Vista del Norte Commercial Development

(Osuna Rd. / Vista del Norte Dr.)

Traffic Impact Study

DRAFT

May 5, 2006

Terry O. Brown, P.E.

Presented to:

Transportation Development Division
City of Albuquerque

Prepared for:

Tierra West, LLC
8509 Jefferson NE
Albuquerque, NM 87113

TERRY O. BROWN
NEW MEXICO
6407
LICENSED PROFESSIONAL ENGINEER

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

Vista del Norte Commercial Development
(Osuna Rd. / Vista del Norte Dr. - NE Corner)
TRAFFIC IMPACT STUDY

STUDY PURPOSE

The study is being conducted in conjunction with a request for approval of a commercial development plan for the property located at the northeast corner of Osuna Rd. / Vista del Norte Dr. The current plan being considered by the Environmental Planning Commission is for the larger part of the development, but does not include the approximately 1.0 acre pad site on the hard corner. However, this study takes into consideration that the corner parcel will be developed in the future as a Fast Food Restaurant with a drive-up window or some similar use that will generated a comparable volume of traffic. 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 facility. This report is being prepared to meet the requirements of the City of Albuquerque Transportation Development Section in association with the development of the proposed project associated with this site plan.

STUDY PROCEDURES

A scoping meeting was held on Friday, February 22, 2006 with City of Albuquerque staff (Tony Loyd and Steele Nowak) prior to beginning the Vista del Norte Commercial Development study to discuss scope and methodology to be utilized within that report.

The basic procedure followed is described as follows:

1) Calculate the generated trips for the proposed commercial development consisting of a proposed 185,000 S.F. discount super-center and a 4,000 S.F. Fast Food Restaurant with a drive-in window. Only the discount super-center is being proposed at this time. The Fast Food Restaurant is a speculative use. (See Pages A-6 thru A-8 in Appendix).
2) Calculate trip distribution for the newly generated trips by this development. The commercial trips shall be distributed based on 2008 DASZ population data within an approximate two-mile radius of the proposed site. However, the actual market draw area is defined by the relative locations of other similar uses. The actual market draw area map (and trip distribution map) is found on Page A-9 in the Appendix of this report. (See Pages A-9 thru A-13 in Appendix).
3) Determine Trip Assignments for the newly generated trips based on the results of the Trip Distribution Analysis and logical routing to and from the site. (See Pages 14 thru A-16 in Appendix).
4) Obtain AM Peak Hour and PM Peak Hour turning movement traffic counts at the intersection Osuna Rd. / Edith Blvd., Osuna Rd. / Chappell Rd., Osuna Rd. / Academy Parkway Dr., Osuna Rd. / Jefferson St., Osuna Rd. / Vista del Norte Dr., El Pueblo Rd. / Las Lomitas Dr., and Vista del Norte Dr. / Las Lomitas Dr. (See Pages A-188 thru A-198 in Appendix).
5) Calculate Historic Growth Rates for each of the approaches to the intersections targeted for analysis where the historic data was available. (See Pages A-17 thru A-29 in Appendix).

6) Determine 2008 NO BUILD intersection volumes by growing the data from the existing traffic counts at the calculated historic growth rate to the analysis year (2008), then add in traffic volumes generated by nearby recently approved undeveloped projects. (See Pages A-30 thru A-55 in Appendix).
7) Add in data from Trip Assignments Maps and Tables to the 2008 NO BUILD Volumes to obtain 2008 BUILD Volumes for this project. (See Pages A-30 thru A-55 in Appendix).
8) Provide signalized and unsignalized intersection analyses for the following intersections (See Pages A-56 thru A-187 in Appendix):

INTERSECTION	TYPE CONTROL	NO BUILD	BUILD
Osuna Rd. / Edith Blvd.	Traffic Signal	2008	2008
Osuna Rd. / Chappell Dr.	Traffic Signal	2008	2008
Osuna Rd. / Academy Parkway Dr.	Traffic Signal	2008	2008
Osuna Rd. / Jefferson St.	Traffic Signal	2008	2008
Osuna Rd. / Vista del Norte Dr.	Traffic Signal	2008	2008
El Pueblo Rd. / Las Lomitas Dr.	Stop Sign	2008	2008
Vista del Norte Dr. / Las Lomitas Dr.	Stop Sign	2008	2008
Osuna Rd. / Driveway "A"	Stop Sign	N/A	2008
Driveway "B" / Vista del Norte Dr.	Stop Sign	2008	2008
Driveway "C" / Vista del Norte Dr.	Stop Sign	N/A	2008

9) Calculate the trip generation rate of an alternate development plan that could occur on the property considering the allowable uses and floor-area ratios. (See Page A-119 in Appendix).
10) Add in alternate development data from Trip Assignments Maps and Tables to the 2008 NO BUILD Volumes to obtain 2008 BUILD Volumes for the alternate project. (See Pages A-131 thru A-151 in Appendix).
11) Provide signalized and unsignalized intersection analyses for the BUILD Condition of the intersections listed above considering the alternate development plan. (See Pages A-152 thru A-187 in Appendix).

PREVIOUS RELATED TRAFFIC IMPACT STUDIES

There were no previous related Traffic Impact Study to consider in this study. The Vista del Norte Subdivision is approximately 80% implemented. Traffic growth from future development in Vista del Norte will be considered to be included in the background growth rate. Hence, this study utilized a generic growth rate of 5% instead of the normal 3% generic growth rate.

There is one minor development project (Agave Subdivision) consisting of the development of 31 residential lots (single family detached homes) that have been approved by the City of Albuquerque and are currently under construction. The access to the Agave Subdivision is shared with the main driveway into Desert Springs Church on Vista del Norte Dr. The proposed Driveway "B" for the Vista del Norte Commercial Development will align with the Desert Springs Church / Agave Subdivision driveway.

GENERAL AREA CHARACTERISTICS

Surrounding land uses consist of residential and apartments to the north. This project is located within a relatively active development area. To the south across Osuna is industrial development.

AREA STREET NETWORK

Osuna Rd. is classified as a Principal Arterial roadway on the Long Range Roadway Plan for the Albuquerque Metropolitan Area. It is currently a paved urban four-lane facility with raised medians and curbs and gutters on both sides of the street. The posted speed limit on Osuna Rd. from I-25 to 2nd St. is 45 M.P.H.

Edith Blvd. is classified as a Minor Arterial roadway on the Long Range Roadway Plan for the Albuquerque Metropolitan Area. In the vicinity of Osuna Rd., it is a mix of rural-type and urban two lane and four-lane paved roadway.

Jefferson St. is classified as a Minor Arterial roadway on the Long Range Roadway Plan for the Albuquerque Metropolitan Area. It is an urban four lane paved roadway from I-25 north to Alameda Blvd. with raised medians and curbs and gutters on both sides of the street.

Chappell Dr., Academy Parkway, Vista del Norte Dr., Las Lomitas Dr. are not classified on the Long Range Roadway Plan for the Albuquerque Urban Area.

El Pueblo Rd. serves as a south frontage road to Paseo del Norte from Rio Grande Blvd. to Jefferson St. It is primarily a two lane paved rural type of roadway.

FUTURE C.I.P. IMPROVEMENTS TO TRANSPORTATION SYSTEM

The City of Albuquerque has plans to widen Osuna Rd. from Edith Blvd. to Jefferson St. to provide three thru lanes eastbound and westbound. The most recent scoping study incorporated Osuna Rd. from Vista del Norte east to I-25. The projected is targeted for construction in 2009. However, funding may limit the scope of what can be constructed at that time. The City of Albuquerque's Ten Year Plan designates $ 200,000 for the year 2007 and $ 2,000,000 for the year 2009. Construction of the additional eastbound and westbound thru lanes on Osuna Rd. would provide enough additional capacity to solve most of the capacity shortfalls revealed in this study for the projected 2008 NO BUILD Conditions. Osuna Rd. is a City street from the railroad tracks between 2nd St. and Edith Blvd. east to Interstate 25. It is a County street west of the railroad tracks.

EXISTING TRAFFIC VOLUMES

2004 Average Weekday Traffic Volumes (AWDT) for major streets in the site plan area are shown on Page A-5 in the Appendix.

Existing AM and PM peak hour turning movement counts for the year 2004 to 2006 were provided by the City of Albuquerque for the following intersections:

Osuna Rd. / Edith Blvd. (2005)
Osuna Rd. / Chappell Dr. (2004)
Osuna Rd. / Jefferson St.. (2004)

The existing traffic counts are included Appendix Pages A-188 thru A-198.

Traffic volumes for the intersections of Osuna Rd. / Academy Parkway Dr., Osuna Rd. / Vista del Norte Dr., Vista del Norte / Las Lomitas, and El Pueblo / Las Lomitas were recently counted by the consulting engineer performing this study.

EXISTING LEVELS OF SERVICE

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

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

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

Existing levels-of-service were not provided in this study since the implementation year is only two years from now. The implementation year NO BUILD analysis should approximate the existing levels-of-service.

PROPOSED DEVELOPMENT

The development plan is a proposed 21.2 acre Commercial use consisting approximately of a 185,000 S.F. Free-Standing Discount Supercenter and a possible 4,000 S.F. Fast Food Restaurant with Drive-Thru Window. The land uses utilized for this analysis should be representative of the type of uses that will result from the proposed development. Should the development occur in such a manner that the actual number of trips generated significantly exceed that projected in this study, the City of Albuquerque may require an updated Traffic Impact Study.

Access is provided into the proposed facility via a full access driveway onto Osuna Rd. east of Vista del Norte and two full access driveways onto Vista del Norte Dr. The proposed

driveway onto Osuna Rd. is designated as Driveway "A" in this study. It is located approximately 425 feet to the east of Vista del Norte Dr. (centerline to centerline).

The two proposed driveways onto Vista del Norte are both proposed as full access unsignalized driveways. The proposed driveway located near the center of the property is designated as Driveway "B". It is proposed as a full access unsignalized intersection which aligns with the existing driveway to the Desert Springs Church on the northwest corner of Osuna Rd. / Vista del Norte Dr. Driveway "B" is located approximately 620 feet to the north of Osuna Rd. (centerline to centerline).

Driveway "C" is the proposed north driveway on Vista del Norte Dr. It is proposed as a right-turn-in, right-turn-out unsignalized intersection. It is located near the north property line of the project.

TRIP GENERATION

Projected trips were calculated from data in the Institute of Transportation Engineers Trip Generation report (7th Edition, 2003). Trips for the development were determined based on land uses projected to be associated with the zone change request for this property.

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

Proposed Commercial Center (Osuna Rd. / Vista del Norte)

Trip Generation Data

USE (ITE CODE)		24 HR VOL	A. M. PEAK HR.		P. M. PEAK HR.	
DESCRIPTION		*GROSS*	*ENTER*	*EXIT*	*ENTER*	*EXIT*
Summary Sheet	Units					
Free-Standing Discount Superstore (813)	185.00	9,735	174	167	355	370
Fast Food Restaurant w/ Drive-Thru Window (934)	4.00	1,984	108	104	72	67
Subtotal		**11,719**	**282**	**271**	**427**	**437**
Pass-by Trip Reduction (PM ONLY)	30%	-	-	-	**(128)**	**(131)**
Net New Trips to Offsite System		**11,719**	**282**	**271**	**299**	**306**

(See Pages A-6 thru A-8 in the Appendix of this report for Trip Generation Worksheets and Summary Table.)

The project as proposed is characterized by a floor-area ratio of about 0.2. However, this tract of land could be developed in a more intense manner that would generate considerably more traffic than the currently proposed plan. For example, if this tract were developed with a 120,000 S.F. of retail commercial floor space, two high-turnover sit-down restaurants (one at 10,000 S.F. and one at 12,000 S.F.), a drive-in bank with 3 windows, two fast food restaurants with drive-in windows (3,000 S.F. each), a 56,000 S.F. supermarket, and a 15,000 S.F. automobile parts store, then the trip generation rate would look like the following (See Pages A-119 and A-120).

Vista del Norte Commercial Development (Alternate Plan)

Trip Generation Data

USE (ITE CODE)		24 HR VOL	A. M. PEAK HR.		P. M. PEAK HR.	
DESCRIPTION		*GROSS*	*ENTER*	*EXIT*	*ENTER*	*EXIT*
Summary Sheet	Units					
Shopping Center (820)	120	7,645	107	68	340	368
High Turnover (Sit-Down) Restaurant (932)	10	1,272	60	55	67	43
High Turnover (Sit-Down) Restaurant (932)	12	1,526	72	66	80	51
Drive-In Bank (912)	3	1,067	34	24	77	77
Fast Food Restaurant w/ Drive-Thru Window (934)	3	1,488	81	78	54	50
Fast Food Restaurant w/ Drive-Thru Window (934)	3	1,488	81	78	54	50
Supermarket (850)	56	5,141	138	88	301	289
Automobile Parts Sales (943)	15	1,065	19	19	51	53
Subtotal		**20,692**	**592**	**476**	**1,024**	**981**
Pass-by Trip Adjustment	30%	0	0	0	-307	-294
New New Trips to System		**20,692**	**592**	**476**	**717**	**687**

The number of trips generated by such a plan would be substantially higher than that being proposed.

TRIP DISTRIBUTION

Primary and Diverted Linked Trips:

Trips were distributed as follows:

Commercial Land Use

Primary and diverted linked trips for the commercial land use development were distributed proportionally to the 2008 projected population of Data Analysis Subzones within an irregular boundary around the proposed development based on locations of existing similar types of facilities. Population data for the years 2000 and 2025 were taken from the 2025 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Mexico, S-03-01 (2000), Appendix B and Appendix C, supplied by the Mid-Region Council of Governments (MRCOG). Population data from the years 2000 and 2025 was interpolated linearly to obtain 2008 population data to utilize for this analysis. Population Subzones were grouped based on the most likely major street(s) or route(s) to the subject development. The trip distribution worksheets and associated map of data analysis subzones is shown in the Appendix on Pages A-9 thru A-14.

TRIP ASSIGNMENT

Trip assignments are first made on a percentage basis derived from data established in the trip distribution determination process and logical routing. Those percentages are then applied to the projected trips to determine individual traffic movements. Percentage trip assignments are shown in the Appendix, Pages A-13 thru A-14. No adjustments for Pass-by Trips on this project were applied.

BACKGROUND TRAFFIC GROWTH

Background traffic growth rates were considered for each individual approach to an intersection that was targeted for analysis based on data from the 2000, 2001, 2002, 2003, and 2004 Traffic Flow maps prepared by the Mid-Region Council of Governments. Almost all of the Traffic Flow Data for the years 2000 thru 2004 taken from the MRCOG Traffic Flow Maps were Standard Data. The data from those years for each approach was plotted on a graph and a linear "regression trend line" calculated using the equation format $y=mx+b$. The growth rate was determined by calculating the average volume increase per year during the time period considered and dividing that volume into the most recent AWDT used in the analysis from which future volumes will be calculated. The rate of growth of that trend line was utilized as the growth rate for each approach if that calculated rate appeared feasible. However, there were some instances where the rate indicated a negative growth trend. In those cases, an appropriate growth rate from an adjacent segment of the same roadway was used or a shorter time span was used to determine the growth rate, or a generic 3% growth rate was utilized. In this area of Albuquerque, the generic growth rate utilized was usually 5% per year. Due to the potential for growth in the area, it was believed that a zero percent growth rate was inappropriate for this study. Additionally, if the R^2 value of the trend line was low, other means of establishing a probable growth rate from the data accumulated was considered. Historical Growth Rate Graphs with linear regression trendlines are shown on Appendix Pages A-15 thru A-26. Additionally, the growth rate utilized for each approach to an intersection is printed at the top of the Turning Movement sheets for each intersection (Appendix Pages A-30 thru A-52).

PROJECTED PEAK HOUR TURNING MOVEMENTS FOR 2008 BUILDOUT

The calculated annual growth rates were applied to the existing (2004, 2005, or 2006) peak hour traffic counts furnished by the City of Albuquerque (or counted by the consultant) to establish the 2008 background traffic volumes. Generated trips from one other recently approved project were added to obtain the 2008 NO BUILD Volumes to the extent applicable. To these volumes, the generated trips based on implementation of the proposed assumed land uses were added to obtain the 2008 BUILD volumes for the intersection analyses. See Appendix Pages A-30 thru A-52 for further information regarding turning movement counts for this project. 2008 NO BUILD Volumes Map, Trips Generated Map, and 2008 BUILD Volumes Map for this project are on Pages A-53 thru A-55 in the Appendix.

Also, the 2008 BUILD Volumes were calculated using the ALTERNATE plan as previously defined. (See Pages A-131 thru A-151 for 2008 BUILD Volumes for ALTERNATE plan.

INTERSECTION CAPACITY ANALYSIS

Intersection capacity analyses were performed in accordance with the procedures for signalized and unsignalized intersections in the Highway Capacity Manual, Special Report 209, Transportation Research Board, 2000, using TEAPAC's Signal 2000 Software for signalized intersections and HiCAP Version 2 for unsignalized intersections. For signalized intersections, the operational method of analysis was used for 2008 conditions (NO BUILD and BUILD). In addition to utilizing the operational analysis for the intersections, the 1985 planning method may also be used to provide additional information at the intersection to help define critical lane volumes and to help analyze a solution.

Capacity analyses were performed for the following traffic conditions.

⇒ 2008 without development of the subject property (NO BUILD)
⇒ 2008 with development as per the assumed land uses considering total implementation of the plan.
⇒ 2008 with development as per the ALTERNATE land uses considering total implementation of the plan.

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

RESULTS OF SIGNALIZED INTERSECTION CAPACITY ANALYSES

IMPLEMENTATION YEAR 2008

Osuna Rd. / Edith Blvd. - Pages A-57 thru A-72

The results of the 2008 implementation year analysis of the signalized intersection of Osuna Rd. / Edith Blvd. are summarized in the following table:

Osuna Rd. / Edith Blvd.	2008 No Build		2008 BUILD	
	A.M.	P.M.	A.M.	P.M.
Existing Geometry	***F - 88.9***	***D - 52.9***	***F - 102***	***E - 63.8***
Exist. Geom. – ADD EB Thru Lane	***D - 49.3***		***E - 58.2***	***E - 60.7***
Exist. Geom. – ADD EB Thru Lane, SB RT Lane			C - 27.2	***D - 51.8***
Exist. Geom. – ADD EB/WB Thru, SB RT Lane				D - 36.3

D - 38.3 – Bold Italicized LOS / Delay designates that one or more turning movements operate at LOS "E" or worse.

Alternate Plan: The results of the 2008 BUILD analysis for the ALTERNATE plan for this property is summarized in the following table:

Osuna Rd. / Edith Blvd.	2008 BUILD	
	A.M.	P.M.
Existing Geometry – **ALTERNATE PLAN**	***F – 116***	***F - 91.7***

D - 38.3 – Bold Italicized LOS / Delay designates that one or more turning movements operate at LOS "E" or worse.

Existing Geometry (Osuna Rd. / Edith Blvd.)

Approach	Left Turn Lanes	Thru/Lefts	Thru Lanes	Thru/Rights	Right Turn Lanes
EB Osuna Rd.	1	0	1	1	0
WB Osuna Rd.	1	0	1	1	0
NB Edith Blvd.	1	0	1	0	1
SB Edith Blvd.	1	0	0	1	0

The intersection of Osuna Rd. / Edith Blvd. is very over capacity for the 2008 AM Peak Hour NO BUILD analysis and near capacity for the 2008 PM Peak Hour NO BUILD Analysis. The volumes added from the Vista del Norte Commercial Development impact the intersection, especially during the AM Peak Hour. Mitigation of the impact consists of construction of a third eastbound and westbound thru lane and a southbound right turn lane at the intersection. The new thru lanes should be constructed to accommodate the projected intersection queues and should extend through the intersection at least 750 feet beyond. The southbound right turn lane should be constructed to accommodate the calculated intersection queue for that movement. The southbound right turn calculated queue length can be divided by 2 to adjust for right turns on red and overlap phases.

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

Queueing Analysis Summary Sheet

Project: Vista del Norte Commercial Development (Osuna Rd. / Vista del Norte)
Intersection: **Osuna Rd. / Edith Blvd.**

2008

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*	*27*	*225*	*2*	*819*	*Cont*	*0*	*225*	*0*
AM NO BUILD Queue	1	29	50	2	893	500	0	245	275
AM BUILD Queue	**1**	**29**	**50**	**2**	**1,004**	**550**	**0**	**245**	**275**
Existing Lane Length	*1*	*45*	*225*	*2*	*431*	*Cont*	*0*	*116*	*0*
PM NO BUILD Queue	1	49	100	2	470	**375**	0	126	200
PM BUILD Queue	**1**	**49**	**100**	**2**	**588**	**450**	**0**	**126**	**200**

Westbound Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	*1*	*152*	*325*	*2*	*361*	*Cont*	*0*	*64*	*0*
AM NO BUILD Queue	1	157	200	2	372	250	0	66	100
AM BUILD Queue	**1**	**177**	**225**	**2**	**479**	**300**	**0**	**75**	**125**
Existing Lane Length	*1*	*155*	*325*	*2*	*971*	*Cont*	*0*	*152*	*0*
PM NO BUILD Queue	1	160	**250**	2	1,000	**675**	0	157	250
PM BUILD Queue	**1**	**182**	**275**	**2**	**1,120**	**750**	**0**	**167**	**250**

Northbound Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	*1*	*144*	*225*	*1*	*214*	*Cont*	*1*	*142*	*500+*
AM NO BUILD Queue	1	153	200	1	227	275	1	151	200
AM BUILD Queue	**1**	**153**	**200**	**1**	**227**	**275**	**1**	**171**	**225**
Existing Lane Length	*1*	*278*	*225*	*1*	*437*	*Cont*	*1*	*150*	*500+*
PM NO BUILD Queue	1	295	400	1	463	600	1	159	**250**
PM BUILD Queue	**1**	**295**	**400**	**1**	**463**	**600**	**1**	**181**	**275**

Southbound Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	*1*	*164*	*90*	*1*	*347*	*Cont*	*0*	*241*	*0*
AM NO BUILD Queue	1	179	225	1	378	400	0	263	300
AM BUILD Queue	**1**	**188**	**225**	**1**	**378**	**400**	**0**	**263**	**300**
Existing Lane Length	*1*	*101*	*90*	*1*	*425*	*Cont*	*0*	*52*	*0*
PM NO BUILD Queue	1	110	**175**	1	463	600	0	57	125
PM BUILD Queue	**1**	**120**	**200**	**1**	**463**	**600**	**0**	**57**	**125**

	AM	PM
Cycle Length:	100	130

It is usually acceptable to divide the calculated right turn queue length by 2 to account for right turns on red, and right turn overlaps.

Osuna Rd. / Chappell Dr. - Pages A-73 thru A-82

The results of the 2008 implementation year analysis of the signalized intersection of Osuna Rd. / Chappell Dr. are summarized in the following table:

Osuna Rd. / Chappell Dr.	2008 No Build		2008 BUILD	
	A.M.	P.M.	A.M.	P.M.
Existing Geometry	***D - 36.6***	C - 30.2	***D - 43.8***	***D - 41.0***

D - 38.3 – Bold Italicized LOS / Delay designates that one or more turning movements operate at LOS "E" or worse.

Alternate Plan: The results of the 2008 BUILD analysis for the ALTERNATE plan for this property is summarized in the following table:

Osuna Rd. / Chappell Dr.	2008 BUILD	
	A.M.	P.M.
Existing Geometry – **ALTERNATE PLAN**	***D - 50.8***	***D - 55.4***

D - 38.3 – Bold Italicized LOS / Delay designates that one or more turning movements operate at LOS "E" or worse.

Existing Geometry (Osuna Rd. / Chappell Dr.)

Approach	Left Turn Lanes	Thru/Lefts	Thru Lanes	Thru/Rights	Right Turn Lanes
EB Osuna Rd.	1	0	1	1	0
WB Osuna Rd.	1	0	1	1	0
NB Chappell Dr.	0	1	0	0	1
SB Chappell Dr.	0	0	1+	0	0

1+ designates a single lane approach that serves all turning movements.

The intersection of Osuna Rd. / Chappell Dr. is close to capacity for the 2008 AM Peak Hour NO BUILD analysis. Consequently, some of the turning movements operate at LOS "E". The volumes added from the Vista del Norte Commercial Development impact the intersection, especially during the PM Peak Hour. Since the overall operation of the intersection did not exceed LOS "D" and there was not individual movement that exceeded LOS "E", then no recommendation was made to mitigate the impact of the development on this intersection.

The widening of Osuna Rd. to three eastbound and three westbound thru lanes will provide more capacity for this intersection. The Osuna Rd. widening project is targeted to occur in 2009 or 2010. Also, this study recommends that the City consider widening the northbound and southbound approaches on Chappell Dr. to accommodate exclusive left turn lanes and a thru / right turn lane for both legs. The northbound left turn volume for the projected 2008 implementation year analyzed in this study is above 250 vehicles per hour. That volume should warrant consideration of an exclusive left turn lane to prevent split phasing of the signal in the future.

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

Queueing Analysis Summary Sheet

Project: Vista del Norte Commercial Development (Osuna Rd. / Vista del Norte)
Intersection: **Osuna Rd. / Chappel Dr.**

2008

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*	*23*	*125*	*2*	*1,342*	*Cont*	*0*	*251*	*0*
AM NO BUILD Queue	1	29	50	2	1,664	850	0	311	350
AM BUILD Queue	**1**	**29**	**50**	**2**	**1,781**	**900**	**0**	**311**	**350**
Existing Lane Length	*1*	*3*	*125*	*2*	*810*	*Cont*	*0*	*61*	*0*
PM NO BUILD Queue	1	4	25	2	1,004	700	0	76	150
PM BUILD Queue	**1**	**4**	**25**	**2**	**1,136**	**775**	**0**	**76**	**150**

Westbound Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	*1*	*105*	*125*	*2*	*813*	*Cont*	*0*	*38*	*0*
AM NO BUILD Queue	1	130	175	2	1,008	550	0	47	75
AM BUILD Queue	**1**	**130**	**175**	**2**	**1,130**	**600**	**0**	**47**	**75**
Existing Lane Length	*1*	*94*	*125*	*2*	*1,430*	*Cont*	*0*	*5*	*0*
PM NO BUILD Queue	1	117	200	2	1,773	>1,000	0	6	25
PM BUILD Queue	**1**	**117**	**200**	**2**	**1,902**	**>1,000**	**0**	**6**	**25**

Northbound Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	*0*	*64*	*0*	*1*	*5*	*Cont*	*1*	*88*	*50*
AM NO BUILD Queue	0	77	125	1	6	25	1	106	150
AM BUILD Queue	**0**	**77**	**125**	**1**	**6**	**25**	**1**	**106**	**150**
Existing Lane Length	*0*	*209*	*0*	*1*	*2*	*Cont*	*1*	*151*	*50*
PM NO BUILD Queue	0	251	350	1	2	0	1	181	275
PM BUILD Queue	**0**	**251**	**350**	**1**	**2**	**0**	**1**	**181**	**275**

Southbound Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	*0*	*5*	*0*	*1*	*1*	*Cont*	*0*	*4*	*0*
AM NO BUILD Queue	0	6	25	1	1	0	0	5	25
AM BUILD Queue	**0**	**6**	**25**	**1**	**1**	**0**	**0**	**5**	**25**
Existing Lane Length	*0*	*48*	*0*	*1*	*20*	*Cont*	*0*	*24*	*0*
PM NO BUILD Queue	0	58	125	1	24	75	0	29	75
PM BUILD Queue	**0**	**58**	**125**	**1**	**24**	**75**	**0**	**29**	**75**

	AM	PM
Cycle Length:	100	130

It is usually acceptable to divide the calculated right turn queue length by 2 to account for right turns on red and right turn overlaps.

Osuna Rd. / Academy Parkway Dr. - Pages A-83 thru A-92

The results of the 2008 implementation year analysis of the signalized intersection of Osuna Rd. / Academy Parkway Dr. are summarized in the following table:

Osuna Rd. / Academy Parkway Dr.	2008 No Build		2008 BUILD	
	A.M.	P.M.	A.M.	P.M.
Existing Geometry	A – 4.2	A – 7.5	A – 4.2	A – 7.9

D - 38.3 – Bold Italicized LOS / Delay designates that one or more turning movements operate at LOS "E" or worse.

Alternate Plan: The results of the 2008 BUILD analysis for the ALTERNATE plan for this property is summarized in the following table:

Osuna Rd. / Academy Parkway Dr.	2008 BUILD	
	A.M.	P.M.
Existing Geometry – **ALTERNATE PLAN**	A – 4.6	A – 9.6

D - 38.3 – Bold Italicized LOS / Delay designates that one or more turning movements operate at LOS "E" or worse.

Existing Geometry (Osuna Rd. / Academy Parkway Dr.)

Approach	Left Turn Lanes	Thru/Lefts	Thru Lanes	Thru/Rights	Right Turn Lanes
EB Osuna Rd.	1	0	1	1	0
WB Osuna Rd.	1	0	1	1	0
NB Academy Parkway	0	1	0	0	1
SB Academy Parkway	0	0	1+	0	0

1+ designates a single lane approach that serves all turning movements.

The analysis of the intersection of Osuna Rd. / Academy Parkway Dr. indicates that the intersection will operate at satisfactory levels-of-service for all conditions analyzed in this study, and that the implementation of the proposed Vista del Norte Commercial Development will have minimal impact on the signalized intersection.

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

Queueing Analysis Summary Sheet

Project: Vista del Norte Commercial Development (Osuna Rd. / Vista del Norte)
Intersection: **Osuna Rd. / Academy Parkway**

2008

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*	*54*	*150*	*2*	*1,303*	*Cont*	*0*	*4*	*0*
AM NO BUILD Queue	1	60	100	2	1,459	750	0	4	25
AM BUILD Queue	**1**	**60**	**100**	**2**	**1,576**	**800**	**0**	**4**	**25**
Existing Lane Length	*1*	*8*	*150*	*2*	*1,095*	*Cont*	*0*	*0*	*0*
PM NO BUILD Queue	1	9	25	2	1,226	**825**	0	0	0
PM BUILD Queue	**1**	**9**	**25**	**2**	**1,358**	**900**	**0**	**0**	**0**

Westbound Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	*1*	*39*	*125*	*2*	*845*	*Cont*	*0*	*89*	*0*
AM NO BUILD Queue	1	44	75	2	946	525	0	100	150
AM BUILD Queue	**1**	**44**	**75**	**2**	**1,068**	**575**	**0**	**100**	**150**
Existing Lane Length	*1*	*29*	*125*	*2*	*1,444*	*Cont*	*0*	*21*	*0*
PM NO BUILD Queue	1	32	75	2	1,617	>1,000	0	24	75
PM BUILD Queue	**1**	**32**	**75**	**2**	**1,746**	**>1,000**	**0**	**24**	**75**

Northbound Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	*0*	*6*	*0*	*1*	*0*	*Cont*	*0*	*23*	*50*
AM NO BUILD Queue	0	7	25	1	0	0	0	25	50
AM BUILD Queue	**0**	**7**	**25**	**1**	**0**	**0**	**0**	**25**	**50**
Existing Lane Length	*0*	*24*	*0*	*1*	*0*	*Cont*	*0*	*56*	*50*
PM NO BUILD Queue	0	26	75	1	0	0	0	62	125
PM BUILD Queue	**0**	**26**	**75**	**1**	**0**	**0**	**0**	**62**	**125**

Southbound Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	*1*	*52*	*100*	*1*	*0*	*Cont*	*0*	*17*	*0*
AM NO BUILD Queue	1	57	100	1	0	0	0	19	50
AM BUILD Queue	**1**	**57**	**100**	**1**	**0**	**0**	**0**	**19**	**50**
Existing Lane Length	*1*	*83*	*100*	*1*	*1*	*Cont*	*0*	*42*	*0*
PM NO BUILD Queue	1	91	175	1	1	0	0	46	100
PM BUILD Queue	**1**	**91**	**175**	**1**	**1**	**0**	**0**	**46**	**100**

	AM	PM
Cycle Length:	100	130

It is usually acceptable to divide the calculated right turn queue length by 2 to account for right turns on red and right turn overlaps.

Osuna Rd. / Jefferson St. - Pages A-93 thru A-107

The results of the 2008 implementation year analysis of the signalized intersection of Osuna Rd. / Jefferson St. are summarized in the following table:

Osuna Rd. / Jefferson St.	2008 No Build		2008 BUILD	
	A.M.	P.M.	A.M.	P.M.
Existing Geometry	D - 33.9	***F - 82.0***	D - 35.4	***F - 94.1***
Exist. Geom. – ADD WB Thru Lane		***E - 72.1***		***F - 80.1***
Exist. Geom. – ADD WB Thru, SB RT Lane		***E - 59.1***		***E - 68.5***
Exist. Geom. – ADD EB.WB Thru, SB RT Lane				***D - 46.1***

D - 38.3 – Bold Italicized LOS / Delay designates that one or more turning movements operate at LOS "E" or worse.

Alternate Plan: The results of the 2008 BUILD analysis for the ALTERNATE plan for this property is summarized in the following table:

Osuna Rd. / Jefferson St.	2008 BUILD	
	A.M.	P.M.
Existing Geometry – **ALTERNATE PLAN**	D - 46.7	***F – 113***

D - 38.3 – Bold Italicized LOS / Delay designates that one or more turning movements operate at LOS "E" or worse.

Existing Geometry (Osuna Rd. / Jefferson St.)

Approach	Left Turn Lanes	Thru/Lefts	Thru Lanes	Thru/Rights	Right Turn Lanes
EB Osuna Rd.	2	0	2	1	0
WB Osuna Rd.	2	0	2	0	1
NB Jefferson St.	1	0	2	0	1
SB Jefferson St..	1	0	1	1	0

The intersection of Osuna Rd. / Jefferson St. is operating above capacity during the projected PM Peak Hour NO BUILD Conditions. Mitigation of the capacity shortfall at the intersection of Osuna Rd. / Jefferson St. consists of construction of a fourth eastbound thru lane on Osuna Rd., a third westbound thru lane on Osuna Rd., and a southbound right turn lane on Jefferson St. It is questionable whether or not sufficient right-of-way exists to construct this level of improvements.

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

Queueing Analysis Summary Sheet

Project: Vista del Norte Commercial Development (Osuna Rd. / Vista del Norte)
Intersection: **Osuna Rd. / Jefferson St.**

2008

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	*2*	*236*	*210*	*3*	*1,081*	*Cont*	*0*	*154*	*0*
AM NO BUILD Queue	2	293	200	3	1,340	525	0	191	225
AM BUILD Queue	**2**	**317**	**225**	**3**	**1,430**	**550**	**0**	**194**	**225**
Existing Lane Length	*2*	*248*	*210*	*3*	*1,487*	*Cont*	*0*	*81*	*0*
PM NO BUILD Queue	2	308	250	3	1,844	850	0	100	175
PM BUILD Queue	**2**	**335**	**275**	**3**	**1,945**	**900**	**0**	**103**	**175**

Westbound Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	*2*	*182*	*175*	*2*	*921*	*Cont*	*1*	*262*	*350*
AM NO BUILD Queue	2	204	150	2	1,032	575	1	293	325
AM BUILD Queue	**2**	**204**	**150**	**2**	**1,126**	**600**	**1**	**293**	**325**
Existing Lane Length	*2*	*88*	*175*	*2*	*1,016*	*Cont*	*1*	*201*	*350*
PM NO BUILD Queue	2	99	100	2	1,138	775	1	225	325
PM BUILD Queue	**2**	**99**	**100**	**2**	**1,237**	**825**	**1**	**225**	**325**

Northbound Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	*1*	*122*	*160*	*2*	*227*	*Cont*	*1*	*42*	*150*
AM NO BUILD Queue	1	132	175	2	245	175	1	45	75
AM BUILD Queue	**1**	**135**	**175**	**2**	**245**	**175**	**1**	**45**	**75**
Existing Lane Length	*1*	*291*	*160*	*2*	*557*	*Cont*	*1*	*264*	*150*
PM NO BUILD Queue	1	314	425	2	602	450	1	285	400
PM BUILD Queue	**1**	**317**	**425**	**2**	**602**	**450**	**1**	**285**	**400**

Southbound Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	*1*	*197*	*275*	*2*	*374*	*Cont*	*0*	*160*	*0*
AM NO BUILD Queue	1	213	250	2	404	275	0	173	225
AM BUILD Queue	**1**	**213**	**250**	**2**	**404**	**275**	**0**	**198**	**250**
Existing Lane Length	*1*	*335*	*275*	*2*	*342*	*Cont*	*0*	*303*	*0*
PM NO BUILD Queue	1	362	475	2	369	300	0	327	450
PM BUILD Queue	**1**	**362**	**475**	**2**	**369**	**300**	**0**	**354**	**475**

	AM	PM
Cycle Length:	100	130

It is usually acceptable to divide the calculated right turn queue length by 2 to account for right turns on red and right turn overlaps.

Osuna Rd. / Vista del Norte Dr. - Pages A-108 thru A-117

The results of the 2008 implementation year analysis of the signalized intersection of Osuna Rd. / Vista del Norte Dr. are summarized in the following table:

Osuna Rd. / Vista del Norte	2008 No Build		2008 BUILD	
	A.M.	P.M.	A.M.	P.M.
Existing Geometry	C - 20.1	A – 9.4	C - 22.6	B - 18.1

D - 38.3 – Bold Italicized LOS / Delay designates that one or more turning movements operate at LOS "E" or worse.

Alternate Plan: The results of the 2008 BUILD analysis for the ALTERNATE plan for this property is summarized in the following table:

Osuna Rd. / Vista del Norte Dr.	2008 BUILD	
	A.M.	P.M.
Existing Geometry – **ALTERNATE PLAN**	C - 26.9	D - 40.3

D - 38.3 – Bold Italicized LOS / Delay designates that one or more turning movements operate at LOS "E" or worse.

Existing Geometry (Osuna Rd. / Vista del Norte Dr.)

Approach	Left Turn Lanes	Thru/Lefts	Thru Lanes	Thru/Rights	Right Turn Lanes
EB Osuna Rd.	1	0	2	0	0
WB Osuna Rd.	1	0	2	0	1
NB Vista del Norte	0	0	0	0	0
SB Vista del Norte	2	0	0	0	1

The analysis of the intersection of Osuna Rd. / Vista del Norte Dr. indicates that the intersection will operate at satisfactory levels-of-service for all conditions analyzed in this study, and that the implementation of the proposed Vista del Norte Commercial Development will have minimal impact on the signalized intersection.

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

Queueing Analysis Summary Sheet

Project: Vista del Norte Commercial Development (Osuna Rd. / Vista del Norte)
Intersection: **Osuna Rd. / Vista del Norte**

2008

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*	*21*	*300*	*2*	*1,183*	*Cont*	*0*	*0*	*0*
AM NO BUILD Queue	1	26	50	2	1,207	650	0	0	0
AM BUILD Queue	**1**	**111**	**150**	**2**	**1,263**	**675**	**0**	**0**	**0**
Existing Lane Length	*1*	*94*	*300*	*2*	*761*	*Cont*	*0*	*0*	*0*
PM NO BUILD Queue	1	101	**175**	2	776	**550**	0	0	0
PM BUILD Queue	**1**	**217**	**325**	**2**	**809**	**575**	**0**	**0**	**0**

Westbound Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	*0*	*0*	*0*	*2*	*638*	*Cont*	*1*	*91*	*300*
AM NO BUILD Queue	0	0	0	2	715	425	1	112	150
AM BUILD Queue	**0**	**0**	**0**	**2**	**782**	**450**	**1**	**150**	**200**
Existing Lane Length	*0*	*0*	*0*	*2*	*1,371*	*Cont*	*1*	*519*	*300*
PM NO BUILD Queue	0	0	0	2	1,536	>1,000	1	601	**750**
PM BUILD Queue	**0**	**0**	**0**	**2**	**1,601**	**>1,000**	**1**	**641**	**775**

Northbound Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	*0*	*0*	*0*	*0*	*0*	*Cont*	*0*	*0*	*0*
AM NO BUILD Queue	0	0	0	0	0	0	0	0	0
AM BUILD Queue	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Existing Lane Length	*0*	*0*	*0*	*0*	*0*	*Cont*	*0*	*0*	*0*
PM NO BUILD Queue	0	0	0	0	0	0	0	0	0
PM BUILD Queue	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Southbound Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	*2*	*665*	*475*	*0*	*0*	*Cont*	*1*	*96*	*400*
AM NO BUILD Queue	2	752	425	0	0	0	1	111	150
AM BUILD Queue	**2**	**833**	**475**	**0**	**0**	**0**	**1**	**178**	**225**
Existing Lane Length	*2*	*155*	*475*	*0*	*0*	*Cont*	*1*	*47*	*400*
PM NO BUILD Queue	2	181	**175**	0	0	0	1	57	**125**
PM BUILD Queue	**2**	**299**	**250**	**0**	**0**	**0**	**1**	**146**	**225**

	AM	PM
Cycle Length:	100	130

It is usually acceptable to divide the calculated right turn queue length by 2 to account for right turns on red and right turn overlaps.

RESULTS OF UNSIGNALIZED INTERSECTION CAPACITY ANALYSES

IMPLEMENTATION YEAR (2008)

Vista del Norte Dr. / Las Lomitas Dr. - Pages A-164 thru A-169

The results of the analysis of the unsignalized intersection of Vista del Norte Dr. / Las Lomitas Dr. are summarized in the following table:

	2008 NO BUILD		2008 BUILD	
	AM	PM	AM	PM
VdN / Las Lomitas Dr.				
Minor Street (Las Lomitas)				
SB Left	B - 12	B - 11	B - 12	B – 12
SB Right	B - 12	B - 11	B - 12	B – 12
Major Street (Vista del Norte Dr.)				
EB Left	A - 8	A - 8	A - 8	A - 8

The analysis of the Alternate plan for this intersection showed no significant difference in levels-of-service / delays. (See Pages A-166 and A-169).

This analysis indicates that the intersection of Vista del Norte Dr. / Las Lomitas Dr. will operate at satisfactory levels-of-service for all conditions analyzed in this study.

El Pueblo Rd. / Las Lomitas Dr. - Pages A-170 thru A-175

The results of the analysis of the unsignalized intersection of El Pueblo Rd. / Las Lomitas Dr. are summarized in the following table:

	2008 NO BUILD		2008 BUILD	
	AM	PM	AM	PM
El Pueblo Rd. / Las Lomitas Dr.				
Minor Street (Las Lomitas)				
NB Left	C - 17	C – 16	C - 17	C – 16
NB Right	B - 15	A – 9	B - 15	A – 9
Major Street (El Pueblo Rd.)				
WB Left	A - 9	A - 8	A - 9	A - 8

The analysis of the Alternate plan for this intersection showed no significant difference in levels-of-service / delays. (See Pages A-172 and A-175).

This analysis indicates that the intersection of El Pueblo Rd. / Las Lomitas Dr. will operate at satisfactory levels-of-service for all conditions analyzed in this study.

Osuna Rd. / Driveway "A" - Pages A-176 thru A-179

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

	2008 BUILD	
	AM	PM
Osuna Rd. / Driveway "A"		
Minor Street (Driveway "A")		
SB Left	F - *	F - *
SB Right	B - 13	F - 55
Major Street (Osuna Rd.)		
EB Left	B - 11	E - 45

The analysis of Driveway "A" under the Alternate Plan scenario yields the following results:

ALTERNATE PLAN	2008 BUILD	
	AM	PM
Osuna Rd. / Driveway "A"		
Minor Street (Driveway "A")		
SB Left	F - *	F - *
SB Right	B - 13	F – 141
Major Street (Osuna Rd.)		
EB Left	B - 12	F - 124

The fact that there are existing traffic signals to the east and to the west of Driveway "A" on Osuna Rd. will help the driveway function better than what is shown in the above tables. The existing traffic signals to either side of the driveway will create gaps in eastbound and westbound traffic on Osuna Rd., thus allowing traffic to turn onto Osuna in a reasonable manner.

Driveway "B" / Vista del Norte Dr. - Pages A-180 thru A-183

The results of the analysis of the unsignalized intersection of Driveway "B" / Vista del Norte Dr. are summarized in the following table:

	2008 BUILD	
	AM	PM
Driveway "B" / VdN		
Minor Street (Driveway "B")		
WB Left	D - 26	F – 151
WB Thru	A - 9	B - 12
WB Right	A - 9	B - 12
Minor Street (Desert Springs Driveway)		
EB Left	C - 24	C - 16
EB Thru	B - 13	A - 10
EB Right	B - 13	A - 10
Major Street (Vista del Norte Dr.)		
NB Left	B - 11	A - 8
SB Left	A - 8	B - 11

The analysis of Driveway "B" under the Alternate Plan scenario yields the following results:

ALTERNATE PLAN	2008 BUILD	
	AM	PM
Driveway "B" / VdN		
Minor Street (Driveway "B")		
WB Left	E - 40	F – 451
WB Thru	A - 9	B – 12
WB Right	A - 9	B – 12
Minor Street (Desert Springs Driveway)		
EB Left	C – 25	C – 17
EB Thru	B – 13	A – 10
EB Right	B – 13	A – 10
Major Street (Vista del Norte Dr.)		
NB Left	B - 11	A – 8
SB Left	A - 8	B - 12

This analysis indicates that there will be long delays at Driveway "B" for the projected PM Peak Hour Conditions. The HCM calculated queue length for the westbound left turn movement under the currently proposed plan is 13 vehicles (300 feet). Mitigation of the long left turn queues can be accomplished to some degree by implementing the north driveway (Driveway "C") as a full access driveway instead of a right-turn-in, right-turn-out only driveway. This will reduce the westbound left turn queues by 1) reducing the volume of westbound left turn traffic at Driveway "A", and 2) reducing the volume of southbound left turns into Driveway "B" considerably. A second consideration might be to allow Driveway "C" to operate as a right-turn-in, right-turn-out, left-turn-in only driveway and designate Driveway "B" as a right-turn-in, right-turn-out, left turn out only driveway (prohibiting left turns in). This will accomplish a reduction or elimination of the southbound left turn volume at Driveway "B", thus allowing for better operation of the intersection.

Driveway "C" / Vista del Norte Dr. - Pages A-184 thru A-187

The results of the analysis of the unsignalized intersection of Driveway "C" / Vista del Norte Dr. are summarized in the following table:

	2008 BUILD	
	AM	PM
Driveway "C" / VdN		
Minor Street (Driveway "C")		
WB Left	N/A	N/A
WB Right	A - 9.1	B - 12
Major Street (Holly Ave.)		
SB Left	N/A	N/A

The analysis of the Alternate plan for this intersection showed no significant difference in levels-of-service / delays. (See Pages A-185 and A-187).

The City should consider allowing Driveway "C" to be more than just a right-turn-in, right-turn-out driveway to allow better operation of Driveway "B".

It should be noted that Levels of Service (LOS) for unsignalized intersections cannot be compared directly with Levels of Service for signalized intersections. LOS for unsignalized intersections is based on reserve capacity, which is converted to generalized levels of delay; LOS for signalized intersections is based on actual delay in seconds..

LEVEL-OF-SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS

Average Delay (secs)	Level-of-Service
≤ 10	A
> 10 and ≤ 15	B
> 15 and ≤ 25	C
> 25 and ≤ 35	D
> 35 and ≤ 50	E
> 50	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 Population Data Analysis Subzones within an irregular boundary around the site based on relative locations of the nearest similar types of commercial uses; Growth rate of background traffic volumes was established from historical data from 2000 through 2004; and the intersection analyses were performed in accordance with the 2000 Highway Capacity Manual, Special Report 209. The Traffic Impact Study showed a moderate increase in traffic congestion for the adjacent transportation network based on 100% buildout of the proposed project.

There were some capacity shortfalls noted, especially at the intersections of Osuna Rd. / Edith Blvd. that will be mostly resolved when the City constructs the Osuna Rd. widening project in 2009 or 2010 to implement a third eastbound and a third westbound thru lane on Osuna Rd. from Edith Blvd. to Jefferson St.

Analysis of a more dense possible use was conducted for this site. The proposed use shows a significant reduction in the volume of traffic that could be generated by the site if developed under the more dense scenario permitted under existing zoning of the property.

In summary, the proposed development of the Vista del Norte Commercial Development facility at the northeast corner of Osuna Rd. / Vista del Norte will present no significant adverse impact to the adjacent transportation system provided that the following recommendations are followed:

RECOMMENDATIONS

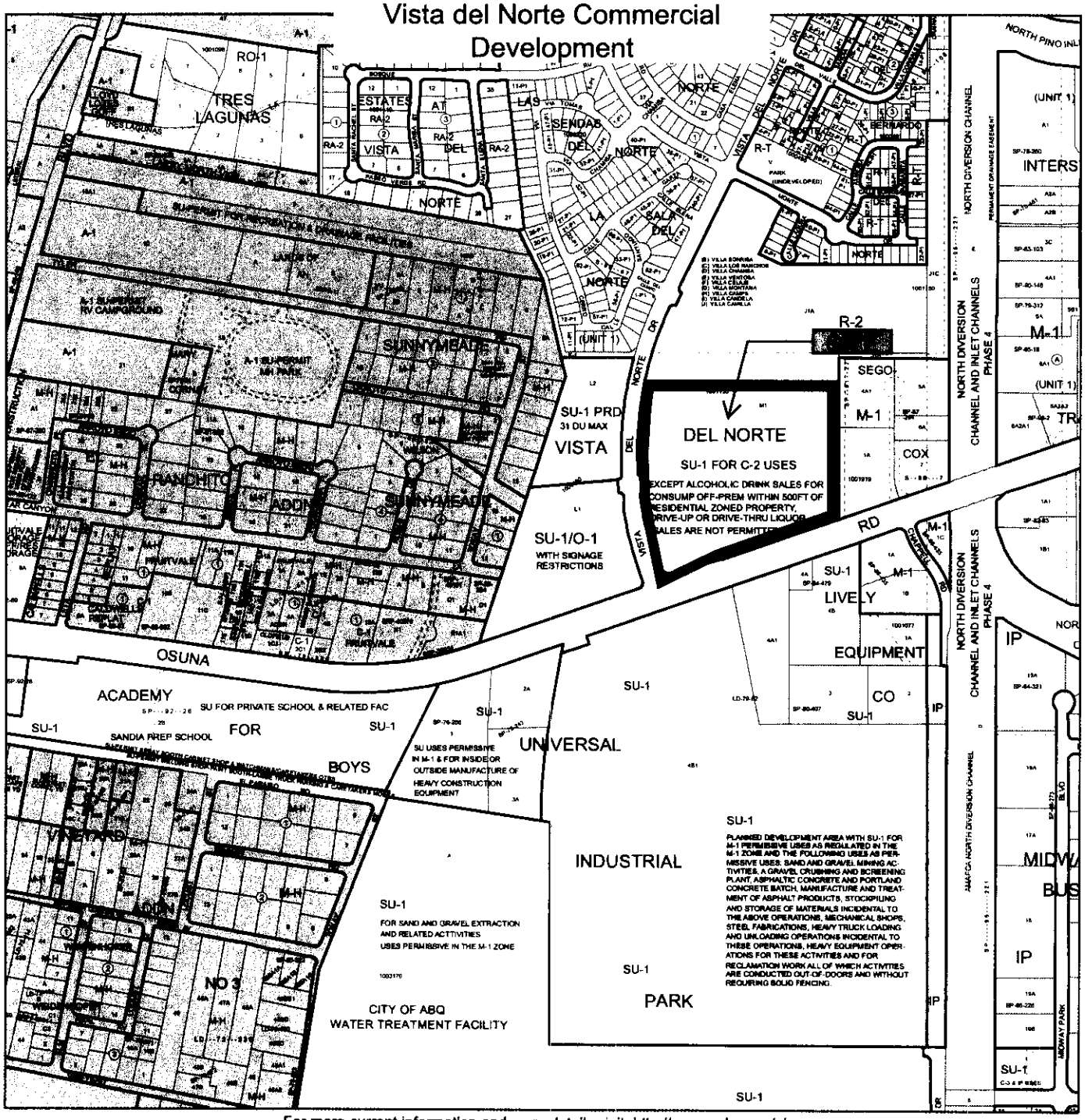
FROM IMPLEMENTATION YEAR (2008) ANALYSIS

- Design and construction of the proposed development should insure that adequate site distances are maintained to the extent possible at all proposed driveways and intersections, and at existing intersections contingent to this site.
- **Osuna Rd. / Edith Blvd.** – Construct a new eastbound thru lane on Osuna Rd., a new westbound thru lane on Osuna Rd., and a new southbound right turn lane on Edith Blvd. (See discussion on Page 10)
- **Osuna Rd. / Jefferson St.** – Construct a fourth eastbound thru lane on Osuna Rd., a third westbound thru lane on Osuna Rd., and a southbound right turn lane on Jefferson St. (See discussion on Page 16)
- **Driveway "A"** – Driveway "A" is recommended to be a full access unsignalized driveway on Osuna Rd. located approximately 425 feet east of Vista del Norte Dr. (centerline to centerline).
    - The existing eastbound left turn lane into Driveway "A" is 150 feet long. This study recommends that the eastbound left turn lane length be increased to 200 feet.
    - A westbound right turn lane is warranted at Driveway "A" on Osuna Rd. The length of the westbound right turn lane should be 150 feet plus a 150'-300' reverse curve radius transition.
    - Driveway "A" should be constructed with two exiting lanes (one for left turn and one for right turns) and one entering lane.
- **Driveway "B"** – Driveway "B" is recommended to be a full access unsignalized driveway on Vista del Norte Dr. located approximately 620 feet north of Osuna Rd. (centerline to centerline).
    - Driveway "B" should be aligned with the existing driveway to Desert Springs Church on the west side of Vista del Norte Dr.
    - A southbound left turn lane is recommended on Osuna Rd. at Driveway "B". The length of the southbound left turn lane is recommended to be a minimum of 300 feet in length.
    - Driveway "B" should be constructed with two exiting lanes (one for left turns and one for thru / right turns) and one entering lane.
- **Driveway "C"** – This study recommends that Driveway "C" be permitted as a full access driveway to provide some relief to Driveway "B".
- All driveways should be constructed utilizing 25 feet curb returns or larger if needed to accommodate large delivery trucks.

Appendix

SITE INFORMATION	
Vicinity Map	A-1
Preliminary Site Development Plan	A-2
Long Range Roadway Plan for the Albuquerque Metropolitan Area	A-3 thru A-4
2001 MRGCOG Traffic Flow Map (AWDT Map)	A-5
TRIP GENERATION	
Trip Generation Summary Sheet	A-6
Individual Trip Generation Worksheet	A-7 thru A-8
TRIP DISTRIBUTION	
Data Analysis Subzone Map	A-9
Trip Distribution Worksheet for Project	A-10 thru A-12
Percentage Trip Distribution / Assignments Worksheets	A-13 thru A-14
Pass-by Trip Worksheets	A-15 thru A-16
HISTORIC GROWTH RATE	
AWDT Historic Growth Data Table	A-17
Individual Growth Charts w/Trendline	A-18 thru A-28
Historic Growth Rate Map	A-29
TURNING MOVEMENT COUNTS	
2008 Summary Table of Turning Movement Volumes	A-30 thru A-32
Individual Intersection Turning Movement Volumes Worksheets	A-33 thru A-52
MAP - 2005 NO BUILD Volumes	**A-53**
MAP - Trips Generated Volumes	**A-54**
MAP - 2005 BUILD Volumes	**A-55**
SIGNALIZED INTERSECTION ANALYSES	
Signalized Intersection Analyses (Osuna Rd. / Edith Blvd.)	A-56 thru A-72
Signalized Intersection Analyses (Osuna Rd. / Chappell Dr.)	A-73 thru A-82
Signalized Intersection Analyses (Osuna Rd. / Academy Parkway Dr.)	A-83 thru A-92
Signalized Intersection Analyses (Osuna Rd. / Jefferson St.)	A-93 thru A-107
Signalized Intersection Analyses (Osuna Rd. / Vista del Norte Dr.)	A-108 thru A-117
ALTERNATE PLAN SCENARIO	
Trip Generation Rate Summary Table – ALTERNATE PLAN	A-118 thru A-120
Trip Generation Rate Worksheets	A-121 thru A-128
Pass-by Trip Worksheet for Alternate Plan	A-129
Intentionally Left Blank	A-130
2008 Summary Table of Turning Movement Volumes – ALTERNATE PLAN	A-131 thru A-133
Individual Intersection Turning Movement Volumes Worksheets	A-134 thru A-151
Signalized Intersection Analyses (Osuna Rd. / Edith Blvd.)	A-152 thru A-154
Signalized Intersection Analyses (Osuna Rd. / Chappell Dr.)	A-155 thru A-156
Signalized Intersection Analyses (Osuna Rd. / Academy Parkway Dr.)	A-157 thru A-158
Signalized Intersection Analyses (Osuna Rd. / Jefferson St.)	A-159 thru A-160
Signalized Intersection Analyses (Osuna Rd. / Vista del Norte Dr.)	A-161 thru A-162
UNSIGNALIZED INTERSECTION ANALYSES	
Unsignalized Intersection Analysis of Vista del Norte / Las Lomitas Dr.	A -163 thru A-169
Unsignalized Intersection Analysis of El Pueblo / Las Lomitas Dr.	A-170 thru A-175
Unsignalized Intersection Analysis of Driveways "A", "B", and "C"	A-176 thru A-187
Supporting Data	
Traffic Count Data	A-188 thru A-198
Intersection Data Sheets	A-199 thru A-205

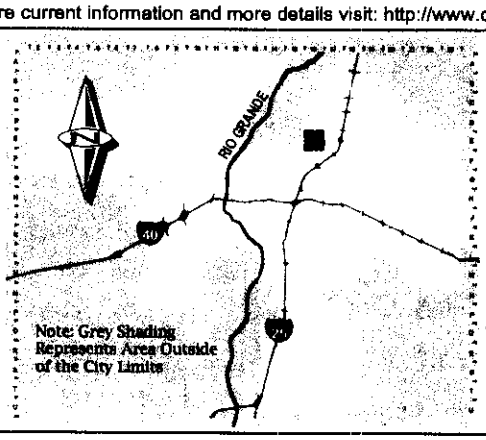
Vista del Norte Commercial Development



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

AGIS
Albuquerque Geographic Information System

Map amended through: 11/2/2005



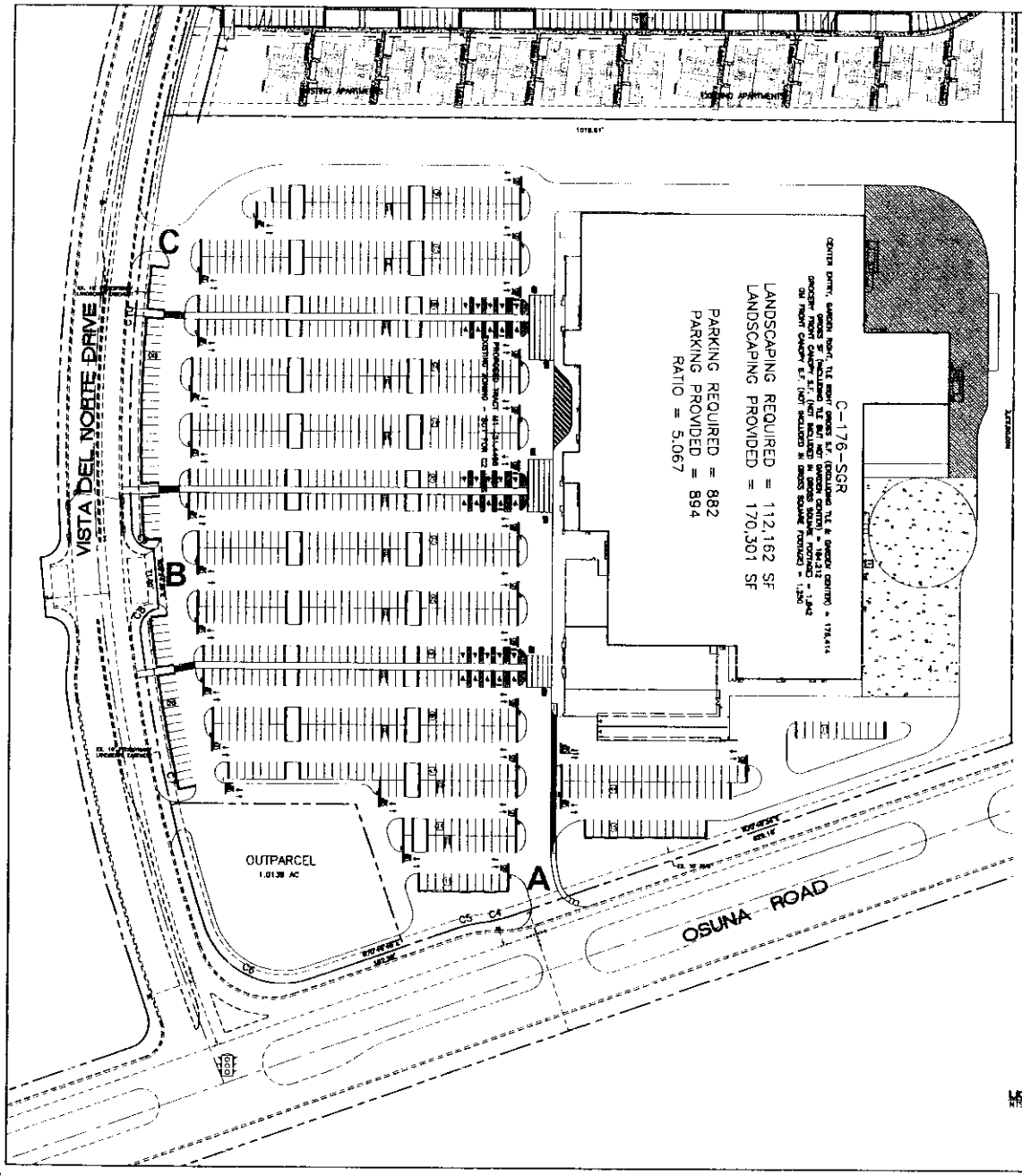
Zone Atlas Page:

E-16-Z

Selected Symbols

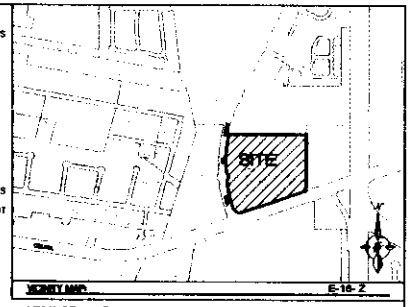
- SECTOR PLANS
- Design Overlay Zones
- City Historic Zones
- H-1 Buffer Zone
- Petroglyph Mon.
- Escarpment
- 2 Mile Airport Zone
- Airport Noise Contours
- Wall Overlay Zone

Feet: 0 — 750 — 1,500



NOTES:

1. COMMON STORM DRAINAGE, PEDESTRIAN, AND VEHICULAR ACCESS ACROSS NEW TRACTS IS GRANTED BY THIS SITE PLAN AND WILL BE GRANTED ON THE REPLAT.
2. APPROVAL OF THIS PLAN DOES NOT CONSTITUTE OR IMPLY EXEMPTION FROM WATER WASTE PROVISIONS OF THE WATER CONSERVATION LANDSCAPING AND WATER WASTE ORDINANCE WATER WASTE MANAGEMENT IS THE SOLE RESPONSIBILITY OF THE PROPERTY OWNER.
3. LANDSCAPE MAINTENANCE SHALL BE THE RESPONSIBILITY OF THE OWNER.
4. ROOF EQUIPMENT SHALL BE BELOW PARAPET HEIGHT AND SCREENED FROM VIEW FROM THE PROPERTY LINES OF THIS SITE. ALL GROUND MOUNTED EQUIPMENT SHALL BE SCREENED BY SCREEN WALLS WITH TOP OF EQUIPMENT BELOW TOP OF SCREEN WALL.
5. LIGHT POLES SHALL BE A MAXIMUM OF 25' FEET WITH FULL CUT OFF LIGHT FIXTURES. LIGHT FIXTURES SHALL BE A MAXIMUM OF 20' WITH FULL CUT OFF SHIELDS ON FIXTURES SO THAT NO FUGITIVE LIGHT SHALL ESCAPE BEYOND THE PROPERTY LINE. THE LIGHT FIXTURES SHALL BE FULLY SHIELDED WITH HORIZONTAL LAMPS. LIGHT POLES WITHIN 100' OF RESIDENTIAL ZONING SHALL BE LIMITED TO 16' HIGH.
6. THERE SHALL BE NO BACKLIT, PLASTIC, OR VINYL AWNINGS OR ILLUMINATED PLASTIC BANDING ON SIGNAGE.
7. NO FREESTANDING CELL TOWERS OR ANTENNA SHALL BE PERMITTED. ANY WIRELESS COMMUNICATIONS FACILITIES SHALL BE INTEGRATED INTO THE BUILDING ARCHITECTURE.
8. SETBACKS: THERE SHALL BE A FRONT AND A CORNER SIDE YARD SETBACK OF NOT LESS THAN FIVE FEET AND A SETBACK OF 11 FEET FROM JUNCTION OF A DRIVEWAY OR ALLEY AND A PUBLIC SIDEWALK OR PLANNED PUBLIC SIDEWALK LOCATION. THE CLEAR SIGHT TRIANGLE SHALL NOT BE IMPEDED UPON. ALONG COORS BLVD. THE FRONT LANDSCAPED STREET YARD SHALL BE 15 FEET WIDE.
9. BUILDINGS CANNOT EXCEED THE HEIGHTS AS SPECIFIED IN THE C1 ZONE OF THE COMPREHENSIVE CITY ZONING CODE.

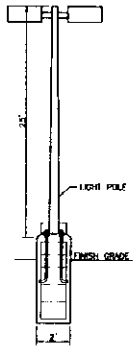


LEGAL DESCRIPTION
TRACT M1 OF VISTA DEL NORTE

SITE DATA TABLE	
	LOT M1
TOTAL ACREAGE:	21.21 AC.
EXISTING ZONING:	SU-1
PROPOSED ZONING:	SU-1
BUILDING SIZE:	176,414 SF
MAX FAR:	-
PROPOSED USE:	RETAIL
TOTAL PARKING PROVIDED:	894
* TOTAL PARKING REQUIRED:	882
HC PROVIDED:	30
HC REQUIRED:	20
BIKE SPACES PROVIDED:	20
BIKE SPACES REQUIRED:	19
BUILDING HEIGHT:	18D
LANDSCAPE PROVIDED:	170,301
LANDSCAPE REQUIRED: 15% OF NET LOT AREA	112,162

INDEX TO DRAWINGS

1. SITE PLAN FOR SUBDIVISION
2. SITE PLAN FOR BUILDING PERMIT
3. LANDSCAPE PLAN
4. GRADING AND DRAINAGE PLAN
5. MASTER UTILITY PLAN
6. ELEVATIONS
7. SIGN ELEVATIONS
8. DETAILS



LIGHT POLE DETAIL
NTS

GRAPHIC SCALE

60 30 0 30 60

SCALE: 1"=60'

PROJECT NUMBER _____

APPLICATION NUMBER _____

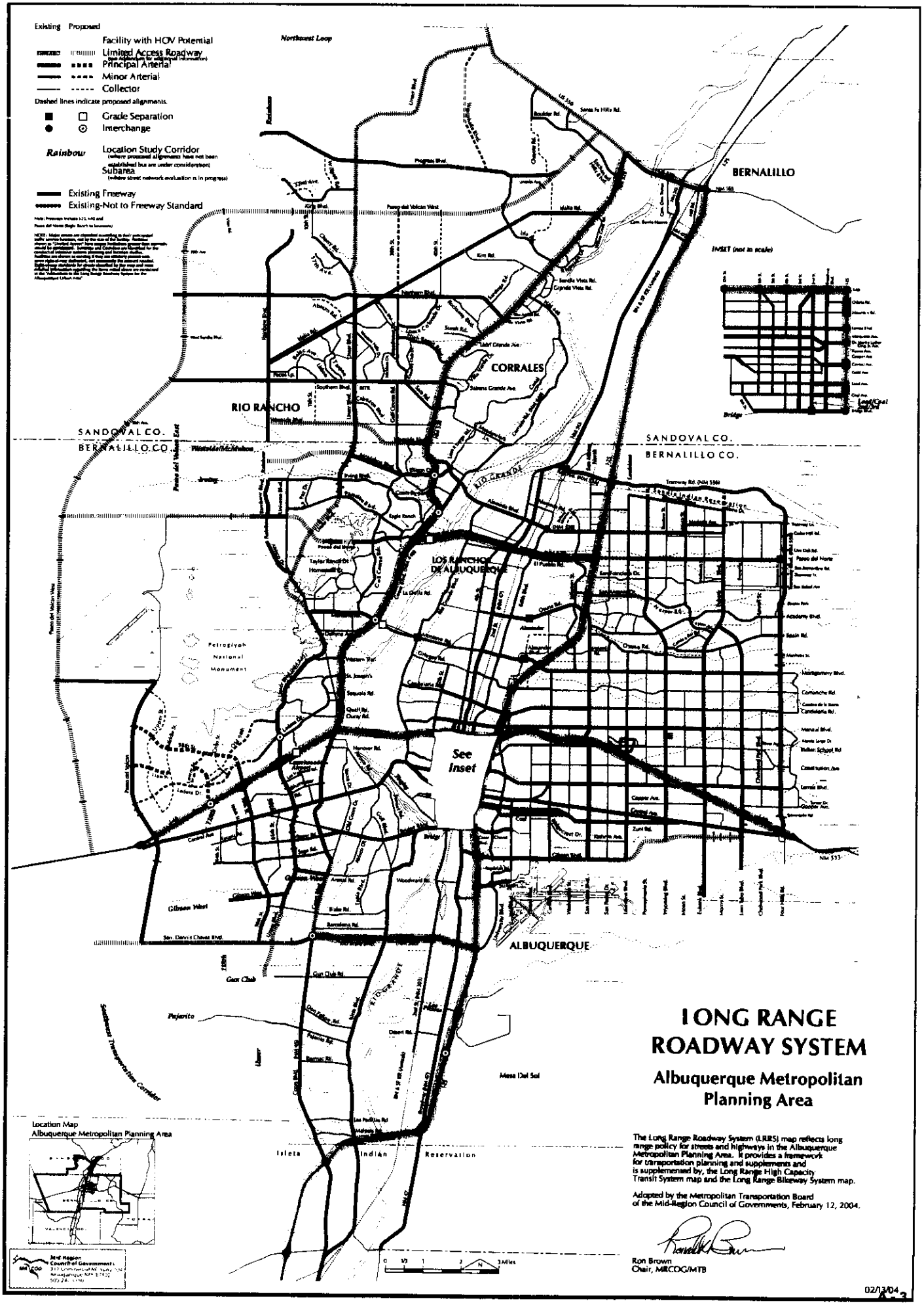
This plan is consistent with the specific Site Development Plan approved by the Environmental Planning Commission (EPC) dated _____ and the Findings and Conditions in the official Notification of Decision are satisfied.

DRB SITE DEVELOPMENT PLAN SIGNOFF APPROVAL

Traffic Engineer, Transportation Division	Date
Utilities Development	Date
Parks & Recreation Department	Date
City Engineer	Date
Environmental Health Department (conditional)	Date
Solid Waste Management	Date
DRB Chairperson, Planning Department	Date

ENGINEER'S SEAL	PROPOSED RETAIL CENTER OSUNA • VISTA DEL NORTE	DRAWN BY: GY
	CONCEPTUAL SITE PLAN	DATE: 2-09-06
		2553-SPE.dwg
	TIERRA WEST, LLC 8500 JEFFERSON NE ALBUQUERQUE, NEW MEXICO 87113 (505)858-3100	SHEET # -
RONALD R. BOHANNAN P.E. #7868		JOB # 25053

PDF created with pdfFactory trial version www.pdffactory.com



LONG RANGE ROADWAY SYSTEM

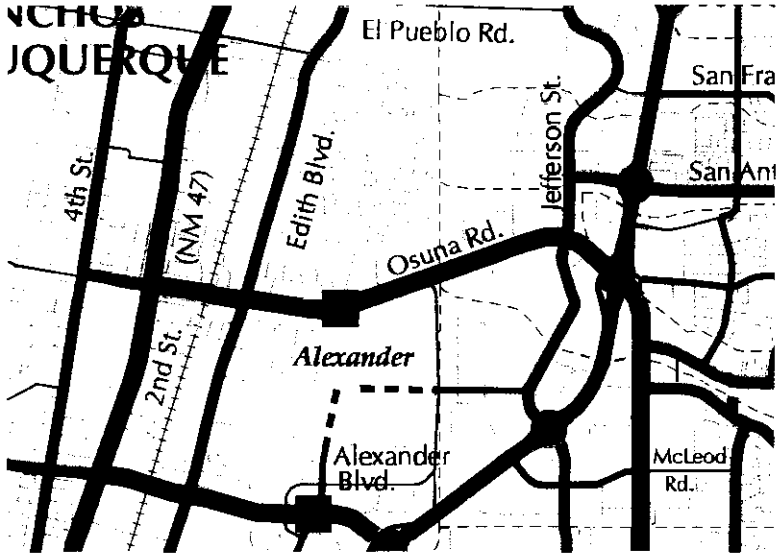
Albuquerque Metropolitan Planning Area

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


4th St.
2nd St.
(NM 47)
Edith Blvd.
Alexander
Alexander Blvd.
Osuna Rd.
El Pueblo Rd.
Jefferson St.
McLeod Rd.

