Seattle Department of Transportation

2018 TRAFFIC REPORT

*2017 data

Seattle
Department of
Transportation

CONTENTS

EXECUTIVE SUMMARY

This report presents an end of year review of the core data sets the Seattle Department of Transportation (SDOT) collects and maintains including volumes, speeds, and collisions. The use of this data, guided by department plans and policies, serves as the foundation for making informed decisions on nearly all work at SDOT from safety improvements to repaving to grant applications. It is fundamental to measuring project performance. The breadth and depth of the data collected allows objective discussion of project merits and results, be it a new crosswalk or an entire safety corridor. As the demands and complexity of Seattle's transportation network grow, the information supporting decisions about that network continues to expand and now includes significant data on pedestrians, bicycles, and trucks.

This report is 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 of Seattle streets. Beyond this legal requirement, the report strives to serve as an accessible reference of Seattle traffic data and trends for all.

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 traffic data and collisions on Seattle streets, readers may contact the City Traffic Engineer Dongho Chang at dongho.chang@seattle.gov or visit the SDOT webpage at www.seattle.gov/transportation/.

Linea Laird, Interim Director
Seattle Department of Transportation

Dongho Chang, P.E., City Traffic Engineer
Seattle Department of Transportation

MY OH MY

TRAFFIC VOLUMES AND SPEEDS

The Seattle Department of Transportation (SDOT) collects and maintains volume data for vehicles (including trucks), pedestrians, and bicycles. Engineers and planners use volume data to select future project locations, support grant applications, and track the performance of traffic projects once they are installed.

SDOT collects vehicle speed data in addition to volume data. Speed data is particularly useful for making traffic safety decisions such as those connected with traffic calming, Safe Routes to School, Seattle's Vision Zero Plan and crossing improvements.

Speed data can also be reprocessed into vehicle classification data that categorizes vehicles in up to 13 different groups, including motorcycles, cars, and numerous types of trucks. Such data gives planners and engineers a better understanding of the movement of goods within the city.

Traffic volumes, speeds, and reported collisions are the three cardinal pieces of data traffic engineers and planners use to evaluate changes to Seattle streets.
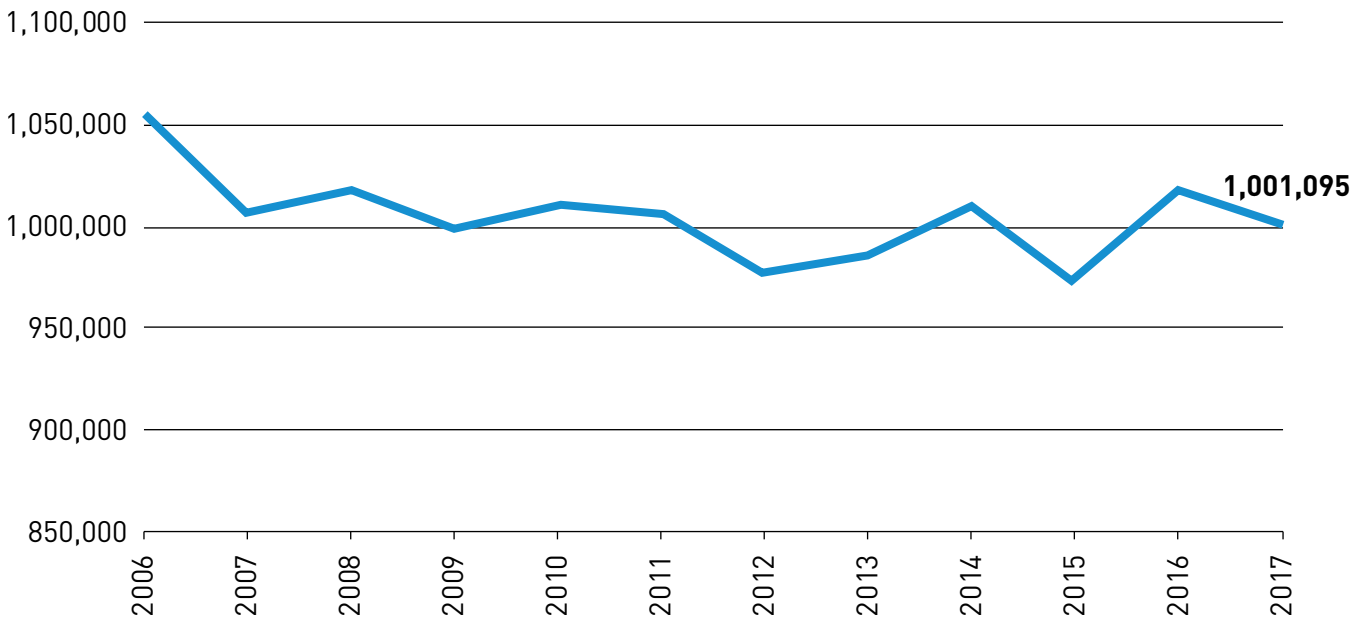
MOTOR VEHICLE VOLUMES

SDOT is responsible for counting the volume of traffic on certain city arterial streets each year. Traffic counts are taken throughout the year at 20 control count locations, 164 screen line locations and 111 additional locations.

At 20 locations, SDOT conducts control counts every month. These counts are used to create a monthly control factor. This factor can be applied to every count we take to adjust for seasonal changes in traffic. In addition, 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. We also measure vehicle volume at 111 additional locations each year. The locations of control, screen line, and other regular counts are shown on maps in the appendix. 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 19 of Seattle's bridges (including I-90, SR 520, and 1st Ave S), SDOT derives a proxy number for citywide motor vehicle average daily traffic (ADT). Traffic volumes decreased by 1.8% from 2016 to 2017. The following graph of Seattle's ADT shows overall trend since 2006. Population, employment, and transit ridership trends are also shown in graphs, along with commute mode share for context.

AVERAGE DAILY TRAFFIC IN SEATTLE

1,001,095

SEATTLE POPULATION

713,700

750,000											
700,000											
650,000											
600,000											
550,000											
500,000											
2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017

TRANSIT RIDERSHIP

170,580,780

180,000,000											
170,000,000											
160,000,000											
150,000,000											
140,000,000											
130,000,000											
120,000,000											
110,000,000											
100,000,000											
2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
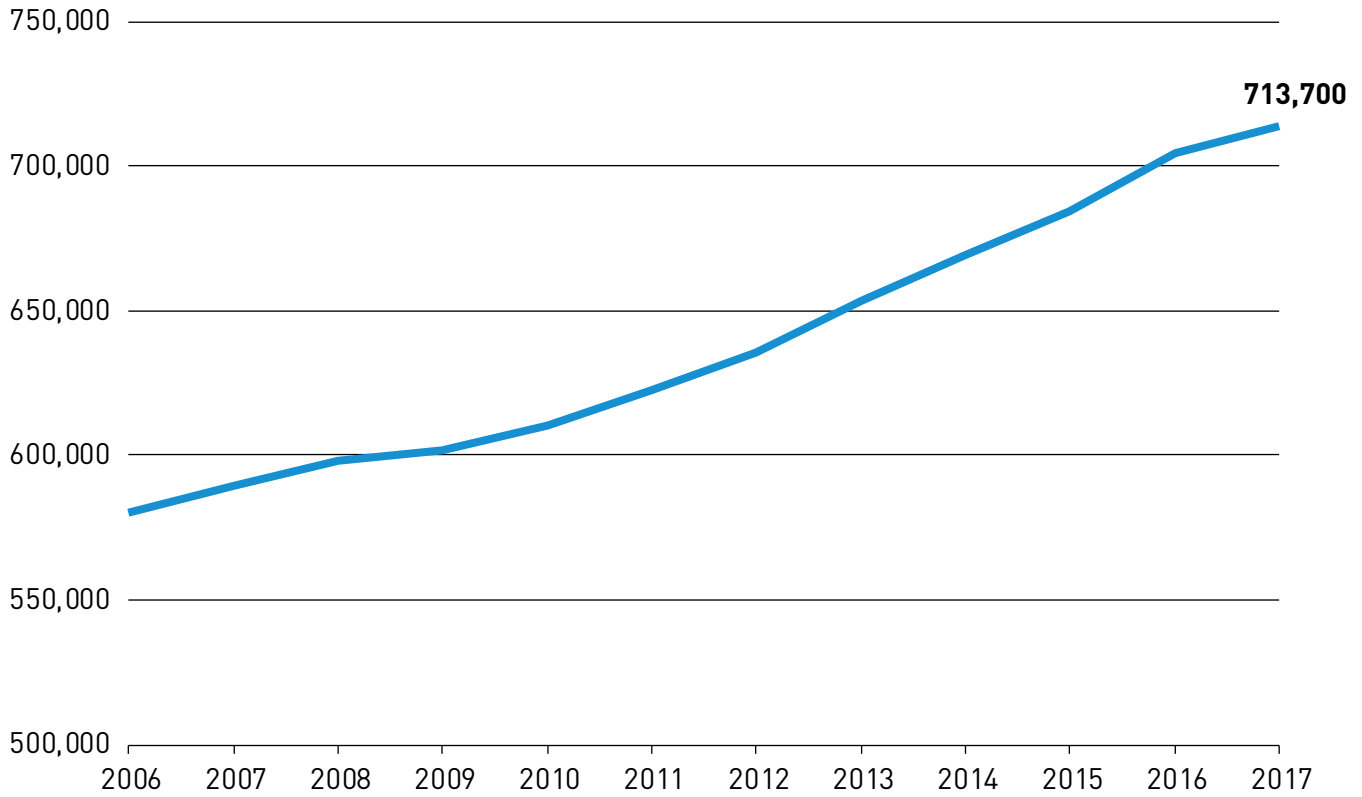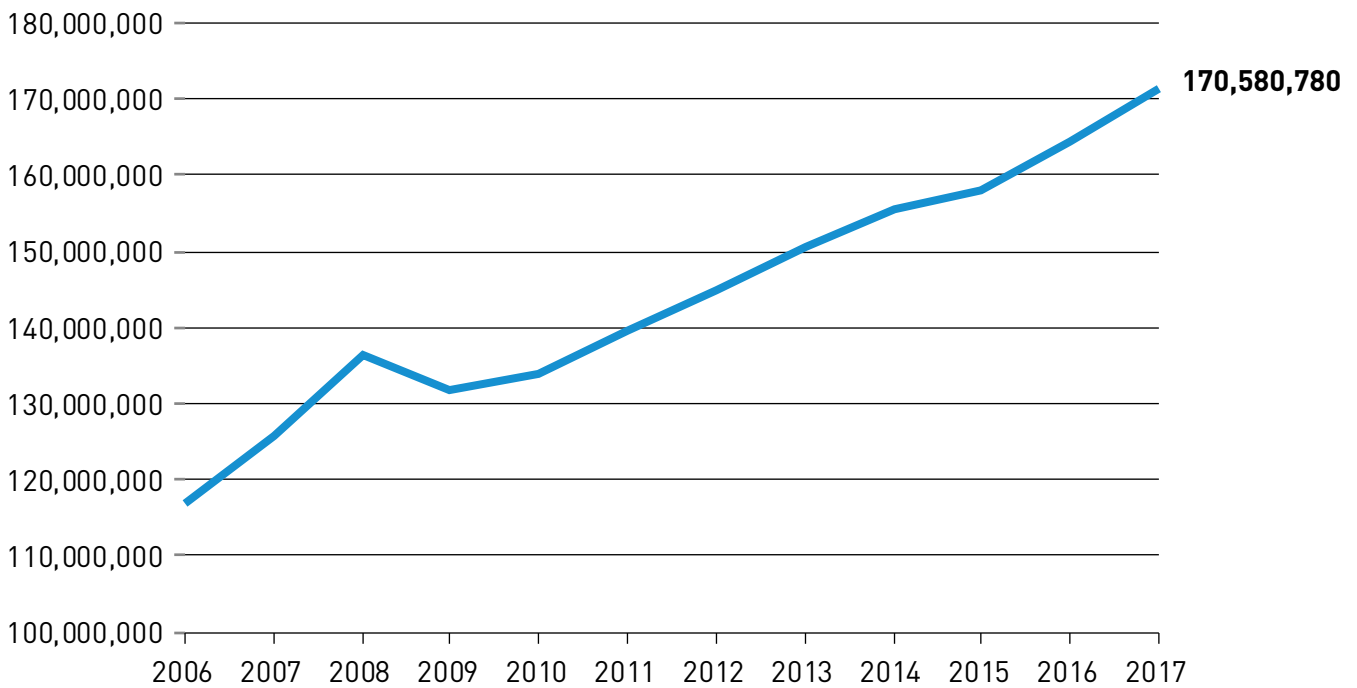
AVERAGE ANNUAL EMPLOYMENT - SEATTLE, TACOMA, BELLEVUE

1,985,968

2,100,000	
2,000,000	
1,900,000	
1,800,000	
1,700,000	
1,600,000	
1,500,000	

2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017
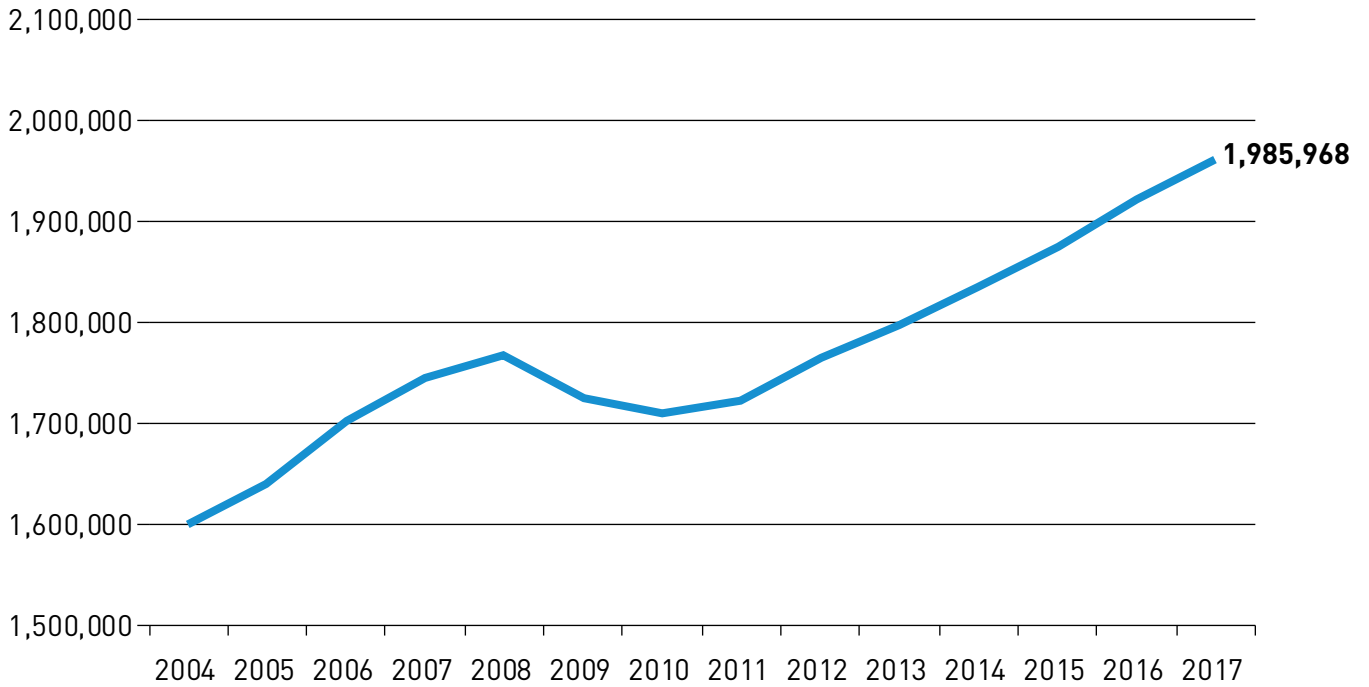
2017 SEATTLE COMMUTE MODE SHARE*

1%
3%
11%
25%
51%
9%

- Drove Alone
- Carpool
- Transit
- Walked
- Biked
- Other
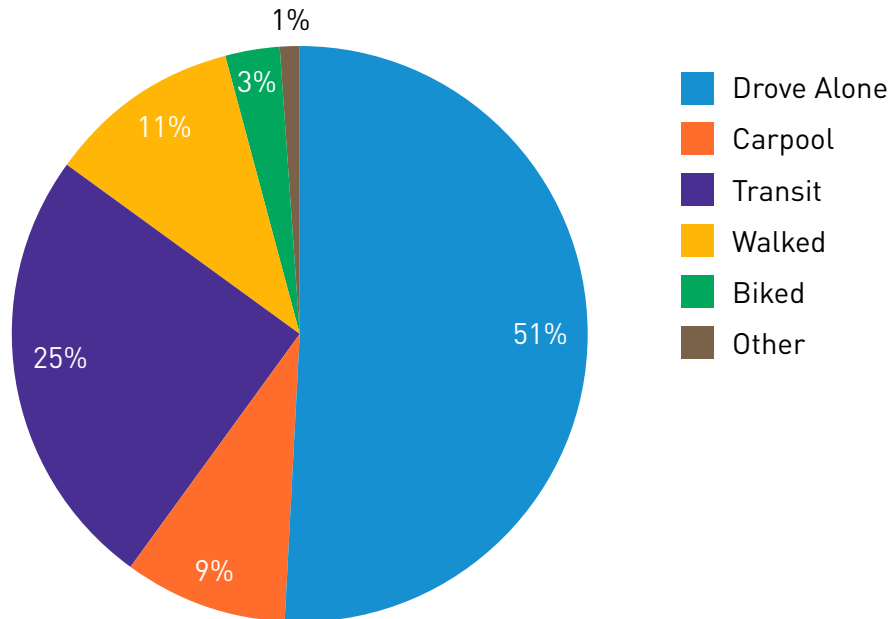
*2017 American Community Survey

TRAFFIC FLOW MAP

The 2017 Traffic Flow Map is one of the products of the volume counts program. The volumes on the map represent the Average Annual Weekday Traffic (AAWDT) (5-days, 24-hour) for that section of roadway. A full-size version of this map is available on SDOT's website at:

www.seattle.gov/transportation/document-library/reports-and-studies

In 2017 the top ten arterials for traffic volume include four streets that were not on the list in 2016: Aurora Bridge, Mercer St east of Boren Ave N, N 130th St east of Ashworth Ave N, Lake City Way NE south of NE 95th St, Fremont Bridge and Aurora Ave N north of N 68th St. The West Seattle Bridge east of the Delridge ramps continues to be the busiest city street, as measured by SDOT.

Top 10 Arterials by Volume	Average Week Day Traffic (AWDT)
West Seattle Bridge (EB&WB), west of Alaska Way Viaduct	100,642
East Marginal Way S, south of S Alaska St	70,352
Montlake Bridge	66,361
Aurora Bridge	61,998
Mercer St, east of Boren Ave N	60,926
Ballard Bridge	59,123
N 130th St, east of Ashworth Ave N	42,968
Lake City Way NE, south of NE 95th St	42,194
Fremont Bridge, north of Point A	41,716
Aurora Ave N, north of N 68th St	40,714

2017 Seattle Traffic Flow Map

Average Annual Weekday Traffic

1,000 2,500 5,000 7,500 10,000 25,000 50,000 75,000 100,000

Measured Value Estimated Value

Annual Daily Traffic from WSDOT
Scaled the same are purple lines

Miles
0   0.15   0.3   0.45   0.6
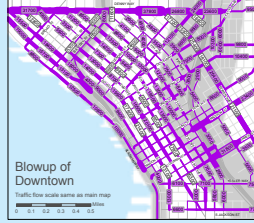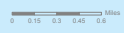
Blowup of
Downtown
Traffic flow scale same as main map

Miles
0   0.1   0.2   0.3   0.4   0.5

Coordinate System: State Plane, NAD83-91
Washington, North Zone
PLOT DATE: 6/14/2018
AUTHOR: C Kwan
H:\My Documents\2\ArcGIS\2018_05\TrafficFlowMap 2017.mpk

BICYCLE VOLUMES

2017 Census data indicate 2.8% of Seattle residents are using bicycles as their primary commute mode, down from 3.5% in 2016. Bicycle ridership is influenced by weather and the historic wet weather that lasted through April may have influenced ridership. Seattle residents may utilize bicycle on a portion of their commute trip as more travel options are readily available. Seattle's bike share survey revealed that 33% of people are regularly using bike share to connect to public transit while 75% indicated that they have at some point used bike share to access transit.

In 2017, SDOT collected bicycle volume data with three different programs: automated permanent bicycle counters at 10 locations, 83 multiday short counts, and regular spot counts at 50 intersections.

Automated Bicycle Counters

In October 2012, the Fremont bridge totem was installed to count bikes crossing the bridge on both walkways of the bridge. These counts show both hourly and daily patterns for bike volume and allow the effects of weather and other factors to be evaluated. The total bike volume for 2017 was just under a million at 963,135 which represents a 2% reduction in bike volume from 2016. 2017 experienced 108 days of rain and 11 days of snow in the first six months of the year, which may have affected ridership.

