Vista del Norte Commercial Dev. – 2007 Plan

(Osuna Rd. / Vista del Norte Dr.)

Traffic Impact Study

DRAFT

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Terry O. Brown, P.E.

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Transportation Development Division
City of Albuquerque

Prepared for:

Tierra West, LLC
5571 Midway Park Place NE
Albuquerque, NM 87100

TERRY O. BROWN
NEW MEXICO
6407
LICENSED PROFESSIONAL ENGINEER

Terry O. Brown

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

Vista del Norte Commercial Development (May, 2007 Plan)
(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 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. This study considers two scenarios of the proposed plan. The first scenario considers that an approximately 3.8 acre park facility will be constructed on the northwest corner of the site (see Appendix Page A-2). The second scenario considers that the site will be developed into commercial uses and that there will be no park.

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 original Vista del Norte Commercial Development study to discuss scope and methodology to be utilized within that report. This supplement considering the May, 2007 plan will use the same methodology.

The basic procedure followed is described as follows:

1) Calculate the generated trips for the proposed commercial development consisting of a proposed 156,000 S.F. free-standing discount superstore and additional retail commercial floor space. The 4.05 acre tract at the southwest corner of the site is proposed to be a retail commercial center containing approximately 34,180 S.F. of floor area. The 3.80 acre parcel at the northwest corner of the project is proposed to be either a 3.80 acre park or a retail commercial center containing approximately 34,180 S.F. of floor area. (See Page A-2 in Appendix).
2) Calculate trip distribution for the newly generated trips by both scenarios of this development. The commercial trips shall be distributed based on 2009 DASZ population data within a market draw area defined by the relative locations of other similar uses. To determine the market area, the nearest adjacent discount stores were plotted on a map and the market area determined by drawing a line midpoint between this project and the nearest discount store location. The actual market draw area map (and trip distribution map) is found on Page A-13 in the Appendix of this report. (See Pages A-13 thru A-16 in Appendix).
3) Determine Trip Assignments for the newly generated trips (for both scenarios) based on the results of the Trip Distribution Analysis and logical routing to and from the site. (See Pages A-17 thru A-22 in Appendix).

4) Obtain AM Peak Hour and PM Peak Hour turning movement traffic counts at the intersection Osuna Rd. / 2nd St., 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-162 thru A-179 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-23 thru A-34 in Appendix).
6) Determine 2009 NO BUILD intersection volumes by growing the data from the existing traffic counts at the calculated historic growth rate to the analysis year (2009), then add in traffic volumes generated by nearby recently approved undeveloped projects. (See Pages A-35 thru A-59 in Appendix).
7) Add in data from Trip Assignments Maps and Tables to the 2009 NO BUILD Volumes to obtain 2009 BUILD Volumes for this project. The 2009 BUILD Volumes will be calculated for both the 2007 Plan with Park and the 2007 Plan with NO Park (See Pages A-35 thru A-84 in Appendix).
8) Provide signalized and unsignalized intersection analyses for the following intersections:

INTERSECTION	TYPE CONTROL	NO BUILD	BUILD
Osuna Rd. / Edith Blvd.	Traffic Signal	2009	2009
Osuna Rd. / Chappell Dr.	Traffic Signal	2009	2009
Osuna Rd. / Academy Parkway Dr.	Traffic Signal	2009	2009
Osuna Rd. / Jefferson St.	Traffic Signal	2009	2009
Osuna Rd. / Vista del Norte Dr.	Traffic Signal	2009	2009
El Pueblo Rd. / Las Lomitas Dr.	Stop Sign	2009	2009
Vista del Norte Dr. / Las Lomitas Dr.	Stop Sign	2009	2009
Osuna Rd. / Driveway "A"	Stop Sign	N/A	2009
Driveway "B" / Vista del Norte Dr.	Stop Sign	2009	2009
Osuna Rd. / Driveway "C"	Stop Sign	N/A	2009

9) Provide signalized and unsignalized intersection analyses for the BUILD Condition of the intersections listed above considering both scenarios of the development plan. (See Pages A-85 thru A-161 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 100% implemented. Traffic generated by the proposed Las Lomitas Industrial Park at the north end of Vista del Norte Subdivision was calculated and added into the background traffic volumes utilized in this study. There was no Traffic Impact Study that was performed solely for the Las Lomitas Industrial Park.

There is a 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 recently constructed. 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. Trips from the Agave Subdivision were calculated and added into the background traffic volumes in this study also.

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.

Vista del Norte Dr. is not classified on the Long Range Roadway System Map for the Albuquerque Metropolitan Planning Area. It is a four-lane divided urban roadway from Osuna Rd. north to Vista Monte Dr. (about 2,200 feet of four lane roadway) after which Vista del Norte Dr. becomes a two-lane urban roadway. The capacity of the four lane section of Vista del Norte Dr. from Osuna Rd. to Vista Monte Dr. is approximately 30,000 vehicles per day.

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 2011. However, funding may limit the scope of what can be constructed at that time. The City of Albuquerque's Ten Year Plan designates $ 300,000 for the year 2008 and $ 3,000,000 for the year 2011. 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 2009 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

2005 Average Weekday Traffic Volumes (AWDT) for major streets in the site plan area are shown on Page A-3 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-162 thru A-172.

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 156,000 S.F. Free-Standing Discount Superstore (including garden area and mezzanine), approximately 34,180 S. F. of retail commercial floor space at the southwest corner of the site, and either a 3.8 acre park (scenario 1 – with park) or approximately 34,180 S.F. of retail commercial floor space (scenario 2 – NO Park) at the northwest corner of the project. 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 two full access driveways onto Osuna Rd. east of Vista del Norte and one full access driveway onto Vista del Norte Dr. The proposed driveways onto Osuna Rd. are designated as Driveway "A" and Driveway "C" in this study. They are located approximately 425 feet to the east of Vista del Norte Dr. (centerline to centerline) and 810 feet to the east of Vista del Norte Dr. (centerline to centerline) respectively.

Driveway "B" on Vista del Norte Dr. is located approximately 620 feet to the north of Osuna Rd. (centerline to centerline). It is a proposed full access unsignalized driveway which aligns with the existing driveway to Desert Springs Church.

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 tables:

Park Plan:

Vista del Norte Commercial Development (2007 Plan)

With Park

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)	156.00	7,586	146	141	295	307
Shopping Center (820)	34.18	3,380	50	32	148	161
City Park (411)	4.00	6	-	-	-	-
Subtotal		**10,972**	**196**	**173**	**443**	**468**
Pass-by Trips	30%				**(133)**	**(140)**
Net New Trips to System		**10,972**	**196**	**173**	**310**	**328**

NO Park Plan:

Vista del Norte Commercial Development (2007 Plan)

Without Park

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)	156.00	7,586	146	141	295	307
Shopping Center (820)	68.36	5,303	76	49	234	254
Subtotal		**12,889**	**222**	**190**	**529**	**561**
Pass-by Trips	30%				**(159)**	**(168)**
Net New Trips to System		**12,889**	**222**	**190**	**370**	**393**

(See Pages A-6 thru A-12 in the Appendix of this report for Trip Generation Worksheets and Summary Table.)

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 2009 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-13 thru A-16.

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-17 thru A-22. A 30% Pass-by trip reduction was applied to this development for the PM Peak Hour volumes.

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-23 thru A-34. 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-35 thru A-84).

PROJECTED PEAK HOUR TURNING MOVEMENTS FOR 2009 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 2009 background traffic volumes. Calculated trips generated by the new Las Lomitas Industrial Park were added to obtain the NO BUILD Volumes utilized in this report. To these volumes, the generated trips based on implementation of the proposed assumed land uses were added to obtain the 2009 BUILD volumes for the intersection analyses. See Appendix Pages A-35 thru A-84 for further information regarding turning movement counts for this project. 2009 NO BUILD Volumes Map, Trips Generated Map, and 2009 BUILD Volumes Map for this project are on Pages A-84a thru A-84e in the Appendix.

Three scenarios are evaluated in this study:

2009 NO BUILD Volumes
2009 BUILD Volumes (Plan w/Park)
2009 BUILD Volumes (Plan with NO Park)

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 2009 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.

⇒ 2009 without development of the subject property (NO BUILD)
⇒ 2009 with development as per the assumed land uses considering total implementation of the plan with the Park in the northwest corner of the property.
⇒ 2009 with development as per the assumed land uses considering total implementation of the plan with NO Park.

The results of the 2009 NO BUILD and the 2009 BUILD capacity analyses are summarized in the following sections - *Results and Discussion of Intersection Capacity Analyses.*

RESULTS OF SIGNALIZED INTERSECTION CAPACITY ANALYSES

IMPLEMENTATION YEAR (2009)

Intersection #1 - Osuna Rd. / 2nd St.

The results of the 2009 implementation year analysis of the signalized intersection of Osuna Rd. / Edith Blvd. are summarized in the following table:

Osuna Rd. / 2nd St.	2009 No Build		2009 BUILD / Park	
	A.M.	P.M.	A.M.	P.M.
Existing Geometry	C - 30.0	***D - 41.4***	C - 34.0	***E - 65.7***
Exist. Geometry – Add Northbound Thru Lane				C - 33.5

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

Analysis of BUILD Condition for Vista del Norte Commercial Center Plan with NO Park:

Osuna Rd. / 2nd. St.	2009 BUILD – NO Park	
	A.M.	P.M.
Existing Geometry	C - 34.6	***E - 68.5***
Exist. Geometry – Add Northbound Thru Lane		D - 35.1

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

Existing Geometry (Osuna Rd. / 2nd St.)

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

The intersection of Osuna Rd. / 2nd St. is near capacity for the 2009 PM Peak Hour BUILD analysis. The volumes added from the Vista del Norte Commercial Development impact the intersection, especially during the PM Peak Hour. Mitigation of the impact consists of construction of a third northbound thru lane at the intersection. The new thru lane should be constructed to accommodate the projected intersection queues and should extend through the intersection at least 750 feet beyond.

The trips generated by the proposed Vista del Norte commercial development comprises only about 7% or less of the overall 2009 projected BUILD traffic volumes at the intersection of Osuna Rd. / 2nd St.

Queueing Analysis Summary Sheet

Project: Vista del Norte Commercial Development (Osuna Rd. / Vista del Norte)
Intersection: **Osuna Rd. / 2nd St.**

2009

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*66*	*120*	*2*	*383*	*Cont*	*1*	*57*	*125*
AM NO BUILD Queue	1	72	125	2	417	300	1	62	125
AM BUILD Queue	**1**	**72**	**125**	**2**	**456**	**325**	**1**	**62**	**125**
Existing Lane Length	*1*	*89*	*120*	*2*	*176*	*Cont*	*1*	*70*	*125*
PM NO BUILD Queue	1	97	175	2	192	**175**	1	76	150
PM BUILD Queue	**1**	**97**	**175**	**2**	**258**	**225**	**1**	**76**	**150**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*105*	*225*	*1*	*188*	*Cont*	*1*	*188*	*999*
AM NO BUILD Queue	1	114	175	1	205	275	1	205	275
AM BUILD Queue	**1**	**131**	**200**	**1**	**239**	**325**	**1**	**229**	**300**
Existing Lane Length	*1*	*256*	*225*	*1*	*463*	*Cont*	*1*	*618*	*999*
PM NO BUILD Queue	1	279	**400**	1	505	**650**	1	674	**825**
PM BUILD Queue	**1**	**315**	**425**	**1**	**575**	**725**	**1**	**723**	**875**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*38*	*400*	*2*	*553*	*Cont*	*0*	*240*	*0*
AM NO BUILD Queue	1	40	75	2	586	400	0	254	350
AM BUILD Queue	**1**	**40**	**75**	**2**	**586**	**400**	**0**	**274**	**350**
Existing Lane Length	*1*	*68*	*400*	*2*	*884*	*Cont*	*0*	*160*	*0*
PM NO BUILD Queue	1	72	125	2	937	650	0	170	**250**
PM BUILD Queue	**1**	**72**	**125**	**2**	**937**	**650**	**0**	**204**	**300**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*387*	*225*	*2*	*1,145*	*Cont*	*1*	*35*	*350*
AM NO BUILD Queue	1	410	500	2	1,214	750	1	37	75
AM BUILD Queue	**1**	**438**	**525**	**2**	**1,214**	**750**	**1**	**37**	**75**
Existing Lane Length	*1*	*285*	*225*	*2*	*776*	*Cont*	*1*	*77*	*350*
PM NO BUILD Queue	1	302	**425**	2	823	575	1	82	150
PM BUILD Queue	**1**	**348**	**475**	**2**	**823**	**575**	**1**	**82**	**150**

	AM	PM
Cycle Length:	120	130

NOTE: Queue lengths are in feet.

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

Intersection #2 - Osuna Rd. / Edith Blvd.

The results of the 2009 implementation year analysis of the signalized intersection of Osuna Rd. / Edith Blvd. are summarized in the following table:

Osuna Rd. / Edith Blvd.	2009 No Build		2009 BUILD w/Park	
	A.M.	P.M.	A.M.	P.M.
Existing Geometry	***D - 43.0***	D - 36.0	***D - 48.9***	D – 44.3
Exist. Geom. – ADD EB Thru Lane			C – 29.7	

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

Analysis of BUILD Condition for Vista del Norte Commercial Center Plan with NO Park:

Osuna Rd. / Edith Blvd.	2009 BUILD – NO Park	
	A.M.	P.M.
Existing Geometry	***D - 50.1***	***D - 48.2***
Exist. Geom. – ADD EB Thru Lane	C - 30.2	D - 40.2

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 near capacity for the 2009 AM Peak Hour NO BUILD and BUILD analyses. 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 thru lane at the intersection. The new thru lane should be constructed to accommodate the projected intersection queues and should extend through the intersection at least 750 feet beyond.

The City's Plan to improve Osuna Blvd. targeted for construction in 2011 should include improvements to the intersection of Osuna Rd. / Edith Blvd. to address capacity issues projected for the 2009 AM Peak Hour conditions analyzed in this study. The intersection will be at capacity for the 2009 AM Peak Hour BUILD Condition if the City does not address this issue with the Osuna project.

The trips generated by the proposed Vista del Norte commercial development comprises only about 10% or less of the overall 2009 projected BUILD traffic volumes at the intersection of Osuna Rd. / Edith Blvd.

Queueing Analysis Summary Sheet

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

2009

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*27*	*200*	*2*	*819*	*Cont*	*0*	*225*	*0*
AM NO BUILD Queue	1	30	75	2	917	600	0	252	325
AM BUILD Queue	**1**	**30**	**75**	**2**	**1,004**	**650**	**0**	**252**	**325**
Existing Lane Length	*1*	*45*	*200*	*2*	*431*	*Cont*	*0*	*116*	*0*
PM NO BUILD Queue	1	50	100	2	483	**375**	0	130	200
PM BUILD Queue	**1**	**50**	**100**	**2**	**629**	**475**	**0**	**130**	**200**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*152*	*330*	*2*	*361*	*Cont*	*0*	*64*	*0*
AM NO BUILD Queue	1	158	225	2	375	275	0	67	125
AM BUILD Queue	**1**	**172**	**250**	**2**	**450**	**325**	**0**	**73**	**125**
Existing Lane Length	*1*	*155*	*330*	*2*	*971*	*Cont*	*0*	*152*	*0*
PM NO BUILD Queue	1	161	**250**	2	1,010	**700**	0	158	**250**
PM BUILD Queue	**1**	**189**	**275**	**2**	**1,165**	**775**	**0**	**171**	**275**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*144*	*200*	*1*	*214*	*Cont*	*1*	*142*	*999*
AM NO BUILD Queue	1	156	225	1	231	325	1	153	225
AM BUILD Queue	**1**	**156**	**225**	**1**	**231**	**325**	**1**	**169**	**250**
Existing Lane Length	*1*	*276*	*200*	*1*	*437*	*Cont*	*1*	*150*	*999*
PM NO BUILD Queue	1	300	425	1	472	600	1	162	**250**
PM BUILD Queue	**1**	**300**	**425**	**1**	**472**	**600**	**1**	**189**	**275**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*164*	*100*	*1*	*347*	*Cont*	*0*	*24*	*0*
AM NO BUILD Queue	1	184	250	1	389	475	0	27	75
AM BUILD Queue	**1**	**191**	**275**	**1**	**389**	**475**	**0**	**27**	**75**
Existing Lane Length	*1*	*101*	*100*	*1*	*272*	*Cont*	*0*	*52*	*0*
PM NO BUILD Queue	1	113	200	1	305	425	0	58	125
PM BUILD Queue	**1**	**125**	**200**	**1**	**305**	**425**	**0**	**58**	**125**

	AM	PM
Cycle Length:	120	130

NOTE: Queue lengths are in feet.

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

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.

Intersection #3 - Osuna Rd. / Chappell Dr.

The results of the 2009 implementation year analysis of the signalized intersection of Osuna Rd. / Chappell Dr. are summarized in the following table:

Osuna Rd. / Chappell Dr.	2009 No Build		2009 BUILD w/Park	
	A.M.	P.M.	A.M.	P.M.
Existing Geometry	***D - 46.0***	D - 40.8	***D - 51.2***	***D - 50.7***

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

Analysis of BUILD Condition for Vista del Norte Commercial Center Plan with NO Park:

Osuna Rd. / Chappell Dr.	2009 BUILD – NO Park	
	A.M.	P.M.
Existing Geometry	***D - 51.7***	***D - 53.2***

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 2009 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 no 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 2009 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 implementation of a southbound left turn lane on the north leg of the intersection will probably require additional right of way.

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

Queueing Analysis Summary Sheet

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

2009

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*23*	*125*	*2*	*1,342*	*Cont*	*0*	*251*	*0*
AM NO BUILD Queue	1	30	75	2	1,745	>1,000	0	326	425
AM BUILD Queue	**1**	**30**	**75**	**2**	**1,827**	**>1,000**	**0**	**326**	**425**
Existing Lane Length	*1*	*3*	*125*	*2*	*810*	*Cont*	*0*	*61*	*0*
PM NO BUILD Queue	1	4	25	2	1,053	**725**	0	79	150
PM BUILD Queue	**1**	**4**	**25**	**2**	**1,223**	**825**	**0**	**80**	**150**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*105*	*180*	*2*	*813*	*Cont*	*0*	*38*	*0*
AM NO BUILD Queue	1	137	200	2	1,057	675	0	49	100
AM BUILD Queue	**1**	**137**	**200**	**2**	**1,153**	**725**	**0**	**49**	**100**
Existing Lane Length	*1*	*94*	*180*	*2*	*1,430*	*Cont*	*0*	*5*	*0*
PM NO BUILD Queue	1	122	200	2	1,859	>1,000	0	7	25
PM BUILD Queue	**1**	**122**	**200**	**2**	**2,019**	**>1,000**	**0**	**7**	**25**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*0*	*64*	*0*	*1*	*5*	*Cont*	*1*	*88*	*50*
AM NO BUILD Queue	0	80	150	1	6	25	1	110	175
AM BUILD Queue	**0**	**80**	**150**	**1**	**6**	**25**	**1**	**110**	**175**
Existing Lane Length	*0*	*209*	*0*	*1*	*2*	*Cont*	*1*	*151*	*50*
PM NO BUILD Queue	0	261	375	1	3	25	1	189	275
PM BUILD Queue	**0**	**262**	**375**	**1**	**3**	**25**	**1**	**189**	**275**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
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	60	125	1	25	75	0	30	75
PM BUILD Queue	**0**	**60**	**125**	**1**	**25**	**75**	**0**	**30**	**75**

	AM	PM
Cycle Length:	120	130

NOTE: Queue lengths are in feet.

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.

Intersection #4 - Osuna Rd. / Academy Parkway Dr.

The results of the 2009 implementation year analysis of the signalized intersection of Osuna Rd. / Academy Parkway Dr. are summarized in the following table:

Osuna Rd. / Academy Parkway Dr.	2009 No Build		2009 BUILD w/Park	
	A.M.	P.M.	A.M.	P.M.
Existing Geometry	A – 4.4	A – 8.1	A – 4.7	A – 9.2

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

Analysis of BUILD Condition for Vista del Norte Commercial Center Plan with NO Park:

Osuna Rd. / Academy Parkway Dr.	2009 BUILD – NO Park	
	A.M.	P.M.
Existing Geometry	A – 4.7	A – 9.4

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

Existing Geometry (Osuna Rd. / 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**

2009

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*54*	*150*	*2*	*1,303*	*Cont*	*0*	*4*	*0*
AM NO BUILD Queue	1	64	125	2	1,538	>1,000	0	5	25
AM BUILD Queue	**1**	**64**	**125**	**2**	**1,620**	**>1,000**	**0**	**5**	**25**
Existing Lane Length	*1*	*8*	*150*	*2*	*1,095*	*Cont*	*0*	*0*	*0*
PM NO BUILD Queue	1	9	25	2	1,292	**850**	0	0	0
PM BUILD Queue	**1**	**9**	**25**	**2**	**1,462**	**>1,000**	**0**	**0**	**0**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*39*	*125*	*2*	*845*	*Cont*	*0*	*89*	*0*
AM NO BUILD Queue	1	46	100	2	997	650	0	105	175
AM BUILD Queue	**1**	**46**	**100**	**2**	**1,093**	**700**	**0**	**105**	**175**
Existing Lane Length	*1*	*29*	*125*	*2*	*1,444*	*Cont*	*0*	*21*	*0*
PM NO BUILD Queue	1	34	75	2	1,704	>1,000	0	25	75
PM BUILD Queue	**1**	**34**	**75**	**2**	**1,864**	**>1,000**	**0**	**25**	**75**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*0*	*6*	*0*	*1*	*0*	*Cont*	*1*	*23*	*50*
AM NO BUILD Queue	0	7	25	1	0	0	1	26	75
AM BUILD Queue	**0**	**7**	**25**	**1**	**0**	**0**	**1**	**26**	**75**
Existing Lane Length	*0*	*24*	*0*	*1*	*0*	*Cont*	*1*	*56*	*50*
PM NO BUILD Queue	0	28	75	1	0	0	1	64	125
PM BUILD Queue	**0**	**28**	**75**	**1**	**0**	**0**	**1**	**64**	**125**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*0*	*52*	*0*	*1*	*0*	*Cont*	*0*	*17*	*0*
AM NO BUILD Queue	0	60	125	1	0	0	0	20	50
AM BUILD Queue	**0**	**60**	**125**	**1**	**0**	**0**	**0**	**20**	**50**
Existing Lane Length	*0*	*83*	*0*	*1*	*1*	*Cont*	*0*	*42*	*0*
PM NO BUILD Queue	0	95	175	1	1	0	0	48	100
PM BUILD Queue	**0**	**95**	**175**	**1**	**1**	**0**	**0**	**48**	**100**

	AM	PM
Cycle Length:	120	130

NOTE: Queue lengths are in feet.

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.

Intersection #5 - Osuna Rd. / Jefferson St.

The results of the 2009 implementation year analysis of the signalized intersection of Osuna Rd. / Jefferson St. are summarized in the following table:

Osuna Rd. / Jefferson St.	2009 No Build		2009 BUILD w/Park	
	A.M.	P.M.	A.M.	P.M.
Existing Geometry	C - 33.5	***F - 91.0***	D - 40.2	***F - 106***
Exist. Geom. – ADD WB Thru Lane				***F - 101***
Exist. Geom. – ADD WB Thru, SB RT Lane				***E - 75.8***
Exist. Geom. – ADD EB.WB Thru, SB RT Lane				***D - 50.8***

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

Analysis of BUILD Condition for Vista del Norte Commercial Center Plan with NO Park:

Osuna Rd. / Jefferson St.	2009 BUILD – NO P ark	
	A.M.	P.M.
Existing Geometry	D - 40.8	***F – 109***
Exist. Geom. – ADD WB Thru Lane		***F – 91.4***
Exist. Geom. – ADD WB Thru, SB RT Lane		***E - 77.1***
Exist. Geom. – ADD EB.WB Thru, SB RT Lane		***D - 51.7***

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

Existing Geometry (Osuna Rd. / 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 beyond 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 City of Albuquerque should consider a minimum geometry similar to the one proposed for mitigation if at all possible as part of the Osuna widening project to provide capacity at the intersection in the future.

The trips generated by the proposed Vista del Norte commercial development comprises only about 5.1% or less of the overall 2009 projected BUILD traffic volumes at the intersection of Osuna Rd. / Edith Blvd.

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.**

2009

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*2*	*236*	*190*	*3*	*1,081*	*Cont*	*0*	*154*	*0*
AM NO BUILD Queue	2	307	250	3	1,405	625	0	200	275
AM BUILD Queue	**2**	**324**	**250**	**3**	**1,468**	**650**	**0**	**202**	**275**
Existing Lane Length	*2*	*248*	*190*	*3*	*1,487*	*Cont*	*0*	*81*	*0*
PM NO BUILD Queue	2	322	275	3	1,933	900	0	105	175
PM BUILD Queue	**2**	**357**	**300**	**3**	**2,063**	**>1,000**	**0**	**109**	**175**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*3*	*182*	*190*	*2*	*921*	*Cont*	*1*	*262*	*900*
AM NO BUILD Queue	3	209	175	2	1,059	675	1	301	375
AM BUILD Queue	**3**	**209**	**175**	**2**	**1,133**	**725**	**1**	**301**	**375**
Existing Lane Length	*3*	*88*	*190*	*2*	*1,016*	*Cont*	*1*	*201*	*900*
PM NO BUILD Queue	3	101	125	2	1,168	775	1	231	325
PM BUILD Queue	**3**	**101**	**125**	**2**	**1,291**	**850**	**1**	**231**	**325**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*122*	*150*	*2*	*227*	*Cont*	*1*	*42*	*150*
AM NO BUILD Queue	1	134	200	2	250	200	1	46	100
AM BUILD Queue	**1**	**136**	**200**	**2**	**250**	**200**	**1**	**46**	**100**
Existing Lane Length	*1*	*291*	*150*	*2*	*557*	*Cont*	*1*	*264*	*150*
PM NO BUILD Queue	1	320	425	2	613	450	1	290	400
PM BUILD Queue	**1**	**324**	**450**	**2**	**613**	**450**	**1**	**290**	**400**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*197*	*175*	*2*	*374*	*Cont*	*0*	*160*	*0*
AM NO BUILD Queue	1	217	300	2	411	300	0	176	250
AM BUILD Queue	**1**	**217**	**300**	**2**	**411**	**300**	**0**	**196**	**275**
Existing Lane Length	*1*	*335*	*175*	*2*	*342*	*Cont*	*0*	*303*	*0*
PM NO BUILD Queue	1	369	500	2	376	300	0	333	450
PM BUILD Queue	**1**	**369**	**500**	**2**	**376**	**300**	**0**	**366**	**475**

	AM	PM
Cycle Length:	120	130

NOTE: Queue lengths are in feet.

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.

Intersection #6 - Osuna Rd. / Vista del Norte Dr.

The results of the 2009 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	2009 No Build		2009 BUILD	
	A.M.	P.M.	A.M.	P.M.
Existing Geometry	C - 23.1	B - 10.4	C - 23.8	B – 13.5

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

Analysis of BUILD Condition for Vista del Norte Commercial Center Plan with NO Park:

Osuna Rd. / Vista del Norte Dr.	2009 BUILD – NO Park	
	A.M.	P.M.
Existing Geometry	C - 23.8	B - 14.0

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**

2009

Approach	Left Turns			Thru Movements			Right Turns		
Eastbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*1*	*21*	*190*	*2*	*1,183*	*Cont*	*0*	*0*	*0*
AM NO BUILD Queue	1	34	75	2	1,218	750	0	0	0
AM BUILD Queue	**1**	**56**	**100**	**2**	**1,307**	**800**	**0**	**0**	**0**
Existing Lane Length	*1*	*94*	*190*	*2*	*761*	*Cont*	*0*	*0*	*0*
PM NO BUILD Queue	1	104	175	2	784	550	0	0	0
PM BUILD Queue	**1**	**166**	**250**	**2**	**906**	**625**	**0**	**0**	**0**
Westbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*0*	*0*	*190*	*2*	*638*	*Cont*	*1*	*91*	*300*
AM NO BUILD Queue	0	0	0	2	753	500	1	132	200
AM BUILD Queue	**0**	**0**	**0**	**2**	**829**	**550**	**1**	**139**	**200**
Existing Lane Length	*0*	*0*	*190*	*2*	*1,371*	*Cont*	*1*	*519*	*300*
PM NO BUILD Queue	0	0	0	2	1,618	>1,000	1	636	775
PM BUILD Queue	**0**	**0**	**0**	**2**	**1,764**	**>1,000**	**1**	**648**	**800**
Northbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*0*	*0*	*0*	*0*	*0*	*Cont*	*0*	*0*	*0*
AM NO BUILD Queue	0	0	0	0	0	0	0	0	0
AM BUILD Queue	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Existing Lane Length	*0*	*0*	*0*	*0*	*0*	*Cont*	*0*	*0*	*0*
PM NO BUILD Queue	0	0	0	0	0	0	0	0	0
PM BUILD Queue	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Southbound	# Lanes	Vol.	Length	# Lanes	Vol.	Length	# Lanes	Vol.	Length
Existing Lane Length	*2*	*665*	*999*	*0*	*0*	*Cont*	*1*	*96*	*400*
AM NO BUILD Queue	2	788	525	0	0	0	1	116	175
AM BUILD Queue	**2**	**794**	**525**	**0**	**0**	**0**	**1**	**135**	**200**
Existing Lane Length	*2*	*755*	*999*	*0*	*0*	*Cont*	*1*	*47*	*400*
PM NO BUILD Queue	2	203	200	0	0	0	1	65	125
PM BUILD Queue	**2**	**242**	**225**	**0**	**0**	**0**	**1**	**117**	**200**

	AM	PM
Cycle Length:	120	130

NOTE: Queue lengths are in feet.

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 (2009)

Intersection #7 - Vista del Norte Dr. / Las Lomitas Dr

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

	2009 NO BUILD		2009 BUILD w/Park	
	AM	AM	AM	PM
VdN / Las Lomitas Dr.				
Minor Street (Las Lomitas)				
SB Left	B - 12	B - 12	B - 12	B – 12
SB Right	B - 12	B - 12	B - 12	B – 12
Major Street (Vista del Norte Dr.)				
EB Left	A - 8	A - 8	A - 8	A - 8

The analysis of the NO Park plan for this intersection showed no significant difference in levels-of-service / delays. (See Pages A-153a and A-153b).

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.

Intersection #8 - El Pueblo Rd. / Las Lomitas Dr

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

	2009 NO BUILD		2009 BUILD w/Park	
	AM	PM	AM	PM
El Pueblo Rd. / Las Lomitas Dr.				
Minor Street (Las Lomitas)				
NB Left	F - 51	D - 31	F - 51	D - 31
NB Right	C – 16	A – 10	C – 16	A – 10
Major Street (El Pueblo Rd.)				
WB Left	B - 11	A - 8	B - 11	A - 8

The analysis of the NO Park plan for this intersection showed no significant difference in levels-of-service / delays. (See Pages A-154 and A-155).

This analysis indicates that the intersection of El Pueblo Rd. / Las Lomitas Dr. will operate at satisfactory levels-of-service for the PM Peak Hour period and less-than acceptable levels-of-service for the AM Peak Hour period analyzed in this study. This study demonstrates that the capacity issue at El Pueblo Rd. / Las Lomitas Dr. is caused by the background traffic and is not impacted by the implementation of the Vista del Norte Commercial development.

Intersection #9 - Osuna Rd. / Driveway "A"

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

	2009 BUILD w/Park	
	AM	PM
Osuna Rd. / Driveway "A"		
Minor Street (Driveway "A")		
SB Left	E – 44	F - *
SB Right	B – 12	F – 63
Major Street (Osuna Rd.)		
EB Left	B – 11	E - 47

The analysis of Driveway "A" under the NO Park Plan scenario yields the following results:

NO Park Plan	2009 BUILD – NO Park	
	AM	PM
Osuna Rd. / Driveway "A"		
Minor Street (Driveway "A")		
SB Left	E – 47	F - *
SB Right	B – 12	F – 89
Major Street (Osuna Rd.)		
EB Left	B - 11	F - 60

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.

Intersection #10 - Driveway "B" / Vista del Norte Dr.

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

	2009 BUILD w/Park	
	AM	PM
Driveway "B" / VdN		
Minor Street (Driveway "B")		
WB Left	C – 17	C – 25
WB Thru	A – 10	A – 12
WB Right	A – 10	A – 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	A - 10

The analysis of Driveway "B" under the NO Park Plan scenario yields the following results:

NO Park PLAN	2009 BUILD – NO Park	
	AM	PM
Driveway "B" / VdN		
Minor Street (Driveway "B")		
WB Left	C - 17	D – 26
WB Thru	A - 10	B – 12
WB Right	A – 10	B – 12
Minor Street (Desert Springs Driveway)		
EB Left	C – 25	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	A - 10

This analysis indicates that there will be a reasonable operation of the proposed driveway on Vista del Norte under both the Park Plan and the NO Park Plan analyzed in this study. This differs from the previous study which determined that there would be long delays at the main intersection on Vista del Norte that aligned with the Desert Springs Church driveway. The previously proposed plan was primarily a Free Standing Discount Superstore that was oriented facing Vista del Norte. As a result, much of the traffic generated by the previously plan was distributed onto Vista del Norte for access. The new 2007 plan (both scenarios) orient the center towards Osuna Rd. Therefore, most of the traffic generated by the site is distributed onto Osuna Rd. instead of Vista del Norte. The result is that Vista del Norte Dr. is much less impacted under the new plan. The HCM calculated queue length for the westbound left turn movement under the new 2007 proposed plan is 1 vehicle (25 feet). This study recommends that at least a 50 feet long queuing area be provided for westbound left turn traffic at Driveway "B" to provide a high safety factor.

A similar conditions is projected for the southbound left turn into Driveway "B". The queue length calculated by the Synchro HCM analysis is very small (1 vehicle). However, the City of Albuquerque will require the southbound left turn lane into Driveway "B" to be constructed to a length of 100 feet plus a 150'-150' transition. The existing southbound left turn lane on Vista del Norte Dr. at proposed Driveway "B" is approximately 275 feet long.

Osuna Rd. / Driveway "C"

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

	2009 BUILD w/Park	
	AM	PM
Osuna Rd. / Driveway "C"		
Minor Street (Driveway "C")		
SB Left	E – 44	F - *
SB Right	B – 12	F – 63
Major Street (Osuna Rd.)		
EB Left	B - 11	E - 48

The analysis of Driveway "A" under the NO Park Plan scenario yields the following results:

NO Park Plan	2009 BUILD – NO Park	
	AM	PM
Osuna Rd. / Driveway "C"		
Minor Street (Driveway "C")		
SB Left	E – 47	F - *
SB Right	B – 12	F – 87
Major Street (Osuna Rd.)		
EB Left	B - 11	F - 61

The volumes projected at the proposed Driveway "C" on Osuna Rd. are very similar to those projected at Driveway "A" located approximately 500 feet to the west. The fact that there are existing traffic signals to the east and to the west of Driveway "C" 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.

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. / 2nd St., Osuna Rd. / Edith Blvd. and Osuna Rd. / Jefferson St. that should be 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 two scenarios of the proposed 2007 plan were conducted for this site. Both plans yield similar offsite volumes and result in the same recommended mitigation measures.

In summary, the proposed 2007 development plan for 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 (2009) 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. / 2nd St.** – Construct a new northbound thru lane on 2nd St. through Osuna Rd. (See discussion on Page 9). The trips generated by the proposed Vista del Norte commercial development comprises only about 7% or less of the overall 2009 projected BUILD traffic volumes at the intersection of Osuna Rd. / 2nd St.
- **Osuna Rd. / Edith Blvd.** – Construct a new eastbound thru lane on Osuna Rd. at Edith Blvd. (See discussion on Page 11). The trips generated by the proposed Vista del Norte commercial development comprises only about 10% or less of the overall 2009 projected BUILD traffic volumes at the intersection of Osuna Rd. / Edith Blvd.
- **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 17). The trips generated by the proposed Vista del Norte commercial development comprises only about 5.1% or less of the overall 2009 projected BUILD traffic volumes at the intersection of Osuna Rd. / Edith Blvd.
- **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 250 feet plus transition.
    - 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 existing southbound left turn lane on Vista del Norte Dr. is sufficiently long to serve Driveway "B".
    - 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 on Osuna Rd. at the east end of the project to align with the existing median cut in Osuna Rd. approximately 950 feet east of Vista del Norte (centerline to centerline).
    - An eastbound left turn lane is warranted at Driveway "C". The eastbound left turn lane should be constructed to a minimum length of 200 feet plus transition.
    - A westbound right turn lane is warranted at Driveway "C" on Osuna Rd. The length of the westbound right turn lane should be 150 feet plus a 150'-300' reverse curve radius transition.

- All driveways should be constructed utilizing 25 feet curb returns or larger if needed to accommodate large delivery trucks.
- As is consistent with City policy, the developer will be required to contribute cash towards improvements at offsite intersections proportionate to the percentage of traffic contributed to each intersection by this development.

Appendix

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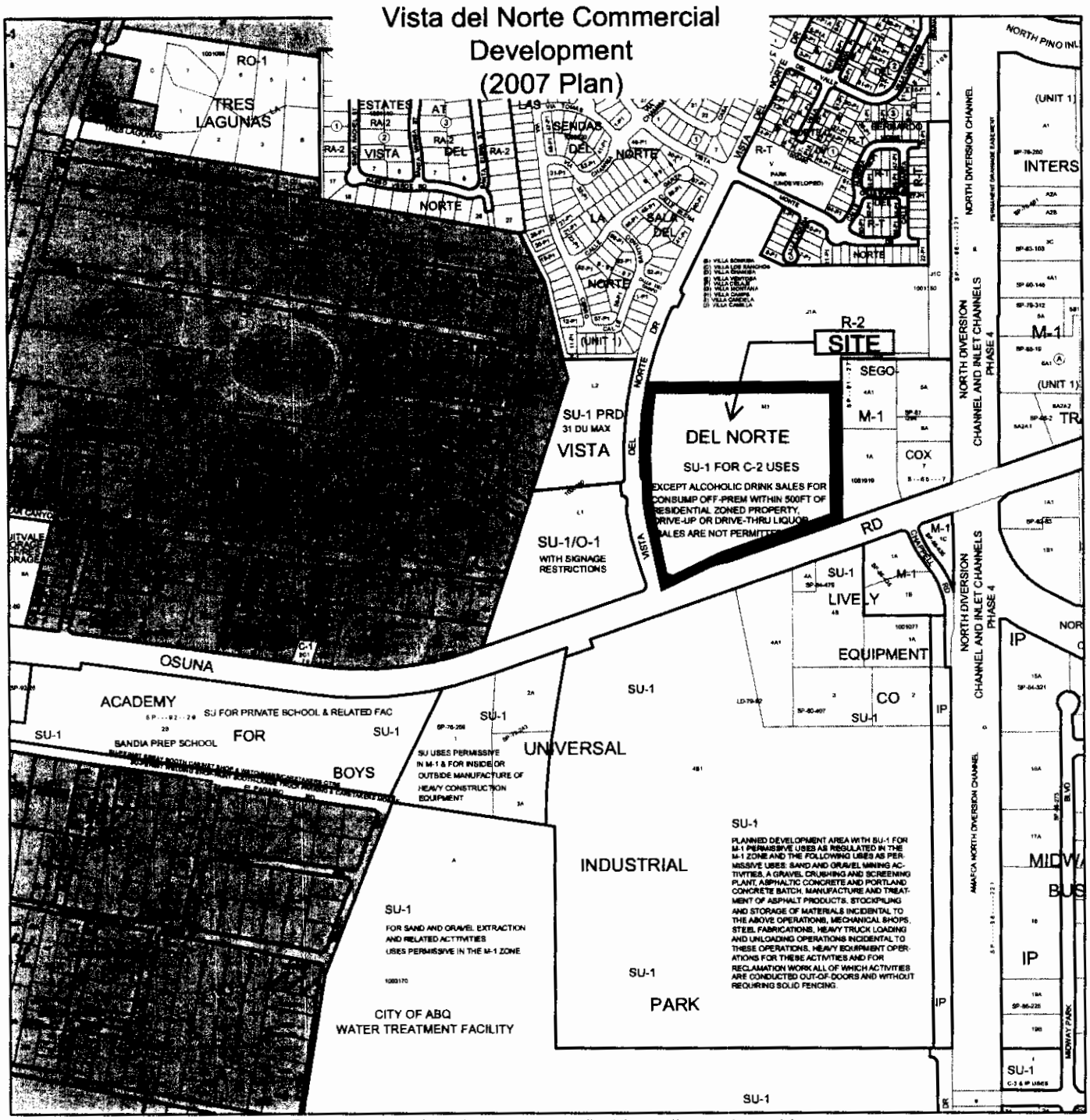
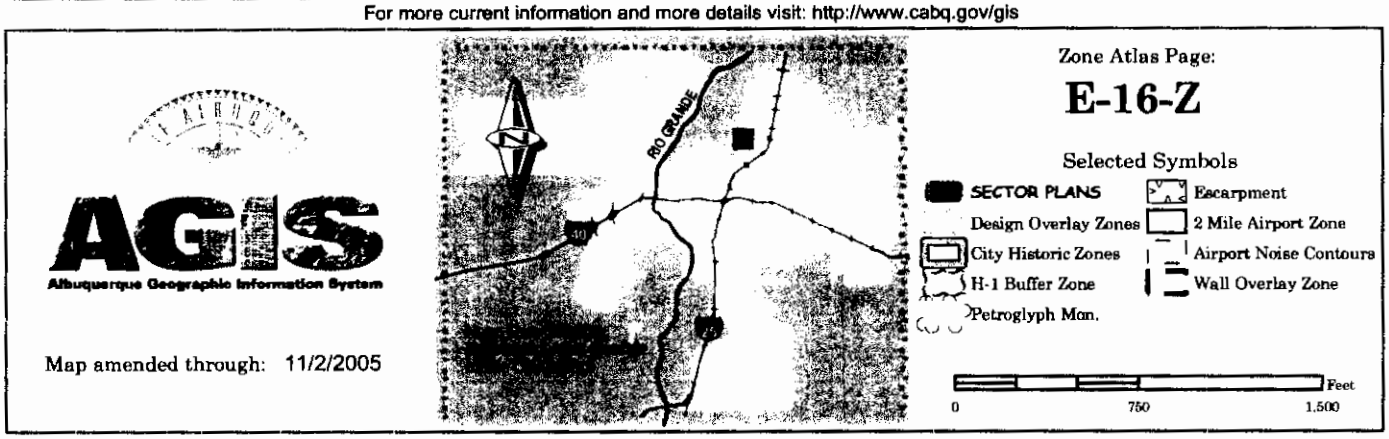
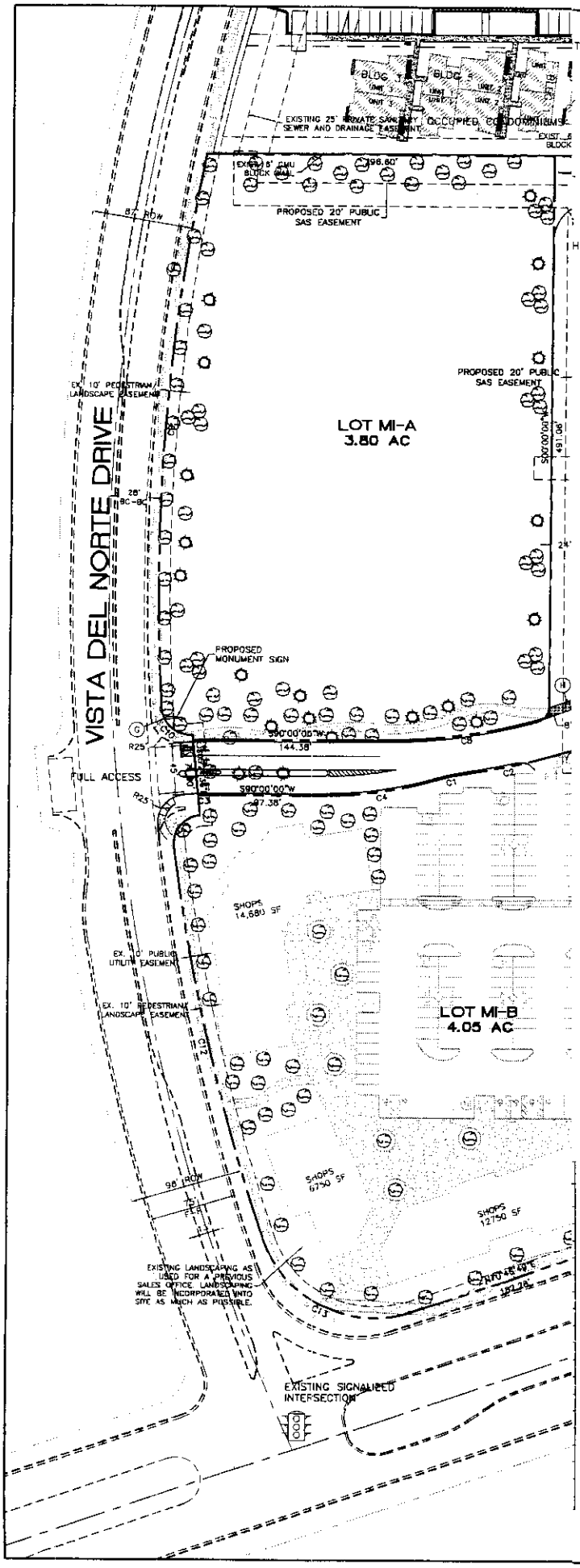
APPENDIX

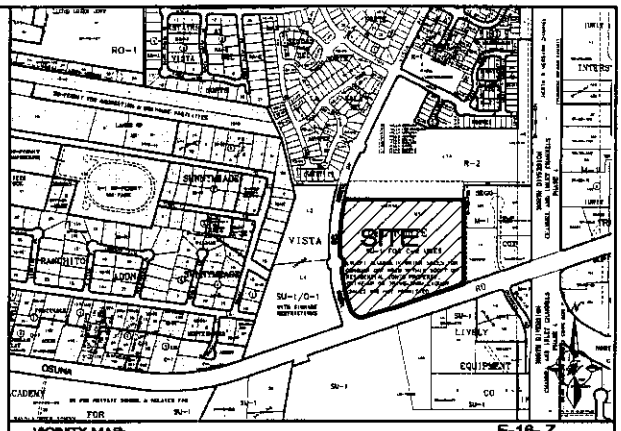
Vista del Norte Commercial Development (2007 Plan)



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







VICINITY MAP: E-16- Z

LEGAL DESCRIPTION:

TRACT M1 OF VISTA DEL NORTE

LEGEND

- EXISTING CURB & GUTTER
- PROPOSED CURB & GUTTER
- BOUNDARY LINE
- EXISTING BOUNDARY LINE
- EASEMENT
- STRIPING
- PROPOSED BUILDING
- EXISTING SIDEWALK
- PROPOSED SIDEWALK
- PROPOSED CROSSWALK (PATTERN CONCRETE)
- PROPOSED BIKERACK
- PROPOSED SCREEN WALL
- PROPOSED RETAINING WALL
- PROPOSED PARKING LOT LIGHTING
- PROPOSED CART CORRAL

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.

Is an Infrastructure List required? ( ) Yes ( ) No If Yes, then a set of approved DRC plans with a work order is required for any construction within Public Right-of-Way or for construction of public improvements.

DRB SITE DEVELOPMENT PLAN SIGNOFF APPROVAL:

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

* Environmental Health, if necessary

ENGINEER'S SEAL	WAL-MART SUPERCENTER #4519-00 OSUNA • VISTA DEL NORTE	DRAWN BY DY
	SITE PLAN FOR BUILDING PERMIT	DATE 2-27-07
		2553-SPE.dwg
	TIERRA WEST, LLC 8509 JEFFERSON NE ALBUQUERQUE, NEW MEXICO 87113 (505)858-3100	SHEET # 3 OF 9
RONALD R. BOHANNAN P.E. #7868		JOB #

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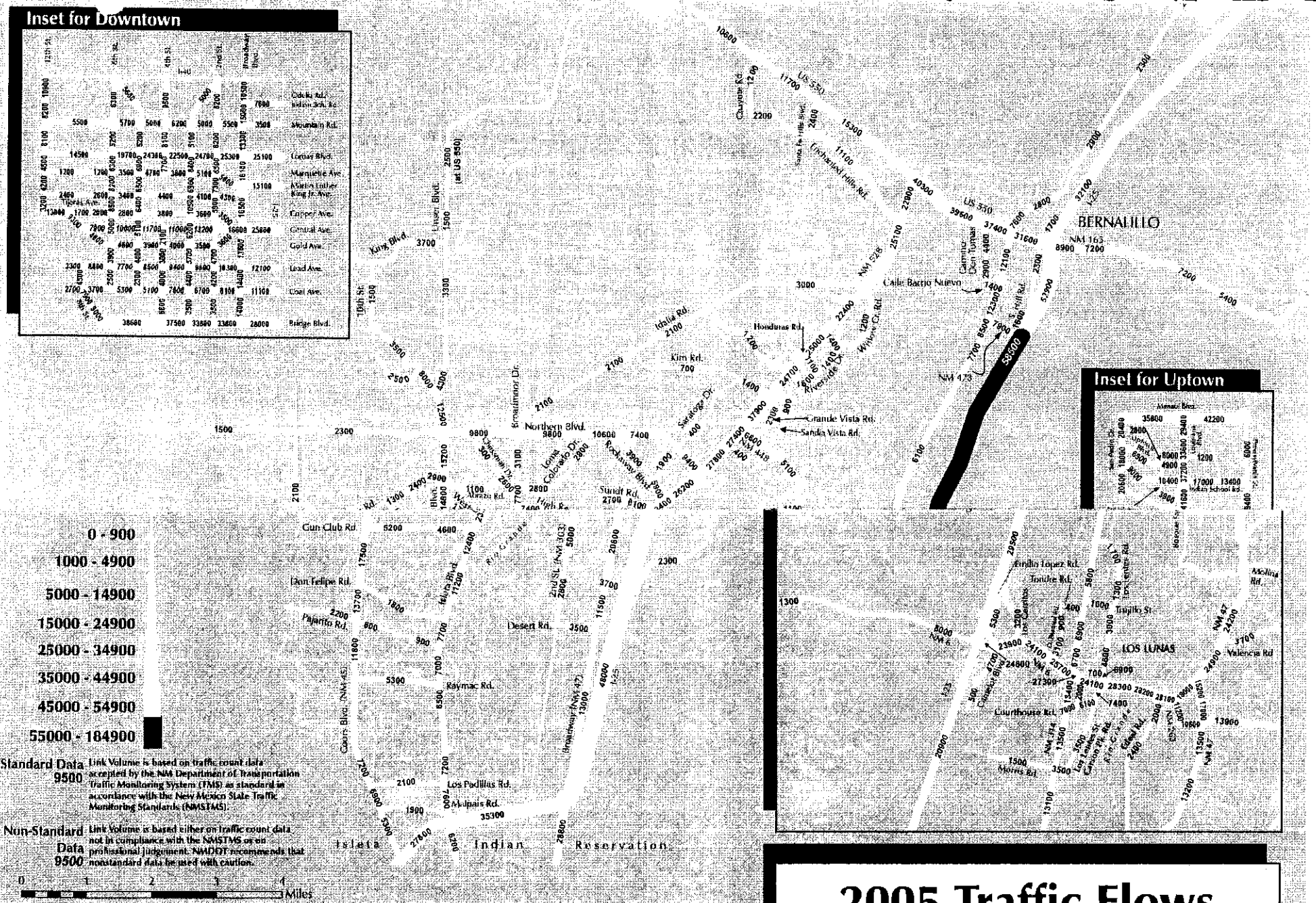
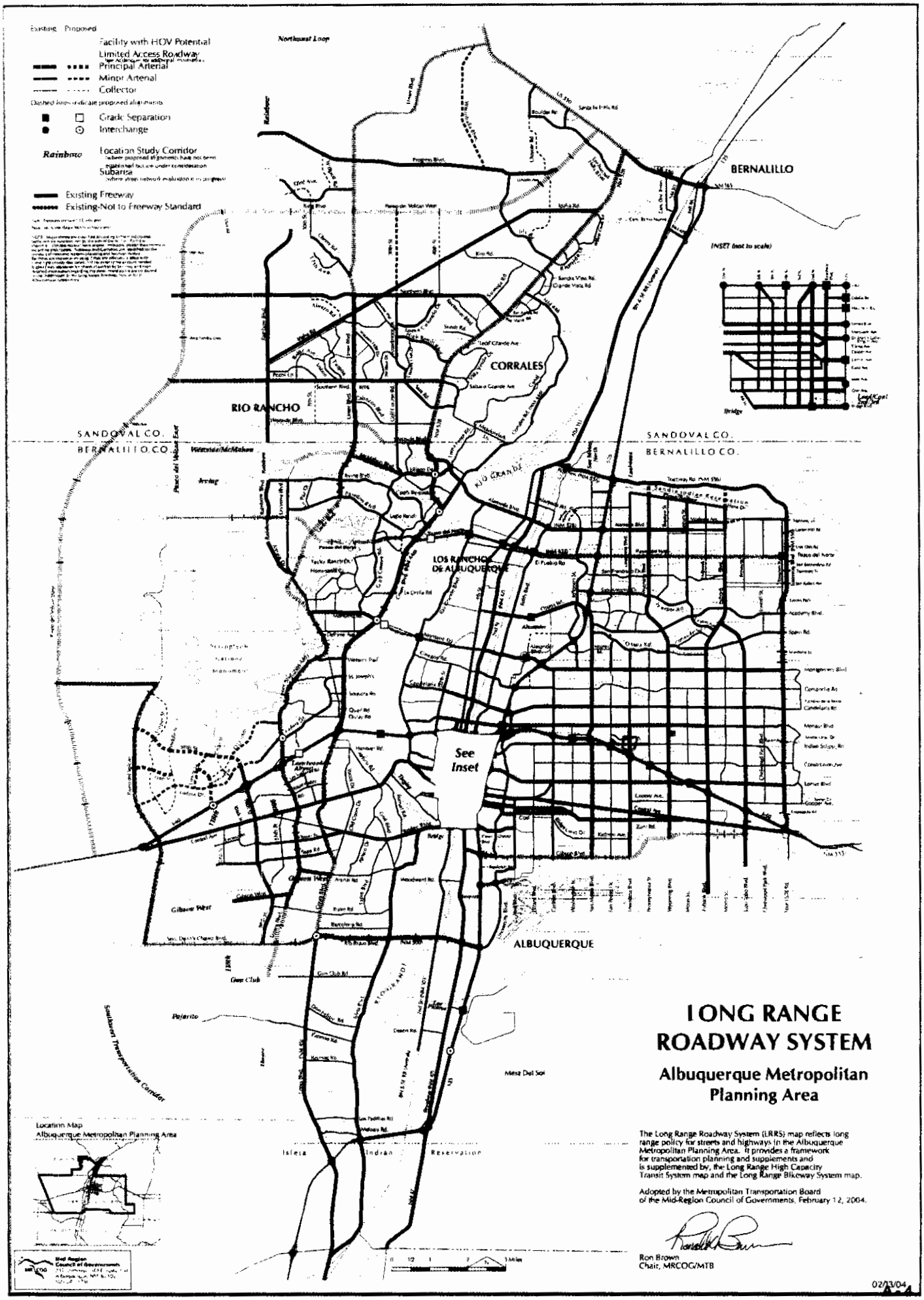


2005 Traffic Flows
for the Greater Albuquerque Area

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



LONG RANGE ROADWAY SYSTEM

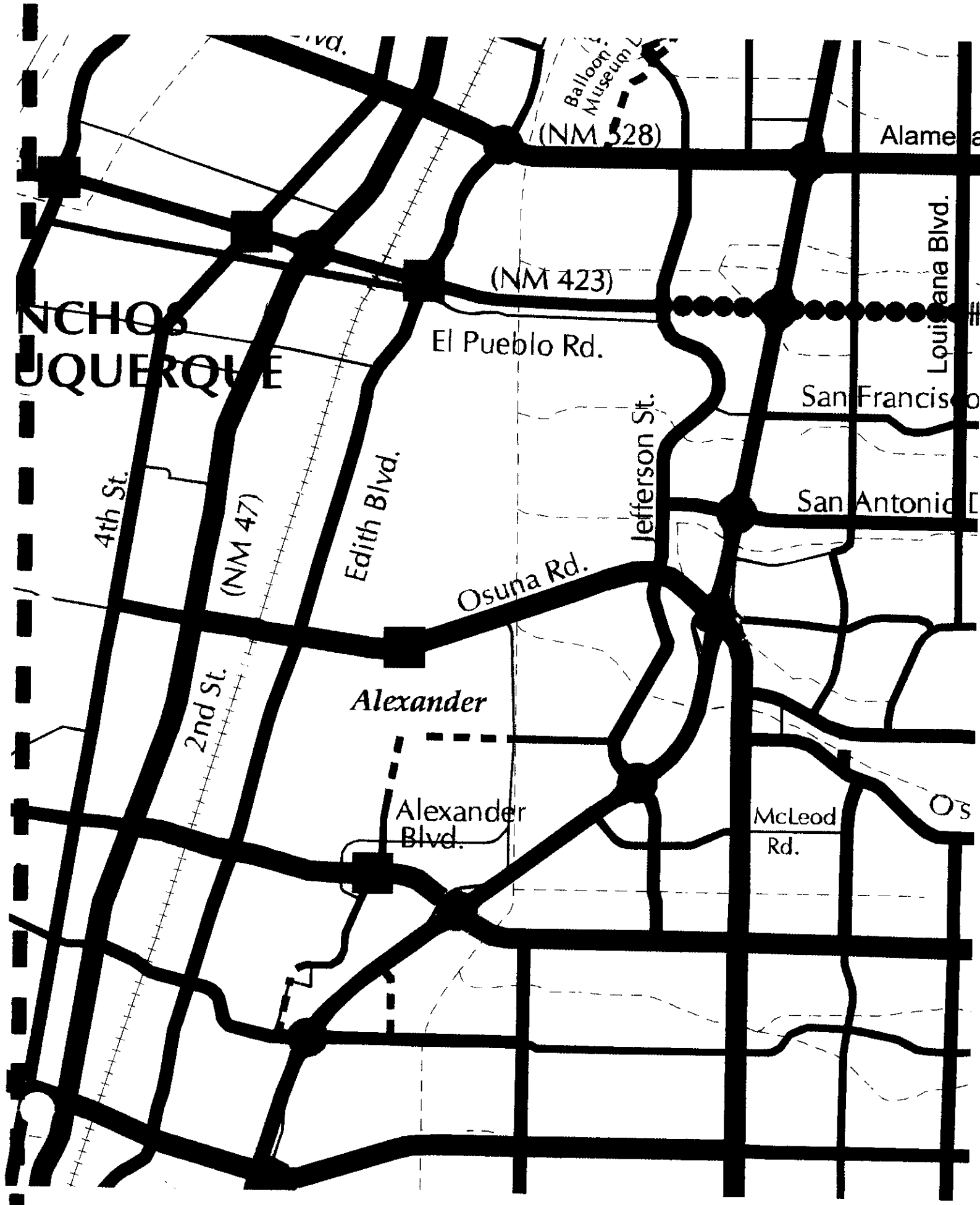
Albuquerque Metropolitan Planning Area

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

02/23/04


Balloon Museum
(NM 528)
Alame
(NM 423)
Louisiana Blvd.
NCHOS
UQUERQUE
El Pueblo Rd.
San Francisco
San Antonio
Jefferson St.
4th St.
(NM 47)
Edith Blvd.
Osuna Rd.
Alexander
2nd St.
Alexander Blvd.
McLeod Rd.

Vista del Norte Commercial Development (2007 Plan)

With Park

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)	156.00	7,586	146	141	295	307
Shopping Center (820)	34.18	3,380	50	32	148	161
City Park (411)	4.00	6	-	-	-	-
Subtotal		**10,972**	**196**	**173**	**443**	**468**
Pass-by Trips	30%				**(133)**	**(140)**
Net New Trips to System		**10,972**	**196**	**173**	**310**	**328**

Vista del Norte Commercial Development (2007 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					
Free-Standing Discount Superstore (813)	***156.00***	7,586	146	141	295	307
	1,000 S.F.					

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

Vista del Norte Commercial Development (2007 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					
Shopping Center (820)	***34.18***	3,380	50	32	148	161
	1,000 S.F.					

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:
Tract No.

Based on ITE Trip Generation Manual - 7th Edition

Vista del Norte Commercial Development (2007 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					
City Park (411)	*4.00* Acres	6	-	-	-	-

T = *1.59* (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 = *0.16* (X) + *0*
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 = *0.16* (X) + *0*
50% Enter, *50%* Exit

Comments:
Tract No.

Based on ITE Trip Generation Manual - 7th Edition

Vista del Norte Commercial Development (2007 Plan)

Without Park

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)	156.00	7,586	146	141	295	307
Shopping Center (820)	68.36	5,303	76	49	234	254
Subtotal		**12,889**	**222**	**190**	**529**	**561**
Pass-by Trips	30%				**(159)**	**(168)**
Net New Trips to System		**12,889**	**222**	**190**	**370**	**393**

Vista del Norte Commercial Development (2007 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
Free-Standing Discount Superstore (813)	1,000 S.F.	*156.00*	7,586	146	141	295	307

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

Vista del Norte Commercial Development (2007 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)	**1,000 S.F.**	68.36	5,303	76	49	234	254

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)

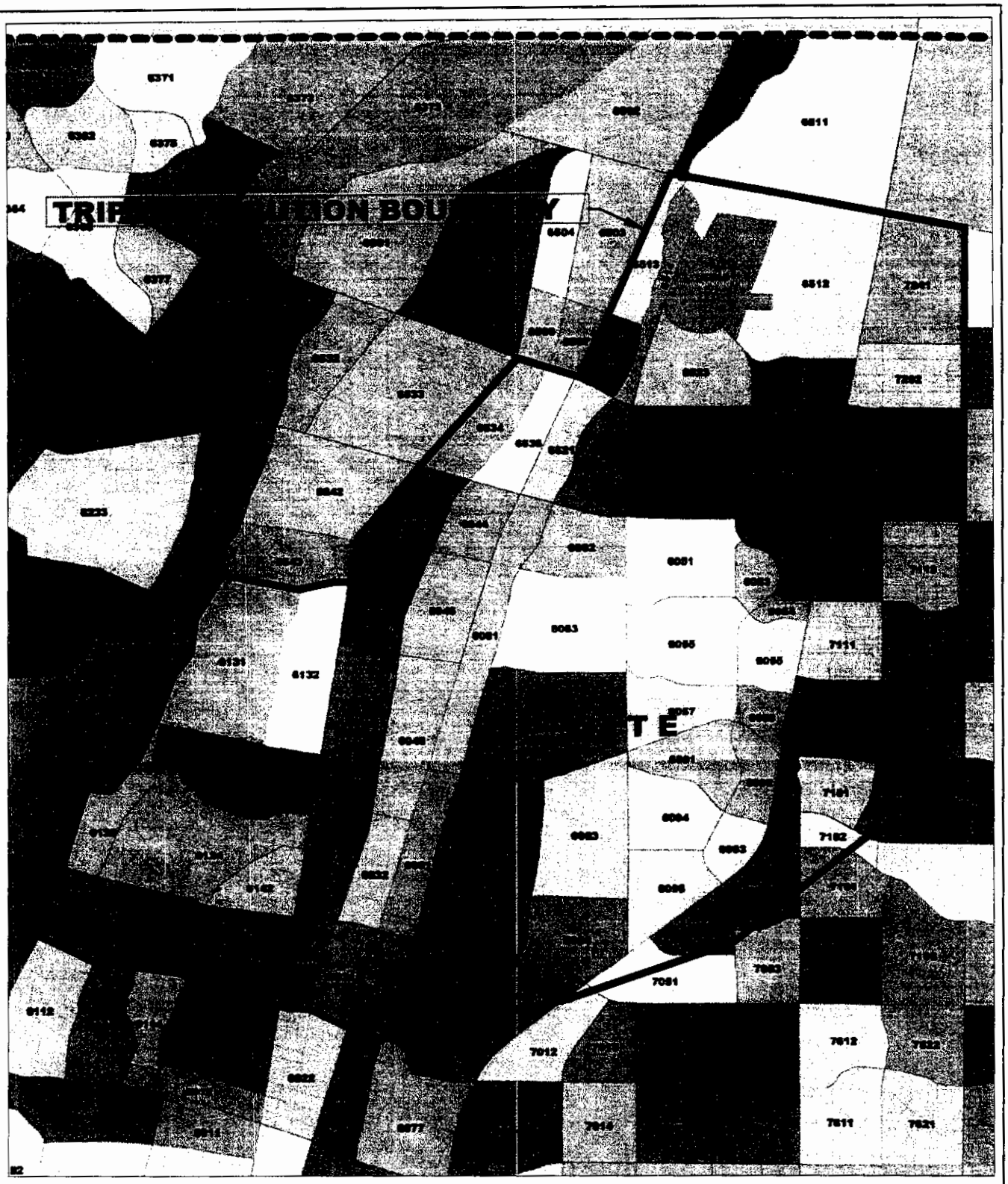
Ln(T) = ***0.6*** Ln(X) + ***2.29***
61% Enter, ***39%*** Exit

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:
Tract No.