Proposed Commercial Center (Osuna Rd. / Vista del Norte)

Trip Generation Data

USE (ITE CODE)		24 HR VOL	A. M. PEAK HR.		P. M. PEAK HR.	
DESCRIPTION		*GROSS*	*ENTER*	*EXIT*	*ENTER*	*EXIT*
Summary Sheet	Units					
Free-Standing Discount Superstore (813)	185.00	9,735	174	167	355	370
Fast Food Restaurant w/ Drive-Thru Window (934)	4.00	1,984	108	104	72	67
Subtotal		**11,719**	**282**	**271**	**427**	**437**
Pass-by Trip Reduction (PM ONLY)	30%	-	-	-	**(128)**	**(131)**
Net New Trips to Offsite System		**11,719**	**282**	**271**	**299**	**306**

Proposed Commercial Center (Osuna Rd. / Vista del Norte)

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					
Free-Standing Discount Superstore (813)	***185.00***	9,735	174	167	355	370
	1,000 S.F.					

ITE Trip Generation Equations:

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

T = ***74.12*** (X) + ***-3976.88***

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 = ***1.84*** (X) + ***0***

51% Enter, ***49%*** Exit

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

T = ***4.23*** (X) + ***-57.47***

49% Enter, ***51%*** Exit

Comments:
Tract No.

Based on ITE Trip Generation Manual - 7th Edition

Proposed Commercial Center (Osuna Rd. / Vista del Norte)

Trip Generation Data

USE (ITE CODE)	Units	24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR	
		GROSS	ENTER	EXIT	ENTER	EXIT
Fast Food Restaurant w/ Drive-Thru Window (934)	***4.00*** **1,000 S.F.**	1,984	108	104	72	67

ITE Trip Generation Equations:

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

T = ***496.12*** (X) + ***0***

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 = ***53.11*** (X) + ***0***

51% Enter, ***49%*** Exit

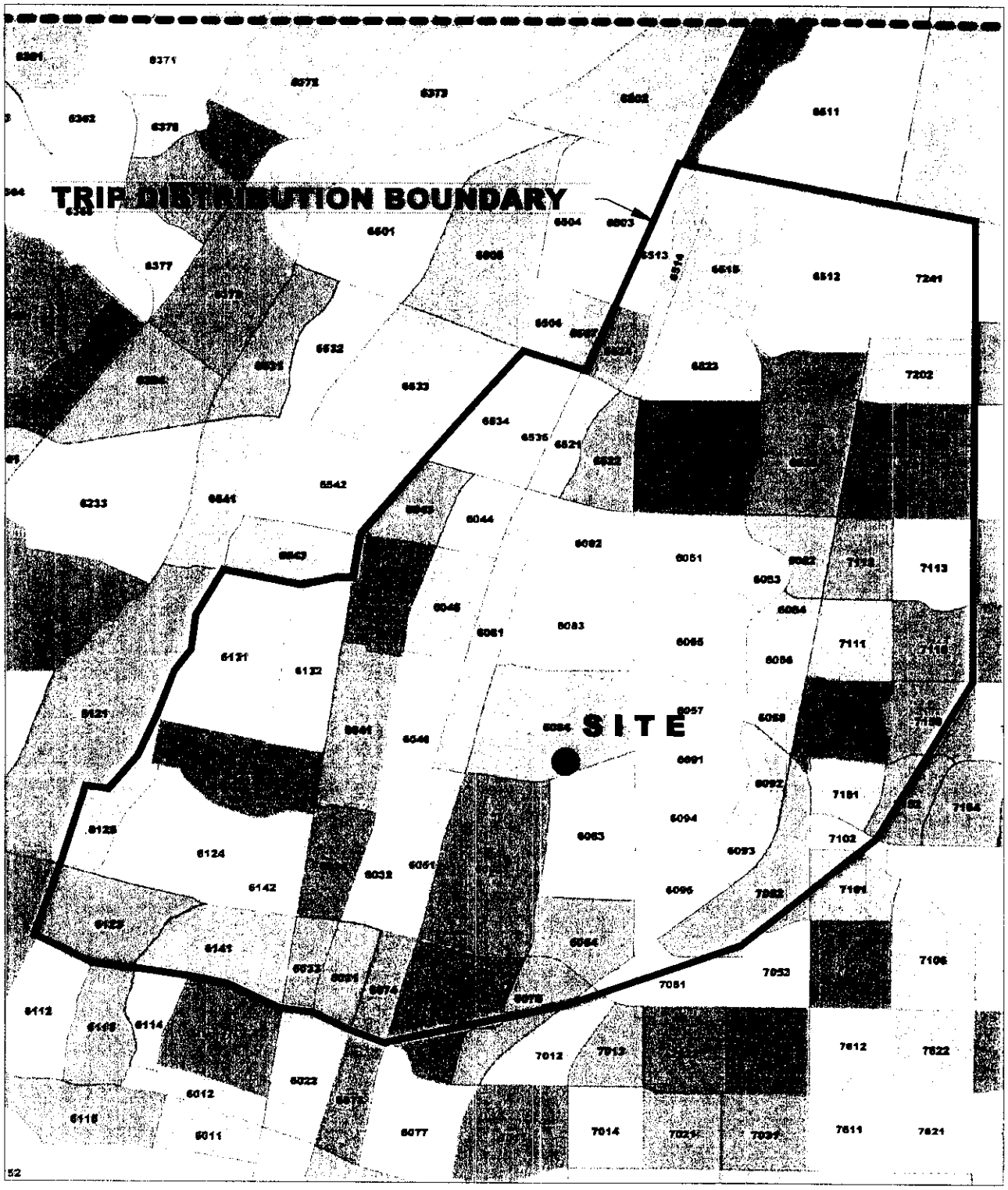
Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4pm and 6pm (P.M. PEAK HOUR)

T = ***34.64*** (X) + ***0***

52% Enter, ***48%*** Exit

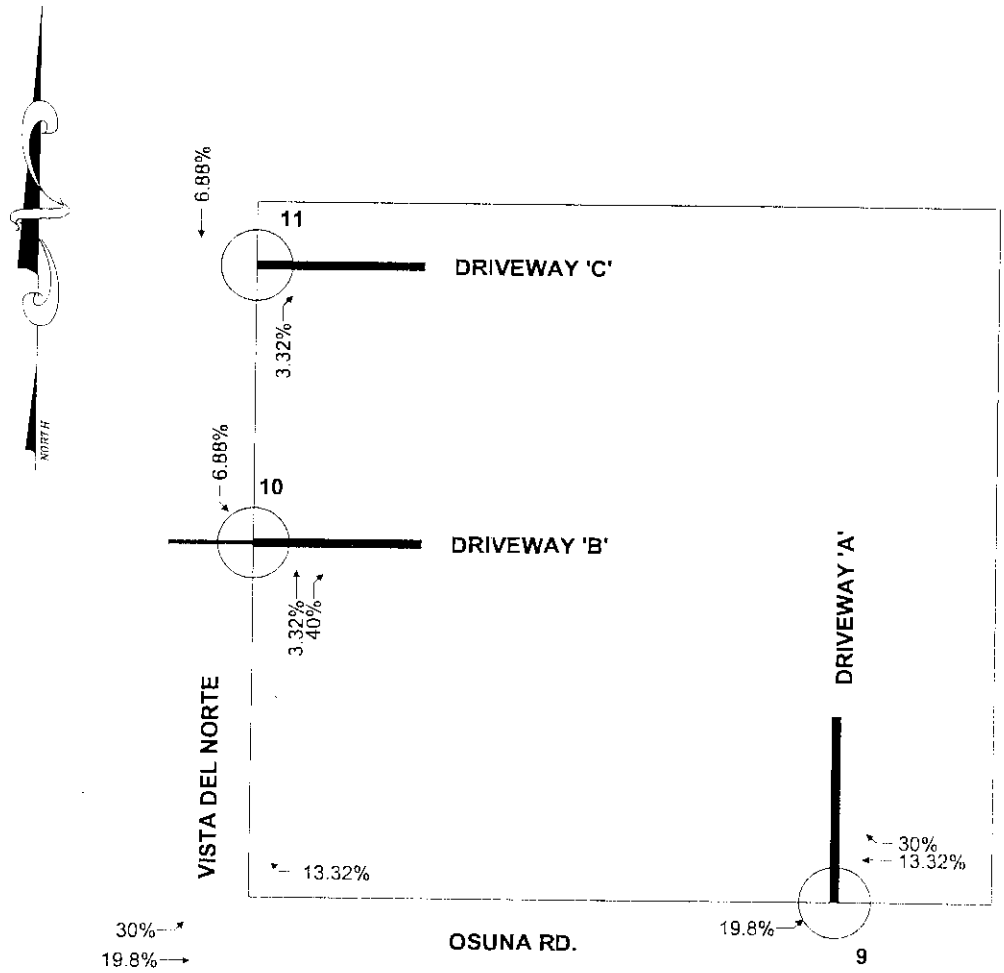
Comments:
Tract No.

Based on ITE Trip Generation Manual - 7th Edition



DATA ANALYSIS SUBZONE (DASZ) MAP

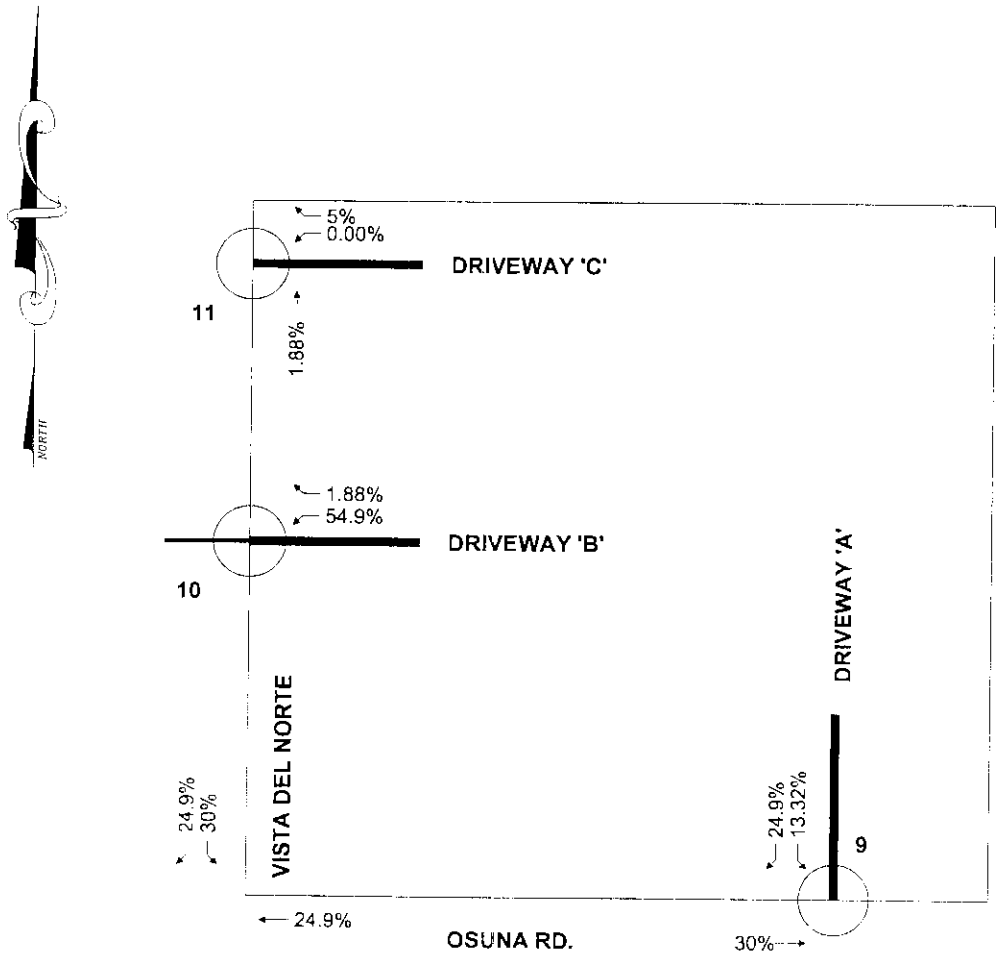
Vista del Norte Commercial Development (Osuna / Vista del Norte)



VISTA DEL NORTE COMMERCIAL CENTER

NORTHEAST CORNER OF OSUNA RD. / VISTA DEL NORTE

DRIVEWAY TRIP ASSIGNMENTS (% ENTERING)



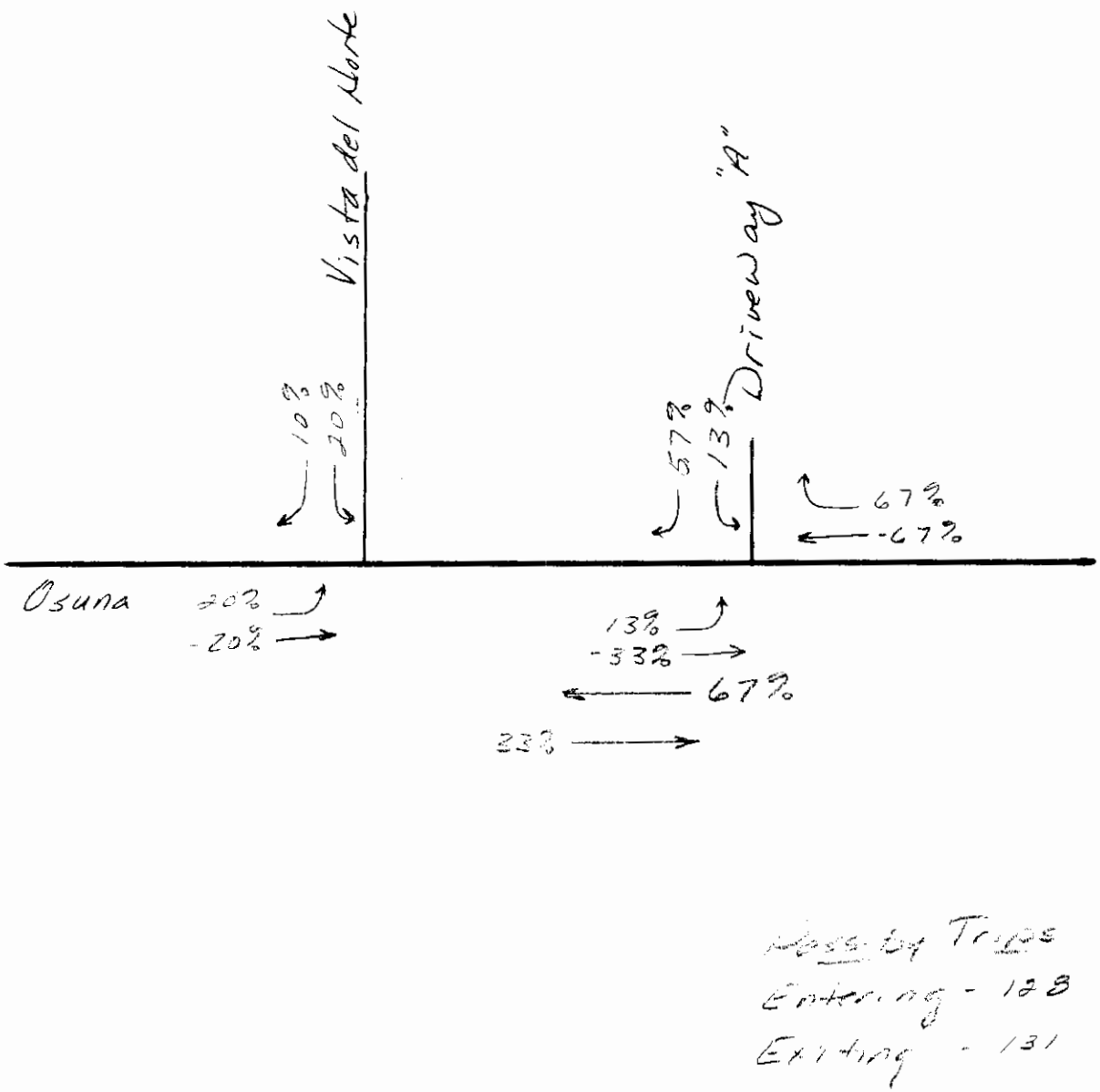
VISTA DEL NORTE COMMERCIAL CENTER

NORTHEAST CORNER OF OSUNA RD. / VISTA DEL NORTE

DRIVEWAY TRIP ASSIGNMENTS (% EXITING)

Terry O. Brown, P.E.
P. O. Box 92051
Albuquerque, NM 87199-2051
(505) 883-8807 (Voice)
(303) 942-3600 (FAX)

Calculation Sheet: Sheet ___ of _____

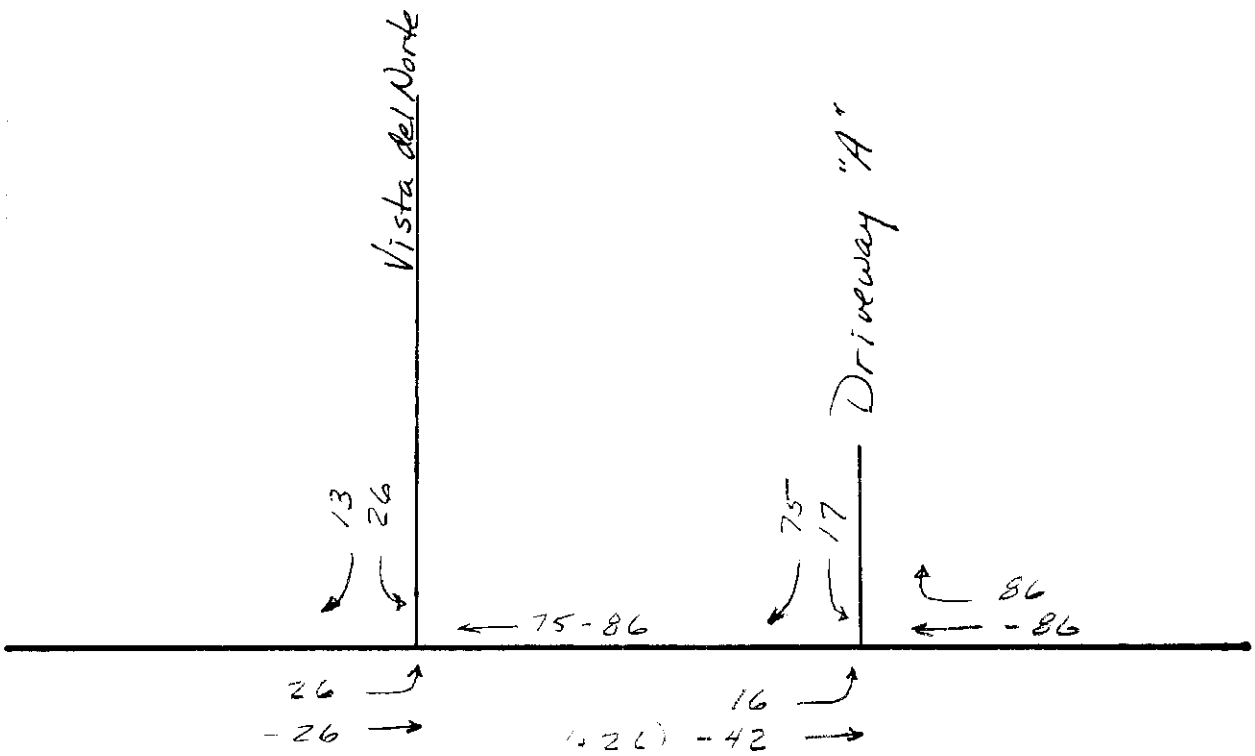


Pass-by Trips
Entering - 128
Exiting - 131

Date:	5/2/2006	Project:	Vista del Norte Commercial Development
Calcs by:	tob	Description:	Pass-by Trip Worksheet

Terry O. Brown, P.E.
P. O. Box 92051
Albuquerque, NM 87199-2051
(505) 883-8807 (Voice)
(303) 942-3600 (FAX)

Calculation Sheet: Sheet ___ of _____

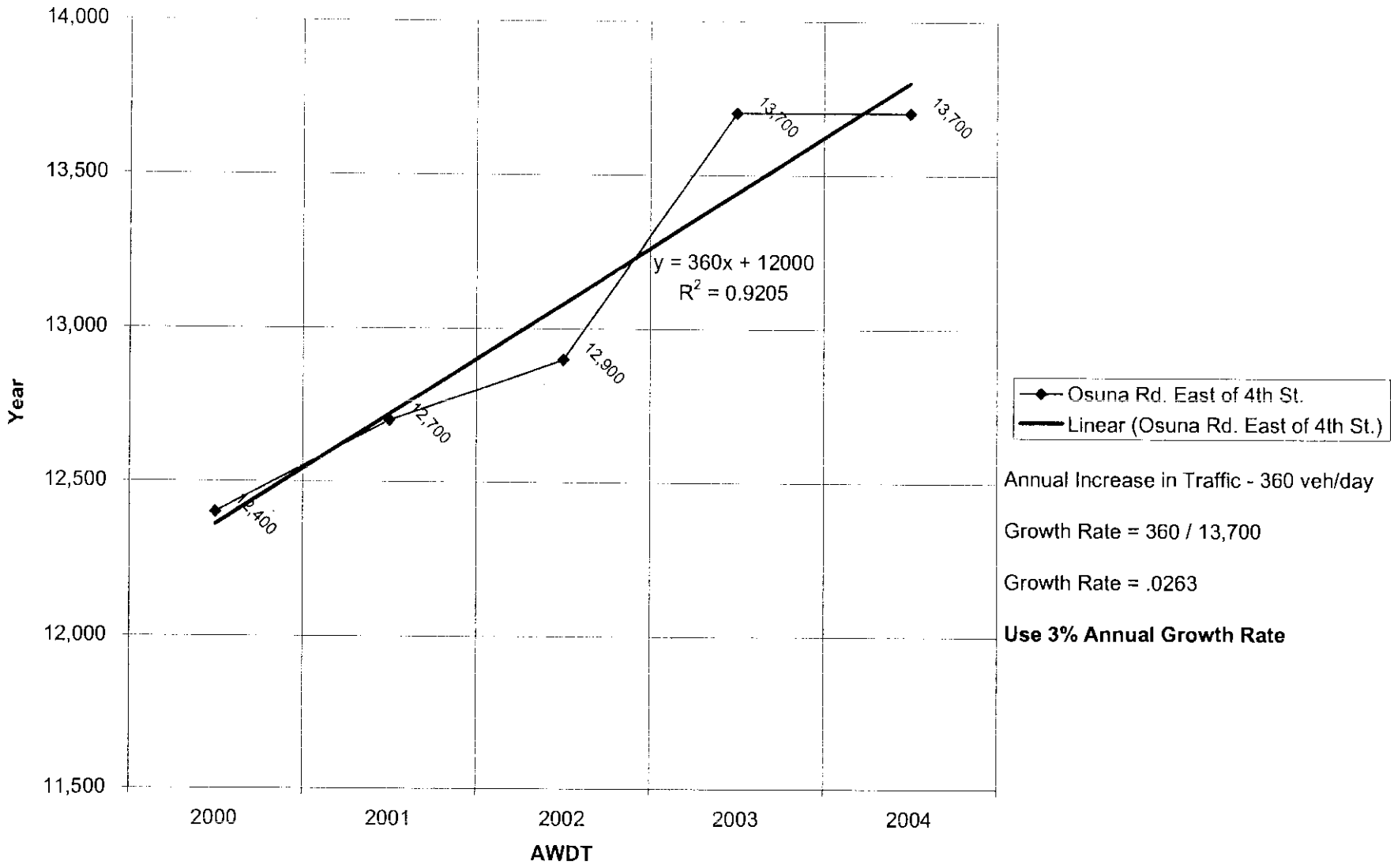


Date:	5/2/2006	Project:	Vista del Norte Commercial Development
Calcs by:	tob	Description:	Pass-by Trip Worksheet

Growth Data for Vista del Norte Commercial Development

	2000	2001	2002	2003	2004
Osuna Rd. East of 4th St.	12,400	12,700	12,900	13,700	13,700
Osuna Rd. East of 2nd St.	17,300	17,600	17,900	19,100	19,100
Osuna Rd. East of Edith Blvd.	20,400	21,000	21,500	20,500	21,100
Osuna Rd. East of Chappel Dr.	22,700	28,700	29,300	29,700	32,300
Osuna Rd. East of Jefferson St.	30,100	31,000	31,900	32,300	33,400
Jefferson St. North of Osuna Rd.	19,600	21,800	22,200	22,600	15,300
Jefferson St. South of Osuna Rd.	15,600	16,100	15,000	15,200	15,700
2nd St. South of Osuna Rd.	24,900	25,400	25,900	25,800	25,300
2nd St. North of Osuna Rd.	28,100	28,700	29,200	26,300	26,200
Edith Blvd.South of Osuna Rd.	11,300	11,500	11,700	12,100	12,100
Edith Blvd. North of Osuna Rd.	8,000	8,200	8,300	8,800	8,700

Annual Growth Rate Graph - Osuna Rd. East of 4th St.



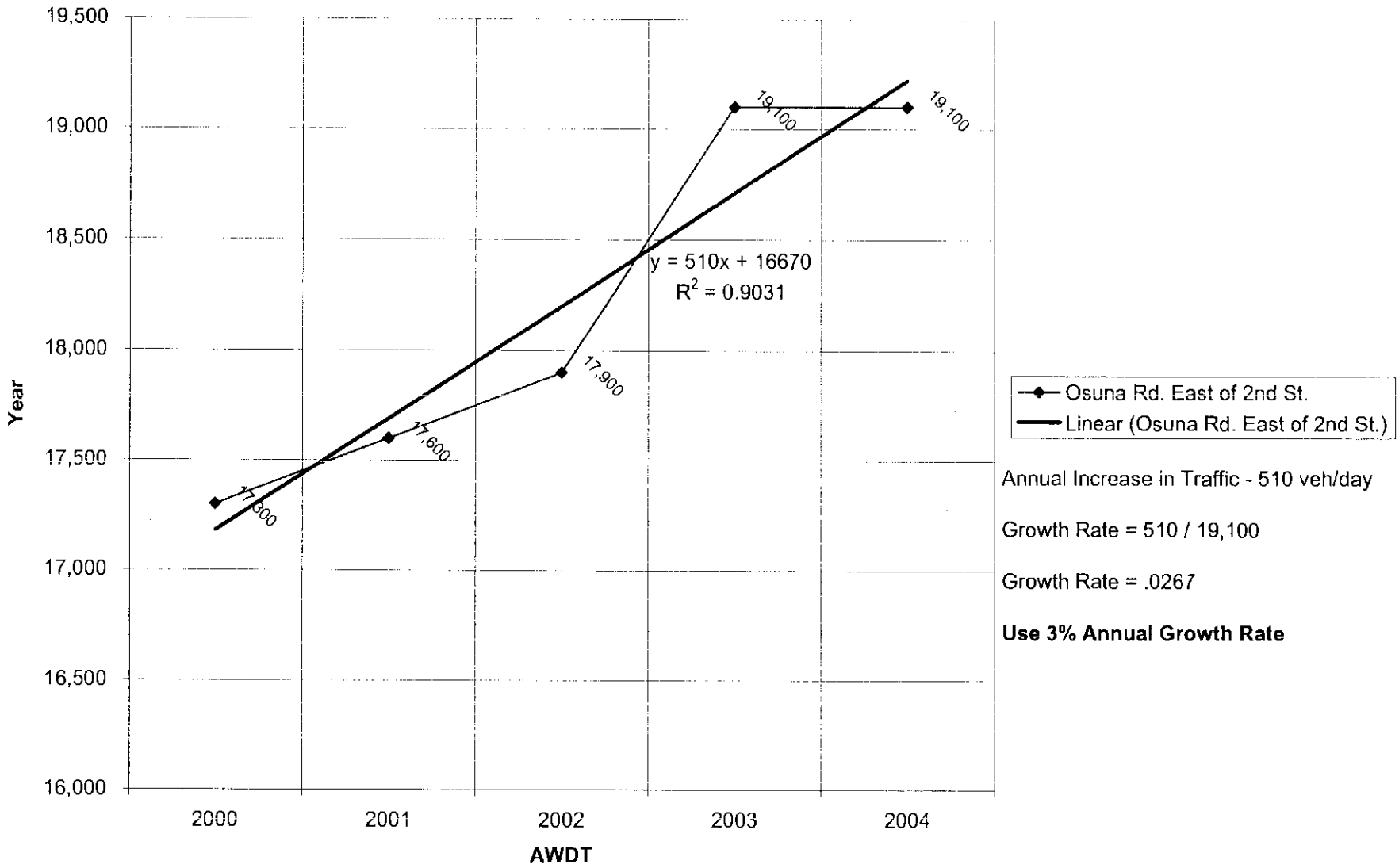
Annual Increase in Traffic - 360 veh/day

Growth Rate = 360 / 13,700

Growth Rate = .0263

Use 3% Annual Growth Rate

Annual Growth Rate Graph - Osuna Rd. East of 2nd St.



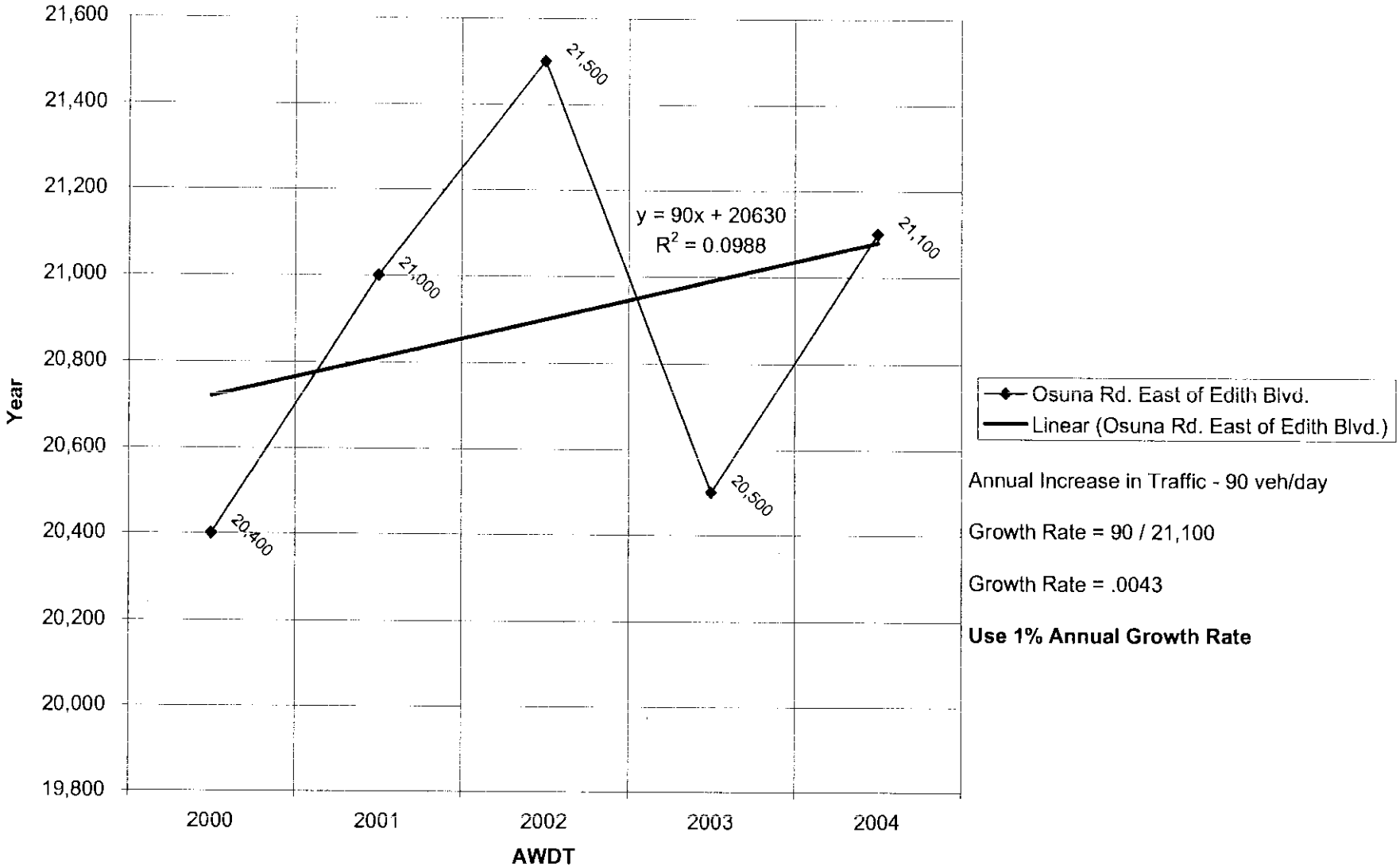
Annual Increase in Traffic - 510 veh/day

Growth Rate = 510 / 19,100

Growth Rate = .0267

Use 3% Annual Growth Rate

Annual Growth Rate Graph - Osuna Rd. East of Edith Blvd.



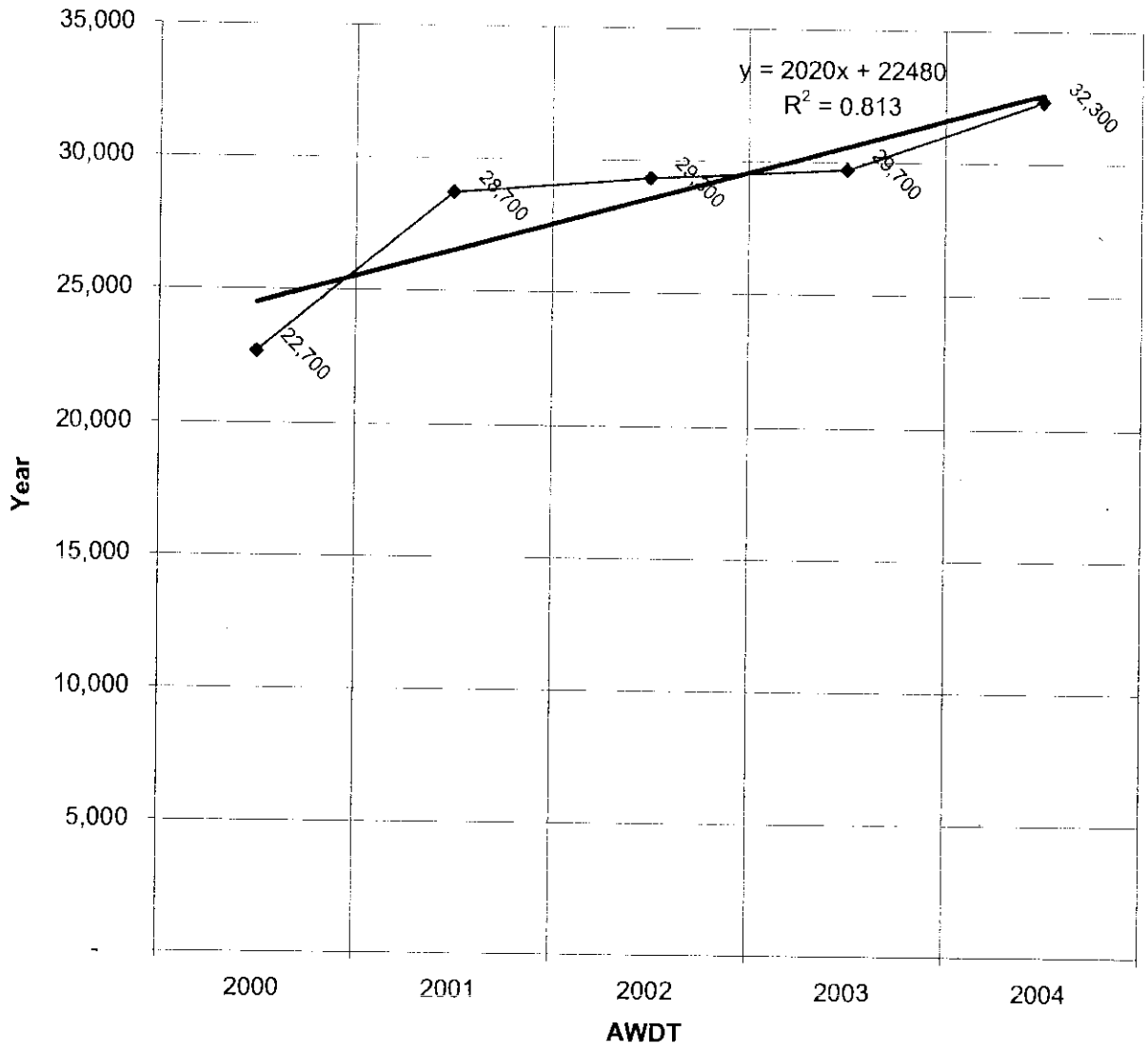
Annual Increase in Traffic - 90 veh/day

Growth Rate = 90 / 21,100

Growth Rate = .0043

Use 1% Annual Growth Rate

Annual Growth Rate Graph - Osuna Rd. East of Chappel Dr.



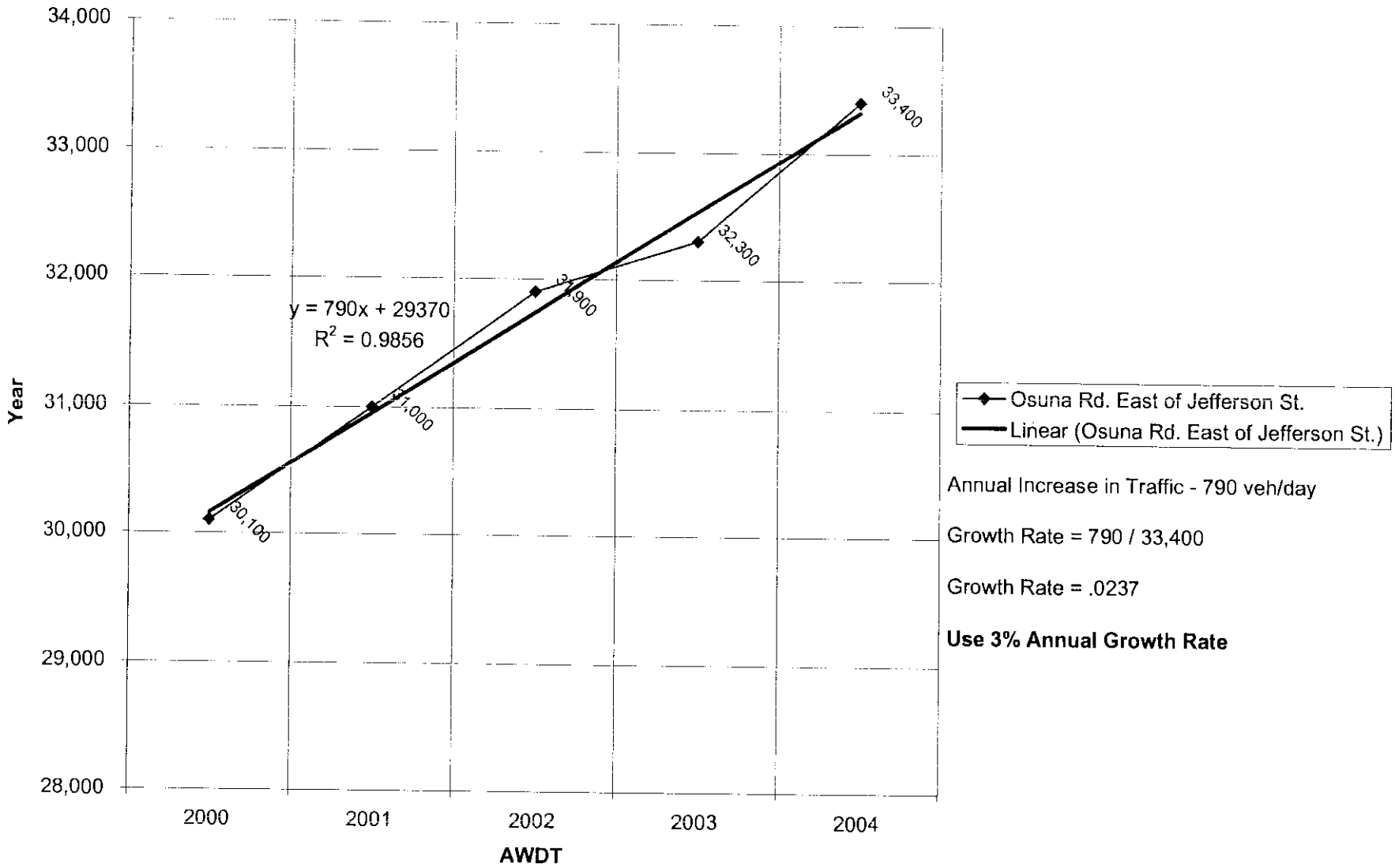
Annual Increase in Traffic - 2020 veh/day

Growth Rate = 2020 / 32,300

Growth Rate = .0625

Use 6% Annual Growth Rate

Annual Growth Rate Graph - Osuna Rd. East of Jefferson St.



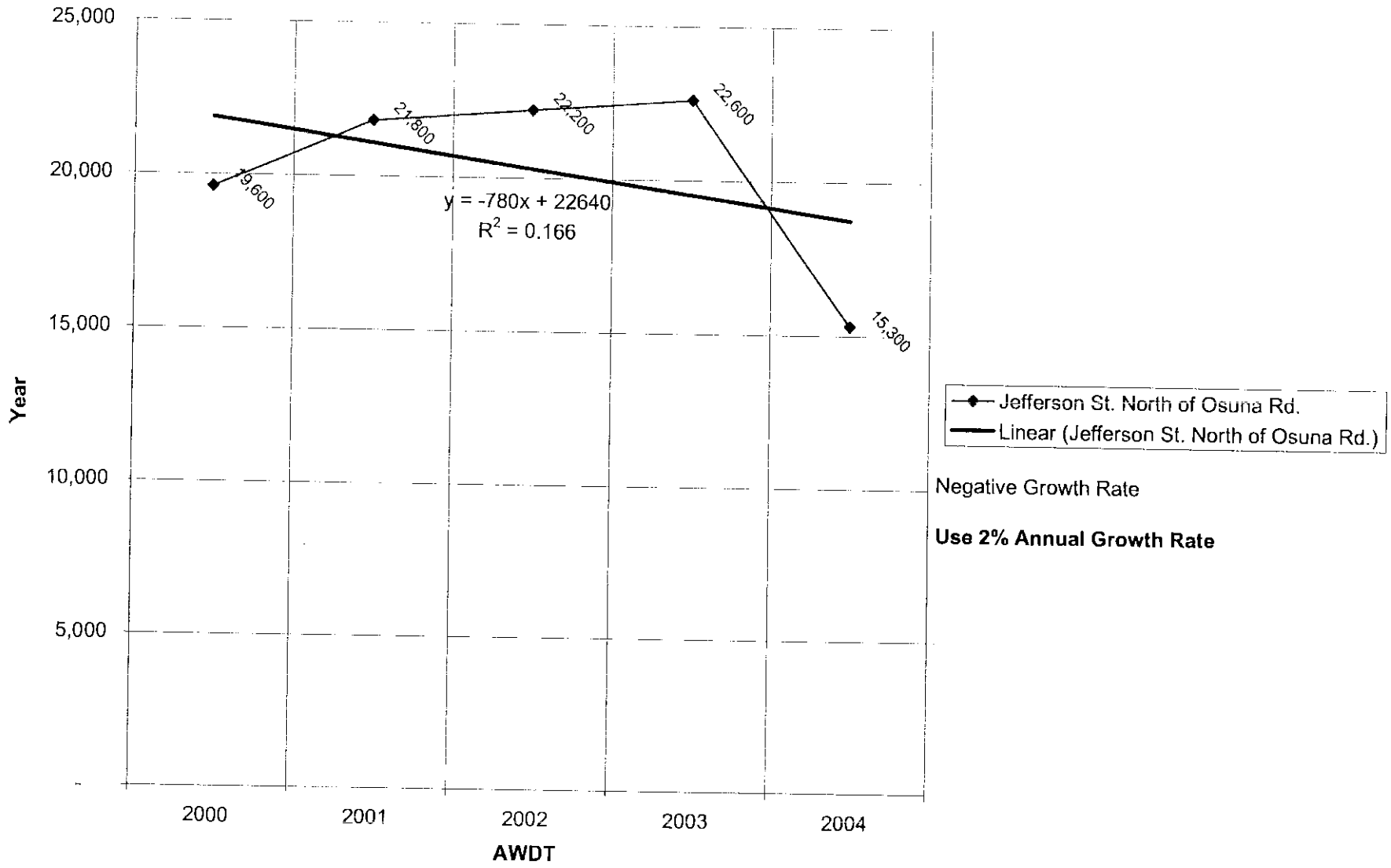
Annual Increase in Traffic - 790 veh/day

Growth Rate = 790 / 33,400

Growth Rate = .0237

Use 3% Annual Growth Rate

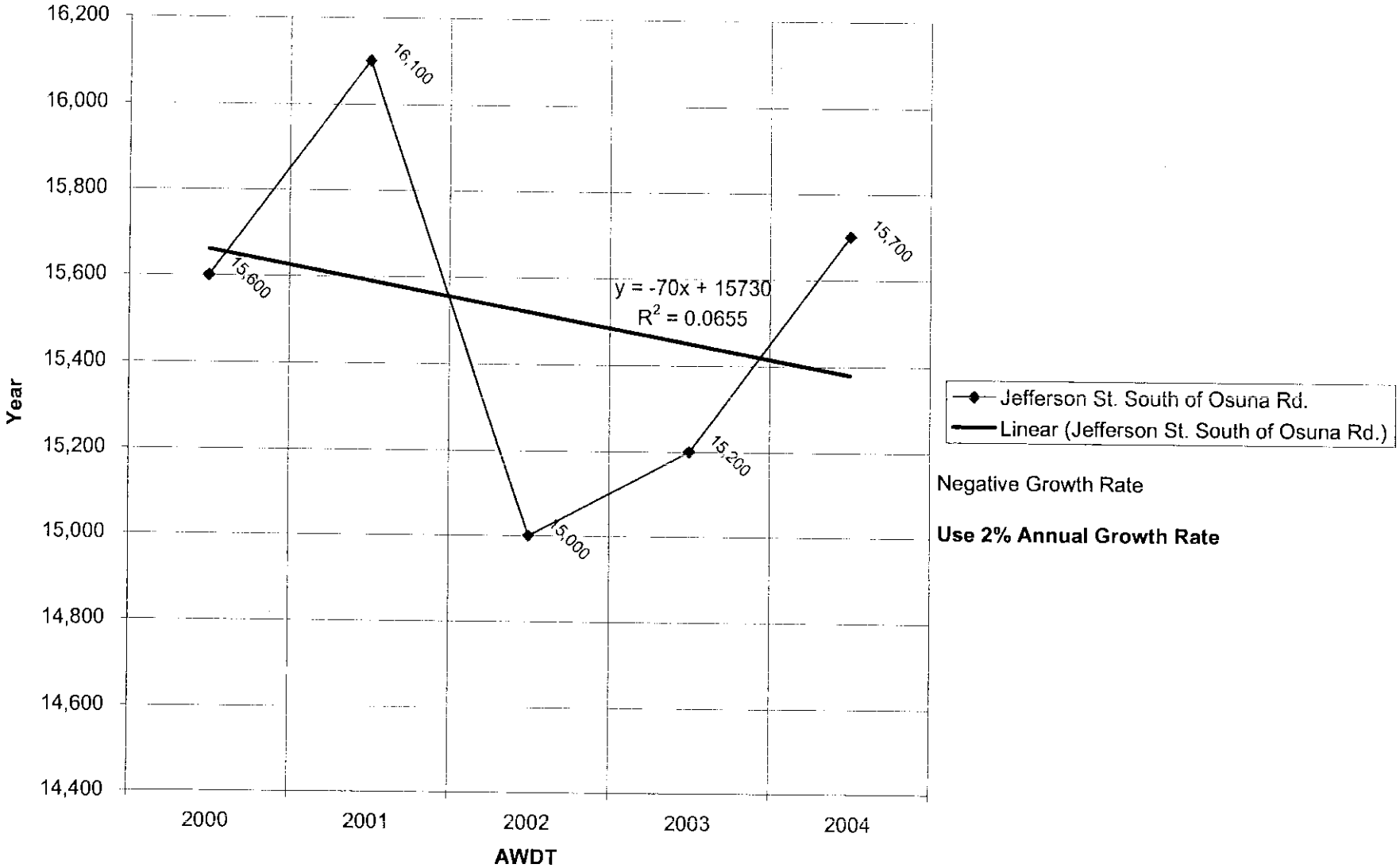
Annual Growth Rate Graph - Jefferson St. North of Osuna Rd.



Negative Growth Rate

Use 2% Annual Growth Rate

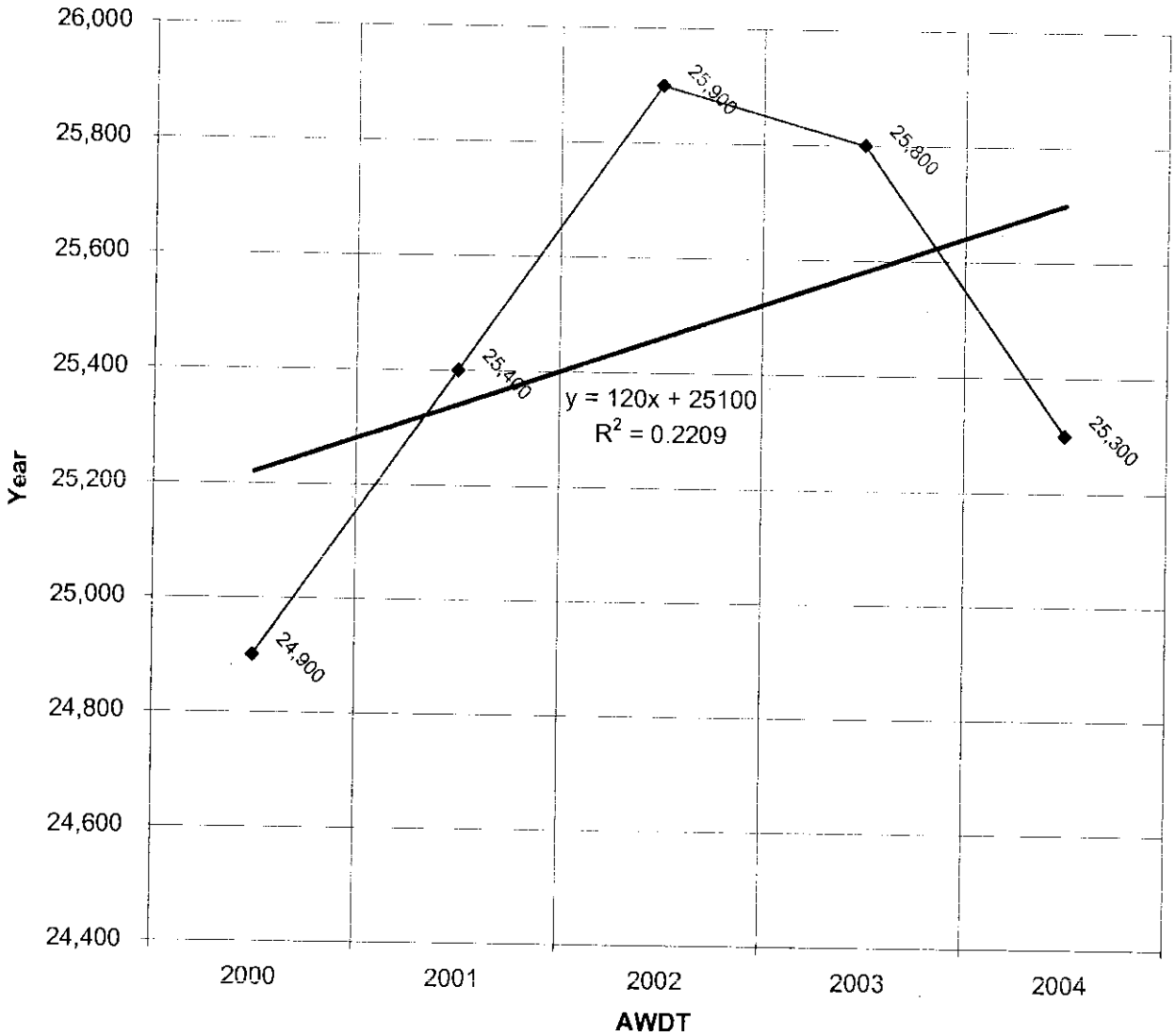
Annual Growth Rate Graph - Jefferson St. South of Osuna Rd.



Negative Growth Rate

Use 2% Annual Growth Rate

Annual Growth Rate Graph - 2nd St. South of Osuna Rd.



2nd St. South of Osuna Rd.

Linear (2nd St. South of Osuna Rd.)

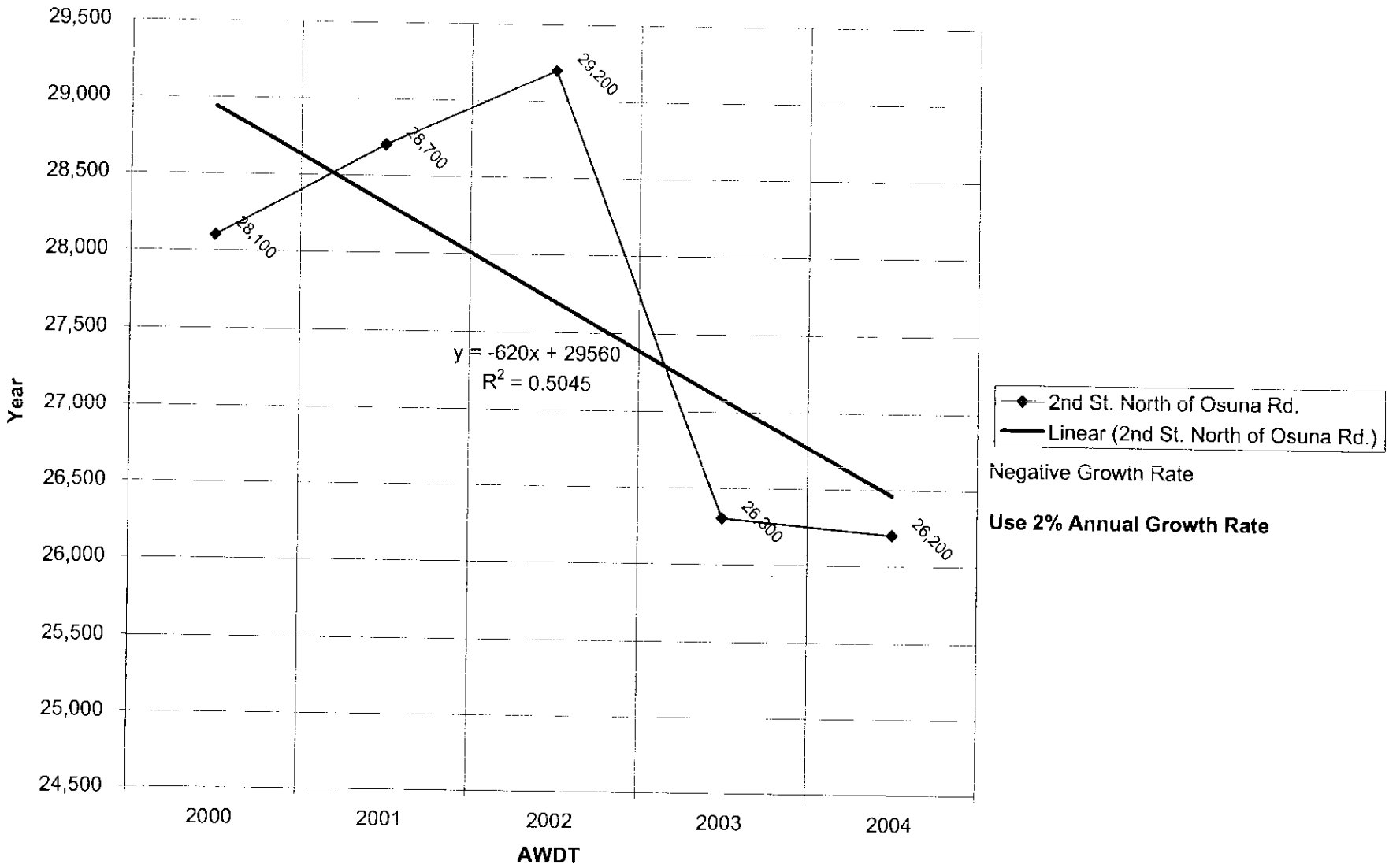
Annual Increase in Traffic - 120 veh/day

Growth Rate = 120 / 25,300

Growth Rate = .00047

Use 2% Annual Growth Rate

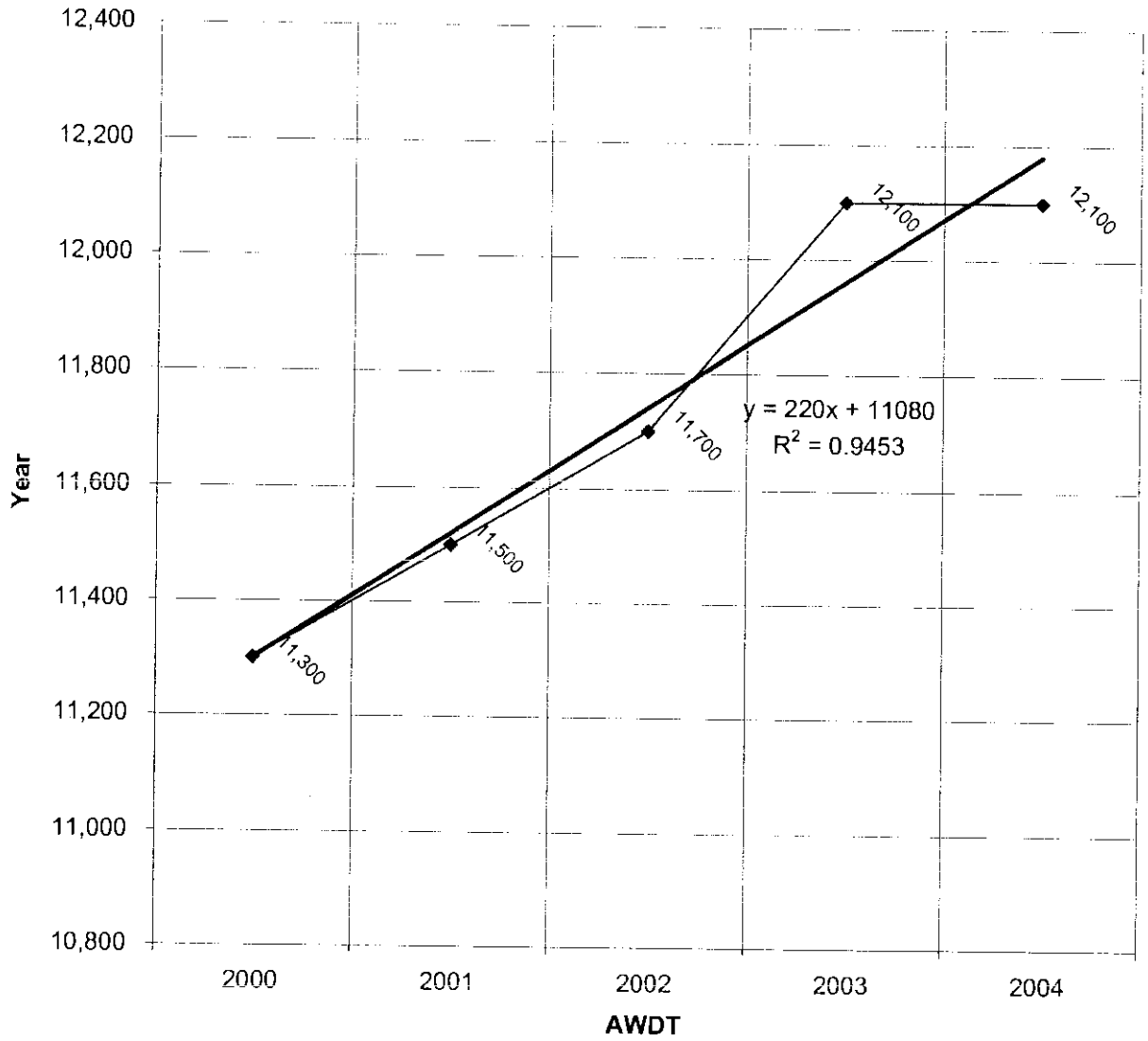
Annual Growth Rate Graph - 2nd St. North of Osuna Rd.



Negative Growth Rate

Use 2% Annual Growth Rate

Annual Growth Rate Graph - Edith Blvd. South of Osuna Rd.



Edith Blvd.South of Osuna Rd.
Linear (Edith Blvd.South of Osuna Rd.)

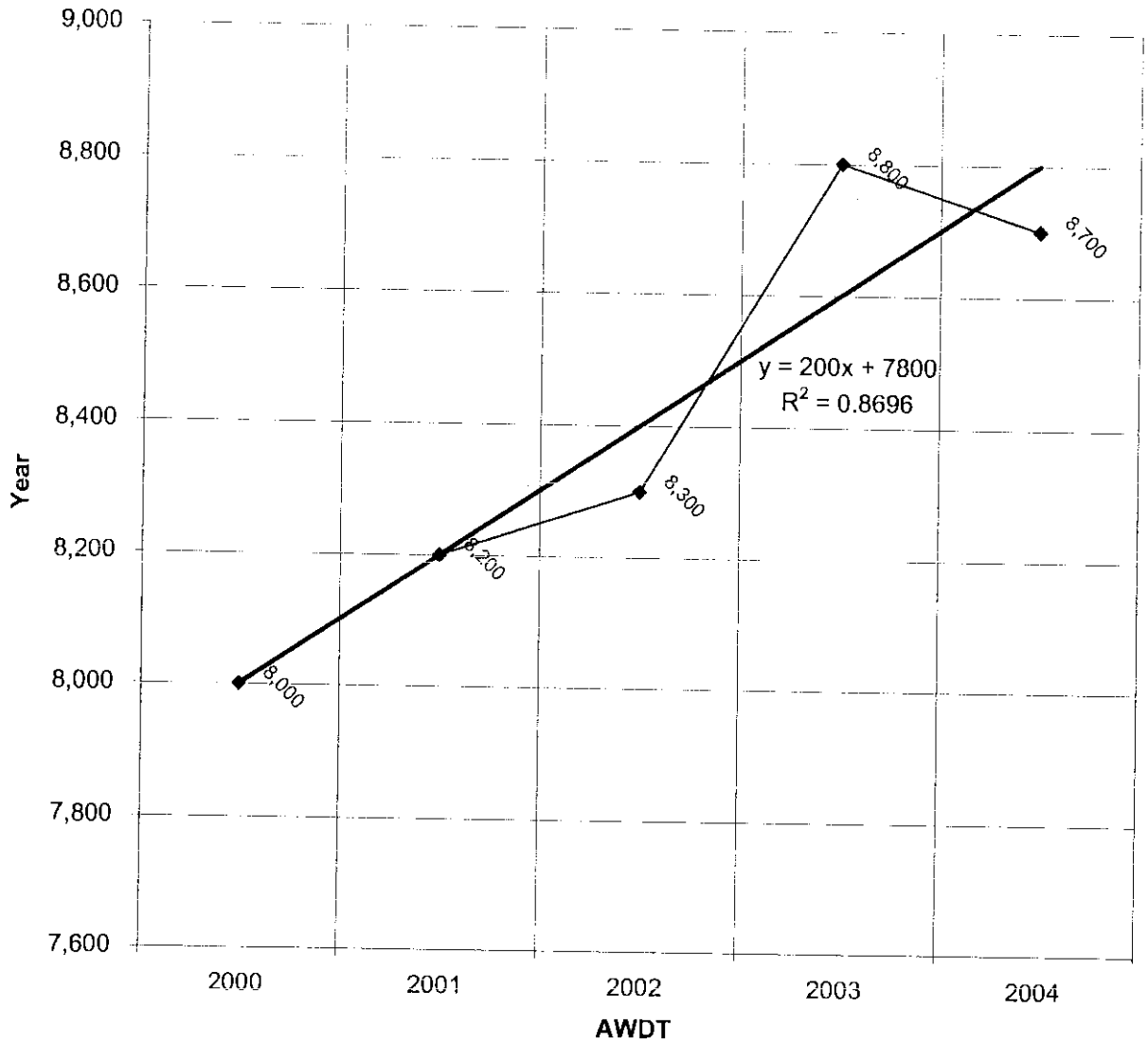
Annual Increase in Traffic - 220 veh/day

Growth Rate = 220 / 12,100

Growth Rate = .0182

Use 2% Annual Growth Rate

Annual Growth Rate Graph - Edith Blvd. South of Osuna Rd.



Edith Blvd. North of Osuna Rd.

Linear (Edith Blvd. North of Osuna Rd.)

Annual increase in Traffic - 200 veh/day

Growth Rate = 200 / 8,700

Growth Rate = .0230

Use 3% Annual Growth Rate

Vista del Norte Commercial Development (Osuna Rd. / Vista del Norte)

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2008) - 100% Development

INTERSECTION: **Summary**

Osuna Rd. / Edith Blvd.

(2)

5.0% Truck

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Edith Blvd.)			Southbound (Edith Blvd.)		
		0.90			0.80			0.81			0.90	PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2006)	28	844	232	154	365	65	147	218	145	169	357	248
2008 (NO BUILD - A.M.)	29	893	245	157	372	66	153	227	151	179	378	263
2008 (BUILD - A.M.)	**29**	**1,004**	**245**	**177**	**479**	**75**	**153**	**227**	**171**	**188**	**378**	**263**

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Edith Blvd.)			Southbound (Edith Blvd.)		
		0.87			0.91			0.87			0.84	PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2006)	46	444	119	157	981	154	284	446	153	104	438	54
2008 (NO BUILD - P.M.)	49	470	126	160	1,000	157	295	463	159	110	463	57
2008 (BUILD - P.M.)	**49**	**588**	**126**	**182**	**1,120**	**167**	**295**	**463**	**181**	**120**	**463**	**57**

Osuna Rd. / Chappel Dr.

(3)

5.0% Truck

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Chappel Dr.)			Southbound (Chappel Dr.)		
		0.81			0.80			0.72			0.70	PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2006)	26	1,503	281	118	911	43	70	6	97	6	1	4
2008 (NO BUILD - A.M.)	29	1,664	311	130	1,008	47	77	6	106	6	1	5
2008 (BUILD - A.M.)	**29**	**1,781**	**311**	**130**	**1,130**	**47**	**77**	**6**	**106**	**6**	**1**	**5**

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Chappel Dr.)			Southbound (Chappel Dr.)		
		0.92			0.86			0.79			0.89	PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2006)	3	907	68	105	1,602	6	230	2	166	53	22	26
2008 (NO BUILD - P.M.)	4	1,004	76	117	1,773	6	251	2	181	58	24	29
2008 (BUILD - P.M.)	**4**	**1,136**	**76**	**117**	**1,902**	**6**	**251**	**2**	**181**	**58**	**24**	**29**

Osuna Rd. / Academy Parkway

(4)

5.0% Truck

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Academy Parkway)			Southbound (Academy Parkway)		
		0.93			0.64			0.80			0.86	PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2006)	54	1,303	4	39	845	89	6	0	23	52	0	17
2008 (NO BUILD - A.M.)	60	1,459	4	44	946	100	7	0	25	57	0	19
2008 (BUILD - A.M.)	**60**	**1,576**	**4**	**44**	**1,068**	**100**	**7**	**0**	**25**	**57**	**0**	**19**

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Academy Parkway)			Southbound (Academy Parkway)		
		0.89			0.93			0.87			0.90	PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2006)	8	1,095	0	29	1,444	21	24	0	56	83	1	42
2008 (NO BUILD - P.M.)	9	1,226	0	32	1,617	24	26	0	62	91	1	46
2008 (BUILD - P.M.)	**9**	**1,358**	**0**	**32**	**1,746**	**24**	**26**	**0**	**62**	**91**	**1**	**46**

Osuna Rd. / Jefferson St.

(5)

5.0% Truck

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Jefferson St.)			Southbound (Jefferson St.)		
		0.88			0.88			0.91			0.87	PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2006)	264	1,211	172	193	976	278	127	236	44	205	389	166
2008 (NO BUILD - A.M.)	293	1,340	191	204	1,032	293	132	245	45	213	404	173
2008 (BUILD - A.M.)	**317**	**1,430**	**194**	**204**	**1,126**	**293**	**135**	**245**	**45**	**213**	**404**	**198**

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Jefferson St.)			Southbound (Jefferson St.)		
		0.94			0.91			0.90			0.80	PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2006)	278	1,665	91	93	1,077	213	303	579	275	348	356	315
2008 (NO BUILD - P.M.)	308	1,844	100	99	1,138	225	314	602	285	362	369	327
2008 (BUILD - P.M.)	**335**	**1,945**	**103**	**99**	**1,237**	**225**	**317**	**602**	**285**	**362**	**369**	**354**

Vista del Norte Commercial Development (Osuna Rd. / Vista del Norte)

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2008) - 100% Development

INTERSECTION: **Summary**

Osuna Rd. / Vista del Norte

(6)

5.0% Truck

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Vista del Norte)			Southbound (Vista del Norte)		
PHF	0.87			0.73			0.90			0.80		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2006)	21	1,183	0	0	638	91	0	0	0	665	0	96
2008 (NO BUILD - A.M.)	26	1,207	0	0	715	112	0	0	0	752	0	111
2008 (BUILD - A.M.)	**111**	**1,263**	**0**	**0**	**782**	**150**	**0**	**0**	**0**	**833**	**0**	**178**

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Vista del Norte)			Southbound (Vista del Norte)		
PHF	0.89			0.92			0.90			0.86		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2006)	94	761	0	0	1,371	519	0	0	0	155	0	47
2008 (NO BUILD - P.M.)	101	776	0	0	1,536	601	0	0	0	181	0	57
2008 (BUILD - P.M.)	**217**	**809**	**0**	**0**	**1,601**	**641**	**0**	**0**	**0**	**299**	**0**	**146**

Vista del Norte / Las Lomitas

(7)

2.0% Truck

	Eastbound (Vista del Norte)			Westbound (Vista del Norte)			Northbound (Las Lomitas)			Southbound (Las Lomitas)		
PHF	0.80			0.80			0.85			0.90		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2006)	32	84	0	0	15	62	0	0	0	160	0	13
2008 (NO BUILD - A.M.)	35	92	0	0	17	68	0	0	0	176	0	14
2008 (BUILD - A.M.)	**35**	**98**	**0**	**0**	**22**	**72**	**0**	**0**	**0**	**180**	**0**	**14**

	Eastbound (Vista del Norte)			Westbound (Vista del Norte)			Northbound (Las Lomitas)			Southbound (Las Lomitas)		
PHF	0.80			0.80			0.85			0.90		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2006)	15	32	0	0	91	180	0	0	0	84	0	51
2008 (NO BUILD - P.M.)	17	35	0	0	100	198	0	0	0	92	0	56
2008 (BUILD - P.M.)	**17**	**41**	**0**	**0**	**106**	**203**	**0**	**0**	**0**	**97**	**0**	**56**

El Pueblo Rd. / Las Lomitas Dr.

