Terry O. Brown P.E.

Jefferson Plaza Office Development

(Jefferson Plaza West of Jefferson St.)

Traffic Impact Study

Draft – June 22, 2007
Final – February 2, 2009

Presented to:

City of Albuquerque
Transportation Development Section

Prepared for:

Titan Development
6300 Riverside Plaza Lane NW
Albuquerque, NM 87120

Terry O. Brown P.E.
P.O. Box 92051
Albuquerque, NM 87199
505 · 883 · 8807

Jefferson Office Plaza
(Jefferson Plaza west of Jefferson St)
TRAFFIC IMPACT STUDY

STUDY PURPOSE

The study is being conducted in conjunction with a request for approval of an office development plan for the property located on the north side of Jefferson Plaza west of Jefferson St. 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. (see Appendix Page A-2).

STUDY PROCEDURES

A scoping meeting was held on April 26, 2007 with City of Albuquerque staff (Tony Loyd and John Hartmann) to discuss scope and methodology to be utilized within that report.

The basic procedure followed is described as follows:

1) Calculate the generated trips for the proposed office development consisting of a proposed 76,000 S.F. of general office space.
2) Calculate trip distribution for the newly generated trips of this development. The new office trips will be distributed based on year 2009 citywide population. (See Pages A-7 thru A-11 in Appendix).
3) Determine Trip Assignments for the newly generated trips based on the results of the Trip Distribution Analysis and logical routing to and from the site. (See Pages A-12 thru A-13 in Appendix).
4) Obtain AM Peak Hour and PM Peak Hour turning movement traffic counts at the intersection Osuna Rd. / Jefferson St., Singer Rd / Jefferson St., and Jefferson Plaza / Jefferson St (See Pages A-60 thru A-67 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-14 thru A-22 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-23 thru A-37 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. (See Pages A-23 thru A-37 in Appendix).

8) Provide signalized and unsignalized intersection analyses for the following intersections:

INTERSECTION	TYPE CONTROL	NO BUILD	BUILD
Osuna Rd. / Jefferson St.	Traffic Signal	2009	2009
Singer Rd / Jefferson St.	Traffic Signal	2009	2009
Jefferson Plaza / Jefferson St.	Stop Sign	2009	2009
Jefferson Plaza / Driveway "A"	Stop Sign	N/A	2009
Jefferson Plaza / Driveway "B"	Stop Sign	N/A	2009

PREVIOUS RELATED TRAFFIC IMPACT STUDIES

There was one previous related Traffic Impact Study to consider in this study: The Vista del Norte Commercial Development traffic was included in the projected 2009 background traffic volumes utilized in this study. However, it should be noted that the Vista del Norte Commercial Development proposal was denied at the City of Albuquerque Environmental Planning Commission on Thursday, June 14, 2007.

GENERAL AREA CHARACTERISTICS

Surrounding land uses consist of some commercial and mostly office uses. This project is located within a moderately active development area.

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.

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. The posted speed limit on Jefferson St is 35 M.P.H.

Singer Rd. to the west of Jefferson St. is classified as a Collector street on the Long Range Roadway System Map for the Albuquerque Metropolitan Planning Area. It is a four-lane urban roadway with raised medians and curbs & gutters on both sides of the street. The posted speed limit on Singer Rd is 30 M.P.H.

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 project 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.

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 years 2004 to 2005 were provided by the City of Albuquerque for the following intersections:

Osuna Rd. / Jefferson St. (2004)
Singer Rd / Jefferson St. (2005)

The existing traffic counts are included Appendix Pages A-61 thru A-67.

Traffic volumes for the intersection of Jefferson Plaza / Jefferson St 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 76,000 S.F. office development. 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 Jefferson Plaza. The proposed driveways are designated as Driveway "A" and Driveway "B" in this study.

TRIP GENERATION

Projected trips were calculated from data in the Institute of Transportation Engineers Trip Generation report (7th Edition, 2003). Trips for the development were determined based on land uses 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:

Jefferson Office Plaza (Jefferson Plaza West of Jefferson St.)
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					
General Office Building (710)	*76.00*	1,080	133	18	28	136

(See Page A-6 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:

Office Land Use

Primary and diverted linked trips for residential development have been distributed proportionally to the 2009 projected population of Subareas area wide. Population data for 2005 and 2009 were taken from the *2025 Socioeconomic Forecasts for Data Analysis Subzones for the Mid-Region of New Mexico*, S-03-01 (April, 2003), Appendix B, supplied by the Mid-Region Council of Governments (MRCOG). Employment Data was interpolated linearly to obtain 2009 values and adjusted for distance from the proposed new facility. The trip distribution worksheets and associated map of subareas are shown on Appendix Pages A -7 thru A -10.

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 -12 thru A -13. No pass-by trip reduction was applied to this development.

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 2001, 2002, 2003, 2004, and 2005 Traffic Flow maps prepared by the Mid-Region Council of Governments. Almost all of the Traffic Flow Data for the years 2001 thru 2005 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. 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-14 thru A-21. 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-23 thru A-34).

PROJECTED PEAK HOUR TURNING MOVEMENTS FOR 2009 BUILDOUT

The calculated annual growth rates were applied to the recent (2004 or 2005) peak hour traffic counts furnished by the City of Albuquerque or counted by the consultant to establish the 2009 background traffic volumes. 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-23 thru A-34 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-35 thru A-37 in the Appendix.

Two scenarios are evaluated in this study:

2009 NO BUILD Volumes
2009 BUILD Volumes

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 (BUILD)

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. / Jefferson St. - Pages A-38 thru A-44

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	
	A.M.	P.M.	A.M.	P.M.
Existing Geometry	D - 45.8	***F - 125***	***D - 48.2***	***F - 129***
Exist. Geom. – ADD EB.WB Thru, SB RT Lane		***E - 67.5***		***E - 70.2***

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

Existing Geometry (Osuna Rd. / 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 Jefferson Office Plaza comprises only about 1% 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: Jefferson Office Plaza (Jefferson Plaza / Jefferson St)
Intersection: **Osuna Rd / Jefferson St**

2009

Eastbound Approach	Left Turns # Lanes	Left Turns Vol.	Left Turns Length (Ft.)	Thru Movements # Lanes	Thru Movements Vol.	Thru Movements Length (Ft.)	Right Turns # Lanes	Right Turns Vol.	Right Turns Length (Ft.)
Existing Lane Length	*2*	*236*	*190*	*2*	*1,081*	*Cont*	*0*	*154*	*0*
AM NO BUILD Queue	2	299	200	2	1,355	700	0	186	225
AM BUILD Queue	**2**	**299**	**200**	**2**	**1,355**	**700**	**0**	**191**	**225**
Existing Lane Length	*2*	*248*	*190*	*2*	*1,487*	*Cont*	*0*	*81*	*0*
PM NO BUILD Queue	2	331	275	2	1,907	>1,000	0	101	175
PM BUILD Queue	**2**	**331**	**275**	**2**	**1,907**	**>1,000**	**0**	**102**	**175**

Westbound Approach	Left Turns # Lanes	Left Turns Vol.	Left Turns Length (Ft.)	Thru Movements # Lanes	Thru Movements Vol.	Thru Movements Length (Ft.)	Right Turns # Lanes	Right Turns Vol.	Right Turns Length (Ft.)
Existing Lane Length	*2*	*182*	*190*	*2*	*921*	*Cont*	*0*	*262*	*999*
AM NO BUILD Queue	2	203	150	2	1,101	600	0	292	325
AM BUILD Queue	**2**	**213**	**150**	**2**	**1,101**	**600**	**0**	**292**	**325**
Existing Lane Length	*2*	*88*	*190*	*2*	*1,016*	*Cont*	*0*	*201*	*999*
PM NO BUILD Queue	2	98	**100**	2	1,256	825	0	224	325
PM BUILD Queue	**2**	**100**	**125**	**2**	**1,256**	**825**	**0**	**224**	**325**

Northbound Approach	Left Turns # Lanes	Left Turns Vol.	Left Turns Length (Ft.)	Thru Movements # Lanes	Thru Movements Vol.	Thru Movements Length (Ft.)	Right Turns # Lanes	Right Turns Vol.	Right Turns Length (Ft.)
Existing Lane Length	*1*	*122*	*150*	*2*	*227*	*Cont*	*1*	*42*	*150*
AM NO BUILD Queue	1	161	200	2	296	200	1	55	100
AM BUILD Queue	**1**	**162**	**200**	**2**	**301**	**200**	**1**	**56**	**100**
Existing Lane Length	*1*	*291*	*150*	*2*	*557*	*Cont*	*1*	*264*	*150*
PM NO BUILD Queue	1	384	500	2	727	**525**	1	345	475
PM BUILD Queue	**1**	**389**	**500**	**2**	**763**	**550**	**1**	**355**	**475**

Southbound Approach	Left Turns # Lanes	Left Turns Vol.	Left Turns Length (Ft.)	Thru Movements # Lanes	Thru Movements Vol.	Thru Movements Length (Ft.)	Right Turns # Lanes	Right Turns Vol.	Right Turns Length (Ft.)
Existing Lane Length	*1*	*197*	*175*	*2*	*374*	*Cont*	*0*	*160*	*0*
AM NO BUILD Queue	1	227	275	2	430	275	0	204	250
AM BUILD Queue	**1**	**227**	**275**	**2**	**465**	**300**	**0**	**204**	**250**
Existing Lane Length	*1*	*335*	*175*	*2*	*342*	*Cont*	*0*	*303*	*0*
PM NO BUILD Queue	1	385	500	2	393	325	0	381	500
PM BUILD Queue	**1**	**385**	**500**	**2**	**400**	**325**	**0**	**381**	**500**

	AM	PM
Cycle Length:	100	130

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

Intersection #2 - Singer Rd / Jefferson St - Pages A-45 thru A-49

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

Singer Rd / Jefferson St.	2009 No Build		2009 BUILD	
	A.M.	P.M.	A.M.	P.M.
Existing Geometry	C - 29.0	D - 45.2	C - 29.5	D - 49.7

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

Existing Geometry (Singer Rd / Jefferson St)

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

The analysis of the intersection of Singer Rd / Jefferson St 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 Jefferson Office Plaza 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: Jefferson Office Plaza (Jefferson Plaza / Jefferson St)
Intersection: **Singer Blvd / Jefferson St**

2009

Eastbound Approach	Left Turns # Lanes	Left Turns Vol.	Left Turns Length (Ft.)	Thru Movements # Lanes	Thru Movements Vol.	Thru Movements Length (Ft.)	Right Turns # Lanes	Right Turns Vol.	Right Turns Length (Ft.)
Existing Lane Length	*1*	*145*	*175*	*1*	*28*	*Cont*	*1*	*201*	*999*
AM NO BUILD Queue	1	162	200	1	31	75	1	225	275
AM BUILD Queue	**1**	**163**	**200**	**1**	**31**	**75**	**1**	**225**	**275**
Existing Lane Length	*1*	*212*	*175*	*1*	*63*	*Cont*	*1*	*428*	*999*
PM NO BUILD Queue	1	237	350	1	71	125	1	479	600
PM BUILD Queue	**1**	**237**	**350**	**1**	**71**	**125**	**1**	**479**	**600**

Westbound Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	*2*	*56*	*175*	*2*	*19*	*Cont*	*0*	*21*	*0*
AM NO BUILD Queue	2	63	75	2	21	25	0	24	50
AM BUILD Queue	**2**	**63**	**75**	**2**	**21**	**25**	**0**	**25**	**50**
Existing Lane Length	*2*	*193*	*175*	*2*	*35*	*Cont*	*0*	*53*	*0*
PM NO BUILD Queue	2	216	200	2	39	50	0	59	125
PM BUILD Queue	**2**	**216**	**200**	**2**	**39**	**50**	**0**	**59**	**125**

Northbound Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	*1*	*411*	*125*	*2*	*671*	*Cont*	*1*	*283*	*280*
AM NO BUILD Queue	1	421	450	2	687	400	1	290	325
AM BUILD Queue	**1**	**421**	**450**	**2**	**768**	**450**	**1**	**290**	**325**
Existing Lane Length	*1*	*210*	*125*	*2*	*386*	*Cont*	*1*	*156*	*280*
PM NO BUILD Queue	1	215	325	2	395	325	1	160	250
PM BUILD Queue	**1**	**215**	**325**	**2**	**412**	**325**	**1**	**160**	**250**

Southbound Approach	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)	# Lanes	Vol.	Length (Ft.)
Existing Lane Length	*1*	*34*	*130*	*2*	*387*	*Cont*	*0*	*134*	*0*
AM NO BUILD Queue	1	44	75	2	495	300	0	172	225
AM BUILD Queue	**1**	**44**	**75**	**2**	**506**	**325**	**0**	**172**	**225**
Existing Lane Length	*1*	*28*	*130*	*2*	*593*	*Cont*	*0*	*134*	*0*
PM NO BUILD Queue	1	36	75	2	759	**550**	0	172	275
PM BUILD Queue	**1**	**37**	**75**	**2**	**842**	**600**	**0**	**173**	**275**

	AM	PM
Cycle Length:	100	130

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

RESULTS OF UNSIGNALIZED INTERSECTION CAPACITY ANALYSES

IMPLEMENTATION YEAR (2009)

Intersection #3 - Jefferson Plaza / Jefferson St - Pages A-50 thru A-55

The results of the analysis of the unsignalized intersection of Jefferson Plaza / Jefferson St. are summarized in the following table:

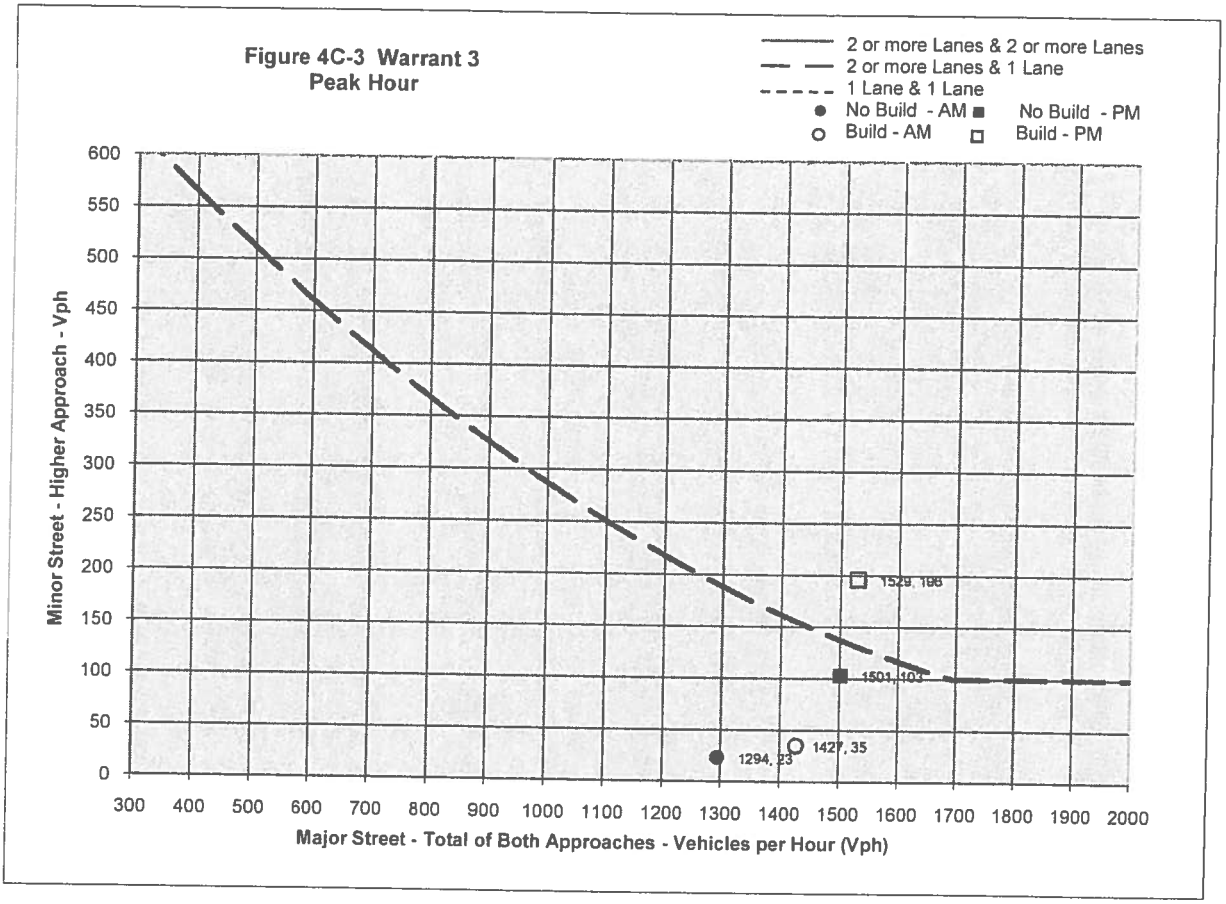
	2009 NO BUILD		2009 BUILD w/Park	
	AM	PM	AM	PM
Jefferson Plaza / Jefferson St.				
Minor Street (Jefferson Plaza)				
EB Left	C – 15.9	D – 27.5	C – 18.9	F – 86.4
EB Thru	C – 15.9	D – 27.5	C – 18.9	F – 86.4
EB Right	C – 15.9	D – 27.5	C – 18.9	F – 86.4
Minor Street (Jefferson Plaza)				
WB Left	C – 19.3	C – 16.7	D – 26.3	C – 18.3
WB Thru	C – 19.3	C – 16.7	D – 26.3	C – 18.3
WB Right	C – 19.3	C – 16.7	D – 26.3	C – 18.3
Major Street (Jefferson St)				
NB Left	A – 9.7	A – 9.3	B – 10.7	A – 9.5
SB Left	A – 8.7	A – 9.8	A – 8.7	A – 9.8

This analysis indicates that the intersection of Jefferson Plaza / Jefferson St. will operate at satisfactory levels-of-service for all conditions analyzed in this study except for the projected 2009 PM Peak Hour BUILD Condition. The long delays expected during the PM Peak Hour BUILD Conditions give cause to evaluate the intersection to see if the warrants are met for a traffic signal based on the Peak Hour Warrant Analysis in the Manual on Uniform Traffic Control Devices. The following graph demonstrates the projected 2009 NO BUILD and BUILD Volumes plotted on the Peak Hour Warrant graph utilizing a 50% reduction for the right turn movements:

Project Name	Analysis Year Traffic Volumes					
Jefferson Plaza Office Development	**AM**	Major	Minor	**PM**	Major	Minor
Intersection	No Build	1294	23	No Build	1501	103
Jefferson Plaza / Jefferson St.						
Analysis Year	Build	1427	35	Build	1529	196
2009						

Number of Lanes

Major St.	2
Minor St.	1



Technically, the preceding graph demonstrates that there will be sufficient volume at the intersection to satisfy the Peak Hour Warrant criteria. However, with a projected delay on the side street of approximately 86 seconds, this study does not recommend a traffic signal at this location. The Peak Hour Warrant is primarily for side streets with excessive delays during the peak hour. This intersection is not characterized by excessive delays on the side street. There are likely other driveways on Jefferson St. in this area with long delays that do not have traffic signals.

Intersection #4 - Jefferson Plaza / Driveway 'A' - Pages A-56 thru A-58

The results of the analysis of the unsignalized intersection of Jefferson Plaza / Driveway 'A'. are summarized in the following table:

	2009 BUILD w/Park	
	AM	PM
Jefferson Plaza / Driveway 'A'.		
Minor Street (Driveway 'A')		
SB Left	B – 10.5	B – 10.5
SB Right	B – 10.5	B – 10.5
Major Street (Jefferson Plaza)		
EB Left	A – 8.0	A – 7.3

This analysis indicates that the intersection of Jefferson Plaza / Driveway 'A' will operate at satisfactory levels-of-service for the all conditions analyzed in this study.

Intersection #5 - Jefferson Plaza / Driveway "B" - Pages A-59 thru A-60a

The results of the analysis of the unsignalized intersection of Jefferson Plaza / Driveway "B" are summarized in the following table:

	2009 BUILD w/Park	
	AM	PM
Jefferson Plaza / Driveway "B"		
Minor Street (Driveway "B")		
SB Left	A – 9.9	A – 9.7
SB Right	A – 9.9	A – 9.7
Major Street (Jefferson Plaza)		
EB Left	A – 7.7	A – 7.3

This analysis indicates that the intersection of Jefferson Plaza / Driveway 'B' will operate at satisfactory levels-of-service for the all conditions analyzed in this study.

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 Subareas citywide. Growth rates of background traffic volumes were established from historical data from 2001 through 2005; 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 intersection of Osuna Rd. / Jefferson St. that should be improved when the City constructs the Osuna Rd. widening project in 2011 to implement a third eastbound and a third westbound thru lane on Osuna Rd. from Edith Blvd. through Jefferson St. The City's improvement plan for the intersection of Osuna Rd. / Jefferson St. should meet the minimum recommendations of this study if at all possible.

In summary, the proposed 2009 development plan for the Jefferson Office Plaza facility at Jefferson Plaza / Jefferson St will present no significant adverse impact to the adjacent transportation system provided that the following recommendations are followed:

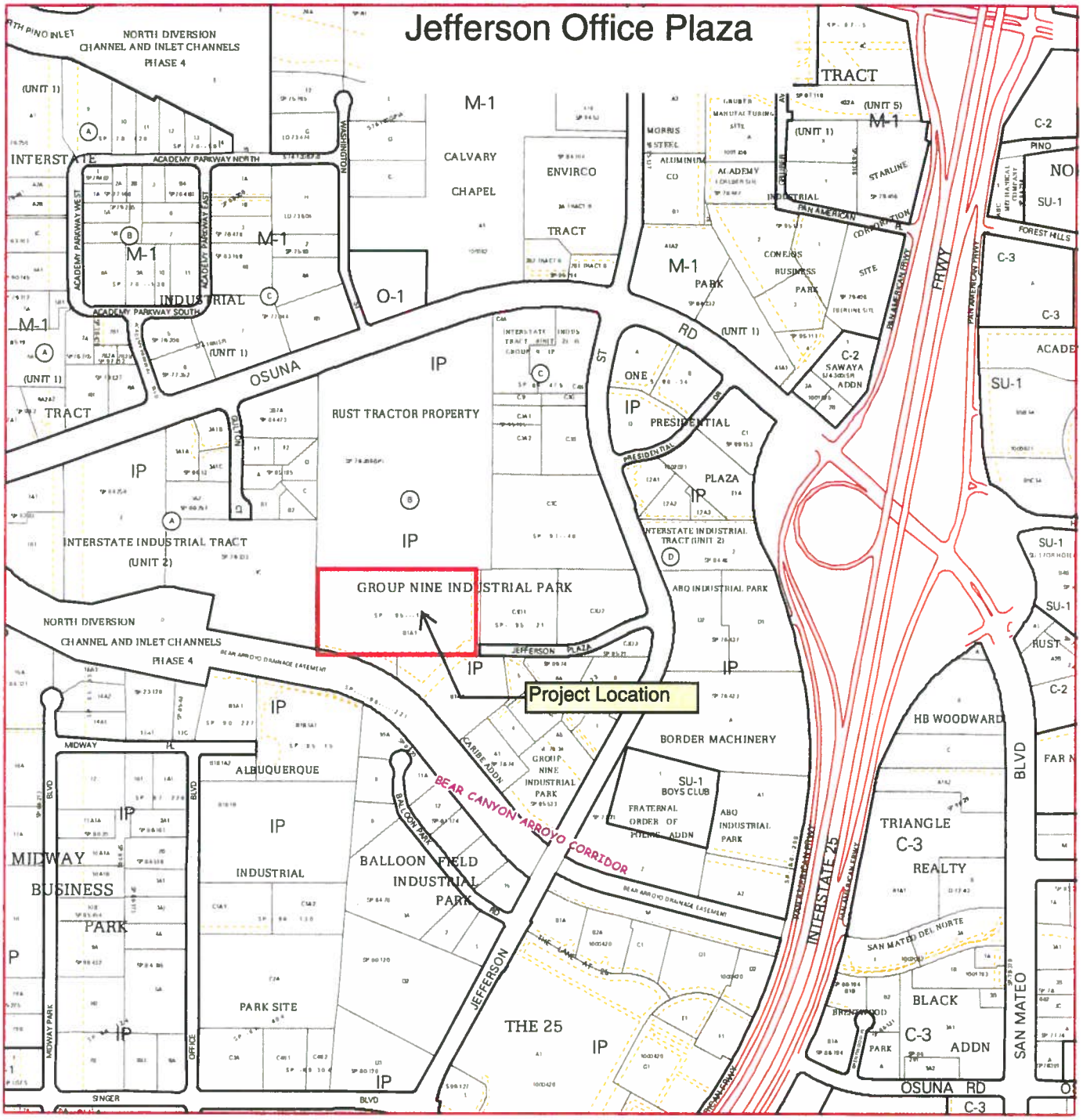
RECOMMENDATIONS

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. / Jefferson St.** – Construct a fourth eastbound thru lane on Osuna Rd. (to create a thru/right turn lane), a third westbound thru lane on Osuna Rd., and a southbound right turn lane on Jefferson St. (See discussion on Page 6). The trips generated by the proposed Jefferson Office Plaza comprises only about 1% of the overall 2009 projected BUILD traffic volumes at the intersection of Osuna Rd. / Jefferson St.
- **Jefferson Plaza / Jefferson St.** – This study does not recommend that a traffic signal be constructed at the intersection of Jefferson Plaza / Jefferson St. However, to mitigate the moderately long delays anticipated for the eastbound traffic on Jefferson Plaza at Jefferson St., it is recommended that the eastbound approach be striped to incorporate an exclusive eastbound left turn lane and a thru / right turn lane if sufficient right-of-way exists. The eastbound left turn lane should be constructed to a length of 100 feet plus transition. The projected eastbound left turn queue length is less than 100 feet.
- **Driveway "A"** – Driveway "A" is recommended to be a full access unsignalized driveway on Jefferson Plaza. Driveway "A" may be constructed with one exiting lane (for left turns and right turns) and one entering lane.
- **Driveway "B"** – Driveway "B" is recommended to be a full access unsignalized driveway on Jefferson Plaza. Driveway "B" may be constructed with one exiting lane (for left turns and right turns) and one entering lane.
- All driveways should be constructed utilizing 25 feet curb returns or larger if needed to accommodate large delivery trucks.
- All driveways shall be designed and constructed to meet the City of Albuquerque Development Process Manual (D.P.M) standards.