Based on ITE Trip Generation Manual - 7th Edition



DATA ANALYSIS SUBZONE (DASZ) MAP

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

Trip Distribution Table

Vista del Norte Commercial Development (Osuna Rd. / Vi

Data Analysis Subzone Population Data for determination of Local Trip Distribution for P

2000 and 2025 Data Taken from Mid-Region Council of Governments' 2025 Socioeconc
2025 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New M

						(EN) Edith Blvd. North		(EPW) El Puebio West		
DASZ #	% Sub Area in Study	2000 Population	2025 Population	Interpolated Population for the Year	zing	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
		2000	2025	2008						
6062	100%	1359	1526	1,412	0%	0.00%	0	0%	0.00%	0
6063	100%	0	2	1	0%	0.00%	0	0%	0.00%	0
6064	100%	0	0	0	0%	0.00%	0	0%	0.00%	0
6074	100%	53	48	51	0%	0.00%	0	0%	0.00%	0
6075	70%	99	97	98	0%	0.00%	0	0%	0.00%	0
6076	50%	3	3	3	0%	0.00%	0	0%	0.00%	0
6081	100%	280	467	340	80%	0.86%	272	20%	0.21%	68
6082	100%	57	58	57	0%	0.00%	0	50%	0.09%	29
6083	100%	322	2404	988	0%	0.00%	0	0%	0.00%	0
6084	100%	565	2145	1,071	0%	0.00%	0	0%	0.00%	0
6091	100%	0	0	0	0%	0.00%	0	0%	0.00%	0
6092	100%	0	0	0	0%	0.00%	0	0%	0.00%	0
6093	100%	0	0	0	0%	0.00%	0	0%	0.00%	0
6094	100%	0	2	1	0%	0.00%	0	0%	0.00%	0
6095	100%	0	0	0	0%	0.00%	0	0%	0.00%	0
6122	100%	868	851	863	0%	0.00%	0	0%	0.00%	0
6123	100%	657	766	692	0%	0.00%	0	0%	0.00%	0
6124	100%	727	796	749	0%	0.00%	0	0%	0.00%	0
6125	100%	79	167	107	0%	0.00%	0	0%	0.00%	0
6131	100%	483	591	518	0%	0.00%	0	0%	0.00%	0
6132	100%	716	711	714	0%	0.00%	0	0%	0.00%	0
6141	100%	1983	2029	1,998	0%	0.00%	0	0%	0.00%	0
6142	100%	565	545	559	0%	0.00%	0	0%	0.00%	0
6512	100%	3	379	123	0%	0.00%	0	0%	0.00%	0
6513	100%	161	211	177	100%	0.56%	177	0%	0.00%	0
6514	100%	101	207	135	100%	0.43%	135	0%	0.00%	0
6515	100%	0	0	0	0%	0.00%	0	0%	0.00%	0
6521	100%	187	208	194	100%	0.61%	194	0%	0.00%	0
6522	100%	0	0	0	100%	0.00%	0	0%	0.00%	0
6523	100%	602	633	612	0%	0.00%	0	0%	0.00%	0
6524	100%	260	253	258	100%	0.81%	258	0%	0.00%	0
6525	100%	387	453	408	0%	0.00%	0	0%	0.00%	0
6526	100%	1330	1263	1,309	0%	0.00%	0	0%	0.00%	0
6527	100%	0	2	1	0%	0.00%	0	0%	0.00%	0
6534	100%	349	365	354	0%	0.00%	0	0%	0.00%	0
6535	100%	333	435	366	0%	0.00%	0	0%	0.00%	0
7051	20%	2944	2761	2,885	0%	0.00%	0	0%	0.00%	0
7052	100%	6	6	6	0%	0.00%	0	0%	0.00%	0
7101	30%	2152	2020	2,110	0%	0.00%	0	0%	0.00%	0
7102	100%	494	463	484	0%	0.00%	0	0%	0.00%	0
7111	100%	1176	1184	1,179	0%	0.00%	0	0%	0.00%	0
7112	100%	5	10	7	0%	0.00%	0	0%	0.00%	0
7113	100%	893	1145	974	0%	0.00%	0	0%	0.00%	0
7116	100%	1275	1372	1,306	0%	0.00%	0	0%	0.00%	0
7151	100%	1029	964	1,008	0%	0.00%	0	0%	0.00%	0
7152	50%	1418	1324	1,388	0%	0.00%	0	0%	0.00%	0
7157	100%	736	1232	895	0%	0.00%	0	0%	0.00%	0
7156	70%	1525	1415	1,490	0%	0.00%	0	0%	0.00%	0
7201	100%	1826	2475	2,034	0%	0.00%	0	0%	0.00%	0
7202	100%	106	214	141	0%	0.00%	0	0%	0.00%	0
7241	100%	0	647	207	0%	0.00%	0	0%	0.00%	0
				36,717			**1,036**			**97**
							3.26%			0.30%

Trip Distribution Table

Vista del Norte Commercial Development (Osuna Rd. / Vis

Data Analysis Subzone Population Data for determination of Local Trip Distribution for Proj

2000 and 2025 Data Taken from Mid-Region Council of Governments' 2025 Socioeconom
2025 Socioeconomic Forecasts by Data Analysis Subzones for the Mid-Region of New Me

						(JN) Jefferson St. North		(OE) Osuna Rd. East		
DASZ #	% Sub Area in Study	2000 Population	2025 Population	Interpolated Population for the Year	P ng	% Population Utilizing	Population	% Utilizing	% Population Utilizing	Population
		2000	2025	2008						
6062	100%	1359	1526	1,412	0%	0.00%	0	0%	0.00%	0
6063	100%	0	2	1	0%	0.00%	0	0%	0.00%	0
6064	100%	0	0	0	0%	0.00%	0	0%	0.00%	0
6074	100%	53	48	51	0%	0.00%	0	0%	0.00%	0
6075	70%	99	97	98	0%	0.00%	0	0%	0.00%	0
6076	50%	3	3	3	0%	0.00%	0	0%	0.00%	0
6081	100%	280	467	340	0%	0.00%	0	0%	0.00%	0
6082	100%	57	58	57	0%	0.00%	0	0%	0.00%	0
6083	100%	322	2404	988	0%	0.00%	0	0%	0.00%	0
6084	100%	565	2145	1,071	0%	0.00%	0	0%	0.00%	0
6091	100%	0	0	0	0%	0.00%	0	0%	0.00%	0
6092	100%	0	0	0	0%	0.00%	0	0%	0.00%	0
6093	100%	0	0	0	0%	0.00%	0	0%	0.00%	0
6094	100%	0	2	1	0%	0.00%	0	0%	0.00%	0
6095	100%	0	0	0	0%	0.00%	0	0%	0.00%	0
6122	100%	868	851	863	0%	0.00%	0	0%	0.00%	0
6123	100%	657	766	692	0%	0.00%	0	0%	0.00%	0
6124	100%	727	796	749	0%	0.00%	0	0%	0.00%	0
6125	100%	79	167	107	0%	0.00%	0	0%	0.00%	0
6131	100%	483	591	518	0%	0.00%	0	0%	0.00%	0
6132	100%	716	711	714	0%	0.00%	0	0%	0.00%	0
6141	100%	1983	2029	1,998	0%	0.00%	0	0%	0.00%	0
6142	100%	565	545	559	0%	0.00%	0	0%	0.00%	0
6512	100%	3	379	123	0%	0.08%	25	80%	0.31%	98
6513	100%	161	211	177	0%	0.00%	0	0%	0.00%	0
6514	100%	101	207	135	0%	0.00%	0	0%	0.00%	0
6515	100%	0	0	0	0%	0.00%	0	0%	0.00%	0
6521	100%	187	208	194	0%	0.00%	0	0%	0.00%	0
6522	100%	0	0	0	0%	0.00%	0	0%	0.00%	0
6523	100%	602	633	612	0%	1.93%	612	0%	0.00%	0
6524	100%	260	253	258	0%	0.00%	0	0%	0.00%	0
6525	100%	387	453	408	0%	0.90%	286	30%	0.39%	122
6526	100%	1330	1263	1,309	0%	2.88%	916	30%	1.24%	393
6527	100%	0	2	1	0%	0.00%	1	0%	0.00%	0
6534	100%	349	365	354	0%	0.00%	0	0%	0.00%	0
6535	100%	333	435	366	0%	0.00%	0	0%	0.00%	0
7051	20%	2944	2761	2,885	0%	0.00%	0	40%	0.73%	231
7052	100%	6	6	6	0%	0.00%	0	100%	0.02%	6
7101	30%	2152	2020	2,110	0%	0.00%	0	100%	1.99%	633
7102	100%	494	463	484	0%	0.00%	0	100%	1.52%	484
7111	100%	1176	1184	1,179	0%	0.00%	0	100%	3.71%	1,179
7112	100%	5	10	7	0%	0.00%	0	100%	0.02%	7
7113	100%	893	1145	974	0%	0.00%	0	100%	3.07%	974
7116	100%	1275	1372	1,306	0%	0.00%	0	100%	4.11%	1,306
7151	100%	1029	964	1,008	0%	0.00%	0	100%	3.17%	1,008
7152	50%	1418	1324	1,388	0%	0.00%	0	100%	2.19%	694
7157	100%	736	1232	895	0%	0.00%	0	100%	2.82%	895
7156	70%	1525	1415	1,490	0%	0.00%	0	100%	3.28%	1,043
7201	100%	1826	2475	2,034	0%	2.56%	814	60%	3.84%	1,220
7202	100%	106	214	141	0%	0.18%	56	60%	0.27%	85
7241	100%	0	647	207	0%	0.26%	83	60%	0.39%	124
				36,717			2,838			10,533
							8.93%			33.16%

Trip Distribution Table
Vista del Norte Commercial Development

Data Analysis Subzone Population Data for determination of Loca

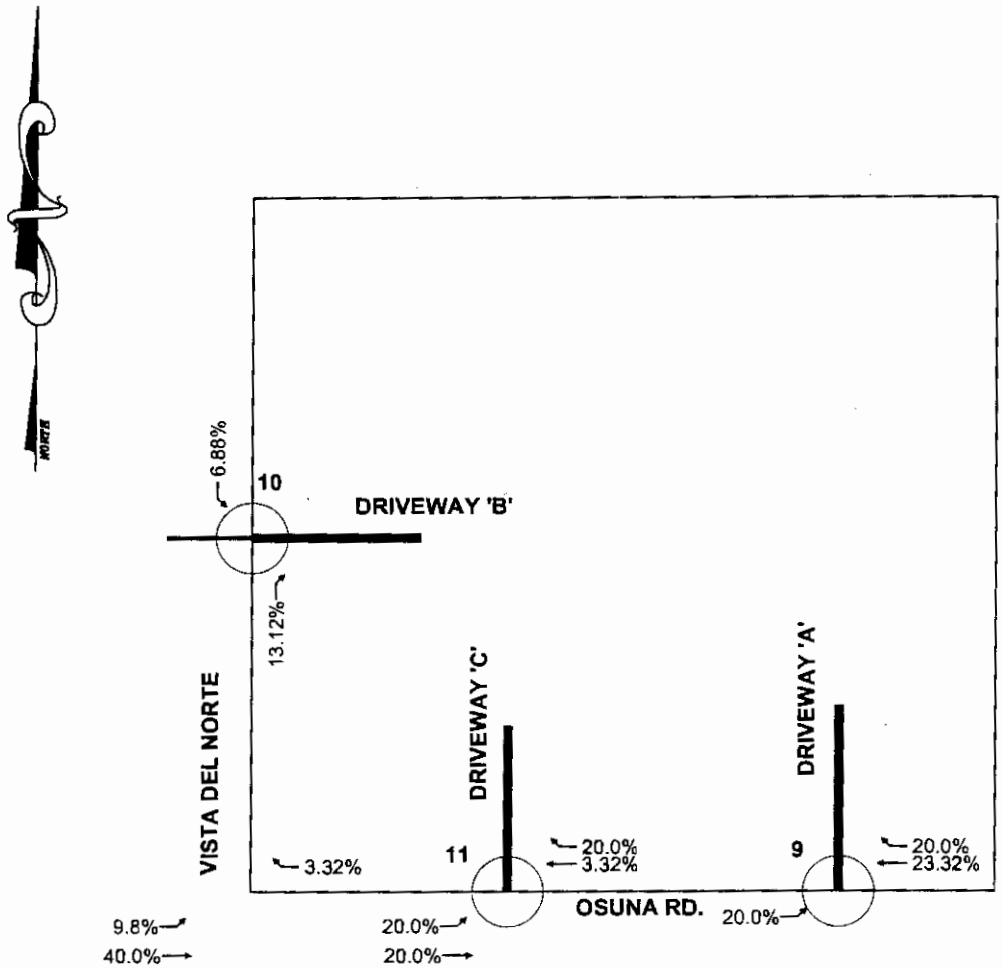
2000 and 2025 Data Taken from Mid-Region Council of Governm
2025 Socioeconomic Forecasts by Data Analysis Subzones for th

					(2S) 2nd St. South		
DASZ #	% Sub Area in Study	2000 Population	2025 Popula	Population	% Utilizing	% Population Utilizing	Population
		2000	2025				
6062	100%	1359	1	1,412	0%	0.00%	0
6063	100%	0		0	0%	0.00%	0
6064	100%	0		0	0%	0.00%	0
6074	100%	53		51	0%	0.00%	0
6075	70%	99		28	0%	0.00%	0
6076	50%	3		0	0%	0.00%	0
6081	100%	280	4	0	0%	0.00%	0
6082	100%	57		0	0%	0.00%	0
6083	100%	322	2	0	0%	0.00%	0
6084	100%	565	2	0	0%	0.00%	0
6091	100%	0		0	0%	0.00%	0
6092	100%	0		0	0%	0.00%	0
6093	100%	0		0	0%	0.00%	0
6094	100%	0		0	0%	0.00%	0
6095	100%	0		0	0%	0.00%	0
6122	100%	868	8	0	0%	0.00%	0
6123	100%	657	7	69	30%	0.65%	208
6124	100%	727	7	0	0%	0.00%	0
6125	100%	79	2	0	30%	0.10%	32
6131	100%	483	5	0	0%	0.00%	0
6132	100%	716	7	0	0%	0.00%	0
6141	100%	1983	20	200	30%	1.89%	599
6142	100%	565	5	56	20%	0.35%	112
6512	100%	3	3	0	0%	0.00%	0
6513	100%	161	2	0	0%	0.00%	0
6514	100%	101	2	0	0%	0.00%	0
6515	100%	0		0	0%	0.00%	0
6521	100%	187	2	0	0%	0.00%	0
6522	100%	0		0	0%	0.00%	0
6523	100%	602	6	0	0%	0.00%	0
6524	100%	260	2	0	0%	0.00%	0
6525	100%	387	4	0	0%	0.00%	0
6526	100%	1330	12	0	0%	0.00%	0
6527	100%	0		0	0%	0.00%	0
6534	100%	349	3	0	0%	0.00%	0
6535	100%	333	4	0	0%	0.00%	0
7051	20%	2944	27	0	0%	0.00%	0
7052	100%	6		0	0%	0.00%	0
7101	30%	2152	20	0	0%	0.00%	0
7102	100%	494	4	0	0%	0.00%	0
7111	100%	1176	11	0	0%	0.00%	0
7112	100%	5		0	0%	0.00%	0
7113	100%	893	11	0	0%	0.00%	0
7116	100%	1275	13	0	0%	0.00%	0
7151	100%	1029	9	0	0%	0.00%	0
7152	50%	1418	13	0	0%	0.00%	0
7157	100%	736	12	0	0%	0.00%	0
7156	70%	1525	14	0	0%	0.00%	0
7201	100%	1826	24	0	0%	0.00%	0
7202	100%	106	2	0	0%	0.00%	0
7241	100%	0	6	0	0%	0.00%	0
				2,291			**2,911**
				7.21%			9.17%

VISTA DEL NORTE COMMERCIAL CENTER

NORTHEAST CORNER OF OSUNA RD. / VISTA DEL NORTE

TRIP ASSIGNMENTS (% ENTERING)

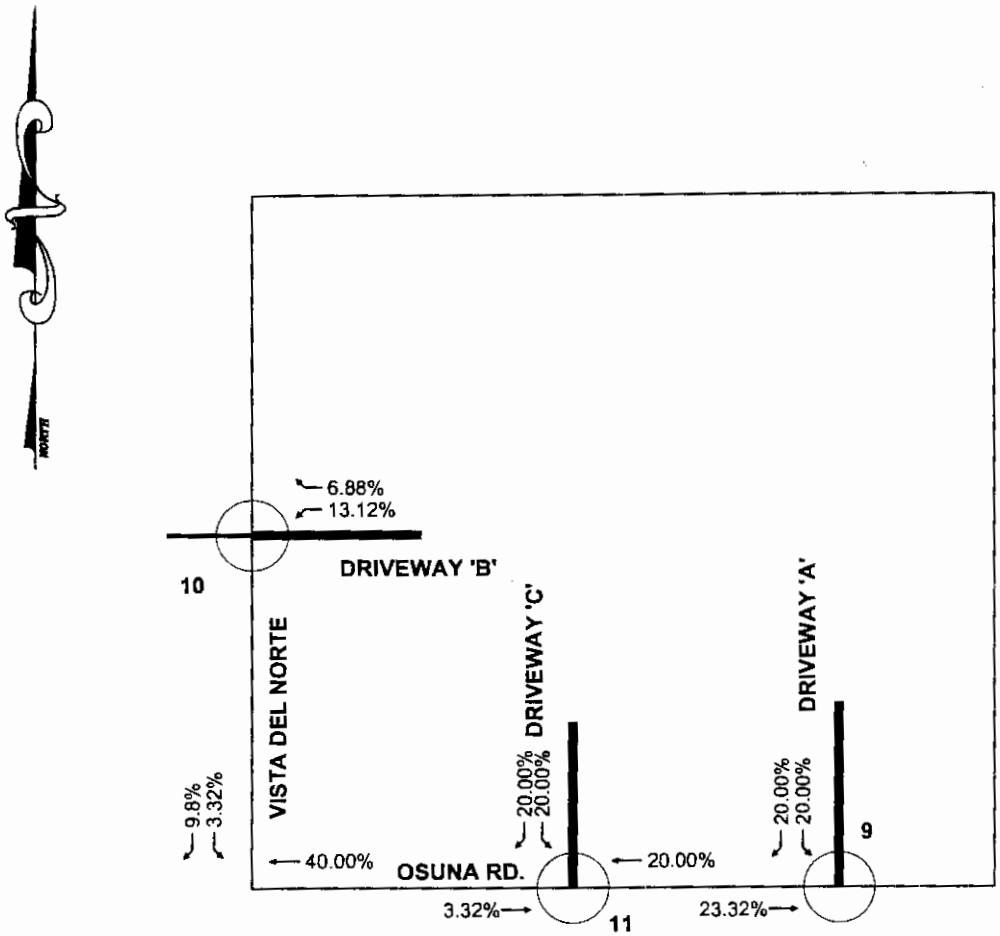


VISTA DEL NORTE COMMERCIAL CENTER

NORTHEAST CORNER OF OSUNA RD. / VISTA DEL NORTE

DRIVEWAY TRIP ASSIGNMENTS (% ENTERING)

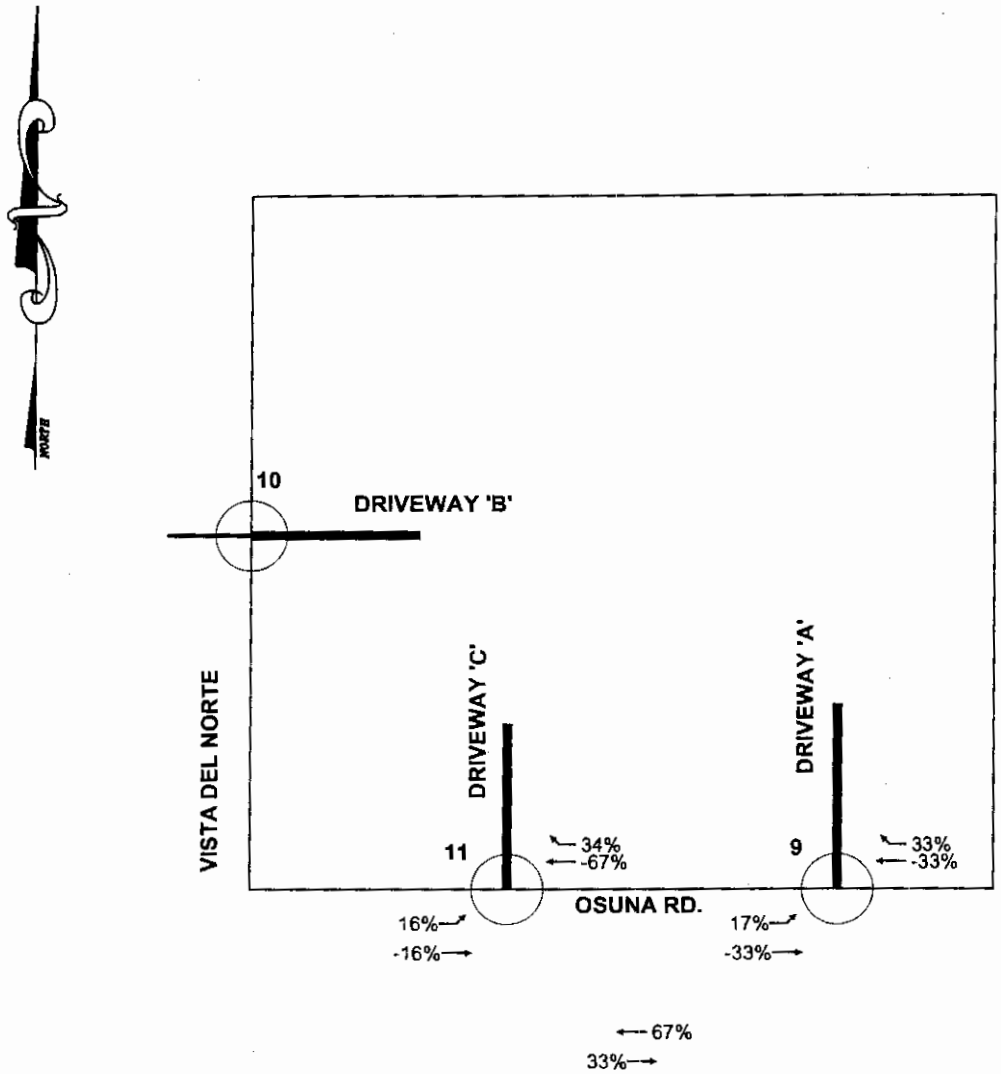
VISTA DEL NORTE COMMERCIAL CENTER
NORTHEAST CORNER OF OSUNA RD. / VISTA DEL NORTE
TRIP ASSIGNMENTS (% EXITING)



VISTA DEL NORTE COMMERCIAL CENTER

NORTHEAST CORNER OF OSUNA RD. / VISTA DEL NORTE

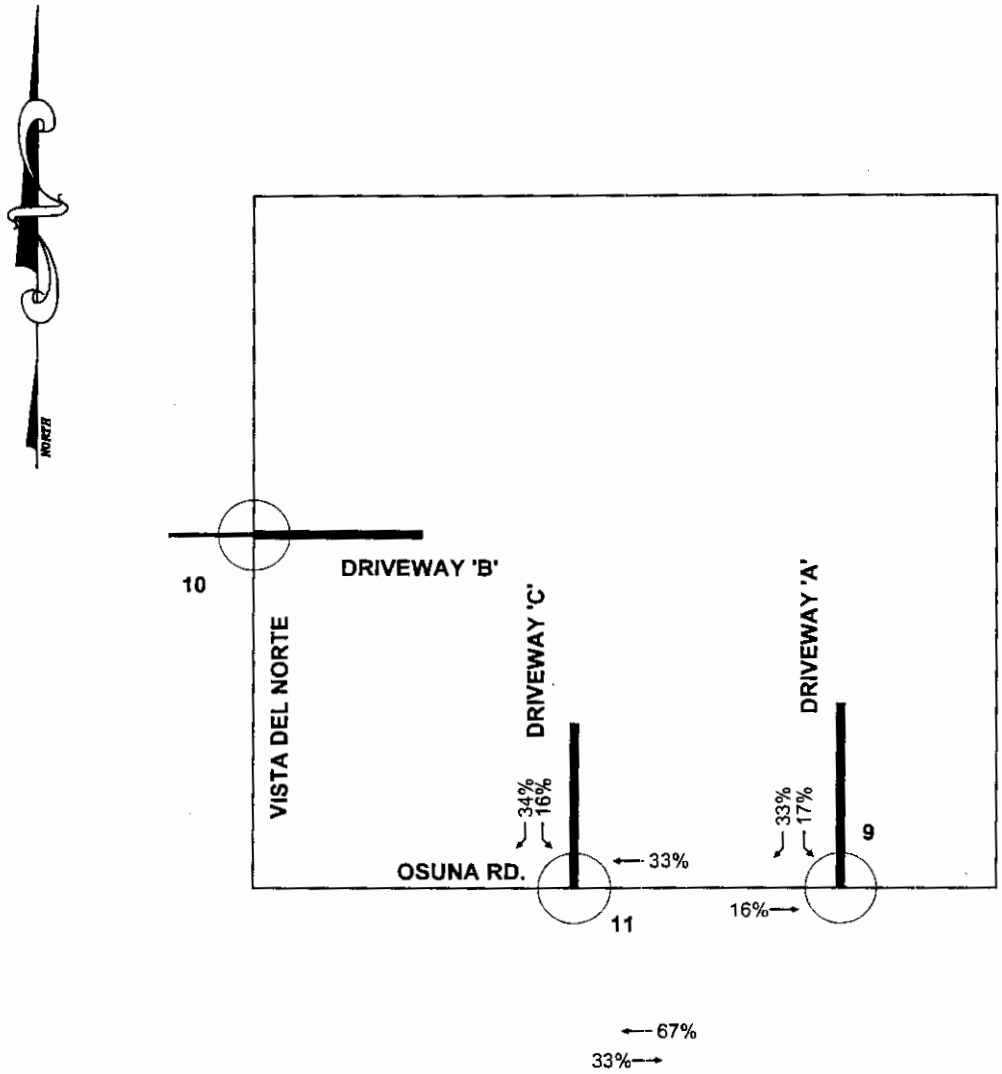
DRIVEWAY TRIP ASSIGNMENTS (% EXITING)



VISTA DEL NORTE COMMERCIAL CENTER

NORTHEAST CORNER OF OSUNA RD. / VISTA DEL NORTE

PASS-BY DRIVEWAY TRIP ASSIGNMENTS (% ENTERING)



VISTA DEL NORTE COMMERCIAL CENTER

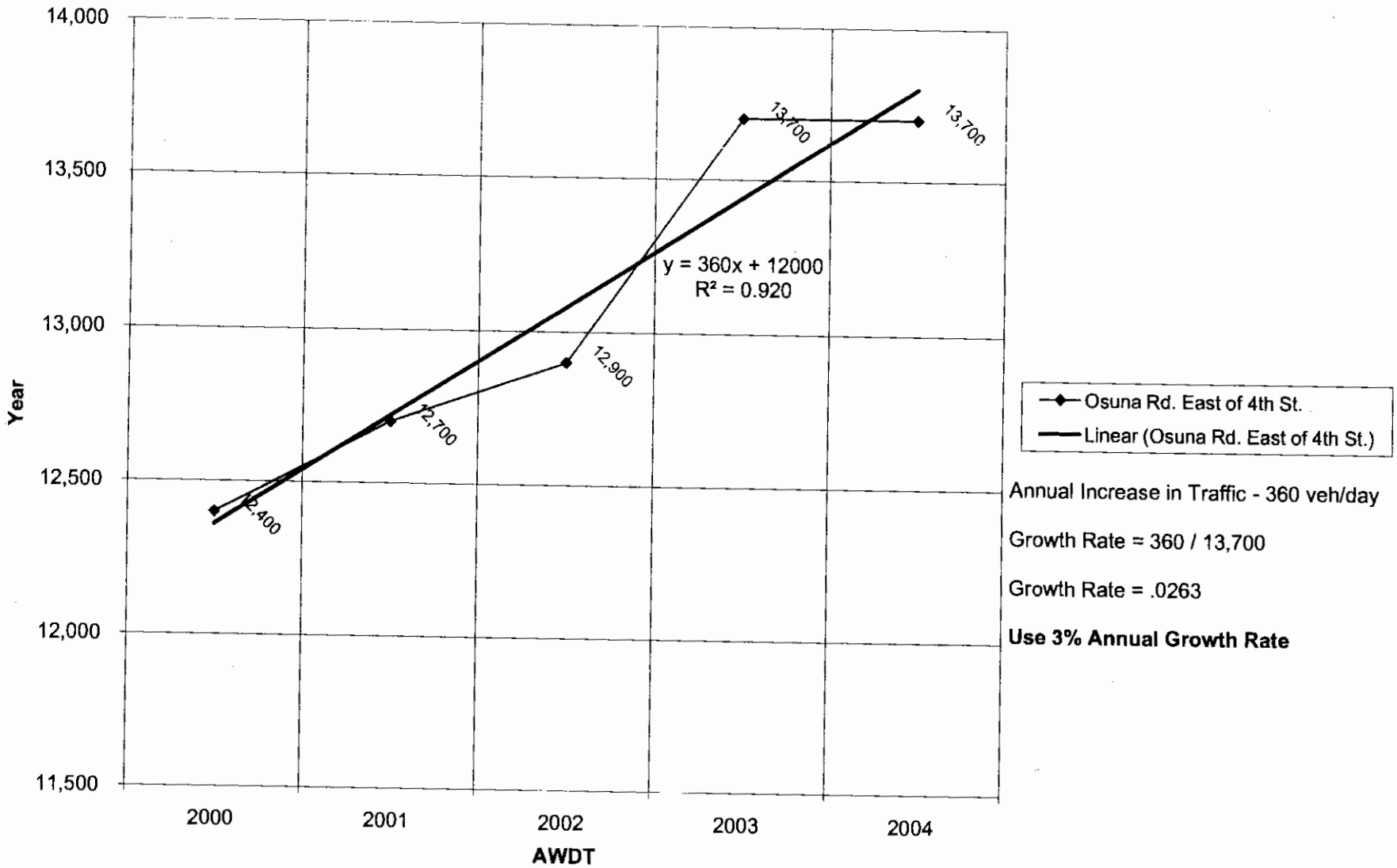
NORTHEAST CORNER OF OSUNA RD. / VISTA DEL NORTE

PASS-BY DRIVEWAY TRIP ASSIGNMENTS (% EXITING)

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.



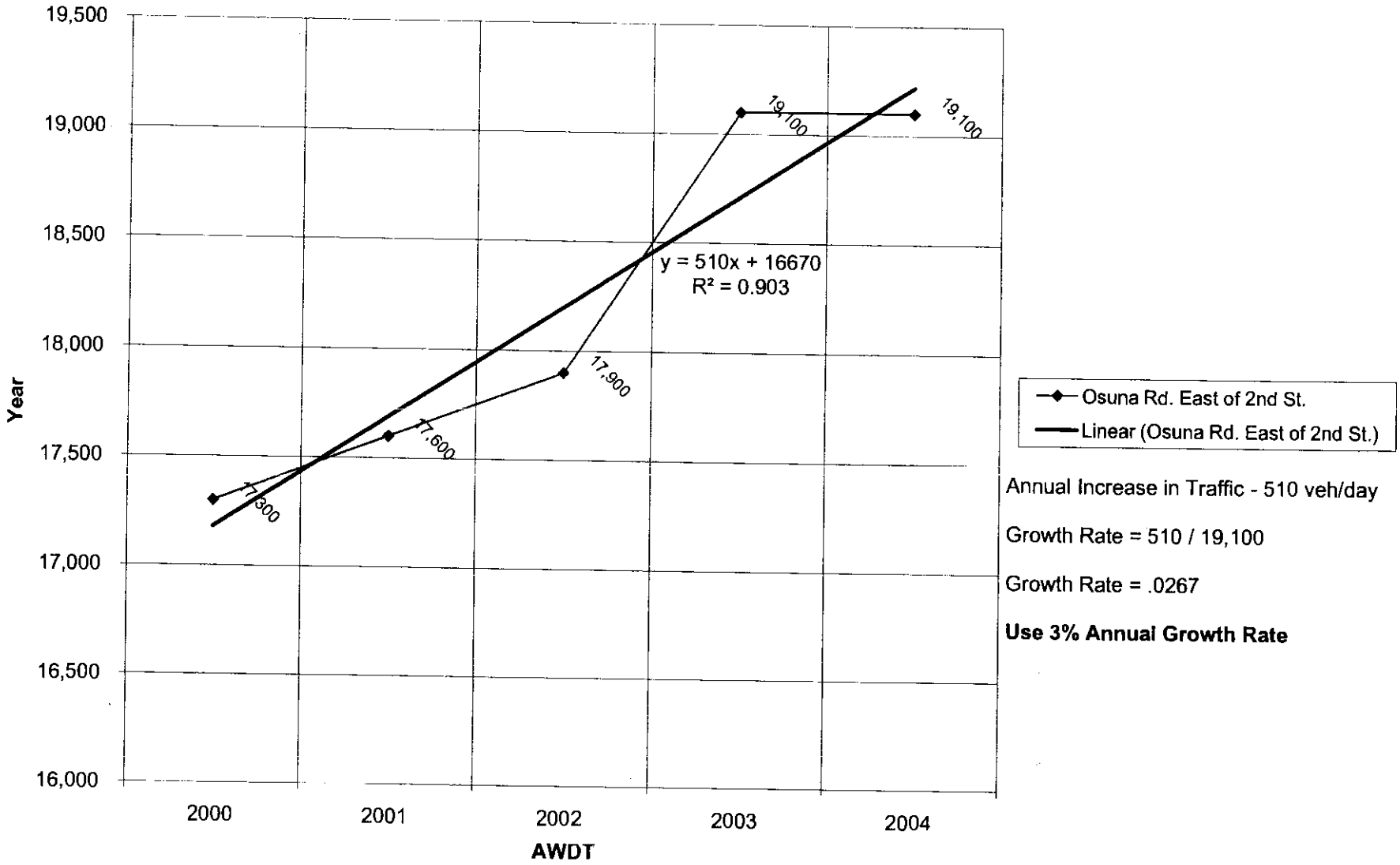
Annual Increase in Traffic - 360 veh/day

Growth Rate = 360 / 13,700

Growth Rate = .0263

Use 3% Annual Growth Rate

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



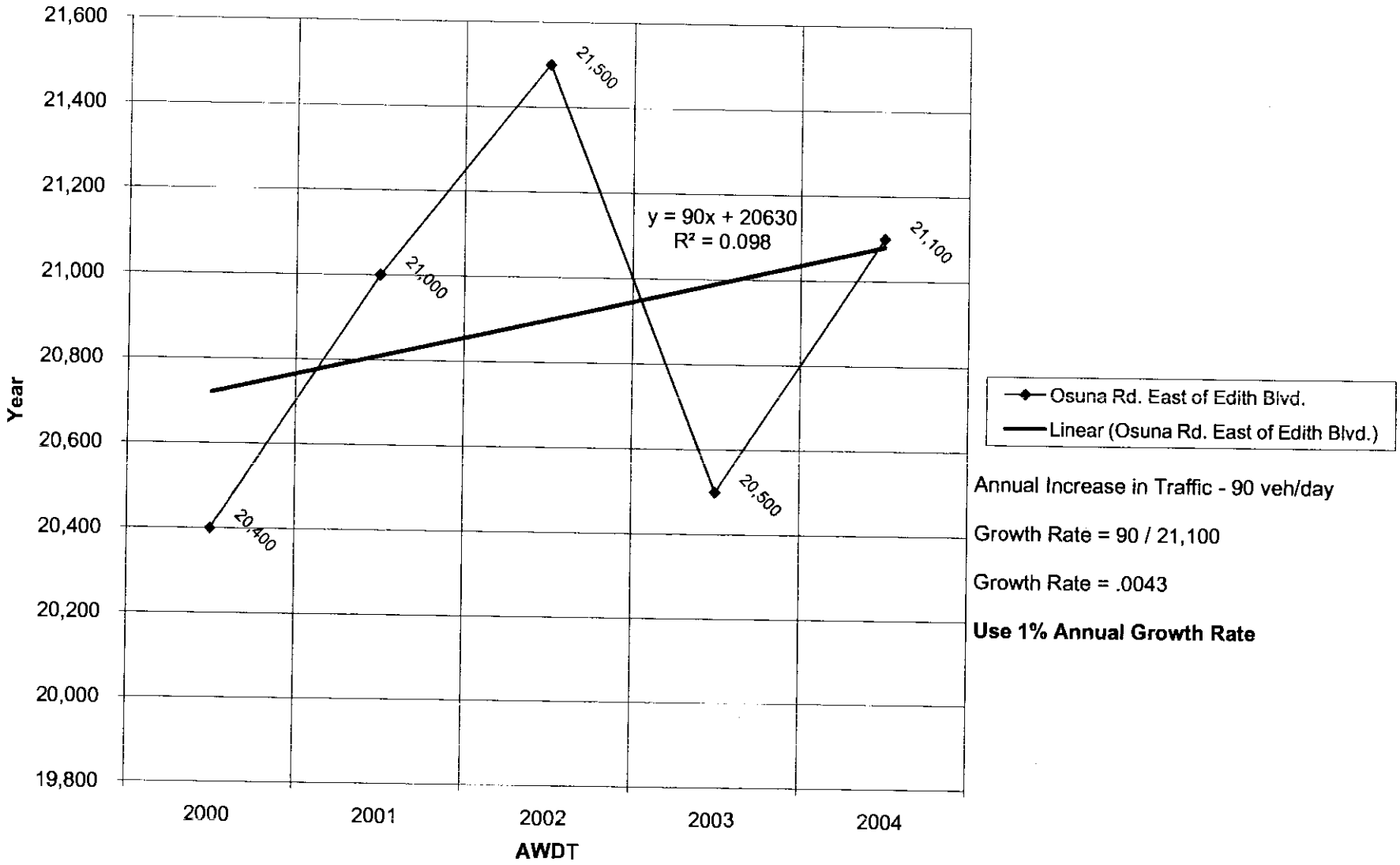
Annual Increase in Traffic - 510 veh/day

Growth Rate = 510 / 19,100

Growth Rate = .0267

Use 3% Annual Growth Rate

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



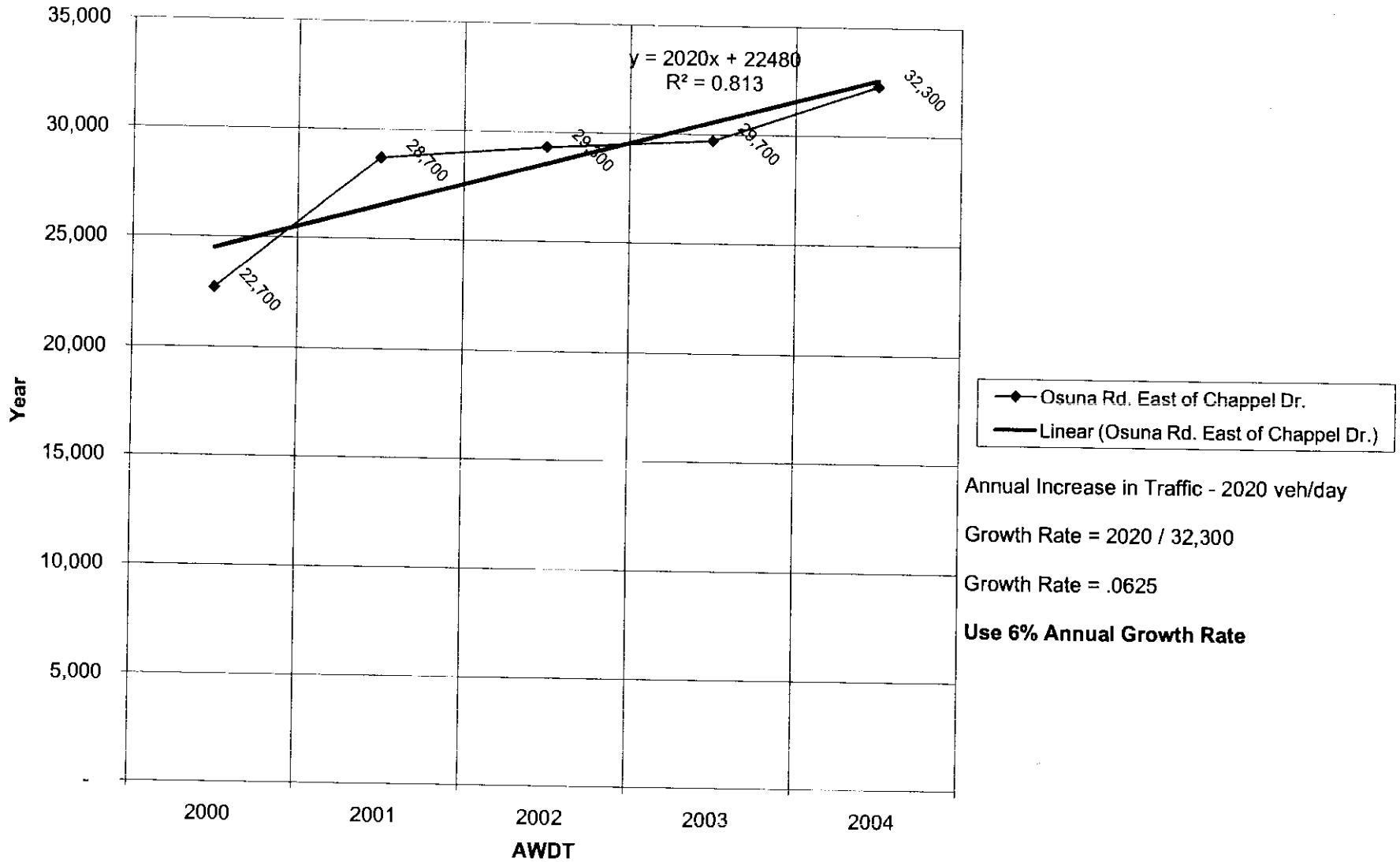
Annual Increase in Traffic - 90 veh/day

Growth Rate = 90 / 21,100

Growth Rate = .0043

Use 1% Annual Growth Rate

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



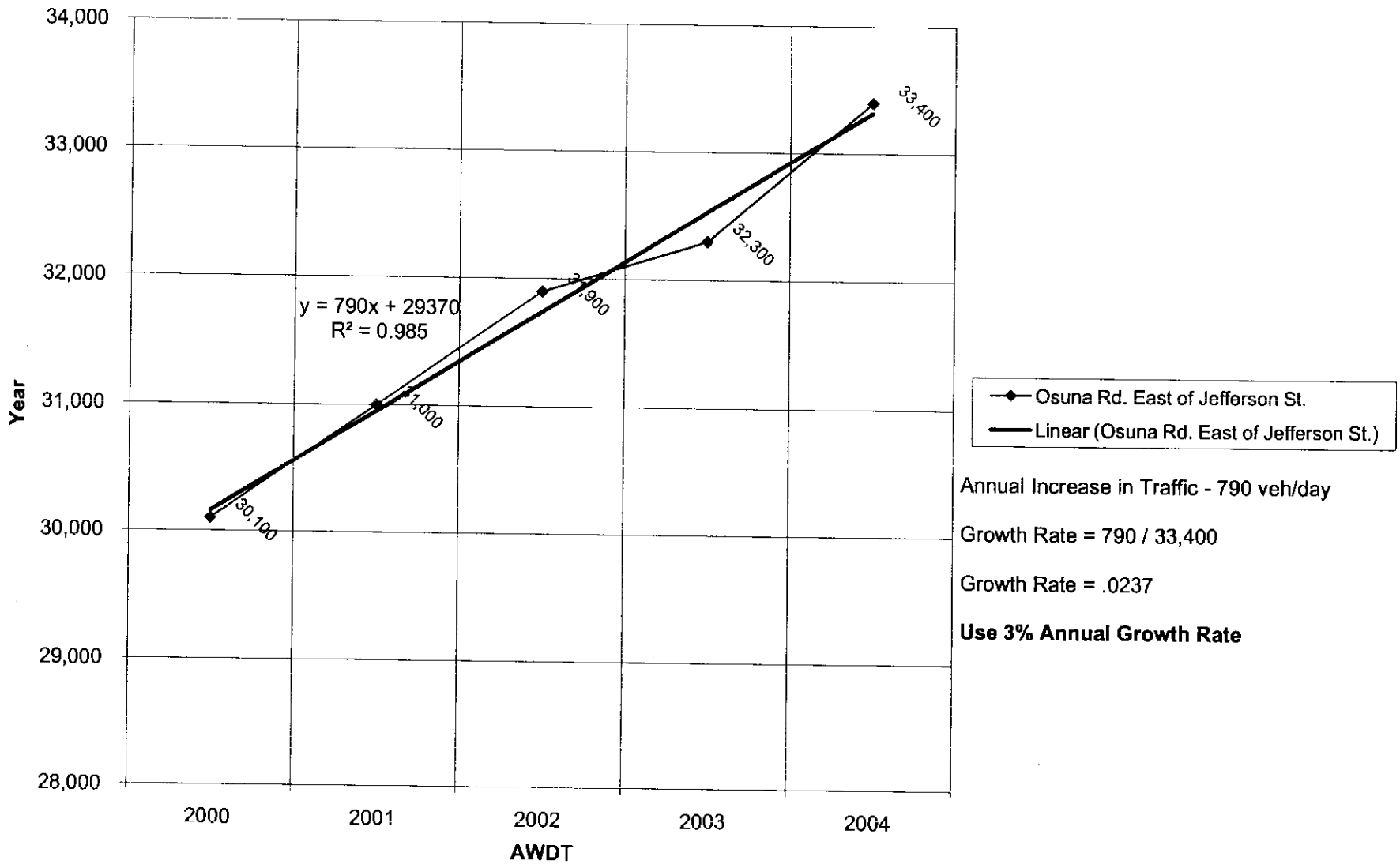
Annual Increase in Traffic - 2020 veh/day

Growth Rate = 2020 / 32,300

Growth Rate = .0625

Use 6% Annual Growth Rate

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



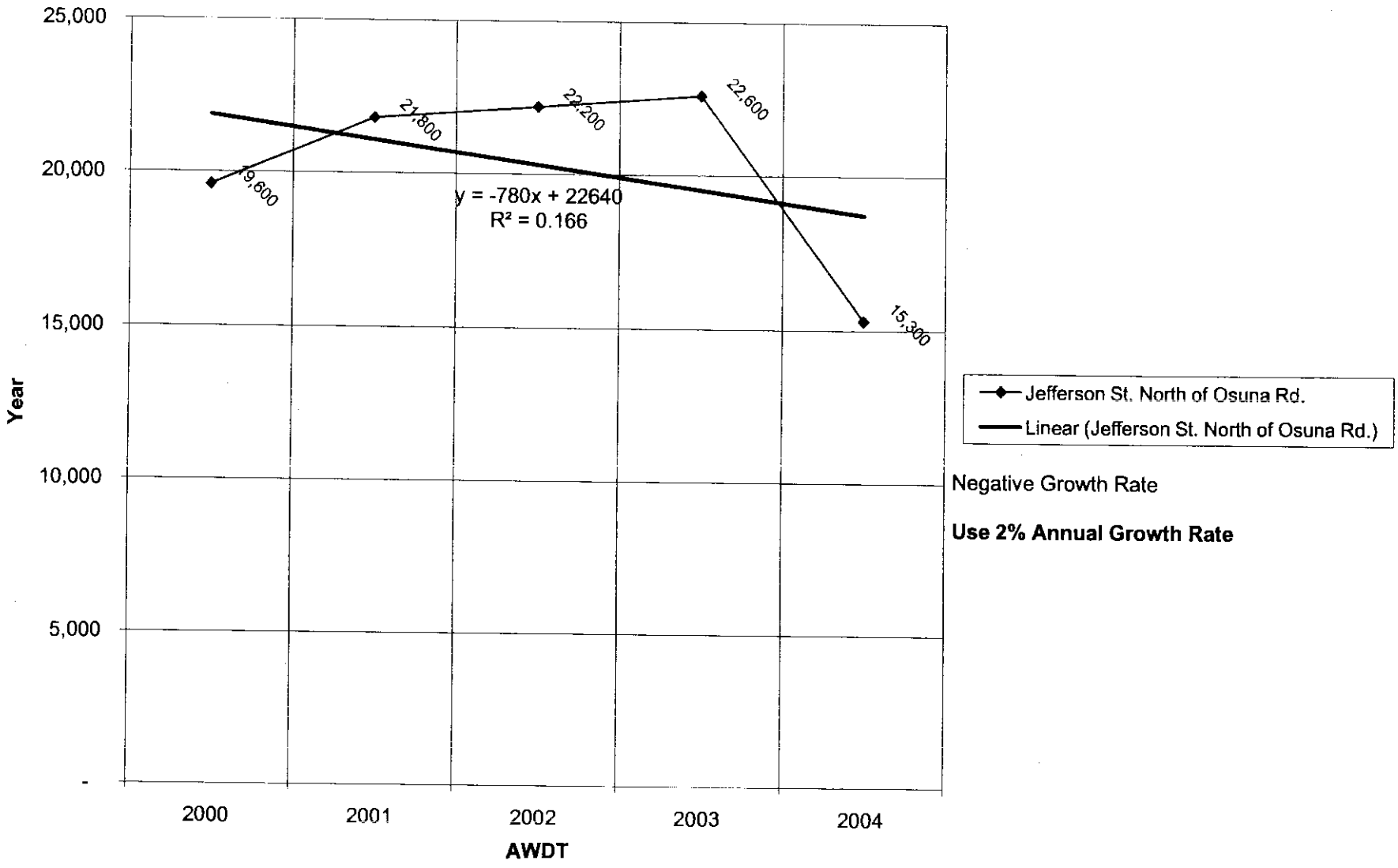
Annual Increase in Traffic - 790 veh/day

Growth Rate = 790 / 33,400

Growth Rate = .0237

Use 3% Annual Growth Rate

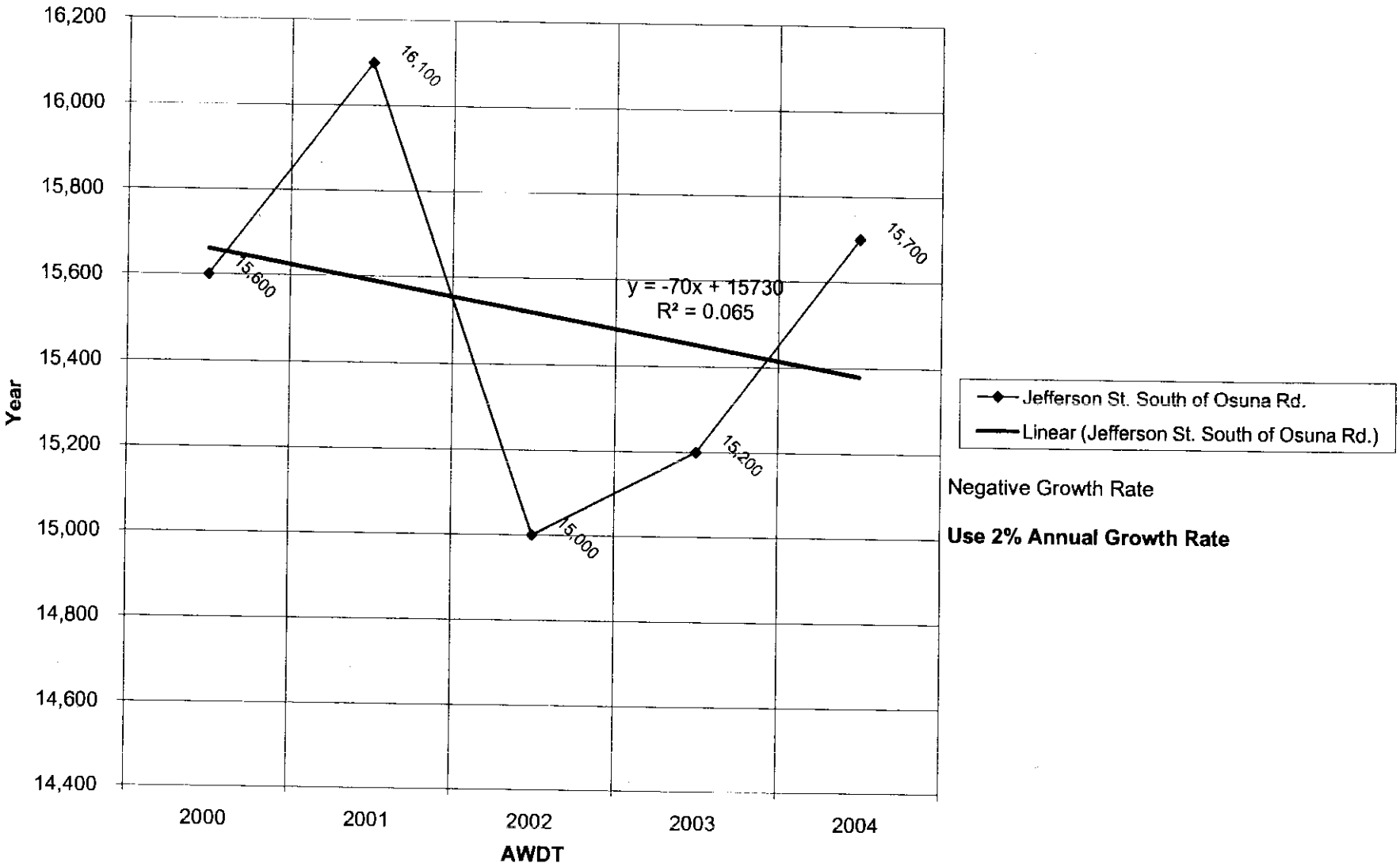
Annual Growth Rate Graph - Jefferson St. North of Osuna Rd.



Negative Growth Rate

Use 2% Annual Growth Rate

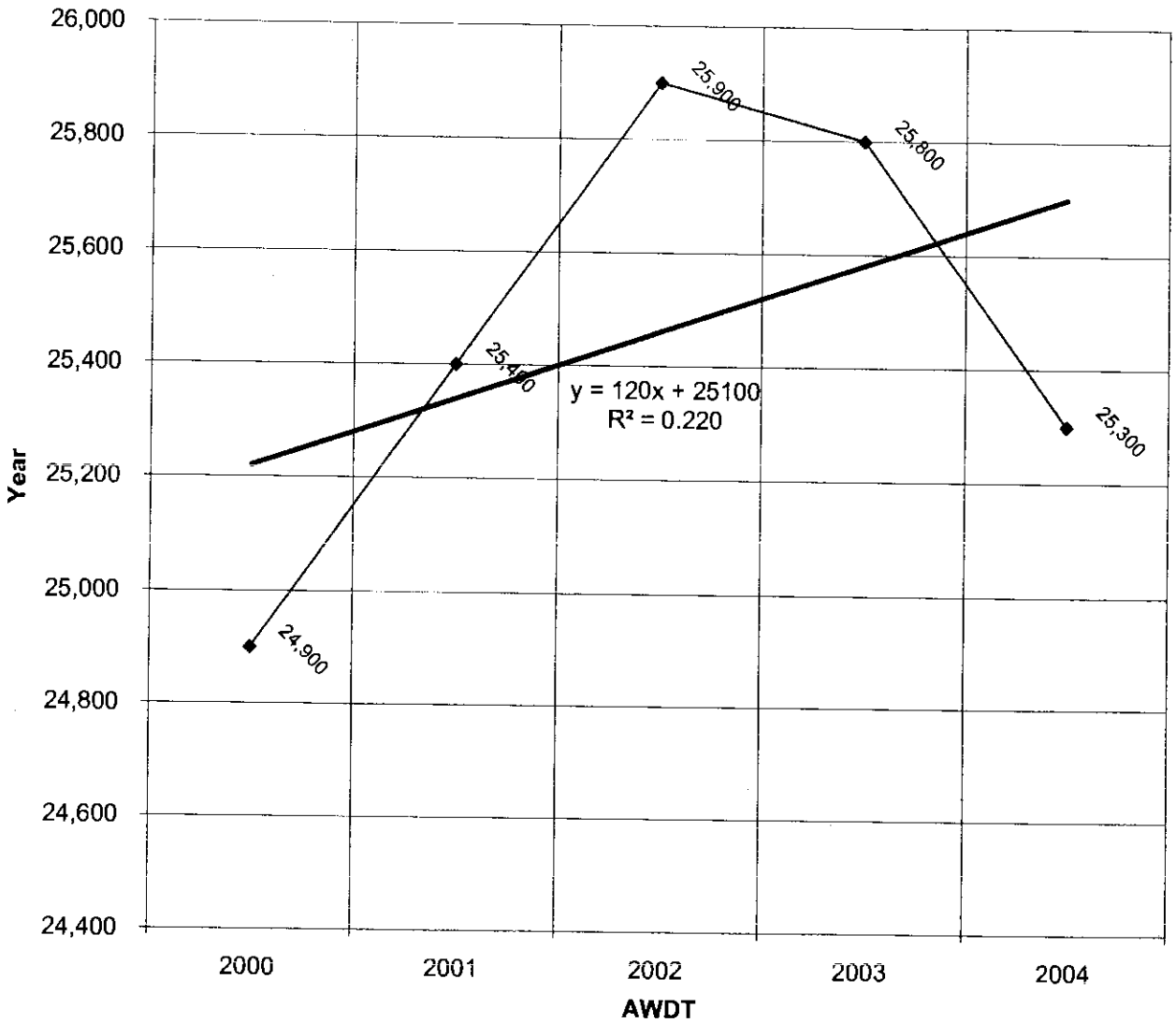
Annual Growth Rate Graph - Jefferson St. South of Osuna Rd.



Negative Growth Rate

Use 2% Annual Growth Rate

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



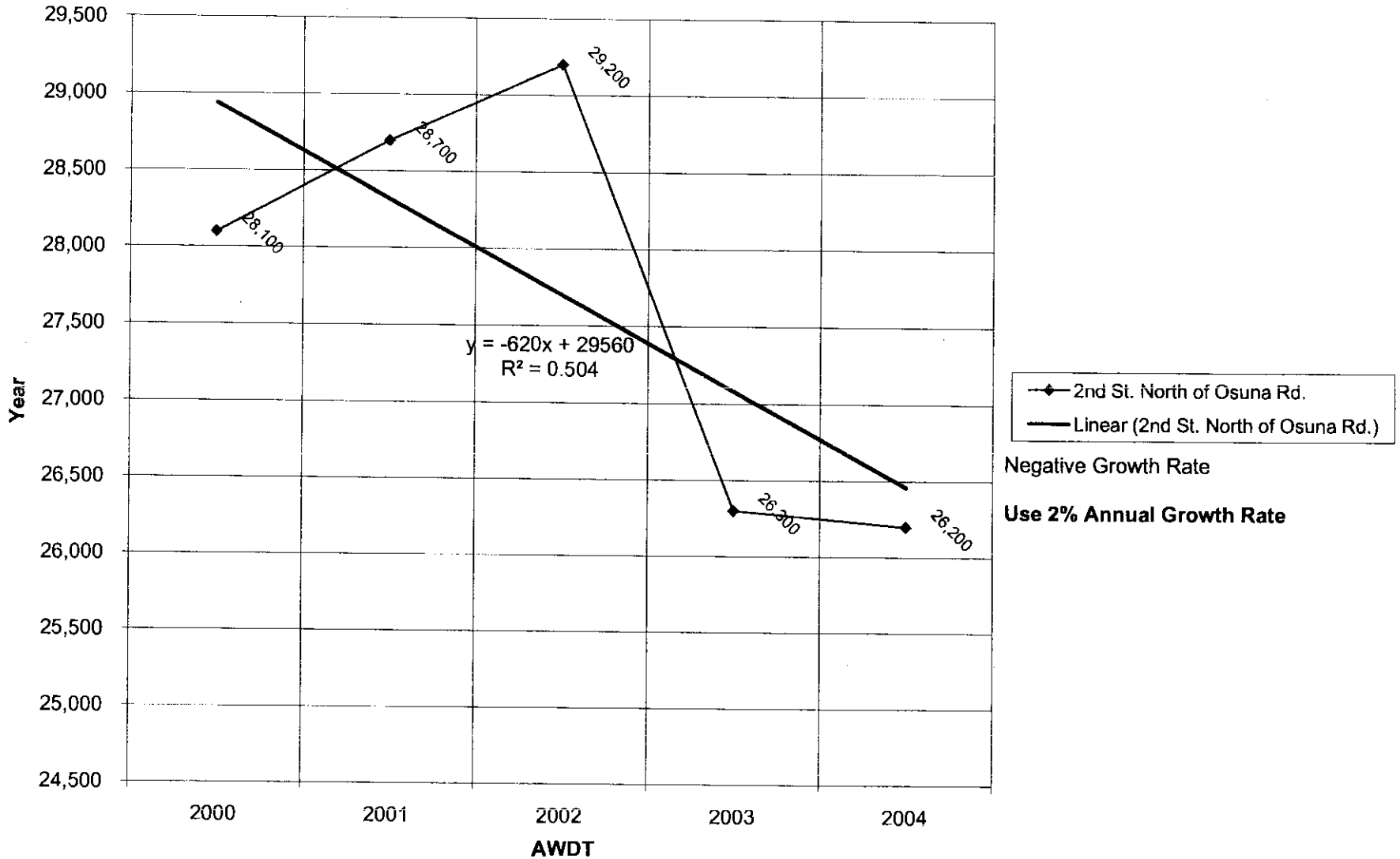
Annual Increase in Traffic - 120 veh/day

Growth Rate = 120 / 25,300

Growth Rate = .00047

Use 2% Annual Growth Rate

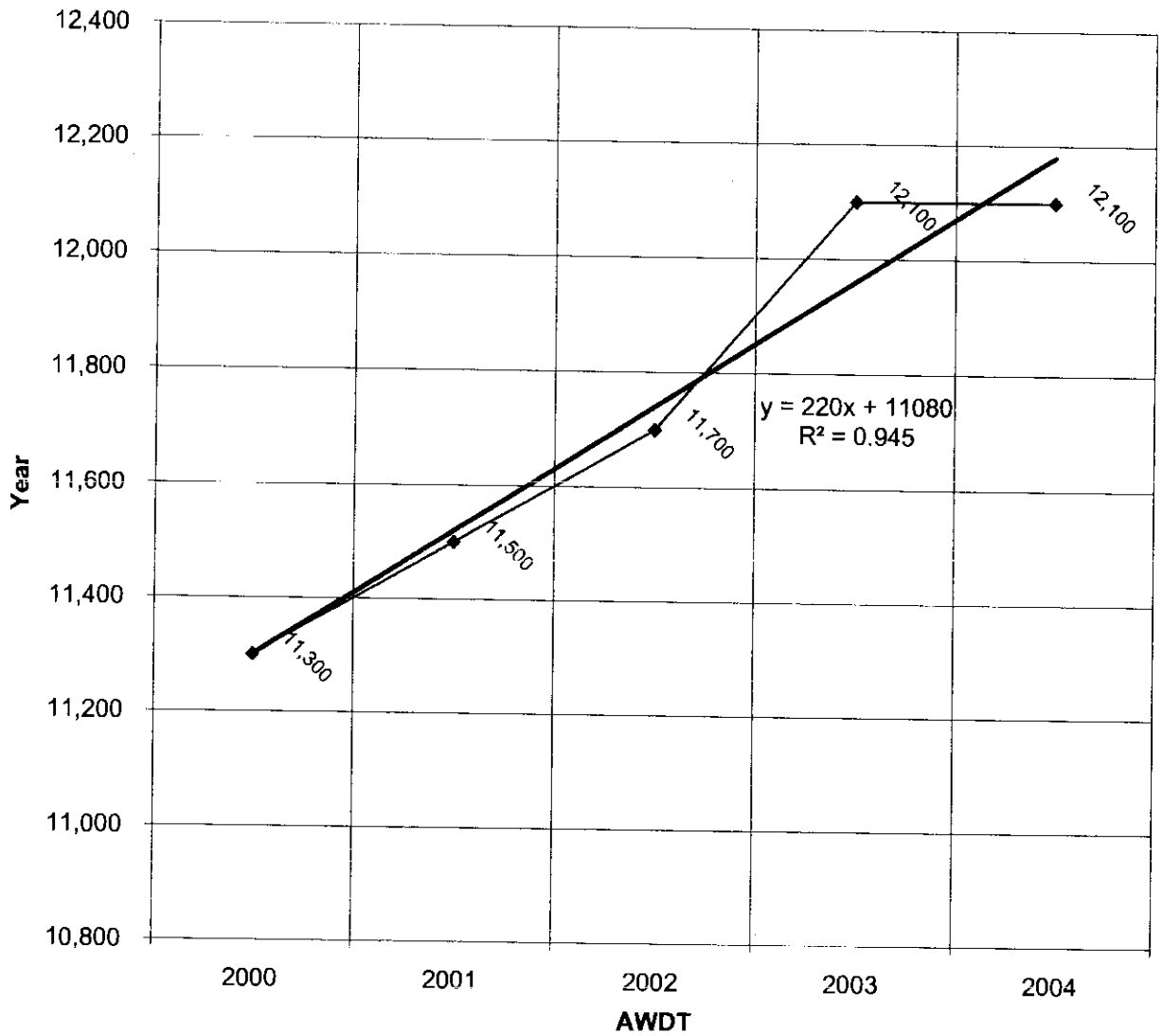
Annual Growth Rate Graph - 2nd St. North of Osuna Rd.



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.)