(8)

5.0% Truck

	Eastbound (El Pueblo Rd.)			Westbound (El Pueblo Rd.)			Northbound (Las Lomitas Dr.)			Southbound (Las Lomitas Dr.)		
PHF	0.90			0.90			0.80			0.80		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2006)	0	377	119	17	77	0	73	0	86	0	0	0
2008 (NO BUILD - A.M.)	0	497	131	19	102	0	80	0	96	0	0	0
2008 (BUILD - A.M.)	**0**	**497**	**132**	**19**	**102**	**0**	**81**	**0**	**96**	**0**	**0**	**0**

	Eastbound (El Pueblo Rd.)			Westbound (El Pueblo Rd.)			Northbound (Las Lomitas Dr.)			Southbound (Las Lomitas Dr.)		
PHF	0.90			0.90			0.80			0.80		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2006)	0	64	85	74	141	0	163	0	45	0	0	0
2008 (NO BUILD - P.M.)	0	92	94	83	236	0	179	0	50	0	0	0
2008 (BUILD - P.M.)	**0**	**92**	**95**	**83**	**236**	**0**	**180**	**0**	**50**	**0**	**0**	**0**

Osuna Rd. / Driveway "A"

(9)

5.0% Truck

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Driveway "A")			Southbound (Driveway "A")		
PHF	0.85			0.85			0.85			0.85		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2006)	0	1,848	0	0	729	0	0	0	0	0	0	0
2008 (NO BUILD - A.M.)	0	2,070	0	0	816	0	0	0	0	0	0	0
2008 (BUILD - A.M.)	**56**	**2,151**	**0**	**0**	**854**	**85**	**0**	**0**	**0**	**36**	**0**	**67**

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Driveway "A")			Southbound (Driveway "A")		
PHF	0.85			0.85			0.85			0.85		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2006)	0	916	0	0	1,890	0	0	0	0	0	0	0
2008 (NO BUILD - P.M.)	0	1,026	0	0	2,117	0	0	0	0	0	0	0
2008 (BUILD - P.M.)	**75**	**1,102**	**0**	**0**	**2,071**	**176**	**0**	**0**	**0**	**58**	**0**	**151**

Vista del Norte Commercial Development (Osuna Rd. / Vista del Norte)

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2008) - 100% Development

INTERSECTION: **Summary**

Driveway "B" / Vista del Norte

(10)

5.0% Truck

	0.85			0.85			0.85			0.85		PHF
	Eastbound (Driveway "B")			Westbound (Driveway "B")			Northbound (Vista del Norte)			Southbound (Vista del Norte)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2006)	5	0	10	0	0	0	10	112	0	0	761	5
2008 (NO BUILD - A.M.)	*11*	*0*	*36*	*0*	*0*	*0*	*26*	*123*	*0*	*0*	*837*	*11*
2008 (BUILD - A.M.)	***11***	***0***	***36***	***149***	***0***	***19***	***26***	***132***	***113***	***19***	***837***	***11***

	0.85			0.85			0.85			0.85		PHF
	Eastbound (Driveway "B")			Westbound (Driveway "B")			Northbound (Vista del Norte)			Southbound (Vista del Norte)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2006)	5	0	10	0	0	0	10	613	0	0	202	5
2008 (NO BUILD - P.M.)	*11*	*0*	*26*	*0*	*0*	*0*	*36*	*674*	*0*	*0*	*222*	*11*
2008 (BUILD - P.M.)	***11***	***0***	***26***	***203***	***0***	***6***	***36***	***684***	***140***	***21***	***226***	***11***

Driveway "C" / Vista del Norte

(11)

5.0% Truck

	0.85			0.85			0.85			0.85		PHF
	Eastbound (Driveway "C")			Westbound (Driveway "C")			Northbound (Vista del Norte)			Southbound (Vista del Norte)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2006)	0	0	0	0	0	0	0	112	0	0	761	0
2008 (NO BUILD - A.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*123*	*0*	*0*	*837*	*0*
2008 (BUILD - A.M.)	***0***	***0***	***0***	***0***	***0***	***14***	***0***	***123***	***9***	***0***	***856***	***0***

	0.85			0.85			0.85			0.85		PHF
	Eastbound (Driveway "C")			Westbound (Driveway "C")			Northbound (Vista del Norte)			Southbound (Vista del Norte)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2006)	0	0	0	0	0	0	0	613	0	0	202	0
2008 (NO BUILD - P.M.)	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*674*	*0*	*0*	*222*	*0*
2008 (BUILD - P.M.)	***0***	***0***	***0***	***0***	***0***	***15***	***0***	***674***	***16***	***0***	***243***	***0***

Vista del Norte Commercial Development (Osuna Rd. / Vista del Norte)

Projected Turning Movements Worksheet

Osuna Rd. / Edith Blvd.

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

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

Year of Existing Counts 2005

Implementation Year **2008**

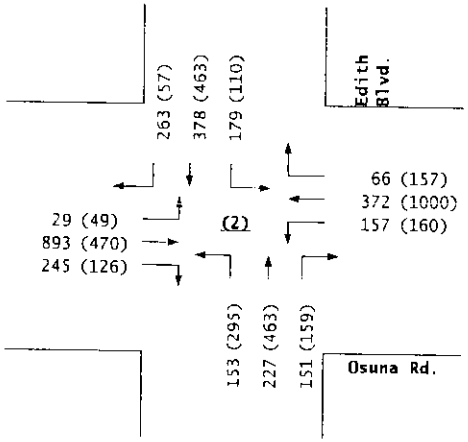
	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Edith Blvd.)			Southbound (Edith Blvd.)		
Growth Rates	3.00%			1.00%			2.00%			3.00%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	27	819	225	152	361	64	144	214	142	164	347	241
Background Traffic Growth	2	74	20	5	11	2	9	13	9	15	31	22
Subtotal (NO BUILD - A.M.)	***29***	***893***	***245***	***157***	***372***	***66***	***153***	***227***	***151***	***179***	***378***	***263***
Percent Commercial Trips Generated(Entering)	*0.00%*	*39.33%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*7.21%*	*3.26%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*7.21%*	*39.33%*	*3.26%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	111	0	20	107	9	0	0	20	9	0	0
Total AM Peak Hour BUILD Volumes	**29**	**1,004**	**245**	**177**	**479**	**75**	**153**	**227**	**171**	**188**	**378**	**263**

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Edith Blvd.)			Southbound (Edith Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	45	431	116	155	971	152	278	437	150	101	425	52
Background Traffic Growth	4	39	10	5	29	5	17	26	9	9	38	5
Subtotal (NO BUILD - P.M.)	***49***	***470***	***126***	***160***	***1,000***	***157***	***295***	***463***	***159***	***110***	***463***	***57***
Percent Commercial Trips Generated(Entering)	*0.00%*	*39.33%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*7.21%*	*3.26%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*7.21%*	*39.33%*	*3.26%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	118	0	22	120	10	0	0	22	10	0	0
Total PM Peak Hour BUILD Volumes	**49**	**588**	**126**	**182**	**1,120**	**167**	**295**	**463**	**181**	**120**	**463**	**57**

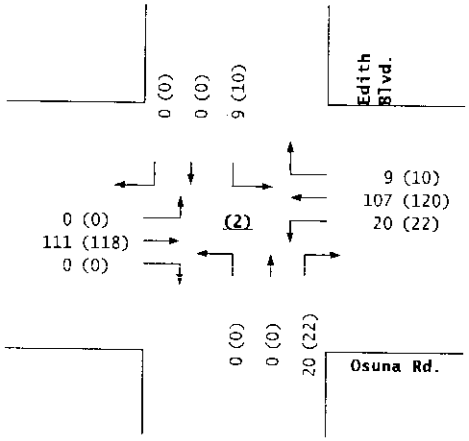
	Entering	Exiting		
Number of Commercial Trips Generated	**282**	**271**	A.M.	100% Commercial Development
	299	**306**	P.M.	

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Edith Blvd.)			Southbound (Edith Blvd.)		
2006 AM Peak Hr. Volumes	28	844	232	154	365	65	147	218	145	169	357	248
2006 PM Peak Hr. Volumes	46	444	119	157	981	154	284	446	153	104	438	54

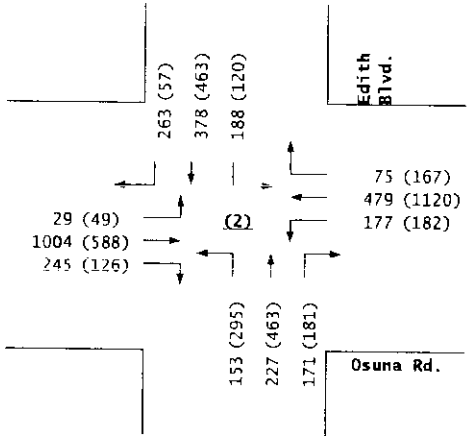
2008
NO BUILD



Trips



2008
BUILD



Osuna Rd. / Edith Blvd.

Vista del Norte Commercial Development (Osuna Rd. / Vista del Norte)

Projected Turning Movements Worksheet

Osuna Rd. / Chappel Dr.

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

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

Year of Existing Counts 2004

Implementation Year **2008**

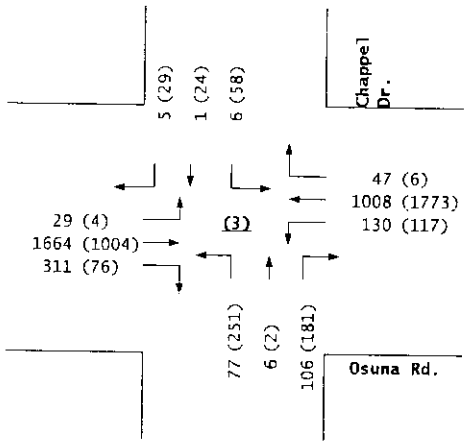
	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Chappel Dr.)			Southbound (Chappel Dr.)		
Growth Rates	6.00%			6.00%			5.00%			5.00%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	23	1,342	251	105	813	38	64	5	88	5	1	4
Background Traffic Growth	6	322	60	25	195	9	13	1	18	1	0	1
Subtotal (NO BUILD - A.M.)	***29***	***1,664***	***311***	***130***	***1,008***	***47***	***77***	***6***	***106***	***6***	***1***	***5***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*43.18%*	*0.00%*	*0.14%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*43.18%*	*0.14%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	117	0	0	122	0	0	0	0	0	0	0
Total AM Peak Hour BUILD Volumes	**29**	**1,781**	**311**	**130**	**1,130**	**47**	**77**	**6**	**106**	**6**	**1**	**5**

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Chappel Dr.)			Southbound (Chappel Dr.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	3	810	61	94	1,430	5	209	2	151	48	20	24
Background Traffic Growth	1	194	15	23	343	1	42	0	30	10	4	5
Subtotal (NO BUILD - P.M.)	***4***	***1,004***	***76***	***117***	***1,773***	***6***	***251***	***2***	***181***	***58***	***24***	***29***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*43.18%*	*0.00%*	*0.14%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*43.18%*	*0.14%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	132	0	0	129	0	0	0	0	0	0	0
Total PM Peak Hour BUILD Volumes	**4**	**1,136**	**76**	**117**	**1,902**	**6**	**251**	**2**	**181**	**58**	**24**	**29**

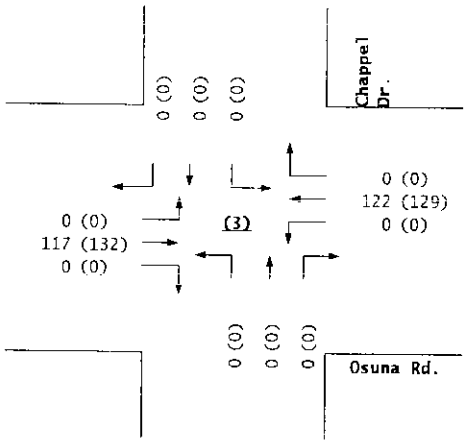
	Entering	Exiting		
Number of Commercial Trips Generated	**282**	**271**	A.M.	100% Commercial Development
	299	**306**	P.M.	

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Chappel Dr.)			Southbound (Chappel Dr.)		
2006 AM Peak Hr. Volumes	26	1503	281	118	911	43	70	6	97	6	1	4
2006 PM Peak Hr. Volumes	3	907	68	105	1,602	6	230	2	166	53	22	26

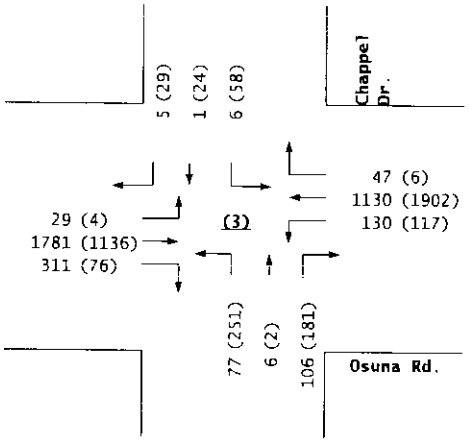
2008
NO BUILD



Trips



2008
BUILD



Osuna Rd. / Chappel Dr.

Vista del Norte Commercial Development (Osuna Rd. / Vista del Norte)

Projected Turning Movements Worksheet

Osuna Rd. / Academy Parkway

INTERSECTION: E-W Street: **Osuna Rd.** (4)

N-S Street: **Academy Parkway**

Year of Existing Counts 2006

Implementation Year 2008

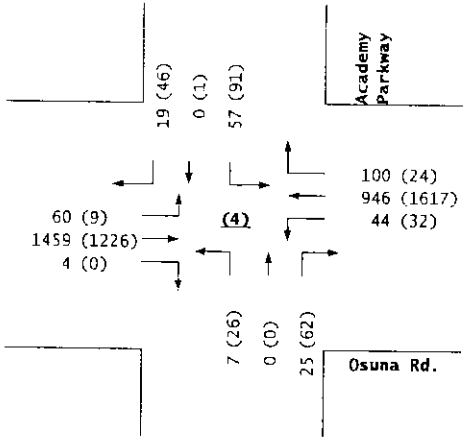
Growth Rates	6.00%			6.00%			5.00%			5.00%		
	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Academy Parkway)			Southbound (Academy Parkway)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	54	1,303	4	39	845	89	6	0	23	52	0	17
Background Traffic Growth	6	156	0	5	101	11	1	0	2	5	0	2
Subtotal (NO BUILD - A.M.)	***60***	***1,459***	***4***	***44***	***946***	***100***	***7***	***0***	***25***	***57***	***0***	***19***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*43.18%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*43.18%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	117	0	0	122	0	0	0	0	0	0	0
Total AM Peak Hour BUILD Volumes	**60**	**1,576**	**4**	**44**	**1,068**	**100**	**7**	**0**	**25**	**57**	**0**	**19**

	6.00%			6.00%			5.00%			5.00%		
	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Academy Parkway)			Southbound (Academy Parkway)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	8	1,095	0	29	1,444	21	24	0	56	83	1	42
Background Traffic Growth	1	131	0	3	173	3	2	0	6	8	0	4
Subtotal (NO BUILD - P.M.)	***9***	***1,226***	***0***	***32***	***1,617***	***24***	***26***	***0***	***62***	***91***	***1***	***46***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*43.18%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*43.18%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	132	0	0	129	0	0	0	0	0	0	0
Total PM Peak Hour BUILD Volumes	**9**	**1,358**	**0**	**32**	**1,746**	**24**	**26**	**0**	**62**	**91**	**1**	**46**

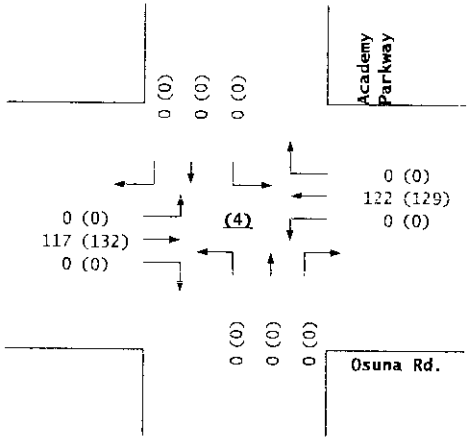
	Entering	Exiting		
Number of Commercial Trips Generated	**282**	**271**	A.M.	100% Commercial Development
	299	**306**	P.M.	

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Academy Parkway)			Southbound (Academy Parkway)		
2006 AM Peak Hr. Volumes	54	1303	4	39	845	89	6	0	23	52	0	17
2006 PM Peak Hr. Volumes	8	1,095	0	29	1,444	21	24	0	56	83	1	42

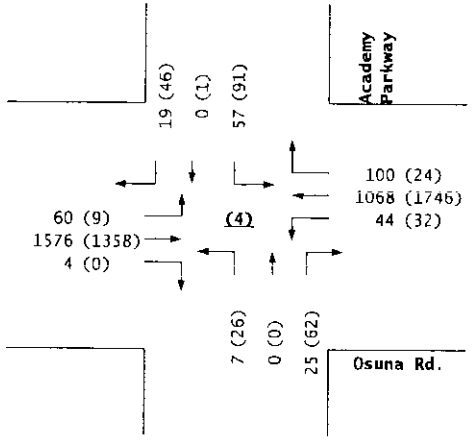
2008
NO BUILD



Trips



2008
BUILD



Osuna Rd. / Academy Parkway

Vista del Norte Commercial Development (Osuna Rd. / Vista del Norte)

Projected Turning Movements Worksheet

Osuna Rd. / Jefferson St.

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

N-S Street: **Jefferson St.**

Year of Existing Counts 2004

Implementation Year **2008**

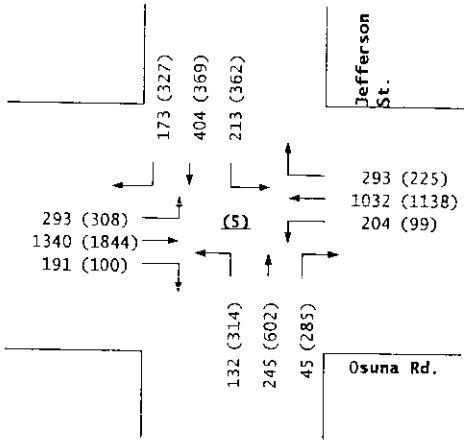
	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Jefferson St.)			Southbound (Jefferson St.)		
Growth Rates	6.00%			3.00%			2.00%			2.00%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	236	1,081	154	182	921	262	122	227	42	197	374	160
Background Traffic Growth	57	259	37	22	111	31	10	18	3	16	30	13
Subtotal (NO BUILD - A.M.)	***293***	***1,340***	***191***	***204***	***1,032***	***293***	***132***	***245***	***45***	***213***	***404***	***173***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*33.16%*	*0.00%*	*1.09%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*8.93%*
Percent Commercial Trips Generated(Exiting)	*8.93%*	*33.16%*	*1.09%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	24	90	3	0	94	0	3	0	0	0	0	25
Total AM Peak Hour BUILD Volumes	**317**	**1,430**	**194**	**204**	**1,126**	**293**	**135**	**245**	**45**	**213**	**404**	**198**

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Jefferson St.)			Southbound (Jefferson St.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	248	1,487	81	88	1,016	201	291	557	264	335	342	303
Background Traffic Growth	60	357	19	11	122	24	23	45	21	27	27	24
Subtotal (NO BUILD - P.M.)	***308***	***1,844***	***100***	***99***	***1,138***	***225***	***314***	***602***	***285***	***362***	***369***	***327***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*33.16%*	*0.00%*	*1.09%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*8.93%*
Percent Commercial Trips Generated(Exiting)	*8.93%*	*33.16%*	*1.09%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	27	101	3	0	99	0	3	0	0	0	0	27
Total PM Peak Hour BUILD Volumes	**335**	**1,945**	**103**	**99**	**1,237**	**225**	**317**	**602**	**285**	**362**	**369**	**354**

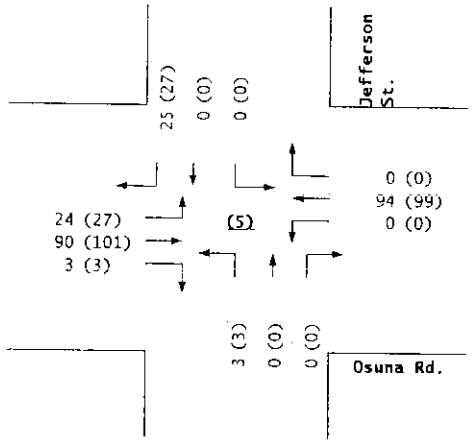
	Entering	Exiting		
Number of Commercial Trips Generated	**282**	**271**	A.M.	100% Commercial Development
	299	**306**	P.M.	

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Jefferson St.)			Southbound (Jefferson St.)		
2006 AM Peak Hr. Volumes	264	1211	172	193	976	278	127	236	44	205	389	166
2006 PM Peak Hr. Volumes	278	1,665	91	93	1,077	213	303	579	275	348	356	315

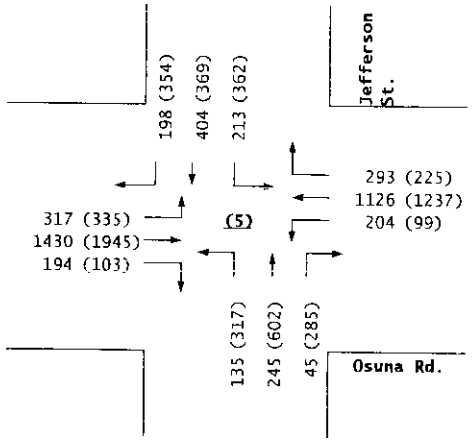
2008
NO BUILD



Trips



2008
BUILD



Osuna Rd. / Jefferson St.

Vista del Norte Commercial Development (Osuna Rd. / Vista del Norte)

Projected Turning Movements Worksheet

Osuna Rd. / Vista del Norte

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

N-S Street: **Vista del Norte**

Year of Existing Counts 2006

Implementation Year **2008**

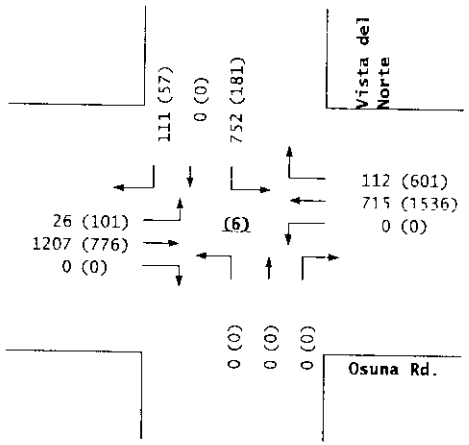
	Growth Rates	1.00%			6.00%			5.00%			5.00%		
		Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Vista del Norte)			Southbound (Vista del Norte)		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes		21	1,183	0	0	638	91	0	0	0	665	0	96
Background Traffic Growth		0	24	0	0	77	11	0	0	0	67	0	10
Subtotal		21	1,207	0	0	715	102	0	0	0	732	0	106
Vista del Norte Industrial Park Trips		0	0	0	0	0	0	0	0	0	0	0	0
Agave Subdivision Trips (31 Lots)		5	0	0	0	0	10	0	0	0	20	0	5
Subtotal (NO BUILD - A.M.)		***26***	***1,207***	***0***	***0***	***715***	***112***	***0***	***0***	***0***	***752***	***0***	***111***
Percent Commercial Trips Generated(Entering)		*30.00%*	*19.80%*	*0.00%*	*0.00%*	*0.00%*	*13.32%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)		*0.00%*	*0.00%*	*0.00%*	*0.00%*	*24.90%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*30.00%*	*0.00%*	*24.90%*
Total Trips Generated		85	56	0	0	67	38	0	0	0	81	0	67
Total AM Peak Hour BUILD Volumes		**111**	**1,263**	**0**	**0**	**782**	**150**	**0**	**0**	**0**	**833**	**0**	**178**

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Vista del Norte)			Southbound (Vista del Norte)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	94	761	0	0	1,371	519	0	0	0	155	0	47
Background Traffic Growth	2	15	0	0	165	62	0	0	0	16	0	5
Subtotal	96	776	0	0	1,536	581	0	0	0	171	0	52
Vista del Norte Industrial Park Trips	0	0	0	0	0	0	0	0	0	0	0	0
Agave Subdivision Trips (31 Lots)	5	0	0	0	0	20	0	0	0	10	0	5
Subtotal (NO BUILD - P.M.)	***101***	***776***	***0***	***0***	***1,536***	***601***	***0***	***0***	***0***	***181***	***0***	***57***
Percent Commercial Trips Generated(Entering)	*30.00%*	*19.80%*	*0.00%*	*0.00%*	*0.00%*	*13.32%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*24.90%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*30.00%*	*0.00%*	*24.90%*
Tota Trips Generated	90	59	0	0	76	40	0	0	0	92	0	76
Subtotal PM Pk Hr. BUILD Volumes	**191**	**835**	**0**	**0**	**1,512**	**641**	**0**	**0**	**0**	**273**	**0**	**133**
Pass-by Trip Adjustments	*26*	*-26*	*0*	*0*	*-11*	*0*	*0*	*0*	*0*	*26*	*0*	*13*
Total PM Peak Hour BUILD Volumes	**217**	**809**	**0**	**0**	**1,601**	**641**	**0**	**0**	**0**	**299**	**0**	**146**

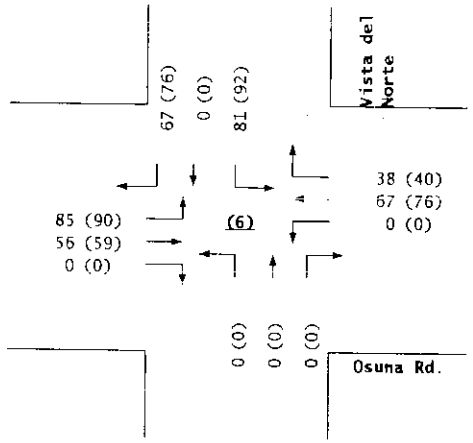
	Entering	Exiting		
Number of Commercial Trips Generated	282	271	A.M.	100% Commercial Development
	299	306	P.M.	

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Vista del Norte)			Southbound (Vista del Norte)		
2006 AM Peak Hr. Volumes	21	1183	0	0	638	91	0	0	0	665	0	96
2006 PM Peak Hr. Volumes	94	761	0	0	1,371	519	0	0	0	155	0	47

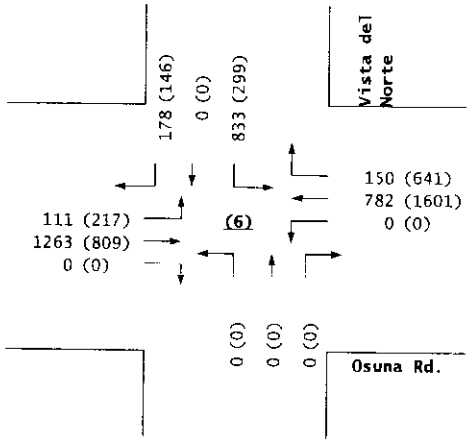
2008
NO BUILD



Trips



2008
BUILD



Osuna Rd. / Vista del Norte

Vista del Norte Commercial Development (Osuna Rd. / Vista del Norte)

Projected Turning Movements Worksheet

Vista del Norte / Las Lomitas

INTERSECTION: E-W Street: **Vista del Norte** (7)

N-S Street: **Las Lomitas**

Year of Existing Counts 2006

Implementation Year **2008**

	Eastbound (Vista del Norte)			Westbound (Vista del Norte)			Northbound (Las Lomitas)			Southbound (Las Lomitas)		
Growth Rates	5.00%			5.00%			5.00%			5.00%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	32	84	0	0	15	62	0	0	0	160	0	13
Background Traffic Growth	3	8	0	0	2	6	0	0	0	16	0	1
Subtotal (NO BUILD - A.M.)	***35***	***92***	***0***	***0***	***17***	***68***	***0***	***0***	***0***	***176***	***0***	***14***
Percent Commercial Trips Generated(Entering)	*0.00%*	*2.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*1.51%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*2.00%*	*1.51%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	6	0	0	5	4	0	0	0	4	0	0
Total AM Peak Hour BUILD Volumes	**35**	**98**	**0**	**0**	**22**	**72**	**0**	**0**	**0**	**180**	**0**	**14**

	Eastbound (Vista del Norte)			Westbound (Vista del Norte)			Northbound (Las Lomitas)			Southbound (Las Lomitas)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	15	32	0	0	91	180	0	0	0	84	0	51
Background Traffic Growth	2	3	0	0	9	18	0	0	0	8	0	5
Subtotal (NO BUILD - P.M.)	***17***	***35***	***0***	***0***	***100***	***198***	***0***	***0***	***0***	***92***	***0***	***56***
Percent Commercial Trips Generated(Entering)	*0.00%*	*2.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*1.51%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*2.00%*	*1.51%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	6	0	0	6	5	0	0	0	5	0	0
Total PM Peak Hour BUILD Volumes	**17**	**41**	**0**	**0**	**106**	**203**	**0**	**0**	**0**	**97**	**0**	**56**

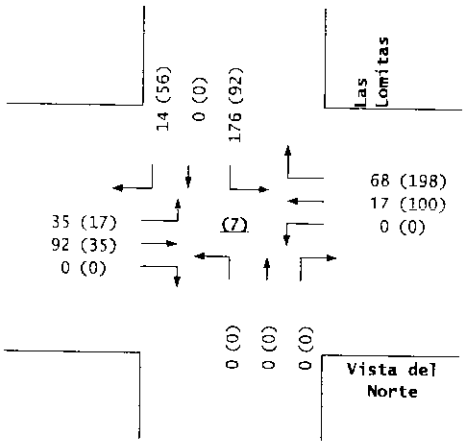
	Entering	Exiting		
Number of Commercial Trips Generated	**282**	**271**	A.M.	100% Commercial Development
	299	**306**	P.M.	

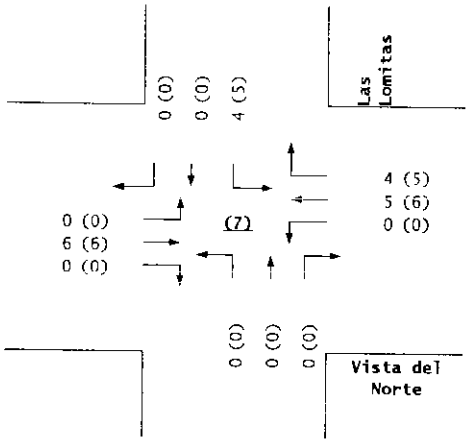
	Eastbound (Vista del Norte)			Westbound (Vista del Norte)			Northbound (Las Lomitas)			Southbound (Las Lomitas)		
2006 AM Peak Hr. Volumes	32	84	0	0	15	62	0	0	0	160	0	13
2006 PM Peak Hr. Volumes	15	32	0	0	91	180	0	0	0	84	0	51

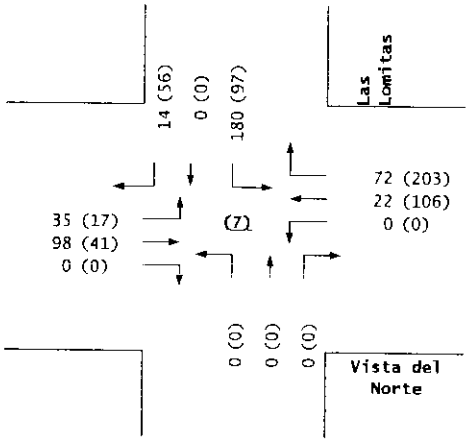
2008
NO BUILD

Trips

2008
BUILD







Vista del Norte / Las Lomitas

Vista del Norte Commercial Development (Osuna Rd. / Vista del Norte)

Projected Turning Movements Worksheet

El Pueblo Rd. / Las Lomitas Dr.

INTERSECTION: E-W Street: **El Pueblo Rd.** (8)

N-S Street: **Las Lomitas Dr.**

Year of Existing Counts 2006

Implementation Year **2008**

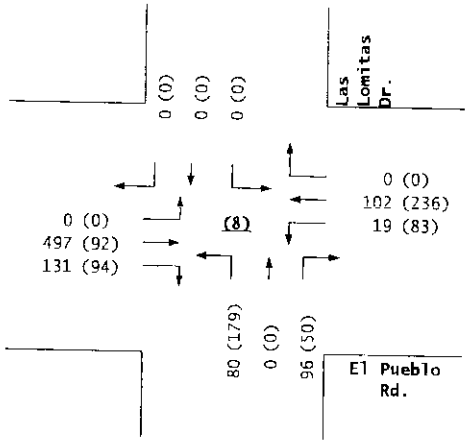
	Eastbound (El Pueblo Rd.)			Westbound (El Pueblo Rd.)			Northbound (Las Lomitas Dr.)			Southbound (Las Lomitas Dr.)		
Growth Rates	5.00%			5.00%			5.00%			5.00%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	377	119	17	77	0	73	0	86	0	0	0
Background Traffic Growth	0	38	12	2	8	0	7	0	9	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***497***	***131***	***19***	***102***	***0***	***80***	***0***	***96***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.30%*	*0.10%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.30%*	*0.00%*	*0.10%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	1	0	0	0	1	0	0	0	0	0
Total AM Peak Hour BUILD Volumes	**0**	**497**	**132**	**19**	**102**	**0**	**81**	**0**	**96**	**0**	**0**	**0**

	Eastbound (El Pueblo Rd.)			Westbound (El Pueblo Rd.)			Northbound (Las Lomitas Dr.)			Southbound (Las Lomitas Dr.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	64	85	74	141	0	163	0	45	0	0	0
Background Traffic Growth	0	6	9	7	14	0	16	0	5	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***92***	***94***	***83***	***236***	***0***	***179***	***0***	***50***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.30%*	*0.10%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.30%*	*0.00%*	*0.10%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	1	0	0	0	1	0	0	0	0	0
Total PM Peak Hour BUILD Volumes	**0**	**92**	**95**	**83**	**236**	**0**	**180**	**0**	**50**	**0**	**0**	**0**

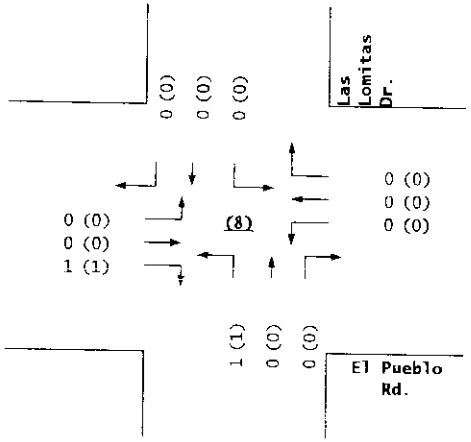
	Entering	Exiting		
Number of Commercial Trips Generated	**282**	**271**	A.M.	100% Commercial Development
	299	**306**	P.M.	

	Eastbound (El Pueblo Rd.)			Westbound (El Pueblo Rd.)			Northbound (Las Lomitas Dr.)			Southbound (Las Lomitas Dr.)		
2006 AM Peak Hr. Volumes	0	377	119	17	77	0	73	0	86	0	0	0
2006 PM Peak Hr. Volumes	0	64	85	74	141	0	163	0	45	0	0	0

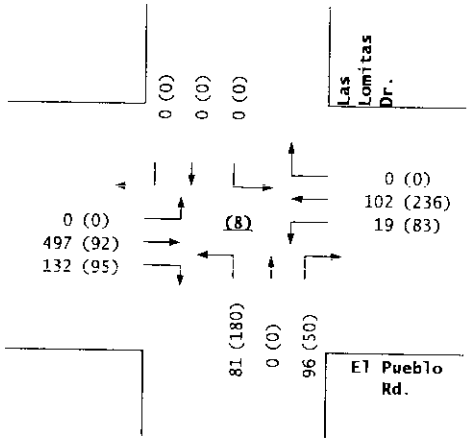
2008
NO BUILD



Trips



2008
BUILD



El Pueblo Rd. / Las Lomitas Dr.

Vista del Norte Commercial Development (Osuna Rd. / Vista del Norte)

Projected Turning Movements Worksheet

Osuna Rd. / Driveway "A"

INTERSECTION: E-W Street: **Osuna Rd.** (9)

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

Year of Existing Counts 2006

Implementation Year **2008**

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Driveway "A")			Southbound (Driveway "A")		
Growth Rates	6.00%			6.00%			5.00%			5.00%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	1,848	0	0	729	0	0	0	0	0	0	0
Background Traffic Growth	0	222	0	0	87	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***2,070***	***0***	***0***	***816***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	***19.80%***	*0.00%*	*0.00%*	*0.00%*	***13.32%***	***30.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	***30.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***13.32%***	*0.00%*	***24.90%***
Total Trips Generated	56	81	0	0	38	85	0	0	0	36	0	67
Total AM Peak Hour BUILD Volumes	**56**	**2,151**	**0**	**0**	**854**	**85**	**0**	**0**	**0**	**36**	**0**	**67**

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Driveway "A")			Southbound (Driveway "A")		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	916	0	0	1,890	0	0	0	0	0	0	0
Background Traffic Growth	0	110	0	0	227	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***1,026***	***0***	***0***	***2,117***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	***19.80%***	*0.00%*	*0.00%*	*0.00%*	***13.32%***	***30.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	***30.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***13.32%***	*0.00%*	***24.90%***
Total Trips Generated	59	92	0	0	40	90	0	0	0	41	0	76
Subtotal PM Pk Hr. BUILD Volumes	**59**	**1,118**	**0**	**0**	**2,157**	**90**	**0**	**0**	**0**	**41**	**0**	**76**
Pass-by Trip Adjustments	*16*	*-16*	*0*	*0*	*-86*	*86*	*0*	*0*	*0*	*17*	*0*	*75*
Total PM Peak Hour BUILD Volumes	**75**	**1,102**	**0**	**0**	**2,071**	**176**	**0**	**0**	**0**	**58**	**0**	**151**

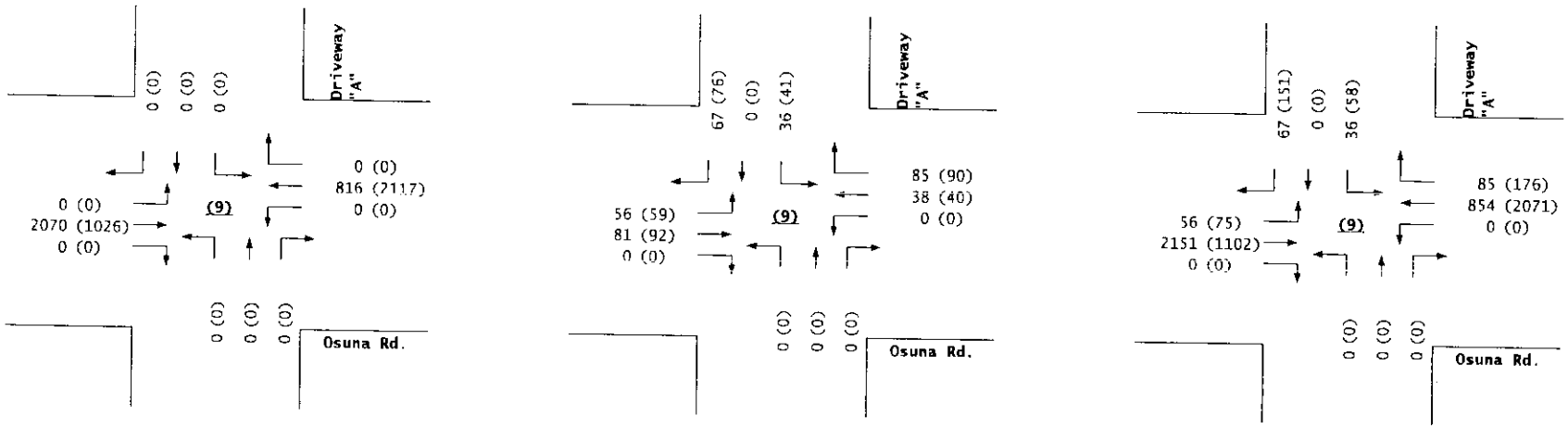
	Entering	Exiting		
Number of Commercial Trips Generated	**282**	**271**	A.M.	100% Commercial Development
	299	**306**	P.M.	

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Driveway "A")			Southbound (Driveway "A")		
2006 AM Peak Hr. Volumes	0	1848	0	0	729	0	0	0	0	0	0	0
2006 PM Peak Hr. Volumes	0	916	0	0	1,890	0	0	0	0	0	0	0

2008
NO BUILD

Trips

2008
BUILD



Osuna Rd. / Driveway "A"

Vista del Norte Commercial Development (Osuna Rd. / Vista del Norte)

Projected Turning Movements Worksheet

Driveway "B" / Vista del Norte

INTERSECTION: E-W Street: **Driveway "B"** (10)

N-S Street: **Vista del Norte**

Year of Existing Counts 2006

Implementation Year **2008**

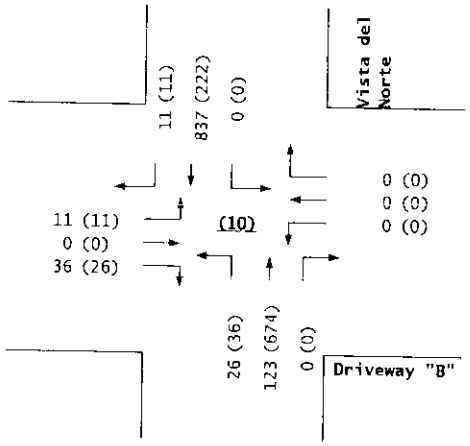
	Eastbound (Driveway "B")			Westbound (Driveway "B")			Northbound (Vista del Norte)			Southbound (Vista del Norte)		
Growth Rates	5.00%			5.00%			5.00%			5.00%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	5	0	10	0	0	0	10	112	0	0	761	5
Background Traffic Growth	1	0	1	0	0	0	1	11	0	0	76	1
Subtotal	6	0	11	0	0	0	11	123	0	0	837	6
Vista del Norte Industrial Park Trips	0	0	0	0	0	0	0	0	0	0	0	0
Agave Subdivision Trips (31 Lots)	5	0	25	0	0	0	15	0	0	0	0	5
Subtotal (NO BUILD - A.M.)	***11***	***0***	***36***	***0***	***0***	***0***	***26***	***123***	***0***	***0***	***837***	***11***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*3.32%*	*40.00%*	*6.88%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*54.90%*	*0.00%*	*6.88%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	149	0	19	0	9	113	19	0	0
Total AM Peak Hour BUILD Volumes	**11**	**0**	**36**	**149**	**0**	**19**	**26**	**132**	**113**	**19**	**837**	**11**

	Eastbound (Driveway "B")			Westbound (Driveway "B")			Northbound (Vista del Norte)			Southbound (Vista del Norte)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	5	0	10	0	0	0	10	613	0	0	202	5
Background Traffic Growth	1	0	1	0	0	0	1	61	0	0	20	1
Subtotal	6	0	11	0	0	0	11	674	0	0	222	6
Vista del Norte Industrial Park Trips	0	0	0	0	0	0	0	0	0	0	0	0
Agave Subdivision Trips (31 Lots)	5	0	15	0	0	0	25	0	0	0	0	5
Subtotal (NO BUILD - P.M.)	***11***	***0***	***26***	***0***	***0***	***0***	***36***	***674***	***0***	***0***	***222***	***11***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*3.32%*	*40.00%*	*6.88%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*54.90%*	*0.00%*	*1.88%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	168	0	6	0	10	120	21	0	0
Subtotal PM Pk Hr. BUILD Volumes	**11**	**0**	**26**	**168**	**0**	**6**	**36**	**684**	**120**	**21**	**222**	**11**
Pass-by Trip Adjustments	*0*	*0*	*0*	*35*	*0*	*0*	*0*	*0*	*20*	*0*	*4*	*0*
Total PM Peak Hour BUILD Volumes	**11**	**0**	**26**	**203**	**0**	**6**	**36**	**684**	**140**	**21**	**226**	**11**

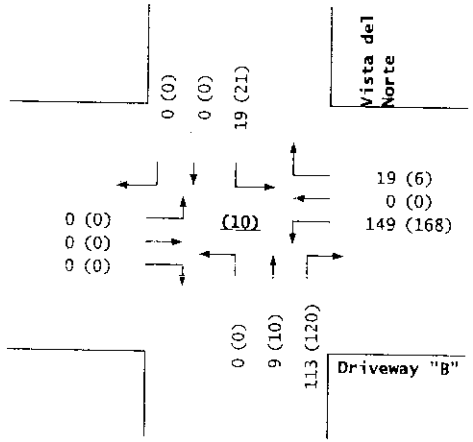
	Entering	Exiting		
Number of Commercial Trips Generated	**282**	**271**	A.M.	100% Commercial Development
	299	**306**	P.M.	

	Eastbound (Driveway "B")			Westbound (Driveway "B")			Northbound (Vista del Norte)			Southbound (Vista del Norte)		
2006 AM Peak Hr. Volumes	5	0	10	0	0	0	10	112	0	0	761	5
2006 PM Peak Hr. Volumes	5	0	10	0	0	0	10	613	0	0	202	5

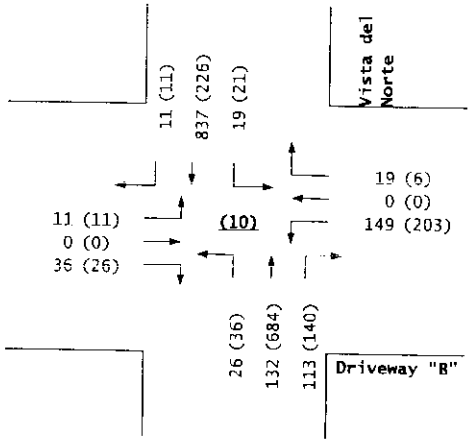
2008
NO BUILD



Trips



2008
BUILD



Driveway "B" / Vista del Norte

Vista del Norte Commercial Development (Osuna Rd. / Vista del Norte)

Projected Turning Movements Worksheet

Driveway "C" / Vista del Norte

INTERSECTION: E-W Street: **Driveway "C"** (11)

N-S Street: **Vista del Norte**

Year of Existing Counts 2006

Implementation Year **2008**

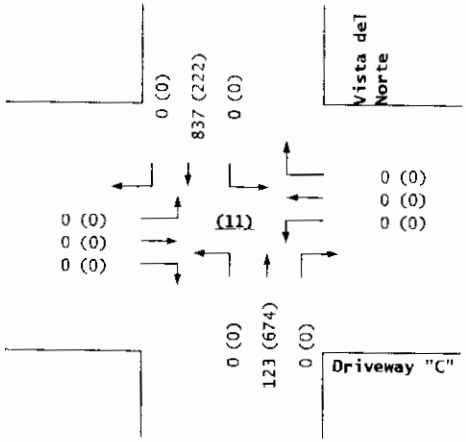
Growth Rates	5.00%			5.00%			5.00%			5.00%		
	Eastbound (Driveway "C")			Westbound (Driveway "C")			Northbound (Vista del Norte)			Southbound (Vista del Norte)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	112	0	0	761	0
Background Traffic Growth	0	0	0	0	0	0	0	11	0	0	76	0
Subtotal (NO BUILD - A.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***123***	***0***	***0***	***837***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*3.32%*	*0.00%*	*6.88%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*5.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	0	0	14	0	0	9	0	19	0
Total AM Peak Hour BUILD Volumes	**0**	**0**	**0**	**0**	**0**	**14**	**0**	**123**	**9**	**0**	**856**	**0**

	Eastbound (Driveway "C")			Westbound (Driveway "C")			Northbound (Vista del Norte)			Southbound (Vista del Norte)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	0	0	0	0	0	0	613	0	0	202	0
Background Traffic Growth	0	0	0	0	0	0	0	61	0	0	20	0
Subtotal (NO BUILD - P.M.)	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***674***	***0***	***0***	***222***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*3.32%*	*0.00%*	*5.88%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*5.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	0	0	15	0	0	10	0	21	0
Subtotal PM Pk Hr. BUILD Volumes	**0**	**0**	**0**	**0**	**0**	**15**	**0**	**674**	**10**	**0**	**243**	**0**
Pass-by Trip Adjustments	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*6*	*0*	*0*	*0*
Total PM Peak Hour BUILD Volumes	**0**	**0**	**0**	**0**	**0**	**15**	**0**	**674**	**16**	**0**	**243**	**0**

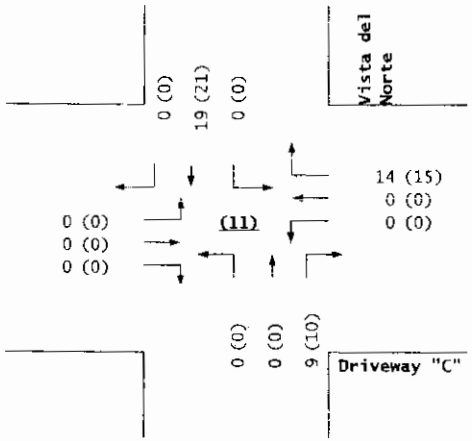
	Entering	Exiting		
Number of Commercial Trips Generated	**282**	**271**	A.M.	100% Commercial Development
	299	**306**	P.M.	

	Eastbound (Driveway "C")			Westbound (Driveway "C")			Northbound (Vista del Norte)			Southbound (Vista del Norte)		
2006 AM Peak Hr. Volumes	0	0	0	0	0	0	0	112	0	0	761	0
2006 PM Peak Hr. Volumes	0	0	0	0	0	0	0	613	0	0	202	0

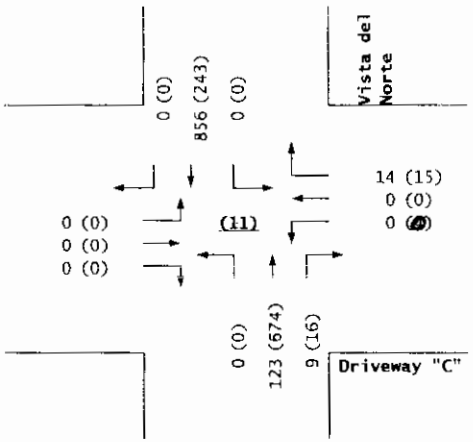
2008
NO BUILD



Trips



2008
BUILD



Driveway "C" / Vista del Norte

Queueing Analysis Summary Sheet

Project: Vista del Norte Commercial Development (Osuna Rd. / Vista del Norte)
Intersection: **Osuna Rd. / Edith Blvd.**

2008

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*	*27*	*225*	*2*	*819*	*Cont*	*0*	*225*	*0*
AM NO BUILD Queue	1	29	50	2	893	500	0	245	275
AM BUILD Queue	**1**	**29**	**50**	**2**	**1,004**	**550**	**0**	**245**	**275**
Existing Lane Length	*1*	*45*	*225*	*2*	*431*	*Cont*	*0*	*116*	*0*
PM NO BUILD Queue	1	49	100	2	470	**375**	0	126	200
PM BUILD Queue	**1**	**49**	**100**	**2**	**588**	**450**	**0**	**126**	**200**

Westbound Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	*1*	*152*	*325*	*2*	*361*	*Cont*	*0*	*64*	*0*
AM NO BUILD Queue	1	157	200	2	372	250	0	66	100
AM BUILD Queue	**1**	**177**	**225**	**2**	**479**	**300**	**0**	**75**	**125**
Existing Lane Length	*1*	*155*	*325*	*2*	*971*	*Cont*	*0*	*152*	*0*
PM NO BUILD Queue	1	160	**250**	2	1,000	**675**	0	157	250
PM BUILD Queue	**1**	**182**	**275**	**2**	**1,120**	**750**	**0**	**167**	**250**

Northbound Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	*1*	*144*	*225*	*1*	*214*	*Cont*	*1*	*142*	*500+*
AM NO BUILD Queue	1	153	200	1	227	275	1	151	200
AM BUILD Queue	**1**	**153**	**200**	**1**	**227**	**275**	**1**	**171**	**225**
Existing Lane Length	*1*	*278*	*225*	*1*	*437*	*Cont*	*1*	*150*	*500+*
PM NO BUILD Queue	1	295	400	1	463	600	1	159	**250**
PM BUILD Queue	**1**	**295**	**400**	**1**	**463**	**600**	**1**	**181**	**275**

Southbound Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	*1*	*164*	*90*	*1*	*347*	*Cont*	*0*	*241*	*0*
AM NO BUILD Queue	1	179	225	1	378	400	0	263	300
AM BUILD Queue	**1**	**188**	**225**	**1**	**378**	**400**	**0**	**263**	**300**
Existing Lane Length	*1*	*101*	*90*	*1*	*425*	*Cont*	*0*	*52*	*0*
PM NO BUILD Queue	1	110	**175**	1	463	600	0	57	125
PM BUILD Queue	**1**	**120**	**200**	**1**	**463**	**600**	**0**	**57**	**125**

	AM	PM
Cycle Length:	100	130

SIGNALIZED INTERSECTION
PLANNING APPLICATION WORKSHEET

Intersection: **Osuna Rd. / Edith Blvd.** Date: 2-May-06
Analyst: TOB Time Period Analyzed: **AM** Peak Hr.
Project: Vista del Norte Commercial Development (Osuna Rd. / Vista del City / State: Albuquerque, NM
Condition: **2008 NO BUILD**

Edith Blvd.
N-S STREET

SB TOTAL: 820
263 RIGHT
378 THRU
179 LEFT

TR? Y
R 0 | T 1 | L 1

66 RIGHT
372 THRU
157 LEFT
595 WB TOTAL

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

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

29 LEFT
893 THRU
245 RIGHT
1,167 EB TOTAL

1 L | 1 T | 1 R
TR? N

Osuna Rd.
E-W STREET
153 LEFT
227 THRU
151 RIGHT
531 NB TOTAL

EB LT =	29	MAXIMUM SUM OF CRITICAL VALUES	CAPACITY LEVEL	NB LT =	153
WB TH =	219			SB TH =	641
	248	0 TO 1,200	UNDER		794 *
		1,201 TO 1,400	NEAR		
WB LT =	157	>1,400	OVER	SB LT =	179
EB TH =	569			NB TH =	227
	726 *				406

726 (E-W CRITICAL) + 794 (N-S CRITICAL) = 1,520 STATUS? ***O V E R***

)TES: Mitigated Geometry (2010)

SIGNALIZED INTERSECTION
PLANNING APPLICATION WORKSHEET

Intersection: **Osuna Rd. / Edith Blvd.** Date: 2-May-06
Analyst: TOB Time Period Analyzed: **AM** Peak Hr.
Project: Vista del Norte Commercial Development (Osuna Rd. / Vista del City / State: Albuquerque, NM
Condition: **2008 BUILD**

Edith Blvd.
N-S STREET

SB TOTAL: 829
263 RIGHT
188 LEFT
378 THRU

TR? Y
R T L
0 1 1

75 RIGHT
479 THRU
177 LEFT
731 WB TOTAL

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

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

1 L | 1 T | 1 R
TR? N

Osuna Rd.
E-W STREET

1,278 EB TOTAL
29 LEFT
1,004 THRU
245 RIGHT

153 LEFT
227 THRU
171 RIGHT
551 NB TOTAL

EB LT =	29	MAXIMUM SUM OF CRITICAL VALUES	CAPACITY LEVEL	NB LT =	153
WB TH =	277			SB TH =	641
	306				794 *
		0 TO 1,200	UNDER		
		1,201 TO 1,400	NEAR		
		>1,400	OVER		
WB LT =	177			SB LT =	188
EB TH =	625			NB TH =	227
	802 *				415

802 (E-W CRITICAL) + 794 (N-S CRITICAL) = 1,596 STATUS? ***O V E R***

NOTES: Mitigated Geometry (2010)

SIGNALIZED INTERSECTION
PLANNING APPLICATION WORKSHEET

Intersection: **Osuna Rd. / Edith Blvd.**
Date: 2-May-06
Analyst: TOB
Time Period Analyzed: **PM** Peak Hr.
Project: Vista del Norte Commercial Development (Osuna Rd. / Vista del City / State: Albuquerque, NM
Condition: **2008 NO BUILD**

Edith Blvd.
N-S STREET

SB TOTAL: 630
57 RIGHT
463 THRU
110 LEFT

TR? Y
R 0 | T 1 | L 1

157 RIGHT
1,000 THRU
160 LEFT
1,317 WB TOTAL

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

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

49 LEFT
645 EB TOTAL
470 THRU
126 RIGHT

1 L | 1 T | 1 R
TR? N

Osuna Rd.
E-W STREET
295 LEFT
463 THRU
159 RIGHT
917 NB TOTAL

EB LT =	49	MAXIMUM SUM OF CRITICAL VALUES	CAPACITY LEVEL	NB LT =	295
WB TH =	579			SB TH =	520
	628 *	0 TO 1,200	UNDER		815 *
		1,201 TO 1,400	NEAR		
WB LT =	160	>1,400	OVER	SB LT =	110
EB TH =	298			NB TH =	463
	458				573

628 (E-W CRITICAL) + 815 (N-S CRITICAL) = 1,443 STATUS? ***O V E R***

NOTES: Mitigated Geometry (2010)

SIGNALIZED INTERSECTION
PLANNING APPLICATION WORKSHEET

Intersection: **Osuna Rd. / Edith Blvd.**
Date: 2-May-06
Analyst: TOB
Time Period Analyzed: **PM** Peak Hr.
Project: Vista del Norte Commercial Development (Osuna Rd. / Vista del City / State: Albuquerque, NM
Condition: **2008 BUILD**

Edith Blvd.
N-S STREET

SB TOTAL: 640
57 RIGHT
463 THRU
120 LEFT

TR? Y

R	T	L
0	1	1

167 RIGHT
1,120 THRU
182 LEFT
1,469 WB TOTAL

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

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

763 EB TOTAL
49 LEFT
588 THRU
126 RIGHT

L	T	R
1	1	1

TR? N

Osuna Rd.
E-W STREET

295 LEFT
463 THRU
181 RIGHT
939 NB TOTAL

EB LT =	49	NB LT =	295
WB TH =	644	SB TH =	520
	693 *		815 *
WB LT =	182	SB LT =	120
EB TH =	357	NB TH =	463
	539		583

MAXIMUM SUM OF CRITICAL VALUES	CAPACITY LEVEL
0 TO 1,200	UNDER
1,201 TO 1,400	NEAR
>1,400	OVER

693 E-W CRITICAL + 815 N-S CRITICAL = 1,508

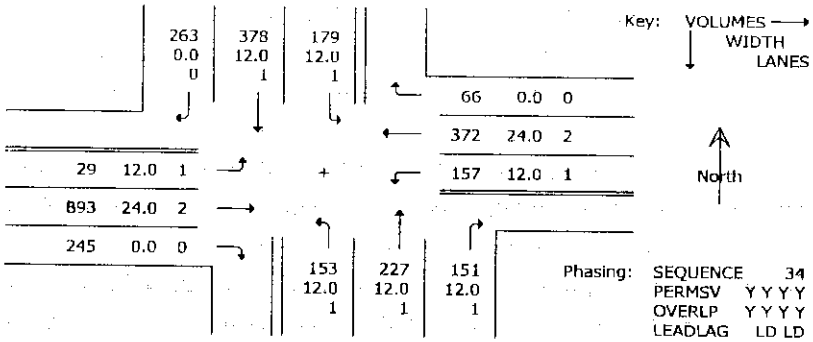
STATUS? ***O V E R***

NOTES: Mitigated Geometry (2010)

Vista del Norte Commercial Development (Osuna / VdN) 04/15/06
Analysis of Osuna Rd. / Edith Blvd. - [2_08ANX] 15:09:28
2008 AM Peak Hour NO BUILD Conditions

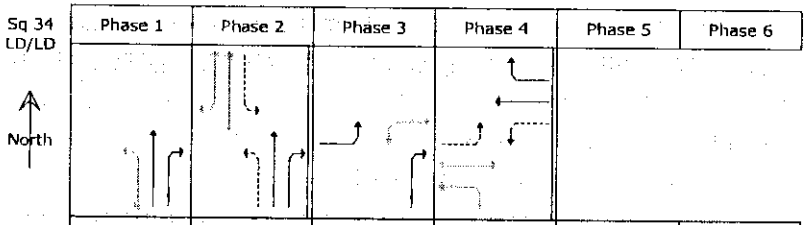
SIGNAL2000/TEAPAC Ver 3.0.07 - HCM Calc Worksheet

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	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.90	.90	.90	.80	.80	.80	.81	.81	.81	.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	

Sq 34 LD/LD



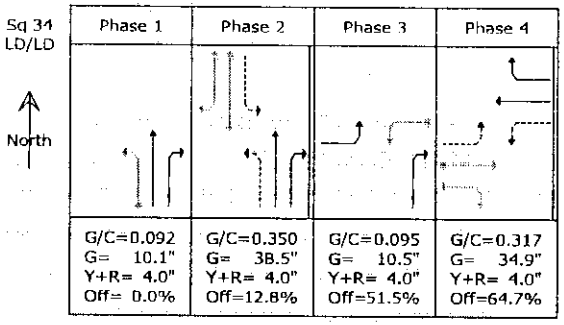
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
C=110"	G= 10.1" Y+R= 4.0"	G= 38.5" Y+R= 4.0"	G= 10.5" Y+R= 4.0"	G= 34.9" Y+R= 4.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"

Vista del Norte Commercial Development (Osuna / VdN) 04/15/06
Analysis of Osuna Rd. / Edith Blvd. - [2_08ANX] 15:09:28
2008 AM Peak Hour NO BUILD Conditions

SIGNAL2000/TEAPAC Ver 3.0.07 - Capacity Analysis Summary

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.89 Vehicle Delay 88.9 Level of Service F

Sq 34 LD/LD



Phase 1	Phase 2	Phase 3	Phase 4
G/C=0.092	G/C=0.350	G/C=0.095	G/C=0.317
G= 10.1"	G= 38.5"	G= 10.5"	G= 34.9"
Y+R= 4.0"	Y+R= 4.0"	Y+R= 4.0"	Y+R= 4.0"
Off= 0.0%	Off=12.8%	Off=51.5%	Off=64.7%

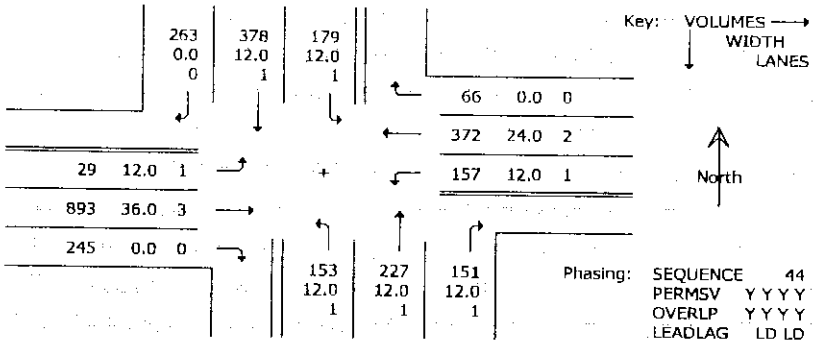
C=110 sec G= 94.0 sec = 85.5% Y=16.0 sec = 14.5% Ped= 0.0 sec = 0.0%

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								115.9	F	
RT+TH	12/1	0.484	0.350	425	595	712	1.197	139.9	*F	1473 ft
LT	12/1	0.312	0.350	251	371	199	0.534	30.0	C	235 ft
NB Approach								25.2	C+	
RT	12/1	0.261	0.610	876	939	186	0.198	9.6	A	122 ft
TH	12/1	0.280	0.479	753	866	280	0.323	17.9	B	246 ft
LT	12/1	0.113	0.092	163	216	189	0.844	51.2	*D	277 ft
WB Approach								36.4	D+	
RT+TH	24/2	0.280	0.317	746	1067	547	0.513	31.1	C	333 ft
LT	12/1	0.117	0.095	166	223	196	0.852	51.5	*D	293 ft
EB Approach								132.2	F	
RT+TH	24/2	0.432	0.317	738	1057	1264	1.196	135.1	*F	1382 ft
LT	12/1	0.000	0.095	276	345	32	0.093	18.1	B	28 ft

Vista del Norte Commercial Development (Osuna / VdN) 04/15/06
Analysis of Osuna Rd. / Edith Blvd. - [2_08AN1] 17:16:08
2008 AM Peak Hour NO BUILD Conditions - ADD EB Thru Lane

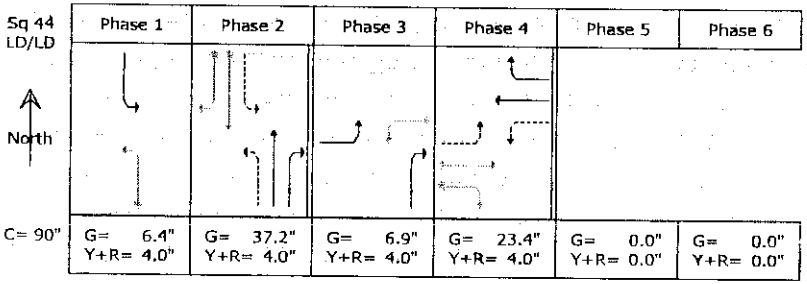
HCM(6th)/ALL WAY/CAP(v/c)/5.0.07/ SCHD Right Worksheet

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	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.90	.90	.90	.80	.80	.80	.81	.81	.81	.90	.90	.90
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, !1	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

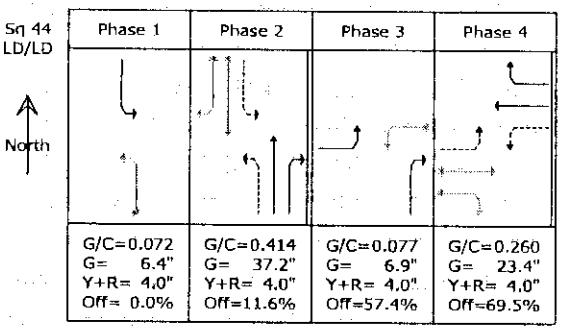


Vista del Norte Commercial Development (Osuna / VdN) 04/15/06
Analysis of Osuna Rd. / Edith Blvd. - [2_08AN1] 17:16:08
2008 AM Peak Hour NO BUILD Conditions - ADD EB Thru Lane

HCM(6th)/TEAPAC(v/c)/5.0.07/ Capacity Analysis Summary

Intersection Averages for Int # 1 - Degree of Saturation (v/c) 0.81 Vehicle Delay 49.3 Level of Service D

Sq 44 LD/LD

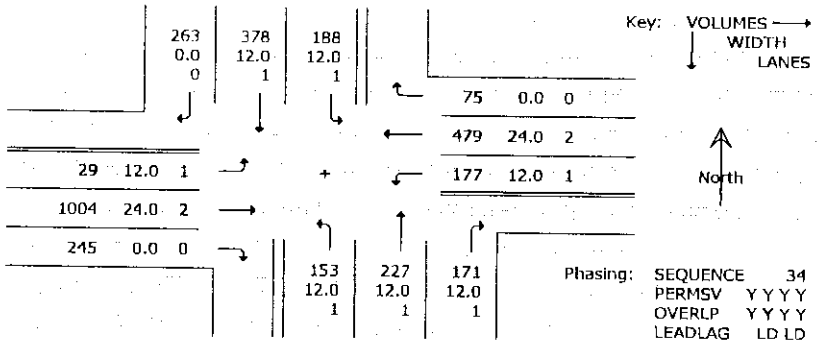


C= 90 sec G= 74.0 sec = 82.2% Y=16.0 sec = 17.8% Ped= 0.0 sec = 0.0%

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								52.4	D	
RT+TH	12/1	0.467	0.414	608	703	712	1.013	63.5	*E+	990 ft
LT	12/1	0.000	0.072	432	495	199	0.402	12.4	B+	147 ft
NB Approach								29.9	C	
RT	12/1	0.206	0.535	760	823	186	0.226	11.2	B+	119 ft
TH	12/1	0.234	0.414	652	749	280	0.374	18.6	B	229 ft
LT	12/1	0.094	0.072	157	200	189	0.931	64.9	*E+	269 ft
WB Approach								39.8	D+	
RT+TH	24/2	0.229	0.260	674	876	547	0.624	30.8	C	305 ft
LT	12/1	0.101	0.077	157	208	196	0.925	64.7	*E+	281 ft
EB Approach								62.5	E+	
RT+TH	36/3	0.307	0.260	995	1241	1264	1.019	63.6	*E+	693 ft
LT	12/1	0.000	0.077	206	264	32	0.121	18.7	B	26 ft

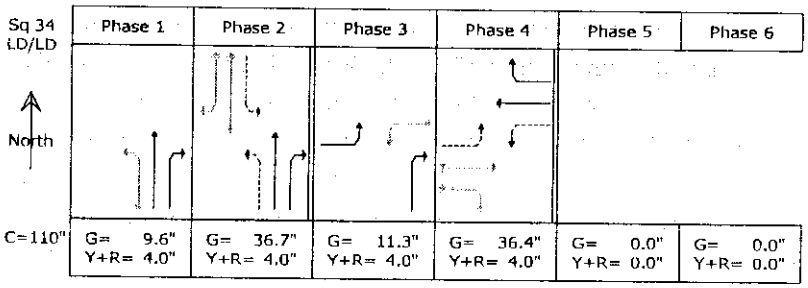
Vista del Norte Commercial Development (Osuna / VdN) 04/15/06
Analysis of Osuna Rd. / Edith Blvd. - [2_08AB] 17:36:08
2008 AM Peak Hour BUILD Conditions

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	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.90	.90	.90	.80	.80	.80	.81	.81	.81	.90	.90	.90
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, tl	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	

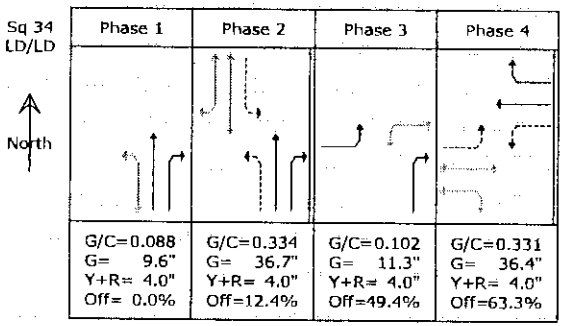
Sq 34
LD/LD



Vista del Norte Commercial Development (Osuna / VdN) 04/15/06
Analysis of Osuna Rd. / Edith Blvd. - [2_08AB] 17:36:08
2008 AM Peak Hour BUILD Conditions

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.94 Vehicle Delay 101.9 Level of Service F

Sq 34
LD/LD



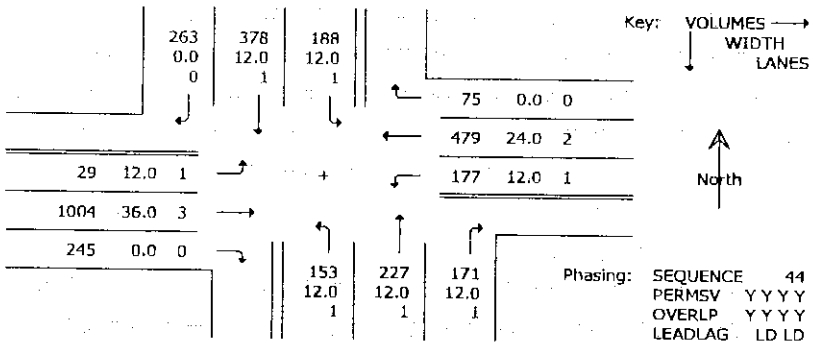
C=110 sec G= 94.0 sec = 85.5% Y=16.0 sec = 14.5% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E (vph)	Adj Volume	v/c	HCM Delay	LS	Queue Model 1
SB Approach								135.5	F	
RT+TH	12/1	0.484	0.334	388	567	712	1.256	165.6	*F	1577 ft
LT	12/1	0.320	0.334	229	350	209	0.589	32.9	C	257 ft
NB Approach								26.8	C+	
RT	12/1	0.270	0.597	851	918	211	0.230	10.5	B+	145 ft
TH	12/1	0.280	0.458	707	829	280	0.338	19.4	B	255 ft
LT	12/1	0.112	0.088	155	210	189	0.871	56.1	*E+	290 ft
WB Approach								40.0	D+	
RT+TH	24/2	0.306	0.331	817	1116	693	0.621	32.1	C	433 ft
LT	12/1	0.139	0.102	178	235	221	0.913	64.7	*E+	354 ft
EB Approach								155.9	F	
RT+TH	24/2	0.461	0.331	809	1106	1388	1.255	159.1	*F	1610 ft
LT	12/1	0.002	0.102	255	315	32	0.102	17.6	B	27 ft

Vista del Norte Commercial Development (Osuna / VdN) 04/15/06
Analysis of Osuna Rd. / Edith Blvd. - [2_08AB1] 17:39:23
2008 AM Peak Hour BUILD Conditions - ADD EB Thru Lane

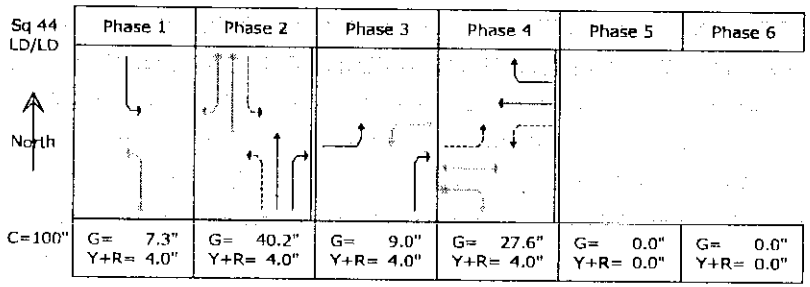
SIGNAL 2000 (TRANSYT-7F Version 8.1) Intersection Analysis

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	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.90	.90	.90	.80	.80	.80	.81	.81	.81	.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	

Sq 44 LD/LD

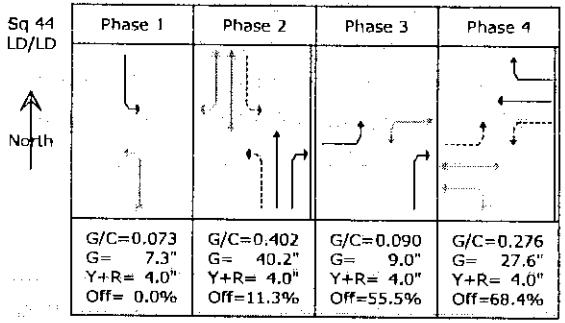


Vista del Norte Commercial Development (Osuna / VdN) 04/15/06
Analysis of Osuna Rd. / Edith Blvd. - [2_08AB1] 17:39:23
2008 AM Peak Hour BUILD Conditions - ADD EB Thru Lane

SIGNAL 2000 (TRANSYT-7F Version 8.1) Capacity Analysis Summary

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.86 Vehicle Delay 58.2 Level of Service E+