FREMONT BRIDGE BIKE COUNTS
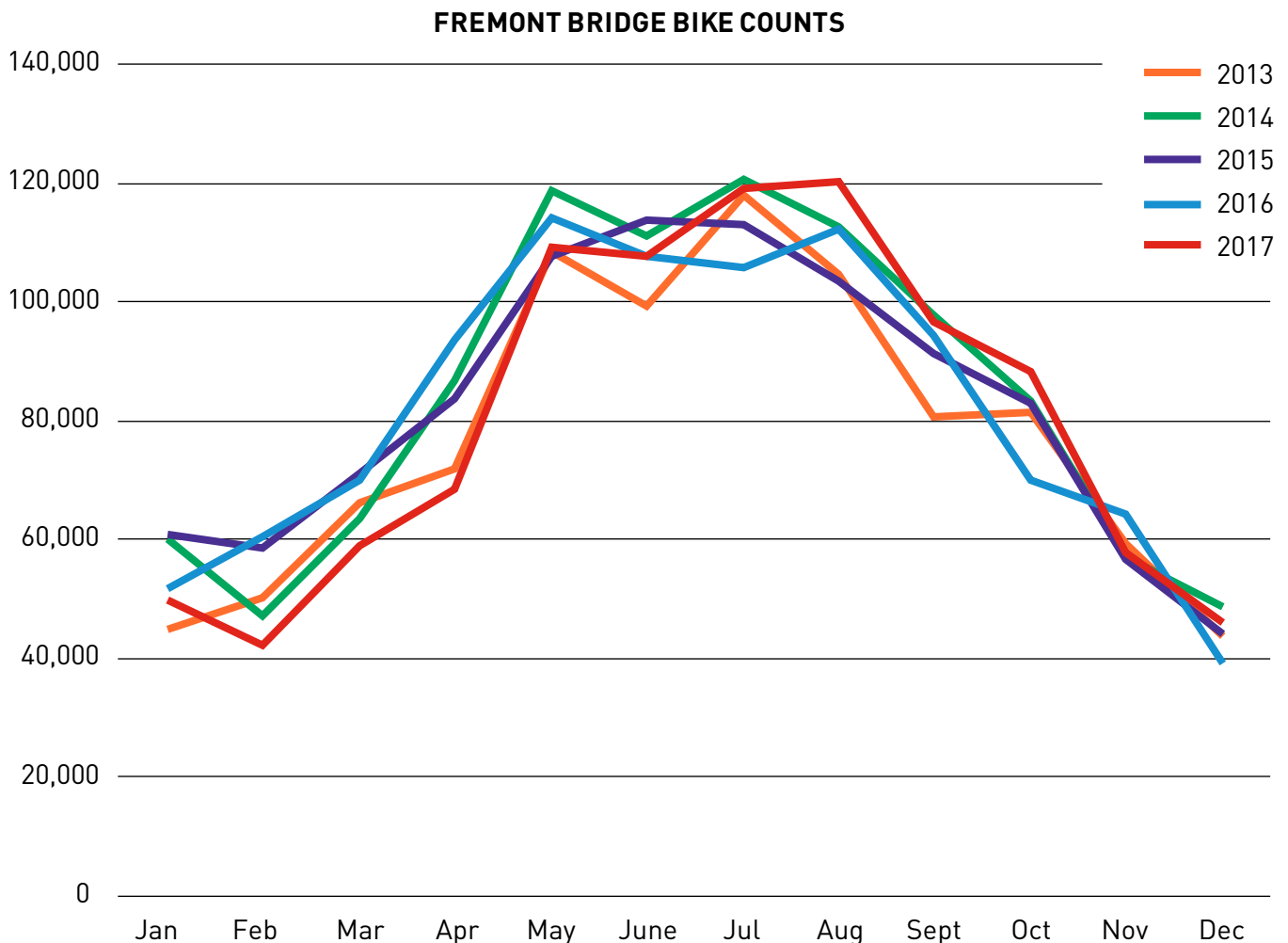
Fremont Bridge Totem 2017 Bike Counts	
Total	963,135
Peak Day	Tue, 23 May, 2017 (5,478)
Minimum Day	Mon, 25 Dec, 2017 (48)
Max Day of the Week	Wednesday
Hourly Average	110
Daily Average	2,639
Average Workday Traffic	3,138
Average Weekend Traffic	1,403
Weekly Average	18,471
Monthly Average	80,316

2017 marks the fifth continuous year of full counts from ten permanent bike counters that were installed at the end of 2013 on multi-use trails and neighborhood greenways. These counters capture bike volume by direction; additionally, three locations capture pedestrian volume. These counts give a better illustration of daily bike ridership throughout the city.

Permanent counters that have reliable data for current and past year will be used to track bicycle ridership trends. A map with all the permanent bike counter locations can be found in the appendices as well as the overall numbers from each counter. Eight continuous counters were used to create day of year factors for 2017. The short counts were then factored up into yearly bike volume estimates based on these factors. Using daily factors provides for the estimates to be within 15% of the actual values when we have at least six days of data (as per NCHRP report 797).

6 of the 8 continuous counters combined to have less than a dozen missing days of data. Missing days were replaced by taking the average of the three same days before and after the missing day, as recommended by NCHRP report 797. For example, if a Monday is missing the three Mondays before and after that day are averaged and used to replace the missing data. The Broadway Cycle Track and 39th Ave Greenway both had too much missing data to average over the issue so the data was replaced with a regression equation that used the day of year, Fremont bridge counts, and Spokane St bridge counts to estimate the replacement data.

Site	2016 Annual Count	2017 Annual Count
26th Ave SW Greenway at SW Oregon St Total	29,469	34,419
2nd Avenue Display	247,708	236,762
BGT North of NE 70th St	405,393	374,871
Broadway Cycle Track	114,399	106,515
Elliott Bay Trl in Myrtle Edwards Park	411,192	396,574
Fremont Bridge Totem	982,470	963,135
MTS Trl West of I-90 Bridge	231,177	234,122
Spokane St. Bridge Total	297,474	275,536

Multiday Short Counts

In 2017 we conducted 83 machine short counts in different parts of the city in addition to the spot counts. These counts are a better indication of bike ridership since they capture at least one week of data instead of the 2-hour window of the spot counts. Some of these counts support the Bicycle Master Plan's ridership performance measure and will be counted on annual basis.

Using data from our permanent counters we created daily volume factors that allowed us to extrapolate our short counts into annual volume estimates for each short count location (as per NCHRP report 797). This data, along with that from our permanent counters, is mapped on the next page as annual average daily bicycle volume. Because of the high seasonal variation in bike volumes, the daily summer volume is often three times the annual average daily volume. Similarly, the daily volume in the winter is lower.

2017 AVERAGE DAILY BIKE VOLUMES

Annual Average Daily Bike Volume

- 1,000
- 500
- 100
- 50
- 10

—— Trails for Bikes
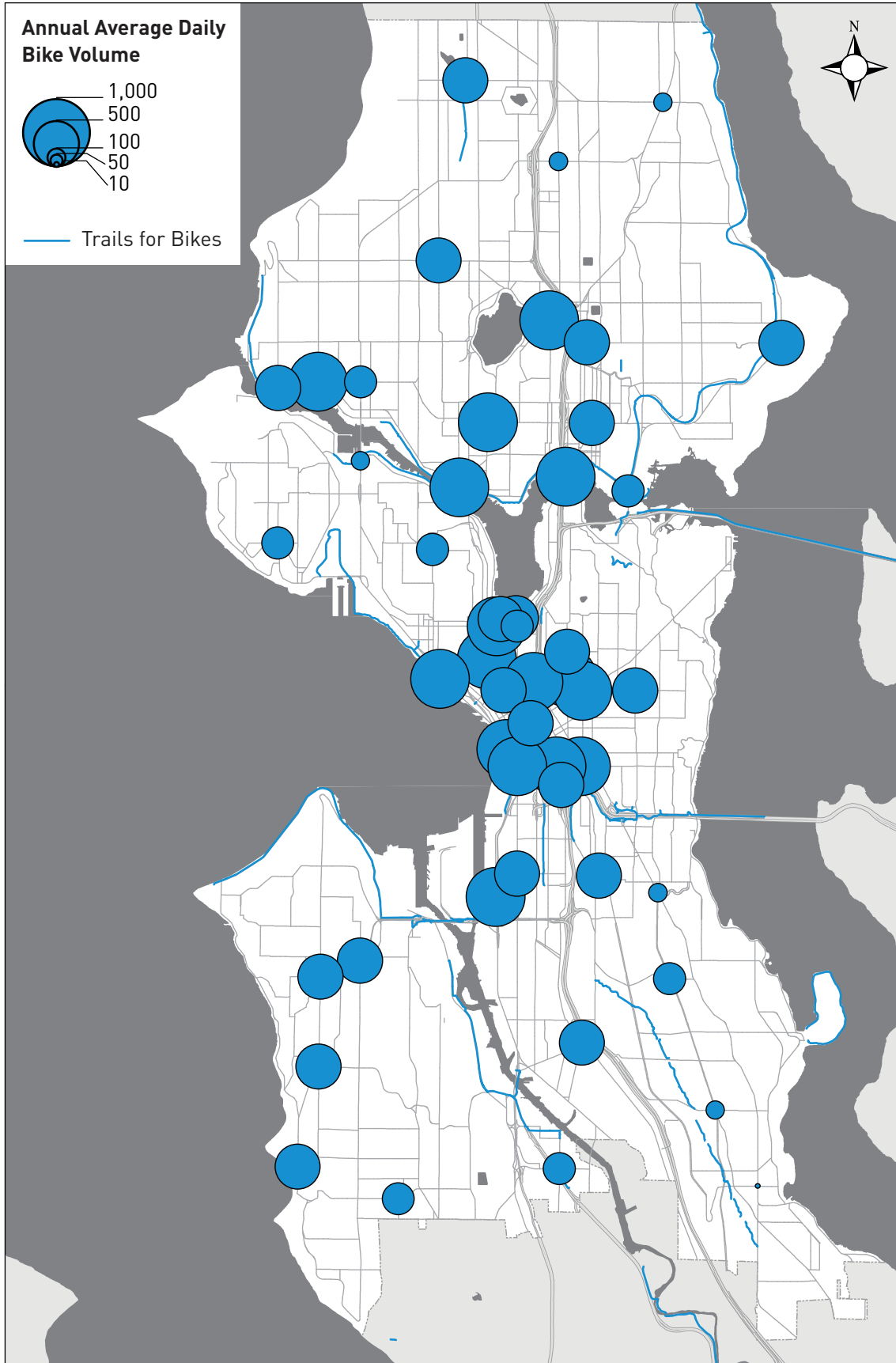
Spot Bike Counts

In 2011 SDOT began a systematic bicycle counts program that uses National Bicycle and Pedestrian Documentation (NBPD) methodology to count bicycles and pedestrians at 50 locations citywide multiple times a year. In 2017 these counts were conducted in January, May, and September. Each month counts are collected for PM peak (5-7 PM), off peak (10 AM-noon), and Saturday (noon-2 PM) time periods at each location. In 2014 we removed the July counts since the days these were conducted landed on the week of July 4th. We observed that these counts don't correctly show true ridership numbers.

In 2017, the quarterly citywide program counted 22,001 cyclists for the months of January, May and September. The overall number of cyclists counted increased by 4,808 at these valid count locations. We also conduct short counts in different locations and have permanent counters. These counts provide a better assessment on daily ridership due to longer periods of counts. From the NBPD count analysis Fremont Ave N and N 34th St showed the most overall ridership with 2,917 total riders.

NBPD BIKE COUNT ANNUAL TREND
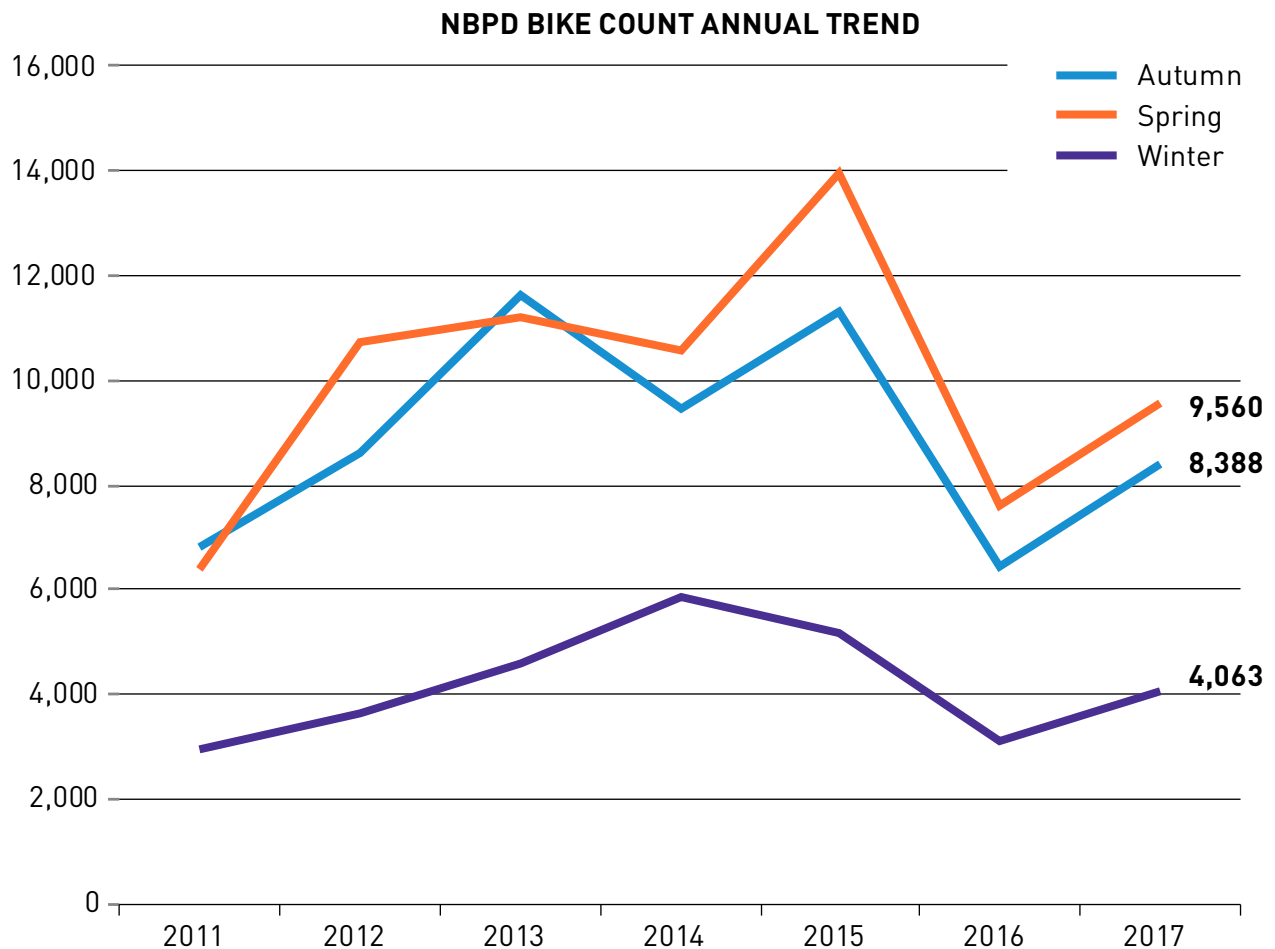
PEDESTRIAN VOLUMES

Beginning in 2011, SDOT began collecting quarterly citywide counts using the National Bike and Pedestrian Documentation(NBPD) methodology. Pedestrian volume is also being recorded at the newly installed permanent multi-use trail counter locations. The map if these locations can be found in the appendices.

Quarterly Citywide Pedestrian Counts

In 2011, SDOT started using the National Bicycle and Pedestrian Documentation project methodology for counting bicycles and pedestrians. These spot counts provide consistent, annual pedestrian volumes that we can track over time. Each count is conducted at an intersection and records the number of pedestrians crossing each leg of the intersection. Since these counts are collected in conjunction with the quarterly bicycle counts, they share the January, May, and September count dates as well as the PM Peak (5-7pm), off peak (10am-noon) and Saturday (noon-2pm) time periods.

NBPD PEDESTRIAN COUNT ANNUAL TREND

Legend:
- Autumn
- Spring
- Winter

109,481
105,517
93,681
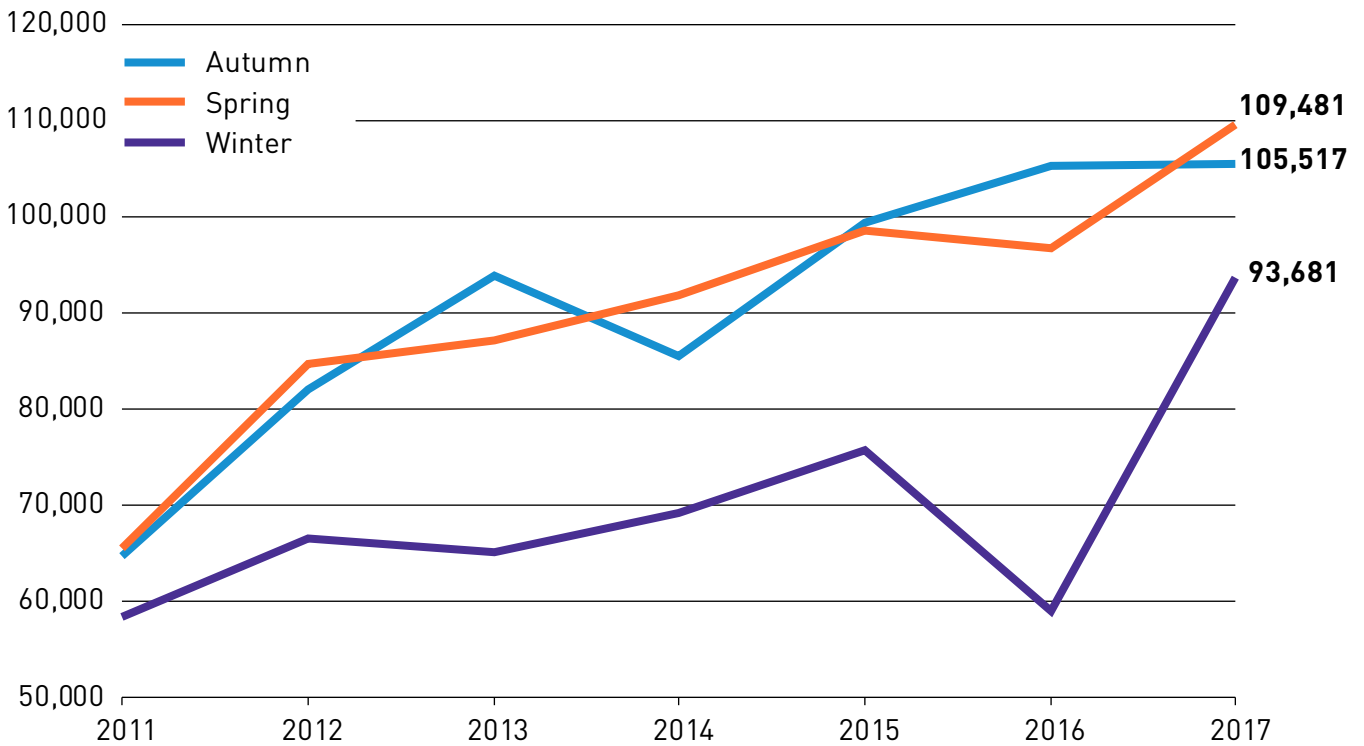
The ongoing program expands SDOT's pedestrian data beyond the city center; it also provides insight into seasonal and daily pedestrian patterns. A chart of the trends in this data is presented. In general, volumes have consistently increased for each season year over year.

