



2007 annual traffic safety report





San Luis Obispo Traffic Engineering Div. & Police Department October 2008

table of contents

2007 TRAFFIC SAFETY REPORT OCTOBER 2008	3
A MESSAGE FROM THE PUBLIC WORKS AND POLICE DEPARTMENT	4
EXECUTIVE SUMMARY	5
INTRODUCTION	6
BACKGROUND	7
CITY-WIDE COLLISION STATISTICS	9
TABLE 3.1 - CITY-WIDE ANNUAL COLLISION DATA	
Figure 3.1 - Nine Year Collision Trend	
TABLE 3.2 - CITY-WIDE ANNUAL INJURY AND FATAL COLLISIONS	
Figure 3.2.1 - Nine Year Injury Collision Trend Table 3.4 - Comparison of Injury & Death Rates	
TABLE 5.4 - COMPARISON OF INJURY & DEATH RATES	
TABLE 3.5.2 - COMPREHENSIVE COSTS, 2007	
TABLE 3.5.3 - CITY OF SAN LUIS OBISPO ECONOMIC COSTS, 2001-2007 TRAFFIC COLLISIONS	
TABLE 3.6 – 1999-2007 PEDESTRIAN COLLISIONS	
Figure 3.6 – 1999-2007 Pedestrian Collision Trend	
TABLE 3.6.1 –2007 PEDESTRIAN COLLISIONS BY TYPE, LOCATION, & FAULT	
TABLE 3.7.1 – 1999-2007 BICYCLE COLLISIONS TABLE 3.7.2 – 2007 BICYCLE COLLISION BY TYPE & FAULT	
TABLE 3.7.2 – 2007 BICYCLE COLLISION BY TYPE & FAULT ENFORCEMENT STATISTICS	
SAFETY INVESTIGATIONS	23
TABLE 5.2 - 2007 COMPLETED SAFETY PROJECTS	25
2007 HIGH COLLISION RATE LOCATIONS	26
TABLE 6.1 – TOP FIVE PEDESTRIAN COLLISION LOCATIONS	
TABLE 6.2 – TOP FIVE BICYCLE COLLISION LOCATIONS	
TABLE 6.3 - RECOMMENDATIONS FOR INTERSECTIONS INVOLVING TWO ARTERIAL STREETS	
TABLE 6.4 - RECOMMENDATIONS FOR INTERSECTIONS INVOLVING ARTERIAL/COLLECTOR STREETS	
TABLE 6.5 - RECOMMENDATIONS FOR INTERSECTIONS INVOLVING ARTERIAL/LOCAL STREETS	
TABLE 6.6 - RECOMMENDATIONS FOR INTERSECTIONS INVOLVING COLLECTOR/COLLECTOR STREETS TABLE 6.7 - RECOMMENDATIONS FOR INTERSECTIONS INVOLVING COLLECTOR/LOCAL STREETS	
TABLE 6.8 - RECOMMENDATIONS FOR INTERSECTIONS INVOLVING COLLECTOR/LOCAL STREETS	
TABLE 0.0 RECOMMENDATIONS FOR OTHER SIGNIFICANT INTERSECTIONS: 5+ LEFT TURN COLLISIONS AT SIGNALIZED INTERSECTION	
TABLE 6.10 - RECOMMENDATIONS FOR OTHER SIGNIFICANT INTERSECTIONS: 5+ COLLISIONS AT INTERSECTIONS WITHOUT ALL-WAY	
Control	
TABLE 6.11 - RECOMMENDATIONS FOR ARTERIAL SEGMENTS	
TABLE 6.12 - RECOMMENDATIONS FOR COLLECTOR SEGMENTS Theory of 12 - Recommendations for Collector Segments	
TABLE 6.13 - RECOMMENDATIONS FOR LOCAL SEGMENTS	
2007 TRAFFIC ENFORCEMENT ACTIVITIES	57
APPENDIX 1	63
ARTERIAL / ARTERIAL INTERSECTIONS	63
ARTERIAL / COLLECTOR INTERSECTIONS	
ARTERIAL / LOCAL INTERSECTIONS	77
COLLECTOR / COLLECTOR INTERSECTIONS	
COLLECTOR / LOCAL INTERSECTIONS	
LOCAL / LOCAL INTERSECTIONS	
OTHER SIGNIFICANT INTERSECTIONS	
COLLECTOR SEGMENTS	
LOCAL SEGMENTS	

2007 traffic safety report

OCTOBER 2008

City Council

Dave Romero, Mayor Allen Settle, Vice Mayor Andrew Carter Christine Mulholland Paul Brown

City Administration

Ken Hampian, City Administrative Officer Shelly Stanwyck, Assistant City Administrative Officer

Public Works Department

Jay Walter, Public Works Director Timothy S. Bochum, Deputy Director of Public Works Peggy Mandeville, Principal Transportation Planner Jake Hudson, Senior Traffic Engineer Chris Overby, Engineer II - Traffic Bryan Wheeler, Transportation Intern Mateo Echabarne, Transportation Intern

Police Department

Deborah Linden, Chief of Police Dan Blanke, Operations Captain Steve Tolley, Operations Lieutenant Kerri Rosenblum, Communications and Records Manager Jeff Booth, Traffic Sergeant

a message from the public works and police departments

Welcome to the 7th edition of the City of San Luis Obispo Traffic Safety Report prepared by staff from the Public Works and Police Departments. The Annual Traffic Safety Report began in 2002 in an attempt to identify high collision locations within the City and actively pursue mitigation improvements that may reduce our collision rates and improve safety for our citizens.

Calendar year 2007 was another watershed year for the City's traffic safety program. Total reported collisions were the *lowest* in the seven year history of the traffic safety program. Although injury collisions were slightly higher that 2006, the difference was seven collisions which represents an increase that is well within the goals of the program.

Collisions in 2007 were about 0.7% lower than recorded collisions in 2006, and approximately 30% lower than the total recorded in the first year (2002) of the traffic safety program. Injury collisions were slightly up by approximately 2.8% from 2006; however the total number of injury collisions has declined by approximately 17% since the first year of the traffic safety program. These reductions are statistically significant and a very positive indication of the effectiveness of the traffic safety program. Traffic fatalities in any given year are usually random and there were no fatalities in the City in 2007.

The 2007 Traffic Safety Report again looks at bicycle and pedestrian collisions and tracks occurrences to identify potential high profile locations. Similar to fatal collisions, bicycle and pedestrian collision rates tend to occur sporadically both in location and number of occurrences. This continues to be the case in 2007, when pedestrian collisions declined 33% and bicycle collisions declined 3% from 2006.

As in previous Traffic Safety Reports, staff reviewed all high collision rate intersections and segment locations and has recommended mitigation measures to increase safety at the top five locations in each category. Our goal is that the combination of thorough analysis, appropriate mitigation, and consistent and focused education and enforcement will continue to reduce traffic collisions and injuries and improve the safety of our motoring, walking and bicycling public.

We would like to thank and acknowledge Public Works employees Jake Hudson, Dario Senor, Peggy Mandeville, Chris Overby, Bryan Wheeler, and Mateo Echabarne, and Police Department employees Jeff Booth, Kerri Rosenblum, and Steve Tolley for their tireless work in compiling the necessary information that has gone into this report and disseminating the data to make recommendations for appropriate improvements. Staff from both departments will diligently implement the recommendations outlined in this report in order to continue to make our City streets safer.

Timothy Scott Bochum, T.E. Deputy Director of Public Works Deborah Linden Chief of Police

executive summary

Annual Traffic Safety Report - 2007

In January 2002, the City initiated its first comprehensive Traffic Safety Program aimed at reducing collisions at the highest collision locations in the City. The program concentrates on identifying all intersections and roadway segments which have experienced three or more collisions in a one-year period and then prioritizes these locations based upon collision rates, as compared to similar locations within the City. Collision patterns at the highest collision rate locations are then analyzed using collision diagrams that are produced using state of the art computer software. Each of the locations is then reviewed by staff to determine if mitigation measures can be implemented to reduce the likelihood of occurrence for the identified collision patterns.

Mitigation measures for high collision rate locations for calendar year 2006 have been identified and are summarized in this report. The Annual Traffic Safety Report will be prepared each year to review and report on City traffic safety benchmarks, improve traffic safety performance and maintain high levels of service for our City residents, business owners and visitors.

Since the City initiated the Traffic Safety report in 2002, traffic collisions have been on a downward trend, with the exception of 2004 in which the City experienced a spike in accidents due in part to an influx of construction within the City right-of-way, namely the Foothill Bridge closure, substantial new construction in the downtown, and seismic retrofits in the downtown. In 2007, the number of reported collisions dropped and was the lowest in the six years of the safety program.

Injury collisions were up 2.8% in 2007 (257), as compared to 2006 (250). Injury collisions as a percentage of all collisions have historically been on the rise by about 5 to 6% per year.

The number of fatality collisions in any given year is usually very random , in 2007 there were no reported traffic fatalities.

Intersection collisions generally declined from 2001 thru 2007, however in 2004 intersection collisions peaked, primarily due to an influx of construction within City right-of-way, including the Foothill bridge closure.

The 2007 Traffic Safety Report again looks at bicycle and pedestrian collisions and tracks their occurrences to identify potential high profile locations. Similar to fatal collisions, bicycle and pedestrian collision rates are sporadic from a location and occurrence perspective. This continued to be the case for the City with pedestrian collisions down 33% from 2006 totals and bicycle collisions down 3%.

introduction

How to Use This Report

Every year the City of San Luis Obispo will prepare a Traffic Safety Report for the previous twelve month period in order to: 1) determine the locations within the City that have the highest collision rates in comparison to like locations, 2) identify the predominant pedestrian and bicycle collision types and high collision locations, 3) evaluate the effectiveness of mitigation measures implemented in the previous twelve month period, 4) identify if new locations should be mitigated, and 5) determine if the types of collisions and previous collision trends have changed. This report identifies locations that may require special attention or mitigation in order to the number of collisions or severity of future collisions. The report will normally be prepared after City collision statistics become available in April or May of the following year.

The locations mentioned in this report should not be interpreted as a list of dangerous or "least safe" intersections within the City of San Luis Obispo. The specific total of collisions for any location for any year is a function of various factors such as weather patterns, construction, roadway conditions and driver habits. Many of these factors are often difficult to identify and are most often beyond the ability of the engineer to change or control. However, the City's mitigation program attempts to identify roadway elements that can be modified so as to make the transportation infrastructure more driver friendly, reduce driver confusion, promote bicycle and pedestrian safety and limit impact severity.

It is natural to expect that any location in the City will experience years above or below the expected value of collision rates that might be common to similar locations City-wide. Traffic volumes play an important role in determining the likelihood of collision totals (The more pedestrians and vehicles that use a location...the more likely a collision will occur). This report looks to identify locations that fall above the expected rate of similar City locations and propose mitigation measures, if necessary to reduce collision potential and limit collision severity.

Background

2.1 Study Objectives

The objective of the Annual Traffic Safety Report is essentially to identify the high collision locations in the City and track collision reductions through the various City safety programs and projects that the City administers each year. The specific objectives of the 2006 Traffic Safety Report are:

- Identify the intersections and segments within the City associated with the highest collision rates, and thoroughly analyze collision diagrams so as to suggest remedial mitigation measures for the five highest locations that will reduce the potential for collisions, and;
- Identify other significant signalized and non-signalized intersections which meet State warrants for traffic control upgrades, and;
- Identify the predominant pedestrian and bicycle collision types and high collision locations, and thoroughly analyze collision diagrams and police reports so as to determine remedial mitigation measures for the five highest pedestrian and bicycle collision locations that may reduce the potential for collisions and;
- Report on engineering safety analysis conducted in the previous 12-month period that the City and general public have identified as areas of concern regarding appropriate traffic control.

2.2 Study Methodology

Collision Data

It is important to note that the data contained within the Public Works Traffic Collision Database will vary from other sources of collision data such as the California - Statewide Integrated Traffic Records System (SWITRS) or the City's Emergency Dispatch Records System.

While SWITRS data is similarly derived from official police collision reports, many times the reports are coded incorrectly due to jurisdictional boundary issues and/or agency reporting inaccuracies. An example of this might be a collision occurring on Highway 101 – because the facility is under Caltrans jurisdiction, this collision record and its potential remediation would not be included in this report. However, because the CHP report may state the collision occurred within the City of San Luis Obispo, the SWITRS database might contain this as a collision under our jurisdiction. Likewise, City emergency dispatch may receive a call regarding a traffic collision but when the dispatched officer arrives, the vehicles have been moved on or there is no evidence of occurrence. Therefore, statistics derived from this data may be inaccurate for engineering purposes because no official proof or record exists of the actual collision type.

Reported traffic collisions obtained by the City Police Department are the basis used by the City Traffic Engineering Section to determine traffic safety. Report totals were obtained for each intersection and roadway segment within the City and entered into the City's traffic

collision database. These locations were then grouped by street characteristic and collision type. Collision diagrams were then generated using this data and interpretations of collision patterns were formulated.

Based on the collision patterns for the five highest ranked collision locations for each location and roadway segment sub-category, mitigation measures are formulated where a collision pattern can be identified. Mitigation measures for these sub-categories will be implemented in as projects are designed and funding becomes available.

Traffic Volumes

Vehicle and pedestrian volumes play an important role in establishing collision rates for selected locations within the City. Vehicle volume counts were collected in 2007/08 as a basis to establish actual conditions in the field environment. Where volume counts were not available, volumes were estimated based on previous experience and engineering judgment. Volume counts were then used for the majority of the locations to establish isolated and average collision rates for each intersection.

Collision Rate Calculations

Collision rates were calculated using the following formulas:

Intersections:

ctions:	-	Segments:	
RI =	<u>N X 1,000,000</u>	RS =	<u>N X 1,000,000</u>
	V X 365		365 X V X L

Where:

- RI = Intersection Collision Rate = Collision frequency per million vehicles entering the intersection.
- RS = Segment Collision Rate = Collision frequency per million vehicle miles traveled along the segment.
 - N = Number of collisions (collision frequency) of the location.
- V = Average daily vehicular volume using the street segment or intersection.
- L = Length of street segment (in miles) being analyzed.

Pedestrians:

Where:

PREV = Pedestrian relative exposure value.

BREV = Bicycle relative exposure value.

- N = Number of collisions (collision frequency) of the location.
- PHVV = Average peak hour vehicular volume.

PHPV = Average peak hour pedestrian volume.

PHBV = Average peak hour bicycle volume.

The pedestrian and bicycle relative exposure value formula is derived from the traditional collision rate calculation, however it factors the volume of either the bicycle or pedestrian with that of vehicles at a given location.

city-wide collision statistics

3.1 City-wide Collision Trends

Reportable collision statistics for the City are contained in Tables 3.1 and 3.2. Any reported collision within the public right-of-way that involved a fatality, personal injury or property damage was recorded as a collision. Collisions that occurred on private property, out of the public right of way, outside of City limits, or were not reported to the police department are not entered into the City's database.

While reported collisions are not a total indicator of transportation collisions that occur within the City, they remain the basis with which the City determines both collision trends and effectiveness of City programs. The number of reported traffic collisions varies due to many social factors. Often minor traffic collisions, non-injury collisions and private property collisions go unreported and as such are highly unreliable in determining "high profile" collision locations or areas of concern. Table 3.1 indicates the reported traffic collision history of the City.

Year	Total Reported Collisions on Public Streets				
	Intersections	% Change	Total	% Change	
1999	587	-	910	-	
2000	646	+10.05	1,025	+11.22	
2001	768	+18.58	1,142	+10.24	
2002	751	- 2.13	1,255	+9.10	
2003	670	-12.08	1,097	-12.58	
2004	731	+9.10	1,206	+9.94	
2005	693	-5.20	1,089	-9.70	
2006	558	-19.48	871	-20.01	
2007	565	+1.25	865	-0.69	

 Table 3.1 - City-wide Annual Collision Data

Source: City of San Luis Traffic Collision Database

Variations in yearly collisions are to be expected. While total collisions are a good indicator of the overall collision performance of the City, injury collisions are better indicators of changes in collision trends and are the most reliable collision indicators when monitoring the safety of a transportation system.

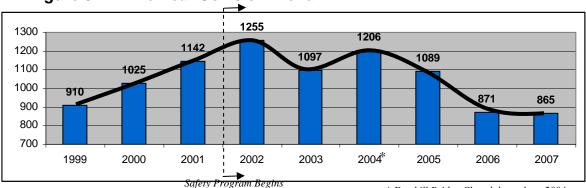


Figure 3.1 - Nine Year Collision Trend

^{*} Foothill Bridge Closed throughout 2004

With a continuing trend of reduced collision totals, we again saw a reduction in total collisions from 2006 to 2007 by approximately 1%. In general, collisions in San Luis Obispo have been declining over the last six years. Total collisions have dropped approximately 5% per year since the program was started in 2002. In 2007 total collision were down 31% since 2002 when the program was first started.

3.2 Injury and Fatal Collision Trends

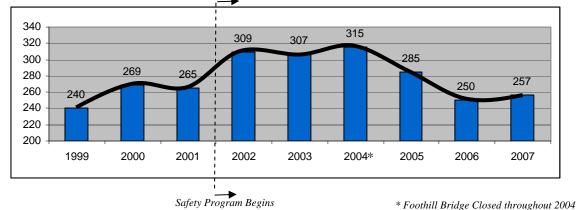
Injury Collisions

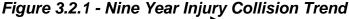
The Traffic Engineering Division tracks injury and fatal collisions as part the current Traffic Safety Program. Table 3.2 & Figure 3.2.1 depicts the injury collision information as recorded by the City.

Year	Total Injury Collisions	% Change	% of Total Collisions	Fatal Collisions	% Change
1999	240	-	26.37	2	-
2000	269	+12.08	26.24	2	0
2001	265	-1.5	23.26	1	- 50
2002	309	+16.60	24.66	1	0
2003	307	-0.6	28.11	0	- 100
2004	315	+2.06	26.12	4	+400
2005	285	-9.52	26.17	3	-25
2006	250	-12.28	28.70	2	-33
2007	257	+2.8	28.94	0	-200

Table 3.2 - City-wide Annual Injury and Fatal Collisions

Although total collisions were slightly down in 2007, injury collisions were slightly up, by approximately 3% or by seven collisions. Although there was a slight increase the trend still indicates an overall reduction in injury collisions. 2007 Injury collisions were down by 10% from 2005 and down by 18% from 2004. Injury collisions as a percentage of total collisions (as seen in Figure 3.2.2), has remained somewhat static since 2004, this was again the case from 2006 to 2007. The total number of injury collisions in 2007 is higher than the average period (2002 through 2005). The number of injury collisions during 2002 thorough 2005 has remained consistently near the 300/year mark; however 2006 had the second lowest number of injury collisions since the traffic safety program was initiated.





¹⁰

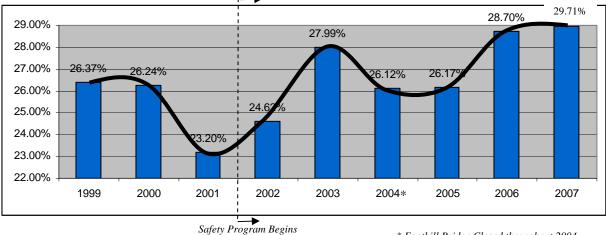


Figure 3.2.2 - Injury Collisions as Percent of Total Collisions

Fatal Collisions

* Foothill Bridge Closed throughout 2004

Annual traffic fatalities have a tendency to fluctuate from year to year. This variation is due to many factors that are often beyond the control of engineering professionals or law enforcement officers. However, the City's Traffic Safety program attempts to reduce fatal collisions by removing conflicting vehicular and pedestrian movements at appropriate locations, limiting collision severity through improvements to roadway design features, and promoting traffic safety through a community outreach program.