Appendix

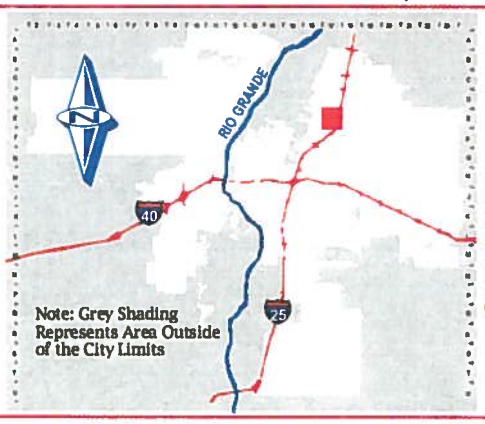
Jefferson Office Plaza



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

AGIS
Albuquerque Geographic Information System

Map amended through: 9/5/2006



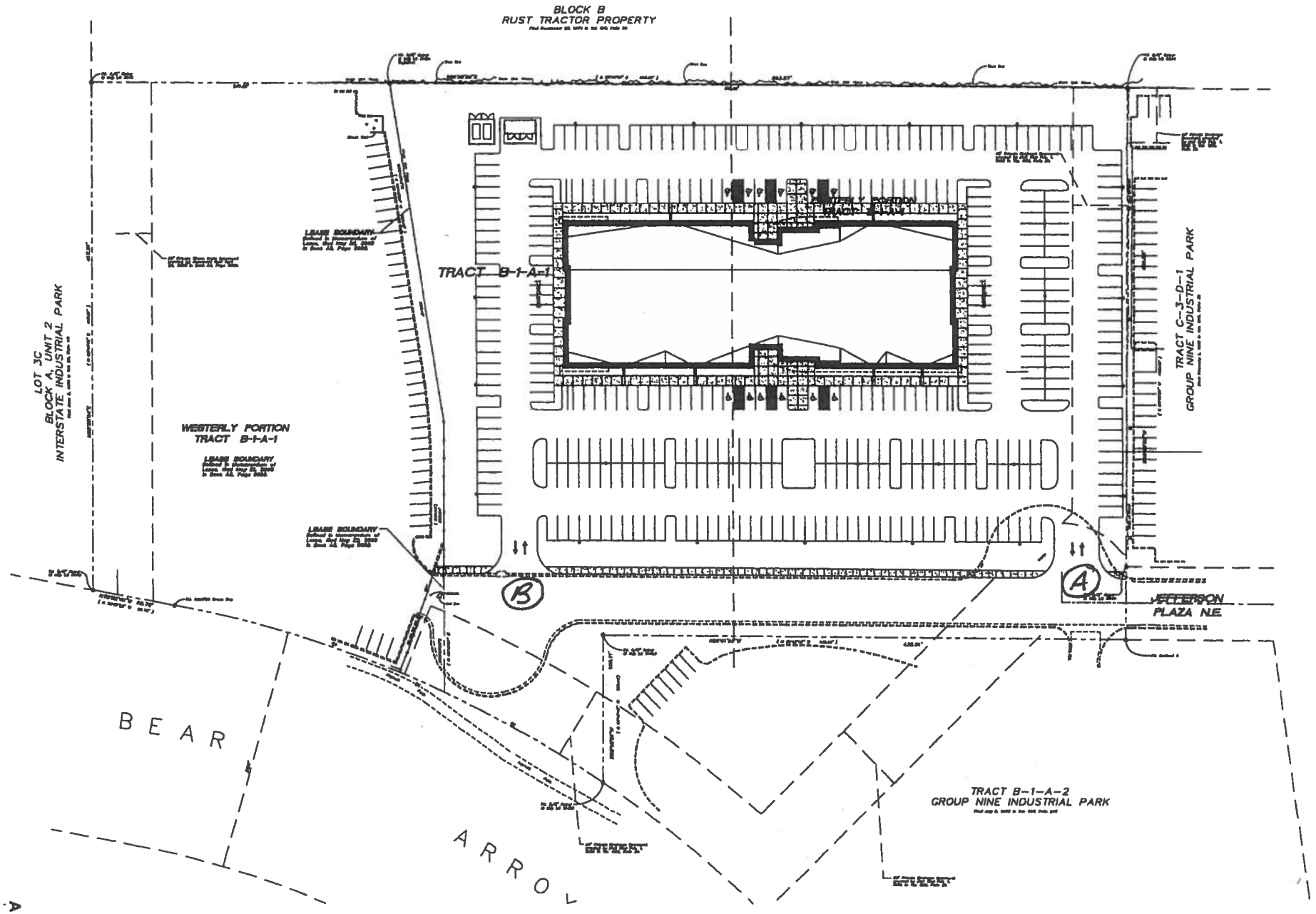
Zone Atlas Page:

E-17-Z

Selected Symbols

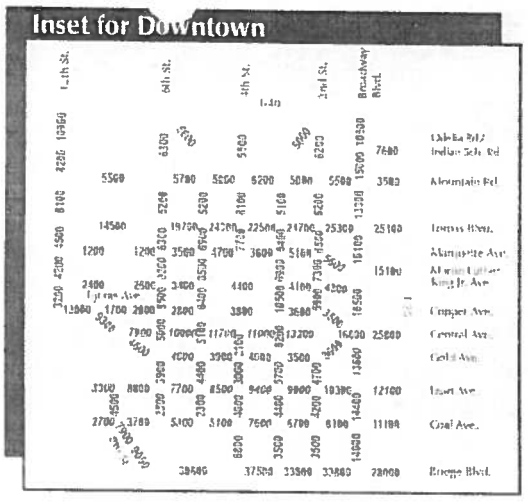
- SECTOR PLANS
- Design Overlay Zones
- City Historic Zones
- H-1 Buffer Zone
- Petroglyph Mon.
- Escarpment
- 2 Mile Airport Zone
- Airport Noise Contours
- Wall Overlay Zone

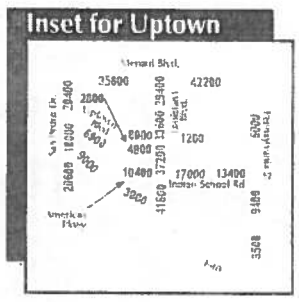
0 750 1,500 Feet

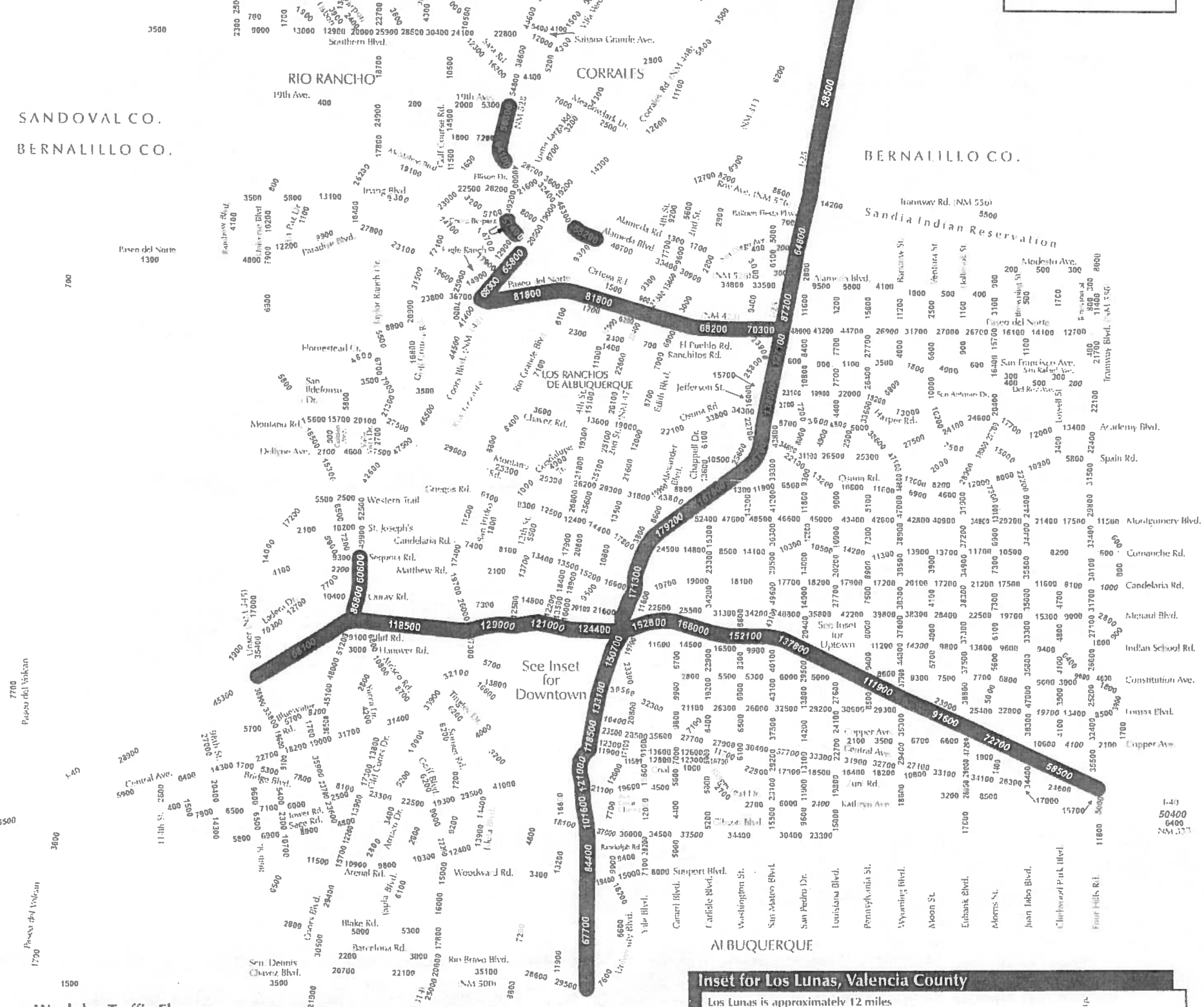

BLOCK B
RUST TRACTOR PROPERTY
TRACT B-1-A-1
LOT 3C
BLOCK A, UNIT 2
INTERSTATE INDUSTRIAL PARK
WESTERLY PORTION
TRACT B-1-A-1
LEASE BOUNDARY
TRACT C-3-D-1
GROUP NINE INDUSTRIAL PARK
JEFFERSON
PLAZA N.E.
B
A
BEAR
ARROYO
TRACT B-1-A-2
GROUP NINE INDUSTRIAL PARK

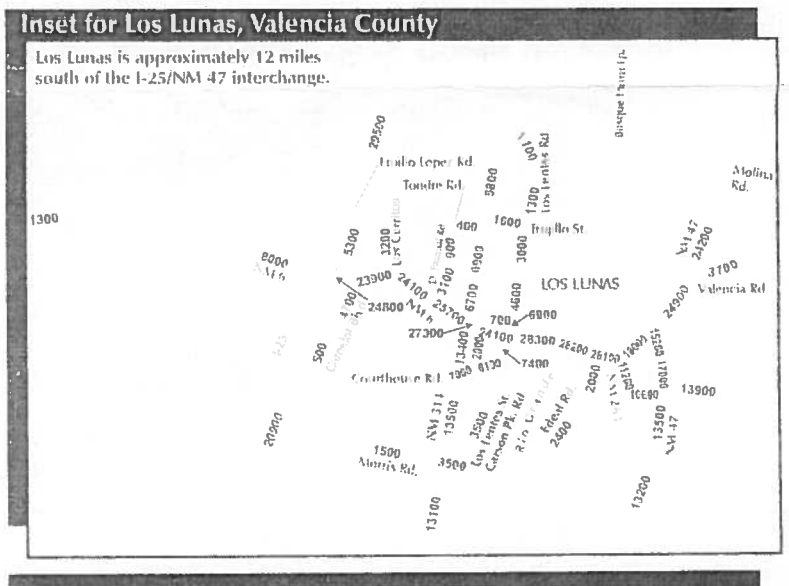
Jefferson Office Plaza

Jefferson Plaza / Jefferson St
Aerial Photo









Average Weekday Traffic Flows

0 - 900	
1000 - 4900	
5000 - 14900	
15000 - 24900	
25000 - 34900	
35000 - 44900	
45000 - 54900	
55000 - 184900	

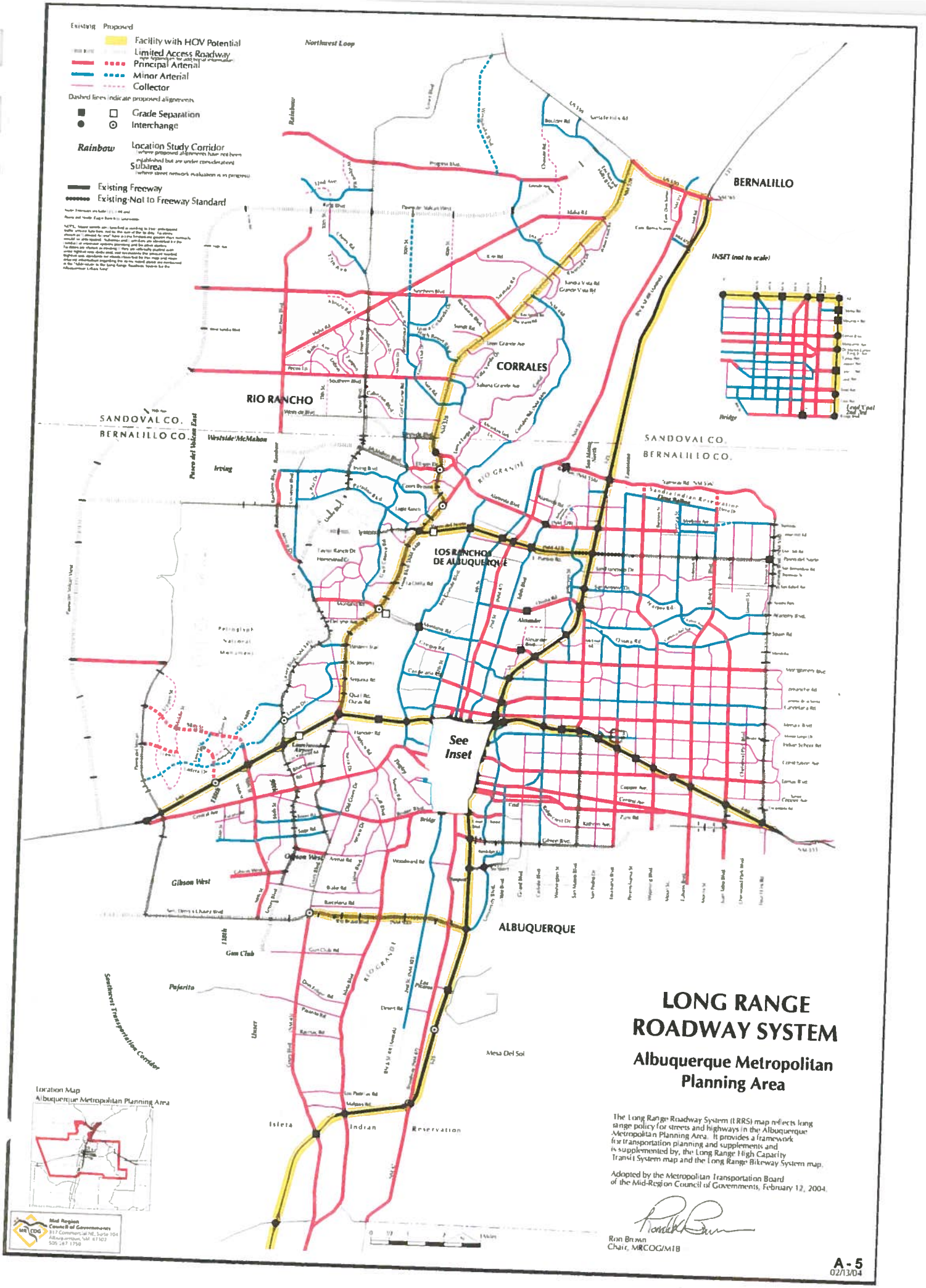
Standard Data 9500 — Link Volume is based on traffic count data accepted by the NM Department of Transportation Traffic Monitoring System (TMS) as standard in accordance with the New Mexico State Traffic Monitoring Standards (NMSTMS).

Non-Standard Data *9500* — Link Volume is based either on traffic count data not in compliance with the NMSTMS or on professional judgement. NMDOT recommends that nonstandard data be used with caution.

0 1 2 3 4 Miles

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

2005 Traffic Flows
for the Greater Albuquerque Area


Existing Proposed
Facility with HOV Potential
Limited Access Roadway
Principal Arterial
Minor Arterial
Collector
Dashed lines indicate proposed alignments
Grade Separation
Interchange
Rainbow
Location Study Corridor
Subarea
Existing Freeway
Existing-Not to Freeway Standard
Northwest Loop
BERNALILLO
INSET (not to scale)
CORRALES
RIO RANCHO
SANDOVAL CO.
BERNALILLO CO.
Westside/McMahon
Irving
Paseo del Volcan East
RIO GRANDE
LOS RANCHOS DE ALBUQUERQUE
See Inset
Gibson West
ALBUQUERQUE
Gun Club
Pajarito
Southwest Transportation Corridor
Unser
Mesa Del Sol
Isleta
Indian
Reservation
Location Map
Albuquerque Metropolitan Planning Area
Mid-Region Council of Governments
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
A - 5
02/13/04

Jefferson Office Plaza (Jefferson Plaza West of Jefferson St.)

Trip Generation Data

USE (ITE CODE)		24 HOUR TWO-WAY VOLUME	A.M. PEAK HOUR		P.M. PEAK HOUR	
		GROSS	ENTER	EXIT	ENTER	EXIT
General Office Building (710)	Units					
	76.00	1,080	133	18	28	136
	1,000 S.F.					

ITE Trip Generation Equations:

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

Ln(T) = *0.77* Ln(X) + *3.65*
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)

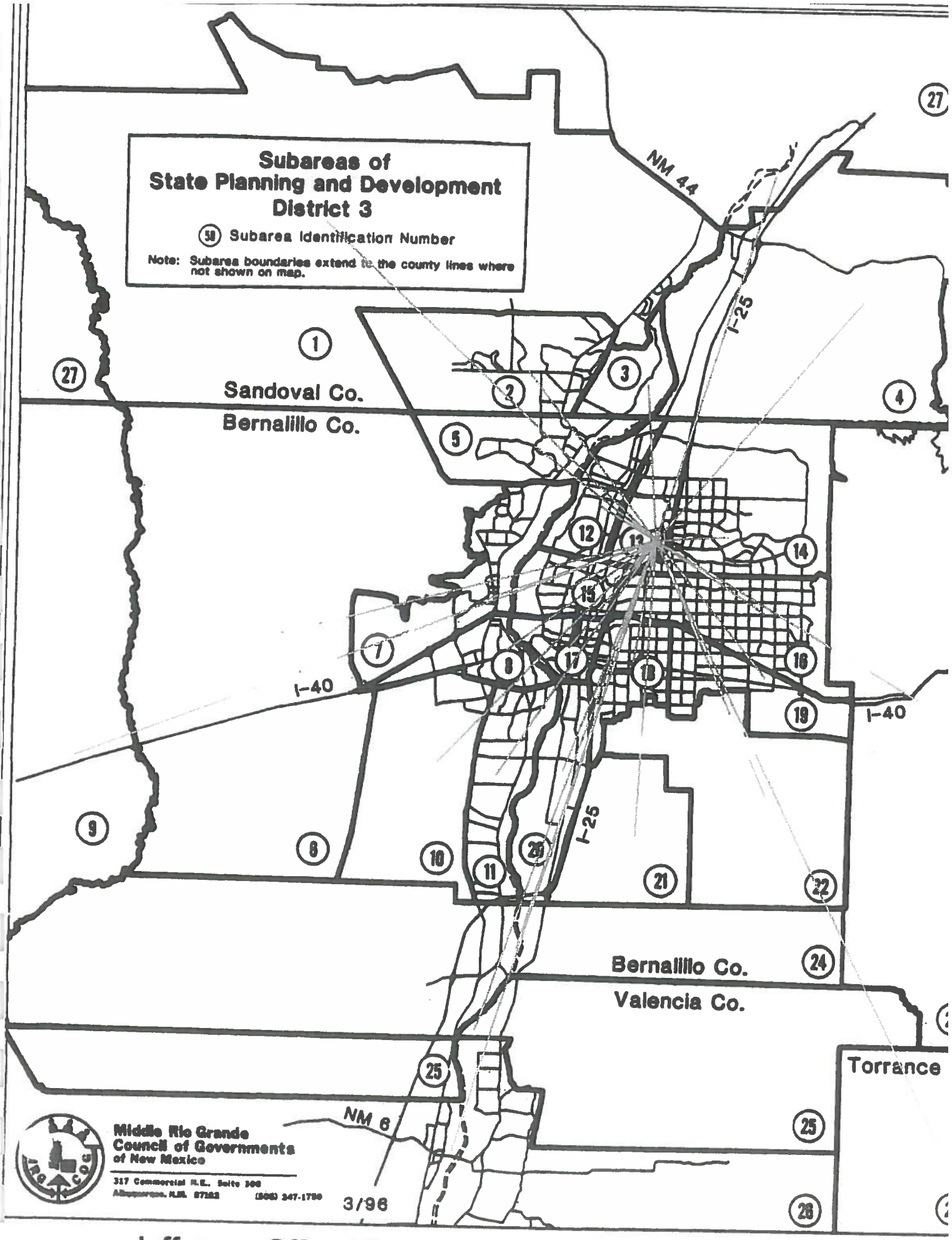
Ln(T) = *0.8* Ln(X) + *1.55*
88% Enter, *12%* Exit

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

T = *1.12* (X) + *78.81*
17% Enter, *83%* Exit

Comments:
Tract No.