The total number of pedestrians counted in 2017 by the program was 308,679. The busiest pedestrian location counted in 2017 was again Broadway and East Olive Street with 28,899 total pedestrians counted, this location also had the most pedestrians counted previous years. The following map shows the total pedestrian volumes for each location counted in 2017. Details of the 2017 counts by location are available on the web at http://data.seattle.gov.
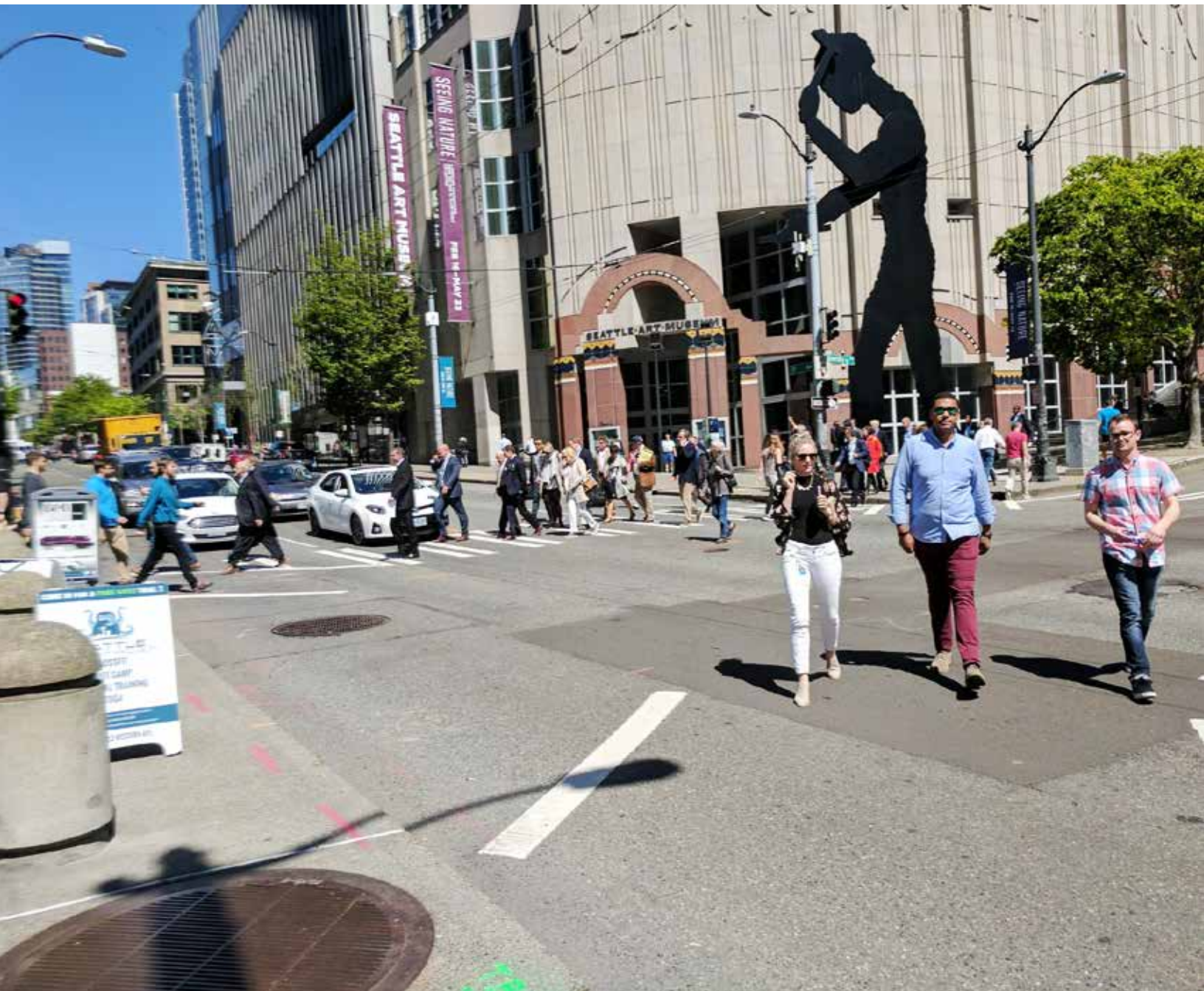
AVERAGE VOLUMES FOR 2017 PEDESTRIAN COUNTS

**Average Pedestrian Volume
2017 NBPD Counts**

Symbols Proportional to Volume
Representative Scale Below

N

·	1100
○	2100
○	3800
○	6100
○	9000
○	13700
○	28900
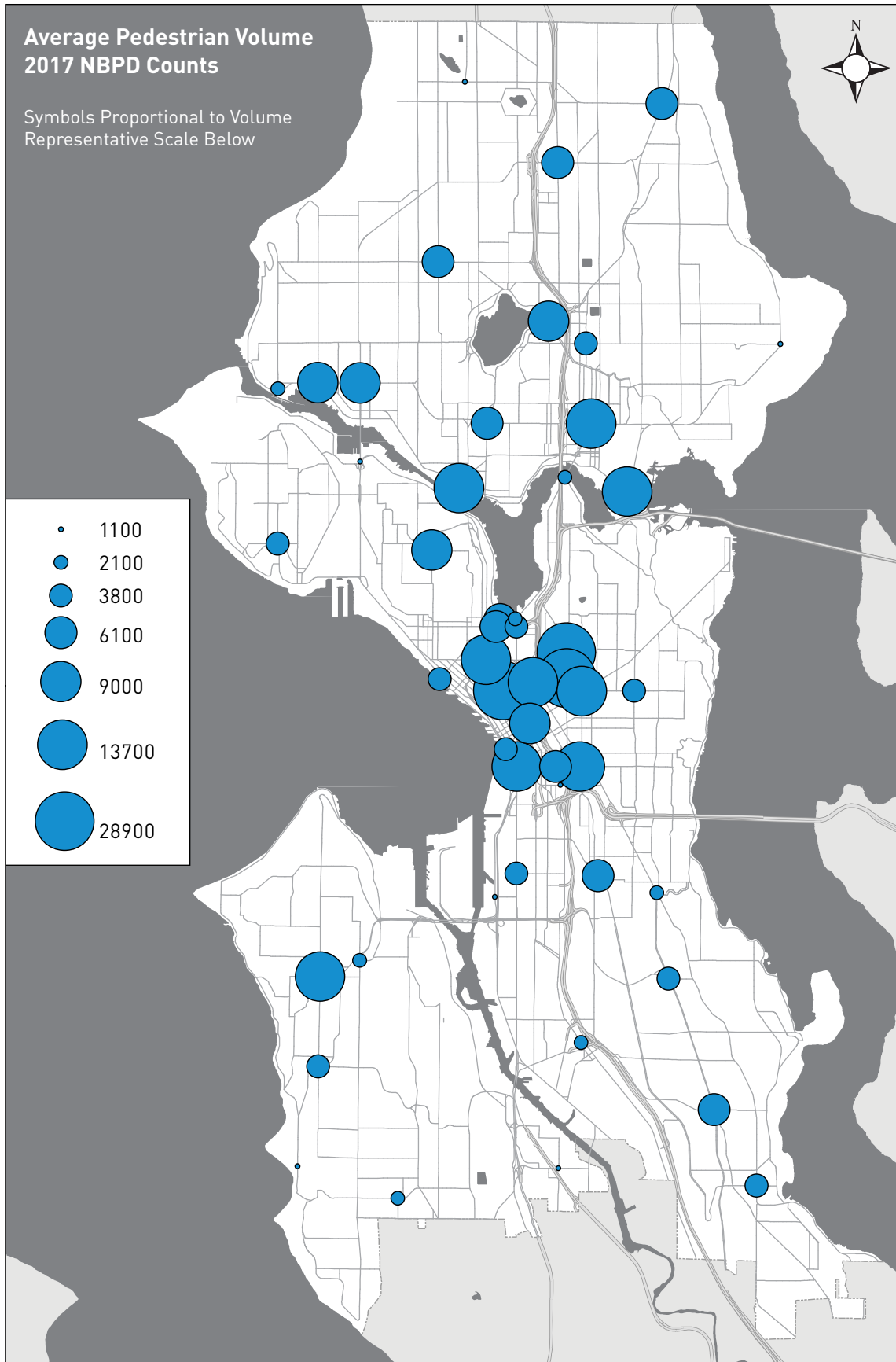
MOTOR VEHICLE SPEEDS

Starting in 2010, SDOT began collecting speed data at consistent locations each year, in addition to the ad-hoc locations that serve site-specific traffic evaluation needs. SDOT also collects vehicle speeds for purposes of traffic safety investigations, prospective project selection and design, and for evaluation of completed projects.

Engineers gauge speed several different ways, including the 85th percentile speed of traffic and high-end speeder percentage. The 85th percentile measure is the most commonly used and represents the speed at or below which 85

percent of traffic travels. The high-end speeder percentage is the percentage of drivers who exceed the posted speed limit by 10 miles per hour or more.

Aurora Ave N, Stone Way N, Fauntleroy Avenue SW, 24th Avenue NW, and Rainier Avenue S are all specified in the Pedestrian Master Plan as locations to report on trends in the 85th percentile speed of traffic. The 2017 results for these locations are listed in the table below. For more results of the speed studies program, see the Supporting Data section.

Location	Direction	85th Percentile Speed	High End Speeder Percentage	Speed Limit
Aurora Ave N, S/O N 112th St	SB	42.1	5.1%	35
Aurora Ave N, S/O N 112th St	NB	41.9	4.9%	35
Stone Way N, S/O N 45th St	SB	25.2	0.0%	30
Stone Way N, S/O N 45th St	NB	23.3	0.0%	30
24th Ave NW, S/O NW 80th St	NB	31.4	0.5%	30
25th Ave NW, S/O NW 80th St	SEB	30.8	0.4%	30
Rainier Ave S, SE/O S Warsaw St	NWB	38.9	11.0%	30
Rainier Ave S, SE/O S Warsaw St	SE	36.9	6.2%	30
Fauntleroy Way SW, S/O SW Hudson St	SB	23.0	0.0%	30
Fauntleroy Way SW, S/O SW Hudson St	NB	22.6	0.0%	30

Pike St

NO TURN ON RED

LEFT TURN ONLY

BICYCLE SIGNAL

TRAFFIC COLLISIONS

While most collisions result from human error or inattention, collision data can be used to help gauge the effectiveness of engineering and enforcement efforts. Collision data helps identify locations that may benefit from additional engineering treatments or enhanced enforcement efforts.

There were 10,959 police reported collisions on Seattle streets in 2017. In addition, there were 1,516 self-reported collisions, which are not included in our analysis due to reliability and completeness factors. The number of Seattle collisions increased slightly since 2013 and remains near historically low levels. The trend for all types of reports is listed on the Supporting Data section.

There were 10,959 collisions in 2017 on Seattle streets reported by police.

POLICE REPORTED COLLISIONS ON SEATTLE STREETS
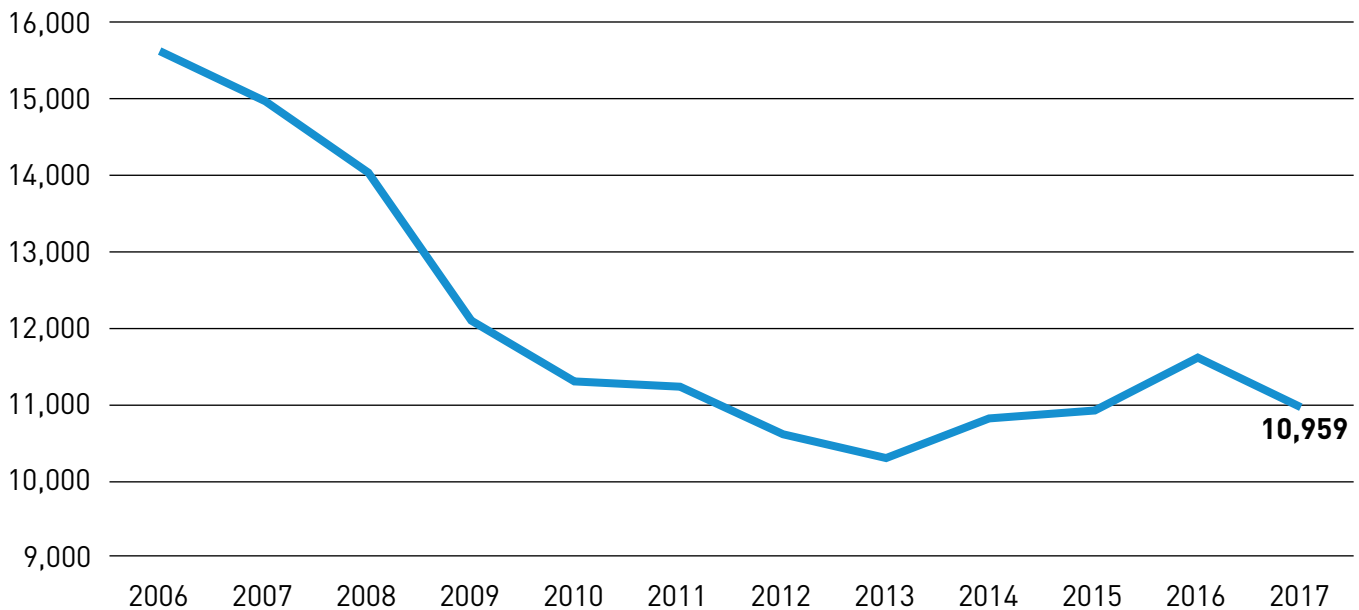
CITYWIDE COLLISION RATE

The collision rate decreased by 1.8% from 2016 to 2017.

The rate that SDOT uses is the number of police reported collisions per Average Annual Daily Trips (AADT). The AADT used is a citywide approximation of arterial traffic volumes and in this case, it has been adjusted to exclude volumes on I-5, I-90 and SR-520 because our collision data do not include collisions on these roadways. The 16th Ave S Bridge counts have been included into the ADT. The count for 2014 has been added to the years 2011, 2012 and 2013 since the counts were not done that year due to closure for construction.

Year	Police Reported Collisions	Average Daily Traffic	AADT	Citywide Collision Rate
2006	15,625	555,997	202,938,905	77.0
2007	14,971	523,342	191,019,830	78.4
2008	14,037	531,930	194,154,450	72.3
2009	12,101	525,758	191,901,732	63.1
2010	11,288	541,170	197,527,114	57.1
2011	11,240	529,988	193,445,620	58.1
2012	10,614	524,732	191,527,180	55.4
2013	10,310	528,174	192,783,510	53.5
2014	10,815	549,655	200,624,075	53.9
2015	10,930	539,600	196,954,000	55.5
2016	11,603	539,106	196,773,690	59.0
2017	10,959	518,187	189,138,255	57.9

CITYWIDE COLLISION RATE
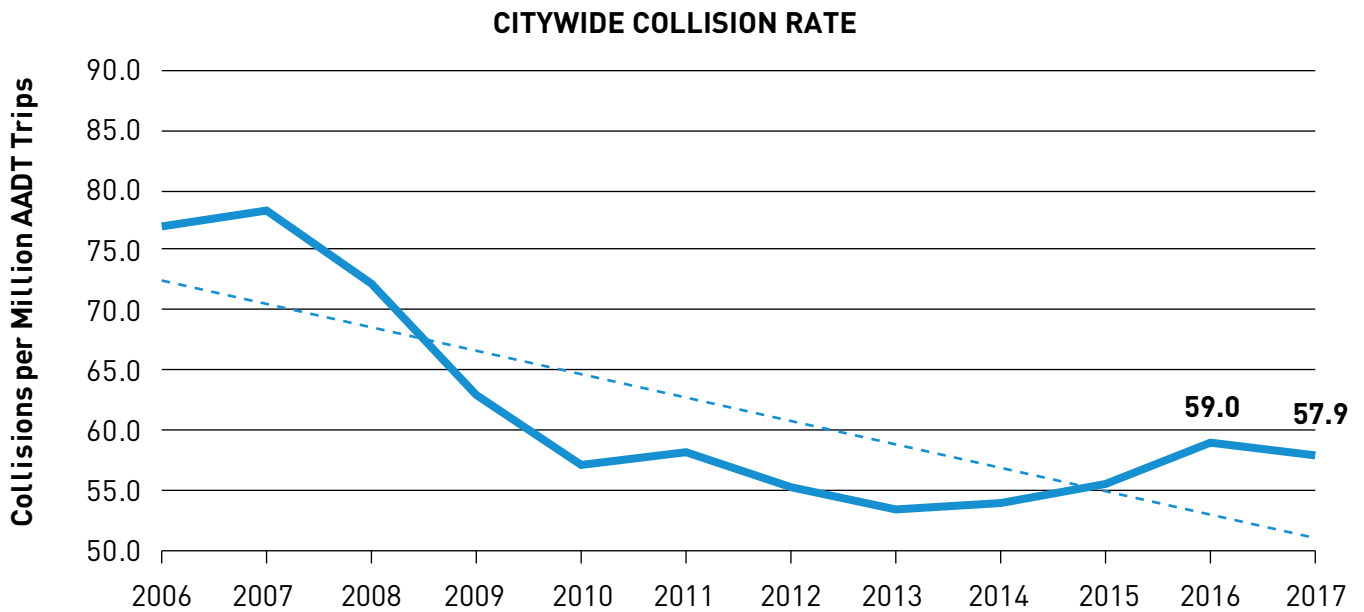
FATAL AND SERIOUS INJURY COLLISIONS

This chart below shows the trend of fatal and serious injury collisions on Seattle streets since 2006. The City of Seattle is committed to Vision Zero - our goal of ending traffic deaths and serious injuries on city streets by 2030. In 2017 there were a total of 187 fatal and serious injury collisions.

In 2017, there were 19 fatalities on Seattle streets. These numbers do not include incidents on limited access State Highways and Interstates, but do include incidents on the Alaskan Way Viaduct. Details of each fatality and tables of historical trends can be found in the appendices.

FATAL/SERIOUS INJURY COLLISION TREND

TRAFFIC FATALITIES ON SEATTLE STREETS
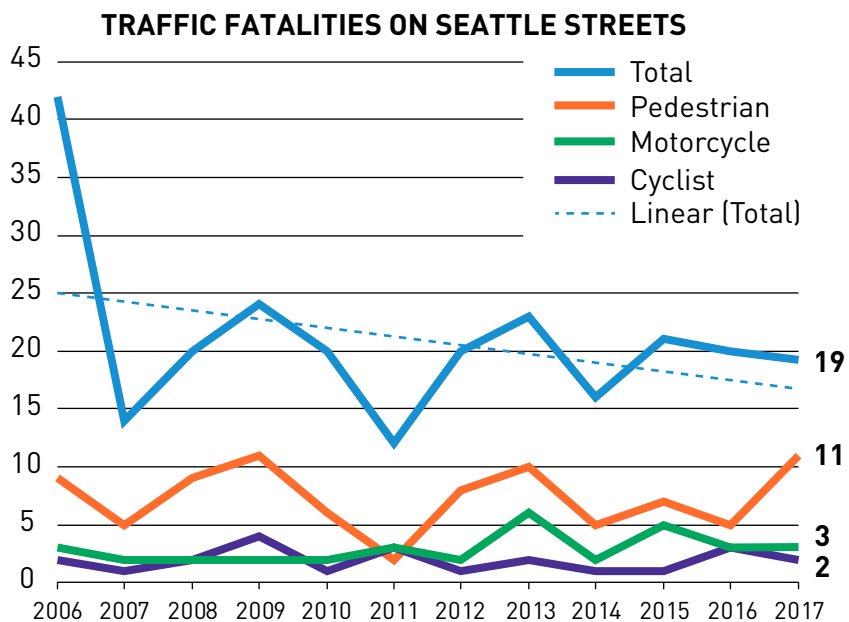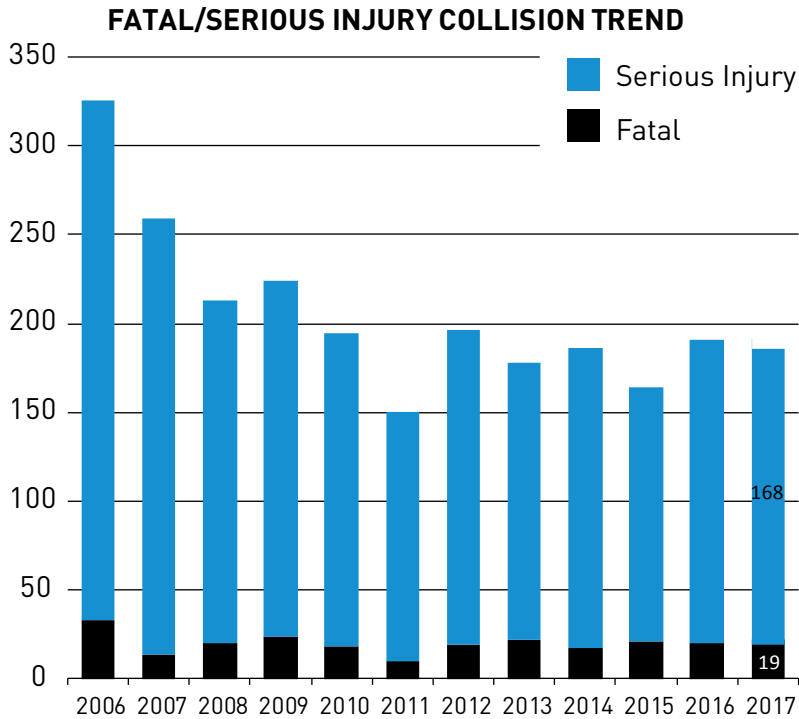
2017 SERIOUS AND FATAL COLLISION LOCATIONS ON SEATTLE STREETS

Legend:
- Pedestrian Fatality
- Bicycle Fatality
- Motorcycle Fatality
- Vehicle Fatality
- Serious Injury Collision

