

2009 Traffic Report
Seattle Department of Transportation

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Introduction

This report has been prepared in compliance with Seattle Municipal Code 11.16.220, which requires the City Traffic Engineer to present an annual traffic report that includes information about traffic trends and traffic collisions on city streets.

In gathering and compiling the information in this report, the Seattle Department of Transportation does not waive the limitations on this information's discoverability or admissibility under 23 U.S.C § 409.

For additional information about collisions on Seattle streets, readers may contact Eric Widstrand, City Traffic Engineer, at eric.widstrand@seattle.gov.

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Section One: Traffic Trends

A. Traffic Volume

The Seattle Department of Transportation (SDOT) collects and maintains volume data for vehicles, pedestrians and bicycles. We also obtain information about mode choices made by commuters from the US Census' American Community Survey[1]. The vehicle volume data is used for several purposes, including identifying the highest volume arterials and creating a traffic volume flow map of the city.

Vehicle Volume
SDOT is responsible for counting the volume of traffic on certain city arterial streets each year. Traffic counts are taken throughout the year in the following ways:

- SDOT takes control counts at 20 locations every month. These counts are added together and divided by 12 to derive a monthly control factor (see Appendix A, Table 1). This factor is then applied to every count we take to correct for seasonal changes in traffic.

- SDOT measures vehicle volume at 164 screen line locations. These locations are identified in Seattle's Comprehensive Plan, and the counts are used to determine screen line levels of service as required by the plan (see Appendix A, Table 2).

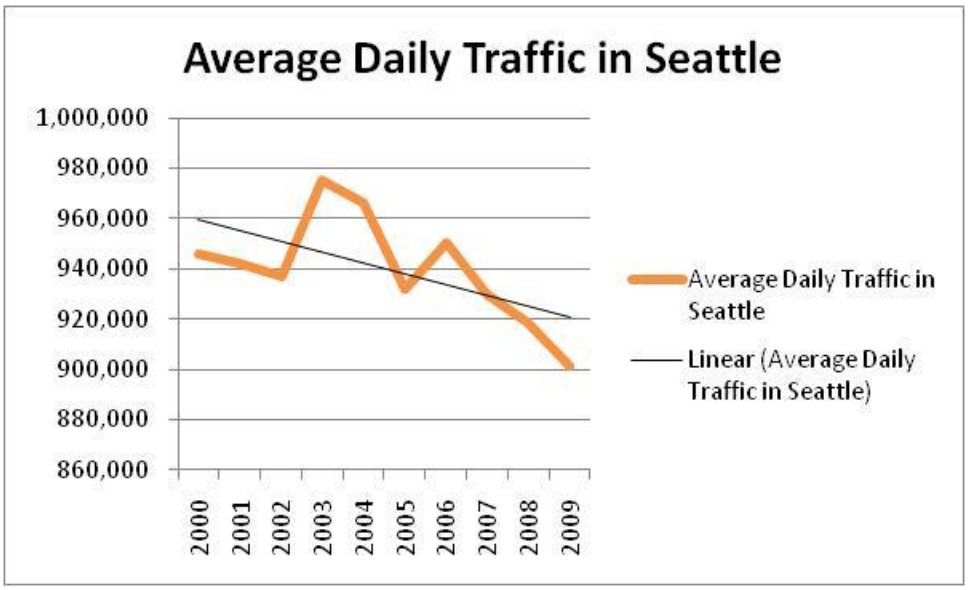
- SDOT measures vehicle volume at 111 additional locations each year (see Appendix A, Table 3).

SDOT also measures volume at ad hoc locations throughout the year as needed for traffic analysis and engineering studies.

Using the annual counts taken at Seattle's bridges, SDOT derives a proxy number for citywide motor vehicle average daily traffic. We use these counts because driving almost anywhere in Seattle is likely to involve crossing one of the bridges, a list of which is included in Appendix A, Table 5.

Based on bridge counts and as shown in the graph below, traffic volume in Seattle is declining. Using existing data, it is not possible to draw conclusions about why this is. In future reports, SDOT will compare citywide average daily traffic to economic indicators such as gas prices and employment levels to determine if there may be a relationship.

[1] American Community Survey Design and Methodology, US Census Bureau, April, 2009
http://www.census.gov/acs/www/Downloads/dm1.pdf



Source: SDOT Traffic counts taken at bridges

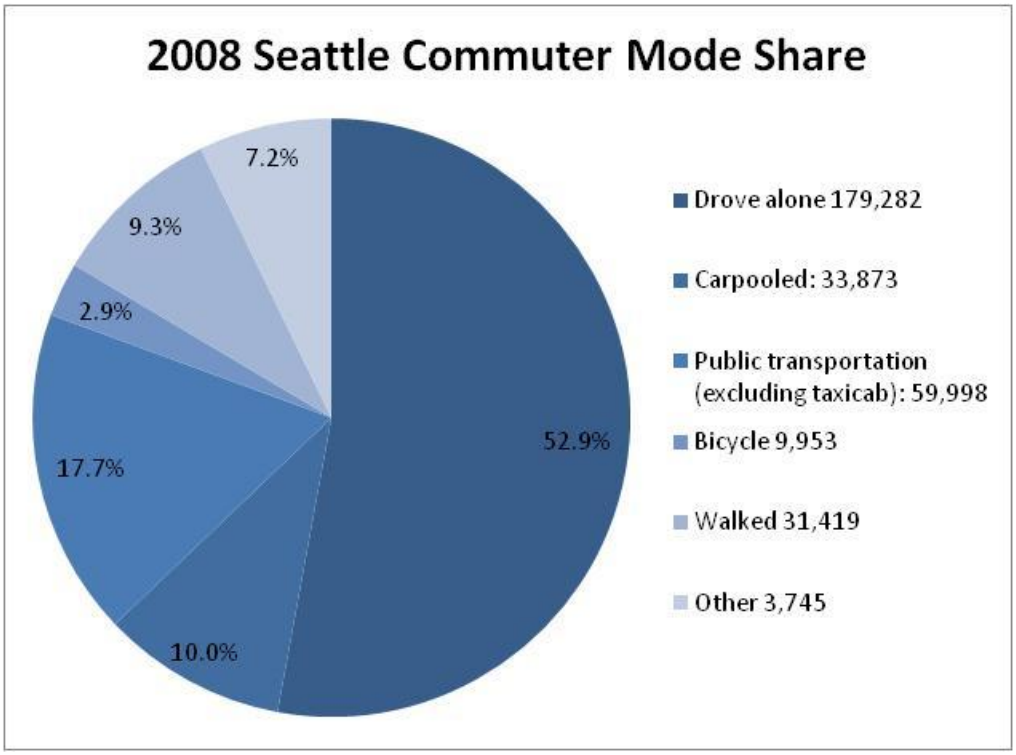
Traffic Volumes – Top Ten Seattle Arterials

Location	Average Week Day Traffic
Aurora Avenue N south of Harrison Street	86,300
East Marginal Way S south of S Alaska Street	67,300
Montlake Boulevard NE north of NE Pacific Place	46,400
Elliott Avenue W southeast of W Mercer Place	42,800
NE 45th Street west of NE 45th Place	39,100
Valley Street west of Fairview Av N	39,000
15th Avenue W north of W Armory Way	39,000
Lake City Way NE at NE 115th Street	38,500
Aurora Avenue N south of N 113th Street	37,000
Rainier Avenue S northwest of S McClellan Street	35,200
Mercer Street west of Fairview Av N	35,100
Denny Way west of 2nd Av	33,600

Mode share

Among all of the people who commute to work, the percentage that choose to drive alone, carpool, use transit, bicycle, walk or use another form of transportation is referred to as "mode share." In the process of gathering data about employment, the American Community Survey asks questions about respondents' means of transportation to work. This refers to the principal mode of travel or type of conveyance that the worker usually used to get from home to work. SDOT uses the American Community Survey (ACS) to calculate mode share over time, because the estimates are available each year and use a consistent methodology. ACS's 2009 data will not be available until after this report is scheduled to be completed; in future years, SDOT's report will include ACS data for the report year.

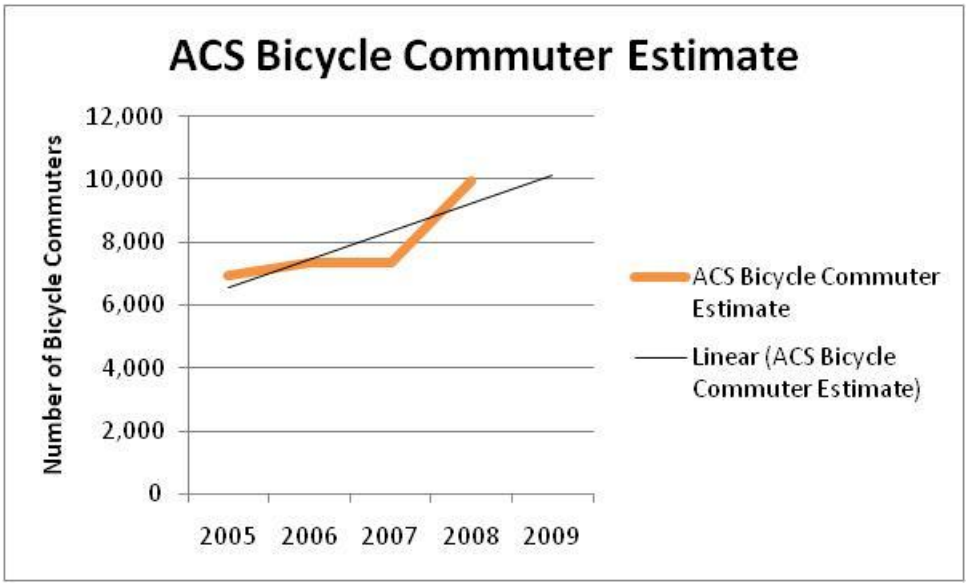
The total number of Seattle commuters in 2008 was 339,061, more than half of whom drove alone for their commute. The number of those who drive alone has gone up slightly since 2007.



Source: American Community Survey, 2008

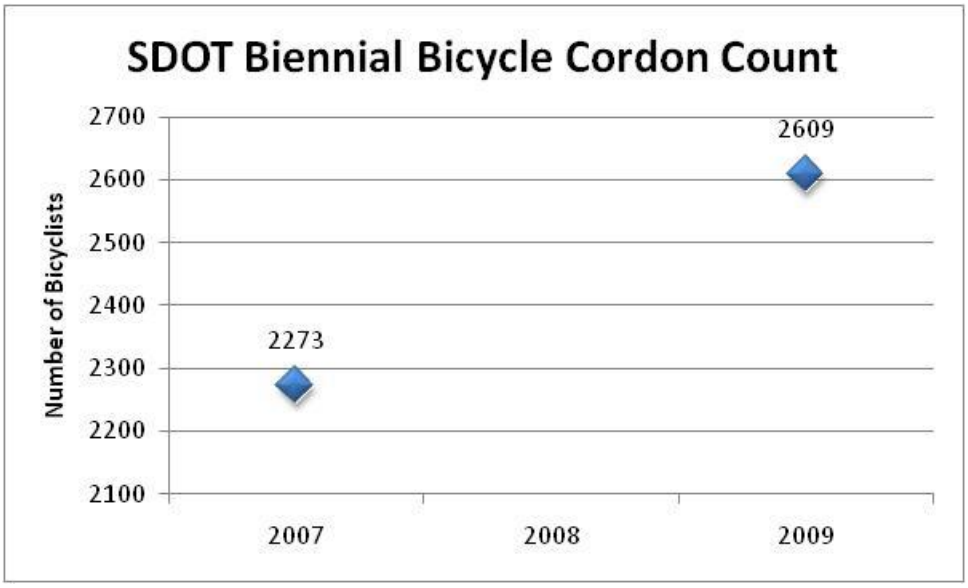
Bicycle Volume

All indicators show that bicycling in Seattle is on the rise. First, the ACS estimates commuter mode share each year, based on a series of monthly samples to produce annually updated data. As shown in the chart below, there has been substantial growth in bicycle commuting over the past several years. This data show a marked uptick from 2007 to 2008 and a positive growth trend, which may be linked to the ongoing implementation of the bicycle master plan and a dramatic increase in the number of on-street bicycle facilities. Second, SDOT conducted bicycle cordon counts in 2007 and 2009; the results are shown below. SDOT's bicycle volume data collection program is still in its formative stages and we expect it to grow more robust in the future.



Source: American Community Survey Mode Share 2002-2008

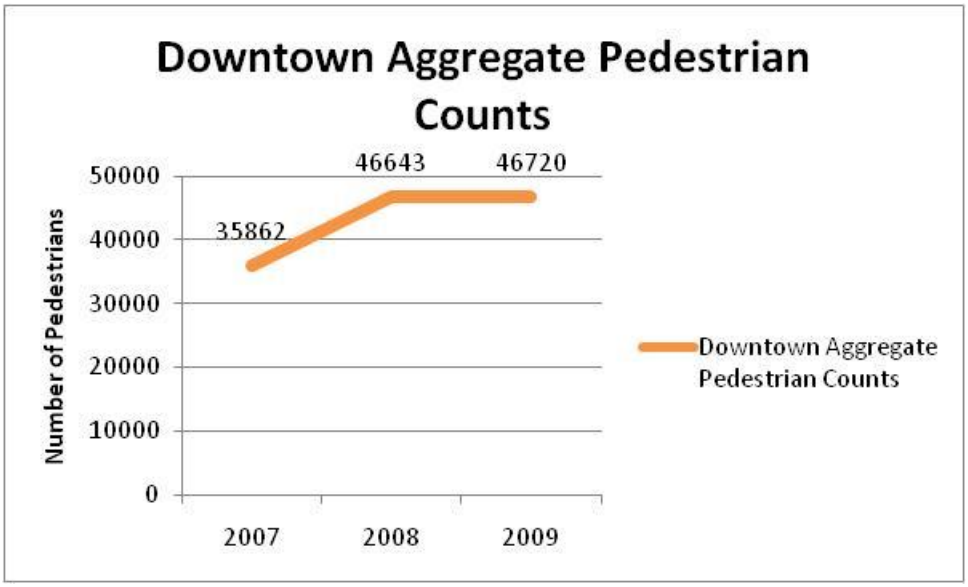
The cordon counts show that the number of bicyclists entering downtown during the morning commute has increased by 15 percent between 2007 and 2009. As recorded by volunteers at 32 locations, 2,609 bicyclists commuted into the downtown core on the day of the count in 2009. These counts are a vital measurement tool as the city strives to reach its goal of tripling the number of bicyclists by 2017. The top five locations for bicyclists to enter the Center City are, in order: Dexter Avenue N, Colman Dock, the Elliott Bay Trail, the Alaskan Way Path, and Pine Street (see Appendix A, Map 1).