Based on ITE Trip Generation Manual - 7th Edition



Jefferson Office Plaza (Jefferson Plaza / Jefferson St)

Trip Distribution - Subarea Map

Figure

Trip Distribution Table

Jefferson Office Plaza

Sub Area Population Data:
For determination of Trip Distribution for Proposed Office 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)

									(JN) Jefferson St North			(OE) Osuna Rd East			(JS) Jefferson St South		
Sub Area I.D.#	% Sub Area in Study	2005 Population	2010 Population	Interpolated Population for the Year	Population in Study	Dist. (Mi.)	Population / Distance	% Population / Distance	% Utilizing	% Population / Dist. Utilizing	Population	% Utilizing	% Population / Dist. Utilizing	Population	% Utilizing	% Population / Dist. Utilizing	Population
		2005	2010	2009													
1	100%	26,972	39,738	37,185	2,009	22.71	88	0.08%	20%	0.02%	18	60%	0.06%	71	0%	0.00%	0
2	100%	39,348	40,610	40,358	37,185	10.52	3,535	3.19%	80%	2.55%	2,828	20%	0.64%	707	0%	0.00%	0
3	100%	7,865	8,728	8,555	8,555	7.71	1,110	1.00%	80%	0.80%	888	20%	0.20%	222	0%	0.00%	0
4	100%	13,387	14,936	14,626	14,626	15.61	937	0.85%	20%	0.17%	187	80%	0.68%	750	0%	0.00%	0
5	100%	35,988	44,203	42,556	42,556	7.57	5,621	5.07%	80%	4.06%	4,497	20%	1.01%	1,124	0%	0.00%	0
6	100%	2,784	3,950	3,717	3,717	19.10	195	0.18%	0%	0.00%	0	10%	0.02%	19	90%	0.16%	175
7	100%	48,565	59,615	57,405	57,405	8.78	6,540	5.90%	0%	0.00%	0	10%	0.59%	654	90%	5.31%	5,886
8	100%	27,546	28,553	28,352	28,352	9.11	3,111	2.81%	0%	0.00%	0	10%	0.28%	311	90%	2.53%	2,800
9	100%	1,678	1,888	1,846	1,846	30.49	61	0.05%	0%	0.00%	0	10%	0.01%	6	90%	0.05%	54
10	100%	39,532	4,822	11,764	11,764	15.75	747	0.67%	0%	0.00%	0	10%	0.07%	75	90%	0.61%	672
11	100%	32,051	33,202	32,972	32,972	13.94	2,366	2.14%	0%	0.00%	0	10%	0.21%	237	90%	1.92%	2,129
12	100%	16,144	16,146	16,146	16,146	3.28	4,918	4.44%	50%	2.22%	2,459	0%	0.00%	0	0%	0.00%	0
13*	100%	8,715	10,146	9,860	9,860	1.01	9,811	8.86%	49%	4.34%	4,807	9%	0.80%	883	11%	0.97%	1,079
14	100%	93,104	94,279	94,044	94,044	3.62	25,993	23.47%	50%	11.73%	12,997	0%	0.00%	0	50%	11.73%	12,997
15	100%	24,891	25,262	25,148	25,148	4.76	5,286	4.77%	0%	0.00%	0	0%	0.00%	0	100%	4.77%	5,286
16	100%	108,882	108,353	108,459	108,459	6.57	16,518	14.91%	0%	0.00%	0	0%	0.00%	0	100%	14.91%	16,518
17	100%	20,920	21,196	21,141	21,141	6.77	3,124	2.82%	0%	0.00%	0	10%	0.28%	312	90%	2.54%	2,812
18	100%	42,078	41,670	41,752	41,752	6.10	6,848	6.18%	0%	0.00%	0	10%	0.62%	685	90%	5.56%	6,163
19	100%	59,027	58,888	58,916	58,916	8.78	6,713	6.06%	0%	0.00%	0	10%	0.61%	671	90%	5.45%	6,041
20	100%	9,482	9,699	9,656	9,656	12.19	792	0.71%	0%	0.00%	0	10%	0.07%	79	90%	0.64%	713
21	100%	6	6	6	6	14.67	0	0.00%	0%	0.00%	0	10%	0.00%	0	90%	0.00%	0
22	100%	4,231	3,629	3,749	3,749	13.87	270	0.24%	0%	0.00%	0	10%	0.02%	27	90%	0.22%	243
23	100%	18,140	20,390	19,940	19,940	15.28	1,305	1.18%	0%	0.00%	0	10%	0.12%	131	90%	1.06%	1,175
24	100%	2,393	2,554	2,522	2,522	21.17	119	0.11%	0%	0.00%	0	10%	0.01%	12	90%	0.10%	107
25	100%	1,009	1,062	1,051	1,051	25.66	41	0.04%	0%	0.00%	0	10%	0.00%	4	90%	0.03%	37
26	100%	75,506	85,654	83,624	83,624	31.62	2,644	2.39%	0%	0.00%	0	10%	0.24%	264	90%	2.15%	2,380
27	100%	20,955	22,276	22,012	22,012	18.89	1,165	1.05%	20%	0.21%	233	80%	0.84%	932	0%	0.00%	0
28	100%	19,524	21,690	21,257	21,257	32.90	646	0.58%	0%	0.00%	0	10%	0.06%	65	90%	0.52%	582
29	100%	11,360	13,771	13,289	13,289	49.98	266	0.24%	20%	0.05%	53	80%	0.19%	213	0%	0.00%	0
		811,863	836,916	831,905	793,557		110,772	100.00%		28.15%	28,967		7.63%	8,454		61.25%	67,851
											26.15%			7.63%			61.25%

* - Subarea in which the site it located.

Trip Distribution Table

Jefferson Office Plaza

Sub Area Population Data:
For determination of Trip Distribution for Proposed Office 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)

								(SW) Singer Blvd West			(OW) Ostina 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
		2005	2010	2009									
1	100%	26,972	39,738	37,185	2,009	22.71	88	0%	0.00%	0	0%	0.00%	0
2	100%	39,348	40,610	40,358	37,185	10.52	3,535	0%	0.00%	0	0%	0.00%	0
3	100%	7,865	8,728	8,555	8,555	7.71	1,110	0%	0.00%	0	0%	0.00%	0
4	100%	13,387	14,936	14,626	14,626	15.61	937	0%	0.00%	0	0%	0.00%	0
5	100%	35,968	44,203	42,556	42,556	7.57	5,621	0%	0.00%	0	0%	0.00%	0
6	100%	2,784	3,950	3,717	3,717	19.10	195	0%	0.00%	0	0%	0.00%	0
7	100%	48,565	59,615	57,405	57,405	8.78	6,540	0%	0.00%	0	0%	0.00%	0
8	100%	27,546	28,553	28,352	28,352	9.11	3,111	0%	0.00%	0	0%	0.00%	0
9	100%	1,678	1,888	1,846	1,846	30.49	61	0%	0.00%	0	0%	0.00%	0
10	100%	39,532	4,822	11,764	11,764	15.75	747	0%	0.00%	0	0%	0.00%	0
11	100%	32,051	33,202	32,972	32,972	13.94	2,366	0%	0.00%	0	0%	0.00%	0
12	100%	16,144	16,146	16,146	16,146	3.28	4,918	0%	0.00%	0	0%	0.00%	0
13*	100%	8,715	10,146	9,860	9,860	1.01	9,811	0%	0.00%	0	50%	2.22%	2,459
14	100%	93,104	94,279	94,044	94,044	3.62	25,993	0%	0.53%	589	10%	1.42%	1,570
15	100%	24,691	25,262	25,148	25,148	4.76	5,286	0%	0.00%	0	0%	0.00%	0
16	100%	108,882	108,353	108,459	108,459	6.57	16,518	0%	0.00%	0	0%	0.00%	0
17	100%	20,920	21,196	21,141	21,141	6.77	3,124	0%	0.00%	0	0%	0.00%	0
18	100%	42,078	41,670	41,752	41,752	6.10	6,848	0%	0.00%	0	0%	0.00%	0
19	100%	59,027	58,888	58,916	58,916	8.78	6,713	0%	0.00%	0	0%	0.00%	0
20	100%	9,482	9,699	9,656	9,656	12.19	792	0%	0.00%	0	0%	0.00%	0
21	100%	6	6	6	6	14.67	0	0%	0.00%	0	0%	0.00%	0
22	100%	4,231	3,629	3,749	3,749	13.87	270	0%	0.00%	0	0%	0.00%	0
23	100%	18,140	20,390	19,940	19,940	15.28	1,305	0%	0.00%	0	0%	0.00%	0
24	100%	2,393	2,554	2,522	2,522	21.17	119	0%	0.00%	0	0%	0.00%	0
25	100%	1,009	1,062	1,051	1,051	25.66	41	0%	0.00%	0	0%	0.00%	0
26	100%	75,506	85,654	83,624	83,624	31.62	2,644	0%	0.00%	0	0%	0.00%	0
27	100%	20,955	22,276	22,012	22,012	18.89	1,165	0%	0.00%	0	0%	0.00%	0
28	100%	19,524	21,690	21,257	21,257	32.90	646	0%	0.00%	0	0%	0.00%	0
29	100%	11,360	13,771	13,289	13,289	49.98	266	0%	0.00%	0	0%	0.00%	0
		811,863	836,916	831,905	793,557		110,772		0.53%	589		3.64%	4,029
										0.53%			3.64%

* - Subarea in which the site it located.

Trip Distribution Table

Jefferson Office Plaza

Sub Area Population Data:
For determination of Trip Distribution for Proposed **Office 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)

								(JC) Jefferson St Central			(SE) Singer Blvd East		
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
		2005	2010	2009									
1	100%	26,972	39,738	37,185	2,009	22.71	88	0%	0.00%	0	0%	0.00%	0
2	100%	39,348	40,610	40,358	37,185	10.52	3,535	0%	0.00%	0	0%	0.00%	0
3	100%	7,865	8,728	8,555	8,555	7.71	1,110	0%	0.00%	0	0%	0.00%	0
4	100%	13,387	14,936	14,626	14,626	15.61	937	0%	0.00%	0	0%	0.00%	0
5	100%	35,968	44,203	42,556	42,556	7.57	5,621	0%	0.00%	0	0%	0.00%	0
6	100%	2,784	3,950	3,717	3,717	19.10	195	0%	0.00%	0	0%	0.00%	0
7	100%	48,565	59,615	57,405	57,405	8.78	6,540	0%	0.00%	0	0%	0.00%	0
8	100%	27,546	28,553	28,352	28,352	9.11	3,111	0%	0.00%	0	0%	0.00%	0
9	100%	1,678	1,888	1,846	1,846	30.49	61	0%	0.00%	0	0%	0.00%	0
10	100%	39,532	4,822	11,764	11,764	15.75	747	0%	0.00%	0	0%	0.00%	0
11	100%	32,051	33,202	32,972	32,972	13.94	2,366	0%	0.00%	0	0%	0.00%	0
12	100%	16,144	16,146	16,146	16,146	3.28	4,918	0%	0.00%	0	0%	0.00%	0
13*	100%	8,715	10,146	9,860	9,860	1.01	9,811	0%	0.00%	0	0%	0.00%	0
14	100%	93,104	94,279	94,044	94,044	3.62	25,993	4%	0.35%	392	5%	0.44%	491
15	100%	24,691	25,262	25,148	25,148	4.76	5,286	0%	0.00%	0	0%	0.00%	0
16	100%	108,882	108,353	108,459	108,459	6.57	16,518	0%	0.00%	0	0%	0.00%	0
17	100%	20,920	21,196	21,141	21,141	6.77	3,124	0%	0.00%	0	0%	0.00%	0
18	100%	42,078	41,670	41,752	41,752	6.10	6,848	0%	0.00%	0	0%	0.00%	0
19	100%	59,027	58,888	58,916	58,916	8.78	6,713	0%	0.00%	0	0%	0.00%	0
20	100%	9,482	9,699	9,656	9,656	12.19	792	0%	0.00%	0	0%	0.00%	0
21	100%	6	6	6	6	14.67	0	0%	0.00%	0	0%	0.00%	0
22	100%	4,231	3,629	3,749	3,749	13.87	270	0%	0.00%	0	0%	0.00%	0
23	100%	18,140	20,390	19,940	19,940	15.28	1,305	0%	0.00%	0	0%	0.00%	0
24	100%	2,393	2,554	2,522	2,522	21.17	119	0%	0.00%	0	0%	0.00%	0
25	100%	1,009	1,062	1,051	1,051	25.66	41	0%	0.00%	0	0%	0.00%	0
26	100%	75,506	85,654	83,624	83,624	31.62	2,644	0%	0.00%	0	0%	0.00%	0
27	100%	20,955	22,276	22,012	22,012	18.89	1,165	0%	0.00%	0	0%	0.00%	0
28	100%	19,524	21,690	21,257	21,257	32.90	646	0%	0.00%	0	0%	0.00%	0
29	100%	11,360	13,771	13,289	13,289	49.98	266	0%	0.00%	0	0%	0.00%	0
		811,863	836,916	831,905	793,557		110,772		0.35%	392		0.44%	491
										0.35%			0.44%

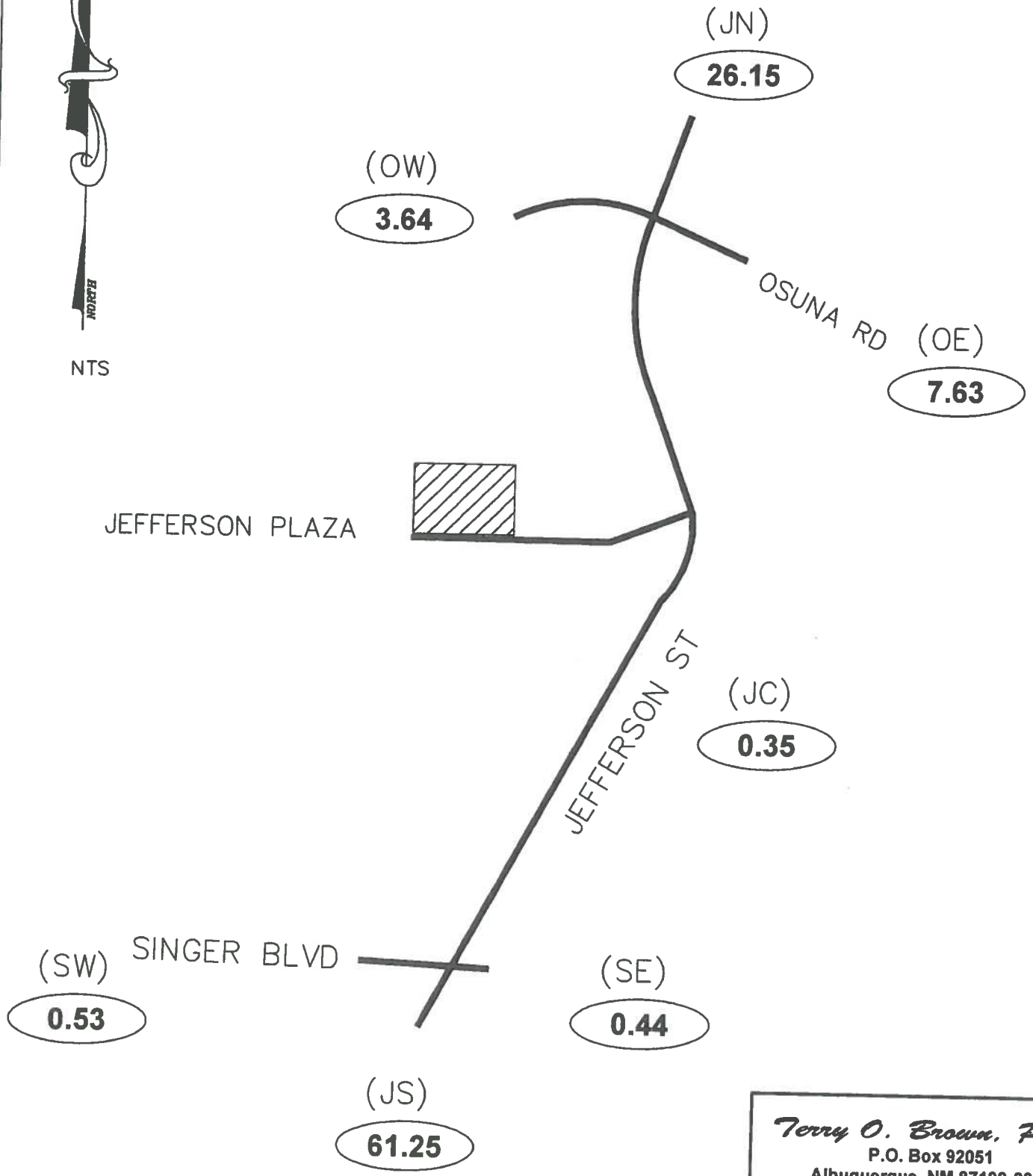
* - Subarea in which the site it located.

Jefferson Office Plaza

(Jefferson St / Jefferson Plaza)

Trip Distribution Map (%)

NTS



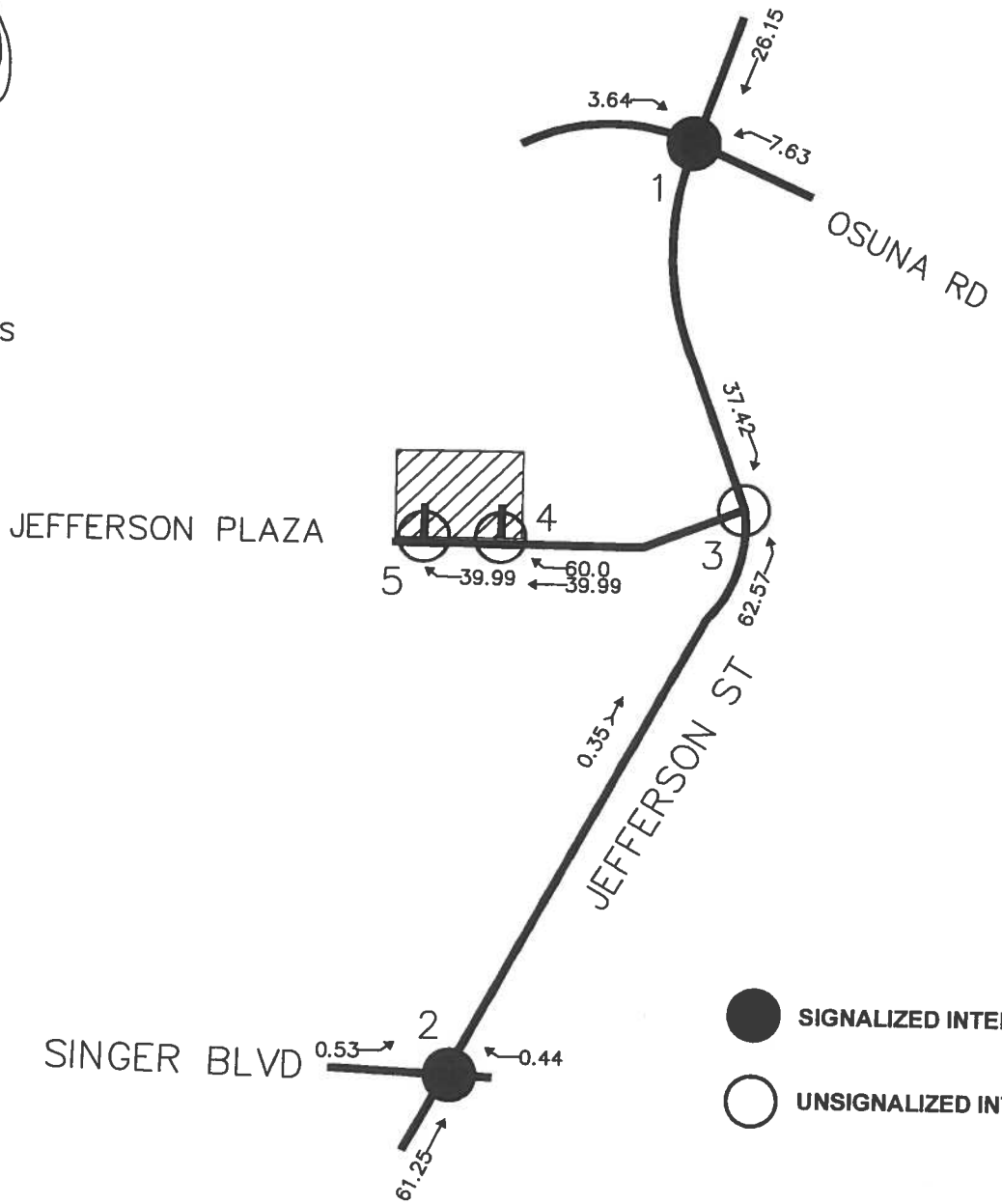
Terry O. Brown, P.E.
P.O. Box 92051
Albuquerque, NM 87199-2051
(505)883-8807 (Voice)
(505)212-0267 (Fax)

Jefferson Office Plaza

(Jefferson St / Jefferson Plaza)

Trip Assignments (% Entering)

NTS



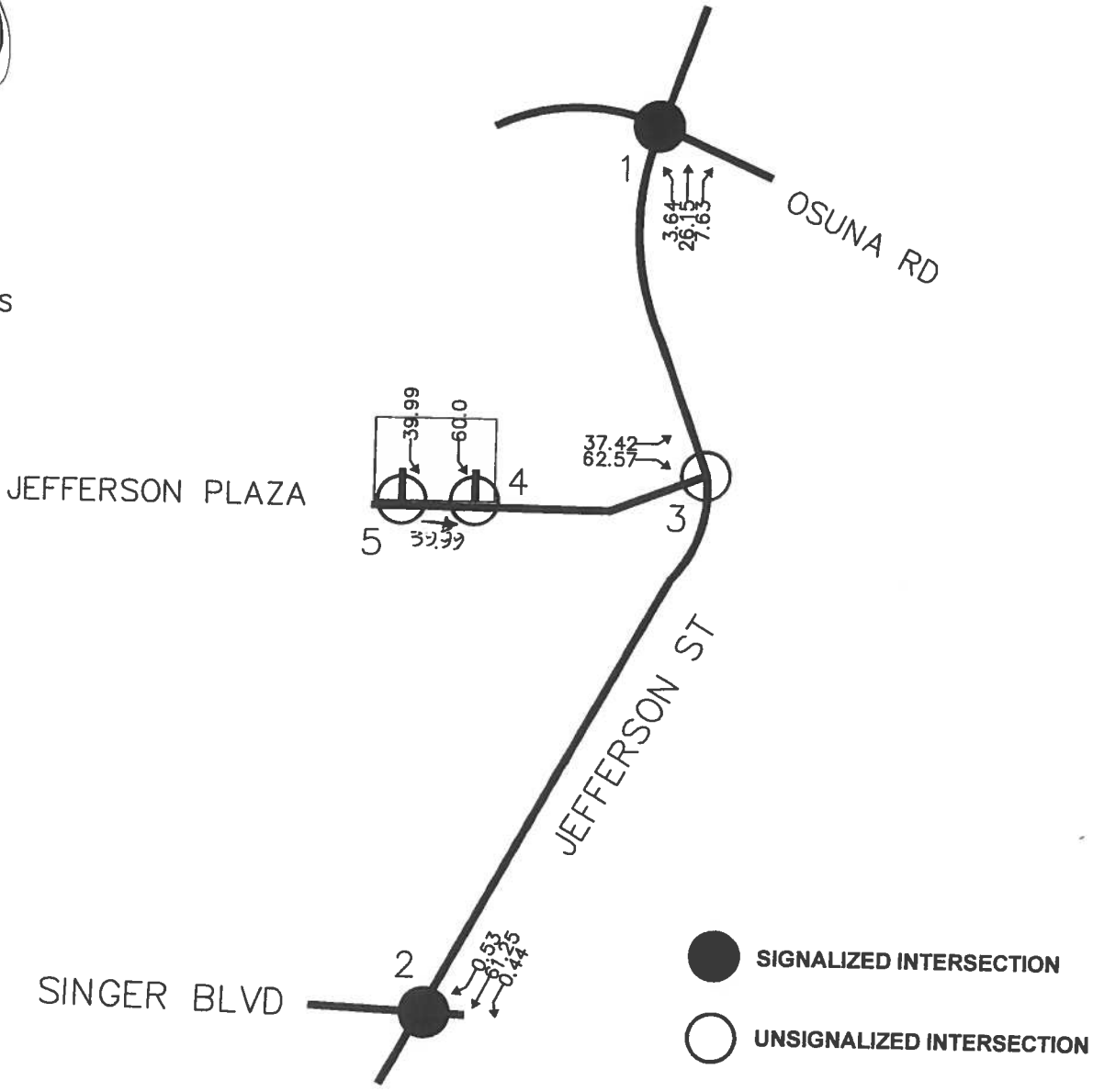
Terry O. Brown, P.E.
P.O. Box 92051
Albuquerque, NM 87199-2051
(505)883-8807 (Voice)
(505)212-0267 (Fax)

Jefferson Office Plaza

(Jefferson St / Jefferson Plaza)

Trip Assignments (% Exiting)

NTS



Terry O. Brown, P.E.
P.O. Box 92051
Albuquerque, NM 87199-2051
(505)883-8807 (Voice)
(505)212-0267 (Fax)