Numbers indicate multiple fatalities
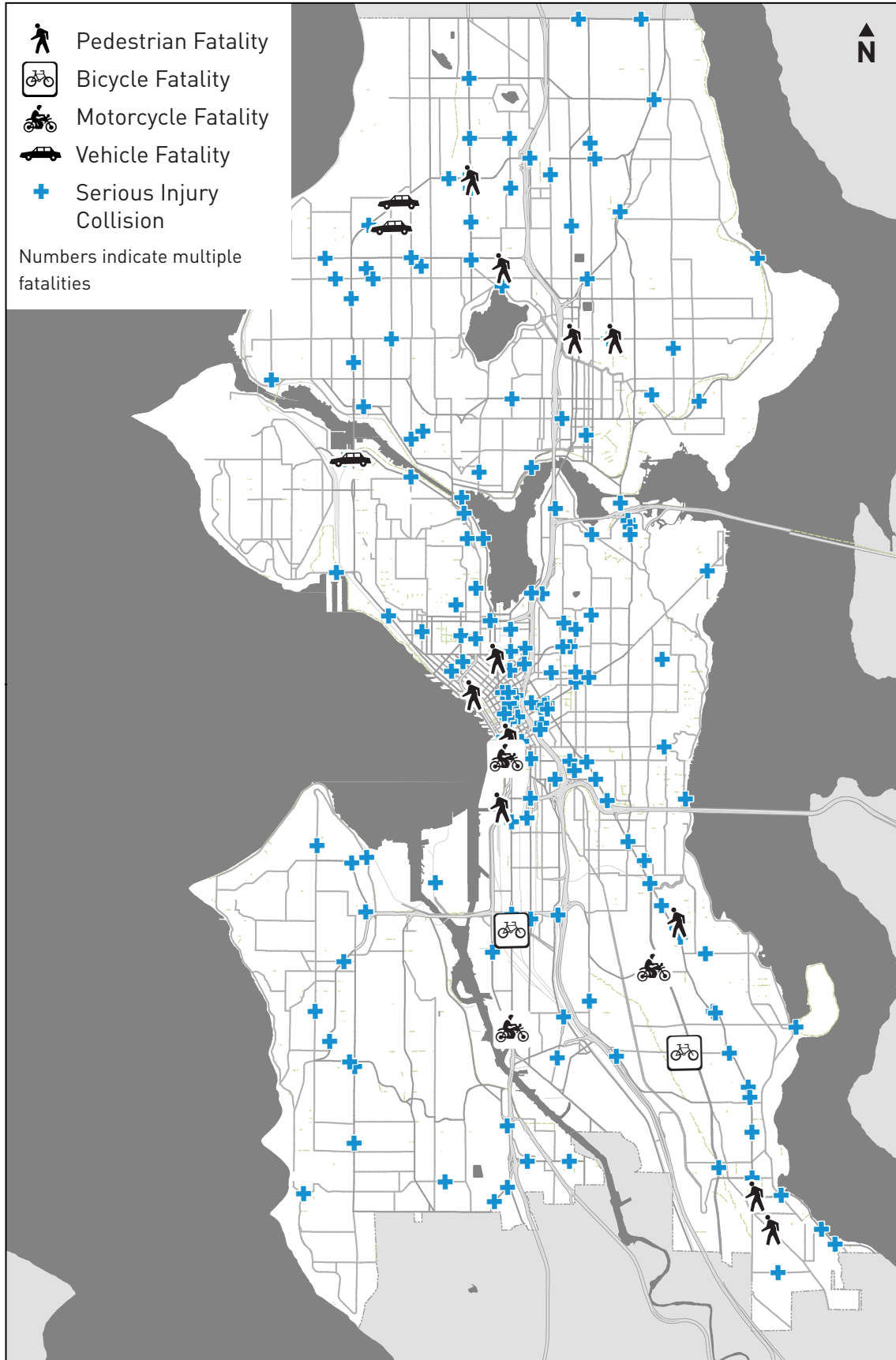
PEDESTRIAN COLLISION RATE

The 2009 Pedestrian Master Plan defined a decreasing trend in the rate of collisions involving pedestrians as a safety goal. SDOT continues to measure its pedestrian collision rate as the number of pedestrian collision divided by the population of the City of Seattle.

The pedestrian collisions per 100,000 inhabitants decreased by 3.8% from 2016 to 2017. The total number of pedestrian serious injury and fatality collisions increased by 11.6% from 66 in 2016 to 73 in 2017.

PEDESTRIAN-INVOLVED COLLISION RATE PER 100,000 RESIDENTS

Collision Rate
Linear (Collision Rate)

75

PEDESTRIAN COLLISIONS AND INJURIES

Serious Injury Collisions
Fatal Collisions
Linear (Serious Injury Collisions)

62

11

2017 PEDESTRIAN COLLISIONS ON SEATTLE STREETS

Pedestrian Collisions
- 1
- 2
- 3
- 4
- 6

N
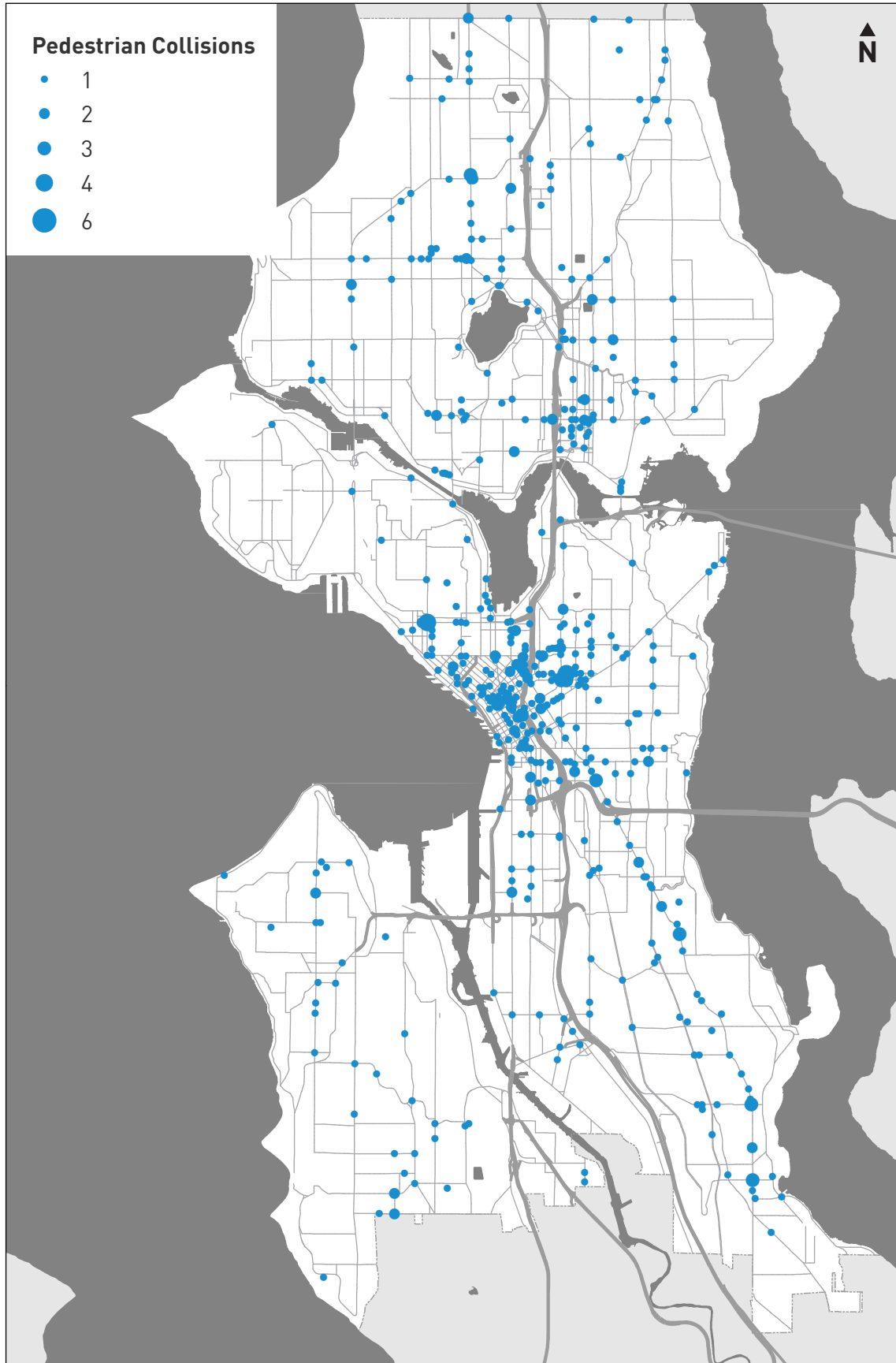
BICYCLE COLLISION RATE

The chart below shows the bicycle collision rate as a factor of the number of bicycle commuters as reported by the U.S. Census Bureau's Amercian Community Survey (ACS). Currently, the ACS number is the best proxy SDOT has for the total number of cycling trips in the City of Seattle. The bicycle collision rate shows a decreasing trend since 2006 when Seattle's Bicycle Master Plan was implemented.

Year	Bicycle Collisions	Seattle Population	Bicycle Commuters (ACS)	Bicycle-Involved Collisions Per Capita	Bike Collision Rate
2005	293	573,296	6,963	0.00051108	42
2006	365	580,485	7,330	0.000628785	50
2007	356	589,304	7,336	0.000604102	49
2008	365	598,541	9,953	0.000609816	37
2009	383	602,000	10,593	0.000636213	36
2010	364	610,383	12,306	0.000596347	30
2011	362	622,354	11,986	0.000581663	30
2012	387	635,521	15,007	0.000608949	26
2013	421	653,713	12,983	0.000644014	32
2014	380	669,112	14,185	0.000567917	27
2015	483	684,451	16,251	0.000705675	30
2016	439	704,352	14,801	0.000623268	30
2017	402	713,700	11,976	0.000563262	34

BICYCLE COLLISION RATE PER 1,000 COMMUTERS
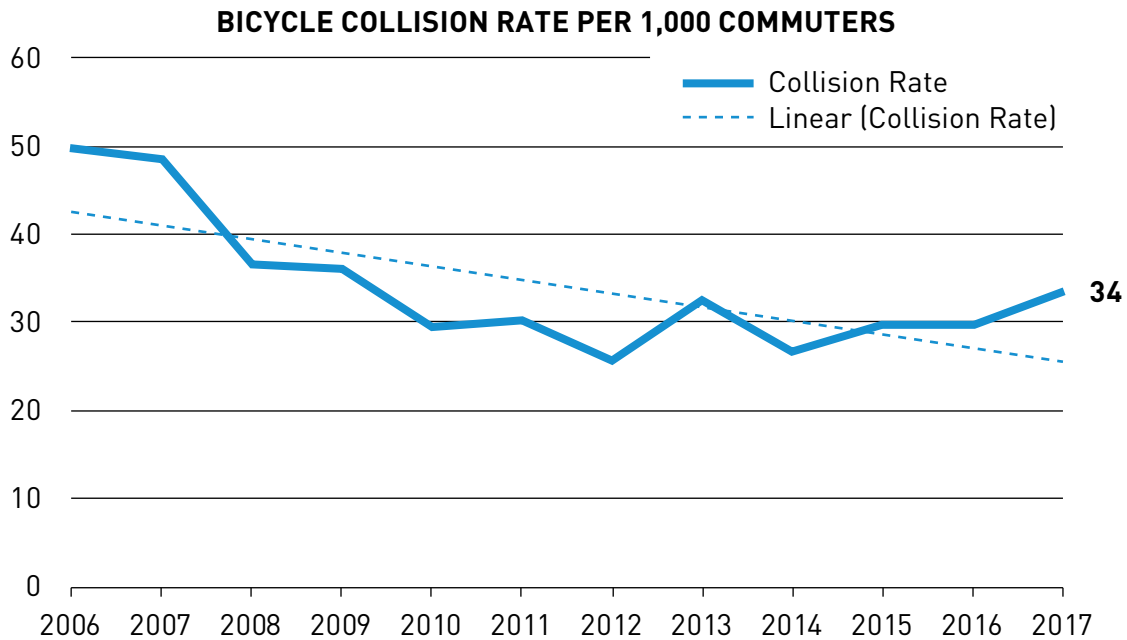
COLLISIONS INVOLVING PEOPLE BIKING

Legend:
- Total Collisions
- Fatal and Serious Injury and Injury Collisions

393
345
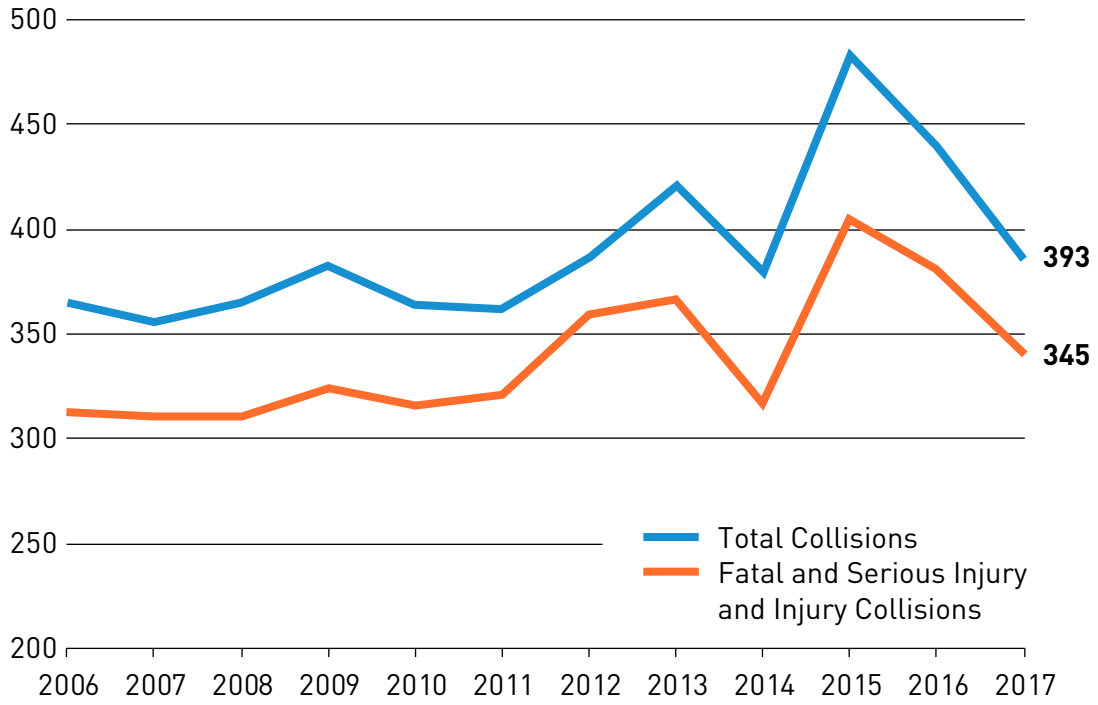
SERIOUS AND FATAL COLLISIONS FOR BICYCLES

Legend:
- Serious Injury
- Fatal Collisions

19
2

2017 BICYCLE COLLISIONS ON SEATTLE STREETS

Bicycle Collisions

- 1
- 2
- 3
- 4
- 5
- 6
- 7

N
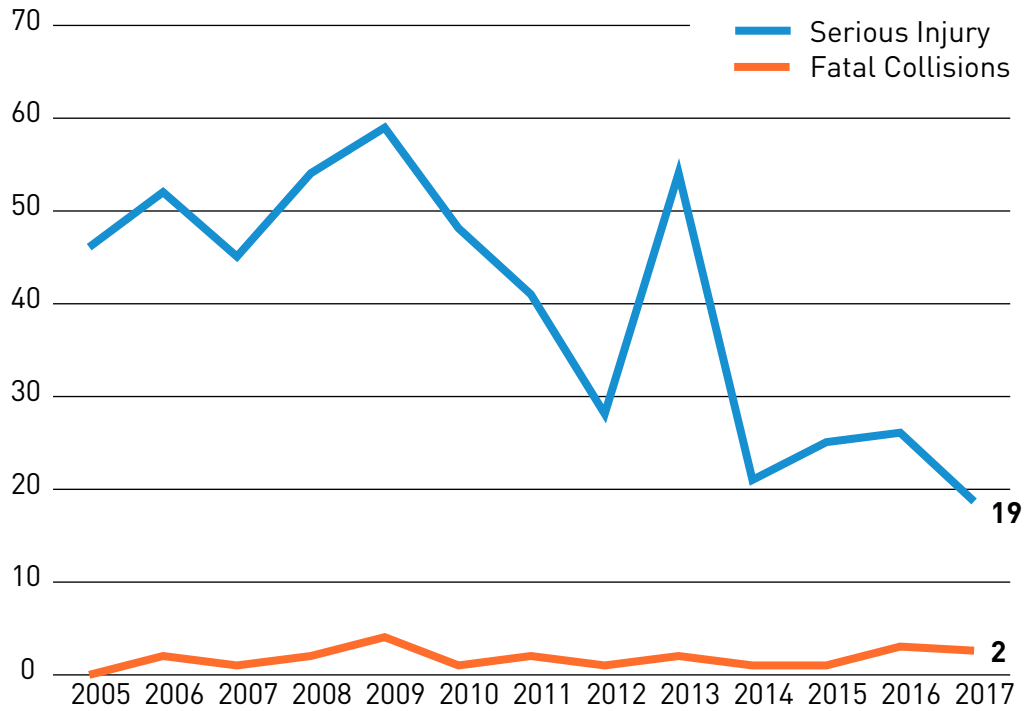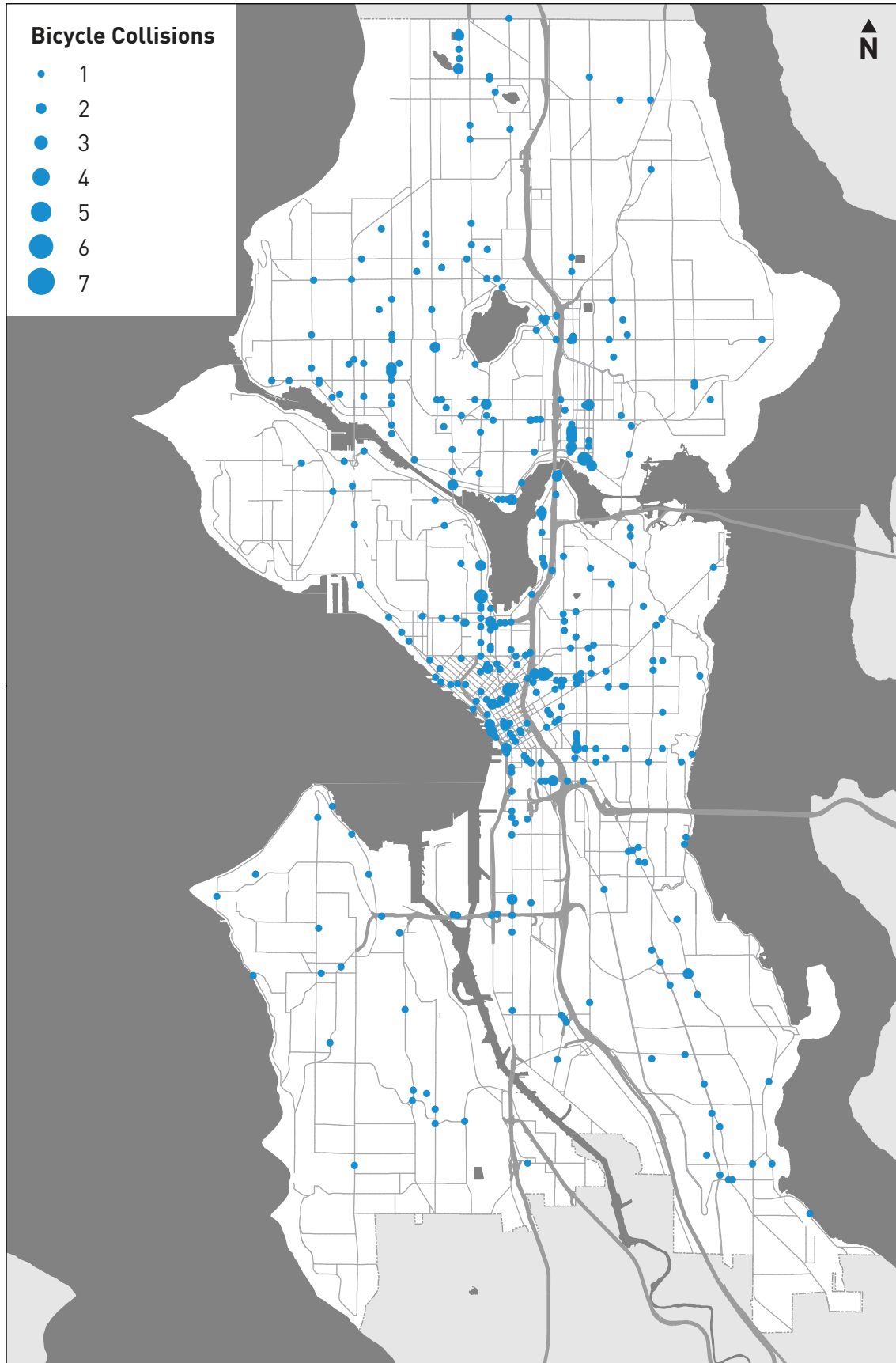
SUPPORTING DATA

VOLUME DATA

These locations are counted every month. The resulting counts (except the West Seattle Bridge) are added together and divided by 12 to determine a monthly control factor. This factor can then be applied to counts to correct for seasonal variation.