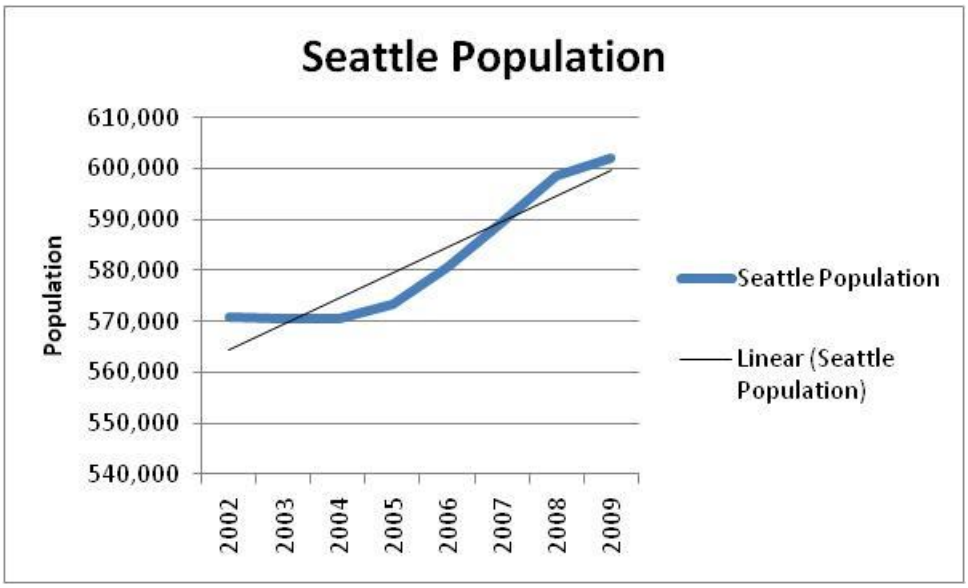
Source: SDOT Biennial Bicycle Cordon Count Data

Pedestrian Volume

SDOT has less well-developed data for pedestrian volumes. We use the Downtown Seattle Association's downtown aggregate pedestrian count as well as Seattle population as proxies for pedestrian volume. In 2010, SDOT is developing the methodology for our own annual spot pedestrian volume measure. These spot counts, much like the bicycle volume counts, will not provide a way to extrapolate aggregate pedestrian volumes throughout the city, but they will provide consistent, annual pedestrian volumes that we can track over time.

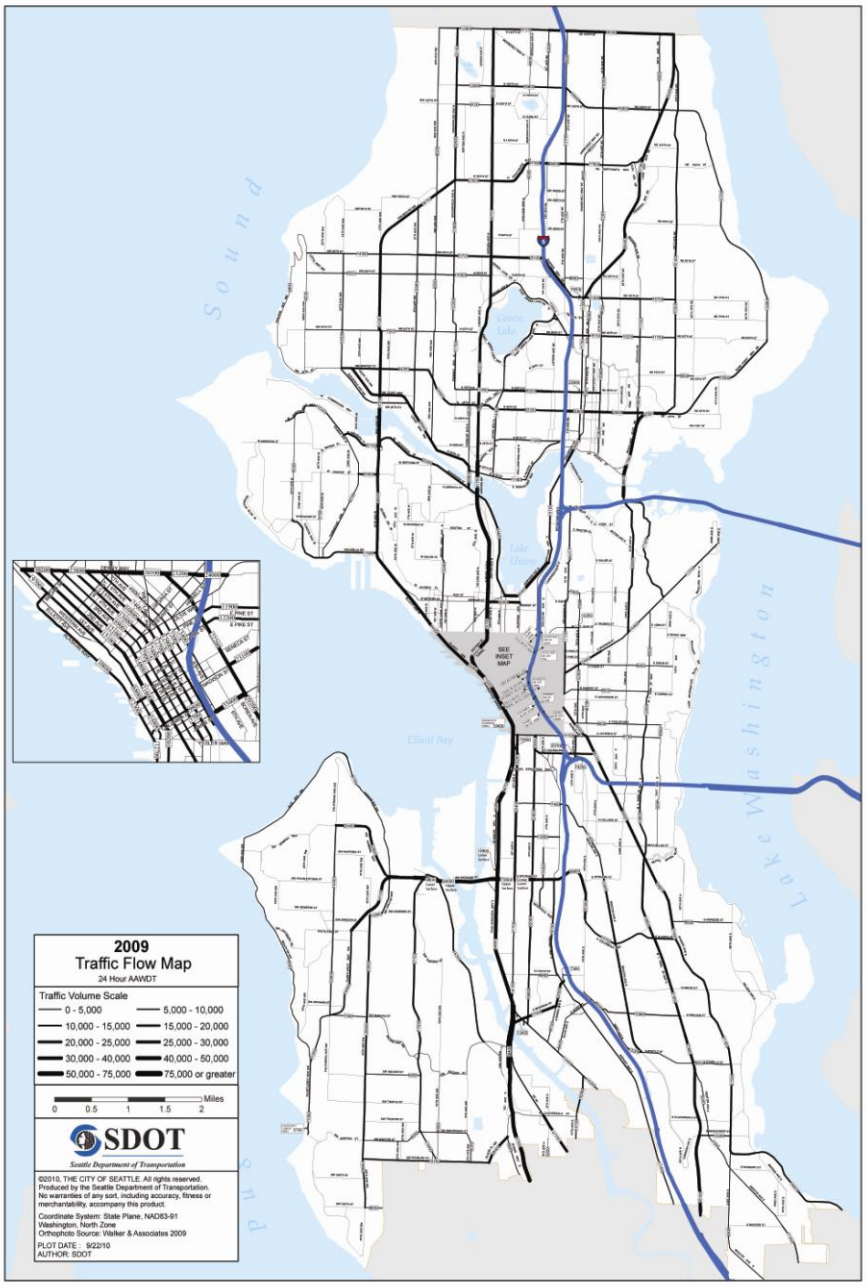


Source: Downtown Seattle Association Pedestrian Counts



Flow Map

One of the uses of annual vehicle counts is to create the "flow map," a map that uses different line weights to show relative traffic volumes among arterial streets. A copy of the 2009 Flow Map is included below.



Prior to 2008, this map was drawn by hand. Starting in 2008, the map has been made electronically using data from the traffic counts database and GIS tools. The volumes on the map represent the Average Annual Weekday Traffic (AAWDT) (5-day, 24-hour) for that section of roadway. This map is also available on SDOT's website.

B. Collision Rates

Collision rates are a common method used to compare the number of collisions at different locations by normalizing the total number of collisions against the traffic volume of an intersection or mid-block location. Collision rates are also useful for expressing trends over time. SDOT is beginning to use collision rates as a tool, along with total number of collisions, as a way to evaluate safety improvements, express traffic trends, measure progress against goals, and prioritize projects.

Collision rates can be calculated in several different ways. The city of Seattle is using the following formulae:

- Intersection Collision Rate Formula - the number of collisions per million vehicles entering per year.
  *N*1,000,000/24-hr entering volume*365 days*

- Road Segment Collision Rate Formula - the number of collisions per million vehicle-miles of travel per year per road segment
  *N*1,000,000/length of segment in miles*AADT*

Spot comparisons of collision rates can be made for measuring the effectiveness of engineering and enforcement.

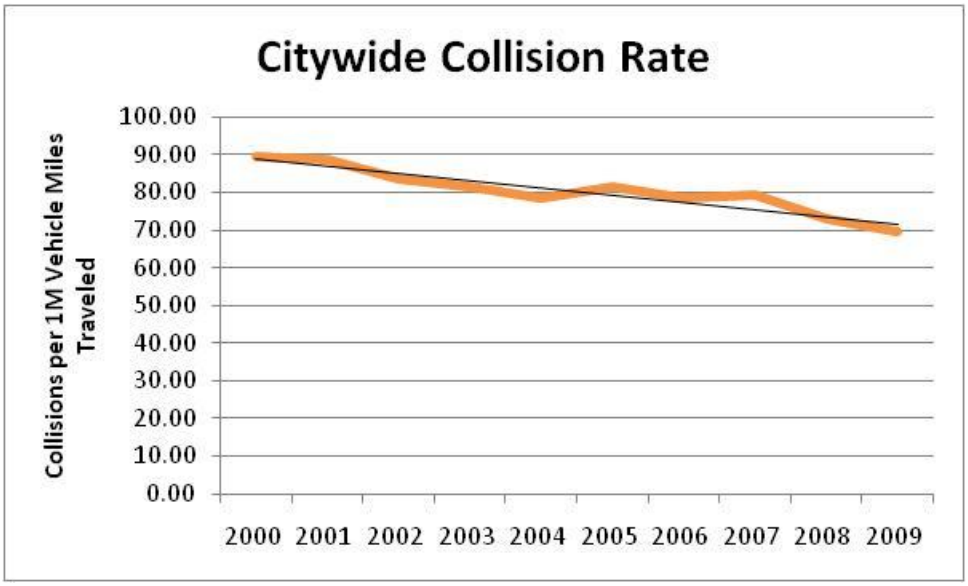
In order to use rates to examine collision trends, it is imperative to use data elements that are consistently available, preferably annually or biennially. The American Community Survey, as compiled by the US Census Bureau, is used for mode share-based calculations, including bicycle collision rates.[2]

Vehicle Collision Rate Trends

Using SDOT's annual arterial traffic count program data, we have derived the Average Daily Traffic (ADT) for the city of Seattle. As noted in the Volume section of this report, we have seen a downward trend in the number of vehicle trips in the city.

During the same time, we have also seen a downward trend in the citywide collision rate, though the trend is not as pronounced. The total number of collisions per motor vehicle commuter is also falling.

[2] American Community Survey, US Census Bureau http://www.census.gov/acs/www/



Care should be exercised in interpreting this rate. The ADT used is a citywide approximation of arterial traffic volumes and in this case it has been adjusted to exclude volumes on 1-5, 1-90 and SR-520 because our collision data do not include collision on these highways. Collisions occur on both arterial and non-arterial streets. Though the methodology is imperfect, it is nevertheless illustrative.

Annual Collision Data

Year	Collisions	Average Daily Traffic	Average Annual Daily Traffic	Citywide Collision Rate
2000	17,846	545,548	199,125,020	89.62
2001	17,547	543,006	198,197,041	88.53
2002	16,497	540,351	197,228,115	83.64
2003	16,057	540,028	197,110,220	81.46
2004	15,527	540,423	197,254,395	78.72
2005	16,148	543,675	198,441,375	81.37
2006	15,967	557,068	203,329,820	78.53
2007	15,134	523,616	191,119,840	79.19
2008	14,173	531,508	194,000,420	73.06
2009	13,344	525,925	191,962,687	69.51

Pedestrian- and Bicycle-involved Collision Rates

SDOT is not aware of a widely accepted methodology for calculating collision rates for pedestrian and bicyclist-involved collisions, primarily because of the difficulty and expense of collecting the necessary data, and a lack of agreement in the industry on factors that should be

considered.[3] However, SDOT uses simple formulae for calculating a citywide rate that may be useful in identifying citywide trends:

- Citywide annual pedestrian collision rate – Collisions per capita:
  N/Seattle Population
- Citywide annual bicycle collision trends:
  N/estimated number of work trips made by bicycling

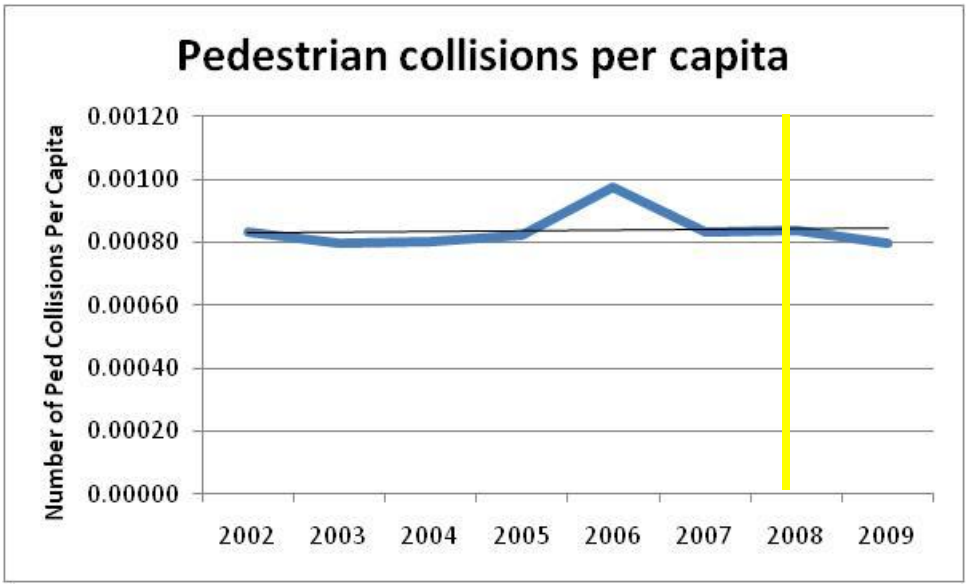
Please note that the different denominators mean these two rates cannot be compared.

Pedestrian-involved Collision Rate Trends

The 2009 Pedestrian Master Plan has defined a decreasing trend in the rate of collisions involving pedestrians as a safety goal. Since 2005, Seattle has seen an increase in population of approximately 10,000 residents each year. During the same time, Seattle has seen a slight upward trend in the number of pedestrian-involved collisions.

However, when we add a rate analysis that expresses the number of pedestrian involved collisions in terms of overall Seattle population, we notice a flat trend for pedestrian-involved collisions per capita. In 2008, marked with a yellow bar in the graph below, SDOT began making improvements based on Pedestrian Master Plan recommendations.

Annual Pedestrian-Involved Collision Data



[3] Metropolitan Transportation Commission, San Francisco, CA
http://www.mtc.ca.gov/planning/bicyclespedestrians/safety/analysis.htm

Annual Pedestrian-Involved Collision Data

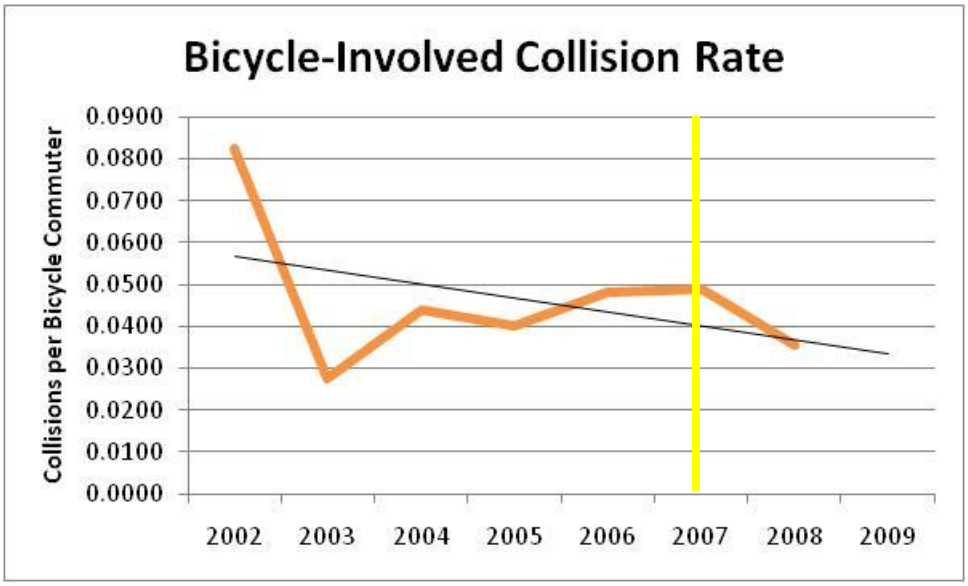
Year	Pedestrian-Involved Collisions	Population	Pedestrian collisions per capita
2002	476	570,859	0.00083
2003	454	570,437	0.00080
2004	457	570,375	0.00080
2005	473	573,296	0.00083
2006	565	580,485	0.00097
2007	490	589,304	0.00083
2008	503	598,541	0.00084
2009	479	602,000	0.00080

Source: SDOT Collision Data and US Census: Annual Estimates of the Resident Population for Incorporated Places Over 100,000

Bicycle-involved Collision Rate Trends

The 2007 Bicycle Master Plan sets an ambitious goal of decreasing the rate of bicycle-involved collisions by a third over the 10-year life of the plan. According to the ACS, since 2005 Seattle has seen an upswing in the number of residents who commute to work by bicycle. SDOT's own collision data show a similar increase in the number of bicycle-involved collisions.
However, when we express the number of bicycle collisions in terms of the number of bicycle commuters, there is a substantial downward trend in the collision rate. From 2007, there has been a marked decrease in the bicycle-involved collision rate. The Bicycle Master Plan, and improvements stemming from it, was approved in 2007 and is marked with a yellow bar in the graph below. As our internal data set for bicycle counts grows[4], we will be able to also make comparisons to citywide bicycle spot and cordon volume counts.