As mentioned above, fatality collisions in any given year is usually very random and this was the case in 2004 & 2005 when the City experienced a sharp increase in the total fatalities (4) in 2004, (3) in 2005, and (2) in 2006 over the 2003 total of zero (0) fatalities. In previous years there have been between one and two fatalities per year except in 2003 when there were no fatalities. In 2007 there were no reported fatalities.

3.3 Private Property Collision Trend

Private property collisions are not typically utilized to analyze traffic safety because these collisions occur outside the public right of way and are not subject to corrective measures by City staff. However, some collisions that occur on private property are subject to investigation and enforcement action by the Police Department, specifically collisions that result in an injury, involve a DUI driver or in which a party flees the scene (hit and run collisions). These collisions utilize enforcement and investigative resources and tracking them is helpful in considering the overall collision activity throughout the City.

Year	Total Collisions	% Change	Total Injury Collisions	% Change
1999	58	-	16	-
2000	72	+24.1	14	-12.5
2001	105	+45.8	12	-14.2
2002	103	-1.9	12	0
2003	104	+.9	12	0
2004	103	9	12	0
2005	100	-2.9	12	0
2006	77	-23	9	-25
2007	80	+3.8	17	+88.8

3.4 Comparison with National, State and County Rates

Author's Note: All national and state statistics and cost estimates contained in this section are the most up to date figures available at the time of this publication.

Table 3.4 demonstrates the significant difference between City death and injury rates and the National statistics. The numbers in this table represent the actual number of injuries or fatalities resulting from traffic collisions, not the number of collisions that involved injuries or fatalities.

2007 Fatalities						
	Fatalities	Population (Thousands)	Rate Per 100,000 Population			
Nationally*	38,588	298,754	12.92			
State Wide*	4,197	36,249	11.58			
City of San Luis Obispo	0	44	0.00			
	2007 Injurie	s				
Injuries Population Rate Per 100,00 (Thousands) Population						
Nationally*	1,746,000	298,754	584.43			
State Wide*	277,574	36,249	765.74			
City of San Luis Obispo	316	44	700.00			

* National and State Statistics are from 2006 because 2007 information was not available at the time this report was being produced.

3.5 Benefit/Cost Analysis

The National Safety Council has provided the following information and estimates.

There are two methods currently used to measure the costs of motor-vehicle collisions. One is the economic cost framework and the other is the comprehensive cost framework.

Economic costs may be used by a community or state to estimate the economic impact of motor-vehicle collisions that occurred within its jurisdiction in a given time period. It is a measure of the productivity lost and expenses incurred because of the collisions. Economic costs, however, should not be used for cost-benefit analysis because they do not reflect what society is willing to pay to prevent a statistical fatality or injury.

There are five economic cost components: (a) wage and productivity losses, which include wages, fringe benefits, household production, and travel delay; (b) medical expenses including emergency service costs; (c) administrative expenses, which include the administrative cost of private and public insurance plus police and legal costs; (d) motor-vehicle damage including the value of damage to property; and (e) employer costs for collisions to workers.

The information in table 3.5.1 shows the average economic costs in 2007 per death (not per fatal collision), per injury (not per injury collision), and per property damage collision. These cost estimates are based upon 2006 actual collision cost calculations and adjusted to 2007 costs based on consumer price indexes.

Table 3.5.1 - Economic Costs, 2007

Collision Type	Dollar Loss
Death Nonfatal disabling injury Incapacitating injury Non-incapacitating evident injury	\$1,256,000 \$57,000 \$65,000 \$21,000
Possible injury Property damage collision (including minor injuries)	\$12,000 \$8,500

Source: National Highway Traffic Safety Administration (Traffic Safety Facts 2006) & Adjusted to Year 2007 \$'s

Comprehensive costs include not only the economic cost components, but also a measure of the value of lost quality of life associated with the deaths and injuries, that is, what society is willing to pay to prevent them. The values of lost quality of life were obtained through empirical studies of what people actually pay to reduce their safety and health risks, such as through the purchase of air bags or smoke detectors.

Comprehensive costs should be used for cost-benefit analysis, but because the lost quality of life represents only a dollar equivalence of intangible qualities, they do not represent real economic losses and should not be used to determine the economic impact of past collisions. The information below in table 3.5 shows the average comprehensive costs in 2007 on a per person basis. These cost estimates are based upon 2006 actual collision cost calculations and adjusted to 2007 dollars, which are the latest at the time of this publication.

Currently, the City's collision reports indicate injury collisions only if reported at the collision scene and no determinations are made regarding the injury type as shown in the above tables. Therefore, comprehensive cost estimates for this analysis will assume that all injury types fall into the category of "Non-incapacitating evident injury" as shown above. Table 3.5.2 shows the 2007 economic costs in collisions for the City using annual cost estimates.

Collision Type	Dollar Loss
Death	\$4,150,000
Incapacitating injury (a)	\$209,100
Non-incapacitating evident injury (a)	\$52,000
Possible injury (a)	\$25,000
No injury	\$2,300

Table 3.5.2 - Comprehensive Costs, 2007

Source: National Highway Traffic Safety Administration (Traffic Safety Facts 2002), adjusted to 2007 \$'s

	Collision Type						
Year		Death	Non-	incapacitating	Propert	y Damage Only	Total Dollar
				Injury			Loss
		Cost ^(a)		Cost ^(a)		Cost ^(a)	
2001	1	\$1,256,000	335	\$7,035,000	877	\$7,454,500	\$15,745,500
2002	1	\$1,256,000	396	\$8,316,000	946	\$8,041,000	\$17,613,000
2003	0	\$0	400	\$8,400,000	794	\$6,749,000	\$15,149,000
2004	4	\$5,024,000	376	\$7,896,000	887	\$7,539,500	\$20,459,500
2005	3	\$3,768,000	362	\$7,602,000	804	\$6,834,000	\$18,204,000
2006	2	\$2,512,000	299	\$6,279,000	621	\$5,278,500	\$14,069,500
2007	0	\$0	308	\$6,468,000	608	\$5,168,000	\$11,636,000

Table 3.5.3 - City of San Luis Obispo Economic Costs, 2001-2007 Traffic Collisions

(a) Economic costs are based upon 2006 cost estimates, adjusted to 2007 dollars

While the dollar amounts depicted in Table 3.5.3 do not equate to tangible monetary costs, it is evident that the annualized costs to city motorists, insurance companies and medical providers, depend on the number (and type) of traffic collisions that occur within the City. The total cost amount depends highly on the collision type and is proportional to the severity of each type of collision type.

3.6 Pedestrian Collisions

In January 2000 a City-wide pedestrian crossing policy was adopted by the City Council. This policy is designed to ultimately bring all of the pedestrian crossings in the City to a consistent standard. As the policy continues to be implemented over the next several years it is anticipated that pedestrian collisions will decline City-wide.

In general the number of annual pedestrian collisions has fluxuated up and down over the past eight years, this pattern continues in 2007. There were 18 total pedestrian related collisions reported in 2007, 33% lower than the previous 12 month period. Table 3.6 indicates the reported pedestrian related collision history of the City.

Year	Public Streets		
	Pedestrian	% Change	
1999	24	-	
2000	37	+54%	
2001	19	-49%	
2002	41	+54%	
2003	24	-41%	
2004	41	+41%	
2005	26	-36%	
2006	27	+4%	
2007	18	-33%	

 Table 3.6 – 1999-2007 Pedestrian Collisions

Source: City of San Luis Traffic Collision Database

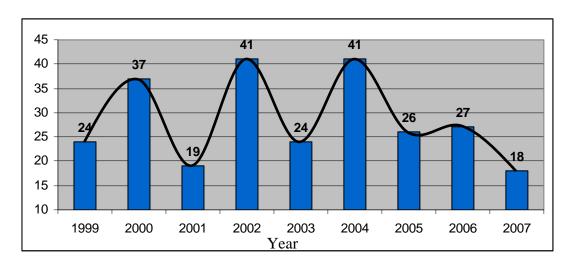


Figure 3.6 – 1999-2007 Pedestrian Collision Trend

The study's method of evaluation follows the recommendations of the U.S. Federal Highway Administration (FHWA) as pertaining to pedestrian collisions, by which pedestrian collisions are classified according to their collision type. In general the primary factor contributing to pedestrian collisions in 2007 were motorists violating the right-of-way to pedestrians in a crosswalk. The following tables lists the various types of pedestrian related collisions as detailed in Police Reports.

Table 3.6.1 –2007 Pedestrian Collisions by Type, Location, & Fault

Pedestrian Collision Type				Severity	,
	# Cases	% of Total	Injury	Fatal	PDO
In X-Walk - Motorist Right Turn Facing Ped.	4	22%	4	0	0
In X-Walk - Motorist Left Turn in Front of Ped.	3	17%	3	0	0
In X-Walk - Midblock	3	17%	3	0	0
In X-Walk - Motorist Right of Way Violation	2	11%	2	0	0
In Road – Crossing Midblock	2	11%	2	0	0
In Road - Not Crossing	2	11%	2	0	0
In X-Walk - Motorist Right Turn in Front of Ped.	1	5.5%	1	0	0
Other	1	5.5%	1	0	0
Total:	18	100%	18	0	0

Pedestrian Collision Location	20	2004		2005		2006		20	2007	
	#	%		#	%	#	%	#	%	
		-								
Signal	13	32%		8	31%	9	33%	8	44%	
Out of Crosswalk - Midblock	9	22%		7	27%	3	11%	2	11%	
Uncontrolled - Unmarked Crosswalk Major/Collector	1	2%		1	4%	1	4%	 0	0%	
Uncontrolled - Unmarked Crosswalk Local	0	0%		1	4%	0	0%	0	0%	
Uncontrolled - Marked	1	2%		1	4%	2	7%	 3	17%	
Not in Road (Sidewalk)	5	12%		0	0%	0	0%	 0	0%	
In Road (not crossing)	7	18%		3	11%	4	16%	 3	17%	
Stop - Marked Crosswalk	3	7%		2	8%	2	7%	0	0%	
Stop - Unmarked Crosswalk	2	5%		3	11%	6	22%	2	11%	
Total:	41	100%		26	100%	27	100%	18	100%	

Party at Fault	2004			2005		2006			2	2007	
Pedestrian Driver	15 26	37% 63%	11 15	42% 58%		6 21	22% 78%	-	4 14	29% 71%	
Total:	41	100%	26	100%		27	100%		18	100%	

Source: City of San Luis Traffic Collision Database

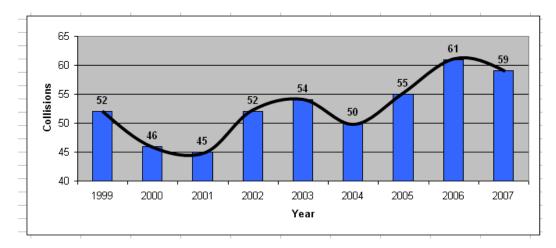
3.7 Bicycle Collisions

In general bicycle collisions have been on an upward trend over the past six years, however in 2007 bicycle collisions were down. There were 59 total bicycle related collisions reported in 2007, 3% lower than the previous 12 month period.

Year	Total Reported Bicycle Collisions on Public Streets							
Tear	Bicycle	% Change						
1999	52	-						
2000	46	-12%						
2001	45	-2%						
2002	52	+13%						
2003	54	+ 3.7%						
2004	50	-7.4%						
2005	55	+10%						
2006	61	+11%						
2007	59	-3%						

Source: City of San Luis Traffic Collision Database





The study's method of evaluation follows the recommendations of the U.S. Federal Highway Administration (FHWA) by which bicycle collisions are classified according to their collision type. The FHWA's Classification system includes 38 different collision types of which only 12 occurred on City streets in 2007. In general the majority of factors contributing to bicycle collisions in 2007 were cyclists loosing control.

	Number of	% of	Cyclist's P	osition		Severity	
Collision Type	Cases	Total	Sidewalk	Road	Injury	Fatal	PDO
Cyclist Lost Control	14	24%	0	14	13	0	1
Motorist Right Turn - In Front of Cyclist	9	15%	0	9	9	0	0
Motorist Left Turn - Facing Cyclist	8	14%	0	8	6	0	2
Wrong Way Cyclist	6	10%	0	6	6	0	0
Drive Out At Uncontrolled Intersection	6	10%	0	6	6	0	0
Motorist Left Turn - In Front of Cyclist	4	7%	0	4	2	0	2
Motorist Open Door Into Path of Cyclist	4	7%	0	4	4	0	0
Ride Out From Lane or Driveway	4	7%	4	0	3	0	1
Cyclist Left Trn In Front Of Motorist	1	2%	0	1	1	0	0
Other (Not classifiable)	1	2%	0	1	1	0	0
Motorist Overtaking - Misjudged Passing Space	1	2%	0	1	1	0	0
Drive Out At Controlled Intersection	1	2%	0	1	1	0	0
	59	100%	4	55	53	0	6

Table 3.7.2 – 2007 Bicycle Collision by Type & Fault

Source: City of San Luis Traffic Collision Database

Party at Fault	2004		2005		2006		2007	
Cyclist Driver	21 29	42% 58%	28 27	51% 49%	30 31	49% 51%	32 27	54% 46%
Total:	50	100%	55	100%	61	100%	59	100%

enforcement statistics

4.1 Annual Traffic Citation Data

Traffic citations are one method used to promote compliance with the vehicle code and create a safer environment for motorists. The vehicle code includes many sections for enforcement. Some vehicle code violations are more serious then others and are designated as "Hazardous Violations". Vehicle Code Violations are tracked by the Department of Motor Vehicles, and hazardous violations are weighted by a point system. All hazardous vehicle code sections carry at least one point and some carry two points.

The point system is used to assess the driving behavior of motorists and place restrictions on negligent drivers. The restriction or suspension of driving privileges helps make the roadways safer by removing drivers with hazardous driving habits. The Department of Motor Vehicles' Violation Point Assessment list is posted on their website at http://www.dmv.ca.gov/dl/vioptct.htm.

Table 4.1 depicts the total number of citations issued by the Police Department each year since 1999 and the number of these citations classified as hazardous violations by the DMV. The table also lists the total number of violations, which is greater than the total number of citations because some citations include more then one violation.

The citation trend indicates a fairly significant drop off in citations issued in 2003 and 2004, before increasing steadily through 2007. This trend coincides with the loss of one police traffic officer position in 2003 and one police patrol officer position in 2005 due to necessary budget reductions, and the temporary redeployment of other traffic officers to patrol to cover shift shortages. These staffing shortages impacted the ability of officers to proactively issue citations, arrest DUI drivers and conduct specialized traffic programs. These positions were restored in July 2007 and a renewed focus on traffic safety and enforcement was implemented throughout the Police Department.

Year	Total Citations	Total Violations	% Change	Hazardous Vehicle Code Citations	% Change
1999	5734	6665	-	2394	-
2000	6741	7766	+17.56	2001	-16.41
2001	7114	7820	+5.53	1791	-10.49
2002	6508	7547	-8.51	2243	+25.23
2003	4802	5732	-26.21	2550	+13.68
2004	2663	3159	-44.54	896	-64.86
2005	3484	3983	+30.82	789	-11.94
2006	3585	4014	+2.89	934	+18.37
2007	4488	4998	+25.18	1769	+89.40

Table 4.1 - Traffic Citations Issued

4.2 Traffic Safety Index

The Traffic Safety Index - the ratio of hazardous citations issued to the number of injury and fatal collisions - is a gauge used by the California Office of Traffic Safety (OTS) to measure cities' traffic safety and effectiveness of their traffic enforcement programs. Hazardous citations include moving violations for traffic offenses, as opposed to non-moving and mechanical violations. Higher index numbers represent greater traffic safety and more effective traffic programs. The City's index has been steadily increasing since 2004 after a significant drop which coincided with staffing reductions in the traffic and patrol units in late 2003 and 2005 as described in the section above.

Statistics used to calculate the City's traffic safety index are reported to OTS as part of a grant awarded to the Police Department. In preparing this report, Police Department staff discovered two significant discrepancies in prior year reporting. First, staff has previously included seat belt violations in the total count of hazardous citations in the data reported to OTS. After further researching the categories of violation that constitute a hazardous citation, staff determined that seat belt violations should not be included. Second, The City municipal code contains enforcement sections that duplicate hazardous violations found in the California Vehicle Code. It was discovered that officers were routinely issuing citations for municipal code traffic violations toward the traffic safety index or as violation points. The Police Department is working to reduce the number of municipal code citations and encouraging officers to utilize the vehicle code when most appropriate.

Table 5.3 reflects the City's Traffic Safety Index for the past nine years. This index is calculated by dividing the number of hazardous citations issued by the number of injury collisions. The number of citations in prior years has been recalculated to remove any previously reported non-hazardous citations such as seatbelt violations. In addition, a separate column depicts the number of municipal code violations that were issued in lieu of a hazardous vehicle code violation. The Traffic Safety Index was calculated utilizing only vehicle code violations as tracked by OTS and as a total of the hazardous vehicle code and municipal code citations. The latter index number is most reflective of the City's actual level of traffic safety.

Year	Total Hazardous Vehicle Code Citations	Total Hazardous Municipal Code Citations	Total Injury Collisions*	Traffic Index Vehicle Code Only	Adjusted Index with both Vehicle and Municipal Code Citations
1999	2394	418	256	9.4	11.0
2000	2001	1420	283	7.1	12.1
2001	1791	2080	277	6.5	14.0
2002	2243	1585	321	7.0	11.9
2003	2550	969	219	8.0	11.0
2004	896	390	327	2.7	4.0
2005	789	493	297	2.7	3.9
2006	934	1123	259	3.6	7.9
2007	1769	1131	274	6.5	10.6

Table 4.2 – Traffic Safety Index

* Includes injury collisions on both public and private property

4.3 Driving Under the Influence

Driving under the influence (DUI) violations have been a focal point of enforcement in an effort to reduce injury traffic collisions. Since 1999, the Police Department has averaged 465 DUI arrests each year. Of those arrests, about seven drivers each year were arrested for felony DUI after being involved in a collision that causing injury to someone involved. In 2007 the Police Department arrested 331 people for DUI. Ten of those arrests for felony DUI, which represents the highest annual total of felony DUI arrests since 1999. Over half (52%) of the DUI arrests involved drivers who were between 18 and 25 years old.

Figure 4.3.1 – Total DUI Arrests 1999-2007

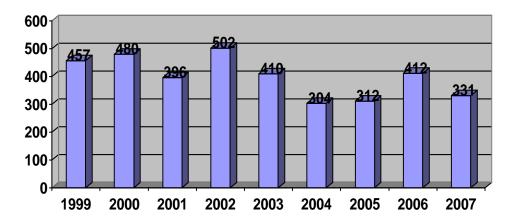


Figure 4.3.2 – Felony DUI Arrests 1999-2007

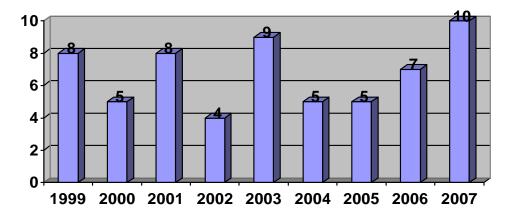
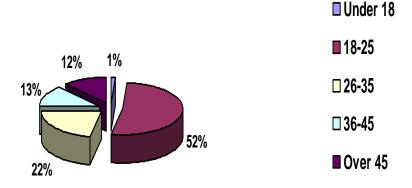


Figure 4.3.3 – 2007 DUI Arrests by Age



4.4 Alcohol Involved Collisions

In 2007, alcohol was determined to be a factor in 93 collisions. Twenty-eight of those collisions resulted in one or more of the parties being injured. Over the last nine years there have been 563 alcohol related collisions. Thirty-five percent of these collisions resulted in injury to a driver or passenger; four collisions resulting in a fatality.