Control Count Locations
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

2017 Bridge Count Locations
1. Aurora Bridge
2. Ballard Bridge
3. Fremont Bridge
4. Montlake Bridge
5. Spokane Street Corridor (Duwamish West Waterway)
6. West Seattle Bridge (High-rise)
7. SW Spokane Bridge (Swing)
8. University Bridge
9. 1 Ave S Bridge
10. 16th Ave S Bridge (closed – not counted in 2013)
11. 1-90 Bridge
12. SR520 Bridge
13. I-5 Bridge

Year	Average Daily Traffic in Seattle
2007	1,006,782
2008	1,017,930
2009	999,465
2010	1,010,870
2011	1,005,616
2012	976,625
2013	986,174
2014	1,009,764
2015	972,112
2016	1,019,295
2017	1,001,095

2017 Monthly Expansion Factor						
	JAN	**FEB**	**MAR**	**APR**	**MAY**	**JUN**
Count	458,227	480,726	472,441	434,313	470,974	486,489
Factor	1.017	0.97	0.987	1.073	0.99	0.958
	JUL	**AUG**	**SEP**	**OCT**	**NOV**	**DEC**
Count	481,437	458,150	479,272	446,534	457,192	468,648
Factor	0.968	1.018	0.973	1.044	1.02	0.995

2017 Top Arterial Traffic Counts	
Location	**AAWDT Scaled**
West Seattle Bridge (EB&WB), west of Alaska Way Viaduct	100,642
East Marginal Way S, south of S Alaska St	70,352
Montlake Bridge	66,361
Aurora Bridge	61,998
Mercer St, east of Boren Ave N	60,926
Ballard Bridge	59,123
N 130th St, east of Ashworth Ave N	42,968
Lake City Way NE, south of NE 95th St	42,194
Fremont Bridge, north of Point A	41,716
Aurora Ave N, north of N 68th St	40,714
Elliott Ave W, southeast of W Mercer Pl	44,500
Lake City Way NE, s/o NE 145th St	42,900
1st Ave S, n/o S Royal Brougham Way	40,600
NE 45th St, w/o NE 45th Pl	40,000
Denny Way, w/o 2nd Ave	39,100
Mercer St, e/o Taylor Ave N	38,000
Aurora Ave N, n/o N 115th St	37,000

Year	Seattle Population
2006	580,485
2007	589,304
2008	598,541
2009	602,000
2010	610,383
2011	622,354
2012	635,521
2013	653,713
2014	669,112
2015	684,451
2016	704,352
2017	713,700

Year	Seattle/Tacoma/Bellevue Employment
2006	1,702,077
2007	1,744,923
2008	1,768,195
2009	1,724,562
2010	1,710,769
2011	1,722,178
2012	1,765,426
2013	1,796,317
2014	1,836,144
2015	1,874,467
2016	1,935,205
2017	1,985,968

Annual Transit Ridership					
Year	Metro Ridership	Access Boardings	Taxi Boardings	CAT* Boardings	ST Boardings	Total Transit Ridership
2006	103,242,414	1,128,496	40,474	129,460	12,256,022	116,796,866
2007	110,600,190	1,118,400	35,320	141,368	13,764,711	125,659,989
2008	118,824,795	1,121,776	34,046	155,456	16,128,142	136,264,215
2009	111,717,152	1,119,927	34,320	211,417	18,810,635	131,893,451
2010	109,583,654	1,229,039	32,502	250,369	22,802,673	133,898,237
2011	112,766,328	1,221,392	32,352	303,428	25,079,792	139,403,292
2012	115,410,304	1,164,935	31,228	312,795	28029,348	144,948,610
2013	118,629,373	1,158,467	31,271	316,723	30,379,713	150,515,547
2014	120,950,922	1,079,309	27,490	342,989	32,996,287	155,396,997
2015	121,849,972	980,086	24,059	362,461	34,860,000	158,069,578
2016	121,547,394	961,478	20,156	347,550	42,738,763	165,615,341
2017	122,233,133	958,439	17,162	340,265	47,031,781	170,580,780

*Community Access Transit

SDOT BIKE AND PEDESTRIAN SPOT COUNT LOCATIONS
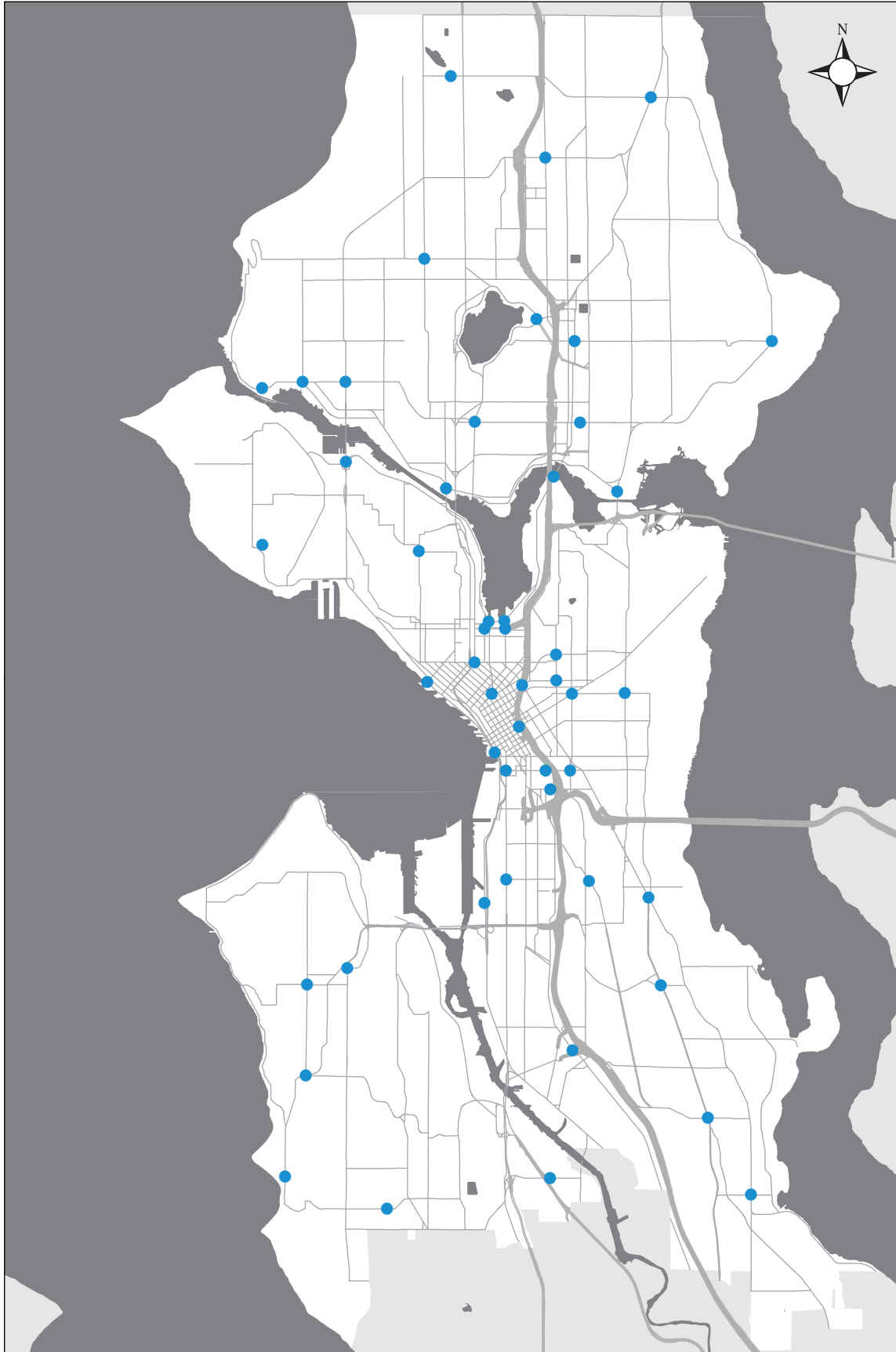
SDOT SCREENLINE TRAFFIC VOLUME COUNT LOCATIONS
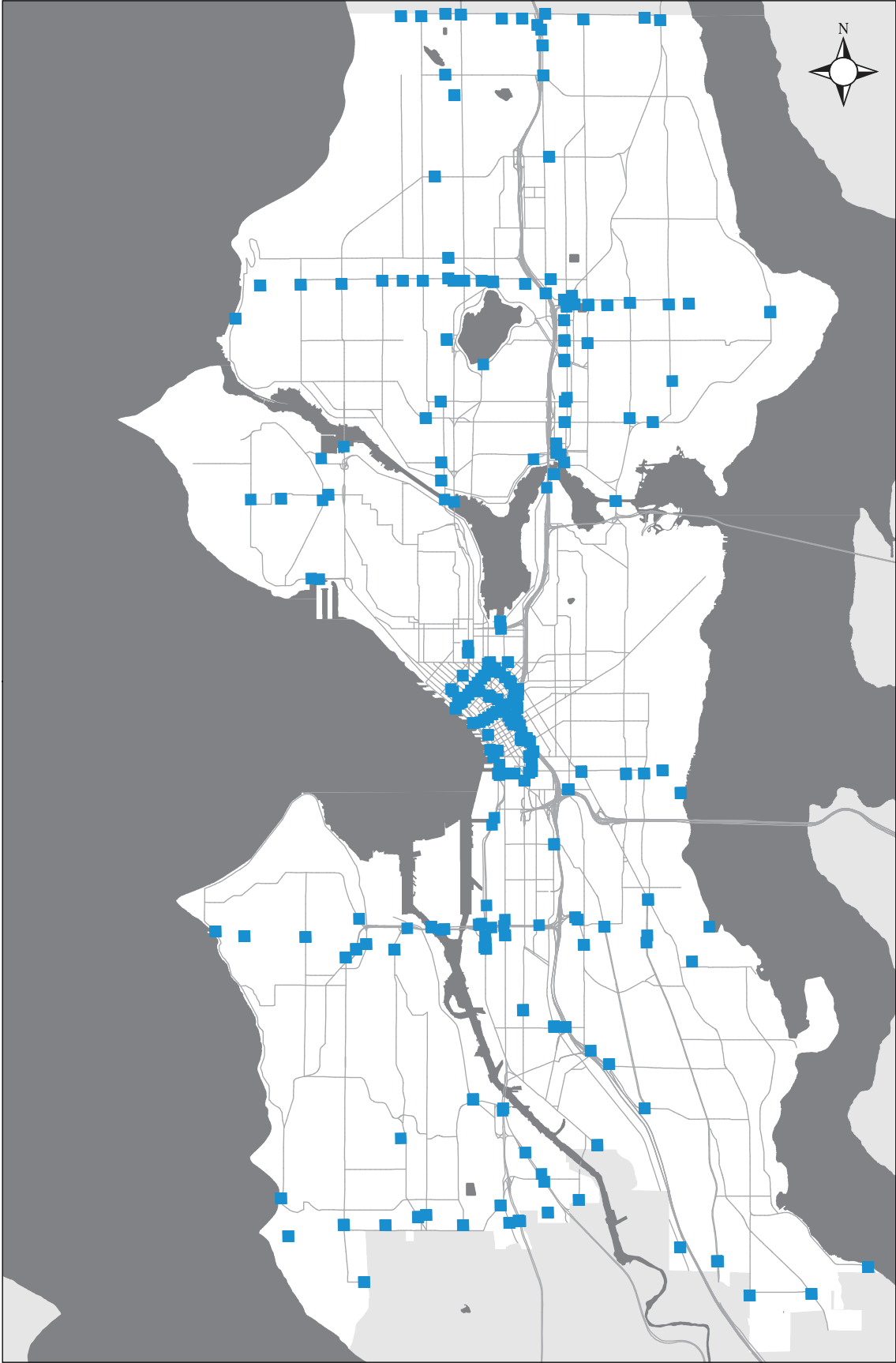
SDOT FLOW MAP TRAFFIC VOLUME COUNT LOCATIONS

Permanent Bike Counters

- ◎ Bike with Display
- ■ Bike and Pedestrian
- ● Bike

N

Linden Ave N
south of N
135th St

Burke Gilman
Trail north of
NE 70th St

NW 58th St
east of 22nd
Ave NW

39th Ave
NE south of
NE 62nd St

Fremont
Bridge

Elliott Bay
Trail in Myrtle
Edwards Park

Broadway PBL
between Pike
St and Union St

2nd Ave PBL
south of
Madison

S Spokane St
Bridge

MTS Trail
(I-90) at
Lakeside Ave S

26th Ave SW south
of SW Oregon St –
Delridge Greenway

Chief Sealth
Trail north of
S Thistle St

Fremont Bridge Total

Month	2012	2013	2014	2015	2016	2017
January	n/a	44,884	59,873	60,630	51,733	49,805
February	n/a	50,027	47,025	58,659	60,381	42,001
March	n/a	66,089	63,494	71,144	69,804	58,747
April	n/a	71,998	86,855	83,697	93,639	68,413
May	n/a	108,574	118,644	107,775	114,159	109,089
June	n/a	99,280	110,907	113,717	107,617	107,801
July	n/a	117,974	120,669	112,780	105,683	118,904
August	n/a	104,549	112,490	103,351	112,380	120,188
September	n/a	80,729	97,558	91,140	94,157	96,498
October	n/a	81,352	83,184	83,003	69,883	88,143
November	50647	59,270	56,990	56,668	64,097	57,684
December	36369	43,553	48,507	43,992	38,937	45,862

2017 Machine Bicycle Counts

Location	Count Type	Calculated Annual Average Bike Volume
Fremont Bridge Totem	Continuous Counter	2,640
Westlake East Rdwy Ave N s/o Newton St	Short Duration Count	1,470
BGT North of NE 70th St	Continuous Counter	1,420
Burke Gilman Trl e/o 9th Ave NW	Continuous Counter	1,280
Elliot Bay Trl in Myrtle Edwards Park	Continuous Counter	1,090
Montlake Bridge (north approach of Br)	Short Duration Count	1,040
MTS I-90 Trail	Continuous Counter	790
Spokane St Bridge	Continuous Counter	750
2nd Ave Cycle Track	Continuous Counter	650
Eastlake Ave E ne/o Fuhrman Ave E	Short Duration Count	620
Gilman Ave W n/o W Bertona St	Short Duration Count	430
Dexter Ave N n/o Denny	Short Duration Count	420
Mercer St w/o Aurora Ave N	Short Duration Count	410
Lake Washington Blvd S n/o S Horton St	Short Duration Count	390
Roosevelt Way NE s/o NE 45th St	Short Duration Count	350
Greenlake Way N s/o N 54th St	Short Duration Count	300
Broadway Cycle Track	Continuous Counter	290
NE 40th St e/o Brooklyn Ave NE	Short Duration Count	270
Fremont Ave N n/o N 86th St	Short Duration Count	230
Haiwatha Pl se/o Charles St	Short Duration Count	200

2017 Machine Bicycle Counts		
Location	Count Type	Calculated Annual Average Bike Volume
14th Ave W n/o W Nickerson St	Short Duration Count	200
17th Ave NW s/o NW 53rd St	Short Duration Count	180
Pike St w/o Terry Ave	Short Duration Count	180
39th Ave NE s/o NE 55th St	Short Duration Count	170
39th Ave Greenway at 62nd St	Continuous Counter	150
W Boston St e/o 1st Ave W	Short Duration Count	150
17th Ave NW n/o NW 57th St	Short Duration Count	130
Greenwood Ave N s/o N 85th St	Short Duration Count	120
17th Ave NW s/o NW 65th St	Short Duration Count	120
NW 58 St Greenway at 22nd Ave NW	Continuous Counter	120
39th Ave NE s/o NE 68th St	Short Duration Count	110
39th Ave NE s/o NE 73rd St	Short Duration Count	100
Duwamish River Trl nw/o S Holden St	Short Duration Count	100
12th Ave NE s/o NE 50th St	Short Duration Count	90
NW Dock Pl sw/o Leary Ave NW	Short Duration Count	80
39th Ave NE s/o NE 80th St	Short Duration Count	80
26th Ave SW at Oregon St	Continuous Counter	80
NW Dock Pl sw/o Russell Ave NW	Short Duration Count	80
12th Ave NE n/o NE 50th St	Short Duration Count	80
22nd Ave SW n/o SW Andover St	Short Duration Count	70
Fauntleroy Way SW sw/o California Ave SW	Short Duration Count	70
21st Ave SW s/o SW Genesee St	Short Duration Count	70
N 44th St w/o Corliss Ave N	Short Duration Count	60
E Republican St w/o 16th Ave E	Short Duration Count	60
NW 83rd St w/o 8th Ave NW	Short Duration Count	60
21st Ave SW s/o 22nd Ave SW	Short Duration Count	60
25th Ave S n/o S Grand St	Short Duration Count	60
17th Ave NW n/o NW 75th St	Short Duration Count	60
22nd Ave n/o E Union St	Short Duration Count	50
1st Ave NW n/o NW 78th St	Short Duration Count	50
NE 130th St e/o 20th Ave Ne	Short Duration Count	50
1st Ave NW n/o NW 82nd St	Short Duration Count	50
38th Ave NE s/o NE 88th St	Short Duration Count	50
25th Ave S s/o S Jackson St	Short Duration Count	50
17th Ave NW n/o NW 80th St	Short Duration Count	40

2017 Machine Bicycle Counts

Location	Count Type	Calculated Annual Average Bike Volume
25th Ave S n/o S Jackson St	Short Duration Count	40
Burke Ave N n/o N 43rd St	Short Duration Count	40
20th Ave NE n/o NE 130th St	Short Duration Count	40
22nd Ave n/o E Columbia St	Short Duration Count	40
25th Ave n/o E Yesler Way	Short Duration Count	40
N 43rd St w/o Wallingford Ave N	Short Duration Count	40
25th Ave s/o E Cherry St	Short Duration Count	40
26th Ave S n/o S Judkins W St	Short Duration Count	40
21st Ave SW n/o SW Myrtle St	Short Duration Count	40
E Pine St e/o 21st Ave	Short Duration Count	40
25th Ave n/o E Cherry St	Short Duration Count	30
22nd Ave E n/o E Lynn St	Short Duration Count	30
27th Ave NE n/o NE 130th St	Short Duration Count	30
E Columbia St e/o 24th Ave	Short Duration Count	30
NE 44th St w/o Latona Ave N	Short Duration Count	30
21st Ave SW s/o SW Dakota St	Short Duration Count	30
17th Ave SW n/o SW Henderson St	Short Duration Count	20
E Galer St w/o 20th Ave E	Short Duration Count	20
Interlaken Pl E nw/o E Galer St	Short Duration Count	20
38th Ave NE s/o NE 85th St	Short Duration Count	20
15th Ave SW n/o SW Holden St	Short Duration Count	20
20th Ave E s/o E Galer St	Short Duration Count	20
NE 89th St w/o 38th Ave NE	Short Duration Count	20
21st Ave E n/o E Aloha St	Short Duration Count	20
Sodo Trail n/o S Forest St	Short Duration Count	20
21st Ave E s/o E Republican St	Short Duration Count	20
17th Ave SW n/o SW Cambridge St	Short Duration Count	10
21st Ave E s/o E Aloha St	Short Duration Count	10
Renton Ave S se/o S Bennett St	Short Duration Count	10
45th Ave SW n/o SW Dakota St	Short Duration Count	10
E Pine St e/o 25th Ave	Short Duration Count	10
NE 125th St e/o 12th Ave NE (EB)	Short Duration Count	10
18th Ave SW n/o SW Webster St	Short Duration Count	10
Ashworth Ave N s/o N 97th St	Short Duration Count	10
SW Trenton St w/o 13th Ave SW	Short Duration Count	10

2017 Machine Bicycle Counts		
Location	Count Type	Calculated Annual Average Bike Volume
24th Ave S n/o S Hill St	Short Duration Count	10
15th Ave SW n/o SW Kenyon St	Short Duration Count	4
17th Ave SW s/o SW Thistle St	Short Duration Count	4