[4] Please see the Volume Section for further information and current SDOT bicycle volumes.



Source: SDOT Collision Data and American Community Survey Mode Share Data

Annual Bicycle-Involved Collision Data

Year	Bicycle-Involved Collisions	Bicycle Commuters	Bicycle-involved collision rate
2002	293	3,543	0.0827
2003	263	9,592	0.0274
2004	257	5,845	0.0440
2005	279	6,963	0.0401
2006	354	7,330	0.0483
2007	359	7,336	0.0489
2008	355	9,953	0.0357
2009	382	Not available	

Source: SDOT Collision Data and American Community Survey Mode Share Data

C. Enforcement

A critical, and often overlooked, component of traffic safety is enforcement. SDOT partners with the Seattle Police Department (SPD) to share information that aids in focusing enforcement efforts in the right places. Enforcement can curb undesirable behavior such as speeding, aggressive driving, jaywalking and failure to yield the right of way.

Enforcement Requests
Each day, SDOT receives suggestions from the traveling public about street locations where additional traffic enforcement might be helpful in curbing undesirable traffic behavior. In addition, as a result of our engineers' field work, SDOT identifies locations where police enforcement might yield a better roadway environment. SDOT forwards enforcement requests to the SPD Traffic Section monthly, and the SPD Traffic Section takes these requests into consideration as they allocate their officers' time and efforts.

SPD regularly, though informally, reports back to SDOT about the results of enforcement at requested locations.

Pedestrian Sting Operations
In addition to routine enforcement requests, SPD has a program of pedestrian safety emphasis patrols, where an officer dressed in plain clothes acts as a pedestrian crossing the street at a legal crossing to enforce driver compliance with city's and state's laws that require drivers yield the right-of-way to pedestrians who are legally crossing the street. In 2009, SPD completed seven pedestrian stings at 14 locations.

SPD Traffic Enforcement
Because of the way police officer call data is recorded, SDOT is using two data sets for analysis. The first is the data extracted from SPD's computer-aided dispatch system (CAD). This system records officers' "calls." SDOT is also using the infraction statistics from SPD's Traffic Section. This is a listing of the number of citations issued by members of SPD's cadre of traffic police.

Both data sets have limitations. CAD-generated data does not reflect a high degree of specificity within certain types of incidents. For example, a "moving violation" call may or may not have resulted in a citation. It might be a speeding ticket, a failure-to-yield ticket or any other type of moving violation. SPD's Traffic Section's statistics contain this level of detail, but their statistics do not reflect traffic infractions issued by SPD's non-traffic patrol officers and aren't always recorded in the CAD system. These are very different sets of data, which cannot be combined.

2007-2009 Seattle Police Department Traffic-related Calls

Type of Incident	2007	2008	2009
Blocking Traffic	2,890	2,774	2,204
Accident Investigation	21,111	20,386	17,884
Assist Motorist	2,173	2,027	1,754
DUI	1,703	1,637	1,812
Moving Violation	36,971	32,838	33,861
Pedestrian Violation	2,649	1,981	1,824
Parking Violation (excluding abandoned vehicles)	29,361	26,592	21,630
Traffic Control (special events)	56	62	44
Refuse to Stop (pursuit)	53	45	39
Unknown Traffic-related Incident	n/a	n/a	1,507
GRAND TOTAL	**96,967**	**88,342**	**82,559**

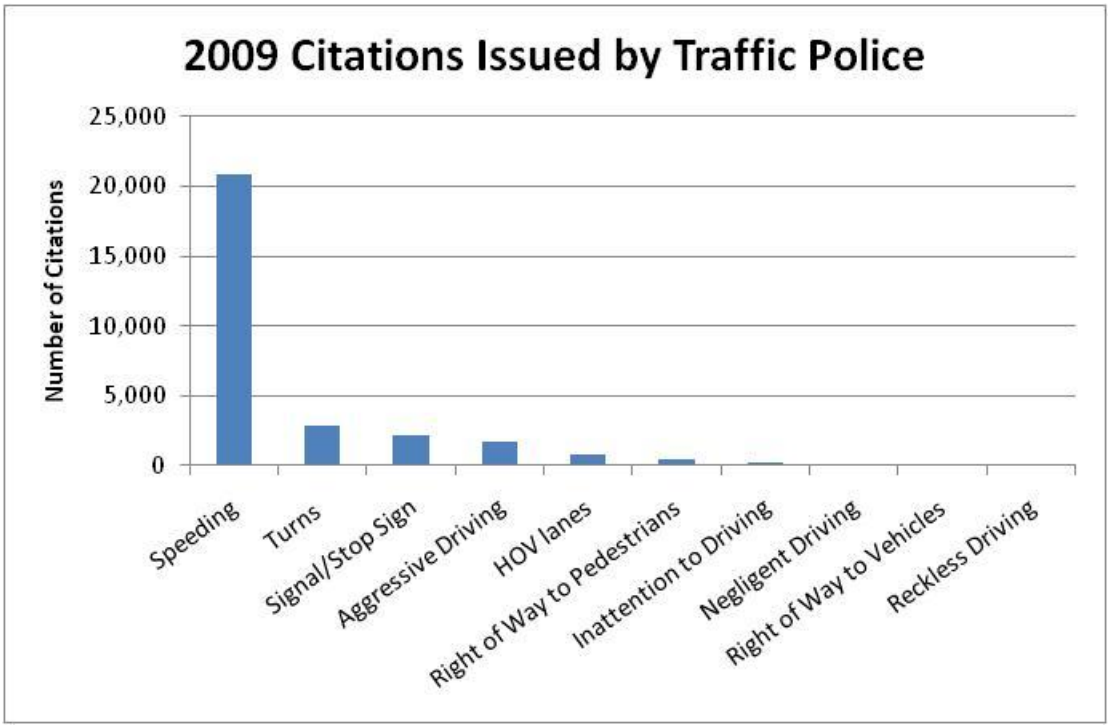
Source: Seattle Police Department Computer-Aided Dispatch (CAD) Call Data

2009 Seattle Police Department - Traffic Section Citations

Type of Infraction	Total
Pedestrian infraction	1,274
Warnings	3,557
School Zone-related	3,727
Moving Violations	29,347
Right of Way to Pedestrians	406
Right of Way to Vehicles	140
Signal/Stop Sign	2,226
Speeding	20,868
Aggressive Driving	1,740
Turns	2,816
Negligent Driving	160
Reckless Driving	26
Inattention to Driving	186
HOV lanes	779

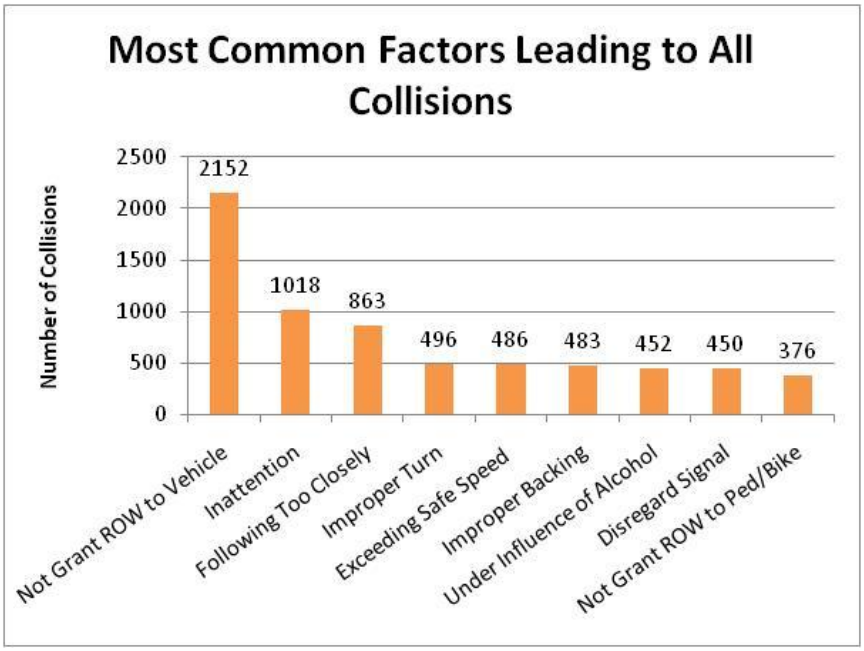
Source: SPD Traffic Section Citation Data

It is perhaps not surprising that the number one citation issued by Traffic Section officers is for speeding. Speeding is a top complaint of residents and a reason often cited as to why people are uncomfortable crossing the street. It is also cited as a factor that affects general neighborhood livability.



Citations for Leading Contributing Factors in Collisions

When a collision occurs, one or all of the drivers involved may be cited for a traffic infraction, and the contributing factors noted on the collision report. Based on collision reports, the most common contributing factor to collisions is drivers not properly yielding the right of way.



Most collision reports do not specify a contributing factor. However, we note that while the vast majority of citations issued by traffic police are for speeding, the most common contributing factor to collisions is failure to yield the right of way. One possible reason is that it is more difficult to be at the right place at the right time to write a failure to yield citation. In addition, it is not possible to say how many collisions are avoided as a result of speed enforcement.

Section Two: 2009 Collisions

There were 13,344 reported collisions on Seattle streets in 2009. The tables in this section provide details about the types of collisions and contributing circumstances, as well as details about fatal collisions and motorcycle collisions. Additional detail on pedestrian and bicycle collisions is available in Appendix B, Tables 1-25. This report contains information about only those collisions that are reported to the police.

A. Total Collisions Collision Types

Collision Type	Total Collisions	Percent of All Collisions
Parked Car	3,177	24%
Right Angle	2,152	16%
Rear End	2,020	15%
Turning Vehicle	1,306	10%
Sideswipe	1,017	8%
Hit Object	827	6%
Other	633	5%
Pedestrian	479	4%
Bicycle	382	3%
Head-On	45	0%
Unknown	1,306	10%
Total	13,344	100%

Contributing Circumstances

Contributing Circumstance	Total Drivers
None	7,090
Did Not Grant ROW to Vehicle	2,152
Inattention	1,018
Following Too Closely	863
Improper Turn	496
Exceeding Safe Speed	486
Improper Backing	483
Under Influence of Alcohol	452
Disregarded Signal	450
Did Not Grant ROW to Ped/Bike	376
Disregarded Stop Sign	142
Improper Passing	128
Exceeding Speed Limit	105
Improper U-turn	105
Operating Defective Equip	97
Distractions Outside Vehicle	86
Over Center Line	68
Apparently Ill	52
Interacting with Passengers	51
Operating Telecom or Electronic Device	69
Other Distractions Inside Vehicle	48
Apparently Asleep	45
Improper Parking Location	43
Under Influence of Drugs	37
Disregarded Yield Sign	37
Unknown Distractions	34
Eating, Drinking or Smoking	19
Missing	4,599
Other	3,838
Total	**23,469**

Note that the number of contributing circumstances is higher than the number of collisions because more than one driver may be involved in each collision.

B. Fatal Collisions

Collisions on Seattle streets resulted in 24 fatalities in 2009. Of those, 11 were pedestrians and four were bicyclists. The table below provides details about each fatal collision. A map of these collisions is available in Appendix C, Map 1.

2009 Fatal Collisions

	Location	Collision Date	Time	Collision Type	Age	Sex
1	Lake City Wy NE between NE 95 St & NE 98 St	1/3/09	2:08 AM	Rear End	19	M
2	N 145th St between Phinney Av N & Dayton Av N	1/21/09	5:57 PM	Rear End	77	F
3	15th Av W between W Armor St & 15th Av W NB off ramp	1/30/09	2:58 PM	Head On	65	F
4	24th AVNW between NW 64th St & NW 65th St	2/4/09	8:56 AM	Bicycle	39	M
5	5th Av S & S Jackson St	2/27/09	11:27 AM	Pedestrian	74	F
6	1st Av NE & NE 56th St	3/11/09	10:25 AM	Bicycle	60	F
7	17th Av & E Madison St	5/10/09	12:23 PM	Fixed Object	88	M
8	23rd Av S & S Main St	5/21/09	3:01 PM	Pedestrian	74	M
9	Dexter Av N & Dexter Wy N	5/23/09	11:26 AM	Pedestrian	61	M
10	5th Av NE & NE 97th St	6/10/09	4:42 PM	Pedestrian	91	M
11	17th Av & E Republican St	6/15/09	2:04 PM	Pedestrian	83	M
12	S Jackson St between 10th Av S & 12th Av S	6/17/09	10:32 AM	Pedestrian	81	M
13	Aurora Av N & Dexter Wy N	7/1/09	10:17 PM	Bicycle	35	M
14	Lake Washington Blvd S & S Orcas St	7/17/09	6:36 PM	Bicycle	43	M
15	6th Av & Cherry St	7/24/09	12:20 AM	Pedestrian	58	M
16	M L King Jr Wy S between S Director St and Merton Wy S	8/5/09	1:53 AM	Fixed Object	37	M
17	West Seattle Br WB between Alaskan WY Viaduct SB off ramp & West Seattle Br WB off ramp	8/28/09	3:08 AM	Fixed Object	27	M
18	14th Av S & S Washington St	10/2/09	7:29 PM	Pedestrian	79	M
19	Beacon Av S & S Myrtle St	10/25/09	10:01 PM	Rear End	32	M
20	Airport Wy S between S Hardy St & S Othello St	11/2/09	7:45 AM	Fixed Object	56	F
21	15th Av NE & NE 50th St	11/11/09	12:02 AM	Pedestrian	21	F
22	Rainier Av S & S Andover St	12/1/09	6:27 PM	Pedestrian	78	F
23	S Orcas St between 28 Av S & 30 Av S	12/4/09	10:47 PM	Head On	65	F
24	Bell St & Western Av	12/6/09	2:24 AM	Pedestrian	30	M

C. Pedestrian-Involved Collisions

There were 479 reported pedestrian collisions in 2009, which resulted in a total of 11 fatalities and 429 injuries. Detailed information about pedestrian collisions is available in Appendix B, Tables 1 through 13.

D. Bicycle-Involved Collisions

There were 382 reported bicycle collisions in 2009, which resulted in a total of four fatalities and 325 injuries. Detailed information about bicycle collisions is available in Appendix B, Tables 14-25.

E. Motorcycle Collisions

There were 240 reported motorcycle collisions on Seattle streets in 2009, down from over 300 in each of the previous six years. There were a total of three motorcycle fatalities in 2009, and the collisions resulted in 158 injuries. The contributing circumstances for the 2009 collisions are listed in the table below.

Motorcycle Driver Contributing Circumstances	Total
Other	54
Did Not Grant ROW to Vehicle	50
None	19
Inattention	16
Under Influence of Alcohol	15
Following Too Closely	13
Exceed Safe Speed	12
Improper Backing	11
Improper Passing	10
Improper Turn	10
Unknown	7
Disregard Stop Light	6
Improper U-Turn	5
Exceed Speed Limit	4
Distractions Outside Vehicle	3
Not Grant ROW to Pedestrian	2
Unknown Driver Distractions	2
Disregard Stop Sign	1
Total	**240**

Section Three: Data Use – The Aurora Traffic Safety Corridor

The Aurora Traffic Safety Project is a two year effort to improve safety along Aurora Avenue North. A collaboration with the Washington Traffic Safety Commission (WTSC) and the Washington State Department of Transportation (WSDOT), this project aims to reduce collisions on Aurora by 25 percent using short-term, low-cost solutions such as engineering, education, and enforcement efforts. WSDOT and the WTSC have contributed $250,000 in funding and SDOT has provided local funds to accomplish street improvements.