Sq 44 LD/LD



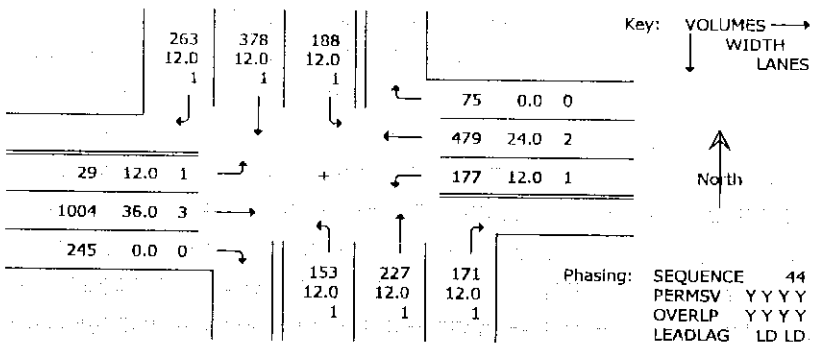
C=100 sec G= 84.0 sec = 84.0% Y=16.0 sec = 16.0% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								62.0	E+	
RT+TH	12/1	0.475	0.402	565	683	712	1.042	75.9	*E	1116 ft
LT	12/1	0.000	0.073	405	478	209	0.437	14.8	B+	178 ft
NB Approach								34.4	C	
RT	12/1	0.244	0.532	743	818	211	0.258	12.9	B+	152 ft
TH	12/1	0.256	0.402	605	727	280	0.385	21.5	C+	257 ft
LT	12/1	0.105	0.073	146	191	189	0.959	77.6	*E	309 ft
WB Approach								46.4	D	
RT+TH	24/2	0.284	0.276	657	931	693	0.744	36.3	D+	443 ft
LT	12/1	0.124	0.090	165	223	221	0.978	78.0	*E	369 ft
EB Approach								74.7	E	
RT+TH	36/3	0.342	0.276	966	1319	1388	1.052	76.0	*E	849 ft
LT	12/1	0.005	0.090	188	246	32	0.130	20.0	C+	28 ft

Vista del Norte Commercial Development (Osuna / VdN) 04/15/06
Analysis of Osuna Rd. / Edith Blvd. - [2_08AB2] 17:41:33
2008 AM Peak Hour BUILD Cond - ADD EB Thru, SB RT Lane

SIGNALIZE/TEAPACK(VOL 1.70.02 - HCM 2000 MAC/SAFE)

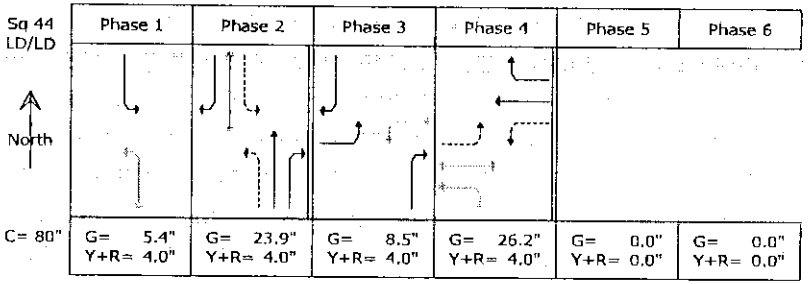
Intersection # 1 - Area Location Type: NONCBD



Phasing: SEQUENCE 44
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	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.90	.90	.90	.80	.80	.80	.81	.81	.81	.90	.90	.90
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, tl	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

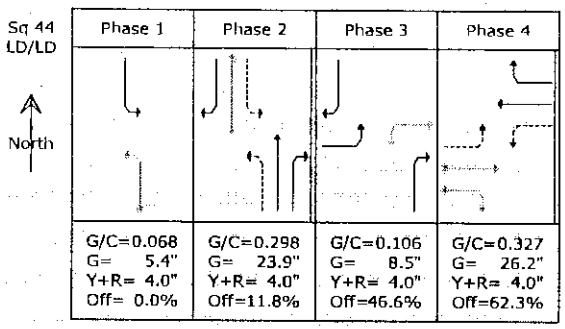


Vista del Norte Commercial Development (Osuna / VdN) 04/15/06
Analysis of Osuna Rd. / Edith Blvd. - [2_08AB2] 17:41:33
2008 AM Peak Hour BUILD Cond - ADD EB Thru, SB RT Lane

SIGNALIZE/TEAPACK(VOL 1.70.02 - Capacity/Analysis Summary)

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.71 Vehicle Delay 27.2 Level of Service C+

Sq 44 LD/LD

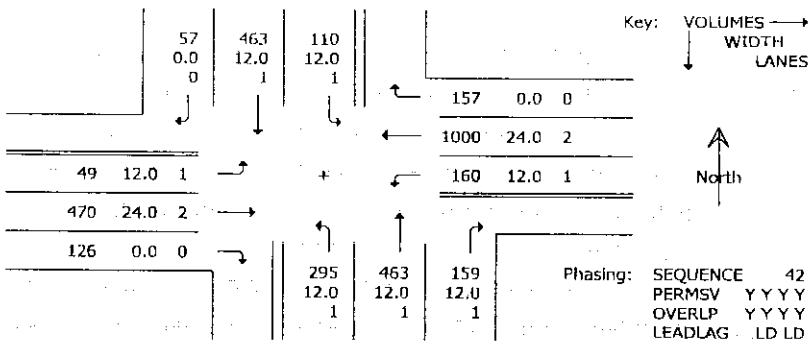


C= 80 sec G= 64.0 sec = 80.0% Y=16.0 sec = 20.0% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								24.3	C+	
RT	12/1	0.255	0.455	630	699	292	0.418	15.1	B	209 ft
TH	12/1	0.290	0.298	438	540	420	0.778	32.8	*C	421 ft
LT	12/1	0.028	0.068	286	350	209	0.597	20.4	C+	182 ft
NB Approach								23.5	C+	
RT	12/1	0.204	0.455	630	699	211	0.302	14.0	B+	143 ft
TH	12/1	0.217	0.298	438	540	280	0.519	24.2	C+	247 ft
LT	12/1	0.066	0.068	193	243	189	0.778	33.1	*C	198 ft
WB Approach								26.0	C+	
RT+TH	24/2	0.249	0.327	987	1105	693	0.627	23.9	C+	328 ft
LT	12/1	0.103	0.106	227	273	221	0.810	32.6	*C	231 ft
EB Approach								31.6	C	
RT+TH	36/3	0.318	0.327	1440	1566	1388	0.886	32.0	*C	555 ft
LT	12/1	0.000	0.106	283	328	32	0.098	12.2	B+	19 ft

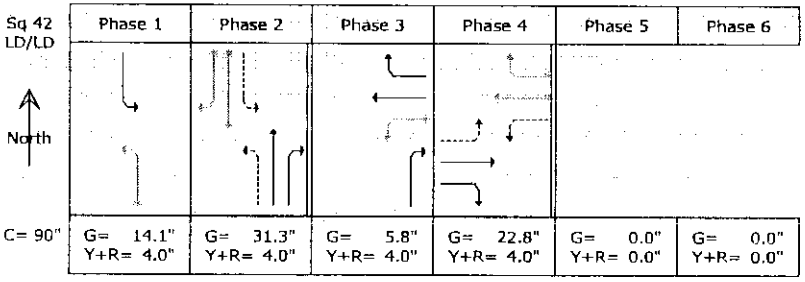
Vista del Norte Commercial Develnpment (Osuna / VdN) 04/15/06
Analysis of Osuna Rd. / Edith Blvd. - [2_08PNX] 17:55:59
2008 PM Peak Hour NO BUILD Conditions

Intersection # 1 - Area Location Type: NONCBD



	SB RT	SB TH	SB LT	W8 RT	W8 TH	W8 LT	NB RT	NB TH	NB LT	EB RT	EB TH	EB LT
Heavy veh, %HV	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.84	.84	.84	.91	.91	.91	.87	.87	.87	.87	.87	.87
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	

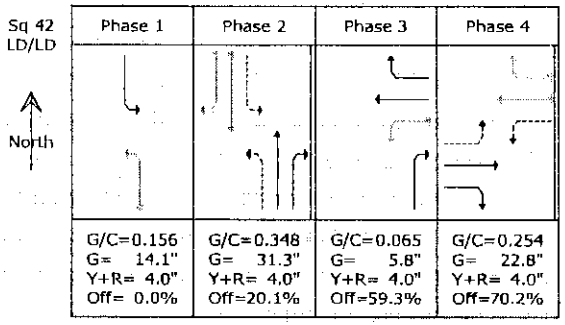
Sq 42
LD/LD



Vista del Norte Commercial Development (Osuna / VdN) 04/15/06
Analysis of Osuna Rd. / Edith Blvd. - [2_08PNX] 17:55:59
2008 PM Peak Hour NO BUILD Conditions

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.89 Vehicle Delay 52.9 Level of Service D

Sq 42
LD/LD



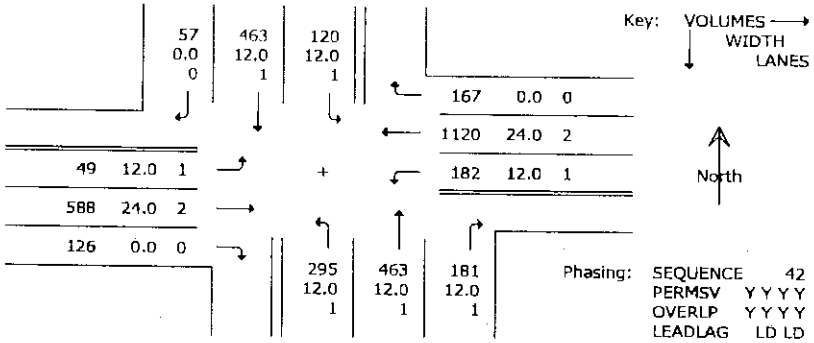
C= 90 sec G= 74.0 sec = 82.2% Y=16.0 sec = 17.8% Ped= 0.0 sec = 0.0%

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								56.6	E+	
RT+TH	12/1	0.404	0.348	505	619	619	1.000	65.5	*E+	861 ft
LT	12/1	0.045	0.156	309	369	131	0.355	14.5	B+	93 ft
NB Approach								42.9	D+	
RT	12/1	0.205	0.457	621	703	183	0.260	15.3	B	135 ft
TH	12/1	0.357	0.348	514	629	532	0.846	37.5	D+	602 ft
LT	12/1	0.196	0.156	280	349	339	0.971	66.3	*E+	483 ft
WB Approach								65.5	E+	
RT+TH	24/2	0.411	0.363	1084	1224	1272	1.039	65.2	*E+	979 ft
LT	12/1	0.088	0.065	140	185	176	0.921	67.5	*E	255 ft
EB Approach								38.8	D+	
RT+TH	24/2	0.265	0.254	641	846	685	0.810	37.5	D+	424 ft
LT	12/1	0.304	0.254	42	67	56	0.700	54.2	D	72 ft

Vista del Norte Commercial Development (Osuna / VdN) 05/02/06
Analysis of Osuna Rd. / Edith Blvd. - [2_08PBX] 21:51:19
2008 PM Peak Hour BUILD Conditions

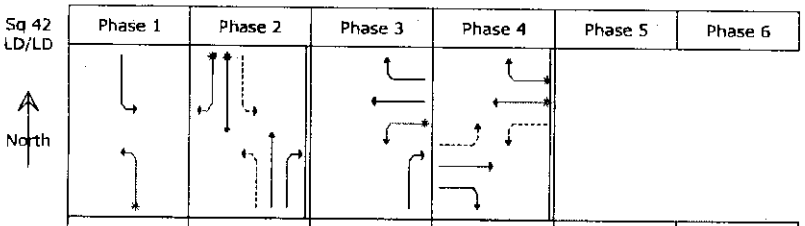
SIGNAL2000/TEAPAC Ver. 5.0.07 © HCM Input Worksheet

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	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.84	.84	.84	.91	.91	.91	.87	.87	.87	.87	.87	.87
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	

Sq 42
LD/LD



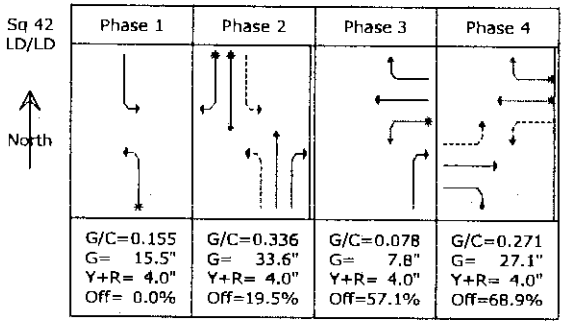
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
C=100"	G= 15.5" Y+R= 4.0"	G= 33.6" Y+R= 4.0"	G= 7.8" Y+R= 4.0"	G= 27.1" Y+R= 4.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"

Vista del Norte Commercial Development (Osuna / VdN) 05/02/06
Analysis of Osuna Rd. / Edith Blvd. - [2_08PBX] 21:51:19
2008 PM Peak Hour BUILD Conditions

SIGNAL2000/TEAPAC Ver. 5.0.07 © Capacity Analysis Summary

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.94 Vehicle Delay 63.8 Level of Service E+

Sq 42
LD/LD



Phase 1	Phase 2	Phase 3	Phase 4
G/C=0.155	G/C=0.336	G/C=0.078	G/C=0.271
G= 15.5"	G= 33.6"	G= 7.8"	G= 27.1"
Y+R= 4.0"	Y+R= 4.0"	Y+R= 4.0"	Y+R= 4.0"
Off= 0.0%	Off=19.5%	Off=57.1%	Off=68.9%

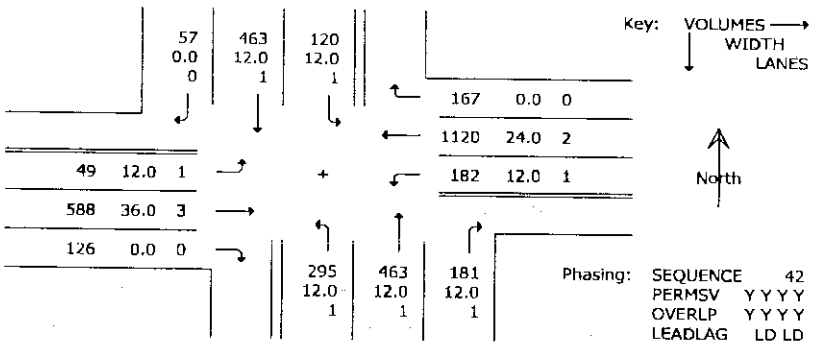
C=100 sec G= 84.0 sec = 84.0% Y=16.0 sec = 16.0% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E (vph)	Adj Volume	v/c	HCM Delay	L S	Queue Model L
SB Approach								67.7	E	
RT+TH	12/1	0.414	0.336	452	598	619	1.035	79.4	*E	979 ft
LT	12/1	0.066	0.155	276	348	143	0.411	17.5	B	120 ft
NB Approach								50.5	D	
RT	12/1	0.243	0.454	600	698	208	0.298	17.5	B	174 ft
TH	12/1	0.369	0.336	461	608	532	0.875	44.7	D+	681 ft
LT	12/1	0.210	0.155	259	338	339	1.003	79.8	*E	558 ft
WB Approach								78.9	E	
RT+TH	24/2	0.455	0.389	1147	1314	1415	1.077	78.9	*E	1222 ft
LT	12/1	0.110	0.078	148	201	200	0.971	79.3	*E	335 ft
EB Approach								49.1	D	
RT+TH	24/2	0.314	0.271	630	909	821	0.903	47.4	D	594 ft
LT	12/1	0.358	0.271	34	58	56	0.778	74.3	E	85 ft

Vista del Norte Commercial Development (Osuna / VdN) 05/02/06
Analysis of Osuna Rd. / Edith Blvd. - [2_08PB1] 21:55:11
2008 PM Peak Hour BUILD Conditions - ADD EB THRU LANE

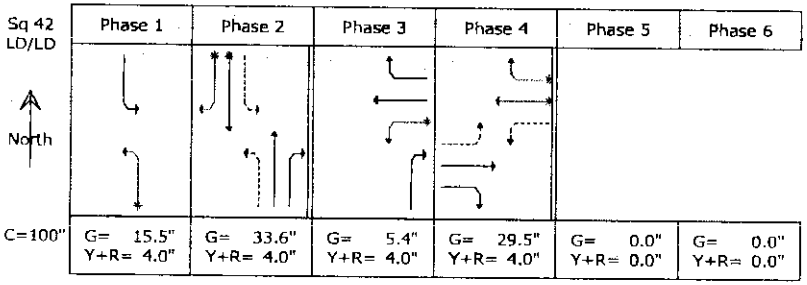
HCM 2000 TEAPACK v6.570/1.1 HCS+ Input Worksheet

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	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.84	.84	.84	.91	.91	.91	.87	.87	.87	.87	.87	.87
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, !1	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 42
LD/LD

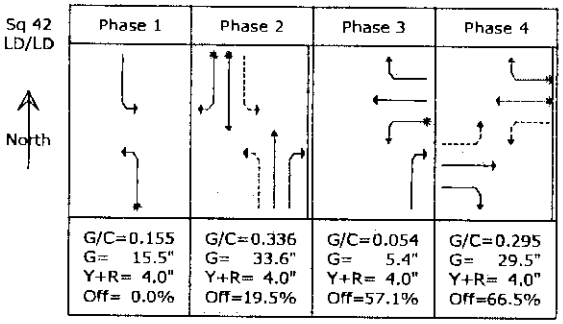


Vista del Norte Commercial Development (Osuna / VdN) 05/02/06
Analysis of Osuna Rd. / Edith Blvd. - [2_08PB1] 21:55:11
2008 PM Peak Hour BUILD Conditions - ADD EB THRU LANE

HCM 2000 TEAPACK v6.570/1.1 Capacity Analysis Summary

Intersection Averages for Int # 1
Degree of Saturation (v/c) 0.88 Vehicle Delay 60.7 Level of Service E+

Sq 42
LD/LD



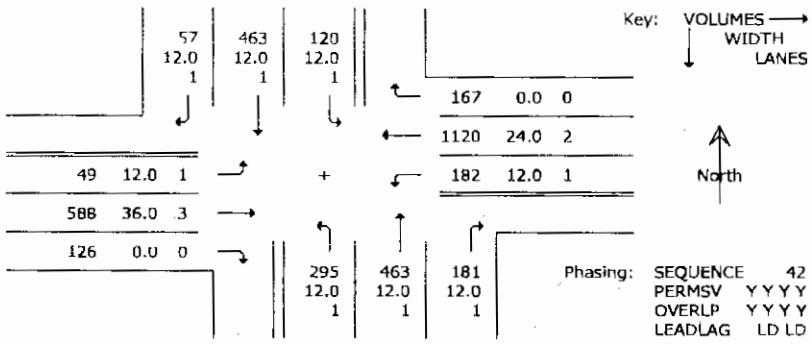
C=100 sec G= 84.0 sec = 84.0% Y=16.0 sec = 16.0% Ped= 0.0 sec = 0.0%

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								67.7	E	
RT+TH	12/1	0.414	0.336	452	598	619	1.035	79.4	*E	979 ft
LT	12/1	0.066	0.155	276	348	143	0.411	17.5	B	120 ft
NB Approach								50.8	D	
RT	12/1	0.243	0.430	557	662	208	0.314	19.0	B	181 ft
TH	12/1	0.369	0.336	461	608	532	0.875	44.7	D+	681 ft
LT	12/1	0.210	0.155	259	338	339	1.003	79.8	*E	558 ft
WB Approach								78.9	E	
RT+TH	24/2	0.455	0.389	1147	1314	1415	1.077	78.9	*E	1222 ft
LT	12/1	0.082	0.054	152	201	200	0.962	79.0	*E	329 ft
EB Approach								33.3	C	
RT+TH	36/3	0.254	0.295	1099	1416	821	0.580	30.6	C	335 ft
LT	12/1	0.381	0.295	37	59	56	0.778	72.9	E	85 ft

Vista del Norte Commercial Development (Osuna / VdN) 05/02/06
Analysis of Osuna Rd. / Edith Blvd. - [2_08PB2] 21:58:42
2008 PM Peak Hour BUILD Conditions - ADD EB THRU, SB RT LANE

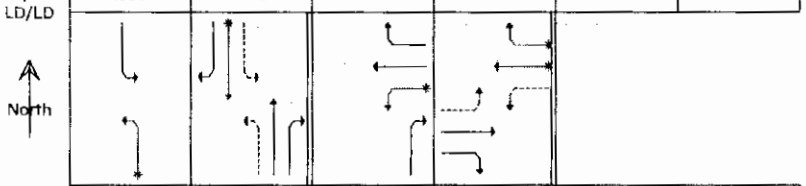
SIGNAL 2000/TEAPAC (Ver. 2.70.07) - HCM Input Worksheet

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	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.84	.84	.84	.91	.91	.91	.87	.87	.87	.87	.87	.87
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, N8		0			0			0			0	
Grade, %G		.0			.0			.0			.0	

Sq 42
LD/LD



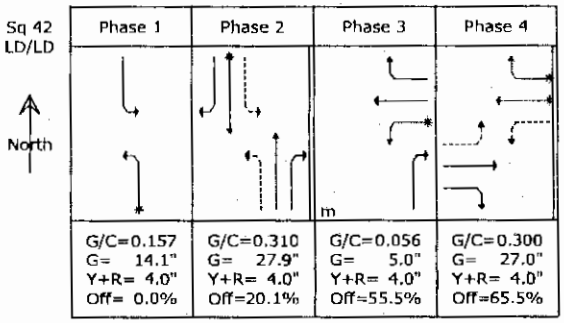
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
C= 90"	G= 14.1" Y+R= 4.0"	G= 27.9" Y+R= 4.0"	G= 5.0" Y+R= 4.0"	G= 27.0" Y+R= 4.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"

Vista del Norte Commercial Development (Osuna / VdN) 05/02/06
Analysis of Osuna Rd. / Edith Blvd. - [2_08PB2] 21:58:42
2008 PM Peak Hour BUILD Conditions - ADD EB THRU, SB RT LANE

SIGNAL 2000/TEAPAC (Ver. 2.70.07) - Capacity Analysis Summary

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.85 Vehicle Delay 51.8 Level of Service D

Sq 42
LD/LD

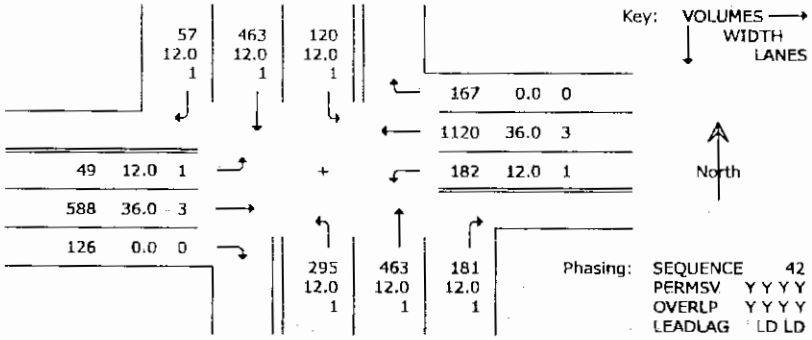


Phase 1	Phase 2	Phase 3	Phase 4
G/C=0.157	G/C=0.310	G/C=0.056	G/C=0.300
G= 14.1"	G= 27.9"	G= 5.0"	G= 27.0"
Y+R= 4.0"	Y+R= 4.0"	Y+R= 4.0"	Y+R= 4.0"
Off= 0.0%	Off=20.1%	Off=55.5%	Off=65.5%

C= 90 sec G= 74.0 sec = 82.2% Y=16.0 sec = 17.8% Ped= 0.0 sec = 0.0%

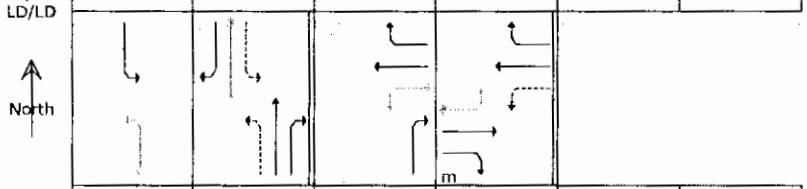
Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								51.9	D	
RT	12/1	0.147	0.310	362	476	68	0.143	22.6	C+	59 ft
TH	12/1	0.366	0.310	435	560	551	0.984	64.7	*E+	758 ft
LT	12/1	0.065	0.157	285	350	143	0.409	16.8	B	111 ft
NB Approach								51.7	D	
RT	12/1	0.220	0.410	537	630	208	0.330	18.5	B	170 ft
TH	12/1	0.357	0.310	435	560	532	0.950	56.5	E+	696 ft
LT	12/1	0.194	0.157	284	350	339	0.969	64.7	*E+	482 ft
WB Approach								64.4	E+	
RT+TH	24/2	0.447	0.400	1233	1352	1415	1.047	64.6	*E+	1086 ft
LT	12/1	0.075	0.056	166	214	200	0.917	62.6	*E+	282 ft
EB Approach								28.7	C	
RT+TH	36/3	0.230	0.300	1233	1440	821	0.570	27.1	C+	302 ft
LT	12/1	0.345	0.300	45	67	56	0.700	51.7	D	71 ft

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	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.84	.84	.84	.91	.91	.91	.87	.87	.87	.87	.87	.87
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	

Sq 42
LD/LD

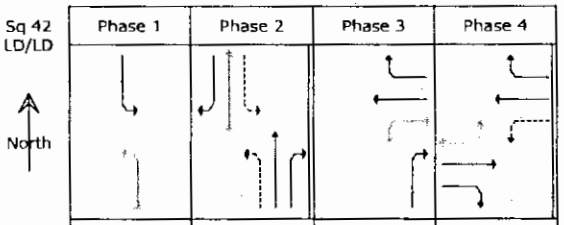


	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
C= 90"	G= 15.1" Y+R= 4.0"	G= 29.4" Y+R= 4.0"	G= 7.6" Y+R= 4.0"	G= 22.0" Y+R= 4.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"

Vista del Norte Commercial Development (Osuna / VdN) 05/06/06
Analysis of Osuna Rd. / Edith Blvd. - [2_08PB3] 21:46:29
2008 PM Peak Hour BUILD Cond - ADD EB/WB THRU, SB RT LANE

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.77 Vehicle Delay 36.3 Level of Service D+

Sq 42
LD/LD



Phase 1	Phase 2	Phase 3	Phase 4
G/C=0.168	G/C=0.326	G/C=0.084	G/C=0.244
G= 15.1"	G= 29.4"	G= 7.6"	G= 22.0"
Y+R= 4.0"	Y+R= 4.0"	Y+R= 4.0"	Y+R= 4.0"
Off= 0.0%	Off=21.2%	Off=58.3%	Off=71.2%

C= 90 sec G= 74.0 sec = 82.2% Y=16.0 sec = 17.8% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								42.1	D+	
RT	12/1	0.147	0.326	391	502	68	0.135	21.5	C+	58 ft
TH	12/1	0.366	0.326	469	590	551	0.934	51.5	*D	698 ft
LT	12/1	0.064	0.168	300	368	143	0.389	15.4	B	105 ft
NB Approach								42.2	D+	
RT	12/1	0.220	0.455	618	700	208	0.297	15.7	B	157 ft
TH	12/1	0.357	0.326	469	590	532	0.902	46.0	D	647 ft
LT	12/1	0.194	0.168	299	368	339	0.921	52.5	*D	436 ft
WB Approach								30.6	C	
RT+TH	36/3	0.330	0.373	1655	1801	1415	0.786	27.4	C+	550 ft
LT	12/1	0.102	0.084	172	224	200	0.885	52.9	*D	269 ft
EB Approach								34.3	C	
RT+TH	36/3	0.230	0.244	906	1171	821	0.701	32.9	C	335 ft
LT	12/1	0.296	0.244	42	66	56	0.700	54.8	*D	73 ft

Queueing Analysis Summary Sheet

Project: Vista del Norte Commercial Development (Osuna Rd. / Vista del Norte)
Intersection: **Osuna Rd. / Chappel Dr.**

2008

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*	*23*	*125*	*2*	*1,342*	*Cont*	*0*	*251*	*0*
AM NO BUILD Queue	1	29	50	2	1,664	850	0	311	350
AM BUILD Queue	**1**	**29**	**50**	**2**	**1,781**	**900**	**0**	**311**	**350**
Existing Lane Length	*1*	*3*	*125*	*2*	*810*	*Cont*	*0*	*61*	*0*
PM NO BUILD Queue	1	4	25	2	1,004	700	0	76	150
PM BUILD Queue	**1**	**4**	**25**	**2**	**1,136**	**775**	**0**	**76**	**150**

Westbound Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	*1*	*105*	*125*	*2*	*813*	*Cont*	*0*	*38*	*0*
AM NO BUILD Queue	1	130	175	2	1,008	550	0	47	75
AM BUILD Queue	**1**	**130**	**175**	**2**	**1,130**	**600**	**0**	**47**	**75**
Existing Lane Length	*1*	*94*	*125*	*2*	*1,430*	*Cont*	*0*	*5*	*0*
PM NO BUILD Queue	1	117	200	2	1,773	>1,000	0	6	25
PM BUILD Queue	**1**	**117**	**200**	**2**	**1,902**	**>1,000**	**0**	**6**	**25**

Northbound Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	*0*	*64*	*0*	*1*	*5*	*Cont*	*1*	*88*	*50*
AM NO BUILD Queue	0	77	125	1	6	25	1	106	150
AM BUILD Queue	**0**	**77**	**125**	**1**	**6**	**25**	**1**	**106**	**150**
Existing Lane Length	*0*	*209*	*0*	*1*	*2*	*Cont*	*1*	*151*	*50*
PM NO BUILD Queue	0	251	350	1	2	0	1	181	275
PM BUILD Queue	**0**	**251**	**350**	**1**	**2**	**0**	**1**	**181**	**275**

Southbound Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	*0*	*5*	*0*	*1*	*1*	*Cont*	*0*	*4*	*0*
AM NO BUILD Queue	0	6	25	1	1	0	0	5	25
AM BUILD Queue	**0**	**6**	**25**	**1**	**1**	**0**	**0**	**5**	**25**
Existing Lane Length	*0*	*48*	*0*	*1*	*20*	*Cont*	*0*	*24*	*0*
PM NO BUILD Queue	0	58	125	1	24	75	0	29	75
PM BUILD Queue	**0**	**58**	**125**	**1**	**24**	**75**	**0**	**29**	**75**

	AM	PM
Cycle Length:	100	130

SIGNALIZED INTERSECTION
PLANNING APPLICATION WORKSHEET

Intersection: **Osuna Rd. / Chappel Dr.** Date: 2-May-06
Analyst: TOB Time Period Analyzed: **AM** Peak Hr.
Project: Vista del Norte Commercial Development (Osuna Rd. / Vista del City / State: Albuquerque, NM
Condition: **2008 NO BUILD**

Chappel Dr.
N-S STREET

SB TOTAL: 12
5 RIGHT
1 THRU
6 LEFT

TR? Y
R 0 | T 1 | L 0

47 RIGHT
1,008 THRU
130 LEFT
1,185 WB TOTAL

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

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

29 LEFT
1,664 THRU
311 RIGHT
2,004 EB TOTAL

0 L | 1 T | 1 R
TR? N

Osuna Rd.
E-W STREET
77 LEFT
6 THRU
106 RIGHT
189 NB TOTAL

EB LT =	29	MAXIMUM SUM OF CRITICAL VALUES	CAPACITY LEVEL	NB LT =	77
WB TH =	528			SB TH =	6
	557	0 TO 1,200	UNDER		83 *
		1,201 TO 1,400	NEAR		
WB LT =	130	>1,400	OVER	SB LT =	6
EB TH =	988			NB TH =	6
	1,118 *				12

1,118 (E-W CRITICAL) + 83 (N-S CRITICAL) = 1,201 STATUS? UNDER

TES: Mitigated Geometry (2010)

SIGNALIZED INTERSECTION
PLANNING APPLICATION WORKSHEET

Intersection: Osuna Rd. / Chappel Dr.
Date: 2-May-06
Analyst: TOB
Time Period Analyzed: AM Peak Hr.
Project: Vista del Norte Commercial Development (Osuna Rd. / Vista del City / State: Albuquerque, NM
Condition: 2008 BUILD

Chappel Dr.
N-S STREET

SB TOTAL: 12
5 RIGHT
1 THRU
6 LEFT

TR? Y
R 0 | T 1 | L 0

47 RIGHT
1,130 THRU
130 LEFT
1,307 WB TOTAL

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

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

29 LEFT
2,121 EB TOTAL
1,781 THRU
311 RIGHT

0 L | 1 T | 1 R
TR? N

Osuna Rd.
E-W STREET
77 LEFT
6 THRU
106 RIGHT
189 NB TOTAL

EB LT =	29	MAXIMUM SUM OF CRITICAL VALUES	CAPACITY LEVEL	NB LT =	77
WB TH =	589			SB TH =	6
	618				83 *
		0 TO 1,200	UNDER		
		1,201 TO 1,400	NEAR		
		>1,400	OVER		
WB LT =	130			SB LT =	6
EB TH =	1,046			NB TH =	6
	1,176 *				12

1,176 (E-W CRITICAL) + 83 (N-S CRITICAL) = 1,259 STATUS? N E A R

NOTES: Mitigated Geometry (2010)

SIGNALIZED INTERSECTION
PLANNING APPLICATION WORKSHEET

Intersection: **Osuna Rd. / Chappel Dr.**
Date: 2-May-06
Analyst: TOB
Time Period Analyzed: **PM** Peak Hr.
Project: Vista del Norte Commercial Development (Osuna Rd. / Vista del City / State: Albuquerque, NM
Condition: **2008 NO BUILD**

Chappel Dr.
N-S STREET

SB TOTAL: 111
29 RIGHT
24 THRU
58 LEFT

TR? Y
R 0 | T 1 | L 0

6 RIGHT
1,773 THRU
117 LEFT
1,896 WB TOTAL

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

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

4 LEFT
1,084 EB TOTAL
1,004 THRU
76 RIGHT

0 L | 1 T | 1 R
TR? N

Osuna Rd.
E-W STREET
251 LEFT
2 THRU
181 RIGHT
434 NB TOTAL

EB LT =	4	MAXIMUM SUM OF CRITICAL VALUES	CAPACITY LEVEL	NB LT =	251
WB TH =	890			SB TH =	53
	894 *	0 TO 1,200	UNDER		304 *
		1,201 TO 1,400	NEAR		
WB LT =	117	>1,400	OVER	SB LT =	58
EB TH =	540			NB TH =	2
	657				60

894 (E-W CRITICAL) + 304 (N-S CRITICAL) = 1,198 STATUS? UNDER

NOTES: Mitigated Geometry (2010)

SIGNALIZED INTERSECTION
PLANNING APPLICATION WORKSHEET

Intersection: **Osuna Rd. / Chappel Dr.**
Date: 2-May-06
Analyst: TOB
Time Period Analyzed: **PM** Peak Hr.
Project: Vista del Norte Commercial Development (Osuna Rd. / Vista del City / State: Albuquerque, NM
Condition: **2008 BUILD**

Chappel Dr.
N-S STREET

SB TOTAL: 111
29 RIGHT
24 THRU
58 LEFT

TR? Y
R 0 | T 1 | L 0

6 RIGHT
1,902 THRU
117 LEFT
2,025 WB TOTAL

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

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

4 LEFT
1,216 EB TOTAL
1,136 THRU
76 RIGHT

0 L | 1 T | 1 R
TR? N

Osuna Rd.
E-W STREET
251 LEFT
2 THRU
181 RIGHT
434 NB TOTAL

EB LT =	4	MAXIMUM SUM OF CRITICAL VALUES	CAPACITY LEVEL	NB LT =	251
WB TH =	954			SB TH =	53
	958 *	0 TO 1,200	UNDER		304 *
		1,201 TO 1,400	NEAR		
WB LT =	117	>1,400	OVER	SB LT =	58
EB TH =	606			NB TH =	2
	723				60

958 (E-W CRITICAL) + 304 (N-S CRITICAL) = 1,262

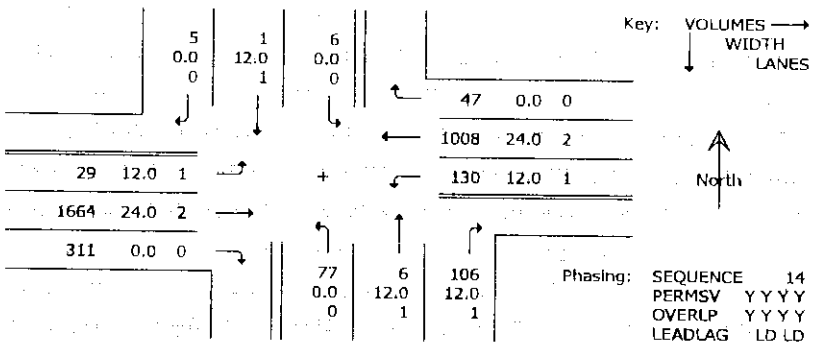
STATUS? N E A R

NOTES: Mitigated Geometry (2010)

Vista del Norte Commercial Development (Osuna / VdN) 04/15/06
Analysis of Osuna Rd. / Chappel Dr. - [3_08ANX] 19:14:55
2008 AM Peak Hour NO BUILD Conditions

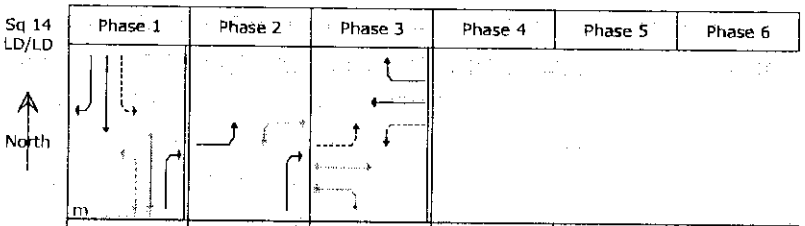
HCM 2000 TEAPACK V3.0 - 2-D HCM 1000 AWSC NETWORK

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	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.70	.70	.70	.80	.80	.80	.72	.72	.72	.81	.81	.81
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, !1	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 14
LD/LD



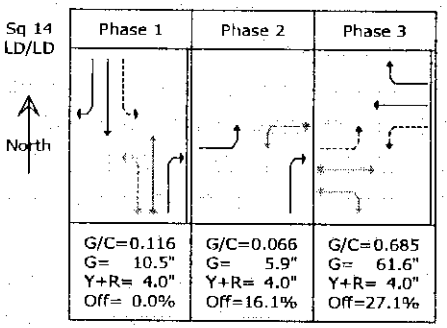
C= 90"	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
	G= 10.5" Y+R= 4.0"	G= 5.9" Y+R= 4.0"	G= 61.6" Y+R= 4.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"

Vista del Norte Commercial Development (Osuna / VdN) 04/15/06
Analysis of Osuna Rd. / Chappel Dr. - [3_08ANX] 19:14:55
2008 AM Peak Hour NO BUILD Conditions

HCM 2000 TEAPACK V3.0 - 2-D HCM 1000 AWSC NETWORK SUMMARY

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.85 Vehicle Delay 36.6 Level of Service D+

Sq 14
LD/LD



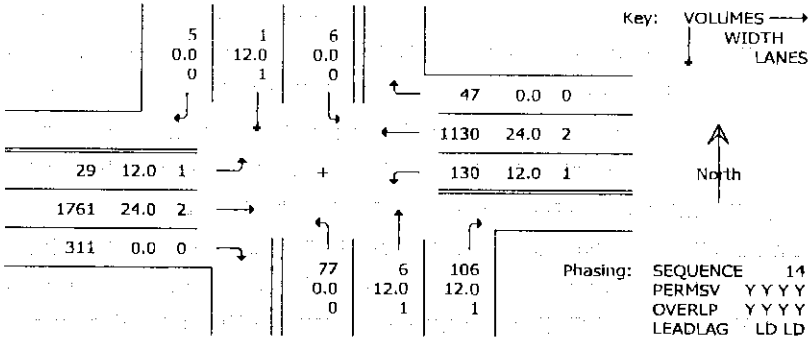
Phase 1	Phase 2	Phase 3
G/C=0.116	G/C=0.066	G/C=0.685
G= 10.5"	G= 5.9"	G= 61.6"
Y+R= 4.0"	Y+R= 4.0"	Y+R= 4.0"
Off= 0.0%	Off=16.1%	Off=27.1%

C= 90 sec G= 78.0 sec = 86.7% Y=12.0 sec = 13.3% 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								35.8	D+	
RT+TH+LT	12/1	0.126	0.116	1	152	17	0.101	35.8	D+	19 ft
NB Approach								42.3	D+	
RT	12/1	0.183	0.226	219	345	147	0.422	30.6	C	152 ft
TH+LT	12/1	0.177	0.116	1	136	115	0.752	57.2	*E+	151 ft
WB Approach								13.0	B+	
RT+TH	24/2	0.418	0.685	2343	2343	1319	0.563	7.6	A	418 ft
LT	12/1	0.097	0.066	128	182	162	0.839	56.7	*E+	159 ft
EB Approach								50.1	D	
RT+TH	24/2	0.714	0.685	2303	2303	2438	1.059	50.7	*D	1790 ft
LT	12/1	0.000	0.066	281	314	36	0.115	4.0	A	11 ft

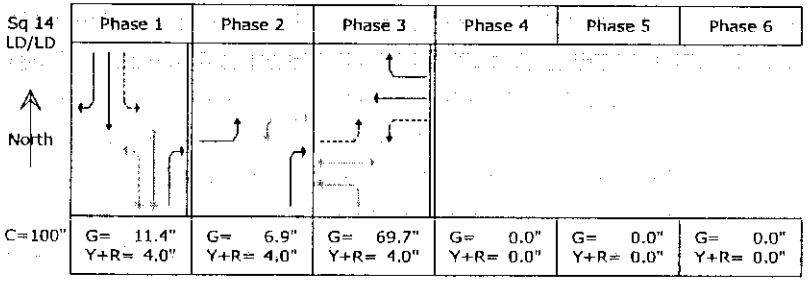
SIGNALIZED INTERSECTION SUMMARY

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	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.70	.70	.70	.80	.80	.80	.72	.72	.72	.81	.81	.81
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Startup 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	

Sq 14
LD/LD

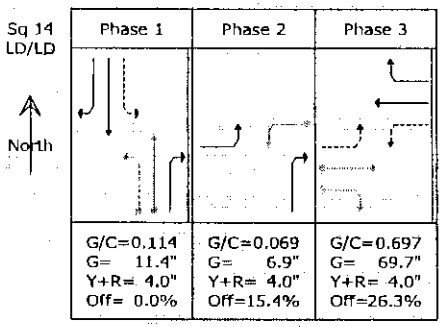


Vista del Norte Commercial Development (Osuna / VdN) 04/15/06
Analysis of Osuna Rd. / Chappel Dr. - [3_08ABX] 19:17:40
2008 AM Peak Hour BUILD Conditions

SIGNALIZED INTERSECTION SUMMARY

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.88 Vehicle Delay 43.8 Level of Service D+

Sq 14
LD/LD



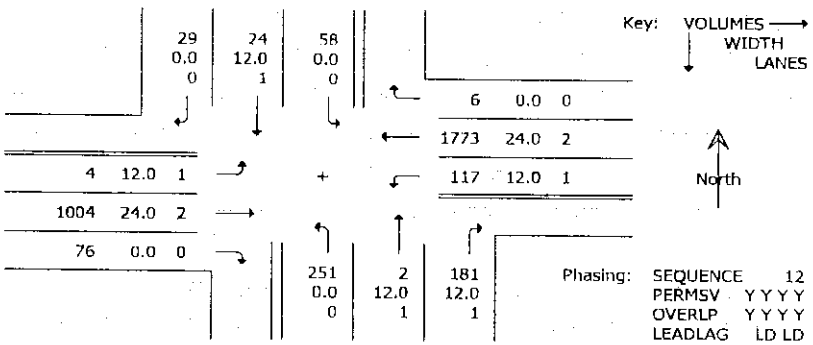
C=100 sec G= 88.0 sec = 88.0% Y=12.0 sec = 12.0% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	LOS	Queue Model 1
SB Approach								40.0	D+	
RT+TH+LT	12/1	0.170	0.114	1	144	17	0.103	40.0	D+	21 ft
NB Approach								47.3	D	
RT	12/1	0.215	0.223	168	333	147	0.430	34.3	C	169 ft
TH+LT	12/1	0.212	0.114	1	129	115	0.767	63.9	*E+	168 ft
WB Approach								14.0	B+	
RT+TH	24/2	0.464	0.697	2388	2388	1471	0.616	8.5	A	527 ft
LT	12/1	0.123	0.069	114	177	162	0.848	63.4	*E+	174 ft
EB Approach								62.2	E+	
RT+TH	24/2	0.747	0.697	2349	2349	2558	1.089	63.0	*E+	2119 ft
LT	12/1	0.000	0.069	243	284	36	0.127	5.0	A	12 ft

Vista del Norte Commercial Development (Osuna / VdN) 04/15/06
Analysis of Osuna Rd. / Chappel Dr. - [3_08PNX] 19:24:00
2008 PM Peak Hour NO BUILD Conditions

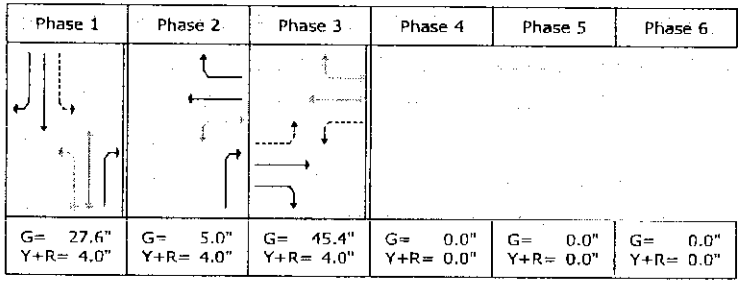
HCM Signalized Intersection Capacity Analysis

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	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.89	.89	.89	.86	.86	.86	.79	.79	.79	.92	.92	.92
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Startup 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 12
LD/LD

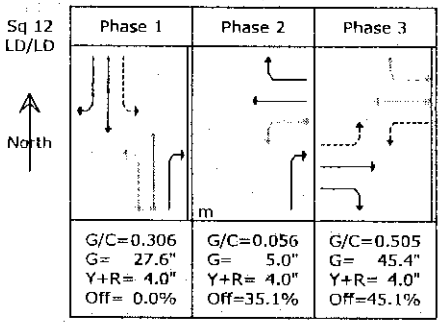


Vista del Norte Commercial Development (Osuna / VdN) 04/15/06
Analysis of Osuna Rd. / Chappel Dr. - [3_08PNX] 19:24:00
2008 PM Peak Hour NO BUILD Conditions

HCM Signalized Intersection Capacity Analysis Summary

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.83 Vehicle Delay 30.2 Level of Service C

Sq 12
LD/LD



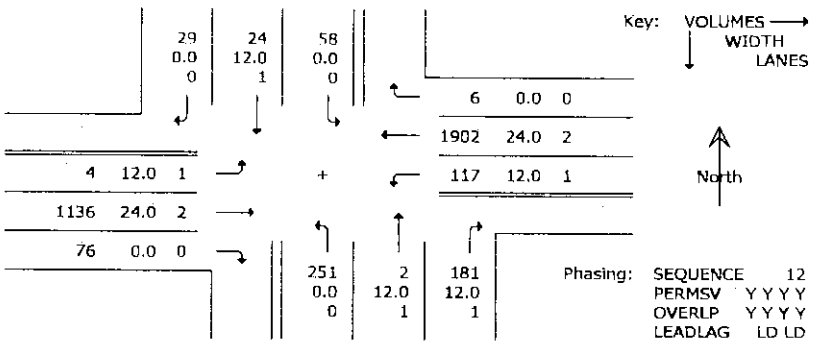
C= 90 sec G= 78.0 sec = 86.7% Y=12.0 sec = 13.3% Ped= 0.0 sec = 0.0%

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								25.3	C+	
RT+TH+LT	12/1		0.210	0.306	233	324	125	0.385	25.3	C+	121 ft
NB Approach								39.4	D+	
RT	12/1		0.232	0.406	532	625	229	0.366	19.0	B	190 ft
TH+LT	12/1		0.354	0.306	260	358	321	0.897	53.9	*D	418 ft
WB Approach								34.7	C	
RT+TH	24/2		0.606	0.605	2063	2082	2069	0.994	35.8	*D+	1374 ft
LT	12/1		0.029	0.056	185	223	136	0.610	16.8	*B	115 ft
EB Approach								18.0	B	
RT+TH	24/2		0.382	0.505	1653	1720	1174	0.683	18.0	B	538 ft
LT	12/1		0.124	0.505	53	70	4	0.050	11.6	B+	3 ft

Vista del Norte Commercial Development (Osuna / VdN) 05/02/06
Analysis of Osuna Rd. / Chappel Dr. - [3_08PBX] 22:07:25
2008 PM Peak Hour BUILD Conditions

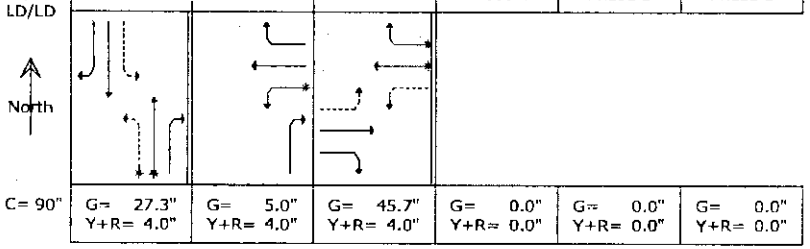
SIGNALIZED/TRAFFIC VOLUME WORKSHEET

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	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.89	.89	.89	.86	.86	.86	.79	.79	.79	.92	.92	.92
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Startup 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 12
LD/LD

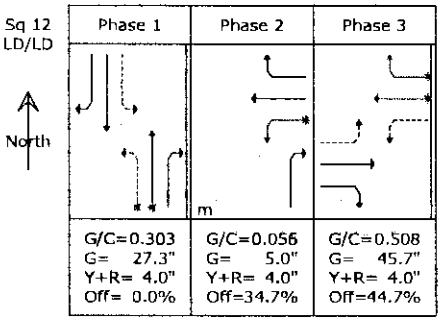


Vista del Norte Commercial Development (Osuna / VdN) 05/02/06
Analysis of Osuna Rd. / Chappel Dr. - [3_08PBX] 22:07:25
2008 PM Peak Hour BUILD Conditions

SIGNALIZED/TRAFFIC VOLUME WORKSHEET Analysis Summary

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.89 Vehicle Delay 41.0 Level of Service D+

Sq 12
LD/LD



C= 90 sec G= 78.0 sec = 86.7% Y=12.0 sec = 13.3% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								25.6	C+	
RT+TH+LT	12/1	0.212	0.303	226	317	125	0.393	25.6	C+	121 ft
NB Approach								41.1	D+	
RT	12/1	0.232	0.403	526	620	229	0.369	19.2	B	191 ft
TH+LT	12/1	0.354	0.303	255	353	321	0.909	56.8	*E+	425 ft
WB Approach								53.7	D	
RT+TH	24/2	0.645	0.608	2076	2094	2219	1.060	55.4	*E+	1648 ft
LT	12/1	0.047	0.056	151	187	136	0.720	26.6	*C+	133 ft
EB Approach								19.7	B	
RT+TH	24/2	0.419	0.508	1668	1734	1318	0.760	19.8	B	643 ft
LT	12/1	0.124	0.508	53	70	4	0.050	11.4	B+	3 ft

Queueing Analysis Summary Sheet

Project: Vista del Norte Commercial Development (Osuna Rd. / Vista del Norte)
Intersection: **Osuna Rd. / Academy Parkway**

2008

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*	*54*	*150*	*2*	*1,303*	*Cont*	*0*	*4*	*0*
AM NO BUILD Queue	1	60	100	2	1,459	750	0	4	25
AM BUILD Queue	**1**	**60**	**100**	**2**	**1,576**	**800**	**0**	**4**	**25**
Existing Lane Length	*1*	*8*	*150*	*2*	*1,095*	*Cont*	*0*	*0*	*0*
PM NO BUILD Queue	1	9	25	2	1,226	**825**	0	0	0
PM BUILD Queue	**1**	**9**	**25**	**2**	**1,358**	**900**	**0**	**0**	**0**

Westbound Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	*1*	*39*	*125*	*2*	*845*	*Cont*	*0*	*89*	*0*
AM NO BUILD Queue	1	44	75	2	946	525	0	100	150
AM BUILD Queue	**1**	**44**	**75**	**2**	**1,068**	**575**	**0**	**100**	**150**
Existing Lane Length	*1*	*29*	*125*	*2*	*1,444*	*Cont*	*0*	*21*	*0*
PM NO BUILD Queue	1	32	75	2	1,617	>1,000	0	24	75
PM BUILD Queue	**1**	**32**	**75**	**2**	**1,746**	**>1,000**	**0**	**24**	**75**

Northbound Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	*0*	*6*	*0*	*1*	*0*	*Cont*	*0*	*23*	*50*
AM NO BUILD Queue	0	7	25	1	0	0	0	25	50
AM BUILD Queue	**0**	**7**	**25**	**1**	**0**	**0**	**0**	**25**	**50**
Existing Lane Length	*0*	*24*	*0*	*1*	*0*	*Cont*	*0*	*56*	*50*
PM NO BUILD Queue	0	26	75	1	0	0	0	62	125
PM BUILD Queue	**0**	**26**	**75**	**1**	**0**	**0**	**0**	**62**	**125**

Southbound Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	*1*	*52*	*100*	*1*	*0*	*Cont*	*0*	*17*	*0*
AM NO BUILD Queue	1	57	100	1	0	0	0	19	50
AM BUILD Queue	**1**	**57**	**100**	**1**	**0**	**0**	**0**	**19**	**50**
Existing Lane Length	*1*	*83*	*100*	*1*	*1*	*Cont*	*0*	*42*	*0*
PM NO BUILD Queue	1	91	175	1	1	0	0	46	100
PM BUILD Queue	**1**	**91**	**175**	**1**	**1**	**0**	**0**	**46**	**100**

	AM	PM
Cycle Length:	100	130

SIGNALIZED INTERSECTION
PLANNING APPLICATION WORKSHEET

Intersection: **Osuna Rd. / Academy Parkway** Date: 2-May-06
Analyst: TOB Time Period Analyzed: **AM** Peak Hr.
Project: Vista del Norte Commercial Development (Osuna Rd. / Vista del City / State: Albuquerque, NM
Condition: **2008 NO BUILD**

Academy Parkway
N-S STREET

SB TOTAL: 76
19 RIGHT
0 THRU
57 LEFT

TR? Y
R 0 | T 1 | L 1

100 RIGHT
946 THRU
44 LEFT
1,090 WB TOTAL

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

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

1,523 EB TOTAL
60 LEFT
1,459 THRU
4 RIGHT

0 L | 1 T | 0 R
TR? Y

Osuna Rd.
E-W STREET
7 LEFT
0 THRU
25 RIGHT
32 NB TOTAL

EB LT =	60	MAXIMUM SUM OF CRITICAL VALUES	CAPACITY LEVEL	NB LT =	7
WB TH =	523			SB TH =	19
	583	0 TO 1,200	UNDER		26
		1,201 TO 1,400	NEAR		
WB LT =	44	>1,400	OVER	SB LT =	57
EB TH =	732			NB TH =	25
	776 *				82 *

776 E-W CRITICAL + 82 N-S CRITICAL = 858 STATUS? UNDER

NOTES: Mitigated Geometry (2010)

SIGNALIZED INTERSECTION
PLANNING APPLICATION WORKSHEET

Intersection: **Osuna Rd. / Academy Parkway** Date: 2-May-06
Analyst: TOB Time Period Analyzed: **AM** Peak Hr.
Project: Vista del Norte Commercial Development (Osuna Rd. / Vista del City / State: Albuquerque, NM
Condition: **2008 BUILD**

Academy Parkway
N-S STREET

SB TOTAL: 76
19 RIGHT
0 THRU
57 LEFT

TR? Y
R 0 | T 1 | L 1

100 RIGHT
1,068 THRU
44 LEFT
1,212 WB TOTAL

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

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

60 LEFT
1,640 EB TOTAL
1,576 THRU
4 RIGHT

0 L | 1 T | 0 R
TR? Y

Osuna Rd.
E-W STREET
7 LEFT
0 THRU
25 RIGHT
32 NB TOTAL

EB LT =	60	MAXIMUM SUM OF CRITICAL VALUES	CAPACITY LEVEL	NB LT =	7
WB TH =	584			SB TH =	19
	644	0 TO 1,200	UNDER		26
		1,201 TO 1,400	NEAR		
WB LT =	44	>1,400	OVER	SB LT =	57
EB TH =	790			NB TH =	25
	834 *				82 *

834 (E-W CRITICAL) + 82 (N-S CRITICAL) = 916 STATUS? UNDER

NOTES: Mitigated Geometry (2010)

SIGNALIZED INTERSECTION
PLANNING APPLICATION WORKSHEET

Intersection: **Osuna Rd. / Academy Parkway** Date: 2-May-06
Analyst: TOB Time Period Analyzed: **PM** Peak Hr.
Project: Vista del Norte Commercial Development (Osuna Rd. / Vista del City / State: Albuquerque, NM
Condition: **2008 NO BUILD**

Academy Parkway
N-S STREET

SB TOTAL: 138
46 RIGHT
1 THRU
91 LEFT

TR?: Y

R: 0 | T: 1 | L: 1

24 RIGHT
1,617 THRU
32 LEFT
1,673 WB TOTAL

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

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

9 LEFT
1,235 EB TOTAL
1,226 THRU
0 RIGHT

0 L | 1 T | 0 R
TR? Y

Osuna Rd.
E-W STREET
26 LEFT
0 THRU
62 RIGHT
88 NB TOTAL

EB LT =	9	MAXIMUM SUM OF CRITICAL VALUES	CAPACITY LEVEL	NB LT =	26
WB TH =	821			SB TH =	47
	830 *	0 TO 1,200	UNDER		73
		1,201 TO 1,400	NEAR		
WB LT =	32	>1,400	OVER	SB LT =	91
EB TH =	613			NB TH =	62
	645				153 *

830 (E-W CRITICAL) + 153 (N-S CRITICAL) = 983 STATUS? UNDER

NOTES: Mitigated Geometry (2010)

SIGNALIZED INTERSECTION
PLANNING APPLICATION WORKSHEET

Intersection: **Osuna Rd. / Academy Parkway** Date: 2-May-06
Analyst: TOB Time Period Analyzed: **PM** Peak Hr.
Project: Vista del Norte Commercial Development (Osuna Rd. / Vista del City / State: Albuquerque, NM
Condition: **2008 BUILD**

Academy Parkway
N-S STREET

SB TOTAL: 138
46 RIGHT
1 THRU
91 LEFT

TR? Y

R	T	L
0	1	1

24 RIGHT
1,746 THRU
32 LEFT
1,802 WB TOTAL

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

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

L	T	R
0	1	0

TR? Y

Osuna Rd.
E-W STREET

1,367 EB TOTAL
9 LEFT
1,358 THRU
0 RIGHT

26 LEFT
0 THRU
62 RIGHT
88 NB TOTAL

EB LT =	9	MAXIMUM SUM OF CRITICAL VALUES	CAPACITY LEVEL	NB LT = 26
WB TH =	885			SB TH = 47
	894 *	0 TO 1,200	UNDER	73
		1,201 TO 1,400	NEAR	
WB LT =	32	>1,400	OVER	SB LT = 91
EB TH =	679			NB TH = 62
	711			153 *

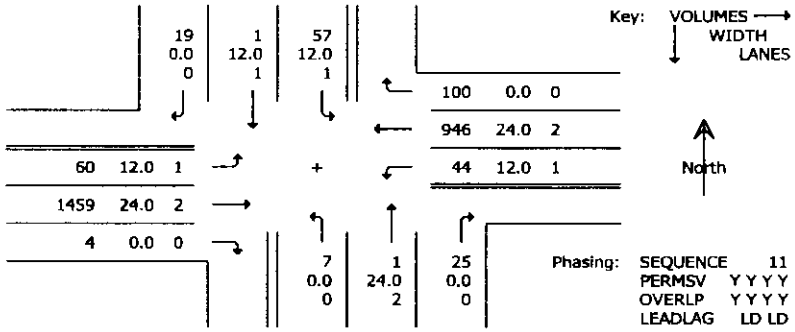
894 E-W CRITICAL + 153 N-S CRITICAL = 1,047 STATUS? UNDER

NOTES: Mitigated Geometry (2010)

Vista del Norte Commercial Development (Osuna / VdN) 04/16/06
Analysis of Osuna Rd. / Academy Parkway. - [4_08ANX] 12:57:52
2008 AM Peak Hour NO BUILD Conditions

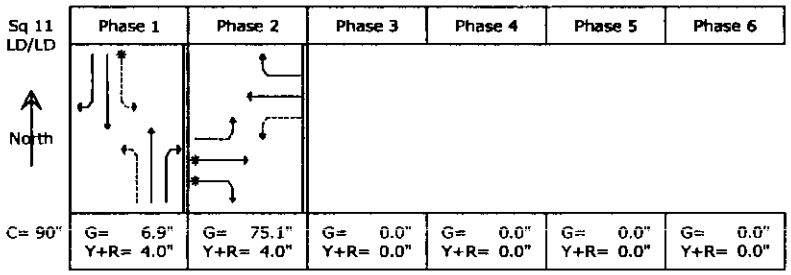
SIGNAL2000/TEAPAC[Ver 2.70.07] - HCM Input Worksheet

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	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.86	.86	.86	.84	.84	.84	.80	.80	.80	.93	.93	.93
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, ii	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 11
LD/LD

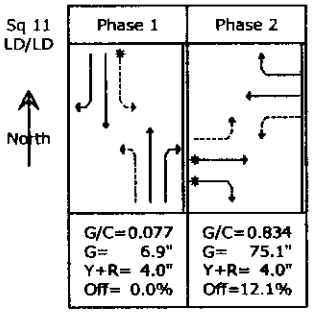


Vista del Norte Commercial Development (Osuna / VdN) 04/16/06
Analysis of Osuna Rd. / Academy Parkway. - [4_08ANX] 12:57:52
2008 AM Peak Hour NO BUILD Conditions

SIGNAL2000/TEAPAC[Ver 2.70.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.49 Vehicle Delay 4.2 Level of Service A

Sq 11
LD/LD



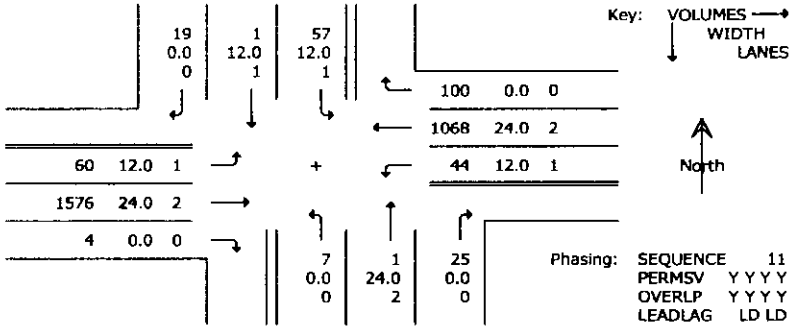
C= 90 sec G= 82.0 sec = 91.1% Y= 8.0 sec = 8.9% Ped= 0.0 sec = 0.0%

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								50.1	D	
RT+TH	12/1	0.128	0.077	1	101	23	0.193	39.7	D+	27 ft
LT	12/1	0.152	0.077	1	84	66	0.647	53.8	*D	86 ft
NB Approach								39.4	D+	
RT+TH+LT	24/2	0.127	0.077	1	193	41	0.194	39.4	D+	25 ft
WB Approach								2.1	A	
RT+TH	24/2	0.402	0.834	2833	2833	1245	0.439	2.1	A	219 ft
LT	12/1	0.338	0.834	189	216	52	0.241	2.1	A	16 ft
EB Approach								2.5	A	
RT+TH	24/2	0.480	0.834	2873	2873	1573	0.548	2.5	*A	318 ft
LT	12/1	0.291	0.834	293	319	65	0.204	1.8	A	19 ft

Vista del Norte Commercial Development (Osuna / VdN) 04/16/06
Analysis of Osuna Rd. / Academy Parkway. - [4_08ABX] 13:00:00
2008 AM Peak Hour BUILD Conditions

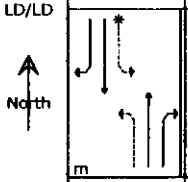
SIGNAL2000/TEAPAC[Ver 2.70.07] - HCM Input Worksheet

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	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.86	.86	.86	.84	.84	.84	.80	.80	.80	.93	.93	.93
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	

Sq 11
LD/LD



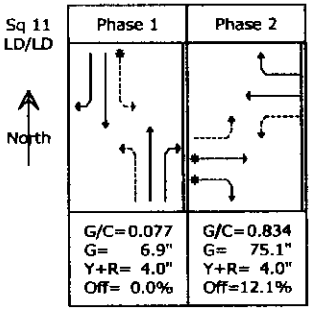
Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
C= 90" G= 6.9" Y+R= 4.0"	G= 75.1" Y+R= 4.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"

Vista del Norte Commercial Development (Osuna / VdN) 04/16/06
Analysis of Osuna Rd. / Academy Parkway. - [4_08ABX] 13:00:00
2008 AM Peak Hour BUILD Conditions

SIGNAL2000/TEAPAC[Ver 2.70.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.53 Vehicle Delay 4.2 Level of Service A

Sq 11
LD/LD



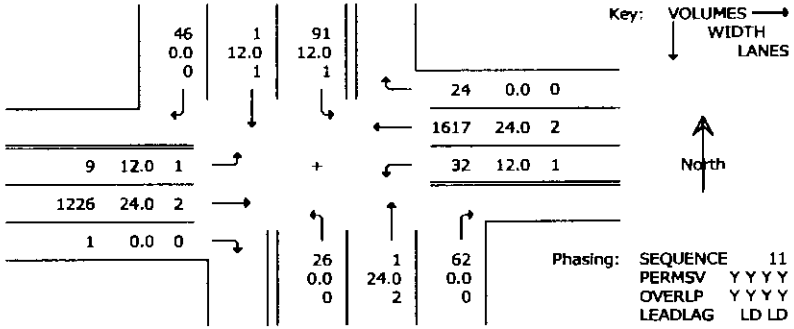
C= 90 sec G= 82.0 sec = 91.1% Y= 8.0 sec = 8.9% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								50.1	D	
RT+TH	12/1	0.128	0.077	1	101	23	0.193	39.7	D+	27 ft
LT	12/1	0.152	0.077	1	84	66	0.647	53.8	*D	86 ft
NB Approach								39.4	D+	
RT+TH+LT	24/2	0.127	0.077	1	193	41	0.194	39.4	D+	25 ft
WB Approach								2.2	A	
RT+TH	24/2	0.438	0.834	2837	2837	1390	0.490	2.2	A	260 ft
LT	12/1	0.383	0.834	158	184	52	0.283	2.5	A	18 ft
EB Approach								2.7	A	
RT+TH	24/2	0.512	0.834	2873	2873	1699	0.591	2.8	*A	366 ft
LT	12/1	0.330	0.834	242	269	65	0.242	2.0	A	20 ft

Vista del Norte Commercial Development (Osuna / VdN) 04/16/06
Analysis of Osuna Rd. / Academy Parkway. - [4_08PNX] 13:06:15
2008 PM Peak Hour NO BUILD Conditions

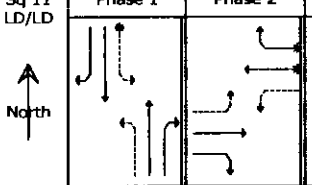
SIGNAL2000/TEAPAC[Ver 2.70.07] - HCM Input Worksheet

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	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.86	.86	.86	.84	.84	.84	.80	.80	.80	.93	.93	.93
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	

Sq 11 LD/LD



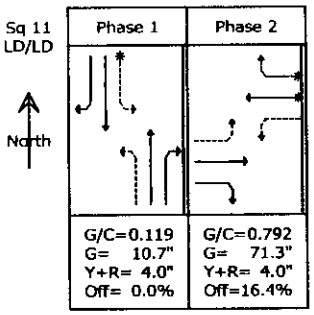
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
C= 90"	G= 10.7" Y+R= 4.0"	G= 71.3" Y+R= 4.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"

Vista del Norte Commercial Development (Osuna / VdN) 04/16/06
Analysis of Osuna Rd. / Academy Parkway. - [4_08PNX] 13:06:15
2008 PM Peak Hour NO BUILD Conditions

SIGNAL2000/TEAPAC[Ver 2.70.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.61 Vehicle Delay 7.5 Level of Service A

Sq 11 LD/LD



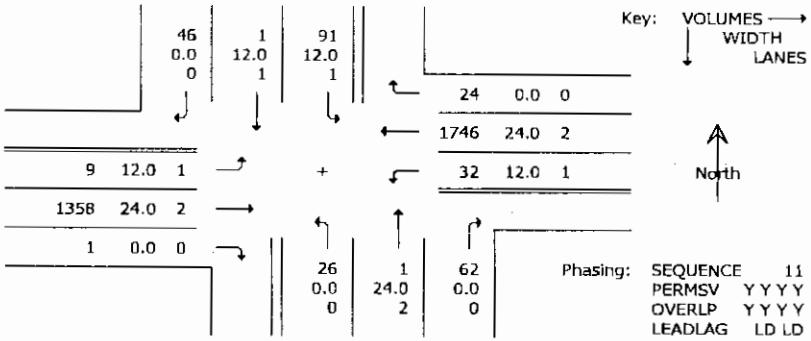
C= 90 sec G= 82.0 sec = 91.1% Y= 8.0 sec = 8.9% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								47.9	D	
RT+TH	12/1	0.141	0.119	4	167	54	0.293	37.1	D+	61 ft
LT	12/1	0.177	0.119	3	131	106	0.716	53.4	*D	137 ft
NB Approach								37.1	D+	
RT+TH+LT	24/2	0.142	0.119	7	307	110	0.346	37.1	D+	66 ft
WB Approach								5.4	A	
RT+TH	24/2	0.578	0.792	2722	2722	1954	0.718	5.5	*A	594 ft
LT	12/1	0.220	0.792	238	267	38	0.142	2.4	A	13 ft
EB Approach								3.3	A	
RT+TH	24/2	0.416	0.792	2727	2727	1319	0.484	3.3	A	288 ft
LT	12/1	0.134	0.792	88	107	10	0.090	2.5	A	3 ft

Vista del Norte Commercial Development (Osuna / VdN) 05/02/06
Analysis of Osuna Rd. / Academy Parkway. - [4_08PBX] 22:11:45
2008 PM Peak Hour BUILD Conditions

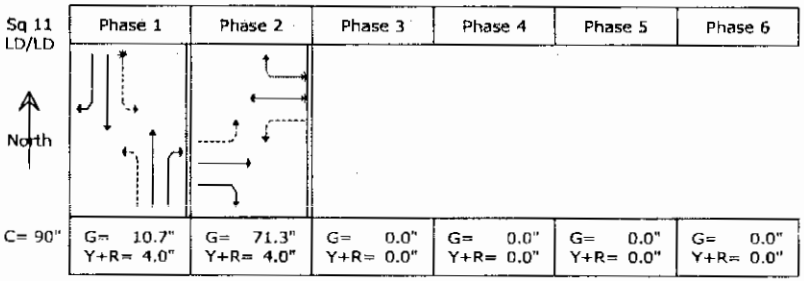
SIGNAL2000/TEAPAC(Ver 2.70.07) - HCM Hour Worksheet

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	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.86	.86	.86	.84	.84	.84	.80	.80	.80	.93	.93	.93
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	

Sq 11
LD/LD

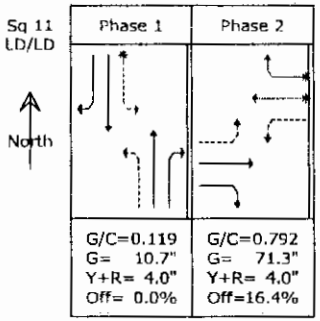


Vista del Norte Commercial Development (Osuna / VdN) 05/02/06
Analysis of Osuna Rd. / Academy Parkway. - [4_08PBX] 22:11:45
2008 PM Peak Hour BUILD Conditions

SIGNAL2000/TEAPAC(Ver 2.70.07) - Capacity Analysis Summary

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.66 Vehicle Delay 7.9 Level of Service A

Sq 11
LD/LD



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								47.9	D	
RT+TH	12/1	0.141	0.119	4	167	54	0.293	37.1	D+	61 ft
LT	12/1	0.177	0.119	3	131	106	0.716	53.4	*D	137 ft
NB Approach								37.1	D+	
RT+TH+LT	24/2	0.142	0.119	7	307	110	0.346	37.1	D+	66 ft
WB Approach								6.4	A	
RT+TH	24/2	0.617	0.792	2722	2722	2108	0.774	6.5	*A	711 ft
LT	12/1	0.220	0.792	194	223	38	0.170	2.6	A	13 ft
EB Approach								3.6	A	
RT+TH	24/2	0.451	0.792	2727	2727	1461	0.536	3.6	A	340 ft
LT	12/1	0.134	0.792	64	79	10	0.118	2.8	A	4 ft

Queueing Analysis Summary Sheet

Project: Vista del Norte Commercial Development (Osuna Rd. / Vista del Norte)
Intersection: **Osuna Rd. / Jefferson St.**

2008

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	*2*	*236*	*210*	*3*	*1,081*	*Cont*	*0*	*154*	*0*
AM NO BUILD Queue	2	293	200	3	1,340	525	0	191	225
AM BUILD Queue	**2**	**317**	**225**	**3**	**1,430**	**550**	**0**	**194**	**225**
Existing Lane Length	*2*	*248*	*210*	*3*	*1,487*	*Cont*	*0*	*81*	*0*
PM NO BUILD Queue	2	308	**250**	3	1,844	**850**	0	100	175
PM BUILD Queue	**2**	**335**	**275**	**3**	**1,945**	**900**	**0**	**103**	**175**