SPEED DATA

Location	Direction	Speed Limit	85th Percentile speed	High End Speeder Percentage
12th Ave, n/o E Yesler Way	N	25	28.0	1.0%
12th Ave, n/o E Yesler Way	S	25	22.5	0.3%
14th Ave S, n/o S Director St	S	30	35.7	3.7%
14th Ave S, n/o S Director St	N	30	35.0	2.9%
15th Ave NE, s/o NE 65th St	S	30	33.0	0.9%
15th Ave NE, s/o NE 65th St	N	30	30.8	0.4%
15th Ave S, s/o S Bradford St	S	30	38.4	9.2%
15th Ave S, s/o S Bradford St	N	30	35.9	3.6%
1st Ave S, s/o S Spokane Sr St	S	35	42.7	7.5%
1st Ave S, s/o S Spokane Sr St	N	35	38.7	2.3%
20th Ave W, s/o W Dravus St	S	30	36.3	3.1%
20th Ave W, s/o W Dravus St	N	30	35.1	1.8%
23rd Ave S, s/o S Jackson St	N	30	34.6	2.7%
23rd Ave S, s/o S Jackson St	S	30	33.7	1.5%
24th Ave NW, s/o NW 80th St	N	30	31.4	0.5%
24th Ave NW, s/o NW 80th St	S	30	30.8	0.4%
25th Ave NE, s/o NE 75th St	S	30	32.7	0.5%
25th Ave NE, s/o NE 75th St	N	30	30.3	0.3%
35th Ave NE, n/o NE 75th St	S	30	33.7	1.2%
35th Ave NE, n/o NE 75th St	N	30	32.2	0.4%
35th Ave SW, s/o SW Alaska St	N	35	36.5	1.0%
35th Ave SW, s/o SW Alaska St	S	35	34.0	0.4%
4th Ave S, n/o S Michigan St	S	35	37.8	1.0%
4th Ave S, n/o S Michigan St	N	35	35.3	0.6%
4th Ave S, s/o Seattle Blvd S	N	25	36.5	20.7%
4th Ave S, s/o Seattle Blvd S	S	25	36.4	22.5%
5th Ave NE, n/o NE Northgate Way	N	30	27.5	0.3%
5th Ave NE, n/o NE Northgate Way	S	30	27.3	0.3%
5th Ave NE, s/o NE Northgate Way	S	30	31.6	0.6%
5th Ave NE, s/o NE Northgate Way	N	30	28.3	0.1%
8th Ave NW, s/o NW 80th St	S	30	31.5	0.4%
8th Ave NW, s/o NW 80th St	N	30	30.5	0.3%
Airport Way S, se/o S Lucile St	NW	30	22.1	0.1%
Airport Way S, se/o S Lucile St	SE	30	19.3	0.0%

Location	Direction	Speed Limit	85th Percentile speed	High End Speeder Percentage
Alki Ave SW, w/o Harbor Ave SW	W	30	35.4	2.3%
Alki Ave SW, w/o Harbor Ave SW	E	30	34.4	1.2%
Aurora Ave N, s/o N 112th St	S	35	42.1	5.1%
Aurora Ave N, s/o N 112th St	N	35	41.9	4.9%
Corson Ave S, ne/o S Michigan St	SW	30	36.2	5.5%
Corson Ave S, ne/o S Michigan St	NE	30	34.5	1.7%
Corson Ave S, sw/o S Michigan St	SW	30	31.8	1.2%
Corson Ave S, sw/o S Michigan St	NE	30	25.7	0.0%
Delridge Way SW, nw/o SW Cambridge St	SE	30	33.0	0.6%
Delridge Way SW, nw/o SW Cambridge St	NW	30	32.5	0.3%
E Aloha St, e/o 10th Ave E	E	30	24.3	0.0%
E Aloha St, e/o 10th Ave E	W	30	23.6	0.0%
Eastlake Ave E, sw/o Harvard Ave E	SW	30	35.1	2.5%
Eastlake Ave E, sw/o Harvard Ave E	NE	30	32.0	0.4%
Elliott Ave, nw/o Lenora St	SE	25	26.1	0.5%
Fauntleroy Way SW, n/o SW Barton St	N	30	34.6	1.9%
Fauntleroy Way SW, n/o SW Barton St	S	30	33.9	0.7%
Fauntleroy Way SW, s/o SW Hudson St	S	30	23.0	0.0%
Fauntleroy Way SW, s/o SW Hudson St	N	30	22.6	0.0%
Lake City Way NE, ne/o NE 95th St	NW	35	No Data	No Data
Lake City Way Ne, ne/o NE 95th St	SW	35	No Data	No Data
Lake Washington Blvd E, nw/o E Madison St	NW	25	29.7	1.1%
Lake Washington Blvd E, nw/o E Madison St	SE	25	27.6	0.8%
Mercer St, w/o 6th Ave N	W	25	33.0	9.2%
Mercer St, w/o Fairview Ave N	E	25	35.0	15.0%
Meridian Ave N, s/o N 145th St	S	30	31.4	0.4%
Meridian Ave N, s/o N 145th St	N	30	29.6	0.2%
N 130th St, w/o Linden Ave N	E	30	36.2	3.8%
N 130th St, w/o Linden Ave N	W	30	33.7	1.2%
N 145th St, w/o Linden Ave N	E	35	41.3	4.2%
N 145th St, w/o Linden Ave N	W	35	40.8	3.7%
N 145th St, w/o Meridian Ave N	W	35	38.8	1.4%
N 145th St, w/o Meridian Ave N	E	35	38.3	1.3%
N 65th St, w/o Linden Ave N	W	30	30.1	0.1%
N 65th St, w/o Linden Ave N	E	30	28.0	0.0%
N 80th St, w/o Linden Ave N	W	30	30.7	0.2%

Location	Direction	Speed Limit	85th Percentile speed	High End Speeder Percentage
N 80th St, w/o Linden Ave N	E	30	30.4	0.2%
N Northgate Way, w/o Ashworth Ave N	W	30	37.9	7.9%
N Northgate Way, w/o Ashworth Ave N	E	30	36.5	4.1%
NE 75th St, e/o 12th Ave NE	W	30	33.2	0.7%
NE 75th St, e/o 12th Ave NE	E	30	32.3	0.9%
NE 80th St, e/o 5th Ave NE	W	30	No Data	No Data
NE 80th St, e/o 5th Ave NE	E	30	29.4	0.5%
Queen Anne Ave N, s/o Crockett St	S	30	20.5	0.2%
Queen Anne Ave N, s/o Crockett St	N	30	18.7	0.0%
Rainier Ave S, se/o S Warsaw St	NW	30	38.9	11.0%
Rainier Ave S, se/o S Warsaw St	SE	30	36.9	6.2%
Renton Ave S, n/o S Cloverdale St	N	30	36.0	4.0%
Renton Ave S, n/o S Cloverdale St	S	30	35.8	3.3%
Renton Ave S, se/o S Bangor St	NW	30	No Data	No Data
Renton Ave S, se/o S Bangor St	SE	30	35.3	2.5%
Roosevelt Way NE, n/o NE 73rd St	S	30	28.6	0.2%
Roosevelt Way NE, s/o NE Northgate Way	S	30	31.1	0.2%
Roosevelt Way NE, s/o Ne Northgate Way	N	30	31.0	1.0%
S Columbian eb Way, nw/o 14th Ave S	SE	35	39.3	1.3%
S Columbian wb Way, nw/o 14th Ave S	NW	35	38.5	1.1%
S Henderson St, e/o Renton Ave S	W	30	29.0	0.2%
S Henderson St, e/o Renton Ave S	E	30	28.7	0.1%
S Myrtle St, w/o Beacon Wr Ave S	W	30	32.8	0.6%
S Myrtle St, w/o Beacon Wr Ave S	E	30	31.0	0.2%
Stone Way N, s/o N 45th St	S	30	25.2	0.0%
Stone Way N, s/o N 45th St	N	30	23.3	0.0%
SW 106th St, w/o Seola Beach Dr SW	E	30	38.3	8.2%
SW 106th St, w/o Seola Beach Dr SW	W	30	36.3	4.1%
SW Holden St, w/o Delridge Way SW	W	30	34.2	1.6%
SW Holden St, w/o Delridge Way SW	E	30	34.0	1.5%
SW Spokane Br, w/o SW Spokane E St	W	30	44.6	35.3%
SW Spokane Br, w/o SW Spokane E St	E	30	41.3	19.3%
Valley St, w/o Fairview Ave N	E	30	30.8	1.4%
Valley St, w/o Fairview Ave N	W	30	29.6	0.7%
W Emerson Pl, se/o 21st Ave W	SE	30	35.4	3.1%

Location	Direction	Speed Limit	85th Percentile speed	High End Speeder Percentage
W Emerson Pl, se/o 21st Ave W	NW	30	34.5	1.7%
West Marginal Way SW, nw/o Highland Park Way SW	SE	40	49.0	11.3%
West Marginal Way SW, nw/o Highland Park Way SW	NW	40	47.8	7.6%
Western Ave, nw/o Lenora St	NW	25	29.4	3.1%
Westlake Ave N, s/o Highland Dr	N	30	35.4	3.3%
Westlake Ave N, s/o Highland Dr	S	30	31.8	0.7%

HISTORICAL COLLISION DATA

Historical Data				
Year	Statewide Collisions	Seattle Collisions	Police Reported	Citizen Reported
2006	122,172	15,784	15,625	159
2007	118,829	15,065	14,971	94
2008	110,494	14,139	14,037	102
2009	103,008	13,272	12,101	1,171
2010	101,887	11,948	11,288	660
2011	98,881	12,405	11,240	1,165
2012	99,560	12,725	10,614	2,111
2013	99,689	12,736	10,310	2,426
2014	107,634	12,034	10,815	2,425
2015	117,053	14,244	10,930	3,314
2016	122,384	13,641	11,603	2,038
2017	121,068	12,469	10,959	1,516

Fatal/Serious Collisions			
Year	Fatal	Serious Injury	Total Serious Fatal
2006	33	293	326
2007	14	245	259
2008	20	193	213
2009	24	200	224
2010	18	177	195
2011	10	140	150
2012	19	177	196
2013	22	156	178
2014	17	169	186
2015	21	143	164
2016	20	171	191
2017	19	168	187

Bicycle Collisions

| Year	Total Collisions	Possible/ Evident Injury	Serious Injury	Fatal Collisions	Fatal and Serious Injury Collisions
2005	293	223	46	0	46
2006	365	280	52	2	54
2007	356	263	45	1	46
2008	365	280	54	2	56
2009	383	297	59	4	63
2010	364	292	48	1	49
2011	362	295	41	2	43
2012	387	319	28	1	29
2013	421	340	54	2	56
2014	380	316	21	1	22
2015	483	404	25	1	26
2016	439	352	26	2	28
2017	403	324	19	2	21

Pedestrian Collisions

Year	Total Collisions	Possible/ Evident Injury	Serious Injury	Fatal Collisions	Fatal and Serious Injury Collisions
2005	477	424	46	7	53
2006	567	510	48	9	57
2007	487	445	37	5	42
2008	470	418	43	9	52
2009	454	398	45	11	56
2010	496	448	43	5	48
2011	393	355	36	2	38
2012	469	417	44	8	52
2013	396	339	48	9	57
2014	473	360	52	6	58
2015	522	412	46	7	53
2016	553	428	61	5	66
2017	537	396	62	11	73

2017 COLLISION SEVERITY
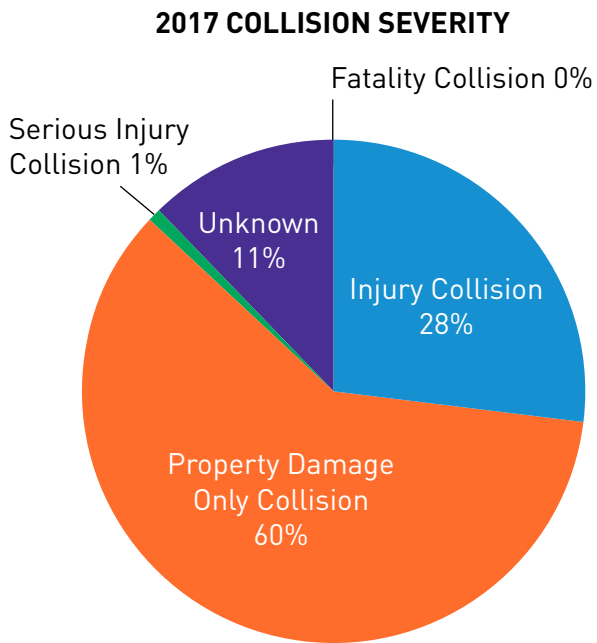
2017 Total Collision by State Collision Type	
	Count
All other non-collision	4
Property Damage	1
Domestic animal other (cat, dog, etc)	1
Entering at angle	2,215
Fire started in vehicle	1
Fixed object	842
From Opposite Direction	866
From Same Direction	3,820
Parked Car	1,990
Other object	16
Pedestrian	501
Train	15
Bicycle	359
Vehicle overturned	36
Not Stated	1,808
Grand Total	12,475

Contributing Circumstances for All 2017 Collisions					
	Fatality Collision	Serious Injury Collision	Injury Collision	Property Damage Only Collision	Total
Apparently Asleep		1	12	20	33
Apparently Fatigued			3	9	12
Apparently Ill		1	7	7	15
Did not Grant Right of Way to Pedestrian		8	143	15	166
Did not Grant Right of Way to Vehicle	2	15	408	674	1,099
Disregard Flagger/Officer			1	4	5
Disregard Stop and Go Light	1	9	114	105	229
Disregard Stop Sign/Flashing Red		1	60	83	144
Disregard Yield Sign/Flashing Yellow			9	9	18
Driver Adjusting Audio or Entertainment System			1	1	2
Driver Distractions Outiside Vehicle			11	16	27
Driver Eating or Drinking			1	1	2
Driver Interacting with passengers, Animals, or Objects Inside Vehicle			3	10	13
Driver Not Distracted		13	311	554	878
Driver Operating Handheld Telecommunications Device		1	11	12	24
Driver Operating Hands-free Wireless Telecommunications Device			1	1	2
Driver Operating Other Electronic Devices (computers, navigational, etc.)			2	6	8
Driver Smoking			2	1	3
Exceeding Reasonable and Safe Speed		4	86	131	221
Exceeding Stated Speed Limit	3	4	14	25	46
Failing To Signal			1	4	5
Failure to Use Xwalk	1	6	12		19
Following Too Closely		7	181	263	451
Had Taken Medication			2		2
Headlight Violation		1	2	1	4
Improper Backing		1	8	140	149
Improper Parking Location			1	12	13
Improper Passing		3	30	77	110
Improper Signal			1	9	10
Improper Turn	1	6	86	199	292
Improper U-Turn		3	24	38	65

| Contributing Circumstances for All 2017 Collisions					
	Fatality Collision	Serious Injury Collision	Injury Collision	Property Damage Only Collision	Total
Inattention	1	21	578	1,159	1759
None	12	110	2,360	4,407	6,889
On Wrong Side OF Road			9	12	21
Operating Defective Equipment		2	25	46	73
Other	7	28	327	1,201	1,563
Other Driver Distractions Inside Vehicle		1	8	16	25
Over Center Line		1	10	24	35
Under the Influence of Alcohol	1	10	132	231	374
Under the Influence of Drugs		3	7	27	37
Unknown Driver Distraction	7	19	227	773	1,026

2017 Fatalities		
Location	Collision Date	Collision Type
Wallingford Ave and N 82nd St	1/1/2017	Pedestrian
1St Ave and Columbia St	1/5/2017	Pedestrian
S Graham St Between 33Rd Ave S and M L King Jr Wr Way S	1/13/2017	Cycles
Roosevelt Way NE and NE 65th St	1/26/2017	Pedestrian
Aurora Ave N Between N 104th St and N Northgate Way	2/2/2017	Pedestrian
20th Ave NE and NE 65th St	2/4/2017	Pedestrian
Alaskan Way Viaduct NB Between S Royal Brougham Way on Rp and Seneca St Off Rp	3/11/2017	Motorcycle
Holman Rd NW Between 7th Ave NW and 6th Ave NW	3/13/2017	Vehicle
Lenora St and Western Ave	4/25/2017	Pedestrian
Renton Ave S Between 54th Ave S and 55th Ave S	7/10/2017	Pedestrian
1St Ave S and S Fidalgo St	8/4/2017	Motorcycle
S Alaska St Between S Columbian Way and S Alaska Pl	8/26/2017	Motorcycle
Blanchard St and Westlake Ave	10/12/2017	Pedestrian
15th Emerson Rp and W Emerson St	11/6/2017	Vehicle
1St Ave S and S Andover St	11/21/2017	Cycles
Rainier Ave S Between 51st Ave S and Sturtevant Ave S	12/3/2017	Pedestrian
8th Ave NW and NW 92nd St	12/6/2017	Vehicle
Alaskan Way S and S Atlantic St	12/7/2017	Pedestrian
34th Ave S and S Charlestown St	12/14/2017	Pedestrian
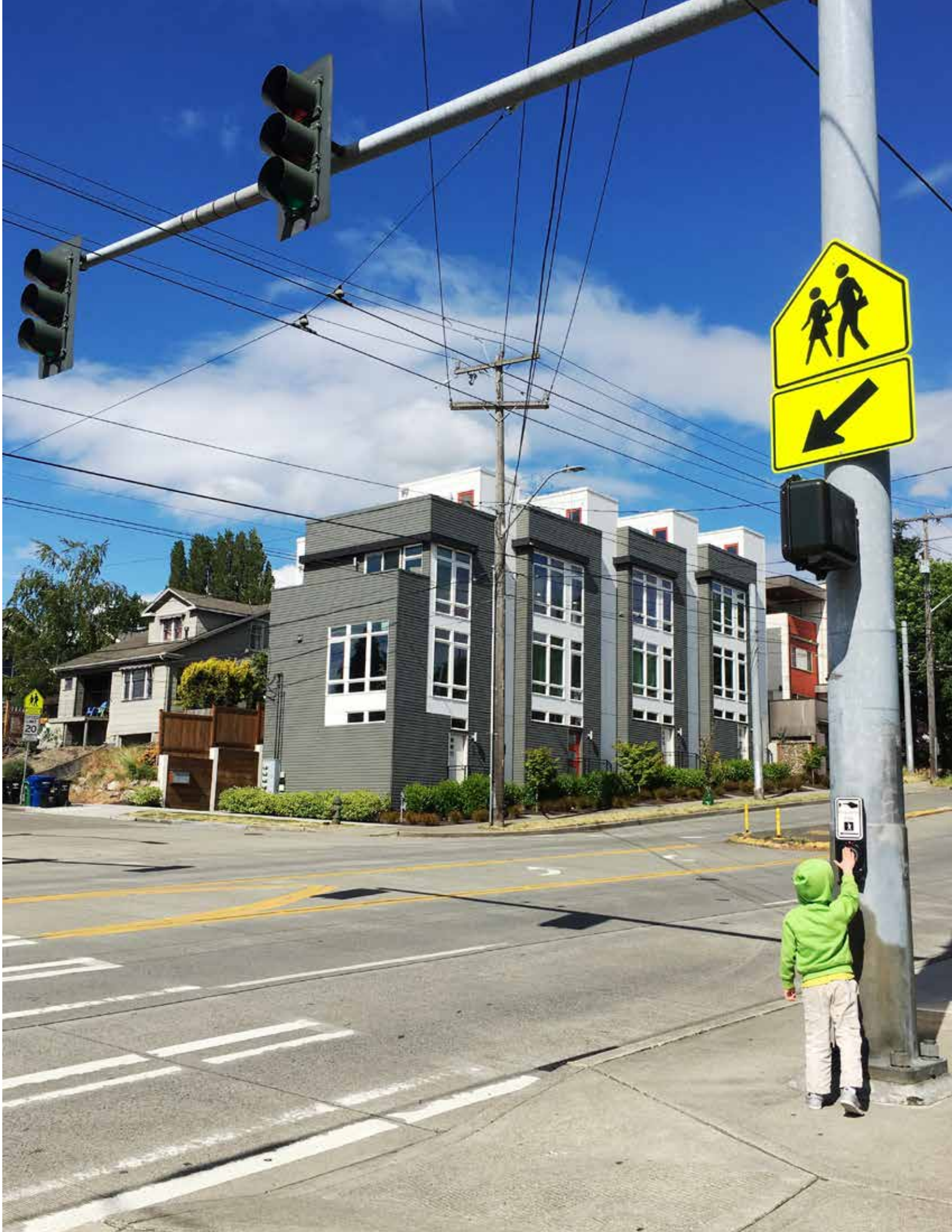
2017 PEDESTRIAN COLLISION LOCATIONS
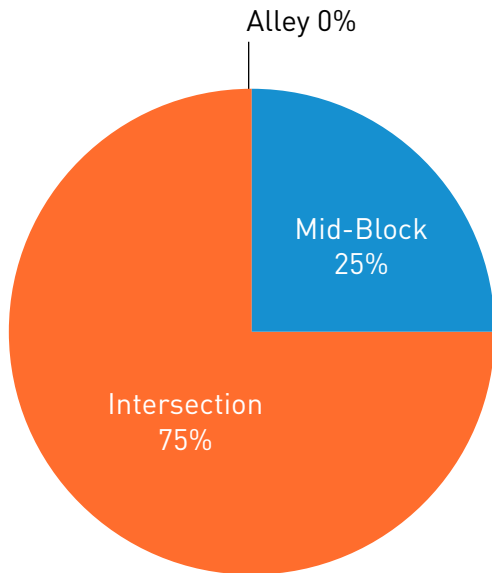
Collision Location	Count
Alley	2
Block	133
Intersection	402
Total	**537**

Pedestrian - Involved Collision Rate per Million Inhabitants			
Year	Pedestrian Collisions	Seattle Population	Pedestrian Collisions Per Capita	Pedestrian Collisions Per 100,000
2005	477	573,296	0.000832	83
2006	567	580,485	0.000977	98
2007	487	589,304	0.000826	83
2008	470	598,541	0.000785	79
2009	455	602,000	0.000756	76
2010	508	608,660	0.000835	83
2011	401	620,778	0.000646	65
2012	486	634,535	0.000766	77
2013	413	652,000	0.000633	63
2014	496	668,342	0.000742	74
2015	522	684,451	0.000763	76
2016	553	704,352	0.000785	79
2017	537	713,700	0.000752	75