From October 2008 to June 2009, a task force worked to identify traffic safety issues on Aurora and develop an action plan for improving safety. The task force's diverse membership included residents and business owners as well as representatives from law enforcement and state and local government. The action plan is based on an analysis of three years of collision data on Aurora Avenue North from the Battery Street Tunnel to North 145th Street.

Based on the 2009 action plan, SDOT has implemented engineering projects on Aurora intended to improve pedestrian, bicycle, and traffic safety. Highlights include new left turn signals at North 80th Street and Aurora Avenue North, fourteen new curb ramps, and new stop bars at all signalized intersections. Work will soon begin on six additional projects to install pedestrian countdown signals, reconfigure the intersection of Halladay Street and Aurora Avenue North, install five radar speed signs, modify signage approaching the Aurora Bridge, install in-pavement reflective lane markers around Green Lake, and install new curb ramps and a new marked crosswalk at North 130th Street and Aurora Avenue North.

Our partners at SPD have significantly increased enforcement efforts on Aurora through this project. Since the project began, SPD has issued an average of 250 citations per week and more than 10,000 citations on Aurora in support of this project. In addition to their ongoing emphasis patrols, SPD plans to conduct pedestrian safety emphasis patrols intermittently on Aurora.

To complement the enforcement and engineering efforts on Aurora, the project task force has conducted outreach to promote safety on the corridor. This multifaceted campaign consists of educational materials highlighting our engineering and enforcement work, billboard campaigns emphasizing traffic laws, and events intended to raise driver and community awareness of safety in the corridor.

Preliminary data shows that the project's efforts are helping to reduce collisions. In 2009, there was a 30 percent reduction in collisions. This significant reduction in collisions suggests that this type of project can be successful in increasing safety in other corridors.

Section Four: Future Data Collection

SDOT's ability to collect data in a way that helps establish and illustrate traffic trends continues to grow. There are three main categories of data that traffic engineers use in evaluating specific locations and overall trends: traffic volumes, traffic collisions, and traffic speeds. We have always collected collision data and use it regularly as an important tool to prioritize locations for safety improvements. Vehicle volume data is collected at regular locations annually and in some cases monthly, and bicycle counts are conducted regularly. Our efforts in the areas of speed data and pedestrian volumes are starting to catch up.

Speed Studies

Vehicle speed has traditionally been collected by request of a traffic engineer for purposes of prospective project selection and design, and also for evaluation. Engineers measure speed in a number of different ways: average speed of traffic; 85th percentile speed of traffic[5]; and high-end speeder percentage[6], as a measure of aggressive drivers. An example of the usefulness of the high-speeder percentage data is in measuring a reduction in the high-speeder percentage after installing a traffic control measure.

Starting in 2010, SDOT is collecting speed data much as we collect volume data – at specified locations each year, in addition to those ad-hoc locations that serve site-specific traffic evaluation needs. Each year, we will collect speed data on Aurora Ave. N, Stone Way N, Fauntleroy Ave. SW, 24th Ave. NW, and Rainier Ave. S. These streets are specifically named in the Pedestrian Master Plan as locations to report on trends in the 85th percentile speed of traffic. In addition, SDOT will measure speeds on 204 streets every four years.

Pedestrian Counts

SDOT uses a number of methods to count aggregate numbers of pedestrians: the population of Seattle, the American Community Survey pedestrian commuter estimates and the Downtown Seattle Association pedestrian count numbers. While SDOT does some spot counts of pedestrians, we do not currently have a program to count pedestrians at specific locations year after year, as we do for vehicles. In 2010, SDOT is developing the methodology for our own annual spot pedestrian volume measure. These spot counts, much like the bicycle volume counts, will not provide a way to extrapolate aggregate pedestrian volumes throughout the city, but they will provide consistent, annual pedestrian volumes that we can track over time. The Pedestrian Master Plan defines a method for assessing pedestrian demand that is based on an origins and destinations model, rather than count data. This method provides SDOT with another analytical tool to assess and predict where pedestrian demand occurs and will further enrich the information provided through the new pedestrian counts program.

[5] The speed at or below which 85 percent of traffic travels, sometimes characterized as the speed a "reasonable" driver will choose as being safe.

[6] "High-speeder percentage" has come to mean the percentage of drivers who exceed the posted speed limit by 10 miles per hour or more.

Appendix A - Traffic Volume Count Locations

Table 1 - Control Count Locations

Location
1. DENNY WAY, W/O 2ND AVE
2. E MADISON ST, SW/O 17TH AVE
3. EAST GREEN LAKE WAY N, NE/O N 57TH ST
4. FREMONT BR, S/O POINT A
5. N 85TH ST, W/O ASHWORTH AVE N
6. QUEEN ANNE AVE N, S/O CROCKETT ST
7. UNIVERSITY BR, SW/O POINT A
8. LAKE CITY WAY NE, NE/O NE 95TH ST
9. M L KING JR. WAY S, N/O S ANDOVER ST
10. NW MARKET ST, W/O 8TH AVE NW
11. RAINIER AVE S, S/O S OTHELLO ST
12. S LANDER ST, W/O 6TH AVE S
13. ALKI AVE SW, W/O HARBOR AVE SW
14. 3rd Ave SE/O Union St
15. ALASKAN WAY SE/O BLANCHARD
16. STEWART St, NE/O 4th AVE
17. UNIVERSITY ST, SW/O 4th AVE
18. EAST MARGINAL WAY S, S/O S ALASKA ST
19. WEST SEATTLE BRIDGE, NE/O FAUNTLEROY
20. SW SPOKANE BRIDGE, W/O SW SPOKANE ST

Table 2 - Screen Line Count Locations

Location	
ALASKAN WY VI NB, S/O 1ST AV S ON RP	N 85TH ST, W/O LINDEN AVE N
ALASKAN WY VI SB, S/O 1ST AV S OFF RP	VALLEY ST, W/O FAIRVIEW AVE N
ALASKAN WY VI NB, N/O EAST MARGINAL WAY S	12TH AVE NE, S/O NE 75TH ST
ALASKAN WY VI SB, N/O EAST MARGINAL WAY S	15TH AVE NE, S/O NE 145TH ST
EAST MARGINAL WAY S, N/O ALASKAN WY VI NB	15TH AVE NE, S/O NE 65TH ST
EAST MARGINAL WY S, N/O ALASKAN WY VI SB	15TH AVE NE, S/O NE 75TH ST
MARION ST, W/O ALASKAN WAY	1ST AVE NE, S/O NE 145TH ST
YESLER WAY, W/O ALASKAN WAY	25TH AVE NE, S/O NE 47TH ST
YESLER WAY, W/O ALASKAN WAY	25TH AVE NE, S/O NE 75TH ST
1ST AV S BR NB, S/O POINT A	30TH AVE NE, S/O NE 145TH ST
1ST AV S BR SB, S/O POINT A	35TH AVE NE, S/O NE 75TH ST
ALASKAN WY VI NB, NW/O 1ST AV S ON RP	5TH AVE NE, S/O I5 145 OF

Location	
ALASKAN WY VI SB, NW/O 1ST AV S OFF RP	LAKE CITY WAY NE, S/O NE 145TH ST
BATTERY ST TUNNEL NB, N/O ALASKAN WY VI NB	MONTLAKE BR, S/O POINT A
BATTERY ST TUNNEL SB, S/O AURORA AVE N	NE 145TH ST, E/O 5TH AVE NE
BEACON ER AVE S, S/O S SPOKANE ST	NE 45TH ST, W/O NE 45TH PL
BEACON WR AVE S, S/O S SPOKANE ST	NE 45TH ST, W/O ROOSEVELT WAY NE
SR509 NB, S/O CLOVERDALE ST OFF RP	NE 50TH ST, W/O ROOSEVELT WAY NE
SR509 SB, S/O CLOVERDALE ST ON RP	NE 55TH ST, E/O 35TH AVE NE
WEST SEATTLE BR EB, E/O 1ST AV S OFF RP	NE 75TH ST, W/O ROOSEVELT WAY NE
WEST SEATTLE BR WB, W/O 4TH AV S OFF RP	NE 80TH ST, E/O 5TH AVE NE
WEST SEATTLE BR EB, E/O DELRIDGE-W SEATTLE BR EB ON RP	NE NORTHGATE WAY, E/O 5TH AVE NE
WEST SEATTLE BR WB, E/O W SEATTLE BR WB OFF RP	NE PACIFIC ST, NE/O 2ND AVE NE
WEST SEATTLE BR EB, NE/O FAUNTLEROY WAY SW	ROOSEVELT WAY NE, N/O NE 50TH ST
WEST SEATTLE BR WB, NE/O 35TH AVE SW	ROOSEVELT WAY NE, N/O NE 73RD ST
ELLIOTT AVE, W/O LENORA ST	ROOSEVELT WAY NE, SE/O NE 130TH N ST
WESTERN AVE, NW/O LENORA ST	SAND POINT WAY NE, S/O NE 74TH ST
S COLUMBIAN EB WAY, NW/O 14TH AVE S	15TH AVE NW, S/O NW 80TH ST
S COLUMBIAN WB WAY, NW/O 14TH AVE S	24TH AVE NW, S/O NW 80TH ST
I5 CHERRY REV RP, E/O CHERRY ST	32ND AVE NW, S/O NW 80TH ST
I5 COLUMBIA REV RP, E/O COLUMBIA ST	3RD AVE NW, S/O NW 145TH ST
1ST AVE, NW/O LENORA ST	3RD AVE NW, S/O NW 80TH ST
1ST AVE, SE/O PIKE ST	8TH AVE NW, S/O NW 80TH ST
2ND AVE, NW/O LENORA ST	12TH AVE S, S/O S WELLER ST
2ND AVE, SE/O PIKE ST	14TH AVE S, N/O S DIRECTOR ST
3RD AVE, NW/O LENORA ST	15TH AVE S, S/O S BRADFORD ST
3RD AVE, SE/O PIKE ST	16TH AVE S, N/O 16TH AVE S BR
4TH AVE, NW/O LENORA ST	1ST AV S OFF RP, SE/O ALASKAN WY VI SB
4TH AVE, SE/O PIKE ST	1ST AV S ON RP, SE/O ALASKAN WY VI NB
5TH AVE, NW/O LENORA ST	1ST AVE S, N/O S KING ST
5TH AVE, SE/O PIKE ST	1ST AVE S, S/O S SPOKANE SR ST
6TH AVE, NW/O LENORA ST	23RD AVE S, S/O S JACKSON ST
6TH AVE, SE/O PIKE ST	31ST AVE S, S/O S JACKSON ST
7TH AVE, NW/O LENORA ST	4TH AVE S, N/O S DAWSON ST
7TH AVE, SE/O PIKE ST	4TH AVE S, S/O 2ND AV ET S
8TH AVE, SE/O PIKE ST	51ST AVE S, S/O S BANGOR ST
ALASKAN WAY, SE/O BLANCHARD ST	8TH AVE S, S/O S DIRECTOR ST
ALASKAN WAY, SE/O PIKE ST	AIRPORT WAY S, N/O S NORFOLK ST
COLUMBIA ST ON RP, NE/O ALASKAN WY VI SB	AIRPORT WAY S, NW/O S LUCILE ST
DENNY WAY, E/O MINOR AVE	ALASKAN WAY S, N/O S KING ST

Location	
DENNY WAY, E/O WESTLAKE AVE	EAST MARGINAL WAY S, SE/O BOEING DR
ELLIOTT AV ON RP, NW/O ALASKAN WY VI SB	M L KING JR WAY S, S/O S BRADFORD ST
I5 COLUMBIA OF, N/O COLUMBIA ST	M L KING JR WAY S, S/O S NORFOLK ST
I5 JAMES ON, S/O 6TH AVE	MYERS WAY S, S/O OLSON PL SW
I5 PIKE REV RP, N/O PIKE ST	RAINIER AVE S, E/O 75TH AVE S (CITY LIMITS)
I5 SENECA OF, S/O 6TH AVE	RAINIER AVE S, SE/O BOREN AVE S
I5 SPRING ON, S/O 6TH AVE	RAINIER AVE S, SE/O M L KING JR WAY S
I5 UNION OFF, N/O CONVENTION PL	RENTON AVE S, SE/O S BANGOR ST
I5 UNIVERSITY ON, N/O 6TH AVE	S DEARBORN ST, W/O 13TH AVE S
SENECA ST OFF RP, NE/O ALASKAN WY VI NB	S GRAHAM ST, E/O SWIFT AVE S
WESTERN AV OFF RP, NW/O ALASKAN WY VI NB	S HOLGATE BR, E/O S HOLGATE ST
WESTERN AVE, NW/O UNION ST	S JACKSON ST, E/O 5TH AVE S
EASTLAKE AVE E, SW/O HARVARD AVE E	S LUCILE ST, W/O 12TH AVE S
AURORA AVE N, S/O HARRISON ST	S MYRTLE ST, W/O BEACON WR AVE S
AURORA AVE N, S/O N 145TH ST	SR99 FY, S/O S CLOVERDALE ST
AURORA AVE N, S/O N 80TH ST	SWIFT AVE S, NW/O S ALBRO PL
AURORA BR, S/O BRIDGE WAY N	16TH AVE SW, N/O SW CAMBRIDGE ST
GREENWOOD AVE N, S/O N 145TH ST	35TH AVE SW, N/O SW ROXBURY ST
GREENWOOD AVE N, S/O N 80TH ST	8TH AVE SW, N/O SW ROXBURY ST
MERCER ST, W/O FAIRVIEW AVE N	BEACH DR SW, SE/O 61ST AVE SW
MERIDIAN AVE N, S/O N 145TH ST	CALIFORNIA AVE SW, S/O SW CHARLESTOWN ST
N 105TH ST, W/O EVANSTON W AVE N	DELRIDGE WAY SW, NW/O SW CAMBRIDGE ST
N 125TH ST, W/O AURORA AVE N	DELRIDGE WAY SW, S/O SW ANDOVER ST
N 130TH ST, W/O LINDEN AVE N	OLSON PL SW, SW/O 1ST AVE S
N 145TH ST, W/O LINDEN AVE N	SEAVIEW AVE NW, N/O NW 67TH ST
N 46TH ST, W/O PHINNEY AVE N	SW 106TH ST, W/O SEOLA BEACH DR SW
N 50TH ST, W/O FREMONT AVE N	SW ADMIRAL WAY, SE/O SW CITY VIEW ST
N 65TH ST, W/O LINDEN AVE N	SW AVALON WAY, N/O 30TH AVE SW
N 80TH ST, W/O LINDEN AVE N	SW BARTON ST, SW/O FAUNTLEROY WAY SW
MAGNOLIA BR, E/O W GARFIELD ST OFF RP	WEST MARGINAL WAY SW, NW/O HIGHLAND PARK WAY SW
W DRAVUS ST, E/O 20TH AVE W	28TH AVE W, S/O W DRAVUS ST
W EMERSON PL, SE/O 21ST AVE W	34TH AVE W, N/O W BARRETT ST