4.5 Top Primary Collision Factors

Collisions on public and private property were analyzed to determine the top six primary factors that caused the collisions. These factors are listed in order of frequency:

	Non-Injury		Minor Injury		Major Injury
1.	Speed	1.	Speed	1.	Failure to yield
2.	Failure to yield	2.	Failure to yield	2.	Disregard traffic signal or DUI
3.	Improper turns	3.	DUI	3.	Improper turns or Stop sign
4.	DUI	4.	Disregard traffic signal		
5.	Disregard traffic signal	5.	Improper turns		
6.	Stop sign violation	6.	Stop sign violations		

 Table 4.5.1 – Primary Collision Factors by Collision Severity

The following table depicts the number of vehicle code citations issued for the violations identified as the most common causes of collisions in 2007:

Table 4.5.2 – Citations by Collision Factor

Violatior	Speeding	Traffic Signal	Stop Sign	Failure to Yield	Improper Turn	DUI
Citation	702	307	278	107	93	87

safety investigations

5.1 Neighborhood Traffic Management and Calming Program

In June 1998, the City Council adopted a Comprehensive Neighborhood Traffic Management (NTM) Program aimed at reducing traffic volumes and speeds on residential streets. The program offers different options to citizens wanting to implement traffic calming measures on their streets. The program identifies the petition process and neighborhood surveys that are used to demonstrate majority support for implementation of specific options.

Eighteen (18) neighborhoods are actively pursued the preparation of Neighborhood Traffic Management (NTM) Plans for their neighborhoods. Because so many neighborhoods are requesting NTM projects and implementation funds are limited, staff developed a method for prioritizing the projects. The criteria include traffic speeds, volumes, presence or absence of continuous sidewalks, bicycle facilities, collisions, and presence of schools or other activity centers. In 2007 neighborhoods pursuing NTM projects included Johnson (divided into 3 sections), Broad, Oceanaire, Chorro, Atascadero, Ferrini, Rockview, Royal, Flora, Augusta, Galleon, Balboa, Coral, Islay, Pismo, and Buchon.

Pismo/Buchon NTM

In April of 2008 city staff held a meeting with neighborhood residents to discuss issues and concerns which should be addressed as part of the NTM program and to form an action team to represent the entire neighborhood. In May of 2008 the Police Department met with the group to discuss enforcement activities in the area and on May 28th the Public Works Dept met with the action team to establish project boundaries, focus issues to be addressed, and formulate a study/survey program to evaluate the issues. As of this report staff is proceeding with the various studies and surveys.

Oceanaire NTM

In September of 2008 city staff met with several active residents of the Oceanaire neighborhood to discuss starting a new NTM program and overall strategy for proceeding. As of this report residents and city staff are preparing for the initial ballot process to determine if the majority of the neighborhood is in support of formulating an NTM.

Ferrini NTM

Residents on Fixlini petitioned for Neighborhood Traffic Management citing concerns of excessive speed, school traffic bypassing Johnson to get to San Luis Adult School and lack of contiguous sidewalks. Traffic studies will be performed in 2008 to determine the volumes and speeds of motorists on Fixlini. In addition In 2007 in conjunction with the CalPoly housing development on the corner of Hwy 1 and Highland Drive and as part of the Ferrini NTM a median was installed on highland drive restricting left turns from Highland to southbound Ferrini or Chorro street thereby mitigating cut thru access from Highway 1. Post analysis has determined that the median reduced traffic volumes within the neighborhood by approximately 4,000 vehicles.

Johnson NTM

As part of the Johnson NTM and previous safety reports a traffic signal was installed at Johnson/Ella. Solar powered radar-activated speed display signs were installed on Johnson Avenue between Bishop Street and Laurel Lane. The speed display signs were installed to display driver speed in contrast to the posted speed limit (35 mph). Four radar signs, costing over \$4,000 each, were partially funded through a grant obtained by the Police Department from the California Office of Traffic Safety.

High Street NTM

In preparation for the upcoming "South Street Road Diet" staff has conducted several pre-project studies in order to evaluate effects on the neighborhood after the project is completed. The "Road Diet" project will reduce the number of through lanes on South Street.

Mobile Speed Feedback Device

In 2007 the City purchased a solar powered radar activated speed trailer was The radar speed trailer can be temporarily set up and can easily be moved from one location to the next. It has the distinct advantage of possibly impacting drivers, while not posing problems for compliant drivers and has proven to be a useful supplement to enforcement activities.

Table 5.2 - 2007 Completed Safety Projects

Each year the Traffic Engineering Section implements traffic safety improvement projects through a variety of programs and projects. These improvements are usually stand-alone projects but are often times included in other City CIP projects or as part of individual land development projects. The following notable traffic safety improvements were completed in 2007:

Traffic Signal Improvements		Sight Distance Improvements	
Broad & Pacific	Installed New Traffic Signal	Buchon & Morro	Vegetation Trimming
Higuera & Granada	Installed New Traffic Signal	Tank Farm & Poinsettia	Vegetation Trimming
Madonna & El Mercado	Upgraded Existing Traffic Signal	Spanish Oaks & Orcutt	Vegetation Trimming
Calle Joaquin & LOVR	Installed New Traffic Signal	Tank Farm & Broad	Vegetation Trimming
	Installed Hell Halle eight	Cerro Romauldo & Tassajara	Vegetation Trimming
		Woodland	Installed Parking Restriction
Pedestrian & Bicycle Improvements		Pismo & Osos	Installed Parking Restriction
Bill Roalman Bike Blvd.	Upgrade Existing Traffic Signal with Bicycle Phasing	Tank Farm & Orcutt	Vegetation Trimming
Bill Roalman Bike Blvd.	Installed Bike Blvd signs	Higuera & Granada	Installed Parking Restriction
Johnson & Southwood	Updated X-Walk signing & makings	Foothill & Cuesta	Installed Parking Restriction
Fuller	Upgraded X-Walk signing and striping		
Ramona	Installed mid-block in-ground lighted X-Walk		
Exposition Dr Trail Head	Improved sight distance at Entrance/Exit		
Osos & Pacific	Upgraded X-Walk signing and striping		
Santa Rosa & Foothill	Installed Bike Slot		
Nipomo & Marsh	Installed Pedestrian Signal Indications		
Nipomo & Higuera	Installed Pedestrian Signal Indications		
Roadway Improvements			
Fredericks/Hope & Grand	Installed Painted Median		
Monterey	Upgraded Parking Stall Dimensions		
Calle Joaquin & LOVR	Realigned Roadway		
Higuera	Upgraded Parking Stall Dimensions		
Highland & Foothill	Installed Median		
Signing & Striping Configuration			
Improvements			
Chorro & Monterey	All-way stop control installed		
Madonna & Perrira	Restricted Left Turns		
Patricia	Reduced Speed Limit		
San Luis Drive & Cazadero	Installed Speed Limit Signs		
Johnson	Installed Speed Feedback Signs		
		-11	
Chorro & Pismo	All-way stop control installed		

2007 high collision rate locations

6.1 Intersections and Segments

Prioritization by Collision Rate

The evaluation of intersections using collision rates (number of collisions per million entering vehicles for intersections and million vehicle miles for segments) is standard practice in traffic engineering. This method of evaluation is often chosen over pure numbers because the number of collisions generally increases within proportion to traffic volumes. This relationship does not mean that there is an engineering deficiency where the number of collisions is highest. Traffic engineers use collision rates to determine locations where more collisions are occurring than would be expected to occur. These locations are then further evaluated to determine what is causing this higher than normal occurrence. In contrast, the Police Department utilizes the number of collisions to evaluate what intersections need to be patrolled. This method of evaluation puts the Police Officers at the locations where they can have the greatest effect on the largest number of road users. There may not be an engineering deficiency at a very busy intersection, however Police presence and enforcement at such locations ensures that drivers continue to drive prudently. Because of the difference in evaluation methods, the ranking of intersections in this report differs from the ranking of intersections in the Police report. Both methodologies are appropriate for their intended purposes, but would be likely to produce inappropriate and ineffective results if an attempt were made to use the same methodology for both the Police and Public Works reports. To address safety concerns at all types of locations, intersections & segments were broken down into the following subgroups:

TYPE OF INTERSECTION OR SEGMENT APPENDIX

Arterial/Arterial Intersections	Appendix 1
Arterial/Collector Intersections	Appendix 2
Arterial/Local Intersections	Appendix 3
Collector/Collector Intersections	Appendix 4
Collector/Local Intersections	Appendix 5
Local/Local Intersections	Appendix 6
Other Significant Intersections	Appendix 7
Arterial Segments	Appendix 8
Collector Segments	Appendix 9
Local Segments	Appendix 10

Collision rates per million vehicles entering an intersection & million vehicle miles traveled on a segment were calculated for all locations within the City with three or more collisions. These collision rates were then used to prioritize the top five intersections & segments in each category so that locations with the highest rates were ranked at the top of the list. Mitigation measures, including potential future CIP's were then identified based upon the perceived collision patterns for each location.

Safety Analysis

Collision diagrams were developed for the top five intersections based on collision rates in Tables 6.1 through 6.10 and these intersections were then analyzed using collision diagram interpretation techniques. Collision diagrams were also developed for the three segment classifications based on collision rates and are shown in Tables 6.11 through 6.13 and these intersections were then analyzed using collision diagram interpretation techniques. Based upon collision patterns as identified in each diagram, mitigation measures and safety improvement recommendations were proposed for each location as outlined in each intersection category. A thumbnail sketch of each intersection's collision diagram has been provided in the tables. Complete collision diagrams that include additional collision information for each of these locations are included in Appendices 1 through 10.

Variations in yearly pedestrian related collisions are to be expected. While this report is intended to evaluate and analyze collision trends in 2007, the number of annual pedestrian related collisions typically reported in the City is too few to identify collision patterns and establish mitigation measures. The method for evaluating pedestrian collision locations identifies all locations where at least one pedestrian collision has occurred in 2007 and ranks those locations based on a "relative exposure value" (REV) for the previous five year pedestrian collision history, with three or more pedestrian related collisions.

The method for evaluating for bicycle collision locations identifies all locations where at least one bicycle collision has occurred in 2007 and ranks those locations based on a "relative exposure value" (REV) for the previous five year bicycle collision history, with three or more bicycle related collisions. This method of evaluation is often chosen over pure numbers because the number of collisions generally increases within proportion to bicycle volumes. These values are used to identify locations where more collisions are occurring than would be expected.

Table 6.1 – To	p Five Pedestrian	Collision Locations
----------------	-------------------	---------------------

2 Accidents Descanso & Los Osos Valley 01/01/02 - 12/31/07	Location Ranking: 1	PATTERN: No Discernable Pattern
p ^y	Descanso at Los Osos Valley	RECOMMENDATION: Pedestrian collisions attributed to walking along
Sectorer ins	REV: 1545	LOVR within median and a vehicle violating pedestrian right of way. None.
source of the Parameter Strength of the Parameter source of the Parameter Strength of t		ACTION: Continue to monitor in 2008
 Utakenes =>>0 et of control \$2 lating \$ lati		

8 Accidents Monterey & Santa Rosa 01/01/02 - 12/31/07	Location Ranking: 2 Monterey Street at Santa Rosa Street	PATTERN: SB Thru & Right Turn Vs. Pedestrian Starting in Crosswalk RECOMMENDATION: Traffic signal upgrades, and upgraded signal timing installed in April 2006. Collision attributed to a both pedestrian crossing on
	REV: 777	don't walk indicate and vehicles not yielding to pedestrians while making right turns. Increase ped crossing enforcement, Improve pedestrian warning signing and Investigate lead pedestrian signal phasing.
Second 2011 to 2 beams of the source of the project to the source of the source		ACTION: Conduct focused enforcement for illegal pedestrian crossing and install pedestrian warning signs. Continue to monitor in 2008.

1 Accidents Los Osos Valley & Madonna 01/01/02 - 12/31/07	Location Ranking: 3	PATTERN: No Discernable Pattern
r	Los Osos Valley at	
	Madonna REV: 694	RECOMMENDATION: Intersection configuration and signal phasing was upgraded in August 2006. Pedestrian collision was attributed to an EB vehicle turning right over a pedestrian. No pedestrian collisions on record for previous 4 year period. None.
Constants Constants		ACTION: Continue to monitor in 2008.

2 Accidents 01/01/02 - 12/31/07	Location Ranking: 4	PATTERN: Vehicle Right Turn In front of Pedestrian
P.	Beebee at South	
	REV: 480	RECOMMENDATION: Collision pattern attributed to vehicles not yielding right of way to pedestrians within crosswalk. Intersection under Caltrans Jurisdiction. None.
sectors in a sector set of sector and in a sector and in		ACTION: Forward findings to State Dept. of Transportation. Continue to monitor in 2008.

2 Accidents Boysen & Santa Rosa 01/01/02 - 12/31/07	Location Ranking: 5	PATTERN: No Discernable Pattern
p	Boysen at Santa	
united and Lanence and	Rosa	RECOMMENDATION: Collision pattern attributed to vehicles not yielding right of way to pedestrians within crosswalk. Intersection under Caltrans Jurisdiction. None.
	REV: 463	
Single un Field X Indiana de la		ACTION: Forward findings to State Dept. of Transportation. Continue to monitor in 2008.

Table 6.2 – Te	op Five Bicycle	Collision Locations
----------------	-----------------	----------------------------

6 Accidents 01/01/02 - 12/31/07	Location Ranking: 1	
6 Accidents 01/01/02 - 12/31/07		PATTERN: Motorist Right Turn In Front of Cyclist
	Olive Street at Santa	
Х. 	Rosa Street	RECOMMENDATION: Foothill bridge closure thru 3 rd quarter 2005. Intersection under Caltrans Jurisdiction. Investigate Improving advance warning for motorists.
auronov nas 🕺	REV: 3425	
the second		ACTION: Forward findings to State Dept. of Transportation, work with Caltrans to correct collision pattern, and continue to monitor in 2008.
Les Ocer Velley, & Madonna	Location Ranking: 2	
2 Accidents 01/01/02 - 12/31/07		PATTERN: Motorist Right Turn In Front of Cyclist
P ²	Los Osos Valley &	
	Madonna	RECOMMENDATION: Santa Rosa repaved and striped in 2008. Intersection configuration and signal phasing was upgraded in August 2006. Investigate advance bicycle warning signing.
	REV: 3052	
Denset Dari He Zoneg, E solete de soletar de solet		ACTION: Continue to monitor in 2008.

5 Accidents Santa Rosa & Walnut 01/01/02 - 12/31/07	Location Ranking: 3	PATTERN: NB Motorist Right Turn In Front of NB Cyclist
	Santa Rosa at Walnut	RECOMMENDATION: Santa Rosa repaved and striped in 2008.
4	REV: 2591	Intersection under Caltrans Jurisdiction. Investigate Improving advance warning for motorists.
Support with the points of the first state of the second stat		ACTION: Continue to monitor in 2008.
California & Monterey 8 Accidents 01/01/02 - 12/31/07	Location Ranking: 4	
	California at Monterey	PATTERN: Motorist Right Turn In Front of Cyclist, Motorist Opens Door in Path of Cyclist.
ayoud 316	REV: 2428	RECOMMENDATION: Monterey is heavily used by cyclists, however does not have enough room for bike paths. Improve shared lane and bicycle presence indications.
s Suppel → Dentiling → Suppel → Dentiling → Suppel → Dentiling → Dentiling		ACTION: Install shared lane signing and markings. Continue to monitor in 2008.

3 Accidents Calle Joaquín & Los Osos Valley 01/01/02 - 12/31/07	Location Ranking: 5	PATTERN: Motorist Left Turn In Front of Cyclist
P	Calle Joaquin at Los	
all all and a second se	Osos Valley	RECOMMENDATION: Calle Joaquin was realigned and signalized in April 2007, no bicycle collisions reported since.
*		
	REV: 2216	
		ACTION: Continue to monitor in 2008.
Stopper and Policity Constraints Total depress Stopper and Total Sciences Stopper and Total Sciences		

Table 6.3 - Recommendations for Intersections Involving Two Arterial Streets

9 Accidents 01/01/07 - 12/31/07	Intersection Ranking: 1 Marsh at Osos	PATTERN: SB & EB Red Light Violations
	Rate: 1.32 / MEV	RECOMMENDATION: Pattern is continued from 2006. Intersection is currently under construction for signal modifications to improve head visibility.
Standard War Freedom Standards (2) Stan		ACTION: Complete traffic signal upgrades and continue to monitor in 2008.
12 Accidents Monterey & Santa Rosa 01/01/07 - 12/31/07	Intersection Ranking: 2	PATTERN: NB & SB Left Vs. Thru
	Monterey Street at Santa Rosa Street	
	Rate: 1.20 / MEV	RECOMMENDATION: Collisions primarily attributed to right-of-way violations. Increase right-of-way transfer and clearance time. Investigate new phasing configurations.
Support S		ACTION: Investigate red clearance timing for left turn phases and continue to monitor in 2008.

21 Accidents Foothill & Santa Rosa 01/01/07 - 12/31/07	Intersection Ranking: 3	PATTERN: SB Rear-Ends & Red Light Violations
	Foothill at Santa Rosa	¥
And the second s		RECOMMENDATION: Intersection under Caltrans jurisdiction. City recommends installation/upgrade of advance warning signs for SB approach to intersection.
Constant = 1 → 1 → 1 → 1 → 1 → 1 → 1 → 1 → 1 → 1	Rate: 1.08 / MEV	ACTION: Forward findings to State D.O.T. and continue to monitor in 2008.

California & Monterey 10 Accidents 01/01/07 - 12/31/07	Intersection Ranking: 4	
S 10 10 12	California at	PATTERN: SB Rear-Ends
	California at Monterey	
unor est 1	Rate: 1.06 / MEV	RECOMMENDATION: Collisions primarily attributed to high speed due to steep downgrade on SB approach to intersection. Improve advance warning for downgrade. Increase speed enforcement.
Sing M = 10 finance in the second secon		ACTION: Install advance warning signs for intersection and conduct focused speed enforcement on SB approach.

4 Accidents Higuera & Johnson 01/01/07 - 12/31/07	Intersection Ranking: 5 Higuera at Johnson	PATTERN: NB Left Vs. Thru
	Rate: 0.81 / MEV	RECOMMENDATION: Pattern is minor and exclusive to 2007. Intersection meets minimum sight distance requirements.
Simple - Date - Date - DDL - Date - DDL Simple - Date - Date - DDL Simple - DD		ACTION: Continue to monitor in 2008.

