB			NB			EB		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
Heavy veh, %HV	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Pk-hr fact, PHF	.95	.95	.95	.92	.92	.92	.93	.93	.93	.70	.70	.70
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff grn, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3	3	3	3	3
Ped vol, vped		0			0			0			0	
Bike vol, vbic		0			0			0			0	
Parking locatns		NO			NO			NO			NO	
Park mnvrs, Nm		0			0			0			0	
Bus stops, NB		0			0			0			0	
Grade, %G		.0			.0			.0			.0	

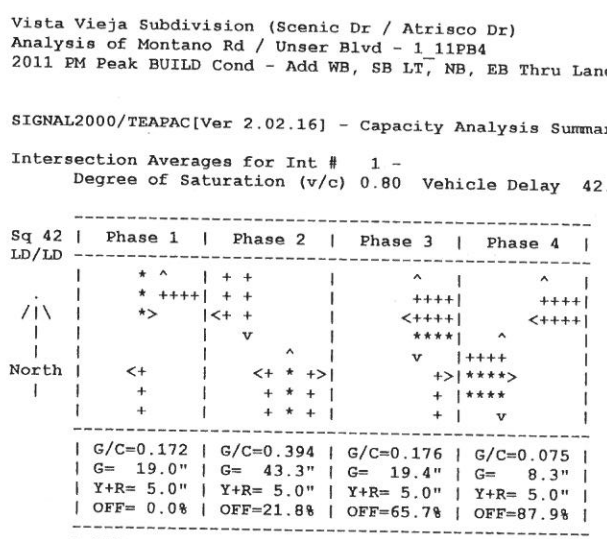


Vista Vieja Subdivision (Scenic Dr / Atrisco Dr)
Analysis of Montano Rd / Unser Blvd - 1_11PB4
2011 PM Peak BUILD Cond - Add WB, SB LT, NB, EB Thru Lane

05/24/05
08:57:36

SIGNAL2000/TEAPAC[Ver 2.02.16] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.80 Vehicle Delay 42.9 Level of Service D+



Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @D (vph)	Service Rate @E (vph)	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								40.1	D+	
RT+TH	24/2	0.181	0.394	1372	1385	545	0.394	24.1	C+	286 ft
LT	24/2	0.176	0.172	501	587	513	0.867	57.2	*E+	403 ft
NB Approach								40.8	D+	
RT	12/1	0.459	0.616	975	975	706	0.724	17.4	B	671 ft
TH	24/2	0.392	0.394	1383	1395	1373	0.984	53.3	*D	1089 ft
LT	12/1	0.000	0.172	576	576	17	0.030	9.1	A	10 ft
WB Approach								45.7	D	
RT	12/1	0.490	0.515	807	816	760	0.931	42.0	D+	1026 ft
TH	12/1	0.156	0.297	499	553	220	0.398	31.3	C	246 ft
LT	24/2	0.179	0.176	515	601	526	0.869	57.0	*E+	413 ft
EB Approach								57.3	E+	
RT+TH	24/2	0.081	0.075	172	236	188	0.712	58.4	*E+	153 ft
LT	12/1	0.058	0.075	47	66	30	0.345	50.7	D	43 ft

Analysis of Intersection #2

Molten Rock Rd / Unser Blvd

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		***Site Information***	
Analyst	Nancy	Jurisdiction/Date	City of ABQ 5/20/2005
Agency or Company	Terry Brown, P.E.	Major Street	Unser Blvd
Analysis Period/Year	AM Peak Hour 2008	Minor Street	Molten Rock Rd
Comment	2008 AM Peak NOBUILD Conditions		

Input Data

Lane Configuration	NB	SB	WB	EB
Lane 1 (curb)	R	R	TR	TR
Lane 2	T	T	L	L
Lane 3	T	T		
Lane 4	L	L		
Lane 5				

	NB			SB			WB				EB	
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)	30	414	3	1	912	13	10	1	4	39	1	90
PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent of heavy vehicles, HV	2	2	2	2	2	2	2	2	2	2	2	2
Flow rate	35	487	4	1	1073	15	12	1	5	46	1	106
Flare storage (# of vehs)												
Median storage (# of vehs)							1			1		

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
WB	1	TR	6	504	0.012	0	12.2	B	18.1
	2	L	12	236	0.051	0	21.1	C	
	3								C
EB	1	TR	107	482	0.222	1	14.6	B	19.3
	2	L	46	188	0.245	1	30.3	D	
	3								C
NB		①	35	637	0.055	0	11.0	B	
SB		④	1	1069	0.001	0	8.4	A	

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		***Site Information***	
Analyst	Nancy	Jurisdiction/Date	City of ABQ 5/23/2005
Agency or Company	Terry Brown, P.E.	Major Street	Unser Blvd
Analysis Period/Year	AM Peak Hour 2008	Minor Street	Molten Rock Rd
Comment	2008 AM Peak BUILD Conditions		

Input Data

Lane Configuration	NB	SB	WB	EB
Lane 1 (curb)	R	R	TR	TR
Lane 2	T	T	L	L
Lane 3	T	T		
Lane 4	L	L		
Lane 5				

	NB			SB			WB				EB	
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)	68	414	3	1	912	21	10	1	4	64	1	204
PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent of heavy vehicles, HV	2	2	2	2	2	2	2	2	2	2	2	2
Flow rate	80	487	4	1	1073	25	12	1	5	75	1	240
Flare storage (# of vehs)												
Median storage (# of vehs)							1			1		

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
WB	1	TR	6	458	0.013	0	13.0	B	27.8
	2	L	12	131	0.092	0	35.2	E	
	3								D
EB	1	TR	241	485	0.496	3	19.5	C	24.3
	2	L	75	176	0.426	2	39.8	E	
	3								C
NB		(1)	80	632	0.127	0	11.5	B	
SB		(4)	1	1069	0.001	0	8.4	A	

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information

Analyst	Nancy
Agency or Company	Terry Brown, P.E.
Analysis Period/Year	AM Peak Hour 2011
Comment	2011 AM Peak NOBUILD Conditions

Site Information

Jurisdiction/Date	City of ABQ 5/23/2005
Major Street	Unser Blvd
Minor Street	Molten Rock Rd

Input Data

Lane Configuration	NB	SB	WB	EB
Lane 1 (curb)	R	R	TR	TR
Lane 2	T	T	L	L
Lane 3	T	T		
Lane 4	L	L		
Lane 5				

	NB			SB			WB				EB	
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)	30	476	3	1	1049	13	10	1	4	39	1	90
PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent of heavy vehicles, HV	2	2	2	2	2	2	2	2	2	2	2	2
Flow rate	35	560	4	1	1234	15	12	1	5	46	1	106
Flare storage (# of vehs)												
Median storage (# of vehs)							1			1		

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
WB	1	TR	6	445	0.013	0	13.2	B	20.7
	2	L	12	197	0.061	0	24.4	C	
	3								C
EB	1	TR	107	427	0.251	1	16.2	C	23.2
	2	L	46	150	0.306	1	39.2	E	
	3								C
NB		(1)	35	553	0.064	0	12.0	B	
SB		(4)	1	1004	0.001	0	8.6	A	

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information | ***Site Information***

Analyst	Nancy	Jurisdiction/Date	City of ABQ 5/23/2005
Agency or Company	Terry Brown, P.E.	Major Street	Unser Blvd
Analysis Period/Year	AM Peak Hour 2011	Minor Street	Molten Rock Rd
Comment	2011 AM Peak BUILD Conditions		

Input Data

Lane Configuration	NB	SB	WB	EB
Lane 1 (curb)	R	R	TR	TR
Lane 2	T	T	L	L
Lane 3	T	T		
Lane 4	L	L		
Lane 5				

	NB			SB			WB				EB	
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)	106	476	3	1	1049	29	10	1	4	89	1	319
PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent of heavy vehicles, HV	2	2	2	2	2	2	2	2	2	2	2	2
Flow rate	125	560	4	1	1234	34	12	1	5	105	1	375
Flare storage (# of vehs)												
Median storage (# of vehs)							1			1		

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
WB	1	TR	6	328	0.018	0	16.2	C	16.2
	2	L	12						
	3								C
EB	1	TR	376	430	0.873	9	48.9	E	59.4
	2	L	105	131	0.801	5	96.9	F	
	3								F
NB		(1)	125	544	0.229	1	13.6	B	
SB		(4)	1	1004	0.001	0	8.6	A	

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information | ***Site Information***

Analyst	Nancy	Jurisdiction/Date	City of ABQ 5/23/2005
Agency or Company	Terry Brown, P.E.	Major Street	Unser Blvd
Analysis Period/Year	PM Peak Hour 2008	Minor Street	Molten Rock Rd
Comment	2008 PM Peak NOBUILD Conditions		

Input Data

Lane Configuration	NB			SB			WB			EB		
Lane 1 (curb)	R			R			TR			TR		
Lane 2	T			T			L			L		
Lane 3	T			T								
Lane 4	L			L								
Lane 5												

	NB			SB			WB			EB		
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)	102	1099	11	5	523	44	6	1	3	25	1	57
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.85	0.85	0.85	0.85	0.85	0.85
Percent of heavy vehicles, HV	2	2	2	2	2	2	2	2	2	2	2	2
Flow rate	107	1157	12	5	551	46	7	1	4	29	1	67
Flare storage (# of vehs)												
Median storage (# of vehs)							1			1		

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
WB	1	TR	5	311	0.016	0	16.8	C	29.7
	2	L	7	113	0.062	0	38.9	E	
	3								D
EB	1	TR	68	681	0.100	0	10.9	B	15.1
	2	L	29	209	0.139	0	25.0	C	
	3								C
NB		(1)	107	976	0.110	0	9.1	A	
SB		(4)	5	594	0.009	0	11.1	B	

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information

Analyst	Nancy
Agency or Company	Terry Brown, P.E.
Analysis Period/Year	PM Peak Hour 2008
Comment	2008 PM Peak BUILD Conditions

Site Information

Jurisdiction/Date	City of ABQ 5/23/2005
Major Street	Unser Blvd
Minor Street	Molten Rock Rd

Input Data

Lane Configuration	NB	SB	WB	EB
Lane 1 (curb)	R	R	TR	TR
Lane 2	T	T	L	L
Lane 3	T	T		
Lane 4	L	L		
Lane 5				

	NB			SB			WB			EB		
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)	225	1099	11	5	523	71	6	1	3	40	1	126
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.85	0.85	0.85	0.85	0.85	0.85
Percent of heavy vehicles, HV	2	2	2	2	2	2	2	2	2	2	2	2
Flow rate	237	1157	12	5	551	75	7	1	4	47	1	148
Flare storage (# of vehs)												
Median storage (# of vehs)							1			1		

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
WB	1	TR	5	241	0.021	0	20.2	C	47.6
	2	L	7	65	0.108	0	67.2	F	
	3								E
EB	1	TR	149	690	0.216	1	11.6	B	19.8
	2	L	47	134	0.350	1	45.6	E	
	3								C
NB		①	237	952	0.249	1	10.0	A	
SB		④	5	594	0.009	0	11.1	B	

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information

Analyst	Nancy
Agency or Company	Terry Brown, P.E.
Analysis Period/Year	PM Peak Hour 2011
Comment	2011 PM NOBUILD Conditions

Site Information

Jurisdiction/Date	City of ABQ 5/20/2005
Major Street	Unser Blvd
Minor Street	Molten Rock Rd

Input Data

Lane Configuration	NB	SB	WB	EB
Lane 1 (curb)	R	R	TR	TR
Lane 2	T	T	L	L
Lane 3	T	T		
Lane 4	L	L		
Lane 5				

	NB			SB			WB			EB		
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)	102	1264	11	5	601	44	6	1	3	25	1	57
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.85	0.85	0.85	0.85	0.85	0.85
Percent of heavy vehicles, HV	2	2	2	2	2	2	2	2	2	2	2	2
Flow rate	107	1331	12	5	633	46	7	1	4	29	1	67
Flare storage (# of vehs)												
Median storage (# of vehs)							1			1		

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
WB	1	TR	5	263	0.019	0	19.0	C	36.8
	2	L	7	88	0.080	0	49.6	E	
	3								E
EB	1	TR	68	633	0.107	0	11.4	B	16.7
	2	L	29	178	0.163	1	29.1	D	
	3								C
NB		①	107	909	0.118	0	9.5	A	
SB		④	5	509	0.010	0	12.1	B	

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information

Analyst	Nancy
Agency or Company	Terry Brown, P.E.
Analysis Period/Year	PM Peak Hour 2011
Comment	2011 PM BUILD Conditions

Site Information

Jurisdiction/Date	City of ABQ 5/20/2005
Major Street	Unser Blvd
Minor Street	Molten Rock Rd

Input Data

Lane Configuration	NB	SB	WB	EB
Lane 1 (curb)	R	R	TR	TR
Lane 2	T	T	L	L
Lane 3	T	T		
Lane 4	L	L		
Lane 5				