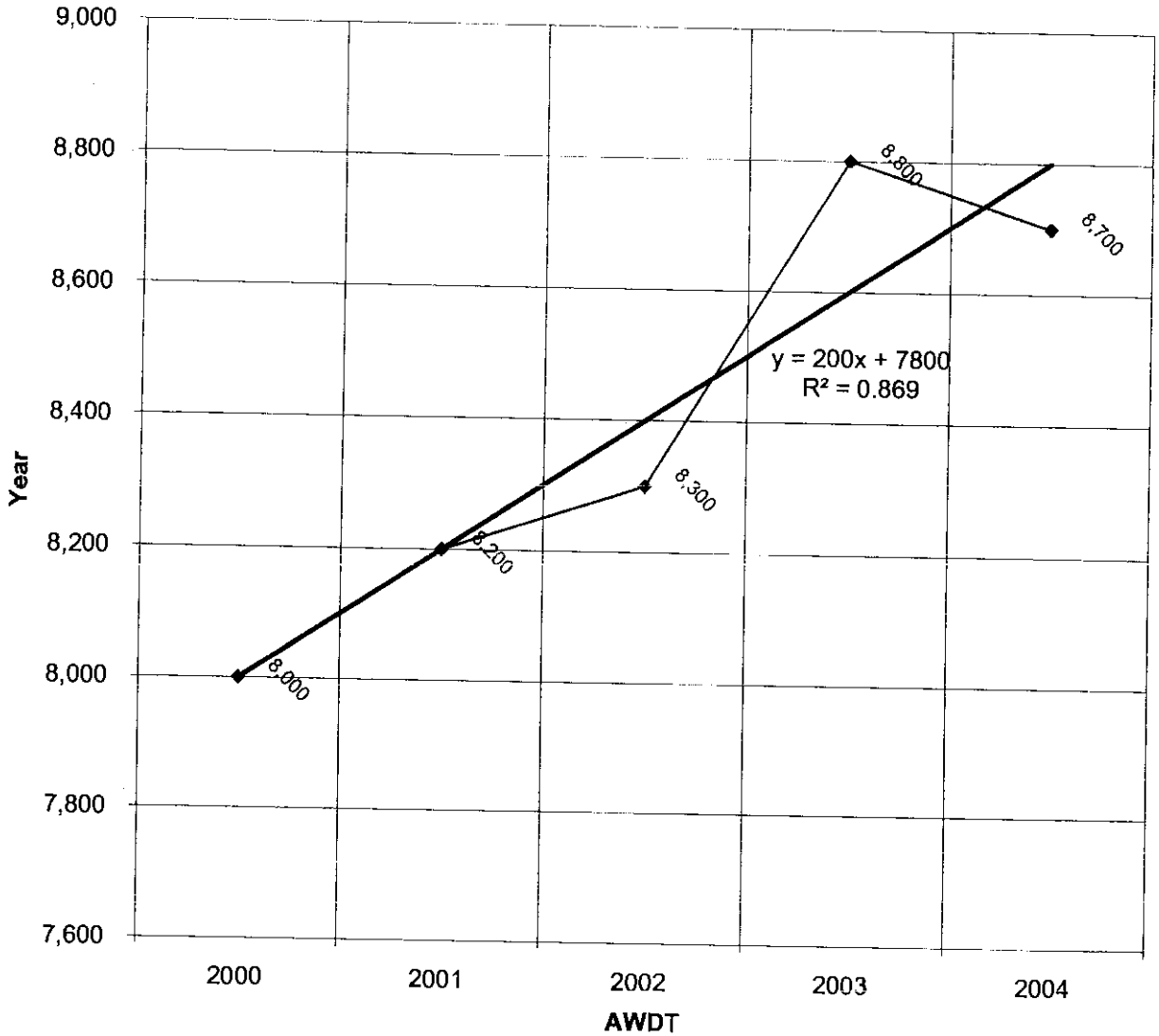
Annual Increase in Traffic - 220 veh/day

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 (2009) - 100% Development

2007 Plan - with Park

INTERSECTION: **Summary**

Osuna Rd. / 2nd St.

(1)

5.0% Truck

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (2nd St.)			Southbound (2nd St.)		
	0.92			0.72			0.84			0.91		PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	68	394	59	108	194	194	39	564	245	395	1,168	36
2009 (NO BUILD - A.M.)	72	417	62	114	205	205	40	586	254	410	1,214	37
2009 (BUILD - A.M.)	**72**	**452**	**62**	**130**	**236**	**226**	**40**	**586**	**272**	**434**	**1,214**	**37**
	0.93			0.96			0.94			0.89		PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	92	181	72	264	477	637	69	902	163	291	792	79
2009 (NO BUILD - P.M.)	97	192	76	279	505	674	72	937	170	302	823	82
2009 (BUILD - P.M.)	**97**	**247**	**76**	**309**	**563**	**715**	**72**	**937**	**198**	**340**	**823**	**82**

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 (2007)	29	868	239	155	368	65	150	223	148	174	368	25
2009 (NO BUILD - A.M.)	30	917	252	158	375	67	156	231	153	184	389	27
2009 (BUILD - A.M.)	**30**	**994**	**252**	**170**	**443**	**73**	**156**	**231**	**167**	**190**	**389**	**27**
	0.87			0.91			0.87			0.84		PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	48	457	123	158	990	155	289	454	156	107	288	55
2009 (NO BUILD - P.M.)	50	483	130	161	1,010	158	300	472	162	113	305	58
2009 (BUILD - P.M.)	**50**	**605**	**130**	**185**	**1,139**	**169**	**300**	**472**	**184**	**123**	**305**	**58**

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 (2007)	27	1,584	296	124	959	45	74	6	101	6	1	5
2009 (NO BUILD - A.M.)	30	1,745	326	137	1,057	49	80	6	110	6	1	5
2009 (BUILD - A.M.)	**30**	**1,820**	**326**	**137**	**1,142**	**49**	**80**	**6**	**110**	**6**	**1**	**5**
	0.92			0.86			0.79			0.89		PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	4	956	72	111	1,687	6	240	2	174	55	23	28
2009 (NO BUILD - P.M.)	4	1,053	79	122	1,859	7	261	3	189	60	25	30
2009 (BUILD - P.M.)	**4**	**1,195**	**79**	**122**	**1,993**	**7**	**261**	**3**	**189**	**60**	**25**	**30**

Osuna Rd. / Academy Parkway

(4)

5.0% Truck

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Academy Parkway)			Southbound (Academy Parkway)		
	0.93			0.84			0.80			0.86		PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	57	1,381	4	41	896	94	6	0	24	55	0	18
2009 (NO BUILD - A.M.)	64	1,538	5	46	997	105	7	0	26	60	0	20
2009 (BUILD - A.M.)	**64**	**1,613**	**5**	**46**	**1,082**	**105**	**7**	**0**	**26**	**60**	**0**	**20**
	0.89			0.93			0.87			0.90		PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	8	1,161	0	31	1,531	22	25	0	59	87	1	44
2009 (NO BUILD - P.M.)	9	1,292	0	34	1,704	25	28	0	64	95	1	48
2009 (BUILD - P.M.)	**9**	**1,434**	**0**	**34**	**1,838**	**25**	**28**	**0**	**64**	**95**	**1**	**48**

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

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2009) - 100% Development

2007 Plan - with Park

INTERSECTION: Summary

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 (2007)	278	1,276	182	198	1,004	286	129	241	45	209	396	170
2009 (NO BUILD - A.M.)	307	1,405	200	209	1,059	301	134	250	46	217	411	176
2009 (BUILD - A.M.)	**322**	**1,462**	**202**	**209**	**1,124**	**301**	**136**	**250**	**46**	**217**	**411**	**194**
PHF	0.94			0.91			0.90			0.80		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	293	1,755	96	96	1,107	219	308	590	280	355	363	321
2009 (NO BUILD - P.M.)	322	1,933	105	101	1,168	231	320	613	290	369	376	333
2009 (BUILD - P.M.)	**351**	**2,042**	**109**	**101**	**1,271**	**231**	**323**	**613**	**290**	**369**	**376**	**361**

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 (2007)	21	1,195	0	0	676	96	0	0	0	698	0	101
2009 (NO BUILD - A.M.)	34	1,218	0	0	753	132	0	0	0	788	0	116
2009 (BUILD - A.M.)	**53**	**1,296**	**0**	**0**	**822**	**139**	**0**	**0**	**0**	**794**	**0**	**133**
PHF	0.89			0.92			0.90			0.86		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	95	769	0	0	1,453	550	0	0	0	163	0	49
2009 (NO BUILD - P.M.)	104	784	0	0	1,618	636	0	0	0	203	0	65
2009 (BUILD - P.M.)	**160**	**882**	**0**	**0**	**1,738**	**646**	**0**	**0**	**0**	**240**	**0**	**110**

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 (2007)	34	88	0	0	16	65	0	0	0	168	0	14
2009 (NO BUILD - A.M.)	37	97	0	0	17	93	0	0	0	189	0	15
2009 (BUILD - A.M.)	**37**	**101**	**0**	**0**	**20**	**96**	**0**	**0**	**0**	**192**	**0**	**15**
PHF	0.80			0.80			0.85			0.90		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	16	34	0	0	96	189	0	0	0	88	0	54
2009 (NO BUILD - P.M.)	17	37	0	0	105	213	0	0	0	118	0	59
2009 (BUILD - P.M.)	**17**	**43**	**0**	**0**	**112**	**218**	**0**	**0**	**0**	**123**	**0**	**59**

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 (2007)	0	396	125	18	81	0	77	0	90	0	0	0
2009 (NO BUILD - A.M.)	0	516	232	160	106	0	104	0	129	0	0	0
2009 (BUILD - A.M.)	**0**	**516**	**233**	**160**	**106**	**0**	**105**	**0**	**129**	**0**	**0**	**0**
PHF	0.90			0.90			0.80			0.80		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	0	67	89	78	148	0	171	0	47	0	0	0
2009 (NO BUILD - P.M.)	0	96	123	123	243	0	280	0	188	0	0	0
2009 (BUILD - P.M.)	**0**	**96**	**124**	**123**	**243**	**0**	**281**	**0**	**188**	**0**	**0**	**0**

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

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2009) - 100% Development

2007 Plan - with Park

INTERSECTION: **Summary**

Osuna Rd. / Driveway "A"

(9)

5.0% Truck

	0.85			0.85			0.85			0.85		PHF
	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 (2007)	0	1,959	0	0	773	0	0	0	0	0	0	0
2009 (NO BUILD - A.M.)	*0*	*2,181*	*0*	*0*	*860*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
2009 (BUILD - A.M.)	***39***	***2,221***	***0***	***0***	***906***	***39***	***0***	***0***	***0***	***35***	***0***	***35***

	0.85			0.85			0.85			0.85		PHF
	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 (2007)	0	971	0	0	2,003	0	0	0	0	0	0	0
2009 (NO BUILD - P.M.)	*0*	*1,081*	*0*	*0*	*2,230*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
2009 (BUILD - P.M.)	***80***	***1,139***	***0***	***0***	***2,265***	***101***	***0***	***0***	***0***	***86***	***0***	***107***

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 (2007)	5	0	11	0	0	0	11	118	0	0	799	5
2009 (NO BUILD - A.M.)	*11*	*0*	*37*	*0*	*0*	*0*	*27*	*129*	*0*	*0*	*875*	*11*
2009 (BUILD - A.M.)	***11***	***0***	***37***	***23***	***0***	***12***	***27***	***129***	***26***	***13***	***875***	***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 (2007)	5	0	11	0	0	0	11	644	0	0	212	5
2009 (NO BUILD - P.M.)	*11*	*0*	*27*	*0*	*0*	*0*	*37*	*705*	*0*	*0*	*232*	*11*
2009 (BUILD - P.M.)	***11***	***0***	***27***	***43***	***0***	***6***	***37***	***705***	***41***	***21***	***232***	***11***

Osuna Rd. / Driveway "C"

(11)

5.0% Truck

	0.85			0.85			0.85			0.85		PHF
	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Driveway "C")			Southbound (Driveway "C")		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	0	1,959	0	0	773	0	0	0	0	0	0	0
2009 (NO BUILD - A.M.)	*0*	*2,181*	*0*	*0*	*860*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
2009 (BUILD - A.M.)	***39***	***2,226***	***0***	***0***	***902***	***39***	***0***	***0***	***0***	***35***	***0***	***35***

	0.85			0.85			0.85			0.85		PHF
	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Driveway "C")			Southbound (Driveway "C")		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	0	971	0	0	2,003	0	0	0	0	0	0	0
2009 (NO BUILD - P.M.)	*0*	*1,081*	*0*	*0*	*2,230*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
2009 (BUILD - P.M.)	***82***	***1,136***	***0***	***0***	***2,268***	***100***	***0***	***0***	***0***	***87***	***0***	***106***

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

Projected Turning Movements Worksheet

Osuna Rd. / 2nd St.

2007 Plan - with Park

INTERSECTION: E-W Street: **Osuna Rd.** (1)

N-S Street: **2nd St.**

Year of Existing Counts 2006

Implementation Year **2009**

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (2nd St.)			Southbound (2nd St.)		
Growth Rates	3.00%			3.00%			2.00%			2.00%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	66	383	57	105	188	188	38	553	240	387	1,145	35
Background Traffic Growth	6	34	5	9	17	17	2	33	14	23	69	2
Subtotal (NO BUILD - A.M.)	***72***	***417***	***62***	***114***	***205***	***205***	***40***	***586***	***254***	***410***	***1,214***	***37***
Percent Commercial Trips Generated(Entering)	*0.00%*	*17.75%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*9.17%*	*12.41%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*9.17%*	*17.75%*	*12.41%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	35	0	16	31	21	0	0	18	24	0	0
Total AM Peak Hour BUILD Volumes	**72**	**452**	**62**	**130**	**236**	**226**	**40**	**586**	**272**	**434**	**1,214**	**37**

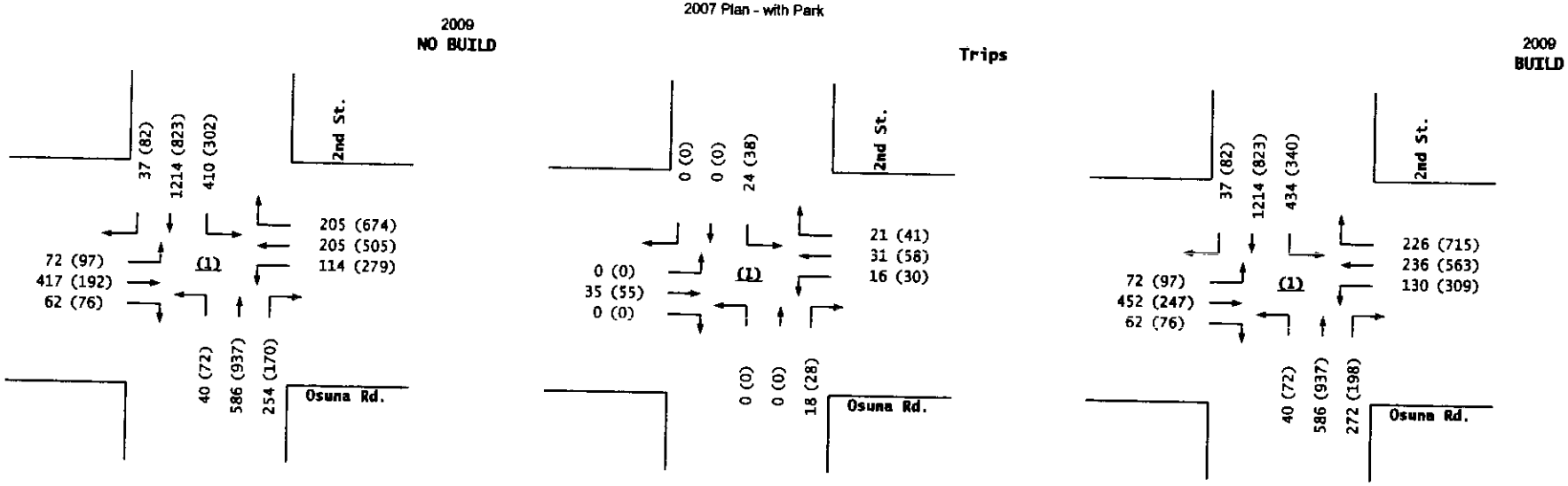
	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (2nd St.)			Southbound (2nd St.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	89	176	70	256	463	618	68	884	160	285	776	77
Background Traffic Growth	8	16	6	23	42	56	4	53	10	17	47	5
Subtotal (NO BUILD - P.M.)	***97***	***192***	***76***	***279***	***505***	***674***	***72***	***937***	***170***	***302***	***823***	***82***
Percent Commercial Trips Generated(Entering)	*0.00%*	*17.75%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*9.17%*	*12.41%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*9.17%*	*17.75%*	*12.41%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	55	0	30	58	41	0	0	28	38	0	0
Total PM Peak Hour BUILD Volumes	**97**	**247**	**76**	**309**	**563**	**715**	**72**	**937**	**198**	**340**	**823**	**82**

	Entering	Exiting		
Number of Commercial Trips Generated	**196**	**173**	A.M.	100% Commercial Development
	310	**328**	P.M.	

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (2nd St.)			Southbound (2nd St.)		
2007 AM Peak Hr. Volumes	68	394	59	108	194	194	39	564	245	395	1,168	36
2007 PM Peak Hr. Volumes	92	181	72	264	477	637	69	902	163	291	792	79

2007 Plan - with Park

Trips



Osuna Rd. / 2nd St.

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

Projected Turning Movements Worksheet

Osuna Rd. / Edith Blvd.

2007 Plan - with Park

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

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

Year of Existing Counts 2005

Implementation Year **2009**

	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	24
Background Traffic Growth	3	98	27	6	14	3	12	17	11	20	42	3
Subtotal (NO BUILD - A.M.)	***30***	***917***	***252***	***158***	***375***	***67***	***156***	***231***	***153***	***184***	***389***	***27***
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	77	0	12	68	6	0	0	14	6	0	0
Total AM Peak Hour BUILD Volumes	**30**	**994**	**252**	**170**	**443**	**73**	**156**	**231**	**167**	**190**	**389**	**27**

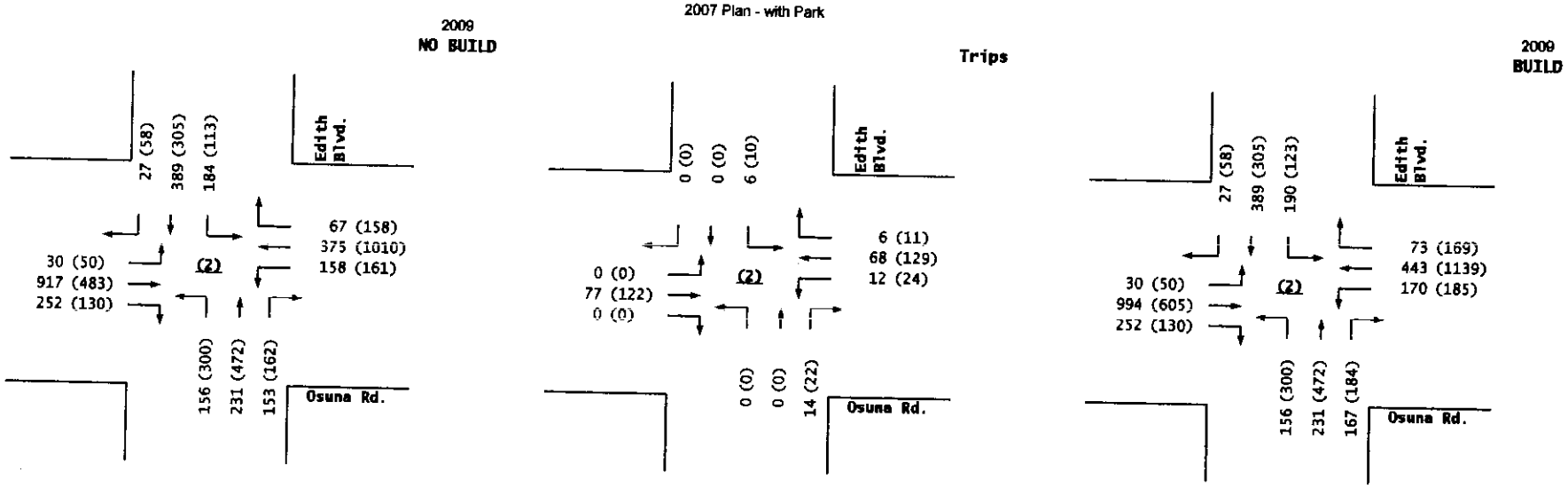
	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Edith Blvd.)			Southbound (Edith Blvd.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	45	431	116	155	971	152	278	437	150	101	272	52
Background Traffic Growth	5	52	14	6	39	6	22	35	12	12	33	6
Subtotal (NO BUILD - P.M.)	***50***	***483***	***130***	***161***	***1,010***	***158***	***300***	***472***	***162***	***113***	***305***	***58***
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	122	0	24	129	11	0	0	22	10	0	0
Total PM Peak Hour BUILD Volumes	**50**	**605**	**130**	**185**	**1,139**	**169**	**300**	**472**	**184**	**123**	**305**	**58**

	Entering	Exiting		
Number of Commercial Trips Generated	**198**	**173**	A.M.	100% Commercial Development
	310	**328**	P.M.	

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Edith Blvd.)			Southbound (Edith Blvd.)		
2007 AM Peak Hr. Volumes	29	868	239	155	368	65	150	223	148	174	368	25
2007 PM Peak Hr. Volumes	48	457	123	158	990	155	289	454	156	107	288	55

2007 Plan - with Park

Trips



Osuna Rd. / Edith Blvd.

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

Projected Turning Movements Worksheet

Osuna Rd. / Chappel Dr.

2007 Plan - with Park

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

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

Year of Existing Counts 2004

Implementation Year **2009**

	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	7	403	75	32	244	11	16	1	22	1	0	1
Subtotal (NO BUILD - A.M.)	***30***	***1,745***	***326***	***137***	***1,057***	***49***	***80***	***6***	***110***	***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	75	0	0	85	0	0	0	0	0	0	0
Total AM Peak Hour BUILD Volumes	**30**	**1,820**	**326**	**137**	**1,142**	**49**	**80**	**6**	**110**	**6**	**1**	**5**

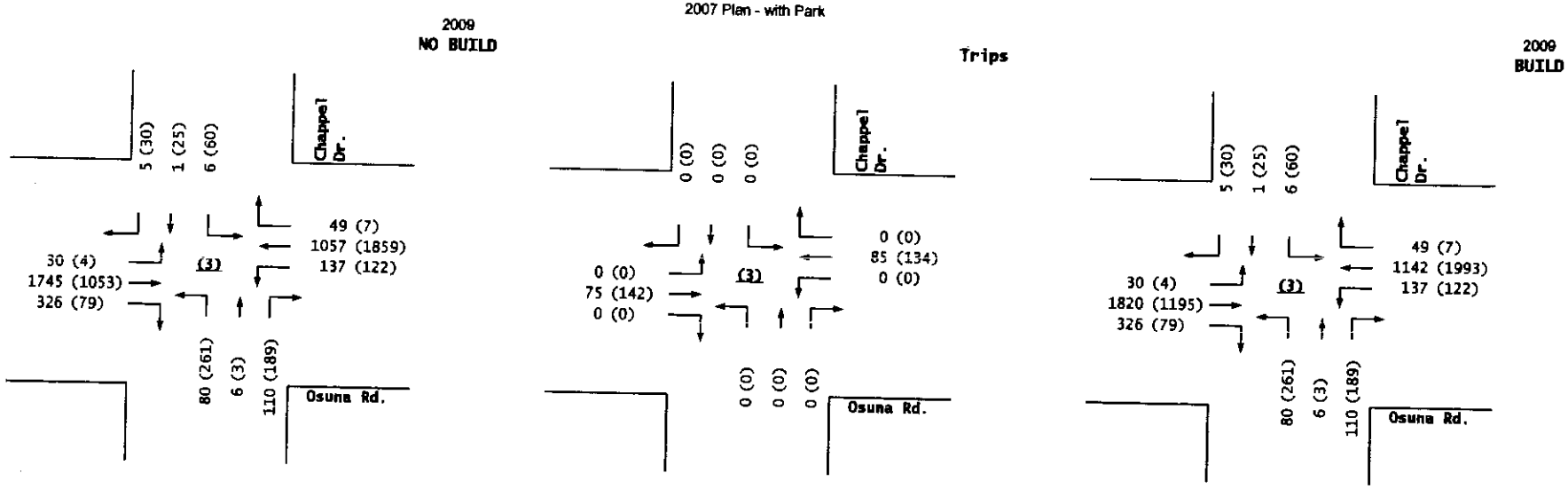
	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Chappel Dr.)			Southbound (Chappel Dr.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	3	810	61	94	1,430	5	209	2	151	48	20	24
Background Traffic Growth	1	243	18	28	429	2	52	1	38	12	5	6
Subtotal (NO BUILD - P.M.)	***4***	***1,053***	***79***	***122***	***1,859***	***7***	***261***	***3***	***189***	***60***	***25***	***30***
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	142	0	0	134	0	0	0	0	0	0	0
Total PM Peak Hour BUILD Volumes	**4**	**1,195**	**79**	**122**	**1,993**	**7**	**261**	**3**	**189**	**60**	**25**	**30**

	Entering	Exiting		
Number of Commercial Trips Generated	**196**	**173**	A.M.	100% Commercial Development
	310	**328**	P.M.	

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Chappel Dr.)			Southbound (Chappel Dr.)		
2007 AM Peak Hr. Volumes	27	1584	296	124	959	45	74	6	101	6	1	5
2007 PM Peak Hr. Volumes	4	956	72	111	1,687	6	240	2	174	55	23	28

2007 Plan - with Park

Trips



Osuna Rd. / Chappel Dr.

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

Projected Turning Movements Worksheet

Osuna Rd. / Academy Parkway

2007 Plan - with Park

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

N-S Street: **Academy Parkway**

Year of Existing Counts 2006

Implementation Year **2009**

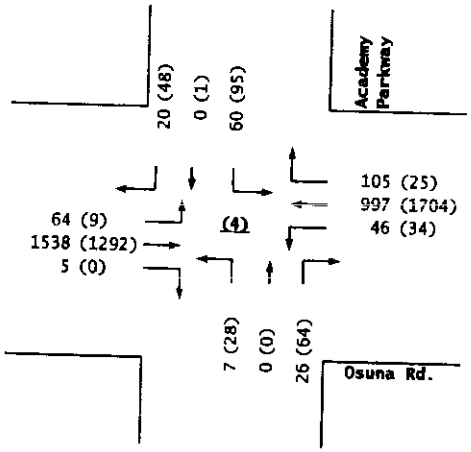
	Growth Rates	6.00%			6.00%			5.00%			5.00%		
		Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Academy Parkway)			Southbound (Academy Parkway)		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes		54	1,303	4	39	845	89	6	0	23	52	0	17
Background Traffic Growth		10	235	1	7	152	16	1	0	3	8	0	3
Subtotal (NO BUILD - A.M.)		***64***	***1,538***	***5***	***46***	***997***	***105***	***7***	***0***	***26***	***60***	***0***	***20***
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	75	0	0	85	0	0	0	0	0	0	0
Total AM Peak Hour BUILD Volumes		**64**	**1,613**	**5**	**46**	**1,082**	**105**	**7**	**0**	**26**	**60**	**0**	**20**

	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	197	0	5	260	4	4	0	8	12	0	6
Subtotal (NO BUILD - P.M.)	***9***	***1,292***	***0***	***34***	***1,704***	***25***	***28***	***0***	***64***	***95***	***1***	***48***
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	142	0	0	134	0	0	0	0	0	0	0
Total PM Peak Hour BUILD Volumes	**9**	**1,434**	**0**	**34**	**1,838**	**25**	**28**	**0**	**64**	**95**	**1**	**48**

	Entering	Exiting		
Number of Commercial Trips Generated	**198**	**173**	A.M.	100% Commercial Development
	310	**328**	P.M.	

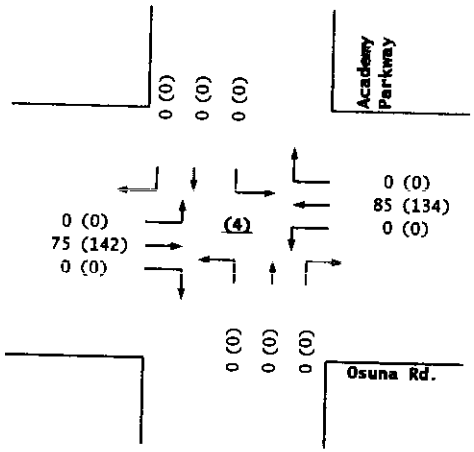
	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Academy Parkway)			Southbound (Academy Parkway)		
2007 AM Peak Hr. Volumes	57	1381	4	41	896	94	6	0	24	55	0	18
2007 PM Peak Hr. Volumes	8	1,161	0	31	1,531	22	25	0	59	87	1	44

2009
NO BUILD

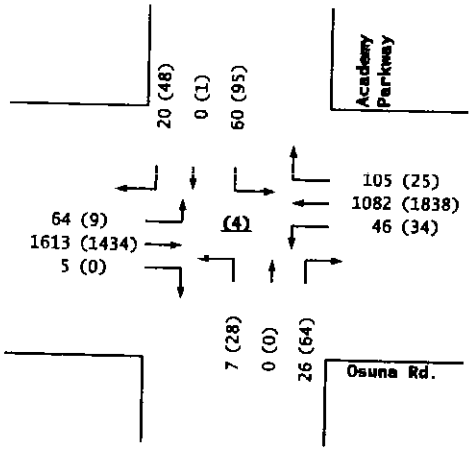


2007 Plan - with Park

Trips



2009
BUILD



Osuna Rd. / Academy Parkway

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

Projected Turning Movements Worksheet

Osuna Rd. / Jefferson St.

2007 Plan - with Park

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

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

Year of Existing Counts 2004

Implementation Year **2009**

	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	71	324	46	27	138	39	12	23	4	20	37	16
Subtotal (NO BUILD - A.M.)	***307***	***1,405***	***200***	***209***	***1,059***	***301***	***134***	***250***	***46***	***217***	***411***	***176***
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	15	57	2	0	65	0	2	0	0	0	0	18
Total AM Peak Hour BUILD Volumes	**322**	**1,462**	**202**	**209**	**1,124**	**301**	**136**	**250**	**46**	**217**	**411**	**194**

	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	74	446	24	13	152	30	29	56	26	34	34	30
Subtotal (NO BUILD - P.M.)	***322***	***1,933***	***105***	***101***	***1,168***	***231***	***320***	***613***	***290***	***369***	***376***	***333***
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	29	109	4	0	103	0	3	0	0	0	0	28
Total PM Peak Hour BUILD Volumes	**351**	**2,042**	**109**	**101**	**1,271**	**231**	**323**	**613**	**290**	**369**	**376**	**361**

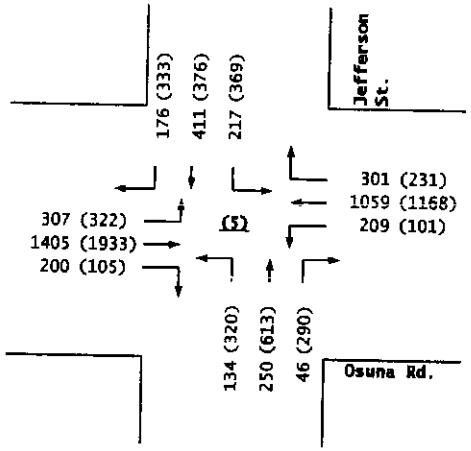
	Entering	Exiting		
Number of Commercial Trips Generated	**196**	**173**	A.M.	100% Commercial Development
	310	**328**	P.M.	

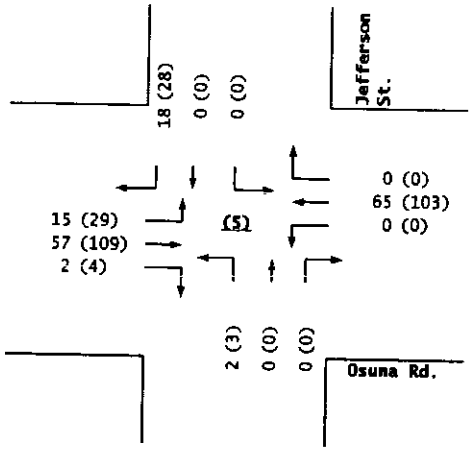
	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Jefferson St.)			Southbound (Jefferson St.)		
2007 AM Peak Hr. Volumes	278	1276	182	198	1,004	286	129	241	45	209	396	170
2007 PM Peak Hr. Volumes	293	1,755	96	96	1,107	219	308	590	280	355	363	321

2007 Plan - with Park

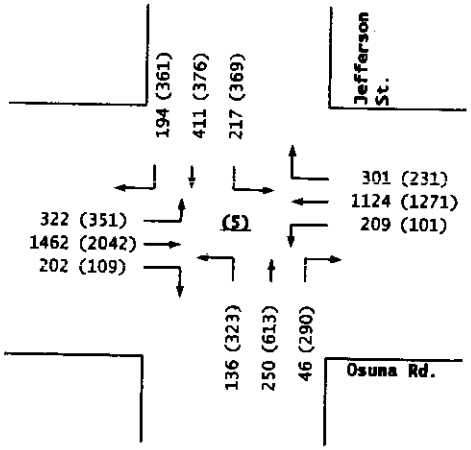
Trips

2009
NO BUILD





2009
BUILD



Osuna Rd. / Jefferson St.

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

Projected Turning Movements Worksheet

Osuna Rd. / Vista del Norte

2007 Plan - with Park

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

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

Year of Existing Counts **2006**

Implementation Year **2009**

	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	1	35	0	0	115	16	0	0	0	100	0	14
Subtotal	22	1,218	0	0	753	107	0	0	0	765	0	110
Las Lomitas Industrial Park Trips	7	0	0	0	0	15	0	0	0	3	0	1
Agave Subdivision Trips (31 Lots)	5	0	0	0	0	10	0	0	0	20	0	5
Subtotal (NO BUILD - A.M.)	***34***	***1,218***	***0***	***0***	***753***	***132***	***0***	***0***	***0***	***788***	***0***	***116***
Percent Commercial Trips Generated(Entering)	*9.80%*	*40.00%*	*0.00%*	*0.00%*	*0.00%*	*3.32%*	*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%*	*40.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*3.32%*	*0.00%*	*9.80%*
Total Trips Generated	19	78	0	0	69	7	0	0	0	6	0	17
Total AM Peak Hour BUILD Volumes	**53**	**1,296**	**0**	**0**	**822**	**139**	**0**	**0**	**0**	**794**	**0**	**133**

	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	3	23	0	0	247	93	0	0	0	23	0	7
Subtotal	97	784	0	0	1,618	612	0	0	0	178	0	54
Las Lomitas Industrial Park Trips	2	0	0	0	0	4	0	0	0	15	0	6
Agave Subdivision Trips (31 Lots)	5	0	0	0	0	20	0	0	0	10	0	5
Subtotal (NO BUILD - P.M.)	***104***	***784***	***0***	***0***	***1,618***	***636***	***0***	***0***	***0***	***203***	***0***	***65***
Percent Commercial Trips Generated(Entering)	*9.80%*	*40.00%*	*0.00%*	*0.00%*	*0.00%*	*3.32%*	*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%*	*40.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*3.32%*	*0.00%*	*9.80%*
Total Trips Generated	30	124	0	0	131	10	0	0	0	11	0	32
Subtotal PM Pk Hr. BUILD Volumes	**134**	**908**	**0**	**0**	**1,749**	**646**	**0**	**0**	**0**	**214**	**0**	**97**
Pass-by Trip Adjustments	*26*	*-26*	*0*	*0*	*-11*	*0*	*0*	*0*	*0*	*26*	*0*	*13*
Total PM Peak Hour BUILD Volumes	**160**	**882**	**0**	**0**	**1,738**	**646**	**0**	**0**	**0**	**240**	**0**	**110**

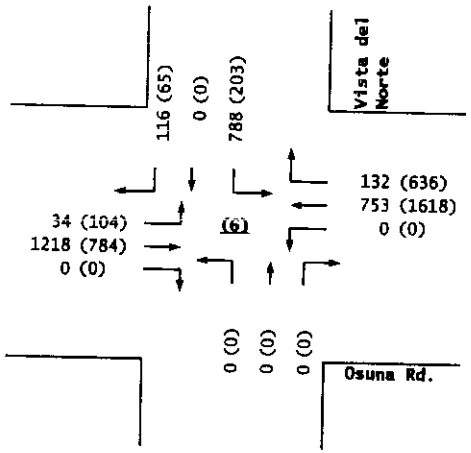
	Entering	Exiting		
Number of Commercial Trips Generated	**196**	**173**	A.M.	100% Commercial Development
	310	**328**	P.M.	

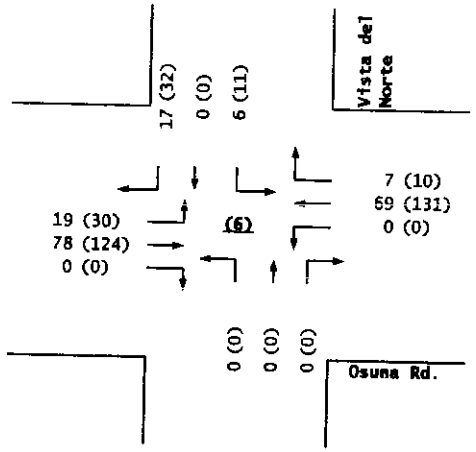
	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Vista del Norte)			Southbound (Vista del Norte)		
2007 AM Peak Hr. Volumes	21	1195	0	0	676	96	0	0	0	698	0	101
2007 PM Peak Hr. Volumes	95	769	0	0	1,453	550	0	0	0	163	0	49

2007 Plan - with Park

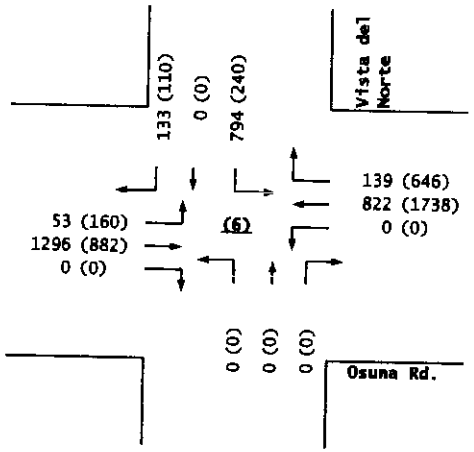
Trips

2009
NO BUILD





2009
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

2007 Plan - with Park

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

N-S Street: **Las Lomitas**

Year of Existing Counts **2006**

Implementation Year **2009**

	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	5	13	0	0	2	9	0	0	0	24	0	2
Subtotal	37	97	0	0	17	71	0	0	0	184	0	15
Las Lomitas Industrial Park Trips	0	0	0	0	0	22	0	0	0	5	0	0
Subtotal (NO BUILD - A.M.)	***37***	***97***	***0***	***0***	***17***	***93***	***0***	***0***	***0***	***189***	***0***	***15***
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	4	0	0	3	3	0	0	0	3	0	0
Total AM Peak Hour BUILD Volumes	**37**	**101**	**0**	**0**	**20**	**96**	**0**	**0**	**0**	**192**	**0**	**15**

	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	5	0	0	14	27	0	0	0	13	0	8
Subtotal	17	37	0	0	105	207	0	0	0	97	0	59
Las Lomitas Industrial Park Trips	0	0	0	0	0	6	0	0	0	21	0	0
Subtotal (NO BUILD - P.M.)	***17***	***37***	***0***	***0***	***105***	***213***	***0***	***0***	***0***	***118***	***0***	***59***
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	7	5	0	0	0	5	0	0
Total PM Peak Hour BUILD Volumes	**17**	**43**	**0**	**0**	**112**	**218**	**0**	**0**	**0**	**123**	**0**	**59**

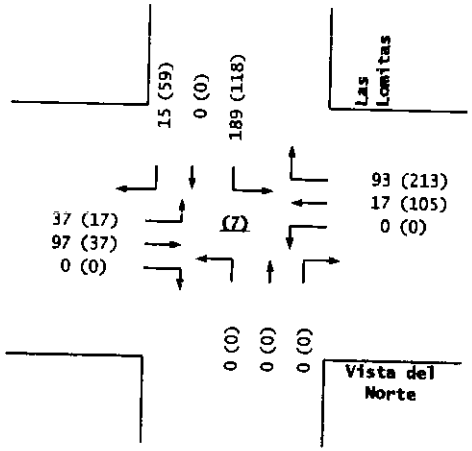
	Entering	Exiting		
Number of Commercial Trips Generated	**196**	**173**	A.M.	100% Commercial Development
	310	**328**	P.M.	

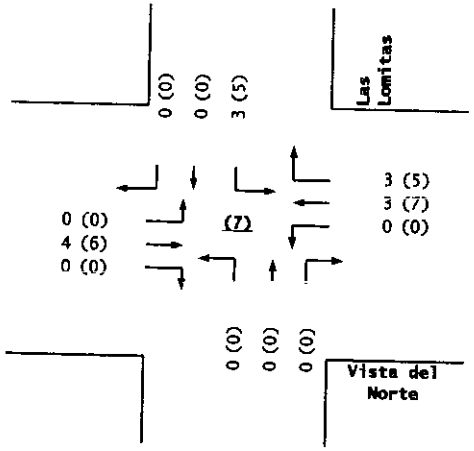
	Eastbound (Vista del Norte)			Westbound (Vista del Norte)			Northbound (Las Lomitas)			Southbound (Las Lomitas)		
2007 AM Peak Hr. Volumes	34	88	0	0	16	65	0	0	0	168	0	14
2007 PM Peak Hr. Volumes	16	34	0	0	96	169	0	0	0	88	0	54

2007 Plan - with Park

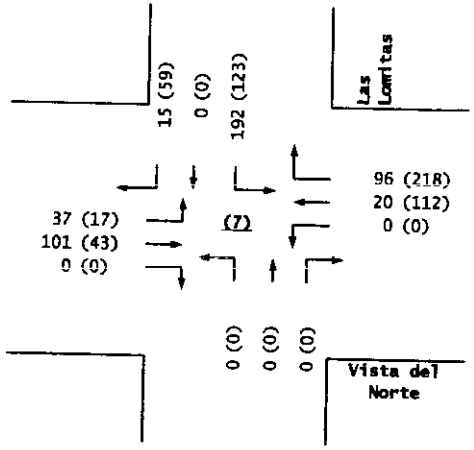
Trips

2009
NO BUILD





2009
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.

2007 Plan - with Park

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

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

Year of Existing Counts **2006**

Implementation Year **2009**

	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	57	18	3	12	0	11	0	13	0	0	0
Subtotal	0	434	137	20	89	0	84	0	99	0	0	0
Vista del Norte Industrial Park Trips	0	82	0	0	17	0	0	0	1	0	0	0
Las Lomitas Industrial Park Trips	0	0	95	140	0	0	20	0	29	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***516***	***232***	***160***	***106***	***0***	***104***	***0***	***129***	***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**	**516**	**233**	**160**	**106**	**0**	**105**	**0**	**129**	**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	10	13	11	21	0	24	0	7	0	0	0
Subtotal	0	74	98	85	162	0	187	0	52	0	0	0
Vista del Norte Industrial Park Trips	0	22	0	2	81	0	0	0	0	0	0	0
Las Lomitas Industrial Park Trips	0	0	25	36	0	0	93	0	136	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***96***	***123***	***123***	***243***	***0***	***280***	***0***	***188***	***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**	**96**	**124**	**123**	**243**	**0**	**281**	**0**	**188**	**0**	**0**	**0**

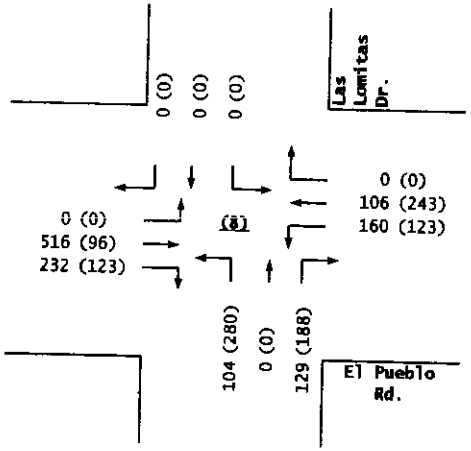
	Entering	Exiting		
Number of Commercial Trips Generated	**196**	**173**	A.M.	100% Commercial Development
	310	**328**	P.M.	

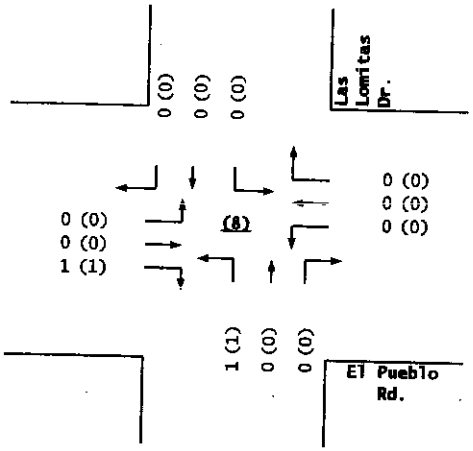
	Eastbound (El Pueblo Rd.)			Westbound (El Pueblo Rd.)			Northbound (Las Lomitas Dr.)			Southbound (Las Lomitas Dr.)		
2007 AM Peak Hr. Volumes	0	396	125	18	81	0	77	0	90	0	0	0
2007 PM Peak Hr. Volumes	0	67	89	78	148	0	171	0	47	0	0	0

2007 Plan - with Park

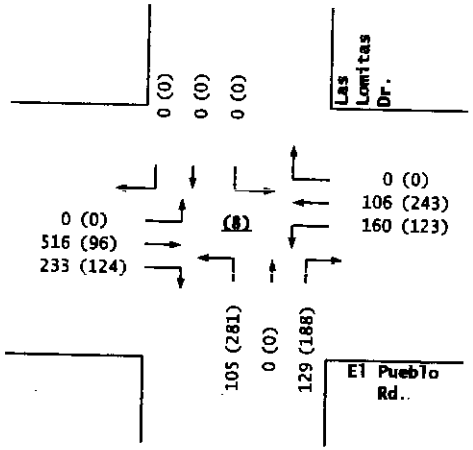
Trips

2009
NO BUILD





2009
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"

2007 Plan - with Park

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

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

Year of Existing Counts 2006

Implementation Year **2009**

	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	333	0	0	131	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***2,181***	***0***	***0***	***860***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*20.00%*	*0.00%*	*0.00%*	*0.00%*	*23.32%*	*20.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*23.32%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*20.00%*	*0.00%*	*20.00%*
Total Trips Generated	39	40	0	0	46	39	0	0	0	35	0	35
Total AM Peak Hour BUILD Volumes	**39**	**2,221**	**0**	**0**	**906**	**39**	**0**	**0**	**0**	**35**	**0**	**35**

	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	165	0	0	340	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***1,081***	***0***	***0***	***2,230***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*20.00%*	*0.00%*	*0.00%*	*0.00%*	*23.32%*	*20.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*23.32%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*20.00%*	*0.00%*	*20.00%*
Total Trips Generated	62	76	0	0	72	62	0	0	0	66	0	66
Subtotal PM Pk Hr. BUILD Volumes	**62**	**1,157**	**0**	**0**	**2,302**	**62**	**0**	**0**	**0**	**66**	**0**	**66**
Pass-by Trip Adjustments	*18*	*-18*	*0*	*0*	*-37*	*39*	*0*	*0*	*0*	*20*	*0*	*41*
Total PM Peak Hour BUILD Volumes	**80**	**1,139**	**0**	**0**	**2,265**	**101**	**0**	**0**	**0**	**86**	**0**	**107**

	Entering	Exiting		
Number of Commercial Trips Generated	**196**	**173**	A.M.	100% Commercial Development
	310	**328**	P.M.	

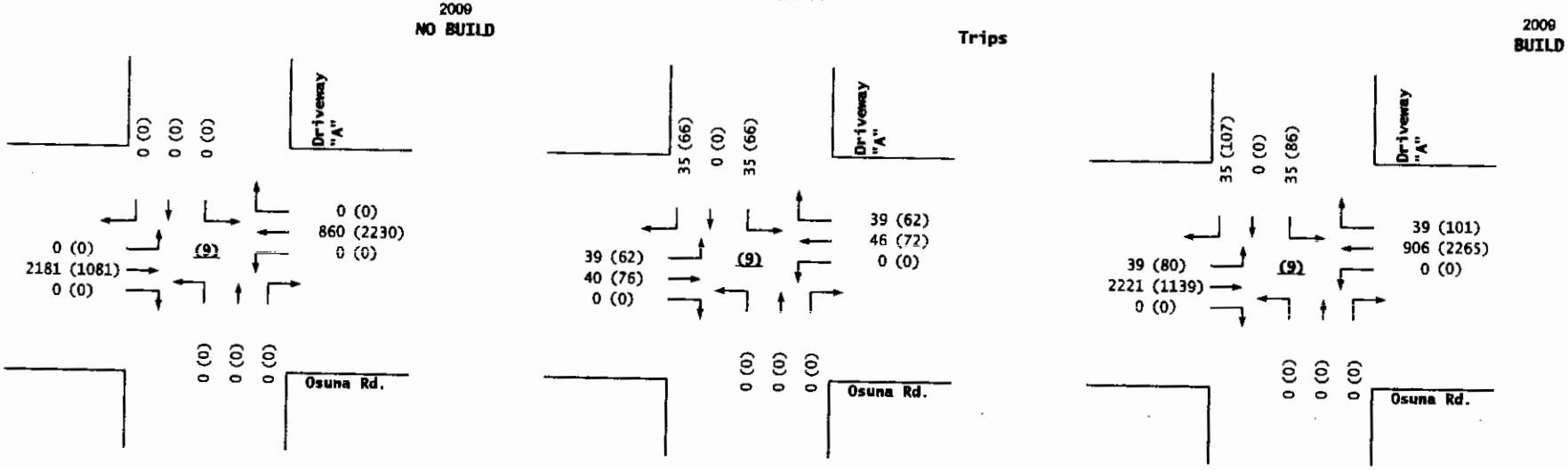
AM Pass-by Trips	***Eastbound (Osuna Rd.)***			***Westbound (Osuna Rd.)***			***Northbound (Driveway "A")***			***Southbound (Driveway "A")***		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Entering	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Percent Exiting	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Exiting	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Net AM Passby Trips	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***

PM Pass-by Trips	***Eastbound (Osuna Rd.)***			***Westbound (Osuna Rd.)***			***Northbound (Driveway "A")***			***Southbound (Driveway "A")***		
Percent Entering	*16.00%*	*-16.00%*	*0.00%*	*0.00%*	*-67.00%*	*34.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Entering	*18*	*-18*	*0*	*0*	*-77*	*39*	*0*	*0*	*0*	*0*	*0*	*0*
Percent Exiting	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*33.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*16.00%*	*0.00%*	*34.00%*
Volume Exiting	*0*	*0*	*0*	*0*	*40*	*0*	*0*	*0*	*0*	*20*	*0*	*41*
Net PM Passby Trips	***18***	***-18***	***0***	***0***	***-37***	***39***	***0***	***0***	***0***	***20***	***0***	***41***

Pass-by Trips	***0***	***0***	***AM***
	116	***122***	***PM***

2007 Plan - with Park

Trips



Osuna Rd. / Driveway "A"

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

Projected Turning Movements Worksheet

Driveway "B" / Vista del Norte

2007 Plan - with Park

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

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

Year of Existing Counts 2006

Implementation Year **2009**

	Growth Rates	5.00%			5.00%			5.00%			5.00%		
		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	112	0	0	761	5
Background Traffic Growth		1	0	2	0	0	0	2	17	0	0	114	1
Subtotal		6	0	12	0	0	0	12	129	0	0	875	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***	***37***	***0***	***0***	***0***	***27***	***129***	***0***	***0***	***875***	***11***
Percent Commercial Trips Generated(Entering)		*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*13.12%*	*6.88%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)		*0.00%*	*0.00%*	*0.00%*	*13.12%*	*0.00%*	*6.88%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated		0	0	0	23	0	12	0	0	26	13	0	0
Total AM Peak Hour BUILD Volumes		**11**	**0**	**37**	**23**	**0**	**12**	**27**	**129**	**26**	**13**	**875**	**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	2	0	0	0	2	92	0	0	30	1
Subtotal	6	0	12	0	0	0	12	705	0	0	232	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***	***27***	***0***	***0***	***0***	***37***	***705***	***0***	***0***	***232***	***11***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*13.12%*	*6.88%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*13.12%*	*0.00%*	*1.88%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	43	0	6	0	0	41	21	0	0
Subtotal PM Pk Hr. BUILD Volumes	**11**	**0**	**27**	**43**	**0**	**6**	**37**	**705**	**41**	**21**	**232**	**11**
Pass-by Trip Adjustments	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Total PM Peak Hour BUILD Volumes	**11**	**0**	**27**	**43**	**0**	**6**	**37**	**705**	**41**	**21**	**232**	**11**

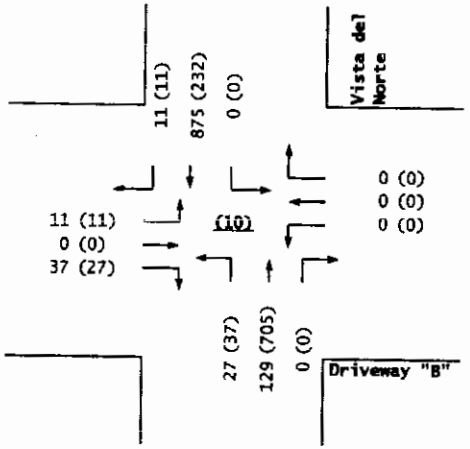
	Entering	Exiting		
Number of Commercial Trips Generated	**196**	**173**	A.M.	100% Commercial Development
	310	**328**	P.M.	

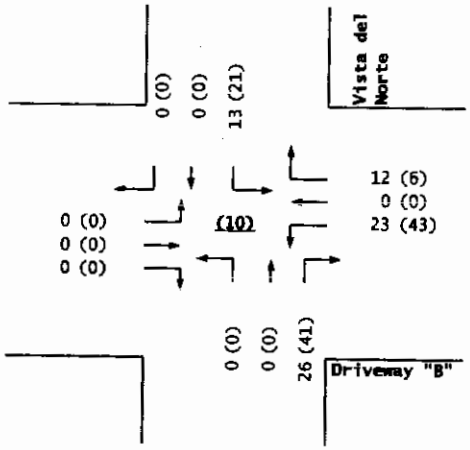
	Eastbound (Driveway "B")			Westbound (Driveway "B")			Northbound (Vista del Norte)			Southbound (Vista del Norte)		
2007 AM Peak Hr. Volumes	5	0	11	0	0	0	11	118	0	0	799	5
2007 PM Peak Hr. Volumes	5	0	11	0	0	0	11	644	0	0	212	5

2007 Plan - with Park

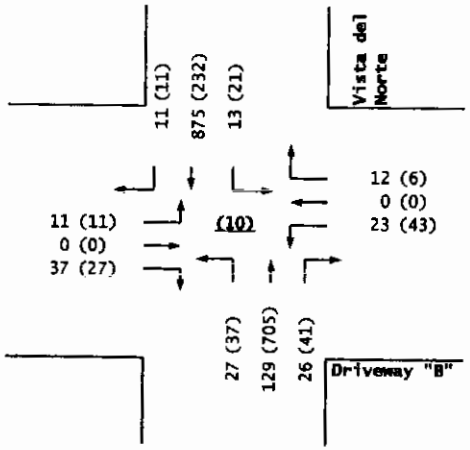
Trips

2009
NO BUILD





2009
BUILD



Driveway "B" / Vista del Norte

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

Projected Turning Movements Worksheet

Osuna Rd. / Driveway "C"

2007 Plan - with Park

INTERSECTION: E-W Street: **Osuna Rd.** (11)

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

Year of Existing Counts 2006

Implementation Year **2009**

	Growth Rates	6.00%			6.00%			5.00%			5.00%		
		Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Driveway "C")			Southbound (Driveway "C")		
		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	333	0	0	131	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)		***0***	***2,181***	***0***	***0***	***860***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)		*20.00%*	*20.00%*	*0.00%*	*0.00%*	*3.32%*	*20.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)		*0.00%*	*3.32%*	*0.00%*	*0.00%*	*20.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*20.00%*	*0.00%*	*20.00%*
Total Trips Generated		39	45	0	0	42	39	0	0	0	35	0	35
Total AM Peak Hour BUILD Volumes		**39**	**2,226**	**0**	**0**	**902**	**39**	**0**	**0**	**0**	**35**	**0**	**35**

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Driveway "C")			Southbound (Driveway "C")		
	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	165	0	0	340	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***1,081***	***0***	***0***	***2,230***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*20.00%*	*20.00%*	*0.00%*	*0.00%*	*3.32%*	*20.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*3.32%*	*0.00%*	*0.00%*	*20.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*20.00%*	*0.00%*	*20.00%*
Total Trips Generated	62	73	0	0	76	62	0	0	0	66	0	66
Subtotal PM Pk Hr. BUILD Volumes	**62**	**1,154**	**0**	**0**	**2,306**	**62**	**0**	**0**	**0**	**66**	**0**	**66**
Pass-by Trip Adjustments	*20*	*-18*	*0*	*0*	*-38*	*38*	*0*	*0*	*0*	*21*	*0*	*40*
Total PM Peak Hour BUILD Volumes	**82**	**1,136**	**0**	**0**	**2,268**	**100**	**0**	**0**	**0**	**87**	**0**	**106**

	Entering	Exiting		
Number of Commercial Trips Generated	**196**	**173**	A.M.	100% Commercial Development
	310	**328**	P.M.	

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Driveway "C")			Southbound (Driveway "C")		
2007 AM Peak Hr. Volumes	0	1959	0	0	773	0	0	0	0	0	0	0
2007 PM Peak Hr. Volumes	0	971	0	0	2,003	0	0	0	0	0	0	0

AM Pass-by Trips	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Driveway "C")			Southbound (Driveway "C")		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Entering	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Percent Exiting	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Exiting	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Net AM Passby Trips	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***

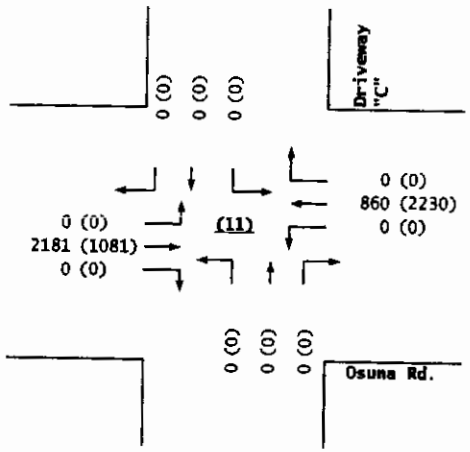
PM Pass-by Trips	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Driveway "C")			Southbound (Driveway "C")		
Percent Entering	*17.00%*	*-33.00%*	*0.00%*	*0.00%*	*-33.00%*	*33.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Entering	*20*	*-38*	*0*	*0*	*-38*	*38*	*0*	*0*	*0*	*0*	*0*	*0*
Percent Exiting	*0.00%*	*16.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*17.00%*	*0.00%*	*33.00%*
Volume Exiting	*0*	*20*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*21*	*0*	*40*
Net PM Passby Trips	***20***	***-18***	***0***	***0***	***-38***	***38***	***0***	***0***	***0***	***21***	***0***	***40***

Pass-by Trips	***0***	***0***	***AM***
	115	***122***	***PM***

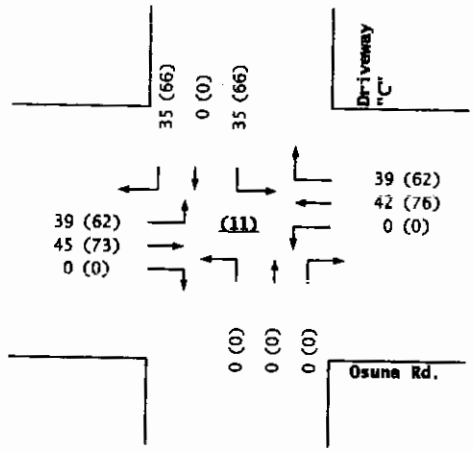
2007 Plan - with Park

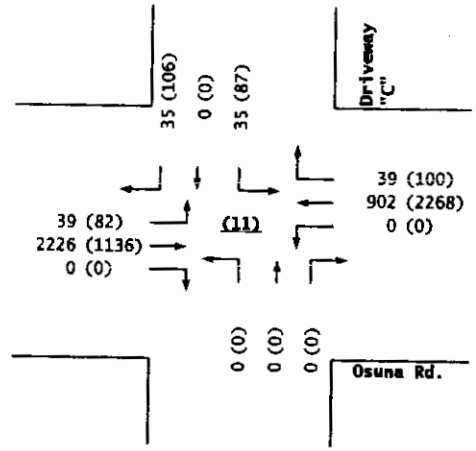
Trips

2009
NO BUILD



2009
BUILD





Osuna Rd. / Driveway "C"

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

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2009) - 100% Development

2007 Plan - NO Park

INTERSECTION: **Summary**

Osuna Rd. / 2nd St.

(1)

5.0% Truck

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (2nd St.)			Southbound (2nd St.)		
PHF	0.92			0.72			0.84			0.91		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	68	394	59	108	194	194	39	564	245	395	1,168	36
2009 (NO BUILD - A.M.)	72	417	62	114	205	205	40	586	254	410	1,214	37
2009 (BUILD - A.M.)	**72**	**456**	**62**	**131**	**239**	**229**	**40**	**586**	**274**	**438**	**1,214**	**37**

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (2nd St.)			Southbound (2nd St.)		
PHF	0.93			0.96			0.94			0.89		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	92	181	72	264	477	637	69	902	163	291	792	79
2009 (NO BUILD - P.M.)	97	192	76	279	505	674	72	937	170	302	823	82
2009 (BUILD - P.M.)	**97**	**258**	**76**	**315**	**575**	**723**	**72**	**937**	**204**	**348**	**823**	**82**

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 (2007)	29	868	239	155	368	65	150	223	148	174	368	25
2009 (NO BUILD - A.M.)	30	917	252	158	375	67	156	231	153	184	389	27
2009 (BUILD - A.M.)	**30**	**1,004**	**252**	**172**	**450**	**73**	**156**	**231**	**169**	**191**	**389**	**27**

	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 (2007)	48	457	123	158	990	155	289	454	156	107	288	55
2009 (NO BUILD - P.M.)	50	483	130	161	1,010	158	300	472	162	113	305	58
2009 (BUILD - P.M.)	**50**	**629**	**130**	**189**	**1,165**	**171**	**300**	**472**	**189**	**125**	**305**	**58**

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 (2007)	27	1,584	296	124	959	45	74	6	101	6	1	5
2009 (NO BUILD - A.M.)	30	1,745	326	137	1,057	49	80	6	110	6	1	5
2009 (BUILD - A.M.)	**30**	**1,827**	**326**	**137**	**1,153**	**49**	**80**	**6**	**110**	**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 (2007)	4	956	72	111	1,687	6	240	2	174	55	23	28
2009 (NO BUILD - P.M.)	4	1,053	79	122	1,859	7	261	3	189	60	25	30
2009 (BUILD - P.M.)	**4**	**1,223**	**80**	**122**	**2,019**	**7**	**262**	**3**	**189**	**60**	**25**	**30**

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 (2007)	57	1,381	4	41	896	94	6	0	24	55	0	18
2009 (NO BUILD - A.M.)	64	1,538	5	46	997	105	7	0	26	60	0	20
2009 (BUILD - A.M.)	**64**	**1,620**	**5**	**46**	**1,093**	**105**	**7**	**0**	**26**	**60**	**0**	**20**

	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 (2007)	8	1,161	0	31	1,531	22	25	0	59	87	1	44
2009 (NO BUILD - P.M.)	9	1,292	0	34	1,704	25	28	0	64	95	1	48
2009 (BUILD - P.M.)	**9**	**1,462**	**0**	**34**	**1,864**	**25**	**28**	**0**	**64**	**95**	**1**	**48**

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

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2009) - 100% Development

2007 Plan - NO Park

INTERSECTION: **Summary**

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 (2007)	278	1,276	182	198	1,004	286	129	241	45	209	396	170
2009 (NO BUILD - A.M.)	*307*	*1,405*	*200*	*209*	*1,059*	*301*	*134*	*250*	*46*	*217*	*411*	*176*
2009 (BUILD - A.M.)	***324***	***1,468***	***202***	***209***	***1,133***	***301***	***136***	***250***	***46***	***217***	***411***	***196***
	0.94			0.91			0.90			0.80		PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	293	1,755	96	96	1,107	219	308	590	280	355	363	321
2009 (NO BUILD - P.M.)	*322*	*1,933*	*105*	*101*	*1,168*	*231*	*320*	*613*	*290*	*369*	*376*	*333*
2009 (BUILD - P.M.)	***357***	***2,063***	***109***	***101***	***1,291***	***231***	***324***	***613***	***290***	***369***	***376***	***366***

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 (2007)	21	1,195	0	0	676	96	0	0	0	698	0	101
2009 (NO BUILD - A.M.)	*34*	*1,218*	*0*	*0*	*753*	*132*	*0*	*0*	*0*	*788*	*0*	*116*
2009 (BUILD - A.M.)	***56***	***1,307***	***0***	***0***	***829***	***139***	***0***	***0***	***0***	***794***	***0***	***135***
	0.89			0.92			0.90			0.86		PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	95	769	0	0	1,453	550	0	0	0	163	0	49
2009 (NO BUILD - P.M.)	*104*	*784*	*0*	*0*	*1,618*	*636*	*0*	*0*	*0*	*203*	*0*	*65*
2009 (BUILD - P.M.)	***166***	***906***	***0***	***0***	***1,764***	***648***	***0***	***0***	***0***	***242***	***0***	***117***

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 (2007)	34	88	0	0	16	65	0	0	0	168	0	14
2009 (NO BUILD - A.M.)	*37*	*97*	*0*	*0*	*17*	*93*	*0*	*0*	*0*	*189*	*0*	*15*
2009 (BUILD - A.M.)	***37***	***101***	***0***	***0***	***21***	***96***	***0***	***0***	***0***	***192***	***0***	***15***
	0.80			0.80			0.85			0.90		PHF
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	16	34	0	0	96	189	0	0	0	88	0	54
2009 (NO BUILD - P.M.)	*17*	*37*	*0*	*0*	*105*	*213*	*0*	*0*	*0*	*118*	*0*	*59*
2009 (BUILD - P.M.)	***17***	***44***	***0***	***0***	***113***	***219***	***0***	***0***	***0***	***124***	***0***	***59***

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 (2007)	0	396	125	18	81	0	77	0	90	0	0	0
2009 (NO BUILD - A.M.)	*0*	*516*	*232*	*160*	*106*	*0*	*104*	*0*	*129*	*0*	*0*	*0*
2009 (BUILD - A.M.)	***0***	***516***	***233***	***160***	***106***	***0***	***105***	***0***	***129***	***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 (2007)	0	67	89	78	148	0	171	0	47	0	0	0
2009 (NO BUILD - P.M.)	*0*	*96*	*123*	*123*	*243*	*0*	*280*	*0*	*188*	*0*	*0*	*0*
2009 (BUILD - P.M.)	***0***	***96***	***124***	***123***	***243***	***0***	***281***	***0***	***188***	***0***	***0***	***0***

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

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2009) - 100% Development

2007 Plan - NO Park

INTERSECTION: **Summary**

Osuna Rd. / Driveway "A"

(9)

5.0% Truck

	0.85			0.85			0.85			0.85		PHF
	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 (2007)	0	1,959	0	0	773	0	0	0	0	0	0	0
2009 (NO BUILD - A.M.)	0	2,181	0	0	860	0	0	0	0	0	0	0
2009 (BUILD - A.M.)	**44**	**2,225**	**0**	**0**	**912**	**44**	**0**	**0**	**0**	**38**	**0**	**38**

	0.85			0.85			0.85			0.85		PHF
	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 (2007)	0	971	0	0	2,003	0	0	0	0	0	0	0
2009 (NO BUILD - P.M.)	0	1,081	0	0	2,230	0	0	0	0	0	0	0
2009 (BUILD - P.M.)	**96**	**1,151**	**0**	**0**	**2,271**	**122**	**0**	**0**	**0**	**103**	**0**	**130**

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 (2007)	5	0	11	0	0	0	11	118	0	0	799	5
2009 (NO BUILD - A.M.)	11	0	37	0	0	0	27	129	0	0	875	11
2009 (BUILD - A.M.)	**11**	**0**	**37**	**25**	**0**	**13**	**27**	**129**	**29**	**15**	**875**	**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 (2007)	5	0	11	0	0	0	11	644	0	0	212	5
2009 (NO BUILD - P.M.)	11	0	27	0	0	0	37	705	0	0	232	11
2009 (BUILD - P.M.)	**11**	**0**	**27**	**52**	**0**	**7**	**37**	**705**	**49**	**25**	**232**	**11**

Osuna Rd. / Driveway "C"

(11)

5.0% Truck

	0.85			0.85			0.85			0.85		PHF
	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Driveway "C")			Southbound (Driveway "C")		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	0	1,959	0	0	773	0	0	0	0	0	0	0
2009 (NO BUILD - A.M.)	0	2,181	0	0	860	0	0	0	0	0	0	0
2009 (BUILD - A.M.)	**44**	**2,231**	**0**	**0**	**905**	**44**	**0**	**0**	**0**	**38**	**0**	**38**

	0.85			0.85			0.85			0.85		PHF
	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Driveway "C")			Southbound (Driveway "C")		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing (2007)	0	971	0	0	2,003	0	0	0	0	0	0	0
2009 (NO BUILD - P.M.)	0	1,081	0	0	2,230	0	0	0	0	0	0	0
2009 (BUILD - P.M.)	**98**	**1,146**	**0**	**0**	**2,275**	**120**	**0**	**0**	**0**	**104**	**0**	**128**

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

Projected Turning Movements Worksheet

Osuna Rd. / 2nd St.