Table 6.4 - Recommendations for Intersections Involving Arterial/Collector Streets

4 Accidents 01/01/07 - 12/31/07	Intersection Ranking: 1 Chorro Street at Palm Street	PATTERN: No Discernable Pattern
anner St.	Rate: 1.15 / MEV	RECOMMENDATION: None. Vehicle Indications were upgraded to 12" in May of 2008.
Singly and Parameters II statements of reflected and the pro- Singly and Parameters II statements of reflected deponent Single And Andream Parameters II Statements Andream Single Andream Andream Singl		ACTION: Continue to monitor in 2008.
3 Accidents Broad & Buchon 01/01/07 - 12/31/07	Intersection Ranking: 2 Broad Street at Buchon	PATTERN: No Discernable Pattern
маан нь. J 2	Rate: 0.74 / MEV	RECOMMENDATION: None. Vehicle indications upgraded to 12" and pedestrian indications installed in March of 2007.
Single and Palation II states or contained to the memory of the state of the s		ACTION: Continue to monitor in 2008.

Fredericks / Hope & Grand 4 Accidents 01/01/07 - 12/31/07	Intersection Ranking: 3	
4 Accidents 01/01/07 - 12/31/07		PATTERN: EB & SB Broadsides
P.	Fredericks/Hope	
	Street & Grand Ave	
		RECOMMENDATION: Trim back vegetation, overgrown vegetation at 433 Grand
		Ave restricts sight distance and may be contributing to collisions.
	Rate: 0.70 / MEV	
anne on		
		ACTION: Request has been sent to property owner to trim overgrown vegetation,
minute of an invasion of the summer we reach out of the terminute		if the vegetation has not been trimmed in the allotted time city crews will trim the
		vegetation and the property owner will be billed for the expenses. Continue to
		monitor in 2008

4 Accidents 01/01/07 - 12/31/07	Intersection Ranking: 4	PATTERN: Red Light Violations
12 Countries	High/Pismo at Higuera	
and the second s		RECOMMENDATION: Improve signal indication visibility.
	Rate: 0.69 / MEV	
Singlet and Paids 21 states or related for the market of the states		ACTION: Replace 8" vehicle indications with 12" indications. Continue to monitor in 2008.

6 Accidents 01/01/07 - 12/31/07	Intersection Ranking: 5	
8		PATTERN: EB Rearends
	Madonna at	
	Oceanaire	
Law reserves to		RECOMMENDATION: Focus speed enforcement. Collisions are primarily attributed unsafe speeding.
ninerse Derres Mildren Wildren	Estimated Rate: 0.64 / MEV	
Singly and formation of statements for transmission of the statement		ACTION: Conduct focused speed enforcement on EB approach, Continue to monitor in 2008.

Table 6.5 - Recommendations for Intersections Involving Arterial/Local Streets

Calle Joaquin & Los Osos Valley 15 Accidents 01/01/07 - 12/31/07	Intersection Ranking: 1	
S		PATTERN: Rearends, All Directions
	Calle Joaquin at Los	
17 moon an article is it	Osos Valley Road	
Landoner (12) (Second File)	5	RECOMMENDATION: Construction throughout the first half of 2007.
		Intersection realignment opened and signalized in May of 2007. None.
utility and	Rate: 1.58 / MEV	intersection realignment opened and signalized in May of 2007. None.
alfaði van aðfaði va		
		ACTION: Continue to manitar in 2000
Straight um Parked × Podentias Fixed objects Straight um Parked × Podentias Fixed objects		ACTION: Continue to monitor in 2008.
← Stopped e→ Erratic ≥ Bicycle o towné # Pais − Utknown =→ O Qui control O Europe = Bigues = Bigues = → Bickleig ≥ Right ram = Fatalay = Tow = Sama ← Dickleig = Uch nam = Fatalay = Sama = Sam		
 SidewipeU-U-ten DUI Tata das 		
8 Accidents Santa Rosa & Walnut 01/01/07 - 12/31/07	Intersection Ranking: 2	
		PATTERN: SB Right Vs. Fixed Object
	Santa Rosa at Walnut	
		RECOMMENDATION: Intersection under Caltrans jurisdiction. Large
	Rate: 1.01 / MEV	trucks are clipping post mounted signal equipment while turning right from
		SB Santa Rosa. Investigate rotating and relocating equipment further from
		travel way.
5.2		
THE TH Detection (2) sources on tradings fails to many Stringht upon Parket X Provide the Stringht upon Parket Stringht and Parket X Provide to taken a Parket Disponse and One Strand X Disson B Failed B One		
		ACTION: Forward findings to State Department of Transportation, work
		•
		with Caltrans to monitor in 2008.

6 Accidents California & Taft 01/01/07 - 12/31/07	Intersection Ranking: 3	DATTERNA M/D Descende & M/D Ma ND Dresdeides
A we will be a set of the set of	California at Taft	PATTERN: WB Rearends & WB Vs. NB Broadsides
Conserve un analytic Conserve a	Estimated Rate: 1.00 / MEV	RECOMMENDATION: Rearend collisions primarily attributed to high speeds coming off SB Hwy 101 approaching stop sign. Broadside collisions attributed high approach speeds on NB California and misjudgment of gaps from left turns on Taft. Increase speed enforcement in the area and improve advance intersection warning.
Storight war Polid X Reference Toroffsport Storight war Polid X Reference Toroffsport Distance war Out Found Out of the Storight S Reference Toroffsport Out of		ACTION: Install advance intersection warning signs on Taft and conduct focused speed enforcement on NB California approach and WB Taft approach. Continue to monitor in 2007.

Broad & Pacific 4 Accidents 01/01/07 - 12/31/07	Intersection Ranking: 4	
[²]	Broad at Pacific	PATTERN: Broadsides, all directions
access and a	Estimated Rate: 1.00 / MEV	RECOMMENDATION: Intersection was signalized in April of 2007, no reported collisions since. None.
Single and of Financial Transition Transistent Transition Transition Transition Transition Transition Tra		

6 Accidents Foothill & Tassajara 01/01/07 - 12/31/07	Intersection Ranking: 5 Foothill at Tassajara	PATTERN: EB Left Vs. WB Thru
Same or and a set of the set of t	Rate: .89 / MEV	RECOMMENDATION: Minor collision pattern, however persistent annually since 2000. Improve right of way separation and transfer.
section is a section of the		ACTION: Investigate lane and signal phasing improvements. Continue to monitor in 2008.

Table 6.6 - Recommendations for Intersections Involving Collector/Collector Streets

Chorro & Mill 5 Accidents 01/01/07 - 12/31/07	Intersection Ranking: 1	
S Accidents 01/01/07 - 12/51/07		PATTERN: Broadsides All Directions
	Chorro at Mill	
Luvian an Marana an		
Landon an	Rate: 1.46 / MEV	RECOMMENDATION: Collisions are primarily attributed to sight distance restrictions. Intersection meets volume and collision warrants for all-way
annun ne.		stop control. Improve sight distance, if collision pattern persists install all-
		way stop control.
Endeling Fight turn in Figure 1 turn de la sendel Constaining Leithnen C. Nightnen (3 de sendel Seleving Leithnen es DUI in Eathnates		ACTION: Move stop bars forward & trim vegetation on corners. Continue to
		monitor in 2008.

Table 6.7 - Recommendations for Intersections Involving Collector/Local Streets

Table 6.8 - Recommendations for Intersections Involving Local/Local Streets

Table 6.9 - Recommendations for Other Significant Intersections: 5+ Left Turn Collisions at Signalized Intersections

4 Accidents Higuera & Nipomo 01/01/07 - 12/31/07	Intersection Ranking: 1	PATTERN: NB Left Vs. SB Thru & Red Light Violations
E see	Higuera at Nipomo	
	Estimated Rate: 0.84 / MEV	RECOMMENDATION: Signal head indication upgraded from 8" to 12" and pedestrian indications installed in April of 2008, no collision reported since.
		ACTION: Continue to monitor in 2008.
Broad & Marsh 5 Accidents 01/01/07 - 12/31/07	Intersection Ranking: 2	
th anom	Broad at Marsh	PATTERN: SB & NB Red Light Violations
mann tra. J	Estimated Rate: .77 / MEV	RECOMMENDATION: Improve visibility of vehicle indications.
HARDER FILL THEOREM FILL THE		ACTION: Replace 8" indications with 12" indications.

5 Accidents Marsh & Santa Rosa 01/01/07 - 12/31/07	Intersection Ranking: 3 Marsh at Santa Rosa	PATTERN: Red Light Violations
in the second se	Estimated Rate: .73 / MEV	RECOMMENDATION: Traffic signal was reconstructed in June of 2008.
Provide to any other than the former of the second s		ACTION: Continue to monitor in 2008.
8 Accidents Higuera & Madonna 01/01/07 - 12/31/07	Intersection Ranking: 4 Higuera at Madonna	PATTERN: WB Rear Ends
	Estimated Rate: .69 / MEV	RECOMMENDATION: Intersection under Caltrans jurisdiction. Collision pattern primarily attributed to excessive speeding in WB direction. Increase speed enforcement in area.
Storight - Transfer, Theorem of cachesi are transfer Storight - Transfer, Theorem of cachesi are transfer Storight - Transfer Didaws - Transfer Didaws - Cost - Didaws - Transfer Didaws - Didaws - Didaws - Transfer Didaws - Didaws - Didaws - Didaws - Didaws Didaws - Didaws - Didaws - Didaws - Didaws Didaws - Didaws - Didaws - Didaws - Didaws Didaws - Didaws		ACTION: Forward findings to State Department of Transportation. Conduct focused speed enforcement on WB approach. Continue to monitor in 2008.

9 Accidents Broad & Tank Farm 01/01/07 - 12/31/07	Intersection Ranking: 5	
	Broad at Tank Farm	PATTERN: Rear Ends in all directions & DUIs
Low as	Estimated Rate: .65 / MEV	RECOMMENDATION: Intersection under Caltrans jurisdiction. Collision patterns primarily attributed to excessive speeds and DUI's. Increase speed and DUI enforcement in the area.
		ACTION: Forward finding to State Department of Transportation. Conduct focused speed enforcement and DUI check point. Continue to monitor in 2008.

Table 6.10 - Recommendations for Other Significant Intersections: 5+ Collisions at Intersections Without All-way Control

Intersection Ranking: 1								
interection running. I	PATTERN: EB Left Vs. SB Thru Broadsides							
101 N/B Off Ramp								
Abbot and Grand								
	RECOMMENDATION: Traffic Signal warrants met, signal currently under							
Estimated Rate:	design.							
.87 / MEV	g							
	ACTION: Move forward with traffic signal design and construction.							
	Continue to monitor in 2008.							
Intersection Ranking: 2								
	PATTERN: No Discernable Pattern.							
Carmel at Marsh								
	RECOMMENDATION: None.							
.84/ WEV								
	ACTION: Continue to monitor in 2008.							
	Estimated Rate: .87 / MEV							

101 S/b On-ramp / Loomis & Grand 4 Accidents 01/01/07 - 12/31/07	Intersection Ranking: 3	PATTERN: SB Right Vs. SB Thru Bikes					
p H	101 S/B On-Ramp Loomis and Grand						
Lances an	Estimated Rate: .69 / MEV	RECOMMENDATION: Intersection under CalTrans jurisdiction. Improbicycle visibility & presence warning.					
The second		ACTION: Forward findings to State Dept. of Transportation. Investigate bicycle warning signing and striping. Continue to monitor in 2008.					

6 Accidents 01/01/07 - 12/31/07	Intersection Ranking: 4 Madonna at Pereira	PATTERN: Left Turn Broadsides To and From Shopping Center Driveway
Norma ca Canan na antera Canan na antera C	Estimated Rate: .66 / MEV	RECOMMENDATION: Left turn movements restricted in September of 2007.
The set of		ACTION: Continue to monitor in 2008.

3 Accidents 01/01/07 - 12/31/07	Intersection Ranking: 5 Islay at Osos	PATTERN: No Discernable Pattern.					
Lowers	Estimated Rate: .64 / MEV	RECOMMENDATION: None.					
Source of the second seco		ACTION: Continue to monitor in 2008.					

Table 6.11 - Recommendations for Arterial Segments

5 Accidents (rate:0.11) FOOTHILL 1000 BLK 01/01/07 - 12/31/07	Segment Ranking: 1	PATTERN: Left Turns from 1050 Foothill Blvd.
	Foothill 1000 Block (Santa Rosa to Casa)	
State on	Estimated Rate: 5.79 / MVM	RECOMMENDATION: Collisions primarily attributed to sight distance restrictions. Improve sight distance constraints and investigate potential left turn restrictions.
		ACTION: Issue vegetation trimming request letter to property owner. Continue to monitor in 2008.
6 Accidents 01/01/07 - 12/31/07	Segment Ranking: 2	PATTERN: NB Rear Ends
2 ²	Higuera 200 Block (High to South)	
j	Estimated Rate: 5.60 / MVM	RECOMMENDATION: Collision pattern primarily attributed to congestion and queue from traffic signal at lane reduction section. Eliminate lane reduction section and improve congestion.
Bigging Bigging Bigging		ACTION: Proceed with South Higuera widening project. Continue to monitor in 2008.

9 Accidents CALIFORNIA 200-400 BLK 01/01/07 - 12/31/07	Segment Ranking: 3	PATTERN: NB Rear Ends
1	California 200-400	FAITERN. IND Real Ellus
and the second sec	Block	
555	(Foothill to Stafford)	RECOMMENDATION: Collision pattern primarily attributed to congestion during peak time and during railroad preemption. Reconfigure Foothill
	Estimated Rate:	intersection and signal as part of the Railroad Safety Trail.
and the second sec	5.08 / MVM	
Straph une Pokad North Productions Straph Production North Productions Straph Production North Productions Straph Production North Productions Straph Production North Productions Straph Productions St		ACTION: Intersection reconfiguration currently under design, proceed with project and Continue to monitor in 2008.

FOOTHILL 800-900 BLK 5 Accidents (rate:0.05) 01/01/07 - 12/31/07	Segment Ranking: 4 Foothill 800-900 Block	PATTERN: No Discernable Pattern.
Conner or	(Chorro to Santa Rosa)	RECOMMENDATION: None.
Note: In the second s	Estimated Rate: 3.89 / MVM	ACTION: Continue to monitor in 2008.

4 Accidents (rate:0.08) BROAD 3000 BLK 01/01/07 - 12/31/07	Segment Ranking: 5	PATTERN: No Discernable Pattern.
	Broad 3000 Block (Sweeney to Orcutt)	
22.1		RECOMMENDATION: None.
	Estimated Rate: 3.85 / MVM	
a de la companya de l		ACTION: Continue to monitor in 2008.
Singht use the 21 power in the first on the next Singht use the 21 power is the first of the first Singht of the 21 power is the		

Table 6.12 - Recommendations for Collector Segments

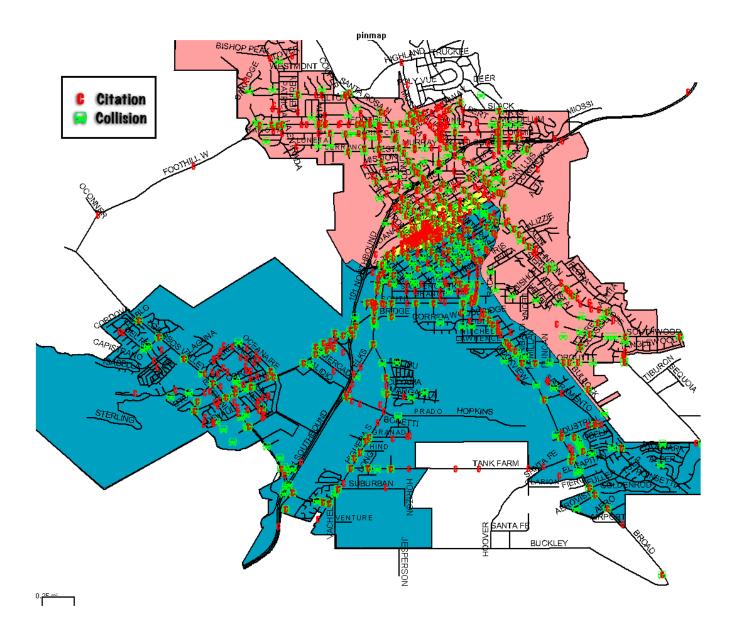
Table 6.13 - Recommendations for Local Segments

2007 traffic enforcement activities

7.1 Enforcement at High Collision Intersections and Segments

Traffic enforcement at intersections and street segments with high collision rates is a high priority for the Police Department. Officers conduct enforcement activities, high visibility patrols and saturation deployment in areas identified as having the highest concentration of collisions, or which present special risks such as school zones. These enforcement efforts result in citations and have a lasting impact on drivers who are concerned about receiving a citation even after a saturation effort ends and change their driving behavior as a result. In fact, often the presence of officers in a specific area results in drivers obeying the law without the need to issue large numbers of citations.

The Police Department attempts to correlate these focused enforcement efforts with locations that have been identified as having high collision rates. The following map depicts the location of all collisions that occurred in the City in 2007 and the traffic citations issued by officers during the same period of time. The clustering of collisions and citations indicate a correlation of enforcement activity with and collision locations.



In addition to enforcement in high collision areas, the Traffic Safety Unit frequently adjusts its enforcement activities based on citizen complaints and observations of violations.

7.2 DUI Special Enforcement

The enforcement of Driving under the Influence (DUI) laws continues to be a high priority for the Police Department, particularly for officers working night shifts. Beginning in November 2007, the Police Department implemented DUI Saturation patrols during which officers were deployed to specifically focus on DUI enforcement utilizing grant funding for overtime. These patrols are continuing in 2008.

The Police Department participated in the county-wide "Avoid the 14" DUI education and enforcement campaign. Officers conducted coordinated efforts with other law enforcement

agencies for DUI enforcement during peak periods such as holiday weekends and participated in DUI media campaigns. The Police Department conducted one DUI checkpoint in the City in 2007 and made plans to significantly increase the number of DUI checkpoints conducted in 2008.

7.3 Seatbelt Enforcement

According to the National Highway Traffic Safety Administration (NHTSA), research has shown that the use of a lap/shoulder seatbelt can reduce the risk of a fatal injury by 45 percent and the risk of a moderate injury by 50 percent. In order to encourage seatbelt use to increase safety, the Police Department strictly enforces seatbelt violations and conducts special education and enforcement campaigns under the annual statewide "Click it or Ticket" program. During "Click it of Ticket" enforcement periods, seatbelt use is measured before and after the enforcement campaign in order to gauge the level of compliance and effectiveness of enforcement.

In 2007, the Police Department issued 515 seatbelt citations; twenty percent during the "Click it or Ticket" mobilization period in May 2007. Surveys conducted before and after the enforcement period indicated that compliance with seatbelt laws remained consistent at 92% which represents a high level of seatbelt use.

7.4 Repeat Offenders - Suspended Licenses

The Department of Motor Vehicles suspends the privilege to drive based upon driving behavior, utilizing the Violation Point Assessment tool as a gauge to identify negligent and dangerous drivers. Individuals who continue to drive once their license has been suspended or revoked pose an increased risk to the public over licensed drivers. The Police Department has taken a proactive enforcement posture against these offenders by creating a monthly "hot-sheet" that identifies chronic offenders who repeatedly drive without a valid license. These offenders not only receive a citation, but their vehicle is subject to impound for up to 30 days. In 2007, the Police Department impounded 84 vehicles from individuals driving with a suspended license or having no license.

The hot-sheet program, which began in December 2007, highlights offenders who have prior arrests for DUI and usually more than one license suspension. It is common for these offenders to have other criminal convictions and many have outstanding warrants.