Table 3 - Flow Count Locations

Flow Count Location	
I5 STEWART OF, N/O STEWART ST	LAKE CITY WAY NE, SW/O NE 115TH ST
I5 STEWART REV RP, N/O STEWART ST	MONTLAKE BLVD NE, N/O NE PACIFIC PL
I5 STEWART REV RP, N/O STEWART ST	NE 125TH ST, E/O 35TH AVE NE
ALASKAN WY VI NB, S/O 1ST AV S ON RP	NE 125TH ST, W/O 27TH AVE NE
ALASKAN WY VI SB, S/O 1ST AV S OFF RP	NE 45TH ST, E/O 16TH AVE NE
ALASKAN WY VI NB, N/O EAST MARGINAL WAY S	NE 50TH ST, W/O THACKERAY PL NE
ALASKAN WY VI SB, N/O EAST MARGINAL WAY S	NE 65TH ST, E/O 25TH AVE NE
EAST MARGINAL WAY S, N/O ALASKAN WY VI NB	NE 65TH ST, W/O 15TH AVE NE
EAST MARGINAL WY S, N/O ALASKAN WY VI SB	NE 65TH ST, W/O 25TH AVE NE
MARION ST, W/O ALASKAN WAY	NE 75TH ST, E/O 12TH AVE NE
YESLER WAY, W/O ALASKAN WAY	NE 75TH ST, W/O 30TH AVE NE
YESLER WAY, W/O ALASKAN WAY	NE NORTHGATE WAY, W/O 15TH AVE NE
1ST AV S BR NB, S/O POINT A	PINEHURST WAY NE, NE/O NE 115TH ST
1ST AV S BR SB, S/O POINT A	ROOSEVELT WAY NE, S/O NE NORTHGATE WAY
ALASKAN WY VI NB, NW/O 1ST AV S ON RP	SAND POINT WAY NE, SW/O NE 65TH ST
ALASKAN WY VI SB, NW/O 1ST AV S OFF RP	HOLMAN RD NW, NE/O 13TH E AVE NW
BATTERY ST TUNNEL NB, N/O ALASKAN WY VI NB	LEARY WAY NW, NW/O 3RD AVE NW
BATTERY ST TUNNEL SB, S/O AURORA AVE N	NW 80TH ST, W/O 15TH AVE NW
BEACON ER AVE S, S/O S SPOKANE ST	NW 85TH ST, W/O 16TH AVE NW
BEACON WR AVE S, S/O S SPOKANE ST	1ST AVE S, N/O S SPOKANE NR ST
SR509 NB, S/O CLOVERDALE ST OFF RP	1ST AVE S, S/O S LUCILE ST
SR509 SB, S/O CLOVERDALE ST ON RP	4TH AVE S, N/O S MICHIGAN ST
WEST SEATTLE BR EB, E/O 1ST AV S OFF RP	4TH AVE S, S/O AIRPORT WAY S
WEST SEATTLE BR WB, W/O 4TH AV S OFF RP	6TH AVE S, S/O S FOREST ST
WEST SEATTLE BR EB, E/O DELRIDGE-W SEATTLE BR EB ON RP	BEACON AVE S, N/O S SPOKANE ST
WEST SEATTLE BR WB, E/O W SEATTLE BR WB OFF RP	CORSON AVE S, N/O S MICHIGAN ST
WEST SEATTLE BR EB, NE/O FAUNTLEROY WAY SW	CORSON AVE S, S/O S MICHIGAN ST
WEST SEATTLE BR WB, NE/O 35TH AVE SW	EAST MARGINAL WAY S, NW/O S MICHIGAN ST
ELLIOTT AVE, W/O LENORA ST	EAST MARGINAL WAY S, SE/O 4TH AVE S
WESTERN AVE, NW/O LENORA ST	ELLIS AVE S, S/O S WARSAW ST
S COLUMBIAN EB WAY, NW/O 14TH AVE S	M L KING JR WAY S, N/O S EDMUNDS ST
S COLUMBIAN WB WAY, NW/O 14TH AVE S	M L KING JR WAY S, S/O S HOLLY ST
I5 CHERRY REV RP, E/O CHERRY ST	RAINIER AVE S, N/O S ALASKA ST
I5 COLUMBIA REV RP, E/O COLUMBIA ST	RAINIER AVE S, NW/O S HOLLY ST
BOREN AVE, SE/O PIKE ST	RAINIER AVE S, NW/O S MCCLELLAN ST
BROADWAY, S/O E DENNY WAY	RENTON AVE S, N/O S CLOVERDALE ST

Flow Count Location	
DENNY WAY, E/O STEWART ST	RENTON AVE S, SE/O S HENDERSON ST
DENNY WAY, W/O 6TH AVE	S COLUMBIAN WAY, W/O BEACON WR AVE S
I5 CHERRY ON, N/O CHERRY ST	S GENESEE ST, E/O 38TH AVE S
I5 JAMES OF, S/O JAMES ST	S HENDERSON ST, E/O RENTON AVE S
I5 MADISON OF, S/O MADISON ST	S JACKSON ST, W/O 23RD AVE S
I5 OLIVE OF, S/O OLIVE WY	S LUCILE ST, E/O 4TH AVE S
I5 OLIVE ON, N/O I5 MELROSE ON	S MICHIGAN ST, E/O 6TH AVE S
I5 YALE ON, S/O HOWELL ST	S OTHELLO ST, E/O 43RD AVE S
JAMES ST, NE/O 7TH AVE	35TH AVE SW, S/O SW ALASKA ST
MADISON ST, NE/O BOREN AVE	35TH AVE SW, S/O SW MORGAN ST
10TH AVE E, S/O E BOSTON ST	CALIFORNIA AVE SW, S/O ERSKINE WAY SW
12TH AVE E, N/O E JOHN ST	DELRIDGE WAY SW, N/O SW MYRTLE ST
12TH AVE, N/O E YESLER WAY	FAUNTLEROY WAY SW, N/O SW BARTON ST
14TH AVE, N/O E YESLER WAY	FAUNTLEROY WAY SW, S/O SW ALASKA ST
24TH AVE E, N/O E PROSPECT ST	SW BARTON ST, W/O 30TH AVE SW
BOREN AVE, NW/O E YESLER WAY	SW HOLDEN ST, W/O DELRIDGE WAY SW
E ALOHA ST, E/O 10TH AVE E	SW MORGAN ST, W/O 35TH AVE SW
E CHERRY ST, W/O 26TH AVE	SW ROXBURY ST, E/O 26TH AVE SW
E JOHN ST, E/O BROADWAY E	15TH AVE W, N/O W ARMORY WAY
E MADISON ST, SW/O 38TH AVE E	20TH AVE W, S/O W DRAVUS ST
E MADISON ST, SW/O LAKE WASHINGTON BLVD E	ELLIOTT AVE W, SE/O W MERCER PL
E PIKE ST, W/O BROADWAY	GILMAN AVE W, NW/O W EMERSON PL
E PINE ST, W/O BROADWAY	1ST AVE, NW/O LENORA ST
E UNION ST, W/O 26TH AVE	1ST AVE, SE/O PIKE ST
E YESLER WAY, W/O 23RD AVE	2ND AVE, NW/O LENORA ST
LAKE WASHINGTON BLVD E, NW/O E MADISON ST	2ND AVE, SE/O PIKE ST
M L KING JR WAY E, S/O E JOHN ST	3RD AVE, NW/O LENORA ST
M L KING JR WAY, N/O E YESLER WAY	3RD AVE, SE/O PIKE ST
AURORA AVE N, S/O N 112TH ST	4TH AVE, NW/O LENORA ST
FREMONT AVE N, S/O N 46TH ST	4TH AVE, SE/O PIKE ST
GREENWOOD AVE N, N/O N 107TH ST	5TH AVE, NW/O LENORA ST
GREENWOOD AVE N, S/O HOLMAN RD N	5TH AVE, SE/O PIKE ST
N 130TH ST, W/O ASHWORTH AVE N	6TH AVE, NW/O LENORA ST
N 145TH ST, W/O MERIDIAN AVE N	6TH AVE, SE/O PIKE ST
N 40TH ST, E/O STONE WAY N	7TH AVE, NW/O LENORA ST
N 45TH ST, W/O EASTERN AVE N	7TH AVE, SE/O PIKE ST
N NORTHGATE WAY, W/O ASHWORTH AVE N	8TH AVE, SE/O PIKE ST
NICKERSON ST, NW/O FLORENTIA ST	ALASKAN WAY, SE/O BLANCHARD ST
PHINNEY AVE N, S/O N 65TH ST	ALASKAN WAY, SE/O PIKE ST

Flow Count Location	
STONE WAY N, S/O N 45TH ST	COLUMBIA ST ON RP, NE/O ALASKAN WY VI SB
WESTLAKE AVE N, S/O HIGHLAND DR	DENNY WAY, E/O MINOR AVE
11TH AVE NE, S/O NE 45TH ST	DENNY WAY, E/O WESTLAKE AVE
15TH AVE NE, S/O NE 45TH ST	DENNY WAY, W/O 2ND AVE
15TH AVE NE, S/O NE NORTHGATE WAY	ELLIOTT AV ON RP, NW/O ALASKAN WY VI SB
35TH AVE NE, N/O NE 75TH ST	I5 COLUMBIA OF, N/O COLUMBIA ST
5TH AVE NE, N/O NE NORTHGATE WAY	I5 JAMES ON, S/O 6TH AVE
5TH AVE NE, S/O NE NORTHGATE WAY	I5 PIKE REV RP, N/O PIKE ST
EAST GREEN LAKE DR N, NW/O LATONA AVE NE	I5 SENECA OF, S/O 6TH AVE
35TH AVE NE, S/O NE 75TH ST	I5 SPRING ON, S/O 6TH AVE
5TH AVE NE, S/O I5 145 OF	I5 UNION OFF, N/O CONVENTION PL
LAKE CITY WAY NE, NE/O NE 95TH ST	I5 UNIVERSITY ON, N/O 6TH AVE
LAKE CITY WAY NE, S/O NE 145TH ST	SENECA ST OFF RP, NE/O ALASKAN WY VI NB
MONTLAKE BR, S/O POINT A	WESTERN AV OFF RP, NW/O ALASKAN WY VI NB
NE 145TH ST, E/O 5TH AVE NE	WESTERN AVE, NW/O UNION ST
NE 45TH ST, W/O NE 45TH PL	E MADISON ST, SW/O 17TH AVE
NE 45TH ST, W/O ROOSEVELT WAY NE	EASTLAKE AVE E, SW/O HARVARD AVE E
NE 50TH ST, W/O ROOSEVELT WAY NE	AURORA AVE N, S/O HARRISON ST
NE 55TH ST, E/O 35TH AVE NE	AURORA AVE N, S/O N 145TH ST
NE 75TH ST, W/O ROOSEVELT WAY NE	AURORA AVE N, S/O N 80TH ST
NE 80TH ST, E/O 5TH AVE NE	AURORA BR, S/O BRIDGE WAY N
NE NORTHGATE WAY, E/O 5TH AVE NE	EAST GREEN LAKE WAY N, NE/O N 57TH ST
NE PACIFIC ST, NE/O 2ND AVE NE	FREMONT BR, S/O POINT A
ROOSEVELT WAY NE, N/O NE 50TH ST	GREENWOOD AVE N, S/O N 145TH ST
ROOSEVELT WAY NE, N/O NE 73RD ST	GREENWOOD AVE N, S/O N 80TH ST
ROOSEVELT WAY NE, SE/O NE 130TH N ST	MERCER ST, W/O FAIRVIEW AVE N
SAND POINT WAY NE, S/O NE 74TH ST	MERIDIAN AVE N, S/O N 145TH ST
15TH AVE NW, S/O NW 80TH ST	N 105TH ST, W/O EVANSTON W AVE N
24TH AVE NW, S/O NW 80TH ST	N 125TH ST, W/O AURORA AVE N
32ND AVE NW, S/O NW 80TH ST	N 130TH ST, W/O LINDEN AVE N
3RD AVE NW, S/O NW 145TH ST	N 145TH ST, W/O LINDEN AVE N
3RD AVE NW, S/O NW 80TH ST	N 46TH ST, W/O PHINNEY AVE N
8TH AVE NW, S/O NW 80TH ST	N 50TH ST, W/O FREMONT AVE N
BALLARD BR, S/O POINT A	N 65TH ST, W/O LINDEN AVE N
NW MARKET ST, W/O 8TH AVE NW	N 80TH ST, W/O LINDEN AVE N
12TH AVE S, S/O S WELLER ST	N 85TH ST, W/O ASHWORTH AVE N
14TH AVE S, N/O S DIRECTOR ST	N 85TH ST, W/O LINDEN AVE N
15TH AVE S, S/O S BRADFORD ST	QUEEN ANNE AVE N, S/O CROCKETT ST
16TH AVE S, N/O 16TH AVE S BR	UNIVERSITY BR, SW/O POINT A

Flow Count Location	
1ST AV S OFF RP, SE/O ALASKAN WY VI SB	VALLEY ST, W/O FAIRVIEW AVE N
1ST AV S ON RP, SE/O ALASKAN WY VI NB	12TH AVE NE, S/O NE 75TH ST
1ST AVE S, N/O S KING ST	15TH AVE NE, S/O NE 145TH ST
1ST AVE S, S/O S SPOKANE SR ST	15TH AVE NE, S/O NE 65TH ST
23RD AVE S, S/O S JACKSON ST	15TH AVE NE, S/O NE 75TH ST
31ST AVE S, S/O S JACKSON ST	1ST AVE NE, S/O NE 145TH ST
4TH AVE S, N/O S DAWSON ST	25TH AVE NE, S/O NE 47TH ST
4TH AVE S, S/O 2ND AV ET S	25TH AVE NE, S/O NE 75TH ST
51ST AVE S, S/O S BANGOR ST	30TH AVE NE, S/O NE 145TH ST
8TH AVE S, S/O S DIRECTOR ST	16TH AVE SW, N/O SW CAMBRIDGE ST
AIRPORT WAY S, N/O S NORFOLK ST	35TH AVE SW, N/O SW ROXBURY ST
AIRPORT WAY S, NW/O S LUCILE ST	8TH AVE SW, N/O SW ROXBURY ST
ALASKAN WAY S, N/O S KING ST	ALKI AVE SW, W/O HARBOR AVE SW
EAST MARGINAL WAY S, SE/O BOEING DR	BEACH DR SW, SE/O 61ST AVE SW
M L KING JR WAY S, S/O S BRADFORD ST	CALIFORNIA AVE SW, S/O SW CHARLESTOWN ST
M L KING JR WAY S, S/O S NORFOLK ST	DELRIDGE WAY SW, NW/O SW CAMBRIDGE ST
MYERS WAY S, S/O OLSON PL SW	DELRIDGE WAY SW, S/O SW ANDOVER ST
RAINIER AVE S, E/O 75TH AVE S (CITY LIMITS)	OLSON PL SW, SW/O 1ST AVE S
RAINIER AVE S, S/O S OTHELLO ST	SEAVIEW AVE NW, N/O NW 67TH ST
RAINIER AVE S, SE/O BOREN AVE S	SW 106TH ST, W/O SEOLA BEACH DR SW
RAINIER AVE S, SE/O M L KING JR WAY S	SW ADMIRAL WAY, SE/O SW CITY VIEW ST
RENTON AVE S, SE/O S BANGOR ST	SW AVALON WAY, N/O 30TH AVE SW
S DEARBORN ST, W/O 13TH AVE S	SW BARTON ST, SW/O FAUNTLEROY WAY SW
S GRAHAM ST, E/O SWIFT AVE S	WEST MARGINAL WAY SW, NW/O HIGHLAND PARK WAY SW
S HOLGATE BR, E/O S HOLGATE ST	28TH AVE W, S/O W DRAVUS ST
S JACKSON ST, E/O 5TH AVE S	34TH AVE W, N/O W BARRETT ST
S LANDER ST, W/O 6TH AVE S	MAGNOLIA BR, E/O W GARFIELD ST OFF RP
S LUCILE ST, W/O 12TH AVE S	W DRAVUS ST, E/O 20TH AVE W
S MYRTLE ST, W/O BEACON WR AVE S	W EMERSON PL, SE/O 21ST AVE W
SR99 FY, S/O S CLOVERDALE ST	
SWIFT AVE S, NW/O S ALBRO PL	