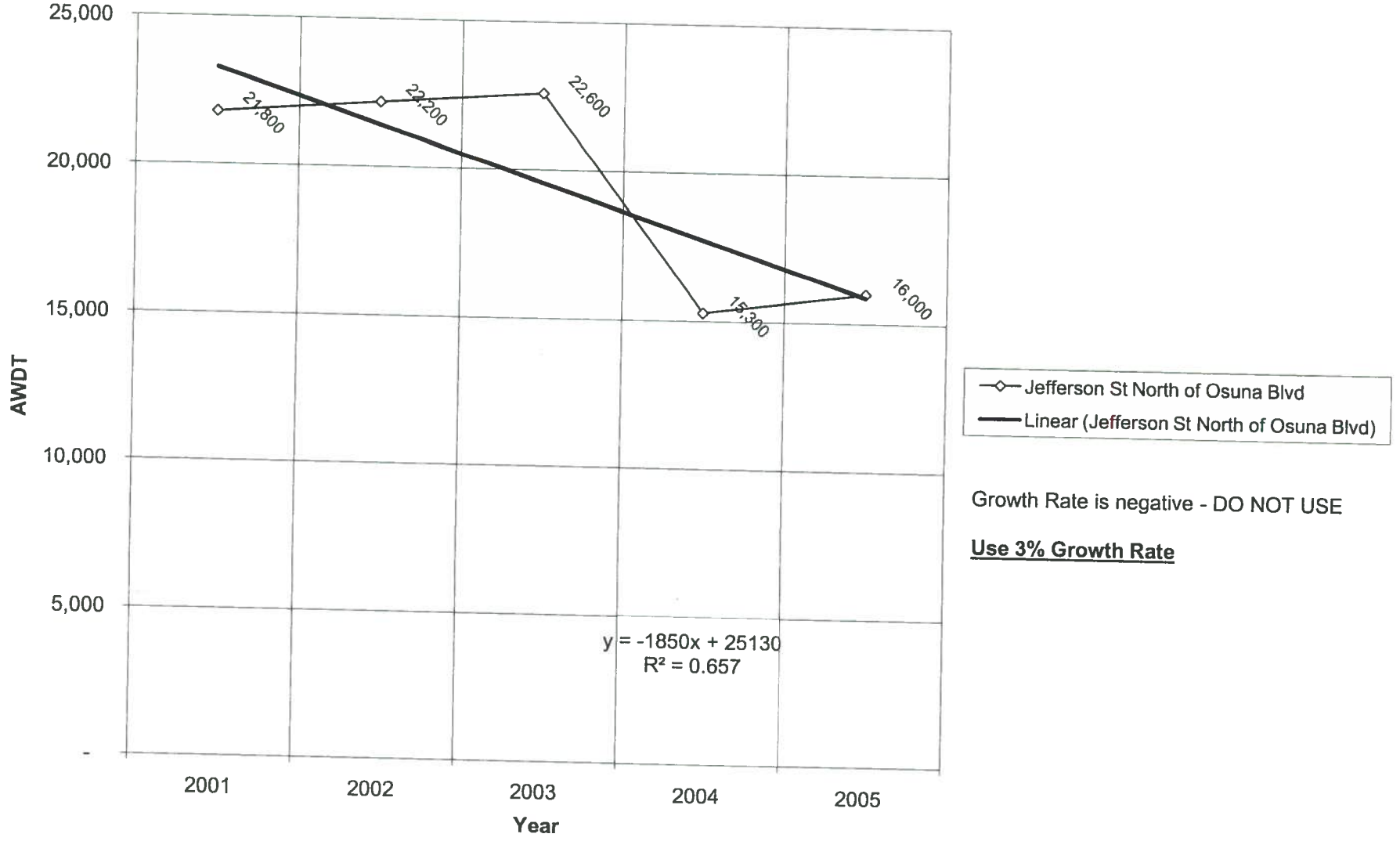
Jefferson Office Plaza (Jefferson Plaza / Jefferson St)

Historic Growth Rate Table

Traffic Flows from MRCOG Map

	2001	2002	2003	2004	2005
Jefferson St North of Osuna Blvd	21,800	22,200	22,600	15,300	16,000
Osuna Blvd East of Jefferson St	31,100	31,900	32,300	33,400	34,300
Jefferson St South of Osuna Blvd	16,100	15,000	15,200	15,700	22,700
Jefferson St North of Singer Rd	19,200	19,600	19,900	24,800	25,600
Singer Rd West of Jefferson St	-	-	10,700	10,600	10,500
Osuna Blvd West of Jefferson St	28,700	29,300	29,700	32,300	33,800
Jefferson St South of Singer Rd	13,800	14,000	14,200	14,100	14,200

Historic Growth Chart Jefferson St North of Osuna Blvd (2001-2005)

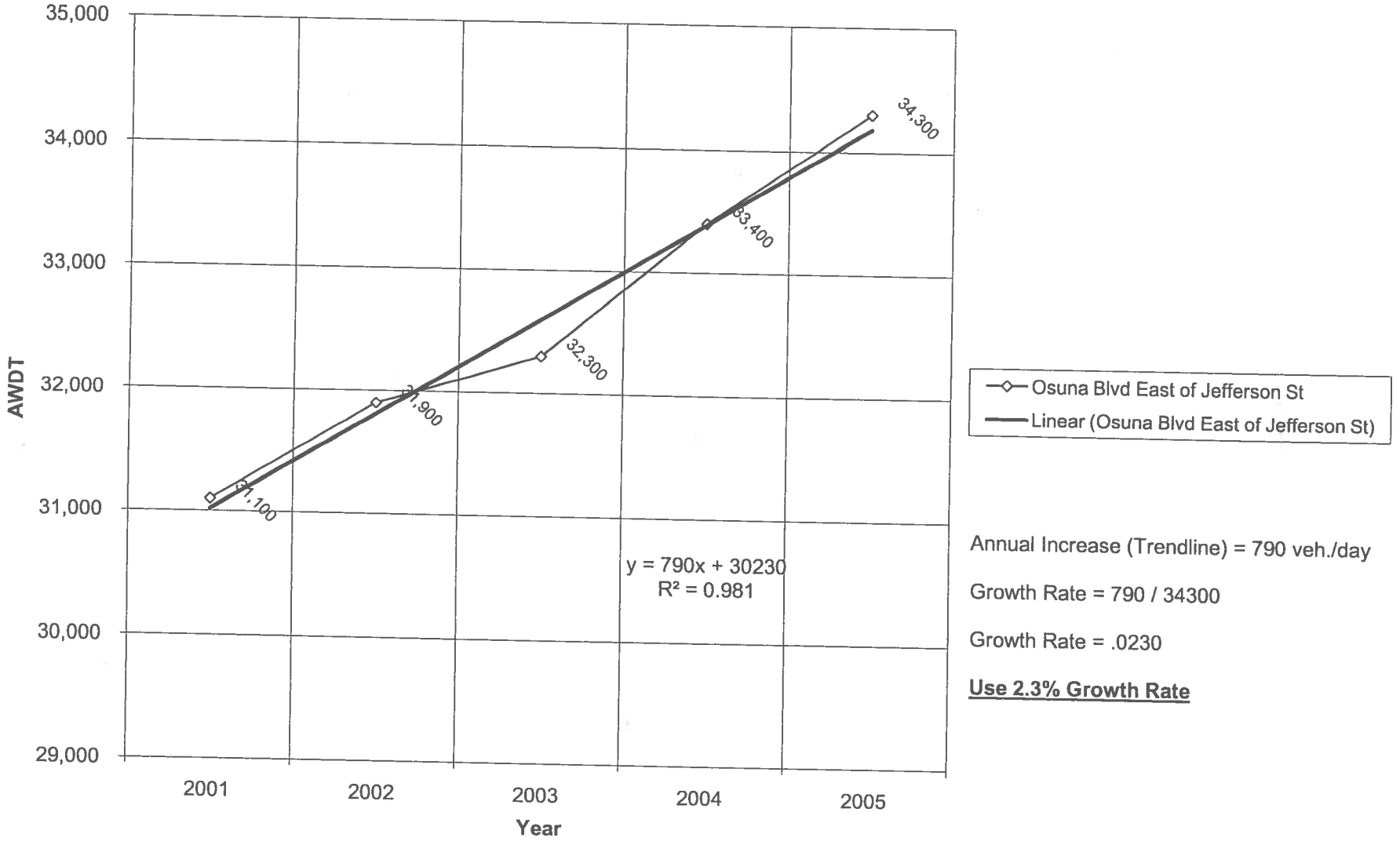


Growth Rate is negative - DO NOT USE

Use 3% Growth Rate

Jefferson_PLaza_Growth.xls

Historic Growth Chart Osuna Blvd East of Jefferson St (2001-2005)



Annual Increase (Trendline) = 790 veh./day

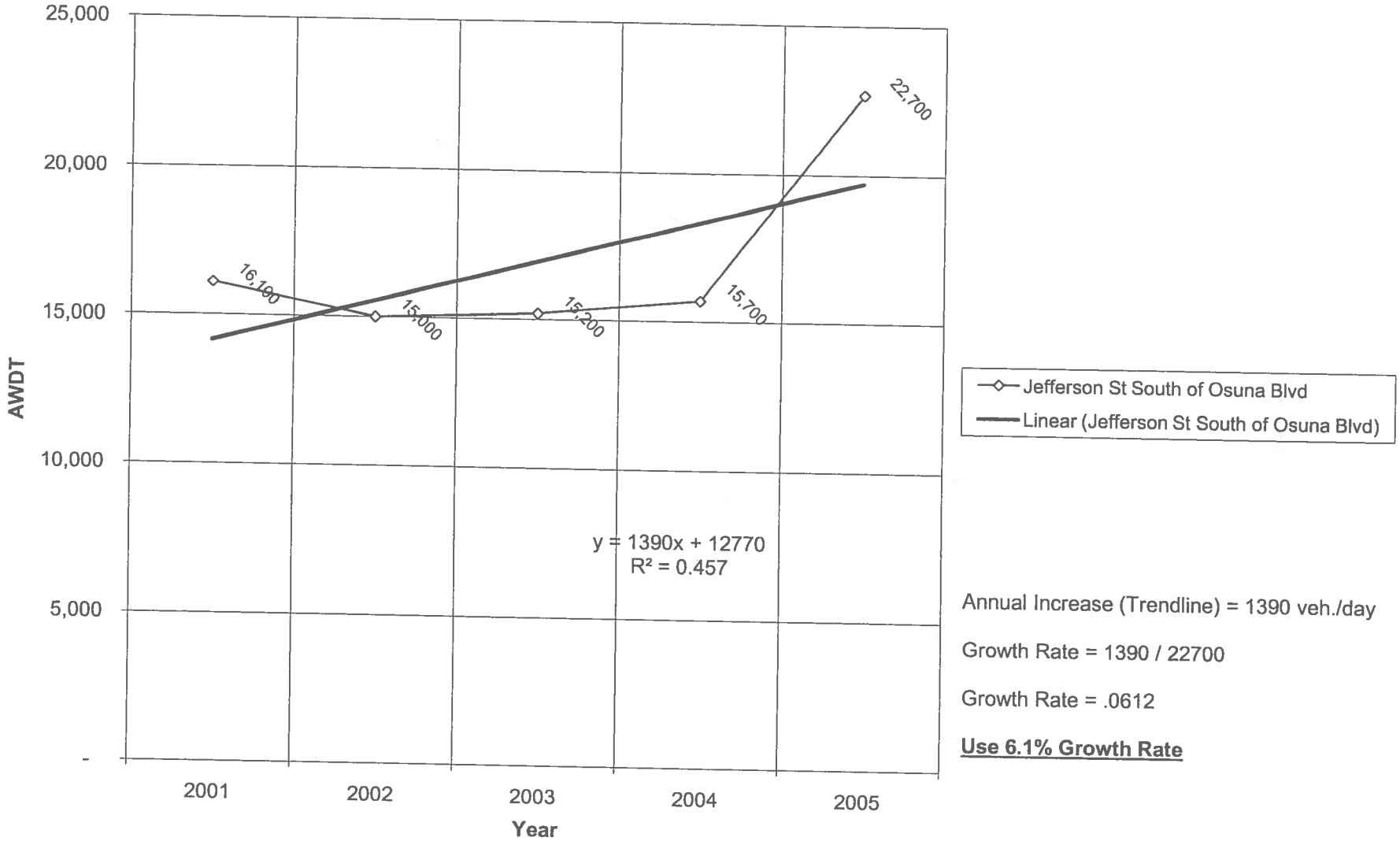
Growth Rate = 790 / 34300

Growth Rate = .0230

Use 2.3% Growth Rate

Jefferson_PLaza_Growth.xls

Historic Growth Chart Jefferson St South of Osuna Blvd (2001-2005)



Annual Increase (Trendline) = 1390 veh./day

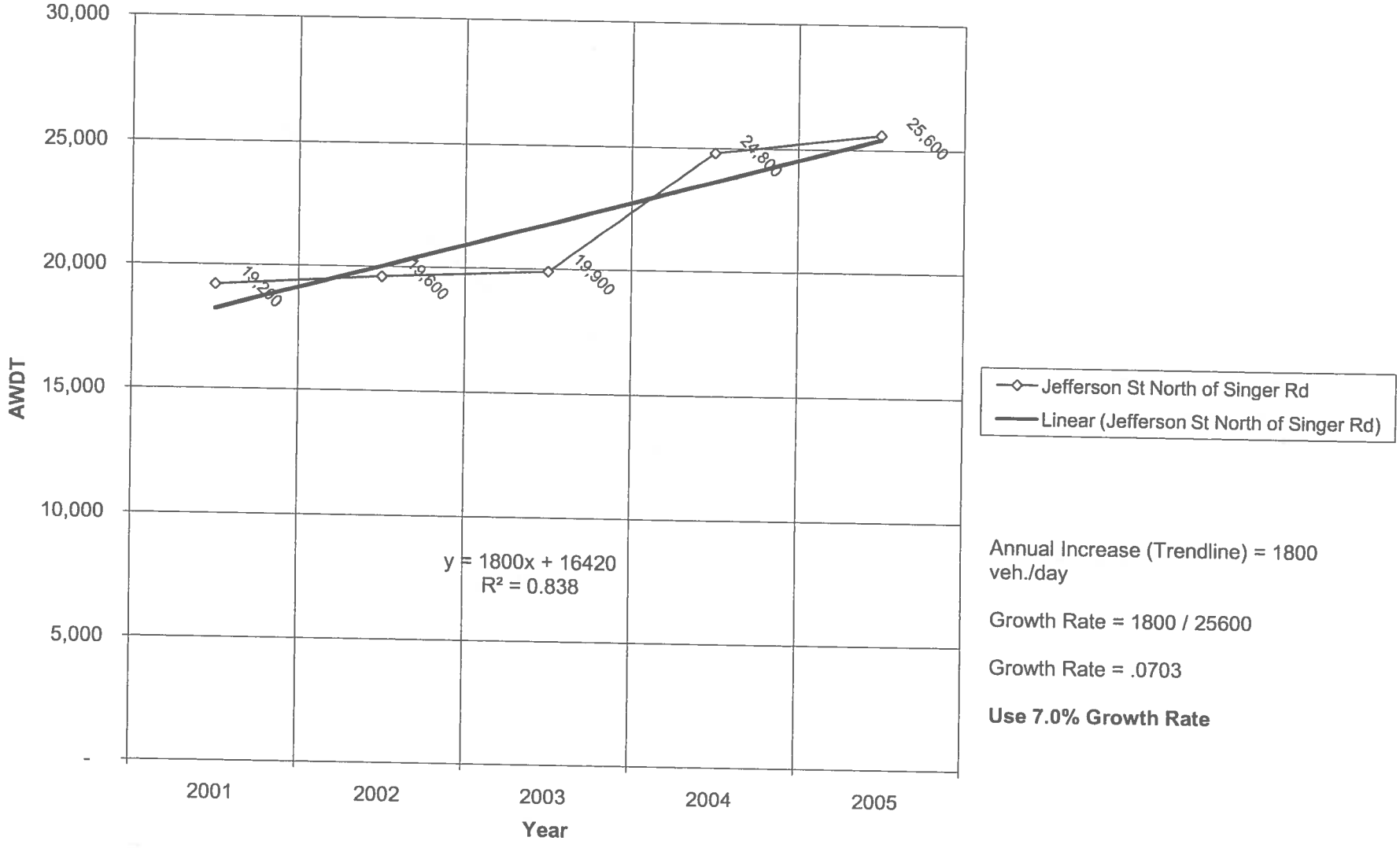
Growth Rate = 1390 / 22700

Growth Rate = .0612

Use 6.1% Growth Rate

Jefferson_PLaza_Growth.xls

Historic Growth Chart Jefferson St North of Singer Rd (2001-2005)



Annual Increase (Trendline) = 1800 veh./day

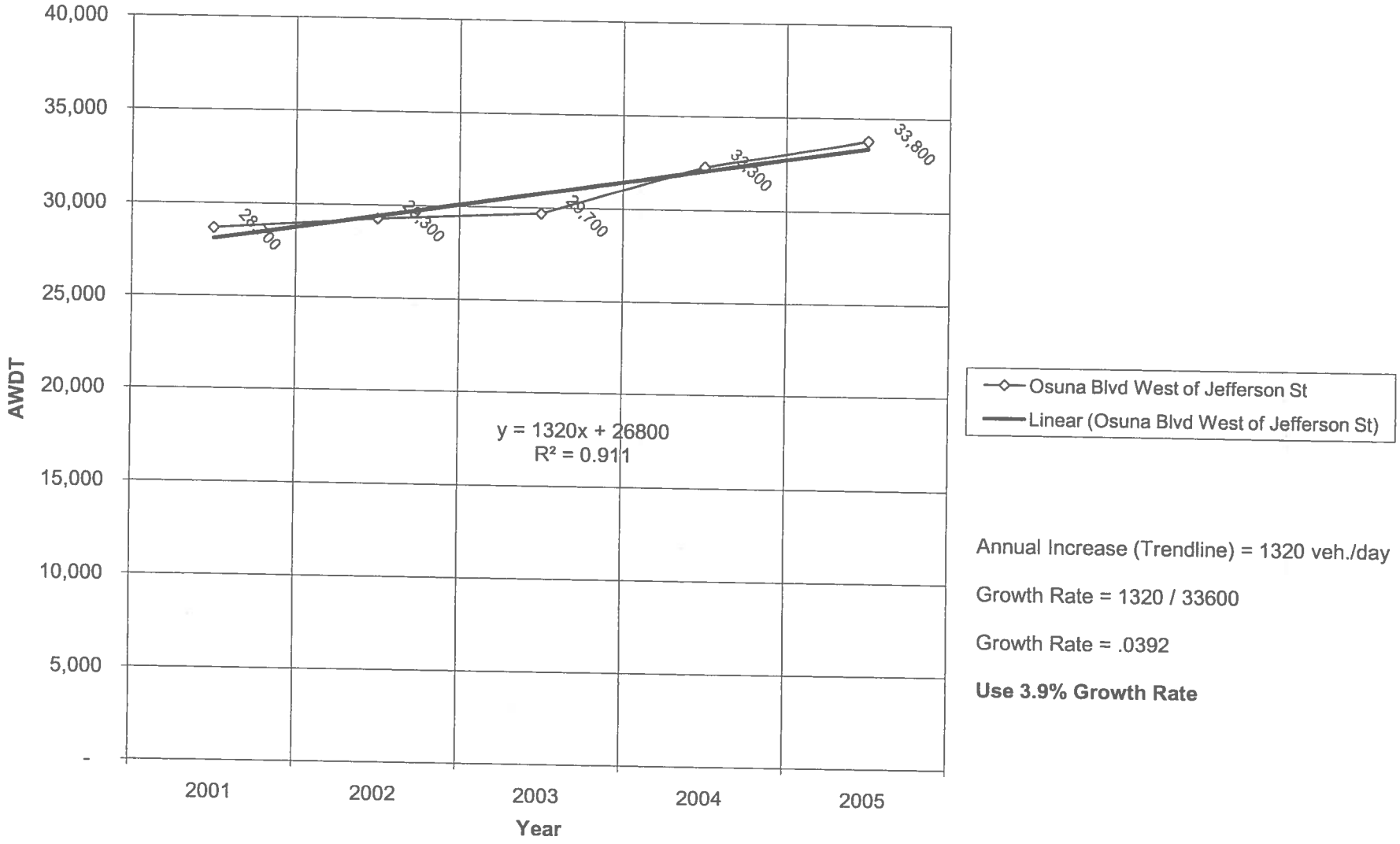
Growth Rate = 1800 / 25600

Growth Rate = .0703

Use 7.0% Growth Rate

Jefferson_PLaza_Growth.xls

Historic Growth Chart Osuna Blvd West of Jefferson St (2001-2005)



Annual Increase (Trendline) = 1320 veh./day

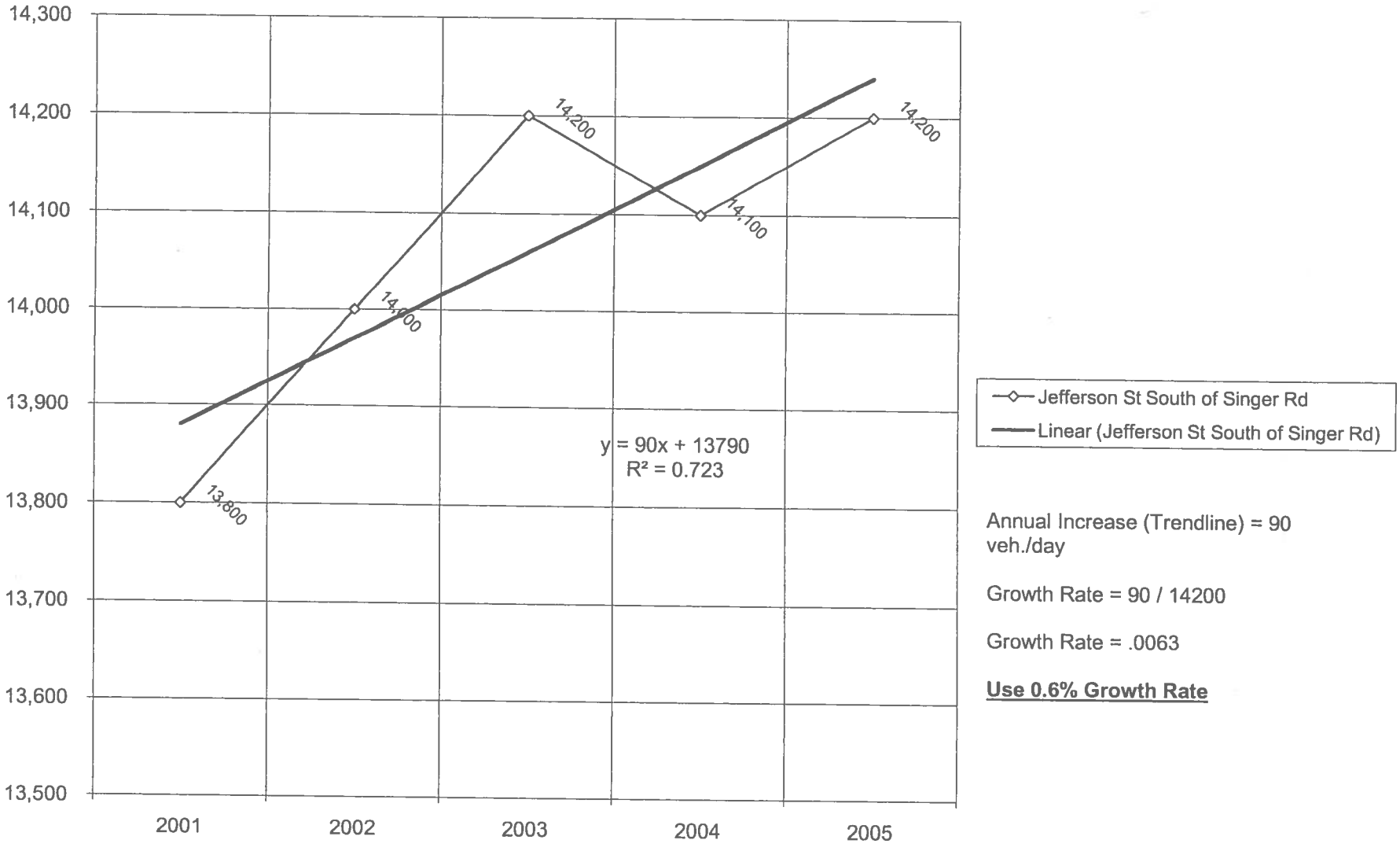
Growth Rate = 1320 / 33600

Growth Rate = .0392

Use 3.9% Growth Rate

Jefferson_PLaza_Growth.xls

Historic Growth Chart Jefferson St South of Singer Rd (2001-2005)