Injury Class of Pedestrians Involved in 2017 Collisions by Facility Type					
Facility	**Fatality Collision**	**Serious Injury Collision**	**Injury Collision**	**Property Damage Only Collision**	**Total**
Designated Bike Route			1		1
Marked Cross Walk	4	25	190	25	244
Other		2	11	2	15
Roadway	4	17	50	13	84
Shoulder		1	2		3
Sidewalk		12	13	1	26
Unmarked Crosswalk	1	4	36	5	46
Walkway	2		4	1	7

Injury Class of Pedestrians Involved in Collisions in 2017					
Age	**Fatality Collision**	**Serious Injury Collision**	**Injury Collision**	**Property Damage Only Collision**	**Total**
14 and Under			10	5	15
15 - 24		8	47	8	63
25 - 34	3	14	79	8	104
35 - 44	2	10	49	5	66
45 - 54	2	10	41	6	59
55 - 64	1	9	37	3	50
65 and Over	3	9	25	2	39

FACILITY THE PEDESTRIAN WAS USING FOR 2017 COLLISIONS

0% Designated Bike Route

2%
1%
4%
11%
19%
2%
1%
60%

- Marked Crosswalk
- Not Stated
- Other
- Roadway
- Shoulder
- Sidewalk
- Unmarked Crosswalk
- Walkway
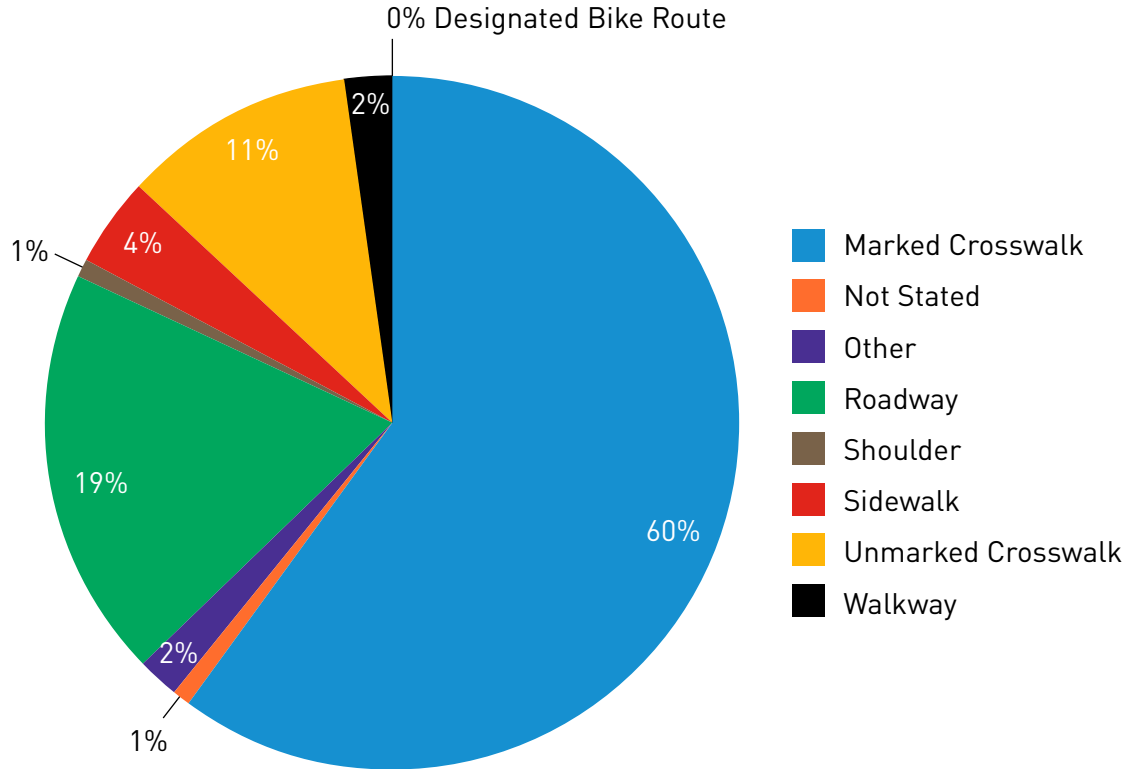
GENDER OF PEDESTRIANS IN 2017 COLLISIONS
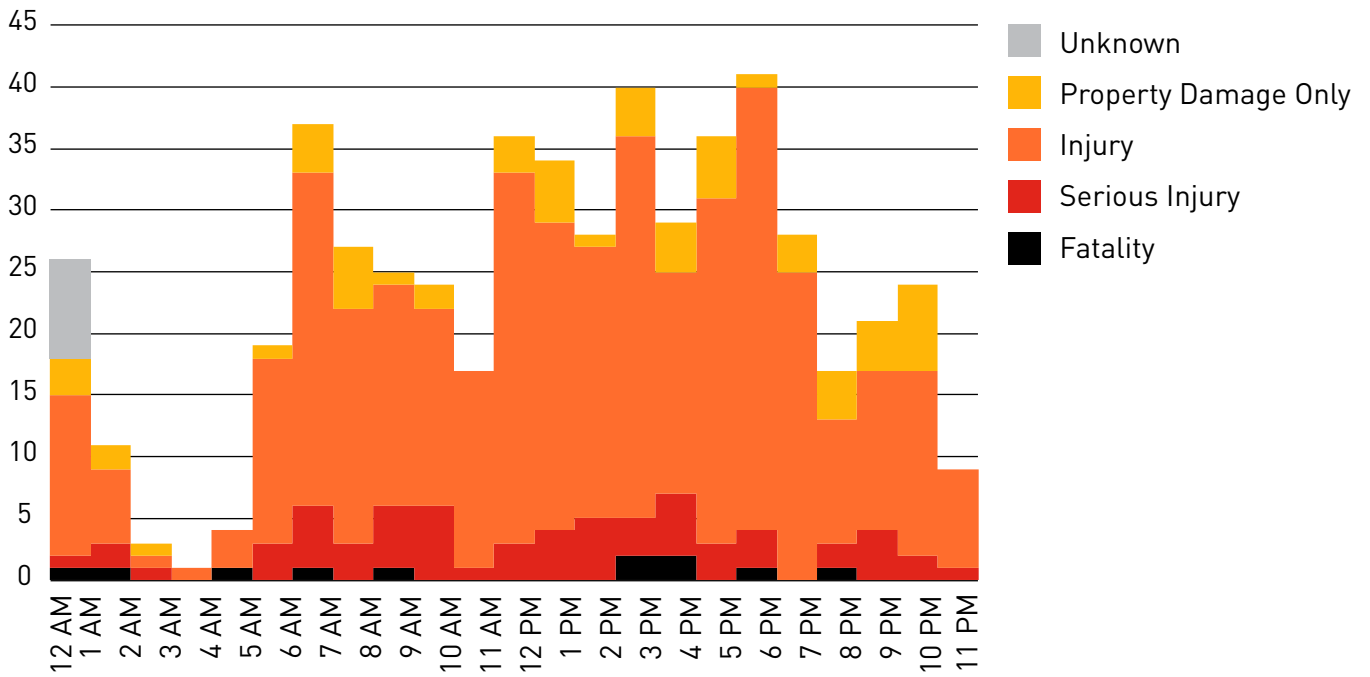
7% Not Stated
50% Female
43% Male

2017 PEDESTRIAN COLLISION SEVERITY BY HOUR OF THE DAY

Legend:
- Unknown
- Property Damage Only
- Injury
- Serious Injury
- Fatality

Pedestrian Collision Severity by Hour of Day in 2017					
Hour	Fatality Collision	Serious Injury Collision	Injury Collision	Property Damage Only Collision	Unknown	Total
12 AM	1	1	13	3	8	26
1 AM	1	2	6	2		11
2 AM		1	1	1		3
4 AM			1			1
5 AM	1		3			4
6 AM		3	15	1		19
7 AM	1	5	27	4		37
8 AM		3	19	5		27
9 AM	1	5	18	1		25
10 AM		6	16	2		24
11 AM		1	16			17
12 PM		3	30	3		36
1 PM		4	25	5		34
2 PM		5	22	1		28
3 PM	2	3	31	4		40
4 PM	2	5	18	4		29
5 PM		3	28	5		36
6 PM	1	3	36	1		41
7 PM			25	3		28
8 PM	1	2	10	4		17
9 PM		4	13	4		21
10 PM		2	15	7		24
11 PM		1	8			9
Total	11	62	396	60	8	537

2017 PEDESTRIAN COLLISION SEVERITY BY DAY OF WEEK
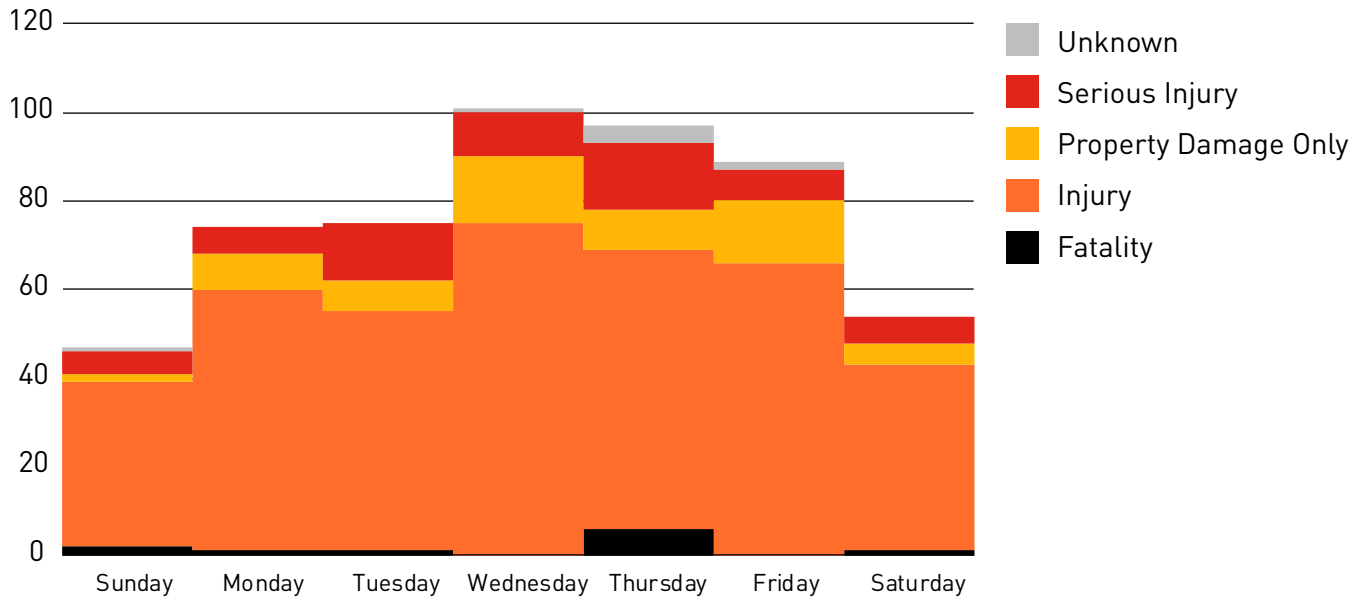
Pedestrian Collision Severity by Day of Week in 2017					
Day of Week	Fatality Collision	Injury Collision	Property Damage Only Collision	Serious Injury Collision	Unknown	Total
Sunday	2	37	2	5	1	47
Monday	1	59	8	6		74
Tuesday	1	54	7	13		75
Wednesday		75	15	10	1	101
Thursday	6	63	9	15	4	97
Friday		66	14	7	2	89
Saturday	1	42	5	6		54
Total	**11**	**396**	**60**	**62**	**8**	**537**

2017 PEDESTRIAN COLLISION SEVERITY BY MONTH
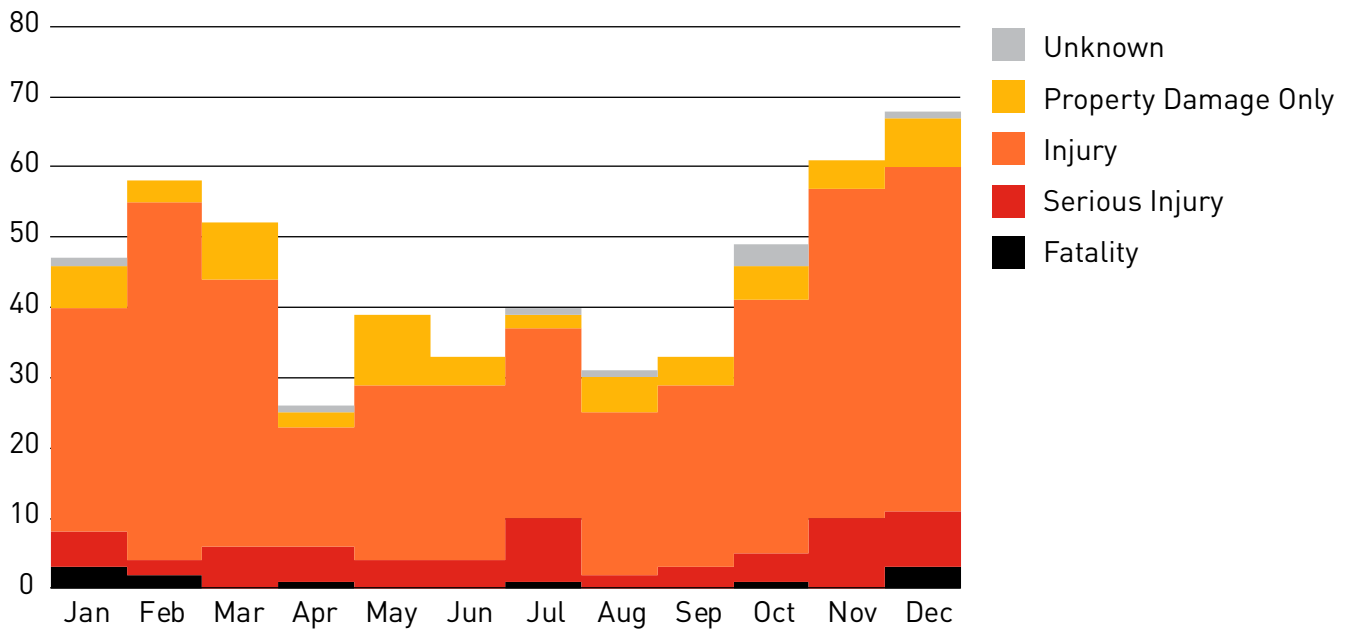
Pedestrian Collision Severity by Month in 2017					
Month	**Fatality Collision**	**Serious Injury Collision**	**Injury Collision**	**Property Damage Only Collision**	**Unknown**	**Total**
January	3	5	32	6	1	47
February	2	2	51	3		58
March		6	38	8		52
April	1	5	17	2	1	26
May		4	25	10		39
June		4	25	4		33
July	1	9	27	2	1	40
August		2	23	5	1	31
September		3	26	4		33
October	1	4	36	5	3	49
November		10	47	4		61
December	3	8	49	7	1	68
Total	**11**	**62**	**396**	**60**	**8**	**537**

Vehicle Actions in Pedestrian Collisions in 2017	Fatality Collision	Serious Injury Collision	Injury Collision	Total
Vehicle backing hits pedestrian		2	10	12
Vehicle going straight hits pedestrian	7	41	135	183
Vehicle hits Pedestrian - All Other Actions		2	2	4
Vehicle turning left hits pedestrian	2	9	144	155
Vehicle turning right hits pedestrian	2	6	59	67

Injury Class of Pedestrians Involved in 2017 Collisions by Weather					
Weather Condition	Fatality Collision	Serious Injury Collision	Injury Collision	Property Damage Only Collision	Total
Clear or Partly Cloudy	6	36	224	39	305
Fog/Smog/Smoke			3	1	4
Other			2		2
Overcast	2	13	45	3	63
Raining	3	11	100	12	126
Snowing			2	1	3
Unknown		1	9	1	11
Unknown		1	9	1	11

2017 Pedestrian Collisions by Light Conditions	Fatality Collision	Serious Injury Collision	Injury Collision	Property Damage Only Collision	Total
Dark - No Street Lights			2	1	3
Dark - Street Lights Off		1	4		5
Dark - Street Lights On	5	19	119	20	163
Dawn	1	6	10	2	19
Daylight	5	34	233	29	301
Dusk		1	11	4	16
Unknown			6	1	7

2017 Pedestrian Collisions by Road Condition	Fatality Collision	Serious Injury Collision	Injury Collision	Property Damage Only Collision	Total
Dry	8	43	246	38	335
Ice			1		1
Snow/Slush			1	1	2
Unknown		1	11	1	13
Wet	3	17	126	17	163
Wet	3	17	125	17	163

2017 BICYCLE COLLISION LOCATIONS

Intersection 60%
Mid-block 40%
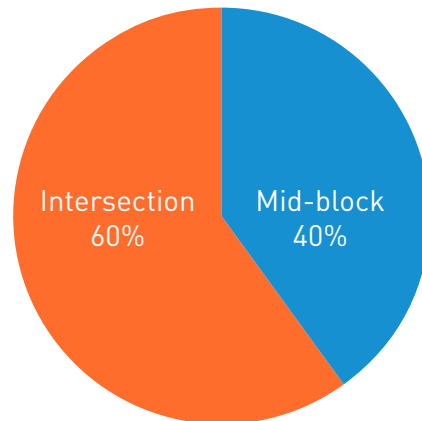
Contributing Circumstance for Cyclists in 2017 Bicycle Collisions							
Contributing Circumstance	Fatal	Serious Injury	Possible Injury	Non-Serious Injury (Evident Injury)	No Injury	Unknown	Total
Not Stated	2		4	6	1		13
Did not Grant Right of Way to Vehicle		1	10	3	1	1	16
Disregard Stop and Go Light		1	1	2			4
Disregard Stop Sign/ Flashing Red			4		1		5
Disregard Yield Sign/ Flashing Yellow			1				1
Driver Distractions Outside Vehicle			1				1
Driver Not Distracted			7	8	3	1	19
Exceeding Reasonable and Safe Speed				2			2
Following Too Closely				2			2
Headlight Violation				1			1
Improper Passing		1	2	1	1		5
Improper Turn			1	1			2
Inattention		2	4	4	2		12
None		5	47	72	10	1	135
On Wrong Side OF Road				3			3
Operating Defective Equipment			2	1			3
Other			6	7	1		14
Unknown Driver Distraction		1	4	1	1		7

GENDER IDENTITY OF CYCLISTS INVOLVED IN 2017 COLLISIONS
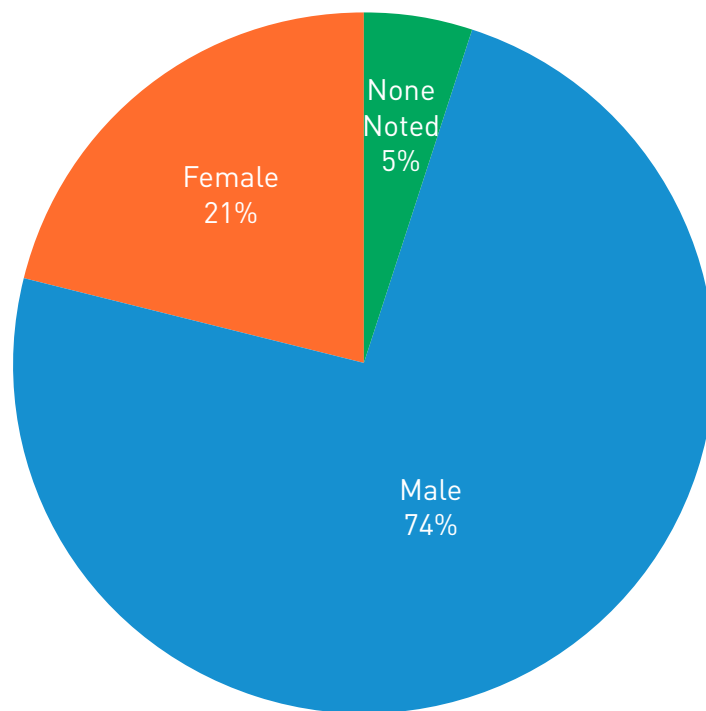
Gender of Cyclists Involved in 2017 Collisions							
Gender	Fatality	Serious Injury	Possible Injury	Non-Serious Injury (Evident Injury)	No Injury	Unknown	Total
Not Noted		1	6	6			13
Male	2	6	72	82	15	3	180
Female		4	16	26	6		52