7.5 Grant Programs

The Police Department received funding from five separate traffic and alcohol-related grants during 2007 from the Office of Traffic Safety (OTS) in order to assist the City in reducing deaths, injuries and economic losses resulting from traffic related collisions. The following is a summary of the grant programs:

Automated Collision Analysis and Tracking System

Grant Period: 10/1/05 - 12/31/07

This grant provided funding for computer hardware and software to electronically link the Police and Public Works Departments so traffic collision data is automatically transmitted to traffic engineering staff for ongoing analysis. Rather than preparing collision reports and citations by hand, they will be prepared electronically in the field on specialized handheld data devices that will upload the data to Police and Public Works systems. This will ensure

both departments have timely access to current and complete data required to identify and analyze critical traffic safety issues. The department is in the final stages of this project.

Selective Traffic Enforcement Program #1

Grant Period: 10/1/06 - 9/30/07

This grant funded two DUI/driver's license checkpoints and special enforcement operations focused on red light violations; violations at or near intersections with a disproportionate number of traffic collisions; and drivers exhibiting excessive speed. Funding was also used to purchase four pole-mounted speed display signs that have been installed in high traffic areas throughout the City.

Avoid the 14 DUI Campaign

Grant Period: 10/1/06 - 1/31/10

The Avoid the 14 grant is a joint participation program involving all of the local law enforcement agencies in the County. The goal of the program is to reduce alcohol involved fatalities and injuries and to raise public awareness about the risks associated with impaired driving. The grant funds DUI checkpoints, saturation patrols, and DUI warrant sweeps throughout the County.

Click It or Ticket Project

Grant Period: 3/1/07 - 9/30/07

The goal of the California Click It or Ticket project was to increase seat belt use statewide to 93.7% by July 31, 2007. A coordinated, statewide seatbelt education and enforcement campaign was conducted for a twenty-one day period in May and June 2007. Funds provided by the grant were utilized to increase the level of seatbelt enforcement hours. As a result, the Office of Traffic Safety reported that seatbelt use in 2007 increased to 94.6% statewide.

Selective Traffic Enforcement Program #2

Grant Period: 10/1/07 - 9/30/09

This enforcement grant (which is still underway) focused on reducing the number of people injured and killed in collisions by increasing DUI and selective traffic enforcement. The grant funded one traffic officer position for 18 months; a traffic motorcycle; radar/lidar speed detecting devices for traffic and patrol officers; eight DUI/Driver's License checkpoints; and several saturation patrols. Enforcement operations are focused on red light violations; violations at or near intersections with a disproportionate number of traffic collisions; and drivers exhibiting excessive speed.

ongoing education campaigns

8.1 Child Safety Seats

In order to reduce the likelihood that an infant or child is injured in a traffic collision, the Police Department offers child safety seat inspection and installation at no cost to members of the public. The Department is part of a county-wide Car Seat Safety Coalition which organizes six to eight Child Seat Check-up events each year to make sure child seats are properly installed in vehicles and to answer questions about the laws regulating the transportation of children. When a child seat is identified as being unsafe or subject to recall, a new seat is provided to the parent or caregiver at no cost. Three Police employees are



certified as child seat inspectors (two officers and one field services technician). They participate in Check-up events throughout the County and provide inspections and installations at the Police Department by appointment.

8.2 Bicycle Safety

Each year, the Police and Parks and Recreation Departments co-host a "Bicycle Rodeo" for children in order to promote safe and responsible bicycle skills and operation. During the five days leading up to the Rodeo, a professional BMX stunt team travels to several elementary schools and puts on an exciting bicycle safety demonstration that includes stunt riding, messaging promoting a healthy lifestyle free of drugs and alcohol, and a five point bicycle safety check.

The week concludes with a free Bicycle Rodeo



featuring a "Safety Town" that includes signaled intersections, stop signs, a railroad crossing, pedestrian traffic, car doors opening into the roadway, as well as specialized cone courses to develop riding skills. Community members volunteer their time to staff the course, and local professional bicycle mechanics check and adjust children's bicycles prior to entry on the course. Helmets are checked and if they are determined to be unsafe a new one is provided free. The annual attendance ranges from 200 to 300 children.

8.3 Impaired Driver Offender Classes

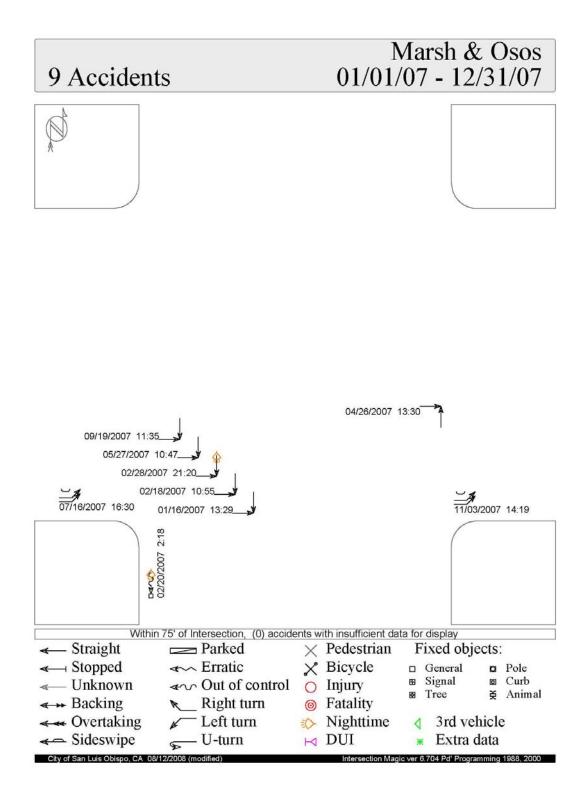
When a driver is convicted of DUI, they are normally required to attend a DUI offender class as part of their sentence. The goal of the class is to provide education and dialog about DUI offenses in order to increase the chances an individual will not re-offend. The classes are offered by the County Behavioral Health Department, Drug and Alcohol Services, and serve approximately 50 people per class.

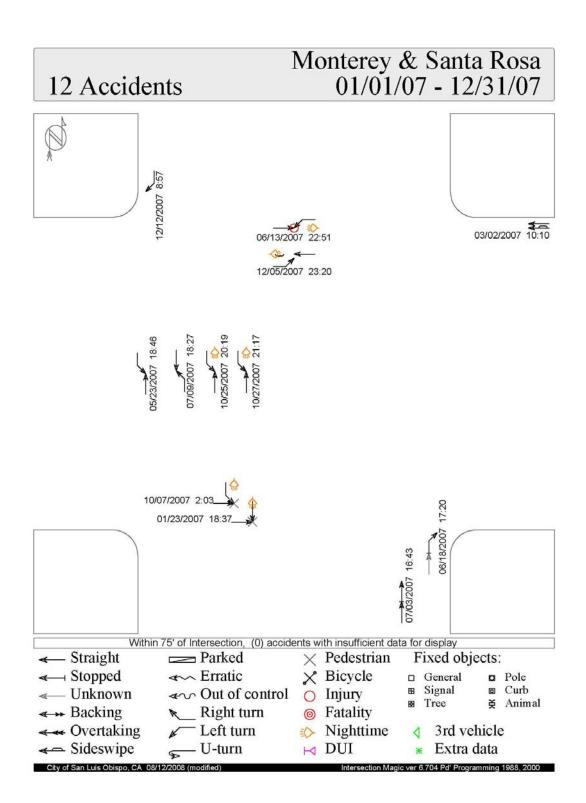
The Police Department participates in the program by providing a traffic officer to make a presentation at the DUI offender classes to discuss the impacts of DUI on traffic safety and collisions. The class offers a unique opportunity for officers to interact with DUI offenders in a positive and educational way, rather than during an enforcement action. Class attendees are provided an opportunity to ask questions of the officer and to discuss the impact of DUI driving on them and others.

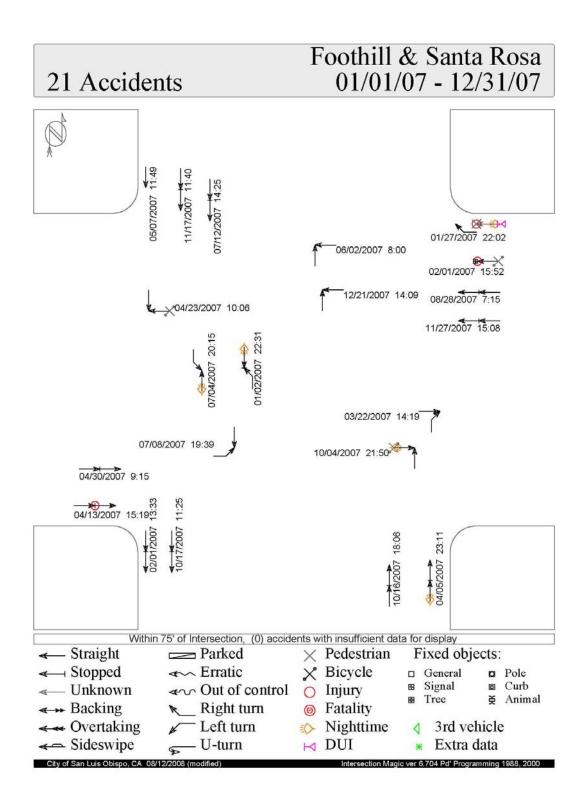
Appendix 1 Arterial / Arterial Intersections

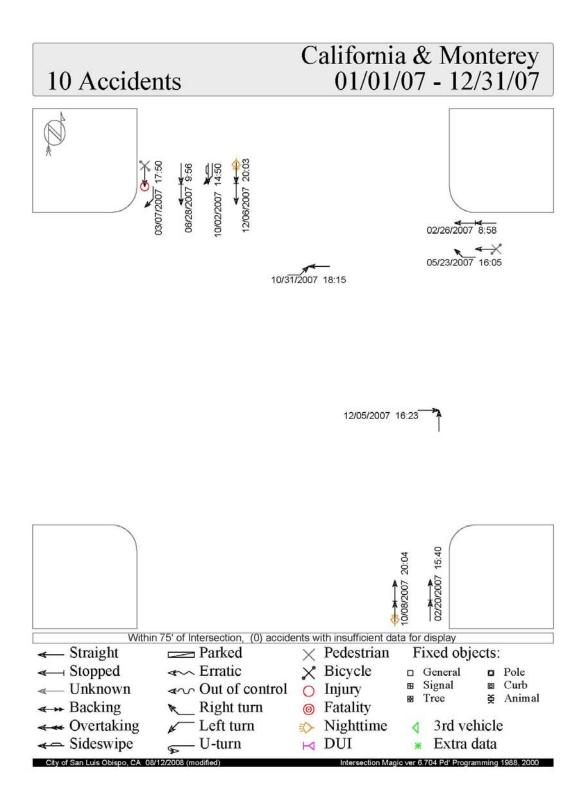
Rank	Prev. Rank	Intersection	Collisions	Volume	Rate	Control	EB	WB	NB	SB
1	3	Marsh & Osos	9	18,667	1.32	SIG	11,515	NA	5,462	1,690
2	2	Monterey & Santa Rosa	12	27,422	1.20	SIG	2,425	6,710	8,912	9,375
3	4	Foothill & Santa Rosa	21	53,054	1.08	SIG	10,123	10,062	16,789	16,080
4	10	California & Monterey	10	25,823	1.06	SIG	6,157	6,924	7,222	5,520
5	Not Ranked	Higuera & Johnson	4	13,607	0.81	2-STOP	3,243	182	6,178	4,004
6	5	Chorro & Marsh	5	17,685	0.77	SIG	13,033	NA	1,670	2,982
7	17	Broad & Tank Farm	10	37,652	0.73	SIG	9,623	4,215	11,184	12,630
8	11	Broad & Marsh	5	19,966	0.69	SIG	12,273	NA	4,390	3,303
9	6	Marsh & Santa Rosa	5	20,542	0.67	SIG	12,609	NA	2,290	5,643
10	Not Ranked	Higuera & Madonna	8	33,059	0.66	SIG	13,350	NA	6,217	13,492
11	9	Los Osos Valley & Madonna	9	39,362	0.63	SIG	2,778	9,356	12,151	15,077
12	18	Broad & Orcutt	8	35,281	0.62	SIG	NA	7,319	14,309	13,653
13	22	101 SB Ramp & Los Osos Valley	6	29,615	0.56	SIG	NA	<u>5,550</u>	11,818	12,247
14	3	Chorro & Higuera	3	16,001	0.51	SIG	NA	8,755	2,908	4,338
15	8	Higuera & Los Osos Valley	4	25,959	0.42	SIG	11,005	NA	2,896	12,058
16	Not Ranked	Dalidio & Madonna	4	27,405	0.40	SIG	13,514	13,166	<u>600</u>	<u>125</u>
17	23	Broad & South	5	34,991	0.39	SIG	<u>6,200</u>	7,765	14,362	6,664
18	Not Ranked	Higuera & Marsh	4	28,073	0.39	SIG	12,273	NA	6473	9327
19	14	Higuera & Santa Rosa	3	23,403	0.35	SIG	NA	3,243	9,669	10,491
20	Not Ranked	Higuera & South	3	30,053	0.27	SIG	6,156	<u>200</u>	15,261	8,436
21	21	101 N/b On/Off Ramp & Madonna	3	37,125	0.22	SIG	20,000	12,900	4,225	NA

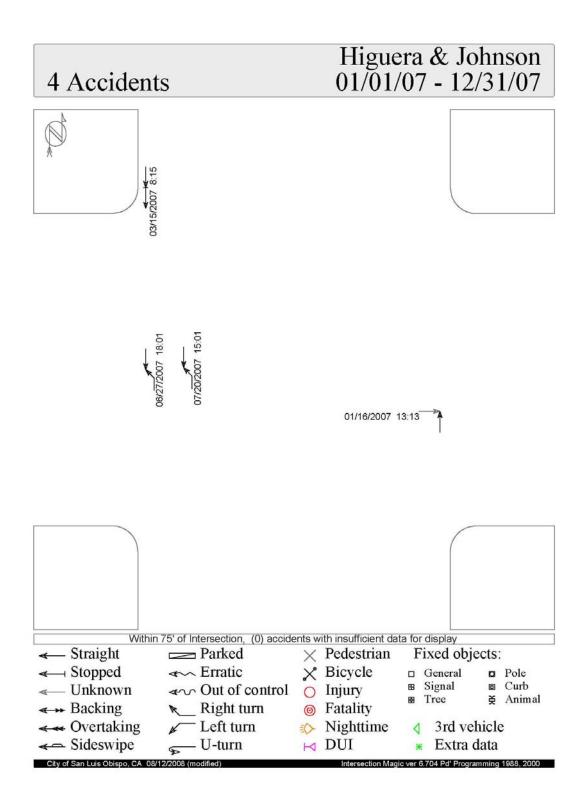
Arterial / Arterial Intersections Prioritized by Accident Rate







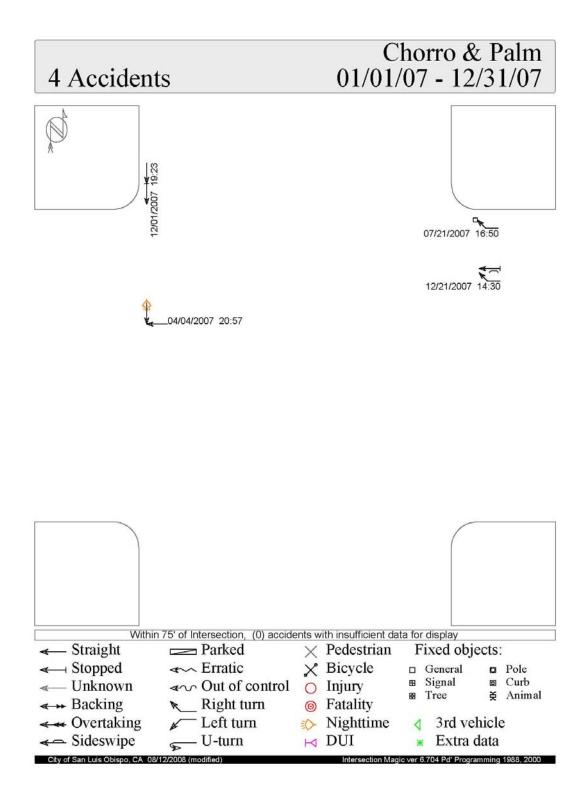


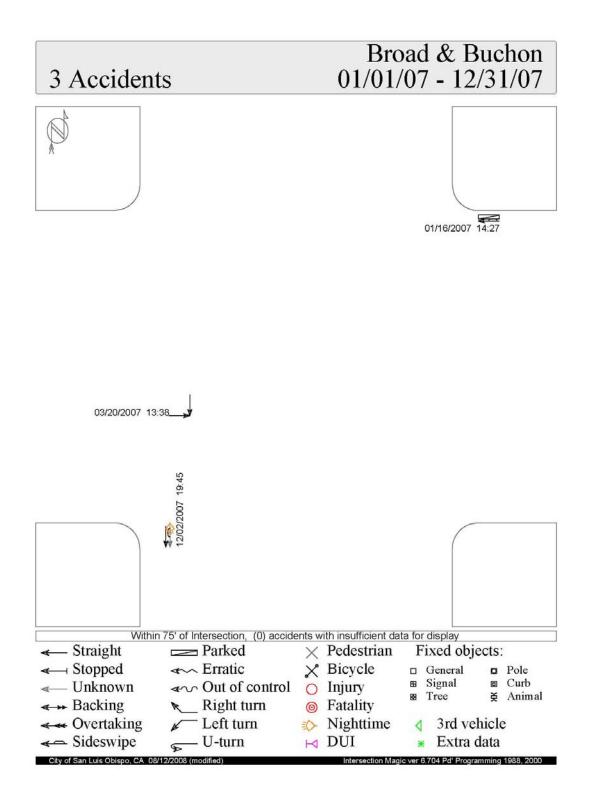


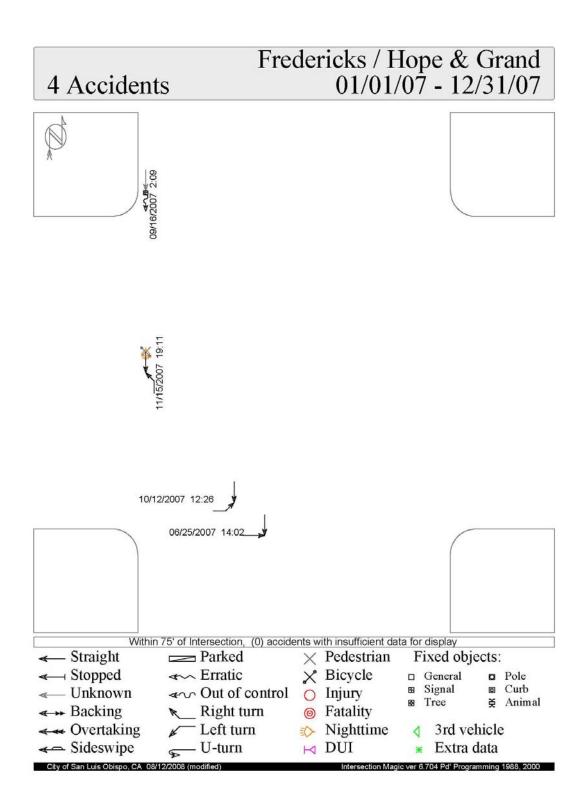
Appendix 2 Arterial / Collector Intersections