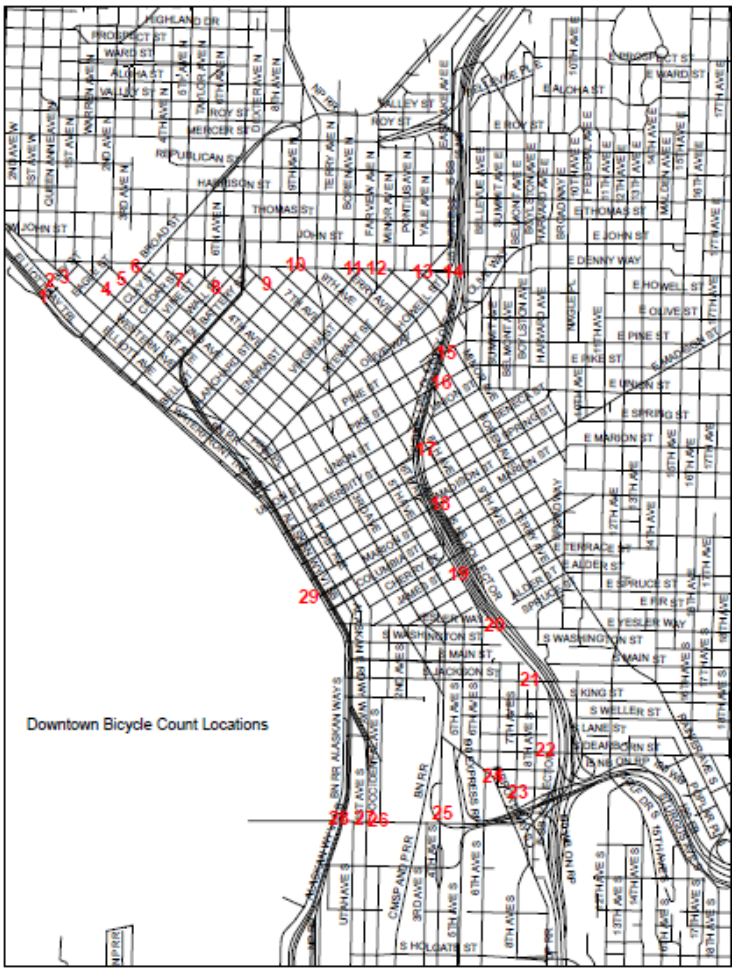
Table 4 - Monthly Control Factor Calculation

Monthly Expansion Factors												
AGGREGATE OF ALL CONTROL COUNT LOCATIONS (Less: WS BR)												
JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG.
427,296	426,855	435,840	449,739	454,997	455,838	464,252	446,002	448,008	429,428	433,530	434,980	442,230
1.035	1.036	1.015	0.983	0.972	0.970	0.953	0.992	0.987	1.030	1.020	1.017	
CBD EXPANSION FACTORS												
AGGREGATE OF ALASKAN WY, DENNY WY, STEWART ST, UNIVERSITY ST AND 3 AVE												
JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG.
66,933	67,571	67,502	69,385	70,927	71,176	71,972	69,434	71,040	66,253	66,854	67,321	68,864
1.029	1.019	1.020	0.992	0.971	0.968	0.957	0.992	0.969	1.039	1.030	1.023	

Table 5 - Bridge Count Locations

Location
1. Aurora Bridge
2. Ballard Bridge
3. Fremont Bridge
4. Montlake Bridge
5. Spokane Street Corridor (Duwamish River West Waterway)
6. West Seattle Bridge (Highrise)
7. SW Spokane Bridge (Swing)
8. University Bridge
9. 1 Ave S Bridge
10. 16th Ave S Bridge
11. 1-90 Bridge
12. SR520 Bridge
13. I-5 Bridge

Map 1 - Downtown Bicycle Cordon Count Locations



Appendix B
Pedestrian and Bicycle Collisions Tables

Pedestrian Collisions

Table 1: Pedestrian Collisions, Injuries, and Fatalities 2001 – 2009

Year	Collisions	Injuries	Fatalities
2001	474	430	10
2002	476	465	5
2003	454	446	11
2004	457	368	10
2005	473	452	8
2006	565	542	10
2007	490	480	6
2008	503	448	9
2009	479	429	11
9-year Average	485	451	9

Table 2: Severity of Pedestrian Collisions by Street Classification

	Street Classification				
Severity of Collision	Principal	Minor	Collector	Non-Arterial	Total
No Injury	53%	38%	0%	9%	100%
Injury	60%	27%	3%	10%	100%
Fatality	64%	18%	9%	9%	100%

Table 3: Pedestrian Collisions by Location in Street

Location	Percent of Collisions
Intersection	68%
Mid-Block	32%

Table 4: Frequency and Severity of Pedestrian Collisions by Pedestrian's Age

	Severity of Injury								
Pedestrian Age Group	No Injury	Possible Injury	Evident Injury	Disabling Injury	Fatality	Unknown	Total	% of Total Injuries	% of Seattle Pop.
0 to 4	1	3	8	0	0	0	12	3%	5%
5 to 14	4	29	31	8	1	2	75	16%	9%
15 to 24	4	35	37	6	1	1	84	18%	14%
25 to 34	6	26	11	8	0	3	54	11%	22%
35 to 44	3	40	20	9	0	0	72	15%	17%
45 to 54	2	11	15	4	0	0	32	7%	15%
55 to 64	3	21	27	6	2	0	59	12%	8%
65 & Up	3	15	11	5	7	0	41	9%	12%
Missing	3	23	14	6	0	4	50		
Total	29	203	174	52	11	10	479		

Table 5: Pedestrian Actions and Locations

Action	Number	Percent of Total
Crossing Intersection with Signal	166	35%
Crossing Intersection Against Signal	42	8%
Crossing Intersection No Signal	86	18%
Crossing Mid-Block	62	14%
Coming from Behind Parked Car	8	2%
In Roadway	53	8%
Not in Roadway	24	3%
Other Actions	36	9%
Missing Data	2	3%
Total	479	

Table 6: Frequency and Severity of Pedestrian Injuries by Time of Day

	Severity of Injury						
Time of Day	No Injury	Possible Injury	Evident Injury	Disabling Injury	Fatality	Unknown	Total
12-12:59 am	0	2	4	1	2	0	9
1-1:59 am	0	4	2	0	0	0	6
2-2:59 am	0	3	1	0	1	0	5
3-3:59 am	0	0	0	0	0	0	0
4-4:59 am	0	0	0	1	0	0	1
5-5:59 am	0	1	2	0	0	0	3
6-6:59 am	0	3	3	1	0	0	7
7-7:59 am	1	11	10	3	0	0	25
8-8:59 am	2	11	5	2	0	3	23
9-9:59 am	2	10	8	3	0	0	23
10-10:59 am	1	4	6	1	1	0	13
11-11:59 am	3	14	13	3	2	2	37
12-12:59 pm	3	16	11	1	0	1	32
1-1:59 pm	2	7	9	0	0	0	18
2-2:59 pm	3	18	9	3	1	0	34
3-3:59 pm	3	15	15	0	1	2	36
4-4:59 pm	0	18	17	5	1	0	41
5-5:59 pm	5	17	17	6	0	1	46
6-6:59 pm	1	17	15	7	1	1	42
7-7:59 pm	1	12	9	4	1	0	27
8-8:59 pm	1	6	2	4	0	0	13
9-9:59 pm	1	5	11	4	0	0	21
10-10:59 pm	0	6	4	3	0	0	13
11-11:59 pm	0	3	1	0	0	0	4
Total	29	203	174	52	11	10	479

Table 7: Frequency and Severity of Pedestrian Injuries by Day of Week

	Severity of Injury						
Day of Week	No Injury	Possible Injury	Evident Injury	Disabling Injury	Fatality	Unknown	Total
Sunday	0	17	19	4	1	2	43
Monday	0	30	24	4	1	1	60
Tuesday	9	33	29	11	1	1	84
Wednesday	4	38	26	9	3	1	81
Thursday	7	33	23	7	1	2	73
Friday	5	31	33	11	3	1	84
Saturday	4	21	20	6	1	2	54
Total	29	203	174	52	11	10	479

Table 8: Frequency and Severity of Pedestrian Injuries by Month

	Severity of Injury						
Month	No Injury	Possible Injury	Evident Injury	Disabling Injury	Fatality	Unknown	Total
January	6	20	20	4	0	1	51
February	3	20	6	4	1	0	34
March	2	12	13	6	0	0	33
April	2	7	20	3	0	2	34
May	5	16	16	2	2	2	43
June	2	17	12	3	3	1	38
July	3	11	13	2	1	1	31
August	1	15	10	1	0	0	27
September	1	13	8	3	0	0	25
October	0	17	18	8	1	1	45
November	4	29	18	10	1	1	63
December	0	26	20	6	2	1	55
Total	29	203	174	52	11	10	479

Table 9: Injury Severity by Vehicle Action in Pedestrian Collisions

	Severity of Injury						
Vehicle Action	No Injury	Possible Injury	Evident Injury	Disabling Injury	Fatality	Unknown	Total
Vehicle Going Straight	14	78	78	25	7	3	205
Vehicle Turning Left	4	59	47	14	3	1	130
Vehicle Turning Right	6	45	26	4	1	3	83
Vehicle Backing	1	10	10	0	0	1	22
Struck by Bicycle	1	1	5	3	0	0	10
Vehicle Parking	0	2	2	1	0	0	5
Entering at Angle	0	3	0	2	0	1	6
Other	3	5	6	3	0	1	18
Total	27	203	174	52	11	10	479

Table 10: Injury Severity by Pedestrian Clothing Visibility

	Severity of Injury						
Clothing Visibility	No Injury	Possible Injury	Evident Injury	Disabling Injury	Fatality	Unknown	Total
Dark	4	67	43	8	1	3	126
Light	2	19	20	4	3	1	49
Mixed	21	115	108	37	7	6	294
Retro – Reflective	1	2	1	0	0	0	4
Other Reflective	1	0	1	3	0	0	5
Unknown	0	0	1	0	0	0	1
Total	29	203	174	52	11	10	479

Table 11: Pedestrian Collisions by Weather Conditions

	Severity of Injury						
Weather	No Injury	Possible Injury	Evident Injury	Disabling Injury	Fatality	Unknown	Total
Clear	17	118	111	34	9	7	296
Raining	8	43	36	10	1	1	99
Overcast	2	31	23	7	1	1	65
Snowing	0	0	1	0	0	0	1
Fog / Smog	0	2	0	0	0	0	2
Unknown/ Other	2	9	3	1	0	1	16
Total	29	203	174	52	11	10	479

Table 12: Pedestrian Contributing Circumstances in Pedestrian Collisions

Contributing Circumstances	Grand Total
None	281
Outside Xwalk	52
Other	51
Disregard Stop Light	28
Not Grant ROW to Vehicle	27
Unknown	13
Under Influence of Alcohol	11
Inattention	5
Had Taken Medication	2
Operating Hand Held Device	2
Under Influence of Drugs	1
Disregard Stop Sign	1
Apparently Asleep	1
Improper Signal	1
Not Grant ROW to Ped	1
Disregard Officer	1
On Wrong Side of Road	1
Grand Total	**479**

Table 13: Driver Contributing Circumstances in Pedestrian Collisions

Contributing Circumstance	Grand Total
Not Grant ROW to Ped	215
None	117
Other	43
Inattention	14
Unknown	9
Under Influence of Alcohol	7
Disregard Stop Light	7
Improper Backing	7
Improper Turn	4
Operating Defective Equipment	3
Exceed Safe Speed	2
Operating Handheld Telcom Device	2
Distractions Inside Vehicle	2
Exceed Speed Limit	1
Not Grant ROW to Vehicle	1
Improper Passing	1
Disregard Stop Sign	1
Disregard Officer	1
Distractions Outside Vehicle	1
Grand Total	**438**

Bicycle Collision Data

Table 14: Bicycle Collisions, Injuries and Fatalities 2001 – 2009

Year	Collisions	Injuries	Fatalities
2001	302	238	2
2002	293	267	1
2003	263	229	0
2004	257	211	1
2005	279	245	0
2006	354	305	2
2007	359	310	1
2008	355	310	2
2009	382	325	4
9-year average	316	271	1.44

Table 15: Frequency and Severity of Bicycle Injuries by Bicyclist's Age - 2009

	Severity of Injury								
Cyclist Age Group	No Injury	Possible Injury	Evident Injury	Disabling Injury	Fatality	Unknown	Total	% of Total	% of Seattle Pop.
5 to 14	2	5	2	1	0	0	10	3%	9%
15 to 24	10	27	52	1	0	3	93	24%	14%
25 to 34	13	30	70	9	0	0	122	32%	22%
35 to 44	6	14	39	0	3	1	63	16%	17%
45 to 54	3	14	12	4	0	0	33	9%	15%
55 to 64	1	9	9	3	1	0	23	6%	8%
65 & Up	1	0	3	0	0	0	4	1%	12%
Unknown	8	6	14	1	0	5	34		
Total	44	105	201	19	4	9	382		

Table 16: Frequency and Severity of Bicycle Injuries by Time of Day

	Severity of Injury						
Time of Day	No Injury	Possible Injury	Evident Injury	Disabling Injury	Fatality	Unknown	Total
12-12:59 am	0	1	3	0	0	0	4
1-1:59 am	0	0	0	0	0	0	0
2-2:59 am	1	0	2	0	0	0	3
3-3:59 am	0	0	3	0	0	0	3
4-4:59 am	0	0	0	0	0	0	0
5-5:59 am	0	1	3	0	0	0	4
6-6:59 am	0	3	7	2	0	0	12
7-7:59 am	0	5	20	1	0	3	29
8-8:59 am	2	6	20	1	1	0	30
9-9:59 am	0	13	8	0	0	0	21
10-10:59 am	0	4	4	0	1	0	9
11-11:59 am	2	4	5	0	0	0	11
12-12:59 pm	4	4	12	1	0	1	22
1-1:59 pm	3	5	7	0	0	0	15
2-2:59 pm	6	5	13	1	0	0	25
3-3:59 pm	4	5	10	3	0	1	23
4-4:59 pm	6	6	17	4	0	2	35
5-5:59 pm	6	17	17	2	0	1	43
6-6:59 pm	3	7	18	3	1	0	32
7-7:59 pm	2	4	10	0	0	0	16
8-8:59 pm	1	5	9	0	0	0	15
9-9:59 pm	0	2	5	0	0	1	8
10-10:59 pm	3	3	4	1	1	0	12
11-11:59 pm	1	5	4	0	0	0	10
Total	44	105	201	19	4	9	382

Table 17: Frequency and Severity of Bicycle Injuries by Day of Week

	Severity of Injury						
Day of Week	No Injury	Possible Injury	Evident Injury	Disabling Injury	Fatality	Unknown	Total
Sunday	8	3	18	1	0	0	30
Monday	7	13	23	3	0	1	47
Tuesday	8	15	33	3	0	2	61
Wednesday	8	24	36	5	3	1	77
Thursday	4	15	41	1	0	0	61
Friday	5	22	37	2	1	2	69
Saturday	4	13	13	4	0	3	37
Total	44	105	201	19	4	9	382