2007 Plan - NO Park

INTERSECTION: E-W Street: **Osuna Rd.** (1)

N-S Street: **2nd St.**

Year of Existing Counts **2006**

Implementation Year **2009**

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (2nd St.)			Southbound (2nd St.)		
Growth Rates	3.00%			3.00%			2.00%			2.00%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	66	383	57	105	188	188	38	553	240	387	1,145	35
Background Traffic Growth	6	34	5	9	17	17	2	33	14	23	69	2
Subtotal (NO BUILD - A.M.)	***72***	***417***	***62***	***114***	***205***	***205***	***40***	***586***	***254***	***410***	***1,214***	***37***
Percent Commercial Trips Generated(Entering)	*0.00%*	*17.75%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*9.17%*	*12.41%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*9.17%*	*17.75%*	*12.41%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	39	0	17	34	24	0	0	20	28	0	0
Total AM Peak Hour BUILD Volumes	**72**	**456**	**62**	**131**	**239**	**229**	**40**	**586**	**274**	**438**	**1,214**	**37**

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (2nd St.)			Southbound (2nd St.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	89	176	70	256	463	618	68	884	160	285	776	77
Background Traffic Growth	8	16	6	23	42	56	4	53	10	17	47	5
Subtotal (NO BUILD - P.M.)	***97***	***192***	***76***	***279***	***505***	***674***	***72***	***937***	***170***	***302***	***823***	***82***
Percent Commercial Trips Generated(Entering)	*0.00%*	*17.75%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*9.17%*	*12.41%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*9.17%*	*17.75%*	*12.41%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	66	0	36	70	49	0	0	34	46	0	0
Total PM Peak Hour BUILD Volumes	**97**	**258**	**76**	**315**	**575**	**723**	**72**	**937**	**204**	**348**	**823**	**82**

	Entering	Exiting		
Number of Commercial Trips Generated	**222**	**190**	A.M.	100% Commercial Development
	370	**393**	P.M.	

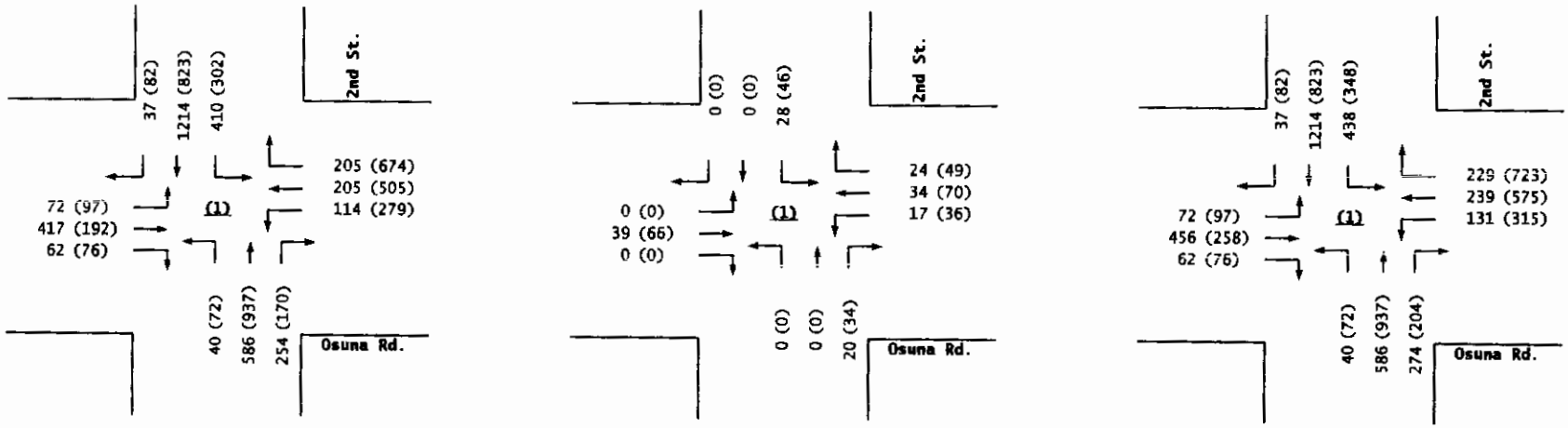
	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (2nd St.)			Southbound (2nd St.)		
2007 AM Peak Hr. Volumes	68	394	59	108	194	194	39	564	245	395	1,168	36
2007 PM Peak Hr. Volumes	92	181	72	264	477	637	69	902	163	291	792	79

2007 Plan - NO Park

2009
NO BUILD

Trips

2009
BUILD



Osuna Rd. / 2nd St.

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

Projected Turning Movements Worksheet

Osuna Rd. / Edith Blvd.

2007 Plan - NO Park

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

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

Year of Existing Counts 2005

Implementation Year **2009**

	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	24
Background Traffic Growth	3	98	27	6	14	3	12	17	11	20	42	3
Subtotal (NO BUILD - A.M.)	***30***	***917***	***252***	***158***	***375***	***67***	***156***	***231***	***153***	***184***	***389***	***27***
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	87	0	14	75	6	0	0	16	7	0	0
Total AM Peak Hour BUILD Volumes	**30**	**1,004**	**252**	**172**	**450**	**73**	**156**	**231**	**169**	**191**	**389**	**27**

	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	272	52
Background Traffic Growth	5	52	14	6	39	6	22	35	12	12	33	6
Subtotal (NO BUILD - P.M.)	***50***	***483***	***130***	***161***	***1,010***	***158***	***300***	***472***	***162***	***113***	***305***	***58***
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	146	0	28	155	13	0	0	27	12	0	0
Total PM Peak Hour BUILD Volumes	**50**	**629**	**130**	**189**	**1,165**	**171**	**300**	**472**	**189**	**125**	**305**	**58**

	Entering	Exiting		
Number of Commercial Trips Generated	**222**	**190**	A.M.	100% Commercial Development
	370	**393**	P.M.	

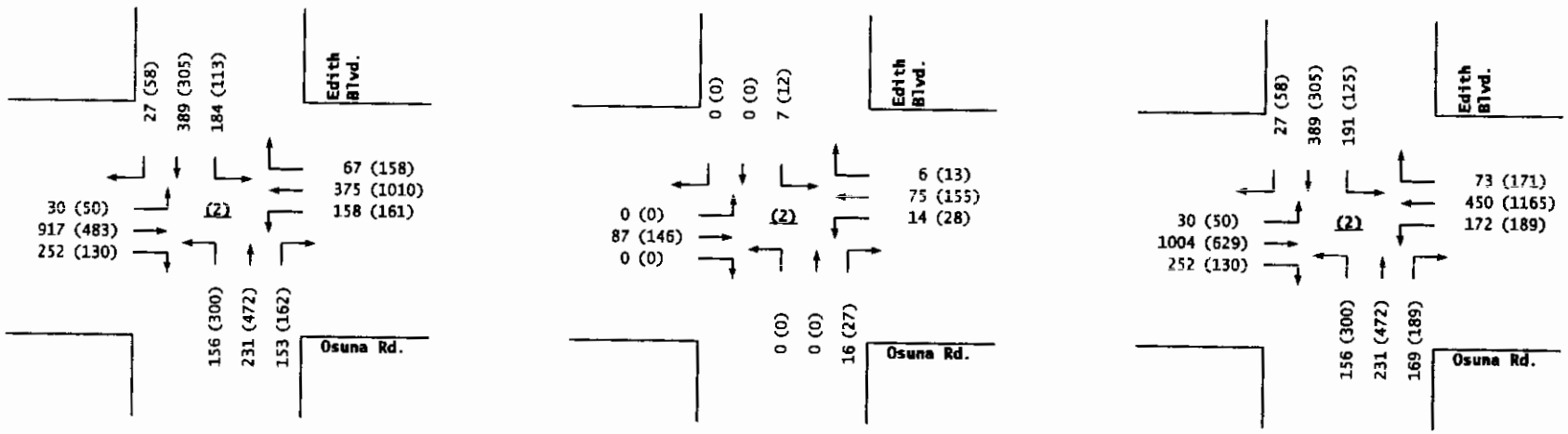
	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Edith Blvd.)			Southbound (Edith Blvd.)		
2007 AM Peak Hr. Volumes	29	868	239	155	368	65	150	223	148	174	368	25
2007 PM Peak Hr. Volumes	48	457	123	158	990	155	289	454	156	107	288	55

2007 Plan - NO Park

2009
NO BUILD

Trips

2009
BUILD



Osuna Rd. / Edith Blvd.

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

Projected Turning Movements Worksheet

Osuna Rd. / Chappel Dr.

2007 Plan - NO Park

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

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

Year of Existing Counts **2004**

Implementation Year **2009**

	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	7	403	75	32	244	11	16	1	22	1	0	1
Subtotal (NO BUILD - A.M.)	***30***	***1,745***	***326***	***137***	***1,057***	***49***	***80***	***6***	***110***	***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	82	0	0	96	0	0	0	0	0	0	0
Total AM Peak Hour BUILD Volumes	**30**	**1,827**	**326**	**137**	**1,153**	**49**	**80**	**6**	**110**	**6**	**1**	**5**

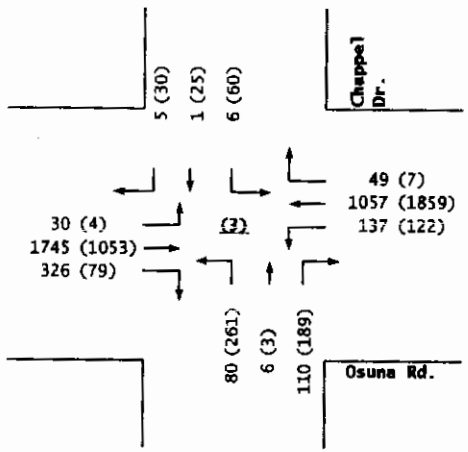
	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Chappel Dr.)			Southbound (Chappel Dr.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	3	810	61	94	1,430	5	209	2	151	48	20	24
Background Traffic Growth	1	243	18	28	429	2	52	1	38	12	5	6
Subtotal (NO BUILD - P.M.)	***4***	***1,053***	***79***	***122***	***1,859***	***7***	***261***	***3***	***189***	***60***	***25***	***30***
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	170	1	0	160	0	1	0	0	0	0	0
Total PM Peak Hour BUILD Volumes	**4**	**1,223**	**80**	**122**	**2,019**	**7**	**262**	**3**	**189**	**60**	**25**	**30**

	Entering	Exiting		
Number of Commercial Trips Generated	**222**	**190**	A.M.	100% Commercial Development
	370	**393**	P.M.	

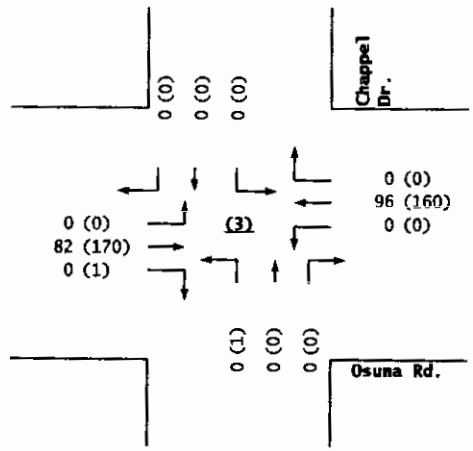
	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Chappel Dr.)			Southbound (Chappel Dr.)		
2007 AM Peak Hr. Volumes	27	1584	296	124	959	45	74	6	101	6	1	5
2007 PM Peak Hr. Volumes	4	956	72	111	1,687	6	240	2	174	55	23	28

2007 Plan - NO Park

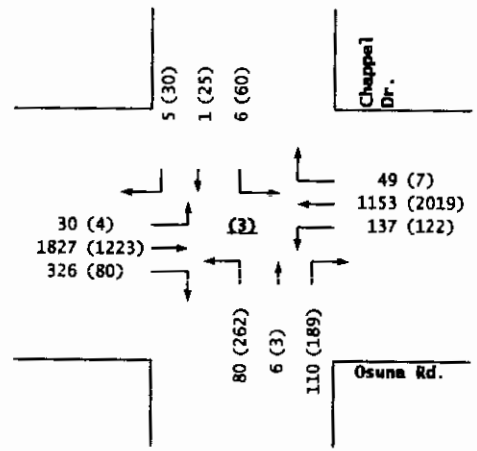
2009
NO BUILD



Trips



2009
BUILD



Osuna Rd. / Chappel Dr.

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

Projected Turning Movements Worksheet

Osuna Rd. / Academy Parkway

2007 Plan - NO Park

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

N-S Street: **Academy Parkway**

Year of Existing Counts 2006

Implementation Year **2009**

	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	10	235	1	7	152	16	1	0	3	8	0	3
Subtotal (NO BUILD - A.M.)	***64***	***1,538***	***5***	***46***	***997***	***105***	***7***	***0***	***26***	***60***	***0***	***20***
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	82	0	0	96	0	0	0	0	0	0	0
Total AM Peak Hour BUILD Volumes	**64**	**1,620**	**5**	**46**	**1,093**	**105**	**7**	**0**	**26**	**60**	**0**	**20**

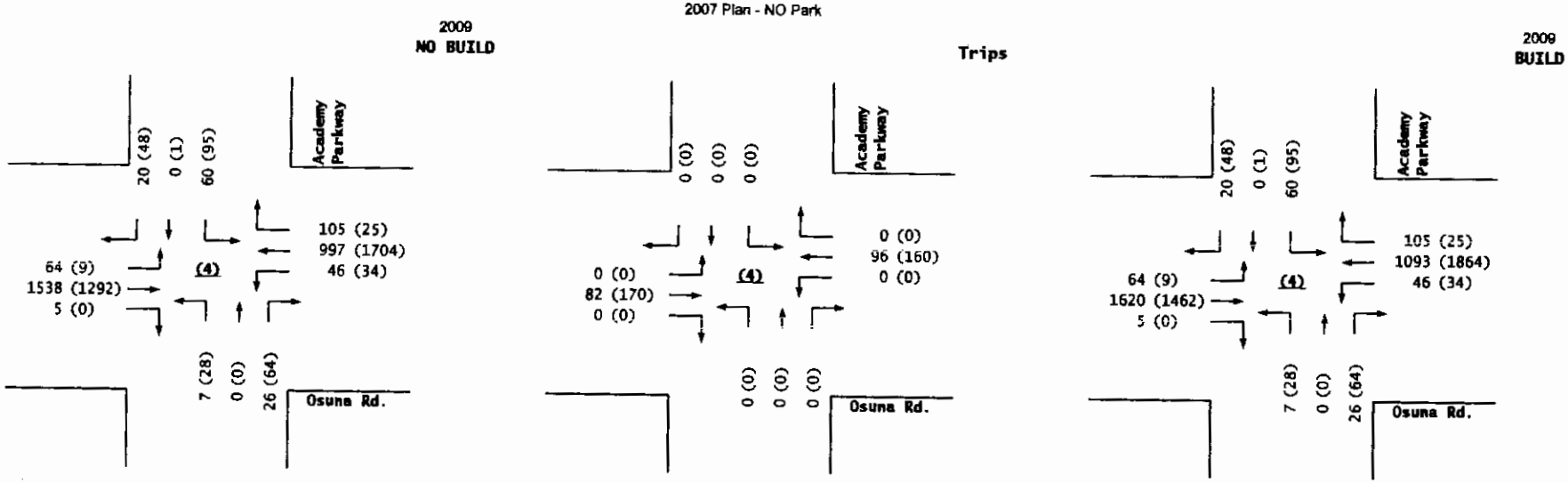
	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Academy Parkway)			Southbound (Academy Parkway)		
	6.00%			6.00%			5.00%			5.00%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	8	1,095	0	29	1,444	21	24	0	56	83	1	42
Background Traffic Growth	1	197	0	5	260	4	4	0	8	12	0	6
Subtotal (NO BUILD - P.M.)	***9***	***1,292***	***0***	***34***	***1,704***	***25***	***28***	***0***	***64***	***95***	***1***	***48***
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	170	0	0	160	0	0	0	0	0	0	0
Total PM Peak Hour BUILD Volumes	**9**	**1,462**	**0**	**34**	**1,864**	**25**	**28**	**0**	**64**	**95**	**1**	**48**

	Entering	Exiting		
Number of Commercial Trips Generated	**222**	**190**	A.M.	100% Commercial Development
	370	**393**	P.M.	

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Academy Parkway)			Southbound (Academy Parkway)		
2007 AM Peak Hr. Volumes	57	1381	4	41	896	94	6	0	24	55	0	18
2007 PM Peak Hr. Volumes	8	1,161	0	31	1,531	22	25	0	59	87	1	44

2007 Plan - NO Park

Trips



Osuna Rd. / Academy Parkway

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

Projected Turning Movements Worksheet

Osuna Rd. / Jefferson St.

2007 Plan - NO Park

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

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

Year of Existing Counts 2004

Implementation Year **2009**

	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	71	324	46	27	138	39	12	23	4	20	37	16
Subtotal (NO BUILD - A.M.)	***307***	***1,405***	***200***	***209***	***1,059***	***301***	***134***	***250***	***46***	***217***	***411***	***176***
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	17	63	2	0	74	0	2	0	0	0	0	20
Total AM Peak Hour BUILD Volumes	**324**	**1,468**	**202**	**209**	**1,133**	**301**	**136**	**250**	**46**	**217**	**411**	**196**

	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	74	446	24	13	152	30	29	56	26	34	34	30
Subtotal (NO BUILD - P.M.)	***322***	***1,933***	***105***	***101***	***1,168***	***231***	***320***	***613***	***290***	***369***	***376***	***333***
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	35	130	4	0	123	0	4	0	0	0	0	33
Total PM Peak Hour BUILD Volumes	**357**	**2,063**	**109**	**101**	**1,291**	**231**	**324**	**613**	**290**	**369**	**376**	**366**

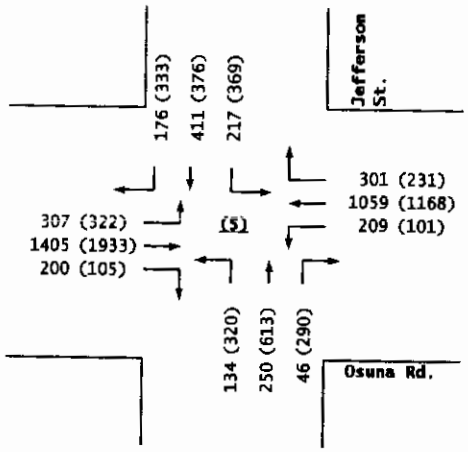
	Entering	Exiting		
Number of Commercial Trips Generated	**222**	**190**	A.M.	100% Commercial Development
	370	**393**	P.M.	

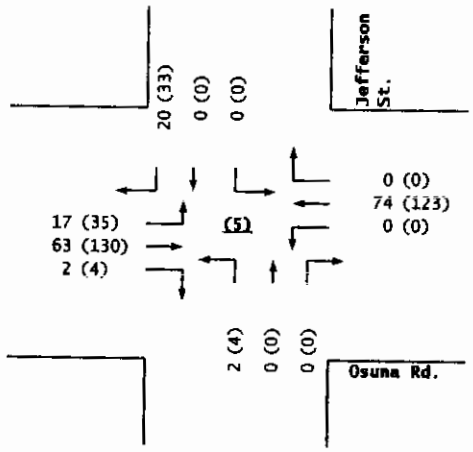
	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Jefferson St.)			Southbound (Jefferson St.)		
2007 AM Peak Hr. Volumes	278	1276	182	198	1,004	288	129	241	45	209	396	170
2007 PM Peak Hr. Volumes	293	1,755	98	96	1,107	219	308	590	280	355	363	321

2007 Plan - NO Park

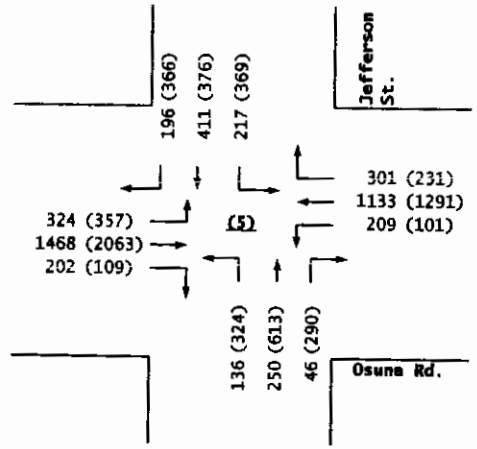
Trips

2009
NO BUILD





2009
BUILD



Osuna Rd. / Jefferson St.

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

Projected Turning Movements Worksheet

Osuna Rd. / Vista del Norte

2007 Plan - NO Park

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

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

Year of Existing Counts 2006

Implementation Year **2009**

	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		1	35	0	0	115	16	0	0	0	100	0	14
Subtotal		22	1,218	0	0	753	107	0	0	0	765	0	110
Las Lomitas Industrial Park Trips		7	0	0	0	0	15	0	0	0	3	0	1
Agave Subdivision Trips (31 Lots)		5	0	0	0	0	10	0	0	0	20	0	5
Subtotal (NO BUILD - A.M.)		***34***	***1,218***	***0***	***0***	***753***	***132***	***0***	***0***	***0***	***788***	***0***	***116***
Percent Commercial Trips Generated(Entering)		*9.80%*	*40.00%*	*0.00%*	*0.00%*	*0.00%*	*3.32%*	*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%*	*40.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*3.32%*	*0.00%*	*9.80%*
Total Trips Generated		22	89	0	0	76	7	0	0	0	6	0	19
Total AM Peak Hour BUILD Volumes		**56**	**1,307**	**0**	**0**	**829**	**139**	**0**	**0**	**0**	**794**	**0**	**135**

	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	3	23	0	0	247	93	0	0	0	23	0	7
Subtotal	97	784	0	0	1,618	612	0	0	0	178	0	54
Las Lomitas Industrial Park Trips	2	0	0	0	0	4	0	0	0	15	0	6
Agave Subdivision Trips (31 Lots)	5	0	0	0	0	20	0	0	0	10	0	5
Subtotal (NO BUILD - P.M.)	***104***	***784***	***0***	***0***	***1,618***	***636***	***0***	***0***	***0***	***203***	***0***	***65***
Percent Commercial Trips Generated(Entering)	*9.80%*	*40.00%*	*0.00%*	*0.00%*	*0.00%*	*3.32%*	*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%*	*40.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*3.32%*	*0.00%*	*9.80%*
Total Trips Generated	36	148	0	0	157	12	0	0	0	13	0	39
Subtotal PM Pk Hr. BUILD Volumes	**140**	**932**	**0**	**0**	**1,775**	**648**	**0**	**0**	**0**	**216**	**0**	**104**
Pass-by Trip Adjustments	*26*	*-26*	*0*	*0*	*-11*	*0*	*0*	*0*	*0*	*26*	*0*	*13*
Total PM Peak Hour BUILD Volumes	**166**	**906**	**0**	**0**	**1,764**	**648**	**0**	**0**	**0**	**242**	**0**	**117**

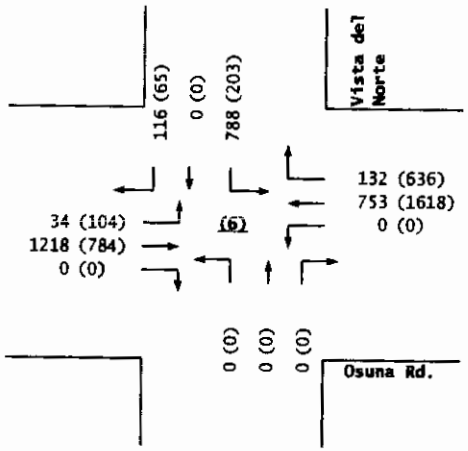
	Entering	Exiting		
Number of Commercial Trips Generated	**222**	**190**	A.M.	100% Commercial Development
	370	**393**	P.M.	

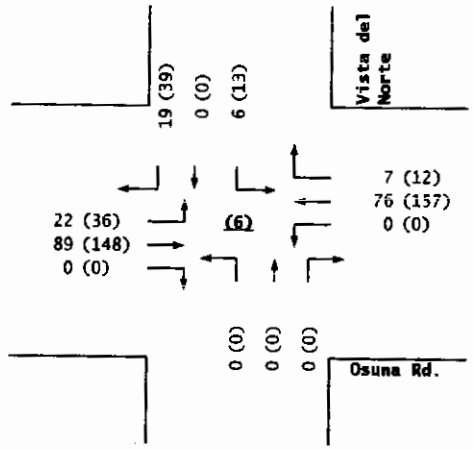
	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Vista del Norte)			Southbound (Vista del Norte)		
2007 AM Peak Hr. Volumes	21	1195	0	0	676	96	0	0	0	698	0	101
2007 PM Peak Hr. Volumes	95	769	0	0	1,453	550	0	0	0	163	0	49

2007 Plan - NO Park

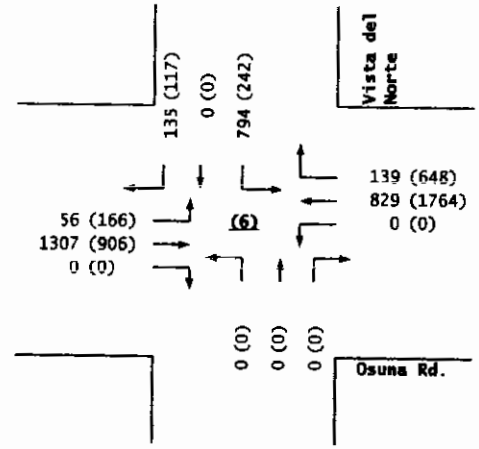
Trips

2009
NO BUILD





2009
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

2007 Plan - NO Park

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

N-S Street: **Las Lomitas**

Year of Existing Counts 2006

Implementation Year **2009**

	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	5	13	0	0	2	9	0	0	0	24	0	2
Subtotal	37	97	0	0	17	71	0	0	0	184	0	15
Las Lomitas Industrial Park Trips	0	0	0	0	0	22	0	0	0	5	0	0
Subtotal (NO BUILD - A.M.)	***37***	***97***	***0***	***0***	***17***	***93***	***0***	***0***	***0***	***189***	***0***	***15***
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	4	0	0	4	3	0	0	0	3	0	0
Total AM Peak Hour BUILD Volumes	**37**	**101**	**0**	**0**	**21**	**96**	**0**	**0**	**0**	**192**	**0**	**15**

	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	5	0	0	14	27	0	0	0	13	0	8
Subtotal	17	37	0	0	105	207	0	0	0	97	0	59
Las Lomitas Industrial Park Trips	0	0	0	0	0	6	0	0	0	21	0	0
Subtotal (NO BUILD - P.M.)	***17***	***37***	***0***	***0***	***105***	***213***	***0***	***0***	***0***	***118***	***0***	***59***
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	7	0	0	8	6	0	0	0	6	0	0
Total PM Peak Hour BUILD Volumes	**17**	**44**	**0**	**0**	**113**	**219**	**0**	**0**	**0**	**124**	**0**	**59**

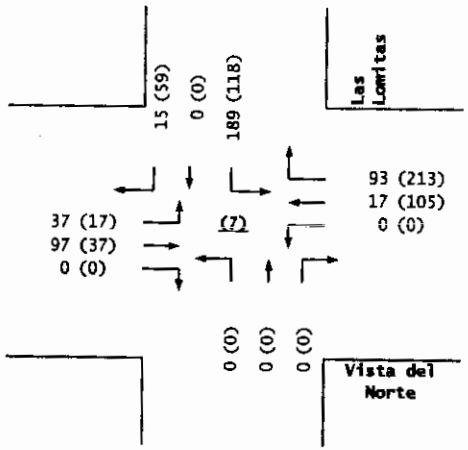
	Entering	Exiting		
Number of Commercial Trips Generated	**222**	**190**	A.M.	100% Commercial Development
	370	**393**	P.M.	

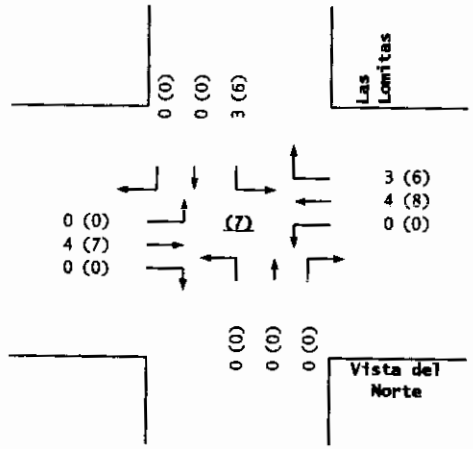
	Eastbound (Vista del Norte)			Westbound (Vista del Norte)			Northbound (Las Lomitas)			Southbound (Las Lomitas)		
2007 AM Peak Hr. Volumes	34	88	0	0	16	65	0	0	0	168	0	14
2007 PM Peak Hr. Volumes	16	34	0	0	96	189	0	0	0	88	0	54

2007 Plan - NO Park

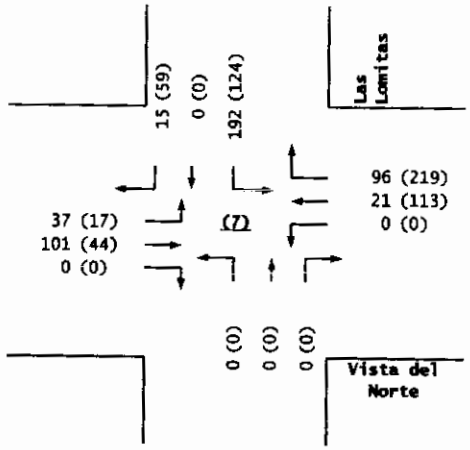
Trips

2009
NO BUILD





2009
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.

2007 Plan - NO Park

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

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

Year of Existing Counts 2006

Implementation Year **2009**

	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	57	18	3	12	0	11	0	13	0	0	0
Subtotal	0	434	137	20	89	0	84	0	99	0	0	0
Vista del Norte Industrial Park Trips	0	82	0	0	17	0	0	0	1	0	0	0
Las Lomitas Industrial Park Trips	0	0	95	140	0	0	20	0	29	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***516***	***232***	***160***	***106***	***0***	***104***	***0***	***129***	***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**	**516**	**233**	**160**	**106**	**0**	**105**	**0**	**129**	**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	10	13	11	21	0	24	0	7	0	0	0
Subtotal	0	74	98	85	162	0	187	0	52	0	0	0
Vista del Norte Industrial Park Trips	0	22	0	2	81	0	0	0	0	0	0	0
Las Lomitas Industrial Park Trips	0	0	25	36	0	0	93	0	136	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***96***	***123***	***123***	***243***	***0***	***280***	***0***	***188***	***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**	**96**	**124**	**123**	**243**	**0**	**281**	**0**	**188**	**0**	**0**	**0**

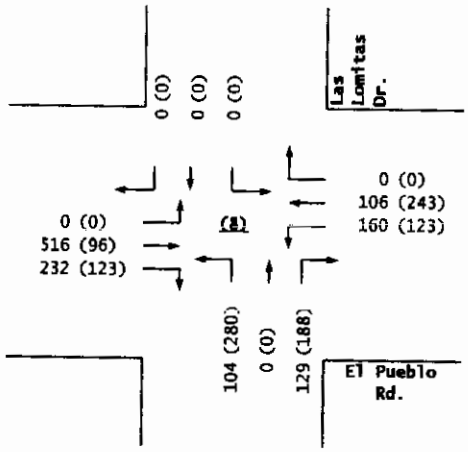
	Entering	Exiting		
Number of Commercial Trips Generated	**222**	**190**	A.M.	100% Commercial Development
	370	**393**	P.M.	

	Eastbound (El Pueblo Rd.)			Westbound (El Pueblo Rd.)			Northbound (Las Lomitas Dr.)			Southbound (Las Lomitas Dr.)		
2007 AM Peak Hr. Volumes	0	396	125	18	81	0	77	0	90	0	0	0
2007 PM Peak Hr. Volumes	0	67	89	78	148	0	171	0	47	0	0	0

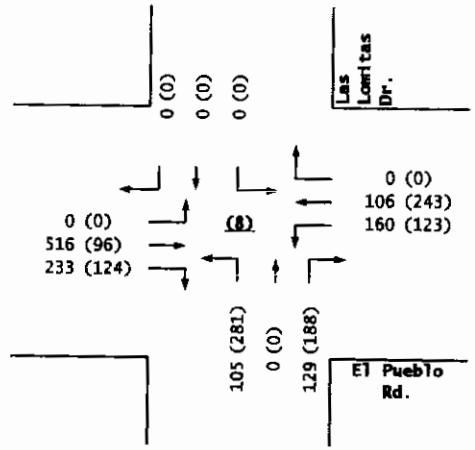
2007 Plan - NO Park

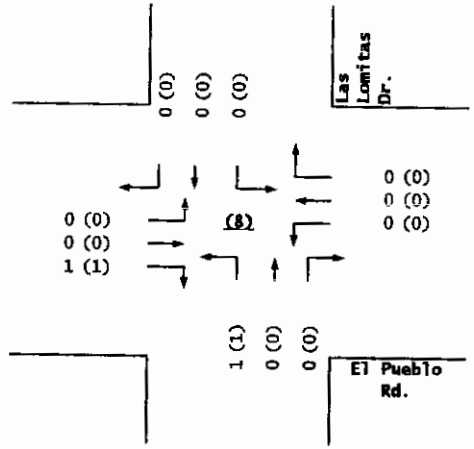
Trips

2009
NO BUILD



2009
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"

2007 Plan - NO Park

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

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

Year of Existing Counts 2006

Implementation Year **2009**

	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	333	0	0	131	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***2,181***	***0***	***0***	***860***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	***20.00%***	*0.00%*	*0.00%*	*0.00%*	***23.32%***	***20.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	***23.32%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***20.00%***	*0.00%*	***20.00%***
Total Trips Generated	44	44	0	0	52	44	0	0	0	38	0	38
Total AM Peak Hour BUILD Volumes	**44**	**2,225**	**0**	**0**	**912**	**44**	**0**	**0**	**0**	**38**	**0**	**38**

	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	165	0	0	340	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***1,081***	***0***	***0***	***2,230***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	***20.00%***	*0.00%*	*0.00%*	*0.00%*	***23.32%***	***20.00%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	***23.32%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***20.00%***	*0.00%*	***20.00%***
Total Trips Generated	74	92	0	0	86	74	0	0	0	79	0	79
Subtotal PM Pk Hr. BUILD Volumes	**74**	**1,173**	**0**	**0**	**2,316**	**74**	**0**	**0**	**0**	**79**	**0**	**79**
Pass-by Trip Adjustments	*22*	*-22*	*0*	*0*	*-45*	*48*	*0*	*0*	*0*	*24*	*0*	*51*
Total PM Peak Hour BUILD Volumes	**96**	**1,151**	**0**	**0**	**2,271**	**122**	**0**	**0**	**0**	**103**	**0**	**130**

	Entering	Exiting		
Number of Commercial Trips Generated	**222**	**190**	A.M.	100% Commercial Development
	370	**393**	P.M.	

AM Pass-by Trips	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Driveway "A")			Southbound (Driveway "A")		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Entering	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Percent Exiting	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Exiting	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Net AM Passby Trips	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***

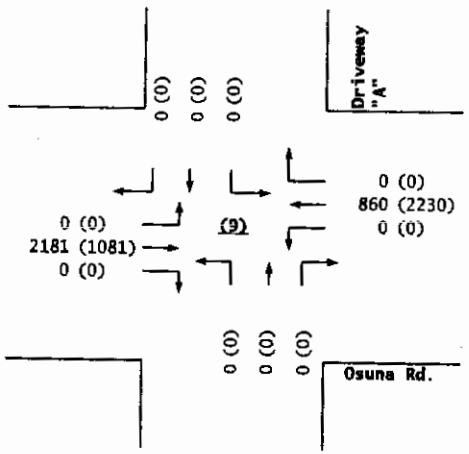
PM Pass-by Trips	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Driveway "A")			Southbound (Driveway "A")		
Percent Entering	*16.00%*	*-16.00%*	*0.00%*	*0.00%*	*-67.00%*	*34.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Entering	*22*	*-22*	*0*	*0*	*-94*	*48*	*0*	*0*	*0*	*0*	*0*	*0*
Percent Exiting	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*33.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*16.00%*	*0.00%*	*34.00%*
Volume Exiting	*0*	*0*	*0*	*0*	*49*	*0*	*0*	*0*	*0*	*24*	*0*	*51*
Net PM Passby Trips	***22***	***-22***	***0***	***0***	***-45***	***48***	***0***	***0***	***0***	***24***	***0***	***51***

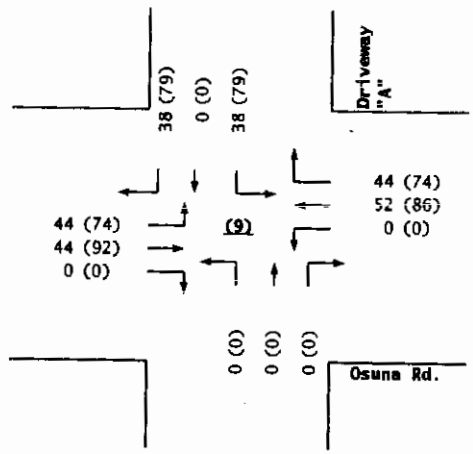
Pass-by Trips	***0***	***0***	***AM***
	140	***149***	***PM***

2007 Plan - NO Park

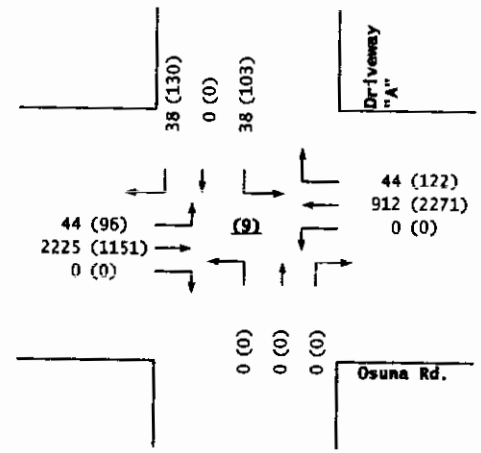
Trips

2009
NO BUILD





2009
BUILD



Osuna Rd. / Driveway "A"

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

Projected Turning Movements Worksheet

Driveway "B" / Vista del Norte

2007 Plan - NO Park

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

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

Year of Existing Counts 2006

Implementation Year **2009**

	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	2	0	0	0	2	17	0	0	114	1
Subtotal	6	0	12	0	0	0	12	129	0	0	875	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***	***37***	***0***	***0***	***0***	***27***	***129***	***0***	***0***	***875***	***11***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*13.12%*	*6.88%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*13.12%*	*0.00%*	*6.88%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	25	0	13	0	0	29	15	0	0
Total AM Peak Hour BUILD Volumes	**11**	**0**	**37**	**25**	**0**	**13**	**27**	**129**	**29**	**15**	**875**	**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	2	0	0	0	2	92	0	0	30	1
Subtotal	6	0	12	0	0	0	12	705	0	0	232	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***	***27***	***0***	***0***	***0***	***37***	***705***	***0***	***0***	***232***	***11***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*13.12%*	*6.88%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*13.12%*	*0.00%*	*1.88%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	52	0	7	0	0	49	25	0	0
Subtotal PM Pk Hr. BUILD Volumes	**11**	**0**	**27**	**52**	**0**	**7**	**37**	**705**	**49**	**25**	**232**	**11**
Pass-by Trip Adjustments	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Total PM Peak Hour BUILD Volumes	**11**	**0**	**27**	**52**	**0**	**7**	**37**	**705**	**49**	**25**	**232**	**11**

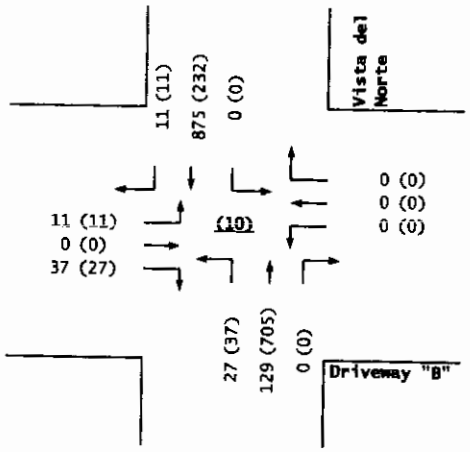
	Entering	Exiting		
Number of Commercial Trips Generated	**222**	**190**	A.M.	100% Commercial Development
	370	**393**	P.M.	

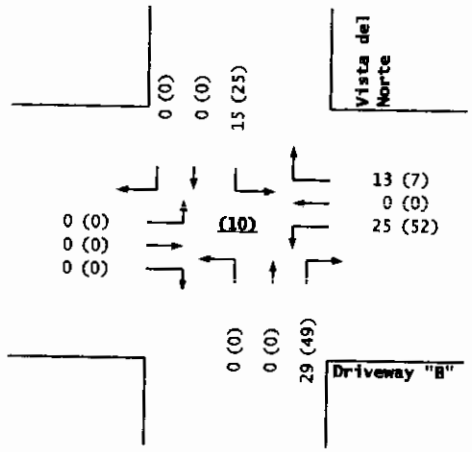
	Eastbound (Driveway "B")			Westbound (Driveway "B")			Northbound (Vista del Norte)			Southbound (Vista del Norte)		
2007 AM Peak Hr. Volumes	5	0	11	0	0	0	11	118	0	0	799	5
2007 PM Peak Hr. Volumes	5	0	11	0	0	0	11	644	0	0	212	5

2007 Plan - NO Park

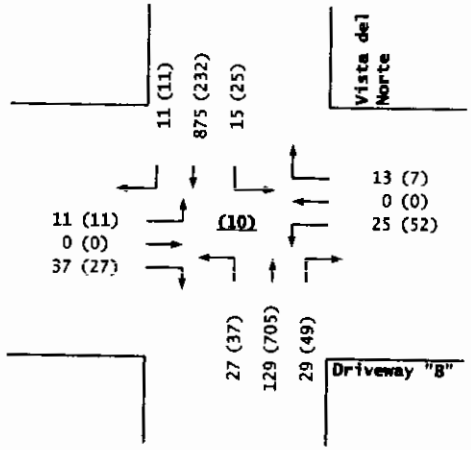
Trips

2009
NO BUILD





2009
BUILD



Driveway "B" / Vista del Norte

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

Projected Turning Movements Worksheet

Osuna Rd. / Driveway "C"

2007 Plan - NO Park

INTERSECTION: E-W Street: **Osuna Rd.** (11)

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

Year of Existing Counts 2006

Implementation Year **2009**

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Driveway "C")			Southbound (Driveway "C")		
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	333	0	0	131	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***2,181***	***0***	***0***	***860***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*20.00%*	*20.00%*	*0.00%*	*0.00%*	*3.32%*	*20.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*3.32%*	*0.00%*	*0.00%*	*20.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*20.00%*	*0.00%*	*20.00%*
Total Trips Generated	44	50	0	0	45	44	0	0	0	38	0	38
Total AM Peak Hour BUILD Volumes	**44**	**2,231**	**0**	**0**	**905**	**44**	**0**	**0**	**0**	**38**	**0**	**38**

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Driveway "C")			Southbound (Driveway "C")		
	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	165	0	0	340	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***1,081***	***0***	***0***	***2,230***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*20.00%*	*20.00%*	*0.00%*	*0.00%*	*3.32%*	*20.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*3.32%*	*0.00%*	*0.00%*	*20.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*20.00%*	*0.00%*	*20.00%*
Total Trips Generated	74	87	0	0	91	74	0	0	0	79	0	79
Subtotal PM Pk Hr. BUILD Volumes	**74**	**1,168**	**0**	**0**	**2,321**	**74**	**0**	**0**	**0**	**79**	**0**	**79**
Pass-by Trip Adjustments	*24*	*-22*	*0*	*0*	*-46*	*46*	*0*	*0*	*0*	*25*	*0*	*49*
Total PM Peak Hour BUILD Volumes	**98**	**1,146**	**0**	**0**	**2,275**	**120**	**0**	**0**	**0**	**104**	**0**	**128**

	Entering	Exiting		
Number of Commercial Trips Generated	**222**	**190**	A.M.	100% Commercial Development
	370	**393**	P.M.	

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Driveway "C")			Southbound (Driveway "C")		
2007 AM Peak Hr. Volumes	0	1959	0	0	773	0	0	0	0	0	0	0
2007 PM Peak Hr. Volumes	0	971	0	0	2,003	0	0	0	0	0	0	0

AM Pass-by Trips	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Driveway "C")			Southbound (Driveway "C")		
Percent Entering	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Entering	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Percent Exiting	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Exiting	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Net AM Passby Trips	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***	***0***

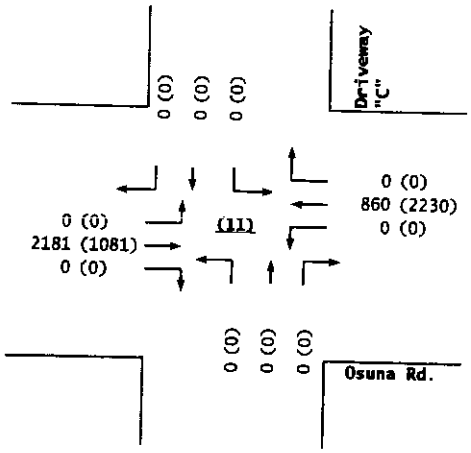
PM Pass-by Trips	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Driveway "C")			Southbound (Driveway "C")		
Percent Entering	*17.00%*	*-33.00%*	*0.00%*	*0.00%*	*-33.00%*	*33.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Volume Entering	*24*	*-46*	*0*	*0*	*-46*	*46*	*0*	*0*	*0*	*0*	*0*	*0*
Percent Exiting	*0.00%*	*16.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*17.00%*	*0.00%*	*33.00%*
Volume Exiting	*0*	*24*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*25*	*0*	*49*
Net PM Passby Trips	***24***	***-22***	***0***	***0***	***-46***	***46***	***0***	***0***	***0***	***25***	***0***	***49***

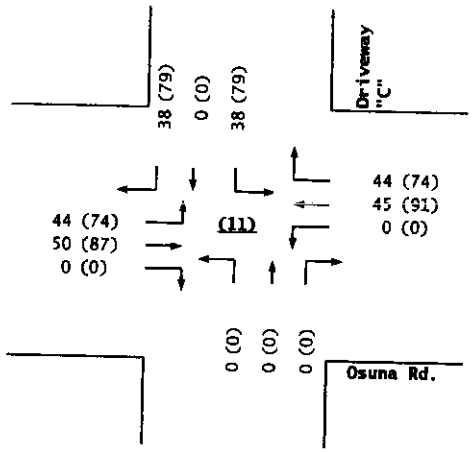
Pass-by Trips	***0***	***0***	***AM***
	140	***149***	***PM***

2007 Plan - NO Park

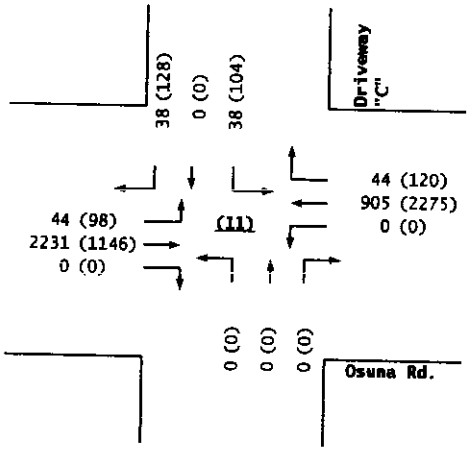
Trips

2009
NO BUILD





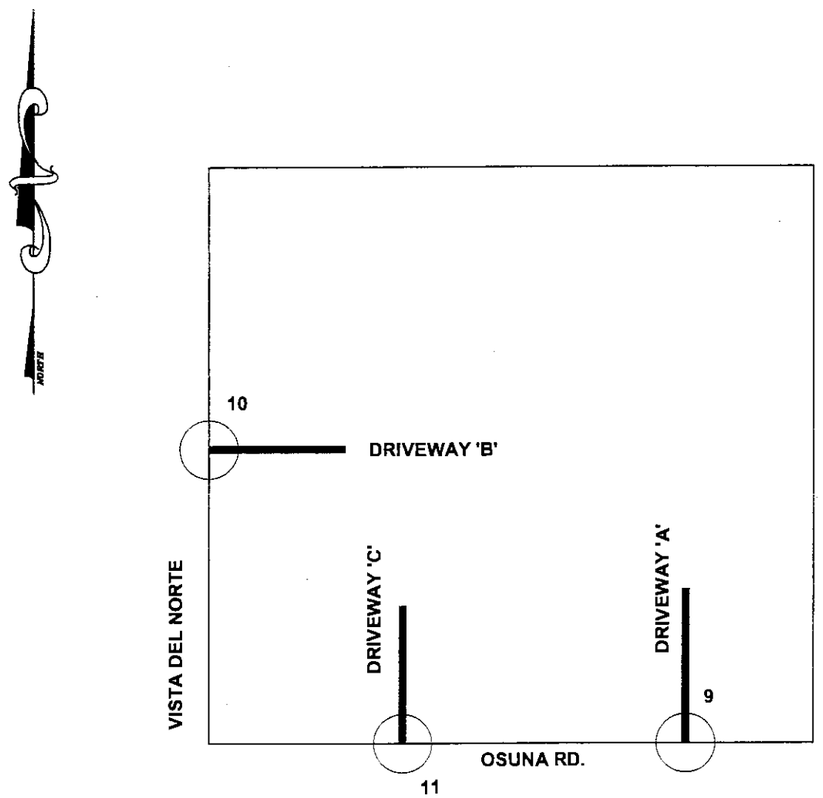
2009
BUILD



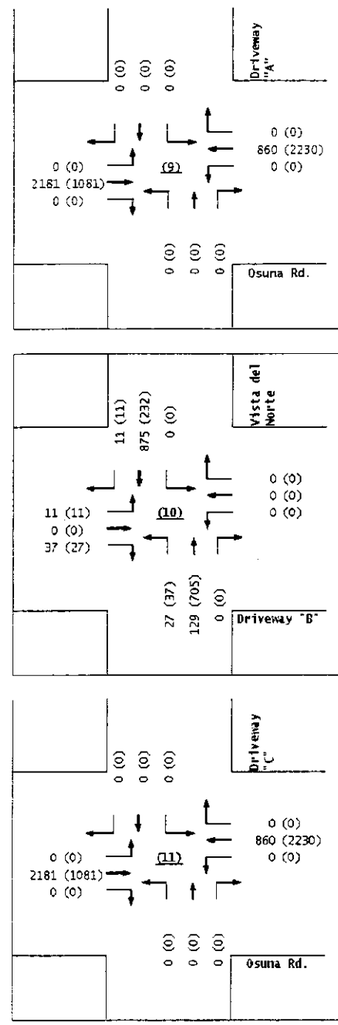
Osuna Rd. / Driveway "C"

Analysis of

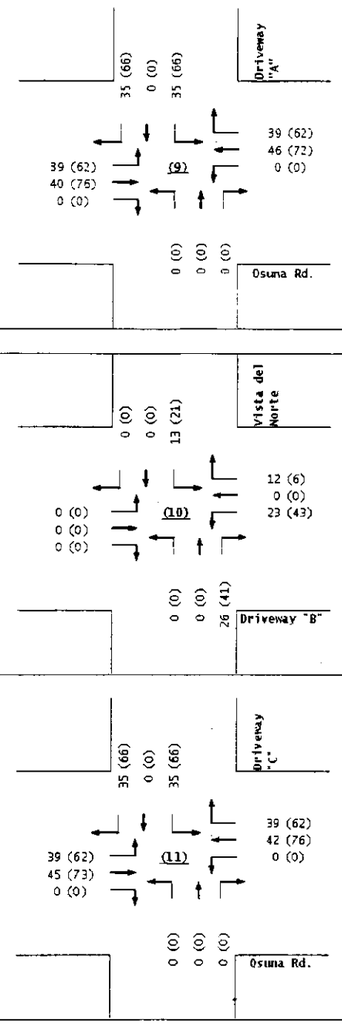
2009 NO BUILD Conditions



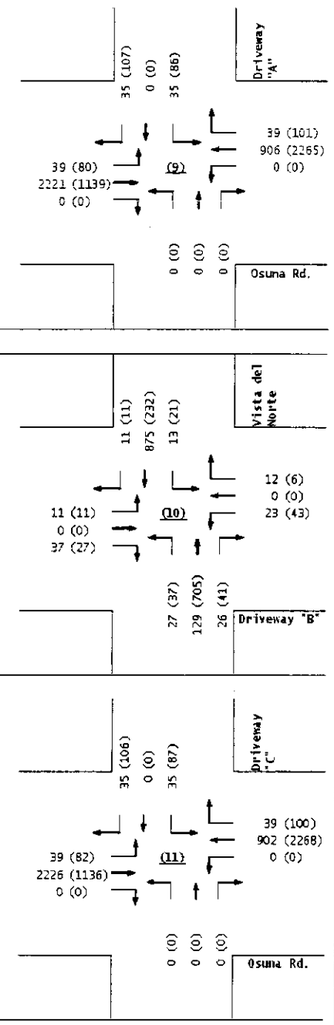
2009 NO BUILD VOLUMES



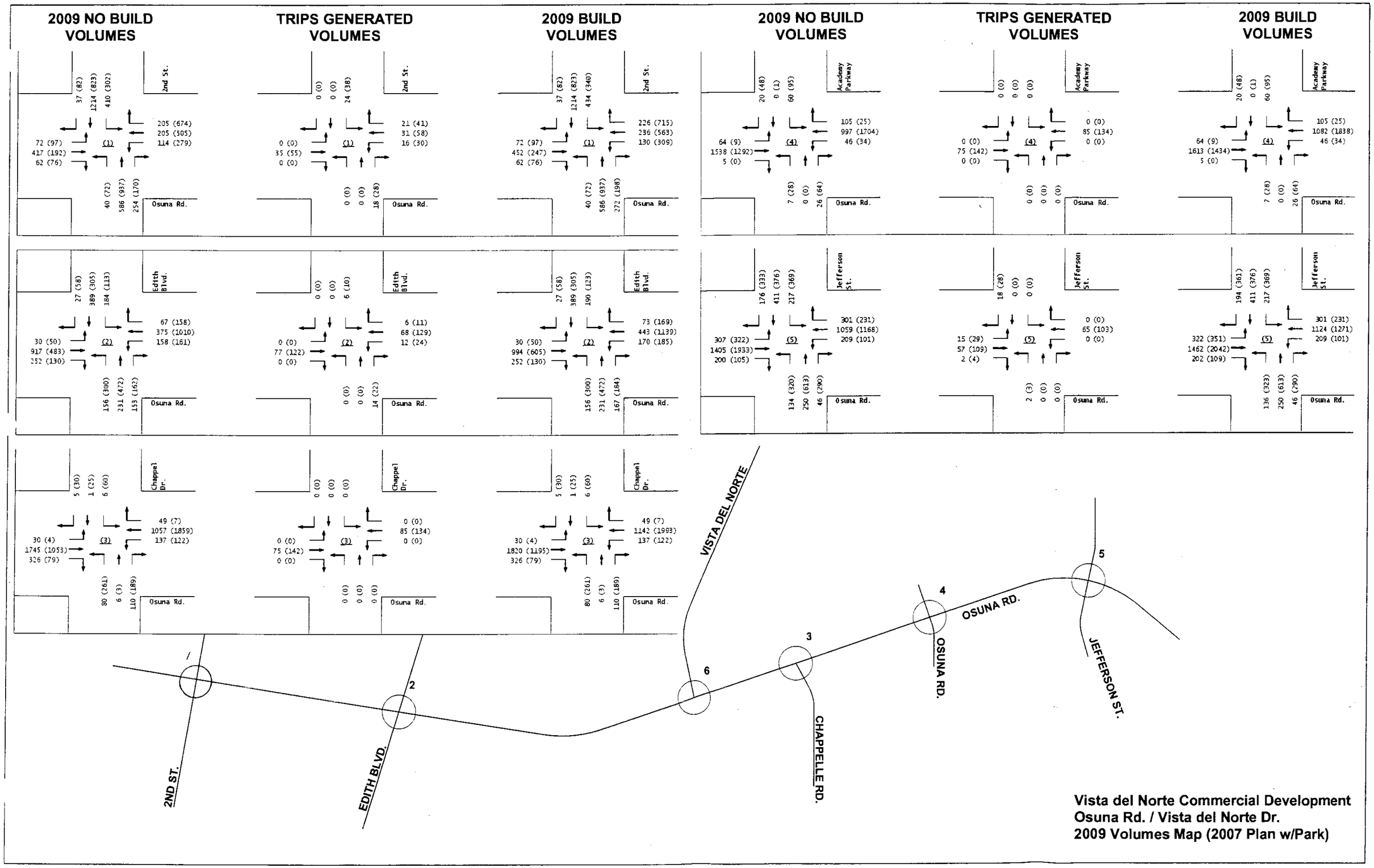
TRIPS GENERATED VOLUMES



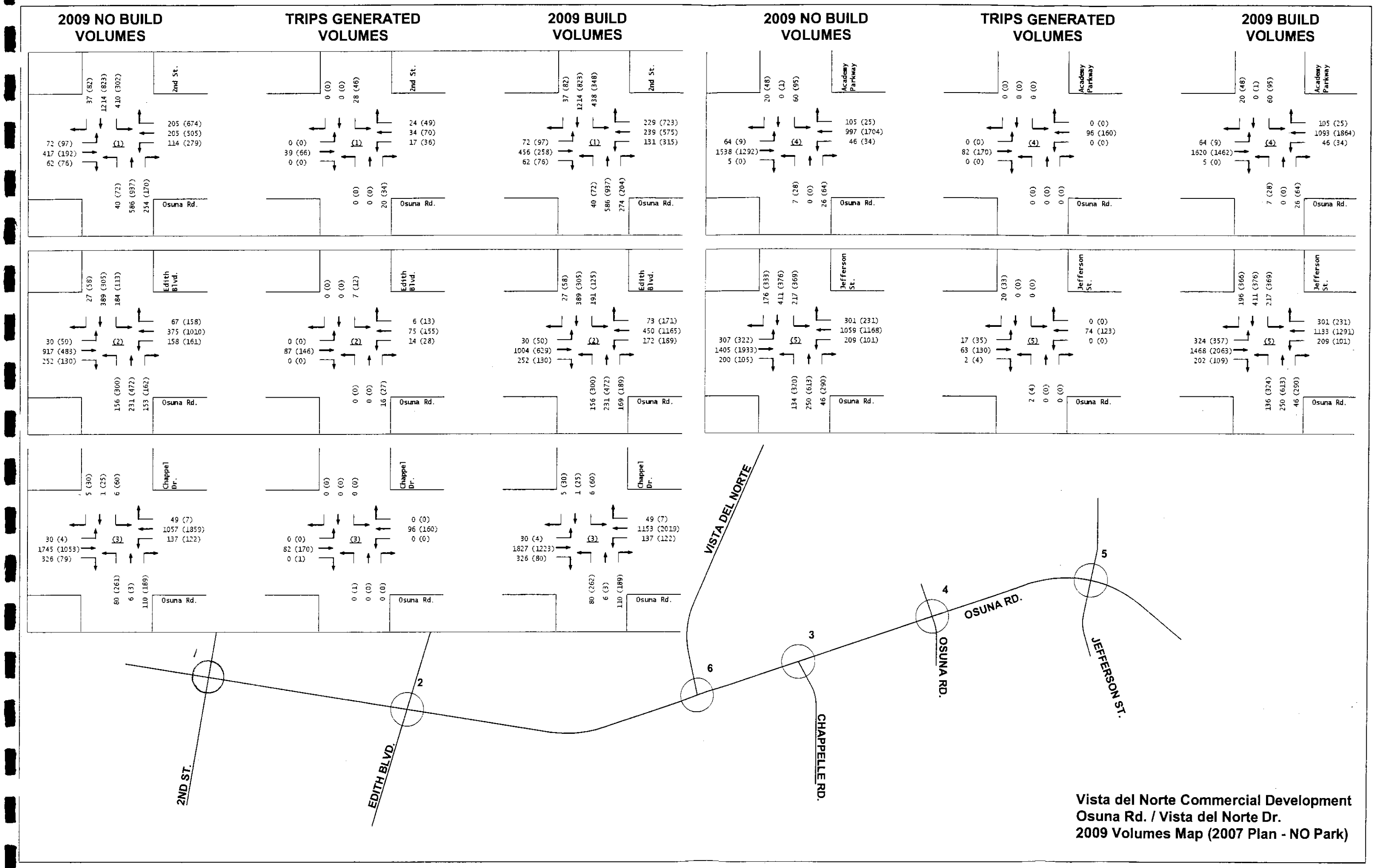
2009 BUILD VOLUMES



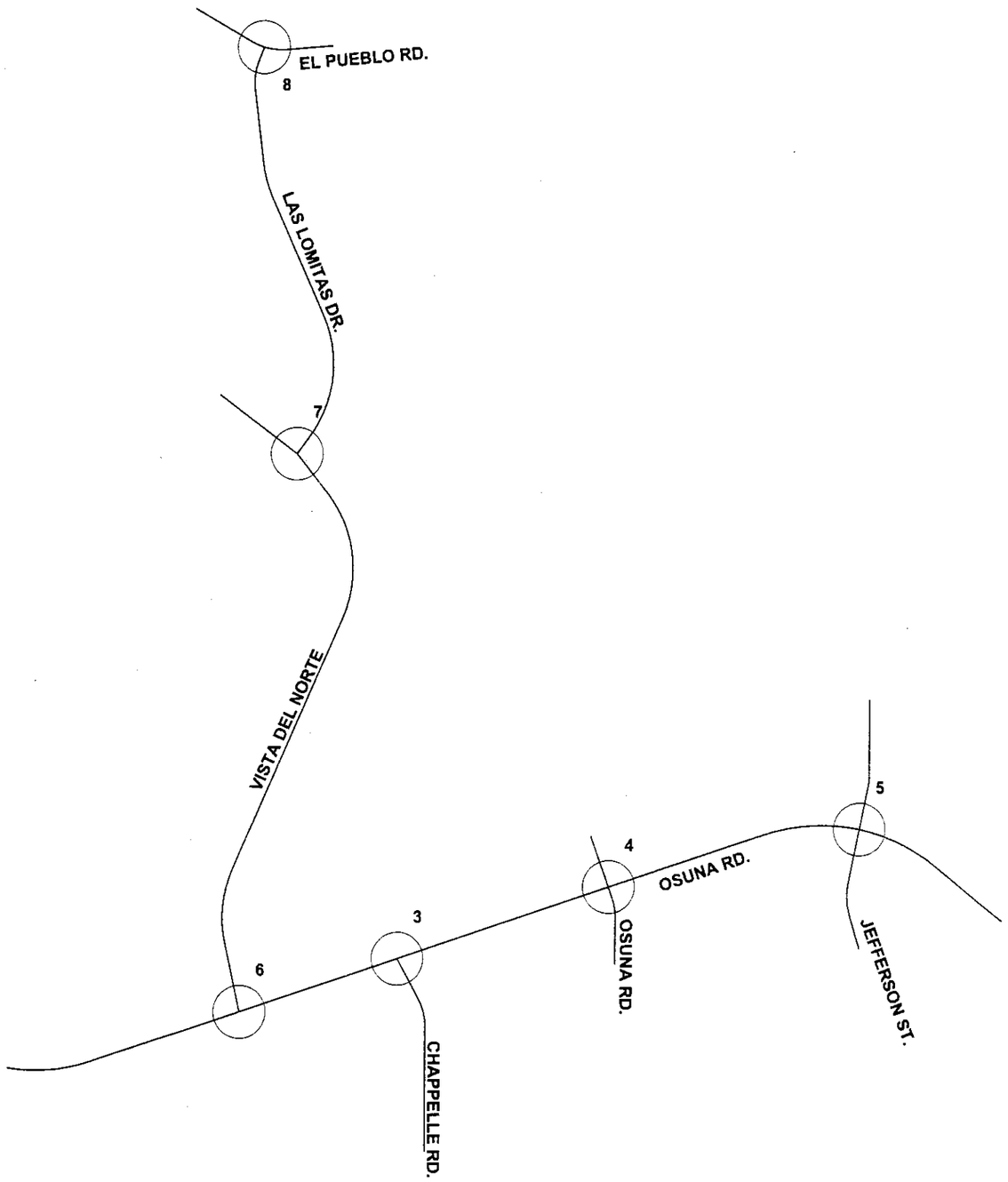
Vista del Norte Commercial Development
Osuna Rd. / Vista del Norte Dr.
2009 Volumes Map (2007 Plan w/Park)