Westbound Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	*2*	*182*	*175*	*2*	*921*	*Cont*	*1*	*262*	*350*
AM NO BUILD Queue	2	204	150	2	1,032	575	1	293	325
AM BUILD Queue	**2**	**204**	**150**	**2**	**1,126**	**600**	**1**	**293**	**325**
Existing Lane Length	*2*	*88*	*175*	*2*	*1,016*	*Cont*	*1*	*201*	*350*
PM NO BUILD Queue	2	99	100	2	1,138	**775**	1	225	325
PM BUILD Queue	**2**	**99**	**100**	**2**	**1,237**	**825**	**1**	**225**	**325**

Northbound Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	*1*	*122*	*160*	*2*	*227*	*Cont*	*1*	*42*	*150*
AM NO BUILD Queue	1	132	175	2	245	175	1	45	75
AM BUILD Queue	**1**	**135**	**175**	**2**	**245**	**175**	**1**	**45**	**75**
Existing Lane Length	*1*	*291*	*160*	*2*	*557*	*Cont*	*1*	*264*	*150*
PM NO BUILD Queue	1	314	425	2	602	450	1	285	400
PM BUILD Queue	**1**	**317**	**425**	**2**	**602**	**450**	**1**	**285**	**400**

Southbound Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	*1*	*197*	*275*	*2*	*374*	*Cont*	*0*	*160*	*0*
AM NO BUILD Queue	1	213	250	2	404	275	0	173	225
AM BUILD Queue	**1**	**213**	**250**	**2**	**404**	**275**	**0**	**198**	**250**
Existing Lane Length	*1*	*335*	*275*	*2*	*342*	*Cont*	*0*	*303*	*0*
PM NO BUILD Queue	1	362	475	2	369	300	0	327	**450**
PM BUILD Queue	**1**	**362**	**475**	**2**	**369**	**300**	**0**	**354**	**475**

	AM	PM
Cycle Length:	100	130

SIGNALIZED INTERSECTION
PLANNING APPLICATION WORKSHEET

Intersection: **Osuna Rd. / Jefferson St.** Date: 2-May-06
Analyst: TOB Time Period Analyzed: **AM** Peak Hr.
Project: Vista del Norte Commercial Development (Osuna Rd. / Vista del City / State: Albuquerque, NM
Condition: **2008 NO BUILD**

Jefferson St.
N-S STREET

SB TOTAL: 790

173 RIGHT | 404 THRU | 213 LEFT

TR? Y

R: 0 | T: 2 | L: 1

293 RIGHT
1,032 THRU
204 LEFT
1,529 WB TOTAL

NO. LANES
2 L
3 T
0 R

TR? Y

1 R
2 T
2 L
NO. LANES

TR? N

1,824 EB TOTAL

293 LEFT
1,340 THRU
191 RIGHT

1 L | 2 T | 1 R

TR? N

Osuna Rd.
E-W STREET

132 LEFT | 245 THRU | 45 RIGHT
422 NB TOTAL

EB LT =	147	MAXIMUM SUM OF CRITICAL VALUES	CAPACITY LEVEL	NB LT =	132
WB TH =	516			SB TH =	289
	663 *	0 TO 1,200	UNDER		421 *
		1,201 TO 1,400	NEAR		
WB LT =	102	>1,400	OVER	SB LT =	213
EB TH =	510			NB TH =	123
	612				336

663 (E-W CRITICAL) + 421 (N-S CRITICAL) = 1,083 STATUS? UNDER

'TES: Mitigated Geometry (2010)

SIGNALIZED INTERSECTION
PLANNING APPLICATION WORKSHEET

Intersection: Osuna Rd. / Jefferson St.
Date: 2-May-06
Analyst: TOB
Time Period Analyzed: AM Peak Hr.
Project: Vista del Norte Commercial Development (Osuna Rd. / Vista del City / State: Albuquerque, NM
Condition: 2008 BUILD

Jefferson St.
N-S STREET

SB TOTAL: 815
198 RIGHT
404 THRU
213 LEFT

TR? Y
R 0 | T 2 | L 1

293 RIGHT
1,126 THRU
204 LEFT
1,623 WB TOTAL

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

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

317 LEFT
1,941 EB TOTAL
1,430 THRU
194 RIGHT

1 L | 2 T | 1 R
TR? N

Osuna Rd.
E-W STREET
135 LEFT
245 THRU
45 RIGHT
425 NB TOTAL

EB LT =	159	MAXIMUM SUM OF CRITICAL VALUES	CAPACITY LEVEL	NB LT =	135
WB TH =	563			SB TH =	301
	722 *	0 TO 1,200	UNDER		436 *
		1,201 TO 1,400	NEAR		
WB LT =	102	>1,400	OVER	SB LT =	213
EB TH =	541			NB TH =	123
	643				336

722 (E-W CRITICAL) + 436 (N-S CRITICAL) = 1,158 STATUS? UNDER

NOTES: Mitigated Geometry (2010)

SIGNALIZED INTERSECTION
PLANNING APPLICATION WORKSHEET

Intersection: **Osuna Rd. / Jefferson St.**
Date: 2-May-06
Analyst: TOB
Time Period Analyzed: **PM** Peak Hr.
Project: Vista del Norte Commercial Development (Osuna Rd. / Vista del City / State: Albuquerque, NM
Condition: **2008 NO BUILD**

Jefferson St.
N-S STREET

SB TOTAL: 1,058
327 RIGHT
369 THRU
362 LEFT

TR?: Y

R: 0 | T: 2 | L: 1

225 RIGHT
1,138 THRU
99 LEFT
1,462 WB TOTAL

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

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

2,252 EB TOTAL
308 LEFT
1,844 THRU
100 RIGHT

1 L | 2 T | 1 R
TR?: N

Osuna Rd.
E-W STREET
314 LEFT
602 THRU
285 RIGHT
1,201 NB TOTAL

EB LT =	154	MAXIMUM SUM OF CRITICAL VALUES	CAPACITY LEVEL	NB LT =	314
WB TH =	569			SB TH =	348
	723 *	0 TO 1,200	UNDER		662
		1,201 TO 1,400	NEAR		
WB LT =	50	>1,400	OVER	SB LT =	362
EB TH =	648			NB TH =	301
	698				663 *

723 (E-W CRITICAL) + 663 (N-S CRITICAL) = 1,386 STATUS? NEAR

NOTES: Mitigated Geometry (2010)

SIGNALIZED INTERSECTION
PLANNING APPLICATION WORKSHEET

Intersection: **Osuna Rd. / Jefferson St.**
Date: 2-May-06
Analyst: TOB
Time Period Analyzed: **PM** Peak Hr.
Project: Vista del Norte Commercial Development (Osuna Rd. / Vista del City / State: Albuquerque, NM
Condition: **2008 BUILD**

Jefferson St.
N-S STREET

SB TOTAL: 1,085
354 RIGHT
369 THRU
362 LEFT

TR?: Y

R: 0 | T: 2 | L: 1

225 RIGHT
1,237 THRU
99 LEFT
1,561 WB TOTAL

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

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

335 LEFT
1,945 THRU
103 RIGHT
2,383 EB TOTAL

1 L | 2 T | 1 R
TR?: N

Osuna Rd.
E-W STREET

317 LEFT
602 THRU
285 RIGHT
1,204 NB TOTAL

EB LT =	168	MAXIMUM SUM OF CRITICAL VALUES	CAPACITY LEVEL	NB LT =	317
WB TH =	619			SB TH =	362
	786 *				679 *
		0 TO 1,200	UNDER		
		1,201 TO 1,400	NEAR		
		>1,400	OVER		
WB LT =	50			SB LT =	362
EB TH =	683			NB TH =	301
	732				663

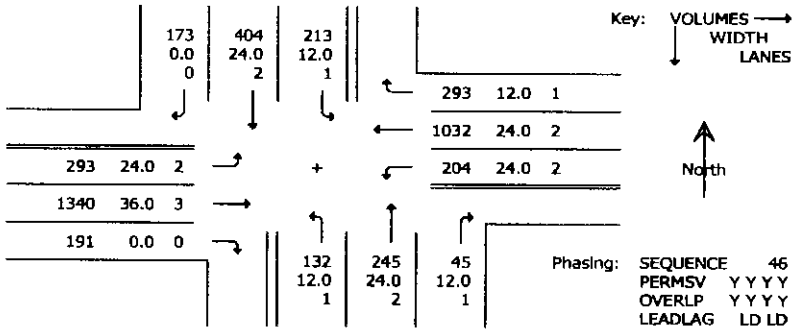
786 (E-W CRITICAL) + 679 (N-S CRITICAL) = 1,465 STATUS? ***O V E R***

NOTES: Mitigated Geometry (2010)

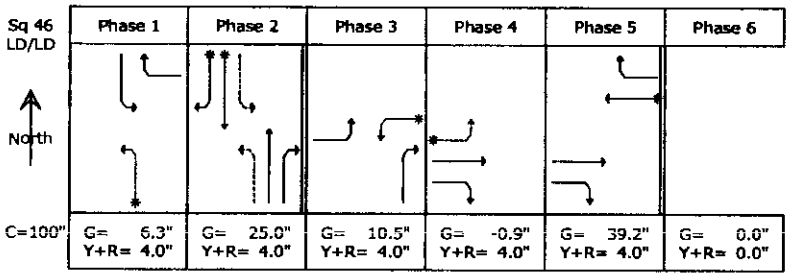
Vista del Norte Commercial Development (Osuna / VdN) 04/15/06
Analysis of Osuna Rd. / Jefferson St. -[5_08ANX] 20:01:52
2008 AM Peak Hour NO BUILD Conditions

SIGNAL2000/TEAPAC[Ver 2.70.07] - HCM Input Worksheet

Intersection # 1 Area Location Type: NONCBD



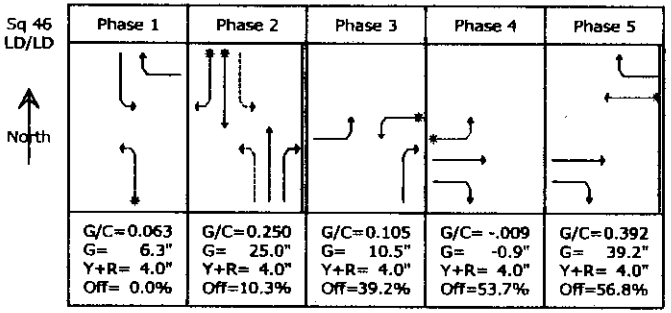
	SB RT	SB TH	SB LT	WB RT	WB TH	WB LT	NB RT	NB TH	NB LT	EB RT	EB TH	EB LT
Heavy veh, %HV	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.87	.87	.87	.88	.88	.88	.91	.91	.91	.88	.88	.88
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Startup lost, tl	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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 del Norte Commercial Development (Osuna / VdN) 04/15/06
Analysis of Osuna Rd. / Jefferson St. -[5_08ANX] 20:01:52
2008 AM Peak Hour NO BUILD Conditions

SIGNAL2000/TEAPAC[Ver 2.70.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.76 Vehicle Delay 33.9 Level of Service C



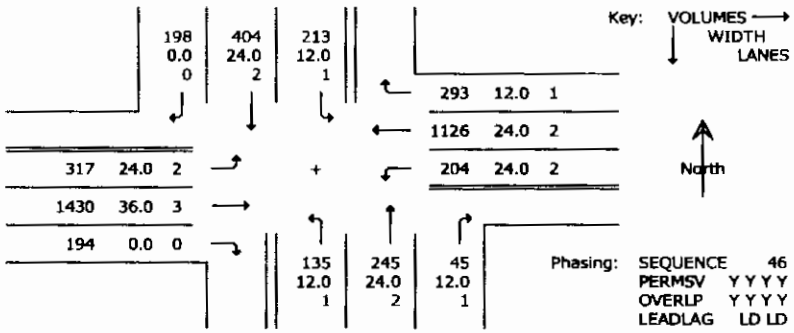
C=100 sec G= 80.0 sec = 80.0% Y=20.0 sec = 20.0% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate ØC*(vph)	ØE	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								39.3	D+	
RT+TH	24/2	0.282	0.250	519	821	663	0.808	41.3	*D+	450 ft
LT	12/1	0.060	0.063	252	347	245	0.706	33.9	C	293 ft
NB Approach								33.4	C	
RT	12/1	0.180	0.394	492	607	49	0.081	19.0	B	41 ft
TH	24/2	0.201	0.250	546	860	269	0.313	30.7	C	152 ft
LT	12/1	0.073	0.063	130	179	145	0.775	43.2	*D+	195 ft
WB Approach								32.8	C	
RT	12/1	0.309	0.495	675	761	333	0.438	16.7	B	280 ft
TH	24/2	0.389	0.392	1184	1350	1173	0.869	34.4	*C	757 ft
LT	24/2	0.197	0.105	1	334	232	0.663	47.7	*D	164 ft
EB Approach								32.6	C	
RT+TH	36/3	0.397	0.423	1889	2045	1740	0.851	29.7	C	758 ft
LT	24/2	0.212	0.136	1	444	333	0.735	47.6	*D	235 ft

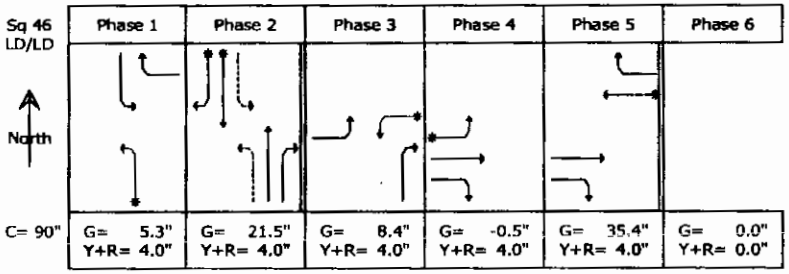
Vista del Norte Commercial Development (Osuna / VdN) 04/15/06
Analysis of Osuna Rd. / Jefferson St - [5_08ABX] 20:04:41
2008 AM Peak Hour BUILD Conditions

SIGNAL2000/TEAPAC[Ver 2.70.07] - HCM Input Worksheet

Intersection # 1 - Area Location Type: NONCBD



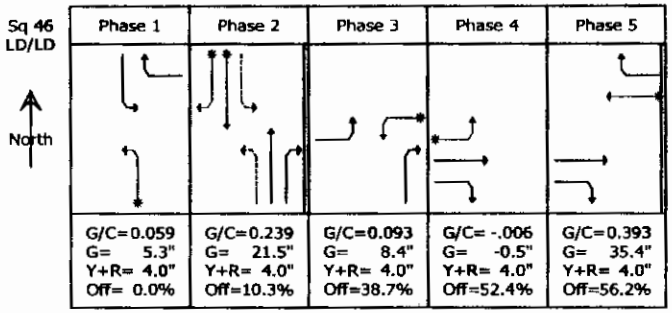
	EB RT	EB TH	EB LT	WB RT	WB TH	WB LT	NB RT	NB TH	NB LT	SB RT	SB TH	SB LT
Heavy veh, %HV	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.87	.87	.87	.88	.88	.88	.91	.91	.91	.88	.88	.88
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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 del Norte Commercial Development (Osuna / VdN) 04/15/06
Analysis of Osuna Rd. / Jefferson St - [5_08ABX] 20:04:41
2008 AM Peak Hour BUILD Conditions

SIGNAL2000/TEAPAC[Ver 2.70.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 - Degree of Saturation (v/c) 0.82 Vehicle Delay 35.4 Level of Service D+



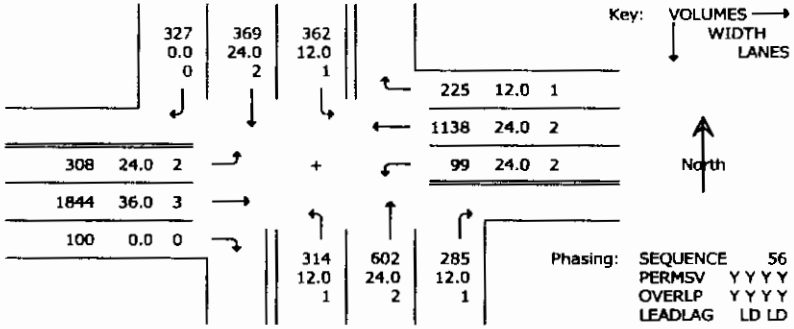
C= 90 sec G= 70.0 sec = 77.8% Y=20.0 sec = 22.2% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	@E	Adj Volume	v/c	HCM Delay	LOS	Queue Model 1
SB Approach								42.1	D+	
RT+TH	24/2	0.270	0.239	569	782	692	0.885	44.9	*D+	463 ft
LT	12/1	0.057	0.059	250	333	245	0.736	34.1	C	275 ft
NB Approach								33.8	C	
RT	12/1	0.139	0.376	479	579	49	0.085	18.1	B	38 ft
TH	24/2	0.161	0.239	603	822	269	0.327	28.5	C	140 ft
LT	12/1	0.072	0.059	129	173	148	0.818	48.6	*D	190 ft
WB Approach								36.8	D+	
RT	12/1	0.294	0.496	692	764	333	0.436	15.0	B+	254 ft
TH	24/2	0.406	0.393	1230	1354	1280	0.945	39.9	*D+	836 ft
LT	24/2	0.157	0.093	1	298	232	0.746	49.3	*D	157 ft
EB Approach								31.9	C	
RT+TH	36/3	0.406	0.432	1985	2089	1845	0.883	28.4	C	759 ft
LT	24/2	0.184	0.132	82	436	360	0.820	49.8	*D	245 ft

Vista del Norte Commercial Development (Osuna / VdN) 04/15/06
Analysis of Osuna Rd. / Jefferson St. - [5_08PNX] 20:23:58
2008 PM Peak Hour NO BUILD Conditions

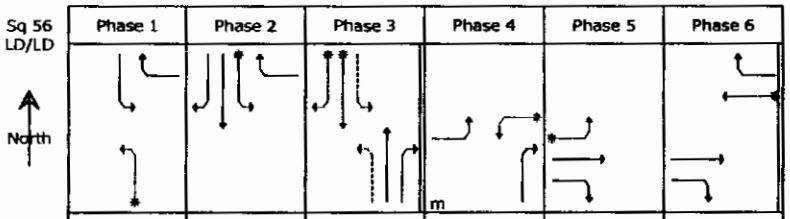
SIGNAL2000/TEAPAC[Ver 2.70.07] - HCM Input Worksheet

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	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.80	.80	.80	.91	.91	.91	.90	.90	.90	.94	.94	.94
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	

Sq 56 LD/LD



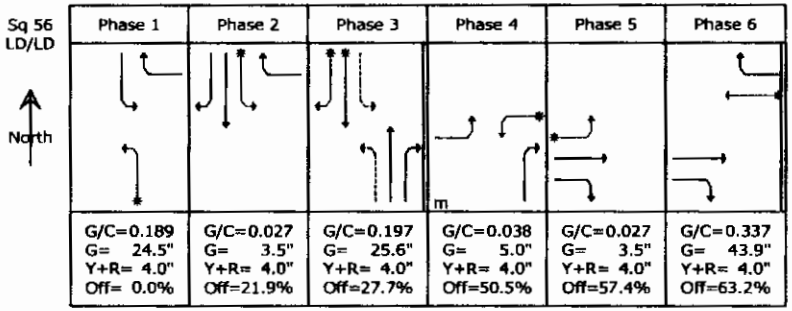
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
C=130"	G= 24.5" Y+R= 4.0"	G= 3.5" Y+R= 4.0"	G= 25.6" Y+R= 4.0"	G= 5.0" Y+R= 4.0"	G= 3.5" Y+R= 4.0"	G= 43.9" Y+R= 4.0"

Vista del Norte Commercial Development (Osuna / VdN) 04/15/06
Analysis of Osuna Rd. / Jefferson St. - [5_08PNX] 20:23:58
2008 PM Peak Hour NO BUILD Conditions

SIGNAL2000/TEAPAC[Ver 2.70.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 1.00 Vehicle Delay 82.0 Level of Service F

Sq 56 LD/LD



Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
G/C=0.189 G= 24.5" Y+R= 4.0" Off= 0.0%	G/C=0.027 G= 3.5" Y+R= 4.0" Off=21.9%	G/C=0.197 G= 25.6" Y+R= 4.0" Off=27.7%	G/C=0.038 G= 5.0" Y+R= 4.0" Off=50.5%	G/C=0.027 G= 3.5" Y+R= 4.0" Off=57.4%	G/C=0.337 G= 43.9" Y+R= 4.0" Off=63.2%

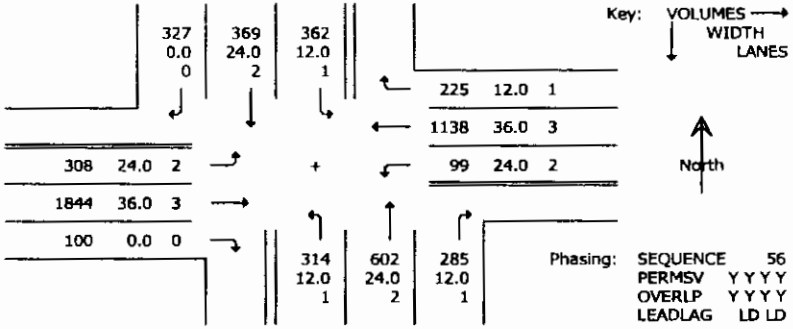
C=130 sec G=106.0 sec = 81.5% Y=24.0 sec = 18.5% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								87.6	F	
RT+TH	24/2	0.390	0.255	1	815	870	1.067	99.6	*F	941 ft
LT	12/1	0.319	0.247	335	480	452	0.942	64.5	*E+	783 ft
NB Approach								70.9	E	
RT	12/1	0.360	0.266	1	391	317	0.775	53.1	D	505 ft
TH	24/2	0.347	0.197	1	661	669	0.987	83.2	F	683 ft
LT	12/1	0.253	0.189	251	374	349	0.918	63.6	*E+	615 ft
WB Approach								80.5	F	
RT	12/1	0.335	0.615	863	945	247	0.261	11.6	B+	194 ft
TH	24/2	0.445	0.337	603	1163	1251	1.076	92.3	*F	1304 ft
LT	24/2	0.279	0.038	1	93	109	0.852	101.2	*F	119 ft
EB Approach								86.0	F	
RT+TH	36/3	0.479	0.395	1421	1933	2068	1.070	81.4	F	1471 ft
LT	24/2	0.305	0.096	1	280	328	1.022	114.7	*F	376 ft

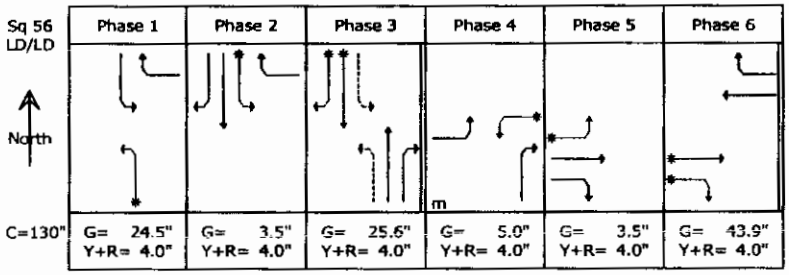
Vista del Norte Commercial Development (Osuna / VdN) 04/15/06
Analysis of Osuna Rd. / Jefferson St. - [5_08PN1] 20:32:52
2008 PM Peak Hour NO BUILD Cond - ADD WB Thru

SIGNAL2000/TEAPAC[Ver 2.70.07] - HCM Input Worksheet

Intersection # 1 - Area Location Type: NONCBD



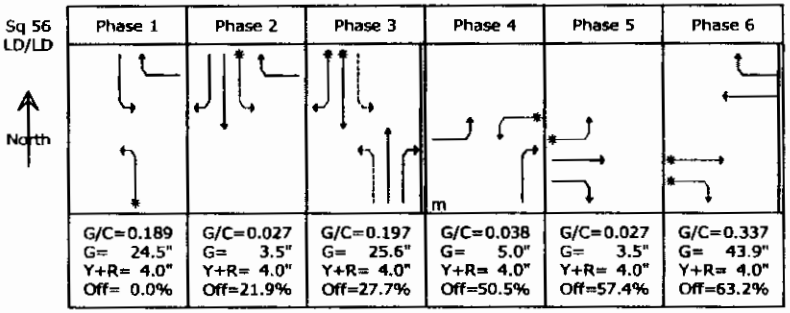
	SB RT	SB TH	SB LT	WB RT	WB TH	WB LT	NB RT	NB TH	NB LT	EB RT	EB TH	EB LT
Heavy veh, %HV	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.80	.80	.80	.91	.91	.91	.90	.90	.90	.94	.94	.94
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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 del Norte Commercial Development (Osuna / VdN) 04/15/06
Analysis of Osuna Rd. / Jefferson St. - [5_08PN1] 20:32:52
2008 PM Peak Hour NO BUILD Cond - ADD WB Thru

SIGNAL2000/TEAPAC[Ver 2.70.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.93 Vehicle Delay 72.1 Level of Service E



C=130 sec G=106.0 sec = 81.5% Y=24.0 sec = 18.5% Ped= 0.0 sec = 0.0%

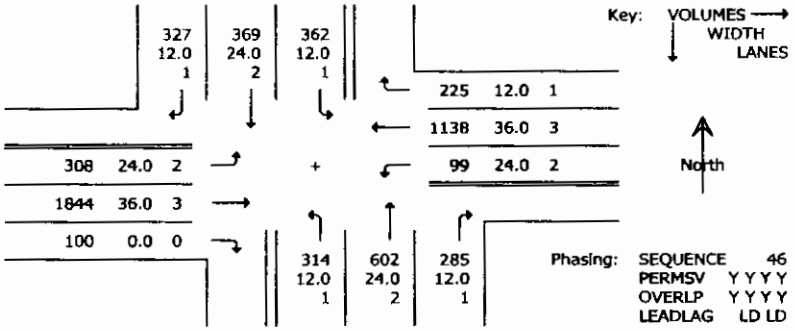
Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								87.3	F	
RT+TH	24/2	0.390	0.255	1	816	870	1.066	99.1	*F	939 ft
LT	12/1	0.319	0.247	335	480	452	0.942	64.5	*E+	783 ft
NB Approach								70.9	E	
RT	12/1	0.360	0.266	1	391	317	0.775	53.1	D	505 ft
TH	24/2	0.347	0.197	1	661	669	0.987	83.2	F	683 ft
LT	12/1	0.253	0.189	251	374	349	0.918	63.6	*E+	615 ft
WB Approach								40.0	D+	
RT	12/1	0.335	0.615	863	945	247	0.261	11.6	B+	194 ft
TH	36/3	0.375	0.337	874	1663	1251	0.752	40.2	D+	669 ft
LT	24/2	0.279	0.038	1	93	109	0.852	101.2	*F	119 ft
EB Approach								86.0	F	
RT+TH	36/3	0.479	0.395	1420	1933	2068	1.070	81.4	*F	1471 ft
LT	24/2	0.305	0.096	1	280	328	1.022	114.7	*F	376 ft

Vista del Norte Commercial Development (Osuna / VdN) 04/15/06
Analysis of Osuna Rd. / Jefferson St. - [5_08PN2] 20:43:46
2008 PM Peak Hour NO BUILD Cond - ADD WB Thru, SB RT Lane

SIGNAL2000/TEAPAC[Ver 2.70.07] - HCM Input Worksheet

Intersection # 1 - Area Location Type: NONCBD

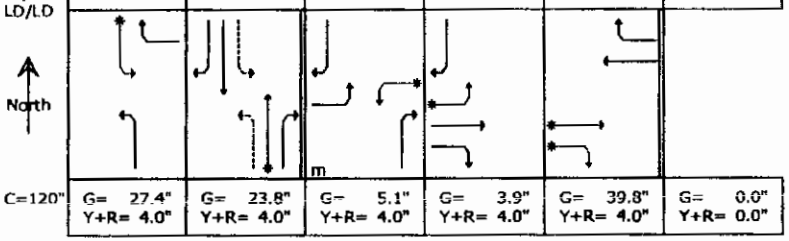
Key: VOLUMES → ; WIDTH ↓ ; LANES



Phasing: SEQUENCE 46
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	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.80	.80	.80	.91	.91	.91	.90	.90	.90	.94	.94	.94
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	

Sq 46 LD/LD

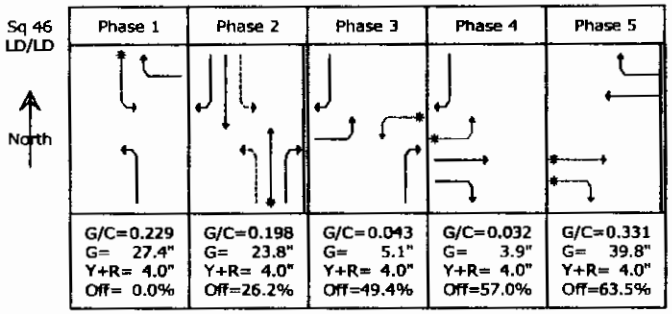


Vista del Norte Commercial Development (Osuna / VdN) 04/15/06
Analysis of Osuna Rd. / Jefferson St. - [5_08PN2] 20:43:46
2008 PM Peak Hour NO BUILD Cond - ADD WB Thru, SB RT Lane

SIGNAL2000/TEAPAC[Ver 2.70.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.88 Vehicle Delay 59.1 Level of Service E+

Sq 46 LD/LD



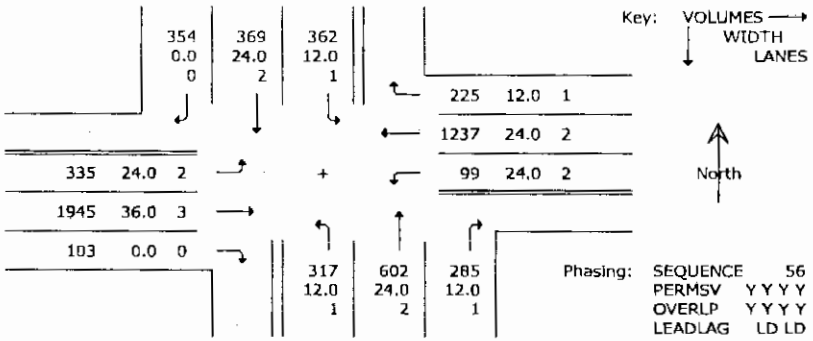
C=120 sec G=100.0 sec = 83.3% Y=20.0 sec = 16.7% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								56.2	E+	
RT	12/1	0.381	0.340	319	523	409	0.782	43.2	D+	577 ft
TH	24/2	0.293	0.198	1	677	461	0.675	47.2	D	357 ft
LT	12/1	0.302	0.229	335	453	452	0.998	77.1	*E	809 ft
NB Approach								57.3	E+	
RT	12/1	0.340	0.274	133	411	317	0.751	47.2	D	462 ft
TH	24/2	0.323	0.198	1	677	669	0.980	77.1	*E	637 ft
LT	12/1	0.202	0.229	399	487	349	0.717	28.5	C	447 ft
WB Approach								36.9	D+	
RT	12/1	0.310	0.593	834	913	247	0.271	12.0	B+	190 ft
TH	36/3	0.354	0.331	1053	1633	1251	0.766	38.2	D+	633 ft
LT	24/2	0.250	0.043	1	111	109	0.768	78.9	*E	105 ft
EB Approach								76.7	E	
RT+TH	36/3	0.468	0.397	1581	1942	2068	1.065	76.4	*E	1382 ft
LT	24/2	0.277	0.108	1	332	328	0.906	78.4	*E	312 ft

Vista del Norte ALTERNATE Development (Osuna / VdN) 05/02/06
Analysis of Osuna Rd. / Jefferson St. - [5_08PBX] 22:39:13
2008 PM Peak Hour BUILD Conditions

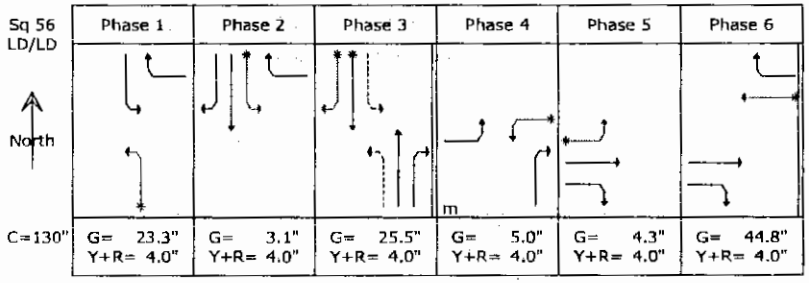
SIGNALIZED INTERSECTION SUMMARY Worksheet

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	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.80	.80	.80	.91	.91	.91	.90	.90	.90	.94	.94	.94
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	

Sq 56
LD/LD

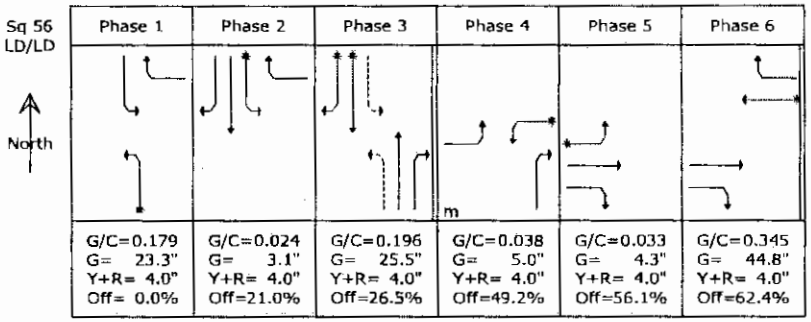


Vista del Norte ALTERNATE Development (Osuna / VdN) 05/02/06
Analysis of Osuna Rd. / Jefferson St. - [5_08PBX] 22:39:13
2008 PM Peak Hour BUILD Conditions

SIGNALIZED INTERSECTION SUMMARY Worksheet

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 1.03 Vehicle Delay 94.1 Level of Service F

Sq 56
LD/LD



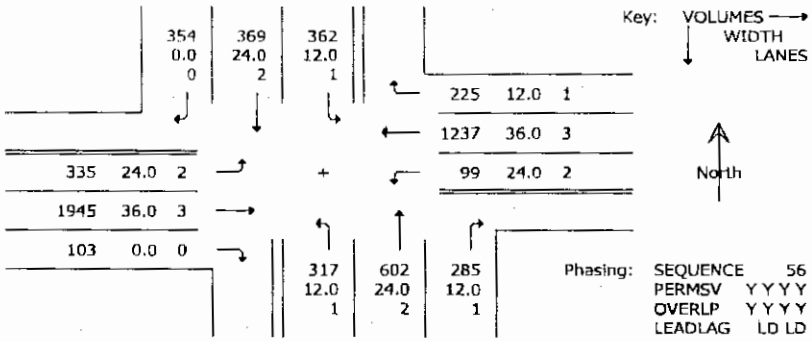
C=130 sec G=106.0 sec = 81.5% Y=24.0 sec = 18.5% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								106.5	F	
RT+TH	24/2	0.396	0.251	1	801	903	1.126	121.1	*F	1041 ft
LT	12/1	0.319	0.234	317	457	452	0.987	77.4	*E	843 ft
NB Approach								74.5	E	
RT	12/1	0.360	0.266	1	391	317	0.775	53.2	D	505 ft
TH	24/2	0.347	0.196	1	660	669	0.988	83.6	F	684 ft
LT	12/1	0.255	0.179	232	357	352	0.967	76.4	*E	663 ft
WB Approach								101.5	F	
RT	12/1	0.335	0.609	853	937	247	0.264	12.0	B+	197 ft
TH	24/2	0.466	0.345	655	1188	1359	1.144	117.7	*F	1527 ft
LT	24/2	0.279	0.038	1	93	109	0.852	101.2	*F	119 ft
EB Approach								92.8	F	
RT+TH	36/3	0.495	0.408	1533	1997	2179	1.091	88.3	F	1584 ft
LT	24/2	0.308	0.102	1	300	356	1.047	120.0	*F	416 ft

Vista del Norte ALTERNATE Development (Osuna / VdN) 05/02/06
Analysis of Osuna Rd. / Jefferson St. - [5_08PB1] 22:41:44
2008 PM Peak Hour BUILD Conditions - ADD WB THRU Lane

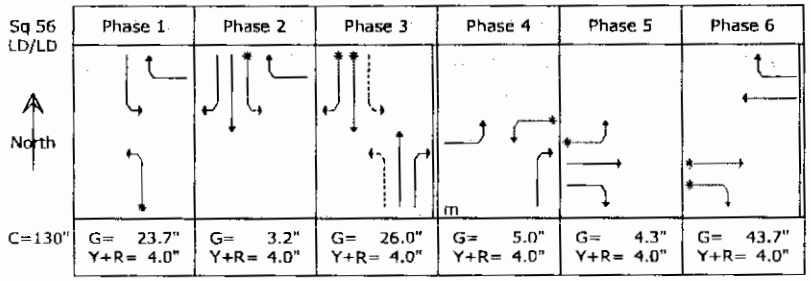
SIGNAL 2000/TEAPAC(Ver 5.0.07) - Input Worksheet

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	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.80	.80	.80	.91	.91	.91	.90	.90	.90	.94	.94	.94
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, vblc		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 56
LD/LD

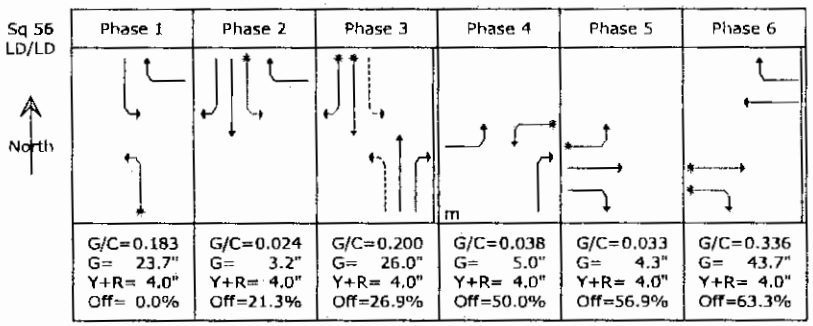


Vista del Norte ALTERNATE Development (Osuna / VdN) 05/02/06
Analysis of Osuna Rd. / Jefferson St. - [5_08PB1] 22:41:44
2008 PM Peak Hour BUILD Conditions - ADD WB THRU Lane

SIGNAL 2000/TEAPAC(Ver 5.0.07) - Capacity Analysis Summary

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.97 Vehicle Delay 80.1 Level of Service F

Sq 56
LD/LD



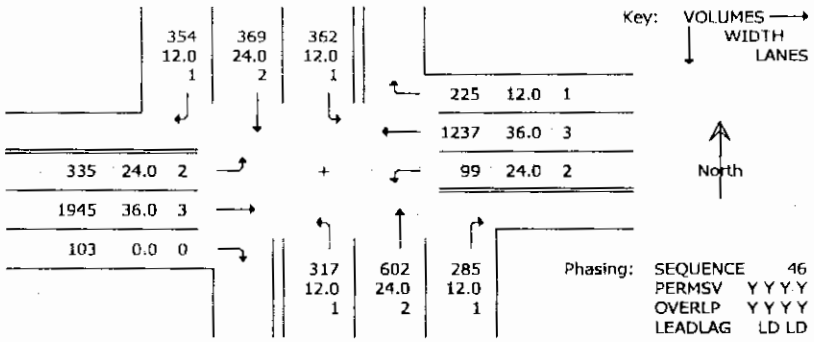
C=130 sec G=106.0 sec = 81.5% Y=24.0 sec = 18.5% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								99.8	F	
RT+TH	24/2	0.396	0.255	1	816	903	1.107	113.3	*F	1018 ft
LT	12/1	0.319	0.238	322	464	452	0.972	72.9	*E	823 ft
NB Approach								70.4	E	
RT	12/1	0.360	0.270	13	398	317	0.764	51.9	D	500 ft
TH	24/2	0.347	0.200	1	674	669	0.970	78.4	E	669 ft
LT	12/1	0.256	0.183	242	363	352	0.951	72.0	*E	648 ft
WB Approach								42.2	D+	
RT	12/1	0.335	0.605	844	930	247	0.266	12.2	B+	199 ft
TH	36/3	0.387	0.336	863	1658	1359	0.820	42.9	D+	759 ft
LT	24/2	0.279	0.038	1	93	109	0.852	101.2	*F	119 ft
EB Approach								100.3	F	
RT+TH	36/3	0.495	0.400	1466	1959	2179	1.112	97.4	*F	1627 ft
LT	24/2	0.308	0.103	1	302	356	1.041	118.0	*F	413 ft

Vista del Norte ALTERNATE Development (Osuna / VdN) 05/02/06
Analysis of Osuna Rd. / Jefferson St. - [5_08PB2] 22:44:12
2008 PM Peak Hour BUILD Conditions - ADD WB THRU, SB RT Lane

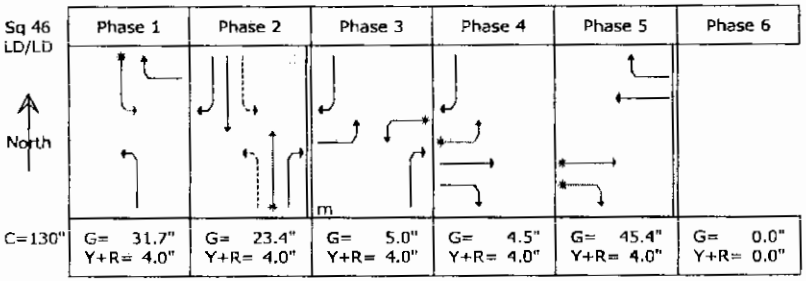
SIGNAL2000/TEAPAC Ver 2.70.07 - HCM Build Worksheet

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	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.80	.80	.80	.91	.91	.91	.90	.90	.90	.94	.94	.94
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	

Sq 46
LD/LD

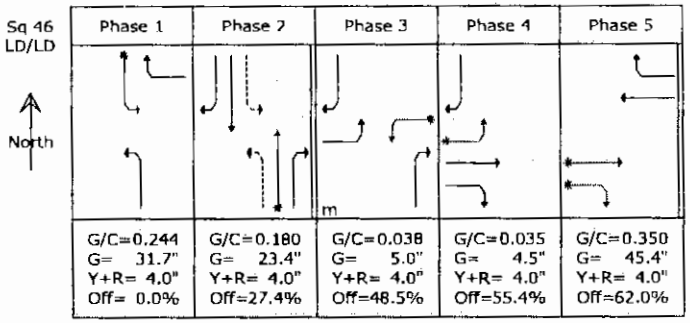


Vista del Norte ALTERNATE Development (Osuna / VdN) 05/02/06
Analysis of Osuna Rd. / Jefferson St. - [5_08PB2] 22:44:12
2008 PM Peak Hour BUILD Conditions - ADD WB THRU, SB RT Lane

SIGNAL2000/TEAPAC Ver 2.70.07 - Capacity Analysis Summary

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.91 Vehicle Delay 68.5 Level of Service E

Sq 46
LD/LD



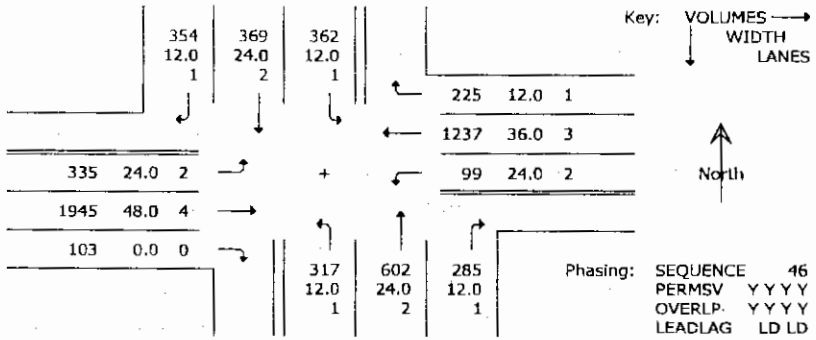
C=130 sec G=110.0 sec = 84.6% Y=20.0 sec = 15.4% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E (vph)	Adj Volume	v/c	HCM Delay	LOS	Queue Model 1
SB Approach								62.2	E+	
RT	12/1	0.411	0.315	178	475	442	0.913	64.6	E+	756 ft
TH	24/2	0.320	0.180	1	598	461	0.744	55.3	E+	400 ft
LT	12/1	0.317	0.244	334	475	452	0.952	66.8	*E+	797 ft
NB Approach								78.8	E	
RT	12/1	0.360	0.249	1	362	317	0.828	60.2	E+	528 ft
TH	24/2	0.347	0.180	1	598	669	1.079	112.6	*F	760 ft
LT	12/1	0.227	0.244	376	492	352	0.715	31.2	C	485 ft
WB Approach								40.1	D+	
RT	12/1	0.335	0.624	882	960	247	0.257	11.1	B+	190 ft
TH	36/3	0.387	0.350	1001	1723	1359	0.789	40.5	D+	737 ft
LT	24/2	0.279	0.038	1	93	109	0.852	101.2	*F	119 ft
EB Approach								85.6	F	
RT+TH	36/3	0.495	0.415	1588	2030	2179	1.073	81.0	*F	1548 ft
LT	24/2	0.308	0.104	1	307	356	1.026	113.4	*F	406 ft

Vista del Norte ALTERNATE Development (Osuna / VdN) 05/02/06
Analysis of Osuna Rd. / Jefferson St. - [5_08PB3] 22:47:05
2008 PM Peak Hour BUILD Cond - ADD EB/WB THRU, SB RT Lane

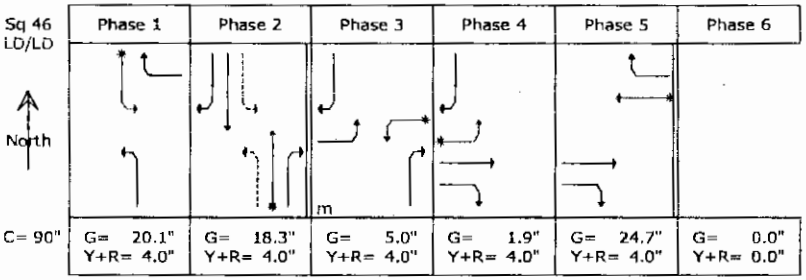
SIGNALIZED INTERSECTION CAPACITY ANALYSIS WORKSHEET

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	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.80	.80	.80	.91	.91	.91	.90	.90	.90	.94	.94	.94
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	

Sq 46 LD/LD

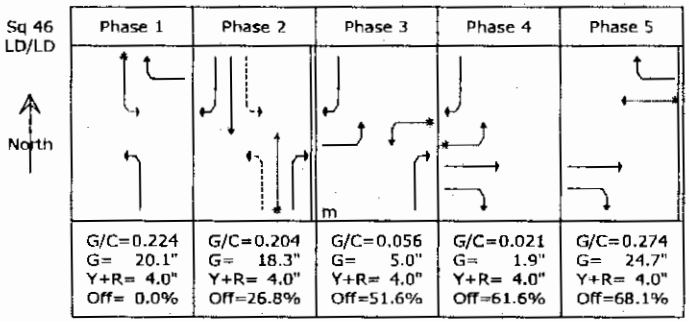


Vista del Norte ALTERNATE Development (Osuna / VdN) 05/02/06
Analysis of Osuna Rd. / Jefferson St. - [5_08PB3] 22:47:05
2008 PM Peak Hour BUILD Cond - ADD EB/WB THRU, SB RT Lane

SIGNALIZED INTERSECTION CAPACITY ANALYSIS SUMMARY

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.89 Vehicle Delay 46.1 Level of Service D

Sq 46 LD/LD



C= 90 sec G= 70.0 sec = 77.8% Y=20.0 sec = 22.2% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								42.1	D+	
RT	12/1	0.356	0.369	465	567	442	0.780	32.1	C	476 ft
TH	24/2	0.205	0.204	456	702	461	0.657	35.2	D+	273 ft
LT	12/1	0.259	0.224	394	464	452	0.974	59.0	*E+	625 ft
NB Approach								42.4	D+	
RT	12/1	0.284	0.304	351	467	317	0.679	31.4	C	337 ft
TH	24/2	0.255	0.204	456	702	669	0.953	58.5	*E+	493 ft
LT	12/1	0.177	0.224	436	494	352	0.713	21.7	C+	346 ft
WB Approach								50.9	D	
RT	12/1	0.243	0.542	773	834	247	0.296	11.4	B+	162 ft
TH	36/3	0.315	0.274	1117	1352	1359	1.005	58.4	*E+	723 ft
LT	24/2	0.136	0.056	1	166	109	0.589	46.4	*D	73 ft
EB Approach								47.1	D	
RT+TH	48/4	0.360	0.339	2026	2213	2179	0.985	45.1	D	816 ft
LT	24/2	0.183	0.121	16	397	356	0.883	59.0	*E+	258 ft

Queueing Analysis Summary Sheet

Project: Vista del Norte Commercial Development (Osuna Rd. / Vista del Norte)
Intersection: **Osuna Rd. / Vista del Norte**

2008

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*	*21*	*300*	*2*	*1,183*	*Cont*	*0*	*0*	*0*
AM NO BUILD Queue	1	26	50	2	1,207	650	0	0	0
AM BUILD Queue	**1**	**111**	**150**	**2**	**1,263**	**675**	**0**	**0**	**0**
Existing Lane Length	*1*	*94*	*300*	*2*	*761*	*Cont*	*0*	*0*	*0*
PM NO BUILD Queue	1	101	**175**	2	776	**550**	0	0	0
PM BUILD Queue	**1**	**217**	**325**	**2**	**809**	**575**	**0**	**0**	**0**

Westbound Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	*0*	*0*	*0*	*2*	*638*	*Cont*	*1*	*91*	*300*
AM NO BUILD Queue	0	0	0	2	715	425	1	112	150
AM BUILD Queue	**0**	**0**	**0**	**2**	**782**	**450**	**1**	**150**	**200**
Existing Lane Length	*0*	*0*	*0*	*2*	*1,371*	*Cont*	*1*	*519*	*300*
PM NO BUILD Queue	0	0	0	2	1,536	>1,000	1	601	**750**
PM BUILD Queue	**0**	**0**	**0**	**2**	**1,601**	**>1,000**	**1**	**641**	**775**

Northbound Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	*0*	*0*	*0*	*0*	*0*	*Cont*	*0*	*0*	*0*
AM NO BUILD Queue	0	0	0	0	0	0	0	0	0
AM BUILD Queue	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Existing Lane Length	*0*	*0*	*0*	*0*	*0*	*Cont*	*0*	*0*	*0*
PM NO BUILD Queue	0	0	0	0	0	0	0	0	0
PM BUILD Queue	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Southbound Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	*2*	*665*	*475*	*0*	*0*	*Cont*	*1*	*96*	*400*
AM NO BUILD Queue	2	752	425	0	0	0	1	111	150
AM BUILD Queue	**2**	**833**	**475**	**0**	**0**	**0**	**1**	**178**	**225**
Existing Lane Length	*2*	*155*	*475*	*0*	*0*	*Cont*	*1*	*47*	*400*
PM NO BUILD Queue	2	181	**175**	0	0	0	1	57	**125**
PM BUILD Queue	**2**	**299**	**250**	**0**	**0**	**0**	**1**	**146**	**225**

	AM	PM
Cycle Length:	100	130

SIGNALIZED INTERSECTION
PLANNING APPLICATION WORKSHEET

Intersection: **Osuna Rd. / Vista del Norte**
Analyst: TOB
Project: Vista del Norte Commercial Development (Osuna Rd. / Vista del
Condition: **2008 NO BUILD**

Date: 2-May-06
Time Period Analyzed: **AM** Peak Hr.
City / State: Albuquerque, NM

Vista del Norte
N-S STREET

SB TOTAL: 863
111 RIGHT
0 THRU
752 LEFT

TR? N
R 1 | T 0 | L 2

112 RIGHT
715 THRU
0 LEFT
827 WB TOTAL

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

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

1,233 EB TOTAL
26 LEFT
1,207 THRU
0 RIGHT

0 L | 0 T | 0 R
TR? Y

Osuna Rd.
E-W STREET
0 LEFT
0 THRU
0 RIGHT
0 NB TOTAL

EB LT =	26	MAXIMUM SUM OF CRITICAL VALUES	CAPACITY LEVEL	NB LT =	0
WB TH =	358			SB TH =	0
	384				0
		0 TO 1,200	UNDER		
		1,201 TO 1,400	NEAR		
		>1,400	OVER		
WB LT =	0			SB LT =	376
EB TH =	604			NB TH =	0
	604 *				376 *

604 (E-W CRITICAL) + 376 (N-S CRITICAL) = 980 STATUS? UNDER

NOTES: Mitigated Geometry (2010)

SIGNALIZED INTERSECTION
PLANNING APPLICATION WORKSHEET

Intersection: **Osuna Rd. / Vista del Norte** Date: 2-May-06
Analyst: TOB Time Period Analyzed: **AM** Peak Hr.
Project: Vista del Norte Commercial Development (Osuna Rd. / Vista del City / State: Albuquerque, NM
Condition: **2008 BUILD**

Vista del Norte
N-S STREET

SB TOTAL: 1,011
178 RIGHT
0 THRU
833 LEFT

TR? N
R 1 | T 0 | L 2

150 RIGHT
782 THRU
0 LEFT
932 WB TOTAL

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

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

111 LEFT
1,374 EB TOTAL
1,263 THRU
0 RIGHT

0 L | 0 T | 0 R
TR? Y

Osuna Rd.
E-W STREET
0 LEFT
0 THRU
0 RIGHT
0 NB TOTAL

EB LT =	111	MAXIMUM SUM OF CRITICAL VALUES	CAPACITY LEVEL	NB LT =	0
WB TH =	391			SB TH =	0
	502	0 TO 1,200	UNDER		0
		1,201 TO 1,400	NEAR		
WB LT =	0	>1,400	OVER	SB LT =	417
EB TH =	632			NB TH =	0
	632 *				417 *

632 (E-W CRITICAL) + 417 (N-S CRITICAL) = 1,048 STATUS? UNDER

NOTES: Mitigated Geometry (2010)

SIGNALIZED INTERSECTION
PLANNING APPLICATION WORKSHEET

Intersection: **Osuna Rd. / Vista del Norte** Date: 2-May-06
Analyst: TOB Time Period Analyzed: **PM** Peak Hr.
Project: Vista del Norte Commercial Development (Osuna Rd. / Vista del City / State: Albuquerque, NM
Condition: **2008 NO BUILD**

Vista del Norte
N-S STREET

SB TOTAL: 238
57 RIGHT
0 THRU
181 LEFT

N TR?
R 1 | T 0 | L 2

601 RIGHT
1,536 THRU
0 LEFT
2,137 WB TOTAL

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

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

101 LEFT
877 EB TOTAL
776 THRU
0 RIGHT

0 L | 0 T | 0 R
TR? Y

Osuna Rd.
E-W STREET
0 LEFT
0 THRU
0 RIGHT
0 NB TOTAL

EB LT =	101	MAXIMUM SUM OF CRITICAL VALUES	CAPACITY LEVEL	NB LT =	0
WB TH =	768			SB TH =	0
	869 *	0 TO 1,200	UNDER		0
		1,201 TO 1,400	NEAR		
WB LT =	0	>1,400	OVER	SB LT =	91
EB TH =	388			NB TH =	0
	388				91 *

869 (E-W CRITICAL) + 91 (N-S CRITICAL) = 960 STATUS? UNDER

TES: Mitigated Geometry (2010)

SIGNALIZED INTERSECTION
PLANNING APPLICATION WORKSHEET

Intersection: **Osuna Rd. / Vista del Norte** Date: 2-May-06
Analyst: TOB Time Period Analyzed: **PM** Peak Hr.
Project: Vista del Norte Commercial Development (Osuna Rd. / Vista del City / State: Albuquerque, NM
Condition: **2008 BUILD**

Vista del Norte
N-S STREET

SB TOTAL: 445
146 RIGHT
0 THRU
299 LEFT

TR? N
R 1 | T 0 | L 2

641 RIGHT
1,601 THRU
0 LEFT
2,242 WB TOTAL

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

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

0 L | 0 T | 0 R
TR? Y

1,026 EB TOTAL
217 LEFT
809 THRU
0 RIGHT

Osuna Rd.
E-W STREET
0 LEFT
0 THRU
0 RIGHT
0 NB TOTAL

EB LT =	217	MAXIMUM SUM OF CRITICAL VALUES	CAPACITY LEVEL	NB LT =	0
WB TH =	801			SB TH =	0
	1,018 *	0 TO 1,200	UNDER		0
		1,201 TO 1,400	NEAR		
WB LT =	0	>1,400	OVER	SB LT =	150
EB TH =	405			NB TH =	0
	405				150 *

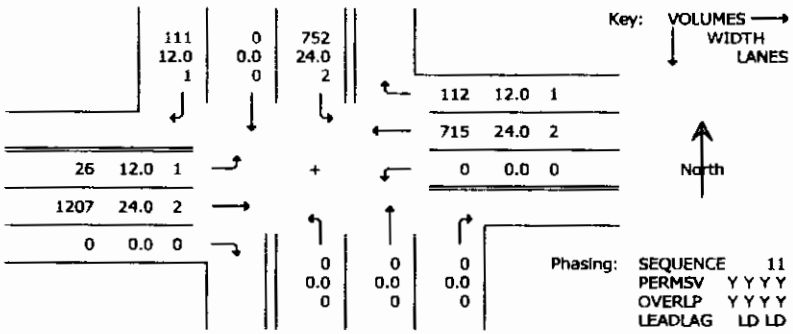
1,018 (E-W CRITICAL) + 150 (N-S CRITICAL) = 1,167 STATUS? UNDER

NOTES: Mitigated Geometry (2010)

Vista del Norte Commercial Development (Osuna / VdN) 04/16/06
Analysis of Osuna Rd. / Vista del Norte - (8_08AMX) 08:29:41
2008 AM Peak Hour NO BUILD Conditions

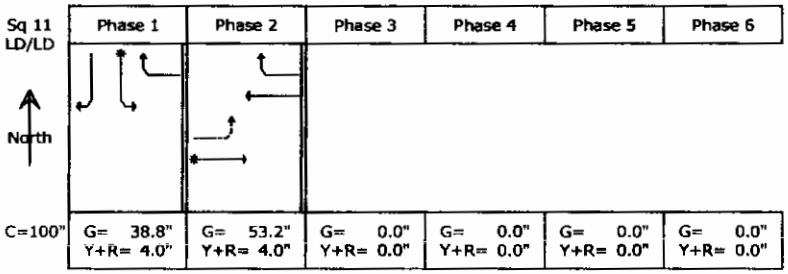
SIGNAL2000/TEAPAC[Ver 2.70.07] - HCM Input Worksheet

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	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.80	.80	.80	.73	.73	.73	.85	.85	.85	.87	.87	.87
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	

Sq 11
LD/LD

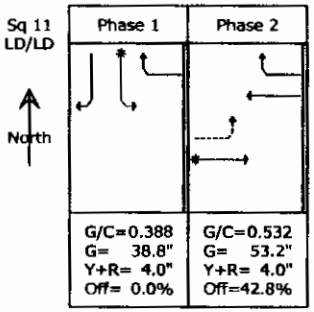


Vista del Norte Commercial Development (Osuna / VdN) 04/16/06
Analysis of Osuna Rd. / Vista del Norte - (8_08AMX) 08:29:41
2008 AM Peak Hour NO BUILD Conditions

SIGNAL2000/TEAPAC[Ver 2.70.07] - Capacity Analysis Summary

Intersection Averages for Int # 1
Degree of Saturation (v/c) 0.64 Vehicle Delay 20.1 Level of Service C+

Sq 11
LD/LD



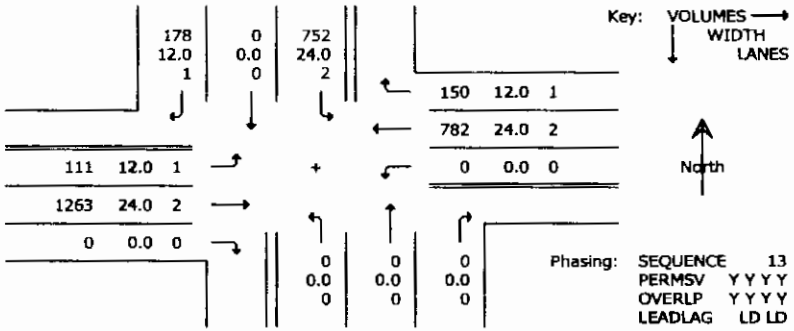
C=100 sec G= 92.0 sec = 92.0% Y= 8.0 sec = 8.0% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @S	Adj Volume	v/c	HCM Delay	LOS	Queue Model 1
SB Approach								27.2	C+	
RT	12/1	0.212	0.388	480	597	139	0.233	20.8	C+	124 ft
LT	24/2	0.343	0.388	1130	1296	940	0.725	28.1	*C	534 ft
WB Approach								13.5	B+	
RT	12/1	0.217	1.000	1538	1538	153	0.099	0.0	A	5 ft
TH	24/2	0.344	0.532	1756	1832	979	0.534	15.6	B	429 ft
EB Approach								20.1	C+	
TH	24/2	0.441	0.532	1756	1832	1387	0.757	20.2	*C+	722 ft
LT	12/1	0.225	0.532	158	200	30	0.147	12.2	B+	22 ft

Vista del Norte Commercial Development (Osuna / VdN) 04/18/06
Analysis of Osuna Rd. / Vista del Norte - [6_08ABX] 08:28:03
2008 AM Peak Hour BUILD Conditions

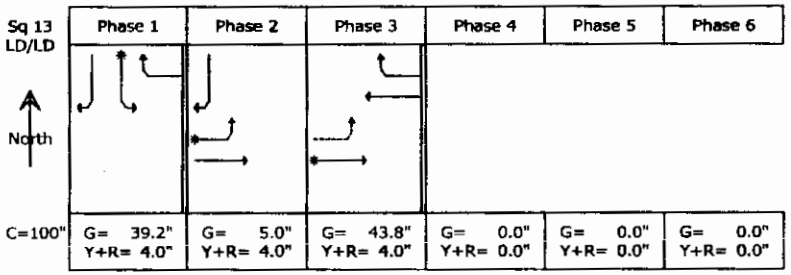
SIGNAL2000/TEAPAC[Ver 2.70.07] - HCM Input Worksheet

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	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.80	.80	.80	.73	.73	.73	.85	.85	.85	.87	.87	.87
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	

Sq 13
LD/LD

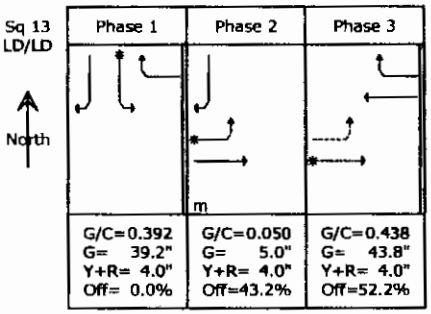


Vista del Norte Commercial Development (Osuna / VdN) 04/18/06
Analysis of Osuna Rd. / Vista del Norte - [6_08ABX] 08:28:03
2008 AM Peak Hour BUILD Conditions

SIGNAL2000/TEAPAC[Ver 2.70.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 Degree of Saturation (v/c) 0.69 Vehicle Delay 22.6 Level of Service C+

Sq 13
LD/LD



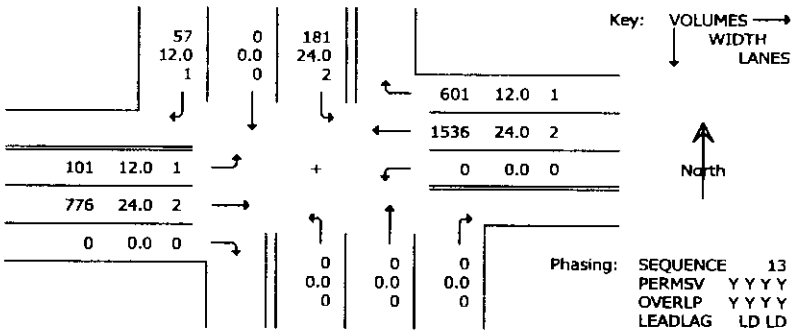
C=100 sec G= 88.0 sec = 88.0% Y=12.0 sec = 12.0% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	G/C Reqd	G/C Used	Service Rate @G (vph)	@E	Adj Volume	v/c	HCM Delay	LOS	Queue Model 1
SB Approach								25.5	C+	
RT	12/1	0.250	0.482	651	741	222	0.300	15.9	B	178 ft
LT	24/2	0.343	0.392	1143	1307	940	0.719	27.7	*C	531 ft
WB Approach								20.7	C+	
RT	12/1	0.241	0.870	1338	1338	205	0.153	1.0	A	46 ft
TH	24/2	0.365	0.438	1379	1511	1071	0.709	24.4	C+	584 ft
EB Approach								22.0	C+	
TH	24/2	0.457	0.528	1744	1821	1452	0.797	21.8	*C+	790 ft
LT	12/1	0.036	0.050	152	191	128	0.660	24.5	*C+	138 ft

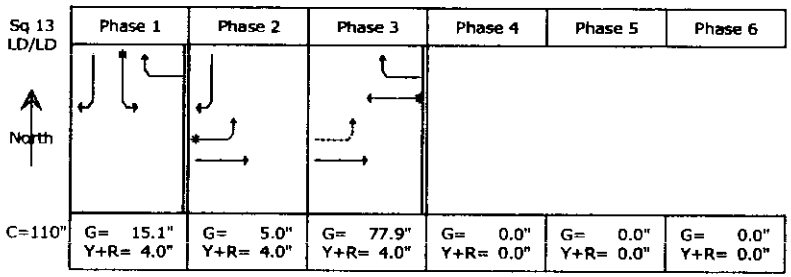
Vista del Norte Commercial Development (Osuna / VdN) 04/16/06
Analysis of Osuna Rd. / Vista del Norte - [6_08PNX] 08:34:48
2008 PM Peak Hour NO BUILD Conditions

SIGNAL2000/TEAPAC[Ver 2.70.07] - HCM Input Worksheet

Intersection # 1 - Area Location Type: NONCBD



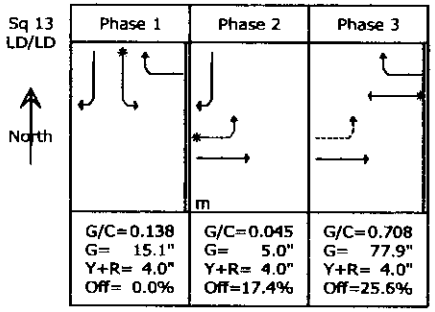
	SB RT	SB TH	SB LT	WB RT	WB TH	WB LT	NB RT	NB TH	NB LT	EB RT	EB TH	EB LT
Heavy veh, %HV	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.86	.86	.86	.92	.92	.92	.85	.85	.85	.89	.89	.89
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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 del Norte Commercial Development (Osuna / VdN) 04/16/06
Analysis of Osuna Rd. / Vista del Norte - [6_08PNX] 08:34:48
2008 PM Peak Hour NO BUILD Conditions

SIGNAL2000/TEAPAC[Ver 2.70.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.53 Vehicle Delay 9.4 Level of Service A



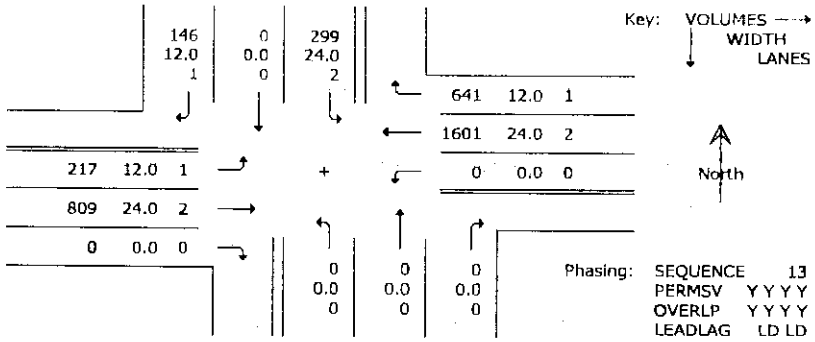
C=110 sec G= 98.0 sec = 89.1% Y=12.0 sec = 10.9% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	@E	Adj Volume	v/c	HCM Delay	LOS	Queue Model 1
SB Approach								42.2	D+	
RT	12/1	0.223	0.219	56	323	66	0.196	35.3	D+	79 ft
LT	24/2	0.230	0.138	1	443	210	0.458	44.4	*D+	148 ft
WB Approach								7.6	A	
RT	12/1	0.491	0.882	1356	1356	653	0.482	1.6	A	219 ft
TH	24/2	0.517	0.708	2439	2439	1670	0.685	9.9	*A	691 ft
EB Approach								4.5	A	
TH	24/2	0.338	0.790	2721	2721	872	0.320	3.3	A	195 ft
LT	12/1	0.014	0.045	164	200	113	0.559	13.5	*B+	76 ft

Vista del Norte Commercial Development (Osuna / VdN) 05/02/06
Analysis of Osuna Rd. / Vista del Norte - [6_08PBX] 22:53:48
2008 PM Peak Hour BUILD Conditions

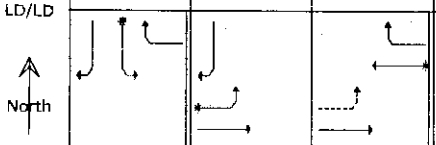
SIGNAL2000/TEAPAC Ver. 5.0.07 [Build 0001] Worksheet

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	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.86	.86	.86	.92	.92	.92	.85	.85	.85	.89	.89	.89
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	

Sq 13 LD/LD



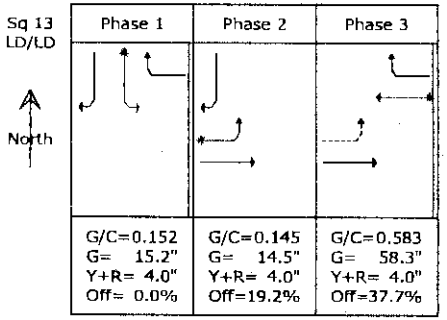
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
C=100"	G= 15.2" Y+R= 4.0"	G= 14.5" Y+R= 4.0"	G= 58.3" Y+R= 4.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"

Vista del Norte Commercial Development (Osuna / VdN) 05/02/06
Analysis of Osuna Rd. / Vista del Norte - [6_08PBX] 22:53:48
2008 PM Peak Hour BUILD Conditions

SIGNAL2000/TEAPAC Ver. 5.0.07 [Build 0001] Summary

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.66 Vehicle Delay 18.1 Level of Service B

Sq 13 LD/LD



Phase 1	Phase 2	Phase 3
G/C=0.152	G/C=0.145	G/C=0.583
G= 15.2"	G= 14.5"	G= 58.3"
Y+R= 4.0"	Y+R= 4.0"	Y+R= 4.0"
Off= 0.0%	Off=19.2%	Off=37.7%

C=100 sec G= 88.0 sec = 88.0% Y=12.0 sec = 12.0% 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								37.9	D+	
RT	12/1	0.224	0.337	385	518	170	0.328	25.1	C+	168 ft
LT	24/2	0.214	0.152	1	502	348	0.688	44.1	*D+	237 ft
WB Approach								17.1	B	
RT	12/1	0.507	0.775	1183	1192	697	0.585	5.4	A	387 ft
TH	24/2	0.528	0.583	1963	2010	1740	0.866	21.8	*C+	988 ft
EB Approach								11.3	B+	
TH	24/2	0.328	0.768	2647	2647	909	0.343	3.7	A	205 ft
LT	12/1	0.159	0.145	226	317	244	0.760	39.5	*D+	213 ft

Vista del Norte Commercial Development (Alternate Plan)

Trip Generation Data

USE (ITE CODE)		24 HR VOL	A. M. PEAK HR.		P. M. PEAK HR.	
DESCRIPTION		*GROSS*	*ENTER*	*EXIT*	*ENTER*	*EXIT*
Summary Sheet	Units					
Shopping Center (820)	120	7,645	107	68	340	368
High Turnover (Sit-Down) Restaurant (932)	10	1,272	60	55	67	43
High Turnover (Sit-Down) Restaurant (932)	12	1,526	72	66	80	51
Drive-In Bank (912)	3	1,067	34	24	77	77
Fast Food Restaurant w/ Drive-Thru Window (934)	3	1,488	81	78	54	50
Fast Food Restaurant w/ Drive-Thru Window (934)	3	1,488	81	78	54	50
Supermarket (850)	56	5,141	138	88	301	289
Automobile Parts Sales (943)	15	1,065	19	19	51	53
Subtotal		**20,692**	**592**	**476**	**1,024**	**981**
Total S.F. of Buildings ->	222					

Vista del Norte Commercial Development (Proposed Plan)

USE (ITE CODE)		24 HR VOL	A. M. PEAK HR.		P. M. PEAK HR.	
MME *DESCRIPTION*		*GROSS*	*ENTER*	*EXIT*	*ENTER*	*EXIT*
Summary Sheet	Units					
Free-Standing Discount Superstore (813)	185	9,735	174	167	355	370
Fast Food Restaurant w/ Drive-Thru Window (934)	4	1,984	108	104	72	67
Subtotal		**11,719**	**282**	**271**	**427**	**437**
Total S.F. of Buildings ->	189					

Vista del Norte Commercial Development (Alternate Plan)

Trip Generation Data

USE (ITE CODE)		24 HR VOL	A. M. PEAK HR.		P. M. PEAK HR.	
DESCRIPTION		*GROSS*	*ENTER*	*EXIT*	*ENTER*	*EXIT*
Summary Sheet	Units					
Shopping Center (820)	120	7,645	107	68	340	368
High Turnover (Sit-Down) Restaurant (932)	10	1,272	60	55	67	43
High Turnover (Sit-Down) Restaurant (932)	12	1,526	72	66	80	51
Drive-In Bank (912)	3	1,067	34	24	77	77
Fast Food Restaurant w/ Drive-Thru Window (934)	3	1,488	81	78	54	50
Fast Food Restaurant w/ Drive-Thru Window (934)	3	1,488	81	78	54	50
Supermarket (850)	56	5,141	138	88	301	289
Automobile Parts Sales (943)	15	1,065	19	19	51	53
Subtotal		**20,692**	**592**	**476**	**1,024**	**981**
Pass-by Trip Adjustment	30%	0	0	0	-307	-294
New New Trips to System		**20,692**	**592**	**476**	**717**	**687**

Vista del Norte Commercial Development (Alternate Plan)

Trip Generation Data

USE (ITE CODE)	Units	24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR	
		GROSS	ENTER	EXIT	ENTER	EXIT
Shopping Center (820)	***120.00*** 1,000 S.F.	7,645	107	68	340	368

ITE Trip Generation Equations:

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

Ln(T) = *0.65* Ln(X) + *5.83*
50% Enter, *50%* Exit

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

Ln(T) = *0.6* Ln(X) + *2.29*
61% Enter, *39%* Exit

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

Ln(T) = *0.66* Ln(X) + *3.403*
48% Enter, *52%* Exit

Comments:
General Retail

Based on ITE Trip Generation Manual - 7th Edition

Vista del Norte Commercial Development (Alternate Plan)

Trip Generation Data

USE (ITE CODE)	Units	24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR	
		GROSS	ENTER	EXIT	ENTER	EXIT
High Turnover (Sit-Down) Restaurant (932)	***10.00*** **1,000 S.F.**	1,272	60	55	67	43

ITE Trip Generation Equations:

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

T = ***127.15*** (X) + ***0***

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 = ***11.52*** (X) + ***0***

52% Enter, ***48%*** Exit

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

T = ***10.92*** (X) + ***0***

61% Enter, ***39%*** Exit

Comments:

Based on ITE Trip Generation Manual - 7th Edition

Vista del Norte Commercial Development (Alternate Plan)

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					
High Turnover (Sit-Down) Restaurant (932)	***12.00***	1,526	72	66	80	51
	1,000 S.F.					