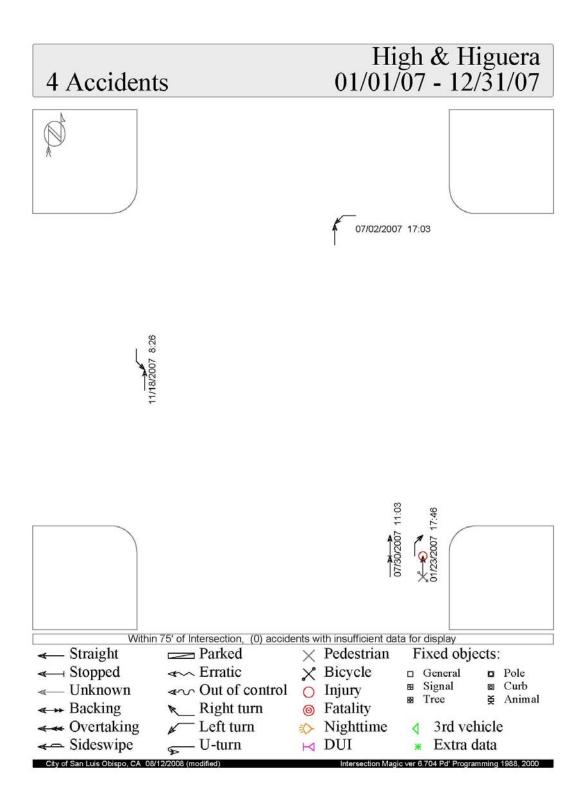
Rank	Prev. Rank	Intersection	Collisions	Volume	Rate	Control	EB	WB	NB	SB
1	2	Chorro & Palm	4	9,505	1.15	SIG	1,967	758	2,891	3,889
2	Not Ranked	Broad & Buchon	3	11,179	0.74	2-STOP	<u>815</u>	<u>737</u>	5,042	4,585
3	4	Fredericks / Hope & Grand	4	15,681	0.70	2-STOP	<u>500</u>	<u>500</u>	7,305	7,376
4	Not Ranked	High / Pismo & Higuera	4	15,911	0.69	SIG	NA	3,303	6,461	6,147
5	Not Ranked	Madonna & Oceanaire	6	25,813	0.64	SIG	11,214	13,166	383	1,050
6	Not Ranked	Buchon & Osos	3	15,664	0.52	SIG	3,544	635	5,170	6,315
7	7	Mill & Santa Rosa	4	21,770	0.50	SIG	1,201	1,353	9,737	9,479
8	9	Broad & Foothill	3	22,401	0.37	SIG	9,077	11,172	2,152	NA
9	Not Ranked	Chorro & Foothill	3	22,719	0.36	SIG	10,079	10,062	1,526	1,052
10	5	El Mercado & Madonna	4	32,662	0.34	SIG	13,514	18,130	1,018	NA

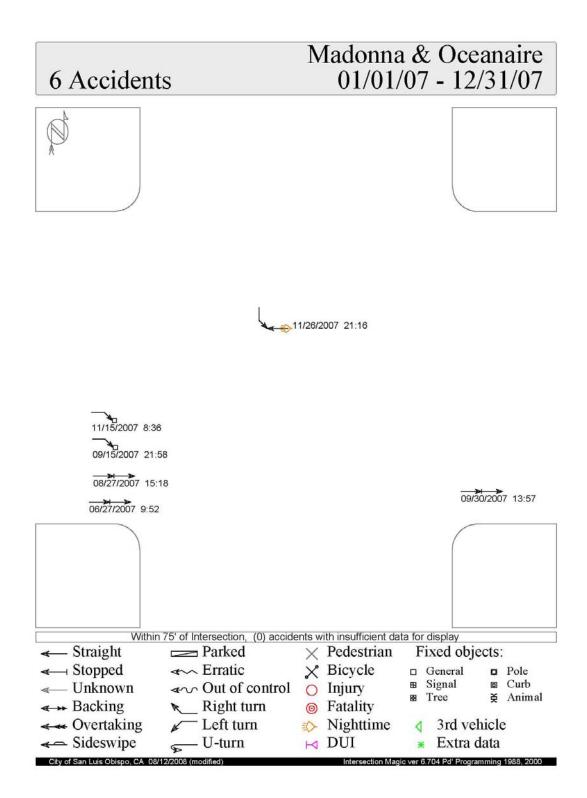
Arterial / Collector Intersections Prioritized by Accident Rate







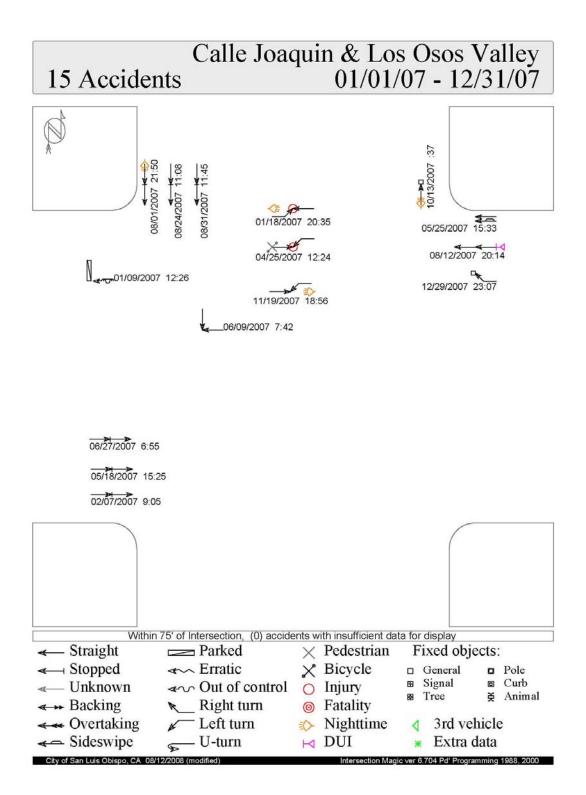


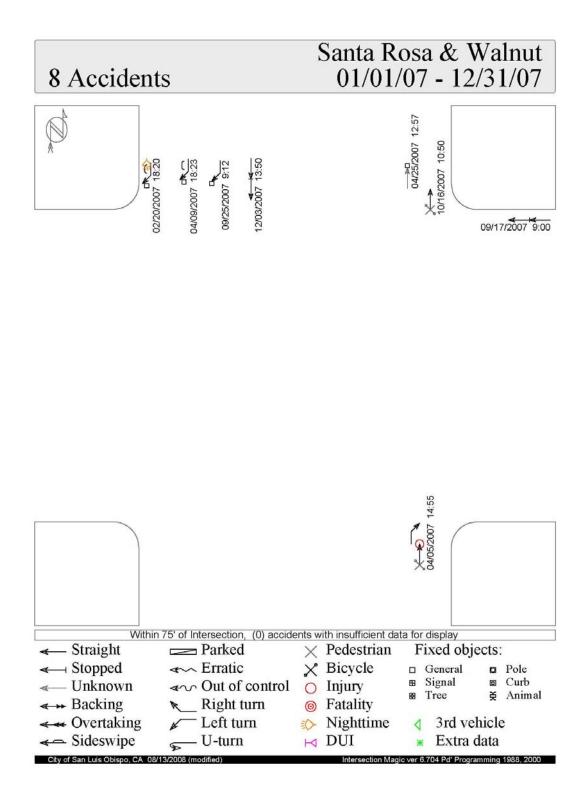


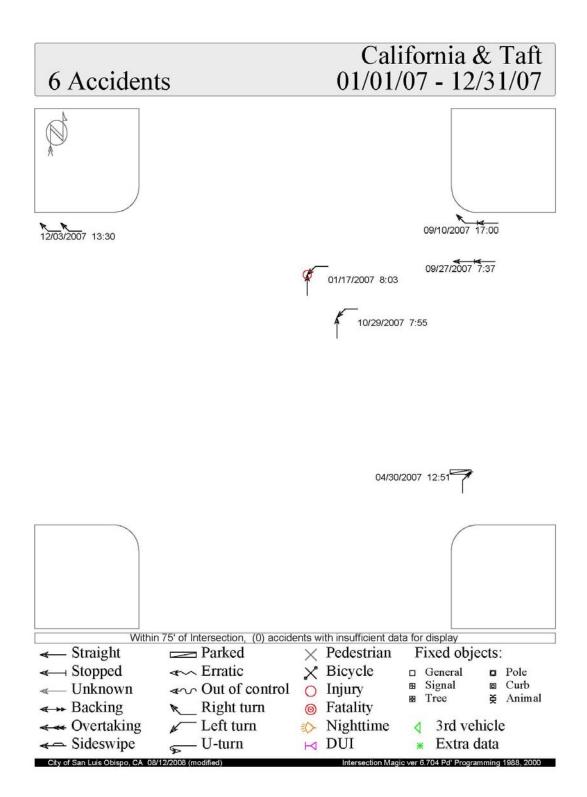
Appendix 3 Arterial / Local Intersections

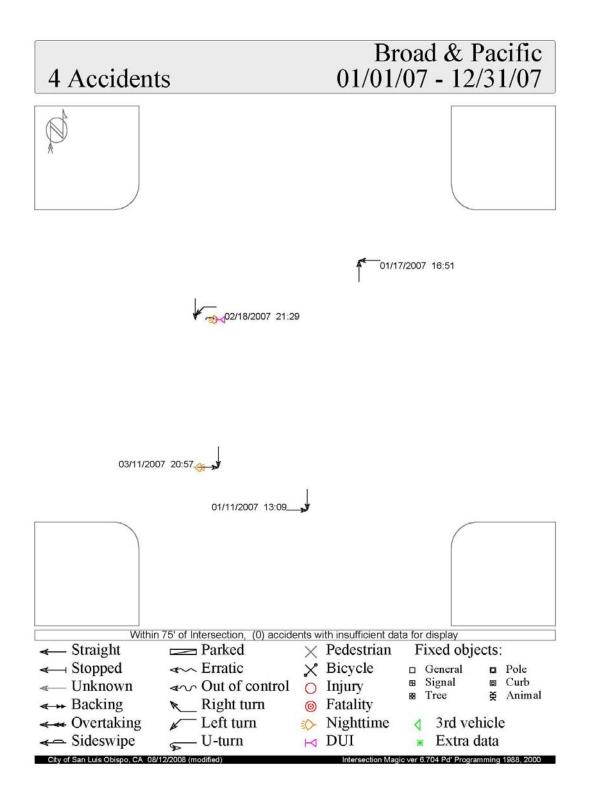
Arterial / Local Intersections Prioritized by Accident Rate

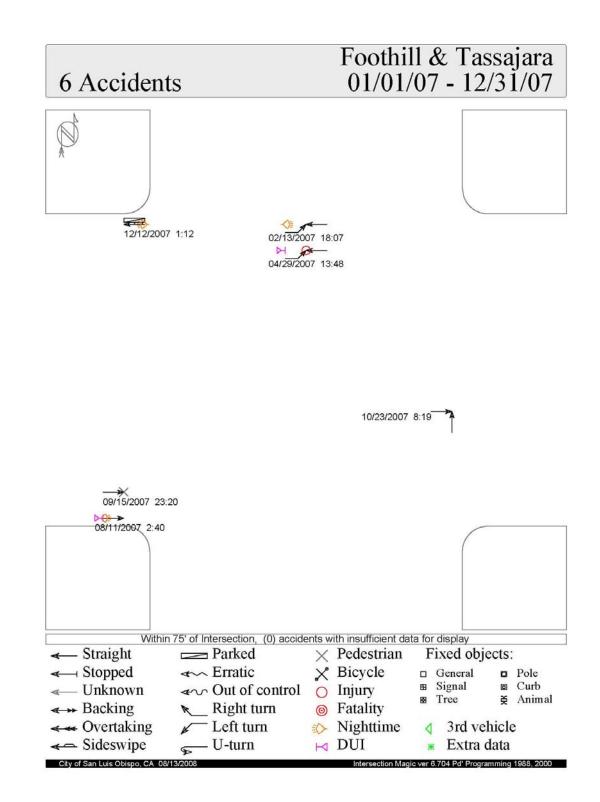
Rank	Prev. Rank	Intersection	Collisions	Volume	Rate	Control	EB	WB	NB	SB
1	10	Calle Joaquin & LOVR	15	26,065	1.58	SIG	11,818	12,247	NA	<u>2,000</u>
2	36	Santa Rosa & Walnut	8	21,727	1.01	SIG	1,245	1,599	9,737	9,146
3	7	California & Taft	6	16,420	1.00	2-STOP	<u>2,775</u>	NA	8,060	5,585
4	6	Broad & Pacific	4	11,002	1.00	SIG	<u>800</u>	<u>800</u>	5,350	4,052
5	16	Foothill & Tassajara	6	18,535	0.89	SIG	8,346	8,283	923	983
6	1	101 NB Ramp & Grand	5	15,804	0.87	2-STOP	3,450	<u>500</u>	4,478	7,376
7	1	Higuera & Nipomo	4	13,019	0.84	SIG	NA	10,019	<u>1,500</u>	<u>1,500</u>
8	Not Ranked	Carmel & Marsh	4	13,073	0.84	2-STOP	12,273	NA	<u>500</u>	<u>300</u>
9	Not Ranked	101 SB Ramp & Grand	4	15,854	0.69	2-STOP	<u>500</u>	<u>3,500</u>	4,478	7,376
10	19	Madonna & Pereira	6	24,994	0.66	1-STOP	10,197	10,797	<u>1,000</u>	<u>3,000</u>
11	Not Ranked	Islay & Osos	3	12,785	0.64	2-STOP	<u>650</u>	<u>650</u>	5,170	6,315
12	34	Froom Ranch & LOVR	7	31,089	0.62	SIG	<u>6,500</u>	<u>1,000</u>	12,151	11,438
13	5	Marsh & Nipomo	3	14,493	0.57	SIG	12,273	NA	1,092	1,128
14	Not Ranked	Broad & Higuera	3	14,593	0.56	1-STOP	NA	8,755	2,535	<u>3,303</u>
15	27	Descanso & Los Osos Valley	5	26,470	0.52	SIG	11,238	13,832	<u>700</u>	<u>700</u>
16	14	Ella & Johnson	4	21,896	0.50	SIG	10,470	8,800	1326	1,300
17	31	Murray & Santa Rosa	4	27,448	0.40	SIG	<u>2,000</u>	<u>2,000</u>	9,829	13,619
18	29	Foothill & Mustang	3	22,545	0.36	SIG	9,480	10,065	NA	<u>3,000</u>
19	22	Higuera & Vachell	3	22,858	0.36	1-STOP	NA	<u>1,576</u>	12,016	9,266
20	35	Olive & Santa Rosa	5	43,657	0.31	SIG	8,119	449	16,789	18,300
21	Not Ranked	Broad & Stoneridge	3	27,872	0.29	1-STOP	<u>400</u>	NA	13,819	13,653
22	32	Boysen & Santa Rosa	3	28,624	0.29	1-STOP	<u>1,000</u>	NA	14,005	13,619
23	28	Montalban & Santa Rosa	3	40,197	0.20	2-STOP	<u>500</u>	<u>1,500</u>	19,310	18,887







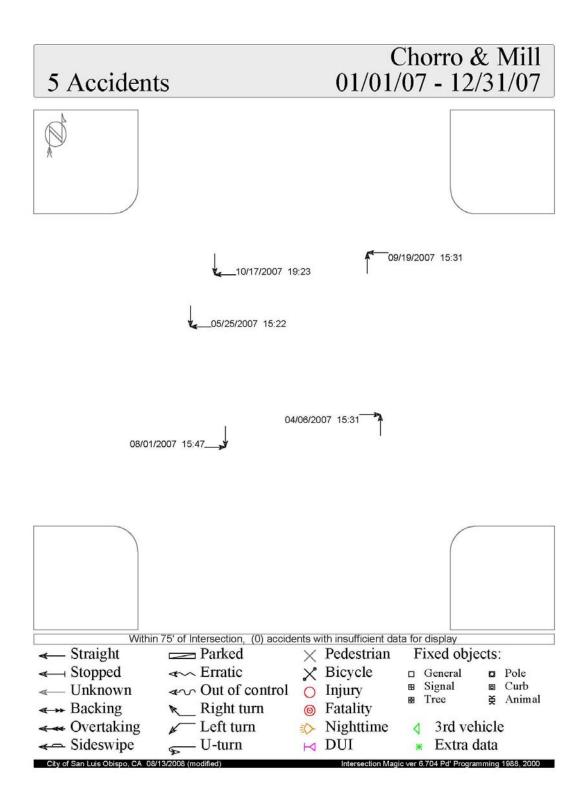




appendix 4 Collector / Collector Intersections

Collector / Collector Intersection Prioritized by Accident Rate

Rank	Prev. Rank	Intersection	Collisions	Volume	Rate	Control	EB	WB	NB	SB
1	Not Ranked	Chorro & Mill	5	9,370	1.46	4-STOP	1,332	1,601	3,548	3,889



appendix 5

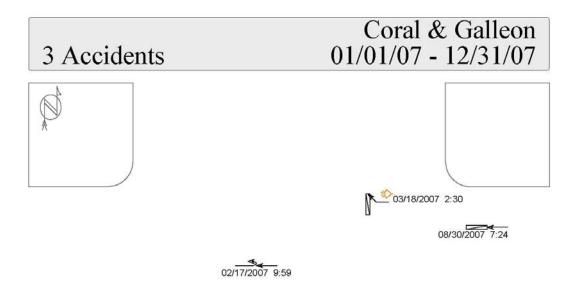
Collector / Local Intersections

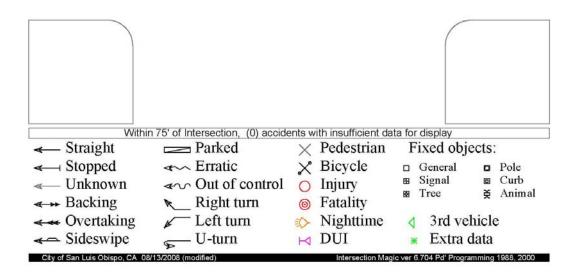
NO LOCATIONS UNDER THIS CATEGORY HAD MORE THAN 3 COLLISIONS IN 2007

appendix 6 Local / Local Intersections

Local / Local Intersections Prioritized by Accident Rate

Rank	Prev. Rank	Intersection	Collisions	Volume	Rate	Control	EB	WB	NB	SB
1	Not Ranked	Corral & Galleon	3	800	10.27	UNC	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>