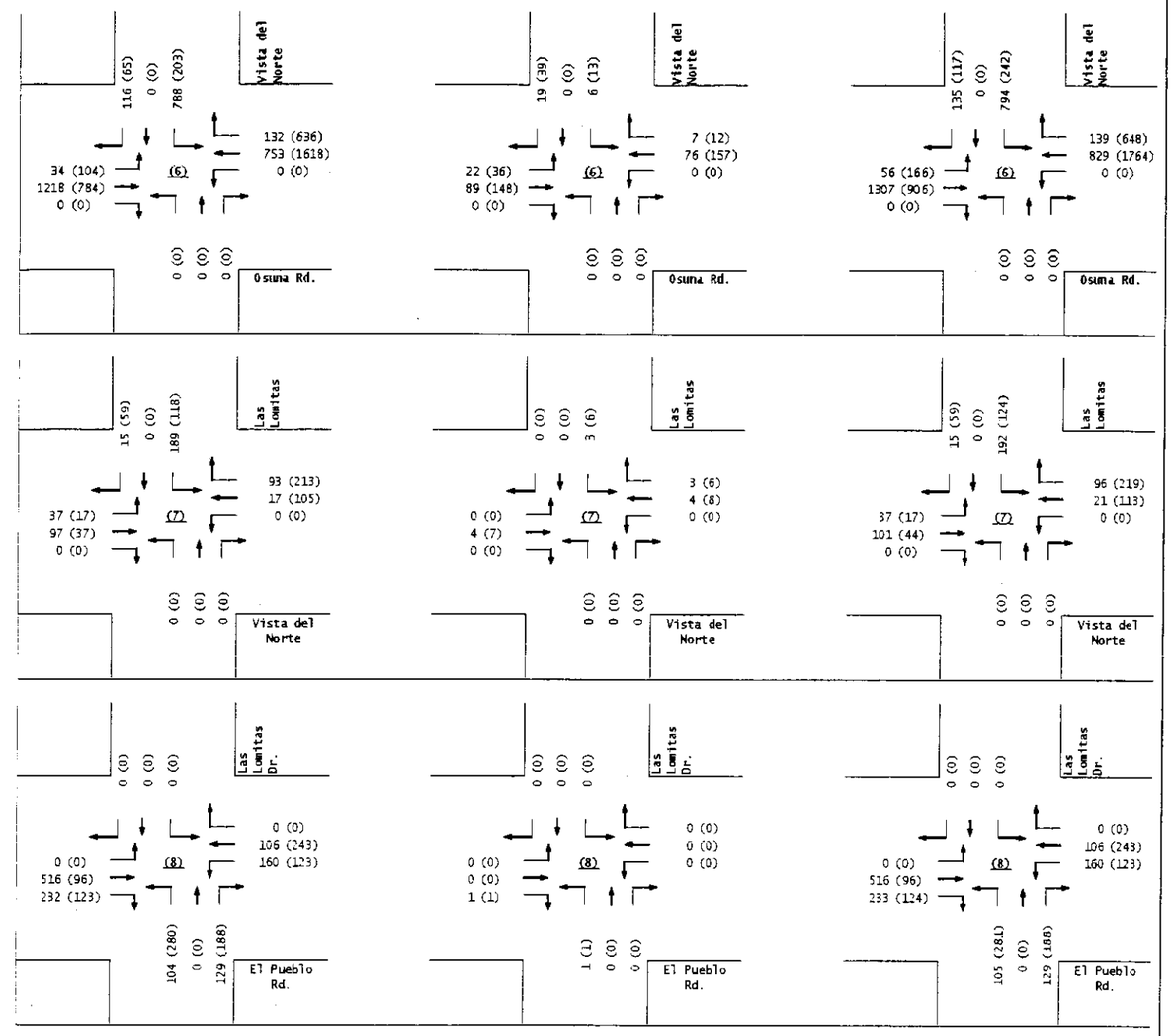
Vista del Norte Commercial Development
Osuna Rd. / Vista del Norte Dr.
2009 Volumes Map (2007 Plan w/Park)



Vista del Norte Commercial Development
Osuna Rd. / Vista del Norte Dr.
2009 Volumes Map (2007 Plan - NO Park)



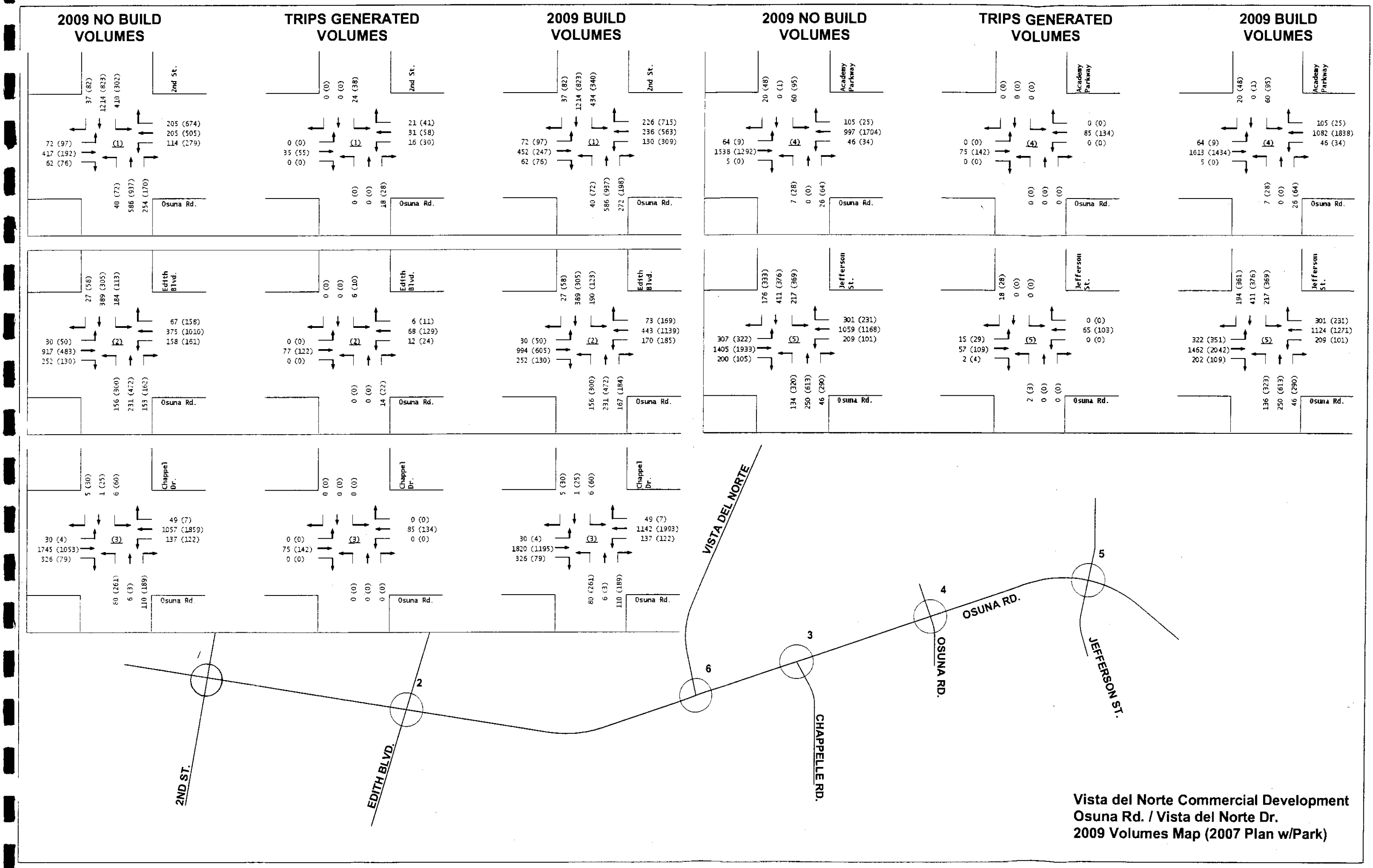
2009 NO BUILD VOLUMES



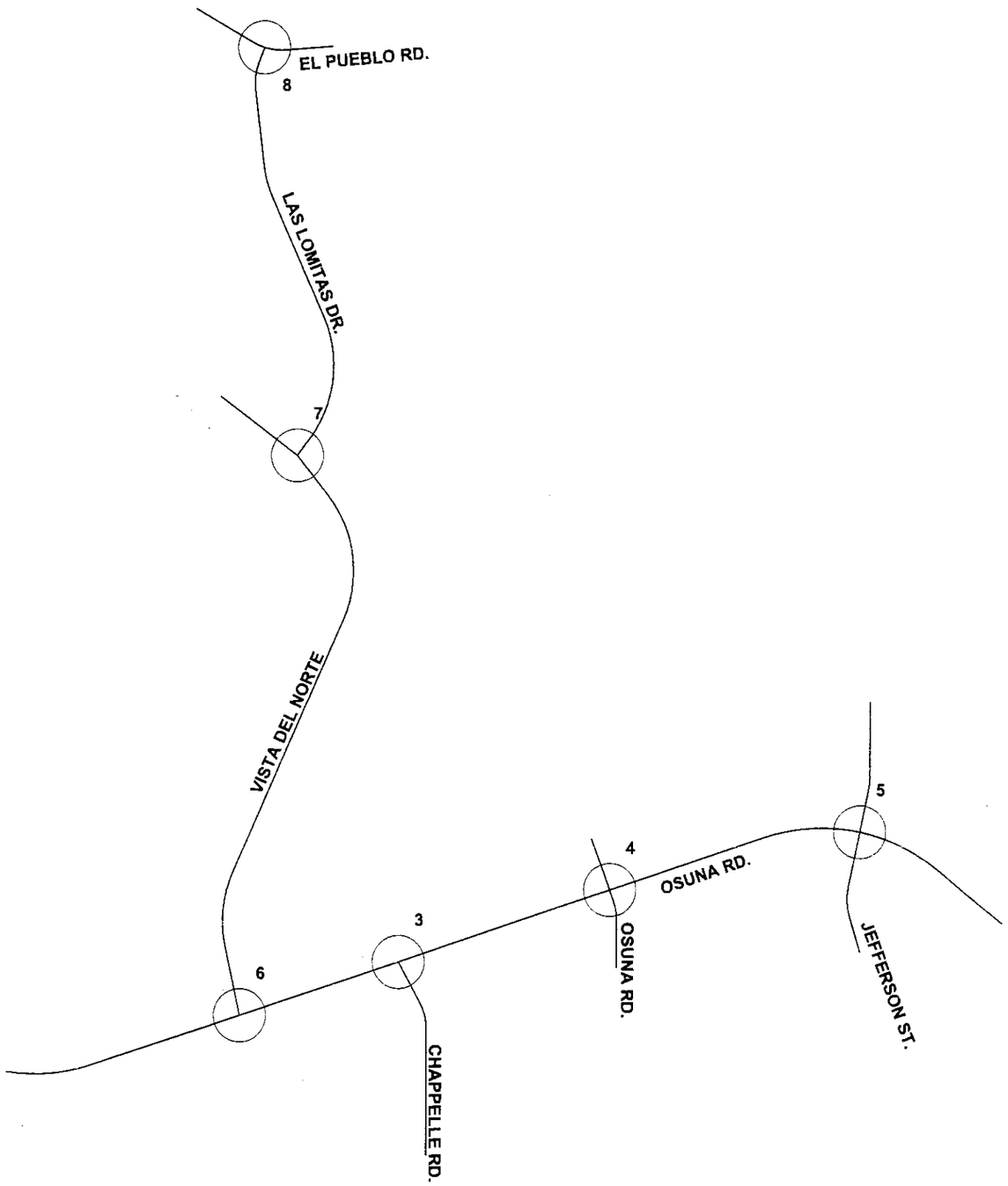
TRIPS GENERATED VOLUMES

2009 BUILD VOLUMES

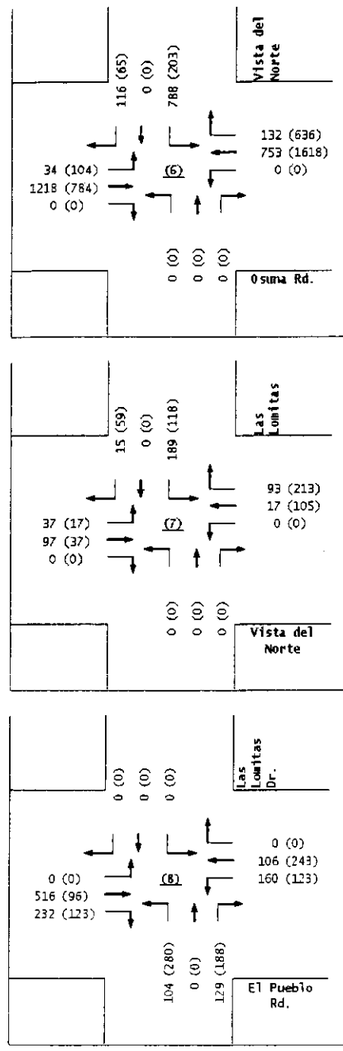
Vista del Norte Commercial Development
Osuna Rd. / Vista del Norte Dr.
2009 Volumes Map (2007 Plan - NO Park)



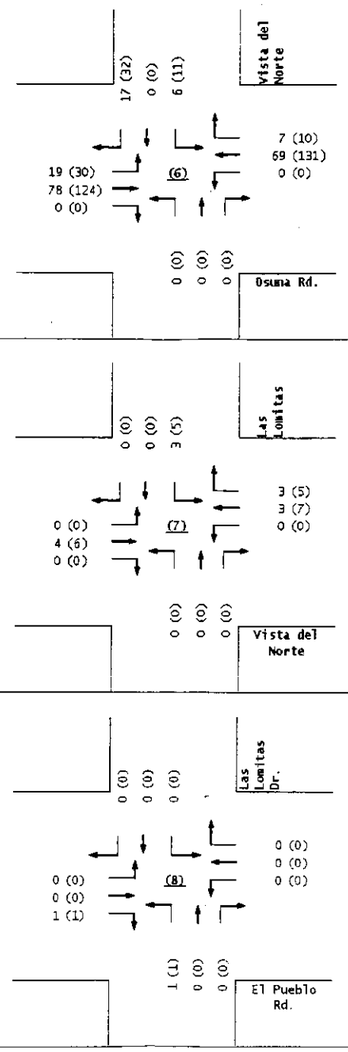
Vista del Norte Commercial Development
Osuna Rd. / Vista del Norte Dr.
2009 Volumes Map (2007 Plan w/Park)



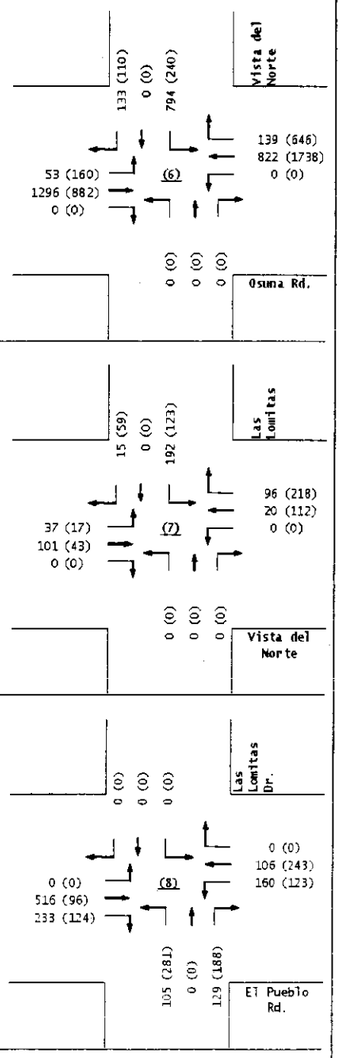
2009 NO BUILD VOLUMES



TRIPS GENERATED VOLUMES



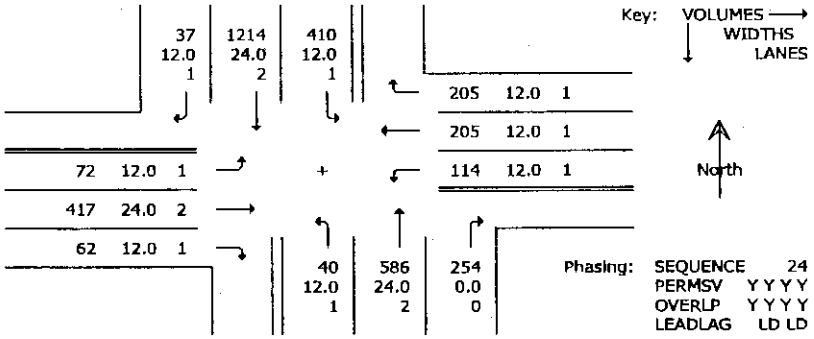
2009 BUILD VOLUMES



Vista del Norte Commercial Development
Osuna Rd. / Vista del Norte Dr.
2009 Volumes Map (2007 Plan w/Park)

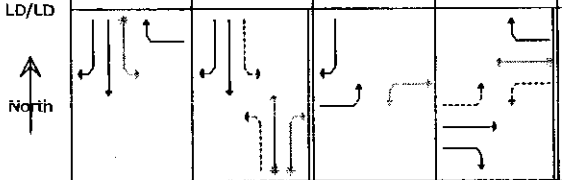
SIGNAL2000/TEAPAC[Ver 2.70.28] - HCM Input Worksheet

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	.91	.91	.91	.72	.72	.72	.84	.84	.84	.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 24 LD/LD



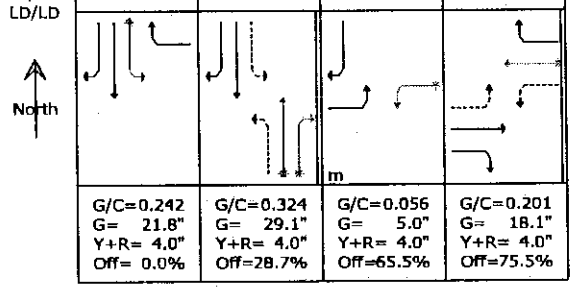
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
C= 90"	G= 21.8" Y+R= 4.0"	G= 29.1" Y+R= 4.0"	G= 5.0" Y+R= 4.0"	G= 18.1" Y+R= 4.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"

Vista del Norte Commercial Development (Osuna / VdN) 02/01/07
Analysis of Osuna Rd. / 2nd St. - [1P_09ANX] 15:11:33
2009 AM Peak Hour NO BUILD Conditions

SIGNAL2000/TEAPAC[Ver 2.70.28] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.717 (Critical V/C 0.924) Control Delay 30.0 Level of Service C

Sq 24 LD/LD



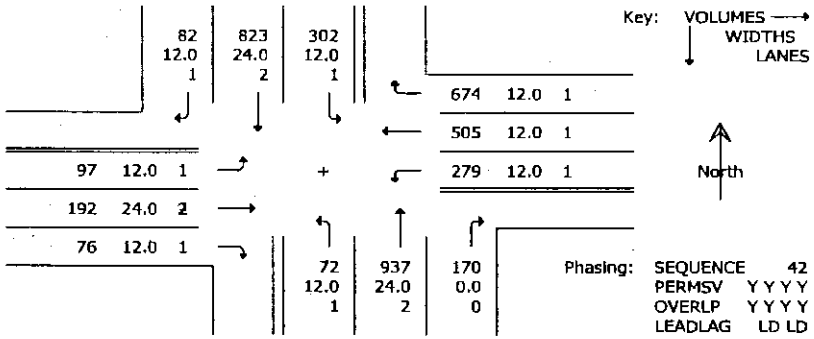
Phase 1	Phase 2	Phase 3	Phase 4
G/C=0.242	G/C=0.324	G/C=0.056	G/C=0.201
G= 21.8"	G= 29.1"	G= 5.0"	G= 18.1"
Y+R= 4.0"	Y+R= 4.0"	Y+R= 4.0"	Y+R= 4.0"
Off= 0.0%	Off=28.7%	Off=65.5%	Off=75.5%

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								19.8	B	
RT	12/1	0.136	0.710	1072	1093	41	0.038	3.9	A	15 ft
TH	24/2	0.419	0.610	2087	2103	1334	0.634	11.8	B+	515 ft
LT	12/1	0.263	0.242	417	496	451	0.909	45.0	*D+	533 ft
NB Approach								43.9	D+	
RT+TH	24/2	0.349	0.324	905	1065	1000	0.939	44.7	*D+	675 ft
LT	12/1	0.246	0.324	75	109	48	0.397	25.7	C+	48 ft
WB Approach								32.8	C	
RT	12/1	0.266	0.487	675	749	285	0.381	14.8	B+	214 ft
TH	12/1	0.237	0.201	213	359	285	0.785	45.0	*D+	343 ft
LT	12/1	0.065	0.056	142	197	158	0.767	43.1	*D+	194 ft
EB Approach								33.5	C	
RT	12/1	0.147	0.201	177	302	67	0.217	30.4	C	68 ft
TH	24/2	0.203	0.201	443	691	453	0.656	35.4	D+	269 ft
LT	12/1	0.023	0.056	134	187	78	0.398	25.5	C+	78 ft

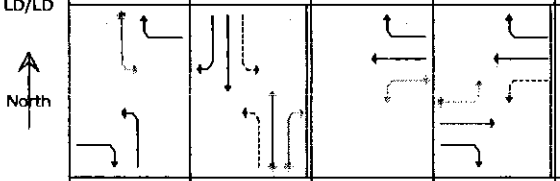
SIGNAL2000/TEAPAC[Ver 2.70.28] - HCM Input Worksheet

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	.89	.89	.89	.96	.96	.96	.94	.94	.94	.93	.93	.93
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 42
LD/LD



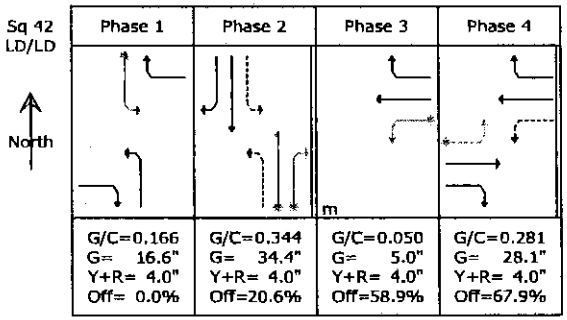
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
C=100"	G= 16.6" Y+R= 4.0"	G= 34.4" Y+R= 4.0"	G= 5.0" Y+R= 4.0"	G= 28.1" Y+R= 4.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"

Vista del Norte ALTERNATE Development (Osuna / VdN) 02/01/07
Analysis of Osuna Rd. / 2nd St. - [1P_09PNX] 11:45:53
2009 PM Peak Hour NO BUILD Conditions

SIGNAL2000/TEAPAC[Ver 2.70.28] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.795 (Critical V/C 0.916) Control Delay 41.4 Level of Service D+

Sq 42
LD/LD



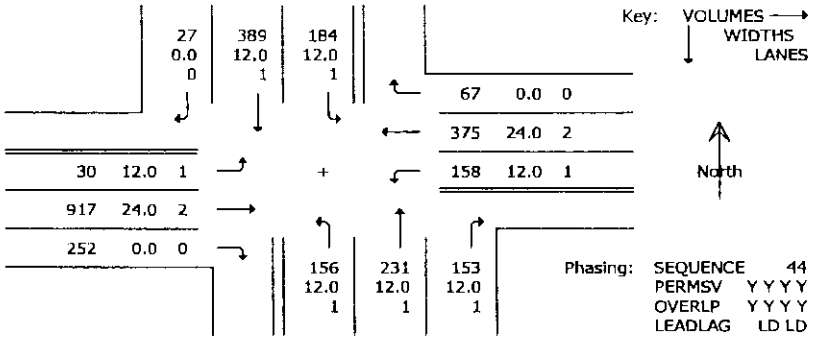
Phase 1	Phase 2	Phase 3	Phase 4
G/C=0.166	G/C=0.344	G/C=0.050	G/C=0.281
G= 16.6"	G= 34.4"	G= 5.0"	G= 28.1"
Y+R= 4.0"	Y+R= 4.0"	Y+R= 4.0"	Y+R= 4.0"
Off= 0.0%	Off=20.6%	Off=58.9%	Off=67.9%

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	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								40.0	D+	
RT	12/1	0.195	0.344	398	529	92	0.174	23.1	C+	86 ft
TH	24/2	0.332	0.344	978	1184	925	0.781	32.9	C	572 ft
LT	12/1	0.211	0.166	274	357	339	0.950	64.1	*E+	500 ft
NB Approach								60.9	E+	
RT+TH	24/2	0.398	0.344	953	1157	1178	1.018	63.9	*E+	954 ft
LT	12/1	0.024	0.166	289	364	77	0.212	14.3	B+	55 ft
WB Approach								28.3	C	
RT	12/1	0.510	0.576	823	886	702	0.792	21.5	C+	709 ft
TH	12/1	0.366	0.371	537	671	526	0.784	34.0	C	609 ft
LT	12/1	0.048	0.050	295	396	291	0.735	34.4	*C	346 ft
EB Approach								34.7	C	
RT	12/1	0.192	0.486	660	748	82	0.110	14.0	B+	60 ft
TH	24/2	0.192	0.281	695	967	206	0.213	27.6	C	110 ft
LT	12/1	0.356	0.281	70	113	104	0.813	64.9	*E+	154 ft

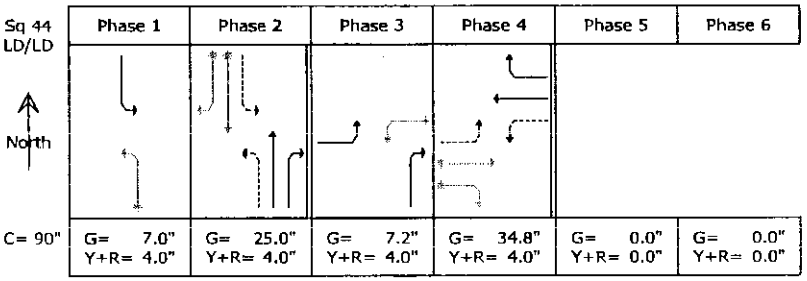
SIGNAL2000/TEAPAC[Ver 2.70.28] - HCM Input Worksheet

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	.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 44
LD/LD

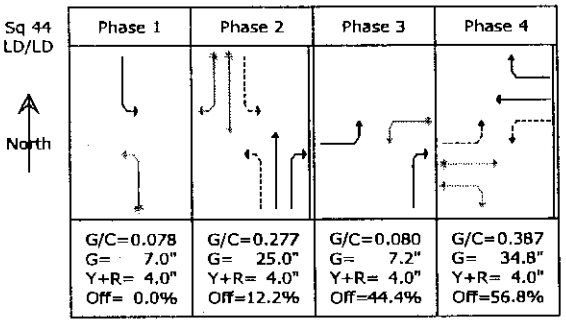


Vista del Norte Commercial Development (Osuna / VdN) 03/31/07
Analysis of Osuna Rd. / Edith Blvd. - [2_09ANX] 17:24:58
2009 AM Peak Hour NO BUILD Conditions

SIGNAL2000/TEAPAC[Ver 2.70.28] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.782 (Critical V/C 0.979) Control Delay 43.0 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%

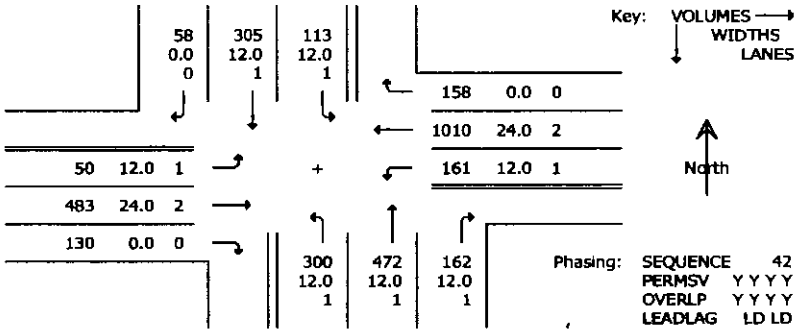
Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	@E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								45.8	D	
RT+TH	12/1	0.325	0.277	364	497	462	0.930	55.8	*E+	600 ft
LT	12/1	0.048	0.078	261	331	204	0.616	23.2	C+	204 ft
NB Approach								34.6	C	
RT	12/1	0.208	0.401	524	618	189	0.306	18.7	B	154 ft
TH	12/1	0.237	0.277	369	502	285	0.568	29.4	C	291 ft
LT	12/1	0.098	0.078	161	211	193	0.902	57.7	*E+	266 ft
WB Approach								30.2	C	
RT+TH	24/2	0.230	0.387	1178	1304	553	0.424	20.4	C+	251 ft
LT	12/1	0.099	0.080	169	215	197	0.908	57.6	*E+	268 ft
EB Approach								53.1	D	
RT+TH	24/2	0.422	0.387	1165	1291	1299	1.006	54.1	*D	945 ft
LT	12/1	0.000	0.080	335	390	33	0.085	11.7	B+	21 ft

Vista del Norte Commercial Development (Osuna / VdN) 03/27/07
Analysis of Osuna Rd. / Edith Blvd. - [2_09PNX] 23:28:56
2009 PM Peak Hour NO BUILD Conditions

SIGNAL2000/TRAFAC[Ver 2.70.28] - HCM Input Worksheet

Intersection # 1 - Area Location Type: NONCBD

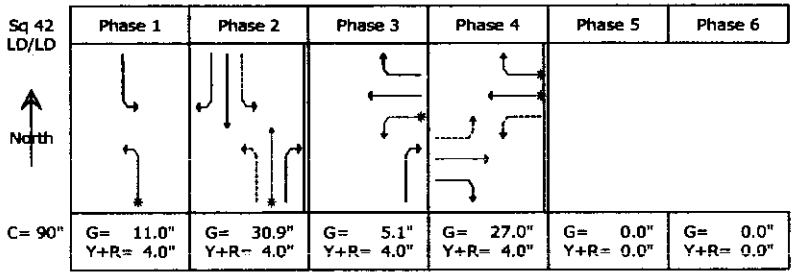
Key: VOLUMES → WIDTHS ↓ LANES



Phasing: SEQUENCE 42
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	.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

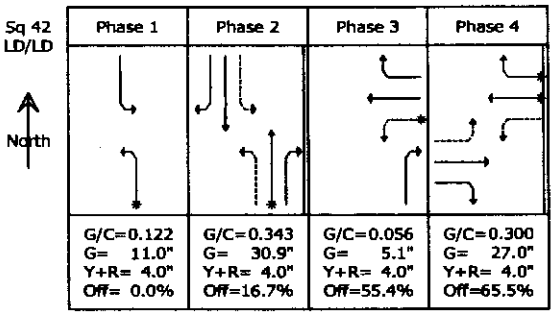


Vista del Norte Commercial Development (Osuna / VdN) 03/27/07
Analysis of Osuna Rd. / Edith Blvd. - [2_09PNX] 23:28:56
2009 PM Peak Hour NO BUILD Conditions

SIGNAL2000/TRAFAC[Ver 2.70.28] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.805 (Critical V/C 0.895) Control Delay 36.0 Level of Service D+

Sq 42 LD/LD



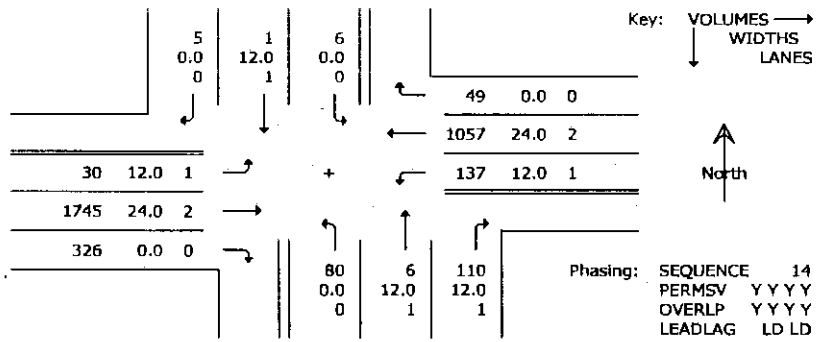
C= 90 sec G= 74.0 sec = 82.2% Y=16.0 sec = 17.8% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								26.7	C+	
RT+TH	12/1	0.314	0.343	491	606	432	0.713	29.7	C	446 ft
LT	12/1	0.055	0.122	243	298	135	0.453	17.1	B	109 ft
NB Approach								37.3	D+	
RT	12/1	0.206	0.444	598	683	186	0.272	16.1	B	141 ft
TH	12/1	0.362	0.343	505	621	543	0.874	40.9	*D+	634 ft
LT	12/1	0.133	0.122	327	377	345	0.915	43.1	*D+	441 ft
WB Approach								40.9	D+	
RT+TH	24/2	0.414	0.401	1235	1354	1284	0.948	40.0	*D+	842 ft
LT	12/1	0.067	0.056	160	206	177	0.839	47.2	*D	225 ft
EB Approach								31.9	C	
RT+TH	24/2	0.270	0.300	827	1002	704	0.703	30.2	C	393 ft
LT	12/1	0.349	0.300	45	67	57	0.712	53.7	D	73 ft

Vista del Norte Commercial Development (Osuna / VdN) 02/01/07
Analysis of Osuna Rd. / Chappel Dr. - [3P_09ANX] 14:04:46
2009 AM Peak Hour NO BUILD Conditions

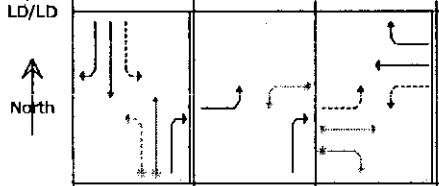
SIGNAL2000/TEAPAC[Ver 2.70.28] - HCM Input Worksheet

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	.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



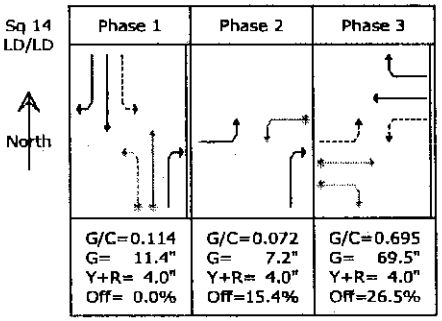
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
C=100"	G= 11.4" Y+R= 4.0"	G= 7.2" Y+R= 4.0"	G= 69.5" Y+R= 4.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"

Vista del Norte Commercial Development (Osuna / VdN) 02/01/07
Analysis of Osuna Rd. / Chappel Dr. - [3P_09ANX] 14:04:46
2009 AM Peak Hour NO BUILD Conditions

SIGNAL2000/TEAPAC[Ver 2.70.28] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.883 (Critical V/C 1.048) Control Delay 46.0 Level of Service D

Sq 14
LD/LD



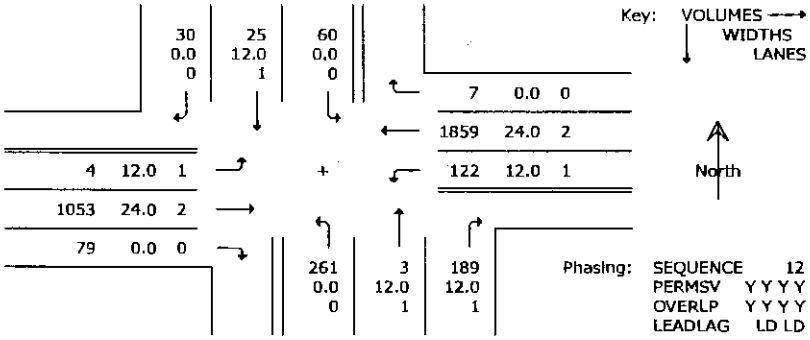
C=100 sec G= 88.0 sec = 88.0% Y=12.0 sec = 12.0% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	@E	Adj Volume	v/c	HCM Delay	L S	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								48.9	D	
RT	12/1	0.217	0.225	175	339	153	0.441	34.2	C	176 ft
TH+LT	12/1	0.214	0.114	1	129	119	0.793	67.8	*E	177 ft
WB Approach								14.7	B+	
RT+TH	24/2	0.442	0.695	2377	2377	1382	0.581	8.2	A	480 ft
LT	12/1	0.131	0.072	117	182	171	0.872	67.7	*E	196 ft
EB Approach								64.4	E+	
RT+TH	24/2	0.747	0.695	2336	2336	2556	1.094	65.2	*E+	2136 ft
LT	12/1	0.000	0.072	272	311	37	0.119	4.5	A	12 ft

Vista del Norte Commercial Development (Osuna / VdN) 02/01/07
Analysis of Osuna Rd. / Chappel Dr. - [3P_09PNX] 14:07:47
2009 PM Peak Hour NO BUILD Conditions

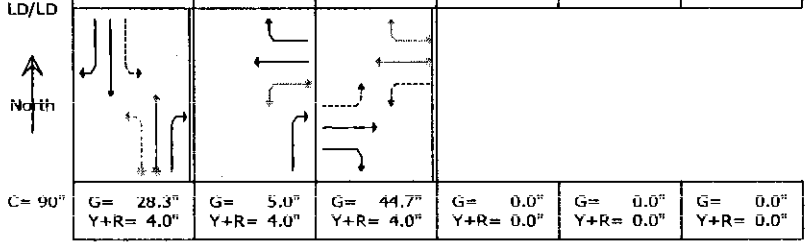
SIGNAL2000/TEAPAC[Ver 2.70.28] - HCM Input Worksheet

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	.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

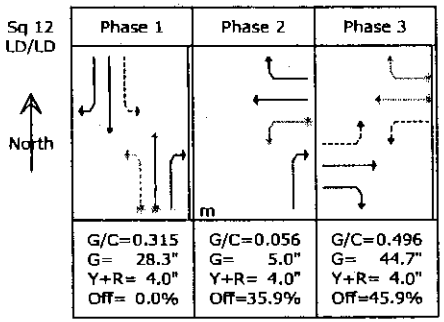


Vista del Norte Commercial Development (Osuna / VdN) 02/01/07
Analysis of Osuna Rd. / Chappel Dr. - [3P_09PNX] 14:07:47
2009 PM Peak Hour NO BUILD Conditions

SIGNAL2000/TEAPAC[Ver 2.70.28] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.879 (Critical V/C 1.007) Control Delay 40.8 Level of Service D+

Sq 12
LD/LD



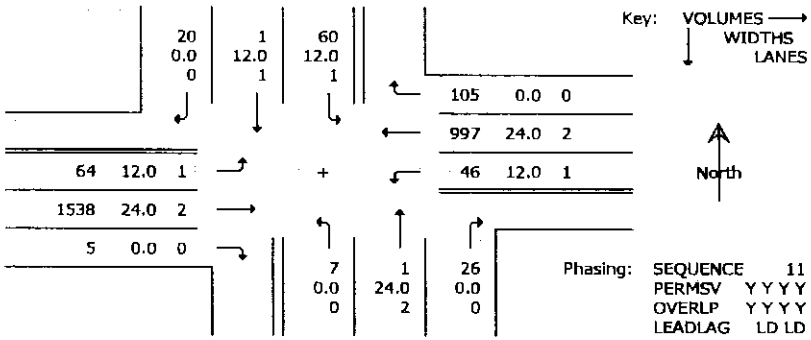
C= 90 sec G= 78.0 sec = 86.7% Y=12.0 sec = 13.3% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	@E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								24.9	C+	
RT+TH+LT	12/1	0.217	0.315	237	327	129	0.394	24.9	C+	124 ft
NB Approach								40.5	D+	
RT	12/1	0.238	0.415	547	638	239	0.375	18.6	B	197 ft
TH+LT	12/1	0.365	0.315	269	366	334	0.913	56.1	*E+	441 ft
WB Approach								53.2	D	
RT+TH	24/2	0.632	0.596	2030	2053	2170	1.057	55.1	*E+	1608 ft
LT	12/1	0.042	0.056	164	203	142	0.700	23.7	*C+	136 ft
EB Approach								19.5	B	
RT+TH	24/2	0.397	0.496	1621	1692	1231	0.728	19.5	B	590 ft
LT	12/1	0.124	0.496	53	70	4	0.050	12.0	B+	3 ft

Vista del Norte Commercial Development (Osuna / VdN) 02/01/07
Analysis of Osuna Rd. / Academy Parkway. - [4P_09ANX] 14:10:07
2009 AM Peak Hour NO BUILD Conditions

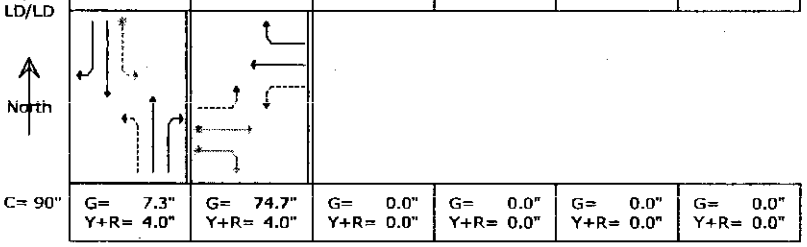
SIGNAL2000/TEAPAC[Ver 2.70.28] - HCM Input Worksheet

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

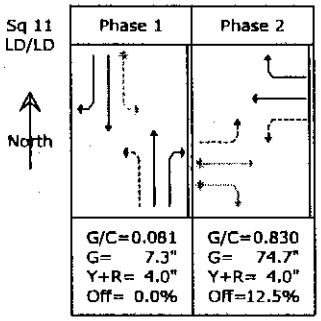


Vista del Norte Commercial Development (Osuna / VdN) 02/01/07
Analysis of Osuna Rd. / Academy Parkway. - [4P_09ANX] 14:10:07
2009 AM Peak Hour NO BUILD Conditions

SIGNAL2000/TEAPAC[Ver 2.70.28] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.515 (Critical V/C 0.587) Control Delay 4.4 Level of Service A

Sq 11
LD/LD



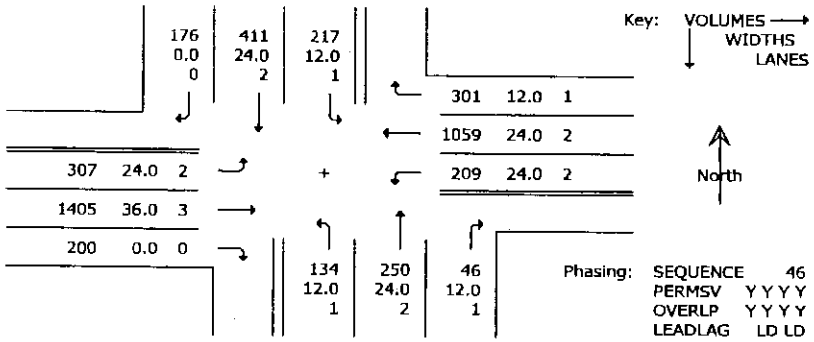
C= 90 sec G= 82.0 sec = 91.1% Y= 8.0 sec = 8.9% Ped= 0.0 sec = 0.0%

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								50.0	D	
RT+TH	12/1	0.128	0.081	1	107	24	0.192	39.4	D+	28 ft
LT	12/1	0.154	0.081	1	89	70	0.654	53.6	*D	91 ft
NB Approach								39.0	D+	
RT+TH+LT	24/2	0.127	0.081	1	205	42	0.189	39.0	D+	26 ft
WB Approach								2.2	A	
RT+TH	24/2	0.419	0.830	2820	2820	1312	0.465	2.2	A	242 ft
LT	12/1	0.384	0.830	166	192	55	0.286	2.5	A	19 ft
EB Approach								2.8	A	
RT+TH	24/2	0.502	0.830	2859	2859	1659	0.580	2.8	*A	357 ft
LT	12/1	0.322	0.830	266	293	69	0.235	2.0	A	21 ft

Vista del Norte Commercial Development (Osuna / VdN) 02/01/07
Analysis of Osuna Rd. / Jefferson St. - [5P_09ANX] 14:15:20
2009 AM Peak Hour NO BUILD Conditions

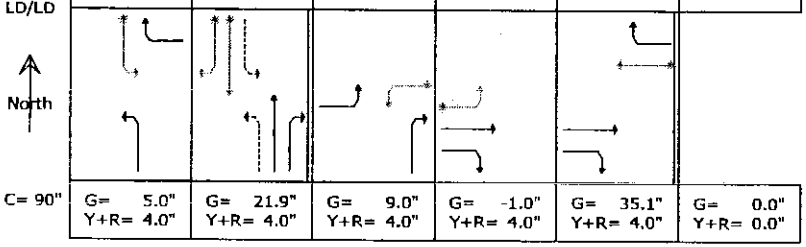
SIGNAL2000/TEAPAC[Ver 2.70.28] - HCM Input Worksheet

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
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

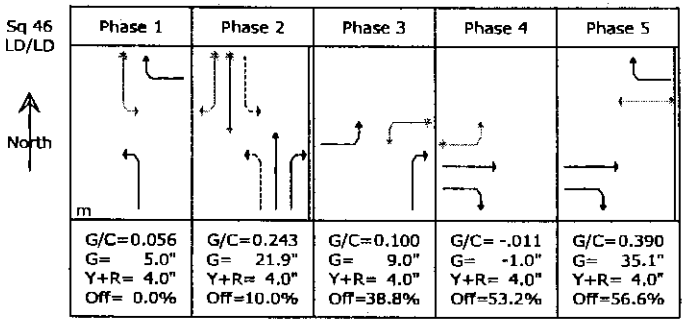


Vista del Norte Commercial Development (Osuna / VdN) 02/01/07
Analysis of Osuna Rd. / Jefferson St. - [5P_09ANX] 14:15:20
2009 AM Peak Hour NO BUILD Conditions

SIGNAL2000/TEAPAC[Ver 2.70.28] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.798 (Critical V/C 0.869) Control Delay 33.5 Level of Service C

Sq 46
LD/LD



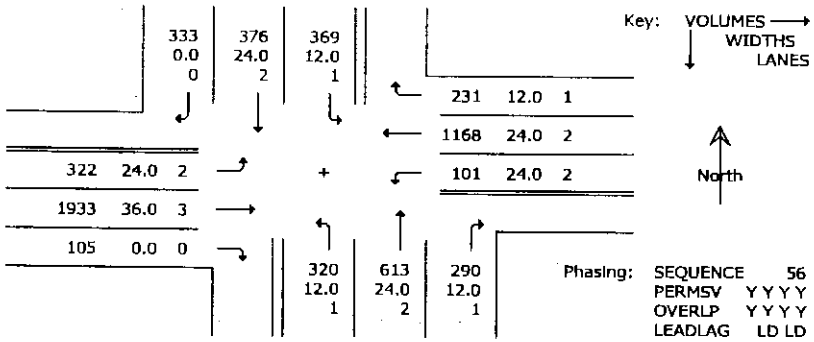
C= 90 sec G= 70.0 sec = 77.8% Y=20.0 sec = 22.2% Ped= 0.0 sec = 0.0%

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								39.2	D+	
RT+TH	24/2	0.265	0.243	591	801	674	0.841	40.5	*D+	431 ft
LT	12/1	0.057	0.056	247	330	249	0.755	35.7	*D+	283 ft
NB Approach								34.6	C	
RT	12/1	0.140	0.388	498	596	51	0.086	17.5	B	39 ft
TH	24/2	0.162	0.243	623	839	275	0.328	28.2	C	142 ft
LT	12/1	0.070	0.056	125	168	147	0.835	52.4	D	193 ft
WB Approach								32.1	C	
RT	12/1	0.299	0.490	679	753	342	0.454	15.5	B	266 ft
TH	24/2	0.386	0.390	1218	1343	1203	0.896	33.9	*C	735 ft
LT	24/2	0.158	0.100	1	322	238	0.715	46.4	*D	157 ft
EB Approach								32.2	C	
RT+TH	36/3	0.403	0.423	1939	2048	1824	0.891	29.4	C	761 ft
LT	24/2	0.182	0.133	93	443	349	0.784	46.7	*D	231 ft

Vista del Norte Commercial Development (Osuna / VdN) 02/01/07
Analysis of Osuna Rd. / Jefferson St. - [5P_09PNX] 14:18:04
2009 PM Peak Hour NO BUILD Conditions

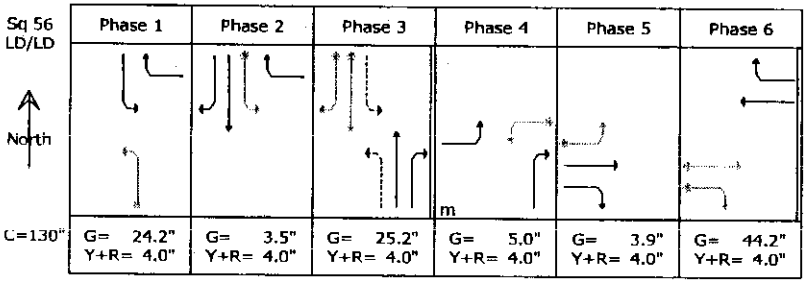
SIGNAL2000/TEAPAC[Ver 2.70.28] - HCM Input Worksheet

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, 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, 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

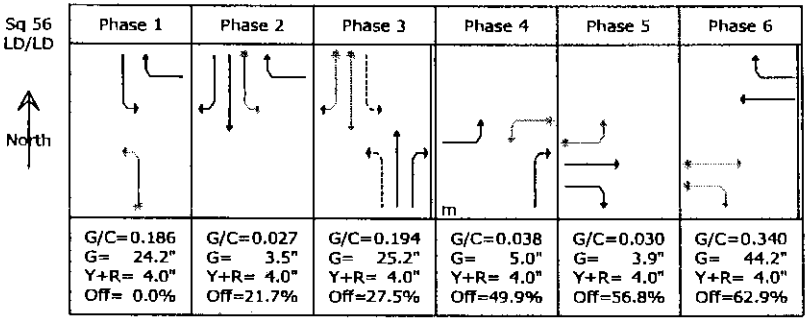


Vista del Norte Commercial Development (Osuna / VdN) 02/01/07
Analysis of Osuna Rd. / Jefferson St. - [5P_09PNX] 14:18:04
2009 PM Peak Hour NO BUILD Conditions

SIGNAL2000/TEAPAC[Ver 2.70.28] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 1.024 (Critical V/C 1.071) Control Delay 91.0 Level of Service F

Sq 56
LD/LD

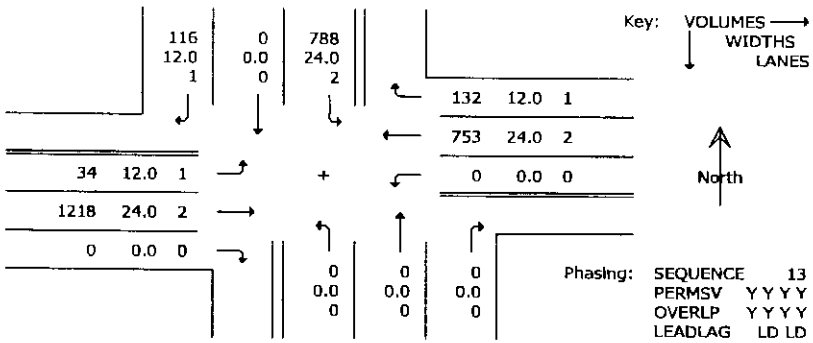


C=130 sec G=106.0 sec = 81.5% Y=24.0 sec = 18.5% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	@E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								98.0	F	
RT+TH	24/2	0.392	0.251	1	804	886	1.101	111.5	*F	994 ft
LT	12/1	0.324	0.244	332	475	461	0.971	71.8	*E	835 ft
NB Approach								78.0	E	
RT	12/1	0.362	0.263	1	386	322	0.797	55.4	E+	521 ft
TH	24/2	0.349	0.194	1	649	681	1.021	92.7	F	722 ft
LT	12/1	0.257	0.186	244	370	356	0.947	70.4	*E	650 ft
WB Approach								86.2	F	
RT	12/1	0.337	0.615	865	946	254	0.268	11.7	B+	201 ft
TH	24/2	0.451	0.340	623	1172	1284	1.096	99.3	F	1368 ft
LT	24/2	0.279	0.038	1	93	111	0.867	104.7	*F	123 ft
EB Approach								97.5	F	
RT+TH	36/3	0.493	0.401	1472	1962	2168	1.105	94.4	*F	1605 ft
LT	24/2	0.307	0.099	1	292	343	1.033	116.8	*F	396 ft

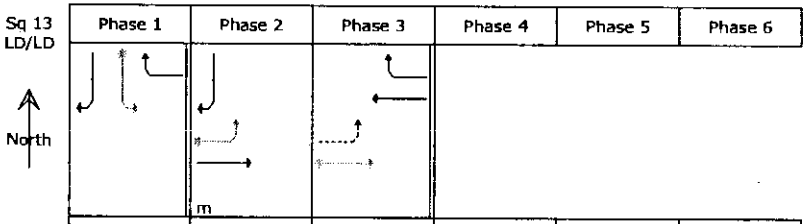
SIGNAL2000/TEAPAC[Ver 2.70.28] - HCM Input Worksheet

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



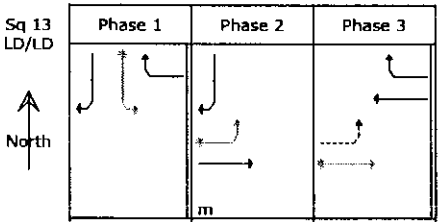
C=100"	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
	G= 40.9" Y+R= 4.0"	G= 5.0" Y+R= 4.0"	G= 42.1" Y+R= 4.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"

Vista del Norte Commercial Development (Osuna / VdN) 03/31/07
Analysis of Osuna Rd. / Vista del Norte - [6N_09ANX] 16:08:59
2009 AM Peak Hour NO BUILD Conditions

SIGNAL2000/TEAPAC[Ver 2.70.28] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.692 (Critical V/C 0.762) Control Delay 23.1 Level of Service C+

Sq 13
LD/LD



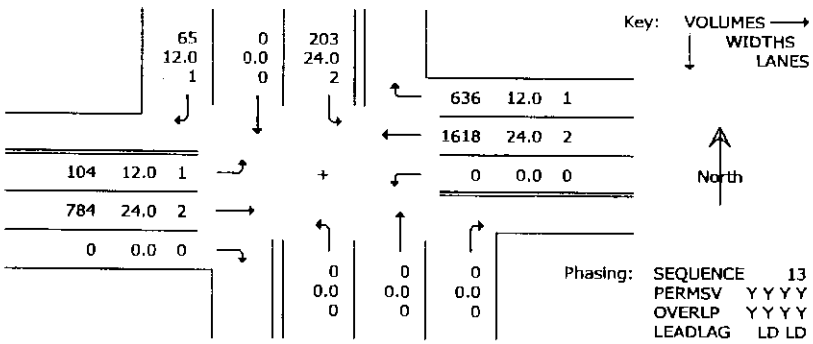
Phase 1	Phase 2	Phase 3
G/C=0.409 G= 40.9" Y+R= 4.0" Off= 0.0%	G/C=0.050 G= 5.0" Y+R= 4.0" Off=44.9%	G/C=0.421 G= 42.1" Y+R= 4.0" Off=53.9%

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	L S	Queue Model 1
SB Approach								25.1	C+	
RT	12/1	0.214	0.499	682	767	145	0.189	14.0	B+	107 ft
LT	24/2	0.353	0.409	1212	1364	985	0.722	26.7	*C+	549 ft
WB Approach								21.9	C+	
RT	12/1	0.229	0.870	1338	1338	181	0.135	1.0	A	40 ft
TH	24/2	0.356	0.421	1308	1452	1032	0.711	25.5	C+	572 ft
EB Approach								22.5	C+	
TH	24/2	0.444	0.511	1675	1762	1400	0.795	22.7	*C+	770 ft
LT	12/1	0.001	0.050	150	189	39	0.202	16.1	*B	30 ft

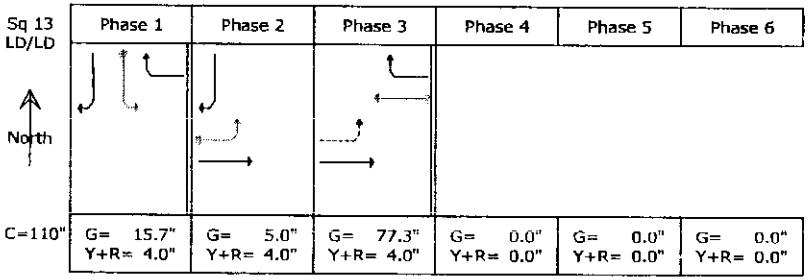
SIGNAL2000/TEAPAC[Ver 2.70.28] - HCM Input Worksheet

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	

Sq 13
LD/LD

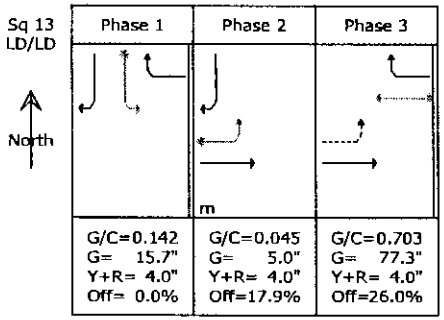


Vista del Norte Commercial Development (Osuna / VdN) 03/31/07
Analysis of Osuna Rd. / Vista del Norte - [6N_09PNX] 16:55:21
2009 PM Peak Hour NO BUILD Conditions

SIGNAL2000/TEAPAC[Ver 2.70.28] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.565 (Critical V/C 0.703) Control Delay 10.4 Level of Service B+

Sq 13
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)	Service Rate @E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								42.1	D+	
RT	12/1	0.226	0.224	71	332	76	0.220	35.2	D+	91 ft
LT	24/2	0.233	0.142	1	460	236	0.497	44.4	*D+	167 ft
WB Approach								8.4	A	
RT	12/1	0.511	0.882	1356	1356	691	0.510	1.7	A	241 ft
TH	24/2	0.539	0.703	2423	2423	1759	0.726	11.0	*B+	774 ft
EB Approach								5.5	A	
TH	24/2	0.340	0.785	2705	2705	881	0.326	3.5	A	201 ft
LT	12/1	0.028	0.045	141	175	117	0.646	20.9	*C+	93 ft

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		Site Information		
Analyst	tob	Jurisdiction/Date	CoA	3/28/2007
Agency or Company	Terry O. Brown, P.E.	Major Street	Vista del Norte Dr.	
Analysis Period/Year	AM 2009	Minor Street	Las Lomitas Dr.	
Comment	2009 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)	37	97			17	93				189		15
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	41	108			19	103				210		17
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	227	721	0.315	1	12.3	B	12.3
	2								
	3								B
EB		1	41	1459	0.028	0	7.5	A	
WB		4							

HiCAP ™2.0.0.1
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7 - 2008 AM BUILD
1 of 1

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		*Site Information*		
Analyst	tob	Jurisdiction/Date	CoA	3/28/2007
Agency or Company	Terry O. Brown, P.E.	Major Street	Vista del Norte Dr.	
Analysis Period/Year	PM 2009	Minor Street	Las Lomitas Dr.	
Comment	2009 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	37			105	213				118		59
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	41			117	237				131		66
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	197	706	0.279	1	12.1	B	12.1
	2								
	3								B
EB		1	19	1200	0.016	0	8.0	A	
WB		4							

HiCAP ™2.0.0.1
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7 - 2008 PM BUILD
1 of 1

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		*Site Information*		
Analyst	tob	Jurisdiction/Date	Coa	3/28/2007
Agency or Company	Terry O. Brown, P.E.	Major Street	El Pueblo	
Analysis Period/Year	AM 2009	Minor Street	Las Lomitas Dr.	
Comment	2009 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)		516	232	160	106		104		129			
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		573	258	178	118		116		143			
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	143	460	0.311	1	16.3	C	31.8
	2	L	116	188	0.617	3	50.9	F	
	3								D
SB	1								
	2								
	3								
EB		1							
WB		4	178	791	0.225	1	10.9	B	

HiCAP ™2.0.0.1
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8 - 2008 AM BUILD
1 of 1

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		***Site Information***		
Analyst	tob	Jurisdiction/Date	Coa	3/28/2007
Agency or Company	Terry O. Brown, P.E.	Major Street	El Pueblo	
Analysis Period/Year	PM 2009	Minor Street	Las Lomitas Dr.	
Comment	2009 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)		96	123	123	243		280		188			
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		107	137	137	270		311		209			
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	209	924	0.226	1	10.0	A	22.7
	2	L	311	436	0.713	6	31.3	D	
	3								C
SB	1								
	2								
	3								
EB		1							
WB		4	137	1313	0.104	0	8.1	A	

HiCAP ™2.0.0.1
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8 - 2008 PM BUILD
1 of 1

Analysis of

2009 BUILD Conditions

2007 Plan w/Park

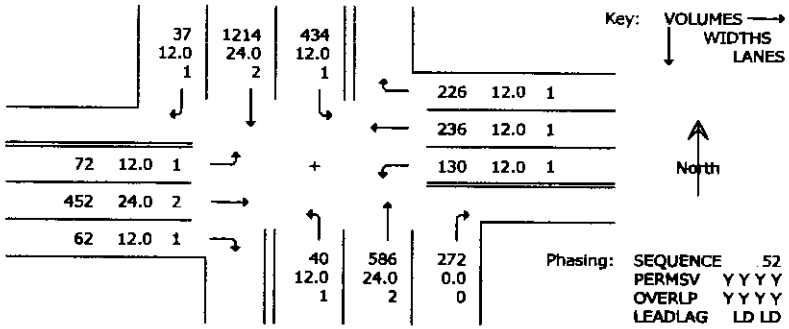
Vista del Norte Commercial Development (Osuna / VdN)
Analysis of Osuna Rd. / 2nd St. - [1P_09ABX]
2009 AM Peak Hour BUILD Conditions w/Park

05/21/07
13:30:12

SIGNAL2000/TEAPAC[Ver 2.71.07] - HCM Input Worksheet

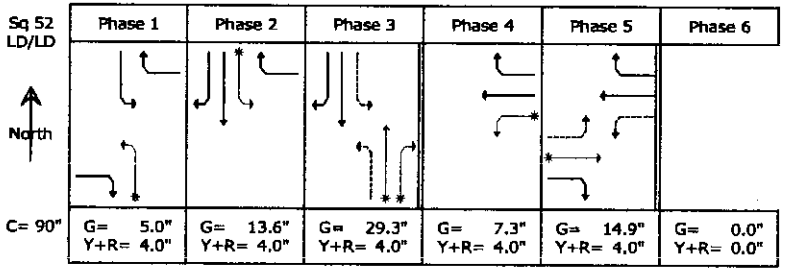
Intersection # 1 -

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	.91	.91	.91	.72	.72	.72	.84	.84	.84	.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 52
LD/LD



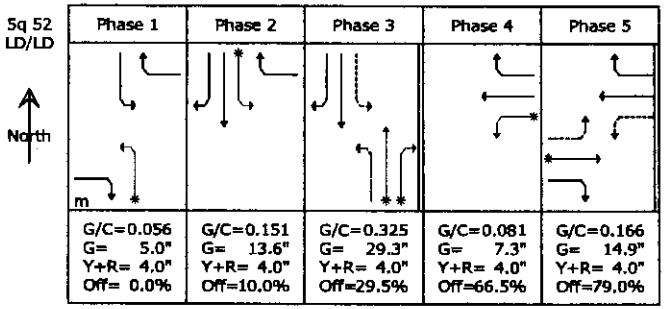
Vista del Norte Commercial Development (Osuna / VdN)
Analysis of Osuna Rd. / 2nd St. - [1P_09ABX]
2009 AM Peak Hour BUILD Conditions w/Park