	NB			SB			WB			EB		
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)	347	1264	11	5	601	97	6	1	3	55	1	195
PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.85	0.85	0.85	0.85	0.85	0.85
Percent of heavy vehicles, HV	2	2	2	2	2	2	2	2	2	2	2	2
Flow rate	365	1331	12	5	633	102	7	1	4	65	1	229
Flare storage (# of vehs)												
Median storage (# of vehs)							1			1		

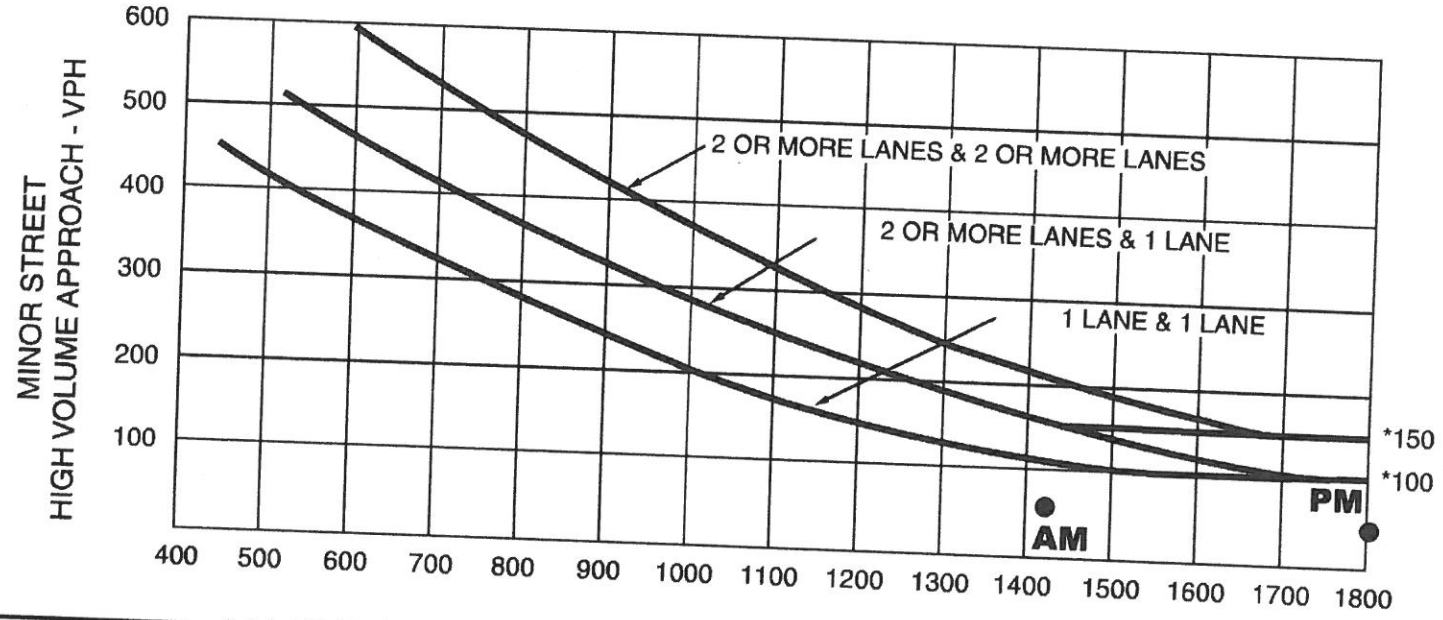
Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
WB	1	TR	5	111	0.045	0	38.9	E	144.8
	2	L	7	23	0.306	1	220.5	F	
	3								F
EB	1	TR	230	638	0.361	2	13.8	B	59.2
	2	L	65	65	1.004	5	219.8	F	
	3								F
NB		①	365	866	0.422	2	12.2	B	
SB		④	5	509	0.010	0	12.1	B	

Figure 4C-3. Warrant 3, Peak Hour



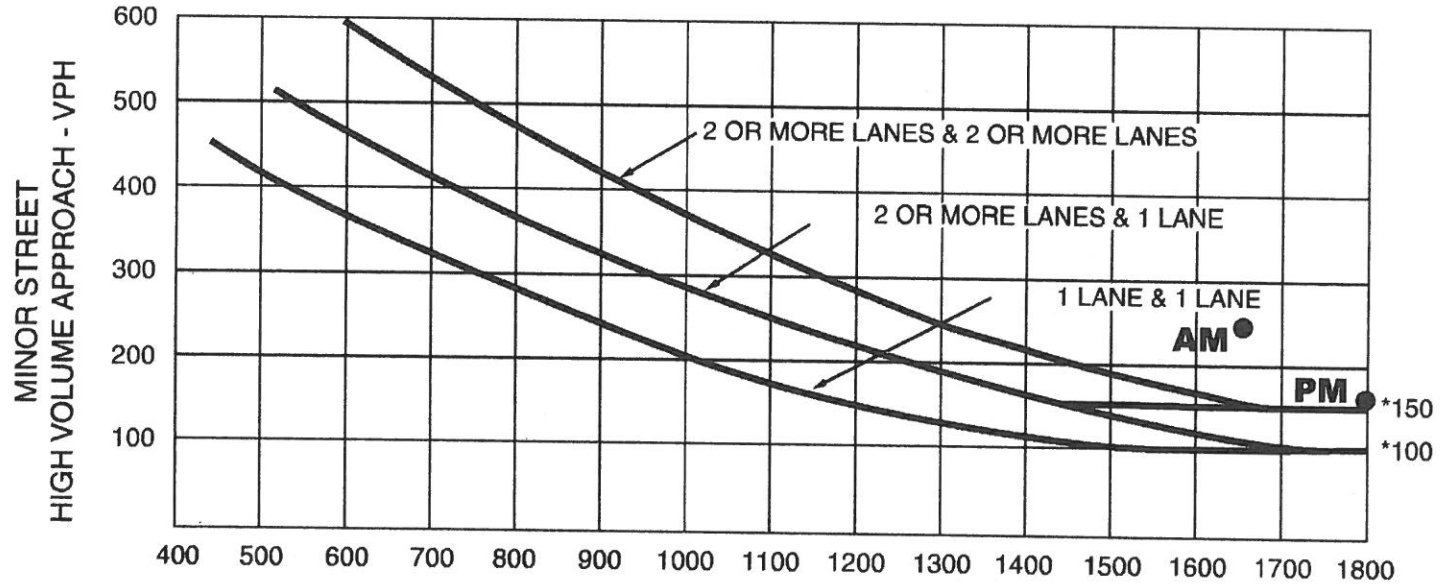
MAJOR STREET—TOTAL OF BOTH APPROACHES—
VEHICLES PER HOUR (VPH)

*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.

2008 BUILD VOLUMES

	Major	Minor
AM	**1419**	**64**
PM	**1934**	**40**

Figure 4C-3. Warrant 3, Peak Hour

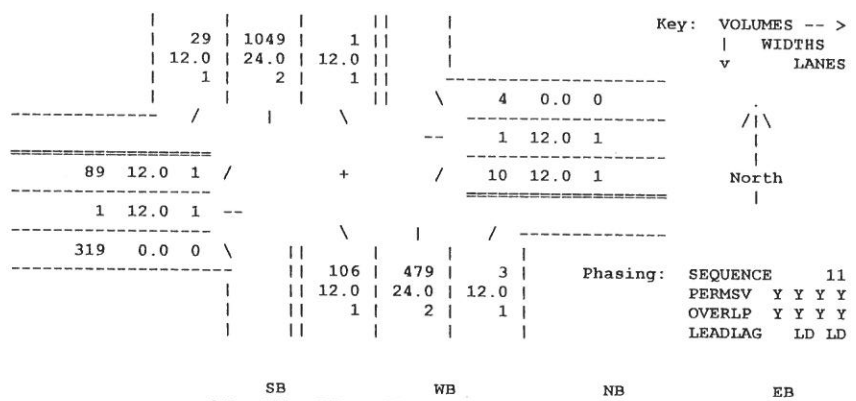


2011 BUILD VOLUMES	Major	Minor
AM	1664	249
PM	2325	153

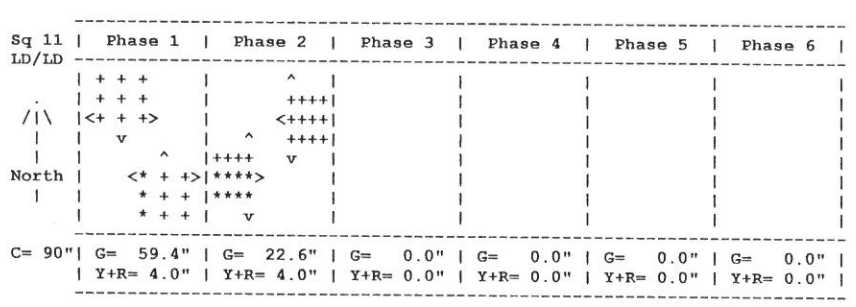
*Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

SIGNAL2000/TEAPAC[Ver 2.61.00] - HCM Input Worksheet

Intersection # 1 - Area Location Type: NONCBD

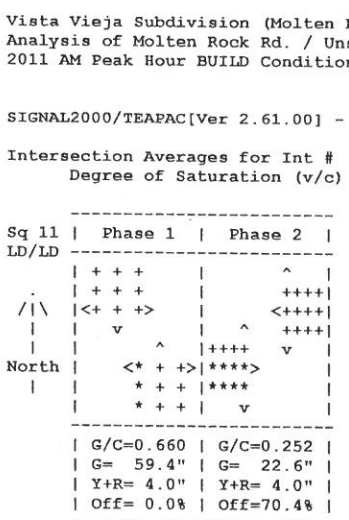


	SB			WB			NB			EB		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
Heavy veh, %HV	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Pk-hr fact, PHF	.90	.90	.90	.90	.90	.90	.90	.90	.90	.90	.90	.90
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff grn, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3	3	3	3	3
Ped vol, vped		0			0			0			0	
Bike vol, vbic		0			0			0			0	
Parking locatns		NO			NO			NO			NO	
Park mnvrs, Nm		0			0			0			0	
Bus stops, NB		0			0			0			0	
Grade, %G		.0			.0			.0			.0	



SIGNAL2000/TEAPAC[Ver 2.61.00] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.48 Vehicle Delay 15.5 Level of Service B

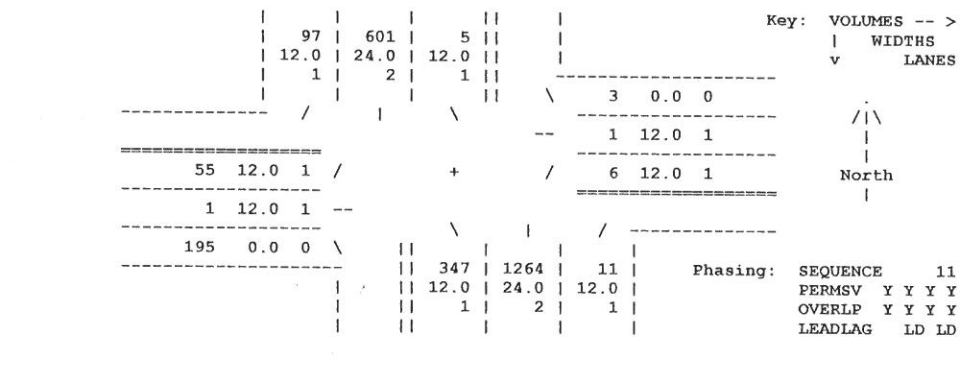


C= 90 sec G= 82.0 sec = 91.1% Y= 8.0 sec = 8.9% Ped= 0.0 sec = 0.0%

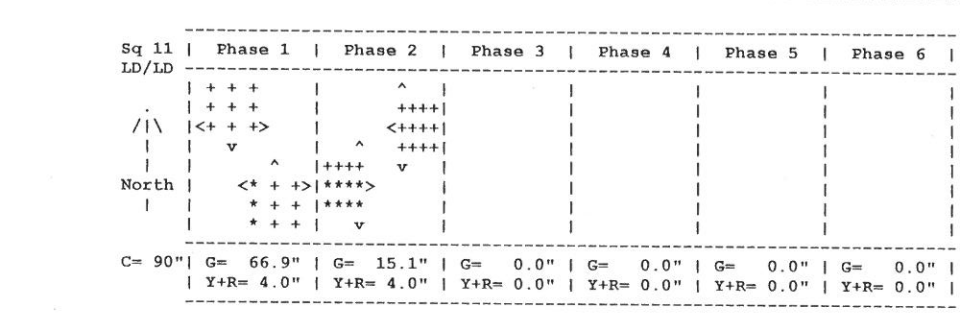
Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	@E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								7.9	A	
RT	12/1	0.131	0.660	1012	1044	32	0.031	5.3	A	14 ft
TH	24/2	0.369	0.660	2334	2334	1166	0.500	7.9	A	360 ft
LT	12/1	0.119	0.660	502	543	1	0.002	5.2	A	0 ft
NB Approach								6.8	A	
RT	12/1	0.119	0.660	1012	1044	3	0.003	5.2	A	1 ft
TH	24/2	0.218	0.660	2334	2334	532	0.228	6.2	A	134 ft
LT	12/1	0.449	0.660	202	239	118	0.494	9.3	*A	79 ft
WB Approach								25.9	C+	
RT+TH	12/1	0.120	0.252	281	412	5	0.012	25.3	C+	4 ft
LT	12/1	0.136	0.252	64	101	11	0.096	26.2	C+	10 ft
EB Approach								47.9	D	
RT+TH	12/1	0.299	0.252	271	399	355	0.890	53.6	*D	447 ft
LT	12/1	0.165	0.252	236	353	99	0.280	27.5	C	95 ft