Annual Increase (Trendline) = 90 veh./day

Growth Rate = 90 / 14200

Growth Rate = .0063

Use 0.6% Growth Rate

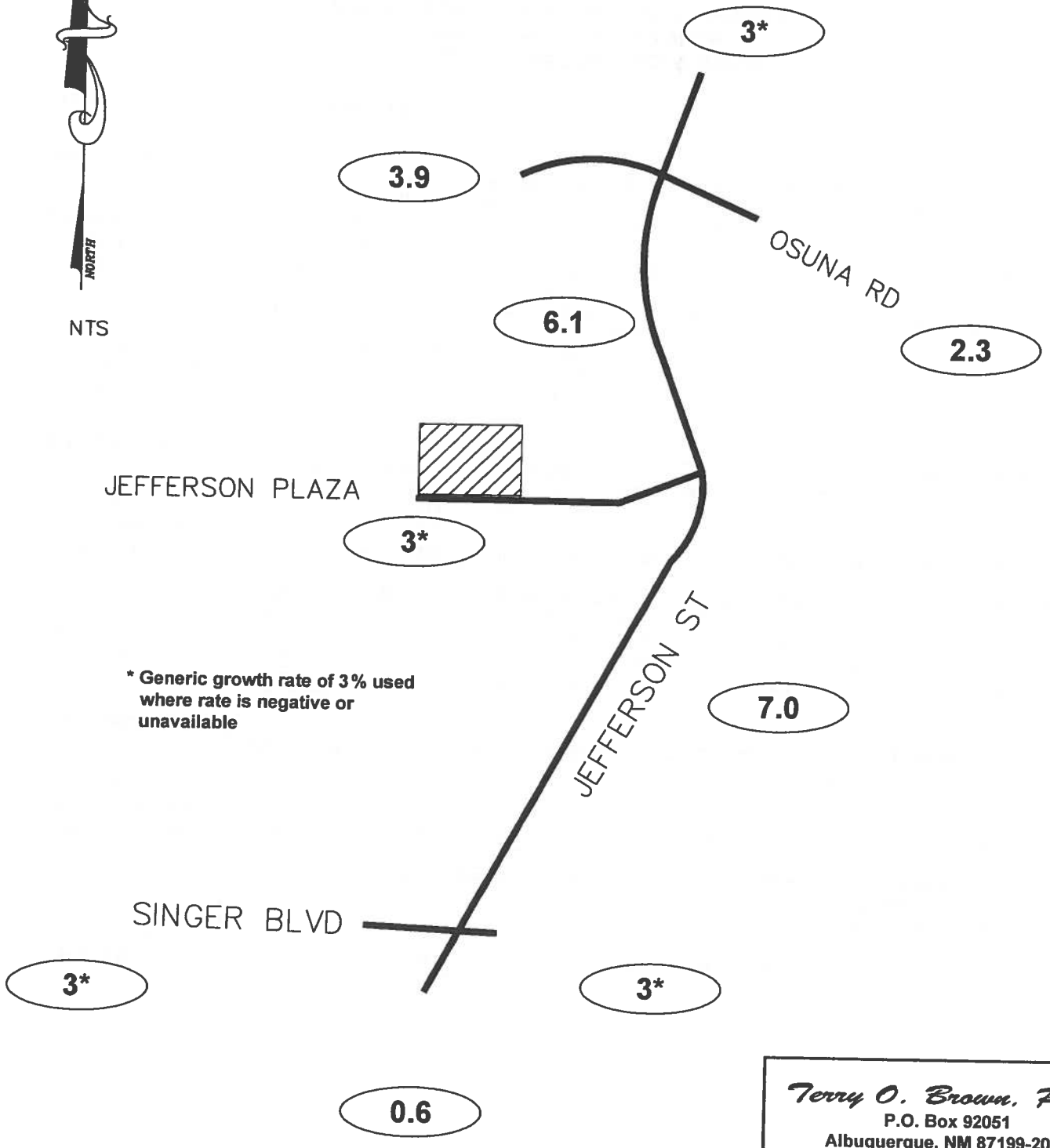
Jefferson_PLaza_Growth.xls

Jefferson Office Plaza

(Jefferson St / Jefferson Plaza)

Growth Rate Map (%)

NTS



* Generic growth rate of 3% used where rate is negative or unavailable

Terry O. Brown, P.E.
P.O. Box 92051
Albuquerque, NM 87199-2051
(505)883-8807 (Voice)
(505)212-0267 (Fax)

Jefferson Office Plaza (Jefferson Plaza / Jefferson St)

Projected Turning Movements SUMMARY

PROPOSED DEVELOPMENT (2009) - 100% Development

INTERSECTION: **Summary**

Jefferson Plaza / Driveway 'A'

(4)

3.0% Truck

	0.88			0.88			0.85			0.85			PHF
	Eastbound (Jefferson Plaza)			Westbound (Jefferson Plaza)			Northbound (Driveway 'A')			Southbound (Driveway 'A')			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2007)	0	28	0	0	153	0	0	0	0	0	0	0	
2009 (NO BUILD - A.M.)	*0*	*30*	*0*	*0*	*162*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
2009 (BUILD - A.M.)	***0***	***37***	***0***	***0***	***215***	***80***	***0***	***0***	***0***	***11***	***0***	***0***	

	0.97			0.97			0.85			0.85			PHF
	Eastbound (Jefferson Plaza)			Westbound (Jefferson Plaza)			Northbound (Driveway 'A')			Southbound (Driveway 'A')			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2007)	0	122	0	0	23	0	0	0	0	0	0	0	
2009 (NO BUILD - P.M.)	*0*	*129*	*0*	*0*	*24*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
2009 (BUILD - P.M.)	***0***	***183***	***0***	***0***	***35***	***17***	***0***	***0***	***0***	***82***	***0***	***0***	

Jefferson Plaza / Driveway 'B'

(5)

3.0% Truck

	0.88			0.88			0.85			0.85			PHF
	Eastbound (Jefferson Plaza)			Westbound (Jefferson Plaza)			Northbound (Driveway 'B')			Southbound (Driveway 'B')			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2007)	0	28	0	0	153	0	0	0	0	0	0	0	
2009 (NO BUILD - A.M.)	*0*	*30*	*0*	*0*	*162*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
2009 (BUILD - A.M.)	***0***	***30***	***0***	***0***	***162***	***53***	***0***	***0***	***0***	***7***	***0***	***0***	

	0.97			0.97			0.85			0.85			PHF
	Eastbound (Jefferson Plaza)			Westbound (Jefferson Plaza)			Northbound (Driveway 'B')			Southbound (Driveway 'B')			
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Existing (2007)	0	122	0	0	23	0	0	0	0	0	0	0	
2009 (NO BUILD - P.M.)	*0*	*129*	*0*	*0*	*24*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	
2009 (BUILD - P.M.)	***0***	***129***	***0***	***0***	***24***	***11***	***0***	***0***	***0***	***54***	***0***	***0***	

Jefferson Office Plaza (Jefferson Plaza / Jefferson St)

Projected Turning Movements Worksheet

Osuna Rd / Jefferson St

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

N-S Street: **Jefferson St**

Year of Existing Counts 2004

Implementation Year **2009**

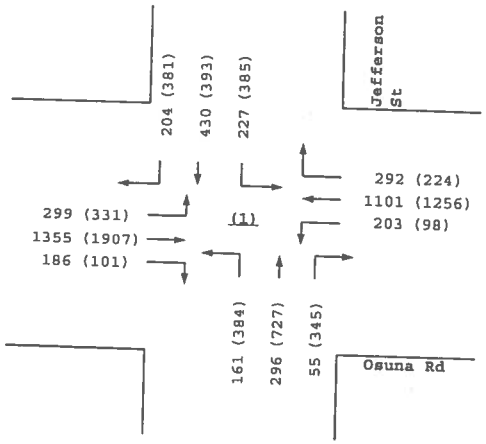
Growth Rates	3.90%			2.30%			6.10%			3.00%		
	Eastbound (Osuna Rd)			Westbound (Osuna Rd)			Northbound (Jefferson St)			Southbound (Jefferson St)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	236	1,081	154	182	921	262	122	227	42	197	374	160
Background Traffic Growth	46	211	30	21	106	30	37	69	13	30	56	24
Subtotal	282	1,292	184	203	1,027	292	159	296	55	227	430	184
Vista del Norte Comm. Dev.	17	63	2	0	74	0	2	0	0	0	0	20
Subtotal (NO BUILD - A.M.)	***299***	***1,355***	***186***	***203***	***1,101***	***292***	***161***	***296***	***55***	***227***	***430***	***204***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*3.64%*	*7.63%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*26.15%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*3.64%*	*26.15%*	*7.63%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	5	10	0	0	1	5	1	0	35	0
Total AM Peak Hour BUILD Volumes	**299**	**1,355**	**191**	**213**	**1,101**	**292**	**162**	**301**	**56**	**227**	**465**	**204**

	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	48	290	16	10	117	23	89	170	81	50	51	45
Subtotal	296	1,777	97	98	1,133	224	380	727	345	385	393	348
Vista del Norte Comm. Dev.	35	130	4	0	123	0	4	0	0	0	0	33
Subtotal (NO BUILD - P.M.)	***331***	***1,907***	***101***	***98***	***1,256***	***224***	***384***	***727***	***345***	***385***	***393***	***381***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*3.64%*	*7.63%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*26.15%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*3.64%*	*26.15%*	*7.63%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	1	2	0	0	5	36	10	0	7	0
Total PM Peak Hour BUILD Volumes	**331**	**1,907**	**102**	**100**	**1,256**	**224**	**389**	**763**	**355**	**385**	**400**	**381**

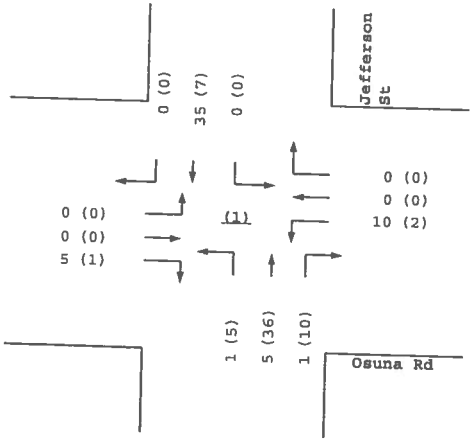
	Entering	Exiting		
Number of Commercial Trips Generated	**133**	**18**	A.M.	100% Commercial Development
	28	**136**	P.M.	

	Eastbound (Osuna Rd)			Westbound (Osuna Rd)			Northbound (Jefferson St)			Southbound (Jefferson St)		
2007 AM Peak Hr. Volumes	264	1207	172	195	985	280	144	269	50	215	408	174
2007 PM Peak Hr. Volumes	277	1,661	90	94	1,086	215	344	659	312	365	373	330

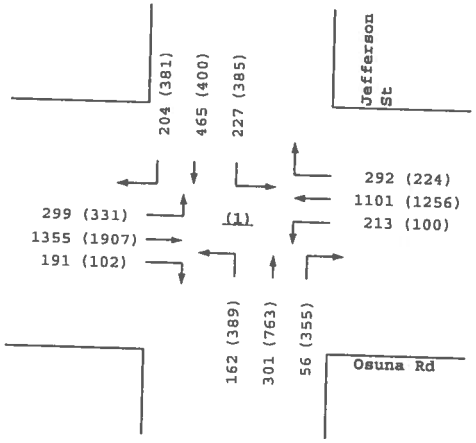
2009
NO BUILD



Trips



2009
BUILD



Osuna Rd / Jefferson St

Jefferson Office Plaza (Jefferson Plaza / Jefferson St)

Projected Turning Movements Worksheet

Singer Blvd / Jefferson St

INTERSECTION: E-W Street: **Singer Blvd** (2)

N-S Street: **Jefferson St**

Year of Existing Counts 2005

Implementation Year **2009**

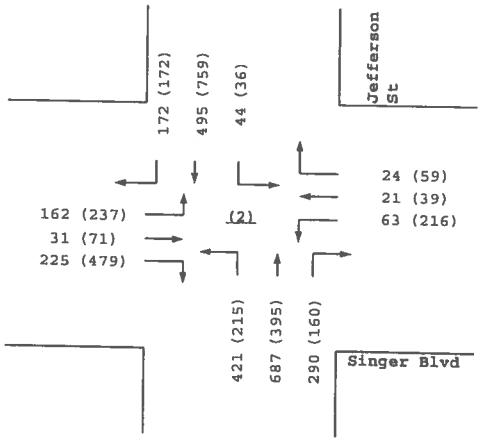
Growth Rates	3.00%			3.00%			0.60%			7.00%		
	Eastbound (Singer Blvd)			Westbound (Singer Blvd)			Northbound (Jefferson St)			Southbound (Jefferson St)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	145	28	201	56	19	21	411	671	283	34	387	134
Background Traffic Growth	17	3	24	7	2	3	10	16	7	10	108	38
Subtotal (NO BUILD - A.M.)	***162***	***31***	***225***	***63***	***21***	***24***	***421***	***687***	***290***	***44***	***495***	***172***
Percent Commercial Trips Generated(Entering)	*0.53%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.44%*	*0.00%*	*61.25%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.44%*	*61.25%*	*0.53%*
Total Trips Generated	1	0	0	0	0	1	0	81	0	0	11	0
Total AM Peak Hour BUILD Volumes	**163**	**31**	**225**	**63**	**21**	**25**	**421**	**768**	**290**	**44**	**506**	**172**

	Eastbound (Singer Blvd)			Westbound (Singer Blvd)			Northbound (Jefferson St)			Southbound (Jefferson St)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	212	63	428	193	35	53	210	386	156	28	593	134
Background Traffic Growth	25	8	51	23	4	6	5	9	4	8	166	38
Subtotal (NO BUILD - P.M.)	***237***	***71***	***479***	***216***	***39***	***59***	***215***	***395***	***160***	***36***	***759***	***172***
Percent Commercial Trips Generated(Entering)	*0.53%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.44%*	*0.00%*	*61.25%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.44%*	*61.25%*	*0.53%*
Total Trips Generated	0	0	0	0	0	0	0	17	0	1	83	1
Total PM Peak Hour BUILD Volumes	**237**	**71**	**479**	**216**	**39**	**59**	**215**	**412**	**160**	**37**	**842**	**173**

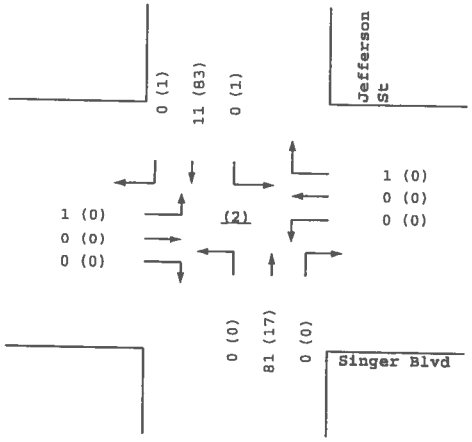
	Entering	Exiting		
Number of Commercial Trips Generated	**133**	**18**	A.M.	100% Commercial Development
	28	**136**	P.M.	

	Eastbound (Singer Blvd)			Westbound (Singer Blvd)			Northbound (Jefferson St)			Southbound (Jefferson St)		
2007 AM Peak Hr. Volumes	154	30	213	59	20	22	416	679	286	39	441	153
2007 PM Peak Hr. Volumes	225	67	454	205	37	56	213	391	158	32	676	153

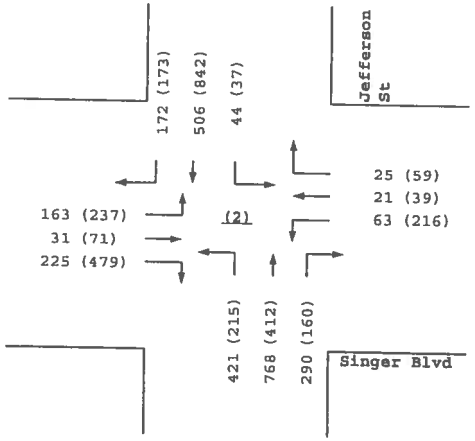
2009
NO BUILD



Trips



2009
BUILD



Singer Blvd / Jefferson St

Jefferson Office Plaza (Jefferson Plaza / Jefferson St)

Projected Turning Movements Worksheet

Jefferson Plaza / Jefferson St

INTERSECTION: E-W Street: **Jefferson Plaza** (3)
N-S Street: **Jefferson St**

Year of Existing Counts 2007
Implementation Year **2009**
Growth Rates **3.00%** **3.00%** **7.00%** **6.10%**

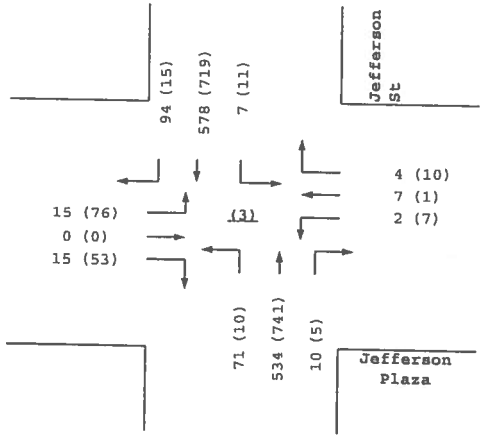
	Eastbound (Jefferson Plaza)			Westbound (Jefferson Plaza)			Northbound (Jefferson St)			Southbound (Jefferson St)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	14	0	14	2	7	4	62	468	9	6	515	84
Background Traffic Growth	1	0	1	0	0	0	9	66	1	1	63	10
Subtotal (NO BUILD - A.M.)	***15***	***0***	***15***	***2***	***7***	***4***	***71***	***534***	***10***	***7***	***578***	***94***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*62.57%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*37.42%*
Percent Commercial Trips Generated(Exiting)	*37.42%*	*0.00%*	*62.57%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	7	0	11	0	0	0	83	0	0	0	0	50
Total AM Peak Hour BUILD Volumes	**22**	**0**	**26**	**2**	**7**	**4**	**154**	**534**	**10**	**7**	**578**	**144**

	Eastbound (Jefferson Plaza)			Westbound (Jefferson Plaza)			Northbound (Jefferson St)			Southbound (Jefferson St)		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	72	0	50	7	1	9	9	650	4	10	641	13
Background Traffic Growth	4	0	3	0	0	1	1	91	1	1	78	2
Subtotal (NO BUILD - P.M.)	***76***	***0***	***53***	***7***	***1***	***10***	***10***	***741***	***5***	***11***	***719***	***15***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*62.57%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*37.42%*
Percent Commercial Trips Generated(Exiting)	*37.42%*	*0.00%*	*62.57%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total Trips Generated	51	0	85	0	0	0	18	0	0	0	0	10
Total PM Peak Hour BUILD Volumes	**127**	**0**	**138**	**7**	**1**	**10**	**28**	**741**	**5**	**11**	**719**	**25**

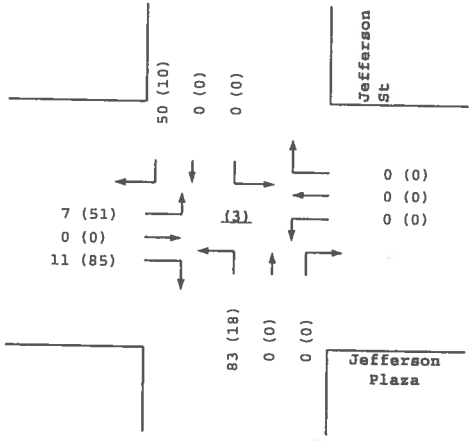
	Entering	Exiting		
Number of Commercial Trips Generated	**133**	**18**	A.M.	100% Commercial Development
	28	**136**	P.M.	

	Eastbound (Jefferson Plaza)			Westbound (Jefferson Plaza)			Northbound (Jefferson St)			Southbound (Jefferson St)		
2007 AM Peak Hr. Volumes	14	0	14	2	7	4	62	468	9	6	515	84
2007 PM Peak Hr. Volumes	72	0	50	7	1	9	9	650	4	10	641	13

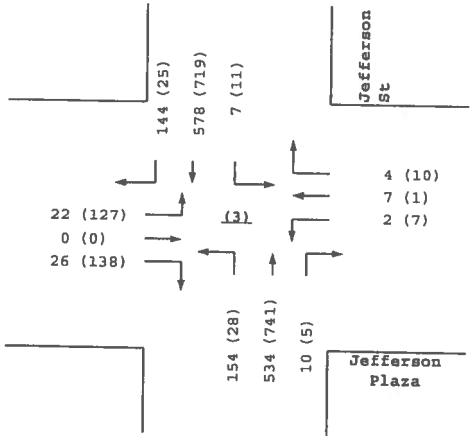
2009
NO BUILD



Trips



2009
BUILD



Jefferson Plaza / Jefferson St

Jefferson Office Plaza (Jefferson Plaza / Jefferson St)

Projected Turning Movements Worksheet

Jefferson Plaza / Driveway 'A'

INTERSECTION: E-W Street: **Jefferson Plaza** (4)

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

Year of Existing Counts 2007

Implementation Year **2009**

Growth Rates **3.00%** **3.00%** **3.00%** **3.00%**

	Eastbound (Jefferson Plaza)			Westbound (Jefferson Plaza)			Northbound (Driveway 'A')			Southbound (Driveway 'A')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	28	0	0	153	0	0	0	0	0	0	0
Background Traffic Growth	0	2	0	0	9	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***30***	***0***	***0***	***162***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*39.99%*	*60.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*39.99%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*60.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	7	0	0	53	80	0	0	0	11	0	0
Total AM Peak Hour BUILD Volumes	**0**	**37**	**0**	**0**	**215**	**80**	**0**	**0**	**0**	**11**	**0**	**0**

	Eastbound (Jefferson Plaza)			Westbound (Jefferson Plaza)			Northbound (Driveway 'A')			Southbound (Driveway 'A')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	122	0	0	23	0	0	0	0	0	0	0
Background Traffic Growth	0	7	0	0	1	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***129***	***0***	***0***	***24***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*39.99%*	*60.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*39.99%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*60.00%*	*0.00%*	*0.00%*
Total Trips Generated	0	54	0	0	11	17	0	0	0	82	0	0
Total PM Peak Hour BUILD Volumes	**0**	**183**	**0**	**0**	**35**	**17**	**0**	**0**	**0**	**82**	**0**	**0**

	Entering	Exiting		
Number of Commercial Trips Generated	**133**	**18**	A.M.	100% Commercial Development
	28	**136**	P.M.	

	Eastbound (Jefferson Plaza)			Westbound (Jefferson Plaza)			Northbound (Driveway 'A')			Southbound (Driveway 'A')		
2007 AM Peak Hr. Volumes	0	28	0	0	153	0	0	0	0	0	0	0
2007 PM Peak Hr. Volumes	0	122	0	0	23	0	0	0	0	0	0	0

Jefferson Office Plaza (Jefferson Plaza / Jefferson St)

Projected Turning Movements Worksheet

Jefferson Plaza / Driveway 'B'

INTERSECTION: E-W Street: **Jefferson Plaza** (5)
N-S Street: **Driveway 'B'**

Year of Existing Counts: 2007
Implementation Year: **2009**

Growth Rates

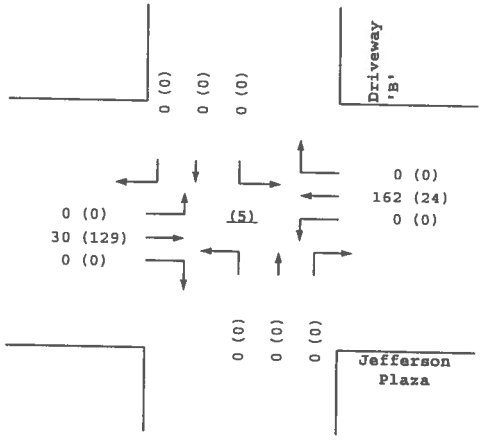
	3.00%			3.00%			3.00%			3.00%		
	Eastbound (Jefferson Plaza)			Westbound (Jefferson Plaza)			Northbound (Driveway 'B')			Southbound (Driveway 'B')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	28	0	0	153	0	0	0	0	0	0	0
Background Traffic Growth	0	2	0	0	9	0	0	0	0	0	0	0
Subtotal (NO BUILD - A.M.)	***0***	***30***	***0***	***0***	***162***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*39.99%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*39.99%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	0	0	53	0	0	0	7	0	0
Total AM Peak Hour BUILD Volumes	**0**	**30**	**0**	**0**	**162**	**53**	**0**	**0**	**0**	**7**	**0**	**0**

	Eastbound (Jefferson Plaza)			Westbound (Jefferson Plaza)			Northbound (Driveway 'B')			Southbound (Driveway 'B')		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Existing Volumes	0	122	0	0	23	0	0	0	0	0	0	0
Background Traffic Growth	0	7	0	0	1	0	0	0	0	0	0	0
Subtotal (NO BUILD - P.M.)	***0***	***129***	***0***	***0***	***24***	***0***	***0***	***0***	***0***	***0***	***0***	***0***
Percent Commercial Trips Generated(Entering)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*39.99%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Percent Commercial Trips Generated(Exiting)	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*39.99%*	*0.00%*	*0.00%*
Total Trips Generated	0	0	0	0	0	11	0	0	0	54	0	0
Total PM Peak Hour BUILD Volumes	**0**	**129**	**0**	**0**	**24**	**11**	**0**	**0**	**0**	**54**	**0**	**0**

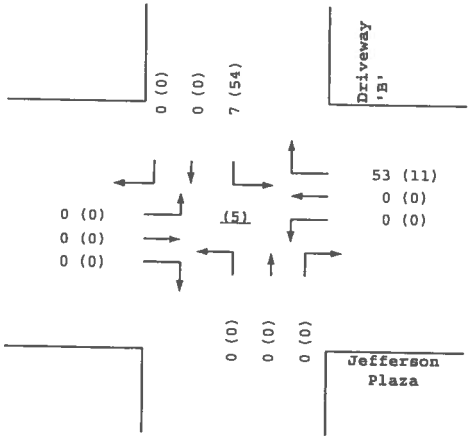
	Entering	Exiting		
Number of Commercial Trips Generated	**133**	**18**	A.M.	100% Commercial Development
	28	**136**	P.M.	