05/21/07
13:30:12

SIGNAL2000/TEAPAC[Ver 2.71.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.768 (Critical V/C 0.955) Control Delay 34.0 Level of Service C

Sq 52
LD/LD



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

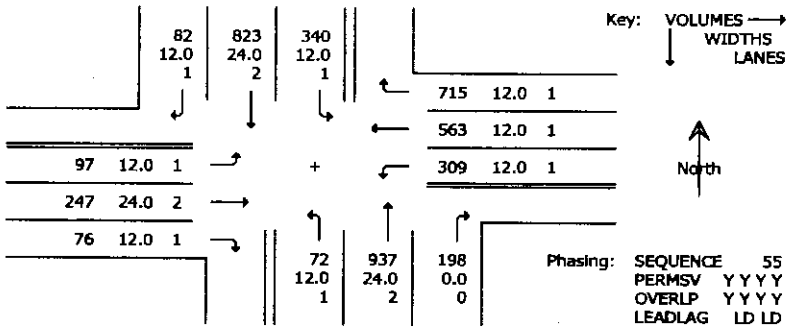
Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								26.3	C+	
RT	12/1	0.136	0.520	733	800	41	0.051	10.7	B+	25 ft
TH	24/2	0.419	0.520	1732	1792	1334	0.744	18.6	B	634 ft
LT	12/1	0.278	0.251	431	511	477	0.933	49.1	*D	587 ft
NB Approach								46.7	D	
RT+TH	24/2	0.355	0.325	908	1067	1022	0.958	48.0	*D	709 ft
LT	12/1	0.000	0.056	146	187	48	0.250	18.7	*B	42 ft
WB Approach								26.5	C+	
RT	12/1	0.283	0.586	850	901	314	0.349	9.9	A	196 ft
TH	12/1	0.258	0.291	397	527	328	0.622	29.9	C	338 ft
LT	12/1	0.099	0.081	153	212	181	0.826	48.9	*D	233 ft
EB Approach								45.0	D	
RT	12/1	0.147	0.266	286	409	67	0.164	25.5	C+	62 ft
TH	24/2	0.212	0.166	293	571	491	0.860	49.1	*D	338 ft
LT	12/1	0.174	0.166	67	154	78	0.462	35.9	D+	89 ft

Vista del Norte ALTERNATE Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / 2nd St. - [1P_09PBX] 13:36:18
2009 PM Peak Hour BUILD Conditions w/Park

SIGNAL2000/TEAPAC[Ver 2.71.07] - HCM Input Worksheet

Intersection # 1 - Area Location Type: NONCBD

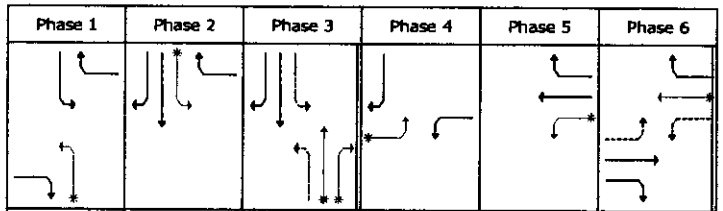
Key: VOLUMES → WIDTHS ↓ LANES



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

	SB RT	SB TH	SB LT	WB RT	WB TH	WB LT	NB RT	NB TH	NB LT	EB RT	EB TH	EB LT
Heavy veh, %HV	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	.96	.96	.96	.94	.94	.94	.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 55 LD/LD



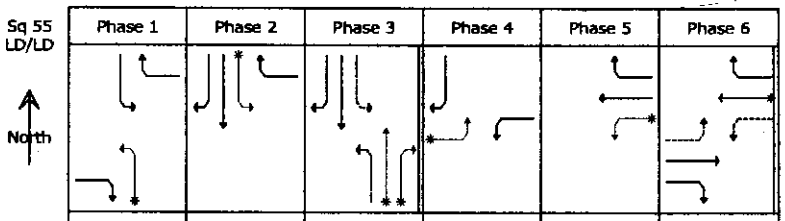
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
C=130"	G= 5.2" Y+R= 4.0"	G= 17.2" Y+R= 4.0"	G= 42.2" Y+R= 4.0"	G= 7.1" Y+R= 4.0"	G= 11.2" Y+R= 4.0"	G= 23.1" Y+R= 4.0"

Vista del Norte ALTERNATE Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / 2nd St. - [1P_09PBX] 13:36:18
2009 PM Peak Hour BUILD Conditions w/Park

SIGNAL2000/TEAPAC[Ver 2.71.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.837 (Critical V/C 1.074) Control Delay 65.7 Level of Service E+

Sq 55 LD/LD



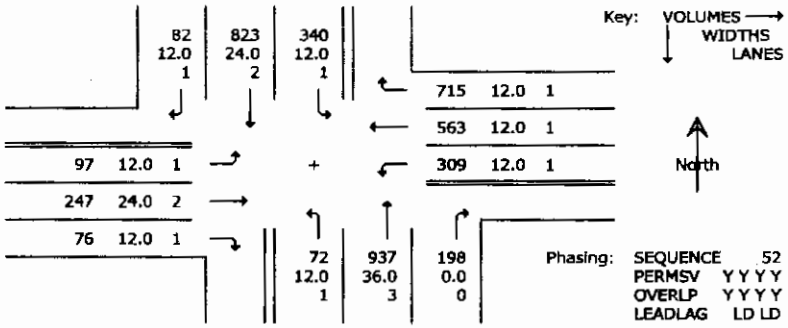
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
	G/C=0.040 G= 5.2" Y+R= 4.0" Off= 0.0%	G/C=0.132 G= 17.2" Y+R= 4.0" Off= 7.1%	G/C=0.324 G= 42.2" Y+R= 4.0" Off=23.4%	G/C=0.055 G= 7.1" Y+R= 4.0" Off=58.9%	G/C=0.087 G= 11.2" Y+R= 4.0" Off=67.4%	G/C=0.178 G= 23.1" Y+R= 4.0" Off=79.2%

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 (vph)	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								35.9	D+	
RT	12/1	0.291	0.573	782	881	92	0.104	12.7	B+	73 ft
TH	24/2	0.387	0.487	1463	1679	925	0.551	23.8	C+	548 ft
LT	12/1	0.292	0.203	254	396	382	0.943	71.1	*E	670 ft
NB Approach								102.0	F	
RT+TH	24/2	0.443	0.324	487	1088	1208	1.110	106.7	*F	1320 ft
LT	12/1	0.003	0.040	159	240	77	0.307	28.2	*C	98 ft
WB Approach								67.3	E+	
RT	12/1	0.554	0.529	694	813	745	0.916	43.1	D+	1142 ft
TH	12/1	0.432	0.295	128	524	586	1.099	114.8	*F	1214 ft
LT	12/1	0.181	0.172	303	443	322	0.727	37.1	*D+	472 ft
EB Approach								48.1	D	
RT	12/1	0.288	0.249	1	361	82	0.215	39.0	D+	112 ft
TH	24/2	0.296	0.178	1	589	266	0.435	48.1	D	213 ft
LT	12/1	0.135	0.055	1	129	104	0.693	55.2	*E+	178 ft

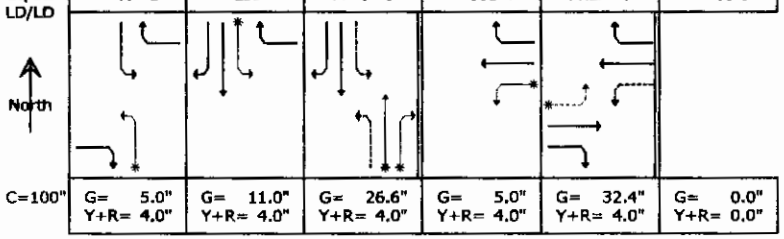
SIGNAL2000/TEAPAC[Ver 2.71.07] - HCM Input Worksheet

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	.89	.89	.89	.96	.96	.96	.94	.94	.94	.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 52 LD/LD

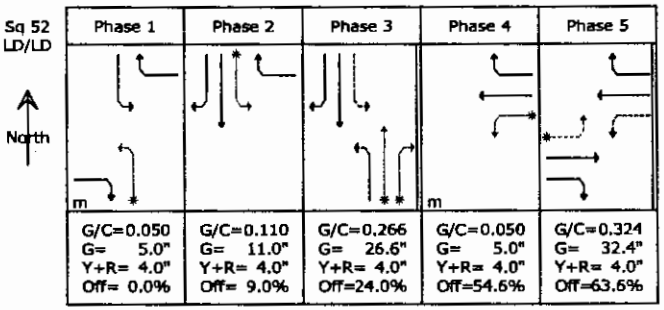


Vista del Norte ALTERNATE Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / 2nd St. - [1P_09PB1] 13:38:54
2009 PM Peak Hour BUILD Conditions w/Park - Add NB Thru Lane

SIGNAL2000/TEAPAC[Ver 2.71.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.740 (Critical V/C 0.881) Control Delay 33.5 Level of Service C

Sq 52 LD/LD



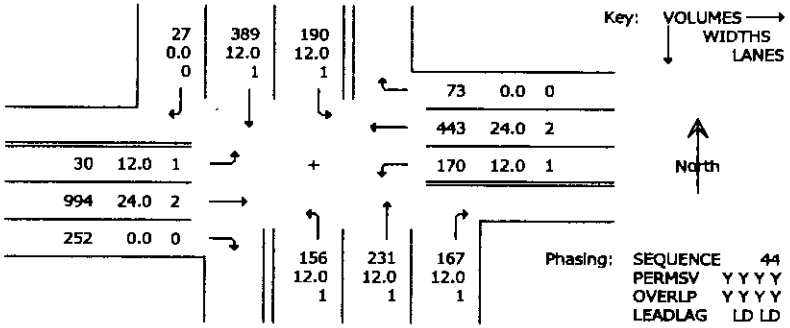
C=100 sec G= 80.0 sec = 80.0% Y=20.0 sec = 20.0% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								31.6	C	
RT	12/1	0.195	0.416	531	640	92	0.144	18.2	B	77 ft
TH	24/2	0.332	0.416	1286	1434	925	0.645	24.3	C+	495 ft
LT	12/1	0.233	0.200	332	416	382	0.918	52.5	*D	527 ft
NB Approach								48.8	D	
RT+TH	36/3	0.312	0.266	904	1277	1208	0.946	50.2	*D	644 ft
LT	12/1	0.007	0.050	151	212	77	0.350	25.5	*C+	82 ft
WB Approach								24.3	C+	
RT	12/1	0.533	0.654	964	1006	745	0.741	14.6	B+	646 ft
TH	12/1	0.393	0.414	631	749	586	0.782	30.8	C	656 ft
LT	12/1	0.050	0.050	322	413	322	0.780	35.0	*D+	388 ft
EB Approach								29.9	C	
RT	12/1	0.192	0.414	528	637	82	0.129	18.2	B	68 ft
TH	24/2	0.200	0.324	891	1116	266	0.238	24.9	C+	135 ft
LT	12/1	0.377	0.324	82	124	104	0.759	51.9	*D	144 ft

Vista del Norte Commercial Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / Edith Blvd. - [2P_09ABX] 13:42:52
2009 AM Peak Hour BUILD Conditions w/Park

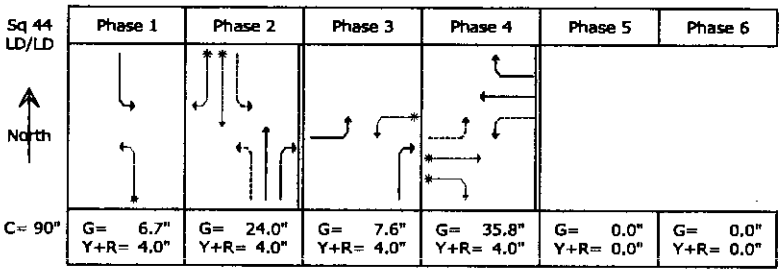
SIGNAL2000/TEAPAC[Ver 2.71.07] - HCM Input Worksheet

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	.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 44 LD/LD

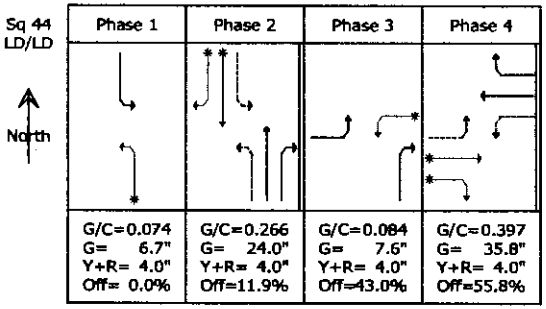


Vista del Norte Commercial Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / Edith Blvd. - [2P_09ABX] 13:42:52
2009 AM Peak Hour BUILD Conditions w/Park

SIGNAL2000/TEAPAC[Ver 2.71.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.816 (Critical V/C 1.011) Control Delay 48.9 Level of Service D

Sq 44 LD/LD



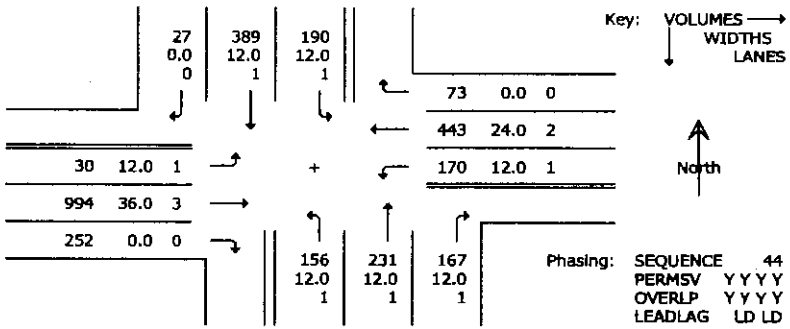
C= 90 sec G= 74.0 sec = 82.2% Y=16.0 sec = 17.8% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								53.8	D	
RT+TH	12/1	0.325	0.266	342	477	462	0.969	65.7	*E+	637 ft
LT	12/1	0.059	0.074	241	311	211	0.678	27.7	C	224 ft
NB Approach								37.2	D+	
RT	12/1	0.219	0.395	512	608	206	0.339	19.3	B	172 ft
TH	12/1	0.237	0.266	346	482	285	0.591	30.7	C	296 ft
LT	12/1	0.099	0.074	154	204	193	0.928	65.9	*E+	278 ft
WB Approach								31.9	C	
RT+TH	24/2	0.253	0.397	1219	1340	645	0.481	20.5	C+	296 ft
LT	12/1	0.111	0.084	176	223	212	0.942	66.7	*E+	304 ft
EB Approach								62.6	E+	
RT+TH	24/2	0.443	0.397	1206	1327	1384	1.043	63.8	*E+	1059 ft
LT	12/1	0.000	0.084	318	368	33	0.090	11.3	B+	21 ft

Vista del Norte Commercial Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / Edith Blvd. - [2P_09AB1] 13:47:17
2009 AM Peak Hour BUILD Conditions w/Park - Add EB Thru Lane

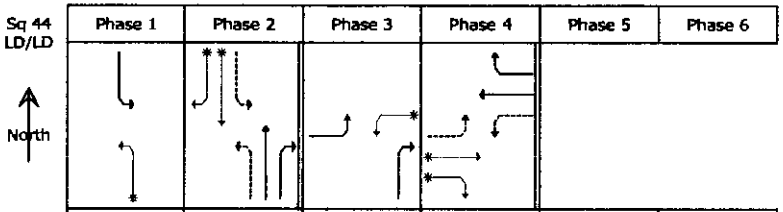
SIGNAL2000/TEAPAC[Ver 2.71.07] - HCM Input Worksheet

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	.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 44 LD/LD



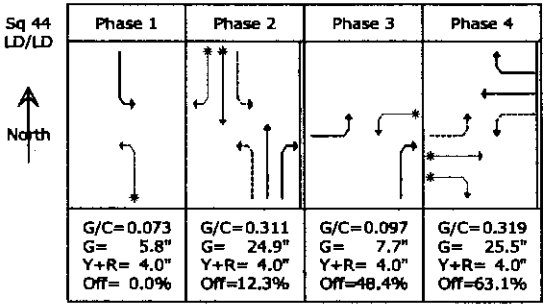
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
C= 80"	G= 5.8" Y+R= 4.0"	G= 24.9" Y+R= 4.0"	G= 7.7" Y+R= 4.0"	G= 25.5" Y+R= 4.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"

Vista del Norte Commercial Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / Edith Blvd. - [2P_09AB1] 13:47:17
2009 AM Peak Hour BUILD Conditions w/Park - Add EB Thru Lane

SIGNAL2000/TEAPAC[Ver 2.71.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.740 (Critical V/C 0.897) Control Delay 29.7 Level of Service C

Sq 44 LD/LD



Phase 1	Phase 2	Phase 3	Phase 4
G/C=0.073 G= 5.8" Y+R= 4.0" Off= 0.0%	G/C=0.311 G= 24.9" Y+R= 4.0" Off=12.3%	G/C=0.097 G= 7.7" Y+R= 4.0" Off=48.4%	G/C=0.319 G= 25.5" Y+R= 4.0" Off=63.1%

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

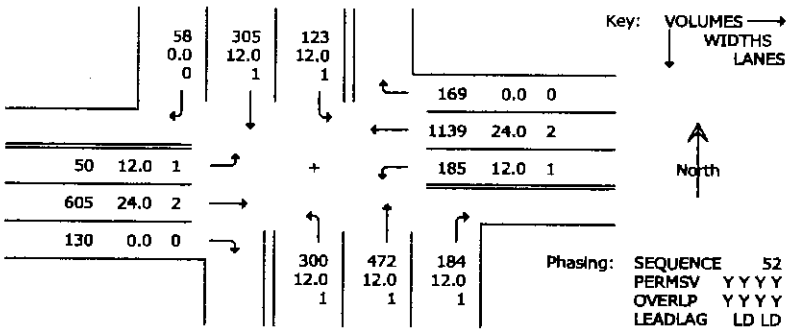
Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								30.1	C	
RT+TH	12/1	0.313	0.311	458	558	462	0.828	35.6	*D+	478 ft
LT	12/1	0.023	0.073	309	371	211	0.569	18.1	B	177 ft
NB Approach								24.2	C+	
RT	12/1	0.201	0.458	636	704	206	0.293	13.8	B+	138 ft
TH	12/1	0.220	0.311	463	563	285	0.506	23.3	C+	247 ft
LT	12/1	0.075	0.073	191	237	193	0.814	36.5	*D+	210 ft
WB Approach								27.0	C+	
RT+TH	24/2	0.237	0.319	955	1076	645	0.599	23.9	C+	303 ft
LT	12/1	0.099	0.097	209	256	212	0.828	36.5	*D+	230 ft
EB Approach								33.9	C	
RT+TH	36/3	0.317	0.319	1394	1525	1384	0.908	34.4	*C	571 ft
LT	12/1	0.000	0.097	275	322	33	0.102	12.8	B+	21 ft

Vista del Norte Commercial Development (Osuna / VdN)
Analysis of Osuna Rd. / Edith Blvd. - [2P_09PBX]
PM

05/21/07
14:07:35

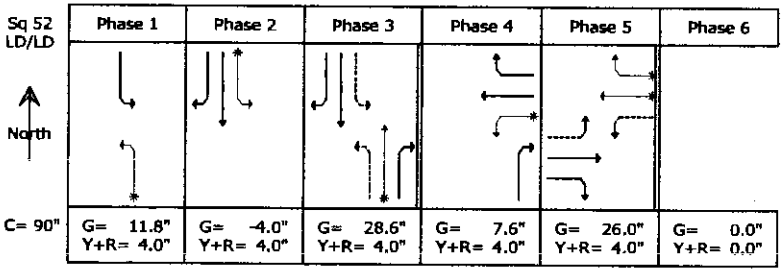
SIGNAL2000/TEAPAC[Ver 2.71.07] - HCM Input Worksheet

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 52
LD/LD



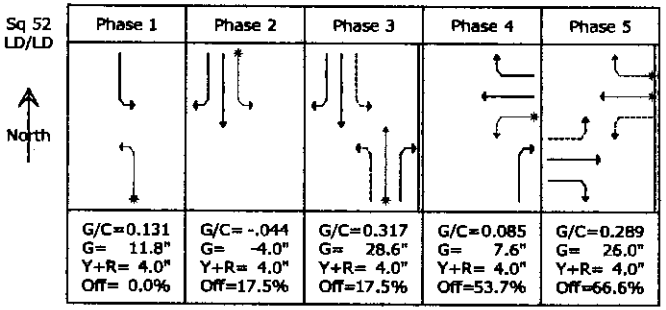
Vista del Norte Commercial Development (Osuna / VdN)
Analysis of Osuna Rd. / Edith Blvd. - [2P_09PBX]
PM

05/21/07
14:07:35

SIGNAL2000/TEAPAC[Ver 2.71.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.884 (Critical V/C 0.959) Control Delay 46.2 Level of Service D

Sq 52
LD/LD

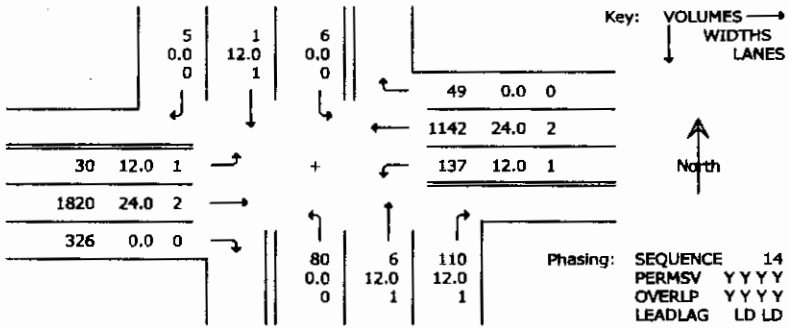


C= 90 sec G= 70.0 sec = 77.8% Y=20.0 sec = 22.2% Ped= 0.0 sec = 0.0%

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								30.2	C	
RT+TH	12/1	0.314	0.317	439	561	432	0.770	34.2	C	472 ft
LT	12/1	0.067	0.131	247	305	146	0.479	18.3	*B	123 ft
NB Approach								47.3	D	
RT	12/1	0.222	0.447	603	687	211	0.307	16.2	B	162 ft
TH	12/1	0.362	0.317	451	574	543	0.946	54.8	*D	703 ft
LT	12/1	0.152	0.131	308	360	345	0.958	54.3	*D	480 ft
WB Approach								54.4	D	
RT+TH	24/2	0.453	0.418	1304	1414	1438	1.017	54.4	*D	1049 ft
LT	12/1	0.103	0.085	175	226	203	0.898	54.5	*D	276 ft
EB Approach								40.0	D+	
RT+TH	24/2	0.304	0.289	787	970	844	0.870	39.0	D+	535 ft
LT	12/1	0.340	0.289	45	67	57	0.712	54.3	D	73 ft

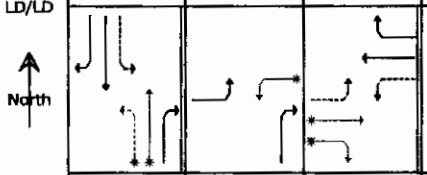
SIGNAL2000/TEAPAC[Ver 2.71.07] - HCM Input Worksheet

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	.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, 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 14
LD/LD



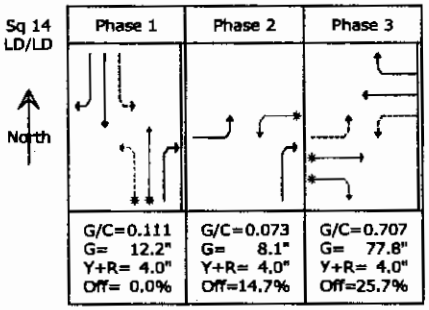
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
C=110"	G= 12.2" Y+R= 4.0"	G= 8.1" Y+R= 4.0"	G= 77.8" Y+R= 4.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"

Vista del Norte Commercial Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / Chappel Dr. - [3P_09ABX] 14:10:57
2009 AM Peak Hour BUILD Conditions w/Park

SIGNAL2000/TEAPAC[Ver 2.71.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.904 (Critical V/C 1.067) Control Delay 51.2 Level of Service D

Sq 14
LD/LD



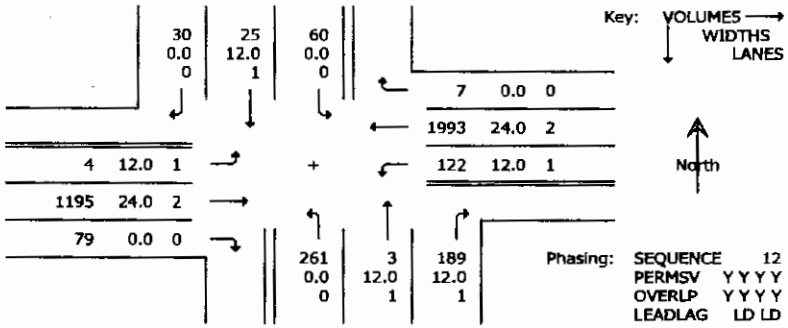
Phase 1	Phase 2	Phase 3
G/C=0.111	G/C=0.073	G/C=0.707
G= 12.2"	G= 8.1"	G= 77.8"
Y+R= 4.0"	Y+R= 4.0"	Y+R= 4.0"
Off= 0.0%	Off=14.7%	Off=25.7%

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								44.3	D+	
RT+TH+LT	12/1	0.208	0.111	1	137	17	0.106	44.3	D+	23 ft
NB Approach								54.9	D	
RT	12/1	0.250	0.220	59	325	153	0.451	38.1	D+	194 ft
TH+LT	12/1	0.247	0.111	1	122	119	0.815	76.5	*E	196 ft
WB Approach								15.8	B	
RT+TH	24/2	0.476	0.707	2421	2421	1488	0.615	8.8	A	568 ft
LT	12/1	0.180	0.073	99	174	171	0.891	76.9	*E	221 ft
EB Approach								72.6	E	
RT+TH	24/2	0.772	0.707	2380	2380	2649	1.113	73.6	*E	2425 ft
LT	12/1	0.000	0.073	246	291	37	0.127	5.2	A	13 ft

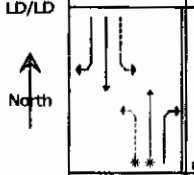
SIGNAL2000/TEAPAC[Ver 2.71.07] - HCM Input Worksheet

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	.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



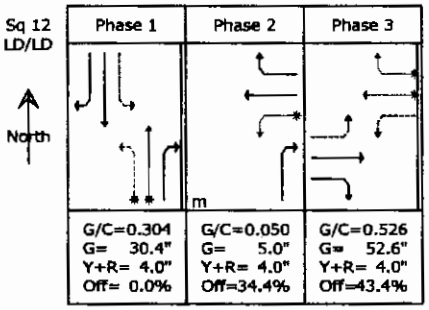
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
C=100"	G= 30.4" Y+R= 4.0"	G= 5.0" Y+R= 4.0"	G= 52.6" Y+R= 4.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"

Vista del Norte Commercial Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / Chappel Dr. - [3P_09PBX] 14:13:30
2009 PM Peak Hour BUILD Conditions w/Park

SIGNAL2000/TEAPAC[Ver 2.71.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.922 (Critical V/C 1.050) Control Delay 50.7 Level of Service D

Sq 12
LD/LD

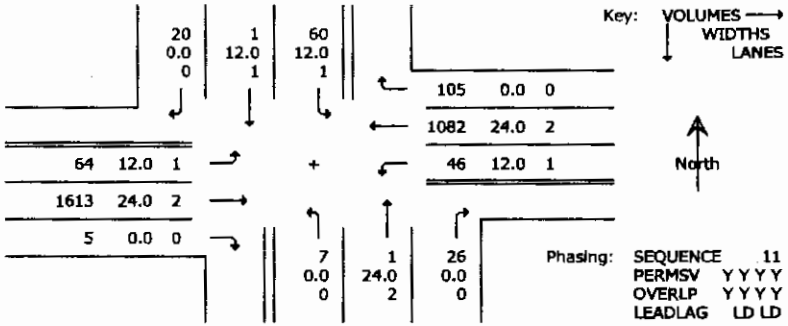


C=100 sec G= 88.0 sec = 88.0% Y=12.0 sec = 12.0% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E (vph)	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								29.0	C	
RT+TH+LT	12/1	0.247	0.304	191	288	129	0.437	29.0	C	141 ft
NB Approach								50.7	D	
RT	12/1	0.259	0.394	489	605	239	0.395	22.2	C+	225 ft
TH+LT	12/1	0.380	0.304	232	346	334	0.957	71.0	*E	512 ft
WB Approach								68.6	E	
RT+TH	24/2	0.675	0.616	2093	2123	2325	1.095	70.2	*E	1961 ft
LT	12/1	0.056	0.050	134	169	142	0.821	42.6	*D+	178 ft
EB Approach								21.0	C+	
RT+TH	24/2	0.444	0.526	1718	1797	1385	0.771	21.0	C+	736 ft
LT	12/1	0.171	0.526	47	62	4	0.056	11.9	B+	3 ft

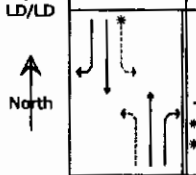
SIGNAL2000/TEAPAC[Ver 2.71.07] - HCM Input Worksheet

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



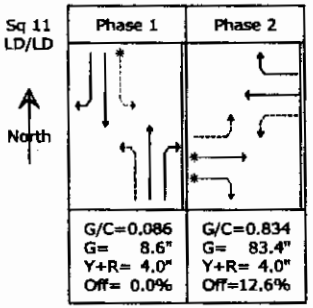
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
C=100"	G= 8.6" Y+R= 4.0"	G= 83.4" Y+R= 4.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"

Vista del Norte Commercial Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / Academy Parkway. - [4P_09ABX] 17:11:32
2009 AM Peak Hour BUILD Conditions w/Park

SIGNAL2000/TEAPAC[Ver 2.71.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.542 (Critical V/C 0.607) Control Delay 4.7 Level of Service A

Sq 11
LD/LD

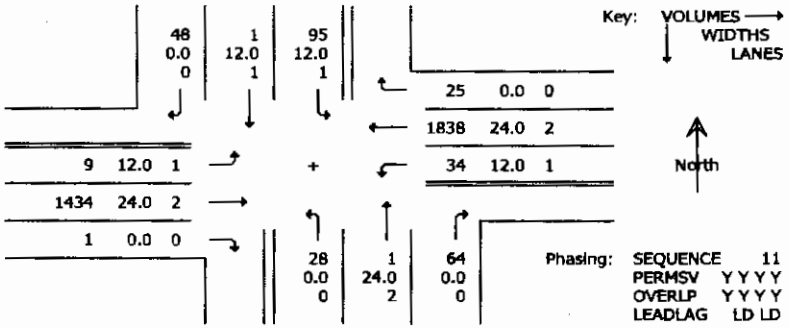


C=100 sec G= 92.0 sec = 92.0% Y= 8.0 sec = 8.0% Ped= 0.0 sec = 0.0%

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								50.9	D	
RT+TH	12/1	0.172	0.086	1	112	24	0.180	43.1	D+	31 ft
LT	12/1	0.193	0.086	1	94	70	0.614	53.6	*D	99 ft
NB Approach								42.8	D+	
RT+TH+LT	24/2	0.171	0.086	1	217	42	0.176	42.8	D+	28 ft
WB Approach								2.5	A	
RT+TH	24/2	0.452	0.834	2835	2835	1413	0.498	2.5	A	294 ft
LT	12/1	0.426	0.834	147	173	55	0.318	2.9	A	21 ft
EB Approach								3.1	A	
RT+TH	24/2	0.528	0.834	2872	2872	1739	0.606	3.2	*A	420 ft
LT	12/1	0.364	0.834	232	260	69	0.265	2.3	A	24 ft

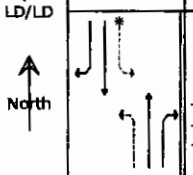
SIGNAL2000/TEAPAC[Ver 2.71.07] - HCM Input Worksheet

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



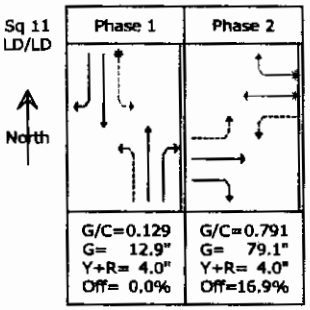
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
C=100"	G= 12.9" Y+R= 4.0"	G= 79.1" Y+R= 4.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"

Vista del Norte Commercial Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / Academy Parkway. - [4P_09PBX] 17:17:44
2009 PM Peak Hour BUILD Conditions w/Park

SIGNAL2000/TEAPAC[Ver 2.71.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.690 (Critical V/C 0.799) Control Delay 9.2 Level of Service A

Sq 11 LD/LD

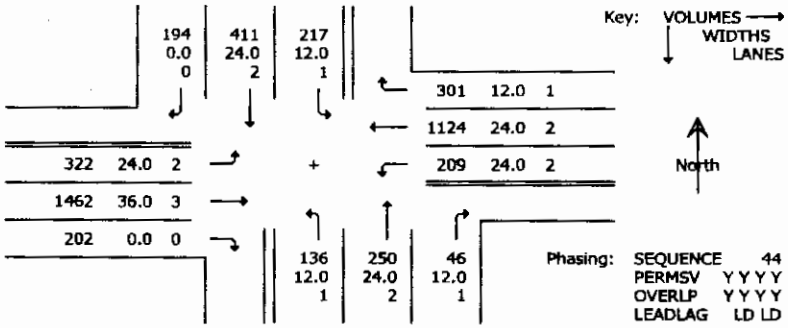


C=100 sec G= 92.0 sec = 92.0% Y= 8.0 sec = 8.0% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E (vph)	Adj Volume	v/c	HCM Delay	LS	Queue Model 1
SB Approach								49.1	D	
RT+TH	12/1	0.183	0.129	1	179	57	0.286	40.2	D+	70 ft
LT	12/1	0.214	0.129	1	139	110	0.692	53.8	*D	153 ft
NB Approach								40.2	D+	
RT+TH+LT	24/2	0.185	0.129	1	328	116	0.338	40.2	D+	76 ft
WB Approach								8.1	A	
RT+TH	24/2	0.649	0.791	2720	2720	2218	0.815	8.2	*A	893 ft
LT	12/1	0.304	0.791	170	199	40	0.201	3.1	A	16 ft
EB Approach								4.2	A	
RT+TH	24/2	0.479	0.791	2725	2725	1543	0.566	4.2	A	411 ft
LT	12/1	0.185	0.791	53	65	10	0.139	3.3	A	4 ft

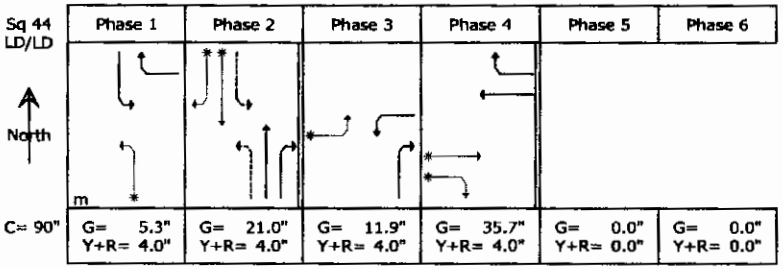
SIGNAL2000/TEAPAC[Ver 2.71.07] - HCM Input Worksheet

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
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

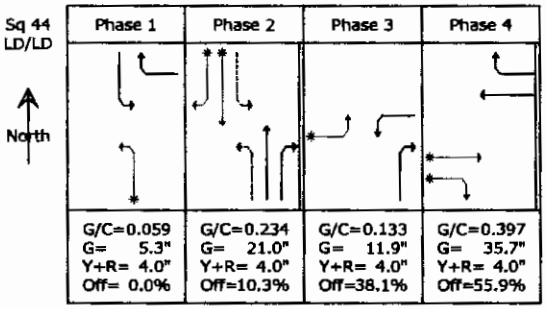


Vista del Norte Commercial Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / Jefferson St. - [5P_09ABX] 17:19:33
2009 AM Peak Hour BUILD Conditions w/Park

SIGNAL2000/TEAPAC[Ver 2.71.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.845 (Critical V/C 0.938) Control Delay 40.2 Level of Service D+

Sq 44 LD/LD

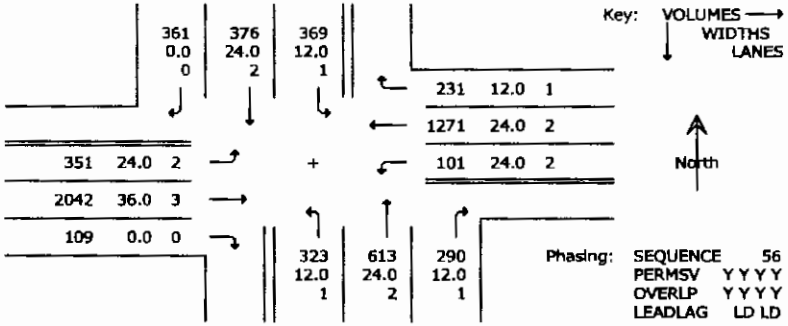


C= 90 sec G= 74.0 sec = 82.2% Y=16.0 sec = 17.8% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								45.1	D	
RT+TH	24/2	0.271	0.234	551	767	695	0.906	47.9	*D	477 ft
LT	12/1	0.063	0.059	241	324	249	0.769	37.2	D+	288 ft
NB Approach								34.2	C	
RT	12/1	0.140	0.411	540	632	51	0.081	16.2	B	38 ft
TH	24/2	0.162	0.234	582	805	275	0.342	29.0	C	144 ft
LT	12/1	0.072	0.059	128	173	149	0.823	50.0	*D	193 ft
WB Approach								33.6	C	
RT	12/1	0.299	0.500	698	769	342	0.445	14.9	B+	261 ft
TH	24/2	0.405	0.397	1246	1368	1277	0.933	37.9	D+	818 ft
LT	24/2	0.158	0.133	90	441	238	0.537	37.7	D+	143 ft
EB Approach								44.8	D+	
RT+TH	36/3	0.415	0.397	1793	1921	1891	0.984	43.8	*D+	922 ft
LT	24/2	0.186	0.133	90	441	366	0.826	50.2	*D	249 ft

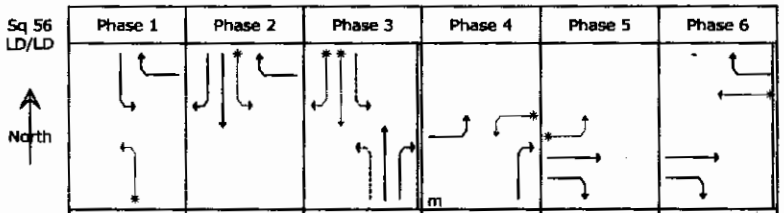
SIGNAL2000/TEAPAC[Ver 2.71.07] - HCM Input Worksheet

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



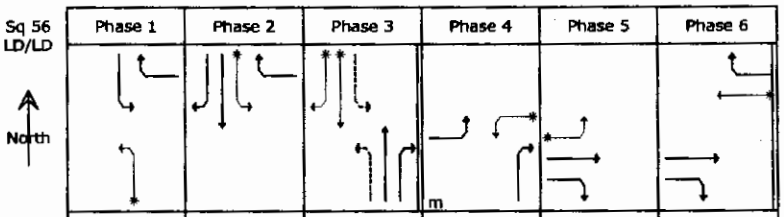
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
C=130"	G= 23.1" Y+R= 4.0"	G= 3.2" Y+R= 4.0"	G= 25.3" Y+R= 4.0"	G= 5.0" Y+R= 4.0"	G= 4.7" Y+R= 4.0"	G= 44.8" Y+R= 4.0"

Vista del Norte Commercial Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / Jefferson St. - [5P_09PBX] 17:21:09
2009 PM Peak Hour BUILD Conditions w/Park

SIGNAL2000/TEAPAC[Ver 2.71.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 1.066 (Critical V/C 1.098) Control Delay 105.9 Level of Service F

Sq 56 LD/LD



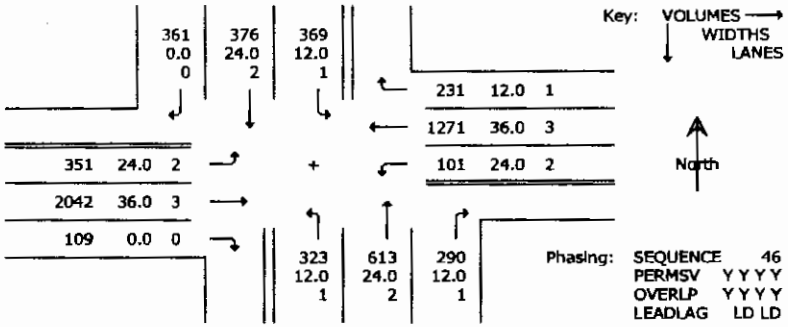
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
	G/C=0.177 G= 23.1" Y+R= 4.0" Off= 0.0%	G/C=0.024 G= 3.2" Y+R= 4.0" Off=20.8%	G/C=0.195 G= 25.3" Y+R= 4.0" Off=26.3%	G/C=0.038 G= 5.0" Y+R= 4.0" Off=48.9%	G/C=0.036 G= 4.7" Y+R= 4.0" Off=55.8%	G/C=0.344 G= 44.8" Y+R= 4.0" Off=62.5%

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								116.5	F	
RT+TH	24/2	0.399	0.250	1	796	921	1.156	132.8	*F	1095 ft
LT	12/1	0.324	0.232	316	454	461	1.011	84.1	*F	887 ft
NB Approach								80.7	F	
RT	12/1	0.362	0.264	1	388	322	0.793	54.9	D	519 ft
TH	24/2	0.349	0.195	1	653	681	1.015	90.9	F	717 ft
LT	12/1	0.260	0.177	227	354	359	0.994	84.5	*F	701 ft
WB Approach								112.4	F	
RT	12/1	0.337	0.608	851	935	254	0.272	12.1	B+	204 ft
TH	24/2	0.474	0.344	653	1187	1397	1.177	131.3	*F	1627 ft
LT	24/2	0.279	0.038	1	93	111	0.867	104.7	*F	123 ft
EB Approach								108.9	F	
RT+TH	36/3	0.511	0.411	1558	2012	2288	1.137	106.7	F	1755 ft
LT	24/2	0.311	0.105	1	312	373	1.060	122.7	*F	439 ft

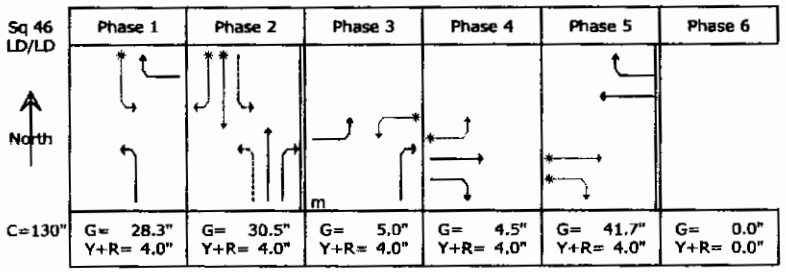
SIGNAL2000/TEAPAC[Ver 2.71.07] - HCM Input Worksheet

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 46
LD/LD

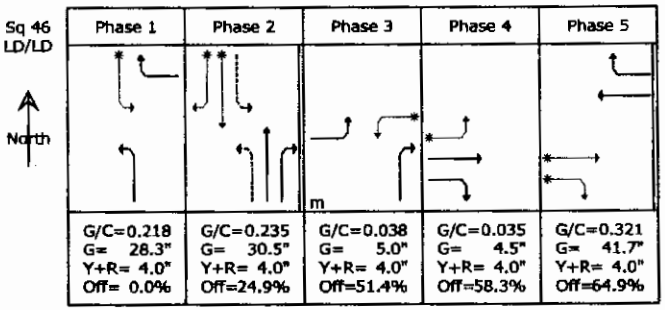


Vista del Norte Commercial Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / Jefferson St. - [5P_09PB1] 17:32:51
2009 PM Peak Hour BUILD Conditions w/Park - Add WB Thru Lane

SIGNAL2000/TEAPAC[Ver 2.71.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 1.019 (Critical V/C 1.244) Control Delay 100.6 Level of Service F

Sq 46
LD/LD



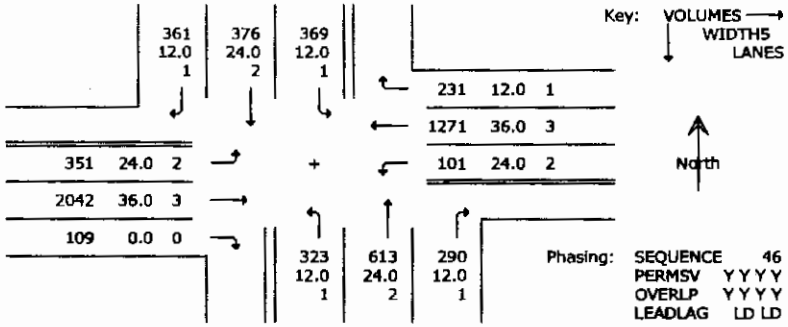
C=130 sec G=110.0 sec = 84.6% Y=20.0 sec = 15.4% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								144.0	F	
RT+TH	24/2	0.399	0.235	1	742	921	1.230	164.7	*F	1184 ft
LT	12/1	0.325	0.218	293	427	461	1.070	102.9	*F	950 ft
NB Approach								51.1	D	
RT	12/1	0.362	0.304	139	456	322	0.690	44.1	D+	477 ft
TH	24/2	0.349	0.235	1	804	681	0.843	55.6	E+	595 ft
LT	12/1	0.267	0.218	289	427	359	0.833	48.9	D	550 ft
WB Approach								46.9	D	
RT	12/1	0.337	0.569	775	876	254	0.290	14.6	B+	223 ft
TH	36/3	0.391	0.321	682	1581	1397	0.884	48.2	D	830 ft
LT	24/2	0.279	0.038	1	93	111	0.867	104.7	*F	123 ft
EB Approach								138.8	F	
RT+TH	36/3	0.511	0.386	1339	1888	2288	1.212	140.4	*F	1915 ft
LT	24/2	0.311	0.104	1	306	373	1.078	129.0	*F	448 ft

Vista del Norte Commercial Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / Jefferson St. - [5P_09PB2] 17:35:19
2009 PM Peak Hour BUILD Cond w/Park - Add WB Thru/SB RT Lane

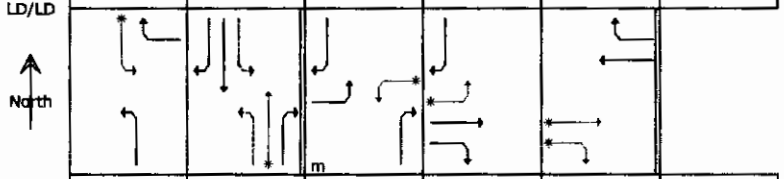
SIGNAL2000/TEAPAC[Ver 2.71.07] - HCM Input Worksheet

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 46 LD/LD



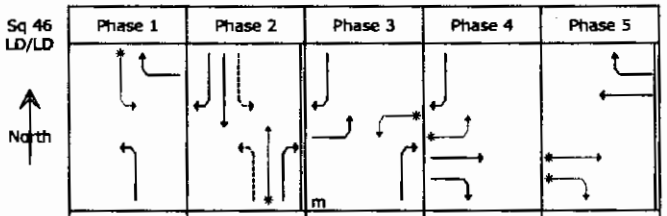
C=130"	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
	G= 31.2" Y+R= 4.0"	G= 23.0" Y+R= 4.0"	G= 5.0" Y+R= 4.0"	G= 4.9" Y+R= 4.0"	G= 45.9" Y+R= 4.0"	G= 0.0" Y+R= 0.0"

Vista del Norte Commercial Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / Jefferson St. - [5P_09PB2] 17:35:19
2009 PM Peak Hour BUILD Cond w/Park - Add WB Thru/SB RT Lane

SIGNAL2000/TEAPAC[Ver 2.71.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.942 (Critical V/C 1.070) Control Delay 75.8 Level of Service E

Sq 46 LD/LD



Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
G/C=0.240	G/C=0.177	G/C=0.038	G/C=0.038	G/C=0.353
G= 31.2"	G= 23.0"	G= 5.0"	G= 4.9"	G= 45.9"
Y+R= 4.0"	Y+R= 4.0"	Y+R= 4.0"	Y+R= 4.0"	Y+R= 4.0"
Off= 0.0%	Off=27.1%	Off=47.8%	Off=54.8%	Off=61.6%

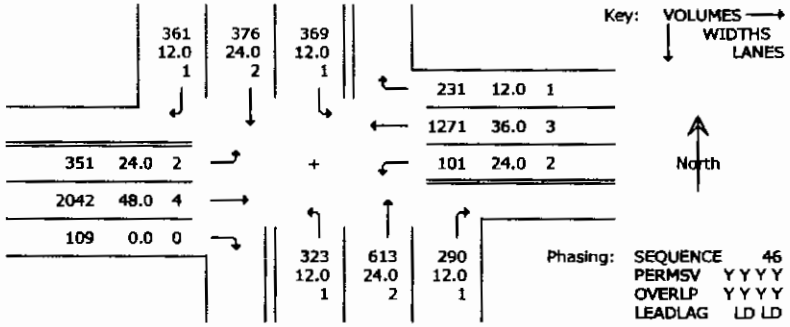
C=130 sec G=110.0 sec = 84.6% Y=20.0 sec = 15.4% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								67.0	E+	
RT	12/1	0.415	0.315	179	475	451	0.932	68.2	E	786 ft
TH	24/2	0.321	0.177	1	586	470	0.772	57.1	E+	415 ft
LT	12/1	0.322	0.240	328	468	461	0.985	75.9	*E	855 ft
NB Approach								87.8	F	
RT	12/1	0.362	0.246	1	357	322	0.852	63.6	E+	547 ft
TH	24/2	0.349	0.177	1	586	681	1.118	127.0	*F	807 ft
LT	12/1	0.241	0.240	358	479	359	0.749	35.3	D+	511 ft
WB Approach								40.6	D+	
RT	12/1	0.337	0.624	881	959	254	0.265	11.2	B+	197 ft
TH	36/3	0.391	0.353	1035	1740	1397	0.803	40.8	D+	763 ft
LT	24/2	0.279	0.038	1	93	111	0.867	104.7	*F	123 ft
EB Approach								97.5	F	
RT+TH	36/3	0.511	0.422	1643	2063	2288	1.109	94.3	*F	1694 ft
LT	24/2	0.311	0.107	1	319	373	1.042	116.9	*F	431 ft

Vista del Norte Commercial Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / Jefferson St. - [5P_09PB3] 17:36:43
2009 PM Peak Hr BUILD Cond w/Park - Add EB/WB Thru/SB RT Lane

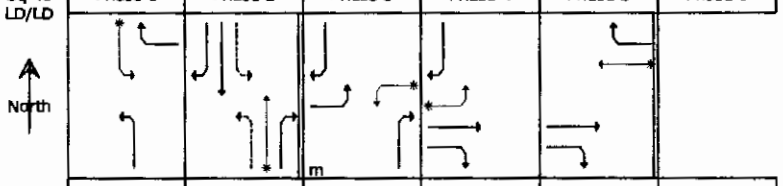
SIGNAL2000/TEAPAC[Ver 2.71.07] - HCM Input Worksheet

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 46 LD/LD



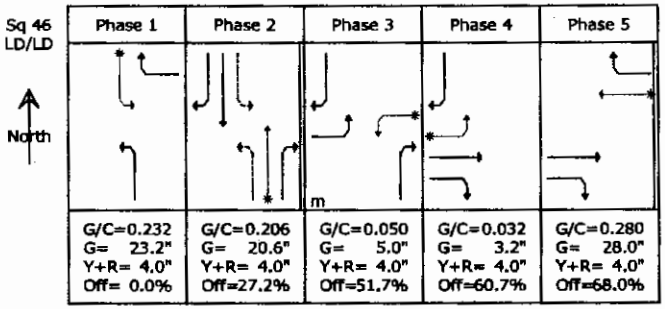
C=100"	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
	G= 23.2" Y+R= 4.0"	G= 20.6" Y+R= 4.0"	G= 5.0" Y+R= 4.0"	G= 3.2" Y+R= 4.0"	G= 28.0" Y+R= 4.0"	G= 0.0" Y+R= 0.0"

Vista del Norte Commercial Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / Jefferson St. - [5P_09PB3] 17:36:43
2009 PM Peak Hr BUILD Cond w/Park - Add EB/WB Thru/SB RT Lane

SIGNAL2000/TEAPAC[Ver 2.71.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.899 (Critical V/C 0.955) Control Delay 50.8 Level of Service D

Sq 46 LD/LD



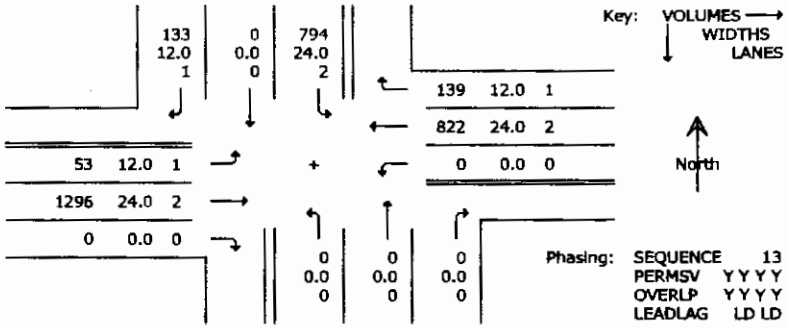
Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
G/C=0.232 G= 23.2" Y+R= 4.0" Off= 0.0%	G/C=0.206 G= 20.6" Y+R= 4.0" Off=27.2%	G/C=0.050 G= 5.0" Y+R= 4.0" Off=51.7%	G/C=0.032 G= 3.2" Y+R= 4.0" Off=60.7%	G/C=0.280 G= 28.0" Y+R= 4.0" Off=68.0%

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 @C (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								46.4	D	
RT	12/1	0.373	0.368	443	566	451	0.797	36.1	D+	539 ft
TH	24/2	0.234	0.206	302	708	470	0.664	38.9	D+	306 ft
LT	12/1	0.278	0.232	385	470	461	0.981	64.2	*E+	697 ft
NB Approach								46.8	D	
RT	12/1	0.303	0.296	308	455	322	0.708	36.4	D+	384 ft
TH	24/2	0.278	0.206	302	708	681	0.962	64.0	*E+	550 ft
LT	12/1	0.189	0.232	435	502	359	0.715	23.4	C+	386 ft
WB Approach								55.2	E+	
RT	12/1	0.267	0.552	779	849	254	0.299	12.2	B+	181 ft
TH	36/3	0.336	0.280	1031	1382	1397	1.011	62.9	*E+	804 ft
LT	24/2	0.179	0.050	1	143	111	0.665	56.3	*E+	85 ft
EB Approach								52.2	D	
RT+TH	48/4	0.384	0.353	2037	2301	2288	0.994	49.7	D	935 ft
LT	24/2	0.218	0.122	1	397	373	0.912	67.7	*E	303 ft

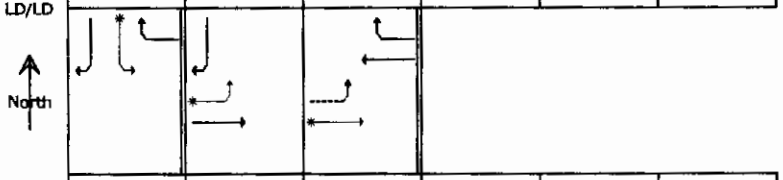
SIGNAL2000/TEAPAC[Ver 2.71.07] - HCM Input Worksheet

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



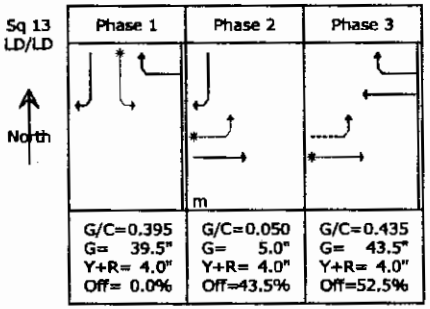
C=100"	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
	G= 39.5" Y+R= 4.0"	G= 5.0" Y+R= 4.0"	G= 43.5" Y+R= 4.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"

Vista del Norte Commercial Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / Vista del Norte - [6P_09ABX] 17:38:14
2009 AM Peak Hour BUILD Conditions w/Park

SIGNAL2000/TEAPAC[Ver 2.71.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.722 (Critical V/C 0.793) Control Delay 23.8 Level of Service C+

Sq 13
LD/LD



Phase 1	Phase 2	Phase 3
G/C=0.395	G/C=0.050	G/C=0.435
G= 39.5"	G= 5.0"	G= 43.5"
Y+R= 4.0"	Y+R= 4.0"	Y+R= 4.0"
Off= 0.0%	Off=43.5%	Off=52.5%

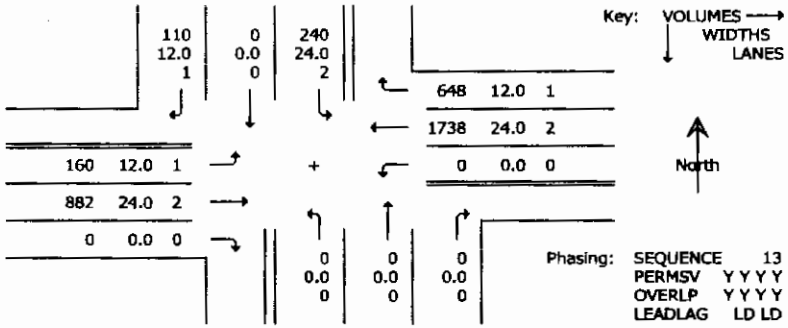
C=100 sec G= 88.0 sec = 88.0% Y=12.0 sec = 12.0% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E (vph)	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								26.6	C+	
RT	12/1	0.222	0.485	657	746	166	0.223	15.0	B	128 ft
LT	24/2	0.355	0.395	1159	1320	992	0.752	28.5	*C	570 ft
WB Approach								22.3	C+	
RT	12/1	0.234	0.870	1338	1338	190	0.142	1.0	A	43 ft
TH	24/2	0.378	0.435	1363	1498	1126	0.752	25.9	C+	636 ft
EB Approach								22.9	C+	
TH	24/2	0.466	0.525	1728	1808	1490	0.824	23.2	*C+	837 ft
LT	12/1	0.009	0.050	135	173	61	0.345	17.3	*B	51 ft

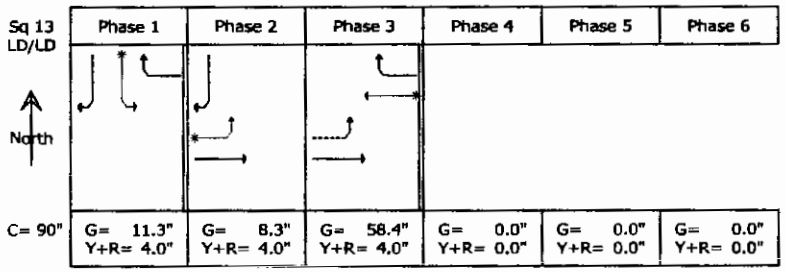
Vista del Norte Commercial Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / Vista del Norte - [6P_09PBX] 17:39:44
2009 PM Peak Hour BUILD Conditions w/Park

SIGNAL2000/TEAPAC[Ver 2.71.07] - HCM Input Worksheet

Intersection # 1 - Area Location Type: NONCBD



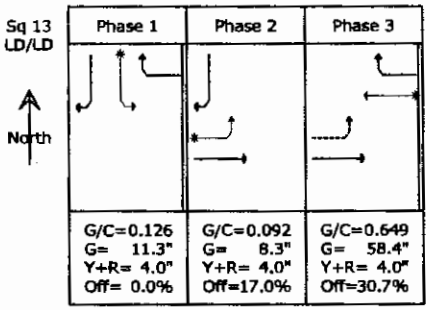
	SB RT	SB TH	SB LT	WB RT	WB TH	WB LT	NB RT	NB TH	NB LT	EB RT	EB TH	EB LT
Heavy veh, %HV	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.86	.86	.86	.92	.92	.92	.85	.85	.85	.89	.89	.89
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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) 05/21/07
Analysis of Osuna Rd. / Vista del Norte - [6P_09PBX] 17:39:44
2009 PM Peak Hour BUILD Conditions w/Park

SIGNAL2000/TEAPAC[Ver 2.71.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.651 (Critical V/C 0.835) Control Delay 13.5 Level of Service B+



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	LS	Queue Model 1
SB Approach								36.9	D+	
RT	12/1	0.173	0.263	281	404	128	0.317	27.1	C+	124 ft
LT	24/2	0.165	0.126	49	417	279	0.663	41.4	*D+	175 ft
WB Approach								12.2	B+	
RT	12/1	0.504	0.819	1260	1260	704	0.559	3.3	A	297 ft
TH	24/2	0.560	0.649	2235	2235	1889	0.845	15.5	*B	900 ft
EB Approach								8.3	A	
TH	24/2	0.334	0.785	2705	2705	991	0.366	3.0	A	196 ft
LT	12/1	0.096	0.092	175	233	180	0.756	37.3	*D+	143 ft

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		***Site Information***		
Analyst	tob	Jurisdiction/Date	CoA	5/22/2007
Agency or Company	Terry O. Brown, P.E.	Major Street	Vista del Norte Dr.	
Analysis Period/Year	AM 2009	Minor Street	Las Lomitas Dr.	
Comment	2009 AM Peak Hour BUILD Conditions w/Park			

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)	37	101			20	96				192		15
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	41	112			22	107				213		17
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	230	712	0.323	1	12.4	B	12.4
	2								
	3								B
EB		1	41	1451	0.028	0	7.6	A	
WB		4							

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		***Site Information***		
Analyst	tob	Jurisdiction/Date	CoA	5/22/2007
Agency or Company	Terry O. Brown, P.E.	Major Street	Vista del Norte Dr.	
Analysis Period/Year	PM 2009	Minor Street	Las Lomitas Dr.	
Comment	2009 PM Peak Hour BUILD Conditions w/Park			

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	43			112	218				123		59
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	48			124	242				137		66
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	203	691	0.294	1	12.4	B	12.4
	2								
	3								B
EB		1	19	1186	0.016	0	8.1	A	
WB		4							

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		Site Information		
Analyst	tob	Jurisdiction/Date	Coa	3/28/2007
Agency or Company	Terry O. Brown, P.E.	Major Street	El Pueblo	
Analysis Period/Year	AM 2009	Minor Street	Las Lomitas Dr.	
Comment	2009 AM Peak Hour BUILD Condition w/Park			

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)		516	233	160	106		104		129			
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		573	259	178	118		116		143			
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	143	460	0.311	1	16.3	C	31.8
	2	L	116	188	0.618	3	50.9	F	
	3								D
SB	1								
	2								
	3								
EB		1							
WB		4	178	790	0.225	1	10.9	B	

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8 - 2008 AM BUILD
1 of 1

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information			***Site Information***		
Analyst	tob		Jurisdiction/Date	Coa	3/28/2007
Agency or Company	Terry O. Brown, P.E.		Major Street	El Pueblo	
Analysis Period/Year	PM	2009	Minor Street	Las Lomitas Dr.	
Comment	2009 PM Peak Hour BUILD Condition w/Park				

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)		96	124	123	243		281		188			
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		107	138	137	270		312		209			
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	209	924	0.226	1	10.0	A	22.8
	2	L	312	436	0.715	6	31.4	D	
	3								C
SB	1								
	2								
	3								
EB		1							
WB		4	137	1312	0.104	0	8.1	A	

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8 - 2008 PM BUILD
1 of 1

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		Site Information		
Analyst	tob	Jurisdiction/Date	CoA	5/22/2007
Agency or Company	Terry O. Brown, P.E.	Major Street	Osuna Rd.	
Analysis Period/Year	AM 2009	Minor Street	Driveway "A"	
Comment	2009 AM Peak Hour BUILD Condtitions w/Park			

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)	39	2221			906	39				35		35
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	46	2338			954	46				41		41
Flare storage (# of vehs)												
Median storage (# of vehs)										1		

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1								
	2								
	3								
SB	1	R	41	532	0.077	0	12.3	B	28.0
	2	L	41	133	0.308	1	43.6	E	
	3								D
EB		1	46	682	0.067	0	10.7	B	
WB		4							

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		Site Information		
Analyst	tob	Jurisdiction/Date	CoA	5/22/2007
Agency or Company	Terry O. Brown, P.E.	Major Street	Osuna Rd.	
Analysis Period/Year	PM 2009	Minor Street	Driveway "A"	
Comment	2009 PM Peak Hour BUILD Condtitions w/Park			

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)	80	1139			2265	101				86		107
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	94	1199			2384	119				101		126
Flare storage (# of vehs)												
Median storage (# of vehs)										1		

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1								
	2								
	3								
SB	1	R	126	178	0.708	4	63.2	F	442.6
	2	L	101	40	2.542	11	915.8	F	
	3								F
EB		1	94	176	0.534	3	46.7	E	
WB		4							

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		Site Information		
Analyst	tob	Jurisdiction/Date	CoA	5/22/2007
Agency or Company	Terry O. Brown, P.E.	Major Street	Vista del Norte	
Analysis Period/Year	AM 2009	Minor Street	Driveway "B"	
Comment	2009 AM Peak Hour BUILD Conditions w/Park			