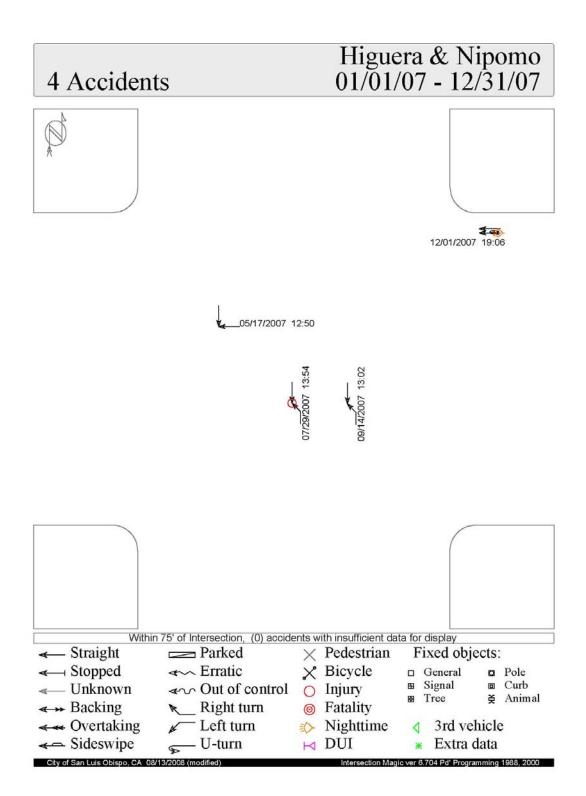


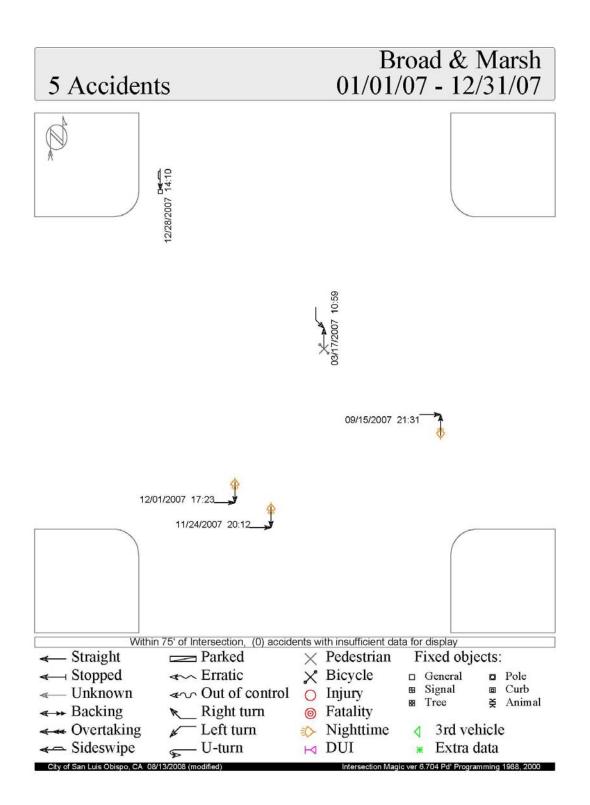


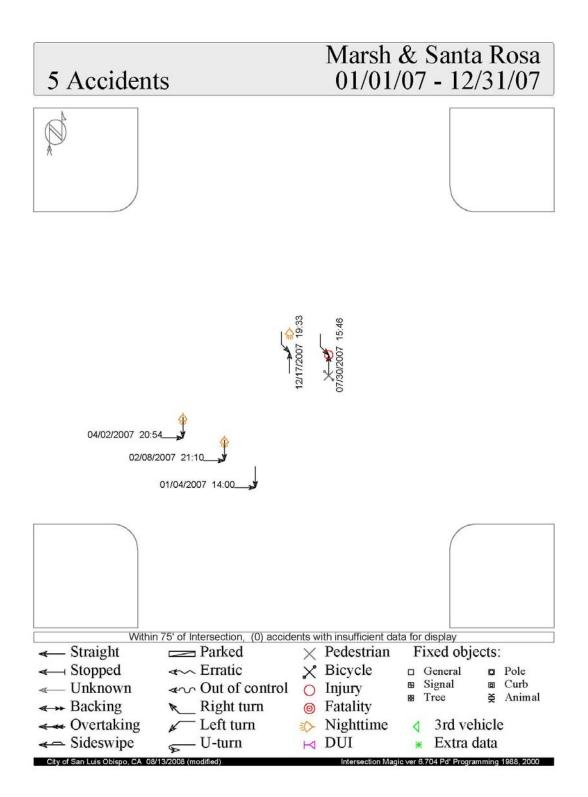
Appendix 7 Other Significant Intersections

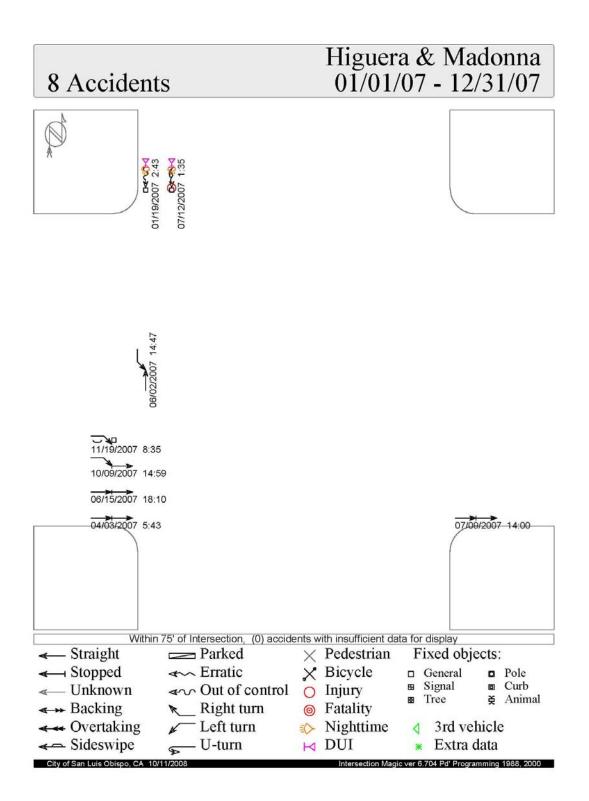
Rank	Prev. Rank	Intersection	Collisions	Volume	Rate	Control	EB	WB	NB	SB
1	Not Ranked	Higuera & Nipomo	4	13,019	0.84	SIG	NA	10,019	<u>1,500</u>	<u>1,500</u>
2	Not Ranked	Broad & Marsh	5	19,666	0.69	SIG	12,273	NA	4,390	3,303
3	1	Marsh & Santa Rosa	5	20,542	0.67	SIG	12,609	NA	2,290	5,643
4	Not Ranked	Higuera & Madonna	8	33,059	0.66	SIG	13,350	NA	6,217	13,492
5	1	Broad & Tank Farm	9	37,652	0.65	SIG	9,623	4,215	11,184	12,630
6	Not Ranked	Higuera & Madonna	8	33,059	0.66	SIG	13,350	NA	6,217	13,492
7	4	Los Osos Valley & Madonna	9	39,362	0.63	SIG	 2,778	9,356	12,151	15,077
8	10	Broad & Orcutt	8	35,281	0.62	SIG	 NA	7,319	14,309	13,653
9	Not Ranked	Froom Ranch & Los Osos Valley	7	31,089	0.62	SIG	<u>6,500</u>	<u>1,000</u>	12,151	11,438
10	Not Ranked	Marsh & Nipomo	3	14,493	0.57	SIG	 12,273	NA	1,092	1,128
11	Not Ranked	101 S/b On/Off Ramp & LOVR	6	29,615	0.56	SIG	 NA	<u>5,550</u>	11,818	12,247
12	Not Ranked	Buchon & Osos	3	15,664	0.52	SIG	3,544	635	5,170	6,315
13	Not Ranked	Descanso & Los Osos Valley	5	26,470	0.52	SIG	11,238	13,832	<u>700</u>	<u>700</u>
14	Not Ranked	Chorro & Higuera	3	16,001	0.51	SIG	NA	8,755	2,908	4,338
15	5	Mill & Santa Rosa	4	21,770	0.50	SIG	1,201	1,353	9,737	9,479
16	3	Higuera & Los Osos Valley	4	25,959	0.42	SIG	11,005	NA	2,896	12,058
17	Not Ranked	Dalidio & Madonna	4	27,405	0.40	SIG	13,514	13,166	<u>600</u>	<u>125</u>
18	Not Ranked	Murray & Santa Rosa	4	27,448	0.40	SIG	<u>2,000</u>	<u>2,000</u>	9,829	13,619
19	Not Ranked	Broad & South	5	34,991	0.39	SIG	<u>6,200</u>	7,765	14,362	6,664
20	Not Ranked	Higuera & Marsh	4	28,073	0.39	SIG	12,273	NA	6473	9327
21	Not Ranked	Broad & Foothill	3	22,401	0.37	SIG	9,077	11,172	2,152	NA
22	Not Ranked	Foothill & Mustang	3	22,545	0.36	SIG	9,480	10,065	NA	3,000
23	Not Ranked	Chorro & Foothill	3	22,719	0.36	SIG	10,079	10,062	1,526	1,052
24	8	Higuera & Santa Rosa	3	23,403	0.35	SIG	NA	3,243	9,669	10,491
25	Not Ranked	El Mercado & Madonna	4	32,662	0.34	SIG	13,514	18,130	1,018	NA
26	Not Ranked	Olive & Santa Rosa	5	43,657	0.31	SIG	8,119	449	16,789	18,300
27	Not Ranked	Higuera & South	3	30,053	0.27	SIG	6,156	200	15,261	8,436
28	11	101 N/b On/Off Ramp & Madonna	3	37,125	0.22	SIG	20,000	12,900	4,225	NA

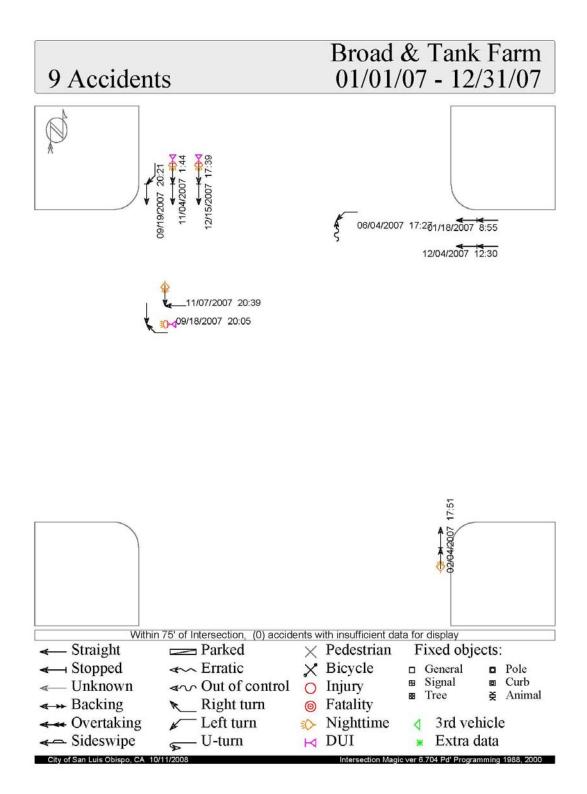
Other Significant Intersections Prioritized by Accident Rate Left turn collisions at signalized intersections





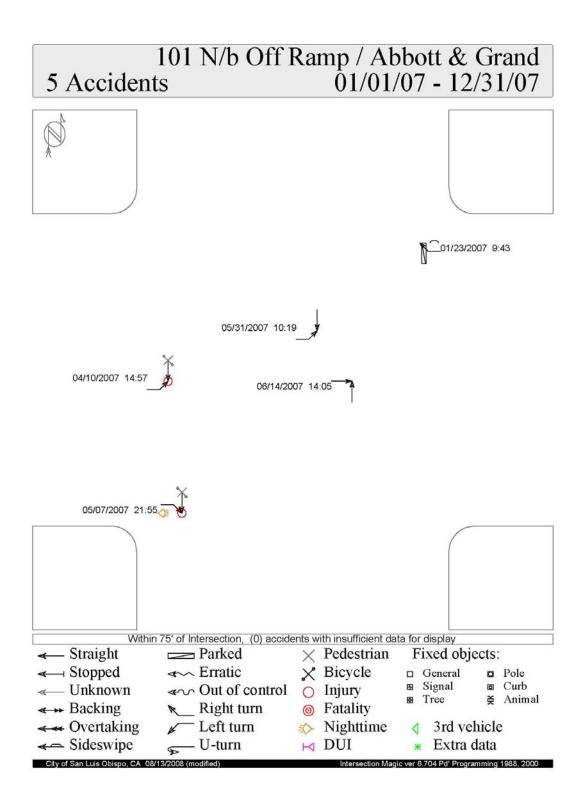


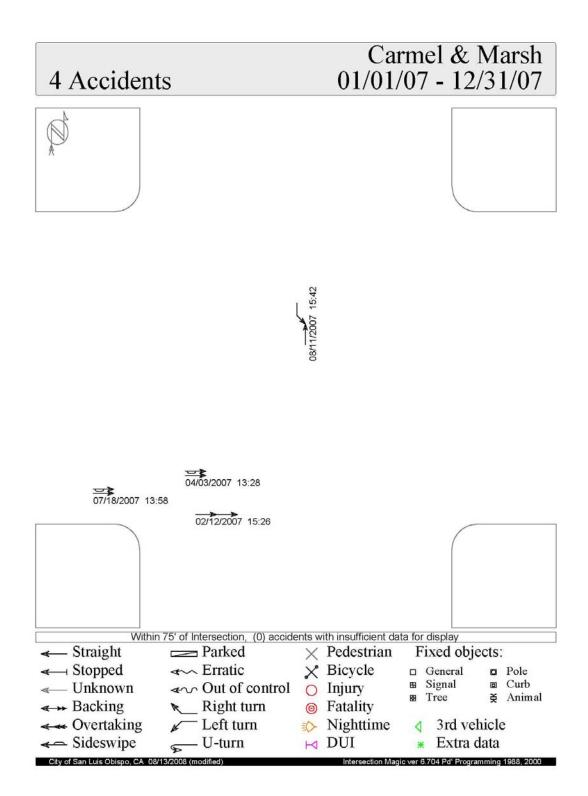


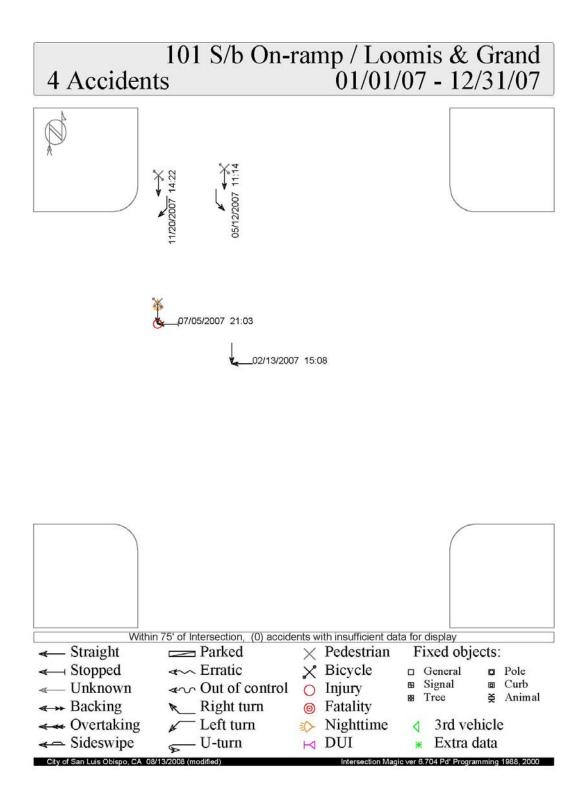


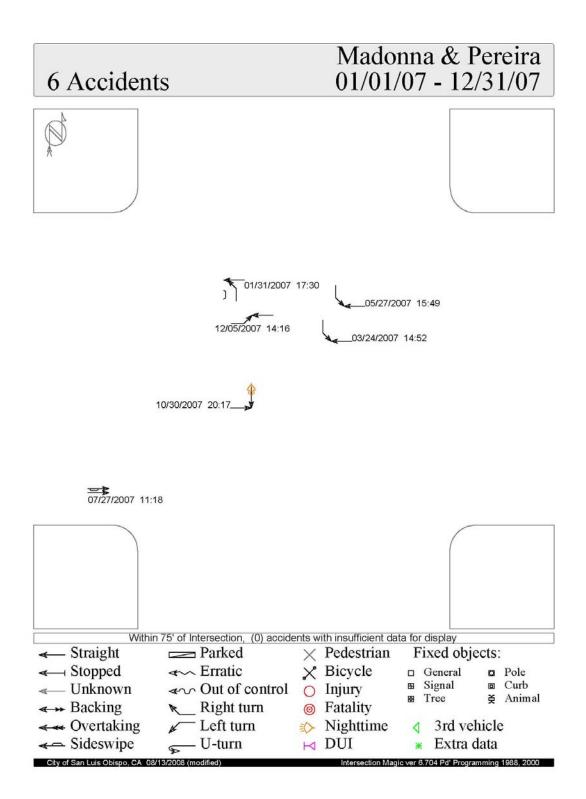
Rank	Prev. Rank	Intersection	Collisions	Volume	Rate	Control	EB	WB	NB	SB
1	Not Ranked	101 N/b Off Ramp / Abbott & Grand	5	15,804	0.87	2-STOP	3,450	<u>500</u>	4,478	7,376
2	Not Ranked	Carmel & Marsh	4	13,073	0.84	2-STOP	12,273	NA	<u>500</u>	<u>300</u>
3	Not Ranked	101 S/b On-ramp / Loomis & Grand	4	15,854	0.69	2-STOP	<u>500</u>	<u>3,500</u>	4,478	7,376
4	6	Madonna & Pereira	6	24,994	0.66	1-STOP	10,197	10,797	<u>1,000</u>	<u>3,000</u>
5	Not Ranked	Islay & Osos	3	12,785	0.64	2-STOP	<u>650</u>	<u>650</u>	5,170	6,315
6	Not Ranked	Broad & Higuera	3	14,593	0.56	1-STOP	NA	8,755	2,535	<u>3,303</u>
7	5	Ella & Johnson	4	21,896	0.50	SIG	10,470	8,800	1326	<u>1,300</u>
8	Not Ranked	Higuera & Vachell	3	22,858	0.36	1-STOP	NA	<u>1,576</u>	12,016	9,266
9	Not Ranked	Broad & Stoneridge	3	27,872	0.29	1-STOP	<u>400</u>	NA	13,819	13,653
10	Not Ranked	Boysen & Santa Rosa	3	28,624	0.29	1-STOP	<u>1,000</u>	NA	14,005	13,619
11	8	Montalban & Santa Rosa	3	40,197	0.20	2-STOP	<u>500</u>	<u>1,500</u>	19,310	18,887

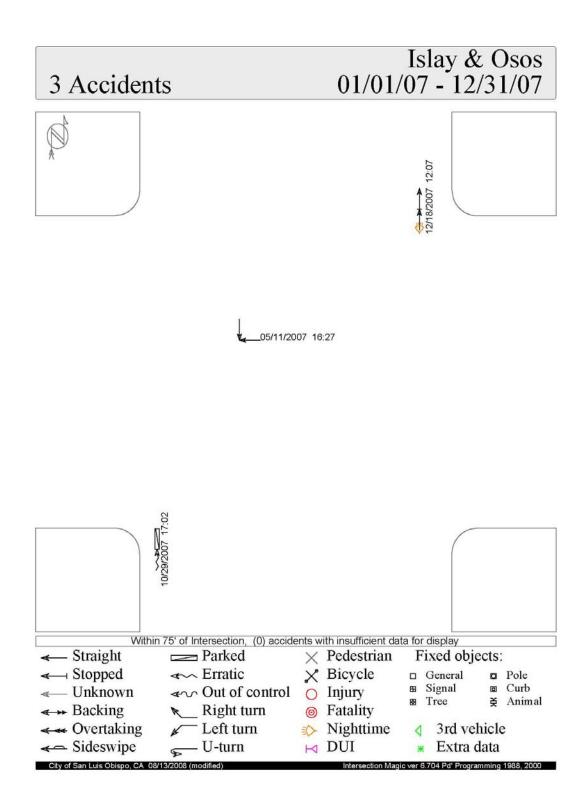
Other Significant Intersections Prioritized by Accident Rate Collision at intersections without all-way control