CYCLIST INJURY SEVERITY IN 2017 COLLISIONS

Serious Injury 4%

Unknown 1%

Fatal 1%

No Injury 9%

Possible Injury 38%

Non-Serious Injury (Evident Injury) 47%
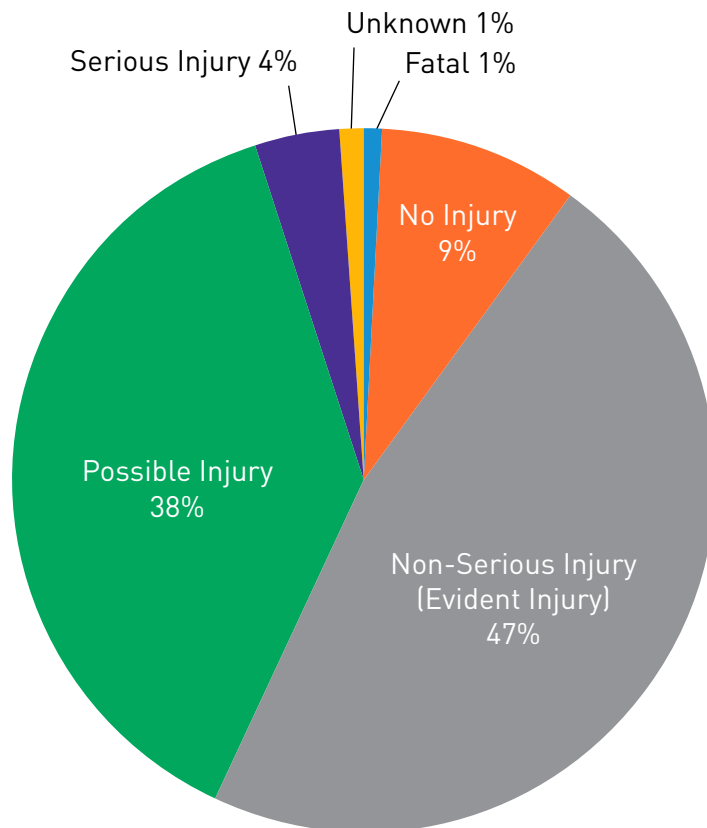
Age of Cyclists Involved in 2017 Collisions							
Age	Fatality	Serious Injury	Possible Injury	Non-Serious Injury (Evident Injury)	No Injury	Unknown	Total
13 and Under			2	6	1		9
17 - 24		4	9	19	3		35
25 - 34		2	25	38	6	2	73
35 - 44	1	1	21	21	3		47
45 - 54		2	17	12	4		35
55 - 64	1	1	12	6	2		22
65 - Over			2	5	1		8
Not Stated		1	6	7	1	1	16

AGE OF CYCLISTS INVOLVED IN 2017 COLLISIONS
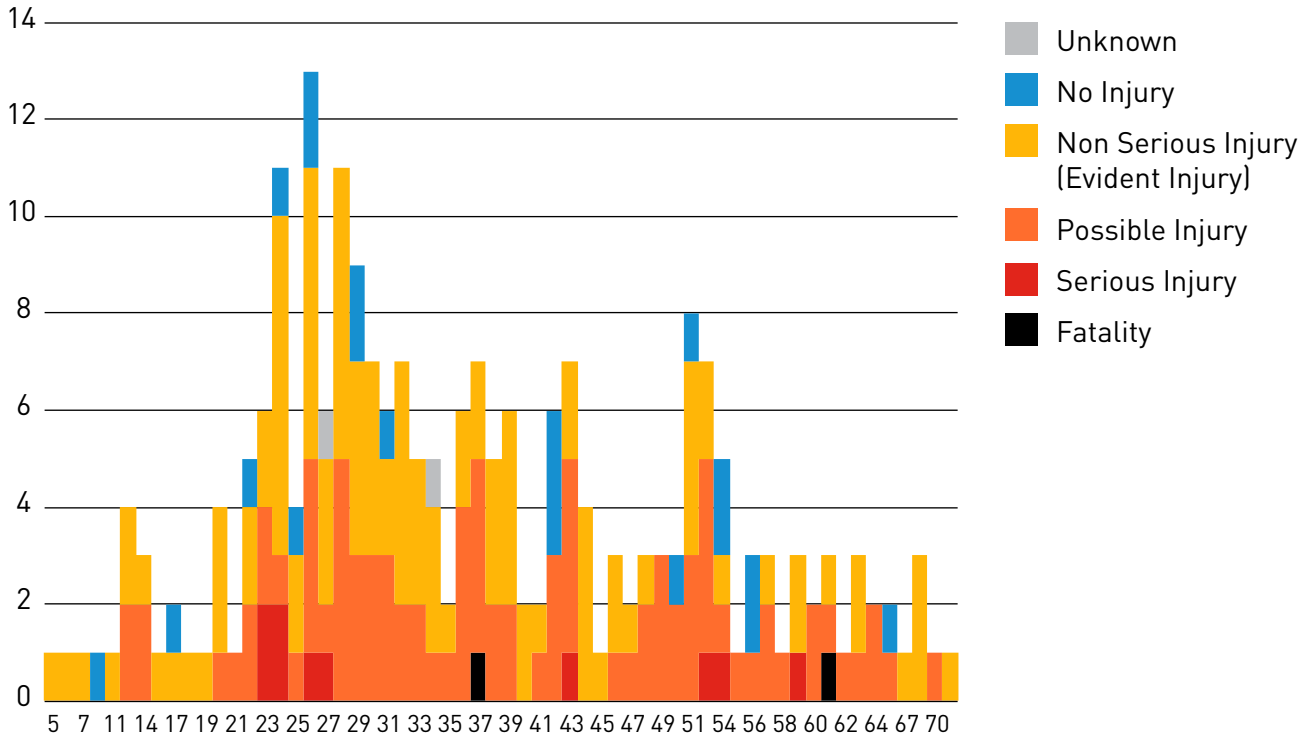
Bicycle Collisions by Month in 2017					
Month	Fatality Collision	Serious Injury Collision	Injury Collision	Property Damage Only Collision	Unknown	Total
Jan	1	1	16	2	1	21
Feb		1	11	1		13
Mar		2	19	1		22
Apr			18	3		21
May		1	40	7	1	49
Jun		1	36	3		40
Jul		7	48	10		65
Aug		3	43	1	1	48
Sep		1	32	10	2	45
Oct		2	34	5	2	43
Nov	1		16	1	1	19
Dec			14	2		16
Total	2	19	327	46	9	402

2017 BICYCLE COLLISIONS BY MONTH
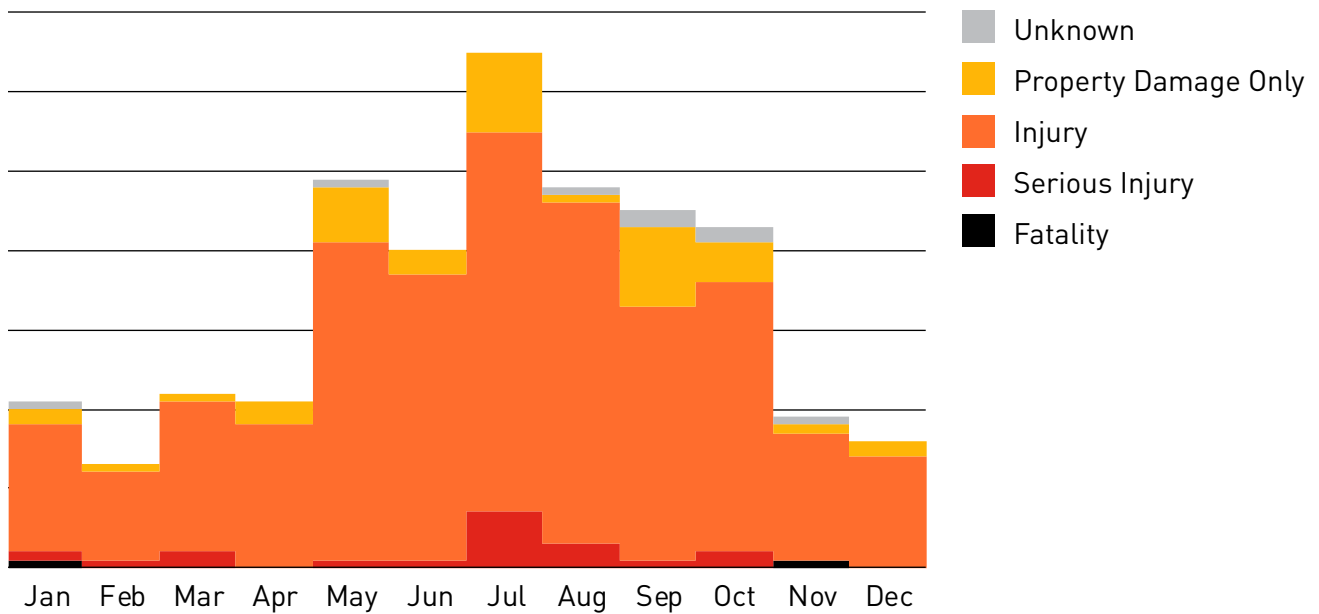
Bike Collision Severity by Hour of Day in 2017					
Hour	Fatality Collision	Serious Injury Collision	Injury Collision	Property Damage Only Collision	Unknown	Total
12 AM			7	4	8	19
4 AM			1			1
5 AM	1		1	1		3
6 AM		2	13	2		17
7 AM		1	20	1		22
8 AM			42	2		44
9 AM		1	18	1		20
10 AM			12	3		15
11 AM		2	9	1		12
12 PM			12	3		15
1 PM		2	15			17
2 PM		2	15	1		18
3 PM		2	22	2		26
4 PM		2	27	9		38
5 PM		1	42	4		47
6 PM		3	25	3		31
7 PM			18	4		22
8 PM			12	4		16
9 PM		1	5	1		7
10 PM			7			7
11 PM			4			4
10 PM	1	1	5	3		10
11 PM			5			5
Total	**2**	**20**	**337**	**45**	**8**	**416**

2017 BIKE COLLISION SEVERITY BY HOUR OF THE DAY

Legend:
- Unknown
- Property Damage Only
- Injury
- Serious Injury
- Fatality
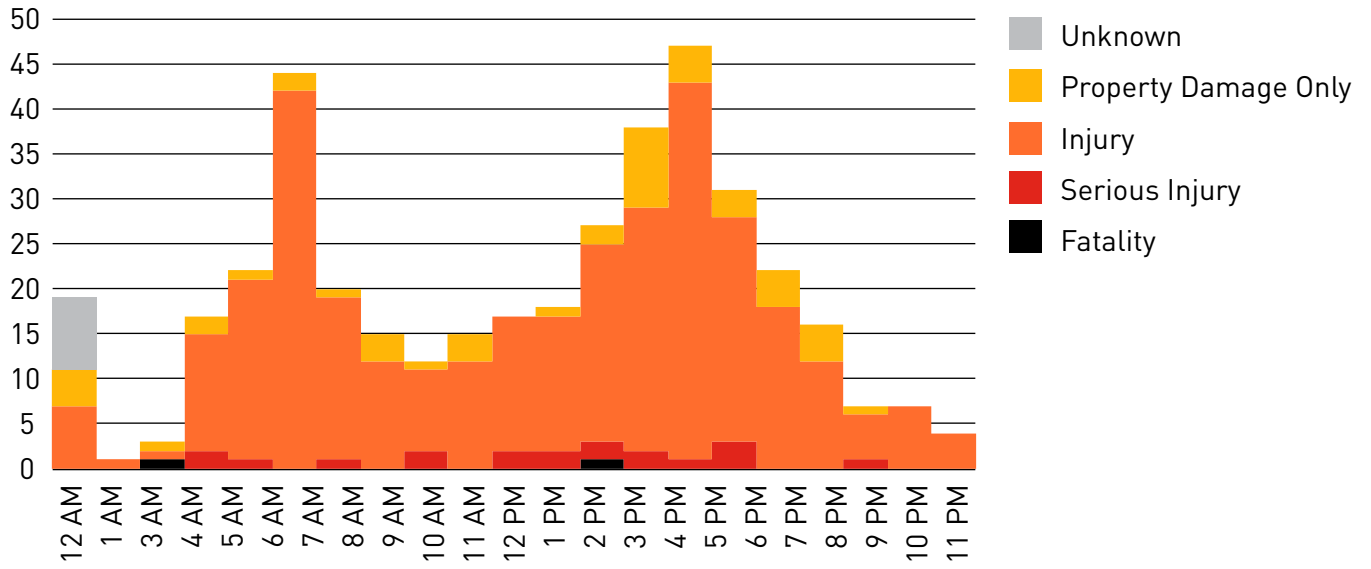
	Bike Collision Severity of the Day in 2017					
Day	Fatality Collision	Serious Injury Collision	Injury Collision	Property Damage Only Collision	Unknown	Total
Sunday		3	26	4		33
Monday		1	41	8	1	51
Tuesday	1	4	61	6		72
Wednesday		4	64	8	4	80
Thursday		3	60	7	1	71
Friday	1	4	51	8	2	66
Saturday			24	5		29
Total	**2**	**19**	**327**	**46**	**8**	**402**

BIKE COLLISION SEVERITY BY DAY 2017
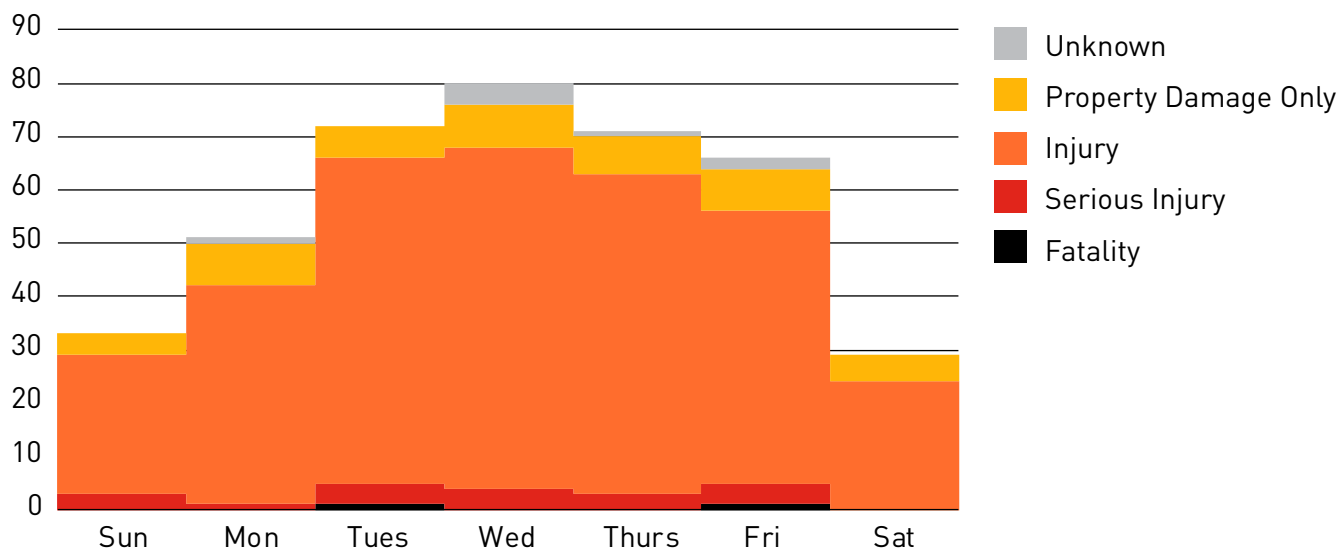
2017 Injury Class of Cyclists by Facility Type							
Facility Type	Fatality	Serious Injury	Possible Injury	Non-Serious Injury (Evident Injury)	No Injury	Unknown	Total
Not Stated			2				2
Designated Bike Route		4	28	44	7	2	85
Marked Cross Walk		1	18	12	4		35
Other				4			4
Roadway	2	5	34	43	9	1	94
Shoulder			5	5			10
Sidewalk		1	7	5			13
Unmarked Crosswalk				1	1		2

FACILITY TYPE FOR CYCLISTS INVOLVED IN 2017 COLLISIONS
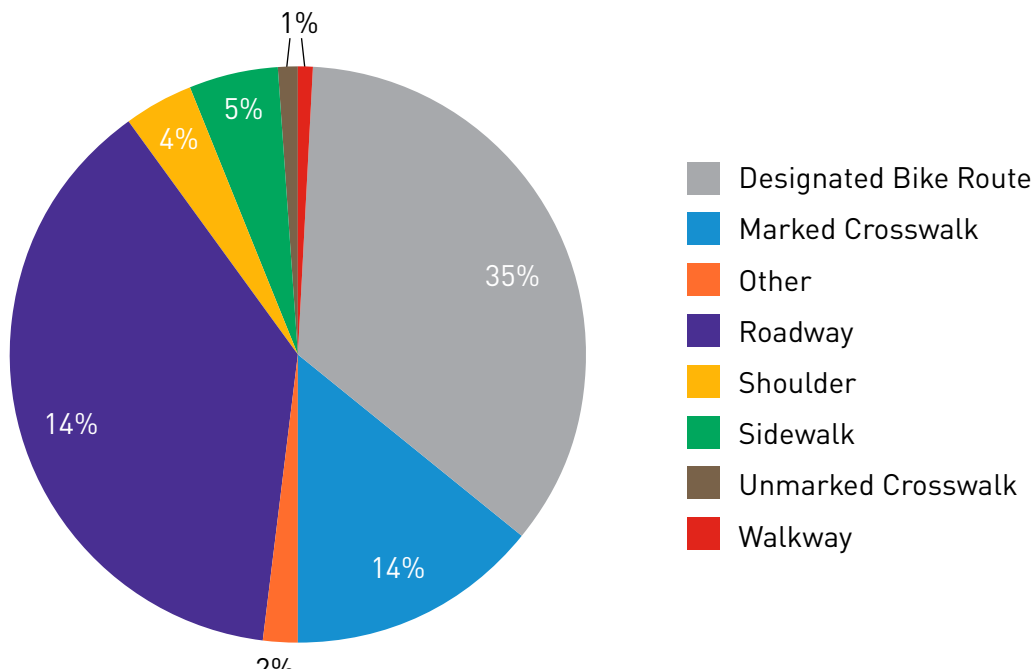
Injury Class of Cyclists in 2017 Collisions by Weather						
Weather	Fatality Collision	Serious Injury Collision	Injury Collision	Property Damage Only Collision	Unknown	Total
Not Stated			3	4	8	15
Clear or Partly Cloudy	1	18	261	34		314
Fog/Smog/Smoke			1			1
Other			1			1
Overcast		1	29	3		33
Raining	1		28	4		33
Unknown			4	1		5

Clothing Visibility for Cyclists Involved in 2016 Collisions by Facility Type							
Clothing	Fatality	Serious Injury	Possible Injury	Non-Serious Injury (Evident Injury)	No Injury	Unknown	Total
Dark		2	12	16	6		36
Light		1	16	19	1		37
Mixed	2	7	54	67	12	3	145
Other Reflective Apparel - Shoes, Patches			5	7			12
Retro - Reflective			5	4			9
Retro - Reflective			5	5	1		11
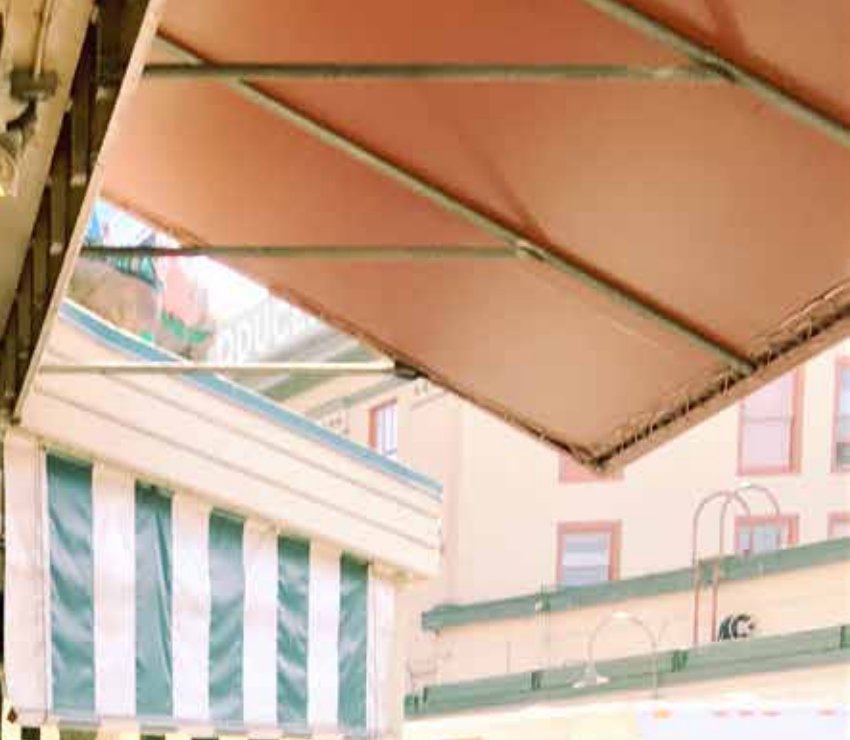
GLOSSARY

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 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.

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

Serious Injury: 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.

This report is 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 of Seattle streets. Beyond this legal requirement, the report strives to serve as an accessible reference of Seattle traffic data and trends for all.

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 traffic data and collisions on Seattle streets, readers may contact the City Traffic Engineer Dongho Chang at dongho.chang@seattle.gov or visit http://data.seattle.gov.

Seattle
Department of
Transportation

12.2018