SIGNAL2000/TEAPAC[Ver 2.61.00] - HCM Input Worksheet

Intersection # 1 - Area Location Type: NONCBD



	SB			WB			NB			EB		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
Heavy veh, %HV	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Pk-hr fact, PHF	.90	.90	.90	.90	.90	.90	.90	.90	.90	.90	.90	.90
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, ll	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff grn, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3	3	3	3	3
Ped vol, vped		0			0			0			0	
Bike vol, vbic		0			0			0			0	
Parking locatns		NO			NO			NO			NO	
Park mnvrs, Nm		0			0			0			0	
Bus stops, NB		0			0			0			0	
Grade, %G		.0			.0			.0			.0	



SIGNAL2000/TEAPAC[Ver 2.61.00] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.49 Vehicle Delay 9.9 Level of Service A

C= 90 sec G= 82.0 sec = 91.1% Y= 8.0 sec = 8.9% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	@E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								3.6	A	
RT	12/1	0.162	0.743	1165	1176	108	0.092	3.2	A	37 ft
TH	24/2	0.250	0.743	2629	2629	668	0.254	3.7	A	135 ft
LT	12/1	0.127	0.743	186	217	6	0.028	3.1	A	2 ft
NB Approach								6.4	A	
RT	12/1	0.123	0.743	1165	1176	12	0.010	3.0	A	4 ft
TH	24/2	0.427	0.743	2629	2629	1404	0.534	5.1	A	370 ft
LT	12/1	0.601	0.743	506	537	386	0.719	11.0	*B+	276 ft
WB Approach								31.5	C	
RT+TH	12/1	0.120	0.168	130	267	4	0.014	31.2	C	4 ft
LT	12/1	0.128	0.168	41	98	7	0.061	31.7	C	7 ft
EB Approach								49.2	D	
RT+TH	12/1	0.221	0.168	123	256	218	0.816	53.7	*D	275 ft
LT	12/1	0.147	0.168	106	224	61	0.257	33.1	C	64 ft

Analysis of Intersection #3

Universe Blvd / Unser Blvd

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		***Site Information***	
Analyst	Nancy	Jurisdiction/Date	City of ABQ 5/23/2005
Agency or Company	Terry Brown, P.E.	Major Street	Universe Blvd.
Analysis Period/Year	AM Peak Hour 2005	Minor Street	Unser Blvd.
Comment	2005 AM Peak Existing Conditions		

Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	R	LTR	LTR	LTR
Lane 2	LT			
Lane 3				
Lane 4				
Lane 5				

	EB			WB			NB				SB	
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)	2	5	2	438	2	1	5	1	191	1	1	1
PHF	0.75	0.75	0.75	0.86	0.86	0.86	0.78	0.78	0.78	0.85	0.85	0.85
Percent of heavy vehicles, HV	2	2	2	2	2	2	2	2	2	2	2	2
Flow rate	3	7	3	509	2	1	6	1	245	1	1	1
Flare storage (# of vehs)												
Median storage (# of vehs)												

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1	LTR	252	926	0.272	1	10.3	B	10.3
	2								
	3								B
SB	1	LTR	3	174	0.017	0	26.0	D	26.0
	2								
	3								D
EB		(1)	3	1618	0.002	0	7.2	A	
WB		(4)	509	1610	0.316	1	8.3	A	

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		***Site Information***	
Analyst	Nancy	Jurisdiction/Date	City of ABQ 5/23/2005
Agency or Company	Terry Brown, P.E.	Major Street	Unser Blvd.
Analysis Period/Year	AM Peak Hour 2008	Minor Street	Atrisco Rd.
Comment	2008 AM Peak NOBUILD Conditions		

Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	R	T	LR	
Lane 2	T	T		
Lane 3	T	L		
Lane 4				
Lane 5				

	EB			WB			NB			SB		
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)		21	2	824	46		6		332			
PHF		0.75	0.75	0.86	0.86		0.78		0.78			
Percent of heavy vehicles, HV		2	2	2	2		2		2			
Flow rate		28	3	958	53		8		426			
Flare storage (# of vehs)												
Median storage (# of vehs)							1					

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1	LR	434	688	0.631	4	18.7	C	18.7 C
	2								
	3								
SB	1								
	2								
	3								
EB		(1)							
WB		(4)	958	1580	0.606	4	10.7	B	

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information | ***Site Information***

Analyst	Nancy	Jurisdiction/Date	City of ABQ 5/23/2005
Agency or Company	Terry Brown, P.E.	Major Street	Unser Blvd.
Analysis Period/Year	AM Peak Hour 2008	Minor Street	Atrisco Rd.
Comment	2008 AM Peak BUILD Conditions		

Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	R	T	LR	
Lane 2	T	T		
Lane 3	T	L		
Lane 4				
Lane 5				

	EB			WB			NB				SB	
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)		46	2	824	54		6		332			
PHF		0.75	0.75	0.86	0.86		0.78		0.78			
Percent of heavy vehicles, HV		2	2	2	2		2		2			
Flow rate		61	3	958	63		8		426			
Flare storage (# of vehs)												
Median storage (# of vehs)							1					

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1	LR	434	665	0.653	5	20.0	C	20.0 C
	2								
	3								
SB	1								
	2								
	3								
EB		(1)							
WB		(4)	958	1536	0.624	5	11.1	B	

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information

Analyst	Nancy	Jurisdiction/Date	City of ABQ 5/23/2005
Agency or Company	Terry Brown, P.E.	Major Street	Unser Blvd.
Analysis Period/Year	AM Peak Hour 2011	Minor Street	Atrisco Rd.
Comment	2011 AM Peak NOBUILD Conditions		

Site Information

Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	R	T	LR	
Lane 2	T	T		
Lane 3	T	L		
Lane 4				
Lane 5				

	EB			WB			NB			SB		
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)		22	3	889	47		7		360			
PHF		0.75	0.75	0.86	0.86		0.78		0.78			
Percent of heavy vehicles, HV		2	2	2	2		2		2			
Flow rate		29	4	1034	55		9		462			
Flare storage (# of vehs)												
Median storage (# of vehs)							1					

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1	LR	471	594	0.794	8	30.4	D	30.4
	2								
	3								D
SB	1								
	2								
	3								
EB		(1)							
WB		(4)	1034	1577	0.656	5	11.5	B	

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information

Analyst	Nancy
Agency or Company	Terry Brown, P.E.
Analysis Period/Year	AM Peak Hour 2011
Comment	2011 AM Peak BUILD Conditions

Site Information

Jurisdiction/Date	City of ABQ 5/23/2005
Major Street	Unser Blvd.
Minor Street	Atrisco Rd.

Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	R	T	LR	
Lane 2	T	T		
Lane 3	T	L		
Lane 4				
Lane 5				

	EB			WB			NB			SB		
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT) 10 (LT)		11 (TH)	12 (RT)
Volume (veh/h)		72	3	889	63		7		360			
PHF		0.75	0.75	0.86	0.86		0.78		0.78			
Percent of heavy vehicles, HV		2	2	2	2		2		2			
Flow rate		96	4	1034	73		9		462			
Flare storage (# of vehs)												
Median storage (# of vehs)							1					

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1	LR	471	544	0.865	9	40.4	E	40.4
	2								
	3								E
SB	1								
	2								
	3								
EB		(1)							
WB		(4)	1034	1490	0.694	6	12.7	B	

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information

Analyst	Nancy
Agency or Company	Terry Brown, P.E.
Analysis Period/Year	PM Peak Hour 2005
Comment	2005 PM Peak Existing Conditions

Site Information

Jurisdiction/Date	City of ABQ 5/20/2005
Major Street	Universe Blvd.
Minor Street	Unser Blvd.

Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	R	LTR	LTR	LTR
Lane 2	LT			
Lane 3				
Lane 4				
Lane 5				

	EB			WB			NB			SB		
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)	1	6	10	199	4	1	4	1	430	1	1	1
PHF	0.80	0.80	0.80	0.85	0.85	0.85	0.94	0.94	0.94	0.85	0.85	0.85
Percent of heavy vehicles, HV	2	2	2	2	2	2	2	2	2	2	2	2
Flow rate	1	8	13	234	5	1	4	1	457	1	1	1
Flare storage (# of vehs)												
Median storage (# of vehs)												

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1	LTR	462	1058	0.437	2	11.0	B	11.0
	2								
	3								B
SB	1	LTR	3	329	0.009	0	16.0	C	16.0
	2								
	3								C
EB		(1)	1	1615	0.001	0	7.2	A	
WB		(4)	234	1596	0.147	1	7.6	A	

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information

Analyst	Nancy
Agency or Company	Terry Brown, P.E.
Analysis Period/Year	PM Peak Hour 2008
Comment	2008 PM Peak NOBUILD Conditions

Site Information

Jurisdiction/Date	City of ABQ 5/23/2005
Major Street	Unser Blvd.
Minor Street	Atrisco Rd.

Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	R	T	LR	
Lane 2	T	T		
Lane 3	T	L		
Lane 4				
Lane 5				

	EB			WB			NB			SB		
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)		56	12	433	33		5		872			
PHF		0.80	0.80	0.85	0.85		0.94		0.94			
Percent of heavy vehicles, HV		2	2	2	2		2		2			
Flow rate		70	15	509	39		5		928			
Flare storage (# of vehs)												
Median storage (# of vehs)							1					

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1	LR	933	1004	0.929	15	34.5	D	34.5
	2								
	3								D
SB	1								
	2								
	3								
EB		(1)							
WB		(4)	509	1509	0.337	2	8.6	A	

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information

Analyst	Nancy
Agency or Company	Terry Brown, P.E.
Analysis Period/Year	PM Peak Hour 2008
Comment	2008 PM Peak BUILD Conditions

Site Information

Jurisdiction/Date	City of ABQ 5/20/2005
Major Street	Unser Blvd.
Minor Street	Atrisco Rd.

Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	R	T	LR	
Lane 2	T	T		
Lane 3	T	L		
Lane 4				
Lane 5				

	EB			WB			NB				SB	
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)		71	12	433	60		5		872			
PHF		0.80	0.80	0.85	0.85		0.94		0.94			
Percent of heavy vehicles, HV		2	2	2	2		2		2			
Flow rate		89	15	509	71		5		928			
Flare storage (# of vehs)												
Median storage (# of vehs)							1					

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1	LR	933	990	0.942	15	37.0	E	37.0
	2								
	3								E
SB	1								
	2								
	3								
EB		(1)							
WB		(4)	509	1486	0.343	2	8.7	A	

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information

Analyst	Nancy
Agency or Company	Terry Brown, P.E.
Analysis Period/Year	PM Peak Hour 2011
Comment	2011 PM Peak NOBUILD Conditions

Site Information

Jurisdiction/Date	City of ABQ 5/20/2005
Major Street	Unser Blvd.
Minor Street	Atrisco Rd.

Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	R	T	LR	
Lane 2	T	T		
Lane 3	T	L		
Lane 4				
Lane 5				

	EB			WB			NB			SB		
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)		57	13	463	33		5		936			
PHF		0.80	0.80	0.85	0.85		0.94		0.94			
Percent of heavy vehicles, HV		2	2	2	2		2		2			
Flow rate		71	16	545	39		5		996			
Flare storage (# of vehs)												
Median storage (# of vehs)							1					

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1	LR	1001	1001	1.000	19	48.7	E	48.7
	2								
	3								E
SB	1								
	2								
	3								
EB		(1)							
WB		(4)	545	1506	0.362	2	8.7	A	

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information

Analyst	Nancy
Agency or Company	Terry Brown, P.E.
Analysis Period/Year	PM Peak Hour 2011
Comment	2011 PM Peak BUILD Conditions

Site Information

Jurisdiction/Date	City of ABQ 5/20/2005
Major Street	Unser Blvd.
Minor Street	Atrisco Rd.

Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	R	T	LR	
Lane 2	T	T		
Lane 3	T	L		
Lane 4				
Lane 5				

	EB			WB			NB				SB	
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)		87	13	463	86		5		936			
PHF		0.80	0.80	0.85	0.85		0.94		0.94			
Percent of heavy vehicles, HV		2	2	2	2		2		2			
Flow rate		109	16	545	101		5		996			
Flare storage (# of vehs)												
Median storage (# of vehs)							1					

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1	LR	1001	973	1.029	21	57.0	F	57.0
	2								
	3								F
SB	1								
	2								
	3								
EB		①							
WB		④	545	1459	0.373	2	8.9	A	

Analysis of Intersection #4

Universe Blvd / Rainbow Rd

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information

Analyst	Nancy
Agency or Company	Terry Brown, P.E.
Analysis Period/Year	AM Peak Hour 2008
Comment	2008 AM Peak NOBUILD Conditions

Site Information

Jurisdiction/Date	City of ABQ 5/23/2005
Major Street	Universe Blvd.
Minor Street	Rainbow Rd.

Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	LTR	LTR	LTR	LTR
Lane 2				
Lane 3				
Lane 4				
Lane 5				

	EB			WB			NB			SB		
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)	1	1	1	507	1	1	1	5	224	1	2	1
PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent of heavy vehicles, HV	2	2	2	2	2	2	2	2	2	2	2	2
Flow rate	1	1	1	596	1	1	1	6	264	1	2	1
Flare storage (# of vehs)												
Median storage (# of vehs)												

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1	LTR	271	891	0.304	1	10.8	B	10.8
	2								
	3								B
SB	1	LTR	4	122	0.033	0	35.4	E	35.4
	2								
	3								E
EB		①	1	1620	0.001	0	7.2	A	
WB		④	596	1620	0.368	2	8.5	A	

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information

Analyst	Nancy
Agency or Company	Terry Brown, P.E.
Analysis Period/Year	AM Peak Hour 2008
Comment	2008 AM Peak BUILD Conditions

Site Information

Jurisdiction/Date	City of ABQ 5/20/2005
Major Street	Universe Blvd.
Minor Street	Rainbow Rd.

Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	LTR	LTR	LTR	LTR
Lane 2				
Lane 3				
Lane 4				
Lane 5				

	EB			WB			NB			SB		
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)	3	1	20	507	1	1	7	8	225	1	3	1
PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent of heavy vehicles, HV	2	2	2	2	2	2	2	2	2	2	2	2
Flow rate	4	1	24	596	1	1	8	9	265	1	4	1
Flare storage (# of vehs)												
Median storage (# of vehs)												

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1	LTR	282	702	0.401	2	13.5	B	13.5
	2								
	3								B
SB	1	LTR	6	114	0.053	0	38.3	E	38.3
	2								
	3								E
EB		①	4	1620	0.002	0	7.2	A	
WB		④	596	1590	0.375	2	8.6	A	

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		***Site Information***	
Analyst	Nancy	Jurisdiction/Date	City of ABQ 5/20/2005
Agency or Company	Terry Brown, P.E.	Major Street	Universe Blvd.
Analysis Period/Year	AM Peak Hour 2011	Minor Street	Rainbow Rd.
Comment	2011 AM Peak NOBUILD Conditions		

Input Data

Lane Configuration	EB			WB			NB			SB		
Lane 1 (curb)	LTR			LTR			LTR			LTR		
Lane 2												
Lane 3												
Lane 4												
Lane 5												

	EB			WB			NB				SB	
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)	1	1	1	573	1	1	1	5	252	1	2	1
PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent of heavy vehicles, HV	2	2	2	2	2	2	2	2	2	2	2	2
Flow rate	1	1	1	674	1	1	1	6	296	1	2	1
Flare storage (# of vehs)												
Median storage (# of vehs)												

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1	LTR	303	855	0.354	2	11.5	B	11.5 B
	2								
	3								
SB	1	LTR	4	88	0.045	0	47.8	E	47.8 E
	2								
	3								
EB		(1)	1	1620	0.001	0	7.2	A	
WB		(4)	674	1620	0.416	2	8.8	A	

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		***Site Information***	
Analyst	Nancy	Jurisdiction/Date	City of ABQ 5/20/2005
Agency or Company	Terry Brown, P.E.	Major Street	Universe Blvd.
Analysis Period/Year	AM Peak Hour 2011	Minor Street	Rainbow Rd.
Comment	2011 AM Peak BUILD Conditions		

Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	LTR	LTR	LTR	LTR
Lane 2				
Lane 3				
Lane 4				
Lane 5				

	EB			WB			NB				SB	
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)	6	3	41	574	1	1	14	11	255	1	4	2
PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent of heavy vehicles, HV	2	2	2	2	2	2	2	2	2	2	2	2
Flow rate	7	4	48	675	1	1	16	13	300	1	5	2
Flare storage (# of vehs)												
Median storage (# of vehs)												

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1	LTR	329	495	0.665	5	25.5	D	25.5 D
	2								
	3								
SB	1	LTR	8	86	0.093	0	51.0	F	51.0 F
	2								
	3								
EB		(1)	7	1620	0.004	0	7.2	A	
WB		(4)	675	1554	0.434	2	9.1	A	

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		***Site Information***	
Analyst	Nancy	Jurisdiction/Date	City of ABQ 5/23/2005
Agency or Company	Terry Brown, P.E.	Major Street	Universe Blvd.
Analysis Period/Year	PM Peak Hour 2008	Minor Street	Rainbow Rd.
Comment	2008 PM Peak NOBUILD Conditions		

Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	LTR	LTR	LTR	LTR
Lane 2				
Lane 3				
Lane 4				
Lane 5				

	EB			WB			NB			SB		
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)	1	1	1	238	1	1	1	3	498	1	6	1
PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent of heavy vehicles, HV	2	2	2	2	2	2	2	2	2	2	2	2
Flow rate	1	1	1	280	1	1	1	4	586	1	7	1
Flare storage (# of vehs)												
Median storage (# of vehs)												

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1	LTR	591	1065	0.555	4	12.5	B	12.5 B
	2								
	3								
SB	1	LTR	9	304	0.030	0	17.2	C	17.2 C
	2								
	3								
EB		(1)	1	1620	0.001	0	7.2	A	
WB		(4)	280	1620	0.173	1	7.7	A	

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		***Site Information***	
Analyst	Nancy	Jurisdiction/Date	City of ABQ 5/20/2005
Agency or Company	Terry Brown, P.E.	Major Street	Universe Blvd.
Analysis Period/Year	PM Peak Hour 2008	Minor Street	Rainbow Rd.
Comment	2008 PM Peak BUILD Conditions		

Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	LTR	LTR	LTR	LTR
Lane 2				
Lane 3				
Lane 4				
Lane 5				

	EB			WB			NB				SB	
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)	2	1	12	240	2	1	22	5	499	1	9	3
PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent of heavy vehicles, HV	2	2	2	2	2	2	2	2	2	2	2	2
Flow rate	2	1	14	282	2	1	26	6	587	1	11	4
Flare storage (# of vehs)												
Median storage (# of vehs)												

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1	LTR	619	971	0.637	5	15.0	B	15.0
	2								
	3								B
SB	1	LTR	16	355	0.045	0	15.6	C	15.6
	2								
	3								C
EB		(1)	2	1618	0.001	0	7.2	A	
WB		(4)	282	1602	0.176	1	7.7	A	

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		***Site Information***	
Analyst	Nancy	Jurisdiction/Date	City of ABQ 5/20/2005
Agency or Company	Terry Brown, P.E.	Major Street	Universe Blvd.
Analysis Period/Year	PM Peak Hour 2011	Minor Street	Rainbow Rd.
Comment	2011 PM Peak NOBUILD Conditions		

Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	LTR	LTR	LTR	LTR
Lane 2				
Lane 3				
Lane 4				
Lane 5				

	EB			WB			NB				SB	
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)	1	1	1	268	1	1	1	3	562	1	6	1
PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent of heavy vehicles, HV	2	2	2	2	2	2	2	2	2	2	2	2
Flow rate	1	1	1	315	1	1	1	4	661	1	7	1
Flare storage (# of vehs)												
Median storage (# of vehs)												

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1	LTR	666	1063	0.626	5	13.9	B	13.9
	2								
	3								B
SB	1	LTR	9	250	0.036	0	20.0	C	20.0
	2								
	3								C
EB		①	1	1620	0.001	0	7.2	A	
WB		④	315	1620	0.195	1	7.8	A	

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		***Site Information***	
Analyst	Nancy	Jurisdiction/Date	City of ABQ 5/20/2005
Agency or Company	Terry Brown, P.E.	Major Street	Universe Blvd.
Analysis Period/Year	PM Peak Hour 2011	Minor Street	Rainbow Rd.
Comment	2011 AM Peak BUILD Conditions		

Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	LTR	LTR	LTR	LTR
Lane 2				
Lane 3				
Lane 4				
Lane 5				

	EB			WB			NB			SB		
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)	4	2	25	271	3	1	44	7	564	1	12	6
PHF	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent of heavy vehicles, HV	2	2	2	2	2	2	2	2	2	2	2	2
Flow rate	5	2	29	319	4	1	52	8	664	1	14	7
Flare storage (# of vehs)												
Median storage (# of vehs)												

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1	LTR	724	874	0.828	10	25.5	D	25.5 D
	2								
	3								
SB	1	LTR	22	321	0.068	0	17.0	C	17.0 C
	2								
	3								
EB		①	5	1617	0.003	0	7.2	A	
WB		④	319	1581	0.202	1	7.9	A	

Analysis of Intersection #5

Scenic Dr / Driveway 'A'

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		*Site Information*	
Analyst	Nancy	Jurisdiction/Date	City of ABQ 5/20/2005
Agency or Company	Terry Brown, P.E.	Major Street	Scenic Dr.
Analysis Period/Year	AM Peak Hour 2008	Minor Street	Driveway 'A'
Comment	2008 AM Peak BUILD Conditions		

Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	TR	LT	R	
Lane 2			L	
Lane 3				
Lane 4				
Lane 5				

	EB			WB			NB				SB	
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)		1	1	8	1		1		25			
PHF		0.85	0.85	0.85	0.85		0.85		0.85			
Percent of heavy vehicles, HV		2	2	2	2		2		2			
Flow rate		1	1	9	1		1		29			
Flare storage (# of vehs)												
Median storage (# of vehs)												

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1	R	29	1083	0.027	0	8.4	A	8.4
	2	L	1	989	0.001	0	8.6	A	
	3								A
SB	1								
	2								
	3								
EB		(1)							
WB		(4)	9	1620	0.006	0	7.2	A	

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		*Site Information*	
Analyst	Nancy	Jurisdiction/Date	City of ABQ 5/20/2005
Agency or Company	Terry Brown, P.E.	Major Street	Scenic Dr.
Analysis Period/Year	AM Peak Hour 2011	Minor Street	Driveway 'A'
Comment	2011 AM Peak BUILD Conditions		

Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	TR	LT	R	
Lane 2			L	
Lane 3				
Lane 4				
Lane 5				

	EB			WB			NB				SB	
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)		1	1	16	1		1		50			
PHF		0.85	0.85	0.85	0.85		0.85		0.85			
Percent of heavy vehicles, HV		2	2	2	2		2		2			
Flow rate		1	1	19	1		1		59			
Flare storage (# of vehs)												
Median storage (# of vehs)												

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1	R	59	1083	0.055	0	8.5	A	8.5
	2	L	1	960	0.001	0	8.8	A	
	3								A
SB	1								
	2								
	3								
EB		(1)							
WB		(4)	19	1620	0.012	0	7.2	A	

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		*Site Information*	
Analyst	Nancy	Jurisdiction/Date	City of ABQ 5/20/2005
Agency or Company	Terry Brown, P.E.	Major Street	Scenic Dr.
Analysis Period/Year	PM Peak Hour 2008	Minor Street	Driveway 'A'
Comment	2008 PM Peak BUILD Conditions		

Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	TR	LT	R	
Lane 2			L	
Lane 3				
Lane 4				
Lane 5				

	EB			WB			NB			SB		
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)		1	1	27	1		1		15			
PHF		0.85	0.85	0.85	0.85		0.85		0.85			
Percent of heavy vehicles, HV		2	2	2	2		2		2			
Flow rate		1	1	32	1		1		18			
Flare storage (# of vehs)												
Median storage (# of vehs)												

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1	R	18	1083	0.017	0	8.4	A	8.4
	2	L	1	920	0.001	0	8.9	A	
	3								A
SB	1								
	2								
	3								
EB		①							
WB		④	32	1620	0.020	0	7.3	A	

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information

Analyst	Nancy
Agency or Company	Terry Brown, P.E.
Analysis Period/Year	PM Peak Hour 2011
Comment	2011 PM Peak BUILD Conditions

Site Information

Jurisdiction/Date	City of ABQ 5/20/2005
Major Street	Scenic Dr.
Minor Street	Driveway 'A'

Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	TR	LT	R	
Lane 2			L	
Lane 3				
Lane 4				
Lane 5				

	EB			WB			NB				SB	
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)		1	1	53	1		1		30			
PHF		0.85	0.85	0.85	0.85		0.85		0.85			
Percent of heavy vehicles, HV		2	2	2	2		2		2			
Flow rate		1	1	62	1		1		35			
Flare storage (# of vehs)												
Median storage (# of vehs)												

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1	R	35	1083	0.032	0	8.4	A	8.5
	2	L	1	833	0.001	0	9.3	A	
	3								A
SB	1								
	2								
	3								
EB		(1)							
WB		(4)	62	1620	0.038	0	7.3	A	

Analysis of Intersection #6

Rainbow Rd / Unser Blvd

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information

Analyst	Nancy
Agency or Company	Terry Brown, P.E.
Analysis Period/Year	AM Peak Hour 2008
Comment	2008 AM Peak BUILD Conditions

Site Information

Jurisdiction/Date	City of ABQ 5/23/2005
Major Street	Unser Blvd.
Minor Street	Rainbow Rd.