ITE Trip Generation Equations:

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

T = ***127.15*** (X) + ***0***

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 = ***11.52*** (X) + ***0***

52% Enter, ***48%*** Exit

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

T = ***10.92*** (X) + ***0***

61% Enter, ***39%*** Exit

Comments:

Based on ITE Trip Generation Manual - 7th Edition

Vista del Norte Commercial Development (Alternate Plan)

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					
Drive-In Bank (912)	*3.00*	1,067	34	24	77	77
	Drive-In Windows					

ITE Trip Generation Equations:

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

Ln(T) = *1.326* Ln(X) + *5.516*
50% Enter, *50%* Exit

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

T = *19.38* (X) + *0*
58% Enter, *42%* Exit

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

T = *51.08* (X) + *0*
50% Enter, *50%* Exit

Comments:
3 @ 3,000

Based on ITE Trip Generation Manual - 7th Edition

Vista del Norte Commercial Development (Alternate Plan)

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					
Fast Food Restaurant w/ Drive-Thru Window (934)	*3.00* 1,000 S.F.	1,488	81	78	54	50

ITE Trip Generation Equations:

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

T = *496.12* (X) + *0*
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 = *53.11* (X) + *0*
51% Enter, *49%* Exit

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

T = *34.64* (X) + *0*
52% Enter, *48%* Exit

Comments:
Tract No.

Based on ITE Trip Generation Manual - 7th Edition

Vista del Norte Commercial Development (Alternate Plan)

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					
Fast Food Restaurant w/ Drive-Thru Window (934)	*3.00*	1,488	81	78	54	50
	1,000 S.F.					

ITE Trip Generation Equations:

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

T = ***496.12*** (X) + ***0***
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 = ***53.11*** (X) + ***0***
51% Enter, ***49%*** Exit

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

T = ***34.64*** (X) + ***0***
52% Enter, ***48%*** Exit

Comments:
Tract No.

Based on ITE Trip Generation Manual - 7th Edition

Vista del Norte Commercial Development (Alternate Plan)

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					
Supermarket (850)	***56.00***	5,141	138	88	301	289
	1,000 S.F.					

ITE Trip Generation Equations:

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

T = ***66.95*** (X) + ***1391.56***

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)

Ln(T) = ***1.7*** Ln(X) + ***-1.42***

61% Enter, ***39%*** Exit

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

Ln(T) = ***0.79*** Ln(X) + ***3.2***

51% Enter, ***49%*** Exit

Comments:
Tract No.

Based on ITE Trip Generation Manual - 7th Edition

Vista del Norte Commercial Development (Alternate Plan)

Trip Generation Data

USE (ITE CODE)	Units	24 HOUR TWO-WAY VOLUME	A. M. PEAK HOUR		P. M. PEAK HOUR	
		GROSS	ENTER	EXIT	ENTER	EXIT
Automobile Parts Sales (943)	***15.00*** 1,000 S.F.	1,065	19	19	51	53

ITE Trip Generation Equations:

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

T = ***81.02*** (X) + ***-150.75***

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 = ***2.76*** (X) + ***-4.34***

50% Enter, ***50%*** Exit

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

T = ***7.87*** (X) + ***-14.86***

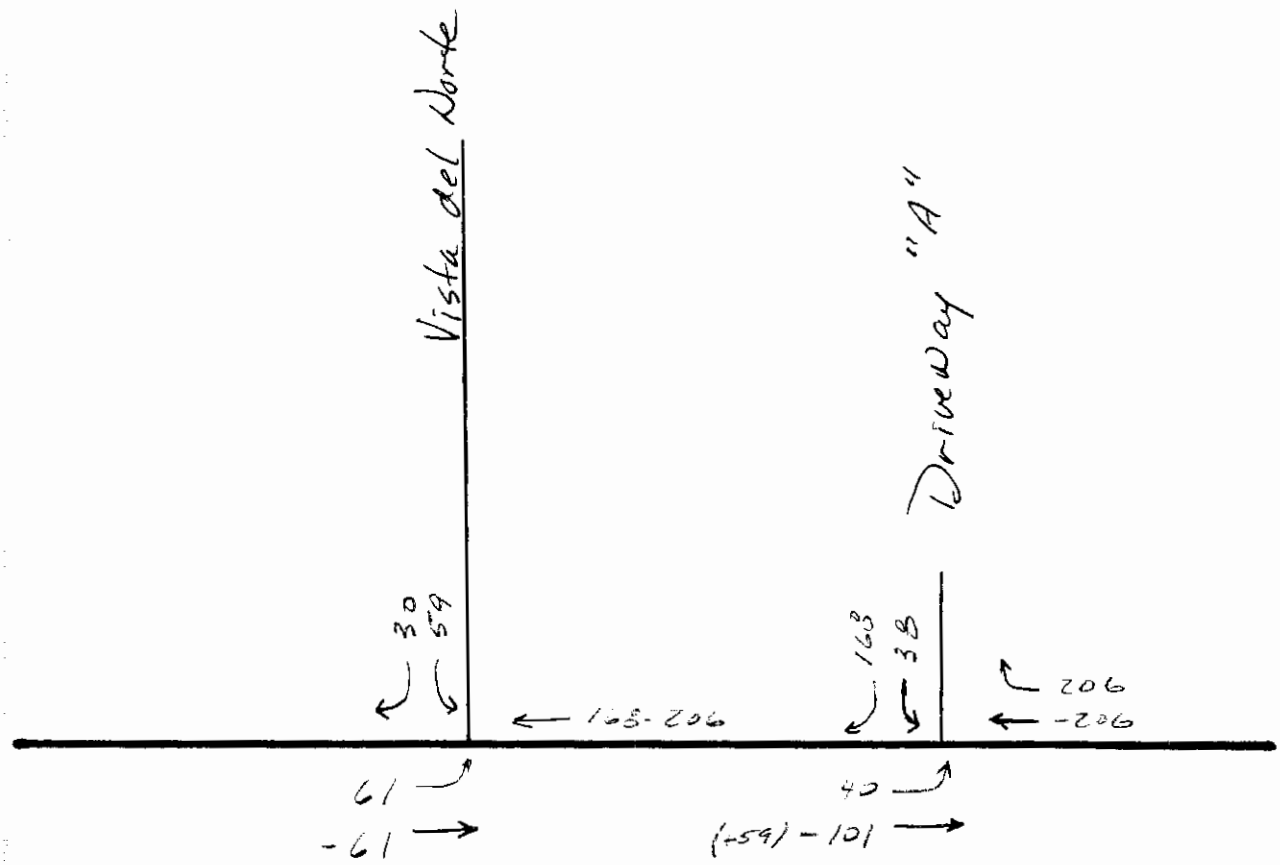
49% Enter, ***51%*** Exit

Comments:
Tract No.

Based on ITE Trip Generation Manual - 7th Edition

Terry O. Brown, P.E.
P. O. Box 92051
Albuquerque, NM 87199-2051
(505) 883-8807 (Voice)
(303) 942-3600 (FAX)

Calculation Sheet: Sheet ___ of _____



Pass-by Trips
Entering - 307
Exiting - 294

Date:	5/2/2006	Project:	Vista del Norte Alternate Plan
Calcs by:	tob	Description:	Pass-by Trip Worksheet

Vista del Norte Commercial Development - ALTERNATE PLAN

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2008) - 100% Development

INTERSECTION: **Summary**

Osuna Rd. / Edith Blvd.
(2)
5.0% Truck

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Edith Blvd.)			Southbound (Edith Blvd.)		
PHF	0.90			0.80			0.81			0.90		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2006)	28	844	232	154	365	65	147	218	145	169	357	248
2008 (NO BUILD - A.M.)	29	893	245	157	372	66	153	227	151	179	378	263
2008 (BUILD - A.M.)	**29**	**1,126**	**245**	**191**	**559**	**82**	**153**	**227**	**194**	**198**	**378**	**263**

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Edith Blvd.)			Southbound (Edith Blvd.)		
PHF	0.87			0.91			0.87			0.84		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2006)	46	444	119	157	981	154	284	446	153	104	438	54
2008 (NO BUILD - P.M.)	49	470	126	160	1,000	157	295	463	159	110	463	57
2008 (BUILD - P.M.)	**49**	**752**	**126**	**210**	**1,270**	**179**	**295**	**463**	**211**	**133**	**463**	**57**

Osuna Rd. / Chappel Dr.
(3)
5.0% Truck

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Chappel Dr.)			Southbound (Chappel Dr.)		
PHF	0.81			0.80			0.72			0.70		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2006)	26	1,503	281	118	911	43	70	6	97	6	1	4
2008 (NO BUILD - A.M.)	29	1,664	311	130	1,008	47	77	6	106	6	1	5
2008 (BUILD - A.M.)	**29**	**1,870**	**312**	**130**	**1,264**	**47**	**78**	**6**	**106**	**6**	**1**	**5**

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Chappel Dr.)			Southbound (Chappel Dr.)		
PHF	0.92			0.86			0.79			0.89		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2006)	3	907	68	105	1,602	6	230	2	166	53	22	26
2008 (NO BUILD - P.M.)	4	1,004	76	117	1,773	6	251	2	181	58	24	29
2008 (BUILD - P.M.)	**4**	**1,301**	**77**	**117**	**2,083**	**6**	**252**	**2**	**181**	**58**	**24**	**29**

Osuna Rd. / Academy Parkway
(4)
5.0% Truck

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Academy Parkway)			Southbound (Academy Parkway)		
PHF	0.93			0.84			0.80			0.86		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2006)	54	1,303	4	39	845	89	6	0	23	52	0	17
2008 (NO BUILD - A.M.)	60	1,459	4	44	946	100	7	0	25	57	0	19
2008 (BUILD - A.M.)	**60**	**1,665**	**4**	**44**	**1,202**	**100**	**7**	**0**	**25**	**57**	**0**	**19**

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Academy Parkway)			Southbound (Academy Parkway)		
PHF	0.89			0.93			0.87			0.90		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2006)	8	1,095	0	29	1,444	21	24	0	56	83	1	42
2008 (NO BUILD - P.M.)	9	1,226	0	32	1,617	24	26	0	62	91	1	46
2008 (BUILD - P.M.)	**9**	**1,523**	**0**	**32**	**1,927**	**24**	**26**	**0**	**62**	**91**	**1**	**46**

Osuna Rd. / Jefferson St.
(5)
5.0% Truck

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Jefferson St.)			Southbound (Jefferson St.)		
PHF	0.88			0.88			0.91			0.87		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2006)	264	1,211	172	193	976	278	127	236	44	205	389	166
2008 (NO BUILD - A.M.)	293	1,340	191	204	1,032	293	132	245	45	213	404	173
2008 (BUILD - A.M.)	**336**	**1,498**	**196**	**204**	**1,228**	**293**	**138**	**245**	**45**	**213**	**404**	**226**

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Jefferson St.)			Southbound (Jefferson St.)		
PHF	0.94			0.91			0.90			0.80		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2006)	278	1,665	91	93	1,077	213	303	579	275	348	356	315
2008 (NO BUILD - P.M.)	308	1,844	100	99	1,138	225	314	602	285	362	369	327
2008 (BUILD - P.M.)	**369**	**2,072**	**107**	**99**	**1,376**	**225**	**322**	**602**	**285**	**362**	**369**	**391**

Vista del Norte Commercial Development - ALTERNATE PLAN

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2008) - 100% Development

INTERSECTION: **Summary**

Osuna Rd. / Vista del Norte

(6)

5.0% Truck

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Vista del Norte)			Southbound (Vista del Norte)		
	0.87			0.73			0.90			0.80		PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2006)	21	1,183	0	0	638	91	0	0	0	665	0	96
2008 (NO BUILD - A.M.)	26	1,207	0	0	715	112	0	0	0	752	0	111
2008 (BUILD - A.M.)	**204**	**1,324**	**0**	**0**	**834**	**191**	**0**	**0**	**0**	**895**	**0**	**230**
	0.89			0.92			0.90			0.86		PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2006)	94	761	0	0	1,371	519	0	0	0	155	0	47
2008 (NO BUILD - P.M.)	101	776	0	0	1,536	601	0	0	0	181	0	57
2008 (BUILD - P.M.)	**377**	**857**	**0**	**0**	**1,669**	**697**	**0**	**0**	**0**	**446**	**0**	**258**

Vista del Norte / Las Lomitas

(7)

2.0% Truck

	Eastbound (Vista del Norte)			Westbound (Vista del Norte)			Northbound (Las Lomitas)			Southbound (Las Lomitas)		
	0.80			0.80			0.85			0.90		PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2006)	32	84	0	0	15	62	0	0	0	160	0	13
2008 (NO BUILD - A.M.)	35	92	0	0	17	68	0	0	0	176	0	14
2008 (BUILD - A.M.)	**35**	**104**	**0**	**0**	**27**	**75**	**0**	**0**	**0**	**185**	**0**	**14**
	0.80			0.80			0.85			0.90		PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2006)	15	32	0	0	91	180	0	0	0	84	0	51
2008 (NO BUILD - P.M.)	17	35	0	0	100	198	0	0	0	92	0	56
2008 (BUILD - P.M.)	**17**	**49**	**0**	**0**	**114**	**208**	**0**	**0**	**0**	**103**	**0**	**56**

El Pueblo Rd. / Las Lomitas Dr.

(8)

5.0% Truck

	Eastbound (El Pueblo Rd.)			Westbound (El Pueblo Rd.)			Northbound (Las Lomitas Dr.)			Southbound (Las Lomitas Dr.)		
	0.90			0.90			0.80			0.80		PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2006)	0	377	119	17	77	0	73	0	86	0	0	0
2008 (NO BUILD - A.M.)	0	497	131	19	102	0	80	0	96	0	0	0
2008 (BUILD - A.M.)	**0**	**497**	**133**	**20**	**102**	**0**	**81**	**0**	**96**	**0**	**0**	**0**
	0.90			0.90			0.80			0.80		PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2006)	0	64	85	74	141	0	163	0	45	0	0	0
2008 (NO BUILD - P.M.)	0	92	94	83	236	0	179	0	50	0	0	0
2008 (BUILD - P.M.)	**0**	**92**	**96**	**84**	**236**	**0**	**181**	**0**	**51**	**0**	**0**	**0**

Osuna Rd. / Driveway "A"

(9)

5.0% Truck

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Driveway "A")			Southbound (Driveway "A")		
	0.85			0.85			0.85			0.85		PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2006)	0	1,848	0	0	729	0	0	0	0	0	0	0
2008 (NO BUILD - A.M.)	0	2,070	0	0	816	0	0	0	0	0	0	0
2008 (BUILD - A.M.)	**117**	**2,213**	**0**	**0**	**895**	**178**	**0**	**0**	**0**	**63**	**0**	**119**
	0.85			0.85			0.85			0.85		PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2006)	0	916	0	0	1,890	0	0	0	0	0	0	0
2008 (NO BUILD - P.M.)	0	1,026	0	0	2,117	0	0	0	0	0	0	0
2008 (BUILD - P.M.)	**182**	**1,190**	**0**	**0**	**2,007**	**421**	**0**	**0**	**0**	**130**	**0**	**339**

Vista del Norte Commercial Development - ALTERNATE PLAN

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2008) - 100% Development

INTERSECTION: **Summary**

Driveway "B" / Vista del Norte

(10)

5.0% Truck

	0.85			0.85			0.85			0.85		PHF
	Eastbound (Driveway "B")			Westbound (Driveway "B")			Northbound (Vista del Norte)			Southbound (Vista del Norte)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2006)	5	0	10	0	0	0	10	112	0	0	761	5
2008 (NO BUILD - A.M.)	*11*	*0*	*36*	*0*	*0*	*0*	*26*	*123*	*0*	*0*	*837*	*11*
2008 (BUILD - A.M.)	***11***	***0***	***36***	***261***	***0***	***33***	***26***	***123***	***256***	***41***	***837***	***11***

	0.85			0.85			0.85			0.85		PHF
	Eastbound (Driveway "B")			Westbound (Driveway "B")			Northbound (Vista del Norte)			Southbound (Vista del Norte)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2006)	5	0	10	0	0	0	10	613	0	0	202	5
2008 (NO BUILD - P.M.)	*11*	*0*	*26*	*0*	*0*	*0*	*36*	*674*	*0*	*0*	*222*	*11*
2008 (BUILD - P.M.)	***11***	***0***	***26***	***466***	***0***	***47***	***36***	***674***	***311***	***49***	***222***	***11***

Vista del Norte Commercial Development - ALTERNATE PLAN

Projected Turning Movements Worksheet

Osuna Rd. / Edith Blvd.

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

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

Year of Existing Counts 2005

Implementation Year **2008**

	Growth Rates	3.00%			1.00%			2.00%			3.00%		
		Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Edith Blvd.)			Southbound (Edith Blvd.)		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes		27	819	225	152	361	64	144	214	142	164	347	241
Background Traffic Growth		2	74	20	5	11	2	9	13	9	15	31	22
Subtotal (NO BUILD - A.M.)		***29***	***893***	***245***	***157***	***372***	***66***	***153***	***227***	***151***	***179***	***378***	***263***
Percent Commercial Trips Generated(Entering)		*0.00%*	*39.33%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*7.21%*	*3.26%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)		*0.00%*	*0.00%*	*0.00%*	*7.21%*	*39.33%*	*3.26%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated		0	233	0	34	187	16	0	0	43	19	0	0
Total AM Peak Hour BUILD Volumes		**29**	**1,126**	**245**	**191**	**559**	**82**	**153**	**227**	**194**	**198**	**378**	**263**

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Edith Blvd.)			Southbound (Edith Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	45	431	116	155	971	152	278	437	150	101	425	52
Background Traffic Growth	4	39	10	5	29	5	17	26	9	9	38	5
Subtotal (NO BUILD - P.M.)	***49***	***470***	***126***	***160***	***1,000***	***157***	***295***	***463***	***159***	***110***	***463***	***57***
Percent Commercial Trips Generated(Entering)	*0.00%*	*39.33%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*7.21%*	*3.26%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*7.21%*	*39.33%*	*3.26%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	282	0	50	270	22	0	0	52	23	0	0
Total PM Peak Hour BUILD Volumes	**49**	**752**	**126**	**210**	**1,270**	**179**	**295**	**463**	**211**	**133**	**463**	**57**

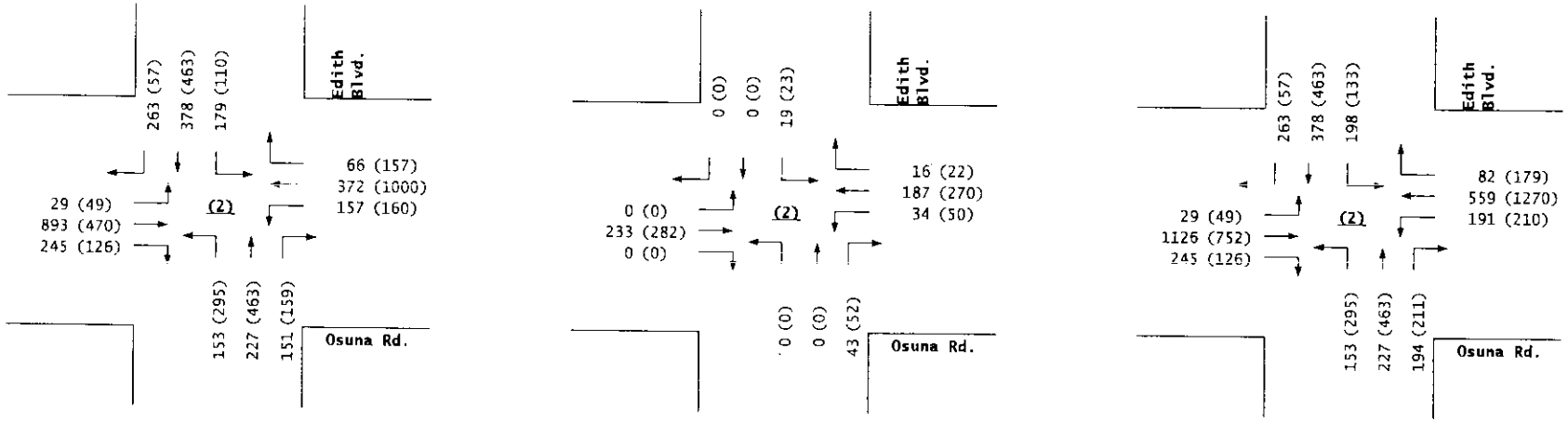
	Entering	Exiting		
Number of Commercial Trips Generated	**592**	**476**	A.M.	100% Commercial Development
	717	**687**	P.M.	

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Edith Blvd.)			Southbound (Edith Blvd.)		
2006 AM Peak Hr. Volumes	28	844	232	154	365	65	147	218	145	169	357	248
2006 PM Peak Hr. Volumes	46	444	119	157	981	154	284	446	153	104	438	54

2008
NO BUILD

Trips

2008
BUILD



Osuna Rd. / Edith Blvd.

Vista del Norte Commercial Development - ALTERNATE PLAN

Projected Turning Movements Worksheet

Osuna Rd. / Chappel Dr.

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

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

Year of Existing Counts 2004

Implementation Year **2008**

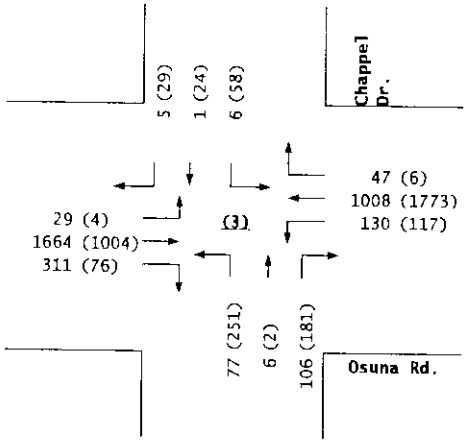
	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Chappel Dr.)			Southbound (Chappel Dr.)		
Growth Rates	6.00%			6.00%			5.00%			5.00%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	23	1,342	251	105	813	38	64	5	88	5	1	4
Background Traffic Growth	6	322	60	25	195	9	13	1	18	1	0	1
Subtotal (NO BUILD - A.M.)	***29***	***1,664***	***311***	***130***	***1,008***	***47***	***77***	***6***	***106***	***6***	***1***	***5***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*43.18%*	*0.00%*	*0.14%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*43.18%*	*0.14%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	206	1	0	256	0	1	0	0	0	0	0
Total AM Peak Hour BUILD Volumes	**29**	**1,870**	**312**	**130**	**1,264**	**47**	**78**	**6**	**106**	**6**	**1**	**5**

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Chappel Dr.)			Southbound (Chappel Dr.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	3	810	61	94	1,430	5	209	2	151	48	20	24
Background Traffic Growth	1	194	15	23	343	1	42	0	30	10	4	5
Subtotal (NO BUILD - P.M.)	***4***	***1,004***	***76***	***117***	***1,773***	***6***	***251***	***2***	***181***	***58***	***24***	***29***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*43.18%*	*0.00%*	*0.14%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*43.18%*	*0.14%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Tota Trips Generated	0	297	1	0	310	0	1	0	0	0	0	0
Total PM Peak Hour BUILD Volumes	**4**	**1,301**	**77**	**117**	**2,083**	**6**	**252**	**2**	**181**	**58**	**24**	**29**

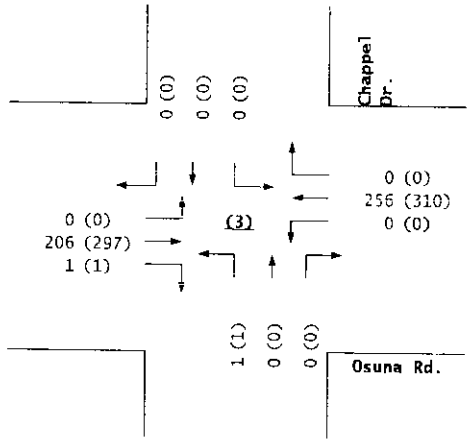
	Entering	Exiting		
Number of Commercial Trips Generated	**592**	**476**	A.M.	100% Commercial Development
	717	**687**	P.M.	

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Chappel Dr.)			Southbound (Chappel Dr.)		
2006 AM Peak Hr. Volumes	26	1503	281	118	911	43	70	6	97	6	1	4
2006 PM Peak Hr. Volumes	3	907	68	105	1,602	6	230	2	166	53	22	26

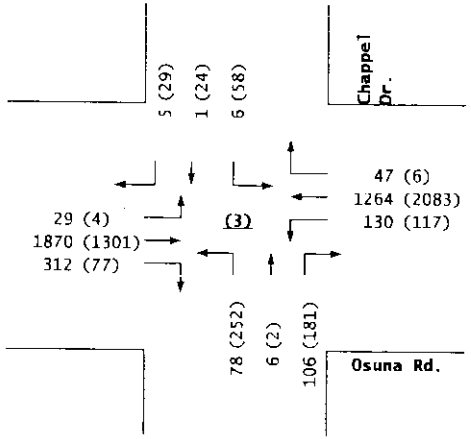
2008
NO BUILD



Trips



2008
BUILD



Osuna Rd. / Chappel Dr.

Vista del Norte Commercial Development - ALTERNATE PLAN

Projected Turning Movements Worksheet

Osuna Rd. / Academy Parkway

INTERSECTION: E-W Street: **Osuna Rd.** (4)

N-S Street: **Academy Parkway**

Year of Existing Counts 2006

Implementation Year **2008**

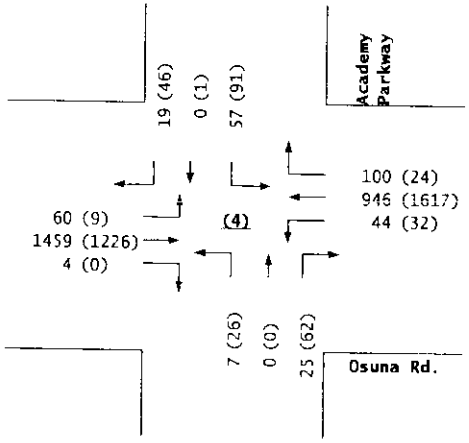
	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Academy Parkway)			Southbound (Academy Parkway)		
Growth Rates	**6.00%**			**6.00%**			**5.00%**			**5.00%**		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	54	1,303	4	39	845	89	6	0	23	52	0	17
Background Traffic Growth	6	156	0	5	101	11	1	0	2	5	0	2
Subtotal (NO BUILD - A.M.)	***60***	***1,459***	***4***	***44***	***946***	***100***	***7***	***0***	***25***	***57***	***0***	***19***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*43.18%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*43.18%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	206	0	0	256	0	0	0	0	0	0	0
Total AM Peak Hour BUILD Volumes	**60**	**1,665**	**4**	**44**	**1,202**	**100**	**7**	**0**	**25**	**57**	**0**	**19**

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Academy Parkway)			Southbound (Academy Parkway)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	8	1,095	0	29	1,444	21	24	0	56	83	1	42
Background Traffic Growth	1	131	0	3	173	3	2	0	6	8	0	4
Subtotal (NO BUILD - P.M.)	***9***	***1,226***	***0***	***32***	***1,617***	***24***	***26***	***0***	***62***	***91***	***1***	***46***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*43.18%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*43.18%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	297	0	0	310	0	0	0	0	0	0	0
Total PM Peak Hour BUILD Volumes	**9**	**1,523**	**0**	**32**	**1,927**	**24**	**26**	**0**	**62**	**91**	**1**	**46**

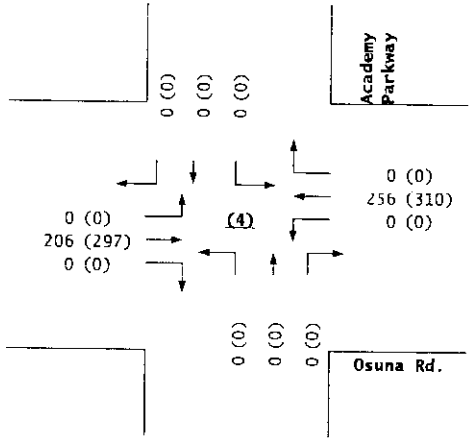
	Entering	Exiting		
Number of Commercial Trips Generated	**592**	**476**	A.M.	100% Commercial Development
	717	**687**	P.M.	

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Academy Parkway)			Southbound (Academy Parkway)		
2006 AM Peak Hr. Volumes	54	1303	4	39	845	89	6	0	23	52	0	17
2006 PM Peak Hr. Volumes	8	1,095	0	29	1,444	21	24	0	56	83	1	42

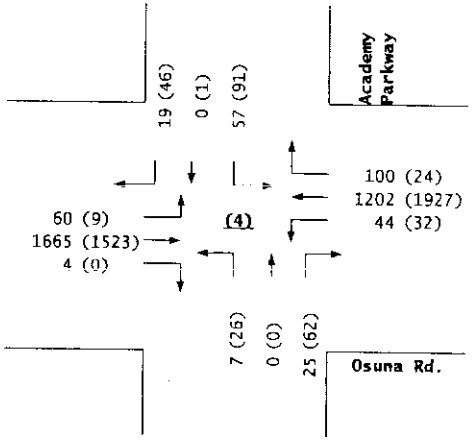
2008
NO BUILD



Trips



2008
BUILD



Osuna Rd. / Academy Parkway

Vista del Norte Commercial Development - ALTERNATE PLAN

Projected Turning Movements Worksheet

Osuna Rd. / Jefferson St.

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

N-S Street: **Jefferson St.**

Year of Existing Counts 2004

Implementation Year **2008**

Growth Rates	6.00%			3.00%			2.00%			2.00%		
	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Jefferson St.)			Southbound (Jefferson St.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	236	1,081	154	182	921	262	122	227	42	197	374	160
Background Traffic Growth	57	259	37	22	111	31	10	18	3	16	30	13
Subtotal (NO BUILD - A.M.)	***293***	***1,340***	***191***	***204***	***1,032***	***293***	***132***	***245***	***45***	***213***	***404***	***173***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*33.16%*	*0.00%*	*1.09%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*8.93%*
Percent Commercial Trips Generated(Exiting)	*8.93%*	*33.16%*	*1.09%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	43	158	5	0	196	0	6	0	0	0	0	53
Total AM Peak Hour BUILD Volumes	**336**	**1,498**	**196**	**204**	**1,228**	**293**	**138**	**245**	**45**	**213**	**404**	**226**

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Jefferson St.)			Southbound (Jefferson St.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	248	1,487	81	88	1,016	201	291	557	264	335	342	303
Background Traffic Growth	60	357	19	11	122	24	23	45	21	27	27	24
Subtotal (NO BUILD - P.M.)	***308***	***1,844***	***100***	***99***	***1,138***	***225***	***314***	***602***	***285***	***362***	***369***	***327***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*33.16%*	*0.00%*	*1.09%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*8.93%*
Percent Commercial Trips Generated(Exiting)	*8.93%*	*33.16%*	*1.09%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	61	228	7	0	238	0	8	0	0	0	0	64
Total PM Peak Hour BUILD Volumes	**369**	**2,072**	**107**	**99**	**1,376**	**225**	**322**	**602**	**285**	**362**	**369**	**391**

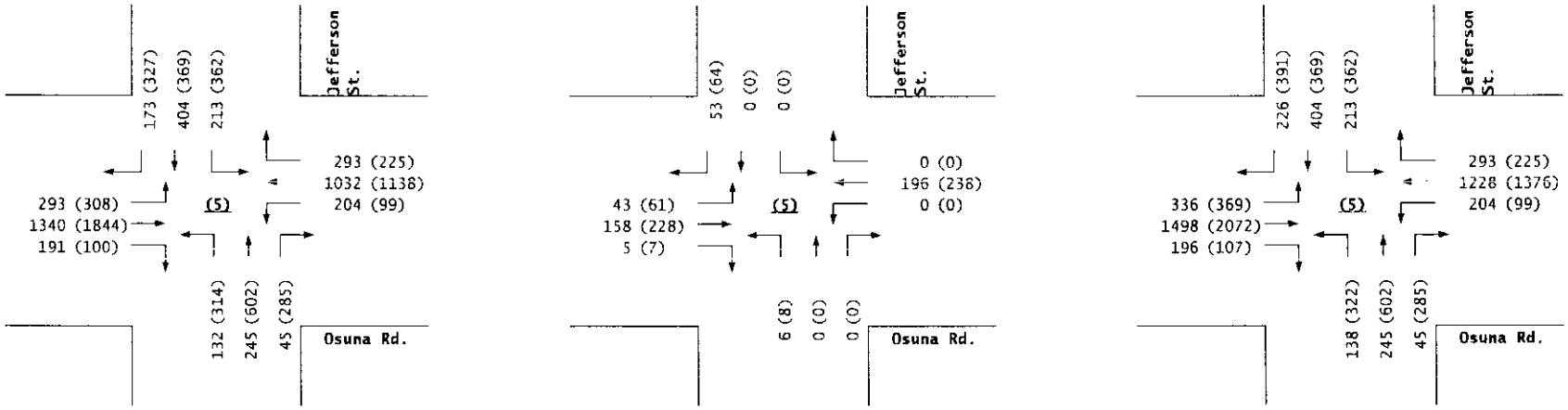
	Entering	Exiting		
Number of Commercial Trips Generated	**592**	**476**	A.M.	100% Commercial Development
	717	**687**	P.M.	

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Jefferson St.)			Southbound (Jefferson St.)		
2006 AM Peak Hr. Volumes	264	1211	172	193	976	278	127	236	44	205	389	166
2006 PM Peak Hr. Volumes	278	1,665	91	93	1,077	213	303	579	275	348	356	315

2008
NO BUILD

Trips

2008
BUILD



Osuna Rd. / Jefferson St.

Vista del Norte Commercial Development - ALTERNATE PLAN

Projected Turning Movements Worksheet

Osuna Rd. / Vista del Norte

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

N-S Street: **Vista del Norte**

Year of Existing Counts 2006

Implementation Year **2008**

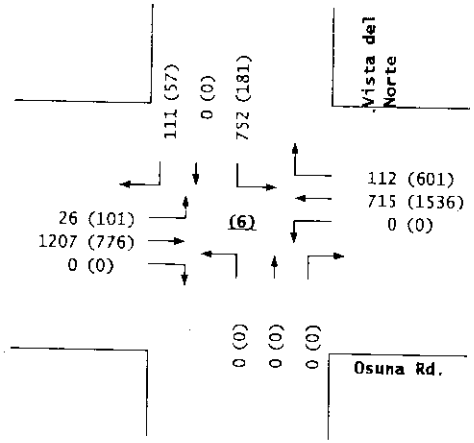
	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Vista del Norte)			Southbound (Vista del Norte)		
Growth Rates	1.00%			6.00%			5.00%			5.00%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	21	1,183	0	0	638	91	0	0	0	665	0	96
Background Traffic Growth	0	24	0	0	77	11	0	0	0	67	0	10
Subtotal (NO BUILD - A.M.)	***26***	***1,207***	***0***	***0***	***715***	***112***	***0***	***0***	***0***	***752***	***0***	***111***
Percent Commercial Trips Generated(Entering)	*30.00%*	*19.80%*	*0.00%*	*0.00%*	*0.00%*	*13.32%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*24.90%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*30.00%*	*0.00%*	*24.90%*
Total Trips Generated	178	117	0	0	119	79	0	0	0	143	0	119
Total AM Peak Hour BUILD Volumes	**204**	**1,324**	**0**	**0**	**834**	**191**	**0**	**0**	**0**	**895**	**0**	**230**

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Vista del Norte)			Southbound (Vista del Norte)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	94	761	0	0	1,371	519	0	0	0	155	0	47
Background Traffic Growth	2	15	0	0	165	62	0	0	0	16	0	5
Subtotal (NO BUILD - P.M.)	***101***	***776***	***0***	***0***	***1,536***	***601***	***0***	***0***	***0***	***181***	***0***	***57***
Percent Commercial Trips Generated(Entering)	*30.00%*	*19.80%*	*0.00%*	*0.00%*	*0.00%*	*13.32%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*24.90%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*30.00%*	*0.00%*	*24.90%*
Total Trips Generated	215	142	0	0	171	96	0	0	0	206	0	171
Subtotal PM Pk Hr. BUILD Volumes	**316**	**918**	**0**	**0**	**1,707**	**697**	**0**	**0**	**0**	**387**	**0**	**228**
Pass-by Trip Adjustments	*61*	*-61*	*0*	*0*	*-38*	*0*	*0*	*0*	*0*	*59*	*0*	*30*
Total PM Peak Hour BUILD Volumes	**377**	**857**	**0**	**0**	**1,669**	**697**	**0**	**0**	**0**	**446**	**0**	**258**

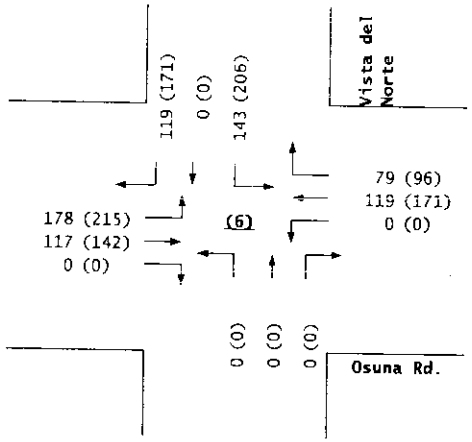
	Entering	Exiting		
Number of Commercial Trips Generated	**592**	**476**	A.M.	100% Commercial Development
	717	**687**	P.M.	

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Vista del Norte)			Southbound (Vista del Norte)		
2006 AM Peak Hr. Volumes	21	1183	0	0	638	91	0	0	0	665	0	96
2006 PM Peak Hr. Volumes	94	761	0	0	1,371	519	0	0	0	155	0	47

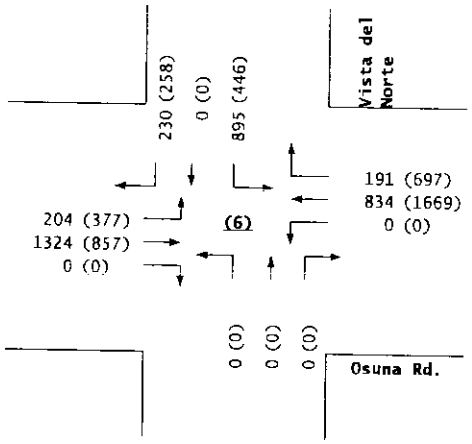
2008
NO BUILD



Trips



2008
BUILD



Osuna Rd. / Vista del Norte

Vista del Norte Commercial Development - ALTERNATE PLAN

Projected Turning Movements Worksheet

Vista del Norte / Las Lomitas

INTERSECTION: E-W Street: **Vista del Norte** (7)

N-S Street: **Las Lomitas**

Year of Existing Counts 2006

Implementation Year **2008**

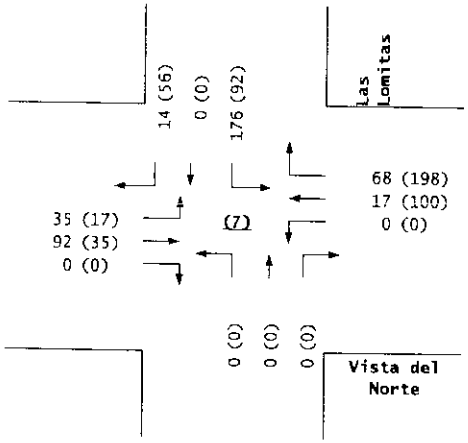
	Eastbound (Vista del Norte)			Westbound (Vista del Norte)			Northbound (Las Lomitas)			Southbound (Las Lomitas)		
Growth Rates	5.00%			5.00%			5.00%			5.00%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	32	84	0	0	15	62	0	0	0	160	0	13
Background Traffic Growth	3	8	0	0	2	6	0	0	0	16	0	1
Subtotal (NO BUILD - A.M.)	***35***	***92***	***0***	***0***	***17***	***68***	***0***	***0***	***0***	***176***	***0***	***14***
Percent Commercial Trips Generated(Entering)	*0.00%*	*2.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*1.51%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*2.00%*	*1.51%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	12	0	0	10	7	0	0	0	9	0	0
Total AM Peak Hour BUILD Volumes	**35**	**104**	**0**	**0**	**27**	**75**	**0**	**0**	**0**	**185**	**0**	**14**

	Eastbound (Vista del Norte)			Westbound (Vista del Norte)			Northbound (Las Lomitas)			Southbound (Las Lomitas)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	15	32	0	0	91	180	0	0	0	84	0	51
Background Traffic Growth	2	3	0	0	9	18	0	0	0	8	0	5
Subtotal (NO BUILD - P.M.)	***17***	***35***	***0***	***0***	***100***	***198***	***0***	***0***	***0***	***92***	***0***	***56***
Percent Commercial Trips Generated(Entering)	*0.00%*	*2.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*1.51%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*2.00%*	*1.51%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	14	0	0	14	10	0	0	0	11	0	0
Total PM Peak Hour BUILD Volumes	**17**	**49**	**0**	**0**	**114**	**208**	**0**	**0**	**0**	**103**	**0**	**56**

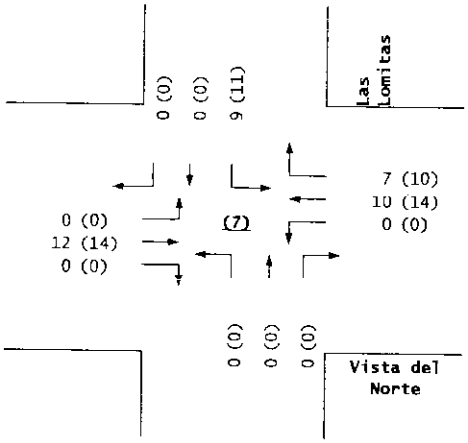
	Entering	Exiting		
Number of Commercial Trips Generated	**592**	**476**	A.M.	100% Commercial Development
	717	**687**	P.M.	

	Eastbound (Vista del Norte)			Westbound (Vista del Norte)			Northbound (Las Lomitas)			Southbound (Las Lomitas)		
2006 AM Peak Hr. Volumes	32	84	0	0	15	62	0	0	0	160	0	13
2006 PM Peak Hr. Volumes	15	32	0	0	91	180	0	0	0	84	0	51

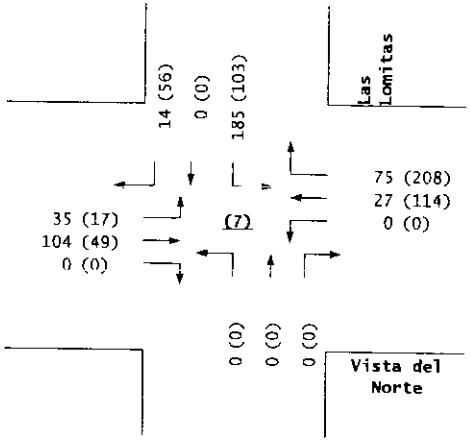
2008
NO BUILD



Trips



2008
BUILD



Vista del Norte / Las Lomitas

Vista del Norte Commercial Development - ALTERNATE PLAN

Projected Turning Movements Worksheet

El Pueblo Rd. / Las Lomitas Dr.

INTERSECTION: E-W Street: **El Pueblo Rd.** (8)

N-S Street: **Las Lomitas Dr.**

Year of Existing Counts 2006

Implementation Year **2008**

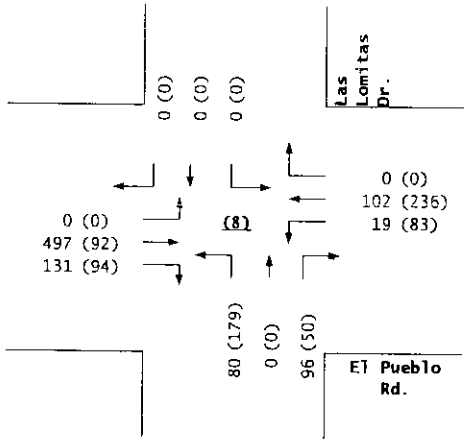
	Eastbound (El Pueblo Rd.)			Westbound (El Pueblo Rd.)			Northbound (Las Lomitas Dr.)			Southbound (Las Lomitas Dr.)		
Growth Rates	5.00%			5.00%			5.00%			5.00%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	377	119	17	77	0	73	0	86	0	0	0
Background Traffic Growth	0	38	12	2	8	0	7	0	9	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***497***	***131***	***19***	***102***	***0***	***80***	***0***	***96***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.30%*	*0.10%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.30%*	*0.00%*	*0.10%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	2	1	0	0	1	0	0	0	0	0
Total AM Peak Hour BUILD Volumes	**0**	**497**	**133**	**20**	**102**	**0**	**81**	**0**	**96**	**0**	**0**	**0**

	Eastbound (El Pueblo Rd.)			Westbound (El Pueblo Rd.)			Northbound (Las Lomitas Dr.)			Southbound (Las Lomitas Dr.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	64	85	74	141	0	163	0	45	0	0	0
Background Traffic Growth	0	6	9	7	14	0	16	0	5	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***92***	***94***	***83***	***236***	***0***	***179***	***0***	***50***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.30%*	*0.10%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.30%*	*0.00%*	*0.10%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	2	1	0	0	2	0	1	0	0	0
Total PM Peak Hour BUILD Volumes	**0**	**92**	**96**	**84**	**236**	**0**	**181**	**0**	**51**	**0**	**0**	**0**

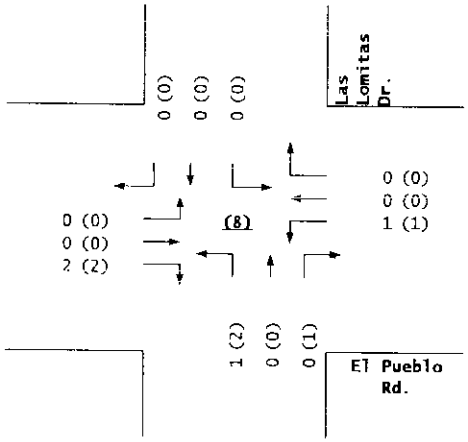
	Entering	Exiting		
Number of Commercial Trips Generated	**592**	**476**	A.M.	100% Commercial Development
	717	**687**	P.M.	

	Eastbound (El Pueblo Rd.)			Westbound (El Pueblo Rd.)			Northbound (Las Lomitas Dr.)			Southbound (Las Lomitas Dr.)		
2006 AM Peak Hr. Volumes	0	377	119	17	77	0	73	0	86	0	0	0
2006 PM Peak Hr. Volumes	0	64	85	74	141	0	163	0	45	0	0	0

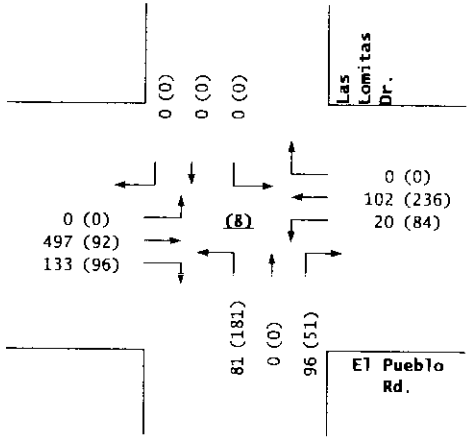
2008
NO BUILD



Trips



2008
BUILD



El Pueblo Rd. / Las Lomitas Dr.

Vista del Norte Commercial Development - ALTERNATE PLAN

Projected Turning Movements Worksheet

Osuna Rd. / Driveway "A"

INTERSECTION: E-W Street: **Osuna Rd.** (9)

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

Year of Existing Counts 2006

Implementation Year **2008**

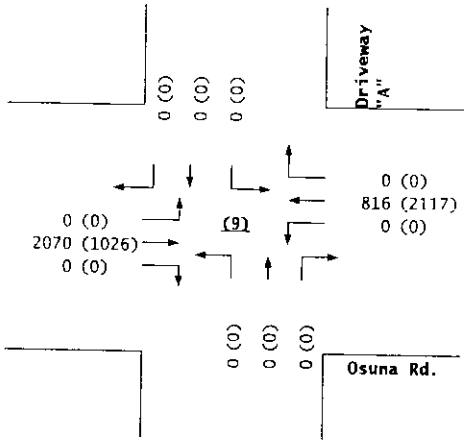
	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Driveway "A")			Southbound (Driveway "A")		
Growth Rates	6.00%			6.00%			5.00%			5.00%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	1,848	0	0	729	0	0	0	0	0	0	0
Background Traffic Growth	0	222	0	0	87	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***2,070***	***0***	***0***	***816***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	***19.80%***	*0.00%*	*0.00%*	*0.00%*	***13.32%***	***30.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	***30.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***13.32%***	*0.00%*	***24.90%***
Total Trips Generated	117	143	0	0	79	178	0	0	0	63	0	119
Total AM Peak Hour BUILD Volumes	**117**	**2,213**	**0**	**0**	**895**	**178**	**0**	**0**	**0**	**63**	**0**	**119**

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Driveway "A")			Southbound (Driveway "A")		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	916	0	0	1,890	0	0	0	0	0	0	0
Background Traffic Growth	0	110	0	0	227	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***1,026***	***0***	***0***	***2,117***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	***19.80%***	*0.00%*	*0.00%*	*0.00%*	***13.32%***	***30.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	***30.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***13.32%***	*0.00%*	***24.90%***
Total Trips Generated	142	206	0	0	96	215	0	0	0	92	0	171
Subtotal PM Pk Hr. BUILD Volumes	**142**	**1,232**	**0**	**0**	**2,213**	**215**	**0**	**0**	**0**	**92**	**0**	**171**
Pass-by Trip Adjustments	*40*	*-42*	*0*	*0*	*-206*	*206*	*0*	*0*	*0*	*38*	*0*	*168*
Total PM Peak Hour BUILD Volumes	**182**	**1,190**	**0**	**0**	**2,007**	**421**	**0**	**0**	**0**	**130**	**0**	**339**

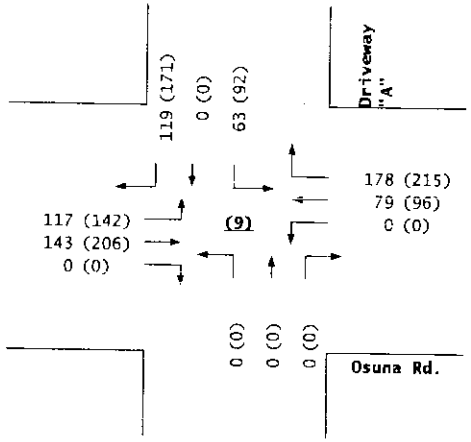
	Entering	Exiting		
Number of Commercial Trips Generated	**592**	**476**	A.M.	100% Commercial Development
	717	**687**	P.M.	

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Driveway "A")			Southbound (Driveway "A")		
2006 AM Peak Hr. Volumes	0	1848	0	0	729	0	0	0	0	0	0	0
2006 PM Peak Hr. Volumes	0	916	0	0	1,890	0	0	0	0	0	0	0

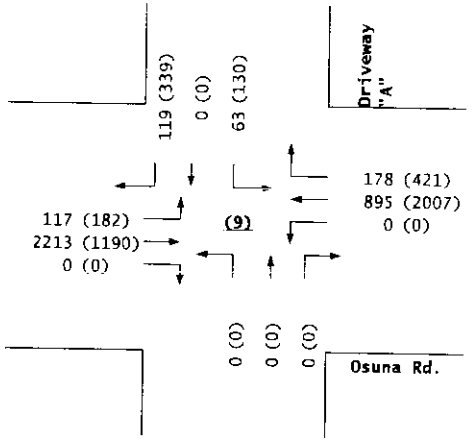
2008
NO BUILD



Trips



2008
BUILD



Osuna Rd. / Driveway "A"

Vista del Norte Commercial Development - ALTERNATE PLAN

Projected Turning Movements Worksheet

Driveway "B" / Vista del Norte

INTERSECTION: E-W Street: **Driveway "B"** (10)

N-S Street: **Vista del Norte**

Year of Existing Counts 2006

Implementation Year **2008**

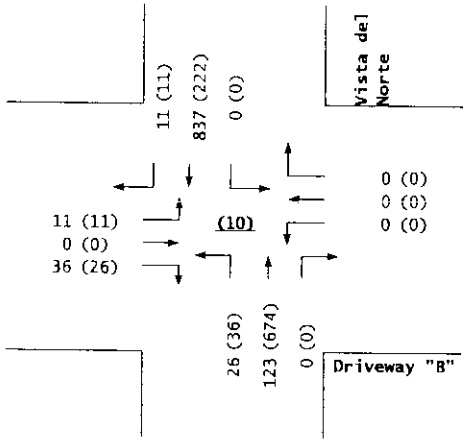
	Eastbound (Driveway "B")			Westbound (Driveway "B")			Northbound (Vista del Norte)			Southbound (Vista del Norte)		
Growth Rates	5.00%			5.00%			5.00%			5.00%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	5	0	10	0	0	0	10	112	0	0	761	5
Background Traffic Growth	1	0	1	0	0	0	1	11	0	0	76	1
Subtotal	6	0	11	0	0	0	11	123	0	0	837	6
Vista del Norte Industrial Park Trips	0	0	0	0	0	0	0	0	0	0	0	0
Agave Subdivision Trips (31 Lots)	5	0	25	0	0	0	15	0	0	0	0	5
Subtotal (NO BUILD - A.M.)	***11***	***0***	***36***	***0***	***0***	***0***	***26***	***123***	***0***	***0***	***837***	***11***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*43.32%*	*6.88%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*54.90%*	*0.00%*	*6.88%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	261	0	33	0	0	256	41	0	0
Total AM Peak Hour BUILD Volumes	**11**	**0**	**36**	**261**	**0**	**33**	**26**	**123**	**256**	**41**	**837**	**11**

	Eastbound (Driveway "B")			Westbound (Driveway "B")			Northbound (Vista del Norte)			Southbound (Vista del Norte)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	5	0	10	0	0	0	10	613	0	0	202	5
Background Traffic Growth	1	0	1	0	0	0	1	61	0	0	20	1
Subtotal	6	0	11	0	0	0	11	674	0	0	222	6
Vista del Norte Industrial Park Trips	0	0	0	0	0	0	0	0	0	0	0	0
Agave Subdivision Trips (31 Lots)	5	0	15	0	0	0	25	0	0	0	0	5
Subtotal (NO BUILD - P.M.)	***11***	***0***	***26***	***0***	***0***	***0***	***36***	***674***	***0***	***0***	***222***	***11***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*43.32%*	*6.88%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*54.90%*	*0.00%*	*6.88%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	377	0	47	0	0	311	49	0	0
Subtotal PM Pk Hr. BUILD Volumes	**11**	**0**	**26**	**377**	**0**	**47**	**36**	**674**	**311**	**49**	**222**	**11**
Pass-by Trip Adjustments	*0*	*0*	*0*	*89*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Total PM Peak Hour BUILD Volumes	**11**	**0**	**26**	**466**	**0**	**47**	**36**	**674**	**311**	**49**	**222**	**11**

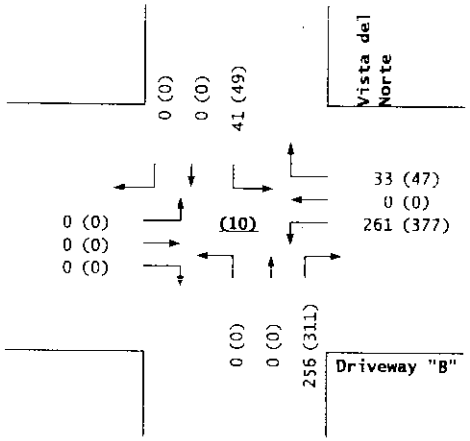
	Entering	Exiting		
Number of Commercial Trips Generated	**592**	**476**	A.M.	100% Commercial Development
	717	**687**	P.M.	

	Eastbound (Driveway "B")			Westbound (Driveway "B")			Northbound (Vista del Norte)			Southbound (Vista del Norte)		
2006 AM Peak Hr. Volumes	5	0	10	0	0	0	10	112	0	0	761	5
2006 PM Peak Hr. Volumes	5	0	10	0	0	0	10	613	0	0	202	5

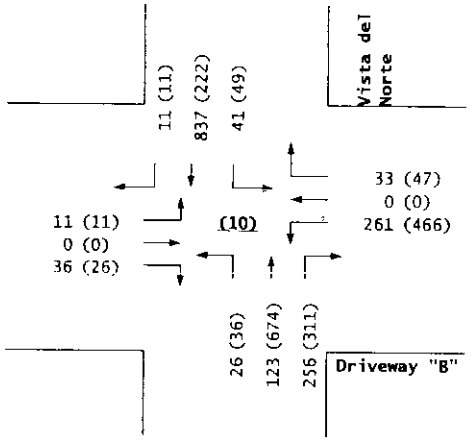
2008
NO BUILD



Trips



2008
BUILD

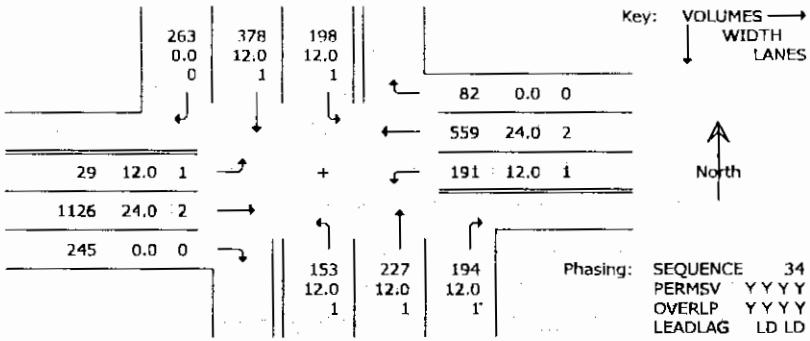


Driveway "B" / Vista del Norte

Vista del Norte ALTERNATE Development (Osuna / VdN) 05/06/06
Analysis of Osuna Rd. / Edith Blvd. - [2A_08AB] 15:56:04
2008 AM Peak Hour BUILD Conditions - ALTERNATE

Intersection # 1 - Area Location Type: NONCBD

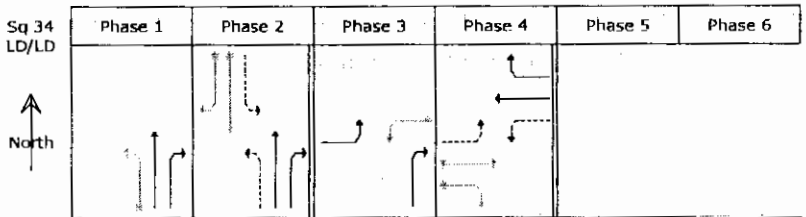
Key: VOLUMES → WIDTH ↓ LANES



Phasing: SEQUENCE 34
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	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.90	.90	.90	.80	.80	.80	.81	.81	.81	.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	

Sq 34 LD/LD

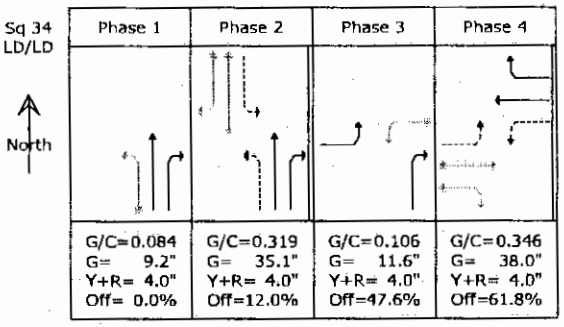


	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
C=110"	G= 9.2" Y+R= 4.0"	G= 35.1" Y+R= 4.0"	G= 11.6" Y+R= 4.0"	G= 38.0" Y+R= 4.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"

Vista del Norte ALTERNATE Development (Osuna / VdN) 05/06/06
Analysis of Osuna Rd. / Edith Blvd. - [2A_08AB] 15:56:04
2008 AM Peak Hour BUILD Conditions - ALTERNATE

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.99 Vehicle Delay 115.5 Level of Service F

Sq 34 LD/LD

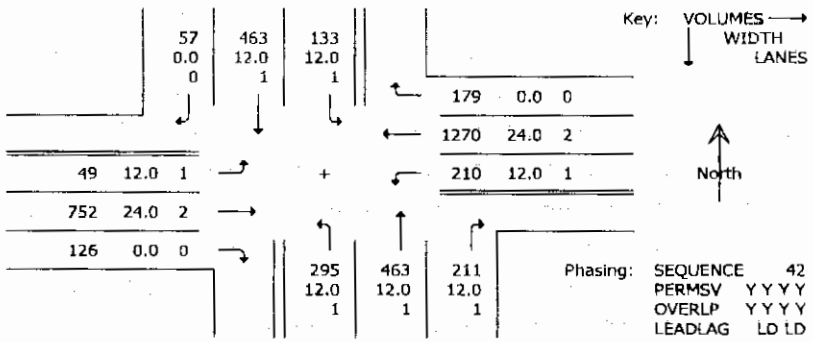


Phase 1	Phase 2	Phase 3	Phase 4
G/C=0.084	G/C=0.319	G/C=0.106	G/C=0.346
G= 9.2"	G= 35.1"	G= 11.6"	G= 38.0"
Y+R= 4.0"	Y+R= 4.0"	Y+R= 4.0"	Y+R= 4.0"
Off= 0.0%	Off=12.0%	Off=47.6%	Off=61.8%

C=110 sec G= 94.0 sec = 85.5% Y=16.0 sec = 14.5% Ped= 0.0 sec = 0.0%

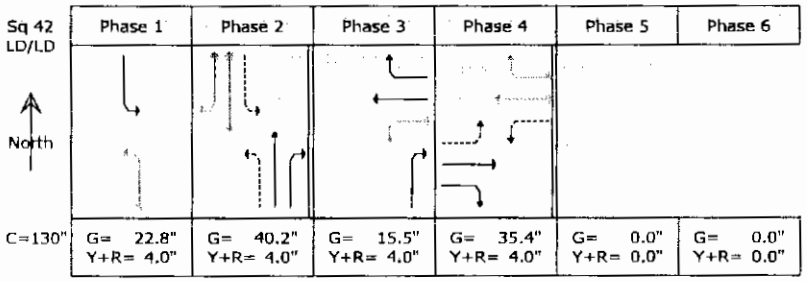
Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	@E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								154.8	F	
RT+TH	12/1	0.484	0.319	354	542	712	1.314	191.3	*F	1673 ft
LT	12/1	0.328	0.319	209	332	220	0.649	36.5	D+	282 ft
NB Approach								28.7	C	
RT	12/1	0.283	0.581	822	894	240	0.268	11.6	B+	174 ft
TH	12/1	0.280	0.439	664	795	280	0.352	20.7	C+	264 ft
LT	12/1	0.111	0.084	148	203	189	0.900	62.3	*E+	304 ft
WB Approach								43.0	D+	
RT+TH	24/2	0.327	0.346	892	1169	801	0.685	32.5	C	509 ft
LT	12/1	0.155	0.106	181	241	239	0.964	78.3	*E	412 ft
EB Approach								180.1	F	
RT+TH	24/2	0.493	0.346	884	1159	1523	1.314	183.5	*F	1864 ft
LT	12/1	0.003	0.106	240	298	32	0.107	17.2	B	26 ft

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	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.84	.84	.84	.91	.91	.91	.87	.87	.87	.87	.87	.87
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	

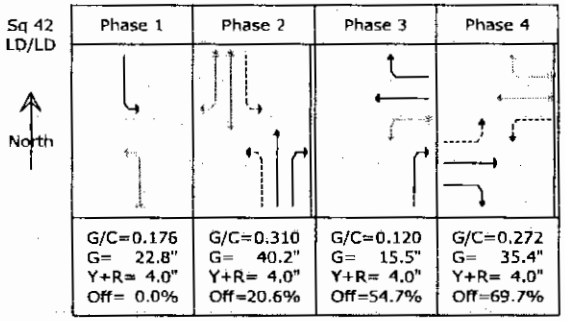
Sq 42
LD/LD



Vista del Norte ALTERNATE Development (Osuna / VdN) 05/06/06
Analysis of Osuna Rd. / Edith Blvd. - [2A_08PBX] 15:58:11
2008 PM Peak Hour BUILD Conditions - ALTERNATE

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 1.01 Vehicle Delay 91.7 Level of Service F

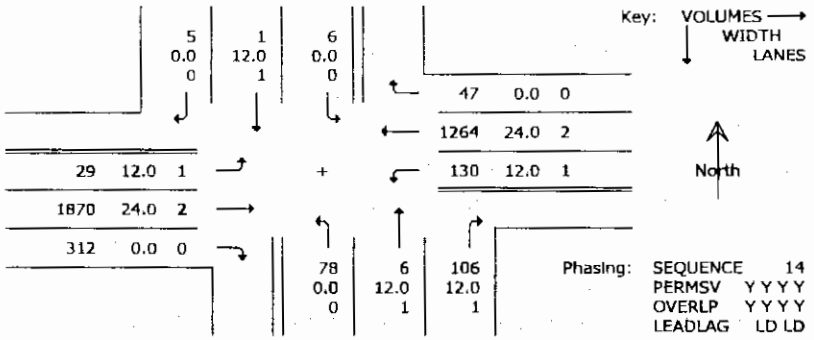
Sq 42
LD/LD



C=130 sec G=114.0 sec = 87.7% Y=16.0 sec = 12.3% Ped= 0.0 sec = 0.0%

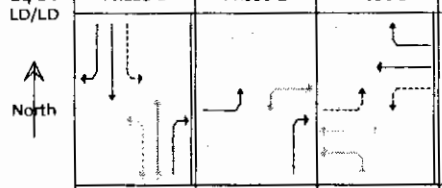
Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	@E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								102.0	F	
RT+TH	12/1	0.449	0.310	188	545	619	1.123	121.9	*F	1312 ft
LT	12/1	0.106	0.176	228	347	158	0.441	24.0	C+	175 ft
NB Approach								61.0	E+	
RT	12/1	0.333	0.460	550	707	243	0.344	22.8	C+	262 ft
TH	12/1	0.413	0.310	191	555	532	0.950	70.0	E	927 ft
LT	12/1	0.264	0.176	226	347	339	0.947	74.4	*E	613 ft
WB Approach								94.8	F	
RT+TH	24/2	0.522	0.423	1109	1429	1593	1.115	99.4	*F	1700 ft
LT	12/1	0.175	0.120	171	250	231	0.882	63.5	*E+	407 ft
EB Approach								111.0	F	
RT+TH	24/2	0.405	0.272	54	918	1009	1.099	107.9	F	1111 ft
LT	12/1	0.464	0.272	2	41	56	1.000	167.6	F	137 ft

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	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.70	.70	.70	.80	.80	.80	.72	.72	.72	.81	.81	.81
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	

Sq 14
LD/LD

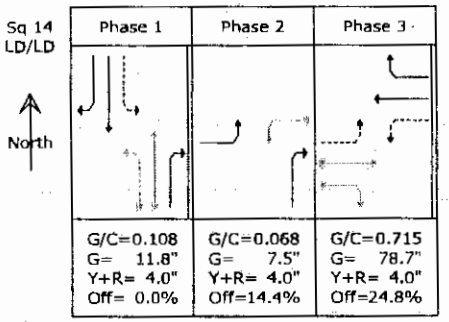


	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
C=110"	G= 11.8" Y+R= 4.0"	G= 7.5" Y+R= 4.0"	G= 78.7" Y+R= 4.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"

Vista del Norte ALTERNATE Development (Osuna / VdN) 05/06/06
Analysis of Osuna Rd. / Chappel Dr. - [3A_08ABX] 16:00:21
2008 AM Peak Hour BUILD Conditions - ALTERNATE

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.92 Vehicle Delay 50.8 Level of Service D

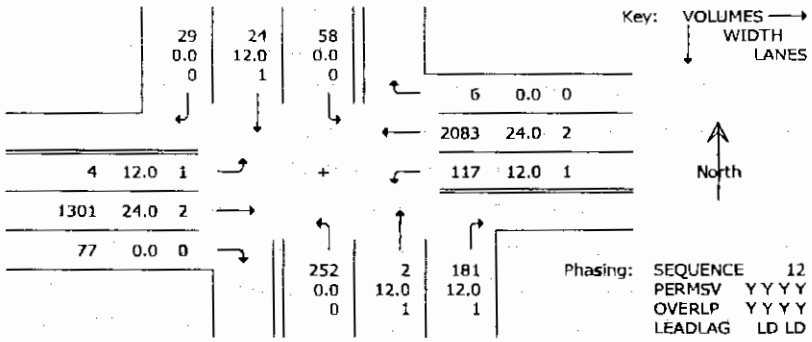
Sq 14
LD/LD



C=110 sec G= 98.0 sec = 89.1% Y=12.0 sec = 10.9% Ped= 0.0 sec = 0.0%

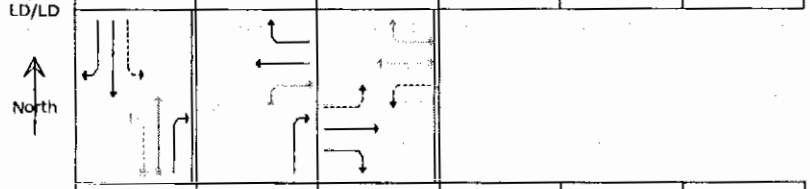
Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	@E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								44.6	D+	
RT+TH+LT	12/1	0.208	0.108	1	133	17	0.108	44.6	D+	23 ft
NB Approach								55.9	E+	
RT	12/1	0.248	0.212	32	311	147	0.451	38.8	D+	188 ft
TH+LT	12/1	0.246	0.108	1	118	116	0.817	77.7	*E	192 ft
WB Approach								15.3	B	
RT+TH	24/2	0.512	0.715	2452	2452	1639	0.668	9.2	A	655 ft
LT	12/1	0.178	0.068	94	165	162	0.885	77.0	*E	206 ft
EB Approach								73.7	E	
RT+TH	24/2	0.783	0.715	2412	2412	2694	1.117	74.6	*E	2479 ft
LT	12/1	0.000	0.068	203	251	36	0.143	6.4	A	13 ft

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	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.89	.89	.89	.86	.86	.86	.79	.79	.79	.92	.92	.92
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	

Sq 12
LD/LD

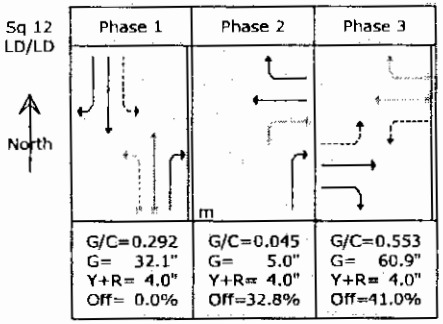


	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
C=110"	G= 32.1" Y+R= 4.0"	G= 5.0" Y+R= 4.0"	G= 60.9" Y+R= 4.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"