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)	27	129	26	13	875	11	23	1	12	11	1	37
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	32	152	31	15	1029	13	27	1	14	13	1	44
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	15	788	0.019	0	9.7	A	14.1
	2	L	27	337	0.080	0	16.6	C	
	3								B
EB	1	TR	45	486	0.093	0	13.2	B	15.7
	2	L	13	200	0.065	0	24.3	C	
	3								C
NB		1	32	657	0.048	0	10.8	B	
SB		4	15	1383	0.011	0	7.6	A	

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		Site Information		
Analyst	tob	Jurisdiction/Date	CoA	5/22/2007
Agency or Company	Terry O. Brown, P.E.	Major Street	Vista del Norte	
Analysis Period/Year	PM 2009	Minor Street	Driveway "B"	
Comment	2009 PM Peak Hour BUILD Conditions w/Park			

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)	37	705	41	21	232	11	43	1	6	11	1	27
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	44	829	48	25	273	13	51	1	7	13	1	32
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	8	504	0.016	0	12.3	B	23.0
	2	L	51	233	0.219	1	24.7	C	
	3								C
EB	1	TR	33	809	0.041	0	9.6	A	11.3
	2	L	13	352	0.037	0	15.6	C	
	3								B
NB		1	44	1266	0.034	0	7.9	A	
SB		4	25	759	0.033	0	9.9	A	

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		Site Information		
Analyst	tob	Jurisdiction/Date	CoA	5/22/2007
Agency or Company	Terry O. Brown, P.E.	Major Street	Osuna Rd.	
Analysis Period/Year	AM 2009	Minor Street	Driveway "C"	
Comment	2009 AM Peak Hour BUILD Condtitions w/Park			

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)	39	2226			902	39				35		35
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	46	2343			949	46				41		41
Flare storage (# of vehs)												
Median storage (# of vehs)										1		

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1								
	2								
	3								
SB	1	R	41	533	0.077	0	12.3	B	27.9
	2	L	41	133	0.308	1	43.6	E	
	3								D
EB		1	46	685	0.067	0	10.6	B	
WB		4							

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		***Site Information***		
Analyst	tob	Jurisdiction/Date	CoA	5/22/2007
Agency or Company	Terry O. Brown, P.E.	Major Street	Osuna Rd.	
Analysis Period/Year	PM 2009	Minor Street	Driveway "C"	
Comment	2009 PM Peak Hour BUILD Condtitions w/Park			

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)	82	1136			2268	100				87		106
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	96	1196			2387	118				102		125
Flare storage (# of vehs)												
Median storage (# of vehs)										1		

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1								
	2								
	3								
SB	1	R	125	178	0.704	4	62.8	F	457.8
	2	L	102	39	2.597	11	941.9	F	
	3								F
EB		1	96	176	0.549	3	47.9	E	
WB		4							

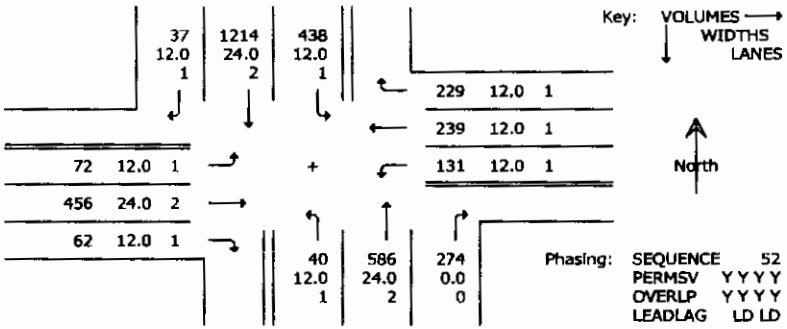
Analysis of

2009 BUILD Conditions

2007 Plan – NO Park

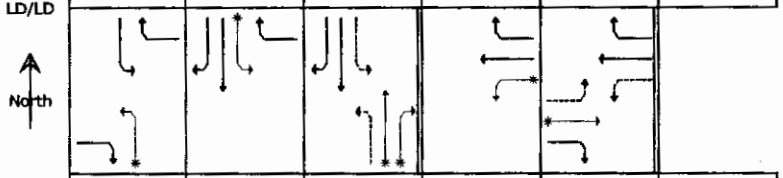
SIGNAL2000/TEAPAC[Ver 2.71.07] - HCM Input Worksheet

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	.91	.91	.91	.72	.72	.72	.84	.84	.84	.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 52 LD/LD



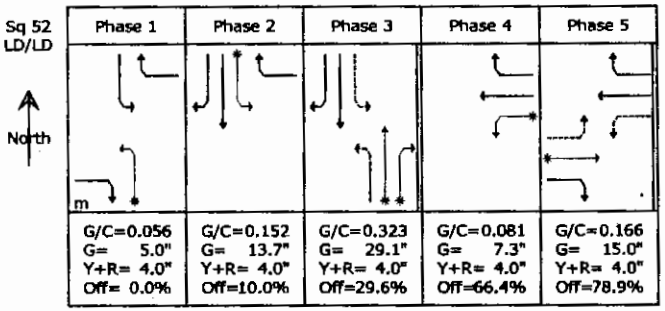
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
C= 90"	G= 5.0" Y+R= 4.0"	G= 13.7" Y+R= 4.0"	G= 29.1" Y+R= 4.0"	G= 7.3" Y+R= 4.0"	G= 15.0" Y+R= 4.0"	G= 0.0" Y+R= 0.0"

Vista del Norte Commercial Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / 2nd St. - [1N_09ABX] 20:31:49
2009 AM Peak Hour BUILD Conditions NO Park

SIGNAL2000/TEAPAC[Ver 2.71.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.772 (Critical V/C 0.959) Control Delay 34.6 Level of Service C

Sq 52 LD/LD



	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
	G/C=0.056 G= 5.0" Y+R= 4.0" Off= 0.0%	G/C=0.152 G= 13.7" Y+R= 4.0" Off=10.0%	G/C=0.323 G= 29.1" Y+R= 4.0" Off=29.6%	G/C=0.081 G= 7.3" Y+R= 4.0" Off=66.4%	G/C=0.166 G= 15.0" Y+R= 4.0" Off=78.9%

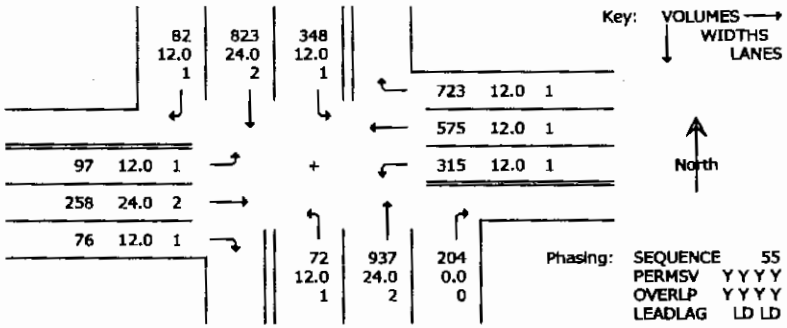
C= 90 sec G= 70.0 sec = 77.8% Y=20.0 sec = 22.2% Ped= 0.0 sec = 0.0%

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								26.6	C+	
RT	12/1	0.136	0.520	732	799	41	0.051	10.7	B+	25 ft
TH	24/2	0.419	0.520	1731	1791	1334	0.745	18.7	B	634 ft
LT	12/1	0.281	0.252	433	513	481	0.938	49.9	*D	597 ft
NB Approach								48.3	D	
RT+TH	24/2	0.356	0.323	901	1061	1024	0.965	49.6	*D	719 ft
LT	12/1	0.000	0.056	145	187	48	0.250	18.8	*B	42 ft
WB Approach								26.6	C+	
RT	12/1	0.284	0.588	853	904	318	0.352	9.9	A	199 ft
TH	12/1	0.260	0.291	397	527	332	0.630	30.1	C	343 ft
LT	12/1	0.100	0.081	153	212	182	0.831	49.6	*D	235 ft
EB Approach								45.6	D	
RT	12/1	0.147	0.266	286	409	67	0.164	25.5	C+	62 ft
TH	24/2	0.213	0.166	294	572	496	0.867	49.9	*D	343 ft
LT	12/1	0.174	0.166	67	153	78	0.464	35.9	D+	89 ft

Vista del Norte ALTERNATE Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / 2nd St. - [1N_09PBX] 20:34:45
2009 PM Peak Hour BUILD Conditions - NO Park

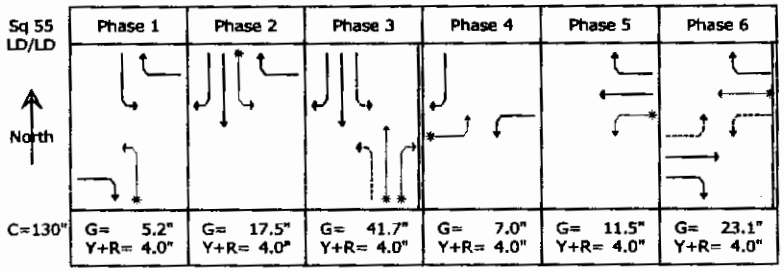
SIGNAL2000/TEAPAC[Ver 2.71.07] - HCM Input Worksheet

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	.89	.89	.89	.96	.96	.96	.94	.94	.94	.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, N8		0			0			0			0	
Grade, %G		.0			.0			.0			.0	

Sq 55
LD/LD

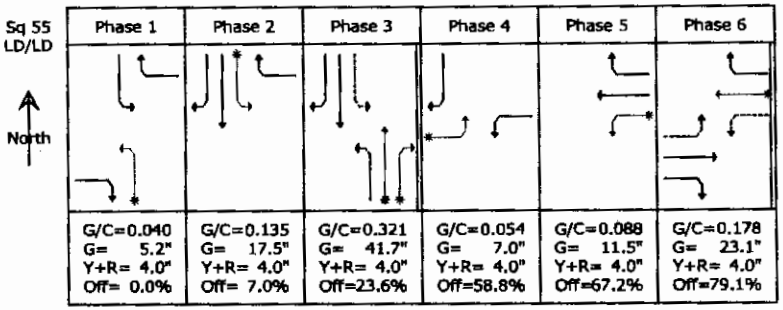


Vista del Norte ALTERNATE Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / 2nd St. - [1N_09PBX] 20:34:45
2009 PM Peak Hour BUILD Conditions - NO Park

SIGNAL2000/TEAPAC[Ver 2.71.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.848 (Critical V/C 1.086) Control Delay 68.5 Level of Service E

Sq 55
LD/LD



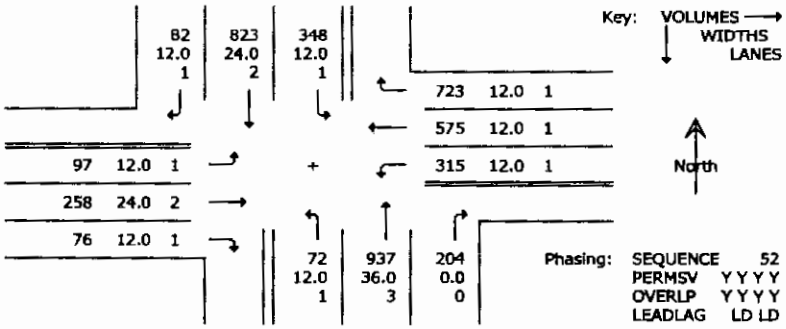
C=130 sec G=106.0 sec = 81.5% Y=24.0 sec = 18.5% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	LS	Queue Model 1
SB Approach								37.0	D+	
RT	12/1	0.291	0.571	778	878	92	0.105	12.8	B+	73 ft
TH	24/2	0.387	0.487	1459	1676	925	0.552	23.8	C+	549 ft
LT	12/1	0.296	0.205	257	401	391	0.956	74.0	*E	700 ft
NB Approach								108.5	F	
RT+TH	24/2	0.445	0.321	461	1077	1214	1.127	113.6	*F	1353 ft
LT	12/1	0.004	0.040	155	236	77	0.310	28.5	*C	98 ft
WB Approach								69.5	E	
RT	12/1	0.558	0.533	703	820	753	0.918	43.0	D+	1155 ft
TH	12/1	0.437	0.297	137	529	599	1.115	120.2	*F	1262 ft
LT	12/1	0.185	0.173	302	441	328	0.744	37.9	*D+	486 ft
EB Approach								48.5	D	
RT	12/1	0.288	0.248	1	361	82	0.215	39.1	D+	112 ft
TH	24/2	0.298	0.178	1	590	277	0.452	48.3	D	222 ft
LT	12/1	0.134	0.054	1	127	104	0.703	56.3	*E+	179 ft

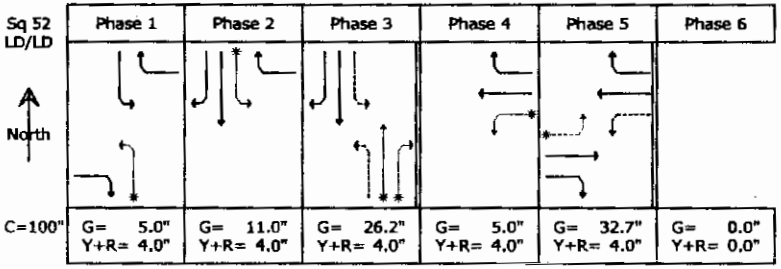
Vista del Norte ALTERNATE Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / 2nd St. - [1N_09PB1] 20:37:12
2009 PM Peak Hour BUILD Cond - NO Park - Add NB Thru Lane

SIGNAL2000/TEAPAC[Ver 2.71.07] - HCM Input Worksheet

Intersection # 1 - Area Location Type: NONCBD



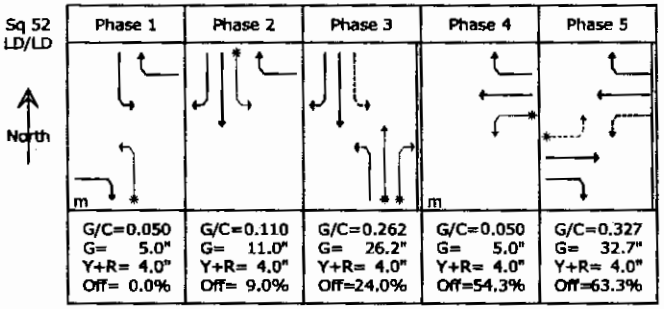
	SB RT	SB TH	SB LT	WB RT	WB TH	WB LT	NB RT	NB TH	NB LT	EB RT	EB TH	EB LT
Heavy veh, %HV	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Pk-hr fact, PHF	.89	.89	.89	.96	.96	.96	.94	.94	.94	.93	.93	.93
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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	



Vista del Norte ALTERNATE Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / 2nd St. - [1N_09PB1] 20:37:12
2009 PM Peak Hour BUILD Cond - NO Park - Add NB Thru Lane

SIGNAL2000/TEAPAC[Ver 2.71.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.751 (Critical V/C 0.891) Control Delay 35.1 Level of Service D+

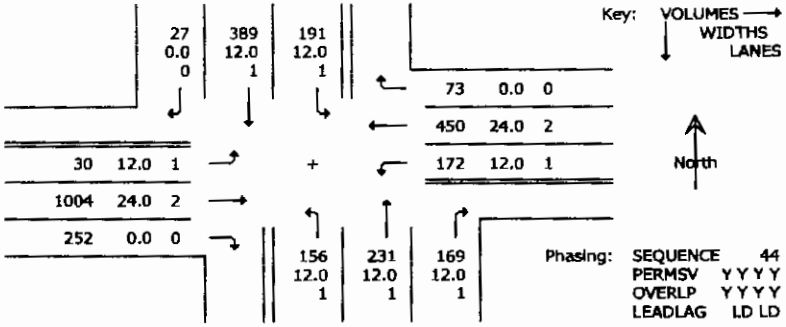


C=100 sec G= 80.0 sec = 80.0% Y=20.0 sec = 20.0% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E (vph)	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								33.3	C	
RT	12/1	0.195	0.413	525	635	92	0.145	18.5	B	77 ft
TH	24/2	0.332	0.413	1272	1422	925	0.650	24.6	C+	498 ft
LT	12/1	0.238	0.200	332	416	391	0.940	57.2	*E+	559 ft
NB Approach								52.2	D	
RT+TH	36/3	0.313	0.262	878	1259	1214	0.964	53.9	*D	665 ft
LT	12/1	0.008	0.050	148	210	77	0.353	25.8	*C+	82 ft
WB Approach								24.8	C+	
RT	12/1	0.538	0.658	970	1011	753	0.745	14.5	B+	653 ft
TH	12/1	0.399	0.417	639	755	599	0.793	31.2	C	675 ft
LT	12/1	0.053	0.050	321	411	328	0.798	36.5	*D+	401 ft
EB Approach								30.8	C	
RT	12/1	0.192	0.417	534	642	82	0.128	18.0	B	68 ft
TH	24/2	0.202	0.327	907	1128	277	0.246	24.7	C+	140 ft
LT	12/1	0.390	0.327	79	119	104	0.788	57.0	*E+	148 ft

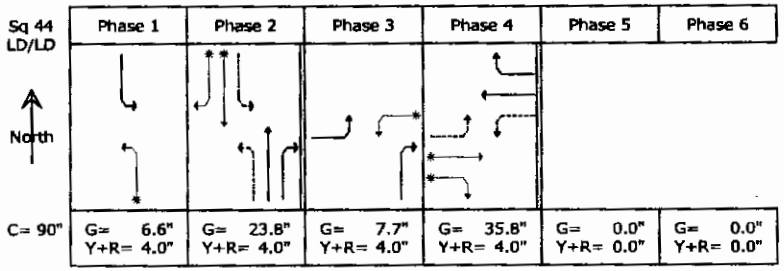
SIGNAL2000/TEAPAC[Ver 2.71.07] - HCM Input Worksheet

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	.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 44
LD/LD

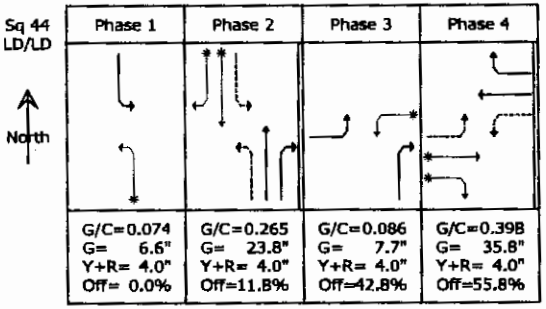


Vista del Norte Commercial Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / Edith Blvd. - [2N_09ABX] 20:39:37
2009 AM Peak Hour BUILD Conditions - NO Park

SIGNAL2000/TEAPAC[Ver 2.71.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.822 (Critical V/C 1.016) Control Delay 50.1 Level of Service D

Sq 44
LD/LD

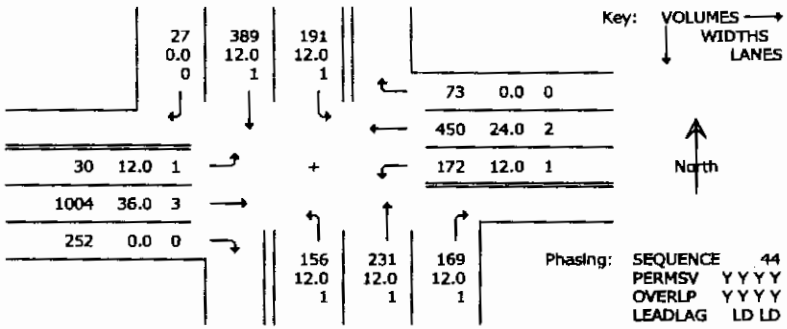


C= 90 sec G= 74.0 sec = 82.2% Y=16.0 sec = 17.8% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	LS	Queue Model 1
SB Approach								54.8	D	
RT+TH	12/1	0.325	0.265	339	475	462	0.973	66.9	*E+	641 ft
LT	12/1	0.060	0.074	238	308	212	0.688	28.4	C	227 ft
NB Approach								37.7	D+	
RT	12/1	0.221	0.395	511	607	209	0.344	19.4	B	175 ft
TH	12/1	0.237	0.265	343	479	285	0.595	30.9	C	297 ft
LT	12/1	0.099	0.074	153	203	193	0.932	67.4	*E+	280 ft
WB Approach								32.2	C	
RT+TH	24/2	0.255	0.398	1221	1342	653	0.487	20.5	C+	300 ft
LT	12/1	0.113	0.086	178	225	215	0.947	67.9	*E	311 ft
EB Approach								64.6	E+	
RT+TH	24/2	0.447	0.398	1210	1330	1396	1.050	65.9	*E+	1079 ft
LT	12/1	0.000	0.086	318	367	33	0.090	11.3	B+	21 ft

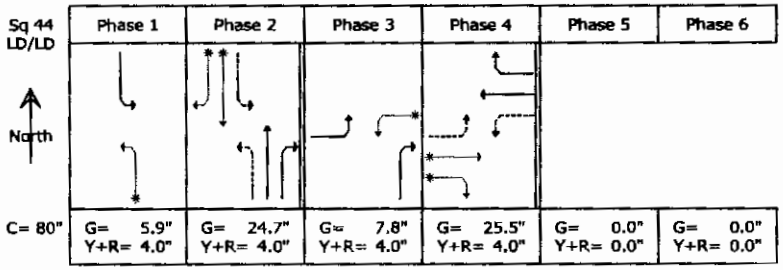
SIGNAL2000/TEAPAC[Ver 2.71.07] - HCM Input Worksheet

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	.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 44
LD/LD

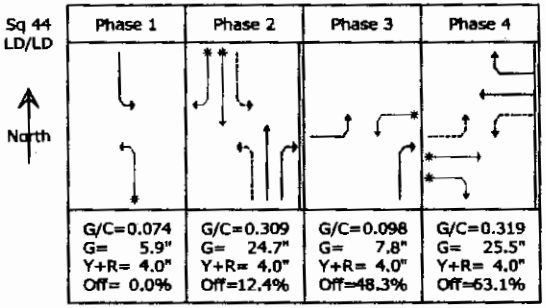


Vista del Norte Commercial Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / Edith Blvd. - [2N_09AB1] 20:42:25
2009 AM Peak Hour BUILD Cond - NO Park - Add EB Thru Lane

SIGNAL2000/TEAPAC[Ver 2.71.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.746 (Critical V/C 0.903) Control Delay 30.2 Level of Service C

Sq 44
LD/LD

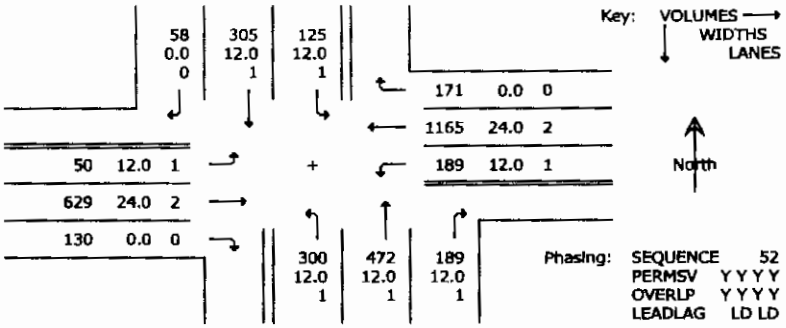


C= 80 sec G= 64.0 sec = 80.0% Y=16.0 sec = 20.0% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	@E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								30.6	C	
RT+TH	12/1	0.313	0.309	454	554	462	0.834	36.3	*D+	481 ft
LT	12/1	0.025	0.074	308	370	212	0.573	18.2	B	179 ft
NB Approach								24.4	C+	
RT	12/1	0.203	0.457	635	703	209	0.297	13.9	B+	141 ft
TH	12/1	0.220	0.309	459	559	285	0.510	23.5	C+	248 ft
LT	12/1	0.077	0.074	190	236	193	0.818	37.1	*D+	211 ft
WB Approach								27.3	C+	
RT+TH	24/2	0.239	0.319	954	1076	653	0.607	24.0	C+	308 ft
LT	12/1	0.100	0.098	211	258	215	0.833	37.1	*D+	235 ft
EB Approach								34.7	C	
RT+TH	36/3	0.320	0.319	1394	1525	1396	0.915	35.2	*D+	582 ft
LT	12/1	0.000	0.098	274	321	33	0.103	12.8	B+	21 ft

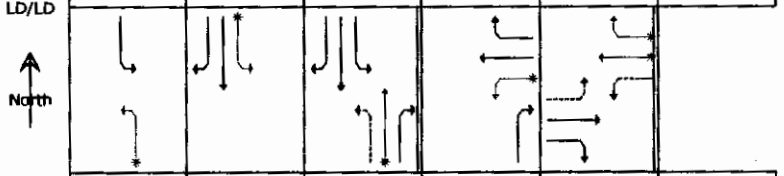
SIGNAL2000/TEAPAC[Ver 2.71.07] - HCM Input Worksheet

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 gm, 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 52 LD/LD



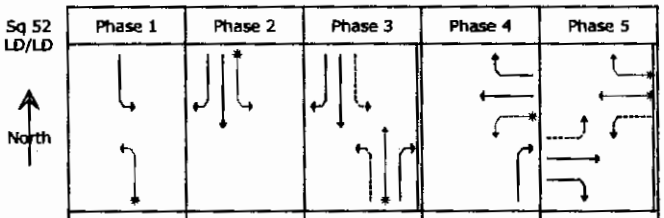
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
C= 90"	G= 11.7" Y+R= 4.0"	G= -4.0" Y+R= 4.0"	G= 28.2" Y+R= 4.0"	G= 7.7" Y+R= 4.0"	G= 26.4" Y+R= 4.0"	G= 0.0" Y+R= 0.0"

Vista del Norte Commercial Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / Edith Blvd. - [2N_09PBX] 20:59:54
2009 PM Peak Hour BUILD Conditions - NO Park

SIGNAL2000/TEAPAC[Ver 2.71.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.896 (Critical V/C 0.983) Control Delay 48.2 Level of Service D

Sq 52 LD/LD



Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
G/C=0.130 G= 11.7" Y+R= 4.0" Off= 0.0%	G/C= -.044 G= -4.0" Y+R= 4.0" Off=17.5%	G/C=0.314 G= 28.2" Y+R= 4.0" Off=17.5%	G/C=0.085 G= 7.7" Y+R= 4.0" Off=53.3%	G/C=0.293 G= 26.4" Y+R= 4.0" Off=66.3%

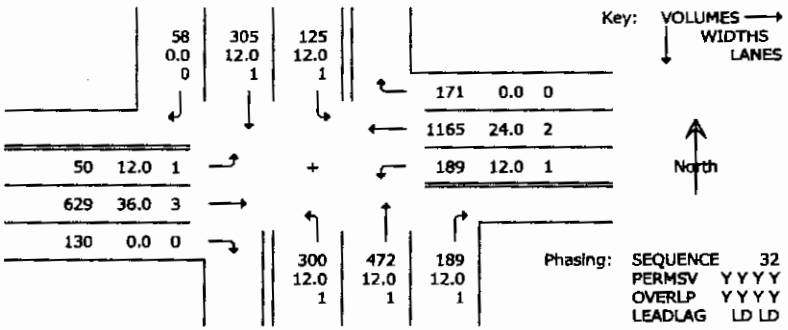
C= 90 sec G= 70.0 sec = 77.8% Y=20.0 sec = 22.2% Ped= 0.0 sec = 0.0%

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								30.9	C	
RT+TH	12/1	0.314	0.314	432	554	432	0.780	35.1	D+	476 ft
LT	12/1	0.070	0.130	246	304	149	0.490	18.6	*B	127 ft
NB Approach								49.6	D	
RT	12/1	0.225	0.444	597	682	217	0.318	16.5	B	168 ft
TH	12/1	0.362	0.314	444	568	543	0.956	57.3	*E+	714 ft
LT	12/1	0.155	0.130	303	355	345	0.972	58.2	*E+	494 ft
WB Approach								57.2	E+	
RT+TH	24/2	0.461	0.423	1321	1429	1468	1.027	57.0	*E+	1086 ft
LT	12/1	0.106	0.085	176	227	208	0.916	58.3	*E+	290 ft
EB Approach								41.2	D+	
RT+TH	24/2	0.311	0.293	803	983	872	0.887	40.3	D+	561 ft
LT	12/1	0.344	0.293	45	67	57	0.712	54.1	D	73 ft

Vista del Norte Commercial Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / Edith Blvd. - [2N_09PB1] 21:02:06
2009 PM Peak Hour BUILD Cond - NO Park - Add EB Thru Lane

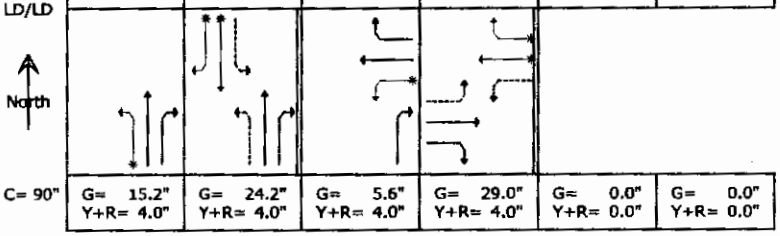
SIGNAL2000/TEAPAC[Ver 2.71.07] - HCM Input Worksheet

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 32
LD/LD



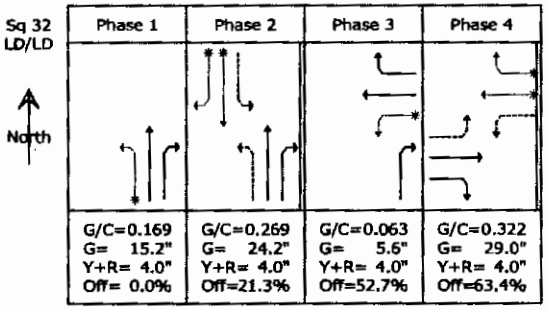
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
C= 90"	G= 15.2" Y+R= 4.0"	G= 24.2" Y+R= 4.0"	G= 5.6" Y+R= 4.0"	G= 29.0" Y+R= 4.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"

Vista del Norte Commercial Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / Edith Blvd. - [2N_09PB1] 21:02:06
2009 PM Peak Hour BUILD Cond - NO Park - Add EB Thru Lane

SIGNAL2000/TEAPAC[Ver 2.71.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.794 (Critical V/C 0.978) Control Delay 40.2 Level of Service D+

Sq 32
LD/LD



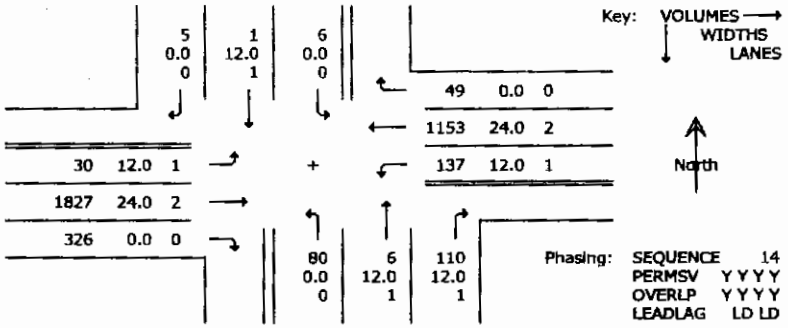
Phase 1	Phase 2	Phase 3	Phase 4
G/C=0.169	G/C=0.269	G/C=0.063	G/C=0.322
G= 15.2"	G= 24.2"	G= 5.6"	G= 29.0"
Y+R= 4.0"	Y+R= 4.0"	Y+R= 4.0"	Y+R= 4.0"
Off= 0.0%	Off=21.3%	Off=52.7%	Off=63.4%

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								48.9	D	
RT+TH	12/1	0.314	0.269	342	475	432	0.909	53.3	*D	551 ft
LT	12/1	0.275	0.269	144	216	149	0.662	36.4	D+	171 ft
NB Approach								27.6	C	
RT	12/1	0.225	0.589	856	906	217	0.240	9.0	A	126 ft
TH	12/1	0.362	0.482	794	872	543	0.623	18.6	B	465 ft
LT	12/1	0.195	0.169	305	370	345	0.932	53.6	*D	458 ft
WB Approach								52.6	D	
RT+TH	24/2	0.461	0.429	1345	1450	1468	1.012	52.4	*D	1060 ft
LT	12/1	0.077	0.063	183	231	208	0.897	53.9	*D	280 ft
EB Approach								27.4	C+	
RT+TH	36/3	0.238	0.322	1359	1546	872	0.564	25.8	C+	313 ft
LT	12/1	0.370	0.322	46	68	57	0.712	52.5	D	72 ft

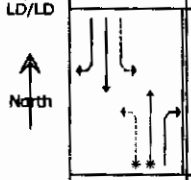
SIGNAL2000/TEAPAC[Ver 2.71.07] - HCM Input Worksheet

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	.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



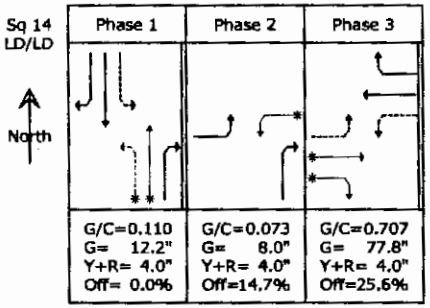
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
C=110"	G= 12.2" Y+R= 4.0"	G= 8.0" Y+R= 4.0"	G= 77.8" Y+R= 4.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"

Vista del Norte Commercial Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / Chappel Dr. - [3N_09ABX] 21:47:21
2009 AM Peak Hour BUILD Conditions - NO Park

SIGNAL2000/TEAPAC[Ver 2.71.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.907 (Critical V/C 1.070) Control Delay 51.7 Level of Service D

Sq 14
LD/LD



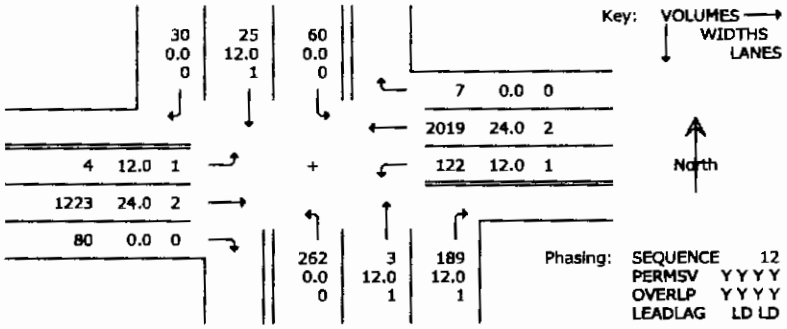
Phase 1	Phase 2	Phase 3
G/C=0.110 G= 12.2" Y+R= 4.0" Off= 0.0%	G/C=0.073 G= 8.0" Y+R= 4.0" Off=14.7%	G/C=0.707 G= 77.8" Y+R= 4.0" Off=25.6%

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								44.3	D+	
RT+TH+LT	12/1	0.208	0.110	1	137	17	0.106	44.3	D+	23 ft
NB Approach								54.9	D	
RT	12/1	0.250	0.220	58	324	153	0.453	38.1	D+	194 ft
TH+LT	12/1	0.247	0.110	1	122	119	0.815	76.6	*E	196 ft
WB Approach								15.8	B	
RT+TH	24/2	0.479	0.707	2422	2422	1502	0.620	8.9	A	576 ft
LT	12/1	0.180	0.073	99	174	171	0.891	76.9	*E	221 ft
EB Approach								73.8	E	
RT+TH	24/2	0.775	0.707	2382	2382	2658	1.116	74.7	*E	2444 ft
LT	12/1	0.000	0.073	243	288	37	0.128	5.3	A	13 ft

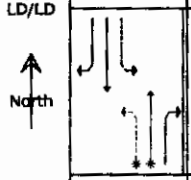
SIGNAL2000/TEAPAC[Ver 2.71.07] - HCM Input Worksheet

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	.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

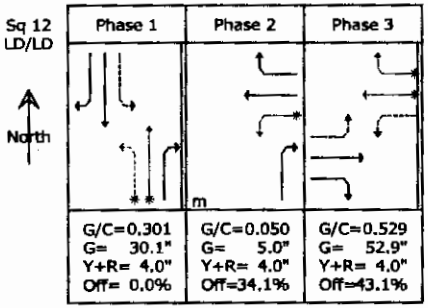


	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
C=100"	G= 30.1" Y+R= 4.0"	G= 5.0" Y+R= 4.0"	G= 52.9" Y+R= 4.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"

SIGNAL2000/TEAPAC[Ver 2.71.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.933 (Critical V/C 1.062) Control Delay 53.2 Level of Service D

Sq 12
LD/LD



Phase 1	Phase 2	Phase 3
G/C=0.301	G/C=0.050	G/C=0.529
G= 30.1"	G= 5.0"	G= 52.9"
Y+R= 4.0"	Y+R= 4.0"	Y+R= 4.0"
Off= 0.0%	Off=34.1%	Off=43.1%

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

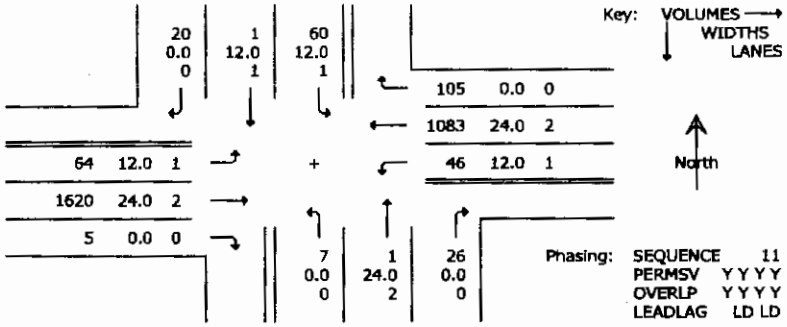
Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								29.4	C	
RT+TH+LT	12/1	0.250	0.301	185	281	129	0.448	29.4	C	164 ft
NB Approach								53.2	D	
RT	12/1	0.259	0.391	485	601	239	0.398	22.4	C+	258 ft
TH+LT	12/1	0.382	0.301	228	343	336	0.971	75.1	*E	587 ft
WB Approach								72.6	E	
RT+TH	24/2	0.683	0.619	2104	2132	2356	1.105	74.0	*E	2164 ft
LT	12/1	0.060	0.050	128	162	142	0.850	49.2	*D	215 ft
EB Approach								21.3	C+	
RT+TH	24/2	0.451	0.529	1729	1806	1416	0.784	21.3	C+	836 ft
LT	12/1	0.171	0.529	47	62	4	0.056	11.7	B+	3 ft

Vista del Norte Commercial Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / Academy Parkway. - [4N_09ABX] 21:50:23
2009 AM Peak Hour BUILD Conditions - NO Park

SIGNAL2000/TEAPAC[Ver 2.71.07] - HCM Input Worksheet

Intersection # 1 - Area Location Type: NONCBD

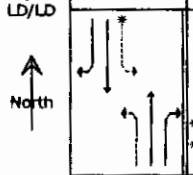
Key: VOLUMES → WIDTHS ↓ LANES



Phasing: SEQUENCE 11
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	.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



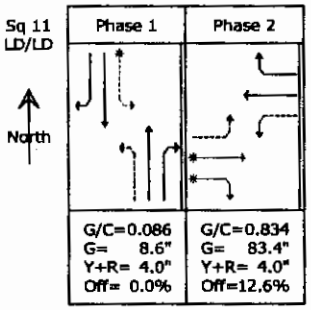
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
C=100"	G= 8.6" Y+R= 4.0"	G= 83.4" Y+R= 4.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"

Vista del Norte Commercial Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / Academy Parkway. - [4N_09ABX] 21:50:23
2009 AM Peak Hour BUILD Conditions - NO Park

SIGNAL2000/TEAPAC[Ver 2.71.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.543 (Critical V/C 0.609) Control Delay 4.7 Level of Service A

Sq 11 LD/LD

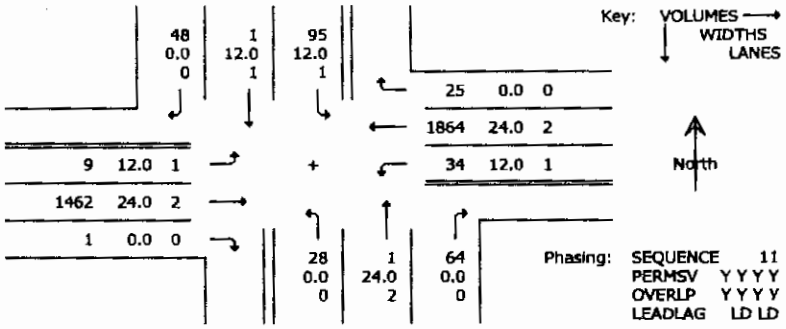


C=100 sec G= 92.0 sec = 92.0% Y= 8.0 sec = 8.0% Ped= 0.0 sec = 0.0%

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								50.9	D	
RT+TH	12/1	0.172	0.086	1	112	24	0.180	43.1	D+	31 ft
LT	12/1	0.193	0.086	1	94	70	0.614	53.6	*D	99 ft
NB Approach								42.8	D+	
RT+TH+LT	24/2	0.171	0.086	1	217	42	0.176	42.8	D+	28 ft
WB Approach								2.5	A	
RT+TH	24/2	0.452	0.834	2835	2835	1414	0.499	2.5	A	294 ft
LT	12/1	0.430	0.834	146	172	55	0.320	3.0	A	21 ft
EB Approach								3.1	A	
RT+TH	24/2	0.530	0.834	2872	2872	1747	0.608	3.2	*A	424 ft
LT	12/1	0.364	0.834	232	260	69	0.265	2.3	A	24 ft

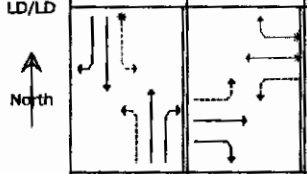
SIGNAL2000/TEAPAC[Ver 2.71.07] - HCM Input Worksheet

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



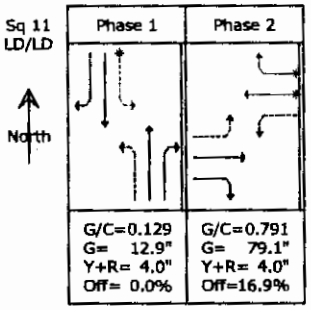
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
C=100"	G= 12.9" Y+R= 4.0"	G= 79.1" Y+R= 4.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"

Vista del Norte Commercial Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / Academy Parkway. - [4N_09PBX] 21:51:34
2009 PM Peak Hour BUILD Conditions - NO Park

SIGNAL2000/TEAPAC[Ver 2.71.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.700 (Critical V/C 0.808) Control Delay 9.4 Level of Service A

Sq 11
LD/LD

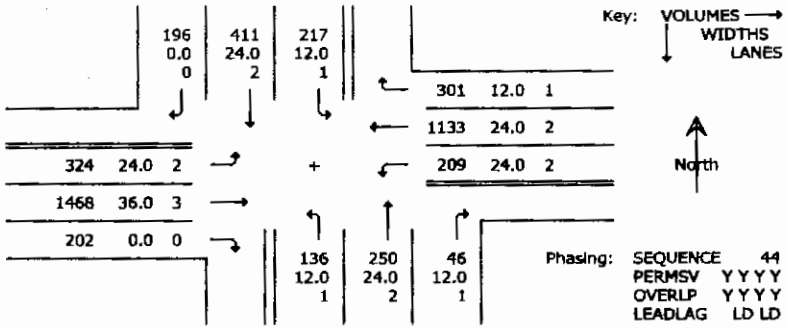


C=100 sec G= 92.0 sec = 92.0% Y= 8.0 sec = 8.0% Ped= 0.0 sec = 0.0%

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								49.1	D	
RT+TH	12/1	0.183	0.129	1	179	57	0.286	40.2	D+	70 ft
LT	12/1	0.214	0.129	1	139	110	0.692	53.8	*D	153 ft
NB Approach								40.2	D+	
RT+TH+LT	24/2	0.185	0.129	1	328	116	0.338	40.2	D+	76 ft
WB Approach								8.5	A	
RT+TH	24/2	0.657	0.791	2720	2720	2249	0.827	8.6	*A	929 ft
LT	12/1	0.313	0.791	162	191	40	0.209	3.2	A	16 ft
EB Approach								4.3	A	
RT+TH	24/2	0.486	0.791	2725	2725	1573	0.577	4.3	A	425 ft
LT	12/1	0.185	0.791	53	65	10	0.139	3.3	A	4 ft

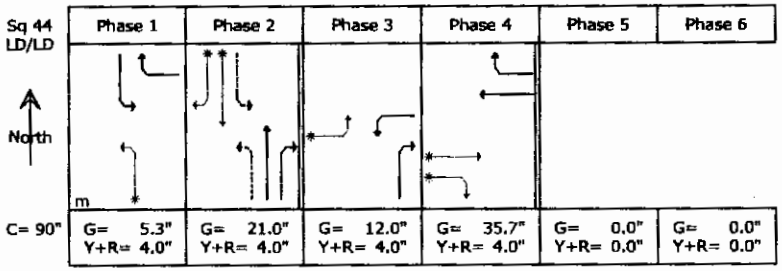
SIGNAL2000/TEAPAC[Ver 2.71.07] - HCM Input Worksheet

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
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

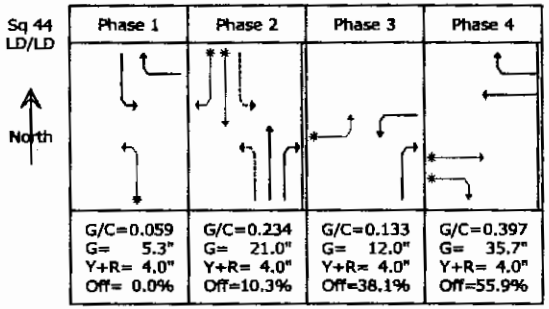


Vista del Norte Commercial Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / Jefferson St. - [5N_09ABX] 21:53:26
2009 AM Peak Hour BUILD Conditions - NO Park

SIGNAL2000/TEAPAC[Ver 2.71.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.849 (Critical V/C 0.941) Control Delay 40.8 Level of Service D+

Sq 44 LD/LD



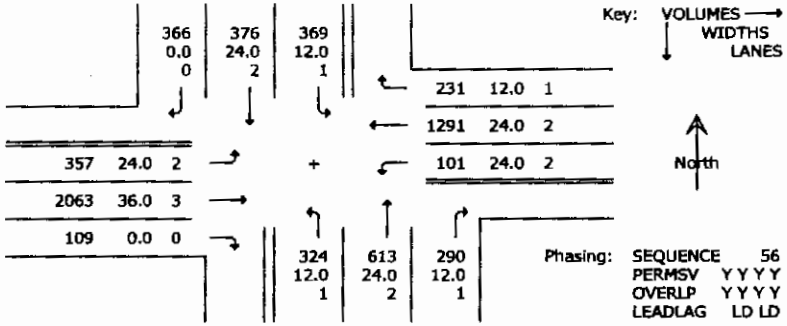
C= 90 sec G= 74.0 sec = 82.2% Y=16.0 sec = 17.8% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								45.5	D	
RT+TH	24/2	0.271	0.234	550	766	697	0.910	48.5	*D	480 ft
LT	12/1	0.063	0.059	241	324	249	0.769	37.2	D+	288 ft
NB Approach								34.2	C	
RT	12/1	0.140	0.411	540	632	51	0.081	16.2	B	38 ft
TH	24/2	0.162	0.234	582	805	275	0.342	29.0	C	144 ft
LT	12/1	0.073	0.059	128	173	149	0.823	50.1	*D	193 ft
WB Approach								34.4	C	
RT	12/1	0.299	0.500	698	769	342	0.445	14.9	B+	261 ft
TH	24/2	0.408	0.397	1246	1368	1288	0.942	39.0	D+	835 ft
LT	24/2	0.158	0.133	91	442	238	0.536	37.7	D+	143 ft
EB Approach								45.6	D	
RT+TH	36/3	0.416	0.397	1793	1921	1898	0.988	44.6	*D+	931 ft
LT	24/2	0.186	0.133	91	442	368	0.829	50.4	*D	251 ft

SIGNAL2000/TEAPAC[Ver 2.71.07] - HCM Input Worksheet

Intersection # 1 - Area Location Type: NONCBD

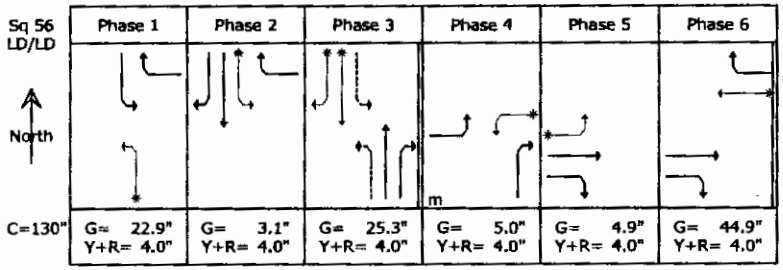
Key: VOLUMES → WIDTHS ↓ LANES



Phasing: SEQUENCE 56
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 56 LD/LD



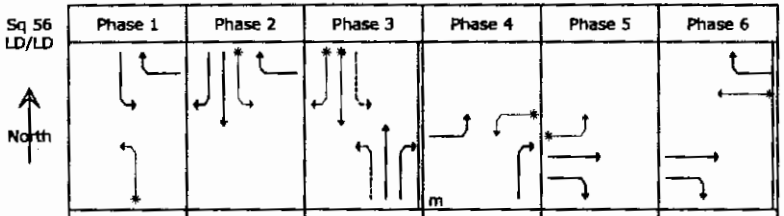
C=130"	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
	G= 22.9" Y+R= 4.0"	G= 3.1" Y+R= 4.0"	G= 25.3" Y+R= 4.0"	G= 5.0" Y+R= 4.0"	G= 4.9" Y+R= 4.0"	G= 44.9" Y+R= 4.0"

Vista del Norte Commercial Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / Jefferson St. - [5N_09PBX] 21:55:23
2009 PM Peak Hour BUILD Conditions - NO Park

SIGNAL2000/TEAPAC[Ver 2.71.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 1.074 (Critical V/C 1.127) Control Delay 108.8 Level of Service F

Sq 56 LD/LD



	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
	G/C=0.176 G= 22.9" Y+R= 4.0" Off= 0.0%	G/C=0.023 G= 3.1" Y+R= 4.0" Off=20.7%	G/C=0.195 G= 25.3" Y+R= 4.0" Off=26.1%	G/C=0.038 G= 5.0" Y+R= 4.0" Off=48.6%	G/C=0.037 G= 4.9" Y+R= 4.0" Off=55.5%	G/C=0.346 G= 44.9" Y+R= 4.0" Off=62.4%

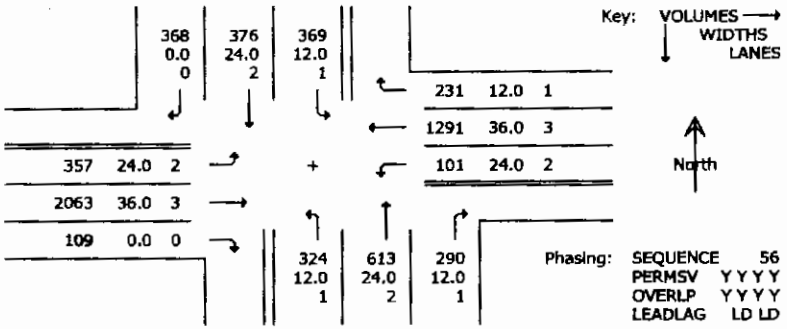
C=130 sec G=106.0 sec = 81.5% Y=24.0 sec = 18.5% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	LS	Queue Model 1
SB Approach								120.9	F	
RT+TH	24/2	0.401	0.249	1	792	927	1.168	137.6	*F	1116 ft
LT	12/1	0.324	0.230	312	449	461	1.022	87.3	*F	899 ft
NB Approach								81.8	F	
RT	12/1	0.362	0.264	1	388	322	0.793	54.9	D	519 ft
TH	24/2	0.349	0.195	1	652	681	1.016	91.3	F	718 ft
LT	12/1	0.260	0.176	224	351	360	1.006	87.7	*F	713 ft
WB Approach								117.4	F	
RT	12/1	0.337	0.606	848	933	254	0.272	12.2	B+	205 ft
TH	24/2	0.478	0.346	661	1191	1419	1.191	137.2	*F	1678 ft
LT	24/2	0.279	0.038	1	93	111	0.867	104.7	*F	123 ft
EB Approach								110.5	F	
RT+TH	36/3	0.515	0.414	1580	2025	2311	1.141	108.2	F	1780 ft
LT	24/2	0.311	0.107	1	316	380	1.067	124.8	*F	450 ft

SIGNAL2000/TEAPAC[Ver 2.71.07] - HCM Input Worksheet

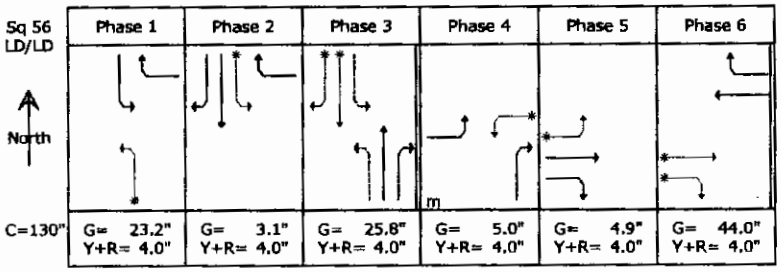
Intersection # 1 - Area Location Type: NONCBD

Key: VOLUMES → WIDTHS ↓ LANES



	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



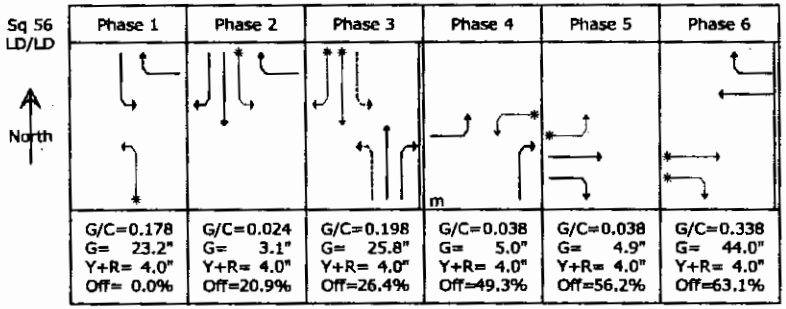
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
C=130"	G= 23.2" Y+R= 4.0"	G= 3.1" Y+R= 4.0"	G= 25.8" Y+R= 4.0"	G= 5.0" Y+R= 4.0"	G= 4.9" Y+R= 4.0"	G= 44.0" Y+R= 4.0"

Vista del Norte Commercial Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / Jefferson St. - [5N_09PB1] 21:57:35
2009 PM Peak Hour BUILD Cond - NO Park - Add WB Thru Lane

SIGNAL2000/TEAPAC[Ver 2.71.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 1.008 (Critical V/C 1.086) Control Delay 91.4 Level of Service F

Sq 56 LD/LD



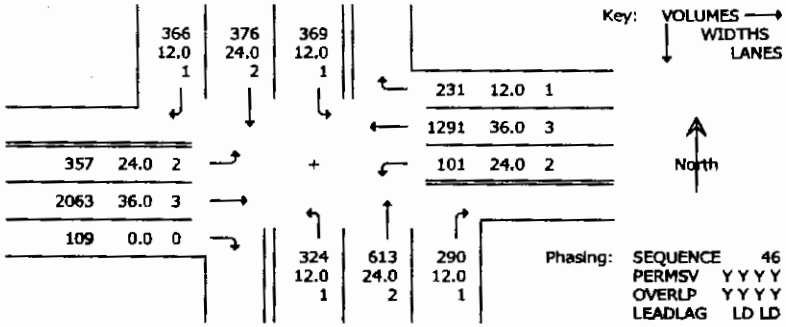
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
	G/C=0.178 G= 23.2" Y+R= 4.0" Off= 0.0%	G/C=0.024 G= 3.1" Y+R= 4.0" Off=20.9%	G/C=0.198 G= 25.8" Y+R= 4.0" Off=26.4%	G/C=0.038 G= 5.0" Y+R= 4.0" Off=49.3%	G/C=0.038 G= 4.9" Y+R= 4.0" Off=56.2%	G/C=0.338 G= 44.0" Y+R= 4.0" Off=63.1%

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								115.4	F	
RT+TH	24/2	0.401	0.253	1	807	930	1.152	131.1	*F	1101 ft
LT	12/1	0.324	0.233	316	455	461	1.009	83.6	*F	885 ft
NB Approach								77.6	E	
RT	12/1	0.362	0.268	6	394	322	0.782	53.5	D	514 ft
TH	24/2	0.349	0.198	1	667	681	0.997	85.7	F	702 ft
LT	12/1	0.261	0.178	232	356	360	0.992	83.6	*F	700 ft
WB Approach								43.6	D+	
RT	12/1	0.337	0.602	839	926	254	0.274	12.5	B+	207 ft
TH	36/3	0.394	0.338	884	1667	1419	0.851	44.4	D+	811 ft
LT	24/2	0.279	0.038	1	93	111	0.867	104.7	*F	123 ft
EB Approach								117.7	F	
RT+TH	36/3	0.515	0.407	1522	1991	2311	1.161	116.9	*F	1822 ft
LT	24/2	0.311	0.107	1	319	380	1.061	122.8	*F	447 ft

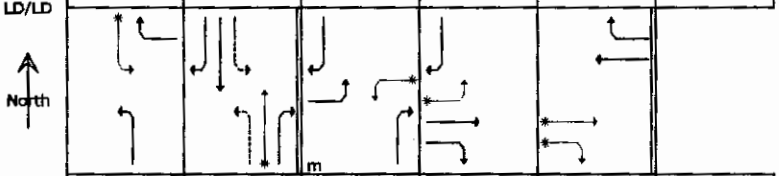
SIGNAL2000/TEAPAC[Ver 2.71.07] - HCM Input Worksheet

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 46 LD/LD



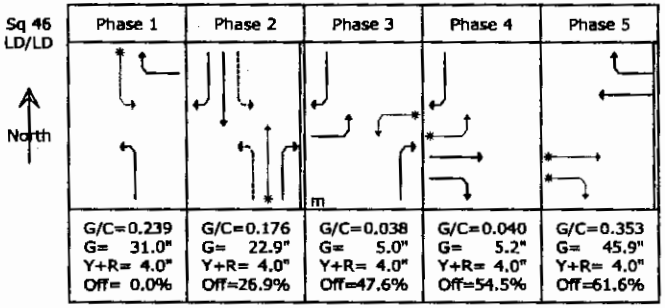
C=130"	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
	G= 31.0" Y+R= 4.0"	G= 22.9" Y+R= 4.0"	G= 5.0" Y+R= 4.0"	G= 5.2" Y+R= 4.0"	G= 45.9" Y+R= 4.0"	G= 0.0" Y+R= 0.0"

Vista del Norte Commercial Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / Jefferson St. - [5N_09PB2] 21:58:53
2009 PM Peak Hr BUILD Cond - NO Park - Add WB Thru/SB RT Lane

SIGNAL2000/TEAPAC[Ver 2.71.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.949 (Critical V/C 1.074) Control Delay 77.1 Level of Service E

Sq 46 LD/LD



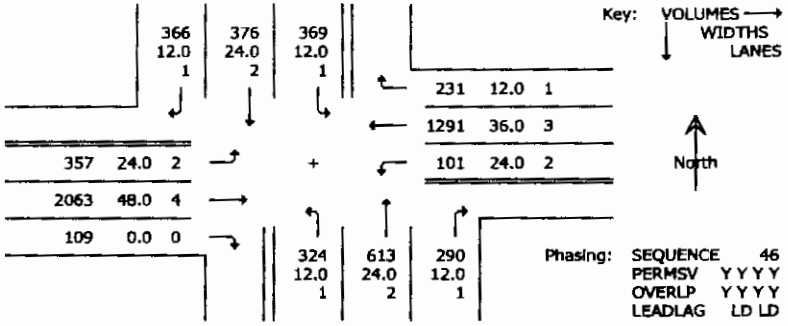
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
	G/C=0.239 G= 31.0" Y+R= 4.0" Off= 0.0%	G/C=0.176 G= 22.9" Y+R= 4.0" Off=26.9%	G/C=0.038 G= 5.0" Y+R= 4.0" Off=47.6%	G/C=0.040 G= 5.2" Y+R= 4.0" Off=54.5%	G/C=0.353 G= 45.9" Y+R= 4.0" Off=61.6%

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	Adj Volume	v/c	HCM Delay	LS	Queue Model 1
SB Approach								68.3	E	
RT	12/1	0.418	0.316	182	476	457	0.942	70.3	E	805 ft
TH	24/2	0.321	0.176	1	582	470	0.776	57.4	E+	416 ft
LT	12/1	0.322	0.239	327	466	461	0.989	77.3	*E	861 ft
NB Approach								89.2	F	
RT	12/1	0.362	0.245	1	356	322	0.854	64.0	E+	548 ft
TH	24/2	0.349	0.176	1	582	681	1.124	129.1	*F	812 ft
LT	12/1	0.243	0.239	354	476	360	0.756	36.1	D+	516 ft
WB Approach								40.9	D+	
RT	12/1	0.337	0.623	880	958	254	0.265	11.2	B+	197 ft
TH	36/3	0.394	0.353	1040	1742	1419	0.815	41.3	D+	781 ft
LT	24/2	0.279	0.038	1	93	111	0.867	104.7	*F	123 ft
EB Approach								99.4	F	
RT+TH	36/3	0.515	0.424	1660	2073	2311	1.115	96.5	*F	1722 ft
LT	24/2	0.311	0.109	1	325	380	1.044	117.0	*F	439 ft

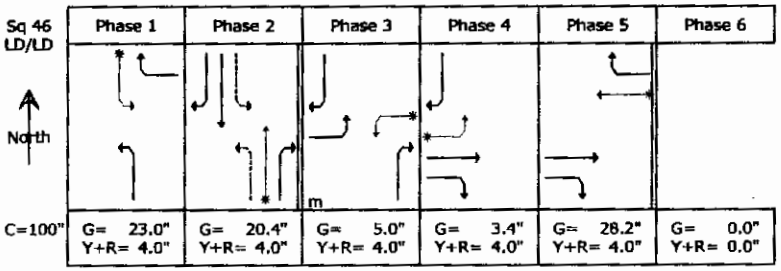
SIGNAL2000/TEAPAC[Ver 2.71.07] - HCM Input Worksheet

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 46
LD/LD

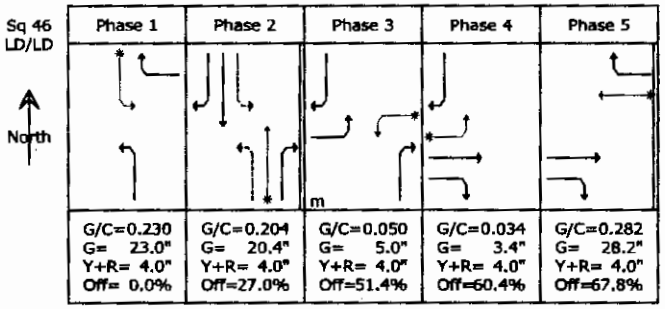


Vista del Norte Commercial Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / Jefferson St. - [5N_09PB3] 22:00:10
2009 PM Pk Hr BLD Cond - NO Park - Add EB/WB Thru/SB RT Lane

SIGNAL2000/TEAPAC[Ver 2.71.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.904 (Critical V/C 0.970) Control Delay 51.7 Level of Service D

Sq 46
LD/LD

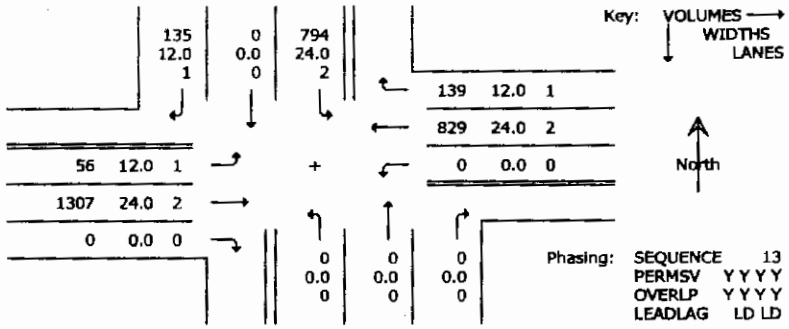


C=100 sec G= 80.0 sec = 80.0% Y=20.0 sec = 20.0% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								47.4	D	
RT	12/1	0.376	0.368	443	566	457	0.807	36.9	D+	551 ft
TH	24/2	0.234	0.204	291	703	470	0.669	39.1	D+	307 ft
LT	12/1	0.278	0.230	382	467	461	0.987	66.1	*E+	705 ft
NB Approach								47.9	D	
RT	12/1	0.303	0.294	305	452	322	0.712	36.8	D+	386 ft
TH	24/2	0.278	0.204	291	703	681	0.969	65.8	*E+	555 ft
LT	12/1	0.191	0.230	431	498	360	0.723	24.0	C+	391 ft
WB Approach								57.1	E+	
RT	12/1	0.267	0.552	779	849	254	0.299	12.2	B+	181 ft
TH	36/3	0.339	0.282	1044	1391	1419	1.020	65.2	*E+	826 ft
LT	24/2	0.179	0.050	1	143	111	0.665	56.3	*E+	85 ft
EB Approach								52.2	D	
RT+TH	48/4	0.387	0.356	2065	2323	2311	0.995	49.5	D	943 ft
LT	24/2	0.220	0.124	1	402	380	0.918	68.5	*E	310 ft