Input Data

Lane Configuration	NB	SB	WB	EB
Lane 1 (curb)	T	R		R
Lane 2	T	T		L
Lane 3	L	T		
Lane 4				
Lane 5				

	NB			SB			WB			EB		
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)	237	281			525	513				20		4
PHF	0.85	0.85			0.85	0.85				0.85		0.85
Percent of heavy vehicles, HV	3	3			3	3				3		3
Flow rate	279	331			618	604				24		5
Flare storage (# of vehs)												
Median storage (# of vehs)										1		

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
WB	1								
	2								
	3								
EB	1	R	5	684	0.007	0	10.3	B	26.8
	2	L	24	166	0.144	0	30.3	D	
	3								D
NB		(1)	279	561	0.497	3	17.6	C	
SB		(4)							

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information

Analyst	Nancy
Agency or Company	Terry Brown, P.E.
Analysis Period/Year	AM Peak Hour 2011
Comment	2011 AM Peak BUILD Conditions

Site Information

Jurisdiction/Date	City of ABQ 5/23/2005
Major Street	Unser Blvd.
Minor Street	Rainbow Rd.

Input Data

Lane Configuration	NB	SB	WB	EB
Lane 1 (curb)	T	R		R
Lane 2	T	T		L
Lane 3	L	T		
Lane 4				
Lane 5				

	NB			SB			WB			EB		
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)	272	332			598	586			41			6
PHF	0.85	0.85			0.85	0.85			0.85			0.85
Percent of heavy vehicles, HV	3	3			3	3			3			3
Flow rate	320	391			704	689			48			7
Flare storage (# of vehs)												
Median storage (# of vehs)									1			

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
WB	1								
	2								
	3								
EB	1	R	7	642	0.011	0	10.7	B	61.1
	2	L	48	102	0.471	2	68.5	F	
	3								F
NB		(1)	320	482	0.664	5	26.0	D	
SB		(4)							

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information

Analyst	Nancy
Agency or Company	Terry Brown, P.E.
Analysis Period/Year	PM Peak Hour 2008
Comment	2008 PM Peak BUILD Conditions

Site Information

Jurisdiction/Date	City of ABQ 5/23/2005
Major Street	Unser Blvd.
Minor Street	Rainbow Rd.

Input Data

Lane Configuration	NB	SB	WB	EB
Lane 1 (curb)	T	R		R
Lane 2	T	T		L
Lane 3	L	T		
Lane 4				
Lane 5				

	NB			SB			WB			EB		
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)	8	536			297	22				12		14
PHF	0.85	0.85			0.85	0.85				0.85		0.85
Percent of heavy vehicles, HV	3	3			3	3				3		3
Flow rate	9	631			349	26				14		16
Flare storage (# of vehs)												
Median storage (# of vehs)										1		

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
WB	1								
	2								
	3								
EB	1	R	16	835	0.019	0	9.4	A	10.9
	2	L	14	485	0.029	0	12.6	B	
	3								B
NB		(1)	9	1173	0.008	0	8.1	A	
SB		(4)							

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information

Analyst	Nancy
Agency or Company	Terry Brown, P.E.
Analysis Period/Year	PM Peak Hour 2011
Comment	2011 PM Peak BUILD Conditions

Site Information

Jurisdiction/Date	City of ABQ 5/23/2005
Major Street	Unser Blvd.
Minor Street	Rainbow Rd.

Input Data

Lane Configuration	NB	SB	WB	EB
Lane 1 (curb)	T	R		R
Lane 2	T	T		L
Lane 3	L	T		
Lane 4				
Lane 5				

	NB			SB			WB			EB		
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)	10	615			349	44			25			19
PHF	0.85	0.85			0.85	0.85			0.85			0.85
Percent of heavy vehicles, HV	3	3			3	3			3			3
Flow rate	12	724			411	52			29			22
Flare storage (# of vehs)												
Median storage (# of vehs)									1			

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
WB	1								
	2								
	3								
EB	1	R	22	798	0.028	0	9.6	A	12.0
	2	L	29	438	0.066	0	13.8	B	
	3								B
NB		(1)	12	1088	0.011	0	8.3	A	
SB		(4)							

Analysis of Intersection #7

Molten Rock Rd / SAD227 driveway

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information

Analyst	Nancy
Agency or Company	Terry Brown, P.E.
Analysis Period/Year	AM Peak Hour 2008
Comment	2008 AM Peak BUILD Conditions

Site Information

Jurisdiction/Date	City of ABQ 5/18/2005
Major Street	Molten Rock Rd
Minor Street	SAD driveway

Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	TR	LT	LR	
Lane 2				
Lane 3				
Lane 4				
Lane 5				

	EB			WB			NB			SB		
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)		139	1	43	47		1		130			
PHF		0.85	0.85	0.85	0.85		0.85		0.85			
Percent of heavy vehicles, HV		2	2	2	2		2		2			
Flow rate		164	1	51	55		1		153			
Flare storage (# of vehs)												
Median storage (# of vehs)												

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1	LR	154	878	0.175	1	10.0	A	10.0
	2								
	3								A
SB	1								
	2								
	3								
EB		(1)							
WB		(4)	51	1414	0.036	0	7.6	A	

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information

Analyst	Nancy
Agency or Company	Terry Brown, P.E.
Analysis Period/Year	AM Peak Hour 2011
Comment	2011 AM Peak BUILD Conditions

Site Information

Jurisdiction/Date	City of ABQ 5/20/2005
Major Street	Molten Rock Rd
Minor Street	SAD driveway

Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	TR	LT	LR	
Lane 2				
Lane 3				
Lane 4				
Lane 5				

	EB			WB			NB			SB		
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)		278	1	43	92		1		130			
PHF		0.85	0.85	0.85	0.85		0.85		0.85			
Percent of heavy vehicles, HV		2	2	2	2		2		2			
Flow rate		327	1	51	108		1		153			
Flare storage (# of vehs)												
Median storage (# of vehs)												

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1	LR	154	711	0.216	1	11.5	B	11.5
	2								
	3								B
SB	1								
	2								
	3								
EB		(1)							
WB		(4)	51	1231	0.041	0	8.0	A	

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information

Analyst	Nancy
Agency or Company	Terry Brown, P.E.
Analysis Period/Year	PM Peak Hour 2008
Comment	2008 PM Peak BUILD Conditions

Site Information

Jurisdiction/Date	City of ABQ 5/18/2005
Major Street	Molten Rock Rd
Minor Street	SAD driveway

Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	TR	LT	LR	
Lane 2				
Lane 3				
Lane 4				
Lane 5				

	EB			WB			NB			SB		
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)		84	1	147	149		1		82			
PHF		0.85	0.85	0.85	0.85		0.85		0.85			
Percent of heavy vehicles, HV		2	2	2	2		2		2			
Flow rate		99	1	173	175		1		96			
Flare storage (# of vehs)												
Median storage (# of vehs)												

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1	LR	97	943	0.103	0	9.3	A	9.3
	2								
	3								A
SB	1								
	2								
	3								
EB		(1)							
WB		(4)	173	1493	0.116	0	7.7	A	

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information

Analyst	Nancy
Agency or Company	Terry Brown, P.E.
Analysis Period/Year	PM Peak Hour 2011
Comment	2011 PM Peak BUILD Conditions

Site Information

Jurisdiction/Date	City of ABQ 5/20/2005
Major Street	Molten Rock Rd
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Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	TR	LT	LR	
Lane 2				
Lane 3				
Lane 4				
Lane 5				

	EB			WB			NB				SB	
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)		168	1	147	298		1		82			
PHF		0.85	0.85	0.85	0.85		0.85		0.85			
Percent of heavy vehicles, HV		2	2	2	2		2		2			
Flow rate		198	1	173	351		1		96			
Flare storage (# of vehs)												
Median storage (# of vehs)												

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1	LR	97	825	0.118	0	9.9	A	9.9
	2								
	3								A
SB	1								
	2								
	3								
EB		(1)							
WB		(4)	173	1374	0.126	0	8.0	A	

Traffic Count Data Sheet

Vista Vieja Subdivision

Year Counts Taken: **2005**

E-W Street **Universe Blvd.**

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

UNSIGNALIZED

Speed Limit (Universe Blvd.)= **35** MPH

Speed Limit (Unser Blvd.)= **30** MPH

Date of Count: **5/19/05**

Begin Time	End Time	Eastbound (Universe Blvd.)			Westbound (Universe Blvd.)			Northbound (Unser Blvd.)			Southbound (Unser Blvd.)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	~~0~~	~~0~~	~~0~~	~~116~~	~~1~~	~~0~~	~~1~~	~~0~~	~~38~~	~~0~~	~~0~~	~~0~~
7:15 AM	7:30 AM	**2**	**1**	**0**	**201**	**0**	**0**	**3**	**1**	**81**	**0**	**0**	**0**
7:30 AM	7:45 AM	**0**	**1**	**1**	**218**	**1**	**0**	**0**	**0**	**81**	**0**	**0**	**0**
7:45 AM	8:00 AM	**0**	**2**	**0**	**255**	**2**	**0**	**1**	**0**	**123**	**0**	**0**	**0**
8:00 AM	8:15 AM	**0**	**1**	**1**	**201**	**1**	**0**	**1**	**0**	**96**	**0**	**0**	**0**
8:15 AM	8:30 AM	~~0~~	~~2~~	~~0~~	~~137~~	~~1~~	~~0~~	~~3~~	~~2~~	~~58~~	~~0~~	~~1~~	~~0~~
8:30 AM	8:45 AM	~~0~~	~~2~~	~~2~~	~~114~~	~~4~~	~~1~~	~~3~~	~~1~~	~~65~~	~~11~~	~~24~~	~~1~~
8:45 AM	9:00 AM	~~0~~	~~1~~	~~4~~	~~103~~	~~4~~	~~0~~	~~5~~	~~1~~	~~51~~	~~0~~	~~0~~	~~0~~
AM Peak Hour Volumes		**2**	**5**	**2**	**875**	**4**	**0**	**5**	**1**	**381**	**0**	**0**	**0**
% of Total Traffic		0.2%	0.4%	0.2%	68.6%	0.3%	0.0%	0.4%	0.1%	29.9%	0.0%	0.0%	0.0%
% Directional			0.7%			68.9%			30.4%			0.0%	
AM Peak Hour Factor			***0.75***			***0.86***			***0.78***			***#DIV/0!***	

Begin Time	End Time	Eastbound (Universe Blvd.)			Westbound (Universe Blvd.)			Northbound (Unser Blvd.)			Southbound (Unser Blvd.)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	~~0~~	~~2~~	~~6~~	~~115~~	~~8~~	~~0~~	~~1~~	~~1~~	~~153~~	~~1~~	~~0~~	~~1~~
4:15 PM	4:30 PM	~~3~~	~~9~~	~~0~~	~~90~~	~~1~~	~~0~~	~~5~~	~~0~~	~~126~~	~~0~~	~~1~~	~~0~~
4:30 PM	4:45 PM	~~0~~	~~4~~	~~6~~	~~101~~	~~4~~	~~0~~	~~0~~	~~0~~	~~166~~	~~0~~	~~0~~	~~0~~
4:45 PM	5:00 PM	**0**	**2**	**1**	**105**	**2**	**0**	**0**	**1**	**206**	**0**	**0**	**0**
5:00 PM	5:15 PM	**0**	**1**	**4**	**93**	**4**	**0**	**1**	**1**	**198**	**0**	**0**	**0**
5:15 PM	5:30 PM	**0**	**0**	**3**	**80**	**2**	**0**	**3**	**0**	**228**	**0**	**0**	**0**
5:30 PM	5:45 PM	**0**	**3**	**2**	**119**	**0**	**1**	**0**	**0**	**228**	**0**	**0**	**0**
5:45 PM	6:00 PM	~~0~~	~~1~~	~~3~~	~~2~~	~~51~~	~~0~~	~~0~~	~~0~~	~~192~~	~~0~~	~~0~~	~~0~~
PM Peak Hour Volumes		**0**	**6**	**10**	**397**	**8**	**1**	**4**	**2**	**860**	**0**	**0**	**0**
% of Total Traffic		0.0%	0.5%	0.8%	30.8%	0.6%	0.1%	0.3%	0.2%	66.8%	0.0%	0.0%	0.0%
% Directional			1.2%			31.5%			67.2%			0.0%	
PM Peak Hour Factor			***0.80***			***0.85***			***0.94***			***#DIV/0!***	

Intersection Data Sheet

Intersection: **Montaño Rd. / Unser Blvd.**

Posted Speed Limit (E-W Street): 40 E. of Unser / 25 W. of Unser

Eastbound Approach: **Montaño Rd.**

Left Turn Lanes	Thru/Left Lanes	Thru Lanes	Thru/Right Lanes	Right Turn Lanes
1	0	0	1	0

125 feet

Left Turn Arrow?	Thru Green?	Right Turn Arrow?
N	Y	N

Is there a right turn slip lane that by-passes the traffic signal? **No**

Westbound Approach: **Montaño Rd.**

Left Turn Lanes	Thru/Left Lanes	Thru Lanes	Thru/Right Lanes	Right Turn Lanes
1	0	1	0	1

165 feet

Left Turn Arrow?	Thru Green?	Right Turn Arrow?
N	Y	N

Is there a right turn slip lane that by-passes the traffic signal? **No**

Posted Speed Limit (N-S Street): 40

Northbound Approach: **Unser Blvd.**

Left Turn Lanes	Thru/Left Lanes	Thru Lanes	Thru/Right Lanes	Right Turn Lanes
1	0	1	0	1

140 feet

Left Turn Arrow?	Thru Green?	Right Turn Arrow?
N	Y	N

Is there a right turn slip lane that by-passes the traffic signal? **No**

Southbound Approach: **Unser Blvd.**

Left Turn Lanes	Thru/Left Lanes	Thru Lanes	Thru/Right Lanes	Right Turn Lanes
1	0	1	1	0

90 feet

Left Turn Arrow?	Thru Green?	Right Turn Arrow?
N	Y	N

Is there a right turn slip lane that by-passes the traffic signal? **No**

Paragon Properties (Paradise Blvd / Unser Blvd)

Projected Turning Movements Worksheet

Montaño Rd. / Unser Blvd.