Vista del Norte ALTERNATE Development (Osuna / VdN) 05/06/06
Analysis of Osuna Rd. / Chappel Dr. - [3A_08PBX] 16:03:13
2008 PM Peak Hour BUILD Conditions - ALTERNATE

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.94 Vehicle Delay 55.4 Level of Service E+

Sq 12
LD/LD

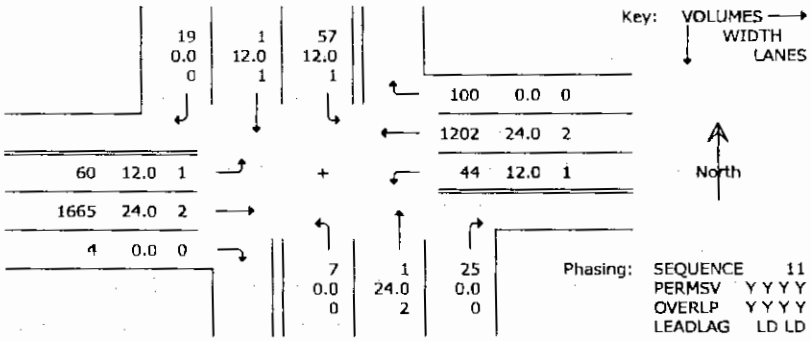


Phase 1	Phase 2	Phase 3
G/C=0.292	G/C=0.045	G/C=0.553
G= 32.1"	G= 5.0"	G= 60.9"
Y+R= 4.0"	Y+R= 4.0"	Y+R= 4.0"
Off= 0.0%	Off=32.8%	Off=41.0%

C=110 sec G= 98.0 sec = 89.1% Y=12.0 sec = 10.9% Ped= 0.0 sec = 0.0%

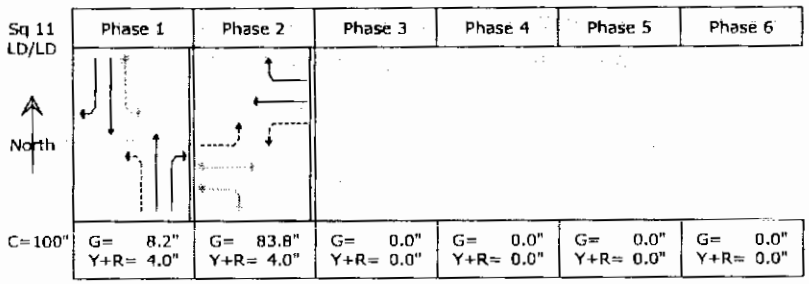
Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	LS	Queue Model 1
SB Approach								32.9	C	
RT+TH+LT	12/1	0.272	0.292	151	265	125	0.451	32.9	C	152 ft
NB Approach								56.3	E+	
RT	12/1	0.278	0.374	427	575	229	0.398	25.8	C+	242 ft
TH+LT	12/1	0.385	0.292	187	325	322	0.964	78.0	*E	540 ft
WB Approach								76.0	E	
RT+TH	24/2	0.704	0.635	2153	2188	2429	1.110	76.9	*E	2227 ft
LT	12/1	0.062	0.045	115	147	136	0.877	59.9	*E+	205 ft
EB Approach								21.9	C+	
RT+TH	24/2	0.479	0.553	1805	1891	1498	0.792	21.9	C+	861 ft
LT	12/1	0.212	0.553	42	56	4	0.061	11.7	B+	3 ft

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	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.86	.86	.86	.84	.84	.84	.80	.80	.80	.93	.93	.93
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Startup 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	

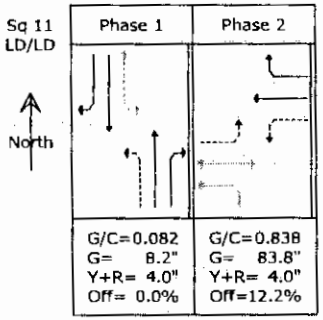
Sq 11
LD/LD



Vista del Norte ALTERNATE Development (Osuna / VdN) 05/06/06
Analysis of Osuna Rd. / Academy Parkway. - [4A_08ABX] 16:04:48
2008 AM Peak Hour BUILD Conditions - ALTERNATE

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.57 Vehicle Delay 4.6 Level of Service A

Sq 11
LD/LD

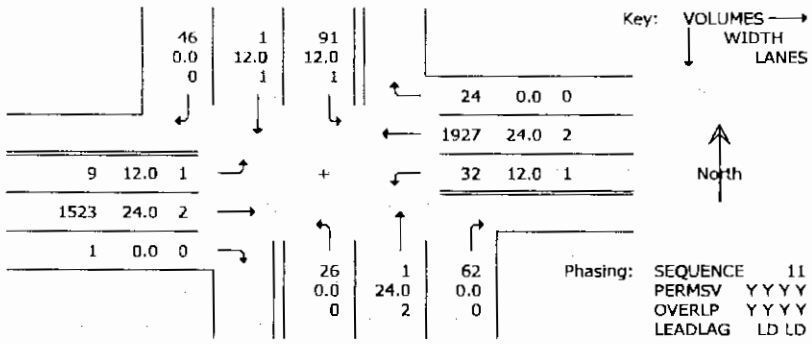


C=100 sec G= 92.0 sec = 92.0% Y= 8.0 sec = 8.0% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								51.0	D	
RT+TH	12/1	0.171	0.082	1	106	23	0.181	43.4	D+	30 ft
LT	12/1	0.191	0.082	1	89	66	0.606	53.6	*D	93 ft
NB Approach								43.1	D+	
RT+TH+LT	24/2	0.171	0.082	1	205	41	0.181	43.1	D+	28 ft
WB Approach								2.6	A	
RT+TH	24/2	0.486	0.838	2853	2853	1550	0.543	2.6	A	337 ft
LT	12/1	0.434	0.838	137	163	52	0.319	2.9	A	20 ft
EB Approach								3.1	A	
RT+TH	24/2	0.541	0.838	2885	2885	1794	0.622	3.2	*A	438 ft
LT	12/1	0.393	0.838	196	223	65	0.291	2.5	A	23 ft

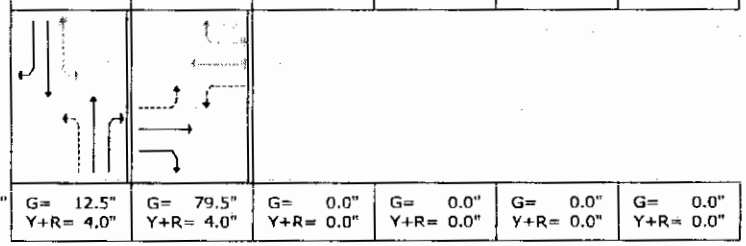
Vista del Norte ALTERNATE Development (Osuna / VdN) 05/06/06
Analysis of Osuna Rd. / Academy Parkway. - [4A_08PBX] 16:06:04
2008 PM Peak Hour BUILD Conditions - ALTERNATE

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	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.86	.86	.86	.84	.84	.84	.80	.80	.80	.93	.93	.93
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, tl	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	

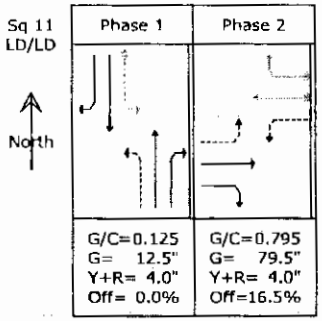
Sq 11
LD/LD



Vista del Norte ALTERNATE Development (Osuna / VdN) 05/06/06
Analysis of Osuna Rd. / Academy Parkway. - [4A_08PBX] 16:06:04
2008 PM Peak Hour BUILD Conditions - ALTERNATE

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.72 Vehicle Delay 9.6 Level of Service A

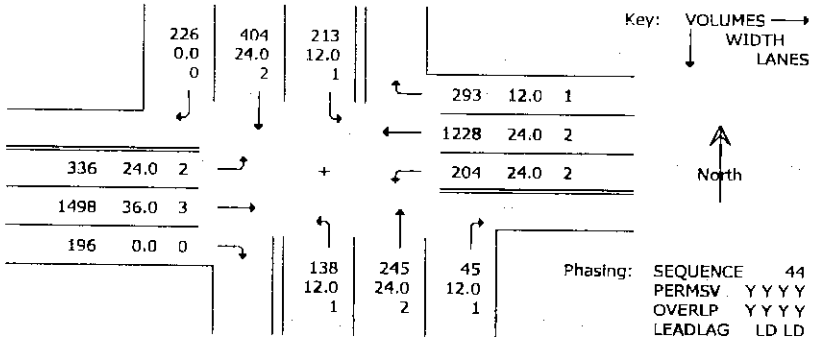
Sq 11
LD/LD



C=100 sec G= 92.0 sec = 92.0% Y= 8.0 sec = 8.0% Ped= 0.0 sec = 0.0%

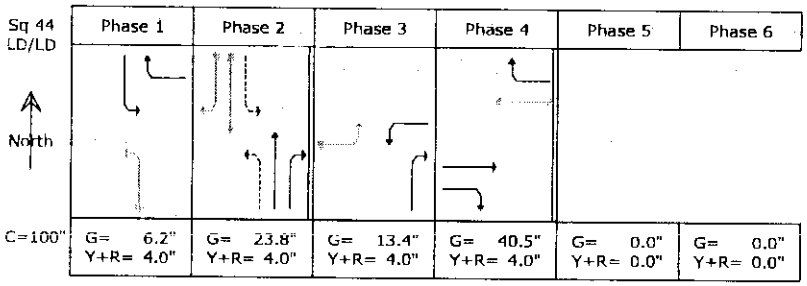
Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								49.2	D	
RT+TH	12/1	0.182	0.125	1	173	54	0.280	40.5	D+	67 ft
LT	12/1	0.212	0.125	1	135	106	0.684	53.6	*D	148 ft
NB Approach								40.5	D+	
RT+TH+LT	24/2	0.184	0.125	1	318	110	0.329	40.5	D+	72 ft
WB Approach								9.1	A	
RT+TH	24/2	0.675	0.795	2734	2734	2323	0.850	9.2	*A	1005 ft
LT	12/1	0.319	0.795	149	177	38	0.215	3.1	A	15 ft
EB Approach								4.4	A	
RT+TH	24/2	0.503	0.795	2739	2739	1639	0.598	4.4	A	450 ft
LT	12/1	0.185	0.795	53	65	10	0.139	3.2	A	4 ft

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	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.87	.87	.87	.88	.88	.88	.91	.91	.91	.88	.88	.88
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	

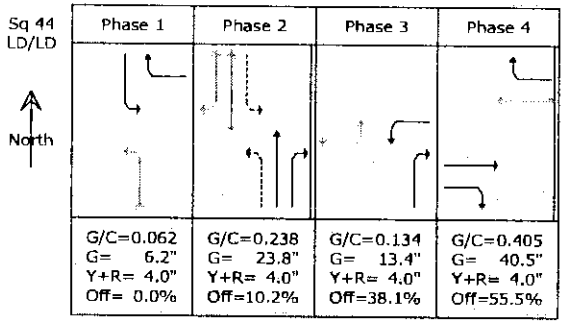
Sq 44 LD/LD



Vista del Norte ALTERNATE Development (Osuna / VdN) 05/06/06
Analysis of Osuna Rd. / Jefferson St. - [5A_08ABX] 16:08:49
2008 AM Peak Hour BUILD Conditions - ALTERNATE

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.87 Vehicle Delay 46.7 Level of Service D

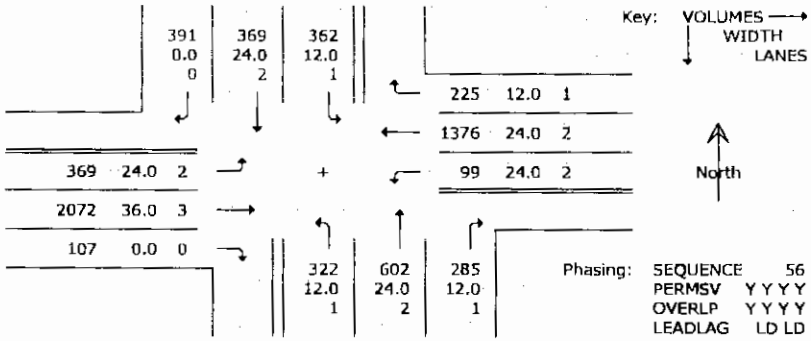
Sq 44 LD/LD



C=100 sec G= 84.0 sec = 84.0% Y=16.0 sec = 16.0% Ped= 0.0 sec = 0.0%

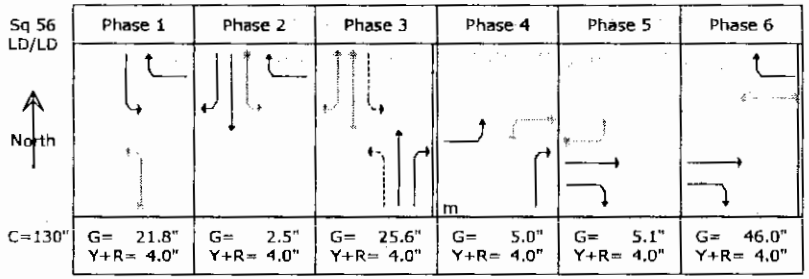
Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	@E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								50.7	D	
RT+TH	24/2	0.297	0.238	460	776	724	0.933	55.4	*E+	556 ft
LT	12/1	0.067	0.062	237	331	245	0.736	36.8	D+	302 ft
NB Approach								38.3	D+	
RT	12/1	0.180	0.413	524	634	49	0.077	17.9	B	40 ft
TH	24/2	0.201	0.238	489	821	269	0.328	31.7	C	155 ft
LT	12/1	0.083	0.062	120	170	152	0.849	56.7	*E+	221 ft
WB Approach								45.9	D	
RT	12/1	0.309	0.507	699	781	333	0.426	15.9	B	274 ft
TH	24/2	0.443	0.405	1239	1395	1395	1.000	53.8	*D	1074 ft
LT	24/2	0.197	0.134	1	439	232	0.518	41.3	D+	152 ft
EB Approach								47.3	D	
RT+TH	36/3	0.429	0.405	1789	1962	1925	0.981	45.4	D	1006 ft
LT	24/2	0.220	0.134	1	439	382	0.853	57.0	*E+	290 ft

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	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.80	.80	.80	.91	.91	.91	.90	.90	.90	.94	.94	.94
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, tl	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	

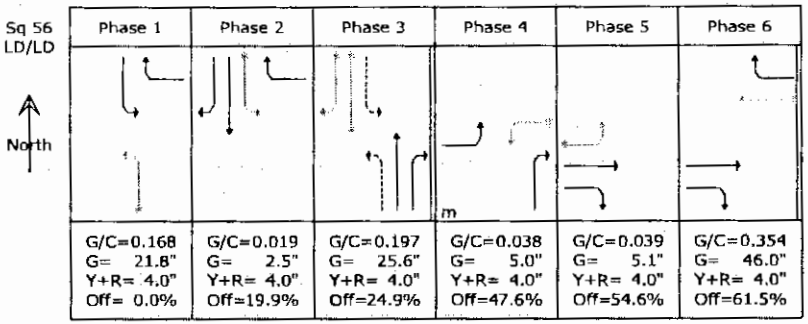
Sq 56
LD/LD



Vista del Norte ALTERNATE Development (Osuna / VdN) 05/06/06
Analysis of Osuna Rd. / Jefferson St. - [5A_08PBX] 16:10:48
2008 PM Peak Hour BUILD Conditions - ALTERNATE

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 1.09 Vehicle Delay 113.1 Level of Service F

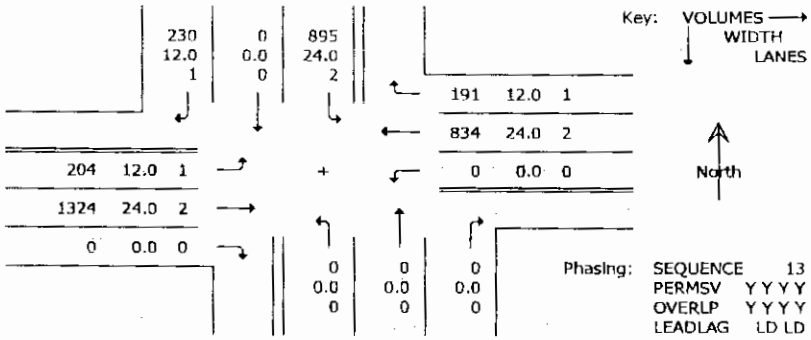
Sq 56
LD/LD



C=130 sec G=106.0 sec = 81.5% Y=24.0 sec = 18.5% Ped= 0.0 sec = 0.0%

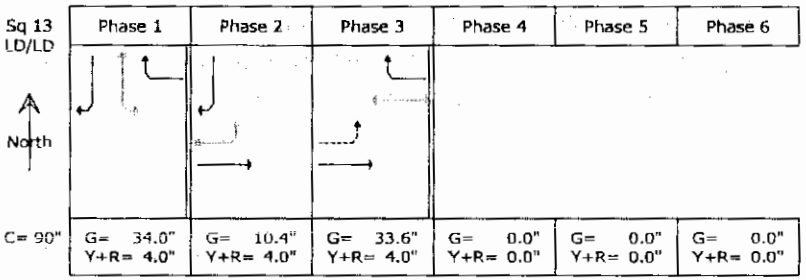
Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								136.2	F	
RT+TH	24/2	0.406	0.247	1	782	950	1.210	155.3	*F	1194 ft
LT	12/1	0.319	0.218	296	428	452	1.049	96.1	*F	912 ft
NB Approach								79.8	E	
RT	12/1	0.360	0.266	1	391	317	0.775	53.1	D	505 ft
TH	24/2	0.347	0.197	1	661	669	0.987	83.2	F	683 ft
LT	12/1	0.259	0.168	210	337	358	1.038	97.3	*F	736 ft
WB Approach								134.9	F	
RT	12/1	0.335	0.603	841	927	247	0.266	12.4	B+	200 ft
TH	24/2	0.498	0.354	716	1219	1512	1.240	157.3	*F	1875 ft
LT	24/2	0.279	0.038	1	93	109	0.852	101.2	*F	119 ft
EB Approach								102.6	F	
RT+TH	36/3	0.516	0.424	1660	2073	2318	1.118	97.9	F	1734 ft
LT	24/2	0.313	0.108	1	323	393	1.086	130.1	*F	473 ft

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	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.80	.80	.80	.73	.73	.73	.85	.85	.85	.87	.87	.87
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	

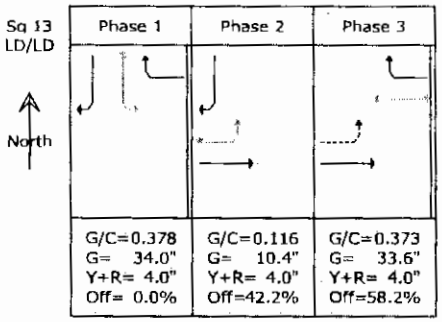
Sq 13
LD/LD



Vista del Norte ALTERNATE Development (Osuna / VdN) 05/06/06
Analysis of Osuna Rd. / Vista del Norte - [6A_08ABX] 16:12:43
2008 AM Peak Hour BUILD Conditions - ALTERNATE

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.79 Vehicle Delay 26.9 Level of Service C+

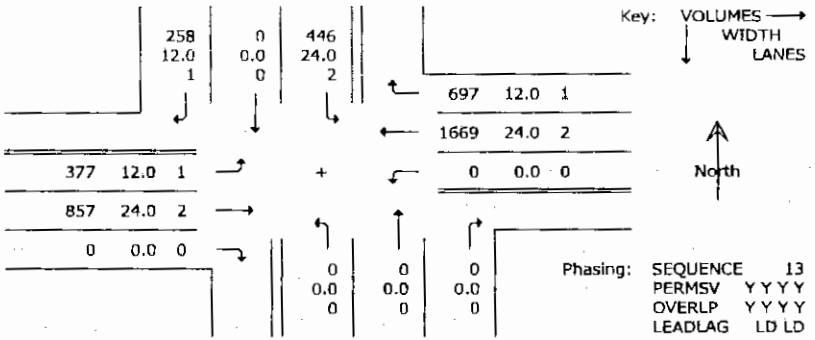
Sq 13
LD/LD



C= 90 sec G= 78.0 sec = 86.7% Y=12.0 sec = 13.3% Ped= 0.0 sec = 0.0%

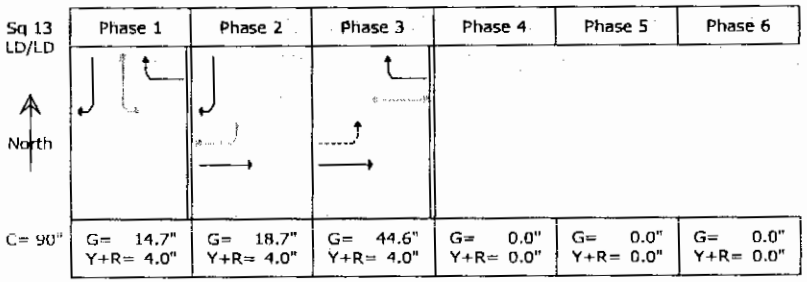
Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	@E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								29.8	C	
RT	12/1	0.267	0.538	765	827	287	0.347	12.1	B+	195 ft
LT	24/2	0.375	0.378	1129	1260	1119	0.888	34.3	*C	674 ft
WB Approach								28.4	C	
RT	12/1	0.252	0.795	1223	1223	262	0.214	2.4	A	83 ft
TH	24/2	0.371	0.373	1151	1286	1142	0.888	34.4	*C	698 ft
EB Approach								23.5	C+	
TH	24/2	0.467	0.534	1785	1838	1522	0.828	20.8	C+	781 ft
LT	12/1	0.124	0.116	223	279	234	0.839	40.9	*D+	274 ft

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	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.86	.86	.86	.92	.92	.92	.85	.85	.85	.89	.89	.89
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	

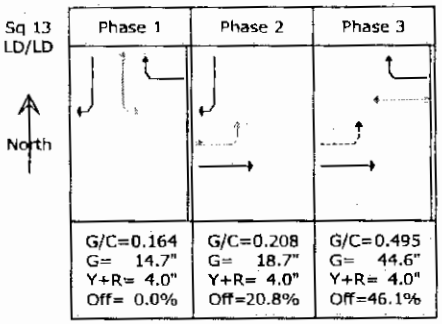
Sq 13
LD/LD



Vista del Norte ALTERNATE Development (Osuna / VdN) 05/06/06
Analysis of Osuna Rd. / Vista del Norte - [6A_08PBX] 16:14:42
2008 PM Peak Hour BUILD Conditions - ALTERNATE

Intersection Averages for Int # 1 -
Degree of Saturation (v/c) 0.81 Vehicle Delay 40.3 Level of Service D+

Sq 13
LD/LD



C= 90 sec G= 78.0 sec = 86.7% Y=12.0 sec = 13.3% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								47.7	D	
RT	12/1	0.274	0.416	549	640	300	0.469	19.6	B	258 ft
LT	24/2	0.223	0.164	273	546	519	0.951	63.9	*E+	389 ft
WB Approach								47.7	D	
RT	12/1	0.534	0.703	1059	1081	758	0.701	9.9	A	528 ft
TH	24/2	0.541	0.495	1634	1706	1814	1.063	63.6	*E+	1388 ft
EB Approach								22.3	C+	
TH	24/2	0.327	0.748	2576	2576	963	0.374	4.1	A	217 ft
LT	12/1	0.257	0.208	344	438	424	0.968	63.5	*E+	562 ft

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		Site Information		
Analyst	tob	Jurisdiction/Date	CoA	4/16/2006
Agency or Company	Terry O. Brown, P.E.	Major Street	Vista del Norte Dr.	
Analysis Period/Year	AM 2008	Minor Street	Las Lomitas Dr.	
Comment	2008 AM Peak Hour NO BUILD Conditions			

Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	T	TR		LR
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)	35	92			17	68				176		14
PHF	0.90	0.90			0.90	0.90				0.90		0.90
Percent of heavy vehicles, HV	3	3			3	3				3		3
Flow rate	39	102			19	76				196		16
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								
	2								
	3								
SB	1	LR	212	745	0.284	1	11.7	B	11.7
	2								
	3								B
EB		1	39	1493	0.026	0	7.5	A	
WB		4							

HiCAP ™2.0.0.1
©Catalina Engineering, Inc.

7 - 2008 AM NO BUILD
1 of 1

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		Site Information		
Analyst	tob	Jurisdiction/Date	CoA	4/16/2006
Agency or Company	Terry O. Brown, P.E.	Major Street	Vista del Norte Dr.	
Analysis Period/Year	AM 2008	Minor Street	Las Lomitas Dr.	
Comment	2008 AM Peak Hour BUILD Conditions			

Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	T	TR		LR
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)	35	98			22	72				180		14
PHF	0.90	0.90			0.90	0.90				0.90		0.90
Percent of heavy vehicles, HV	3	3			3	3				3		3
Flow rate	39	109			24	80				200		16
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								
	2								
	3								
SB	1	LR	216	731	0.295	1	12.0	B	12.0
	2								
	3								B
EB		1	39	1481	0.026	0	7.5	A	
WB		4							

HiCAP ™2.0.0.1
©Catalina Engineering, Inc.

7 - 2008 AM BUILD
1 of 1

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		Site Information		
Analyst	tob	Jurisdiction/Date	CoA	5/6/2006
Agency or Company	Terry O. Brown, P.E.	Major Street	Vista del Norte Dr.	
Analysis Period/Year	AM 2008	Minor Street	Las Lomitas Dr.	
Comment	2008 AM Peak Hour BUILD Conditions - ALTERNATE PLAN			

Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	T	TR		LR
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)	35	104			27	75				185		14
PHF	0.90	0.90			0.90	0.90				0.90		0.90
Percent of heavy vehicles, HV	3	3			3	3				3		3
Flow rate	39	116			30	83				206		16
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								
	2								
	3								
SB	1	LR	222	718	0.309	1	12.2	B	12.2
	2								
	3								B
EB		1	39	1470	0.026	0	7.5	A	
WB		4							

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		***Site Information***		
Analyst	tob	Jurisdiction/Date	CoA	4/16/2006
Agency or Company	Terry O. Brown, P.E.	Major Street	Vista del Norte Dr.	
Analysis Period/Year	PM 2008	Minor Street	Las Lomitas Dr.	
Comment	2008 PM Peak Hour NO BUILD Conditions			

Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	T	TR		LR
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)	17	35			100	198				92		56
PHF	0.90	0.90			0.90	0.90				0.90		0.90
Percent of heavy vehicles, HV	3	3			3	3				3		3
Flow rate	19	39			111	220				102		62
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								
	2								
	3								
SB	1	LR	164	726	0.226	1	11.4	B	11.4
	2								
	3								B
EB		1	19	1223	0.015	0	8.0	A	
WB		4							

HiCAP ™2.0.0.1
©Catalina Engineering, Inc.

7 - 2008 PM NO BUILD
1 of 1

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		Site Information		
Analyst	tob	Jurisdiction/Date	CoA	4/16/2006
Agency or Company	Terry O. Brown, P.E.	Major Street	Vista del Norte Dr.	
Analysis Period/Year	PM 2008	Minor Street	Las Lomitas Dr.	
Comment	2008 PM Peak Hour BUILD Conditions			

Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	T	TR		LR
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)	17	44			109	205				98		56
PHF	0.90	0.90			0.90	0.90				0.90		0.90
Percent of heavy vehicles, HV	3	3			3	3				3		3
Flow rate	19	49			121	228				109		62
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								
	2								
	3								
SB	1	LR	171	705	0.243	1	11.7	B	11.7
	2								
	3								B
EB		1	19	1204	0.016	0	8.0	A	
WB		4							

HiCAP ™2.0.0.1
©Catalina Engineering, Inc.

7 - 2008 PM BUILD
1 of 1

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		Site Information		
Analyst	tob	Jurisdiction/Date	CoA	4/16/2006
Agency or Company	Terry O. Brown, P.E.	Major Street	Vista del Norte Dr.	
Analysis Period/Year	PM 2008	Minor Street	Las Lomitas Dr.	
Comment	2008 PM Peak Hour BUILD Conditions - ALTERNATE PLAN			

Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	T	TR		LR
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)	17	49			114	208				103		56
PHF	0.90	0.90			0.90	0.90				0.90		0.90
Percent of heavy vehicles, HV	3	3			3	3				3		3
Flow rate	19	54			127	231				114		62
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								
	2								
	3								
SB	1	LR	176	693	0.254	1	12.0	B	12.0
	2								
	3								B
EB		1	19	1195	0.016	0	8.1	A	
WB		4							

HiCAP™2.0.0.1
©Catalina Engineering, Inc.

7 - 2008 PM BUILD ALTERNATE PLAN
1 of 1

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		Site Information	
Analyst	tob	Jurisdiction/Date	Coa 4/16/2006
Agency or Company	Terry O. Brown, P.E.	Major Street	El Pueblo
Analysis Period/Year	AM 2008	Minor Street	Las Lomitas Dr.
Comment	2008 AM Peak Hour NO BUILD Condition		

Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	R	T	R	
Lane 2	T	LT	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)		497	131	19	102		80		96			
PHF		0.90	0.90	0.90	0.90		0.90		0.90			
Percent of heavy vehicles, HV		3	3	3	3		3		3			
Flow rate		552	146	21	113		89		107			
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	107	475	0.225	1	14.8	B	15.8
	2	L	89	390	0.228	1	17.0	C	
	3								C
SB	1								
	2								
	3								
EB		1							
WB		4	21	888	0.024	0	9.2	A	

HiCAP ™2.0.0.1
©Catalina Engineering, Inc.

8 - 2008 AM NO BUILD
1 of 1

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		***Site Information***		
Analyst	tob	Jurisdiction/Date	Coa	4/16/2006
Agency or Company	Terry O. Brown, P.E.	Major Street	El Pueblo	
Analysis Period/Year	AM 2008	Minor Street	Las Lomitas Dr.	
Comment	2008 AM Peak Hour BUILD Condition			

Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	R	T	R	
Lane 2	T	LT	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)		497	132	19	102		81		96			
PHF		0.90	0.90	0.90	0.90		0.90		0.90			
Percent of heavy vehicles, HV		3	3	3	3		3		3			
Flow rate		552	147	21	113		90		107			
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	107	475	0.225	1	14.8	B	15.8
	2	L	90	390	0.231	1	17.0	C	
	3								C
SB	1								
	2								
	3								
EB		1							
WB		4	21	887	0.024	0	9.2	A	

HiCAP ™2.0.0.1
©Catalina Engineering, Inc.

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		Site Information		
Analyst	tob	Jurisdiction/Date	CoA	5/6/2006
Agency or Company	Terry O. Brown, P.E.	Major Street	El Pueblo	
Analysis Period/Year	AM 2008	Minor Street	Las Lomitas Dr.	
Comment	2008 AM Peak Hour BUILD Condition - ALTERNATE			

Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	R	T	R	
Lane 2	T	LT	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)		497	133	20	102		81		96			
PHF		0.90	0.90	0.90	0.90		0.90		0.90			
Percent of heavy vehicles, HV		3	3	3	3		3		3			
Flow rate		552	148	22	113		90		107			
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	107	475	0.225	1	14.8	B	15.8
	2	L	90	388	0.232	1	17.1	C	
	3								C
SB	1								
	2								
	3								
EB		1							
WB		4	22	886	0.025	0	9.2	A	

HiCAP ™2.0.0.1
©Catalina Engineering, Inc.

8 - 2008 AM BUILD ALTERNATE PLAN
1 of 1

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		Site Information		
Analyst	tob	Jurisdiction/Date	Coa	4/16/2006
Agency or Company	Terry O. Brown, P.E.	Major Street	El Pueblo	
Analysis Period/Year	PM 2008	Minor Street	Las Lomitas Dr.	
Comment	2008 PM Peak Hour NO BUILD Condition			

Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	R	T	R	
Lane 2	T	LT	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)		92	94	83	236		179		50			
PHF		0.90	0.90	0.90	0.90		0.90		0.90			
Percent of heavy vehicles, HV		3	3	3	3		3		3			
Flow rate		102	104	92	262		199		56			
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	56	930	0.060	0	9.1	A	14.5
	2	L	199	522	0.381	2	16.1	C	
	3								B
SB	1								
	2								
	3								
EB		1							
WB		4	92	1355	0.068	0	7.9	A	

HiCAP™2.0.0.1
©Catalina Engineering, Inc.

8 - 2008 PM NO BUILD
1 of 1

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		Site Information		
Analyst	tob	Jurisdiction/Date	Coa	4/16/2006
Agency or Company	Terry O. Brown, P.E.	Major Street	El Pueblo	
Analysis Period/Year	PM 2008	Minor Street	Las Lomitas Dr.	
Comment	2008 PM Peak Hour BUILD Condition			

Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	R	T	R	
Lane 2	T	LT	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)		92	95	83	236		180		50			
PHF		0.90	0.90	0.90	0.90		0.90		0.90			
Percent of heavy vehicles, HV		3	3	3	3		3		3			
Flow rate		102	106	92	262		200		56			
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	56	930	0.060	0	9.1	A	14.6
	2	L	200	522	0.383	2	16.1	C	
	3								B
SB	1								
	2								
	3								
EB		1							
WB		4	92	1353	0.068	0	7.9	A	

HiCAP ™2.0.0.1
©Catalina Engineering, Inc.

8 - 2008 PM BUILD
1 of 1

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		Site Information		
Analyst	tob	Jurisdiction/Date	Coa	4/16/2006
Agency or Company	Terry O. Brown, P.E.	Major Street	El Pueblo	
Analysis Period/Year	PM 2008	Minor Street	Las Lomitas Dr.	
Comment	2008 PM Peak Hour BUILD Condition - ALTERNATE PLAN			

Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	R	T	R	
Lane 2	T	LT	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)		92	96	84	236		181		51			
PHF		0.90	0.90	0.90	0.90		0.90		0.90			
Percent of heavy vehicles, HV		3	3	3	3		3		3			
Flow rate		102	107	93	262		201		57			
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	57	930	0.061	0	9.1	A	14.6
	2	L	201	520	0.386	2	16.2	C	
	3								B
SB	1								
	2								
	3								
EB		1							
WB		4	93	1352	0.069	0	7.9	A	

HiCAP ™2.0.0.1
©Catalina Engineering, Inc.

8 - 2008 PM BUILD ALTERNATE PLAN
1 of 1

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		Site Information		
Analyst	tob	Jurisdiction/Date	CoA	4/16/2006
Agency or Company	Terry O. Brown, P.E.	Major Street	Osuna Rd.	
Analysis Period/Year	AM 2008	Minor Street	Driveway "A"	
Comment	2008 AM Peak Hour BUILD Condtitions			

Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	T	R		R
Lane 2	T	T		L
Lane 3	L	T		
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	2151			854	85				36		67
PHF	0.85	0.95			0.95	0.85				0.85		0.85
Percent of heavy vehicles, HV	3	3			3	3				3		3
Flow rate	66	2264			899	100				42		79
Flare storage (# of vehs)												
Median storage (# of vehs)										0		

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								
	2								
	3								
SB	1	R	79	554	0.143	0	12.6	B	138.7
	2	L	42	36	1.169	4	375.9	F	
	3								F
EB		1	66	683	0.097	0	10.8	B	
WB		4							

HiCAP ™2.0.0.1
©Catalina Engineering, Inc.

9 - 2008 AM BUILD
1 of 1

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		*Site Information*		
Analyst	tob	Jurisdiction/Date	CoA	5/6/2006
Agency or Company	Terry O. Brown, P.E.	Major Street	Osuna Rd.	
Analysis Period/Year	AM 2008	Minor Street	Driveway "A"	
Comment	2008 AM Peak Hour BUILD Condtitions - ALTERNATE PLAN			

Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	T	R		R
Lane 2	T	T		L
Lane 3	L	T		
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)	117	2213			895	178				63		119
PHF	0.85	0.95			0.95	0.85				0.85		0.85
Percent of heavy vehicles, HV	3	3			3	3				3		3
Flow rate	138	2329			942	209				74		140
Flare storage (# of vehs)												
Median storage (# of vehs)										0		

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								
	2								
	3								
SB	1	R	140	536	0.261	1	14.1	B	514.5
	2	L	74	22	3.424	9	1461.2	F	
	3								F
EB		1	138	597	0.231	1	12.8	B	
WB		4							

HiCAP™2.0.0.1
©Catalina Engineering, Inc.

9 - 2008 AM BUILD ALTERNATE PLAN
1 of 1

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		Site Information		
Analyst	tob	Jurisdiction/Date	CoA	4/16/2006
Agency or Company	Terry O. Brown, P.E.	Major Street	Osuna Rd.	
Analysis Period/Year	PM 2008	Minor Street	Driveway "A"	
Comment	2008 PM Peak Hour BUILD Condtitions			

Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	T	R		R
Lane 2	T	T		L
Lane 3	L	T		
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)	85	1157			2174	128				58		109
PHF	0.85	0.95			0.95	0.85				0.85		0.85
Percent of heavy vehicles, HV	3	3			3	3				3		3
Flow rate	100	1218			2288	151				68		128
Flare storage (# of vehs)												
Median storage (# of vehs)										0		

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								
	2								
	3								
SB	1	R	128	192	0.668	4	55.0	F	3050.2
	2	L	68	4	16.507	10	8688.3	F	
	3								F
EB		1	100	187	0.535	3	44.5	E	
WB		4							

HiCAP ™2.0.0.1
©Catalina Engineering, Inc.

9 - 2008 PM BUILD
1 of 1

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		*Site Information*	
Analyst	tob	Jurisdiction/Date	CoA 5/6/2006
Agency or Company	Terry O. Brown, P.E.	Major Street	Osuna Rd.
Analysis Period/Year	PM 2008	Minor Street	Driveway "A"
Comment	2008 PM Peak Hour BUILD Condtitions - ALTERNATE PLAN		

Input Data

Lane Configuration	EB	WB	NB	SB
Lane 1 (curb)	T	R		R
Lane 2	T	T		L
Lane 3	L	T		
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)	182	1190			2007	421				130		339
PHF	0.85	0.95			0.95	0.85				0.85		0.85
Percent of heavy vehicles, HV	3	3			3	3				3		3
Flow rate	214	1253			2113	495				153		399
Flare storage (# of vehs)												
Median storage (# of vehs)										0		

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								
	2								
	3								
SB	1	R	399	220	1.817	28	422.3	F	422.3
	2	L	153						
	3								F
EB		1	214	160	1.339	13	243.2	F	
WB		4							

HiCAP ™2.0.0.1
©Catalina Engineering, Inc.

9 - 2008 PM BUILD ALTERNATE PLAN
1 of 1

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		Site Information		
Analyst	tob	Jurisdiction/Date	CoA	5/7/2006
Agency or Company	Terry O. Brown, P.E.	Major Street	Vista del Norte	
Analysis Period/Year	AM 2008	Minor Street	Driveway "B"	
Comment	2008 AM Peak Hour BUILD Conditions			

Input Data

Lane Configuration	NB	SB	WB	EB
Lane 1 (curb)	R	TR	TR	TR
Lane 2	T	T	L	L
Lane 3	T	L		
Lane 4	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)	26	132	113	19	837	11	149	1	19	11	1	36
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	3	3	3	3	3	3	3	3	3	3	3	3
Flow rate	31	155	133	22	985	13	175	1	22	13	1	42
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	23	845	0.027	0	9.4	A	24.2
	2	L	175	341	0.513	3	26.1	D	
	3								C
EB	1	TR	43	500	0.086	0	12.9	B	15.4
	2	L	13	206	0.063	0	23.6	C	
	3								C
NB		1	31	683	0.045	0	10.5	B	
SB		4	22	1263	0.018	0	7.9	A	

HiCAP ™2.0.0.1
©Catalina Engineering, Inc.

10 - 2008 AM BUILD
1 of 1

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		Site Information		
Analyst	tob	Jurisdiction/Date	CoA	5/6/2006
Agency or Company	Terry O. Brown, P.E.	Major Street	Vista del Norte	
Analysis Period/Year	AM 2008	Minor Street	Driveway "B"	
Comment	2008 AM Peak Hour BUILD Conditions - ALTERNATE PLAN			

Input Data

Lane Configuration	NB	SB	WB	EB
Lane 1 (curb)	R	TR	TR	TR
Lane 2	T	T	L	L
Lane 3	T	L		
Lane 4	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)	26	123	256	41	837	11	261	1	33	11	1	36
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	3	3	3	3	3	3	3	3	3	3	3	3
Flow rate	31	145	301	48	985	13	307	1	39	13	1	42
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	40	890	0.045	0	9.2	A	75.7
	2	L	307	312	0.984	10	84.4	F	
	3								F
EB	1	TR	43	496	0.087	0	12.9	B	15.9
	2	L	13	187	0.070	0	25.7	D	
	3								C
NB		1	31	683	0.045	0	10.5	B	
SB		4	48	1104	0.044	0	8.4	A	

HiCAP ™2.0.0.1
©Catalina Engineering, Inc.

10 - 2008 AM BUILD ALTERNATE PLAN
1 of 1

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		Site Information		
Analyst	tob	Jurisdiction/Date	CoA	4/16/2006
Agency or Company	Terry O. Brown, P.E.	Major Street	Vista del Norte	
Analysis Period/Year	AM 2008	Minor Street	Driveway "B"	
Comment	2008 AM Peak Hour BUILD Conditions			

Input Data

Lane Configuration	NB	SB	WB	EB
Lane 1 (curb)	R	TR	TR	TR
Lane 2	T	T	L	L
Lane 3	T	L		
Lane 4	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)	26	123	122	19	837	11	149	1	19	11	1	36
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	3	3	3	3	3	3	3	3	3	3	3	3
Flow rate	31	145	144	22	985	13	175	1	22	13	1	42
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	23	851	0.027	0	9.3	A	24.0
	2	L	175	343	0.510	3	25.9	D	
	3								C
EB	1	TR	43	500	0.086	0	12.9	B	15.4
	2	L	13	207	0.063	0	23.6	C	
	3								C
NB		1	31	683	0.045	0	10.5	B	
SB		4	22	1263	0.018	0	7.9	A	

HiCAP ™2.0.0.1
©Catalina Engineering, Inc.

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information			Site Information		
Analyst	tob		Jurisdiction/Date	CoA	5/6/2006
Agency or Company	Terry O. Brown, P.E.		Major Street	Vista del Norte	
Analysis Period/Year	PM	2008	Minor Street	Driveway "B"	
Comment	2008 PM Peak Hour BUILD Conditions - ALTERNATE PLAN				

Input Data

Lane Configuration	NB	SB	WB	EB
Lane 1 (curb)	R	TR	TR	TR
Lane 2	T	T	L	L
Lane 3	T	L		
Lane 4	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)	36	674	311	49	222	11	466	1	47	11	1	26
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	3	3	3	3	3	3	3	3	3	3	3	3
Flow rate	42	793	366	58	261	13	548	1	55	13	1	31
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	56	586	0.096	0	11.8	B	592.8
	2	L	548	234	2.347	44	652.2	F	
	3								F
EB	1	TR	32	765	0.042	0	9.9	A	12.1
	2	L	13	302	0.043	0	17.5	C	
	3								B
NB		1	42	1279	0.033	0	7.9	A	
SB		4	58	593	0.097	0	11.7	B	

HiCAP ™2.0.0.1
©Catalina Engineering, Inc.

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		Site Information		
Analyst	tob	Jurisdiction/Date	CoA	5/7/2006
Agency or Company	Terry O. Brown, P.E.	Major Street	Vista del Norte	
Analysis Period/Year	AM 2008	Minor Street	Driveway "C"	
Comment	2008 AM Peak Hour BUILD Conditions			

Input Data

Lane Configuration	NB	SB	WB	EB
Lane 1 (curb)	TR	T	R	
Lane 2	T	T		
Lane 3				
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)		123	9		856				14			
PHF		0.85	0.85		0.85				0.85			
Percent of heavy vehicles, HV		3	3		3				3			
Flow rate		145	11		1007				16			
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
WB	1	R	16	964	0.017	0	8.8	A	8.8
	2								
	3								A
EB	1								
	2								
	3								
NB		1							
SB		4							

HiCAP™2.0.0.1
©Catalina Engineering, Inc.

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		Site Information		
Analyst	tob	Jurisdiction/Date	CoA	4/16/2006
Agency or Company	Terry O. Brown, P.E.	Major Street	Vista del Norte	
Analysis Period/Year	AM 2008	Minor Street	Driveway "C"	
Comment	2008 AM Peak Hour BUILD Conditions - ALTERNATE			

Input Data

Lane Configuration	NB	SB	WB	EB
Lane 1 (curb)	TR	T	R	
Lane 2	T	T		
Lane 3				
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)		160	90		900				15			
PHF		0.85	0.85		0.85				0.85			
Percent of heavy vehicles, HV		3	3		3				3			
Flow rate		188	106		1059				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
WB	1	R	18	870	0.021	0	9.2	A	9.2
	2								
	3								A
EB	1								
	2								
	3								
NB		1							
SB		4							

HiCAP ™2.0.0.1
©Catalina Engineering, Inc.

11 - 2008 AM BUILD ALTERNATE PLAN
1 of 1

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		Site Information		
Analyst	tob	Jurisdiction/Date	CoA	5/7/2006
Agency or Company	Terry O. Brown, P.E.	Major Street	Vista del Norte	
Analysis Period/Year	PM 2008	Minor Street	Driveway "C"	
Comment	2008 PM Peak Hour BUILD Conditions			

Input Data

Lane Configuration	NB	SB	WB	EB
Lane 1 (curb)	TR	T	R	
Lane 2	T	T		
Lane 3				
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)		674	16		243				15			
PHF		0.85	0.85		0.85				0.85			
Percent of heavy vehicles, HV		3	3		3				3			
Flow rate		793	19		286				18			
Flare storage (# of vehs)												
Median storage (# of vehs)								0				

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	R	18	592	0.030	0	11.3	B	11.3
	2								
	3								B
EB	1								
	2								
	3								
NB		1							
SB		4							

HiCAP ™2.0.0.1
©Catalina Engineering, Inc.

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		Site Information		
Analyst	tob	Jurisdiction/Date	CoA	4/16/2006
Agency or Company	Terry O. Brown, P.E.	Major Street	Vista del Norte	
Analysis Period/Year	PM 2008	Minor Street	Driveway "C"	
Comment	2008 PM Peak Hour BUILD Conditions - ALTERNATE PLAN			

Input Data

Lane Configuration	NB	SB	WB	EB
Lane 1 (curb)	TR	T	R	
Lane 2	T	T		
Lane 3				
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)		750	150		270				25			
PHF		0.85	0.85		0.85				0.85			
Percent of heavy vehicles, HV		3	3		3				3			
Flow rate		882	176		318				29			
Flare storage (# of vehs)												
Median storage (# of vehs)								0				

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	R	29	491	0.059	0	12.8	B	12.8
	2								
	3								B
EB	1								
	2								
	3								
NB		1							
SB		4							

HiCAP ™2.0.0.1
©Catalina Engineering, Inc.

11 - 2008 PM BUILD ALTERNATE PLAN
1 of 1

Traffic Count Data Sheet

Vista del Norte Commercial Development (Osuna Rd. / Vista del Norte)

Year Counts Taken: **2006**

E-W Street **Osuna**

N-S Street: **2nd St**

SIGNALIZED

Speed Limit (Osuna)= **45** MPH

Speed Limit (2nd St)= **45** MPH

Date of Count: **3/16/06**

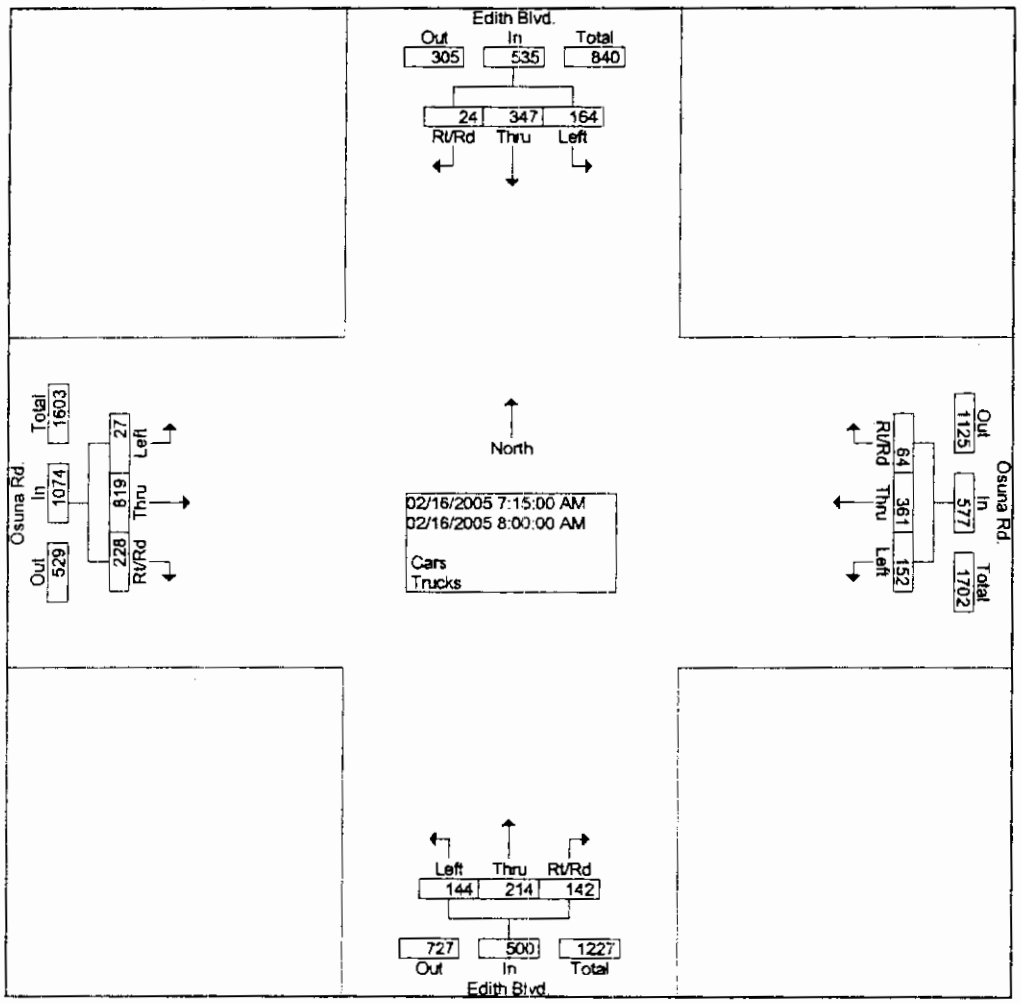
Begin Time	End Time	Eastbound (Osuna)			Westbound (Osuna)			Northbound (2nd St)			Southbound (2nd St)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	16	94	16	23	36	41	8	123	59	101	285	9
7:15 AM	7:30 AM	12	97	7	28	36	52	5	119	55	115	303	11
7:30 AM	7:45 AM	22	96	19	19	45	35	9	147	58	82	291	7
7:45 AM	8:00 AM	16	96	15	35	71	60	16	164	68	89	266	8
8:00 AM	8:15 AM	16	68	8	30	47	49	18	128	62	87	233	10
8:15 AM	8:30 AM	13	79	25	27	49	33	12	126	45	81	229	12
8:30 AM	8:45 AM	14	61	17	22	45	65	11	108	40	76	166	19
8:45 AM	9:00 AM	12	47	20	23	51	36	15	126	33	69	187	9
AM Peak Hour Volumes		**66**	**383**	**57**	**105**	**188**	**188**	**38**	**553**	**240**	**387**	**1145**	**35**
% of Total Traffic		1.9%	11.3%	1.7%	3.1%	5.6%	5.6%	1.1%	16.3%	7.1%	11.4%	33.8%	1.0%
% Directional			14.9%			14.2%			24.5%			46.3%	
AM Peak Hour Factor			*0.92*			*0.72*			*0.84*			*0.91*	

Begin Time	End Time	Eastbound (Osuna)			Westbound (Osuna)			Northbound (2nd St)			Southbound (2nd St)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	25	60	22	54	77	127	17	198	28	53	181	18
4:15 PM	4:30 PM	11	72	15	70	111	141	21	196	29	16	162	15
4:30 PM	4:45 PM	18	44	19	53	102	162	11	193	36	74	217	28
4:45 PM	5:00 PM	21	45	22	69	116	151	20	224	45	76	195	15
5:00 PM	5:15 PM	24	52	14	69	116	151	22	220	46	76	195	15
5:15 PM	5:30 PM	26	35	15	65	129	154	15	247	33	59	169	19
5:30 PM	5:45 PM	28	64	15	63	102	106	23	196	38	53	141	24
5:45 PM	6:00 PM	23	49	16	62	109	115	17	183	30	51	145	21
PM Peak Hour Volumes		**89**	**176**	**70**	**256**	**463**	**618**	**68**	**884**	**160**	**285**	**776**	**77**
% of Total Traffic		2.3%	4.5%	1.8%	6.5%	11.8%	15.8%	1.7%	22.5%	4.1%	7.3%	19.8%	2.0%
% Directional			8.5%			34.1%			28.4%			29.0%	
PM Peak Hour Factor			*0.93*			*0.96*			*0.94*			*0.89*	

Mid-Region Council of Governments
IntersectionTurning Movement Analysis

File Name : Osuna Rd. and Edit Blvd.
Site Code : 00025601
Start Date : 02/16/2005
Page No : 3

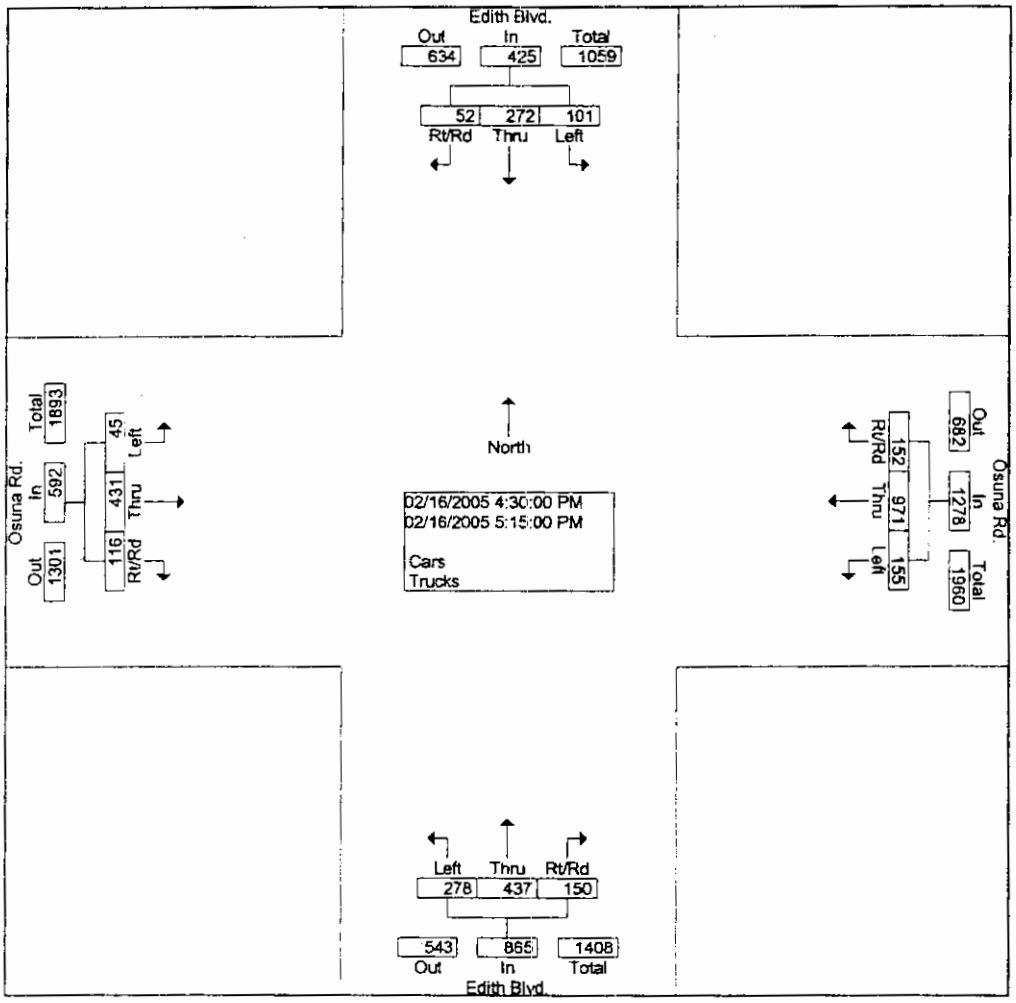
	Edith Blvd. From North					Osuna Rd. From East					Edith Blvd. From South					Osuna Rd. From West					
Start Time	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Int. Total
Peak Hour From 06:45 to 09:30 - Peak 1 of 1																					
Intersection	07:15																				
Volume	164	347	22	2	535	152	361	60	4	577	144	214	91	51	500	27	819	217	11	1074	2686
Percent	30.7	64.9	4.1	0.4		26.3	62.6	10.4	0.7		28.8	42.8	18.2	10.2		2.5	76.3	20.2	1.0		
Volume	164	347	22	2	535	152	361	60	4	577	144	214	91	51	500	27	819	217	11	1074	2686
Volume	38	108	2	1	149	54	115	11	1	181	53	60	26	15	154	5	216	78	1	300	784
Peak Factor																					0.857
High Int.	07:45					07:45					07:45					07:45					
Volume	38	108	2	1	149	54	115	11	1	181	53	60	26	15	154	5	216	78	1	300	
Peak Factor					0.898					0.797					0.812					0.895	



Mid-Region Council of Governments
IntersectionTurning Movement Analysis

File Name : Osuna Rd. and Edit Blvd.
Site Code : 00025601
Start Date : 02/16/2005
Page No : 5

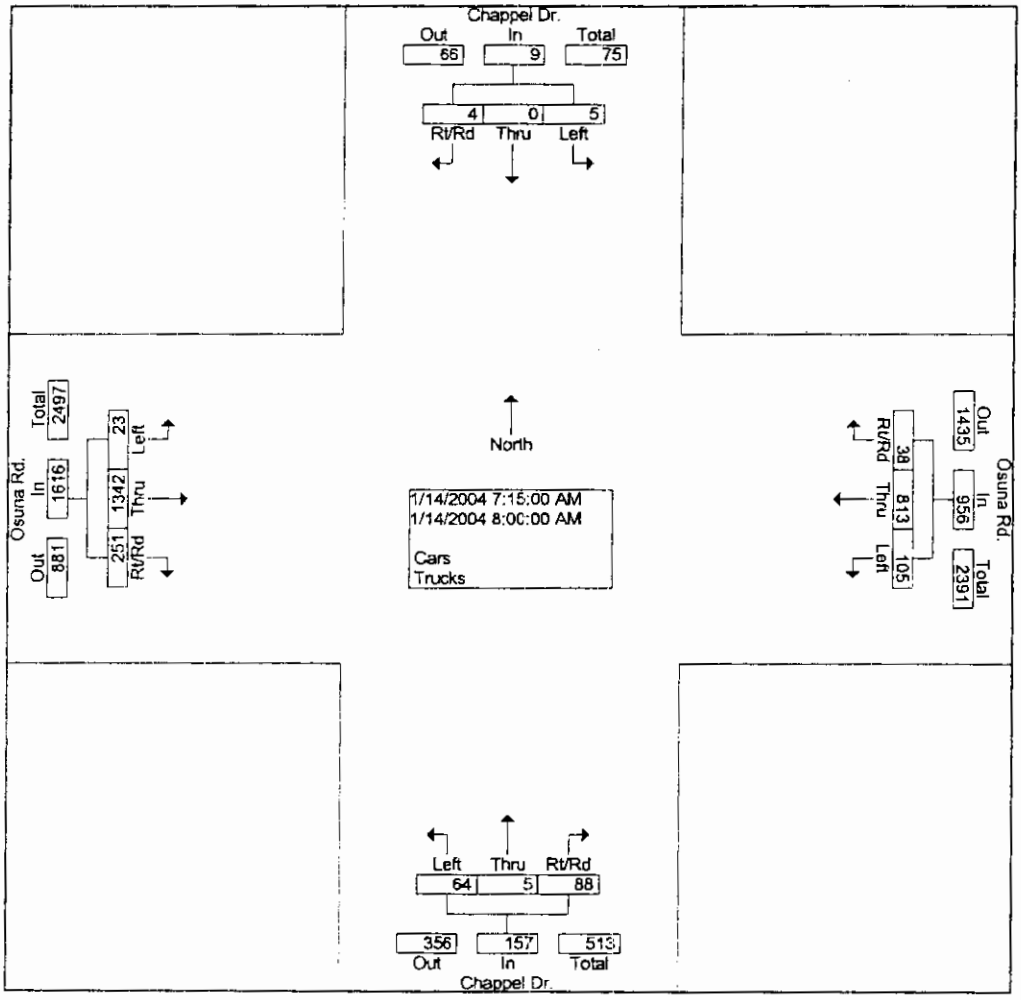
	Edith Blvd. From North					Osuna Rd. From East					Edith Blvd. From South					Osuna Rd. From West					
Start Time	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Int. Total
Peak Hour From 15:00 to 17:45 - Peak 1 of 1																					
Intersection	16:30																				
Volume	101	272	48	4	425	155	971	142	10	1278	278	437	102	48	865	45	431	104	12	592	3160
Percent	23.8	64.0	11.3	0.9		12.1	76.0	11.1	0.8		32.1	50.5	11.8	5.5		7.6	72.8	17.6	2.0		
Volume	101	272	48	4	425	155	971	142	10	1278	278	437	102	48	865	45	431	104	12	592	3160
Volume	16	62	19	1	98	43	269	37	1	350	87	114	38	9	248	10	107	19	1	137	833
Peak Factor																					0.948
High Int.	16:30					17:15					17:15					16:30					
Volume	32	84	11	0	127	43	269	37	1	350	87	114	38	9	248	12	121	35	2	170	
Peak Factor					0.837					0.913					0.872					0.871	



Mid-Region Council of Governments
Intersection Turning Movement Analysis

File Name : Osuna Rd. and Chappel Dr.
Site Code : 00025372
Start Date : 01/14/2004
Page No : 3

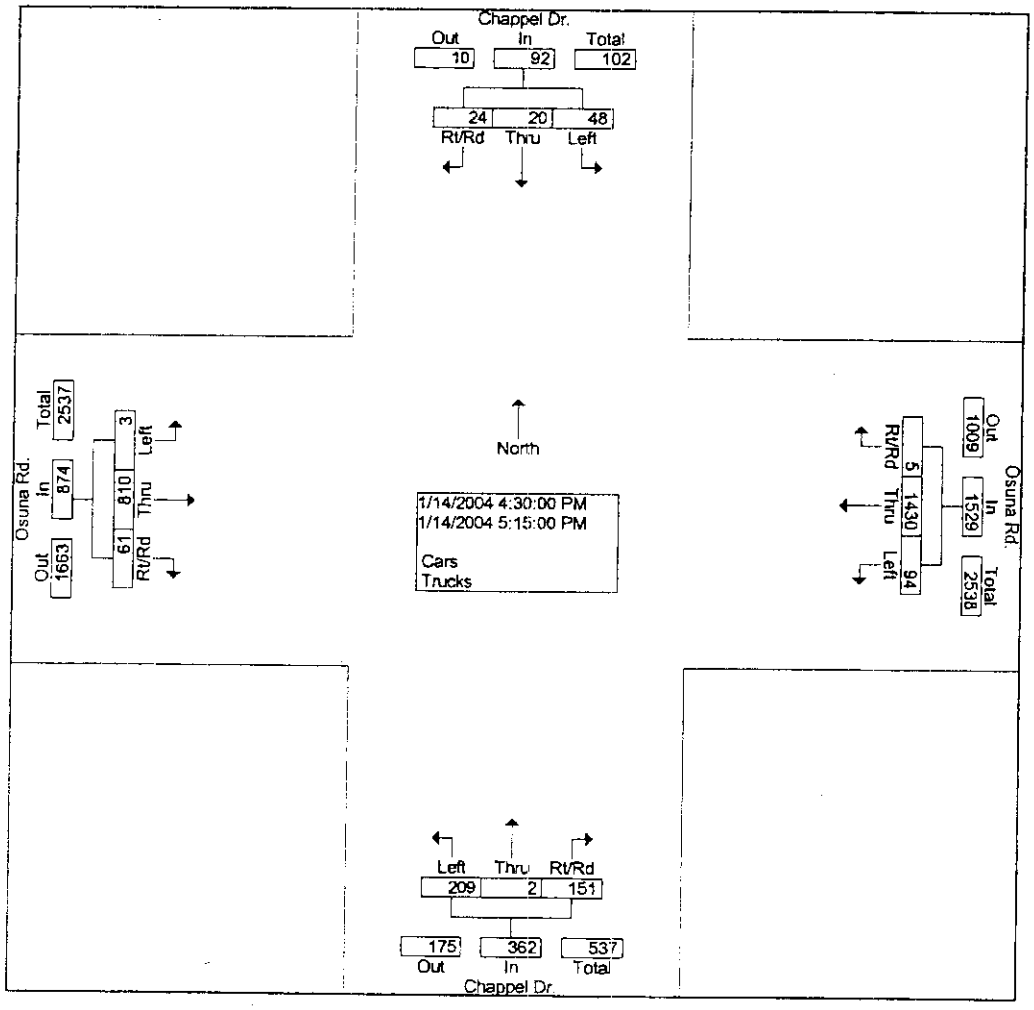
	Chappel Dr. From North					Osuna Rd. From East					Chappel Dr. From South					Osuna Rd. From West					
Start Time	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Int. Total
Peak Hour From 06:45 to 09:30 - Peak 1 of 1																					
Intersection	07:15																				
Volume	5	0	2	2	9	105	813	36	2	956	64	5	64	24	157	23	1342	237	14	1616	2738
Percent	55.6	0.0	22.2	22.2		11.0	85.0	3.8	0.2		40.8	3.2	40.8	15.3		1.4	83.0	14.7	0.9		
Volume	5	0	2	2	9	105	813	36	2	956	64	5	64	24	157	23	1342	237	14	1616	2738
Volume	3	0	1	2	6	36	193	8	2	239	19	2	29	5	55	4	411	78	6	499	799
Peak Factor																					0.857
High Int.	07:45					07:30					07:45					07:45					
Volume	3	0	1	2	6	30	263	9	0	302	19	2	29	5	55	4	411	78	6	499	
Peak Factor					0.375					0.791					0.714					0.810	



Mid-Region Council of Governments
Intersection Turning Movement Analysis

File Name : Osuna Rd. and Chappel Dr.
Site Code : 00025372
Start Date : 01/14/2004
Page No : 5

	Chappel Dr. From North					Osuna Rd. From East					Chappel Dr. From South					Osuna Rd. From West					
Start Time	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Int. Total
Peak Hour From 15:00 to 17:45 - Peak 1 of 1																					
Intersection	16:30																				
Volume	48	20	15	9	92	94	1430	5	0	1529	209	2	104	47	362	3	810	56	5	874	2857
Percent	52.2	21.7	16.3	9.8		6.1	93.5	0.3	0.0		57.7	0.6	28.7	13.0		0.3	92.7	6.4	0.6		
Volume	48	20	15	9	92	94	1430	5	0	1529	209	2	104	47	362	3	810	56	5	874	2857
Volume	14	6	4	2	26	22	421	1	0	444	73	1	35	6	115	1	215	15	0	231	816
Peak Factor																					0.875
High Int.	17:00					17:00					17:00					16:45					
Volume	14	6	4	2	26	22	421	1	0	444	73	1	35	6	115	1	214	20	2	237	
Peak Factor					0.885					0.861					0.787					0.922	



Traffic Count Data Sheet

Vista del Norte Commercial Development

Year Counts Taken: **2006**

E-W Street **Osuna**

N-S Street: **Academy Pkwy**

SIGNALIZED

Speed Limit (Osuna)= **45** MPH

Speed Limit (Academy Pkwy)= **25** MPH

Date of Count: **4/14/06**

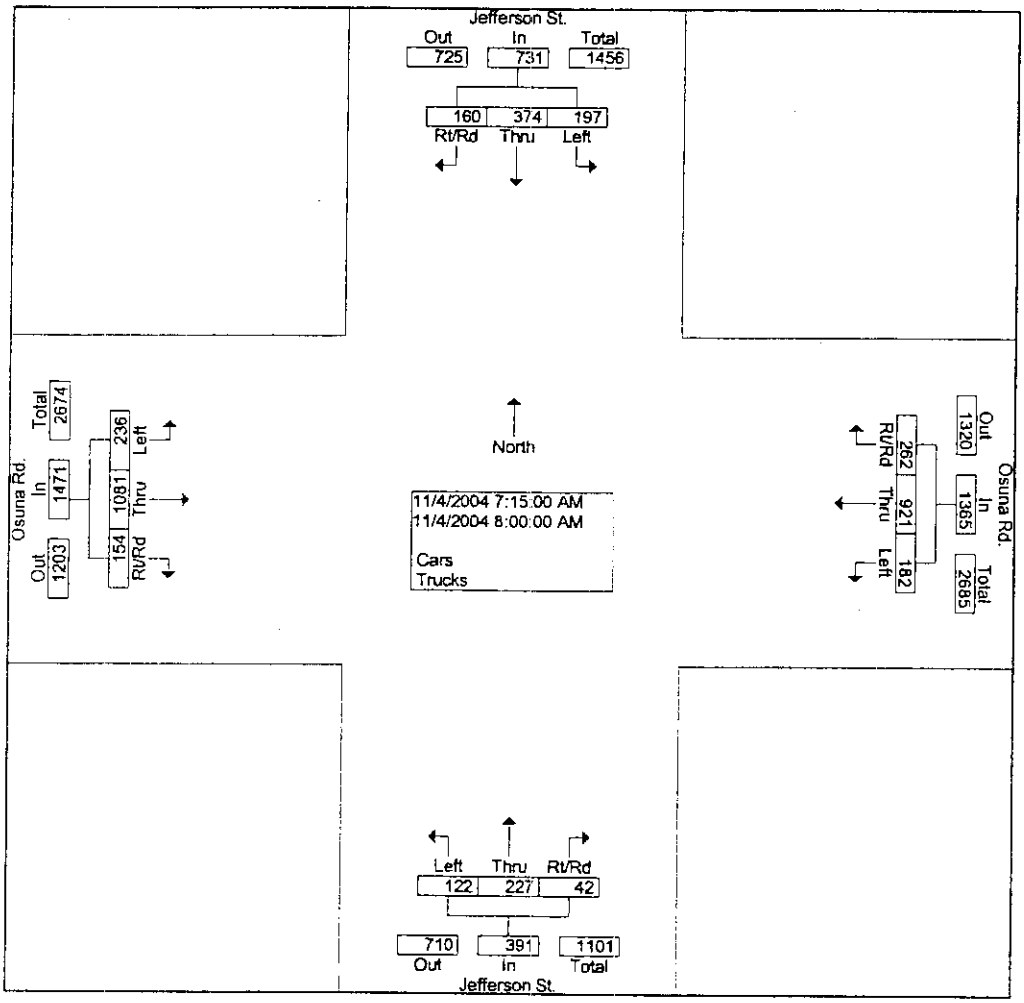
Begin Time	End Time	Eastbound (Osuna)			Westbound (Osuna)			Northbound (Academy Pkwy)			Southbound (Academy Pkwy)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	~~9~~	~~225~~	~~5~~	~~21~~	~~171~~	~~12~~	~~2~~	~~0~~	~~3~~	~~3~~	~~0~~	~~3~~
7:15 AM	7:30 AM	~~17~~	~~217~~	~~1~~	~~9~~	~~162~~	~~16~~	~~1~~	~~0~~	~~3~~	~~9~~	~~0~~	~~2~~
7:30 AM	7:45 AM	12	326	0	8	264	18	2	0	6	8	0	5
7:45 AM	8:00 AM	14	327	1	10	193	26	1	0	4	15	0	5
8:00 AM	8:15 AM	16	349	2	12	199	28	2	0	8	16	0	2
8:15 AM	8:30 AM	12	301	1	9	189	17	1	0	5	13	0	5
8:30 AM	8:45 AM	~~12~~	~~291~~	~~1~~	~~8~~	~~172~~	~~21~~	~~1~~	~~0~~	~~7~~	~~14~~	~~0~~	~~5~~
8:45 AM	9:00 AM	~~9~~	~~201~~	~~2~~	~~10~~	~~180~~	~~16~~	~~0~~	~~0~~	~~4~~	~~17~~	~~0~~	~~4~~
AM Peak Hour Volumes		**54**	**1303**	**4**	**39**	**845**	**89**	**6**	**0**	**23**	**52**	**0**	**17**
% of Total Traffic		2.2%	53.6%	0.2%	1.6%	34.7%	3.7%	0.2%	0.0%	0.9%	2.1%	0.0%	0.7%
% Directional			56.0%			40.0%			1.2%			2.8%	
AM Peak Hour Factor			*0.93*			*0.84*			*0.73*			*0.86*	