	Eastbound (Jefferson Plaza)			Westbound (Jefferson Plaza)			Northbound (Driveway 'B')			Southbound (Driveway 'B')		
2007 AM Peak Hr. Volumes	0	28	0	0	153	0	0	0	0	0	0	0
2007 PM Peak Hr. Volumes	0	122	0	0	23	0	0	0	0	0	0	0

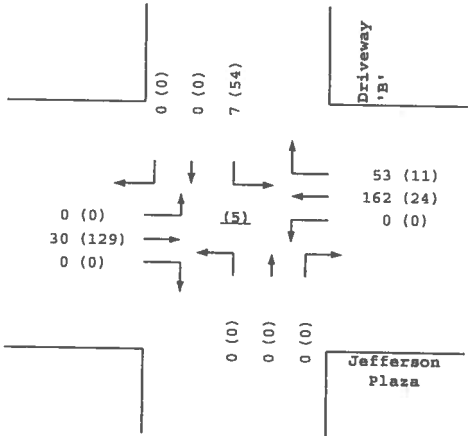
2009
NO BUILD



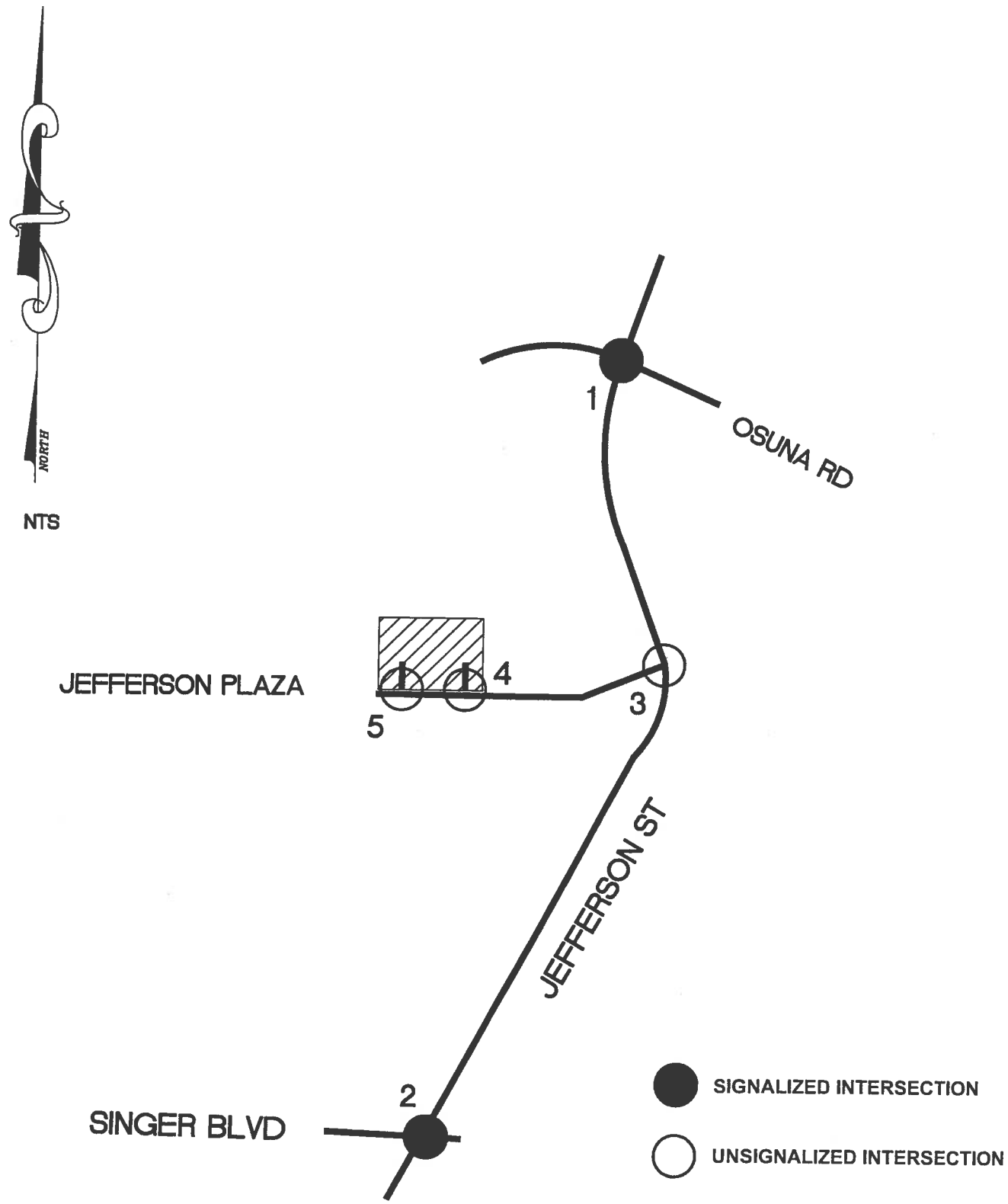
Trips

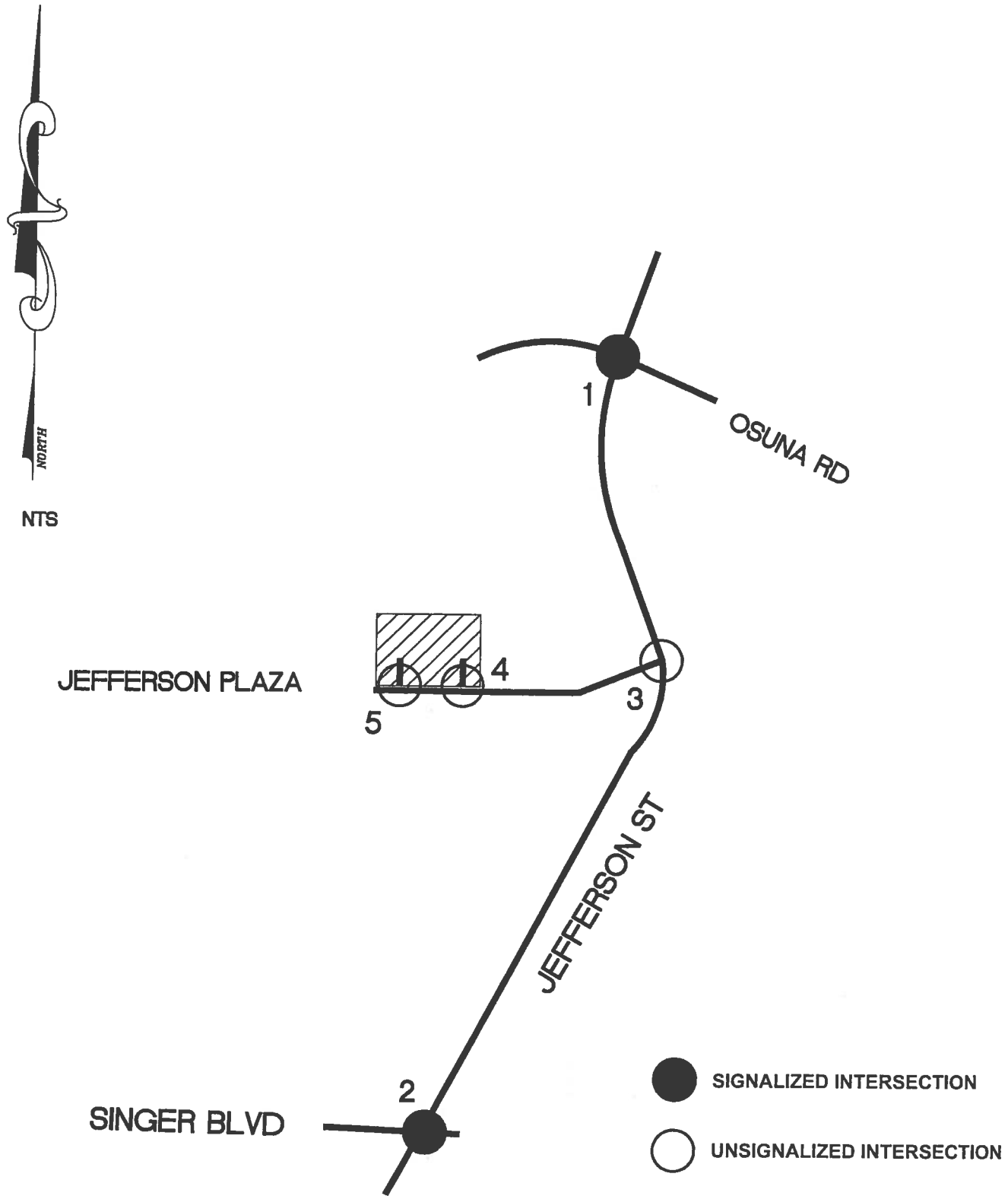


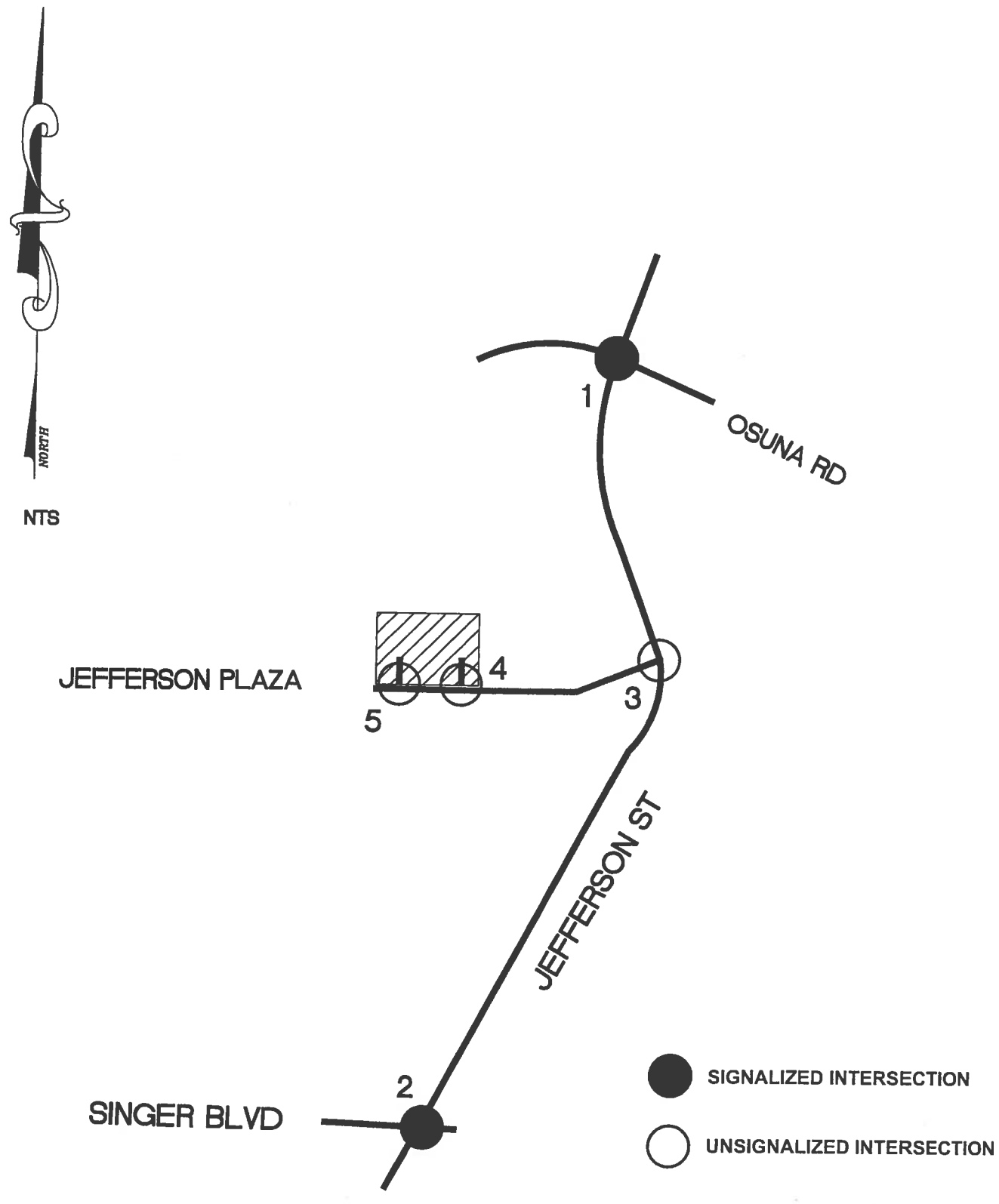
2009
BUILD



Jefferson Plaza / Driveway 'B'


NORTH
NTS
1
OSUNA RD
JEFFERSON PLAZA
4
3
5
JEFFERSON ST
2
SINGER BLVD
SIGNALIZED INTERSECTION
UNSIGNALIZED INTERSECTION


NORTH
NTS
1
OSUNA RD
JEFFERSON PLAZA
4
5
3
JEFFERSON ST
2
SINGER BLVD
SIGNALIZED INTERSECTION
UNSIGNALIZED INTERSECTION


NORTH
NTS
1
OSUNA RD
JEFFERSON PLAZA
4
5
3
JEFFERSON ST
2
SINGER BLVD
SIGNALIZED INTERSECTION
UNSIGNALIZED INTERSECTION

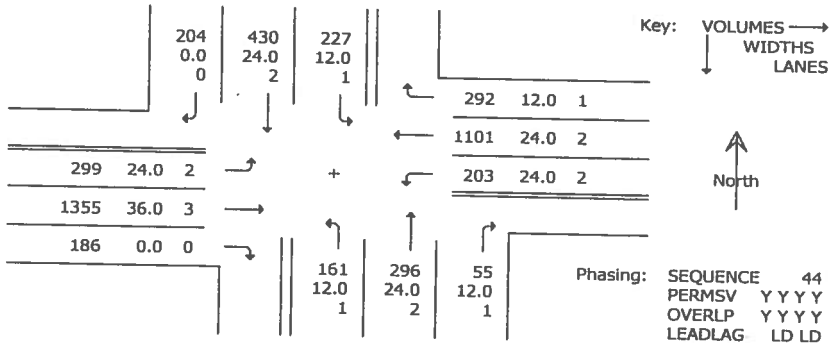
Analysis of Intersection #1

Osuna Rd / Jefferson St

SIGNAL2000/TEAPAC[Ver 2.80.00] - 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	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Pk-hr fact, PHF	.87	.87	.87	.87	.87	.87	.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	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
North	m					
C=100"	G= 7.5" Y+R= 5.0"	G= 23.6" Y+R= 5.0"	G= 12.3" Y+R= 5.0"	G= 36.6" Y+R= 5.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"

SIGNAL2000/TEAPAC[Ver 2.80.00] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.849 (Critical V/C 0.942) Control Delay 45.8 Level of Service D

Sq 44 LD/LD	Phase 1	Phase 2	Phase 3	Phase 4
North				
	G/C=0.075 G= 7.5" Y+R= 5.0" Off= 0.0%	G/C=0.236 G= 23.6" Y+R= 5.0" Off=12.5%	G/C=0.123 G= 12.3" Y+R= 5.0" Off=41.1%	G/C=0.366 G= 36.6" Y+R= 5.0" Off=58.4%

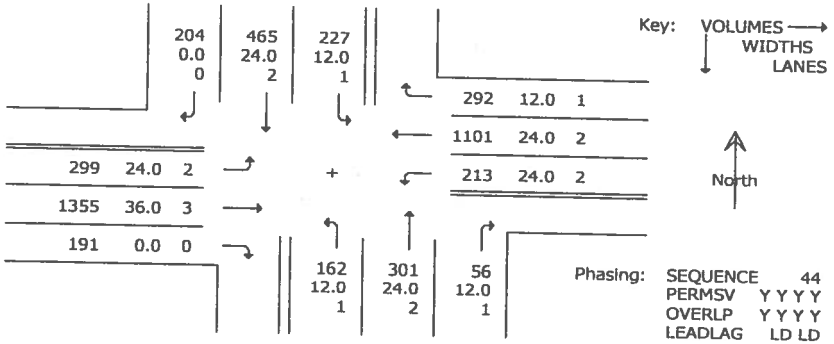
C=100 sec G= 80.0 sec = 80.0% Y=20.0 sec = 20.0% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @D (vph)	Service Rate @E (vph)	Adj Volume	v/c	HCM Delay	LOS	Queue Model 1
SB Approach								49.1	D	
RT+TH	24/2	0.234	0.236	735	789	728	0.923	53.6	*D	545 ft
LT	12/1	0.050	0.075	309	343	261	0.761	36.7	D+	320 ft
NB Approach								37.7	D+	
RT	12/1	0.064	0.409	617	641	60	0.094	18.2	B	49 ft
TH	24/2	0.114	0.236	776	829	325	0.392	32.5	C	188 ft
LT	12/1	0.074	0.075	179	200	177	0.859	54.0	*D	252 ft
WB Approach								45.1	D	
RT	12/1	0.247	0.491	763	770	336	0.436	16.9	B	281 ft
TH	24/2	0.363	0.366	1277	1285	1266	0.985	53.0	*D	952 ft
LT	24/2	0.090	0.123	344	407	233	0.556	42.9	D+	154 ft
EB Approach								47.1	D	
RT+TH	36/3	0.353	0.366	1806	1806	1751	0.970	45.8	D	900 ft
LT	24/2	0.122	0.123	344	407	340	0.811	54.2	*D	250 ft

SIGNAL2000/TEAPAC[Ver 2.80.00] - 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	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Pk-hr fact, PHF	.87	.87	.87	.87	.87	.87	.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	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6
North	m					
C=110"	G= 8.7" Y+R= 5.0"	G= 27.3" Y+R= 5.0"	G= 13.6" Y+R= 5.0"	G= 40.5" Y+R= 5.0"	G= 0.0" Y+R= 0.0"	G= 0.0" Y+R= 0.0"

Jefferson Office Plaza (Jefferson Plaza / Jefferson St)
Analysis of Osuna Blvd / Jefferson St. - [1_ABX.FOR]
2009 AM Peak BUILD Conditions
06/21/07
19:59:11

SIGNAL2000/TEAPAC[Ver 2.80.00] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.846 (Critical V/C 0.939) Control Delay 48.2 Level of Service D

Sq 44 LD/LD	Phase 1	Phase 2	Phase 3	Phase 4
North				
	G/C=0.079 G= 8.7" Y+R= 5.0" Off= 0.0%	G/C=0.248 G= 27.3" Y+R= 5.0" Off=12.4%	G/C=0.124 G= 13.6" Y+R= 5.0" Off=41.8%	G/C=0.368 G= 40.5" Y+R= 5.0" Off=58.7%

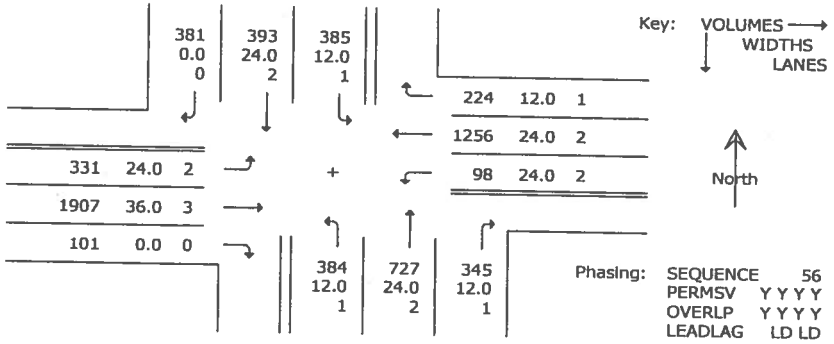
C=110 sec G= 90.0 sec = 81.8% Y=20.0 sec = 18.2% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @D (vph)	Service Rate @E (vph)	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								51.1	D	
RT+TH	24/2	0.250	0.248	762	831	768	0.924	56.2	*E+	616 ft
LT	12/1	0.050	0.079	317	354	261	0.735	36.1	D+	338 ft
NB Approach								40.2	D+	
RT	12/1	0.072	0.417	623	654	62	0.095	19.5	B	55 ft
TH	24/2	0.123	0.248	800	870	331	0.380	34.6	C	206 ft
LT	12/1	0.081	0.079	175	198	178	0.868	57.8	*E+	277 ft
WB Approach								47.1	D	
RT	12/1	0.252	0.492	758	772	336	0.435	18.4	B	305 ft
TH	24/2	0.367	0.368	1268	1292	1266	0.980	54.6	*D	1014 ft
LT	24/2	0.100	0.124	324	402	245	0.582	47.6	D	178 ft
EB Approach								50.0	D	
RT+TH	36/3	0.359	0.368	1809	1815	1757	0.968	48.4	D	969 ft
LT	24/2	0.129	0.124	324	402	340	0.808	58.1	*E+	271 ft

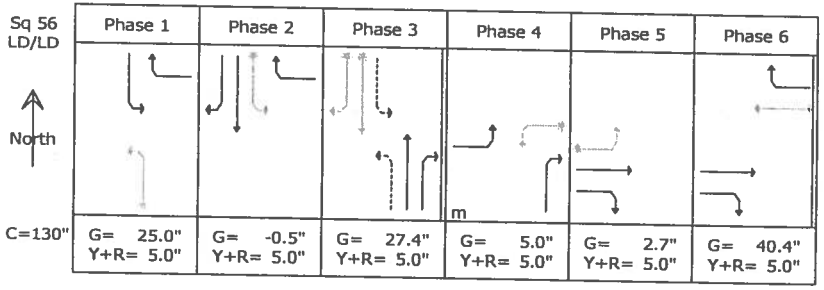
SIGNAL2000/TEAPAC[Ver 2.80.00] - HCM Input Worksheet

Intersection # 1 -

Area Location Type: NONCBD



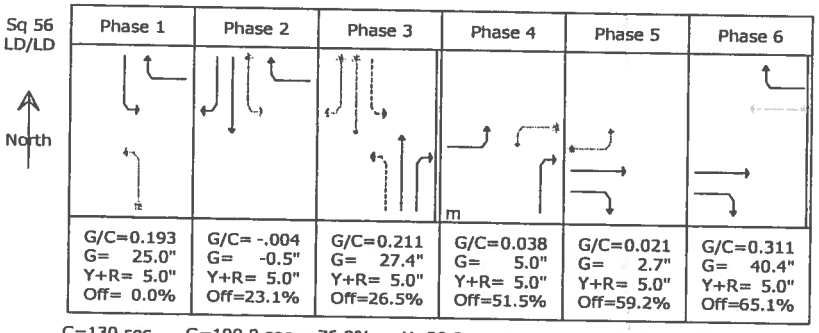
	SB RT	SB TH	SB LT	WB RT	WB TH	WB LT	NB RT	NB TH	NB LT	EB RT	EB TH	EB LT
Heavy veh, %HV	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Pk-hr fact, PHF	.79	.79	.79	.91	.91	.91	.90	.90	.90	.94	.94	.94
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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	



Jefferson Office Plaza (Jefferson Plaza / Jefferson St)
Analysis of Osuna Blvd / Jefferson St. - [1_PNX.FOR]
2009 PM Peak NOBUILD Conditions
06/21/07
20:04:48

SIGNAL2000/TEAPAC[Ver 2.80.00] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 1.114 (Critical V/C 1.260) Control Delay 125.2 Level of Service F