Table 18: Frequency and Severity of Bicycle Injuries by Month

	Severity of Injury						
Month	No Injury	Possible Injury	Evident Injury	Disabling Injury	Fatality	Unknown	Total
January	2	13	12	2	0	0	29
February	5	6	7	1	1	0	20
March	3	5	7	1	1	1	18
April	2	9	21	1	0	2	35
May	5	10	29	1	0	1	46
June	6	8	24	1	0	2	41
July	5	11	25	2	2	2	47
August	3	13	23	7	0	0	46
September	3	7	17	2	0	1	30
October	4	11	16	1	0	0	32
November	2	6	9	0	0	0	17
December	4	6	11	0	0	0	21
Total	44	105	201	19	4	9	382

Table 19: Bicyclist Actions in Bicycle Collisions

	Severity of Injury						
Bicyclist Action	No Injury	Possible Injury	Evident Injury	Disabling Injury	Fatality	Unknown	Total
Riding with Traffic	21	57	125	10	2	6	221
Crossing or Entering Traffic	19	35	55	5	1	2	117
Riding against Traffic	0	5	8	0	0	0	13
Turned into Path of Vehicle	1	4	8	2	0	0	15
All Other Actions	2	3	3	2	1	0	11
Unknown	1	1	2	0	0	1	5
Total	44	105	201	19	4	9	382

Table 20: Bicyclist Injuries by Location

	Severity of Injury						
Facility Type	No Injury	Possible Injury	Evident Injury	Disabling Injury	Fatality	Unknown	Total
Roadway	20	68	126	14	4	6	238
Designated Bike Route	9	13	40	1	0	1	64
Marked Crosswalk	8	11	17	2	0	1	39
Unmarked Crosswalk	3	7	5	1	0	0	16
Sidewalk	2	1	4	0	0	0	7
Shoulder	1	5	6	1	0	0	13
Other	0	0	1	0	0	0	1
Unknown	1	0	2	0	0	1	4
Total	44	105	201	19	4	9	382

Table 21: Injury Severity by Bicyclist Clothing Visibility

	Severity of Injury						
Clothing Visibility	No Injury	Possible Injury	Evident Injury	Disabling Injury	Fatality	Unknown	Total
Mixed	22	57	123	11	2	6	221
Dark	9	29	33	4	2	0	77
Light	9	15	22	3	0	0	49
Retro - Reflective	3	3	12	1	0	0	19
Other Reflective Apparel	0	1	8	0	0	2	11
Unknown	1	0	3	0	0	1	5
Total	44	105	201	19	4	9	382

Table 22: Frequency and Severity of Bicycle Injuries by Weather Conditions

	Severity of Injury						
Weather	No Injury	Possible Injury	Evident Injury	Disabling Injury	Fatality	Unknown	Total
Clear or Partly Cloudy	32	77	141	18	4	8	280
Overcast	4	16	28	1	0	1	50
Raining	7	11	30	0	0	0	48
Sleet/Hail/Freezing Rain	1	0	0	0	0	0	1
Unknown	0	1	2	0	0	0	3
Total	44	105	201	19	4	9	382

Table 23: Helmet Use by Cyclists in Collisions

Cyclist Helmet Use	Percent of Cyclists
Wearing Helmet	62%
Not Wearing Helmet	22%
Unknown	16%

Table 24: Injury Severity by Bicyclist Contributing Circumstances

	Severity of Injury						
Bicyclist Contributing Circumstances	No Injury	Possible Injury	Evident Injury	Disabling Injury	Fatality	Unknown	Total
Not Grant ROW to Vehicle	0	4	19	2	0	0	25
Disregard Stop Light	2	2	5	1	0	2	12
On Wrong Side of Road	0	5	6	1	0	0	12
Disregard Stop or Yield Sign	2	4	3	1	1	0	11
Exceed Safe Speed	0	2	7	0	0	0	9
Headlight Violation	1	2	5	0	0	0	8
Inattention	1	2	3	0	0	0	6
Not Grant ROW to Pedestrian	3	2	1	0	0	0	6
Following Too Closely	0	0	5	0	0	1	6
Improper Passing	0	3	2	0	0	0	5
Under Influence of Alcohol	1	1	3	0	0	0	5
Operate Defective Equipment	0	1	2	0	0	0	3
Improper Turn	0	1	1	0	0	0	2
Unknown Driver Distraction	0	1	0	0	0	0	1
Exceed Speed Limit	0	0	0	0	0	0	0
Operate Hand Held Telecom or Electronic Device	0	0	0	0	0	0	0
Other	5	12	20	3	2	1	43
None	27	62	115	10	1	4	219
Unknown	2	1	4	1	0	1	9
Total	44	105	201	19	4	9	382

Table 25: Driver Contributing Circumstances in Bicycle Collisions

Driver Contributing Circumstances	Collisions
Did Not Grant ROW to Bike	160
None	87
Other	37
Inattention	13
Unknown/Missing Data	42
Disregarded Stop Light	10
Did Not Grant ROW to Vehicle	8
Disregarded Stop sign	6
Exceeded Safe Speed	5
Improper Turn	4
Following Too Closely	2
Under Influence of Alcohol	1
Exceeding Speed Limit	1
Improper Passing	1
Failing to Signal	1
Disregarded Yield Sign	1
Improper U-Turn	1
Object Inside Vehicle	1
Distraction Outside Vehicle	1
Total	**382**

Vehicle Drivers in Pedestrian and Bicycle Collisions

Table 26: Frequency of Bicycle and Pedestrian Collisions by Vehicle Driver Age

Driver Age Group	Percent of Bicycle Collisisions	Percent of Pedestrian Collisions	Percent of Seattle Population
16 to 24	10%	9%	15%
25 to 34	17%	15%	22%
35 to 44	17%	13%	17%
45 to 54	17%	13%	15%
55 to 64	10%	13%	8%
65 & Up	7%	7%	12%
Unknown	24%	30%	

Percents may not equal 100 due to rounding.

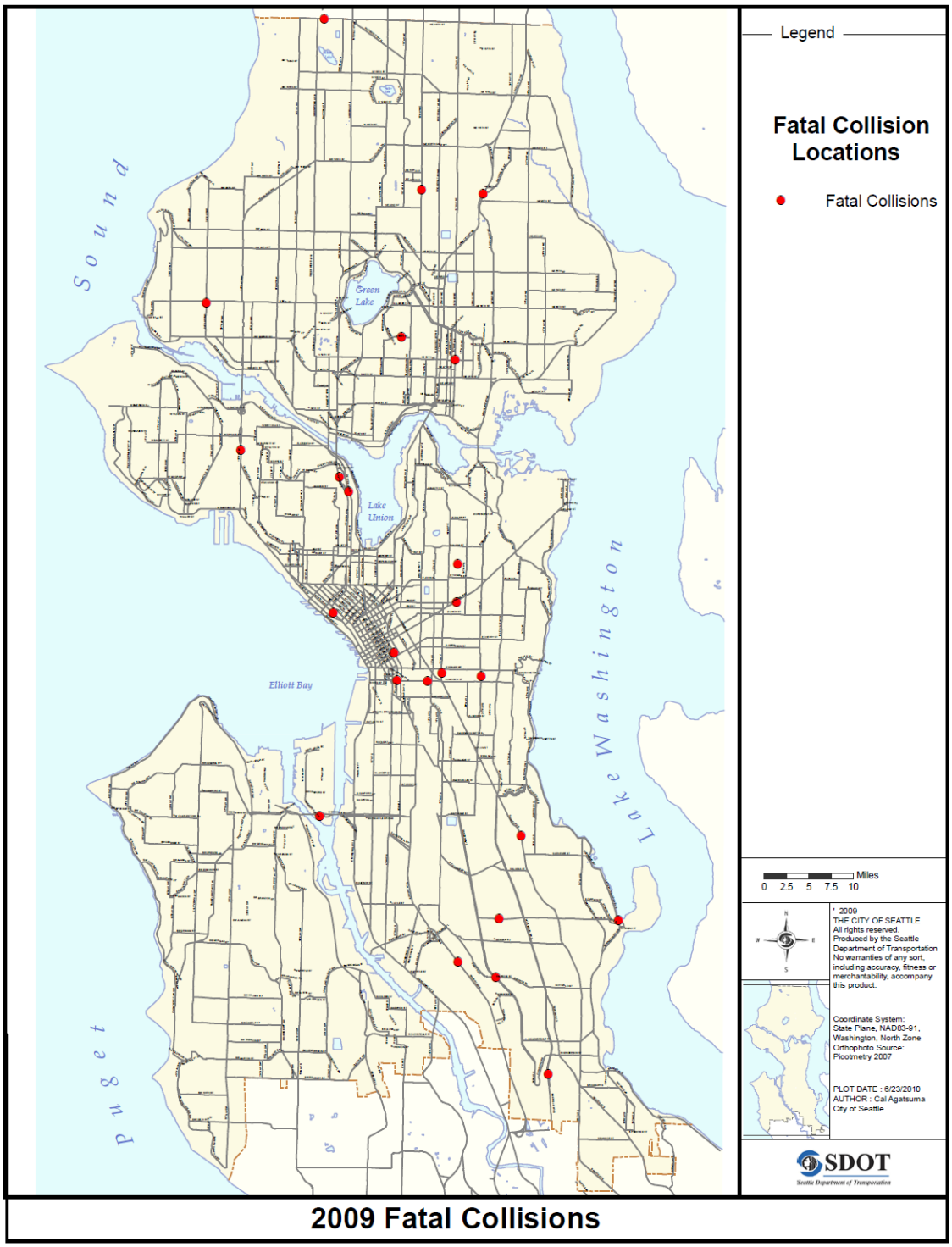
Table 27: Top Contributing Circumstances by Drivers in Pedestrian and Bicycle Collisions

Driver Contributing Circumstances	Percent of Pedestrian Collisions	Percent of Bicycle Collisions
Did Not Grant Right-of-Way	45%	42%
Inattention	3%	3%
Disregarded Stop Light/Stop Sign/Yield Sign	2%	4%
All Other Reported Circumstances	9%	5%
Reported as "Other"	17%	23%
None	24%	23%

Percents may not equal 100 due to rounding.