Begin Time	End Time	Eastbound (Osuna)			Westbound (Osuna)			Northbound (Academy Pkwy)			Southbound (Academy Pkwy)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	~~2~~	~~268~~	~~1~~	~~13~~	~~296~~	~~9~~	~~4~~	~~1~~	~~11~~	~~12~~	~~0~~	~~10~~
4:15 PM	4:30 PM	~~1~~	~~262~~	~~0~~	~~11~~	~~301~~	~~9~~	~~6~~	~~0~~	~~14~~	~~22~~	~~0~~	~~12~~
4:30 PM	4:45 PM	3	279	0	9	322	7	8	0	15	21	0	12
4:45 PM	5:00 PM	2	282	0	7	349	4	6	0	13	23	1	11
5:00 PM	5:15 PM	1	309	0	6	392	5	6	0	14	19	0	10
5:15 PM	5:30 PM	2	225	0	7	381	5	4	0	14	20	0	9
5:30 PM	5:45 PM	~~4~~	~~211~~	~~0~~	~~0~~	~~380~~	~~4~~	~~5~~	~~0~~	~~12~~	~~12~~	~~0~~	~~9~~
5:45 PM	6:00 PM	~~0~~	~~172~~	~~0~~	~~5~~	~~251~~	~~2~~	~~3~~	~~0~~	~~8~~	~~11~~	~~0~~	~~6~~
PM Peak Hour Volumes		**8**	**1095**	**0**	**29**	**1444**	**21**	**24**	**0**	**56**	**83**	**1**	**42**
% of Total Traffic		0.3%	39.1%	0.0%	1.0%	51.5%	0.7%	0.9%	0.0%	2.0%	3.0%	0.0%	1.5%
% Directional			39.4%			53.3%			2.9%			4.5%	
PM Peak Hour Factor			*0.89*			*0.93*			*0.87*			*0.90*	

Mid-Region Council of Governments
Intersection Turning Movement Analysis

File Name : Osuna Rd. and Jefferson St.
Site Code : 00025373
Start Date : 11/04/2004
Page No : 3

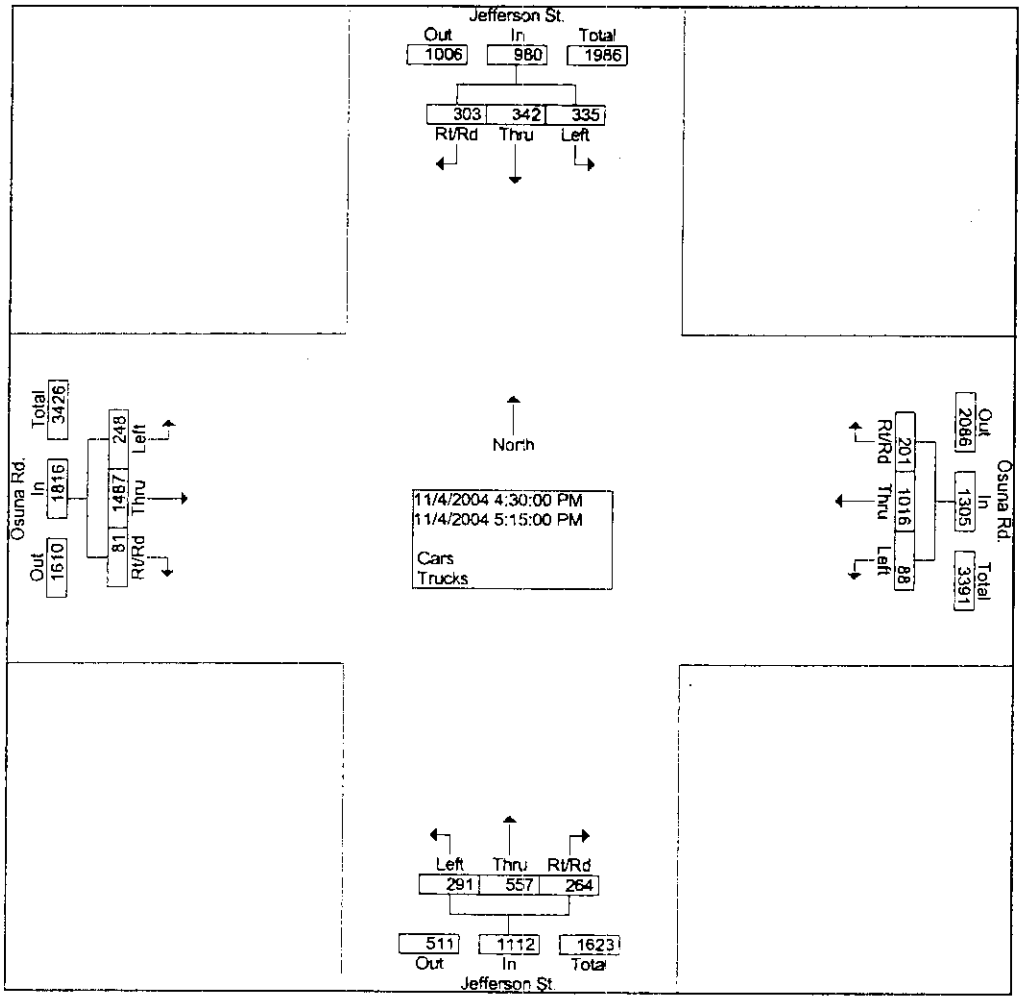
	Jefferson St. From North					Osuna Rd. From East					Jefferson St. From South					Osuna Rd. From West					
Start Time	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Int. Total
Peak Hour From 06:45 to 09:30 - Peak 1 of 1																					
Intersection	07:15																				
Volume	197	374	157	3	731	182	921	251	11	1365	122	227	30	12	391	236	1081	147	7	1471	3958
Percent	26.9	51.2	21.5	0.4		13.3	67.5	18.4	0.8		31.2	58.1	7.7	3.1		16.0	73.5	10.0	0.5		
Volume	197	374	157	3	731	182	921	251	11	1365	122	227	30	12	391	236	1081	147	7	1471	3958
Volume	58	105	47	1	211	53	264	74	0	391	34	61	9	4	108	91	285	41	1	418	1128
Peak Factor																					0.877
High Int.	07:45					07:45					07:45					07:45					
Volume	58	105	47	1	211	53	264	74	0	391	34	61	9	4	108	91	285	41	1	418	
Peak Factor					0.866					0.873					0.905					0.880	



Mid-Region Council of Governments
Intersection Turning Movement Analysis

File Name : Osuna Rd. and Jefferson St.
Site Code : 00025373
Start Date : 11/04/2004
Page No : 5

	Jefferson St. From North					Osuna Rd. From East					Jefferson St. From South					Osuna Rd. From West					
Start Time	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Int. Total
Peak Hour From 15:00 to 17:45 - Peak 1 of 1																					
Intersection	16:30																				
Volume	335	342	297	6	980	88	1016	176	25	1305	291	557	219	45	1112	248	1487	80	1	1816	5213
Percent	34.2	34.9	30.3	0.6		6.7	77.9	13.5	1.9		26.2	50.1	19.7	4.0		13.7	81.9	4.4	0.1		
Volume	335	342	297	6	980	88	1016	176	25	1305	291	557	219	45	1112	248	1487	80	1	1816	5213
Peak Factor	89	115	104	1	309	29	268	55	6	358	72	142	69	14	297	80	382	13	0	475	1439
																					0.906
High Int.	17:00					17:00					17:15					16:30					
Volume	89	115	104	1	309	29	268	55	6	358	88	158	52	10	308	71	399	15	0	485	
Peak Factor					0.793					0.911					0.903					0.936	



Traffic Count Data Sheet

Vista del Norte Commercial Development (Osuna Rd. / Vista del Norte)

Year Counts Taken: **2006**

E-W Street **Osuna**

N-S Street: **Vista del Norte**

SIGNALIZED

Speed Limit (Osuna)= **45** MPH

Speed Limit (Vista del Norte)= **30** MPH

Date of Count: **3/15/06**

Begin Time	End Time	Eastbound (Osuna)			Westbound (Osuna)			Northbound (Vista del Norte)			Southbound (Vista del Norte)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	6	271	1	2	131	16	0	0	0	141	0	25
7:15 AM	7:30 AM	4	260	0	0	144	18	0	0	0	136	0	20
7:30 AM	7:45 AM	4	313	0	1	220	29	0	0	0	207	0	30
7:45 AM	8:00 AM	7	339	1	0	143	28	0	0	0	181	0	21
8:00 AM	8:15 AM	5	268	1	3	116	25	0	0	0	136	0	15
8:15 AM	8:30 AM	2	221	0	2	98	38	1	0	1	104	0	12
8:30 AM	8:45 AM	0	204	0	0	123	26	0	0	0	109	0	14
8:45 AM	9:00 AM	14	216	1	1	149	31	0	0	0	117	0	14
AM Peak Hour Volumes		**21**	**1183**	**2**	**3**	**638**	**91**	**0**	**0**	**0**	**665**	**0**	**96**
% of Total Traffic		0.8%	43.8%	0.1%	0.1%	23.6%	3.4%	0.0%	0.0%	0.0%	24.6%	0.0%	3.6%
% Directional			44.7%			27.1%			0.0%			28.2%	
AM Peak Hour Factor			*0.87*			*0.73*			*#DIV/0!*			*0.80*	

Begin Time	End Time	Eastbound (Osuna)			Westbound (Osuna)			Northbound (Vista del Norte)			Southbound (Vista del Norte)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	14	144	0	0	258	76	0	0	2	27	0	15
4:15 PM	4:30 PM	20	186	0	0	306	91	0	0	0	39	0	15
4:30 PM	4:45 PM	16	225	0	4	331	114	0	0	1	31	0	8
4:45 PM	5:00 PM	24	173	0	1	329	119	0	0	1	42	0	16
5:00 PM	5:15 PM	21	207	0	0	380	133	0	0	1	35	0	11
5:15 PM	5:30 PM	33	156	0	0	331	153	0	0	0	47	0	12
5:30 PM	5:45 PM	34	159	0	1	319	144	0	0	1	53	0	11
5:45 PM	6:00 PM	21	143	0	0	301	120	0	0	0	34	0	9
PM Peak Hour Volumes		**94**	**761**	**0**	**5**	**1371**	**519**	**0**	**0**	**3**	**155**	**0**	**47**
% of Total Traffic		3.2%	25.8%	0.0%	0.2%	46.4%	17.6%	0.0%	0.0%	0.1%	5.2%	0.0%	1.6%
% Directional			28.9%			64.1%			0.1%			6.8%	
PM Peak Hour Factor			*0.89*			*0.92*			*0.75*			*0.86*	

Traffic Count Data Sheet

Vista del Norte Commercial Development (Osuna Rd. / Vista del Norte)

Year Counts Taken: **2006**

E-W Street **Vista del Norte**

N-S Street: **Las Lomitas**

UNSIGNALIZED

Speed Limit (Vista del Norte)= **30** MPH

Speed Limit (Las Lomitas)= **30** MPH

Date of Count: **3/17/06**

Begin Time	End Time	Eastbound (Vista del Norte)			Westbound (Vista del Norte)			Northbound (Las Lomitas)			Southbound (Las Lomitas)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	4	18	0	0	3	16	0	0	0	31	0	2
7:15 AM	7:30 AM	5	16	0	0	3	18	0	0	0	35	0	4
7:30 AM	7:45 AM	8	20	0	0	5	18	0	0	0	43	0	3
7:45 AM	8:00 AM	11	35	0	0	5	14	0	0	0	46	0	2
8:00 AM	8:15 AM	8	13	0	0	2	12	0	0	0	36	0	4
8:15 AM	8:30 AM	8	14	0	0	5	12	0	0	0	27	0	0
8:30 AM	8:45 AM	6	15	0	0	4	10	0	0	0	23	0	2
8:45 AM	9:00 AM	9	17	0	0	4	13	0	0	0	29	0	3
AM Peak Hour Volumes		**32**	**84**	**0**	**0**	**15**	**62**	**0**	**0**	**0**	**160**	**0**	**13**
% of Total Traffic		8.7%	23.0%	0.0%	0.0%	4.1%	16.9%	0.0%	0.0%	0.0%	43.7%	0.0%	3.6%
% Directional			31.7%			21.0%			0.0%			47.3%	
AM Peak Hour Factor			*0.63*			*0.84*			*#DIV/0!*			*0.90*	

Begin Time	End Time	Eastbound (Vista del Norte)			Westbound (Vista del Norte)			Northbound (Las Lomitas)			Southbound (Las Lomitas)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	3	11	0	0	14	25	0	0	0	19	0	5
4:15 PM	4:30 PM	5	9	0	0	13	23	0	0	0	15	0	7
4:30 PM	4:45 PM	2	13	0	0	19	45	0	0	0	18	0	12
4:45 PM	5:00 PM	3	6	0	0	14	41	0	0	0	21	0	6
5:00 PM	5:15 PM	4	12	0	0	23	47	0	0	0	21	0	11
5:15 PM	5:30 PM	4	9	0	0	27	49	0	0	0	21	0	13
5:30 PM	5:45 PM	3	5	0	0	20	41	0	0	0	23	0	14
5:45 PM	6:00 PM	4	6	0	0	21	43	0	0	0	19	0	13
PM Peak Hour Volumes		**15**	**32**	**0**	**0**	**91**	**180**	**0**	**0**	**0**	**84**	**0**	**51**
% of Total Traffic		3.3%	7.1%	0.0%	0.0%	20.1%	39.7%	0.0%	0.0%	0.0%	18.5%	0.0%	11.3%
% Directional			10.4%			59.8%			0.0%			29.8%	
PM Peak Hour Factor			*0.73*			*0.89*			*#DIV/0!*			*0.91*	

Traffic Count Data Sheet

Vista del Norte Commercial Development (Osuna Rd. / Vista del Norte)

Year Counts Taken: **2006**

E-W Street **El Pueblo**

N-S Street: **Las Lomitas**

UNSIGNALIZED

Speed Limit (El Pueblo)= **35** MPH

Speed Limit (Las Lomitas)= **35** MPH

Date of Count: **3/8/06**

Begin Time	End Time	Eastbound (El Pueblo)			Westbound (El Pueblo)			Northbound (Las Lomitas)			Southbound (Las Lomitas)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	0	91	24	6	18	0	14	0	17	0	0	0
7:15 AM	7:30 AM	0	102	28	4	17	0	16	0	22	0	0	0
7:30 AM	7:45 AM	0	90	29	6	20	0	15	0	20	0	0	0
7:45 AM	8:00 AM	0	94	38	1	22	0	28	0	27	0	0	0
8:00 AM	8:15 AM	0	45	25	3	14	0	10	0	16	0	0	0
8:15 AM	8:30 AM	0	58	19	2	10	0	9	0	15	0	0	0
8:30 AM	8:45 AM	0	35	3	4	9	0	12	0	18	0	0	0
8:45 AM	9:00 AM	0	35	5	4	14	0	9	0	10	0	0	0
AM Peak Hour Volumes		**0**	**377**	**119**	**17**	**77**	**0**	**73**	**0**	**86**	**0**	**0**	**0**
% of Total Traffic		0.0%	50.3%	15.9%	2.3%	10.3%	0.0%	9.7%	0.0%	11.5%	0.0%	0.0%	0.0%
% Directional			66.2%			12.6%			21.2%			0.0%	
AM Peak Hour Factor			*0.94*			*0.90*			*0.72*			*#DIV/0!*	

Begin Time	End Time	Eastbound (El Pueblo)			Westbound (El Pueblo)			Northbound (Las Lomitas)			Southbound (Las Lomitas)		
		L	T	R	L	T	R	L	T	R	L	T	R
4:00 PM	4:15 PM	0	22	10	6	30	0	22	0	8	0	0	0
4:15 PM	4:30 PM	0	20	15	15	33	0	19	0	6	0	0	0
4:30 PM	4:45 PM	0	21	8	18	38	0	30	0	7	0	0	0
4:45 PM	5:00 PM	0	11	16	21	25	0	32	0	11	0	0	0
5:00 PM	5:15 PM	0	22	21	18	44	0	61	0	6	0	0	0
5:15 PM	5:30 PM	0	17	26	17	42	0	36	0	7	0	0	0
5:30 PM	5:45 PM	0	14	22	18	30	0	34	0	21	0	0	0
5:45 PM	6:00 PM	0	14	13	18	24	0	23	0	8	0	0	0
PM Peak Hour Volumes		**0**	**64**	**85**	**74**	**141**	**0**	**163**	**0**	**45**	**0**	**0**	**0**
% of Total Traffic		0.0%	11.2%	14.9%	12.9%	24.7%	0.0%	28.5%	0.0%	7.9%	0.0%	0.0%	0.0%
% Directional			26.0%			37.6%			36.4%			0.0%	
PM Peak Hour Factor			*0.87*			*0.87*			*0.78*			*#DIV/0!*	

Signalized Intersection Information Sheet

Intersection: **Osuna Rd. / 2nd St.**

Speed Limit - E-W Street: 45 M.P.H.
Speed Limit - N-S Street: 40 M.P.H.
Type of Intersection Control: Signalized

Date: **4/15/2006**

East Bound Approach: Osuna Rd.

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	1	-	2	-	1
Length	150				150

Left Turn Arrow?	Thru Green	Right Turn Arrow?
YES	YES	NO

Is there a right turn slip laned that by-passes the traffic signal? NO

West Bound Approach: Osuna Rd.

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	1	-	1	-	1
Length	225				500+

Left Turn Arrow?	Thru Green	Right Turn Arrow?
YES	YES	NO

Is there a right turn slip laned that by-passes the traffic signal? NO

North Bound Approach: 2nd St.

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
		-	1	1	-
Length	200				0

Left Turn Arrow?	Thru Green	Right Turn Arrow?
YES	YES	NO

Is there a right turn slip laned that by-passes the traffic signal? NO

South Bound Approach: 2nd St.

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	1	-	2	-	1
Length	225				300

Left Turn Arrow?	Thru Green	Right Turn Arrow?
YES	YES	NO

Is there a right turn slip laned that by-passes the traffic signal? NO

NOTE: Existing Geometry

Signalized Intersection Information Sheet

Intersection: **Osuna Rd. / Edith Blvd.**

Speed Limit - E-W Street: 45 M.P.H.
Speed Limit - N-S Street: 40 M.P.H.
Type of Intersection Control: Signalized

Date: **4/15/2006**

East Bound Approach: Osuna Rd.

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	-		1	1	-
Length	225				0

Left Turn Arrow?	Thru Green	Right Turn Arrow?
YES	YES	NO

Is there a right turn slip laned that by-passes the traffic signal? NO

West Bound Approach: Osuna Rd.

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	1	-	1	1	-
Length	325				0

Left Turn Arrow?	Thru Green	Right Turn Arrow?
YES	YES	NO

Is there a right turn slip laned that by-passes the traffic signal? NO

North Bound Approach: Edith Blvd.

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	1	-	1	-	1
Length	225				500+

Left Turn Arrow?	Thru Green	Right Turn Arrow?
YES	YES	YES

Is there a right turn slip laned that by-passes the traffic signal? NO

South Bound Approach: Edith Blvd.

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	1	-	-	1	-
Length	90				0

Left Turn Arrow?	Thru Green	Right Turn Arrow?
YES	YES	NO

Is there a right turn slip laned that by-passes the traffic signal? NO

NOTE: Existing Geometry

Signalized Intersection Information Sheet

Intersection: **Osuna Rd. / Chappel Dr.**

Speed Limit - E-W Street: 45 M.P.H.
Speed Limit - N-S Street: 40 M.P.H.
Type of Intersection Control: Signalized

Date: **4/15/2006**

East Bound Approach: Osuna Rd.

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	1	-	1	1	-
Length	125				0

Left Turn Arrow?	Thru Green	Right Turn Arrow?
YES	YES	NO

Is there a right turn slip laned that by-passes the traffic signal? NO

West Bound Approach: Osuna Rd.

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	1	-	1	1	-
Length	125				0

Left Turn Arrow?	Thru Green	Right Turn Arrow?
YES	YES	NO

Is there a right turn slip laned that by-passes the traffic signal? NO

North Bound Approach: Chappel Dr.

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	-	1	-	-	1
Length	0				50

Left Turn Arrow?	Thru Green	Right Turn Arrow?
NO	YES	NO

Is there a right turn slip laned that by-passes the traffic signal? NO

South Bound Approach: Chappel Dr.

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	-	-	1	-	-
Length	0				0

Left Turn Arrow?	Thru Green	Right Turn Arrow?
NO	YES	NO

Is there a right turn slip laned that by-passes the traffic signal? NO

NOTE: Existing Geometry

Signalized Intersection Information Sheet

Intersection: **Osuna Rd. / Academy Parkway**

Speed Limit - E-W Street: 45 M.P.H.
Speed Limit - N-S Street: 40 M.P.H.
Type of Intersection Control: Signalized

Date: **4/15/2006**

East Bound Approach: Osuna Rd.

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	1	-	1	1	-
Length	150				0

Left Turn Arrow?	Thru Green	Right Turn Arrow?
NO	YES	NO

Is there a right turn slip laned that by-passes the traffic signal? NO

West Bound Approach: Osuna Rd.

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	1	-	1	1	-
Length	150				0

Left Turn Arrow?	Thru Green	Right Turn Arrow?
NO	YES	NO

Is there a right turn slip laned that by-passes the traffic signal? NO

North Bound Approach: Academy Parkway

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	-	-	1	-	-
Length	0				0

Left Turn Arrow?	Thru Green	Right Turn Arrow?
NO	YES	NO

Is there a right turn slip laned that by-passes the traffic signal? NO

South Bound Approach: Academy Parkway

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	1	-	-	1	-
Length	100				0

Left Turn Arrow?	Thru Green	Right Turn Arrow?
NO	YES	NO

Is there a right turn slip laned that by-passes the traffic signal? NO

NOTE: Existing Geometry

Signalized Intersection Information Sheet

Intersection: **Osuna Rd. / Jefferson St.**

Speed Limit - E-W Street: 45 M.P.H.
Speed Limit - N-S Street: 40 M.P.H.
Type of Intersection Control: Signalized

Date: **4/15/2006**

East Bound Approach: Osuna Rd.

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	2	-	2	1	-
Length	210				0

Left Turn Arrow?	Thru Green	Right Turn Arrow?
YES	YES	YES

Is there a right turn slip laned that by-passes the traffic signal? NO

West Bound Approach: Osuna Rd.

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	2	-	2	-	1
Length	175				350

Left Turn Arrow?	Thru Green	Right Turn Arrow?
YES	YES	YES

Is there a right turn slip laned that by-passes the traffic signal? NO

North Bound Approach: Jefferson St.

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	1	-	2	-	1
Length	160				150

Left Turn Arrow?	Thru Green	Right Turn Arrow?
YES	YES	NO

Is there a right turn slip laned that by-passes the traffic signal? NO

South Bound Approach: Jefferson St.

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	1	-	1	1	-
Length	275				0

Left Turn Arrow?	Thru Green	Right Turn Arrow?
YES	YES	YES

Is there a right turn slip laned that by-passes the traffic signal? NO

NOTE: Existing Geometry

Signalized Intersection Information Sheet

Intersection: **Osuna Rd. / Vista del Norte**

Speed Limit - E-W Street: 45 M.P.H.
Speed Limit - N-S Street: 30 M.P.H.
Type of Intersection Control: Signalized

Date: **4/15/2006**

East Bound Approach: Osuna Rd.

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	1	-	2	-	-
Length	300				0

Left Turn Arrow?	Thru Green	Right Turn Arrow?
YES	YES	NO

Is there a right turn slip laned that by-passes the traffic signal? NO

West Bound Approach: Osuna Rd.

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	-	-	2	-	1
Length	0				300

Left Turn Arrow?	Thru Green	Right Turn Arrow?
NO	YES	NO

Is there a right turn slip laned that by-passes the traffic signal? NO

North Bound Approach: Vista del Norte

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	-	-	-	-	-
Length	0				0

Left Turn Arrow?	Thru Green	Right Turn Arrow?
NO	NO	NO

Is there a right turn slip laned that by-passes the traffic signal? NO

South Bound Approach: Vista del Norte

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	2	-	-	-	1
Length	475				400

Left Turn Arrow?	Thru Green	Right Turn Arrow?
YES	YES	NO

Is there a right turn slip laned that by-passes the traffic signal? NO

NOTE: Existing Geometry

Signalized Intersection Information Sheet

Intersection: **El Pueblo Rd. / Las Lomitas**

Speed Limit - E-W Street: 45 M.P.H.
Speed Limit - N-S Street: 30 M.P.H.
Type of Intersection Control: Two-Way Stop

Date: **4/15/2006**

East Bound Approach: El Pueblo Rd.

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	-	-	1	-	1
Length	0				300

Left Turn Arrow?	Thru Green	Right Turn Arrow?
NO	NO	NO

Is there a right turn slip laned that by-passes the traffic signal? NO

West Bound Approach: El Pueblo Rd.

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	-	1	1	-	-
Length	500				0

Left Turn Arrow?	Thru Green	Right Turn Arrow?
NO	NO	NO

Is there a right turn slip laned that by-passes the traffic signal? NO

North Bound Approach: Las Lomitas

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	1	-	-	-	1
Length	280				0

Left Turn Arrow?	Thru Green	Right Turn Arrow?
NO	NO	NO

Is there a right turn slip laned that by-passes the traffic signal? NO

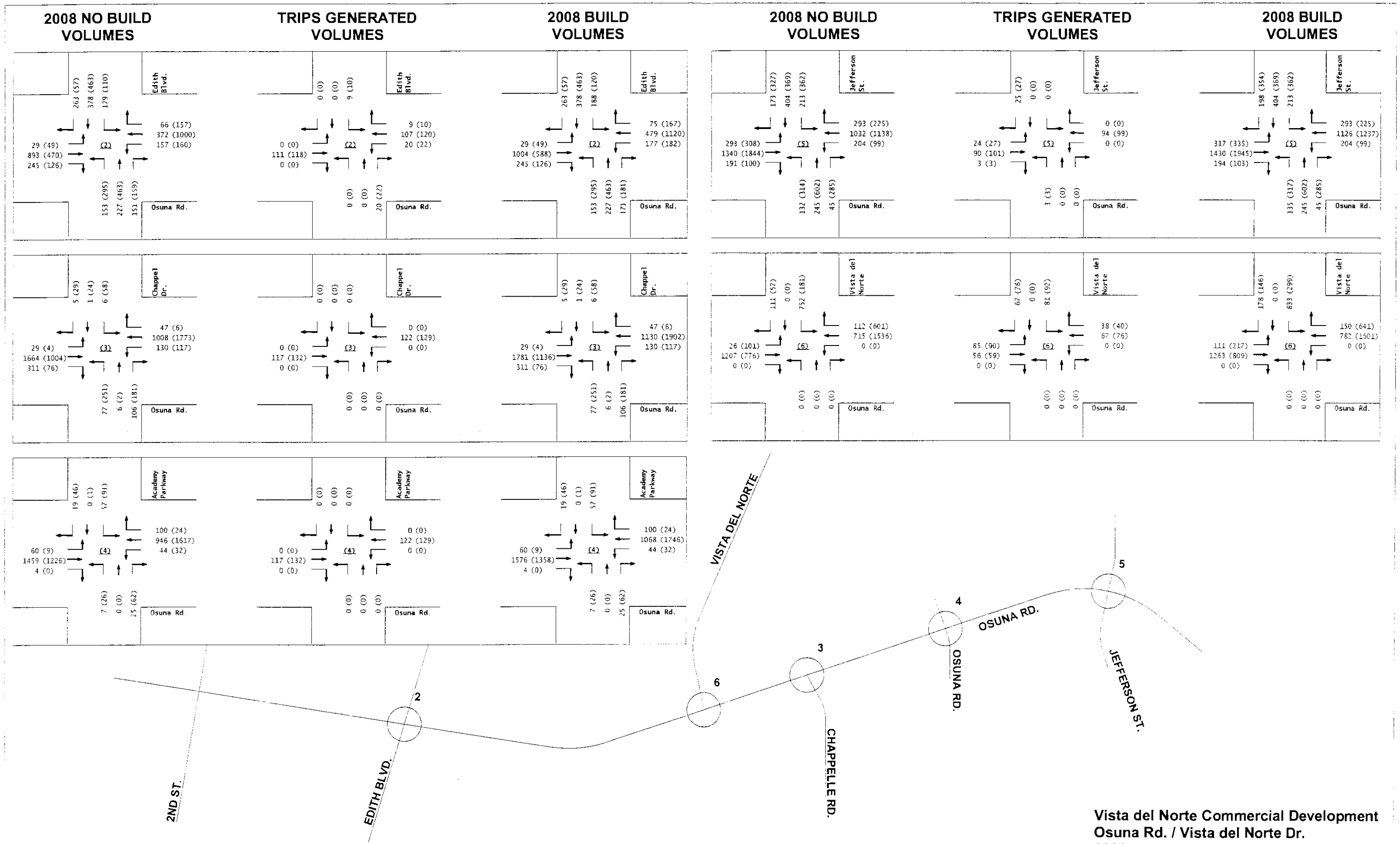
South Bound Approach: Las Lomitas

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	-	-	-	-	-
Length	0				0

Left Turn Arrow?	Thru Green	Right Turn Arrow?
NO	NO	NO

Is there a right turn slip laned that by-passes the traffic signal? NO

NOTE: Existing Geometry



Vista del Norte Commercial Development
Osuna Rd. / Vista del Norte Dr.
2008 Volumes Map

Trip Distribution Table

Vista del Norte Commercial Development (Osuna Rd. / Vista del Norte)

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

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

								(JS) Jefferson St. South			(CS) Chappelle Rd. South			(ES) Edith Blvd. South	
DASZ #	% Sub Area in Study	2000 Population	2025 Population	Interpolated Population for the Year	Population in Study	Population / Distance	Percent Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing
		2000	2025	2008											
6062	100%	1359	1526	1,412	1,412	1,412	4.45%	0%	0.00%	0	0%	0.00%	0	100%	4.45%
6063	100%	0	2	1	1	1	0.00%	0%	0.00%	0	100%	0.00%	1	0%	0.00%
6064	100%	0	0	0	0	0	0.00%	0%	0.00%	0	100%	0.00%	0	0%	0.00%
6074	100%	53	48	51	51	51	0.16%	0%	0.00%	0	0%	0.00%	0	100%	0.16%
6075	70%	99	97	98	69	69	0.22%	0%	0.00%	0	60%	0.13%	41	40%	0.09%
6076	50%	3	3	3	2	2	0.01%	0%	0.00%	0	90%	0.01%	2	10%	0.00%
6081	100%	280	467	340	340	340	1.07%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
6082	100%	57	58	57	57	57	0.18%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
6083	100%	322	2404	988	988	988	3.11%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
6084	100%	565	2145	1,071	1,071	1,071	3.37%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
6091	100%	0	0	0	0	0	0.00%	100%	0.00%	0	0%	0.00%	0	0%	0.00%
6092	100%	0	0	0	0	0	0.00%	100%	0.00%	0	0%	0.00%	0	0%	0.00%
6093	100%	0	0	0	0	0	0.00%	100%	0.00%	0	0%	0.00%	0	0%	0.00%
6094	100%	0	2	1	1	1	0.00%	50%	0.00%	1	50%	0.00%	1	0%	0.00%
6095	100%	0	0	0	0	0	0.00%	50%	0.00%	0	50%	0.00%	0	0%	0.00%
6122	100%	868	851	863	863	863	2.72%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
6123	100%	657	766	692	692	692	2.18%	0%	0.00%	0	0%	0.00%	0	10%	0.22%
6124	100%	727	796	749	749	749	2.36%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
6125	100%	79	167	107	107	107	0.34%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
6131	100%	483	591	518	518	518	1.63%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
6132	100%	716	711	714	714	714	2.25%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
6141	100%	1983	2029	1,998	1,998	1,998	6.29%	0%	0.00%	0	0%	0.00%	0	10%	0.63%
6142	100%	565	545	559	559	559	1.76%	0%	0.00%	0	0%	0.00%	0	10%	0.18%
6512	100%	3	379	123	123	123	0.39%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
6513	100%	161	211	177	177	177	0.56%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
6514	100%	101	207	135	135	135	0.43%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
6515	100%	0	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
6521	100%	187	208	194	194	194	0.61%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
6522	100%	0	0	0	0	0	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
6523	100%	602	633	612	612	612	1.93%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
6524	100%	260	253	258	258	258	0.81%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
6525	100%	387	453	408	408	408	1.28%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
6526	100%	1330	1263	1,309	1,309	1,309	4.12%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
6527	100%	0	2	1	1	1	0.00%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
6534	100%	349	365	354	354	354	1.11%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
6535	100%	333	435	366	366	366	1.15%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
7051	20%	2944	2761	2,885	577	577	1.82%	60%	1.09%	346	0%	0.00%	0	0%	0.00%
7052	100%	6	6	6	6	6	0.02%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
7101	30%	2152	2020	2,110	633	633	1.99%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
7102	100%	494	463	484	484	484	1.52%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
7111	100%	1176	1184	1,179	1,179	1,179	3.71%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
7112	100%	5	10	7	7	7	0.02%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
7113	100%	893	1145	974	974	974	3.07%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
7116	100%	1275	1372	1,306	1,306	1,306	4.11%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
7151	100%	1029	964	1,008	1,008	1,008	3.17%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
7152	50%	1418	1324	1,388	694	694	2.19%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
7157	100%	736	1232	895	895	895	2.82%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
7156	70%	1525	1415	1,490	1,043	1,043	3.28%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
7201	100%	1826	2475	2,034	2,034	2,034	6.40%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
7202	100%	106	214	141	141	141	0.44%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
7241	100%	0	647	207	207	207	0.65%	0%	0.00%	0	0%	0.00%	0	0%	0.00%
				36,717	31,761	31,761	100.00%			347			45		
										1.09%			0.14%		

		(2S) 2nd St. South	
Population	% Utilizing	% Population Utilizing	Population
1,412	0%	0.00%	0
0	0%	0.00%	0
0	0%	0.00%	0
51	0%	0.00%	0
28	0%	0.00%	0
0	0%	0.00%	0
0	0%	0.00%	0
0	0%	0.00%	0
0	0%	0.00%	0
0	0%	0.00%	0
0	0%	0.00%	0
0	0%	0.00%	0
0	0%	0.00%	0
0	0%	0.00%	0
0	0%	0.00%	0
0	0%	0.00%	0
69	30%	0.65%	208
0	0%	0.00%	0
0	30%	0.10%	32
0	0%	0.00%	0
0	0%	0.00%	0
200	30%	1.89%	599
56	20%	0.35%	112
0	0%	0.00%	0
0	0%	0.00%	0
0	0%	0.00%	0
0	0%	0.00%	0
0	0%	0.00%	0
0	0%	0.00%	0
0	0%	0.00%	0
0	0%	0.00%	0
0	0%	0.00%	0
0	0%	0.00%	0
0	0%	0.00%	0

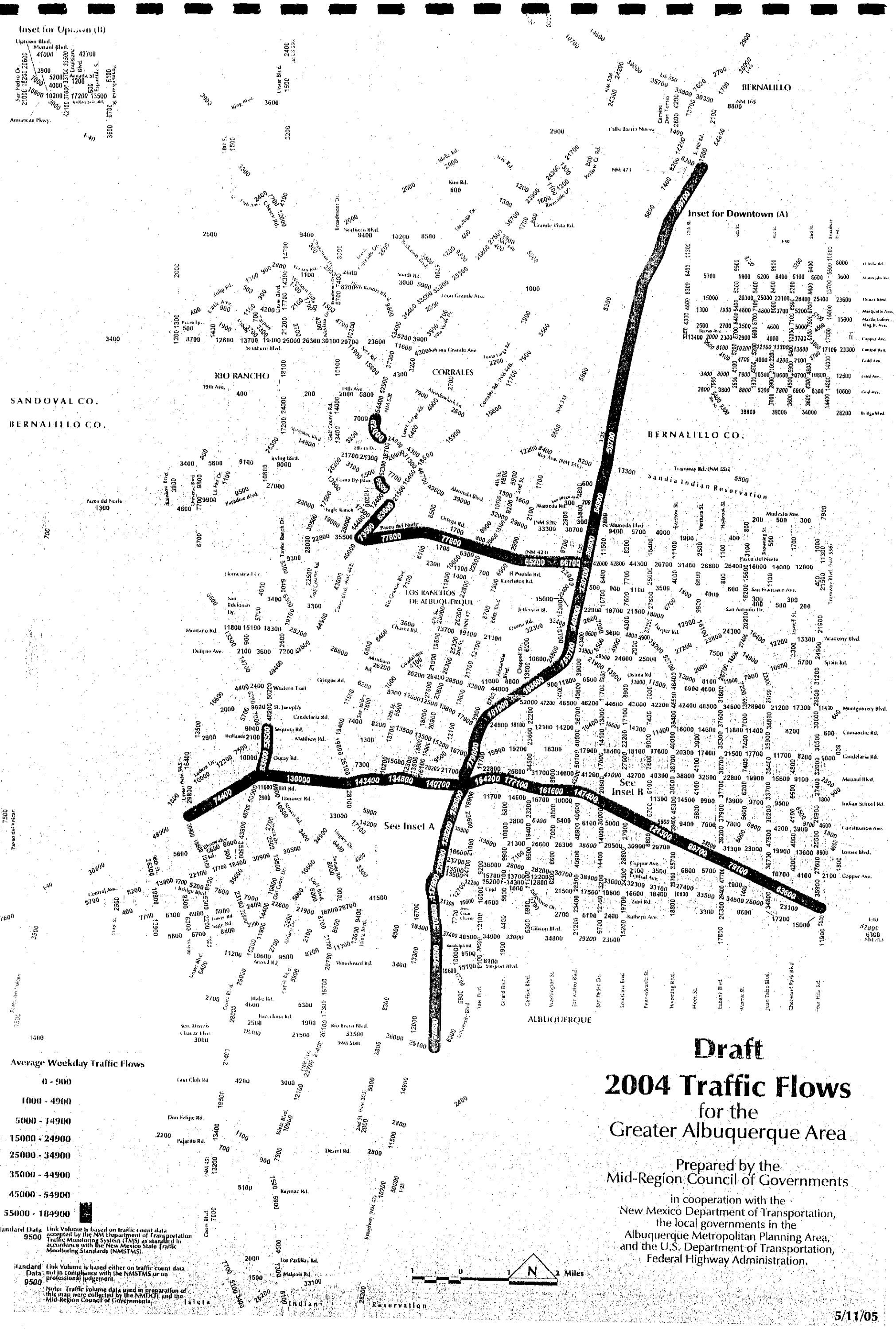
Trip Distribution Table

Vista del Norte Commercial Development (Osuna Rd. / Vista del Norte)

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

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

								(EPE) El Pueblo East			(LL) Los Lomitas North			(VdN) Vista del Norte North			(JN) Jefferson St. North			(OE) Osuna Rd. East		
DASZ #	% Sub Area in Study	2000 Population	2025 Population	Interpolated Population for the Year	Population in Study	Population / Distance	Percent Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
		2000	2025	2008																		
6062	100%	1359	1526	1,412	1,412	**1,412**	**4.45%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6063	100%	0	2	1	1	**1**	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6064	100%	0	0	0	0	**0**	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6074	100%	53	48	51	51	**51**	**0.16%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6075	70%	99	97	98	69	**69**	**0.22%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6076	50%	3	3	3	2	**2**	**0.01%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6081	100%	280	467	340	340	**340**	**1.07%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6082	100%	57	58	57	57	**57**	**0.18%**	50%	0.09%	29	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6083	100%	322	2404	988	988	**988**	**3.11%**	0%	0.00%	0	100%	3.11%	988	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6084	100%	565	2145	1,071	1,071	**1,071**	**3.37%**	0%	0.00%	0	0%	0.00%	0	100%	3.37%	1,071	0%	0.00%	0	0%	0.00%	0
6091	100%	0	0	0	0	**0**	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6092	100%	0	0	0	0	**0**	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6093	100%	0	0	0	0	**0**	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6094	100%	0	2	1	1	**1**	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6095	100%	0	0	0	0	**0**	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6122	100%	868	851	863	863	**863**	**2.72%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6123	100%	657	766	692	692	**692**	**2.18%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6124	100%	727	796	749	749	**749**	**2.36%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6125	100%	79	167	107	107	**107**	**0.34%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6131	100%	483	591	518	518	**518**	**1.63%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6132	100%	716	711	714	714	**714**	**2.25%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6141	100%	1983	2029	1,998	1,998	**1,998**	**6.29%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6142	100%	565	545	559	559	**559**	**1.76%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6512	100%	3	379	123	123	**123**	**0.39%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	20%	0.08%	25	80%	0.31%	98
6513	100%	161	211	177	177	**177**	**0.56%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6514	100%	101	207	135	135	**135**	**0.43%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6515	100%	0	0	0	0	**0**	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	100%	0.00%	0	0%	0.00%	0
6521	100%	187	208	194	194	**194**	**0.61%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6522	100%	0	0	0	0	**0**	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6523	100%	602	633	612	612	**612**	**1.93%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	100%	1.93%	612	0%	0.00%	0
6524	100%	260	253	258	258	**258**	**0.81%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6525	100%	387	453	408	408	**408**	**1.28%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	70%	0.90%	286	30%	0.39%	122
6526	100%	1330	1263	1,309	1,309	**1,309**	**4.12%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	70%	2.88%	916	30%	1.24%	393
6527	100%	0	2	1	1	**1**	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	100%	0.00%	1	0%	0.00%	0
6534	100%	349	365	354	354	**354**	**1.11%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6535	100%	333	435	366	366	**366**	**1.15%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7051	20%	2944	2761	2,885	577	**577**	**1.82%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	40%	0.73%	231
7052	100%	6	6	6	6	**6**	**0.02%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	100%	0.02%	6
7101	30%	2152	2020	2,110	633	**633**	**1.99%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	100%	1.99%	633
7102	100%	494	463	484	484	**484**	**1.52%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	100%	1.52%	484
7111	100%	1176	1184	1,179	1,179	**1,179**	**3.71%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	100%	3.71%	1,179
7112	100%	5	10	7	7	**7**	**0.02%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	100%	0.02%	7
7113	100%	893	1145	974	974	**974**	**3.07%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	100%	3.07%	974
7116	100%	1275	1372	1,306	1,306	**1,306**	**4.11%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	100%	4.11%	1,306
7151	100%	1029	964	1,008	1,008	**1,008**	**3.17%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	100%	3.17%	1,008
7152	50%	1418	1324	1,388	694	**694**	**2.19%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	100%	2.19%	694
7157	100%	736	1232	895	895	**895**	**2.82%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	100%	2.82%	895
7158	70%	1525	1415	1,490	1,043	**1,043**	**3.28%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	100%	3.28%	1,043
7201	100%	1826	2475	2,034	2,034	**2,034**	**6.40%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	40%	2.56%	814	60%	3.84%	1,220
7202	100%	106	214	141	141	**141**	**0.44%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	40%	0.18%	56	60%	0.27%	85
7241	100%	0	647	207	207	**207**	**0.65%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	40%	0.26%	83	60%	0.39%	124
				36,717	31,761	31,761	100.00%			**31**			**988**			**1,071**			**2,838**			**10,533**
										0.10%			3.11%			3.37%			8.93%			33.16%



Draft

2004 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.

5/11/05

Mid-Region Council of Governments
809 Copper Ave. NW
Albuquerque, NM 87102
505-247-1750

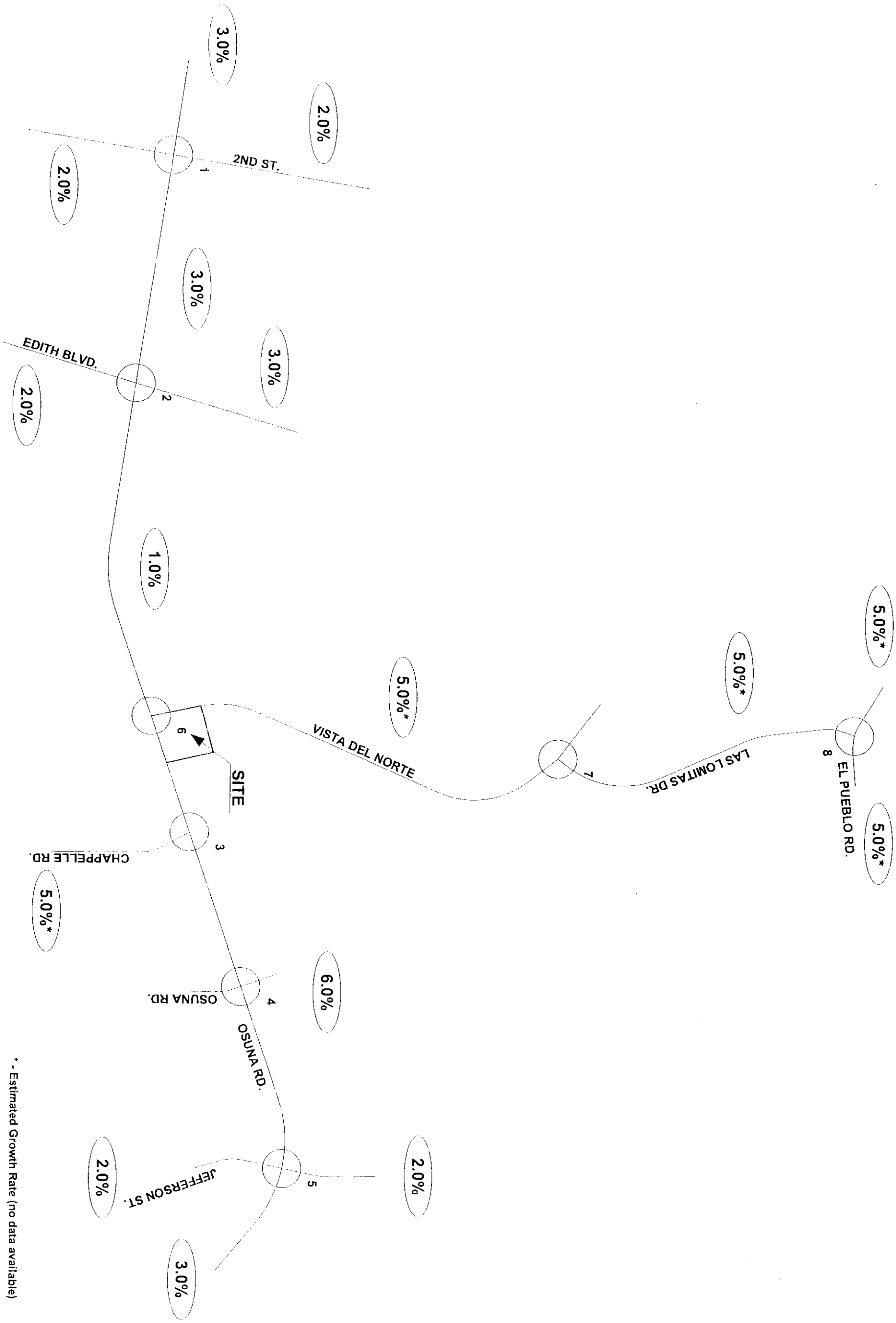
Trip Distribution Table

Vista del Norte Commercial Development (Osuna Rd. / Vista del Norte)

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

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

								(4S) 4th St. South			(4N) 4th St. North			(2N) 2nd St. North			(EN) Edith Blvd. North			(EPW) El Pueblo West		
DASZ #	% Sub Area in Study	2000 Population	2025 Population	Interpolated Population for the Year	Population in Study	Population / Distance	Percent Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
		2000	2025	2008																		
6062	100%	1359	1526	1,412	1,412	**1,412**	**4.45%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6063	100%	0	2	1	1	**1**	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6064	100%	0	0	0	0	**0**	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6074	100%	53	48	51	51	**51**	**0.16%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6075	70%	99	97	98	69	**69**	**0.22%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6076	50%	3	3	3	2	**2**	**0.01%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6081	100%	280	467	340	340	**340**	**1.07%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	80%	0.86%	272	20%	0.21%	68
6082	100%	57	58	57	57	**57**	**0.18%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	50%	0.09%	29
6083	100%	322	2404	988	988	**988**	**3.11%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6084	100%	565	2145	1,071	1,071	**1,071**	**3.37%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6091	100%	0	0	0	0	**0**	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6092	100%	0	0	0	0	**0**	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6093	100%	0	0	0	0	**0**	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6094	100%	0	2	1	1	**1**	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6095	100%	0	0	0	0	**0**	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6122	100%	868	851	863	863	**863**	**2.72%**	100%	2.72%	863	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6123	100%	657	766	692	692	**692**	**2.18%**	60%	1.31%	415	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6124	100%	727	796	749	749	**749**	**2.36%**	100%	2.36%	749	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6125	100%	79	167	107	107	**107**	**0.34%**	70%	0.24%	75	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6131	100%	483	591	518	518	**518**	**1.63%**	0%	0.00%	0	100%	1.63%	518	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6132	100%	716	711	714	714	**714**	**2.25%**	0%	0.00%	0	100%	2.25%	714	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6141	100%	1983	2029	1,998	1,998	**1,998**	**6.29%**	60%	3.77%	1,199	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6142	100%	565	545	559	559	**559**	**1.76%**	70%	1.23%	391	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6512	100%	3	379	123	123	**123**	**0.39%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6513	100%	161	211	177	177	**177**	**0.56%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	100%	0.56%	177	0%	0.00%	0
6514	100%	101	207	135	135	**135**	**0.43%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	100%	0.43%	135	0%	0.00%	0
6515	100%	0	0	0	0	**0**	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6521	100%	187	208	194	194	**194**	**0.61%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	100%	0.61%	194	0%	0.00%	0
6522	100%	0	0	0	0	**0**	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	100%	0.00%	0	0%	0.00%	0
6523	100%	602	633	612	612	**612**	**1.93%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6524	100%	260	253	258	258	**258**	**0.81%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	100%	0.81%	258	0%	0.00%	0
6525	100%	387	453	408	408	**408**	**1.28%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6526	100%	1330	1263	1,309	1,309	**1,309**	**4.12%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6527	100%	0	2	1	1	**1**	**0.00%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6534	100%	349	365	354	354	**354**	**1.11%**	0%	0.00%	0	20%	0.22%	71	80%	0.89%	283	0%	0.00%	0	0%	0.00%	0
6535	100%	333	435	366	366	**366**	**1.15%**	0%	0.00%	0	0%	0.00%	0	100%	1.15%	366	0%	0.00%	0	0%	0.00%	0
7051	20%	2944	2761	2,885	577	**577**	**1.82%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7052	100%	6	6	6	6	**6**	**0.02%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7101	30%	2152	2020	2,110	633	**633**	**1.99%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7102	100%	194	463	484	484	**484**	**1.52%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7111	100%	1176	1184	1,179	1,179	**1,179**	**3.71%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7112	100%	5	10	7	7	**7**	**0.02%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7113	100%	893	1145	974	974	**974**	**3.07%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7116	100%	1275	1372	1,306	1,306	**1,306**	**4.11%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7151	100%	1029	964	1,008	1,008	**1,008**	**3.17%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7152	50%	1418	1324	1,388	694	**694**	**2.19%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7157	100%	736	1232	895	895	**895**	**2.82%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7156	70%	1525	1415	1,490	1,043	**1,043**	**3.28%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7201	100%	1826	2475	2,034	2,034	**2,034**	**6.40%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7202	100%	106	214	141	141	**141**	**0.44%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
7241	100%	0	647	207	207	**207**	**0.65%**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
				36,717	31,761	31,761	100.00%			**3,899**			**1,736**			**3,940**			**1,036**			**97**
										12.28%			5.47%			12.41%			3.26%			0.30%

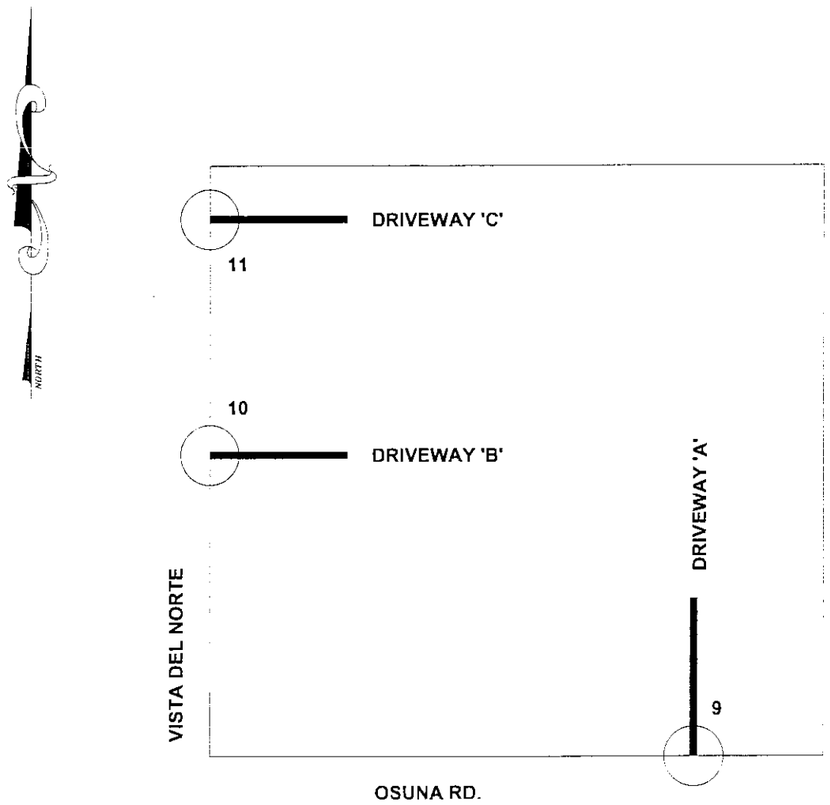


* - Estimated Growth Rate (no data available)

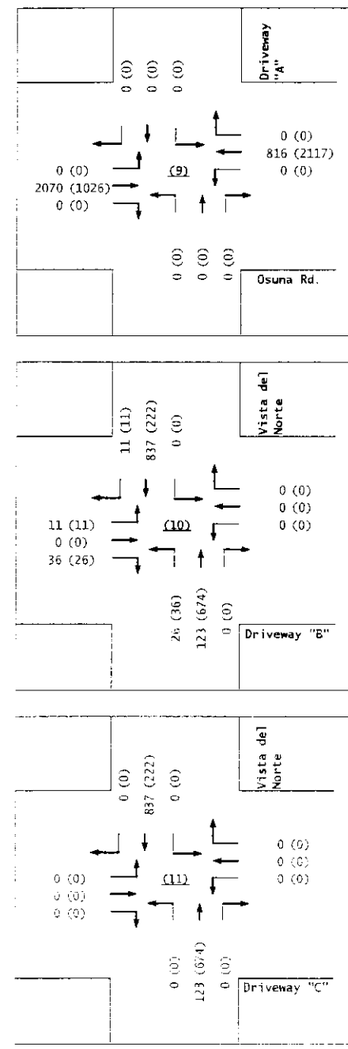
VISTA DEL NORTE COMMERCIAL CENTER

NORTHEAST CORNER OF OSUNA RD. / VISTA DEL NORTE

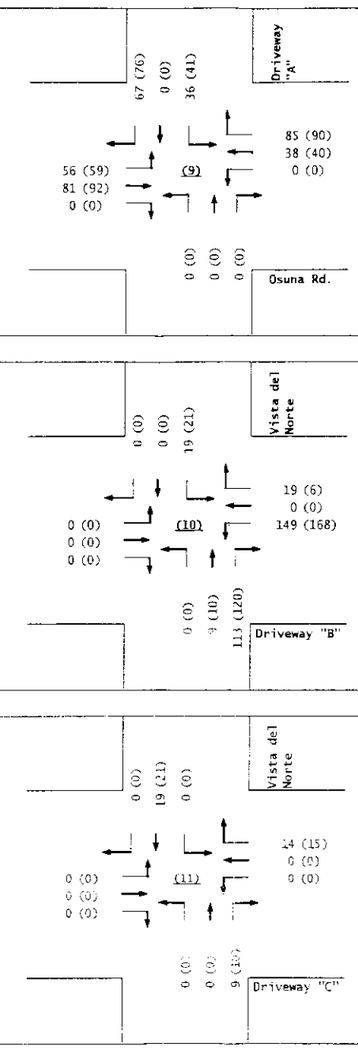
ANNUAL GROWTH RATES



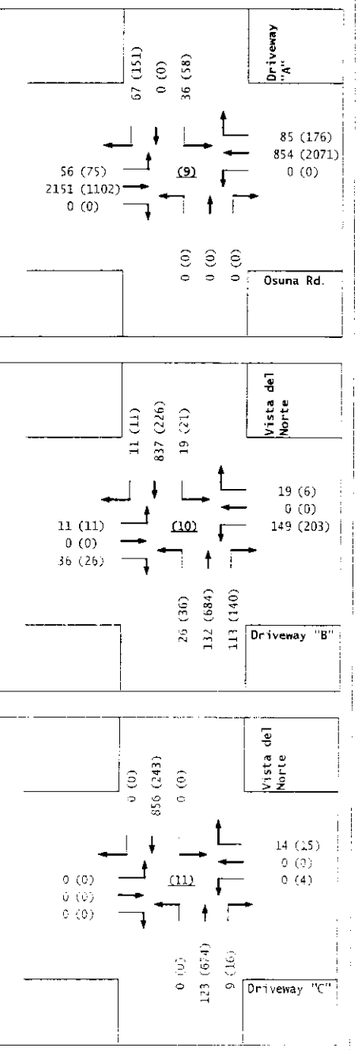
2008 NO BUILD VOLUMES



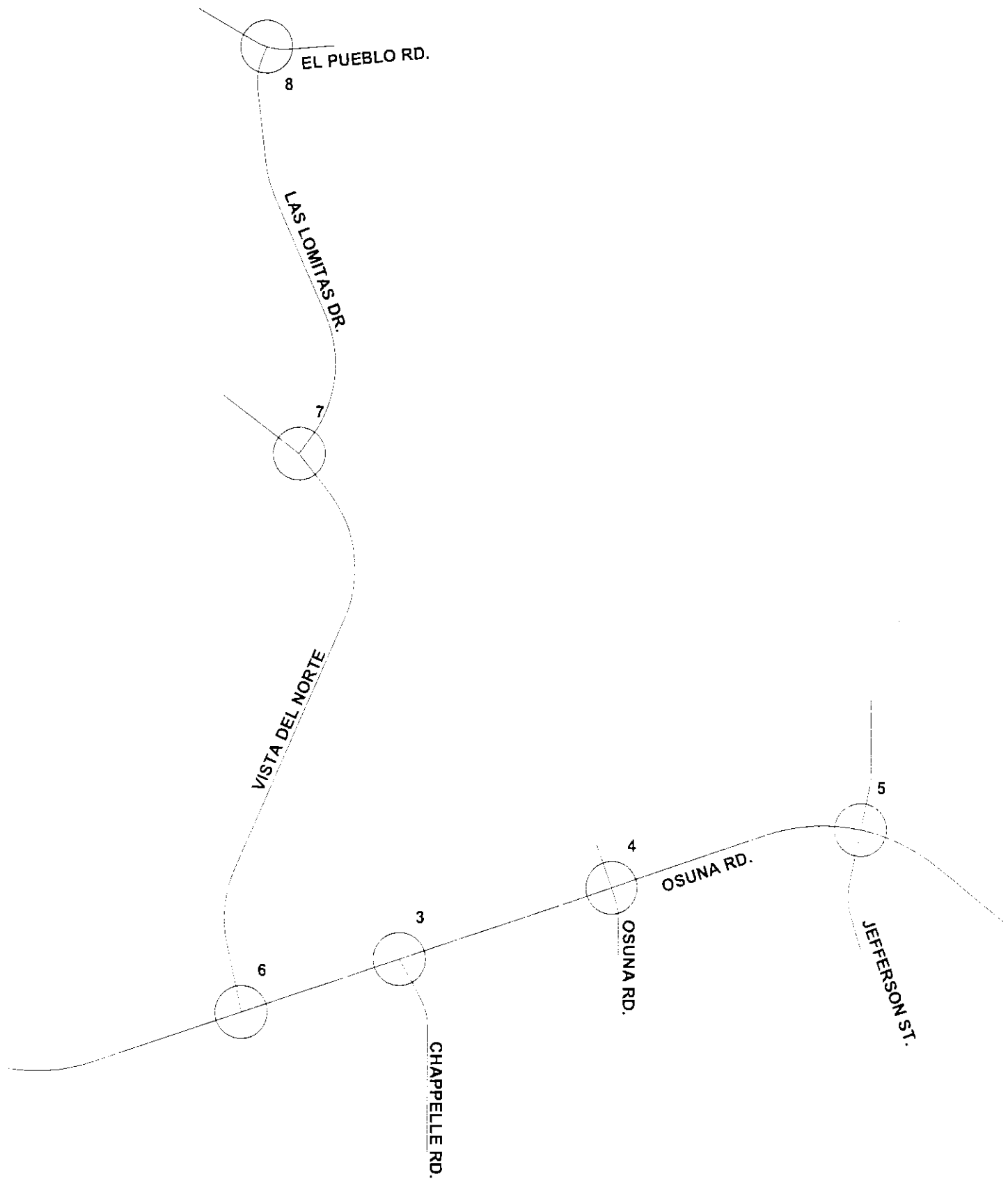
TRIPS GENERATED VOLUMES



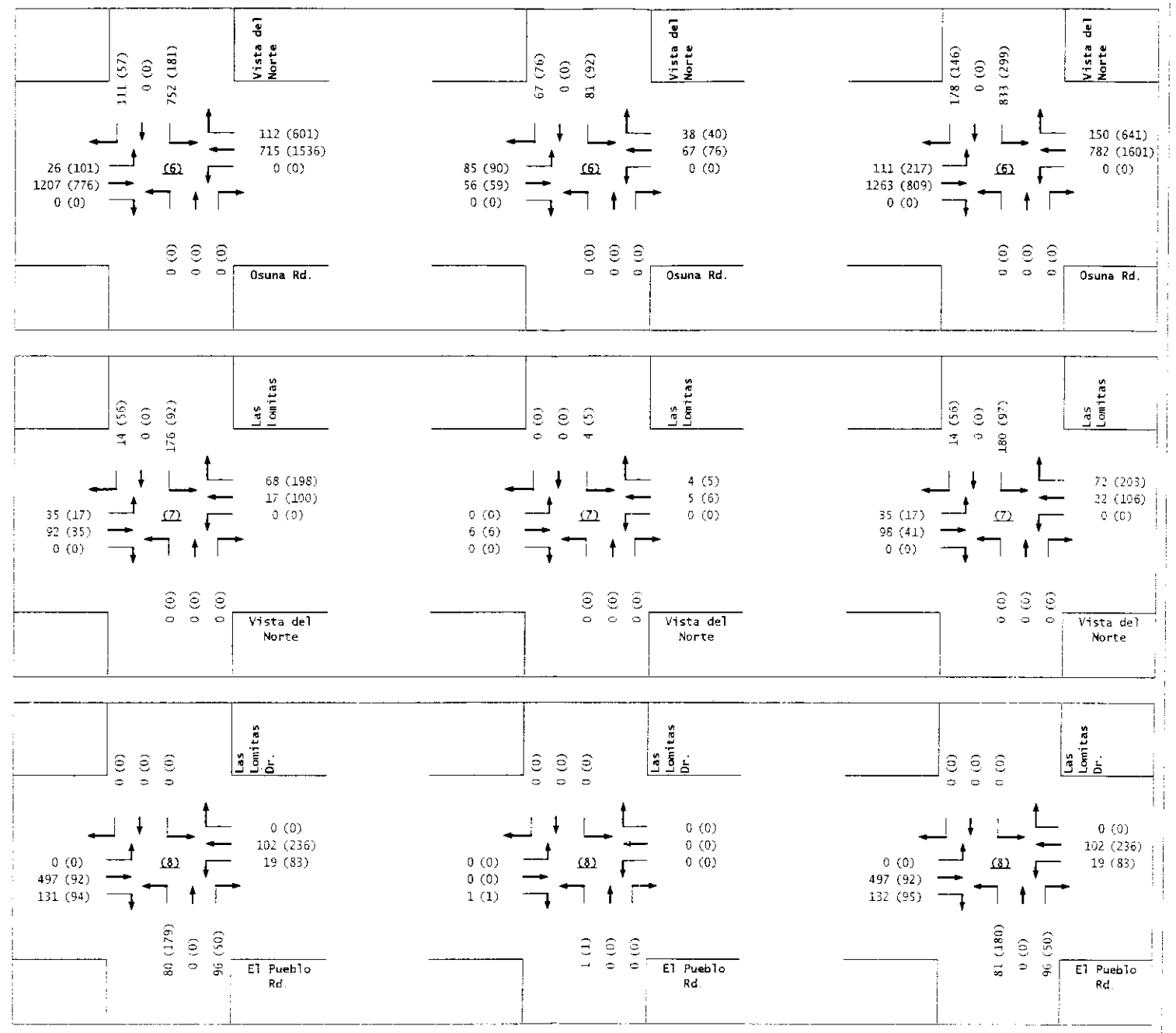
2008 BUILD VOLUMES



Vista del Norte Commercial Development
Osuna Rd. / Vista del Norte Dr.
2008 Volumes Map



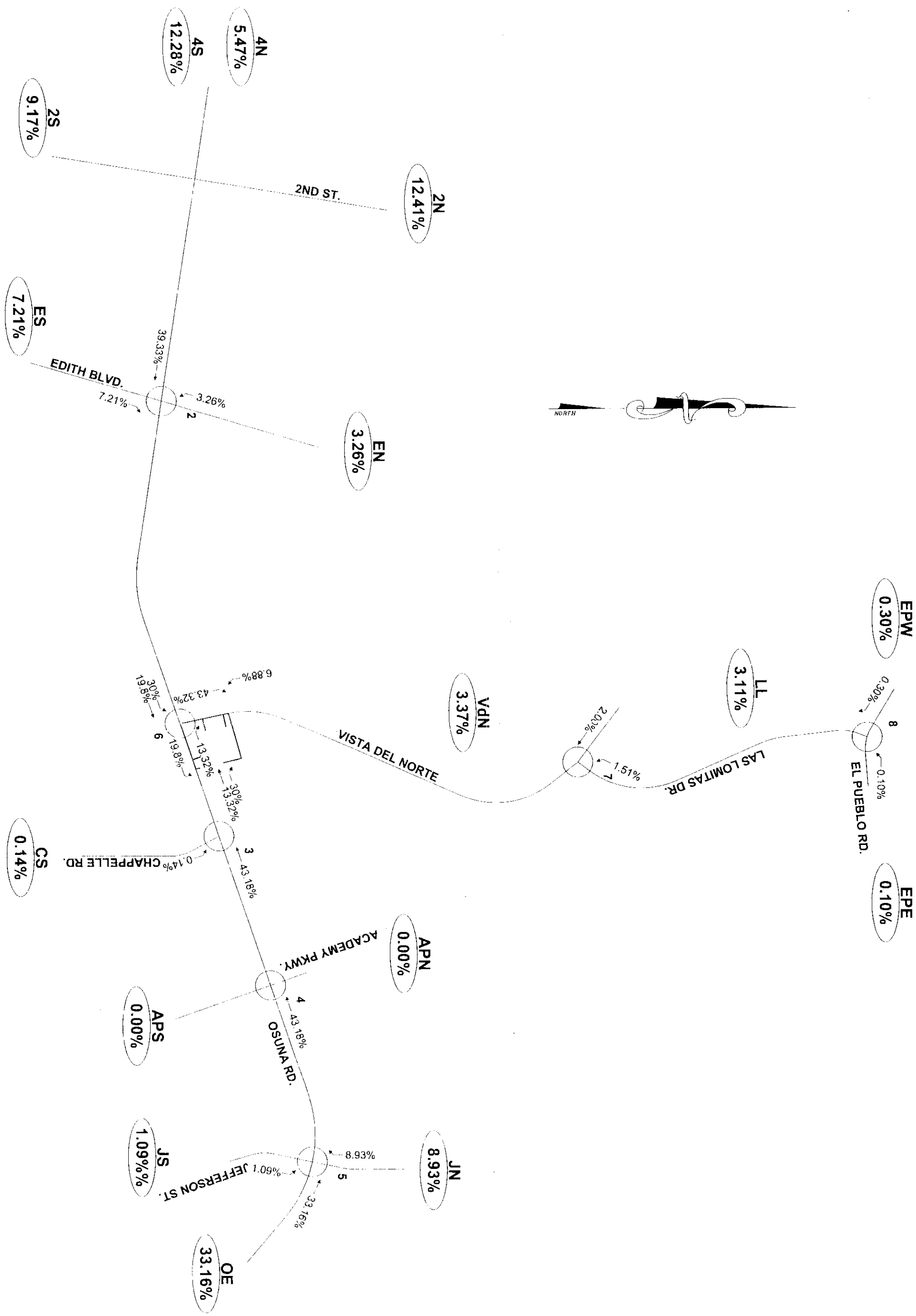
2008 NO BUILD VOLUMES



TRIPS GENERATED VOLUMES

2008 BUILD VOLUMES

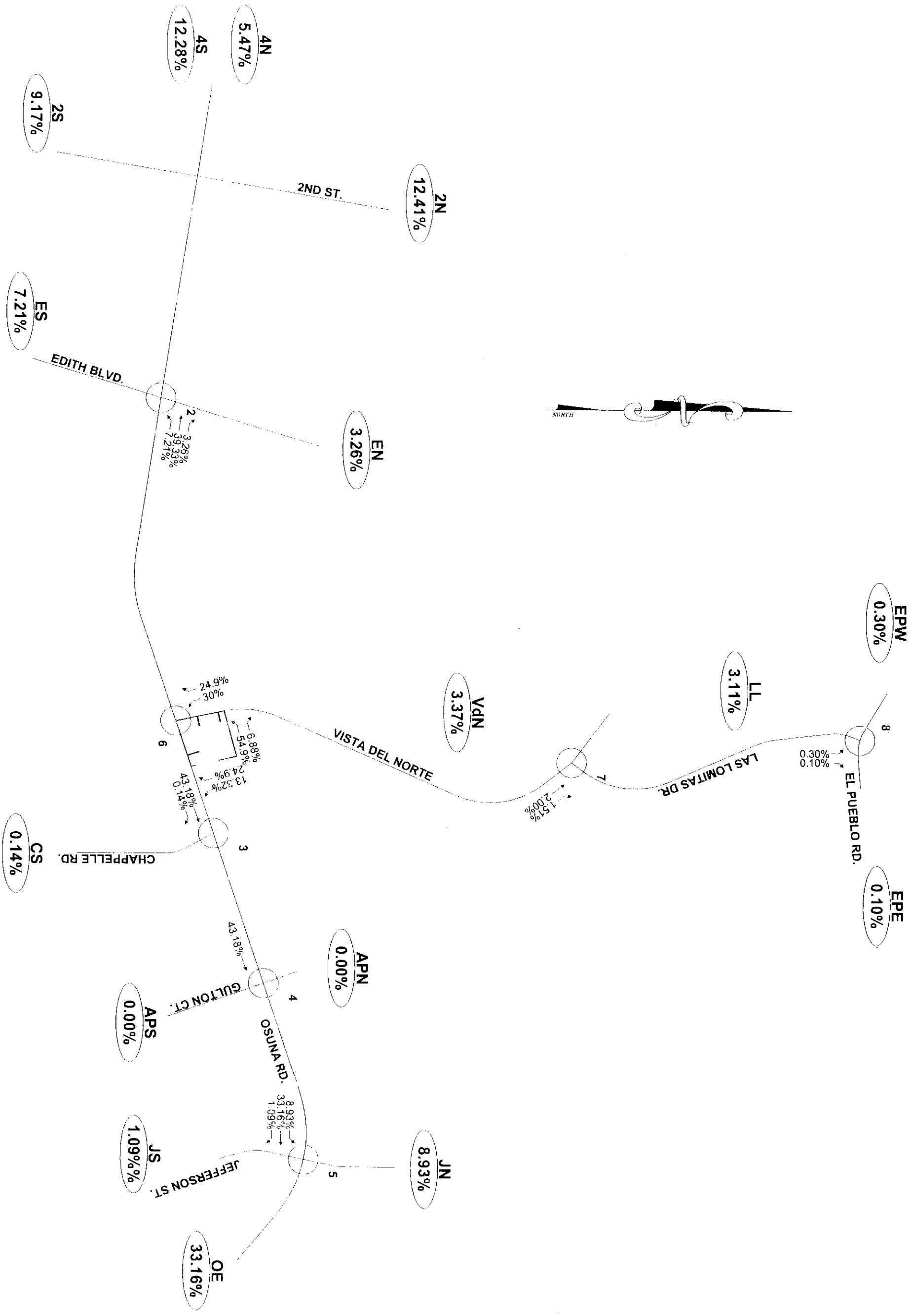
Vista del Norte Commercial Development
Osuna Rd. / Vista del Norte Dr.
2008 Volumes Map



VISTA DEL NORTE COMMERCIAL CENTER

NORTHEAST CORNER OF OSUNA RD. / VISTA DEL NORTE

TRIP ASSIGNMENTS (% ENTERING)



VISTA DEL NORTE COMMERCIAL CENTER

NORTHEAST CORNER OF OSUNA RD. / VISTA DEL NORTE

TRIP ASSIGNMENTS (% EXITING)