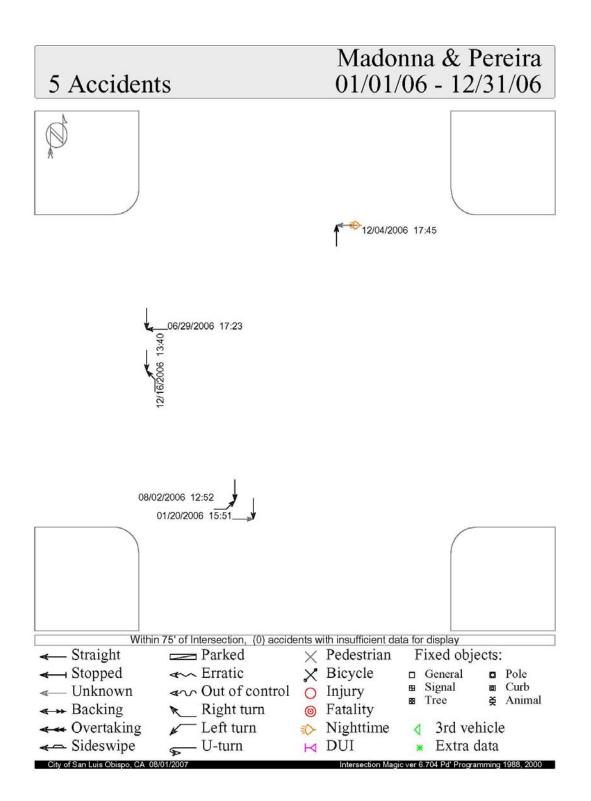


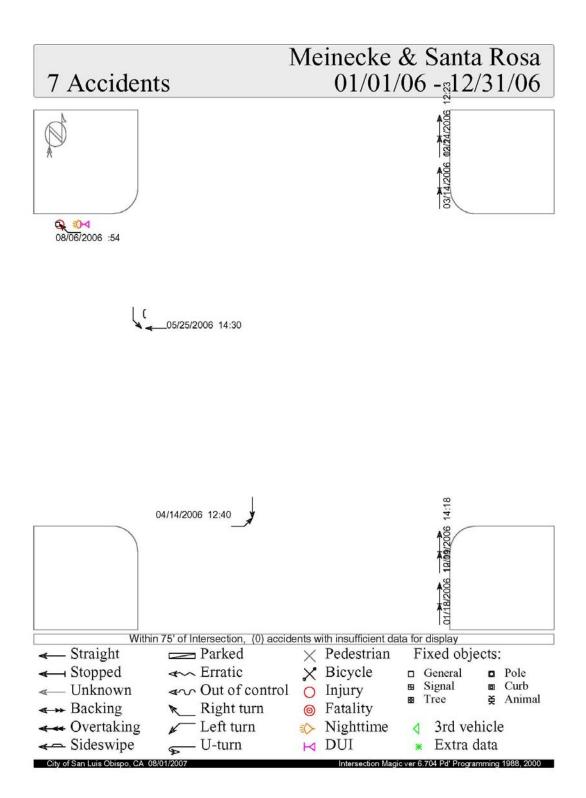


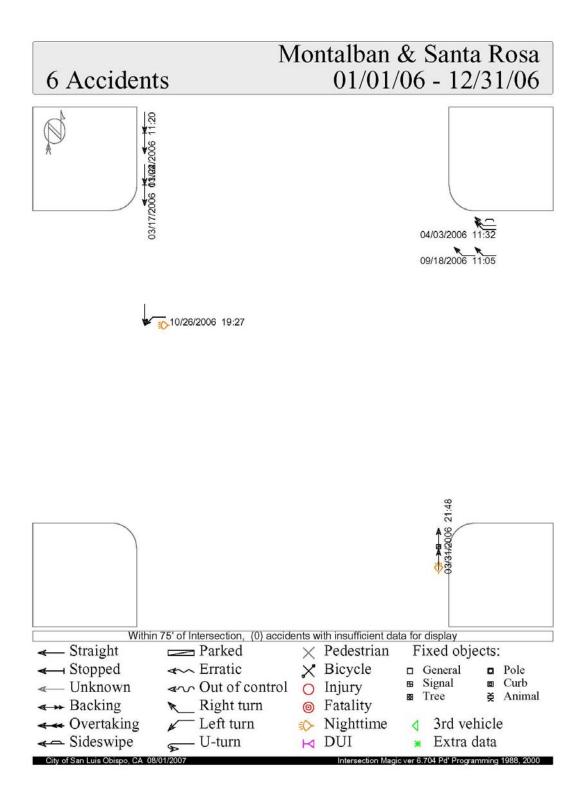








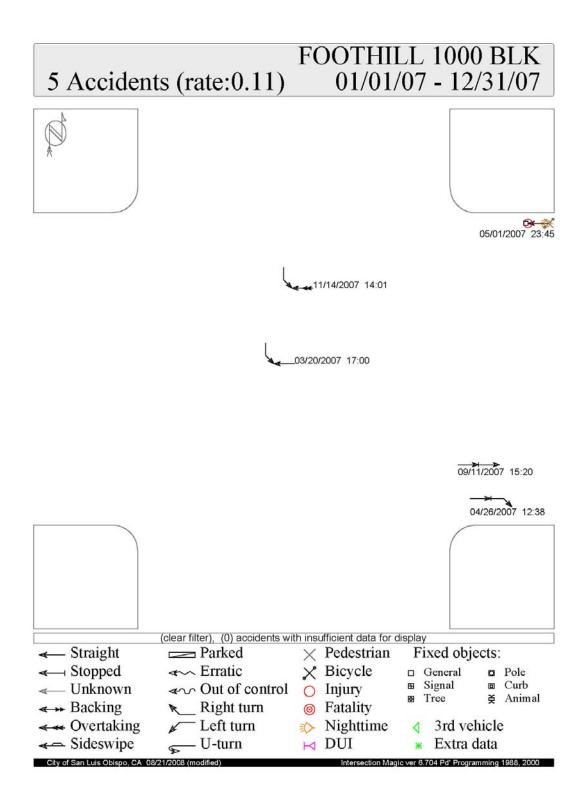


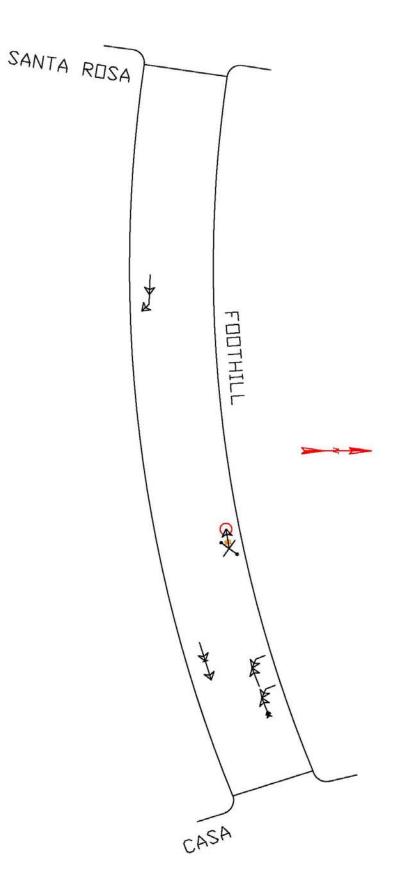


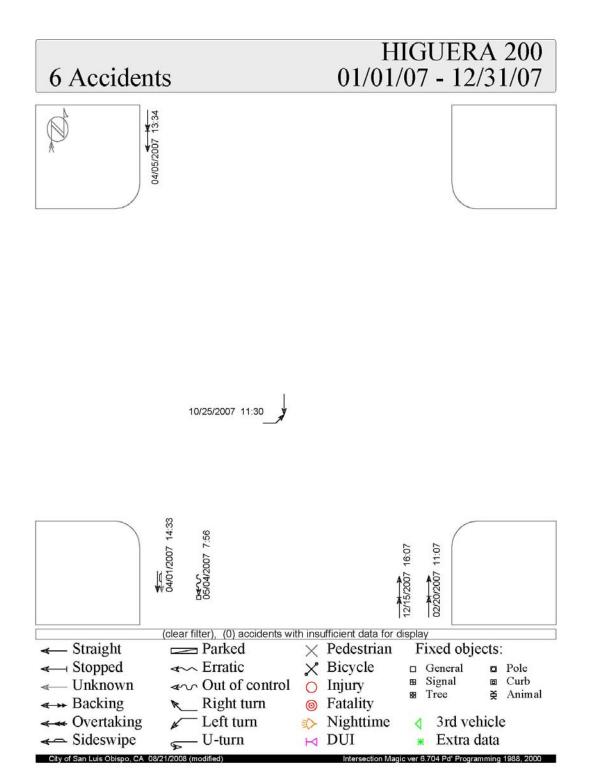
Appendix 8 Arterial Segments

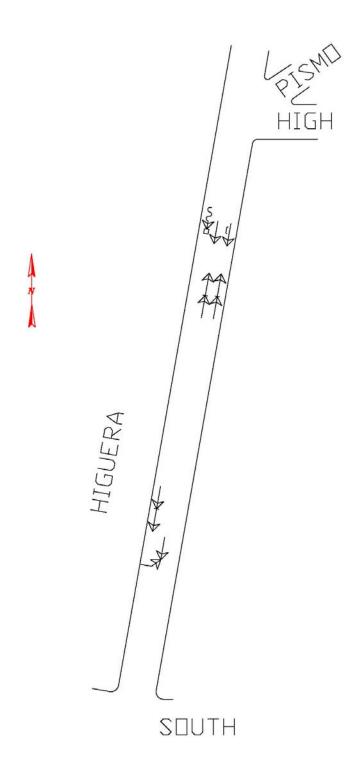
Arterial Segments Prioritized by Accident Rate

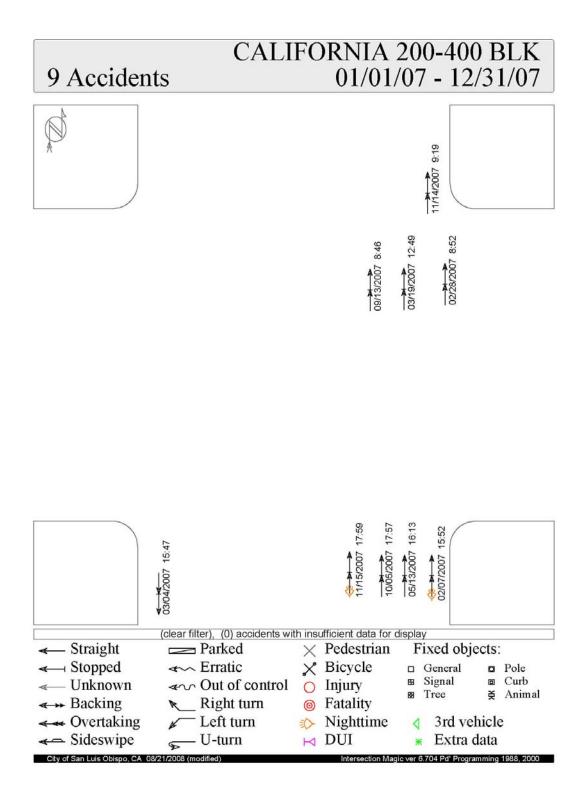
Rank	Prev. Rank	Segment	Collisions	Volume	Seg. Len.	Rate	Туре	Location
1	7	Foothill 1000 Block	5	19,233	0.12	5.79	Arterial	Santa Rosa to Casa
2	12	Higuera 200 Block	6	15,446	0.19	5.6	Arterial	High to South
3	5	California 200-400 Block	9	19,121	0.25	5.08	Res. Arterial	Foothill to Stafford
4	14	Foothill 800-900 Block	5	20,194	0.17	3.89	Arterial	Chorro to Santa Rosa
5	6	Broad 3000 Block	4	28,442	0.10	3.85	Arterial	Sweeney to Orcutt
6	Not Ranked	South 200-300 Block	3	13,976	0.19	3.1	Arterial	Beebee to Exposition
7	10	Broad 3800-3900 Block	5	23,579	0.21	2.79	State Hwy.	Industrial to Tank Farm
8	15	Higuera 10 Block	4	16,197	0.31	2.22	Arterial	Madonna to Elks
9	13	Broad 3200-3400 Block	4	29,091	0.20	1.85	State Hwy.	Orcutt to Rockview
10	20	Madonna 1300-1100 Block	5	22,848	0.42	1.44	Arterial	Los Osos Valley to Oceanaire
11	8	Madonna 400-100 Block	4	36,561	0.32	0.95	Arterial	Dalidio to 101 Freeway

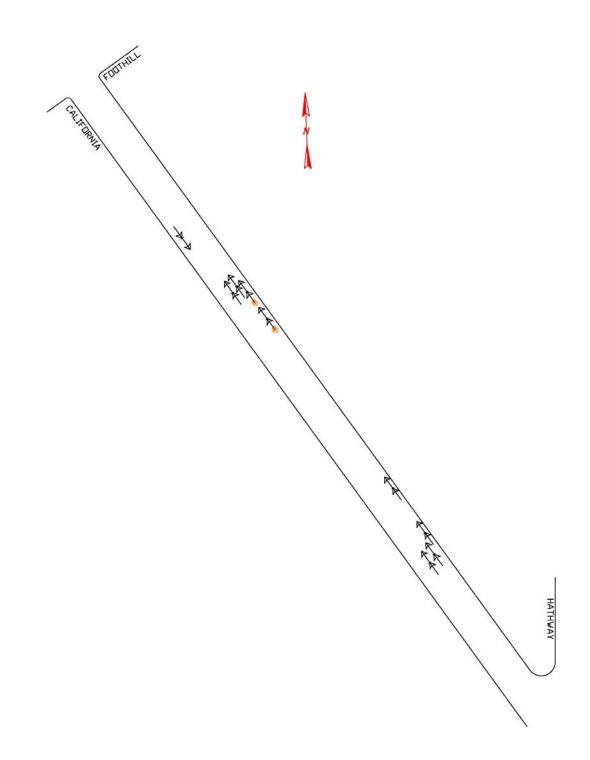


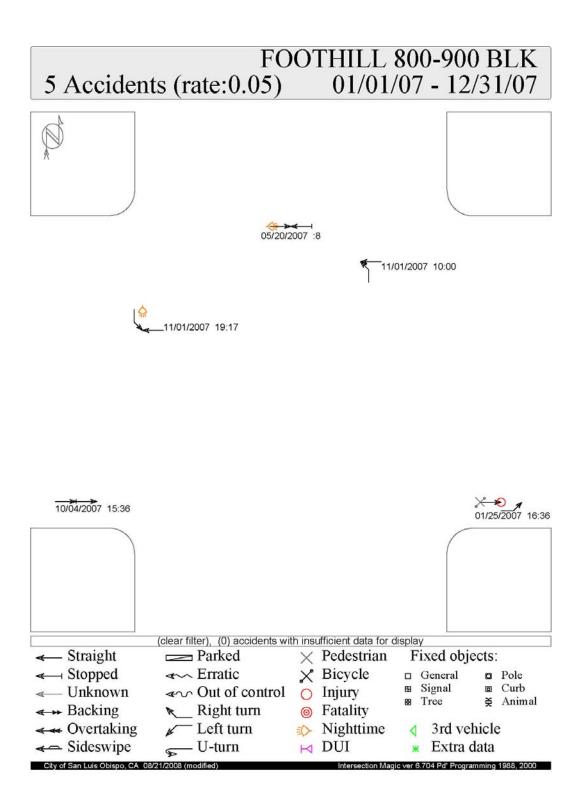


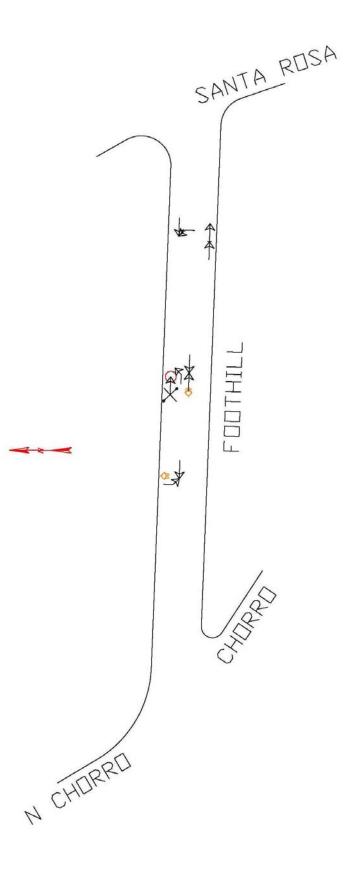


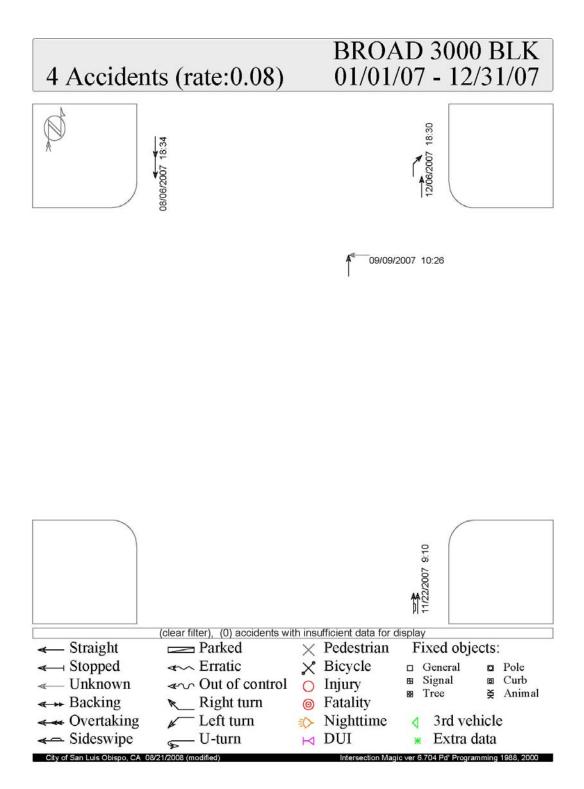


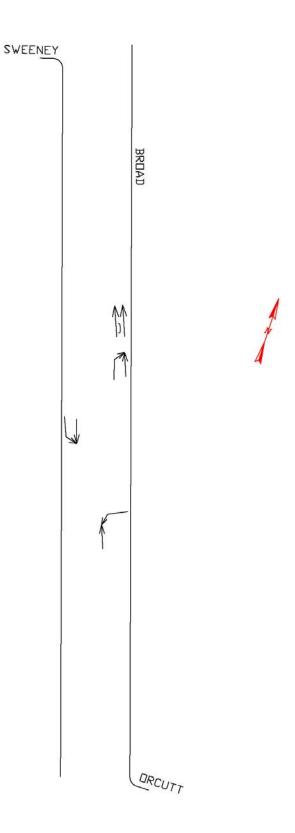












Appendix 9 Collector Segments Collector Segments Prioritized by Accident Rate

NO LOCATIONS UNDER THIS CATEGORY HAD MORE THAN 3 COLLISIONS IN 2007

Appendix 10 Local Segments Local Segments Prioritized by Accident Rate

NO LOCATIONS UNDER THIS CATEGORY HAD MORE THAN 3 COLLISIONS IN 2007