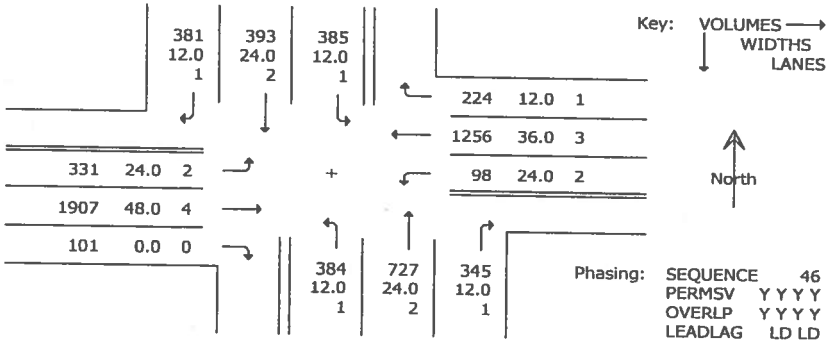
C=130 sec G=100.0 sec = 76.9% Y=30.0 sec = 23.1% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @D (vph)	Service Rate @E (vph)	Adj Volume	v/c	HCM Delay	LOS	Queue Model 1
SB Approach								142.6	F	
RT+TH	24/2	0.327	0.245	673	795	979	1.228	162.8	*F	1234 ft
LT	12/1	0.274	0.227	403	453	487	1.070	101.9	*F	986 ft
NB Approach								98.0	F	
RT	12/1	0.294	0.288	372	437	383	0.849	57.9	E+	621 ft
TH	24/2	0.264	0.211	594	729	808	1.090	111.7	F	896 ft
LT	12/1	0.240	0.193	346	390	427	1.081	108.0	*F	891 ft
WB Approach								144.3	F	
RT	12/1	0.216	0.576	896	903	246	0.272	14.0	B+	208 ft
TH	24/2	0.405	0.311	999	1091	1380	1.265	171.4	*F	1745 ft
LT	24/2	0.099	0.038	1	96	108	0.824	95.1	*F	115 ft
EB Approach								119.2	F	
RT+TH	36/3	0.431	0.370	1793	1845	2136	1.158	118.5	F	1670 ft
LT	24/2	0.155	0.098	100	292	352	1.057	123.8	*F	411 ft

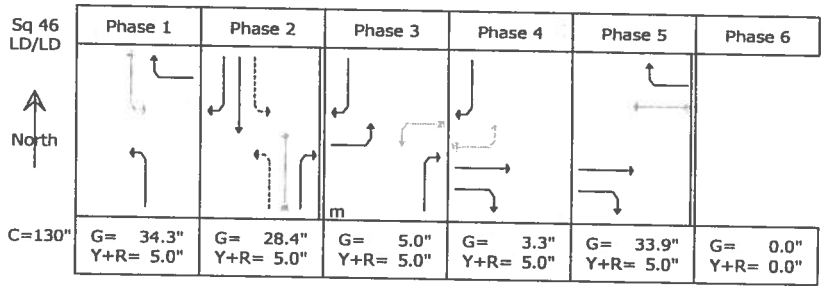
SIGNAL2000/TEAPAC[Ver 2.80.00] - HCM Input Worksheet

Intersection # 1 -

Area Location Type: NONCBD



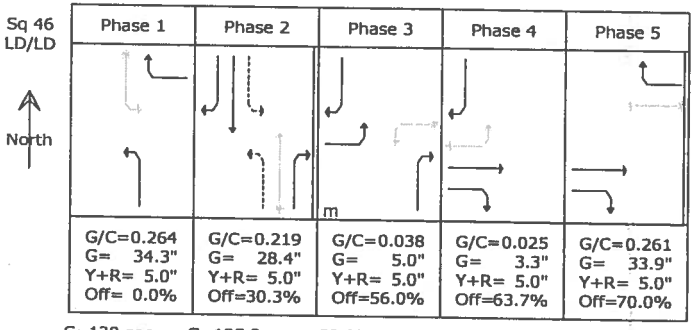
	SB RT	SB TH	SB LT	WB RT	WB TH	WB LT	NB RT	NB TH	NB LT	EB RT	EB TH	EB LT
Heavy veh, %HV	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Pk-hr fact, PHF	.79	.79	.79	.91	.91	.91	.90	.90	.90	.94	.94	.94
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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	



Jefferson Office Plaza (Jefferson Plaza / Jefferson St)
Analysis of Osuna Blvd / Jefferson St. - [1_PN_M.FOR]
2009 PM Peak NOBUILD Cond-Add EB/WB Thru, SB RT Lanes
06/21/07
20:09:41

SIGNAL2000/TEAPAC[Ver 2.80.00] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 0.924 (Critical V/C 1.031) Control Delay 67.5 Level of Service E+



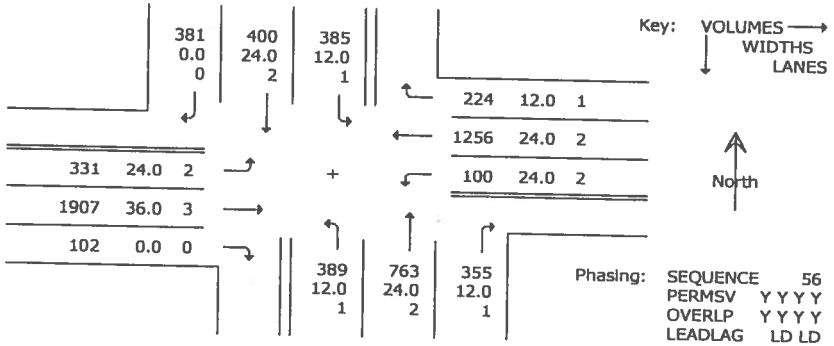
C=130 sec G=105.0 sec = 80.8% Y=25.0 sec = 19.2% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @D (vph)	Service Rate @E (vph)	Adj Volume	v/c	HCM Delay	LS	Queue Model 1
SB Approach								53.6	D	
RT	12/1	0.349	0.359	500	563	482	0.856	50.9	D	750 ft
TH	24/2	0.187	0.219	626	759	497	0.647	48.1	D	397 ft
LT	12/1	0.275	0.264	469	520	487	0.937	62.0	*E+	812 ft
NB Approach								69.0	E	
RT	12/1	0.294	0.296	387	452	383	0.825	54.3	D	607 ft
TH	24/2	0.264	0.219	626	759	808	1.052	97.8	*F	857 ft
LT	12/1	0.199	0.264	542	571	427	0.748	27.7	C	561 ft
WB Approach								77.8	E	
RT	12/1	0.216	0.564	873	884	246	0.278	14.8	B+	214 ft
TH	36/3	0.296	0.261	1180	1312	1380	1.052	87.7	*F	998 ft
LT	24/2	0.099	0.038	1	96	108	0.824	95.1	*F	115 ft
EB Approach								67.4	E+	
RT+TH	48/4	0.332	0.325	2080	2160	2136	0.989	60.4	E+	1052 ft
LT	24/2	0.155	0.102	124	308	352	1.011	109.5	*F	391 ft

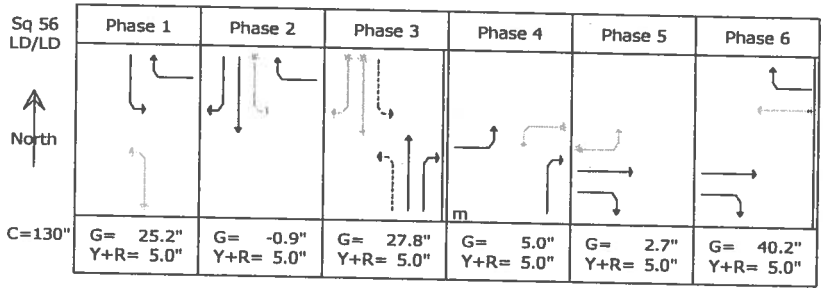
SIGNAL2000/TEAPAC[Ver 2.80.00] - HCM Input Worksheet

Intersection # 1 -

Area Location Type: NONCBD

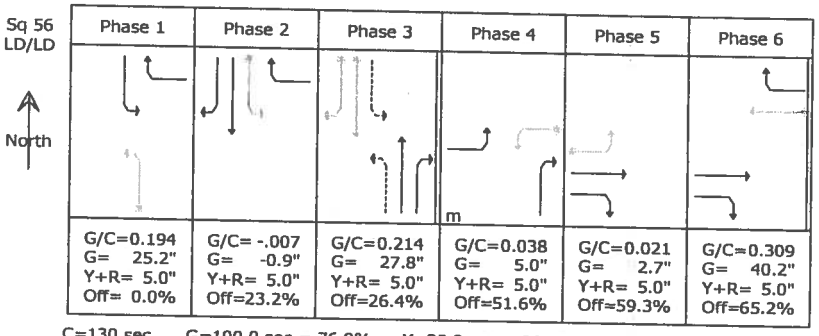


	SB RT	SB TH	SB LT	WB RT	WB TH	WB LT	NB RT	NB TH	NB LT	EB RT	EB TH	EB LT
Heavy veh, %HV	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Pk-hr fact, PHF	.79	.79	.79	.91	.91	.91	.90	.90	.90	.94	.94	.94
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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	



SIGNAL2000/TEAPAC[Ver 2.80.00] - Capacity Analysis Summary

Intersection Averages for Int # 1 -
V/C 1.124 (Critical V/C 1.279) Control Delay 128.8 Level of Service F



C=130 sec G=100.0 sec = 76.9% Y=30.0 sec = 23.1% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @D (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								145.8	F	
RT+TH	24/2	0.329	0.245	676	797	988	1.237	166.2	*F	1254 ft
LT	12/1	0.274	0.225	400	449	487	1.077	104.4	*F	994 ft
NB Approach								105.7	F	
RT	12/1	0.300	0.291	378	443	394	0.864	59.4	E+	645 ft
TH	24/2	0.273	0.214	607	742	848	1.128	125.0	F	976 ft
LT	12/1	0.243	0.194	348	392	432	1.088	110.3	*F	908 ft
WB Approach								147.0	F	
RT	12/1	0.216	0.573	890	898	246	0.274	14.2	B+	210 ft
TH	24/2	0.405	0.309	992	1085	1380	1.272	174.6	*F	1757 ft
LT	24/2	0.100	0.038	1	96	110	0.840	98.1	*F	118 ft
EB Approach								121.6	F	
RT+TH	36/3	0.431	0.368	1783	1837	2138	1.164	121.2	F	1684 ft
LT	24/2	0.155	0.098	100	292	352	1.057	123.8	*F	411 ft

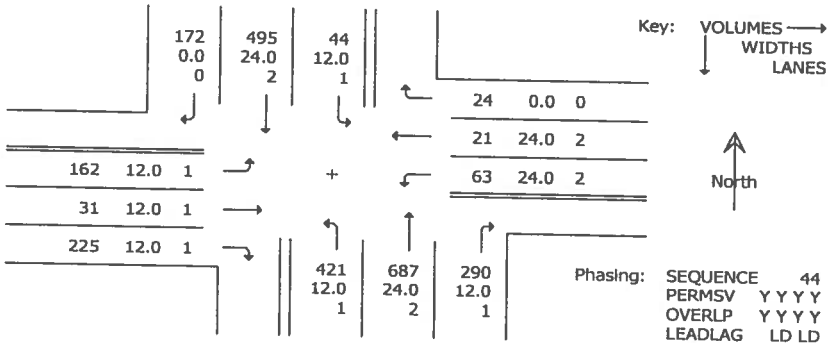
Analysis of Intersection #2

Singer Rd / Jefferson St

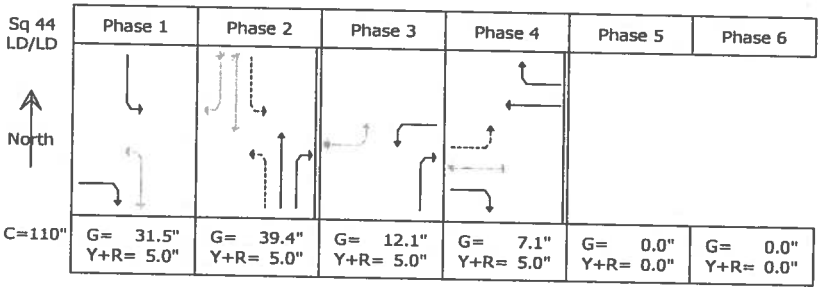
SIGNAL2000/TEAPAC[Ver 2.80.00] - HCM Input Worksheet

Intersection # 2 -

Area Location Type: NONCBD



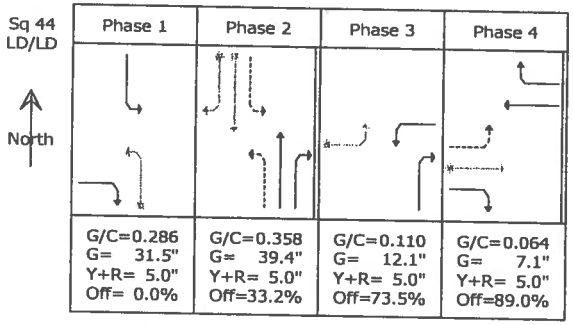
	SB RT	SB TH	SB LT	WB RT	WB TH	WB LT	NB RT	NB TH	NB LT	EB RT	EB TH	EB LT
Heavy veh, %HV	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Pk-hr fact, PHF	.83	.83	.83	.75	.75	.75	.89	.89	.89	.80	.80	.80
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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	



Jefferson Office Plaza (Jefferson Plaza / Jefferson St)
Analysis of Singer Rd / Jefferson St - [2_ANX.FOR]
2009 AM Peak NOBUILD Conditions
06/21/07
20:28:12

SIGNAL2000/TEAPAC[Ver 2.80.00] - Capacity Analysis Summary

Intersection Averages for Int # 2 -
V/C 0.583 (Critical V/C 0.780) Control Delay 29.0 Level of Service C

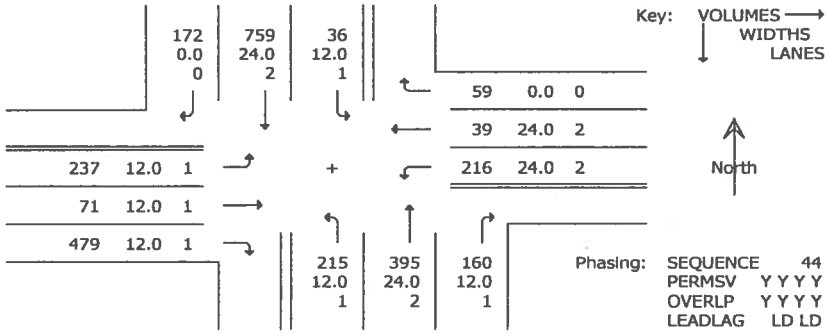


C=110 sec G= 90.0 sec = 81.8% Y=20.0 sec = 18.2% Ped= 0.0 sec = 0.0%

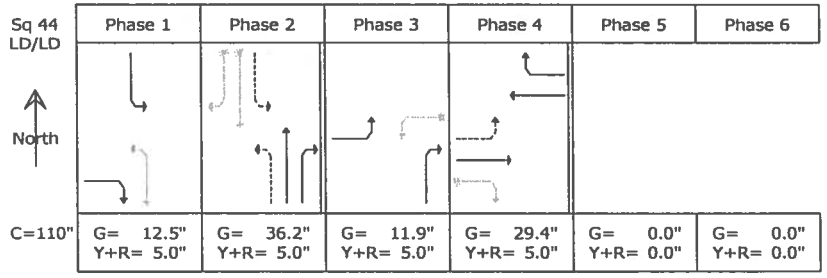
Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @D (vph)	Service Rate @E (vph)	Adj Volume	v/c	HCM Delay	LOS	Queue Model 1
SB Approach								29.7	C	
RT+TH	24/2	0.258	0.358	1180	1209	803	0.664	31.1	*C	494 ft
LT	12/1	0.000	0.286	632	645	53	0.082	7.6	A	27 ft
NB Approach								25.4	C+	
RT	12/1	0.247	0.513	796	805	326	0.405	16.8	B	283 ft
TH	24/2	0.240	0.358	1230	1258	772	0.614	29.9	C	461 ft
LT	12/1	0.206	0.286	618	634	473	0.746	23.8	*C+	451 ft
WB Approach								47.0	D	
RT+TH	24/2	0.038	0.064	126	180	60	0.288	49.8	D	45 ft
LT	24/2	0.046	0.110	276	351	84	0.225	45.0	D	58 ft
EB Approach								33.6	C	
RT	12/1	0.220	0.396	586	621	281	0.452	25.0	C+	291 ft
TH	12/1	0.046	0.064	65	95	39	0.328	50.8	*D	56 ft
LT	12/1	0.079	0.110	258	301	202	0.641	42.3	*D+	270 ft

SIGNAL2000/TEAPAC[Ver 2.80.00] - HCM Input Worksheet

Intersection # 2 - Area Location Type: NONCBD



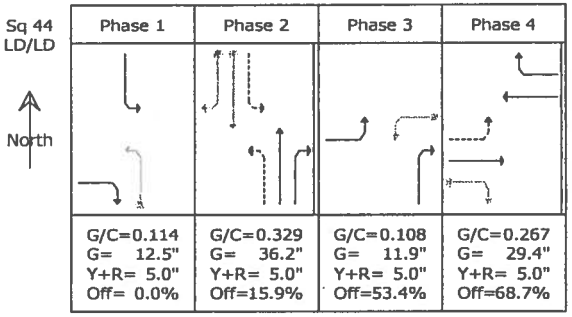
	SB RT	SB TH	SB LT	WB RT	WB TH	WB LT	NB RT	NB TH	NB LT	EB RT	EB TH	EB LT
Heavy veh, %HV	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Pk-hr fact, PHF	.86	.86	.86	.75	.75	.75	.91	.91	.91	.75	.75	.75
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
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	



Jefferson Office Plaza (Jefferson Plaza / Jefferson St)
Analysis of Singer Rd / Jefferson St - [2_PNX.FOR]
2009 PM Peak NOBUILD Conditions
06/21/07
20:30:28

SIGNAL2000/TEAPAC[Ver 2.80.00] - Capacity Analysis Summary

Intersection Averages for Int # 2 -
V/C 0.732 (Critical V/C 0.964) Control Delay 45.2 Level of Service D

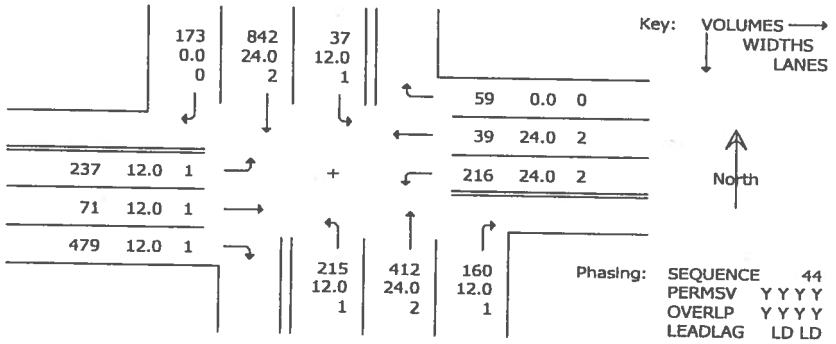


C=110 sec G= 90.0 sec = 81.8% Y=20.0 sec = 18.2% Ped= 0.0 sec = 0.0%

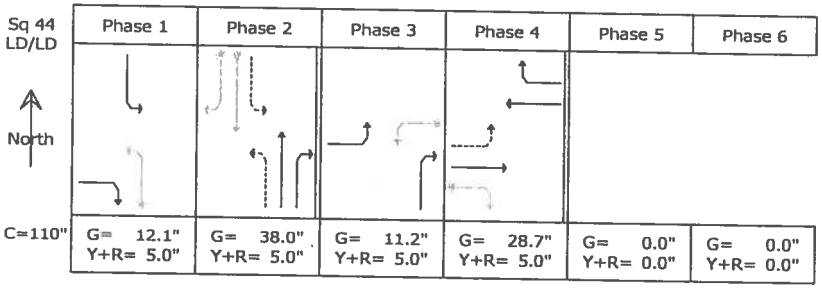
Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @D (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	L S	Queue Model 1
SB Approach								53.4	D	
RT+TH	24/2	0.329	0.329	1084	1124	1083	0.964	54.9	*D	866 ft
LT	12/1	0.000	0.114	436	456	42	0.092	15.4	B	33 ft
NB Approach								33.9	C	
RT	12/1	0.154	0.483	741	757	176	0.232	16.7	B	147 ft
TH	24/2	0.151	0.329	1117	1156	434	0.375	28.4	C	246 ft
LT	12/1	0.116	0.114	234	261	236	0.884	56.8	*E+	352 ft
WB Approach								49.7	D	
RT+TH	24/2	0.067	0.267	790	853	131	0.154	30.9	C	76 ft
LT	24/2	0.113	0.108	271	345	288	0.783	58.3	*E+	230 ft
EB Approach								43.6	D+	
RT	12/1	0.426	0.426	640	669	639	0.955	54.8	*D	938 ft
TH	12/1	0.085	0.267	433	492	95	0.193	31.3	C	106 ft
LT	12/1	0.009	0.108	509	539	316	0.586	24.7	C+	346 ft

SIGNAL2000/TEAPAC[Ver 2.80.00] - HCM Input Worksheet

Intersection # 2 - Area Location Type: NONCBD

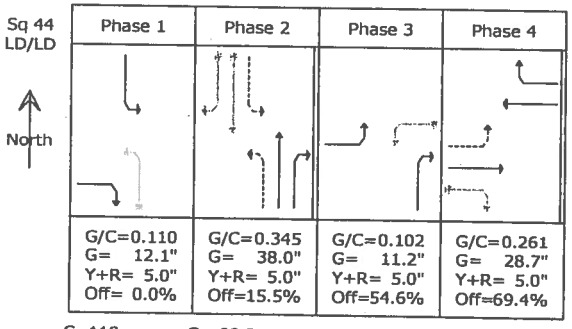


	SB RT	SB TH	SB LT	WB RT	WB TH	WB LT	NB RT	NB TH	NB LT	EB RT	EB TH	EB LT
Heavy veh, %HV	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Pk-hr fact, PHF	.86	.86	.86	.75	.75	.75	.91	.91	.91	.75	.75	.75
Pretimed or Act	A	A	A	A	A	A	A	A	A	A	A	A
Strtup lost, l1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Ext eff grn, e	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Arrival typ, AT	3	3	3	3	3	3	3	3	3	3	3	3
Ped vol, vped		0			0			0			0	
Bike vol, vbic		0			0			0			0	
Parking locatns		NO			NO			NO			NO	
Park mnvrs, Nm		0			0			0			0	
Bus stops, NB		0			0			0			0	
Grade, %G		.0			.0			.0			.0	



SIGNAL2000/TEAPAC[Ver 2.80.00] - Capacity Analysis Summary

Intersection Averages for Int # 2 -
V/C 0.759 (Critical V/C 0.989) Control Delay 49.7 Level of Service D



C=110 sec G= 90.0 sec = 81.8% Y=20.0 sec = 18.2% Ped= 0.0 sec = 0.0%

Lane Group	Width/ Lanes	g/C Reqd	g/C Used	Service Rate @D (vph)	Service Rate @E	Adj Volume	v/c	HCM Delay	LOS	Queue Model 1
SB Approach								60.1	E+	
RT+TH	24/2	0.354	0.345	1148	1182	1180	0.998	61.7	*E+	984 ft
LT	12/1	0.000	0.110	438	457	43	0.094	14.7	B+	34 ft
NB Approach								34.7	C	
RT	12/1	0.154	0.493	759	773	176	0.228	16.1	B	145 ft
TH	24/2	0.156	0.345	1180	1213	453	0.373	27.2	C+	251 ft
LT	12/1	0.116	0.110	227	253	236	0.908	63.0	*E+	365 ft
WB Approach								53.6	D	
RT+TH	24/2	0.067	0.261	767	832	131	0.157	31.4	C	77 ft
LT	24/2	0.113	0.102	251	324	288	0.828	63.6	*E+	238 ft
EB Approach								48.4	D	
RT	12/1	0.426	0.416	621	652	639	0.980	61.8	*E+	978 ft
TH	12/1	0.085	0.261	420	479	95	0.198	31.9	C	107 ft
LT	12/1	0.015	0.102	488	520	316	0.608	26.3	C+	355 ft

Analysis of Intersection #3

Jefferson Plaza / Jefferson St

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information

Analyst	Nancy
Agency or Company	Terry Brown, P.E.
Analysis Period/Year	AM Peak Hour 2009
Comment	2009 AM Peak NOBUILD Conditions

Site Information

Jurisdiction/Date	City of ABQ 6/13/2007
Major Street	Jefferson St
Minor Street	Jefferson Plaza