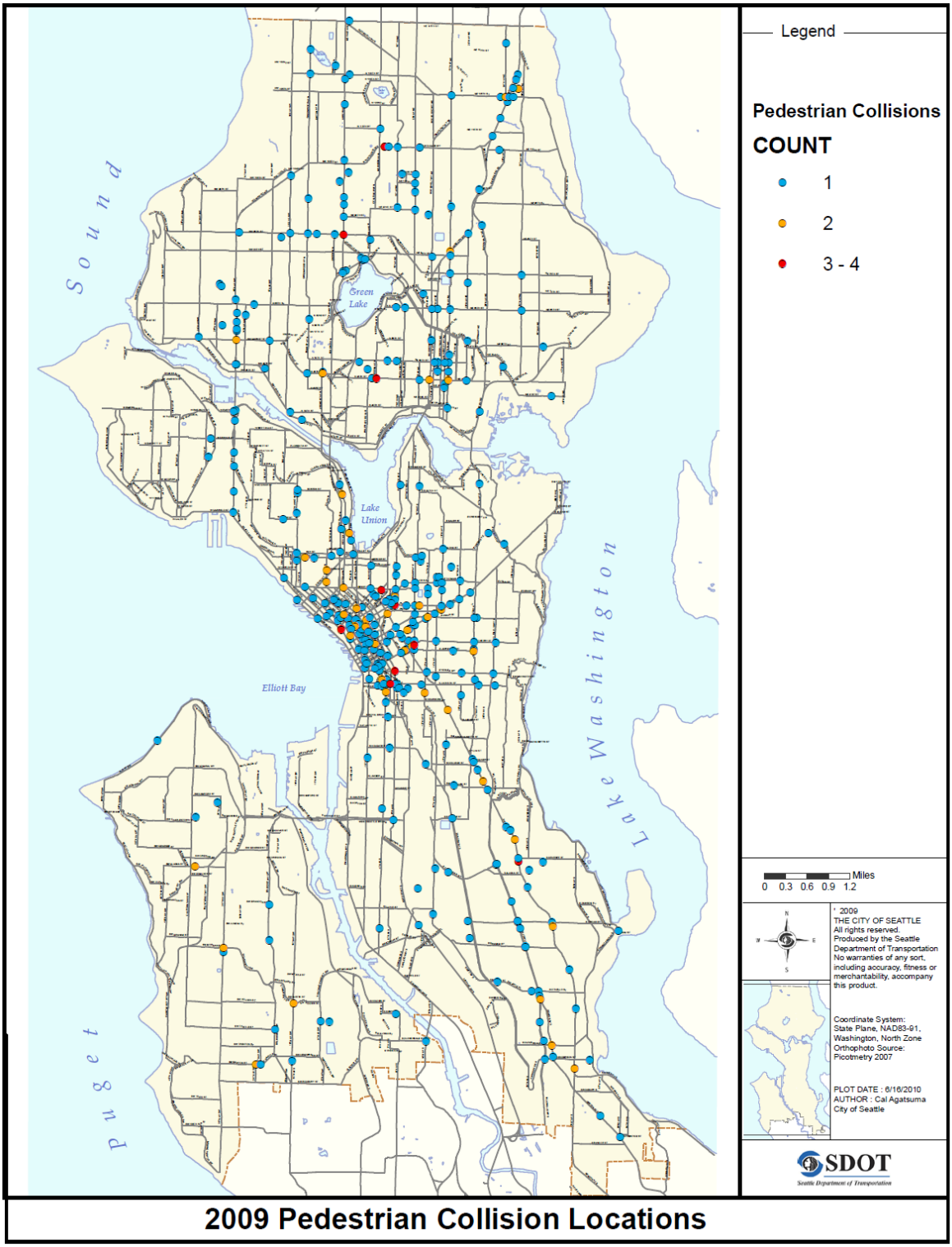
Appendix C – Collision Maps

Map 1 – Fatal Collisions



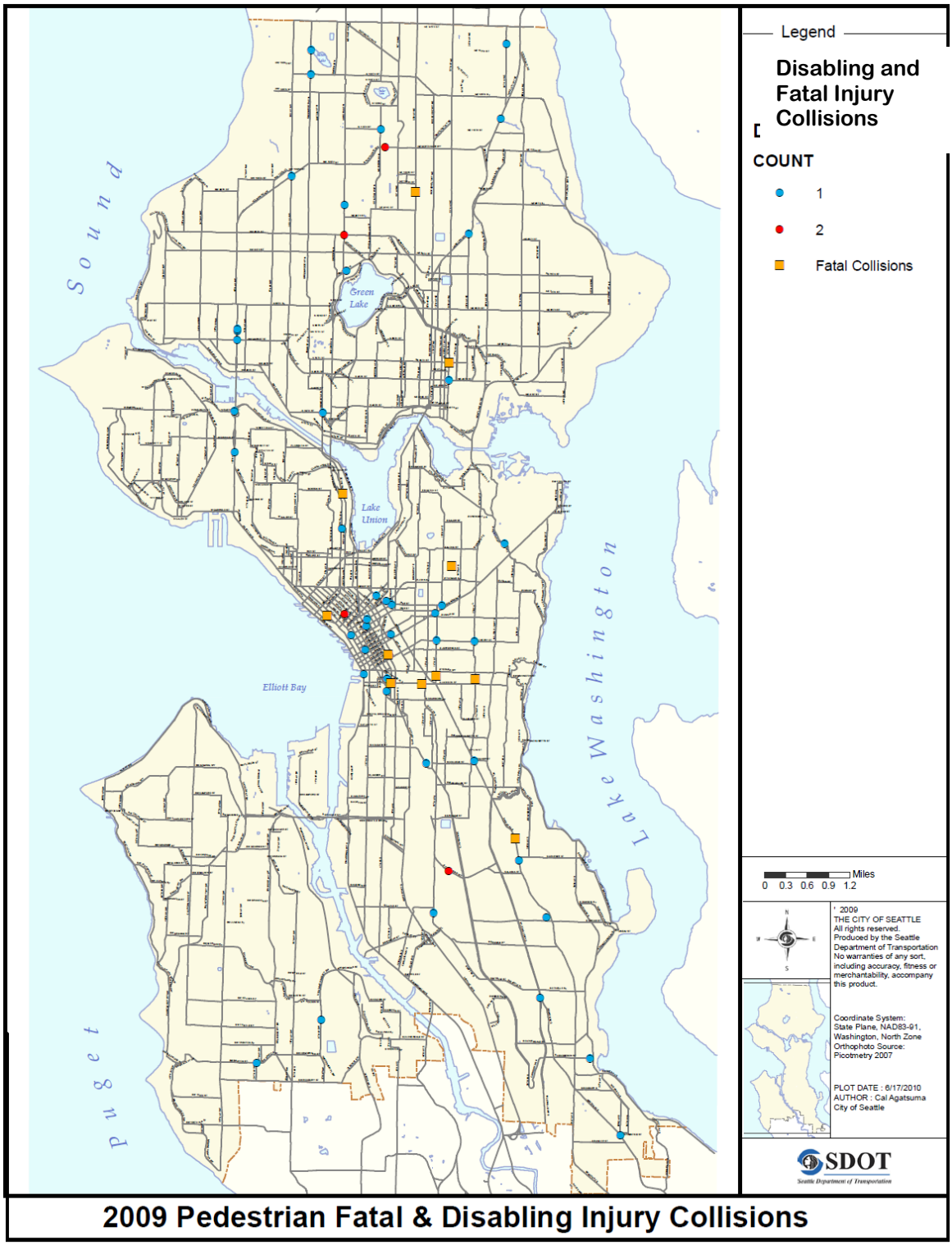
2009 Fatal Collisions

Map 2 – Pedestrian Collision Locations

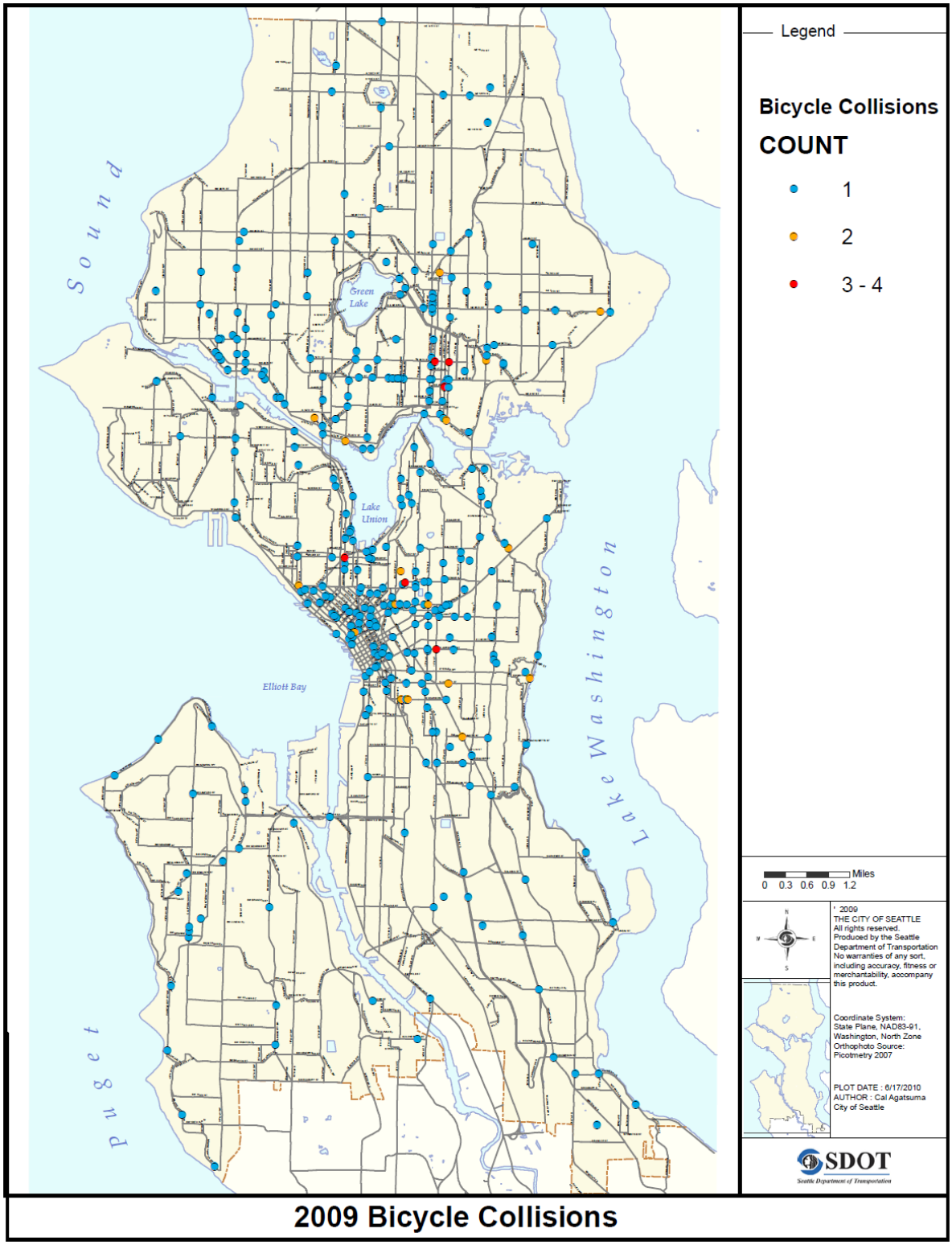


2009 Pedestrian Collision Locations

Map 3 – Pedestrian Fatal and Disabling Collision Locations

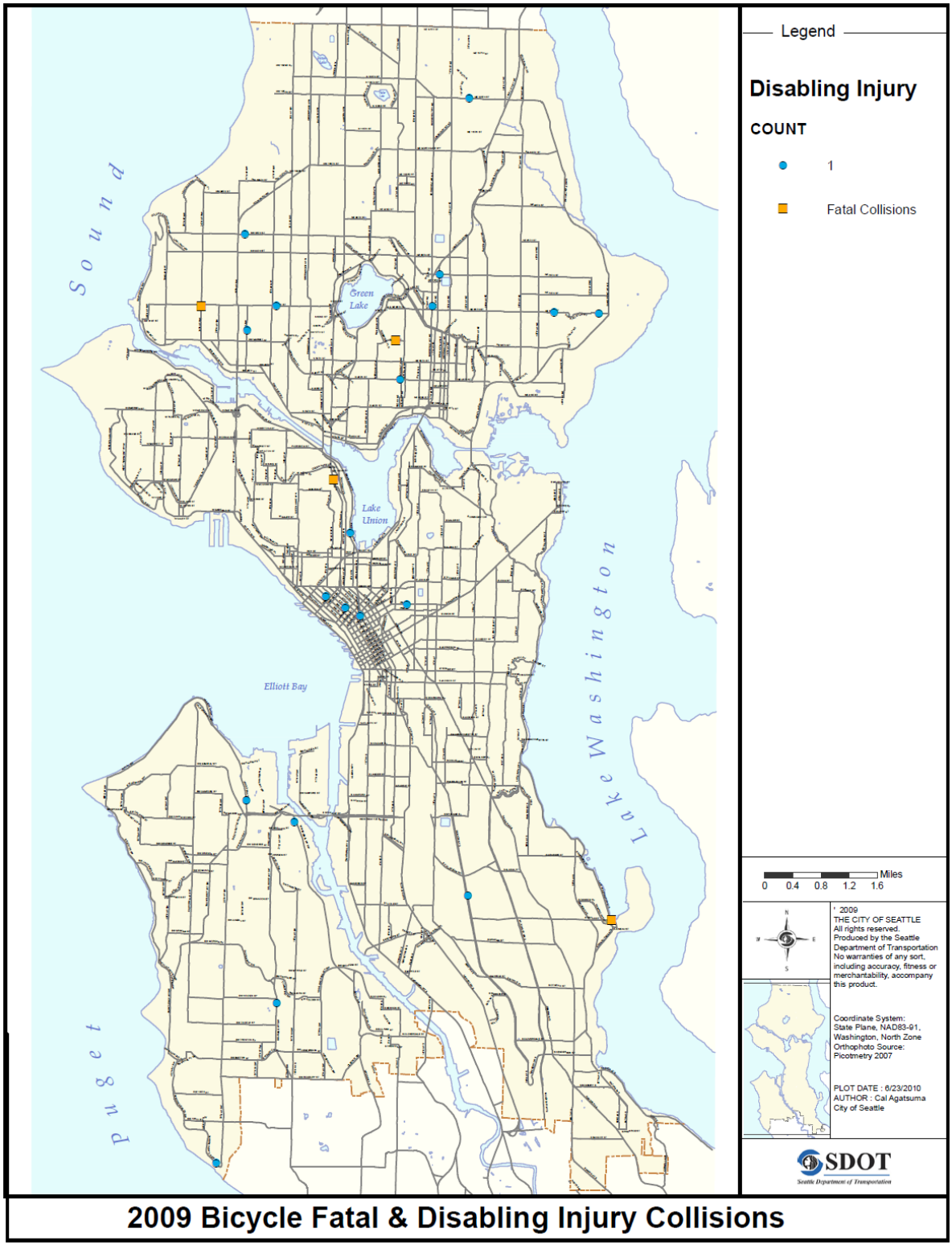


Map 4 – Bicycle Collisions

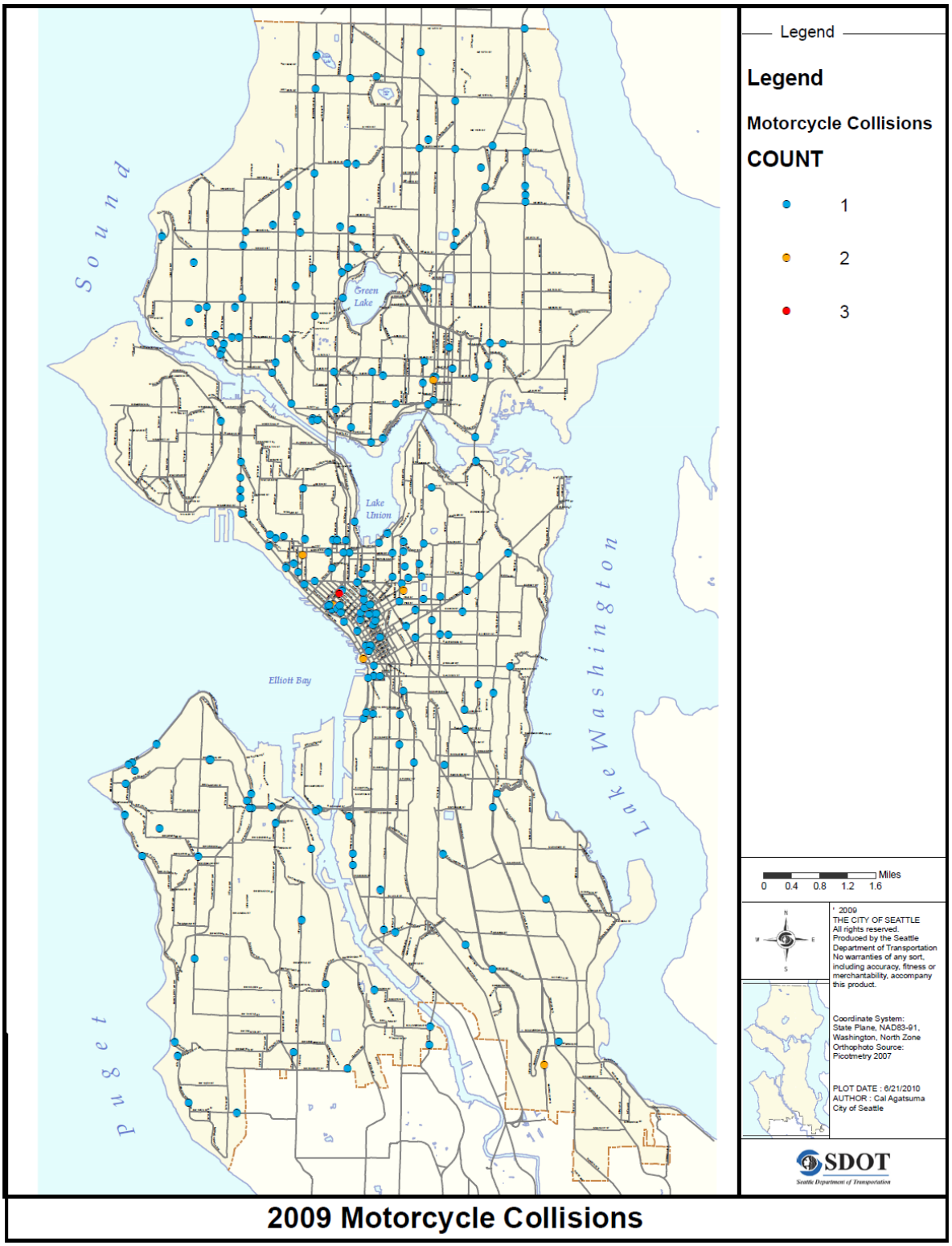


2009 Bicycle Collisions

Map 5 – Bicycle Fatal and Disabling Collisions



Map 6 – Motorcycle Collisions



2009 Motorcycle Collisions

Glossary

TRAFFIC VOLUME TERMS

Source – William R. McShane and Roger P. Roess, *Traffic Engineering* (Englewood Cliffs, New Jersey: Prentice Hall, 1990) 49.

ADT: Average Daily Traffic. An average 24-hour traffic volume at a given location for some period of time less than a year.

AWDT: Average Weekday Daily Traffic. An average 24-hour traffic volume occurring on weekdays for some period of time less than one year, such as for a month or a season.

AADT: Average Annual Daily Traffic. The average 24-hour traffic volume at a given location over a full 365-day year.

INJURY TYPES

Source – State of Washington Police Traffic Collision Report Instruction Manual and SDOT

No Injury: Applies when the officer at the scene has no reason to believe that, at the time of the collision, the person received any bodily harm due to the collision.

Possible Injury: Any injury reported to the officer or claimed by the individual such as momentary unconsciousness, claim of injuries not evident, limping, complaint of pain, nausea, hysteria, etc. These are counted as injuries when the total number of injuries is presented.

Evident (Non-Disabling) Injury: Any injury other than fatal or disabling at the scene, including broken fingers or toes, abrasions, etc.

Disabling Injury: This refers to any injury that results in at least a temporary impairment, e.g. a broken limb. It does not mean that the collision resulted in a permanent disability.

Fatality: This category includes persons who died at the scene of the collisions, were dead on arrival at the hospital, or died within 30 days of the collision from collision-related injuries.

ROADWAY CLASSIFICATION TYPES

Source – City of Seattle Comprehensive Plan, Section 3.4 and SDOT

Residential (Non-Arterial) Streets: Roadways that provide localized traffic circulation, including access to neighborhood land uses, commercial and industrial land uses, and access to higher level traffic streets.

Collector Arterials: Roadways that collect and distribute traffic from principal and minor arterials to local access streets or provide direct access to destinations.

Minor Arterials: Roadways that distribute traffic from principal arterials to collector arterials and access streets.

Principal Arterials: Roadways that are intended to serve as the primary routes for moving traffic through the city, connecting urban centers and urban villages to one another, or to the regional transportation network.