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

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

Year of Existing Counts 2008

Implementation Year **2008**

Growth Rates **2.00%** **2.00%** **2.00%** **2.00%**

	Eastbound (Montaño Rd.)			Westbound (Montaño Rd.)			Northbound (Unser Blvd.)			Southbound (Unser Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Subtotal (NO BUILD - A.M.)	***12***	***106***	***12***	***577***	***33***	***92***	***5***	***292***	***351***	***427***	***424***	***7***
Percent Residential Trips Generated(Entering)	***0.16%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***7.10%***	*0.00%*	***6.89%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Residential Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***7.10%***	***6.89%***	***0.16%***
Total Trips Generated	0	0	0	0	0	9	0	9	0	27	26	1
Total AM Peak Hour BUILD Volumes	**12**	**106**	**12**	**577**	**33**	**101**	**5**	**301**	**351**	**454**	**450**	**8**

	Eastbound (Montaño Rd.)			Westbound (Montaño Rd.)			Northbound (Unser Blvd.)			Southbound (Unser Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Subtotal (NO BUILD - P.M.)	***16***	***106***	***9***	***421***	***176***	***316***	***14***	***707***	***571***	***262***	***207***	***21***
Percent Residential Trips Generated(Entering)	***0.16%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***7.10%***	*0.00%*	***6.89%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Residential Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***7.10%***	***6.89%***	***0.16%***
Total Trips Generated	1	0	0	0	0	30	0	29	0	17	16	0
Total PM Peak Hour BUILD Volumes	**17**	**106**	**9**	**421**	**176**	**346**	**14**	**736**	**571**	**279**	**223**	**21**

Number of Residential Trips Generated	Entering	Exiting		
	127	**379**	A.M.	100% Residential Development
	416	**234**	P.M.	

Volumes taken from Appendix F in the Black Mountain Ranch Development Traffic Impact Study by BHI.

AM Peak Hour Volumes:

	EB			WB			NB			SB		
2006 BUILD w/New Network	11	101	11	549	31	66	4	257	334	358	356	6
2011 BUILD	12	111	12	604	34	117	5	327	367	495	492	7

PM Peak Hour Volumes:

2006 BUILD w/New Network	15	102	8	405	169	244	13	620	549	213	160	20
2011 BUILD	16	110	9	437	182	387	14	794	593	311	253	22

	SB			WB			NB			EB		
	358	356	6	549	31	66	4	257	334	11	101	11
	495	492	7	604	34	117	5	327	367	12	111	12
	213	160	20	405	169	244	13	620	549	15	102	8
	311	253	22	437	182	387	14	794	593	16	110	9

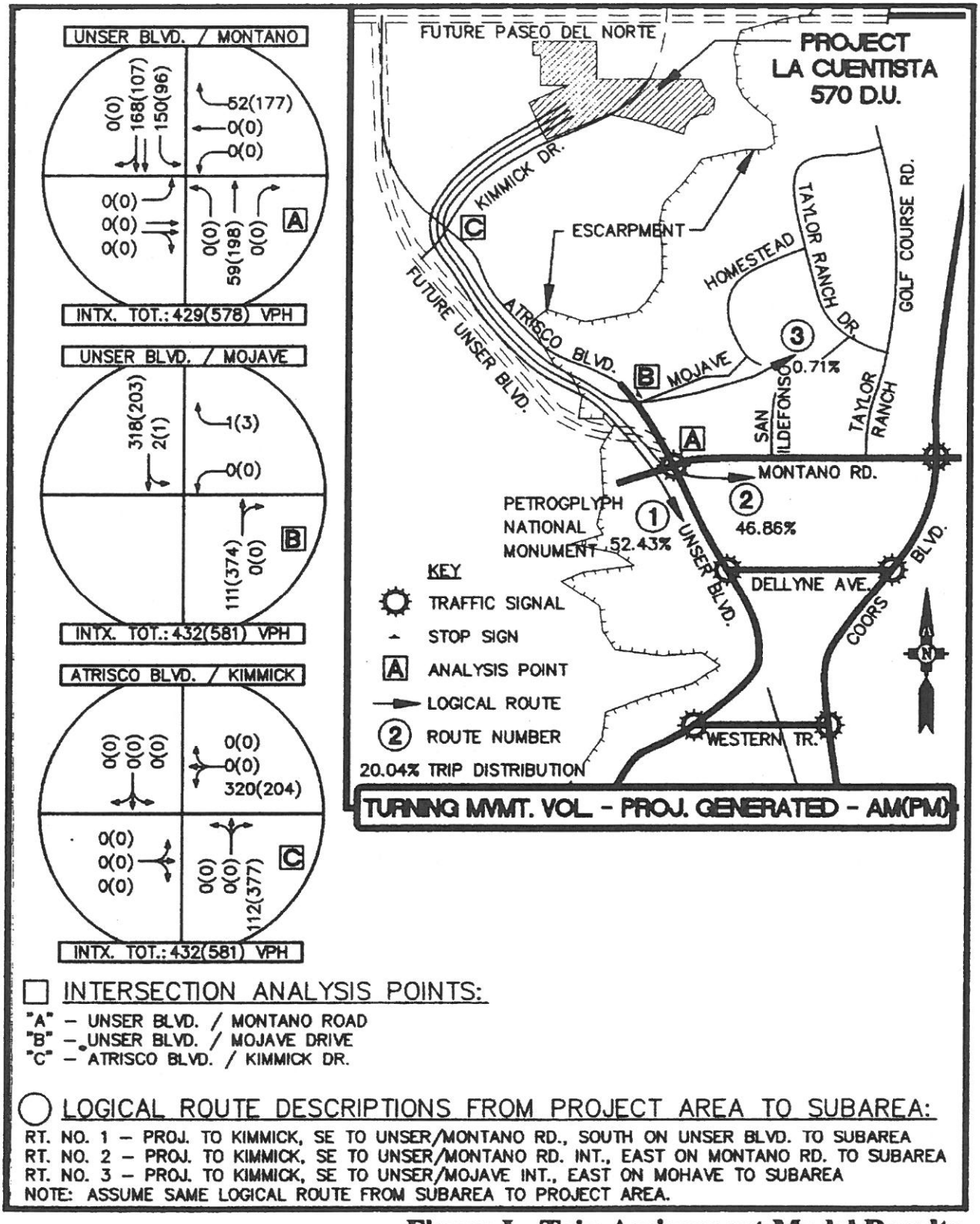
2008 NO BUILD Volumes are interpolated volumes using 2006 BUILD w/New Network and 2011 BUILD w/New Network from BHI TIS for Black Mountain Ranch.

BLACK MOUNTAIN RANCH

PM Peak Hour

	Southbound Unser			Westbound Montano			Northbound Unser			Eastbound Montano		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2003)	45	175	19	382	159	115	12	420	518	14	96	8
2003 Volumes	**45**	**175**	**19**	**382**	**159**	**115**	**12**	**420**	**518**	**14**	**96**	**8**
Background Growth** (2003-2006)	3	11	1	23	10	7	1	25	31	1	6	0
Approved Developments												
Ventana Ranch Remainder	16	50				30		95				
Ventana Ranch West	34	5				62		9				
2006 No Build	**98**	**241**	**20**	**405**	**169**	**214**	**13**	**549**	**549**	**15**	**102**	**8**
Enter						92		14				
Exit	51	8										
2006 Build	**148**	**249**	**20**	**405**	**169**	**306**	**13**	**563**	**549**	**15**	**102**	**8**
2006 Network Diversion												
Pardise/PDN												
Unser/PDN												
Unser/Kimmick	99	-84						66				
Ventana Ranch West 2006 Network	34	5				62		9				
2006 No build with new network	**197**	**157**	**20**	**405**	**169**	**214**	**13**	**615**	**549**	**15**	**102**	**8**
Enter						92		14				
Exit	51	8										
2006 Build with new network	**247**	**165**	**20**	**405**	**169**	**306**	**13**	**629**	**549**	**15**	**102**	**8**
Background Growth** (2006-2010)	20	13	2	32	13	24	1	50	44	1	8	1
Ventana Ranch West Complete Phase	84	13				152		23				
2011 No Build	**351**	**191**	**22**	**437**	**182**	**482**	**14**	**702**	**593**	**16**	**110**	**9**
Residential Enter						287		43				
Residential Exit	158	24										
Retail Enter						0		0				
Retail Exit	0	0										
Office Enter						4		1				
Office Exit	21	3										
2011 Build	**530**	**217**	**22**	**437**	**182**	**773**	**14**	**746**	**593**	**16**	**110**	**9**
2011 Networ Diversion												
Unser/Kimmick												
Rainbow												
Ventana Ranch West Complete phase 11 network												
2011 No Build with new network	**267**	**178**	**22**	**437**	**182**	**330**	**14**	**679**	**593**	**16**	**110**	**9**
Residential Enter						112		112				
Residential Exit	62	62										
Retail Enter						11		11				
Retail Exit	12	12										
Office Enter						2		2				
Office Exit	7	7										
2011 Build with new network	**348**	**259**	**22**	**437**	**182**	**454**	**14**	**804**	**593**	**16**	**110**	**9**
	0.952			*0.917*			*0.927*			*0.702*		

growth rates	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Trip Distribution % Enter						28.20%		4.21%				
Trip Distribution % Exit	28.20%	4.21%										
2006 Residential Trip Distribution % Enter						28.20%		4.21%				
2006 Residential Trip Distribution % Exit	28.20%	4.21%										
2006 Retail Trip Distribution % Enter												
2006 Retail Trip Distribution % Exit												
2006 Office Trip Distribution % Enter						31.16%		4.66%				
2006 Office Trip Distribution % Exit	31.16%	4.66%										
2011 Residential Trip Distribution % Enter						11.00%		11.00%				
2011 Residential Trip Distribution % Exit	11.00%	11.00%										
2011 Retail Trip Distribution % Enter						11.00%		11.00%				
2011 Retail Trip Distribution % Exit	11.00%	11.00%										
2011 Office Trip Distribution % Enter						11.00%		11.00%				
2011 Office Trip Distribution % Exit	11.00%	11.00%										
VR Trip Distribution % Enter						7.85%		24.85%				
VR Trip Distribution % Exit	7.85%	24.85%										