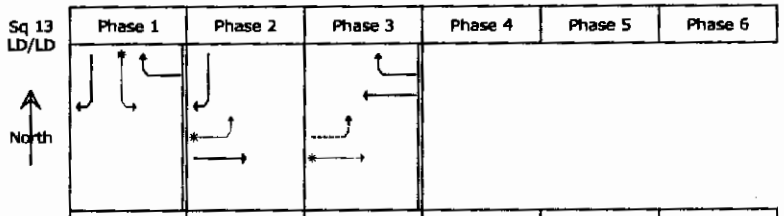
SIGNAL2000/TEAPAC[Ver 2.71.07] - HCM Input Worksheet

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



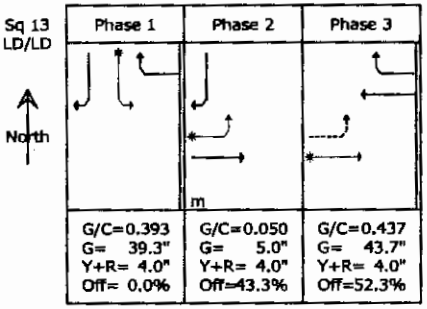
	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
C=100"	G= 39.3" Y+R= 4.0"	G= 5.0" Y+R= 4.0"	G= 43.7" Y+R= 4.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"

Vista del Norte Commercial Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / Vista del Norte - [6N_09ABX] 22:01:26
2009 AM Peak Hour BUILD Conditions - NO Park

SIGNAL2000/TEAPAC[Ver 2.71.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.725 (Critical V/C 0.797) Control Delay 23.8 Level of Service C+

Sq 13
LD/LD

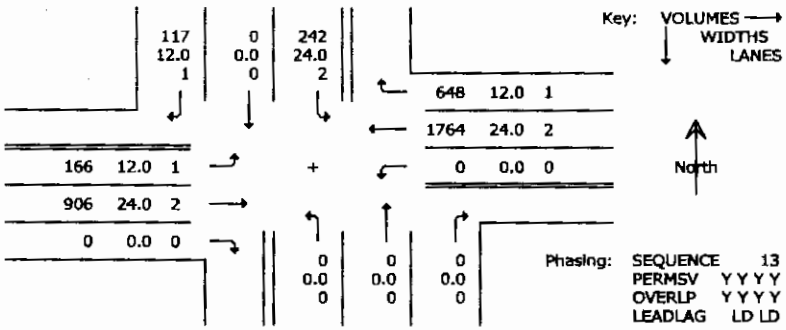


C=100 sec G= 88.0 sec = 88.0% Y=12.0 sec = 12.0% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @C (vph)	Service Rate @E (vph)	Adj Volume	v/c	HCM Delay	LS	Queue Model 1
SB Approach								26.8	C+	
RT	12/1	0.223	0.483	654	743	169	0.227	15.2	B	131 ft
LT	24/2	0.355	0.393	1150	1313	992	0.756	28.7	*C	573 ft
WB Approach								22.3	C+	
RT	12/1	0.234	0.870	1338	1338	190	0.142	1.0	A	43 ft
TH	24/2	0.381	0.437	1370	1504	1136	0.755	25.9	C+	642 ft
EB Approach								23.0	C+	
TH	24/2	0.469	0.527	1736	1815	1502	0.828	23.2	*C+	846 ft
LT	12/1	0.010	0.050	134	172	64	0.364	17.5	*B	54 ft

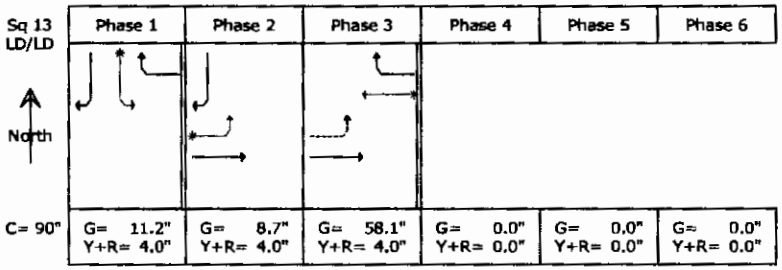
SIGNAL2000/TEAPAC[Ver 2.71.07] - HCM Input Worksheet

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	

Sq 13
LD/LD

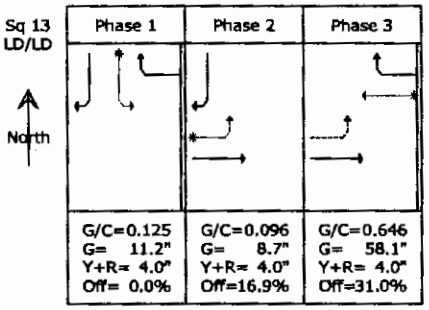


Vista del Norte Commercial Development (Osuna / VdN) 05/21/07
Analysis of Osuna Rd. / Vista del Norte - [6N_09PBX] 22:03:14
2009 PM Peak Hour BUILD Conditions - NO Park

SIGNAL2000/TEAPAC[Ver 2.71.07] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.661 (Critical V/C 0.850) Control Delay 14.0 Level of Service B+

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 (vph)	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								37.1	D+	
RT	12/1	0.176	0.265	285	408	136	0.333	27.1	C+	132 ft
LT	24/2	0.166	0.125	40	411	281	0.675	42.0	*D+	178 ft
WB Approach								12.9	B+	
RT	12/1	0.504	0.815	1254	1254	704	0.561	3.4	A	303 ft
TH	24/2	0.567	0.646	2226	2226	1917	0.861	16.4	*B	940 ft
EB Approach								8.5	A	
TH	24/2	0.340	0.787	2710	2710	1018	0.376	3.0	A	202 ft
LT	12/1	0.102	0.096	180	240	187	0.763	38.4	*D+	150 ft

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		Site Information		
Analyst	tob	Jurisdiction/Date	CoA	5/22/2007
Agency or Company	Terry O. Brown, P.E.	Major Street	Vista del Norte Dr.	
Analysis Period/Year	AM 2009	Minor Street	Las Lomitas Dr.	
Comment	2009 AM Peak Hour BUILD Conditions NO Park			

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)	37	101			21	96				192		15
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	41	112			23	107				213		17
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	230	711	0.323	1	12.5	B	12.5
	2								
	3								B
EB		1	41	1449	0.028	0	7.6	A	
WB		4							

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CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		Site Information		
Analyst	tob	Jurisdiction/Date	CoA	5/22/2007
Agency or Company	Terry O. Brown, P.E.	Major Street	Vista del Norte Dr.	
Analysis Period/Year	PM 2009	Minor Street	Las Lomitas Dr.	
Comment	2009 PM Peak Hour BUILD Conditions NO Park			

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			113	219				124		59
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			126	243				138		66
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	204	688	0.296	1	12.4	B	12.4
	2								
	3								B
EB		1	19	1184	0.016	0	8.1	A	
WB		4							

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CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		Site Information		
Analyst	tob	Jurisdiction/Date	Coa	3/28/2007
Agency or Company	Terry O. Brown, P.E.	Major Street	El Pueblo	
Analysis Period/Year	AM 2009	Minor Street	Las Lomitas Dr.	
Comment	2009 AM Peak Hour BUILD Condition NO Park			

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)		516	233	160	106		104		129			
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		573	259	178	118		116		143			
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	143	460	0.311	1	16.3	C	31.8
	2	L	116	188	0.618	3	50.9	F	
	3								D
SB	1								
	2								
	3								
EB		1							
WB		4	178	790	0.225	1	10.9	B	

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1 of 1

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		***Site Information***		
Analyst	tob	Jurisdiction/Date	Coa	3/28/2007
Agency or Company	Terry O. Brown, P.E.	Major Street	El Pueblo	
Analysis Period/Year	PM 2009	Minor Street	Las Lomitas Dr.	
Comment	2009 PM Peak Hour BUILD Condition NO Park			

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)		96	124	123	243		281		188			
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		107	138	137	270		312		209			
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	209	924	0.226	1	10.0	A	22.8
	2	L	312	436	0.715	6	31.4	D	
	3								C
SB	1								
	2								
	3								
EB		1							
WB		4	137	1312	0.104	0	8.1	A	

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8 - 2008 PM BUILD
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CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		Site Information		
Analyst	tob	Jurisdiction/Date	CoA	5/22/2007
Agency or Company	Terry O. Brown, P.E.	Major Street	Osuna Rd.	
Analysis Period/Year	AM 2009	Minor Street	Driveway "A"	
Comment	2009 AM Peak Hour BUILD Condtitions NO Park			

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)	44	2225			912	44				38		38
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	52	2342			960	52				45		45
Flare storage (# of vehs)												
Median storage (# of vehs)										1		

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1								
	2								
	3								
SB	1	R	45	529	0.085	0	12.4	B	29.5
	2	L	45	130	0.345	1	46.6	E	
	3								D
EB		1	52	675	0.077	0	10.8	B	
WB		4							

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		*Site Information*		
Analyst	tob	Jurisdiction/Date	CoA	5/22/2007
Agency or Company	Terry O. Brown, P.E.	Major Street	Osuna Rd.	
Analysis Period/Year	PM 2009	Minor Street	Driveway "A"	
Comment	2009 PM Peak Hour BUILD Condtitions NO Park			

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)	96	1151			2271	122				103		130
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	113	1212			2391	144				121		153
Flare storage (# of vehs)												
Median storage (# of vehs)										1		

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1								
	2								
	3								
SB	1	R	153	177	0.863	6	88.6	F	624.8
	2	L	121	36	3.377	14	1302.7	F	
	3								F
EB		1	113	171	0.660	4	59.5	F	
WB		4							

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		Site Information		
Analyst	tob	Jurisdiction/Date	CoA	5/22/2007
Agency or Company	Terry O. Brown, P.E.	Major Street	Vista del Norte	
Analysis Period/Year	AM 2009	Minor Street	Driveway "B"	
Comment	2009 AM Peak Hour BUILD Conditions NO Park			

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)	27	129	29	15	875	11	25	1	13	11	1	37
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	32	152	34	18	1029	13	29	1	15	13	1	44
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	16	796	0.020	0	9.6	A	14.2
	2	L	29	334	0.087	0	16.8	C	
	3								B
EB	1	TR	45	485	0.093	0	13.2	B	15.7
	2	L	13	198	0.066	0	24.5	C	
	3								C
NB		1	32	657	0.048	0	10.8	B	
SB		4	18	1379	0.013	0	7.6	A	

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		Site Information		
Analyst	tob	Jurisdiction/Date	CoA	5/22/2007
Agency or Company	Terry O. Brown, P.E.	Major Street	Vista del Norte	
Analysis Period/Year	PM 2009	Minor Street	Driveway "B"	
Comment	2009 PM Peak Hour BUILD Conditions NO Park			

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)	37	705	49	25	232	11	52	1	7	11	1	27
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	44	829	58	29	273	13	61	1	8	13	1	32
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	9	511	0.018	0	12.2	B	24.2
	2	L	61	232	0.263	1	26.0	D	
	3								C
EB	1	TR	33	807	0.041	0	9.7	A	11.4
	2	L	13	346	0.038	0	15.8	C	
	3								B
NB		1	44	1266	0.034	0	7.9	A	
SB		4	29	753	0.039	0	10.0	A	

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		Site Information		
Analyst	tob	Jurisdiction/Date	CoA	5/22/2007
Agency or Company	Terry O. Brown, P.E.	Major Street	Osuna Rd.	
Analysis Period/Year	AM 2009	Minor Street	Driveway "C"	
Comment	2009 AM Peak Hour BUILD Condtitions NO Park			

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)	44	2231			905	44				38		38
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	52	2348			953	52				45		45
Flare storage (# of vehs)												
Median storage (# of vehs)										1		

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1								
	2								
	3								
SB	1	R	45	532	0.085	0	12.4	B	29.4
	2	L	45	130	0.345	1	46.5	E	
	3								D
EB		1	52	679	0.076	0	10.7	B	
WB		4							

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information		Site Information		
Analyst	tob	Jurisdiction/Date	CoA	5/22/2007
Agency or Company	Terry O. Brown, P.E.	Major Street	Osuna Rd.	
Analysis Period/Year	PM 2009	Minor Street	Driveway "C"	
Comment	2009 PM Peak Hour BUILD Condtitions NO Park			

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)	98	1146			2275	120				104		128
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	115	1206			2395	141				122		151
Flare storage (# of vehs)												
Median storage (# of vehs)										1		

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1								
	2								
	3								
SB	1	R	151	177	0.855	6	87.1	F	650.1
	2	L	122	35	3.468	14	1346.9	F	
	3								F
EB		1	115	171	0.675	4	61.3	F	
WB		4							

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**

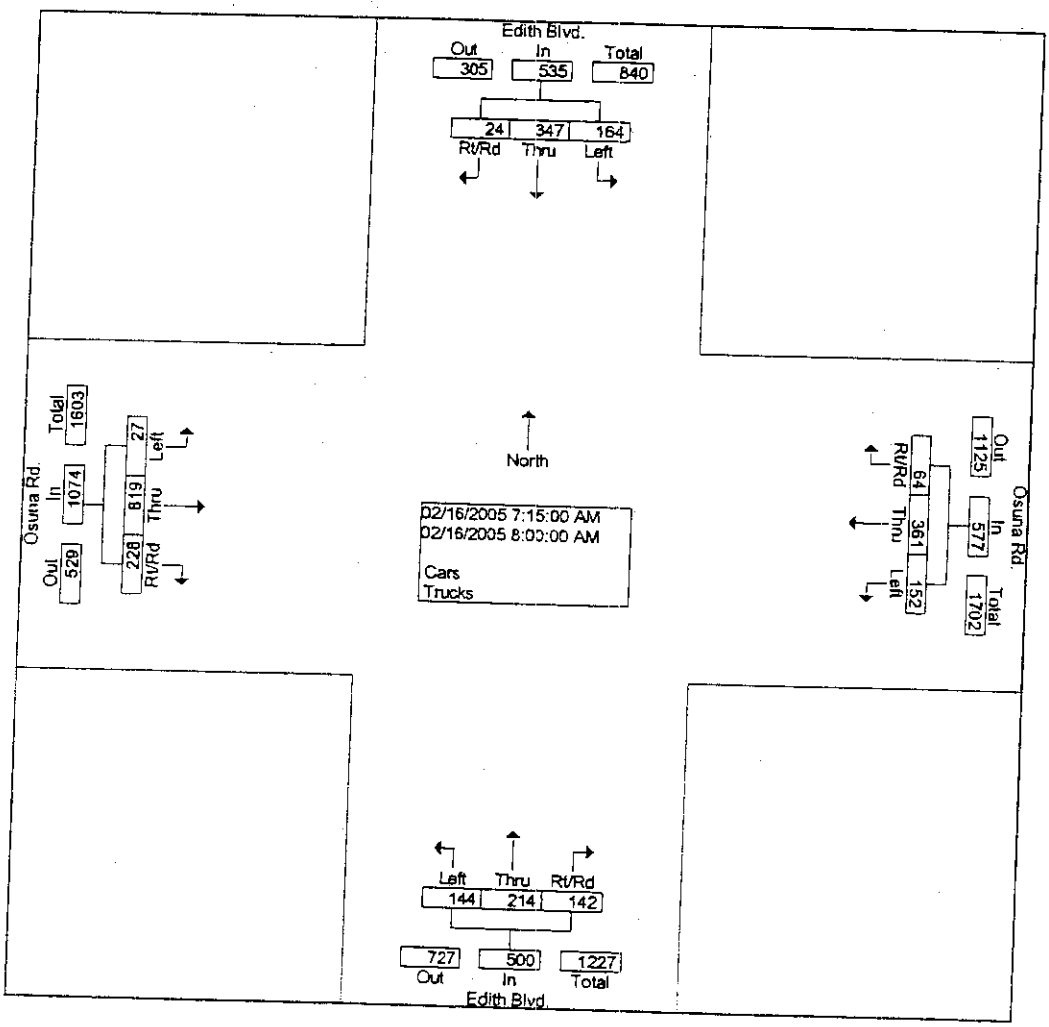
Begin Time	End Time	Eastbound (Osuna)			Westbound (Osuna)			Northbound (2nd St)			Southbound (2nd St)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	16	94	16	23	36	41	8	123	59	101	285	9
7:15 AM	7:30 AM	12	97	7	28	36	52	5	119	55	115	303	11
7:30 AM	7:45 AM	22	96	19	19	45	35	9	147	58	82	291	7
7:45 AM	8:00 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

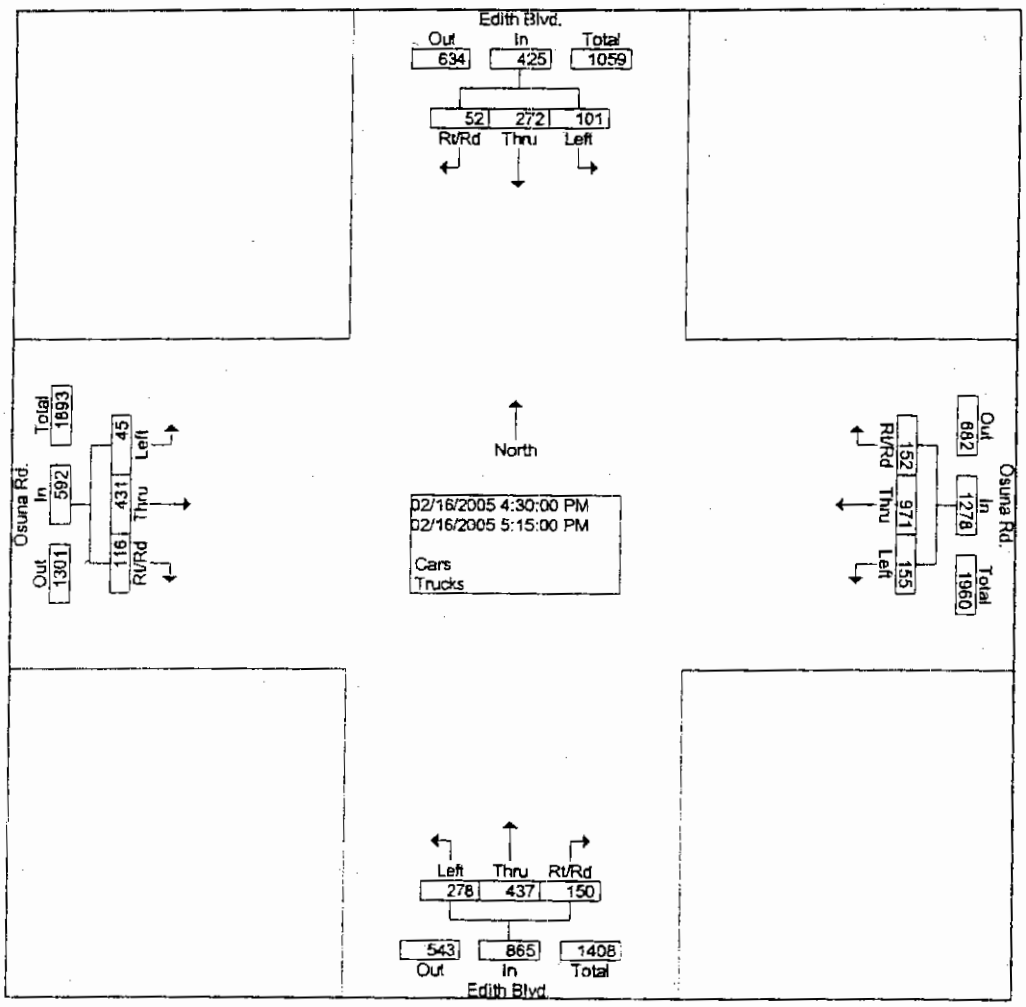
	Edith Blvd. From North					Osuna Rd. From East					Edith Blvd. From South					Osuna Rd. From West					
Start Time	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Int. Total
Peak Hour From 06:45 to 09:30 - Peak 1 of 1																					
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
Peak Factor	38	108	2	1	149	54	115	11	1	181	53	60	26	15	154	5	216	78	1	300	784
High Int.	07:45					07:45					07:45					07:45					0.857
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

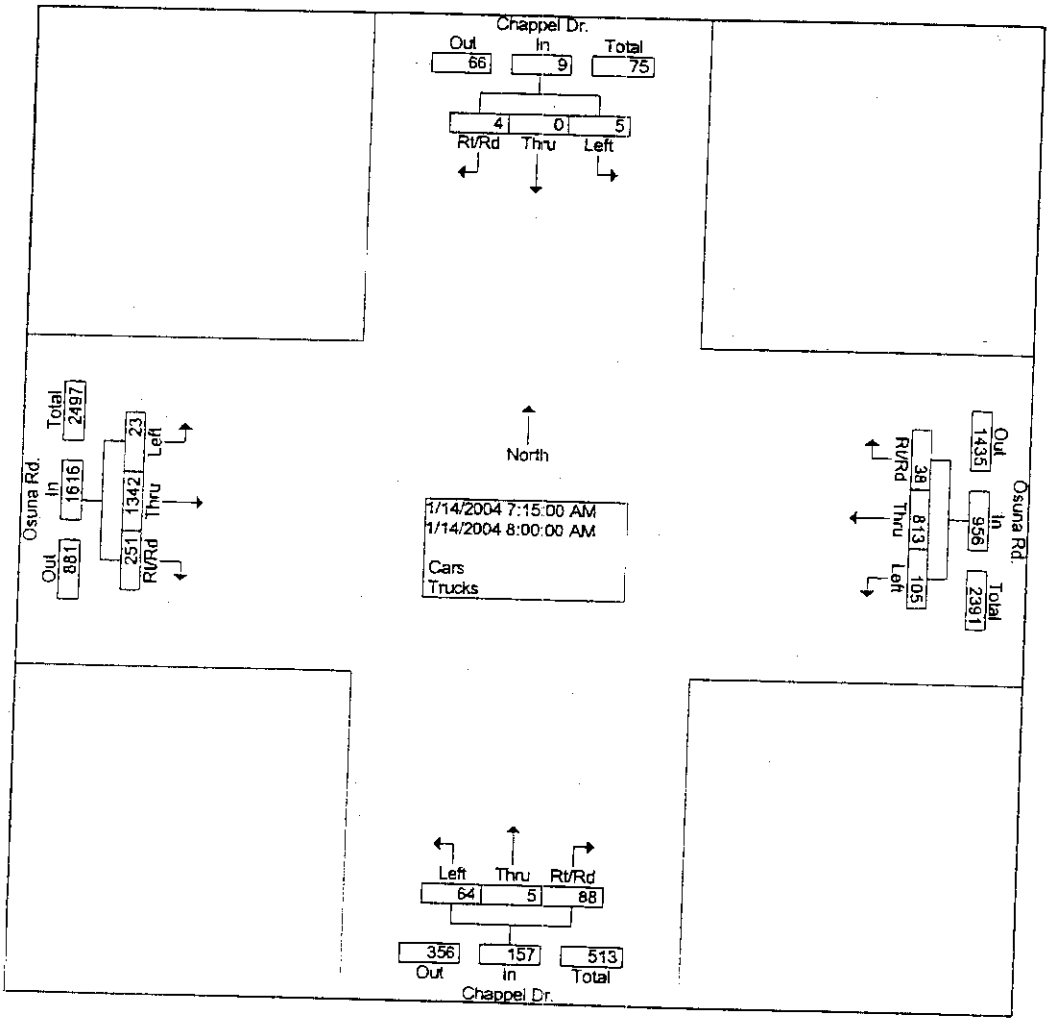
	Edith Blvd. From North					Osuna Rd. From East					Edith Blvd. From South					Osuna Rd. From West					
Start Time	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Int. Total
Peak Hour From 15:00 to 17:45 - Peak 1 of 1																					
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

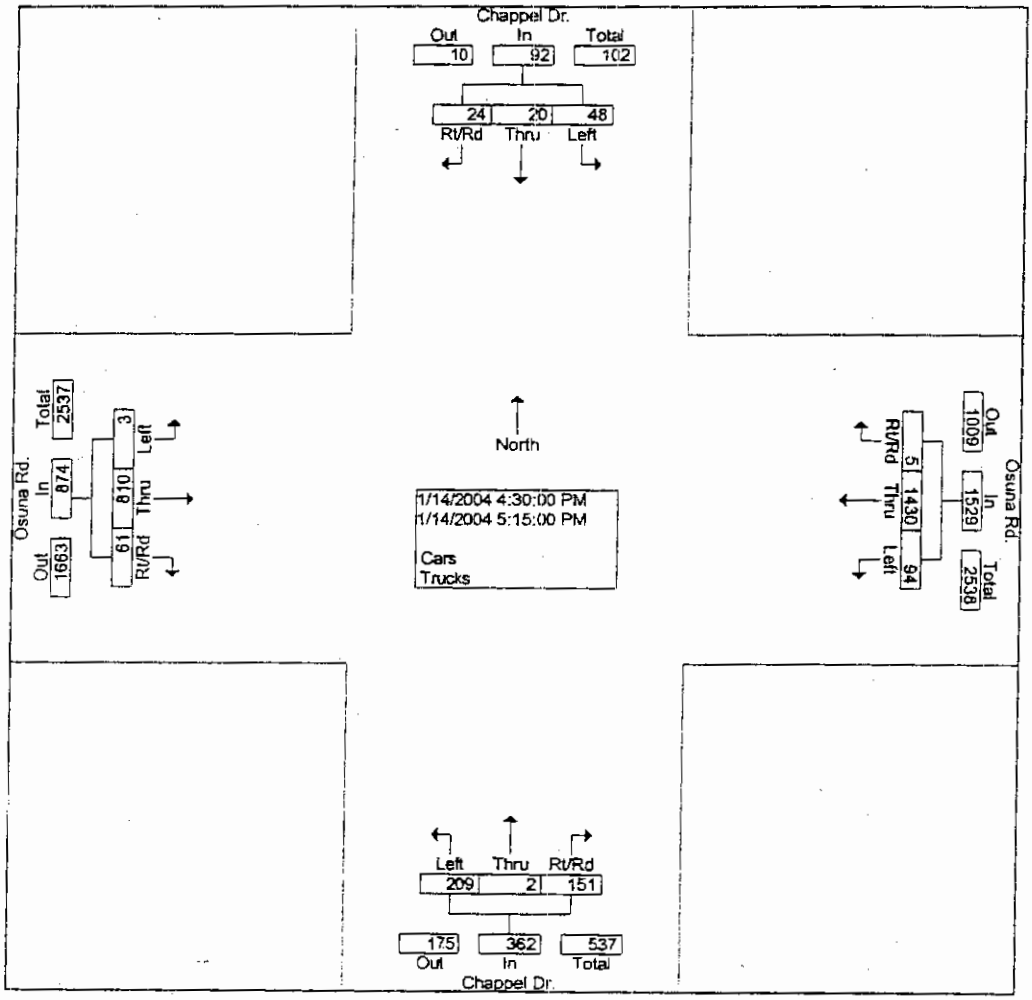
	Chappel Dr. From North					Osuna Rd. From East					Chappel Dr. From South					Osuna Rd. From West					
Start Time	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Int. Total
Peak Hour From 06:45 to 09:30 - Peak 1 of 1																					
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	955	64	5	64	24	157	23	1342	237	14	1616	2738
Volume	3	0	1	2	6	36	193	6	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**

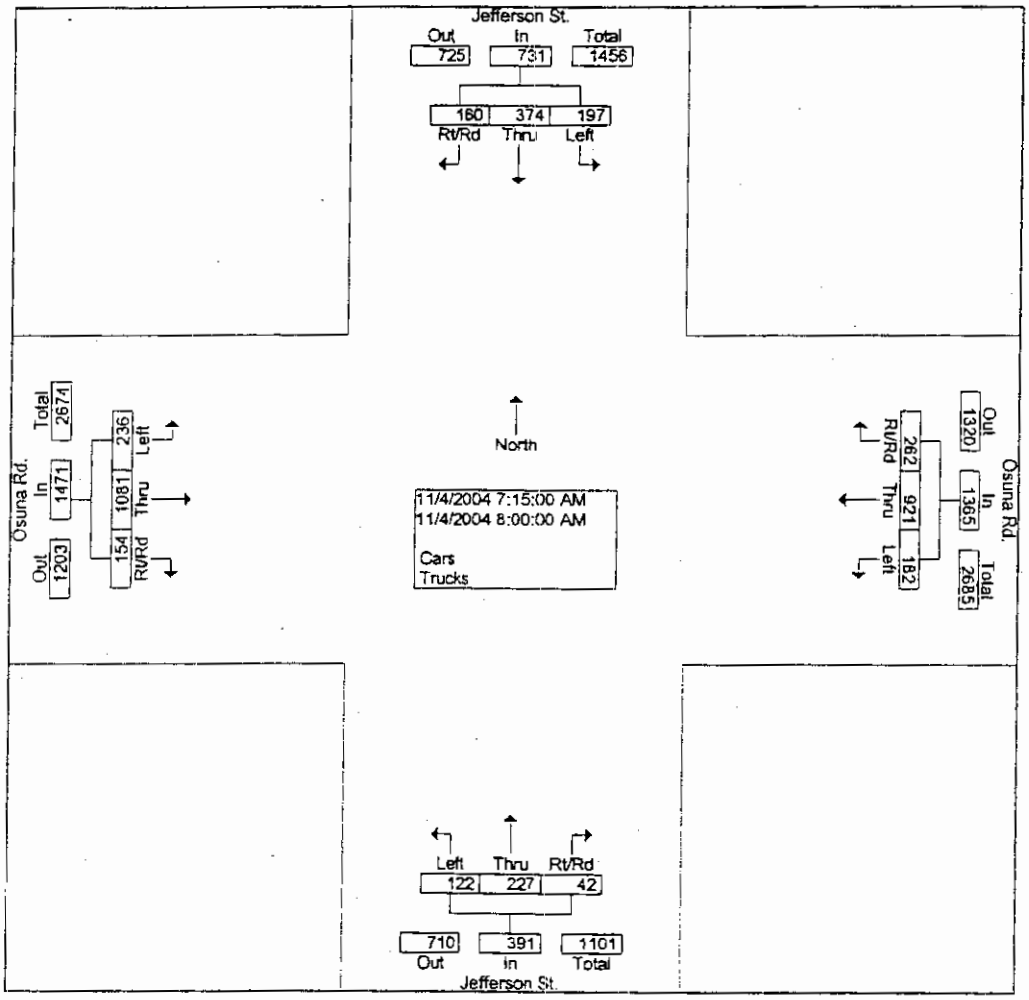
Begin Time	End Time	Eastbound (Osuna)			Westbound (Osuna)			Northbound (Academy Pkwy)			Southbound (Academy Pkwy)		
		L	T	R	L	T	R	L	T	R	L	T	R
7:00 AM	7:15 AM	9	225	5	21	171	12	2	0	3	3	0	3
7:15 AM	7:30 AM	17	217	1	9	162	16	1	0	3	9	0	2
7:30 AM	7:45 AM	12	326	0	8	264	18	2	0	6	8	0	5
7:45 AM	8:00 AM	14	327	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

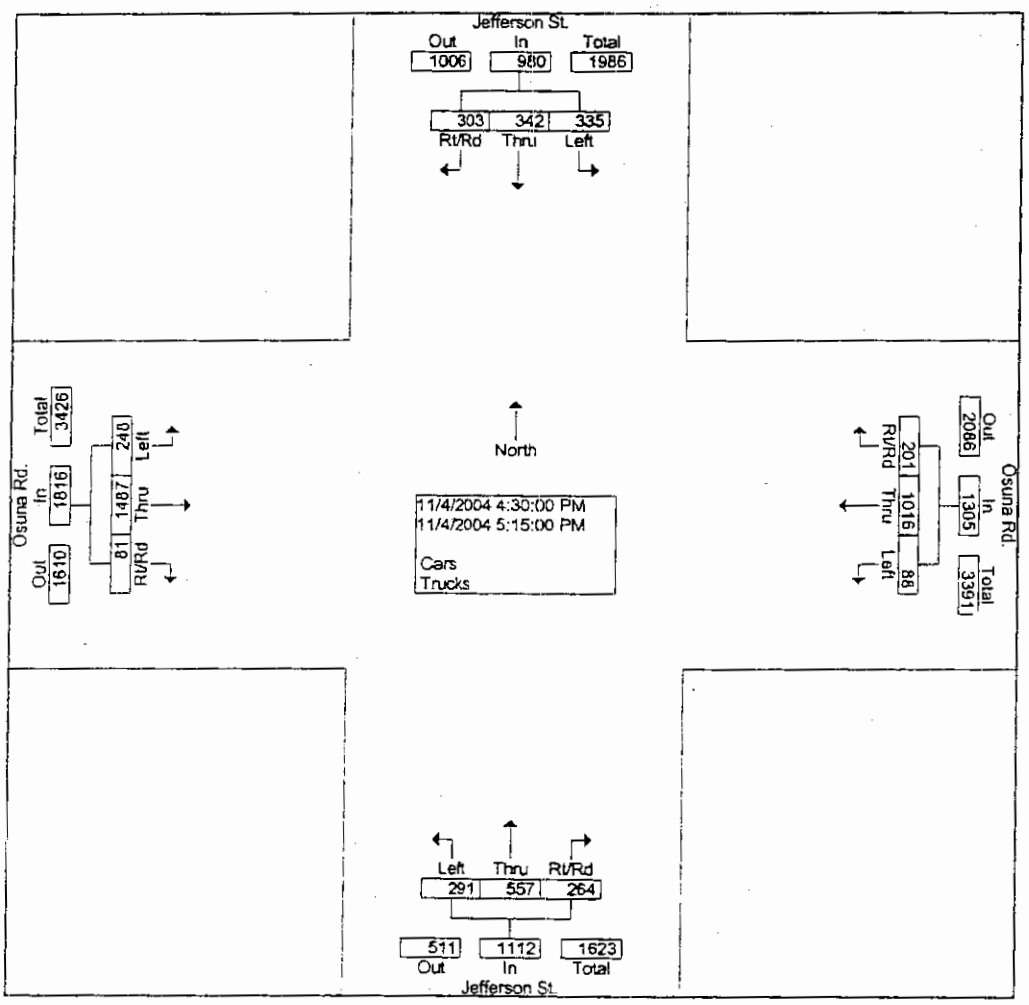
	Jefferson St. From North					Osuna Rd. From East					Jefferson St. From South					Osuna Rd. From West					
Start Time	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Left	Thru	Right	Rt/Rd	App. Total	Int. Total
Peak Hour From 06:45 to 09:30 - Peak 1 of 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
Volume	89	115	104	1	309	29	268	55	6	358	72	142	69	14	297	80	382	13	0	475	1439
Peak Factor																					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	9	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	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	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

Las Lomitas Industrial Park (El Pueblo Rd. / Las Lomitas)

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
Industrial Park (130)	*30.00* Acres	2,034	257	53	67	251

ITE Trip Generation Equations:

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

T = *47.943* (X) + *595.337*

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) = *0.822* Ln(X) + *2.941*

83% Enter, *17%* Exit

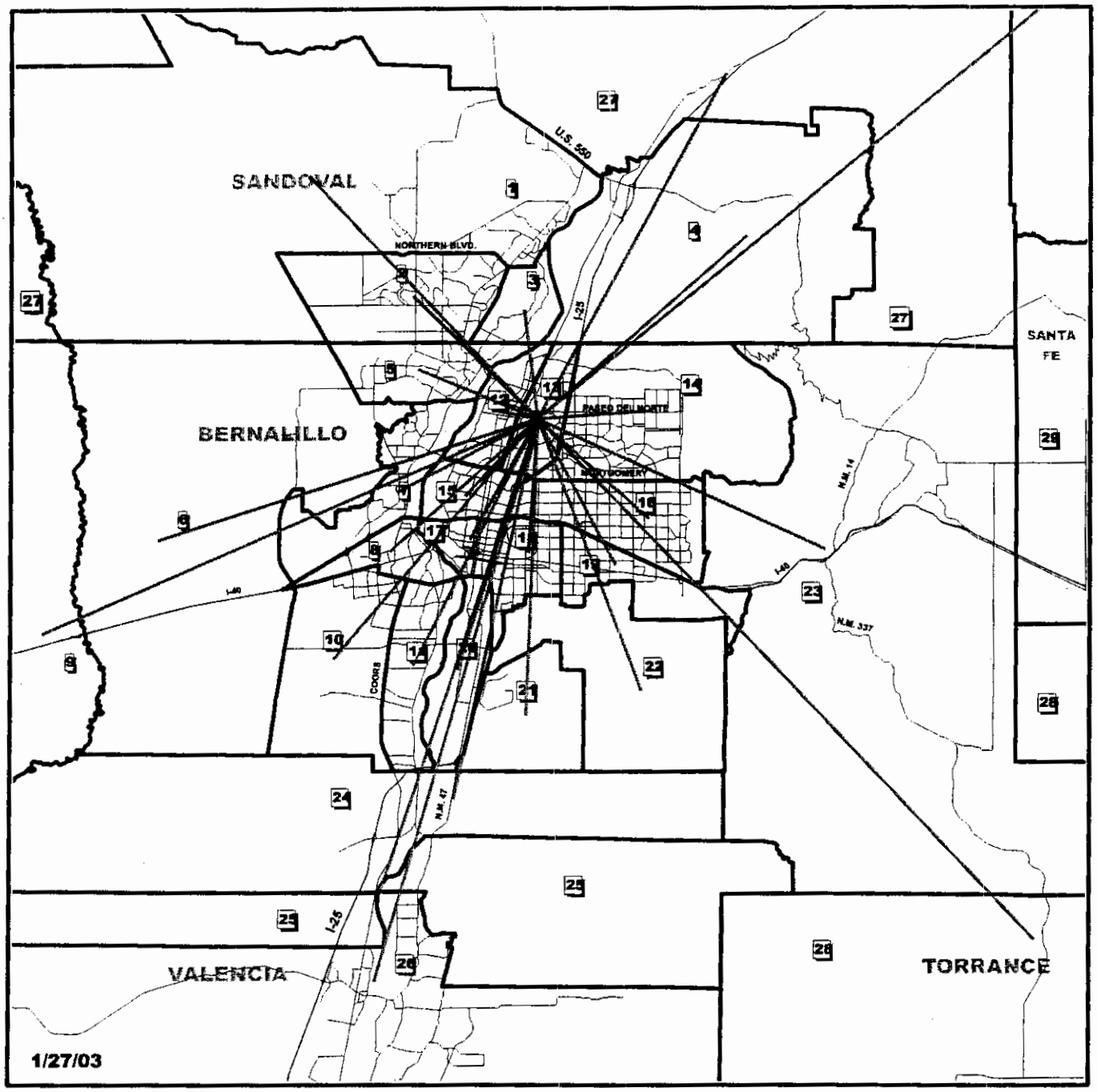
Average Vehicle Trip Ends on a Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4pm and 6pm (P.M. PEAK HOUR)

Ln(T) = *0.764* Ln(X) + *3.164*

21% Enter, *79%* Exit

Comments:
Tract No.

Based on ITE Trip Generation Manual - 7th Edition



Subareas of the MRCOG Region

22 Subarea Identification Number

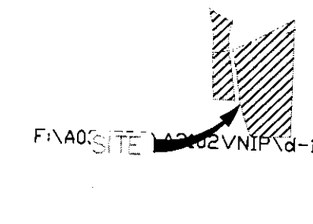
Subarea boundaries extend to county boundary where full extent of subarea not shown except for Subarea 29 which only includes southern Santa Fe County.

Mid-Region Council of Governments
809 Copper Ave. NW
Albuquerque, NM 87102
505-247-1750

Vista del Norte Industrial Park (El Pueblo Rd. / Las Lomitas Dr.) Trip Distribution - Subarea Map

LEGAL

A Tract Of Land Situate Within The Elena Gallegos Grant, Projected Section 22, Township 11 North, Range 3 East, New Mexico Principal Meridian, City Of Albuquerque, Bernalillo County, New Mexico Being All of Tract U-2, Tract U-3, Tract U-4 and Tract U-6, Vista Del Norte as the same is shown and designated on said plat filed for record in the Office of the County Clerk of Bernalillo County, New Mexico on September 19, 2002 in Book 2002C, Page 311 and containing 30.0220 acres more or less.



LOCATION MAP

SCALE: NONE

ZONE ATLAS D-16-Z

EXISTING EASEMENTS

(A) PUBLIC DRAINAGE EASEMENT (09/19/02 2002C-311)

(8) PUBLIC SANITARY SEWER EASEMENT (09/19/02 2002C-311)

(3) EXISTING 30' SANITARY SEWER EASEMENT (03-16-99, 99C-57)

(6) 40' GAS LINE RIGHT-OF-WAY AND EASEMENT 10/10/55 BK. D-329, PG. 539-540

(7) SANITARY SEWER EASEMENT 9/27/68, BK. MISC. 116, PG. 648-651, PARCEL NO. 4.

(9) 20' SEWER LINE & PUBLIC UTILITY EASEMENT 11/25/69 BK. MISC. 157, PG. 17-19.

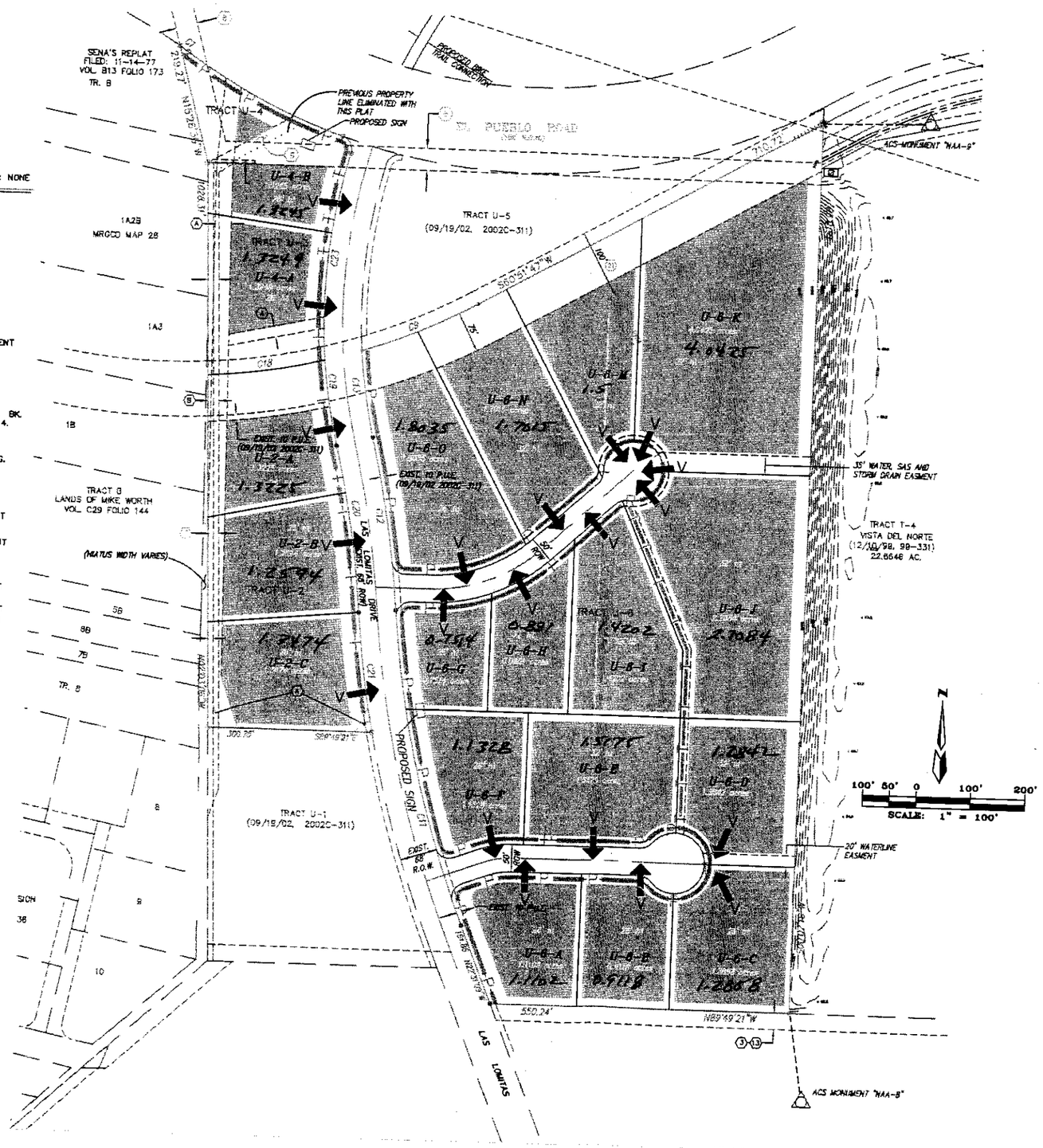
(11) EXISTING 10' PNM TRANSMISSION LINE EASEMENT (03-16-99, 99C-57)

(12) EXISTING 5'x75' PNM ANCHOR EASEMENT (03-16-99, 99C-57)

(13) EXISTING 30' AMAFCA ACCESS EASEMENT (12-10-99, 99C-331)

(21) EXISTING 100' PNM RAILROAD EASEMENT (03-11-57, BK.D-379, PG. 383)
EXISTING 100' PNM RAILROAD EASEMENT (05-28-57, BK.D-387, PGS. 394-396)

LEGEND



SITE PLAN FOR SUBDIVISION
TRACTS U-2-A THRU U-2-C, U-4-A, U-
U-6-A THRU U-6-O
VISTA DEL NORTE

WITHIN THE
ELENA GALLEGOS GRANT
PROJECTED SECTIONS 22 AND 27
TOWNSHIP 11 NORTH, RANGE 3 EAST, NMPM
CITY OF ALBUQUERQUE
BERNALILLO COUNTY, NEW MEXICO
JUNE, 2004

SUBDIVISION DATA

NO. OF EXISTING TRACTS	4 TRACTS
NO. OF TRACTS CREATED	20 TRACTS
DATE OF SURVEY	NOVEMBER, 1999
AREA	30.0220 AC

SETBACKS

V → VEHICULAR ACCESS

P PEDESTRIAN ACCESS

T PEDESTRIAN/BIKE TRIAL

ALL LOTS FAR = 1.0 MAX W/MULIT-LEVEL 1

City Approvals:

Traffic Engineering, Transportation Division	Date
Utilities Development	Date
Parks and Recreation Department	Date
AMAFCA	Date
City Engineer	Date
DRB Chairperson, Planning Department	Date

DEVELOPER

VISTA del NORTE DEVELOPMENT LLC
3904 Carlisle NE 87107
P.O. Box 3871
Albuquerque, NM 87190
883-1674

ENGINEERS

D. MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS
P.O. BOX 90606
ALBUQUERQUE, NEW MEXICO 87199
(505) 828-2200

SURVEYOR

ALDRICH LAND SURVEYING
P.O. BOX 30701,
ALBUQUERQUE, N.M. 87190
(505) 884-1990

SITE PLAN FOR SUBDIVISION

Las Lomitas Industrial Park

dmg MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS
P.O. BOX 90606
ALBUQUERQUE, NEW MEXICO 87199
(505)828-2200, FAX (505)797-9539

Dwg: Las_Limitas_SITE.dwg	Drawn: ADMINISTRATOR	Checked: DMG		Sheet 1	of 3
Scale: 1"=100'	Date: 03/27/07	Job: A03102			

Trip Distribution Table

Las Lomitas Industrial Park (El Pueblo Rd. / Las Lomitas Dr.)

Sub Area Population Data:
For determination of Trip Distribution for Proposed IP **Development**

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)

								(EE) El Pueblo East			(OE) Osuna Rd. East			(OW) Osuna Rd. West		
Sub Area I.D.#	**% Sub Area in Study**	**2005 Population**	**2010 Population**	**Interpolated Population for the Year**	Population in Study	Dist. (Mi.)	**Population / Distance**	% Utilizing	% Population / Dist. Utilizing	Population	% Utilizing	% Population / Dist. Utilizing	Population	% Utilizing	% Population / Dist. Utilizing	Population
		2005	**2010**	**2008**												
1	100%	26,972	39,738	34,632	2,008	14.07	**143**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
2	100%	39,348	40,610	40,105	34,632	7.37	**4,699**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
3	100%	7,865	8,728	8,383	8,383	5.03	**1,668**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
4	100%	13,387	14,936	14,316	14,316	11.73	**1,221**	100%	1.04%	1,221	0%	0.00%	0	0%	0.00%	0
5	100%	35,968	44,203	40,909	40,909	5.36	**7,632**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
6	100%	2,784	3,950	3,484	3,484	16.75	**208**	100%	0.18%	208	0%	0.00%	0	0%	0.00%	0
7	100%	48,565	59,615	55,195	55,195	6.70	**8,238**	100%	6.99%	8,238	0%	0.00%	0	0%	0.00%	0
8	100%	27,546	28,553	28,150	28,150	8.71	**3,232**	100%	2.74%	3,232	0%	0.00%	0	0%	0.00%	0
9	100%	1,678	1,888	1,804	1,804	23.45	**77**	100%	0.07%	77	0%	0.00%	0	0%	0.00%	0
10	100%	39,532	4,822	18,706	18,706	14.07	**1,329**	100%	1.13%	1,329	0%	0.00%	0	0%	0.00%	0
11	100%	32,051	33,202	32,742	32,742	5.03	**6,516**	100%	5.53%	6,516	0%	0.00%	0	0%	0.00%	0
12	100%	16,144	16,146	16,145	16,145	2.01	**8,032**	0%	0.00%	0	0%	0.00%	0	20%	1.36%	1,606
13	100%	8,715	10,146	9,574	9,574	1.34	**7,144**	30%	1.82%	2,143	20%	1.21%	1,429	20%	1.21%	1,429
14	100%	93,104	94,279	93,809	93,809	5.03	**18,668**	0%	0.00%	0	30%	4.75%	5,601	0%	0.00%	0
15	100%	24,691	25,262	25,034	25,034	4.02	**6,227**	0%	0.00%	0	0%	0.00%	0	0%	0.00%	0
16	100%	108,882	108,353	108,565	108,565	6.70	**16,204**	100%	13.75%	16,204	0%	0.00%	0	0%	0.00%	0
17	100%	20,920	21,196	21,086	21,086	6.03	**3,497**	50%	1.48%	1,748	0%	0.00%	0	0%	0.00%	0
18	100%	42,078	41,670	41,833	41,833	6.03	**6,938**	100%	5.89%	6,938	0%	0.00%	0	0%	0.00%	0
19	100%	59,027	58,888	58,944	58,944	7.37	**7,998**	100%	6.79%	7,998	0%	0.00%	0	0%	0.00%	0
20	100%	9,482	9,699	9,612	9,612	11.39	**844**	100%	0.72%	844	0%	0.00%	0	0%	0.00%	0
21	100%	6	6	6	6	13.40	**0**	100%	0.00%	0	0%	0.00%	0	0%	0.00%	0
22	100%	4,231	3,629	3,870	3,870	13.40	**289**	100%	0.25%	289	0%	0.00%	0	0%	0.00%	0
23	100%	18,140	20,390	19,490	19,490	14.07	**1,385**	100%	1.18%	1,385	0%	0.00%	0	0%	0.00%	0
24	100%	2,393	2,554	2,490	2,490	17.42	**143**	100%	0.12%	143	0%	0.00%	0	0%	0.00%	0
25	100%	1,009	1,062	1,041	1,041	22.11	**47**	100%	0.04%	47	0%	0.00%	0	0%	0.00%	0
26	100%	75,506	85,654	81,595	81,595	26.13	**3,123**	100%	2.65%	3,123	0%	0.00%	0	0%	0.00%	0
27	100%	20,955	22,276	21,748	21,748	17.42	**1,248**	100%	1.06%	1,248	0%	0.00%	0	0%	0.00%	0
28	100%	19,524	21,690	20,824	20,824	31.49	**661**	100%	0.56%	661	0%	0.00%	0	0%	0.00%	0
29	100%	11,360	13,771	12,807	12,807	28.14	**455**	100%	0.39%	455	0%	0.00%	0	0%	0.00%	0
		811,863	836,916	826,895	788,798		**117,868**		54.34%	**64,048**		5.96%	**7,029**		2.58%	**3,035**
										54.34%			5.96%			2.58%

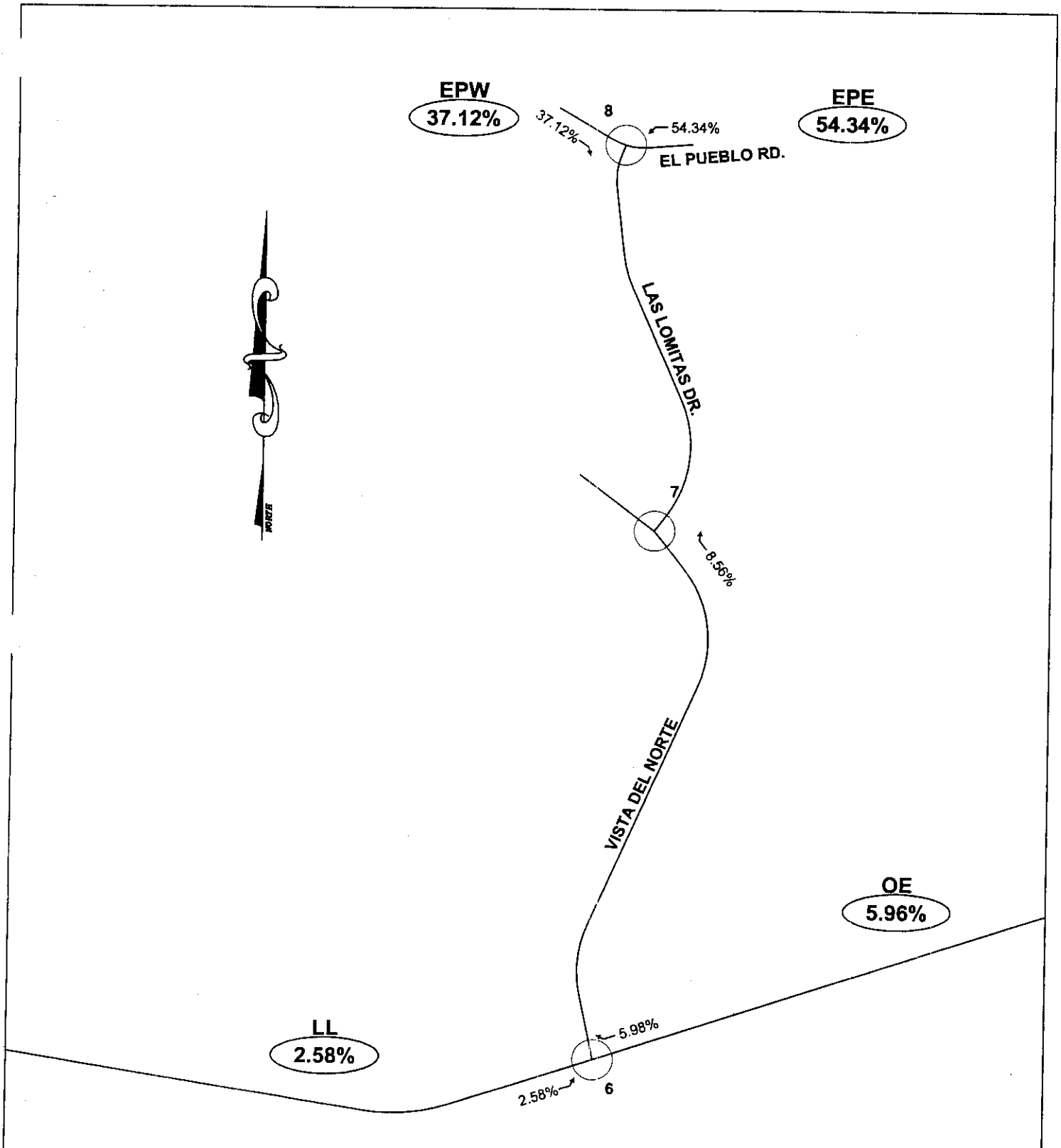
Trip Distribution Table

Las Lomitas Industrial Park (El Pueblo Rd. / Las Lomitas Dr.)

Sub Area Population Data:
For determination of Trip Distribution for Proposed IP **Development**

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)

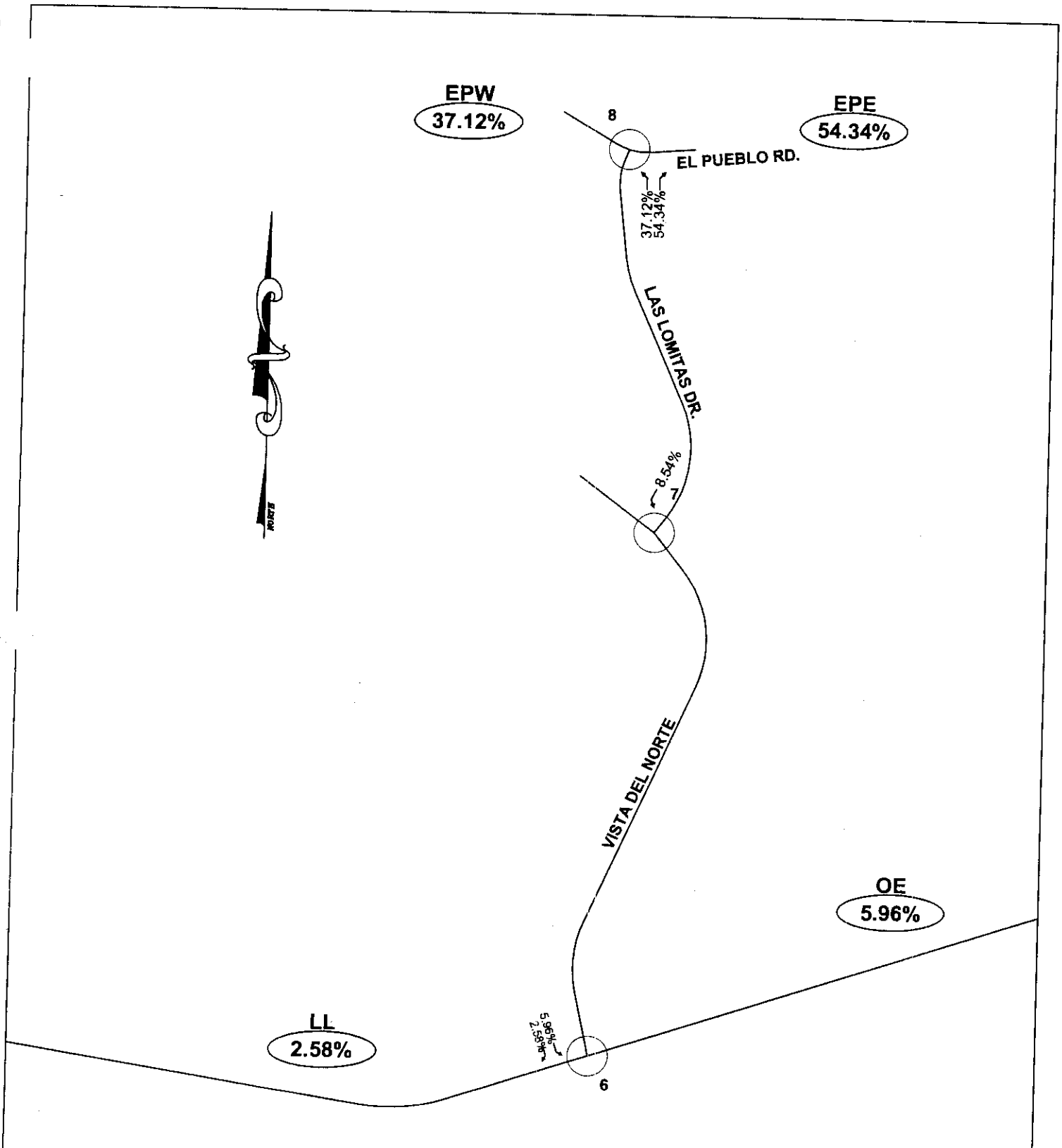
								(EW) El Pueblo West		
Sub Area I.D.#	**% Sub Area in Study**	**2005 Population**	**2010 Population**	**Interpolated Population for the Year**	Population in Study	Dist. (Mi.)	**Population / Distance**	% Utilizing	% Population / Dist. Utilizing	Population
		2005	**2010**	**2008**						
1	100%	26,972	39,738	34,632	2,008	14.07	**143**	100%	0.12%	143
2	100%	39,348	40,610	40,105	34,632	7.37	**4,699**	100%	3.99%	4,699
3	100%	7,865	8,728	8,383	8,383	5.03	**1,668**	100%	1.42%	1,668
4	100%	13,387	14,936	14,316	14,316	11.73	**1,221**	0%	0.00%	0
5	100%	35,968	44,203	40,909	40,909	5.36	**7,632**	100%	6.48%	7,632
6	100%	2,784	3,950	3,484	3,484	16.75	**208**	0%	0.00%	0
7	100%	48,565	59,615	55,195	55,195	6.70	**8,238**	0%	0.00%	0
8	100%	27,546	28,553	28,150	28,150	8.71	**3,232**	0%	0.00%	0
9	100%	1,678	1,888	1,804	1,804	23.45	**77**	0%	0.00%	0
10	100%	39,532	4,822	18,706	18,706	14.07	**1,329**	0%	0.00%	0
11	100%	32,051	33,202	32,742	32,742	5.03	**6,516**	0%	0.00%	0
12	100%	16,144	16,146	16,145	16,145	2.01	**8,032**	80%	5.45%	6,426
13	100%	8,715	10,146	9,574	9,574	1.34	**7,144**	30%	1.82%	2,143
14	100%	93,104	94,279	93,809	93,809	5.03	**18,668**	70%	11.09%	13,068
15	100%	24,691	25,262	25,034	25,034	4.02	**6,227**	100%	5.28%	6,227
16	100%	108,882	108,353	108,565	108,565	6.70	**16,204**	0%	0.00%	0
17	100%	20,920	21,196	21,086	21,086	6.03	**3,497**	50%	1.48%	1,748
18	100%	42,078	41,670	41,833	41,833	6.03	**6,938**	0%	0.00%	0
19	100%	59,027	58,888	58,944	58,944	7.37	**7,998**	0%	0.00%	0
20	100%	9,482	9,699	9,612	9,612	11.39	**844**	0%	0.00%	0
21	100%	6	6	6	6	13.40	**0**	0%	0.00%	0
22	100%	4,231	3,629	3,870	3,870	13.40	**289**	0%	0.00%	0
23	100%	18,140	20,390	19,490	19,490	14.07	**1,385**	0%	0.00%	0
24	100%	2,393	2,554	2,490	2,490	17.42	**143**	0%	0.00%	0
25	100%	1,009	1,062	1,041	1,041	22.11	**47**	0%	0.00%	0
26	100%	75,506	85,654	81,595	81,595	26.13	**3,123**	0%	0.00%	0
27	100%	20,955	22,276	21,748	21,748	17.42	**1,248**	0%	0.00%	0
28	100%	19,524	21,690	20,824	20,824	31.49	**661**	0%	0.00%	0
29	100%	11,360	13,771	12,807	12,807	28.14	**455**	0%	0.00%	0
		811,863	836,916	826,895	788,798		**117,868**		37.12%	**43,755**
										37.12%



VISTA DEL NORTE COMMERCIAL CENTER

NORTHEAST CORNER OF OSUNA RD. / VISTA DEL NORTE

LAS LOMITAS INDUSTRIAL PARK TRIP ASSIGNMENTS (% ENTERING)



VISTA DEL NORTE COMMERCIAL CENTER

NORTHEAST CORNER OF OSUNA RD. / VISTA DEL NORTE

LAS LOMITAS INDUSTRIAL PARK TRIP ASSIGNMENTS (% EXITING)

Las Lomitas Industrial Park (El Pueblo Rd. / Las Lomitas Dr.)

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 **2006**

	Eastbound (Osuna Rd.)			Westbound (Osuna Rd.)			Northbound (Vista del Norte)			Southbound (Vista del Norte)		
Growth Rates	0.00%			0.00%			0.00%			0.00%		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Percent Office Trips Generated(Entering)	*2.58%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*5.98%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*5.98%*	*0.00%*	*2.58%*
Total Trips Generated	7	0	0	0	0	15	0	0	0	3	0	1

	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
Percent Office Trips Generated(Entering)	*2.58%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*5.98%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*5.98%*	*0.00%*	*2.58%*
Total Trips Generated	2	0	0	0	0	4	0	0	0	15	0	6

	Entering	Exiting		
Number of Office Trips Generated	**257**	**53**	A.M.	100% Office Development
	67	**251**	P.M.	

Las Lomitas Industrial Park (El Pueblo Rd. / Las Lomitas Dr.)

Projected Turning Movements Worksheet

Vista del Norte / Las Lomitas Dr.

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

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

Year of Existing Counts 2006

Implementation Year **2006**

Growth Rates 0.00% 0.00% 0.00% 0.00%

	Eastbound (Vista del Norte)			Westbound (Vista del Norte)			Northbound (Las Lomitas Dr.)			Southbound (Las Lomitas Dr.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***8.54%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***8.54%***	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	0	0	22	0	0	0	5	0	0

	Eastbound (Vista del Norte)			Westbound (Vista del Norte)			Northbound (Las Lomitas Dr.)			Southbound (Las Lomitas Dr.)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***8.54%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***8.54%***	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	0	0	6	0	0	0	21	0	0

	Entering	Exiting		
Number of Office Trips Generated	**257**	**53**	A.M.	100% Office Development
	67	**251**	P.M.	

Las Lomitas Industrial Park (El Pueblo Rd. / Las Lomitas Dr.)

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 **2006**

Growth Rates	0.00%			0.00%			0.00%			0.00%		
	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
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	***37.12%***	***54.34%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***37.12%***	*0.00%*	***54.43%***	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	95	140	0	0	20	0	29	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
Percent Office Trips Generated(Entering)	*0.00%*	*0.00%*	***37.12%***	***54.34%***	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Office Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	***37.12%***	*0.00%*	***54.43%***	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	25	36	0	0	93	0	137	0	0	0

	Entering	Exiting		
Number of Office Trips Generated	**257**	**53**	A.M.	100% Office Development
	67	**251**	P.M.	