Input Data

Lane Configuration	NB	SB	WB	EB
Lane 1 (curb)	TR	R	LTR	LTR
Lane 2	T	T		
Lane 3	L	T		
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)	71	534	10	7	578	94	2	7	4	15	1	15
PHF	0.91	0.91	0.91	0.88	0.88	0.88	0.75	0.75	0.75	0.75	0.75	0.75
Percent of heavy vehicles, HV	3	3	3	3	3	3	3	3	3	3	3	3
Flow rate	78	587	11	8	657	107	3	9	5	20	1	20
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	LTR	17	269	0.063	0	19.3	C	19.3
	2								
	3								C
EB	1	LTR	41	372	0.110	0	15.9	C	15.9
	2								
	3								C
NB		(1)	78	838	0.093	0	9.7	A	
SB		(4)	8	968	0.008	0	8.7	A	

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information

Analyst	Nancy
Agency or Company	Terry Brown, P.E.
Analysis Period/Year	AM Peak Hour 2009
Comment	2009 AM Peak BUILD Conditions

Site Information

Jurisdiction/Date	City of ABQ 6/13/2007
Major Street	Jefferson St
Minor Street	Jefferson Plaza

Input Data

Lane Configuration	NB	SB	WB	EB
Lane 1 (curb)	TR	R	LTR	LTR
Lane 2	T	T		
Lane 3	L	T		
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)	154	534	10	7	578	144	2	7	4	22	1	26
PHF	0.91	0.91	0.91	0.88	0.88	0.88	0.75	0.75	0.75	0.75	0.75	0.75
Percent of heavy vehicles, HV	3	3	3	3	3	3	3	3	3	3	3	3
Flow rate	169	587	11	8	657	164	3	9	5	29	1	35
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	LTR	17	186	0.091	0	26.3	D	26.3
	2								
	3								D
EB	1	LTR	65	323	0.201	1	18.9	C	18.9
	2								
	3								C
NB		(1)	169	798	0.212	1	10.7	B	
SB		(4)	8	968	0.008	0	8.7	A	

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information

Analyst	Nancy
Agency or Company	Terry Brown, P.E.
Analysis Period/Year	PM Peak Hour 2009
Comment	2009 PM Peak NOBUILD Conditions

Site Information

Jurisdiction/Date	City of ABQ 6/13/2007
Major Street	Jefferson St
Minor Street	Jefferson Plaza

Input Data

Lane Configuration	NB	SB	WB	EB
Lane 1 (curb)	TR	R	LTR	LTR
Lane 2	T	T		
Lane 3	L	T		
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)	10	741	5	11	719	15	7	1	10	76	1	53
PHF	0.86	0.86	0.86	0.97	0.97	0.97	0.75	0.75	0.75	0.75	0.75	0.75
Percent of heavy vehicles, HV	3	3	3	3	3	3	3	3	3	3	3	3
Flow rate	12	862	6	11	741	15	9	1	13	101	1	71
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	LTR	23	331	0.069	0	16.7	C	16.7
	2								
	3								C
EB	1	LTR	173	329	0.526	3	27.5	D	27.5
	2								
	3								D
NB		(1)	12	843	0.014	0	9.3	A	
SB		(4)	11	766	0.015	0	9.8	A	

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information

Analyst	Nancy
Agency or Company	Terry Brown, P.E.
Analysis Period/Year	PM Peak Hour 2009
Comment	2009 PM Peak BUILD Conditions

Site Information

Jurisdiction/Date	City of ABQ 6/13/2007
Major Street	Jefferson St
Minor Street	Jefferson Plaza

Input Data

Lane Configuration	NB	SB	WB	EB
Lane 1 (curb)	TR	R	LTR	LTR
Lane 2	T	T		
Lane 3	L	T		
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)	28	741	5	11	719	25	7	1	10	127	1	138
PHF	0.86	0.86	0.86	0.97	0.97	0.97	0.75	0.75	0.75	0.75	0.75	0.75
Percent of heavy vehicles, HV	3	3	3	3	3	3	3	3	3	3	3	3
Flow rate	33	862	6	11	741	26	9	1	13	169	1	184
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	LTR	23	294	0.078	0	18.3	C	18.3
	2								
	3								C
EB	1	LTR	354	350	1.012	12	86.4	F	86.4
	2								
	3								F
NB		(1)	33	836	0.039	0	9.5	A	
SB		(4)	11	766	0.015	0	9.8	A	

HiCAP ™2.0.0.1

3 - 3_09PBX
1 of 1

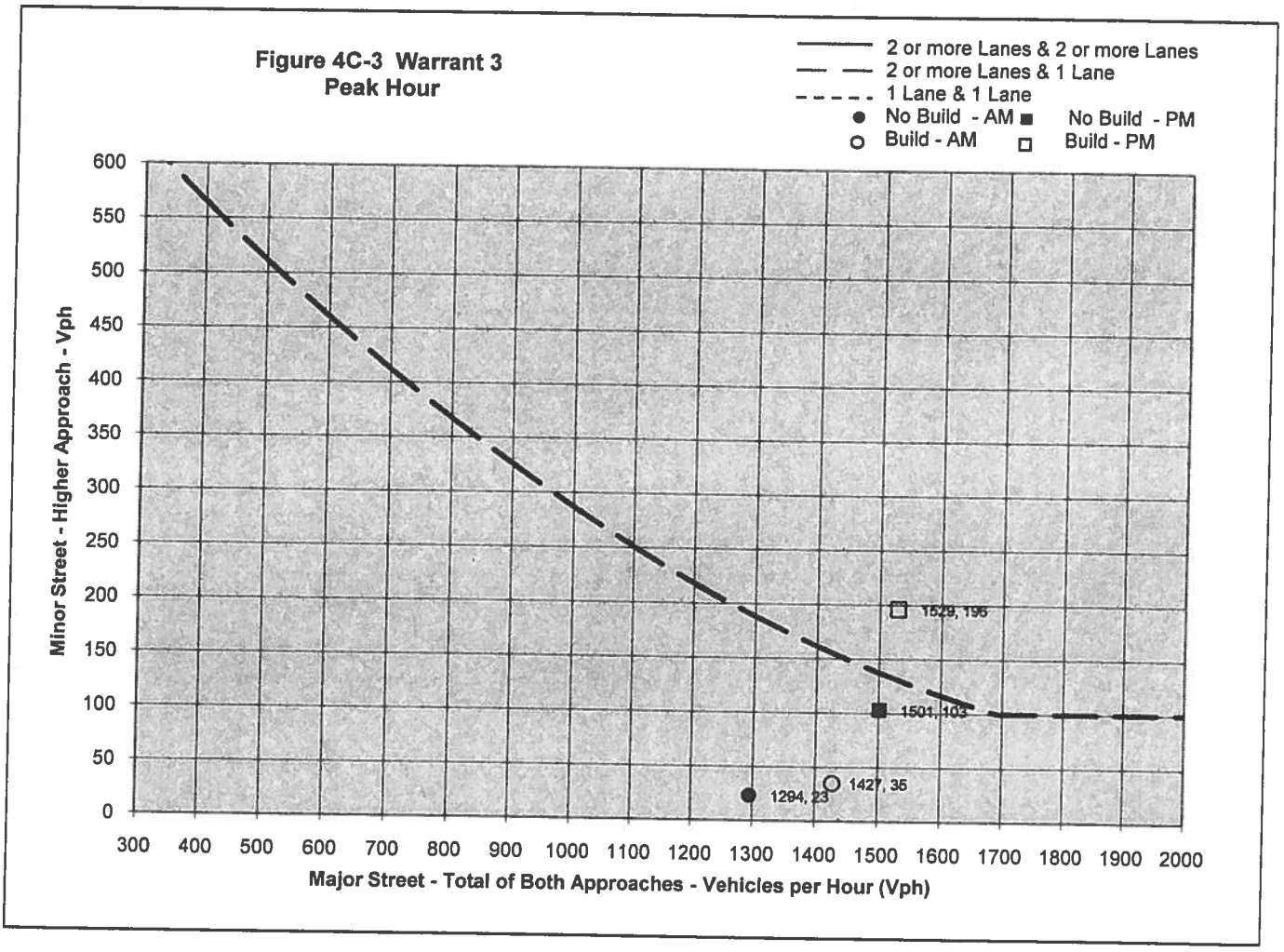
Project Name
Jefferson Plaza Office Development
Intersection
Jefferson Plaza / Jefferson St.
Analysis Year
2009

Number of Lanes

Major St.	2
Minor St.	1

Analysis Year Traffic Volumes

AM	Major	Minor	PM	Major	Minor
No Build	1294	23	No Build	1501	103
Build	1427	35	Build	1529	196



Comments -

Developed by DWH

Analysis of Intersection #4

Jefferson Plaza / Driveway 'A'

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information

Analyst	Nancy
Agency or Company	Terry Brown, P.E.
Analysis Period/Year	AM Peak Hour 2009
Comment	2009 AM Peak BUILD Conditions

Site Information

Jurisdiction/Date	City of ABQ 6/13/2007
Major Street	Jefferson Plaza
Minor Street	Driveway 'A'

Input Data

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

	EB			WB			NB			SB		
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)	1	37			215	80				11		1
PHF	0.88	0.88			0.88	0.88				0.85		0.85
Percent of heavy vehicles, HV	3	3			3	3				3		3
Flow rate	1	42			244	91				13		1
Flare storage (# of vehs)												
Median storage (# of vehs)												

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1								
	2								
	3								
SB	1	LR	14	664	0.021	0	10.5	B	10.5
	2								
	3								B
EB		(1)	1	1218	0.001	0	8.0	A	
WB		(4)							

HiCAP ™2.0.0.1
©Catalina Engineering, Inc.

4 - 4_09ABX
1 of 1

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information

Analyst	Nancy
Agency or Company	Terry Brown, P.E.
Analysis Period/Year	PM Peak Hour 2009
Comment	2009 PM Peak BUILD Conditions

Site Information

Jurisdiction/Date	City of ABQ 6/13/2007
Major Street	Jefferson Plaza
Minor Street	Driveway 'A'

Input Data

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

	EB			WB			NB			SB		
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)	1	183			35	17				82		1
PHF	0.97	0.97			0.97	0.97				0.85		0.85
Percent of heavy vehicles, HV	3	3			3	3				3		3
Flow rate	1	189			36	18				96		1
Flare storage (# of vehs)												
Median storage (# of vehs)												

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1								
	2								
	3								
SB	1	LR	97	752	0.129	0	10.5	B	10.5
	2								
	3								B
EB		(1)	1	1545	0.001	0	7.3	A	
WB		(4)							

HiCAP ™2.0.0.1
©Catalina Engineering, Inc.

4 - 4_09PBX
1 of 1

Analysis of Intersection #5

Jefferson Plaza / Driveway 'B'

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information

Analyst	Nancy
Agency or Company	Terry Brown, P.E.
Analysis Period/Year	AM Peak Hour 2009
Comment	2009 AM Peak BUILD Conditions

Site Information

Jurisdiction/Date	City of ABQ 6/13/2007
Major Street	Jefferson Plaza
Minor Street	Driveway 'B'

Input Data

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

	EB			WB			NB			SB		
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)	1	30			162	53				7		1
PHF	0.88	0.88			0.88	0.88				0.85		0.85
Percent of heavy vehicles, HV	3	3			3	3				3		3
Flow rate	1	34			184	60				8		1
Flare storage (# of vehs)												
Median storage (# of vehs)												

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1								
	2								
	3								
SB	1	LR	9	744	0.012	0	9.9	A	9.9
	2								
	3								A
EB		(1)	1	1316	0.001	0	7.7	A	
WB		(4)							

HiCAP ™2.0.0.1
©Catalina Engineering, Inc.

5 - 5_09ABX
1 of 1

CHAPTER 17 - TWSC - UNSIGNALIZED INTERSECTIONS WORKSHEET

Analysis Summary

General Information

Analyst	Nancy
Agency or Company	Terry Brown, P.E.
Analysis Period/Year	PM Peak Hour 2009
Comment	2009 PM Peak BUILD Conditions

Site Information

Jurisdiction/Date	City of ABQ 6/13/2007
Major Street	Jefferson Plaza
Minor Street	Driveway 'B'

Input Data

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

	EB			WB			NB			SB		
Movement	1 (LT)	2 (TH)	3 (RT)	4 (LT)	5 (TH)	6 (RT)	7 (LT)	8 (TH)	9 (RT)	10 (LT)	11 (TH)	12 (RT)
Volume (veh/h)	1	129			24	11				54		1
PHF	0.97	0.97			0.97	0.97				0.85		0.85
Percent of heavy vehicles, HV	3	3			3	3				3		3
Flow rate	1	133			25	11				64		1
Flare storage (# of vehs)												
Median storage (# of vehs)												

Signal upstream of Movement 2 _____ ft Movement 5 _____ ft

Length of study period (h) 0.25

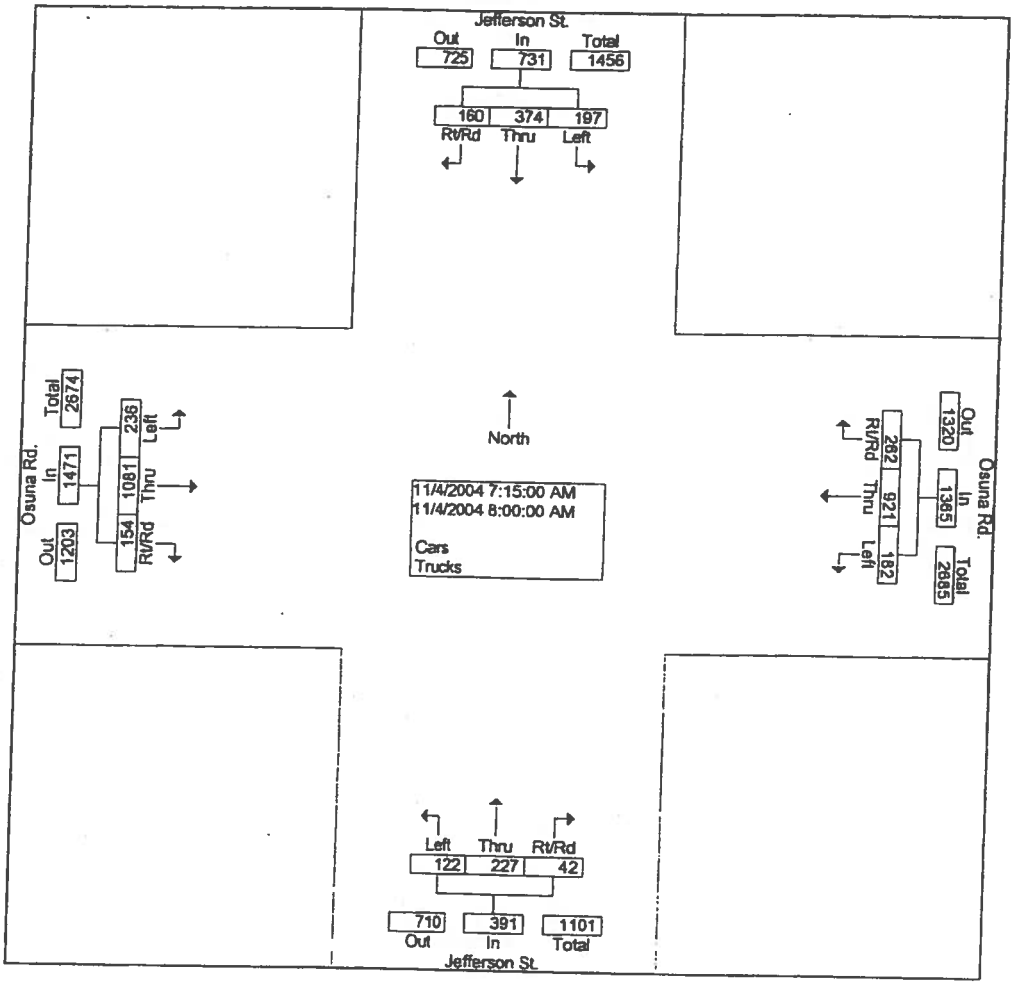
Output Data

	Lane	Movement	Flow Rate (veh/h)	Capacity (veh/h)	v/c	Queue Length (veh)	Control Delay (s)	LOS	Approach Delay and LOS
NB	1								
	2								
	3								
SB	1	LR	65	825	0.079	0	9.7	A	9.7
	2								
	3								A
EB		(1)	1	1568	0.001	0	7.3	A	
WB		(4)							

Mid-Region Council of Governments
Intersection Turning Movement Analysis

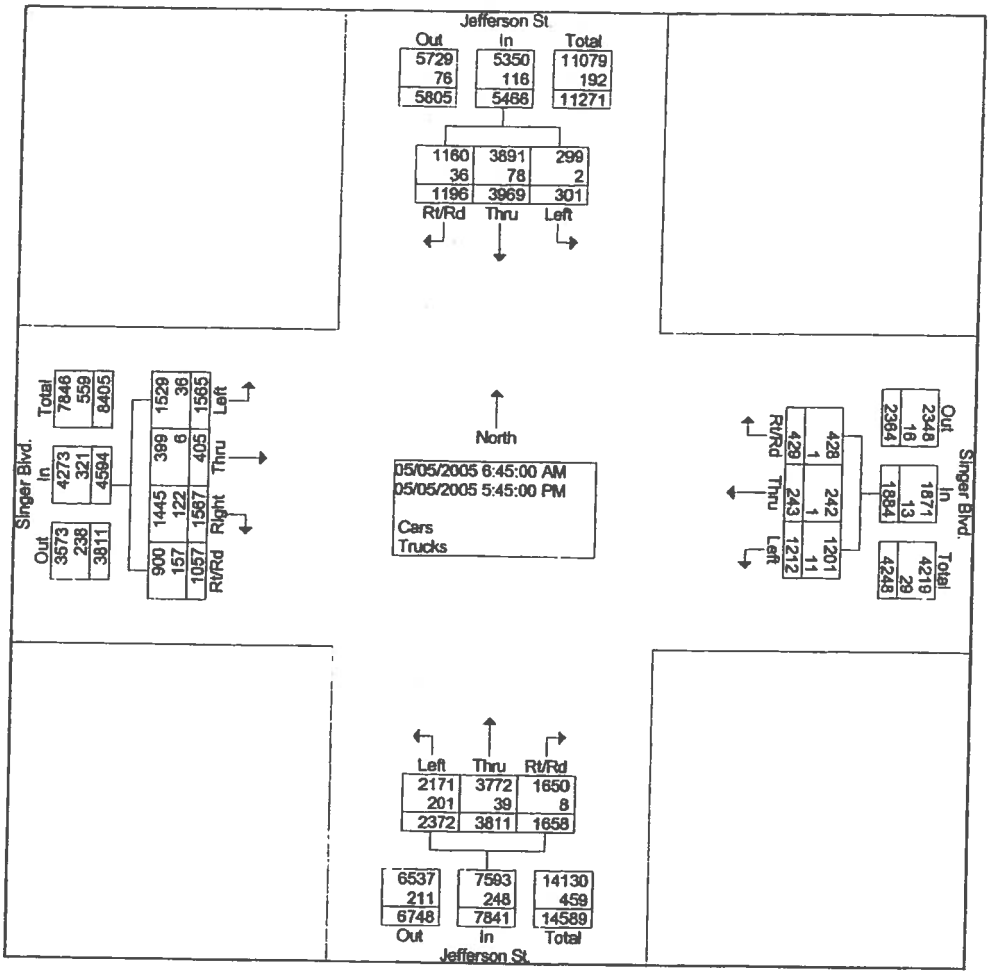
File Name : Osuna Rd. and Jefferson St
Site Code : 00025373
Start Date : 11/04/2004
Page No : 3

	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
Peak Factor																					
High Int.	07:45					07:45					07:45					07:45					0.877
Volume	58	105	47	1	211	53	264	74	0	391	34	61	9	4	108	91	285	41	1	418	1128
Peak Factor					0.866					0.873					0.905					0.880	



Mid-Region Council of Governments
IntersectionTurning Movement Analysis

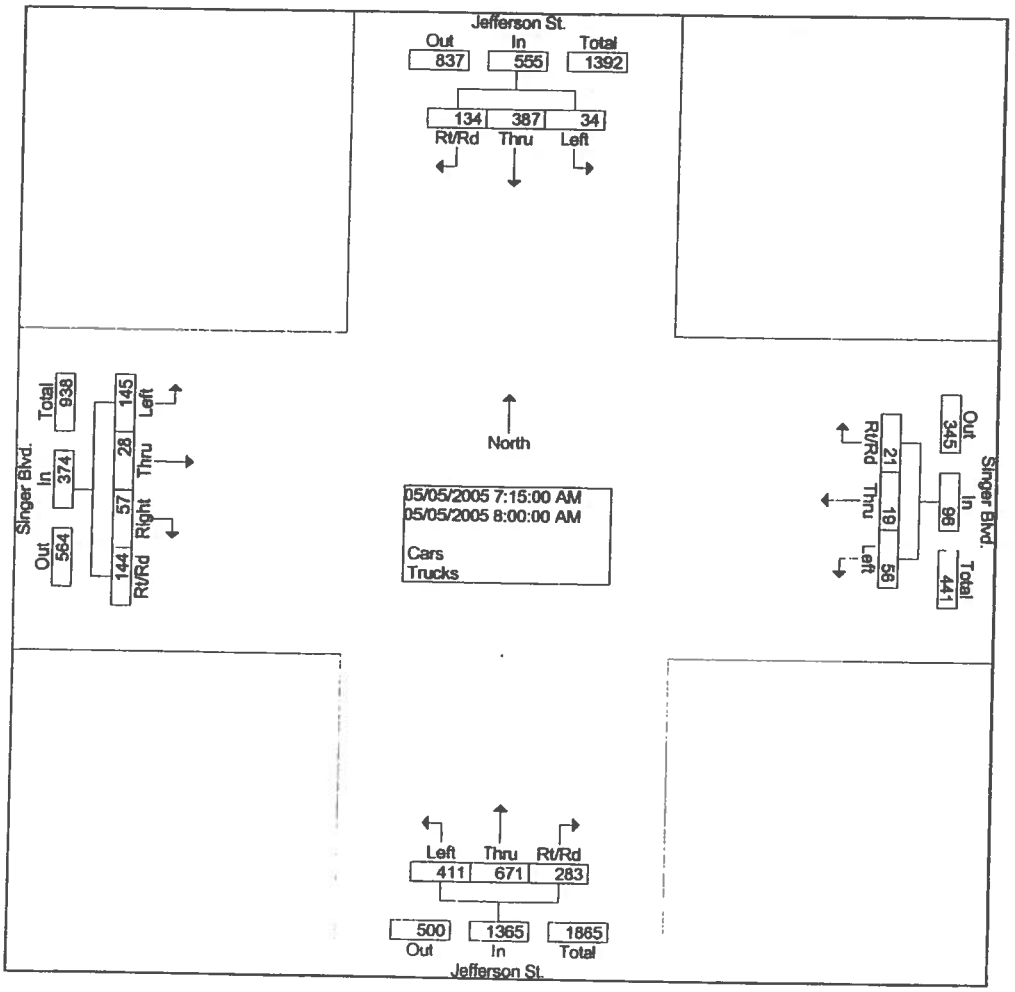
File Name : Singer Blvd. and Jefferson St.
Site Code : 00025880
Start Date : 05/05/2005
Page No : 2



Mid-Region Council of Governments
Intersection Turning Movement Analysis

File Name : Singer Blvd. and Jefferson St
Site Code : 00025880
Start Date : 05/05/2005
Page No : 3

	Jefferson St. From North					Singer Blvd. From East					Jefferson St. From South					Singer Blvd. 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	34	387	121	13	555	56	19	21	0	96	411	671	282	1	1365	145	28	57	144	374	2390
Percent	6.1	69.7	21.8	2.3		58.3	19.8	21.9	0.0		30.1	49.2	20.7	0.1		38.8	7.5	15.2	38.5		
Volume	34	387	121	13	555	56	19	21	0	96	411	671	282	1	1365	145	28	57	144	374	2390
Peak Factor																					
High Int.	07:45					08:00					07:45					07:45					690
Volume	14	107	39	8	168	23	8	8	0	39	108	189	87	0	384	41	10	20	46	117	0.866
Peak Factor					0.826					0.615					0.889					0.799	



Signalized Intersection Information Sheet

Intersection: **Jefferson Plaza / Jefferson St**

Speed Limit - E-W Street: 25 M.P.H.
Speed Limit - N-S Street: 35 M.P.H.
Type of Intersection Control: Signalized

Date: **6/12/2007**

East Bound Approach: Jefferson Plaza

	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	NO	NO

Is there a right turn slip laned that by-passes the traffic signal? NO

West Bound Approach: Jefferson Plaza

	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	NO	NO

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	-	1	1	-
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: Jefferson St

	Left Turn Lanes	Thru / Lefts	Thru Lanes	Thru / Rights	Right Turn Lanes
	1	-	2	-	1
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