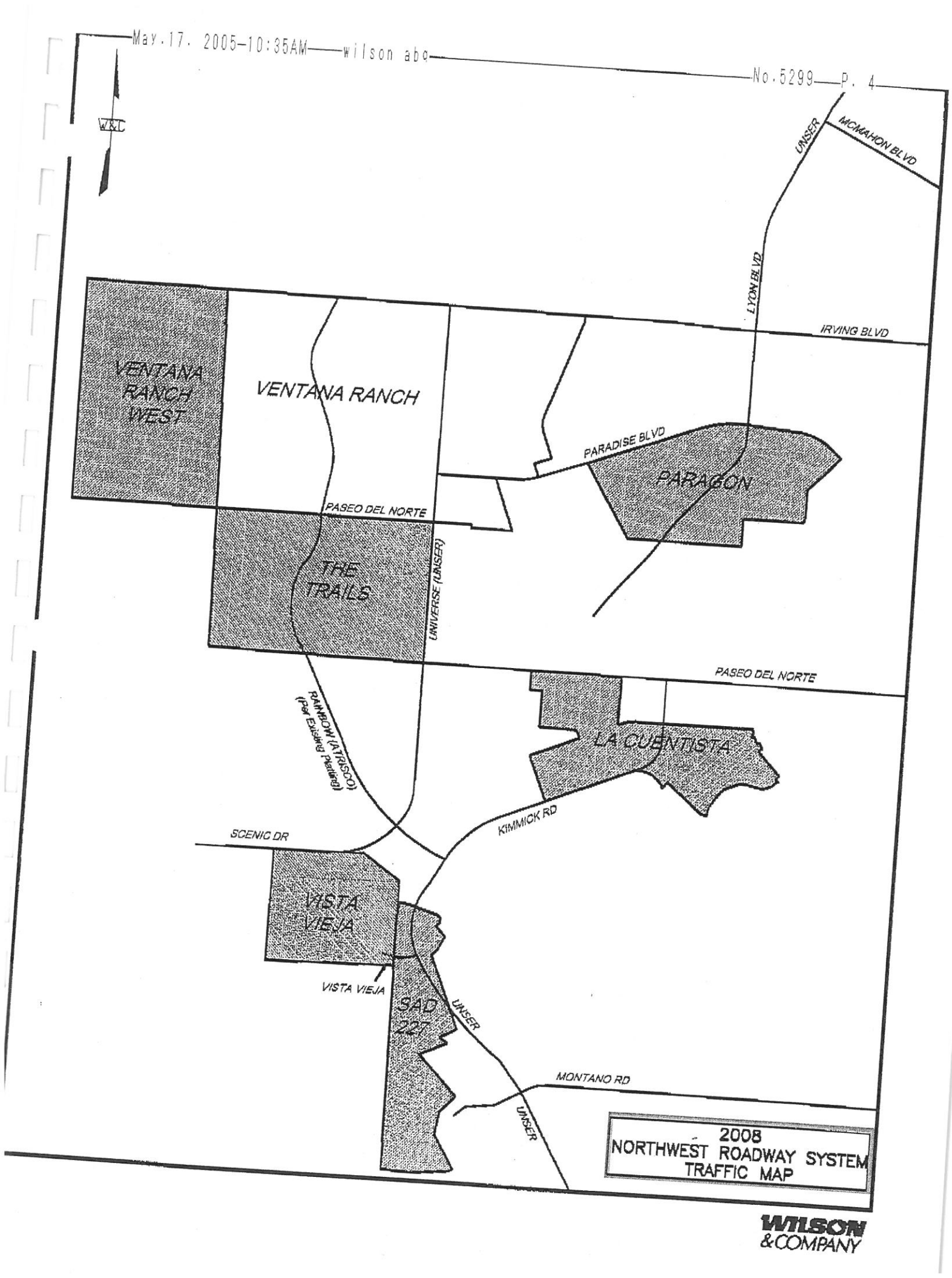
☐ INTERSECTION ANALYSIS POINTS:

"A" – UNSER BLVD. / MONTANO ROAD
"B" – UNSER BLVD. / MOJAVE DRIVE
"C" – ATRISCO BLVD. / KIMMICK DR.

◯ LOGICAL ROUTE DESCRIPTIONS FROM PROJECT AREA TO SUBAREA:

RT. NO. 1 – PROJ. TO KIMMICK, SE TO UNSER/MONTANO RD., SOUTH ON UNSER BLVD. TO SUBAREA
RT. NO. 2 – PROJ. TO KIMMICK, SE TO UNSER/MONTANO RD. INT., EAST ON MONTANO RD. TO SUBAREA
RT. NO. 3 – PROJ. TO KIMMICK, SE TO UNSER/MOJAVE INT., EAST ON MOHAVE TO SUBAREA
NOTE: ASSUME SAME LOGICAL ROUTE FROM SUBAREA TO PROJECT AREA.

Figure I - Trip Assignment Model Results


W&C
UNSER
MCMAHON BLVD
LYON BLVD
IRVING BLVD
VENTANA RANCH WEST
VENTANA RANCH
PARADISE BLVD
PARAGON
PASEO DEL NORTE
THE TRAILS
UNIVERSE (UNSER)
PASEO DEL NORTE
RAINBOW (ATRISCO)
(Per Existing Platting)
LA CUENTISTA
KIMMICK RD
SCENIC DR
VISTA VIEJA
VISTA VIEJA
SAD 227
UNSER
MONTANO RD
UNSER
2008
NORTHWEST ROADWAY SYSTEM
TRAFFIC MAP
WILSON
&COMPANY

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information

Analyst	Nancy
Agency or Company	Terry Brown, P.E.
Analysis Period/Year	PM Peak Hour 2011
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Minor Street	SAD driveway

Input Data

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Lane 1 (curb)	TR	LT	LR	
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Lane 3				
Lane 4				
Lane 5				

	EB			WB			NB				SB	
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Volume (veh/h)		168	1	147	298		1		82			
PHF		0.85	0.85	0.85	0.85		0.85		0.85			
Percent of heavy vehicles, HV		2	2	2	2		2		2			
Flow rate		198	1	173	351		1		96			
Flare storage (# of vehs)												
Median storage (# of vehs)												

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
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	2								
	3								A
SB	1								
	2								
	3								
EB		(1)							
WB		(4)	173	1374	0.126	0	8.0	A	

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Vista Vieja Subdivision

Year Counts Taken: **2005**

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UNSIGNALIZED

Speed Limit (Universe Blvd.)= **35** MPH

Speed Limit (Unser Blvd.)= **30** MPH

Date of Count: **5/19/05**

Begin Time	End Time	Eastbound (Universe Blvd.)			Westbound (Universe Blvd.)			Northbound (Unser Blvd.)			Southbound (Unser Blvd.)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	~~0~~	~~0~~	~~0~~	~~116~~	~~1~~	~~0~~	~~1~~	~~0~~	~~38~~	~~0~~	~~0~~	~~0~~
7:15 AM	7:30 AM	**2**	**1**	**0**	**201**	**0**	**0**	**3**	**1**	**81**	**0**	**0**	**0**
7:30 AM	7:45 AM	**0**	**1**	**1**	**218**	**1**	**0**	**0**	**0**	**81**	**0**	**0**	**0**
7:45 AM	8:00 AM	**0**	**2**	**0**	**255**	**2**	**0**	**1**	**0**	**123**	**0**	**0**	**0**
8:00 AM	8:15 AM	**0**	**1**	**1**	**201**	**1**	**0**	**1**	**0**	**96**	**0**	**0**	**0**
8:15 AM	8:30 AM	~~0~~	~~2~~	~~0~~	~~137~~	~~1~~	~~0~~	~~3~~	~~2~~	~~58~~	~~0~~	~~1~~	~~0~~
8:30 AM	8:45 AM	~~0~~	~~2~~	~~2~~	~~114~~	~~4~~	~~1~~	~~3~~	~~1~~	~~65~~	~~11~~	~~24~~	~~1~~
8:45 AM	9:00 AM	~~0~~	~~1~~	~~4~~	~~103~~	~~4~~	~~0~~	~~5~~	~~1~~	~~51~~	~~0~~	~~0~~	~~0~~
AM Peak Hour Volumes		**2**	**5**	**2**	**875**	**4**	**0**	**5**	**1**	**381**	**0**	**0**	**0**
% of Total Traffic		0.2%	0.4%	0.2%	68.6%	0.3%	0.0%	0.4%	0.1%	29.9%	0.0%	0.0%	0.0%
% Directional			0.7%			68.9%			30.4%			0.0%	
AM Peak Hour Factor			***0.75***			***0.86***			***0.78***			***#DIV/0!***	

Begin Time	End Time	Eastbound (Universe Blvd.)			Westbound (Universe Blvd.)			Northbound (Unser Blvd.)			Southbound (Unser Blvd.)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	~~0~~	~~2~~	~~6~~	~~115~~	~~8~~	~~0~~	~~1~~	~~1~~	~~153~~	~~1~~	~~0~~	~~1~~
4:15 PM	4:30 PM	~~3~~	~~9~~	~~0~~	~~90~~	~~1~~	~~0~~	~~5~~	~~0~~	~~126~~	~~0~~	~~1~~	~~0~~
4:30 PM	4:45 PM	~~0~~	~~4~~	~~6~~	~~101~~	~~4~~	~~0~~	~~0~~	~~0~~	~~166~~	~~0~~	~~0~~	~~0~~
4:45 PM	5:00 PM	**0**	**2**	**1**	**105**	**2**	**0**	**0**	**1**	**206**	**0**	**0**	**0**
5:00 PM	5:15 PM	**0**	**1**	**4**	**93**	**4**	**0**	**1**	**1**	**198**	**0**	**0**	**0**
5:15 PM	5:30 PM	**0**	**0**	**3**	**80**	**2**	**0**	**3**	**0**	**228**	**0**	**0**	**0**
5:30 PM	5:45 PM	**0**	**3**	**2**	**119**	**0**	**1**	**0**	**0**	**228**	**0**	**0**	**0**
5:45 PM	6:00 PM	~~0~~	~~1~~	~~3~~	~~2~~	~~51~~	~~0~~	~~0~~	~~0~~	~~192~~	~~0~~	~~0~~	~~0~~
PM Peak Hour Volumes		**0**	**6**	**10**	**397**	**8**	**1**	**4**	**2**	**860**	**0**	**0**	**0**
% of Total Traffic		0.0%	0.5%	0.8%	30.8%	0.6%	0.1%	0.3%	0.2%	66.8%	0.0%	0.0%	0.0%
% Directional			1.2%			31.5%			67.2%			0.0%	
PM Peak Hour Factor			***0.80***			***0.85***			***0.94***			***#DIV/0!***	

Intersection Data Sheet

Intersection: **Montaño Rd. / Unser Blvd.**

Posted Speed Limit (E-W Street): 40 E. of Unser / 25 W. of Unser

Eastbound Approach: **Montaño Rd.**

Left Turn Lanes	Thru/Left Lanes	Thru Lanes	Thru/Right Lanes	Right Turn Lanes
1	0	0	1	0

125 feet

Left Turn Arrow?	Thru Green?	Right Turn Arrow?
N	Y	N

Is there a right turn slip lane that by-passes the traffic signal? **No**

Westbound Approach: **Montaño Rd.**

Left Turn Lanes	Thru/Left Lanes	Thru Lanes	Thru/Right Lanes	Right Turn Lanes
1	0	1	0	1

165 feet

Left Turn Arrow?	Thru Green?	Right Turn Arrow?
N	Y	N

Is there a right turn slip lane that by-passes the traffic signal? **No**

Posted Speed Limit (N-S Street): 40

Northbound Approach: **Unser Blvd.**

Left Turn Lanes	Thru/Left Lanes	Thru Lanes	Thru/Right Lanes	Right Turn Lanes
1	0	1	0	1

140 feet

Left Turn Arrow?	Thru Green?	Right Turn Arrow?
N	Y	N

Is there a right turn slip lane that by-passes the traffic signal? **No**

Southbound Approach: **Unser Blvd.**

Left Turn Lanes	Thru/Left Lanes	Thru Lanes	Thru/Right Lanes	Right Turn Lanes
1	0	1	1	0

90 feet

Left Turn Arrow?	Thru Green?	Right Turn Arrow?
N	Y	N

Is there a right turn slip lane that by-passes the traffic signal? **No**

Paragon Properties (Paradise Blvd / Unser Blvd)

Projected Turning Movements Worksheet

Montaño Rd. / Unser Blvd.

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

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

Year of Existing Counts 2008

Implementation Year **2008**

Growth Rates **2.00%** **2.00%** **2.00%** **2.00%**

	Eastbound (Montaño Rd.)			Westbound (Montaño Rd.)			Northbound (Unser Blvd.)			Southbound (Unser Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Subtotal (NO BUILD - A.M.)	***12***	***106***	***12***	***577***	***33***	***92***	***5***	***292***	***351***	***427***	***424***	***7***
Percent Residential Trips Generated(Entering)	***0.16%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***7.10%***	*0.00%*	***6.89%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Residential Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***7.10%***	***6.89%***	***0.16%***
Total Trips Generated	0	0	0	0	0	9	0	9	0	27	26	1
Total AM Peak Hour BUILD Volumes	**12**	**106**	**12**	**577**	**33**	**101**	**5**	**301**	**351**	**454**	**450**	**8**

	Eastbound (Montaño Rd.)			Westbound (Montaño Rd.)			Northbound (Unser Blvd.)			Southbound (Unser Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Subtotal (NO BUILD - P.M.)	***16***	***106***	***9***	***421***	***176***	***316***	***14***	***707***	***571***	***262***	***207***	***21***
Percent Residential Trips Generated(Entering)	***0.16%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***7.10%***	*0.00%*	***6.89%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Residential Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***7.10%***	***6.89%***	***0.16%***
Total Trips Generated	1	0	0	0	0	30	0	29	0	17	16	0
Total PM Peak Hour BUILD Volumes	**17**	**106**	**9**	**421**	**176**	**346**	**14**	**736**	**571**	**279**	**223**	**21**

Number of Residential Trips Generated	Entering	Exiting		
	127	**379**	A.M.	100% Residential Development
	416	**234**	P.M.	

Volumes taken from Appendix F in the Black Mountain Ranch Development Traffic Impact Study by BHI.

AM Peak Hour Volumes:

	EB			WB			NB			SB		
2006 BUILD w/New Network	11	101	11	549	31	66	4	257	334	358	356	6
2011 BUILD	12	111	12	604	34	117	5	327	367	495	492	7

PM Peak Hour Volumes:

2006 BUILD w/New Network	15	102	8	405	169	244	13	620	549	213	160	20
2011 BUILD	16	110	9	437	182	387	14	794	593	311	253	22

	SB			WB			NB			EB		
	358	356	6	549	31	66	4	257	334	11	101	11
	495	492	7	604	34	117	5	327	367	12	111	12
	213	160	20	405	169	244	13	620	549	15	102	8
	311	253	22	437	182	387	14	794	593	16	110	9

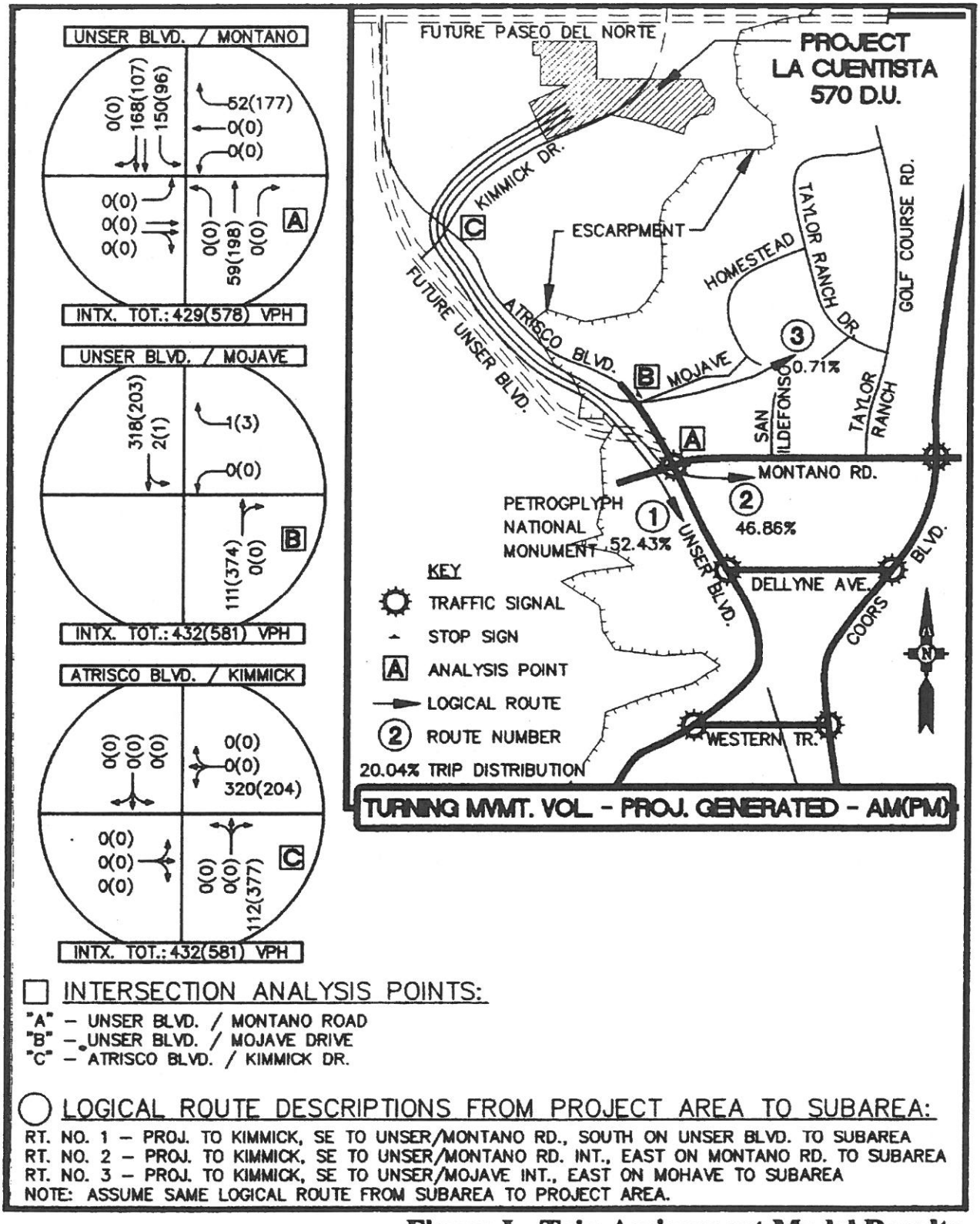
2008 NO BUILD Volumes are interpolated volumes using 2006 BUILD w/New Network and 2011 BUILD w/New Network from BHI TIS for Black Mountain Ranch.

BLACK MOUNTAIN RANCH

PM Peak Hour

	Southbound Unser			Westbound Montano			Northbound Unser			Eastbound Montano		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2003)	45	175	19	382	159	115	12	420	518	14	96	8
2003 Volumes	**45**	**175**	**19**	**382**	**159**	**115**	**12**	**420**	**518**	**14**	**96**	**8**
Background Growth** (2003-2006)	3	11	1	23	10	7	1	25	31	1	6	0
Approved Developments												
Ventana Ranch Remainder	16	50				30		95				
Ventana Ranch West	34	5				62		9				
2006 No Build	**98**	**241**	**20**	**405**	**169**	**214**	**13**	**549**	**549**	**15**	**102**	**8**
Enter						92		14				
Exit	51	8										
2006 Build	**148**	**249**	**20**	**405**	**169**	**306**	**13**	**563**	**549**	**15**	**102**	**8**
2006 Network Diversion												
Pardise/PDN												
Unser/PDN												
Unser/Kimmick	99	-84						66				
Ventana Ranch West 2006 Network	34	5				62		9				
2006 No build with new network	**197**	**157**	**20**	**405**	**169**	**214**	**13**	**615**	**549**	**15**	**102**	**8**
Enter						92		14				
Exit	51	8										
2006 Build with new network	**247**	**165**	**20**	**405**	**169**	**306**	**13**	**629**	**549**	**15**	**102**	**8**
Background Growth** (2006-2010)	20	13	2	32	13	24	1	50	44	1	8	1
Ventana Ranch West Complete Phase	84	13				152		23				
2011 No Build	**351**	**191**	**22**	**437**	**182**	**482**	**14**	**702**	**593**	**16**	**110**	**9**
Residential Enter						287		43				
Residential Exit	158	24										
Retail Enter						0		0				
Retail Exit	0	0										
Office Enter						4		1				
Office Exit	21	3										
2011 Build	**530**	**217**	**22**	**437**	**182**	**773**	**14**	**746**	**593**	**16**	**110**	**9**
2011 Networ Diversion												
Unser/Kimmick												
Rainbow												
Ventana Ranch West Complete phase 11 network												
2011 No Build with new network	**267**	**178**	**22**	**437**	**182**	**330**	**14**	**679**	**593**	**16**	**110**	**9**
Residential Enter						112		112				
Residential Exit	62	62										
Retail Enter						11		11				
Retail Exit	12	12										
Office Enter						2		2				
Office Exit	7	7										
2011 Build with new network	**348**	**259**	**22**	**437**	**182**	**454**	**14**	**804**	**593**	**16**	**110**	**9**
	0.952			*0.917*			*0.927*			*0.702*		

growth rates	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Trip Distribution % Enter						28.20%		4.21%				
Trip Distribution % Exit	28.20%	4.21%										
2006 Residential Trip Distribution % Enter						28.20%		4.21%				
2006 Residential Trip Distribution % Exit	28.20%	4.21%										
2006 Retail Trip Distribution % Enter												
2006 Retail Trip Distribution % Exit												
2006 Office Trip Distribution % Enter						31.16%		4.66%				
2006 Office Trip Distribution % Exit	31.16%	4.66%										
2011 Residential Trip Distribution % Enter						11.00%		11.00%				
2011 Residential Trip Distribution % Exit	11.00%	11.00%										
2011 Retail Trip Distribution % Enter						11.00%		11.00%				
2011 Retail Trip Distribution % Exit	11.00%	11.00%										
2011 Office Trip Distribution % Enter						11.00%		11.00%				
2011 Office Trip Distribution % Exit	11.00%	11.00%										
VR Trip Distribution % Enter						7.85%		24.85%				
VR Trip Distribution % Exit	7.85%	24.85%										



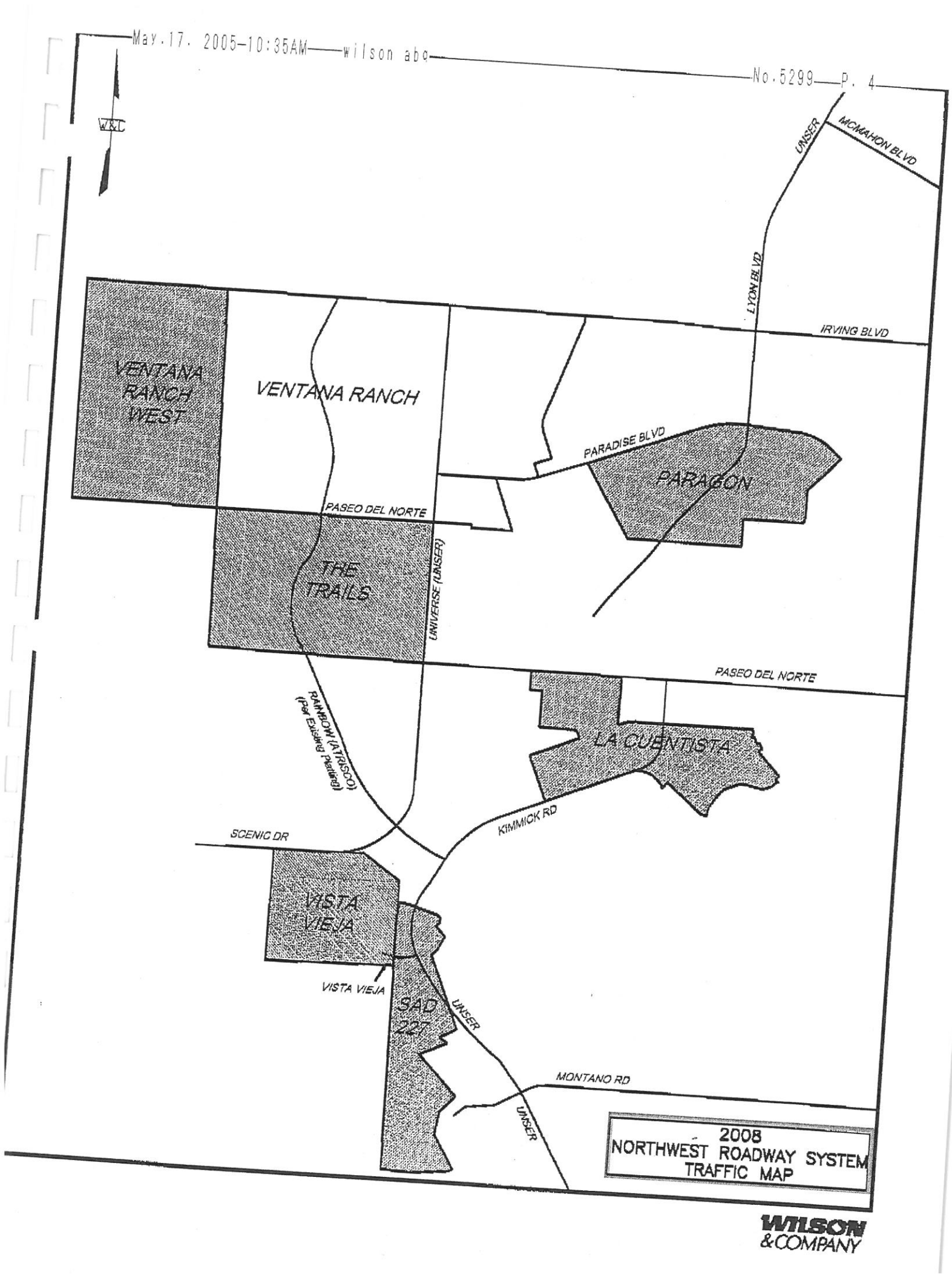
☐ INTERSECTION ANALYSIS POINTS:

"A" – UNSER BLVD. / MONTANO ROAD
"B" – UNSER BLVD. / MOJAVE DRIVE
"C" – ATRISCO BLVD. / KIMMICK DR.

◯ LOGICAL ROUTE DESCRIPTIONS FROM PROJECT AREA TO SUBAREA:

RT. NO. 1 – PROJ. TO KIMMICK, SE TO UNSER/MONTANO RD., SOUTH ON UNSER BLVD. TO SUBAREA
RT. NO. 2 – PROJ. TO KIMMICK, SE TO UNSER/MONTANO RD. INT., EAST ON MONTANO RD. TO SUBAREA
RT. NO. 3 – PROJ. TO KIMMICK, SE TO UNSER/MOJAVE INT., EAST ON MOHAVE TO SUBAREA
NOTE: ASSUME SAME LOGICAL ROUTE FROM SUBAREA TO PROJECT AREA.

Figure I - Trip Assignment Model Results


W&C
UNSER
MCMAHON BLVD
LYON BLVD
IRVING BLVD
VENTANA RANCH WEST
VENTANA RANCH
PARADISE BLVD
PARAGON
PASEO DEL NORTE
THE TRAILS
UNIVERSE (UNSER)
PASEO DEL NORTE
RAINBOW (ATRISCO)
(Per Existing Platting)
LA CUENTISTA
KIMMICK RD
SCENIC DR
VISTA VIEJA
VISTA VIEJA
SAD 227
UNSER
MONTANO RD
UNSER
2008
NORTHWEST ROADWAY SYSTEM
TRAFFIC MAP
WILSON
&COMPANY